GARDENA CITY COUNCIL

Regular Meeting Notice and Agenda

Council Chamber at City Hall
1700 West 162nd Street, Gardena, California
Website: www.cityofgardena.org

Tuesday, April 13, 2021
Closed Session 7:00 p.m.
Open Session 7:30 p.m.

TASHA CERDA, *Mayor*
MARK E. HENDERSON, *Mayor Pro Tem*
PAULETTE C. FRANCIS, *Council Member*
ART KASKANIAN, *Council Member*
RODNEY G. TANAKA, *Council Member*

MINA SEMENZA, *City Clerk*
J. INGRID TSUKIYAMA, *City Treasurer*
CLINT OSORIO, *City Manager*
CARMEN VASQUEZ, *City Attorney*
LISA KRANITZ, *Assistant City Attorney*
PETER L. WALLIN, *Deputy City Attorney*

In order to minimize the spread of the COVID 19 virus Governor Newsom has issued Executive Orders that temporarily suspend requirements of the Brown Act. Please be advised that the Council Chambers are closed to the public and that some, or all, of the Gardena City Council Members may attend this meeting telephonically.

If you would like to participate in this meeting, you can participate via the following options:

1. VIEW THE MEETING live on SPECTRUM CHANNEL 22 or ONLINE at youtube.com/CityofGardena

2. PARTICIPATE BEFORE THE MEETING by emailing the Deputy City Clerk at bromero@cityofgardena.org by 5:00p.m. on the day of the meeting and write "Public Comment" in the subject line. Comments will be read into the record up to the time limit of three (3) minutes.

3. PARTICIPATE DURING THE MEETING VIA ZOOM WEBINAR

   - Join Zoom Meeting Via the Internet or Via Phone Conference
   - https://us02web.zoom.us/j/87611466109
     Phone number: US: +1 669 900 9128, Meeting ID: 876 1146 6109
   - If you wish to speak live on a specific agenda item during the meeting you, may use the "Raise your Hand" feature during the item you wish to speak on. For Non-Agenda Items, you would be allowed to speak during Oral Communications, and during a Public Hearing you would be allowed to speak when the Mayor opens the Public Hearing. Members of the public wishing to address the City Council will be given three (3) minutes to speak.

4. The City of Gardena, in complying with the Americans with Disabilities Act (ADA), requests individuals who require special accommodations to access, attend and/or participate in the City meeting due to disability, to please contact the City Clerk's Office by phone (310) 217-9565 or email bromero@cityofgardena.org at least 24 hours prior to the scheduled general meeting to ensure assistance is provided. Assistive listening devices are available.

The City of Gardena thanks you in advance for taking all precautions to prevent spreading the COVID 19 virus.

STANDARDS OF BEHAVIOR THAT PROMOTE CIVILITY AT ALL PUBLIC MEETINGS

- Treat everyone **courteously**;
- Listen to others **respectfully**;
- Exercise **self-control**;
- Give **open-minded** consideration to all viewpoints;
- Focus on the issues and **avoid personalizing debate**; and
- **Embrace respectful disagreement** and dissent as democratic rights, inherent components of an inclusive public process, and tools for forging sound decisions.

Thank you for your attendance and cooperation

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1. **ROLL CALL**

PUBLIC COMMENT ON CLOSED SESSION

The City Council will hear from the public only on the items that have been described on this agenda (GC §54954.3)

2. **CLOSED SESSION**

2.A CONFERENCE WITH LEGAL COUNSEL EXISTING LITIGATION
Government Code Section 54945.9(d)(1)
Thomas Kang vs City of Gardena
WCAB NO.: ADJ12902956; ADJ12594939

2.B CONFERENCE WITH LABOR NEGOTIATORS
Government Code Section 54957.6
Agency Designated Representative:
Clint Osorio, City Manager
Employee Organizations:
1. Gardena Police Officers Association (GPOA), Matt Hassholdt, Association President
2. Gardena Management Employees Organization (GMEO), Vicky L. Barker, Attorney
3. Gardena Municipal Employees Association (GMEA), Fred G. Quiel, Attorney
4. Confidential / Unrepresented Employees

3. **PLEDGE OF ALLEGIANCE**

Sandy and Julian Fouse
Chapman Elementary School

4. **INVOCATION**

Presented by Council Member Rodney Tanaka

5. **PRESENTATIONS**

5.A AADAP (Asian American Drug Abuse Program, Inc.) Presentation - Park Banners

6. **PROCLAMATIONS**

7. **APPOINTMENTS**

7.A Council Appointments to Commissions, Committees, Councils and Boards (Appointees to be Ratified and Sworn in)
Planning and Environmental Quality Commission - Steve Sherman
(Appointed by Council Member Francis)

7.B Reorganization of the City Council - Selection of Mayor Pro Tem

Select Mayor Pro Tem to serve from April 2021 to April 2022
MAYOR PRO TEMPORE thru 4-2021.doc
COUNCIL BENCH SEATING POLICY-1997.doc

8. **CONSENT CALENDAR**

NOTICE TO THE PUBLIC - Roll Call Vote Required On The Consent Calendar
All matters listed under the Consent Calendar will be enacted by one motion unless a Council Member requests Council discussion, in which case that item will be removed from the Consent Calendar and considered separately following this portion of the agenda.

8.A Waiver of Reading in Full of All Ordinances Listed on This Agenda and that they Be read by Title Only
CONTACT:CITY CLERK

8.B Approve Minutes: Regular Meeting of the City Council, February 23, 2021
CONTACT: CITY CLERK
2021 02-23 REGULAR Minutes Gardena CC Meeting - FINAL.doc

8.C Personnel Report No. P-2021-07
CONTACT: HUMAN RESOURCES
PERS RPT P-2021-7 04-13-21.doc

8.D ORDINANCE NO. 1825, Adoption of an Ordinance making changes to Title 18, Zoning, of the Gardena Municipal Code relating to amenity hotels and other minor revisions
LOCATION: Citywide
APPLICANT: City of Gardena
CONTACT: COMMUNITY DEVELOPMENT DEPARTMENT
Ordinance No. 1825 Amenity Hotels

8.E Approval of Measure M Funding Agreement with Los Angeles County Metropolitan Transportation Authority and City of Gardena for the Redondo Beach Boulevard Arterial Improvements, JN 945 in the awarded amount of $5,567,000 and Budget Appropriation of the same amount for the project.
CONTACT: PUBLIC WORKS
Funding Agreement- MM5507.04 w Attachments (003).pdf
Project Location.pdf

8.F Acceptance and Notice of Completion of Mas Fukai Park Improvement (Phase I) - Reconstruct Shade Structure Project, JN 820, USAShade & Fabric Structures and Deark E&C, Inc.
CONTACT: PUBLIC WORKS
NOC Shade Structure_JN 820_USA.doc
NOC Shade Structure_JN 820 - Deark.doc

8.G Ratify Administrative Approval of the Elderly Nutrition Program Contract ENP202105 Amendment Four- Additional Funding
CONTACT: RECREATION AND HUMAN SERVICES
ENP Amendment Four Allocation Letter
ENP Amendment Four Final - signed by agency

8.H Approval of Warrants/Payroll Register, April 13, 2021
CONTACT: CITY TREASURER
Warrants-Payroll Register Memo 4-13-21.pdf

9. **EXCLUDED CONSENT CALENDAR**

10. **PLANNING & ENVIRONMENTAL QUALITY COMMISSION ACTION SHEET**

10.A APRIL 6, 2021 MEETING

Environmental Assessment #14 - 20, Conditional Use Permit #4 - 20
The Planning Commission considered a request for a conditional use permit to allow the on-site sale and consumption of beer, wine, and distilled spirits at an existing restaurant located in the General Commercial and Mixed-Use Overlay (C - 3/ MUO) zones.

LOCATION: 2222 Rosecrans Avenue
APPLICANT: Krave Dine & Lounge Inc.

Commission Action: The Commission approved Resolution No. PC 5-21, approving Conditional Use Permit #4-20

City Council Action: Call for review or receive and file as to this item.

10.B APRIL 6, 2021 MEETING

Environmental Assessment #1-20; General Plan Amendment #1-20; Specific Plan #1-20; Zone Change #1-20; Zoning Code Amendment #3-20; Development Agreement #1-20; Lot Line Adjustment #1-20; Site Plan Review #1-20

The Planning Commission considered a request for a General Plan Amendment, Specific Plan, Zone Change, Zone Code Amendment, Development Agreement, Site Plan Review, and a Lot Line Adjustment all related to the development of a 265-dwelling unit apartment building on a 1.33-acre site, with a 2,500-square-foot dynamic, digital display on the north side of the building. An Environmental Impact Report (EIR), Mitigation Monitoring and Reporting Plan (MMRP), CEQA Findings, and a Statement of Overriding Consideration were prepared to address the environmental impacts and were considered by the Commission.
Project Location: 12850-12900 Crenshaw Boulevard
Applicant: Din/Cal 4, Inc.

Commission Action: The Commission approved Resolution No. PC 4-21, recommending the City Council certify the EIR, adopt the MMRP, Finding Related to Alternatives and Mitigation Measures, and Statement of Overriding Considerations for purposes of the Project. At the same time the Commission recommended the City Council approve General Plan Amendment #1-20, Specific Plan #1-20, Zone Change #1-20, Zone Code Amendment #3-20, Development Agreement #1-20, and Site Plan Review #1-20.

City Council Public Hearing on this item will be held on April 27, 2021.

For the complete Planning Commission Agenda Packet Click Here.
2021_04_06 PCAX.pdf

ORAL COMMUNICATIONS (LIMITED TO A 30-MINUTE PERIOD)

Oral Communications by the public will be heard for one-half hour at or before 8:30 p.m. or at the conclusion of the last agenda item commenced prior to 8:30 p.m. Oral Communications not concluded at that time shall be resumed at the end of the meeting after Council Reports. Speakers are to limit their remarks to three minutes, unless extended by the Mayor. An amber light will appear to alert the speaker when two minutes are complete, and a red light will appear when three minutes are over. Your cooperation is appreciated.

11. **DEPARTMENTAL ITEMS - ADMINISTRATIVE SERVICES**

12. **DEPARTMENTAL ITEMS - COMMUNITY DEVELOPMENT**

13. **DEPARTMENTAL ITEMS - ELECTED & ADMINISTRATIVE OFFICES**

13.A COVID-19 Update

13.B ORDINANCE No. 1827, Amending Section 8.08.035 (Amendment of Section 7802.3) of Chapter 8.08 (Fire Code) and Amending Sections 8.16.010 (Definitions), 8.16.020 (Permit-Required), Section 8.16.130 (Dates and Hours of Sale and Use), Section 8.16.150 (Prohibitions on Discharge), 8.16.170 (Violation-Penalty) and Adding Section 8.16.155 (Social Host Liability) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code

Staff Recommendation: Staff respectfully recommends that Council Introduce Ordinance No. 1827
ORDINANCE No. 1827.rtf

13.C RESOLUTION NO. 6506, Condemning and Combating Acts of Racism, Xenophobic Rhetoric and Harassment Against Asian Americans and Pacific Islanders

Staff Recommendation: Adopt Resolution No. 6506
Reso No. 6506 - Condemning Combating AAPI Hate.docx

14. **DEPARTMENTAL ITEMS - POLICE**

15. **DEPARTMENTAL ITEMS - PUBLIC WORKS**

16. **DEPARTMENTAL ITEMS - RECREATION & HUMAN SERVICES**

17. **DEPARTMENTAL ITEMS - TRANSPORTATION**

17.A Approve Agreement with Clean Energy for the Design and Construction of GTrans' CNG Fueling Station and Maintenance Bay Upgrades for a Total Contract Value of $4,839,018 and Authorize a Project Total of $5,419,700.

Staff Recommendation: Approve Agreement
Design and Construction of CNG Station - Agenda STAFF REPORT 4_13_21.pdf
RFP 2020-05 Contract Documents 3.31.21.pdf
Attachment D - CNG Fueling Facility Specification 3.31.21.pdf
Attachment A - Special Provisions (with addendum no. 7) 3.31.21.pdf
Attachment 1 - Exclusion Clarification Revised 3.31.21.pdf
Solicitation Packet- RFP 2020-05 Design and Build of a CNG Fueling Station.pdf
Best and Final Offer Request for RFP 2020-05.pdf
Best and Final Offer Response from Clean Energy (RFP 2020-05).pdf
Clean Energy Proposal for RFP 2020-05.pdf
Summary of Cost Proposal from Clean Energy (RFP 2020-05).pdf

17.B Ratify Administrative Approval of Purchase of Protective Driver Barriers from Power Manufacturing Inc. in the amount of $62,869.88

Staff Recommendation: Ratify Administrative Approval of the Purchase
Power Manufacturing Quote for Driver Barriers.pdf
Photographs of Driver Protective Barriers.pdf

18. **COUNCIL ITEMS**

19. **COUNCIL DIRECTIVES**

20. **CITY MANAGER REMARKS RE: DIRECTIVES / COUNCIL ITEMS**

21. **COUNCIL REMARKS**

    1. COUNCIL MEMBER TANAKA
    2. COUNCIL MEMBER FRANCIS
    3. MAYOR PRO TEM HENDERSON
    4. MAYOR CERDA
    5. COUNCIL MEMBER KASKANIAN

22. **ANNOUNCEMENT(S)**

23. **REMEMBRANCES**

    Mrs. Marilyn Sunahara, 86 years of age. Mrs. Sunahara was originally from Hawaii, but has been a resident of Gardena for the past 50+ years. She was a long time member of the Gardena Valley Baptist Church. She is survived by her three adult children and four grandchildren; **Mr. Amiel Martin Rudolf**, 93 years of age, beloved father of Jennifer Abro, Financial Services Manager at GTrans. At the age of 18, Mr. Rudolf was drafted into the Cavalry division of the Army during WWII and was trained to ride a horse in Germany. After the war, he went to college on the GI Bill and majored in Chemistry; **Mr. Edward Reginald Lewis**, 68 years of age, beloved husband of LaWanda Staten, City of Gardena Human Services Commissioner; **Mr. Brian Levasseur**, 52 years of age and a Fire Fighter with the Los Angeles County Fire Department. He was with the department for over 30 years and served at the Gardena Station for over eight years.

24. **ADJOURNMENT**

    The Gardena City Council will adjourn to the Closed Session portion of the City Council Meeting at 7:00 p.m. followed by the Regular City Council Meeting at 7:30 p.m. on Tuesday, April 27, 2021.

    I hereby certify under penalty of perjury under the laws of the State of California that the foregoing agenda was posted in the City Hall lobby not less than 72 hours prior to the meeting. A copy of said Agenda is available on our website at www.CityofGardena.org.

    Dated this 9th day of April, 2021

    /s/ MINA SEMENZA
    MINA SEMENZA, City Clerk

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 7.B
Section: APPOINTMENTS
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: REORGANIZATION OF THE CITY COUNCIL - SELECTION OF MAYOR PRO TEM

COUNCIL ACTION REQUIRED:
Select Mayor Pro Tem to serve from April 2021 to April 2022

RECOMMENDATION AND STAFF SUMMARY:
Mayor Pro Tem appointments are rotated annually.

A list of the names of City of Gardena Councilmembers who have served in the position of Mayor Pro Tem from April 1956 to April 2021 is provided.

The Councilmember selected to serve will be seated, as Mayor Pro Tem, at the April 27, 2021, City Council Meeting.

A copy of the Council Policy No. 97-30, Council Bench Seating, is also attached for your information.

FINANCIAL IMPACT/COST:
None

ATTACHMENTS:
MAYOR PRO TEMPORE thru 4-2021.doc
COUNCIL BENCH SEATING POLICY-1997.doc

APPROVED:



_____
Clint Osorio, City Manager

ATTACHMENT A

MAYOR PRO TEMPORE

CITY OF GARDENA

(Incorporated – September 11, 1930)

April 1956 – April 1958..... Adams W. Bolton
April 1958 – April 1962..... L. Pete Jensen
April 1962 – April 1966..... Robert M. Firstman
April 1966 – April 1967..... Robert R. Kane
April 1967 – April 1970..... Donald H. Davidson
April 1970 – April 1971..... Edmond J. Russ
April 1971 – March 1974..... Donald L. Dear
March 1974 – March 1975..... William L. Cox
March 1975 – March 1976.....Masani (Mas) Fukai
March 1976 – March 1977.....Charles A. Nader
March 1977 – March 1978.....Vincent H. Okamoto
March 1978 – March 1979.....Masani (Mas) Fukai
March 1979 – April 1980.....Charles A. Nader
April 1980 – April 1981..... Donald L. Dear
April 1981 – April 1982.....Paul Y. Tsukahara
April 1982 – April 1983.....Masani (Mas) Fukai
April 1983 – April 1984.....James W. Cragin
April 1984 – April 1985..... Gwen Duffy
April 1985 – April 1986.....Paul Y. Tsukahara
April 1986 – April 1987.....Masani (Mas) Fukai
April 1987 – April 1988.....James W. Cragin
April 1988 – April 1989..... Gwen Duffy
April 1989 – April 1990.....Paul Y. Tsukahara
April 1990 – April 1991.....Masani (Mas) Fukai
April 1991 – April 1992.....James W. Cragin
April 1992 – April 1993..... Gwen Duffy
April 1993 – April 1994.....Paul Y. Tsukahara
April 1994 – April 1995.....Masani (Mas) Fukai
April 1995 – April 1996..... James W. Cragin
April 1996 – March 1997 ..... Gwen Duffy
April 1997 – March 1998 ..... Masani (Mas) Fukai
March 1998 – March 1999 ..... Steven C. Bradford
March 1999 – March 2000 ..... James W. Cragin
March 2000 – March 2001 ..... Paul K. Tanaka
March 2001 – April 2002 ..... Steven C. Bradford
April 2002 – March 2003 .....Grant J. Nakaoka
March 2003 – April 2004 ..... Paul K. Tanaka
April 2004 – March 2005 ..... Ronald K. Ikejiri
March 2005 – March 2006 ..... Steven C. Bradford
March 2006 – March 2007 .....Oscar Medrano Jr.
March 2007 – April 2008 ..... Rachel C. Johnson
April 2008 – April 2009 ..... Ronald K. Ikejiri
April 2009 – Sept. 2009..... Steven C. Bradford
Sept. 2009 – July 2010..... Dan Medina
July 2010 – April 2011..... Tasha Cerda
April 2011 – April 2012 ..... Rachel C. Johnson
April 2012 – March 2013 ..... Ronald K. Ikejiri
March 2013 – March 2014 ..... Dan Medina
March 2014 – April 2015 .....Tasha Cerda
April 2015 – April 2016 ..... Terrence Terauchi
April 2016 – April 2017 .....Mark E. Henderson
April 2017 – April 2018 ..... Dan Medina
April 2018 – April 2019 ..... Rodney Tanaka
April 2019 – April 2020……..….Art Kaskanian
April 2020 – April 2021……..Mark E. Henderson
April 2021 – April 2022……

COUNCIL POLICY

SUBJECT: COUNCIL BENCH SEATING

NO. 97-30 REV.
DATE April 22, 1997
Donald L. Dear
MAYOR

STATEMENT:

It is the desire of the City Council to memorialize the traditional informal seating for Council members at the Council bench as follows:

• Center Seat	The Mayor
• Seat to Right of Mayor	The Mayor Pro Tem
• Seat to Left of Mayor	The Most Senior Member of Council by Years of Service
• Seat to Far Right of Mayor	The Next Senior Member of Council by Years of Service
• Seat to Far Left of Mayor	The Member of Council having the Least Seniority by Years of Service

In the event that two or more seats on the Council would be vacated at one time, then seniority would be established by the number of votes received by the elected members, with the member having obtained the highest number of votes being declared the most senior member of the newly-elected council members.

MINUTES
Regular Meeting of the
City of Gardena City Council
Tuesday, February 23, 2021

The regular meeting of the City Council of the City of Gardena, California, was called to order at 7:00 p.m. on Tuesday, February 23, 2021, in the Council Chamber of City Hall, 1700 West 162nd Street, Gardena, California: Mayor Tasha Cerda presiding.

1. ROLL CALL

Present: Mayor Tasha Cerda; Mayor Pro Tem Mark E. Henderson; Council Member Rodney G. Tanaka; Council Member Art Kaskanian; and Council Member Paulette C. Francis. Other City Officials and Employees present: City Manager Clint Osorio; City Attorney Carmen Vasquez; City Clerk Mina Semenza; and Deputy City Clerk Becky Romero. City Treasurer Ingrid Tsukiyama was not present.

At 7:02 p.m., the City Council recessed into Closed Session in the Management Information Center of the Council Chamber at City Hall, with the following in attendance: Mayor Tasha Cerda; Mayor Pro Tem Mark E. Henderson; Council Member Rodney G. Tanaka; Council Member Art Kaskanian; and Council Member Paulette C. Francis; City Manager Clint Osorio; City Attorney's Carmen Vasquez and Amanda Pope; and Director of Recreation & Human Services, Stephany Santin.

2. CLOSED SESSION

A. CONFERENCE WTH LEGAL COUNSEL
ANTICIPATED LITIGATION
Initial of litigation pursuant to paragraph (4) of subdivision (d) of Section 54956.9
(One [1] Matter)

Mayor Cerda reconvened the meeting to the Regular Open Session at 7:47 p.m., and the City Clerk noted the return of all Council Members who were present at the meeting.

When City Attorney Vasquez was asked if there were any reportable actions from the Closed Session, she stated that the City Council authorized the initiation of litigation to bring the receivership action in connection with the property at 12801 S. Western Ave. the vote was unanimous five to zero and that concludes the report.

3. PLEDGE OF ALLEGIANCE & INVOCATION

A. PLEDGE OF ALLEGIANCE

Rafael Medina and Laura Orozco led the Pledge of Allegiance. They both attend Amestoy Elementary School. Rafael Medina is a natural leader. He shows his leadership skills on a daily basis in class by helping his teacher and his classmates. He has great interest in becoming the Mayor of Gardena so he will be able to make good rules for everyone in the city. Laura Orozco is a responsible student and is active in our Zoom class. She participates and leads many of our class discussions. She is a pleasure to have in class.

B. INVOCATION

Council Member Rodney G. Tanaka led the Invocation.

4. PRESENTATIONS, PROCLAMATIONS, & APPOINTMENTS

A. PRESENTATIONS

(1) Certificate of Recognition to Charlotte Lynch in Appreciation of Her Service to the Community as a Member of the Senior Citizens Commission – Her bio was read by Mayor Cerda and a video presentation was presented showing Mrs. Lynch receiving her Certificate.

B. PROCLAMATIONS

(1) WOMEN'S HISTORY MONTH," March 2021
- was proclaimed by Mayor Cerda

C. APPOINTMENTS – ***No Appointments were mad***e

(1) Council Appointments to Commissions, Committees, Councils, and Boards
(Appointees to be Ratified and Sworn In)

(a) Human Services Commission
(b) Planning and Environmental Quality Commission
(c) Recreation and Parks Commission
(d) Senior Citizens Commission
(e) Gardena Youth Commission
(f) Gardena Beautification Committee
(g) Gardena Economic Business Advisory Council
(h) Gardena Rent Mediation Board, Owner Representative
(i) Gardena Rent Mediation Board, Tenant Representative
(j) Gardena Rent Mediation Board, At-Large Representative

5. CONSENT CALENDAR

A. WAIVER OF READING IN FULL OF ALL ORDINANCES LISTED ON THIS AGENDA AND THAT THEY BE READ BY TITLE ONLY

B. CITY CLERK

(1) Minutes of

(a) **Approved:** Regular Meeting of the City Council, January 12, 2021

(2) Received and File of Minutes of

(a) **Receive & File**: Planning & Environmental Quality Commission, December 8, 2020

(3) **Approved**: Accept the Resignation of Senior Citizens Commission Member Charlotte Lynch Effective January 28, 2021 and Direct the City Clerk to post the vacancy pursuant to Government Code Section 54974

(4) **Approved**: Affidavit of Posting Agenda on February 19, 2021

C. CITY TREASURER

(1) **Approved:** Warrants / Payroll Register

(a) February 23, 2021: Wire Transfer: 11974-11978; Check Nos. 162117-162273 - for a total Warrants issued in the amount of $829,870.90; Total Payroll Issued for February 12, 2021: $1,476,576.76.

D. CITY MANAGER

(1) **Approved**: Personnel Report No. P-2021-04

5. CONSENT CALENDAR (Continued)

It was moved by Mayor Pro Tem Henderson, seconded by Council Member Tanaka, and carried by the following roll call vote to Approve all Items on the Consent Calendar:

Ayes: **Mayor Pro Tem Henderson and Council Members Tanaka, Kaskanian, Francis, and Mayor Cerda**
Noes: **None**
Absent: **None**

6. EXCLUDED CONSENT CALENDAR

7. PLANNING & ENVIRONMENTAL QUALITY COMMISSION ACTION SHEET

A. FEBRUARY 16, 2021, MEETING

(1) **Environmental Assessment #16-20, Modification to Site Plan Review #7-18**
The Planning Commission considered a request for a modification to a site plan review previously approved for the Normandie Estates Courtyard Project (Phase II of the Normandie Estates Specific Plan). The request was to scale the project down to reduce the project height from three to two-story unit homes and direction to staff to file a Notice of Exemption.
Project Location: 1348 West 168th Street (APN # 6111-012-003)
Applicant: Maupin Development Inc.

Commission Action: The Commission approved Resolution No. PC 1-21, approving Modification #1 to Site Plan Review #7-18.

Received and Filed

(2) **Environmental Assessment #1-21, Zone Code Amendment #1-21, GPA #1-21**
The Planning Commission considered amending the Land Use Plan of the City's General Plan to allow higher floor area ratios in the Commercial and Industrial General Plan land use areas when allowed by the Gardena Zoning Code and also amending development standards in the Gardena Zoning Code, primarily relating to amenity hotels.
Project Location: Citywide
Applicant: City

Commission Action: The Commission approved Resolution No. PC 2-21, recommending the City Council adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting program, recommending the City Council adopt the General Plan Amendment, and recommending the City Council adopt the Zone Code Amendment with the exception that a Conditional Use Permit still be required for amenity hotels, a ten-foot yard setback on side streets still be required, and no changes to the parking ratio for amenity hotels.

City Council Action: These items will be scheduled for the City Council meeting of March 9, 2021.

ORAL COMMUNICATIONS

(1) Zahid Ahmed email read by City Clerk Mina Semenza – *Good Afternoon respected Mayor and City Council. I wanted to write about three council directives. I would like the city council to issue department directives. The first departmental directive for Police Department to look into outreaching to BolaWrap Technologies to acquire BolaWrap for each police officer as standard issues daily duty equipment which is a safe and humanely restrained technology which can stop subjects from a distance without relying on pain compliance tools like the existing taser which is a higher liability risk for lawsuits. Please have both options available to officers since both can be used in different applications and stipulations. Please have both options available BolaWrap uses no electricity and very safe and more humane and helps reimagine policing. BolaWrap can help with encounters safely for non-compliant subjects in mental and drug impaired subjects are often incapable of comprehending commands of officers. BolaWrap enables officers to safely and humanely take subjects into custody without injury to get them the help they need. Reduce the need for lethal force restrain from a distance. BolaWrap is used by law enforcement across the U.S. the BolaWrap makes policing safer some successful case studies from cities like Los Angeles, Sacramento, Fresno, Minneapolis, West Palm Beach, Forth Worth and others. BolaWrap also helps with policy writing assistance to help rewrite Gardena Police Department Agency Policy with templated polices with regards to use of force. Next item, cities should apply for state grant for alcohol beverage control, website states is offering grants up to $100,000.00 to local law enforcement agencies requesting cities to submit a proposal. All proposals not fax copies must be received by 5:00 p.m. on March 29, 2021. Please see their website for more information, it is contained in this email for more information I would recommend the city apply for this grant. Lastly, the city should host an on-line live program on YouTube with study session and presentation with questions and answers to speak about the new Paycheck Protection Program for small businesses with representatives from the U.S. small business administration with regards to changes to a two-week window for business with fewer than 20 employees for paycheck protection program for small businesses in our city, also help from our two smart City Attorneys to help small business owners with questions and also local bank representatives to help and that concludes the reading of this email.*

8. DEPARTMENTAL ITEMS

A. ADMINISTRATIVE SERVICES

(1) RESOLUTION NO. 6500, Approving the Application for Statewide Park Development and Community Revitalization Program Grant Funds for the Gardena Community Aquatic & Senior Center

RESOLUTION NO. 6500

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, APPROVING THE APPLICATION FOR STATEWIDE PARK DEVELOPMENT AND COMMUNITY REVITALIZATION PROGRAM GRANT FUNDS FOR DEVELOPMENT OF THE GARDENA COMMUNITY AQUATIC & SENIOR CENTER.

City Manager Osorio presented the Staff Report.

Chief Fiscal Officer Raymond Beeman and Administrative Analyst II Mary Simonell gave a Power Point presentation.

City Manager Osorio wanted to add, first he would like to thank Ray and Mary for a job well done and for putting the presentation together. He wanted to re-emphasize that we are actively pursuing Prop. 68 funding for this project. He reminded the City Council that Prop. 68 Grant is a very competitive grant and its very difficult to get. We did apply for Prop. 68 last year and we did not get any of the three submissions that we had last year; in fact, the entire South Bay was not awarded a single grant. Having said that the project for the Aquatic and Community Center is not predicated upon us getting the grant from Prop. 68. If our viewers and our residents recall many months ago, we appeared at all the community events and meetings, and presented this opportunity and to vote for Measure G. We then

8. DEPARTMENTAL ITEMS (Continued)

A. ADMINISTRATIVE SERVICES (Continued)

(1) RESOLUTION NO. 6500, Approving the Application for Statewide Park Development and Community Revitalization Program Grant Funds for the Gardena Community Aquatic & Senior Center (Continued)

reminded everybody that we would come to you; City Council and our neighborhood meetings, to inform you what were doing with Measure G and this is exactly an example of what we promised. If we must bear the cost of this Aquatic and Community Center using Measure G funds be, leveraged through a bond for future receivables we would do that, to make sure that we realized this project and be able to provide to our community and our seniors, the Aquatic Center and Senior Center that they deserve. We do have the funding for this, it is not predicated upon Prop. 68, it would be nice, but it is not necessary.

There was a discussion which included Mayor and Council; Mayor Cerda wants to re-emphasize that we will be using Measure G funds towards this project. She proceeded to ask that to get this grant; is it recommended that we have a senior and teen center along with the pool? Her reason for asking this is because she would like to see us put more emphasis on it being a Senior Center, because that is one building that we are missing throughout the City and making sure we had a place for our Alzheimer's Daycare within the City. Chief Fiscal Officer Beeman replied, in speaking with our grant consultant, she recommends the senior and aquatic center. We are working with the consultant weekly to develop the grant application and she is hopeful, with all the information and feedback received. Administrative Analyst II Simonell added, in speaking to the grant consultants she was enamored with the idea of this being a multi-generational gathering place.

Council Member Francis asked, if Measure G is the only other alternative funding source besides Prop. 68. City Manager Osorio replied that yes, we have identified other funding sources, but they are very limited. Measure G is the only real funding source we must ensure that we can sustain it year after year. Council Member Francis stated that she was under the impression that everything was already paid for. She also asked for the location of the Senior Center. City Manager Osorio, reverted to the slideshow and pointed out the senior center location with a brief description of what has been proposed such as kitchen, restroom, hallways etc. Council Member Francis explained what she has seen in other Senior Centers and their amenities. City Manager Osorio, Chief Fiscal Officer Beeman and Administrative Analyst II Simonell continued with the presentation and explained the size and the two-story floor plans. Council Member Francis asked for the timeline and question why we are only asking for 8.5 million, when the need is 15 million. Chief Fiscal Officer Beeman replied, the grant is due March 12th, and the maximum amount of the grant is 8.5 million. Council Member Francis asked how will we cover the remaining balance. City Manager Osorio, stated that we plan on using parking lieu funds and Measure G. Council Member Francis is in favor of a multi-generational facility.

Mayor Cerda requested to revert to the previous slide and asked if any modifications are to be made to the floor plans, are we to be specific when submitting for the grant? Chief Fiscal Officer Beeman stated that adjustments can be made after the fact. Mayor Cerda asked, if we are going to have enough green space as shown on the site plan or is it just decoration? Chief Fiscal Officer Beeman stated that it is just a rough schematic but can add other options. City Manager Osorio added that the City is looking into purchasing another property and in that area, we can get creative and add additional green space and or make modifications.

Council Member Tanaka asked if seniors would have access to water aerobics by going from the senior center to the pool directly? Also, wants to make sure that the neighbors within this direct area are given proper notice about the upcoming changes, whether it be by mail or other source of communication to get their input. He would also like to know about the parking contingency for this project. He is also in favor of incorporating the Alzheimer's Daycare and Teen Center. City Manager Osorio replied by saying "yes" seniors will have direct access to the pool and agrees with the Alzheimer's Center being within the city limits.

8. DEPARTMENTAL ITEMS (Continued)

B. ADMINISTRATIVE SERVICES (Continued)

(1) RESOLUTION NO. 6500, Approving the Application for Statewide Park Development and Community Revitalization Program Grant Funds for the Gardena Community Aquatic & Senior Center (Continued)

Council Member Francis added, can the Alzheimer's Center be separate because it may be an overuse of one space. She proceeded to explain her reasoning for this request. Also, express her concerns about parking. City Manager Osorio replied that parking will be addressed separately, and they do have a contingency plan but unfortunately does not have the information with him at this time. Council Member Francis asked questions about the proposal and submittal process for the grant. City Manager Osorio explained that we are being assisted by a grant professional/grant writer and a package will be prepared for us. Chief Fiscal Officer Beeman and Administrative Analyst II Simonell explained in detail the process of working with the grant consultant.

Council Member Kaskanian asked who are we using for grant writers and what will the new center be called? Chief Fiscal Officer Beeman replied we are using California Consulting. City Manager Osorio stated that the name will be the "Gardena Community Aquatic and Senior Center".

Mayor Pro Tem Henderson thanked City Manager Osorio, Chief Fiscal Officer Beeman and Administrative Analyst II Simonell for the presentation and full disclosure of the potential funding. Mayor Pro Tem Henderson asked about the design; are we looking into making the building a "green type building" to get some rebates from the utility companies because he believes there are grants that we will be eligible for that would offset a lot of our construction costs. City Manager Osorio, replied yes, that is the new standard because of the incentives that come along with constructing a green building.

Public Speakers:

(1) Zahid Ahmed, suggested to name the center "City of Gardena Dr. Martin Luther King Jr. Services Center" and add Aquatic and Support Services Center, Senior Center. He would also want to make it LEED Certification, meaning that it is healthier more productive, reduces stress on the environment by encouraging energy and resources efficient building. He would like to encourage the city to get the LEED Certification into the design. He also recommends the City people to look into refunds; since we are essentially going to be using a steel structure like an office building with glass windows around it encourages light to come in. We could essentially add additional floors to it, so why not five floors, we are building it why not make it for 50 years. Also add basketball structure on roof, possibly including that senior center on the second floor with nursing training program; open a college nursing program; community college classes; a job resource center; senior community kitchen; house possibly LACO Department of Health; Community Public Health System; Community Computer Center: Free after school tutoring; Gender neutral bathrooms in order to make it easier for caregivers and wheelchair accessibility; also a job center; GED classes; ESL classes; including Juvenile Justice Counseling and also getting our local Congresswoman Maxine Waters and State Assembly Member Steve Bradford to attached letters requesting this. These are some things I would recommend and a community organic garden which can help grow fruits and vegetables to foster a great guardian.

(2) Wanda Love strongly believes that the seniors need a place of their own however our youth also need a place to go as well and if we're going to add the youth to this facility then she really wishes that the name be included so it can be recognized by the community as a place for the youth to go maybe naming it: The Aquatic Center for the Senior and Youth – we need to figure out a way to incorporate "Youth" into the name.

8. DEPARTMENTAL ITEMS (Continued)

C. ADMINISTRATIVE SERVICES (Continued)

(1) RESOLUTION NO. 6500, Approving the Application for Statewide Park Development and Community Revitalization Program Grant Funds for the Gardena Community Aquatic & Senior Center (Continued)

It was moved by Council Member Tanaka, seconded by Mayor Pro Tem Henderson, and carried by the following roll call vote to Adopt Resolution No. 6500:

Ayes:	**Council Member Tanaka, Mayor Pro Tem Henderson, and Council Members Kaskanian, Francis, and Mayor Cerda**
Noes:	**None**
Absent:	**None**

B. COMMUNITY DEVELOPMENT – **No Items**

C. ELECTED & ADMINISTRATIVE OFFICES

(1) Approve Second Amendment to Operating Covenant Agreement with Faraday Future Inc.

City Manager Osorio presented the Staff Report.

Mayor Pro Tem Henderson asked to be reminded of the sales office location for Faraday Future. City Manager Osorio stated that a particular site has not been identified yet, one possibility could be the corner of 162nd and Western. It is their prerogative where they put their sales office and we are happy to help them find a place if it is within the City of Gardena.

Council Member Francis wanted confirmation that Faraday Future was an electric car company and if they are requesting another extension? City Manager Osorio confirmed that Faraday Future is an electric car company and explained how they were having financial cash flow problems and COVID-19 hit. He would like to emphasize that they have since gone public and had an infusion of capital, I believe in a tune of about one hundred million dollars, so now they are in the position to fulfill on their agreement and start producing cars. City Attorney Vasquez added just for clarification; the first amendment was done in April of 2020; it was just at the beginning of the pandemic obviously I do not think any of us knew in April 2020 a month into it that we were going to still be facing the situation that we are with COVID and understandably neither was Faraday as well.

Mayor Pro Tem Henderson asked regarding the branding; is there some way we can add "sold in Gardena" or something where Gardena is mentioned and is that opportunity available in a discussion with Faraday Future personnel? City Manager Osorio agreed and those were his exact thoughts he had in mind; all we can do is suggest it with their marketing team. Council Member Tanaka added that if he visits the Faraday website, he believes Gardena is mentioned.

It was moved by Council Member Kaskanian, seconded by Council Member Francis, and carried by the following roll call vote to Approve Second Amendment:

Ayes:	**Council Members Kaskanian, Francis, Mayor Pro Tem Henderson and Council Member Tanaka, and Mayor Cerda**
Noes:	**None**
Absent:	**None**

8. DEPARTMENTAL ITEMS (Continued)

C. ELECTED & ADMINISTRATIVE OFFICES

(2) COVID-19 Update

City Manager Osorio presented the update.

Mayor Cerda was happy to announce that Gardena will be giving free vaccinations to our community, starting in March. The location will be in north Gardena at Rowley Park and more information will be forthcoming and we will make it available by flyer. Currently, we have free COVID testing site at Rowley Park. City Manager Osorio added that we have met with a company that specializes in large-scale events and had a site visit at Rowley Park and proceeded to explain the process in detail. The intent is to help our residents and fully vaccinate every single resident.

D. PUBLIC WORKS – **No Items**

E. POLICE – **No Items**

F. RECREATION & HUMAN SERVICES – **No Items**

G. TRANSPORTATION – **No Items**

9. COUNCIL ITEMS, DIRECTIVES & REMARKS

A. COUNCIL ITEMS – **No Items**

B. COUNCIL DIRECTIVES

Council Member Francis

(1) Request to support Assembly Bill – AB 80 formerly AB 281.

Mayor Cerda recommended that instead of it being a directive can the information be forward to City Attorney Vasquez for her review. City Attorney Vasquez stated that the Governor signed something similar, and he believes it to be a very positive bill. City Attorney Vasquez will review all information and possibly prepare a letter of support on behalf of the City Council.

C. CITY MANAGER REMARKS RE: DIRECTIVES / COUNCIL ITEMS

City Manager Osorio gave a verbal report of information to follow-up on matters that had been directed or requested by the Mayor and Members of Council. Those items were, as follows:

(1) Memo for Comprehensive Summary regarding the status of SB 7893 – Flavor Tobacco in the City of Gardena, prepared by City Attorney Vasquez.

(2) Comprehensive Update on the Cares Act Program, including round one and three funding for HUD Programs and Small Business Assistance Program, provided by city staff.

(3) Memo for the scheduled webinar for March 9, 2021 – Doing Business with the City, hosted by the City of Gardena.

(4) Memo for Describing and Explaining how Discover Gardena can help our local and business community.

(5) Video "Pop-up Pantries" – City of Gardena Give and Take Pantry Coming Soon, from the Recreation and Human Services Department.

(6) Flyers for the Walk-up COVID-19 Testing in the City of Gardena, located at Rowley Park 13220 Van Ness Ave., Gardena, CA 90249; open every Tuesday, Thursday, and Saturday from 9:00 a.m. to 3:00 p.m.

9. COUNCIL ITEMS, DIRECTIVES & REMARKS (Continued)

D. COUNCIL REMARKS

(1) COUNCIL MEMBER FRANCIS – Since the last meeting she attended a meeting called "Conversation with the District Attorney Gascon", it was hosted by the Los Angeles County Democratic Party where he explained his directives and the direction that the District Attorney's Office is heading and some of the challenges that are associated with his new directors. She also attended the free drive-thru family meals at Rowley Park hosted by Mud City and Dylan Andrews, who gave away two hundred meals in about twenty minutes. She also seen the mobile public testing site and they are there on Tuesday, Thursday, and Saturdays from 9:00 a.m. to 3:00 p.m. Also, she mentioned our Dr. Martin Luther King Jr. Coach Committee Fundraiser will be happening, and we have a few days left, a raffle will take place for a donation of five dollars. All proceeds go to support our scholarship program for the Martin Luther King Junior College Committee. Lastly, she mentions to her students about February 19th, this is a day that 79 years ago President Roosevelt signed an executive order 1966 that stripped all Japanese Americans of their Civil Rights and led to the internment of some one hundred and twenty thousand Americans of Japanese descent and it's one of those times where America failed to live up to its ideas of Liberty and Justice for all and even the room case that went to the Supreme Court challenging the constitutionality of order 1966. She explained that on February 19, 1976 decades after the war President Gerald Ford signed an order prohibiting for this to happen again. In 1988 President Reagan issued a public apology on behalf of the United States, she believes it is important to remember and if we fail to remember history it will repeat.

(2) COUNCIL MEMBER KASKANIAN – Since he started volunteering to help seniors get vaccinated, he mentioned in total his mileage has been five to six hundred miles. He is volunteering in the north part of Los Angeles. He would also like to encourage everyone to get tested since we have 360 Clinic in the City. He also mentioned the new vaccination sites in the City and hoping by then everyone will get the vaccines.

(3) COUNCIL MEMBER TANAKA - Since the last meeting he attended the District 3 Zoom meeting, he stopped by the Rowley Park testing site and greeted some people. 360 Clinic showed them what they were doing and mentioned it is great and encourages everyone to get tested as it is free.

(4) MAYOR CERDA – Since the last meeting, she attended a funeral for Mr. Roger Phillips who worked in GTRANS as one of the drivers and it was a very nice service. She mentioned his family had so many wonderful things to say about him. She also attended the free family meals drive-by the food was sponsored by the restaurant Firebird and in less than 20 minutes, 200 meals were served. She is very happy that there's companies that are still wanting to donate. She also attended the monthly CCGA Meeting, LA Sanitation meeting, and the Amestoy Elementary Monday morning assembly. They had a Black History Program and she spoke to the students about being an African American Mayor and more so because of student Rafael Medina as he mentioned he would like to be the Mayor of Gardena and they thought it would be nice to surprise him. She hoped everyone had a great Valentine's Day. Lastly, she shared that Assembly Member Mike Gibson is having a COVID- 19 memorial service, it will be on Friday, March 5, 2021 from 5 p.m. to 6 p.m., he would like to recognize everyone within his district in Gardena that have lost their life to COVID, it will be a virtual service, and anyone may submit their loved one's name to his office via email Keara.Joe@asm.ca.gov or call 310-324-6408 by March 2nd. She would also like to add that the City of Gardena has lost someone important and that's Larry Flynt who owns two very prominent card rooms The Lucky Lady and The Hustler, he passed away on February 9th, his name will be added to the remembrances.

9. COUNCIL ITEMS, DIRECTIVES & REMARKS (Continued)

D. COUNCIL REMARKS (Continued)

(5) MAYOR PRO TEM HENDERSON – Since the last meeting, he attended the SCAG Committee meeting and the AQMD Committee meetings. The biggest event he was able to participate in was the Virtual Winter Seminar, he was the chair of the committee Emergency Preparedness and the role of an elected official was given by Police Chief Manny Cid from Culver City, City Manager from Beverly Hills and Gene O'Donnell who is the Director of LA County Office of Emergency Management. During the seminar he reflected on the City's Emergency Operations Center and just wanted to thank City Manager Osorio and all city staff for their hard work. He was also on a panel on Racial and Identity Profiling Act, Culver City Police Department is one of the first local PD's that started working on that and he thought it was very interesting to understand. D.A's Gascon Staff presented a panel, and a lot of questions were asked about current D.A is implementing or has implemented and the impact on local communities. Redondo Beach had a presentation on their pallet shelters that they provide for the homeless in their community, they had a plot of land that the city owned so they were able to provide small shelters for some of their homeless. He also shared the BizFed Governance Committee meeting is coming up and is really pushing a broad band initiative at Sacramento so is SCAG, and the Local Council of Governments. He would also like to thank City Staff for helping him pilot the second phase of the paperless initiative. He no longer receives paper envelopes and are all electronic. He wanted to give it a try so and hopes this will prevent having a lot of papers and as some documents may be sensitive material and many may or may not have a shredder and would not want important documents to be accessible to anyone to look at.

9. ANNOUNCEMENTS

Mayor Cerda announced:

(1) Walk-up COVID-19 Testing; every Tuesday, Thursday, and Saturday from 9:00 a.m. to 3:00 p.m. located at Rowley Park 13220 Van Ness Ave., Gardena, CA 90249; Results within 24 to 48 hours. Scheduled an appointment by visiting www.360clinic.md.

10. REMEMBRANCES

Mr. Robert "Bob" Horii; 89 years of age, beloved longtime resident of Gardena. At the age of 11, Mr. Horii and his family were relocated to the Gila River Internment Camp in Arizona for the duration of WWII. He served in the Army Corp of Engineers during the Korean War, and he had a 43-year career in the City of Los Angeles Bureau of Engineering. Mr. Horii and his wife, Mary, were married for 61 years. Mr. Horii was also very active in many civic organizations in the Japanese American community, including serving as past president of the Gardena Evening Optimist Club and the Gardena Valley Japanese Cultural Institute; **Mr. Larry Flynt**, owner of two of our card rooms; The Lucky Lady and The Hustler Casino.

11. ADJOURNMENT

At 9:36 p.m., Mayor Cerda adjourn to the Closed Session portion of the City Council Meeting at 7:00 p.m. followed by the Regular City Council Meeting at 7:30 p.m. on Tuesday, March 9, 2021.

MINA SEMENZA
City Clerk of the City of Gardena and
Ex-officio Clerk of the Council

APPROVED:

_____
Tasha Cerda, Mayor

By: _____
Becky Romero, Deputy City Clerk

CITY of GARDENA

TO: THE HONORABLE MAYOR AND CITY COUNCIL

SUBJECT: PERSONNEL REPORT

1. Report the count of confirmed COVID-19 employee cases.
   Total Count: Sixty-Nine (69)
   a. Administrative Services Department: One (1)
   b. City Clerk's Office: One (1)
   c. Elected & Administrative Offices: One (1)
   d. Community Development Department: Two (2)
   e. Transportation Department: Nineteen (19)
   f. Police Department: Twenty-Five (25)
   g. Public Works Department: Eight (8)
   h. Recreation & Human Services Department: Twelve (12)

2. Report that the following individuals are on leave under the Family Medical Leave Act / California Family Rights Act (FMLA/CFRA):

   a. Custodian II, ***HENRY SORTO-MUNOZ***, of the Recreation Department effective March 22, 2021 through April 1, 2021.

3. Report the following employees have returned from leave:

   a. Police Officer, ***HUMBERTO RUVALCABA,*** of the Police Department returned February 13, 2021.

   b. Custodian II, ***MARCELL CLOY***, of the Recreation Department returned February 25, 2021.

4. Report the recruitment for the Open/Competitive position of Police Service Officer (Police Department). This recruitment closed on April 5, 2021.

5. Report the recruitment for the Open/Competitive position of Police Service Technician (Police Department). This recruitment closed on April 9, 2021.

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 8.D
Section: CONSENT CALENDAR
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: ORDINANCE NO. 1825, ADOPTION OF AN ORDINANCE MAKING CHANGES TO TITLE 18, ZONING, OF THE GARDENA MUNICIPAL CODE RELATING TO AMENITY HOTELS AND OTHER MINOR REVISIONS
LOCATION: CITYWIDE
APPLICANT: CITY OF GARDENA
CONTACT: COMMUNITY DEVELOPMENT DEPARTMENT

COUNCIL ACTION REQUIRED:

RECOMMENDATION AND STAFF SUMMARY:
Staff respectfully recommends that the City Council adopt Ordinance No. 1825.

On March 9, 2021, the City Council held a public hearing on changes to the General Plan Land Use Plan and Zoning Code relating to amenity hotels. After the public hearing, the City Council adopted Resolution No. 6498 approving the Mitigated Negative Declaration and Mitigation Monitoring and Report Program for the changes, adopted Resolution No. 6499 increasing the floor area ratio in the commercial and industrial areas for specific uses, and directed staff to provide a revised version of the Ordinance amending the Zoning Code.

At the March 23, 2021 City Council meeting Mayor Cerda made a motion, seconded by Councilmember Tanaka, to introduce Ordinance No. 1825 with a parking requirement of 0.85 parking space per guest room to account for guests and employees, plus provision of spaces for additional uses. The motion passed, 3-1-1, with Councilmember Kaskanian abstaining and Councilmember Francis dissenting.

Ordinance No. 1825 makes changes to Title 18 of the Gardena Municipal Code primarily relating to amenity hotels, but making other changes as well.

FINANCIAL IMPACT/COST:

ATTACHMENTS:
Ordinance No. 1825 Amenity Hotels

APPROVED:



_____

Clint Osorio, City Manager

ORDINANCE NO. 1825

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, MAKING CHANGES TO TITLE 18, ZONING, OF THE GARDENA MUNICIPAL CODE RELATING TO AMENITY HOTELS AND OTHER MINOR REVISIONS

WHEREAS, the City's existing zoning provisions for hotels were adopted in 1990 to combat the then proliferation of hotels/motels on small narrow lots within the City that lacked amenities and led to high vacancy rates, cut-rate prices, and deleterious effects; and

WHEREAS, since that time, only one new hotel has been approved in the City; and

WHEREAS, hotels can be an important source of revenue for a city through transient occupancy taxes; and

WHEREAS, Gardena is situated to be in a position to capitalize on a demand for new hotel spaces due to its proximity to SoFi Stadium, Hollywood Park, Dignity Health Sports Park (formerly "Stub Hub"), and other attractions; and

WHEREAS, during the past year, developers have indicated that the City's development standards have been an impediment to new hotel development; and

WHEREAS, at the City Council meeting on July 14, 2020, the City Council gave direction to staff to implement changes; and

WHEREAS, the revised standards require a change to the maximum floor area ratio ("FAR") allowed under the General Commercial and Industrial land use designations of the Land Use Plan and respective zones; and

WHEREAS, in addition to the changes required to encourage hotel development, the City also determined that there are additional amendments needed to update the Zoning Code; and

WHEREAS, in accordance with SB 18 and AB 52 requiring Tribal Consultation for General Plan amendments and projects subject to CEQA, the City sent out letters to those Native American Tribes identified by the California Native American Heritage Commission; and

WHEREAS, in response to the Tribal Consultation letters the City only received one response, from the Gabrieleno Band of Mission Indians – Kizh Nation, requesting consultation for future projects; and

WHEREAS, on October 13, 2020 the City Council approved a consultant agreement with De Novo Planning Group, Inc. ("De Novo") to conduct the environmental review on the proposed change in development standards; and

WHEREAS, De Novo prepared an Initial Study and Mitigated Negative Declaration on the proposed changes to the General Plan and zoning which was reviewed by staff and circulated for a 20-day public review period from January 14, 2021 and February 3, 2021; and

WHEREAS, the Planning Commission held a duly noticed public hearing on the General Plan Amendment and this Ordinance on February 16, 2021 at which time it considered all evidence presented, both written and oral; and

WHEREAS, at the close of the public hearing the Planning Commission adopted a Resolution recommending approval of the Initial Study/Mitigated Negative Declaration, the General Plan Amendment and this Ordinance, with amendments to three provisions of the Ordinance with respect to requiring a conditional use permit (CUP) for amenity hotels, maintaining the same parking ratio for amenity hotels as for regular hotels, and maintaining the 10 foot setback requirement on side streets; and

WHEREAS, on March 9, 2021 the City Council held a duly noticed public hearing on the Initial Study/Mitigated Negative Declaration, General Plan Amendment and Zone Change amendments set forth in this Ordinance, at which time it considered all evidence presented, both written and oral and the recommendations of the Planning Commission; and

WHEREAS, after the close of the public hearing the City Council adopted Resolution No. 6498 adopting the Initial Study/Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program and adopted Resolution No. 6499, approving the General Plan Amendment to the Land Use Plan and directed the additional changes be made to this Ordinance;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. FINDINGS.

A. The City Council finds that adopting the changes to the General Plan represents good planning practices as it will allow for the development of high-quality hotels in the City which will provide economic benefits to the City and improve the City's tax base.

B. The General Plan Amendment is internally consistent with the following elements of the General Plan:

1. Land Use Goal 3: Provide high quality, attractive and well-maintained commercial, industrial, and public environments that enhance the image and vitality of the City.

- Land Use Policy 3.1: Require adequate off-street parking, internal circulation and loading spaces for commercial developments.

- Land Use Policy 3.4: Attract commercial and industrial uses that minimize adverse impacts no surrounding land uses and are economically beneficial to the City in terms of revenue generation and employment opportunities.

- Land Use Policy 3.5: Promote the development and preservation of attractive commercial and industrial development with ample landscape treatment, adequate parking and the full range of customer amenities.

2. Economic Development Goal 1: Promote a growing and diverse business community that provides jobs, goods and services for the local and regional market, and maintains a sound tax base for the City.

3. Economic Development Goal 3: Attract desirable businesses to locate in the City.

- Economic Development Policy 3.3: Maintain a multidisciplinary proactive approach to improve the City's image as a desirable business location.

The proposed changes will encourage the development of new hotels which will improve the image and vitality of the City. Studies have been conducted to ensure that there is adequate off-street parking and adequate space for internal circulation. New hotels will provide revenue to the City and create new employment opportunities for residents and those in surrounding communities.

4. Circulation Goal 1: Promote a safe and efficient circulation system that benefits residents and businesses, and integrates with the greater Los Angeles/South Bay transportation system.

- Circulation Policy 1.1: Prioritize long-term sustainability for the City of Gardena, in alignment with regional and state goals, by promoting infill development, reduced reliance on single-occupancy vehicle trips, and improved multi-modal transportation networks, with the goal of reducing air pollution and greenhouse gas emissions, thereby improving the health and quality of life for residents.

The proposed changes will encourage the development of new hotels along arterials and major corridors which provides better access to transit options. Only seven of the proposed sites do not screen out of a VMT analysis and transportation demand management mitigation measures will be imposed on any development on those sites. The changes will also allow visitors to stay overnight in the Los Angeles area rather than

travelling from distant areas and creating unneeded VMT. Alternative transportation is more abundantly provided in the Gardena area as opposed to more remote areas as the majority of the city is considered a high quality transit area (HQTA) as defined by the Southern California Association of Governments (SCAG).

5. Public Safety Goal 2: Protect the community from dangers associated with geologic instability, seismic hazards and other natural hazards.

- Public Safety Policy 2.3: Require compliance with seismic safety standards in the [Uniform] Building Code.

- Public Safety Policy 2.4: Require geotechnical studies for all new development projects located in an Alquist-Priolo Earthquake Fault Zone or areas subject to liquefaction.

Site specific geotechnical studies are required for any development in the City.

6. Public Safety Goal 3: Protect public health, safety and the environment from exposure to hazardous materials and other dangers.

If construction of a new amenity hotel requires demolition of an older building, an asbestos survey will be conducted to determine the presence or absence of asbestos. Asbestos removal must be performed by a State certified asbestos containment contractor. Paint which is separated from building materials is required to be evaluated for lead, and if found, disposed of by a qualified Lead Specialist.

C. The City Council further finds that this Ordinance is consistent with the changes made by Resolution No. 6499 to City's General Plan.

SECTION 2. Section 18.04.245 is hereby added to the Gardena Municipal Code to read as follows:

18.04.245 Hotel, amenity

"Hotel, amenity" means a hotel with amenities such as: indoor lobby/lounge area with complimentary Wi-Fi meant for guests to sit, relax, and work; spa facilities; outside lounge areas meant for guests to sit, relax, and work, including common area patios and rooftop decks; pool or other improved recreation areas; gym facilities; conference centers; or other amenities of similar nature that are for the benefit of guests and located outside of the individual rooms.

SECTION 3. Section 18.32.020B of the Gardena Municipal Code is hereby amended to read as follows:

18.32.020 Uses permitted

B. Stores, businesses, or commercial activities not involving any kind of manufacture, processing, or treatment of products other than that which is clearly incidental and essential to a retail business conducted on the premises and that such operations are not objectionable due to noise, odor, dust, smoke, vibration, or other similar causes. Permitted uses shall include:

1. Antique stores;

~~2. Deleted;~~

2. Bowling alleys;

~~4. Blueprinting and photostating;~~

~~5. Bird stores and pet shops;~~

~~6. Chinchilla sales;~~

3~~7~~. Conservatories of music;

4~~8~~. Dancing academies;

5~~9~~. Gymnasiums;

6~~10~~. Legal card clubs;

7~~11~~. Laboratories, medical and dental;

812. Mortuaries;

9~~13~~. Music and vocal instruction;

10~~14~~. Nursery sales of flowers and plants;

11~~15~~. Pet shops;

12~~16~~. Medical and dental offices and clinics;

13~~17~~. General offices ~~Real estate offices~~;

14~~18~~. Refrigerated food lockers;

~~19. Taxidermists;~~

~~20. Telephone exchanges;~~

~~21. (Repealed);~~

15~~22~~. Furniture upholstery shops;

~~23. *Repealed;*~~

16~~24~~. Secondhand store and/or thrift shop, when located at least five thousand feet from pawn shop or another secondhand store and/or thrift shop;

~~25. *Repealed;*~~

17~~26~~. Veterinary clinics and hospitals.

SECTION 4. Section 18.32.030 of the Gardena Municipal Code is hereby amended to read as follows:

18.32.030 Uses permitted subject to a conditional use permit

The following uses may be permitted in the C-3 zone subject to the issuance of a conditional use permit in accordance with the procedure set forth in Chapter 18.46:

A. Car wash facilities;

B. Establishments selling serving alcoholic beverages for consumption on or off the premises;

C. Group care facilities and community care facilities, but excluding community care facilities for residential uses for less than seven persons;

D. Recreational vehicle storage facilities, provided they are not located on arterial and major collector streets;

E. Motor vehicle dealerships;

F. Hospitals;

G. Day care facilities;

H. Amusement arcades;

I. Hotels and motels, subject to the requirements set forth in Section 18.46.030C.15;

J. Amenity hotels, subject to the requirements set forth in Section 18.46.030C.29;

K. Health facilities;

L. Massage establishments that are not otherwise subject to an exception pursuant to Section 5.48.030;

M. Urgent care center;

N. Vocational colleges, such as barber and beauty colleges, modeling schools and medical training and trade schools;

O. Churches and related facilities. Related facilities do not include day care facilities, schools (kindergarten through twelfth grade), and rectories, convents, parsonages or minister's residences;

P. Automobile service stations;

Q. Self-service laundromats;

R. Neighborhood markets;

S. Health clubs;

T. Supermarkets;

U. Lodges and meeting halls;

V. Those uses permitted with a conditional use permit, pursuant to Section 18.46.030C.

SECTION 5. Section 18.32.050.C of the Gardena Municipal Code is hereby amended to read as follows; all other sections remain the same:

18.32.050 Property development standards

***** ***** *****

C. Building height/FAR: Building heights shall not exceed sixty-five feet in general; ~~Building height shall be limited to two and one-half stories~~, shall not exceed thirty-five feet within one hundred feet of a zone boundary line between the C-3 zone and any R-1 and R-2 zone; and shall not exceed fifty ~~forty-five~~ feet within one hundred feet of a zone boundary line between the C-3 and R-3 or R-4 zones. The gross floor area of all buildings or structures on a lot or lots that comprise a project site shall not exceed 0.50 (FAR) with the exception of amenity hotels, which may have a FAR of up to 2.0.

SECTION 6. Section 18.34.030 of the Gardena Municipal Code is hereby amended to read as follows:

18.34.030 Uses permitted subject to a conditional use permit

The following uses may be permitted in the C-4 zone subject to the issuance of a conditional use permit in accordance with the procedure set forth in Chapter 18.46:

A. Car wash facilities;

B. Establishments selling serving alcoholic beverages for consumption on or off the premises;

C. Recreational vehicle storage facilities;

D. Amusement Arcades

E. Hotels and motels, subject to the requirements set forth in Section 18.46.030C.15;

F. Amenity hotels, subject to the requirements set forth in Section 18.46.030C.29;

G. Health facilities;

H. Group care facilities and community care facilities, but excluding community care facilities for residential uses for less than seven persons;

I. Hospitals;

J. Urgent care centers;

K. Churches and related facilities. Related facilities do not include day care facilities, schools (kindergarten through 12th grade), and rectories, convents, parsonages or minister's residences;

L. Motor vehicle dealerships;

M. Automobile service stations;

N. Self-service laundromats;

O. Neighborhood markets;

P. Supermarkets;

Q. Health clubs;

R. Lodges and meeting halls;

S. Drive-in restaurant;

T. Drive-in theaters;

U. Golf driving range and golf pitch and putt courses;

V. Taxicab services;

W. Massage establishments that are not otherwise exempt from the requirements of Chapter 5.48;

X. Self-storage facilities provided that the self-storage units do not exceed more than seventy-five feet of ground floor street frontage on a major collector or arterial street, or are otherwise buffered by another allowed, or conditionally allowed, use, including a retail component of the facility, and subject to the requirements set forth in Section 18.46.030(C)(17); and

Y. Those uses permitted with a conditional use permit, pursuant to Section 18.46.030C.

SECTION 7. Section 18.34.050.C of the Gardena Municipal Code is hereby amended to read as follows; all other sections remain the same:

C. Building height/FAR: Building heights shall not exceed sixty-five feet in general, and shall not exceed thirty-five feet within one hundred feet of a zone boundary line between the C-4 zone and any R-1 or R-2 zone, and shall not exceed ~~forty-five~~ fifty feet within one hundred feet of a zone boundary line between the C-4 zone and R-3 and R-4 zones. The gross floor area of buildings or structures on a lot or lots that comprise a project site shall not exceed 0.50 FAR with the exception of:

1. A development where at least eighty percent of the development includes self-storage facilities, in which case the FAR shall not exceed 2.75;

2. Amenity hotels which may have an FAR of up to 2.0.

SECTION 8. Section 18.36.030 of the Gardena Municipal Code is hereby amended to read as follows:

18.36.030 Uses permitted subject to a conditional use permit

Provided all activities are within an enclosed building, unless otherwise provided, the following uses may be permitted in the M-1 zone, subject to the issuance of a conditional use permit in accordance with the procedures set forth in Chapter 18.46 of this code:

A. Ambulance services, provided they are not located on arterial and major collector streets.

B. Automobile repair facilities, provided they are not located on arterial and major collector streets.

C. Automobile service stations.

D. Building supply centers.

E. Car wash facilities.

F. Churches and related facilities, subject to the requirements set forth in Section 18.46.030(C)(26). Related facilities do not include day care facilities, schools (kindergarten through 12th grade), and rectories, convents, parsonages, or minister's residences.

G. Contractor businesses; provided they are not located on arterial and major collector streets.

H. Establishments selling or serving alcoholic beverages for off or on-premise consumption.

I. Health facilities.

J. ~~Motels and hotels~~ Hotels and motels, subject to the requirements set forth in Section 18.46.030C.15.

K. Amenity hotels, subject to the requirements set forth in Section 18.46.030C.29;

L. Recreational vehicle storage facilities, provided they are not located on arterial and major collector streets.

M. Self-storage facilities, at least five thousand feet from another similar facility and not located along a major collector or arterial street, subject to the requirements set forth in Section 18.46.030(C)(17).

N. Urgent care centers.

O. Warehouse uses subject to the requirements set forth in Section 18.46.030(C)(18).

P. Single room occupancy ("SRO") residential units subject to the following requirements in addition to the other requirements of Chapter 18.46:

1. Each room shall have a minimum floor area of one hundred fifty square feet and a maximum floor area of three hundred fifty square feet, which may include bathroom and/or kitchen facilities.

2. Dwelling units shall be offered for rent on a monthly basis or longer.

3. A SRO unit shall accommodate a maximum of two persons.

4. Each SRO development shall provide a minimum common area of ten square feet for each unit or two hundred fifty square feet, whichever is greater. All common areas shall be within the structure. Dining rooms, meeting rooms, recreational rooms, or other similar areas approved by the community development director may be considered common areas. Shared bathrooms, kitchens, janitorial storage, laundry facilities, common hallways, and other similar types of areas shall not be considered as common areas.

5. If a full kitchen is not provided in each SRO unit, common kitchen facilities shall be provided in the development. A full kitchen includes a sink, refrigerator, and a stove, range top and/or oven.

6. Each SRO unit shall have a private toilet in an enclosed compartment with a door and a sink, in addition to a kitchen sink if one is provided. The compartment shall be a minimum of fifteen square feet. If private bathing facilities are not provided for each unit, shared shower or bathtub facilities shall be provided in accordance with the most recent edition of the California Building Code for congregate residences. However, in no event shall there be less than one full shower or bathtub for every three units, and shower and bathtub facilities shall be located on each floor. Shared shower and bathtub facilities shall be accessible from a common area or hallway and shall be provided with an interior lockable door.

7. Each SRO unit shall have a separate closet.

8. Laundry facilities shall be provided in a separate room at the ratio of one washer and dryer for every ten units, with at least one washer and dryer per floor.

9. A cleaning supply room or utility closet with a wash tub with hot and cold running water shall be provided on each floor.

10. Parking shall be provided for a SRO facility at the rate of one parking space per unit plus an additional two spaces for the resident manager.

11. A management plan shall be submitted with the conditional use permit application for a SRO development, which shall be approved by the planning commission. The management plan must address management and operation of the facility, rental procedures, safety and security of the residents, and building maintenance. A twenty-four-hour resident manager shall be provided for any single-room occupancy with ten or more units. An on-site manager and a manager’s office shall be provided for any SRO development with nine or less units; the manager must maintain hours in the office for at least thirty hours a week.

SECTION 9. Subsections A and B of Section 18.36.060 are hereby amended to read as follows, all other provisions remain the same:

18.36.060 Property development standards

The following changes would be made to the development standards:

A. Building height/FAR: Building heights shall in no case exceed sixty-five feet, shall not exceed thirty-five feet within one hundred feet of a zone boundary line between the M-1 zone and any R-1 and R-2 zones, and shall not exceed fifty ~~forty-five~~ feet within one hundred feet of a zone boundary line between the M-1 and R-3 or R-4 zones. The maximum gross floor area of buildings or structures on a lot or lots that comprise a project site shall not exceed 1.0 FAR , except for amenity hotels, which may have a FAR of up to 2.0.

B. Building restrictions:

1. No opening in the exterior wall of a building shall be allowed on industrial buildings when the exterior wall of such building faces an R zone on the rear, side, or front property lines and is within 60 feet of such zone.

Exceptions:

~~a. If such building is situated sixty feet or more from an R zone, openings in exterior walls facing such R zone shall be allowed.~~

a ~~b~~. Any openings may be allowed in exterior walls of such buildings if they are required by law providing they are equipped with self-closers and are of solid material.

b ~~c~~. Solid panels of glass block shall be allowed regardless of the distance from the property line.

~~d. Openings shall be allowed into areas used for office space only; such openings shall be glazed with obscure glass, facing side or rear property lines only.~~

2. Noise emitted by any use shall comply with standards set forth in Chapter 8.36.

* * *

SECTION 10. Section 18.40.040 of the Gardena Municipal Code is hereby amended by adding the following parking standard for amenity hotels:

Amenity Hotels: A parking ratio of 0.85 space per guest room to account for guests and employees, plus provision of spaces for additional uses within the hotel at the rates specified in this section for such uses.

SECTION 11. Section 18.42.120 of the Gardena Municipal Code is hereby amended to read as follows:

Section 18.42.120 Distance between buildings

Zones in which tall buildings are permitted: in all zones where buildings of three or more stories in height are permitted, the requirements for space between buildings on the same site shall be increased two and one-half feet for each story, or fraction thereof, above the second story.

SECTION 12. Subsection C of Section 18.46.030 is hereby amended by revising subsection 15 and adding a new subsection 29 to read as follows:

Section 18.46.030 Uses permitted subject to a conditional use permit

* * *

C. The following uses may be permitted pursuant to this section in the zones specified with a conditional use permit. In no case shall a conditional use permit be granted in a zone for a use specifically prohibited in a zone within which the subject property is located:

15. Hotels and motels, except amenity hotels, in the C-3, C-4, M-1 and M-2 zones; provided, that:

a. The minimum lot area for hotels or motels shall be one acre exclusive of all other buildings or uses located on the same lot in a mixed use development;

b. The minimum lot width for hotel or motel developments shall be one hundred feet. The minimum lot depth shall be one hundred fifty feet;

c. A minimum of twenty feet front yard setback shall be provided, and not less than twenty percent of the total paved area utilized for driveways and open parking shall be landscaped pursuant to regulations set forth in Section 18.40.090;

d. The Planning Commission may allow the reduction of parking below that set forth in Section 18.40.040 based on a ~~A~~ parking demand study prepared by a qualified consultant justifying the reduction and paid for by the applicant ~~proponent of a hotel/motel, has been prepared by a qualified traffic engineer~~;

e. A market analysis/financial feasibility study, paid for by the proponent of a hotel/motel, has been prepared by a qualified consultant;

~~f. The engineer/consultant preparing the studies required by subsections C(15)(d) and (e) of this section shall be from a list of engineers and consultants approved by the community development department;~~

f ~~g~~. Not more than twenty percent of the guest rooms shall be equipped with kitchens or kitchenette facilities;

* * *

29. Amenity hotels, as allowed in the C-3, C-4, M-1, or M-2 zone shall comply with the following requirements:

a. The hotel contains a minimum of two amenities, including but not limited to:

i. An indoor lobby/lounge area with complimentary Wi-Fi designed and equipped as a social space for guests to sit, relax, eat, drink, and work;
ii. Day spa facilities;
iii. Outside, landscaped, lounge areas designed and equipped for guests to sit, relax, eat, drink, and work, including common area patios and rooftop decks;
iv. A pool or other outside improved and landscaped recreation areas;
v. A fitness center that is a minimum of 400 square feet in size with sufficient equipment other than. or in addition to. free weights to allow a minimum of four individuals to work out at the same time;
vi. Event space that is a minimum of 375 square feet in size;
vii. Other amenities of similar nature that are for the benefit of guests and located outside of the individual rooms.

b. The majority of rooms are accessed from an interior lobby, courts, or interior hallway;

c. Lot size: minimum of ¾ of an acre;

d. Location: located on an arterial or major collector street;

e. Does not contain more than 20% of rooms with kitchens or kitchenette facilities;

f. Meets all other development standards of the applicable zone;

g. The Planning Commission may allow the reduction of parking below that set forth in Section 18.40.040 based on a parking demand study prepared by a qualified consultant justifying the reduction and paid for by the applicant;

h. Complies with the mitigation measures and standard conditions of approval that were identified in the environmental assessment for the ordinance allowing amenity hotels or that are found to be equivalent.

SECTION 13. Imposition of Mitigation Measures and Conditions of Approval. The development of all Amenity Hotels shall be subject to the Conditions of Approval, including the Mitigation Measures, set forth in Exhibit A, attached hereto, in addition to any other conditions of approval imposed by the City.

SECTION 14. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this ordinance, or any part thereof is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portion of this ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase be declared unconstitutional.

SECTION 15. This Ordinance shall take effect on the thirty-first day after passage.

SECTION 16. Certification. The City Clerk shall certify the passage of this ordinance and shall cause the same to be entered in the book of original ordinances of said City; shall make a minute passage and adoption thereof in the records of the meeting at which time the same is passed and adopted; and shall, within fifteen (15) days after the passage and adoption thereof, cause the same to be published as required by law, in a publication of general circulation.

PASSED, APPROVED AND ADOPTED this 13th day of April, 2021.

_____
TASHA CERDA, Mayor

ATTEST:

_____

MINA SEMENZA, City Clerk

APPROVED AS TO FORM:

_____

LISA E. KRANITZ, Assistant City Attorney

EXHIBIT A

CONDITIONS OF APPROVAL FOR ALL AMENITY HOTEL PROJECTS

COA CUL-1: If previously unidentified cultural resources are encountered during ground disturbing activities, construction activities shall cease in the immediate vicinity and construction activities shall be diverted away from the find (50-foot buffer around the find) and a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology, shall be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, the treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and PRC Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. In the event that an identified cultural resource is of Native American origin, the qualified archaeologist shall consult with the Project owner and City of Gardena to implement Native American consultation procedures.

COA GEO-1: Prior to the submission of any new building permit application, as required by the City Building Official, the applicant shall provide for the City's review and consent, a comprehensive geotechnical investigation that explores and evaluates soil, groundwater, geological and seismic conditions; provides soil engineering criteria, and documents the potential for seismically induced ground shaking on the building site. Such investigations shall be conducted by a licensed civil engineer specializing in the practice of soil mechanics, and by a certified engineering geologist. Construction shall be in compliance with the findings and recommendations of the required investigations.

COA GEO-2: If excavation activities associated with the development of an amenity hotel would occur on any site mapped as middle to late Pleistocene older alluvium at the surface, prior to commencement of ground-disturbing activities a qualified vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall develop Worker Awareness and Environmental Program (WEAP) Training for construction personnel. This training shall be presented to construction personnel and include what fossil remains may be found within the Project area and policies and procedures that must be followed in case of a discovery. Verification of the WEAP Training shall be provided to the Gardena Community Development Department.

COA GEO-3: If fossils or fossil bearing deposits are encountered during ground-disturbing activities, work within a 25-foot radius of the find shall halt and the professional vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall be contacted immediately to evaluate the find. The paleontologist shall have the authority to stop or divert construction, as necessary. Documentation and treatment of the discovery shall occur in accordance with Society of Vertebrate Paleontology standards. The significance of the find shall be evaluated pursuant to the State CEQA Guidelines. If the discovery proves to be significant, before construction activities resume at the location of the find, additional work such as data recovery excavation may be warranted, as deemed necessary by the paleontologist.

COA HAZ-1: Prior to demolition activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Division of Occupational Safety and Health (Cal/OSHA) certified building inspector to determine the presence or absence of asbestos containing-materials (ACMs). The sampling method to be used shall be based on the statistical probability that construction materials similar in color and texture contain similar amounts of asbestos. In areas where the material appears to be homogeneous in color and texture over a wide area, bulk samples shall be collected at discrete locations from within these areas. In unique or nonhomogeneous areas, discrete samples of potential ACMs shall be collected. The survey shall identify the likelihood that asbestos is present in concentrations greater than 1 percent in construction materials. The asbestos survey shall be provided to the City of Gardena Building Division. If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard.

Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1403. Common asbestos abatement techniques involve removal, encapsulation, or enclosure. The removal of asbestos is preferred when the material is in poor physical condition and there is sufficient space for the removal technique. The encapsulation of asbestos is preferred when the material has sufficient resistance to ripping, has a hard or sealed surface, or is difficult to reach. The enclosure of asbestos is to be applied when the material is in perfect physical condition, or if the material cannot be removed from the site for reasons of protection against fire, heat, or noise.

COA HAZ-2: If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material by a qualified Environmental Professional. A portable, field X-ray fluorescence (XRF) analyzer shall be used to identify the locations of potential lead paint, and test accessible painted surfaces. The qualified Environmental Professional shall identify the likelihood that lead is present in concentrations greater than 1.0 milligrams per square centimeter (mg/cm2) in/on readily accessible painted surfaces of the buildings.

If lead-based paint is found, abatement shall be completed by a qualified Lead Specialist prior to any activities that would create lead dust or fume hazard. Potential methods to

reduce lead dust and waste during removal include wet scraping, wet planning, use of electric heat guns, chemical stripping, and use of local High Efficiency Particulate Air (HEPA) exhaust systems. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City of Gardena Building Division.

COA N-1: Prior to approval of grading plans and/or prior to issuance of demolition, grading, and building permits for individual amenity hotel developments, the following noise reduction techniques shall be included in the construction plans or specifications:

- Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- The Project applicant shall demonstrate to the satisfaction of the City's Building Official that construction noise reduction methods shall be used where feasible, including shutting off idling equipment.
- During construction, equipment staging areas and stationary construction noise sources, such as generators or pumps, shall be located such that the greatest distance is between the staging area noise sources and noise-sensitive receptors.
- Per Gardena Municipal Code Section 8.36.080, construction activities shall not occur during the hours of 6:00 p.m. and 7:00 a.m. on weekdays; between the hours of 6:00 p.m. and 9:00 a.m. on Saturday; or any time on Sunday or a Federal holiday.

MITIGATION MEASURES: The following mitigation measures shall be imposed upon the project.

BIO-1: If a Project site includes trees with the potential to support nesting migratory birds, construction, grubbing, brushing, or tree removal shall be conducted outside of the state identified nesting season for migratory birds (i.e., typically March 15 through September 1), if possible. If construction activities cannot be conducted outside of nesting season, a Pre-Construction Nesting Bird Survey within and adjacent to the Project site shall be conducted by a qualified biologist within three days prior to initiating construction activities. If active nests are found during the Pre-Construction Nesting Bird Survey, a Nesting Bird Plan (NBP) shall be prepared by a qualified biologist and implemented during construction. At a minimum, the NBP shall include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The size and location of all buffer zones, if required, shall be based on the nesting species, nesting sage, nest location, its sensitivity to disturbance, and intensity and duration of the disturbance activity.

CUL-1: Future development of an amenity hotel on a property with a potential historical resource, shall require a Historic Resources Assessment prepared by a qualified

professional, which shall be submitted to the City of Gardena Community Development Department for review and approval. The Historic Resource Assessment shall determine whether the resource(s) is potentially historic and if the proposed project would potentially cause a substantial adverse change to the historical resource. Feasible measures shall be identified in order to mitigate the known and potential significant effects of the subject development project, if any.

GEO-1: If excavation activities associated with the development of an amenity hotel would occur at a depth of greater than five feet on any site mapped as middle to late Pleistocene older alluvium at the surface, paleontological resources monitoring by a qualified vertebrate paleontologist (as defined by the Society for Vertebrate Paleontology) shall be required during ground disturbances greater than 5.0 below the historic surface elevation in native sediments. Auguring, potholing, and pile driving activities do not need to be monitored as these activities are unlikely to produce significant fossil because information about formation, depth, or context is impossible to discern. Should similar activities be planned, the qualified paleontologist shall be consulted prior to commencement so they may determine if that activity requires monitoring.

HAZ-1: Prior to the sale or development of a property where the City is involved with the financing or acquisition of the property, the City shall require a full Phase I Environmental Assessment of the site. In addition, an environmental consultant, familiar with the handling of hazardous wastes, should be either on-site or on call to property remove and dispose of any hazardous wastes encountered during the excavation and/or grading of the site.

Construction requiring soil excavation and soil filling in areas of known commercial and industrial uses, proper sampling shall be required prior to the disposal of excavated soil.

All development and businesses operating within the City shall obtain, prior to receiving a use permit, all relevant licenses and permits from the appropriate agencies charged with regulation of hazardous materials.

TRA-1: The hotel operator of an amenity hotel on APN 4064-023-018, APN 4064-023-034, or APN 4064-030-019 shall implement at least one of the following VMT reduction measures:

- Implement Price Workplace Parking for a reduction of 3.7%. This assumes 100% of employees would be subject to a $2 per day parking charge.
    - To achieve the necessary 3.1% reduction, a minimum of 84% of employees shall be subject to a $2 per day parking charge.
- Implement Rideshare Program for a reduction of 10%. This assumes 100% of employees would be eligible for this program.
    - To achieve the necessary 3.1% reduction, a minimum of 31% of employees shall be eligible for this program.

- Implement Employee Transit Subsidies for a reduction of 5.2%. This assumes 100% of employees would be eligible for this program.
    - To achieve the necessary 3.1% reduction, a minimum of 60% of employees shall be eligible for this program.
    - This assumes an LA Metro EZ Pass subsidy of approximately $3.67 per day per employee.
- Implement Promotions and Marketing for a reduction of 4.0%. This assumes 100% of employees would be eligible for this program.
    - To achieve the necessary 3.1% reduction, a minimum of 78% of employees shall be eligible for this program.

New employees shall be informed of any rideshare and transit subsidy programs and subsidy program information shall be displayed within areas where the greatest number of employees are likely to see it (consistent with Gardena Municipal Code Section 18.68.020). Verification of the provision of one of the VMT reduction measures shall be provided annually to the City of Gardena Community Development Department.

TRA-2: The hotel operator of an amenity hotel on APN 6106-027-039, 6106-027-028, or 6106-030-011 shall implement at least one of the following VMT reduction measures or combination of measures:

- Implement Price Workplace Parking for a reduction of 6.8%. This assumes 100% of employees would be subject to a $6 per day parking charge.
    - To achieve the necessary 6.8% reduction, a minimum of 100% of employees shall be subject to a $6 per day parking charge.
- Implement Rideshare Program for a reduction of 10%. This assumes 100% of employees would be eligible for this program.
    - To achieve the necessary 3.1% reduction, a minimum of 68% of employees shall be eligible for this program.

The following combination of measures can also achieve the necessary 6.8% VMT reduction:

- Implement Employee Transit Subsidies and Promotions and Marketing for a reduction of 9%. This requires 100% of employees being eligible for both programs. This assumes an LA Metro EZ Pass subsidy of approximately $3.67 per day per employee.

New employees shall be informed of any rideshare and transit subsidy programs and subsidy program information shall be displayed within areas where the greatest number of employees are likely to see it (consistent with Gardena Municipal Code Section 18.68.020). Verification of the provision of at least one of the VMT reduction measures or

combination of measures specifically identified shall be provided annually to the City of Gardena Community Development Department.

TRA-3: If an amenity hotel is proposed on a site meeting the conditions for an amenity hotel that was not analyzed by the *Hotel Development Standards General Plan & Zoning Code Amendment Project Transportation Memorandum*, prepared by Kittelson & Associates, dated December 9, 2020, the applicant of the proposed development shall prepare a Vehicle Miles of Travel (VMT) analysis in compliance with the City of Gardena SB 743 Implementation Transportation Analysis Updates in effect at that time for review and approval by the City of Gardena Community Development Department. The applicant shall be required to implement mitigation measures required to reduce potential VMT impacts.

TCR-1: Within 14 days of determining that an application for an amenity hotel project is complete, the City of Gardena Community Development Department shall provide notification to the designated contact for the Gabrieleno Band of Mission Indians – Kizh Nation, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the Tribe has 30 days to request consultation.

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 8.E
Section: CONSENT CALENDAR
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: APPROVAL OF MEASURE M FUNDING AGREEMENT WITH LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY AND CITY OF GARDENA FOR THE REDONDO BEACH BOULEVARD ARTERIAL IMPROVEMENTS, JN 945 IN THE AWARDED AMOUNT OF $5,567,000 AND BUDGET APPROPRIATION OF THE SAME AMOUNT FOR THE PROJECT.
CONTACT: PUBLIC WORKS

COUNCIL ACTION REQUIRED:

RECOMMENDATION AND STAFF SUMMARY:
Staff Respectfully recommends that City Council:

(A) Authorize the City Manager to execute the Funding Agreement in a form approved by the City Attorney, and
(B) Approve budget appropriation for Redondo Beach Boulevard Arterial Improvement, JN 945 of $5,567,000.00.

In August 2020, the Los Angeles County Metropolitan Transportation Authority (LACMTA) approved the City's application for Design and Construction funding for Improvements along Redondo Beach Boulevard (RBB) from Crenshaw Avenue to Vermont Avenue under Measure M Sub-regional Program funds.

The primary goal for any project under the Measure M Sub-regional Program is to reduce vehicle delay and a preliminary study shows RBB has numerous commercial driveways resulting in excessive turning movements (left turns) between traffic signals. These movements are a safety issue and impede the flow of through traffic. Additionally, the study identified intersections that have reached or are about to reach the threshold of minimum acceptable delay due to high traffic volume.

The project will explore possible engineering solutions to the above issues during its design phase. One solution that has the most potential benefit is upgrading the traffic signal system for the nine (9) intersections that are within the project area. Another approach includes constructing new medians that will limit the turning movements. The possibility of increasing the length of left turn lanes in the intersection will also be studied. There is also the option of

converting the parking lane to add a third travel lane in sections where congestion is approaching the minimum acceptable traffic delay threshold.

The Traffic Signal Systems that are proposed to be upgraded are located at the f ollowing nine (9) intersections:
1. RBB intersection with Van Ness Avenue
2. RBB intersection with Gramercy Place
3. RBB intersection with Western Avenue
4. RBB intersection with Denker Avenue
5. RBB intersection with Nuanu Drive
6. RBB intersection with Normandie Avenue
7. RBB intersection with Raymond Avenue
8. RBB intersection with Budlong Avenue
9. RBB intersection with Berendo Avenue

Installation of new concrete medians will entail installing new landscaping and Irrigation. Pavement resurfacing will be carried out based on the condition of the existing pavement, and the necessary Access Ramp reconstruction will be done for ADA compliance.

Public Outreach will also be part of the design scope to communicate with residents, business owners and road users to outline the project's goals and minimize the impact of construction activities.

FINANCIAL IMPACT/COST:
Budget Amount : $5,567,000.00 (Design and Construction)
Funding Source : Measure M (Multiyear Sub regional Program)

ATTACHMENTS:
Funding Agreement- MM5507.04 w Attachments (003).pdf
Project Location.pdf

APPROVED:



_____
Clint Osorio, City Manager

MEASURE M FUNDING AGREEMENT
MULTI-YEAR SUBREGIONAL PROGRAMS

This Funding Agreement ("FA") is made and entered into effective as of December 15, 2020 ("Effective Date"), and is by and between the Los Angeles County Metropolitan Transportation Authority ("LACMTA") and City of Gardena ("GRANTEE") for Redondo Beach Blvd Arterial Improvements, LACMTA Project ID# MM5507.04 and FTIP# LA9918951, (the "Project"). This Project is eligible for funding under Line 63of the Measure M Expenditure Plan.

WHEREAS, LACMTA adopted Ordinance #16-01, the Los Angeles County Traffic Improvement Plan, on June 23, 2016 (the "Ordinance"), which Ordinance was approved by the voters of Los Angeles County on November 8, 2016 as "Measure M" and became effective on July 1, 2017.

WHEREAS, the funding set forth herein is intended to fund Project Approval/Environmental Document (PAED), Plans, Specifications and Estimates (PS&E), and Construction of the Project.

WHEREAS, the LACMTA Board, at its August 27, 2020 meeting, programmed $5,567,000, in Measure M Funds to GRANTEE for PAED, PS&E, and Construction subject to the terms and conditions contained in this FA; and

WHEREAS, the Funds are currently programmed as follows: $104,000 in Measure M Funds in Fiscal Years (FY) FY 2020-21; $516,000 in Measure M Funds in FY 2021-22; $2,320,000 in Measure M Funds in FY 2022-23; and $2,627,000 in Measure M Funds in FY 2023-24. The total designated for PAED, PS&E, and Construction of the Project is $5,567,000.

NOW, THEREFORE, the parties hereby agree as follows:

The terms and conditions of this FA consist of the following and each is incorporated by reference herein as if fully set forth herein:

1. Part I – Specific Terms of the FA
2. Part II – General Terms of the FA
3. Attachment A – Project Funding
4. Attachment B – Expenditure Plan- Cost & Cash Flow Budget
5. Attachment C – Scope of Work
6. Attachment D – Project Reporting and Expenditure Guidelines
7. Attachment D-1 – intentionally omitted
8. Attachment D-2 – Quarterly Progress/Expenditure Report
9. Attachment E – Federal Transportation Improvement Program (FTIP) Sheet
10. Attachment F – Bond Requirements
11. Any other attachments or documents referenced in the above documents

In the event of a conflict, the Special Grant Conditions, if any, shall prevail over the Specific Terms of the FA and any attachments and the Specific Terms of the FA shall prevail over the General Terms of the FA.

IN WITNESS WHEREOF, the parties have caused this FA to be executed by their duly authorized representatives as of the dates indicated below:

LACMTA:

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

By: _____ Date: _____
Phillip A. Washington
Chief Executive Officer

APPROVED AS TO FORM:

RODRIGO A. CASTRO-SILVA
County Counsel

By: _____ Date: 3/12/2021
Deputy

GRANTEE:

CITY OF GARDENA

By: _____ Date: _____
Clint Osorio
City Manager

APPROVED AS TO FORM:

Type text here

By: _____ Date: _____
Carmen Vasquez
City Attorney

PART I
SPECIFIC TERMS OF THE FA

1. Title of the Project (the "Project"): Redondo Beach Blvd Arterial Improvements – Project Approval/Environmental Document (PAED), Plans, Specifications and Estimates (PS&E), and Construction of the Project. LACMTA Project ID# MM5507.04, FTIP# LA9918951.

2. Grant Funds:

2.1 Programmed Funds for this Project consist of Measure M Funds.

2.2 To the extent the Measure M Funds are available; LACMTA shall make to GRANTEE a grant of the Measure M funds in the amount of $5,567,000 (the "Fund") for the Project. LACMTA Board of Directors' action of August 27, 2020 granted the Measure M Funds for the Project. The Funds are programmed over 4 years for Fiscal Years (FY) FY 2020-21, FY 2021-22, FY 2022-23, and FY 2023-24.

3. This grant shall be paid on a reimbursement basis. GRANTEE must provide the appropriate supporting documentation with the Quarterly Progress/Expenditure Report. GRANTEE Funding Commitment, if applicable, must be spent in the appropriate proportion to the Funds with each quarter's expenditures. LACMTA will withhold five percent (5%) of eligible expenditures per invoice as retention pending an audit of expenditures and completion of scope of work.

4. **Attachment A** the "Project Funding" documents all sources of funds programmed for the Project as approved by LACMTA. The Project Funding includes the total programmed funds for the Project, including the Funds programmed by LACMTA and, if any, the GRANTEE Funding Commitment of other sources of funding. The Project Funding also includes the fiscal years in which all the funds for the Project are programmed. The Funds are subject to adjustment by subsequent LACMTA Board Action.

5. **Attachment B** is the Expenditure Plan- Cost & Cash Flow Budget (the "Expenditure Plan"). It is the entire proposed cash flow, the Budget and financial plan for the Project, which includes the total sources of all funds programmed to the Project, including GRANTEE and other entity funding commitments, if any, for this Project as well as the fiscal year and quarters the Project funds are anticipated to be expended. GRANTEE shall update the Expenditure Plan annually, no later than December 31, and such update shall be submitted to LACMTA's Senior Executive Officer managing the Measure M Multi-Year Subregional Program in writing. If the LACMTA's Senior Executive Officer managing the Measure M Multi-Year Subregional Program concurs with such updated Expenditure Plan in writing, Attachment B shall be replaced with the new Attachment B setting forth the latest approved Expenditure Plan. Payments under this FA shall be consistent with Attachment B as revised from time to time. Any change to the final milestone date must be made by a fully executed amendment to this FA.

6. **Attachment C** is the "Scope of Work". The GRANTEE shall complete the Project as described in the Scope of Work. This Scope of Work shall include a detailed description of the Project and the work to be completed, including anticipated Project milestones and a schedule consistent with the lapsing policy in Part II, Section 9, and a description of the Project limits, if the Project is a capital project. No later than December 31 of each year, GRANTEE shall notify LACMTA if there are any changes to the final milestone date set forth in the schedule or any changes to the Scope of Work. If LACMTA agrees to such changes, the parties shall memorialize such changes in an amendment to this FA. Work shall be delivered in accordance with the schedule and scope identified in this FA unless otherwise agreed to by the parties in writing in an amendment to this FA. If GRANTEE fails to meet milestones or in deliver of the Project, LACMTA will have the option to suspend or terminate the FA for default as described in Part II, Sections 2, 9, 10 and 11 herein below. To the extent interim milestone dates are not met but GRANTEE believes and can show documentation acceptable to LACMTA supporting GRANTEE's ability to make up the time so as to not impact the final milestone date, GRANTEE shall notify LACMTA of such changes in its Quarterly Progress/Expenditure Reports and such interim milestone dates will automatically be amended to the latest interim milestone dates provided in the Quarterly Progress/Expenditure Reports Attachment D-2. In no event can the final milestone date be amended by a Quarterly Progress/Expenditure Report.

7. No changes to this FA, including but not limited to the Funds, and any other source of funds from LACMTA in the Project Funding, Expenditure Plan or the Scope of Work shall be allowed without an amendment to the original FA, approved and signed by both parties.

8. **Attachment D** is the "Project Reporting & Expenditure Guidelines". GRANTEE shall complete the "Quarterly Progress/Expenditure Report". The Quarterly Progress/Expenditure Report is attached to this FA as Attachment D-2 in accordance with Attachment D – Project Reporting and Expenditure Guidelines.

9. **Attachment E**, the "FTIP PROJECT SHEET (PDF)", is required to ensure that the Project is programmed correctly in the most up-to-date FTIP document. The FTIP PROJECT SHEET (PDF) can be found in ProgramMetro FTIP database under the reports section at http://program.metro.net. All projects that receive funding through Measure M must be programmed into the FTIP, which includes locally funded regionally significant projects for information and air quality modeling purposes. GRANTEE shall review the Project in ProgramMetro each year and update or correct the Project information as necessary during a scheduled FTIP amendment or adoption. GRANTEE will be notified of amendments and adoptions to the FTIP via e-mail. Changes to the FTIP through ProgramMetro should be made as soon as possible after GRANTEE is aware of any changes to the Project, but no later than October 1 of the year the change or update is effective. Should GRANTEE fail to meet this date, it may affect GRANTEE's ability to access funding, delay the Project and may ultimately result in the Funds being lapsed.

10. LACMTA anticipates it may need to avail itself of lower cost bonds or other debt, the interest on which is tax exempt for federal tax purposes (collectively, the "Bonds") to provide at least a portion of its funding commitments under this Agreement to GRANTEE. GRANTEE shall ensure that the expenditure of the Funds disbursed to GRANTEE does not jeopardize the tax-exemption of the interest, as specified in the Bond Requirements attached

as **Attachment F** to this Agreement. GRANTEE agrees to provide LACMTA with progress reports, expenditure documentation, and any other documentation as reasonably requested by LACMTA and necessary for LACMTA to fulfill its responsibilities as the grantee or administrator or bond issuer of the Funds. With regard to LACMTA debt financing to provide any portion of the Funds, GRANTEE shall take all reasonable actions as may be requested of it by LACMTA's Project Manager for the Project, to assist LACMTA in demonstrating and maintaining over time, compliance with the relevant sections of the Federal Tax Code to maintain such Bonds' tax status.

11. GRANTEE shall comply with the "Special Grant Conditions" attached as **Attachment G**, if any.

12. No changes to the (i) Grant amount, (ii) Project Funding, (iii) the Scope of Work (except as provided herein), (iv) Final milestone date or (v) Special Grant Conditions, shall be allowed without a written amendment to this FA, approved and signed by the LACMTA Chief Executive Officer or his/her designee and GRANTEE. Modifications that do not materially affect the terms of this FA, such as redistributing Funds among existing budget line items or non-material schedule changes must be formally requested by GRANTEE and approved by LACMTA in writing. Non-material changes are those changes which do not affect the grant amount or its schedule, Project Funding, or the Scope of Work, including the Work schedule.

13. LACMTA's Address:

Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012
Attention: Isidro Panuco
LACMTA Project Manager
Mail Stop: 99-18-2
Phone: (213) 418-3208
Email: PanucoI@metro.net

14. GRANTEE's Address:

City of Gardena
1717 West 162nd Street
Gardena, CA 90247
Attention: William Mendoza
Phone: (310) 217- 9608
Email: wmendoza@cityofgardena.org

PART II
GENERAL TERMS OF THE FA

1. TERM

The term of this FA shall commence on the Effective Date of this FA, and shall terminate upon the occurrence of all of the following, unless terminated earlier as provided herein: (i) the agreed upon Scope of Work has been completed; (ii) all LACMTA audit and reporting requirements have been satisfied; and (iii) the final disbursement of the Funds has been made to GRANTEE. All eligible Project expenses as defined in the Reporting and Expenditure Guidelines (Attachment D), incurred after the FA Effective Date shall be reimbursed in accordance with the terms and conditions of this FA unless otherwise agreed to by the parties in writing.

2. SUSPENSION OR TERMINATION

Should LACMTA determine there are insufficient Measure M Funds available for the Project, LACMTA may suspend or terminate this FA by giving written notice to GRANTEE at least thirty (30) days in advance of the effective date of such suspension or termination. If a Project is suspended or terminated pursuant to this section, LACMTA will not reimburse GRANTEE any costs incurred after that suspension or termination date, except those costs necessary to: (i) return any facilities modified by the Project construction to a safe and operable state; and (ii) suspend or terminate the construction contractor's control over the Project. LACMTA's share of these costs will be consistent with the established funding percentages outlined in this FA.

3. INVOICE BY GRANTEE

Unless otherwise stated in this FA, the Quarterly Progress/Expenditure Report, with supporting documentation of expenses, Project progress and other documents as required, which has been pre-approved by LACMTA, all as described in Part II, Section 6.1 of this FA, shall satisfy LACMTA invoicing requirements. Grantee shall only submit for payment the LACMTA pre-approved Quarterly Progress/Expenditure Report Packets to the LACMTA Project Manager at the email address shown in Part I and to LACMTA Accounts Payable Department as shown below.

Submit invoice with supporting documentation to:
ACCOUNTSPAYABLE@METRO.NET (preferable)
or
mail to:
Los Angeles County Metropolitan Transportation Authority
Accounts Payable
P. O. Box 512296
Los Angeles, CA 90051-0296
All invoice material must contain the following information:
Re: LACMTA Project ID# MM5507.04 and FA# 9200000000M550704
Isidro Panuco; Mail Stop 99-18-2

4. USE OF FUNDS

4.1 GRANTEE shall utilize the Funds to complete the Project as described in the Scope of Work and in accordance with the Reporting and Expenditure Guidelines, the specifications for use for the transportation purposes described in the Ordinance, the Guidelines and the Multi-Year Subregional Programs Administrative Procedures.

4.2 Attachment C shall constitute the agreed upon Scope of Work between LACMTA and GRANTEE for the Project. The Funds, as granted under this FA, can only be used towards the completion of the Scope of Work detailed in Attachment C.

4.3 GRANTEE shall not use the Funds to substitute for any other funds or projects not specified in this FA. Further, GRANTEE shall not use the Funds for any expenses or activities above and beyond the approved Scope of Work (Attachment C) without an amendment to the FA approved and signed by the LACMTA Chief Executive Officer or his Designee. To the extent LACMTA provides GRANTEE with bond or commercial paper proceeds, such Funds may not be used to reimburse for any costs that jeopardize the tax exempt nature of such financings as reasonably determined by LACMTA and its bond counsel.

4.4 GRANTEE must use the Funds in the most cost-effective manner. If GRANTEE intends to use a consultant or contractor to implement all or part of the Project, LACMTA requires that such activities be procured in accordance with GRANTEE's contracting procedures and consistent with State law as appropriate. GRANTEE will also use the Funds in the most cost-effective manner when the Funds are used to pay "in-house" staff time. This effective use of funds provision will be verified by LACMTA through on-going Project monitoring and through any LACMTA interim and final audits.

4.5 GRANTEE'S employee, officers, councilmembers, board member, agents, or consultants (a "GRANTEE Party") are prohibited from participating in the selection, award, or administration of a third-party contract or sub-agreement supported by the Funds if a real or apparent conflict of interest would be involved. A conflict of interest would include, without limitation, an organizational conflict of interest or when any of the following parties has a financial or other interest in any entity selected for award: (a) a GRANTEE Party (b) any member of a GRANTEE Party's immediate family, (c) a partner of a GRANTEE Party; (d) any organization that employs or intends to employ any of the above. This conflict of interest provision will be verified by LACMTA through on-going Project monitoring and through any LACMTA interim and final audits.

4.6 If a facility, equipment (such as computer hardware or software), vehicle or property, purchased or leased using the Funds, ceases to be used for the proper use as originally stated in the Scope of Work, or the Project is discontinued, any Funds expended for that purpose must be returned to LACMTA as follows: GRANTEE shall be required to repay the Funds in proportion to the useful life remaining and in an equal proportion of the grant to GRANTEE Funding Commitment ratio.

4.7 If the Project requires the implementation of an Intelligent Transportation Systems ("ITS") project, GRANTEE shall ensure the Project is consistent with

the Regional ITS Architecture. Attachment G (double check on the Attachment number, if multiple Special Conditions), the Los Angeles County Regional ITS Architecture (CONNECT-IT) Consistency Self-Certification Form, must be completed and signed for planned ITS projects and/or ITS projects that use local, state, or federal funds programmed or administered through LACMTA. Refer to www.laconnect-it.com to find information about the CONNECT-IT Service Packages.

4.8 If any parking facilities are designed and/or constructed using the Funds, GRANTEE shall coordinate with LACMTA parking program staff (see www.metro.net for staff listing) in the planning, design and management of the facility and shall ensure that its implementation is consistent with the LACMTA adopted parking policy. For the parking policy, see http://media.metro.net/projects_studies/call_projects/images/09%20Appendix%20D%20Parking%20Policy.pdf

5. REIMBURSEMENT OF FUNDS

Funds will be released on a reimbursement basis in accordance with invoices submitted in support of the Quarterly Progress/Expenditure Reports. LACMTA will make all disbursements electronically unless an exception is requested in writing. Reimbursements via Automated Clearing House (ACH) will be made at no cost to GRANTEE. GRANTEE must complete the ACH form and submit such form to LACMTA before grant payments can be made. ACH Request Forms can be found at www.metro.net/projects/call_projects/call_projects-reference-documents/. GRANTEE must provide detailed supporting documentation with its Quarterly Progress/Expenditure Reports. GRANTEE Funding Commitment, if any, must be spent in direct proportion to the Funds with each quarter's payment.

6. REPORTING AND AUDIT REQUIREMENTS/PAYMENT ADJUSTMENTS

6.1 GRANTEE shall submit the draft of Quarterly Progress/Expenditure Report (Attachment D-2) within sixty (60) days after the close of each quarter on the last day of the months November, February, May and August to the LACMTA Project Manager for review and pre-approval of the applicable report. LACMTA Project Manager shall review and respond in writing to the draft Quarterly Progress/Expenditure Report within thirty (30) calendar days from receipt. Grantee shall submit the LACMTA pre-approved Quarterly Progress/Expenditure Report no later than five (5) days after receipt of LACMTA's written approval. Should GRANTEE fail to submit either the draft or pre-approved reports within five (5) days of the due date and/or submit incomplete reports, LACMTA will not reimburse GRANTEE until the completed required reports are received, reviewed, and approved. The Quarterly Progress/Expenditure Reports shall include all appropriate documentation (such as contractor invoices, timesheets, receipts, etc.), and any changes to interim milestone dates that do not impact the final milestone date. All supporting documents must include a clear justification and explanation of their relevance to the Project. If no activity has occurred during a particular quarter, GRANTEE will still be required to submit the Quarterly Progress/Expenditure Reports indicating no dollars were expended that quarter. If a request for reimbursement exceeds $500,000 in a single month, then GRANTEE can submit such an invoice once per month with supporting documentation. Expenses that are not invoiced to LACMTA Accounts Payable

within ninety (90) days after the lapsing date specified in Part II, Section 9.1 below are not eligible for reimbursement.

6.2 GRANTEE shall submit the Project expenditure estimates for the subsequent fiscal year by February of each year. LACMTA will use the estimates to determine the Project budget for the upcoming fiscal year.

6.3 LACMTA, and/or its designee, shall have the right to conduct audits of the Project as deemed appropriate, such as financial and compliance audits, interim audits, pre-award audits, performance audits and final audits. LACMTA will commence a final audit within six months of receipt of acceptable final invoice, provided the Project is ready for final audit (meaning all costs and charges have been paid by GRANTEE and invoiced to LACMTA, and such costs, charges and invoices are properly documented and summarized in the accounting records to enable an audit without further explanation or summarization including actual indirect rates for the period covered by the FA period under review). GRANTEE agrees to establish and maintain proper accounting procedures and cash management records and documents in accordance with Generally Accepted Accounting Principles (GAAP). GRANTEE shall reimburse LACMTA for any expenditure not in compliance with the Scope of Work and/or not in compliance with other terms and conditions of this FA. The allowability of costs for GRANTEE's own expenditures submitted to LACMTA for this Project shall be in compliance with Office of Management and Budget (OMB) Circular A-87. The allowability of costs for GRANTEE's contractors, consultants and suppliers expenditures submitted to LACMTA through GRANTEE's Quarterly Progress/Expenditures shall be in compliance with OMB Circular A-87 or Federal Acquisition Regulation (FAR) Subpart 31 and 2 CFR Subtitle A, Chapter II, Part 225 (whichever is applicable). Findings of the LACMTA audit are final. When LACMTA audit findings require GRANTEE to return monies to LACMTA, GRANTEE agrees to return the monies within thirty (30) days after the final audit is sent to GRANTEE.

6.4 GRANTEE's records shall include, without limitation, accounting records, written policies and procedures, contract files, original estimates, correspondence, change order files (including documentation covering negotiated settlements), invoices, and any other supporting evidence deemed necessary by LACMTA to substantiate charges related to the Project (all collectively referred to as "records"). Such records shall be open to inspection and subject to audit and reproduction by LACMTA auditors or authorized representatives to the extent deemed necessary by LACMTA to adequately permit evaluation of expended costs. Such records subject to audit shall also include, without limitation, those records deemed necessary by LACMTA to evaluate and verify, direct and indirect costs, (including overhead allocations) as they may apply to costs associated with the Project. These records must be retained by GRANTEE for three years following final payment under this Agreement. Payment of retention amounts shall not occur until after the LACMTA's final audit is completed.

6.5 GRANTEE shall cause all contractors to comply with the requirements of Part II, Section 6, paragraphs 6.3 and 6.4 above. GRANTEE shall cause all contractors to cooperate fully in furnishing or in making available to LACMTA all records deemed necessary by LACMTA auditors or authorized representatives related to the Project.

6.6 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall be afforded access to all GRANTEE's records and its contractors related to the Project, and shall be allowed to interview any employee of GRANTEE and its contractors through final payment to the extent reasonably practicable.

6.7 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall have access to the offices of GRANTEE and its contractors, shall have access to all necessary records, including reproduction, at no charge to LACMTA, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the terms and conditions of this FA.

6.8 When business travel associated with the Project requires use of a vehicle, the mileage incurred shall be reimbursed at the mileage rates set by the Internal Revenue Service, as indicated in the United States General Services Administration Federal Travel Regulation, Privately Owned Vehicle Reimbursement Rates.

6.9 GRANTEE shall be responsible for ensuring all contractors/ subcontractors for the Project comply with the terms of the Ordinance, the Guidelines and the Multi-Year Subregional Programs Administrative Procedures. GRANTEE shall cooperate with LACMTA Management Audit Services Department such that LACMTA can meet its obligations under the Ordinance, the Guidelines and the Multi-Year Subregional Programs Administrative Procedures.

6.10 GRANTEE shall certify each invoice by reviewing all subcontractor costs and maintaining internal control to ensure that all expenditures are allocable, allowable and reasonable and in accordance with OMB A-87 or FAR subpart 31 and 2 CFR Subtitle A, Chapter II, part 225, (whichever is applicable) and the terms and conditions of this FA.

6.11 GRANTEE shall also certify final costs of the Project to ensure all costs are in compliance with OMB A-87 or FAR subpart 31 and 2 CFR Subtitle A, Chapter II, part 225, (whichever is applicable) and the terms and conditions of this FA.

6.12 In addition to LACMTA's other remedies as provided in this FA, LACMTA may withhold the Funds if the LACMTA audit has determined that GRANTEE failed to comply with the Scope of Work (such as misusing Funds or failure to return Funds owed to LACMTA in accordance with LACMTA audit findings) and /or is severely out of compliance with other terms and conditions as defined by this FA, including the access to records provisions of Part II, Section 6.

7. GRANT

This is a one-time only grant of the Measure M Funds subject to the terms and conditions agreed to herein. This grant does not imply nor obligate any future funding commitment on the part of LACMTA.

8. SOURCES AND DISPOSITION OF FUNDS

8.1 The obligation for LACMTA to grant the Funds for the Project is subject to sufficient Funds being made available for the Project by the LACMTA Board of Directors. If such Funds are not made available as anticipated from Measure M Program revenues, LACMTA will have the right to adjust the cash flow accordingly until such funds become available. LACMTA shall have no obligation to provide any other funds for the Project, unless otherwise agreed to in writing by LACMTA.

8.2 GRANTEE shall fully fund and contribute the GRANTEE Funding Commitment, if any is identified in the Project Funding (Attachment A), towards the cost of the Project. If the Funds identified in Attachment A are insufficient to complete the Project, GRANTEE agrees to secure and provide such additional non-LACMTA programmed funds necessary to complete the Project.

8.3 GRANTEE shall be responsible for any and all cost overruns for the Project pursuant to Section 8.2.

8.4 GRANTEE shall be eligible for the Funds up to the grant amount specified in Part I, Section 2 of this FA subject to the terms and conditions contained herein. Any Funds expended by GRANTEE prior to the Effective Date of this FA shall not be reimbursed nor shall they be credited toward the GRANTEE Funding Commitment requirement, without the prior written consent of LACMTA. GRANTEE Funding Commitment dollars expended prior to the year the Funds are awarded shall be spent at GRANTEE's own risk, or as delineated in a Letter of No Prejudice executed by the prospective GRANTEE and LACMTA.

8.5 If GRANTEE receives outside funding for the Project in addition to the Funds identified in the Project Funding and the Expenditure Plan at the time this grant was awarded, this FA shall be amended to reflect such additional funding. If, at the time of final invoice or voucher, funding for the Project (including the Funds, GRANTEE Funding Commitment, and any additional funding) exceeds the actual Project costs, then the cost savings shall be applied in the same proportion as the sources of funds from each party to this FA as specified in the Project Funding and both the Funds and GRANTEE Funding Commitment required for the Project shall be reduced accordingly. LACMTA shall have the right to use any cost savings associated with the Funds at its sole discretion, including, without limitation, programming the unused Funds to another project or to another grantee within the subregion in accordance with the Ordinance, the Guidelines and the Multi-Year Subregional Programs Administrative Procedures. If, at the time of final voucher, it is determined that GRANTEE has received Funds in excess of what GRANTEE should have received for the Project, GRANTEE shall return such overage to LACMTA within 30 days from final voucher.

9. TIMELY USE OF FUNDS / REPROGRAMMING OF FUNDS

9.1 GRANTEE must demonstrate timely use of the Funds by:

(i) Executing this FA within **ninety (90) days** of receiving formal transmittal of the FA from LACMTA, or by December 31 of the

first Fiscal Year in which the Funds are programmed, whichever date is later; and

(ii) Beginning Project Design, Preliminary Engineering-(PE) within **six (6) months** from completion of environmental clearance, if appropriate.

(iii) Executing Contracts for Construction or Capital purchase within **twelve (12) months** from the date of completion of design; and

(iv) Delivering Work in accordance with schedule; changes to the schedule will require an Amendment to Attachment C to reflect updated milestone dates. Meeting the Project milestone due dates as agreed upon by the LACMTA and GRANTEE in Attachment C of this FA; and

(v) Submitting the Quarterly Progress/Expenditure Reports as described in Part II, Section 6.1 of this FA; and

(vi) Expending the Funds granted under this FA for allowable costs within **three years or 36 months** from July 1 of the Fiscal Year in which the Funds are programmed, unless otherwise stated in this FA. All Funds programmed for FY 2020-21 are subject to lapse by June 30, 2023. All Funds programmed for FY 2021-22 are subject to lapse by June 30, 2024. All Funds programmed for FY 2022-23 are subject to lapse by June 30, 2025. All Funds programmed for FY 2023-24 are subject to lapse by June 30, 2026.

9.2 In the event that the timely use of the Funds is not demonstrated as described in Part II, Section 9.1 of this FA, the Project will be reevaluated by LACMTA as part of its Annual Update process and the Funds may be reprogrammed to another project by the LACMTA Board of Directors in accordance with the Ordinance, the Guidelines and the Multi-Year Subregional Programs Administrative Procedures. In the event that all the Funds are reprogrammed, this FA shall automatically terminate.

10. DEFAULT

A Default under this FA is defined as any one or more of the following: (i) GRANTEE fails to comply with the terms and conditions contained herein; and/or (ii) GRANTEE fails to perform satisfactorily or make material changes, as determined by LACMTA at its sole discretion, to the Expenditure Plan, the Scope of Work, or the Project Funding without LACMTA's prior written consent or approval as provided herein.

11. REMEDIES

11.1 In the event of a Default by GRANTEE, LACMTA shall provide written notice of such Default to GRANTEE with a 30-day period to cure the Default. In the event GRANTEE fails to cure the Default, or commit to cure the Default and commence the same within such 30-day period to the satisfaction of LACMTA, LACMTA shall have the following remedies: (i) LACMTA may terminate this FA; (ii) LACMTA may make no further disbursements of Funds to GRANTEE; and/or (iii) LACMTA may recover from GRANTEE any Funds disbursed to GRANTEE as allowed by law or in equity.

11.2 Effective upon receipt of written notice of termination from LACMTA, GRANTEE shall not undertake any new work or obligation with respect to this FA unless so directed by LACMTA in writing. Any Funds expended after termination shall be the sole responsibility of GRANTEE.

11.3 The remedies described herein are non-exclusive. LACMTA shall have the right to enforce any and all rights and remedies herein or which may be now or hereafter available at law or in equity.

12. COMMUNICATIONS

12.1 GRANTEE shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project as more particularly set forth in "Funding Recipient Communications Guidelines" available online at http://metro.net/partners-civic. The Funding Recipient Communications Guidelines may be changed from time to time during the course of this Agreement. GRANTEE shall be responsible for complying with the latest Funding Recipient Communications Guidelines during the term of this Agreement, unless otherwise specifically authorized in writing by the LACMTA Chief Communications Officer.

12.2 For purposes of this Agreement, "Communications Materials" include, but are not limited to, press events, public and external newsletters, printed materials, advertising, websites radio and public service announcements, electronic media, and construction site signage. A more detailed definition of "Communications Materials" is found in the Funding Recipient Communications Guidelines.

12.3 The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines. The preferred logo lock-up for Funding Recipients to use is included in the Funding Recipient Communications Guidelines.

12.4 GRANTEE shall ensure that any subcontractor, including, but not limited to, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials for public and external purposes will comply with the requirements contained in this Section.

12.5 The LACMTA Project Manager shall be responsible for monitoring GRANTEE's compliance with the terms and conditions of this Section. GRANTEE's failure to comply with the terms of this Section shall be deemed a default hereunder and LACMTA shall have all rights and remedies set forth herein.

13. OTHER TERMS AND CONDITIONS

13.1 This FA, along with its Attachments, constitutes the entire understanding between the parties, with respect to the subject matter herein. The FA shall not be amended, nor any provisions or breach hereof waived, except in writing signed by the parties who agreed to the original FA or the same level of authority. Adoption of revisions or supplements to the Guidelines shall cause such revisions or supplements to become incorporated automatically into this Agreement as though fully set forth herein.

13.2 GRANTEE is obligated to continue using the Project dedicated to the public transportation purposes for which the Project was initially approved. The Project right-of-way, the Project facilities constructed or reconstructed on the Project site, and/or Project property purchased, excluding construction easements and excess property (whose proportionate proceeds shall be distributed in an equal proportion of the grant to GRANTEE Funding Commitment ratio), shall remain dedicated to public transportation use in the same proportion and scope and to the same extent as described in this FA. Equipment acquired as part of the Project, including office equipment, vehicles, shall be dedicated to that use for their full economic life cycle, including any extensions of that life cycle achieved by reconstruction, rehabilitation, or enhancements.

13.3 In the event that there is any legal court (e.g., Superior Court of the State of California, County of Los Angeles, or the U.S. District Court for the Central District of California) proceeding between the parties to enforce or interpret this FA, to protect or establish any rights or remedies hereunder, the prevailing party shall be entitled to its costs and expenses, including reasonable attorney's fees.

13.4 Neither LACMTA nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or committed to be done by GRANTEE under or in connection with any work performed by and or service provided by GRANTEE, its officers, agents, employees, contractors and subcontractors under this FA. GRANTEE shall fully indemnify, defend and hold LACMTA and its subsidiaries, and its officers, agents and employees harmless from and against any liability and expenses, including without limitation, defense costs, any costs or liability on account of bodily injury, death or personal injury of any person or for damage to or loss of risk of property, any environmental obligation, any legal fees and any claims for damages of any nature whatsoever arising out of the Project, including without limitation: (i) use of the Funds by GRANTEE, or its officers, agents, employees, contractors or subcontractors; (ii) breach of GRANTEE's obligations under this FA; or (iii) any act or omission of GRANTEE, or its officers, agents, employees, contractors or subcontractors in the performance of the work or the provision of the services, in connection with the Project including, without limitation, the Scope of Work, described in this FA.

13.5 Neither party hereto shall be considered in default in the performance of its obligation hereunder to the extent that the performance of any such obligation is prevented or delayed by unforeseen causes including acts of God, acts of a public enemy, and government acts beyond the control and without fault or negligence of the affected party. Each party hereto

shall give notice promptly to the other of the nature and extent of any such circumstances claimed to delay, hinder, or prevent performance of any obligations under this FA.

13.6 GRANTEE shall comply with and ensure that work performed under this FA is done in compliance with Generally Accepted Accounting Principles (GAAP), all applicable provisions of federal, state, and local laws, statutes, ordinances, rules, regulations, and procedural requirements including Federal Acquisition Regulations (FAR), and the applicable requirements and regulations of LACMTA. GRANTEE acknowledges responsibility for obtaining copies of and complying with the terms of the most recent federal, state, or local laws and regulations, and LACMTA requirements including any amendments thereto.

13.7 GRANTEE agrees that the applicable requirements of this FA shall be included in every contract entered into by GRANTEE or its contractors relating to work performed under this FA and LACMTA shall have the right to review and audit such contracts.

13.8 GRANTEE shall not assign this FA, or any part thereof, without prior approval of the LACMTA Chief Executive Officer or his designee. Any assignment by GRANTEE without said prior consent by LACMTA shall be void and unenforceable.

13.9 This FA shall be governed by California law. If any provision of this FA is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

13.10 The covenants and agreements of this FA shall inure to the benefit of, and shall be binding upon, each of the parties and their respective successors and assigns.

13.11 GRANTEE will advise LACMTA prior to any key Project staffing changes. Notice will be given to the parties at the address specified in Part I, unless otherwise notified in writing of change of address or contact person.

13.12 GRANTEE, in the performance of the work described in this FA, is not a contractor nor an agent or employee of LACMTA. GRANTEE attests to no organizational or personal conflicts of interest and agrees to notify LACMTA immediately in the event that a conflict, or the appearance thereof, arises. GRANTEE shall not represent itself as an agent or employee of LACMTA and shall have no powers to bind LACMTA in contract or otherwise.

ATTACHMENT A -PROJECT FUNDING

Measure M MSP Program - Funding Agreement Projects - FA# 9200000000M550704

Project Title: Redondo Beach Blvd Arterial Improvements Project#: MM5507.04

PROGRAMMED BUDGET - SOURCES OF FUNDS

SOURCES OF FUNDS	Prior Years	FY2019-20	FY 2020-21	FY2021-22	FY2022-23	FY2023-24	Total Budget	% of Budget
LACMTA PROGRAMMED FUNDING								
MEASURE M MSP FUNDS			$ 104,000	$ 516,000	$ 2,320,000	$ 2,627,000	$ 5,567,000	
SUM PROG LACMTA FUNDS	$ -	$ -	$ 104,000	$ 516,000	$ 2,320,000	$ 2,627,000	$ 5,567,000	100%
OTHER NON LACMTA FUNDING:								
LOCAL:							$ -	0%
STATE:							$ -	0%
FEDERAL:							$ -	0%
PRIVATE OR OTHER:							$ -	0%
SUM NON-LACMTA FUNDS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0
TOTAL PROJECT FUNDS	$ -	$ -	$ 104,000	$ 516,000	$ 2,320,000	$ 2,627,000	$ 5,567,000	100%

Use Actual $$$

ATTACHMENT B - EXPENDITURE PLAN COST & CASH FLOW BUDGET

Measure M MSP Program - Funding Agreement Projects - FA# 9200000000M550704
Project Title: Redondo Beach Blvd Arterial Improvements Project#:MM5507.04

PROGRAMMED SOURCES OF FUNDS

SOURCES OF FUNDS	FY 2020-21 Qtr 1	FY 2020-21 Qtr 2	FY 2020-21 Qtr 3	FY 2020-21 Qtr 4	FY 2021-22 Qtr 1	FY 2021-22 Qtr 2	FY 2021-22 Qtr 3	FY 2021-22 Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE M MSP FUNDS:									
Planning Activities/Prog Dev									$0
Environmental					$3,000				$3,000
Design and PS&E					$40,000	$120,000	$120,000	$120,000	$400,000
Right-of-Way Acquisition									$0
Construction									$0
Vehicle Purchase									$0
Others									$0
Total Measure M	$0	$0	$0	$0	$43,000	$120,000	$120,000	$120,000	$403,000
SUM PROG LACMTA FUNDS:	$0	$0	$0	$0	$43,000	$120,000	$120,000	$120,000	$403,000
SUM NON-LACMTA FUNDS :	$0	$0	$0	$0	$0	$0	$0	$0	$0
PROJECT FUNDING FY2020-21 and FY2021-22	$0	$0	$0	$0	$43,000	$120,000	$120,000	$120,000	$403,000

SOURCES OF FUNDS	FY 2022-23 Qtr 1	FY 2022-23 Qtr 2	FY 2022-23 Qtr 3	FY 2022-23 Qtr 4	FY 2023-24 Qtr 1	FY 2023-24 Qtr 2	FY 2023-24 Qtr 3	FY 2023-24 Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE M MSP FUNDS:									
Planning Activities/Prog Dev									$0
Environmental									$0
Design and PS&E	$100,000	$20,000							$120,000
Right-of-Way Acquisition									$0
Construction		$50,000	$50,000	$50,000	$1,850,000	$3,044,000			$5,044,000
Vehicle Purchase									$0
Others									$0
Total MEASURE M	$100,000	$70,000	$50,000	$50,000	$1,850,000	$3,044,000	$0	$0	$5,164,000
SUM PROG LACMTA FUNDS:	$100,000	$70,000	$50,000	$50,000	$1,850,000	$3,044,000	$0	$0	$5,164,000
SUM NON-LACMTA FUNDS :	$0	$0	$0	$0	$0	$0	$0	$0	$0
PROJECT FUNDING FY2022-23 and FY2023-24	$100,000	$70,000	$50,000	$50,000	$1,850,000	$3,044,000	$0	$0	$5,164,000
TOTAL LACMTA FUNDS	$100,000	$70,000	$50,000	$50,000	$1,893,000	$3,164,000	$120,000	$120,000	$5,567,000
TOTAL NON-LACMTA FUNDS	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT FUNDING	$100,000	$70,000	$50,000	$50,000	$1,893,000	$3,164,000	$120,000	$120,000	$5,567,000

ATTACHMENT C
SCOPE OF WORK
CAPITAL PROJECT

PROJECT NAME: Redondo Beach Boulevard Arterial Improvement Project

PROJECT LOCATION/LIMITS/AREA:
The project is located in the City of Gardena, along Redondo Beach Boulevard (RBB). Project limits are from Crenshaw Boulevard to Vermont Avenue approximately 1.9 miles.

PROJECT DESCRIPTION INCLUDING MULTI-YEAR SUBREGIONAL PROGRAM AND PROJECT NEXUS:
The purpose of this project is to improve the flow of traffic and lessen the congestion along RBB and major intersections that feeds to it. The project goal is to lessen, if not eliminate, the conflict between vehicles coming in and out of business/commercial areas and through traffic along RBB.

Redondo Beach Boulevard (RBB), a major arterial road in the City of Gardena, serves as one of the few roads being use by motorists to access the I-110 FWY. The other adjacent access to that freeway are Rosecrans Ave. (more than half a mile to the North) and Artesia Blvd. (approximately 1.4 miles South).

There are 3 west bound lanes from Vermont Ave. and narrow down to 2 lanes after Normandie Ave. all the way to the west end on Crenshaw Blvd. The eastbound lanes start at 2 lanes from Crenshaw Blvd until Normandie Ave. and 3 east bound lanes all the way to Vermont Ave. One of the significant backups occur along the eastbound stretch from La Salle to Normandie Ave.

Queued left turning vehicles overflow in the number 1 lane impeding through traffic along the following intersections:
- Intersection with Van Ness Ave.
- Intersection with Western Ave.
- Intersection with Denker Ave.

A temporary makeshift median was installed on the portion of RBB between Gramercy Place and Crenshaw Blvd. This temporary median was put in place as a safety measure to prevent vehicles from making illegal turns into and out of a popular commercial establishment. This situation has also caused traffic back up on both east and west direction. There are multiple locations along RBB, where there is a high volume/frequency of vehicles turning in or out of commercial establishments making it unsafe for both vehicular and pedestrian traffic. These vehicles turning in and out impedes through traffic.

There are a few existing medians along RBB, they are West of Vermont Ave. (400ft), East of Nuanu Drive (300ft) and on Gramercy place (350ft). All 3 were constructed in various years without any consideration with each other.

PROJECT FUNDING:

PHASE	LACMTA – MEASURE M FUNDS
PAED	$3,000
PS&E	$520,000
R/W Support	
R/W Capital	
Construction Support	$416,000
Construction Capital	$4,628,000
TOTAL BUDGET COST	**$5,567,000**

SCOPE:

The proposed improvements include, but not limited to the following:

- Addition of a 3rd lane on stretches to relieve backup. Stretches where a 3rd lane is physically possible are as follows: La Salle to Normandie Ave. eastbound, Gramercy to Western Ave. eastbound and Crenshaw blvd. to Normandie Ave. west bound. However, the first 2 stretches have the observed back-up and would benefit from the project study. These 3rd lanes would require removal and or re assigning of some street parking, plus all the necessary restriping and readjusting of existing lanes. This should go hand in hand with the traffic signal upgrade on the Normandie Ave. intersection in reducing if not eliminating the backup.

- Upgrade of all Nine (9) existing traffic signal system along RBB and within the project area:
  1. Intersection with Van Ness Ave.
  2. Intersection with Gramercy Place
  3. Intersection with Western Ave.
  4. Intersection with Denker Ave.
  5. Intersection with Nuanu Drive.
  6. Intersection with Normandie Ave.
  7. Intersection with Raymond Ave.
  8. Intersection with Budlong Ave.
  9. Intersection with Berendo Ave.

  These upgrades will bring the traffic signal system to current standards and address timing changes to take into consideration all the added left turn storage and additional lanes. Battery backup will also be incorporated to the traffic signal system to keep the signals running hours after a power interruption.

- Construction of new medians with sufficient storage for left turning vehicles on the intersections where overflowing of queued vehicles are observed at intersection and/or those that will be identified further in the project design study. The medians will also have left turn pockets and openings leading into commercial driveways. The design/project study should balance the locations and number of these openings

with safety, traffic flow and convenience of the motoring public. Physically, the medians can be placed from Normandie to La Salle Ave. and from there all the way to Crenshaw Blvd. New landscaping and irrigation will be installed consistent with the city's Landscape and Hardscape standards. Irrigation POC will be designed and properly balanced.

- Cold mill and overlay. Construction of new medians would result in so many trenches running across from the median to the sidewalk for traffic signal/power source point of connection and irrigation signal and power as well. The additional and/or extended traffic lanes, left turn lanes and new medians entails significant revision to the existing striping. All combined will stress out the finish and condition of the existing pavement making cold mill and overlay a must.

- Installation of ADA ramps and upgrade of existing ones. Relocation or installation of new traffic signal poles will necessitate in retrofitting or in some instances completely rebuilding existing ADA ramps.

DESIGN:
I. Preliminary Design – "Preliminary Design Report" as Final Work Product

Tasks to be performed include, but are not limited to, the following:

A. Account for field visits of the project area to identify design issues. Record existing site conditions in photographs and/or video.
B. Incorporate provided layout plans to be incorporated into the final design.
C. Provide a complete survey of the project area, establishing horizontal and vertical control for the project. Mapping shall include topographic features within 50 feet of project area.
D. Identify and coordinate with all utilities in the project area to facilitate the final design of the Project.
E. Identify street pavement structural sections for project area.
F. Identify all drainage/BMP structure improvements, based upon hydrology, hydraulic calculations and water quality issues. Structural BMPs shall be incorporated into the street design for stormwater quality improvements prior to entering natural waterways.
G. Prepare and submit a Report identifying the ultimate alignment of roadway improvements, as well as the recommended ultimate repair strategy for As part of the Report, the Consultant shall prepare and provide CAD drawings of the proposed alignment, which shall include vertical and horizontal alignment, improvements, and drainage/BMP structures.
H. Prepare and submit an Engineer's construction cost estimate for all recommended improvements identified in the Report.

II. Environmental Analysis Tasks to be performed include, but are not limited to, the following:

A. Coordinate with the City and prepare permit applications/notifications for the Project as applicable.

III. Final Design – Plans, Specifications and Estimates
Tasks to be performed include, but are not limited to, the following: **A.** Prepare civil roadway plans for the required improvements, consistent with City format. At a minimum, the plan set shall include Title Sheet, Site Plan, General Construction Notes, Horizontal Control, Typical Sections and Details, Plan and Profile, Drainage/BMP Structure(s) Details, Traffic Striping/Signage/Signal Plans, Street Lighting/Electrical, Bike Lane Plans, and Median/Landscaping Plans.
B. Submittal of plan set shall be delivered at 50% and 90% complete and final (five (5) sets per submittal). When project is complete, the Consultant shall provide AutoCAD files for all plan sheets.
C. Prepare construction specifications consistent with City format (SSPWC "Greenbook" APWA, current edition with updates.
D. Submittal of specifications shall be delivered to the City at 90% complete and final. When project is complete, the Consultant shall provide a digital file of specification package in Microsoft Word format for Windows.
E. Prepare an engineer's construction cost estimate based on the itemized quantity take-off from the contract documents.
F. Submittal of the engineer's construction cost estimate shall be delivered to the City at 90% complete and final in a spreadsheet format.

IV. Project Management and Preparation of Periodic Updated Schedule, Deliverables and Meetings Tasks to be performed include, but are not limited to, the following:

A. Meet as needed with the City to accomplish Project tasks as outlined. Meetings expected between the Consultant and City, shall be and not be limited to: Project Kick-off Meeting, presentation of "Summary Letter Report", progress meetings and preparation for the Community Information Workshop at 90% design completion.

B. Provide periodic schedule updates on deliverables and meetings as changes to original schedule occur or as needed based on the needs of the project.

CONSTRUCTION:
Grantee expects to provide construction oversight, procure a consultant for construction management, award a contract for construction and to perform the following tasks:
A. Contract with an engineering firm to provide Construction Management for the Project. This will be accomplished through an RFP.
B. Contract with a Contractor for construction.

The Design Consultant shall meet as needed with the Grantee to accomplish Project tasks as outlined. Meetings expected between the Consultant and Grantee shall include, but not be limited to, Pre-Construction Meeting, progress meetings and preparation of responses to RFIs.

MILESTONES: The implementation schedule for this project is as follows:

	START DATE	COMPLETION DATE
SOLICITATION (BID/PROPOSAL)		
Develop Solicitation Package	5/21	5/21
Solicitation Response	6/21	6/21
Evaluations	6/21	6/21
Selection	7/21	7/21
Board Approval	7/21	7/21
Contract Award	8/21	8/21
Fully Executed Contract	9/21	9/21
PRELIMINARY DESIGN		
Prepare Detailed Design Plans	9/21	10/21
Prepare Detailed Construction Plans	11/21	12/21
Prepare Project Cost Estimate	12/21	1/22
Intelligent Transportation System (ITS)		
Concept of Operations		
System Requirements		
High Level Design		
PA&ED		
Prepare Environmental Document Document Type:_____	7/21	7/21
Scoping		
Technical Studies		
Draft Environmental Document		
Final Environmental Document		
Community Outreach		
Secure Project Approval		
Intelligent Transportation System (ITS)		
Categorical Exemption Filing		
PS&E		
35% PS&E	2/21	7/21
Preliminary Investigations		
Preliminary Foundation		
Geometric Drawings		
Bridge Type Selection Roadway and Retrofit Strategy		
ADL Review		
Utilities		
Right-of-Way		
Estimating		
Civic Design		
Structural Design		
Intelligent Transportation System (ITS)		
65% PS&E	8/21	11/21
Civil Design Plans		
Right-of-Way Engineering		
Structural Design		
Prepare Project Cost Estimate		
Intelligent Transportation System (ITS)		
Detailed Design		
ITS Drawings		
System Plans		
Communications Plans		
Systems Integration Plans		

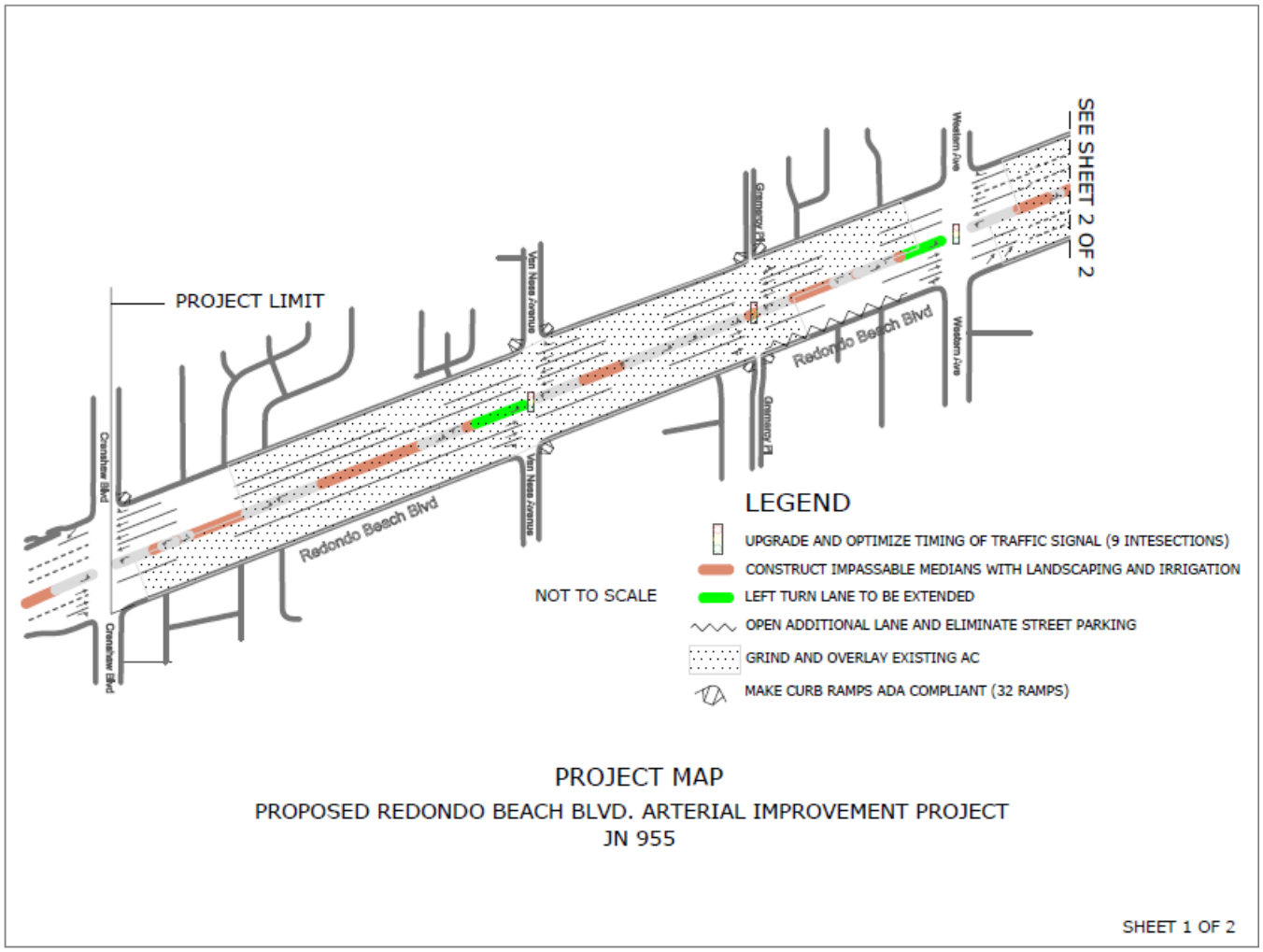
Equipment Specifications		
Software Specifications		
Project Review & Comments		
95% PS&E	12/21	4/22
Civil Design Plans		
Structural Design		
Intelligent Transportation System (ITS)		
Detailed Design		
ITS Drawings		
System Plans		
Communications Plans		
Systems Integrations Plans		
Equipment Specifications		
Software Specifications		
Submittals & Review		
Submit Final PS&E	5/22	8/22
Outside Agency Review		

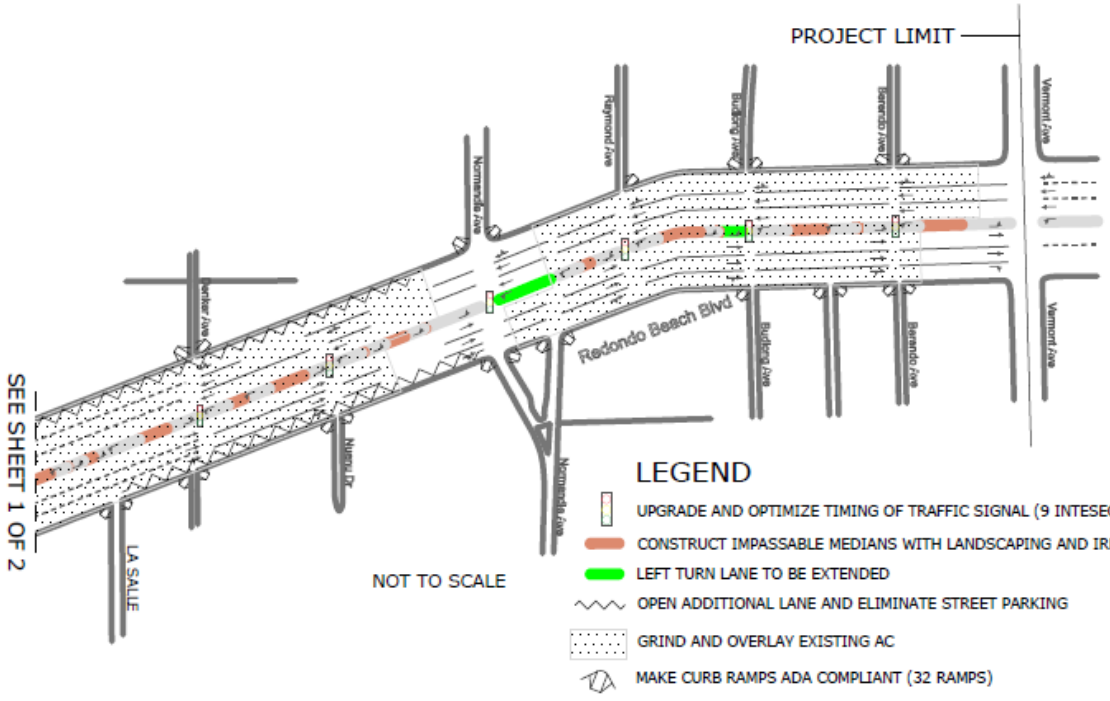
CONSTRUCTION MILESTONES: The implementation schedule for this project will be as follows.

	START DATE	COMPLETION DATE
SOLICITATION (BID/PROPOSAL)		
Develop Solicitation Package	9/22	10/22
Solicitation Response	11/22	12/22
Evaluations	1/23	2/23
Selection	3/23	3/23
Board Approval Process	4/23	5/23
Contract Award	6/23	6/23
Fully Executed Contract	6/23	6/23

	START DATE	COMPLETION DATE
LANDSCAPE		
Clearing		
Planting		
Plant Establishment		
Irrigation		
Testing		
General Construction/close out project	7/23	10/23
CHANGE ORDERS		
P.O. Processing Time		
Weather		
Third Party Issues		
Strike Labor Walk Outs		
Force Majeure		
Claims		

ATTACHMENT C -Location Map(s)





PROJECT MAP

PROPOSED REDONDO BEACH BLVD. ARTERIAL IMPROVEMENT PROJECT
JN 955

SHEET 2 OF 2

FA ATTACHMENT D
PROJECT REPORTING & EXPENDITURE GUIDELINES

REPORTING PROCEDURES

- Quarterly Progress/Expenditure Report (**Attachment D2**) are required for all projects. The GRANTEE shall be subject to and comply with all applicable requirements of the funding agency regarding project-reporting requirements. In addition, GRANTEE will submit the Quarterly Expenditure Report to the LACMTA, after receiving LACMTA Project Manager's acceptance of the draft report, at ACCOUNTSPAYABLE@METRO.NET or by mail to **Los Angeles Metropolitan Transportation Authority, Accounts Payable, P. O. Box 512296, Los Angeles, California 90051-0296.** Please note that letters or other forms of documentation may **not** be substituted for this form.

- The Quarterly Progress/Expenditure Report covers all activities related to the project and lists all costs incurred. It is essential that GRANTEE provides complete and adequate response to all the questions. The expenses listed must be supported by appropriate documentation with a clear explanation of the purpose and relevance of each expense to the project.

- In cases where there are no activities to report, or problems causing delays, clear explanation, including actions to remedy the situation, must be provided.

- GRANTEE is required to track and report on the project schedule. LACMTA will monitor the timely use of funds and delivery of projects. Project delay, if any, must be reported each quarter.

- The draft Quarterly Expenditure Report is due to the LACMTA as soon as possible after the close of each quarter, but no later than the following dates for each fiscal year:

Quarter	*Report Due Date*
July –September	November 30
October - December	February 28
January - March	May 31
April - June	August 31

LACMTA Project Manager shall review and respond in writing to the draft Quarterly Expenditure Report within thirty (30) calendar days from receipt.

Upon completion of the Project a final report that includes project's final evaluation must be submitted.

EXPENDITURE GUIDELINES

- Any activity or expense charged above and beyond the approved Scope of Work (FA Attachment C) **is considered ineligible** and will not be reimbursed by the LACMTA unless **prior written authorization** has been granted by the LACMTA Chief Executive Officer or his/her designee.

- Any expense charged to the grant must be clearly and directly related to the project.

- Administrative cost is the ongoing expense incurred by the GRANTEE for the duration of the project and for the direct benefit of the project as specified in the Scope of Work (Attachment C). Examples of administrative costs are personnel, office supplies, and equipment. As a condition for eligibility, all costs must be necessary for maintaining, monitoring, coordinating, reporting and budgeting of the project. Additionally, expenses must be reasonable and appropriate to the activities related to the project.

- LACMTA is not responsible for, and will not reimburse any costs incurred by the GRANTEE prior to the Effective Date of the FA, unless **written authorization** has been granted by the LACMTA Chief Executive Officer or his/her designee.

DEFINITIONS

- Allowable Cost: To be allowable, costs must be reasonable, recognized as ordinary and necessary, consistent with established practices of the organization, and consistent with industry standard of pay for work classification.

- Excessive Cost: Any expense deemed "excessive" by LACMTA staff would be adjusted to reflect a "reasonable and customary" level. For detail definition of "reasonable cost", please refer to the Federal Register *OMB Circulars A-87 Cost Principals for State and Local Governments; and A-122 Cost Principals for Nonprofit Organizations*.

- Ineligible Expenditures: Any activity or expense charged above and beyond the approved Scope of Work is considered ineligible.

LACMTA FA MEASURE M ATTACHMENT D-2

QUARTERLY PROGRESS/EXPENDITURE REPORT

Grantee To Complete	
Invoice #	
Invoice Date	
FA#	9200000000M
Quarterly Report #	

GRANTEES ARE REQUESTED TO EMAIL THIS REPORT TO

ACCOUNTSPAYABLE@METRO.NET

or submit by mail to:
Los Angeles County Metropolitan Transportation Authority
Accounts Payable
P. O. Box 512296
Los Angeles, California 90051-0296

Please note that letters or other forms of documentation may **not** be substituted for this form. Refer to the Reporting and Expenditure Guidelines (Attachment D) for further information.

SECTION 1: QUARTERLY EXPENSE REPORT

Please itemize grant-related charges for this Quarter on Page 5 of this report and include totals in this Section.

	LACMTA Measure M MSP Grant $
Project Quarter Expenditure	
This Quarter Expenditure	
Retention Amount	
Net Invoice Amount (Less Retention)	
Project-to-Date Expenditure	
Funds Expended to Date (Include this Quarter)	
Total Project Budget	
% of Project Budget Expended to Date	
Balance Remaining	

SECTION 2: GENERAL INFORMATION

PROJECT TITLE: _____

FA #: _____

QUARTERLY REPORT SUBMITTED FOR:

Fiscal Year :

☐ 2018-19 ☐ 2019-20 ☐ 2020-21
☐ 2021-22 ☐ 2022-23 ☐ 2023-24

Quarter :

☐ Q1: Jul - Sep ☐ Q2: Oct - Dec
☐ Q3: Jan - Mar ☐ Q4: Apr - Jun

DATE SUBMITTED: _____

Measure M Multi-Year Subregioanl Program Type: _____

LACMTA Project Manager	Name:	
	Phone Number:	
	E-mail:	

Grantee Contact / Project Manager	Contact Name:	
	Job Title:	
	Department:	
	City / Agency:	
	Mailing Address:	
	Phone Number:	
	E-mail:	

SECTION 3 : QUARTERLY PROGRESS REPORT

1. DELIVERABLES & MILESTONES

List all deliverables and milestones as stated in the FA, with start and end dates. Calculate the total project duration. ***DO NOT CHANGE THE ORIGINAL FA MILESTONE START AND END DATES SHOWN IN THE 2ND AND 3RD COLUMNS BELOW.***

Grantees must make every effort to accurately portray milestone dates in the original FA Scope of Work, since this will provide the basis for calculating any project delay. If milestone start and/or end dates change from those stated in the Original FA Scope of Work, indicate the new dates under Actual Schedule below and re-calculate the project duration. However, this does not change the original milestones in your FA. PER YOUR FA AGREEMENT, ANY CHANGES TO THE PROJECT SCHEDULE MUST BE FORMALLY SUBMITTED UNDER SEPARATE COVER TO LACMTA FOR WRITTEN CONCURRENCE.

FA Milestones	Original FA Schedule in Scope of Work		Actual Schedule	
	Start Date	End Date	Start Date	End Date
Environmental				
Design				
Right-of-Way Acquisition				
Construction				
Vehicle Purchase				
Others				
Ground Breaking Event				
Ribbon Cutting Event				
Total Project Duration (Months)				

2. PROJECT COMPLETION

A. Based on the comparison of the original and actual project milestone schedules above, project is (select only one) :

- ☐ On schedule per original FA schedule
- ☐ Less than 12 months behind original schedule
- ☐ Between 12-24 months behind original schedule
- ☐ More than 24 months behind original schedule

B. Was the project design started within 6 months of the date originally stated in the FA?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

C. Was a construction contract or capital purchase executed within 9 months after completion of design / specifications?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

3. TASKS / MILESTONES ACCOMPLISHED

List tasks or milestones accomplished and progress made this quarter.

4. PROJECT DELAY

If project is delayed, describe reasons for delay (this quarter). Pay particular attention to schedule delays. If delay is for the same reason as mentioned in previous quarters, please indicate by writing "Same as Previous Quarter".

5. ACTION ITEMS TO RESOLVE DELAY

If the project is delayed (as described in #4), include action items that have been, or will be, undertaken to resolve the delay.

SECTION 4. ITEMIZED LISTING OF EXPENSES AND CHARGES THIS QUARTER

All expenses and charges must be itemized and listed below. Each item listed must be verifiable by an invoice and/or other proper documentation. The total amounts shown here must be equal to this quarter's expenditures listed on page 1 of this report. All expenses and charges must be reflective of the approved budget and rates as shown in the FA Attachment B, Scope of Work. Use additional pages if needed.

	ITEM	INVOICE #		TOTAL EXPENSES CHARGED TO LACMTA MEASURE M GRANT
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
	TOTAL			

Note:
All receipts, invoices, and time sheets, attached and included with this Expense Report must be listed and shown under the Invoice Number column of the Itemized Listing (above).

Invoice Payment Information:
LACMTA will make all disbursements electronically unless an exception is requested in writing.
ACH Payments require that you complete an ACH Request Form and fax it to Accounts Payable at 213-922-6107.
ACH Request Forms can be found at www.metro.net/callforprojects.
Written exception requests for Check Payments should be completed and faxed to Accounts Payable at 213-922-6107.

I certify that I am the responsible Project Manager or fiscal officer and representative of _____ and that to the best of my knowledge and belief the information stated in this report is true and correct.

_____ _____
Signature *Date*

_____ _____
Name *Title*

ATTACHMENT E

Los Angeles Metropolitan Transportation Authority

2019 Federal Transportation Improvement Program ($000)

TIP ID **LA9918951** Implementing Agency **Gardena, City of**

Project Description: Traffic signal upgrade, construction of new medians, Landscaping and Irrigation, Re-Paving, Re-Striping from Crenshaw Blvd to Vermont Ave.

SCAG RTP Project #:
Study:N/A Is Model: Model #:
PM: William Mendoza - (310)217-9608

LS: N LS GROUP#:
Conformity Category:

System :Local Hwy | Route : | Postmile: | Distance: | Phase: No Project Activity | Completion Date 12/29/2023

Lane # Extd: | Lane # Prop: | Imprv Desc: | Air Basin: SCAB | Envir Doc: CATEGORICALLY EXEMPT - 07/30/2021

Toll Rate: 0.00 | Toll Colc Loc: | Toll Method: | Hov acs eg loc: | Uza: Los Angeles-Long Beach-Santa Ana | Sub-Area: | Sub-Region: South Bay Cities COG

CTIPS ID: | EA #: | PPNO:

Program Code: NCR91 - UPGRADED FACILITI (NO LN ADD) Stop Loc:

	PHASE	PRIOR	18/19	19/20	20/21	21/22	22/23	23/24	BEYOND	PROG TOTAL
MEASURE M MYSP (Multi Year Subregional Program)	PE				$104	$419	$0	$0		$523
	RW				$0	$0	$0	$0		$0
	CON				$0	$97	$2,320	$2,627		$5,044
	SUBTOTAL				$104	$516	$2,320	$2,627		$5,567
	TOTAL				**$104**	**$516**	**$2,320**	**$2,627**		**$5,567**

TOTAL PE: $523 **TOTAL RW: $0** **TOTAL CON: $5,044** **TOTAL PROGRAMMED: $5,567**

- **General Comment:** Funding Agreement being drafted by MTA
- **Modeling Comment:**
- **TCM Comment:**
- **Amendment Comment:**
- **CMP Comment:**
- **Narrative:**

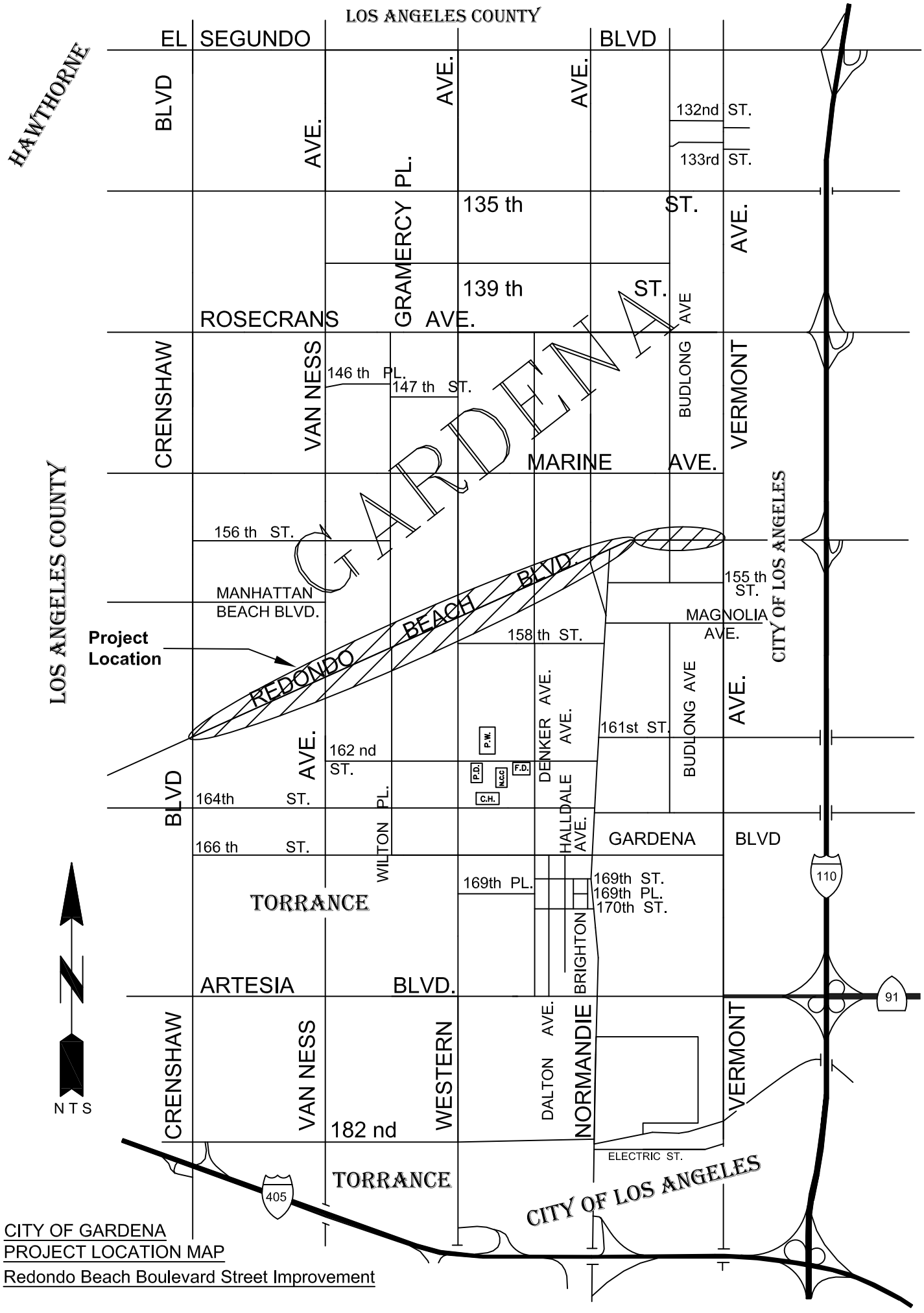
Last Revised **Amendment 19-80 - Submitted** **Change reason**:NEW PROJECT **Total Project Cost** **$5,567**

ATTACHMENT F
BOND REQUIREMENTS

The provisions of this Attachment F apply only if and to the extent some or all of the Funds are derived from LACMTA issued Bonds or other debt, the interest on which is tax exempt for federal tax purposes (collectively, the "Bonds").

GRANTEE acknowledges that some or all of the Funds may be derived from Bonds, the interest on which is tax-exempt for federal tax purposes. GRANTEE further acknowledges its understanding that the proceeds of the Bonds are subject to certain ongoing limitations relating to the use of the assets financed or provided with such proceeds ("Project Costs" or "Project Components") in the trade or business of any person or entity other than a governmental organization (any such use by a person or entity other than a governmental organization is referred to as "Private Use"). Private Use will include any sale, lease or other arrangement pursuant to which a nongovernmental person or entity receives a legal entitlement of a Project Component and also includes certain agreements pursuant to which a nongovernmental person will operate or manage a Project Component. Each quarterly invoice submitted by GRANTEE to reimburse prior expenditures (or to be received as an advance) shall provide information regarding the specific Project Costs or Project Components to which the Funds which pay that invoice will be allocated and whether there is or might be any Private Use associated with such Project Costs or Project Components. GRANTEE will, for the entire time over which LACMTA's Bonds or other debt remains outstanding, (1) notify and receive LACMTA' s approval prior to entering into any arrangement which will or might result in Private Use and (2) maintain records, including obtaining records from contractors and subcontractors as necessary, of all allocations of Funds to Project Costs or Project Components and any Private Use of such Project Costs or Project Components in sufficient detail to comply and establish compliance with Section 141 of the Internal Revenue Code of 1986, as amended (the "Code"), or similar code provision then in effect and applicable, as determined by LACMTA in consultation with its bond counsel.

GRANTEE will designate one or more persons that will be responsible for compliance with the obligations described in this Attachment F and notify LACMTA of such designations.



CITY OF GARDENA
PROJECT LOCATION MAP
Redondo Beach Boulevard Street Improvement

N:\ENGINEERING\CAD\AutoCAD\MAPS\VICINITY MAPS\N:\current\CAD\AutoCAD\MAPS\VICINITY MAPS\MARINE

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 8.F
Section: CONSENT CALENDAR
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: ACCEPTANCE AND NOTICE OF COMPLETION OF MAS FUKAI PARK IMPROVEMENT (PHASE I) - RECONSTRUCT SHADE STRUCTURE PROJECT, JN 820, USASHADE & FABRIC STRUCTURES AND DEARK E&C, INC.
CONTACT: PUBLIC WORKS

COUNCIL ACTION REQUIRED:

RECOMMENDATION AND STAFF SUMMARY:
Staff respectfully recommends that City Council accept the work and order the recordation of the Notice of Completion for the Mas Fukai Park Improvement (Phase I), JN 820, which includes the following improvements:

1) Manufacture and installation of a new 30'x60' sun shade structure has been completed by USAShade & Fabric Structures.

2) Site work consisting demolition of existing shade structure, construction of concrete pad, installation of BBQ grills, electrical conduits and pull box have been completed by Deark E&C, Inc.

Sufficient funds to complete this project phase were appropriated by the City Council in the FY 2020-2021 Capital Improvement Budget using Park in-lieu funds.

FINANCIAL IMPACT/COST:
Budget Expense: $142,264.75 (Construction)
Funding Source: Park in-lieu

ATTACHMENTS:
NOC Shade Structure_JN 820_USA.doc
NOC Shade Structure_JN 820 - Deark.doc

APPROVED:



_____

Clint Osorio, City Manager

RECORDING REQUEST BY AND MAIL TO:

Mina Semenza, City Clerk
City of Gardena
1700 W. 162nd Street
Gardena, CA 90247

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN, that:

1. The undersigned is the duly authorized representative of the City of Gardena, a Municipal Corporation of the State of California located within the County of Los Angeles in said State at 1700 West 162 Street, Gardena, California 90247.
2. That on the 14th day of April , 2020, the City Council of said City entered into contract with USA Shade & Fabric Structures whose address is 1085 N. Main Street, Suite C, Orange, CA 92867 for the improvement titled Mas Fukai Park Improvement – Reconstruct Shade Structure, JN 820 in accordance with City of Gardena Plans and Specifications.
3. That all of the work and improvement was located at 15800 Brighton Ave., Gardena in said City. The owner of the location is the City of Gardena.
4. That all of the work and improvement contemplated in and under said contract was substantially completed on March 26, 2021.
5. That the City Council formally accepted this work and improvement on April 13, 2021.

The undersigned, being first duly sworn, states: That he is the duly authorized representative of the City of Gardena, the political subdivision of the State of California which conducted the proceedings for the improvement titled Mas Fukai Park Improvement – Reconstruct Shade Structure, JN 820 in said City, that he has read the foregoing "Notice of Completion" and knows the facts recited therein are true.

IN WITNESS THEREOF, I have hereunto subscribed my name as the duly authorized representative of said City this ___ day of _____ 2019.

City of Gardena

Kevin Kwak

RECORDING REQUEST BY AND MAIL TO:

Mina Semenza, City Clerk
City of Gardena
1700 W. 162nd Street
Gardena, CA 90247

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

NOTICE OF COMPLETION

NOTICE IS HEREBY GIVEN, that:

1. The undersigned is the duly authorized representative of the City of Gardena, a Municipal Corporation of the State of California located within the County of Los Angeles in said State at 1700 West 162 Street, Gardena, California 90247.
2. That on the 10th day of November, 2020, the City Council of said City entered into contract with Deark E&C, Inc. whose address is 1830 W. 147th St., Gardena, CA 90249 for the improvement titled Mas Fukai Park Improvement – Reconstruct Shade Structure, JN 820 in accordance with City of Gardena Plans and Specifications.
3. That all of the work and improvement was located at 15800 Brighton Ave., Gardena in said City. The owner of the location is the City of Gardena.
4. That all of the work and improvement contemplated in and under said contract was substantially completed on March 26, 2021.
5. That the City Council formally accepted this work and improvement on April 13, 2021.

The undersigned, being first duly sworn, states: That he is the duly authorized representative of the City of Gardena, the political subdivision of the State of California which conducted the proceedings for the improvement titled Mas Fukai Park Improvement – Reconstruct Shade Structure, JN 820 in said City, that he has read the foregoing "Notice of Completion" and knows the facts recited therein are true.

IN WITNESS THEREOF, I have hereunto subscribed my name as the duly authorized representative of said City this ___ day of _____ 2019.

City of Gardena

Kevin Kwak

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 8.G
Section: CONSENT CALENDAR
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: RATIFY ADMINISTRATIVE APPROVAL OF THE ELDERLY NUTRITION PROGRAM CONTRACT ENP202105 AMENDMENT FOUR- ADDITIONAL FUNDING
CONTACT: RECREATION AND HUMAN SERVICES

COUNCIL ACTION REQUIRED:

RECOMMENDATION AND STAFF SUMMARY:

Staff respectfully recommends that the City Council ratify administrative approval of the Elderly Nutrition

Program. Contract No. ENP202105 Amendment Four between the City of Gardena and the County of Los Angeles' Department of Workforce Development, Aging and Community Services. The Elderly Nutrition Program includes serving congregate meals and home-delivered meals as well as conducting telephone reassurance to the older and functionally impaired adult population.

Amendment Four to this contract provides additional funding for the Subaward Sum Year 1 (July '20-June '21) in the amount of $123,680. The funding source is the California Department of Aging Coronavirus Aid, Relief, and Economic Security (CDA CARES) Act and the FY 2019-2020 Families First Coronavirus Response Act (FFCRA) carryover funding.

FINANCIAL IMPACT/COST:
Additional funding through CDA CARES: $105,000
Additional funding through FY 2019-2020 FFCRA Carryover: $18,680
Additional funding for OAA ENP Title III C-1 and C-2 Program Services for FY 2020-21 : $123,680

ATTACHMENTS:
ENP Amendment Four Allocation Letter
ENP Amendment Four Final - signed by agency

APPROVED:



_____

Clint Osorio, City Manager

wdacs
workforce development
aging & community services

BOARD OF SUPERVISORS
Hilda L. Solis
Holly J. Mitchell
Sheila Kuehl
Janice Hahn
Kathryn Barger

EXECUTIVE LEADERSHIP
Otto Solórzano
Acting Director
Paul Goldman
Contract & Administrative Services
Jose R. Perez
Workforce Development
Lorenza C. Sánchez
Aging & Adult Services
Robin S. Toma
Human Relations

CONTACT INFORMATION
3175 West Sixth Street
Los Angeles, CA 90020
WDACS (888-211-0644)
APS hotline (1-877-477-3646)
info@wdacs.lacounty.gov
wdacs.lacounty.gov

March 10, 2021

City of Gardena
Attention: Ms. Tasha Cerda
1700 West 162nd Street
Gardena, CA 90247

FISCAL YEAR (FY) 2020-21 ADDITIONAL CALIFORNIA DEPARTMENT OF AGING CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY ACT AND FY 2019-20 FAMILIES FIRST CORONAVIRUS RESPONSE ACT CARRYOVER FUNDING ALLOCATION FOR ELDERLY NUTRITION PROGRAM SERVICES

Dear Ms. Cerda:

County of Los Angeles Workforce Development, Aging and Community Services (County) intends to amend City of Gardena's (Subrecipient's) Elderly Nutrition Program (ENP) Subaward. The Subaward Amendment information is outlined below:

- Purpose: Subrecipient shall utilize additional California Department of Aging (CDA) Coronavirus Aid, Relief, and Economic Security (CARES) Act and unspent balance of FY 2019-20 Families First Coronavirus Response Act (FFCRA) Carryover funding to provide additional defined and contracted ENP Title III C-1 and Title III C-2 Program Services during FY 2020-21.
- Subaward Number: ENP202105
- Amendment Number: Four
- Subaward Term: July 1, 2020 through June 30, 2021
- Total Funding Allocation: $123,680
  - Additional CDA CARES Act Funding: $105,000
  - FY 2019-20 FFCRA Carryover Funding: $18,680
- Period Funds Available for Use (subject to execution of Amendment): July 1, 2020 through June 30, 2021
- Supervisorial District: 2
- Funding Source(s) and Service Category(ies) are as follows:

Funding Source	Service Category	Unit Rate	Allocation Amount	Total Allocation
CDA CARES Act	American Meals	$6.21	$105,000 [1]	**$105,000**
	Ethnic Meals			
FFCRA Older Americans Act (OAA) Title III CMC2	American Meals	$6.21	$12,134 [2]	**$18,680**
	Ethnic Meals			
FFCRA OAA Title III HDC2	Hot Meals	$8.15	$6,546 [3]	
	Frozen Meals	$6.21		
	Emergency Meals	$8.15		

Additional CDA CARES Act and FY 2019-20 FFCRA Carryover Funding	$123,680
Supplemental Federal CARES Act Funding (Refer to FY 2020-21 Supplemental Federal CARES Act Funding Allocation Letter)	$33,000
Additional Federal CARES Act Funding (Refer to FY 2020-21 Additional Federal CARES Act Funding Allocation Letter)	$5,000
CARES Act Funding (Refer to FY 2020-21 CARES Act Funding Allocation Letter)	$417,000
Baseline Funding (Refer to FY 2020-21 Baseline Funding Allocation Letter)	$407,000
Subaward Sum Year 1 (SSY1) (Additional CDA CARES Act and FY 2019-20 FFCRA Carryover, Supplemental Federal CARES Act, Additional Federal CARES Act, CARES Act, and Baseline Funding)	**$985,680**

[1] Complete one (1) budget and one (1) MPS for the cumulative total CDA CARES Act funding allocation received to date for this FY.
[2] Complete one (1) budget and one (1) MPS for the Allocation Amount.
[3] Complete one (1) budget and one (1) MPS for the Allocation Amount.

The CARES Act requires Subrecipient to comply with all applicable CARES Act provisions and requirements which includes, but is not limited to, maintaining Client attestations confirming that the Client has been directly impacted by the COVID-19 outbreak.

For more information on CARES Act requirements, please visit the following:

- United States Department of Treasury website: https://home.treasury.gov/policy-issues/cares
- Coronavirus Relief Fund Guidance: https://home.treasury.gov/system/files/136/Coronavirus-Relief-Fund-Guidance-for-State-Territorial-Local-and-Tribal-Governments.pdf
- Memorandum for Coronavirus Relief Fund Recipients: https://home.treasury.gov/system/files/136/IG-Coronavirus-Relief-Fund-Recipient-Reporting-Record-Keeping-Requirements.pdf

If you have any questions, please contact Irma Panosian of my staff by phone or e-mail as follows: (323) 336-5426 or ipanosian@wdacs.lacounty.gov.

Thank you.

Carol Domingo

Carol Domingo, Program Manager
Contracts Management Division

ELDERLY NUTRITION PROGRAM (ENP)
SUBAWARD NUMBER ENP202105
SUBAWARD PERIOD JULY 2020 – JUNE 2021

AMENDMENT FOUR

This Amendment is made and entered into by and between

COUNTY OF LOS ANGELES THROUGH ITS DEPARTMENT OF WORKFORCE DEVELOPMENT, AGING AND COMMUNITY SERVICES
("County" or "WDACS")

County's Business Address
3175 West Sixth Street
Los Angeles, CA 90020

and

CITY OF GARDENA
("Contractor" or "Subrecipient")

Subrecipient's Business Address
1700 West 162nd Street
Gardena, CA 90247

WHEREAS, reference is made to that certain document entitled "Elderly Nutrition Program (ENP) Subaward Number ENP202105 Subaward Period July 2020 – June 2021" dated July 1, 2020 ("Contract" or "Subaward"); and

WHEREAS, the parties hereto have previously entered into the above referenced Subaward for the purpose of providing Elderly Nutrition Program (ENP) Services, which include serving congregate meals and home-delivered meals as well as conducting telephone reassurance to the older adult population in Los Angeles County (excluding the City of Los Angeles); and

WHEREAS, County and Subrecipient recognize and agree that specific terms (including, but not limited to, Contract, Subaward, Contractor, Subrecipient, Subcontract, Lower Tier Subaward, Subcontractor and Lower Tier Subrecipient) are used interchangeably throughout this Amendment in order to comply with federal, state, and County regulations; and

WHEREAS, it is the intent of the parties to amend this Subaward to allocate Additional California Department of Aging (CDA) Coronavirus Aid, Relief, and Economic Security (CARES) Act funds in the amount of **$105,000**, which shall be reimbursed to Subrecipient in exchange for additional defined and contracted ENP Congregate Meal

Services as specified herein to be provided by Subrecipient during Fiscal Year 2020-21; and

WHEREAS, it is the intent of the parties to amend this Subaward to allocate Fiscal Year 2019-20 Families First Coronavirus Response Act (FFCRA) Carryover funds in the cumulative amount of **$18,680**, which shall be reimbursed to Subrecipient in exchange for additional defined and contracted ENP Congregate Meal and Home-Delivered Meal Services as specified herein to be provided by Subrecipient during Fiscal Year 2020-21; and

WHEREAS, it is the intent of the parties to amend this Subaward to provide for other changes set forth herein; and

WHEREAS, the Subaward provides that changes to its terms may be made in the form of a written Amendment, which is formally approved and executed by the parties.

NOW THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

I. This Amendment shall commence **upon execution by all parties**.

II. Subparagraph 5.1.3 is deleted in its entirety and replaced as follows:

5.1.3 **Subaward Sum Year 1 Funding Source(s)**

5.1.3.1 The Subaward Sum Year 1 for this Subaward is comprised of monies which are identified by the funding source(s) or governing statute(s) listed below. The funding source(s) and governing statute(s) authorize County to use these monies to provide Program Services.

5.1.3.2 Older Americans Act (OAA) Title III B (Supportive Services and Senior Centers) Original Baseline Funds

5.1.3.2.1 Subaward Sum: **$1,000**

5.1.3.2.2 Service Area: Supervisorial District 2

5.1.3.2.3 Period of Performance: July 1, 2020 – June 30, 2021

5.1.3.2.4 Allocation Letter: Fiscal Year 2020-21 Original Baseline Funding Allocation for Elderly Nutrition Program Services

5.1.3.3 OAA Title III C-1 (Nutrition Services) Original Baseline Funds

5.1.3.3.1 Subaward Sum: **$216,000**

5.1.3.3.2 Service Area: Supervisorial District 2

5.1.3.3.3 Period of Performance: July 1, 2020 – June 30, 2021

5.1.3.3.4 Allocation Letter: Fiscal Year 2020-21 Original Baseline Funding Allocation for Elderly Nutrition Program Services

5.1.3.4 OAA Title III C-2 (Nutrition Services) Original Baseline Funds

5.1.3.4.1 Subaward Sum: **$190,000**

5.1.3.4.2 Service Area: Supervisorial District 2

5.1.3.4.3 Period of Performance: July 1, 2020 – June 30, 2021

5.1.3.4.4 Allocation Letter: Fiscal Year 2020-21 Original Baseline Funding Allocation for Elderly Nutrition Program Services

5.1.3.5 Federal CARES Act Funds for ENP Congregate Meal Services

5.1.3.5.1 Subaward Sum: **$250,000**

5.1.3.5.1.1 Subrecipient shall expend these funds before OAA Title III C-1 (Nutrition Services) and FFCRA (if applicable) for ENP Congregate Meal Services funding

5.1.3.5.1.2 Subrecipient shall ensure that these funds are also used to serve waitlist Clients which are assigned to Subrecipient by County.

5.1.3.5.2 Service Area: Supervisorial District 2

5.1.3.5.3 Period of Performance: July 1, 2020 – December 30, 2020 (pursuant to Los Angeles County Chief Executive Officer (CEO) Board Motion dated August 4, 2020)

5.1.3.5.4 Allocation Letter: Fiscal Year 2020-21 CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.6 Federal CARES Act Funds for ENP Congregate Meal Services

5.1.3.6.1 Subaward Sum: **($35,000)** (transferred to Federal CARES Act Funds for ENP Home-Delivered Meal Services, as indicated in Subparagraph 5.1.3.8.1)

5.1.3.6.2 Service Area: Supervisorial District 2

5.1.3.6.3 Allocation Letter: Fiscal Year 2020-21 Supplemental Federal CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.7 Federal CARES Act Funds for ENP Home-Delivered Meal Services

5.1.3.7.1 Subaward Sum: **$42,000**

5.1.3.7.1.1 Subrecipient shall expend these funds before OAA Title III C-2 (Nutrition Services) and FFCRA (if applicable) for ENP Home-Delivered Meal Services funding

5.1.3.7.1.2 Subrecipient shall ensure that these funds are also used to serve waitlist Clients which are assigned to Subrecipient by County.

5.1.3.7.2 Service Area: Supervisorial District 2

5.1.3.7.3 Period of Performance: July 1, 2020 – December 30, 2020 (pursuant to Los

Angeles County CEO Board Motion dated August 4, 2020)

5.1.3.7.4 Allocation Letter: Fiscal Year 2020-21 CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.8 Federal CARES Act Funds for ENP Home-Delivered Meal Services

5.1.3.8.1 Subaward Sum: **$35,000** (transferred from Federal CARES Act Funds for ENP Congregate Meal Services, as indicated in Subparagraph 5.1.3.6.1)

5.1.3.8.1.1 Subrecipient shall expend these funds before OAA Title III C-2 (Nutrition Services) and FFCRA (if applicable) for ENP Home-Delivered Meal Services funding

5.1.3.8.1.2 Subrecipient shall ensure that these funds are also used to serve waitlist Clients which are assigned to Subrecipient by County.

5.1.3.8.2 Service Area: Supervisorial District 2

5.1.3.8.3 Period of Performance: July 1, 2020 – December 30, 2020 (pursuant to Los Angeles County CEO Board Motion dated August 4, 2020)

5.1.3.8.4 Allocation Letter: Fiscal Year 2020-21 Supplemental Federal CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.9 California Department of Aging (CDA) CARES Act Funds for ENP Congregate Meal Services

5.1.3.9.1 Subaward Sum: **$82,000** (available for use only after exhausting all Federal CARES Act for ENP Congregate Meal Services, OAA Title III C-1 (Nutrition Services), and FFCRA

(if applicable) for ENP Congregate Meal Services funding)

5.1.3.9.2 Service Area: Supervisorial District 2

5.1.3.9.3 Period of Performance: July 1, 2020 – June 30, 2021 (consistent with CDA Program Memo No. 20-13 (Corrected) issued on July 16, 2020)

5.1.3.9.4 Allocation Letter: Fiscal Year 2020-21 CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.10 CDA CARES Act Funds for ENP Home-Delivered Meal Services

5.1.3.10.1 Subaward Sum: **$43,000** (available for use only after exhausting all Federal CARES Act for ENP Home-Delivered Meal Services, OAA Title III C-2 (Nutrition Services), and FFCRA (if applicable) for ENP Home-Delivered Meal Services funding)

5.1.3.10.2 Service Area: Supervisorial District 2

5.1.3.10.3 Period of Performance: July 1, 2020 – June 30, 2021 (consistent with CDA Program Memo No. 20-13 (Corrected) issued on July 16, 2020)

5.1.3.10.4 Allocation Letter: Fiscal Year 2020-21 CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.11 Additional Federal CARES Act Funds for ENP Congregate Meal Services

5.1.3.11.1 Subaward Sum: **$5,000**

5.1.3.11.1.1 Subrecipient shall expend these funds before OAA Title III C-1 (Nutrition Services) and FFCRA (if applicable) for ENP Congregate Meal Services funding

5.1.3.11.2 Service Area: Supervisorial District 2

5.1.3.11.3 Period of Performance: July 1, 2020 – December 30, 2020 (pursuant to Los Angeles County CEO Board Motion dated August 4, 2020)

5.1.3.11.4 Allocation Letter: Fiscal Year 2020-21 Additional Federal CARES Act Funding Allocation for Elderly Nutrition Program Services

5.1.3.12 Supplemental Federal CARES Act Funds for ENP Home-Delivered Meal Services

5.1.3.12.1 Subaward Sum: **$33,000**

5.1.3.12.1.1 Subrecipient shall expend these funds before OAA Title III C-2 (Nutrition Services) and FFCRA (if applicable) for ENP Home-Delivered Meal Services funding

5.1.3.12.2 Service Area: Supervisorial District 2

5.1.3.12.3 Period of Performance: July 1, 2020 – December 30, 2020 (pursuant to Los Angeles County CEO Board Motion dated August 4, 2020)

5.1.3.12.4 Allocation Letter: Fiscal Year 2020-21 Supplemental Federal CARES Act Funding Allocation for Elderly Nutrition Program

5.1.3.13 Additional CDA CARES Act Funds for ENP Congregate Meal Services

5.1.3.13.1 Subaward Sum: **$105,000** (available for use only after exhausting all OAA Title III C-1 (Nutrition Services) and FFCRA (if applicable) for ENP Congregate Meal Services funding)

5.1.3.13.2 Service Area: Supervisorial District 2

5.1.3.13.3 Period of Performance: July 1, 2020 – June 31, 2021 (consistent with CDA Program Memo No. 20-13 (Corrected) issued on July 16, 2020)

5.1.3.13.4 Allocation Letter: Fiscal Year (FY) 2020-21 Additional CDA CARES Act and FY 2019-20 FFCRA Carryover Funding Allocation for Elderly Nutrition Program Services

5.1.3.14 FY 2019-20 FFCRA Carryover Funds for ENP Congregate Meal Services

5.1.3.14.1 Subaward Sum: **$12,134** (available for use only after exhausting all OAA Title III C-1 (Nutrition Services) for ENP Congregate Meal Services funding)

5.1.3.14.2 Service Area: Supervisorial District: 2

5.1.3.14.3 Period of Performance: July 1, 2020 – June 31, 2021 (consistent with California Department of Aging Notice on California Major Disaster Declaration Approved – Area Plan (AP-1920) Contract Program Spending Flexibility)

5.1.3.14.4 Allocation Letter: Fiscal Year (FY) 2020-21 Additional CDA CARES Act and FY 2019-20 FFCRA Carryover Funding Allocation for Elderly Nutrition Program Services

5.1.3.15 FY 2019-20 FFCRA Carryover Funds for ENP Home-Delivered Meal Services

5.1.3.15.1 Subaward Sum: **$6,546** (available for use only after exhausting all OAA Title III C-2 (Nutrition Services) for ENP Home-Delivered Meal Services funding)

5.1.3.15.2 Service Area: Supervisorial District: 2

5.1.3.15.3 Period of Performance: July 1, 2020 – June 31, 2021 (consistent with California Department of Aging Notice on California Major Disaster Declaration Approved – Area

Plan (AP-1920) Contract Program Spending Flexibility)

5.1.3.15.4 Allocation Letter: Fiscal Year (FY) 2020-21 Additional CDA CARES Act and FY 2019-20 FFCRA Carryover Funding Allocation for Elderly Nutrition Program Services

III. Subparagraph 5.10.1 is deleted in its entirety and replaced as follows:

5.10.1 Subaward Sums, either in whole or in part, are identified as Federal monies. The Federal portion(s) of the Subaward Sums is (are) identified by several key pieces of information including, but no limited to, the following: Federal Award Identification Number (FAIN), Assistance Listings Number(s) (which identifies and describes the Federal assistance that is available to various entities) and a Federal Grantor office (which provides oversight and administration for these Federal monies). When Subrecipient and its Lower Tier Subrecipient(s), if any, are being audited by an independent auditor, Subrecipient shall provide the information identified in this Subparagraph 5.10 to the independent auditor. The information outlined herein is only provided for the Federal portion(s) of the Subaward Sums. In the event that the information is not listed herein for all of the monies included in the Subaward Sums then the excluded amounts are not Federal monies and therefore the information is not applicable to them.

IV. Subparagraph 5.10.7 is deleted in its entirety and replaced as follows:

5.10.7 **Amount of Federal Funds Obligated by this Action**:

5.10.7.1 Original Subaward: $407,000

5.10.7.2 Amendment One: $417,000

5.10.7.2.1 Federal CARES Act Funds: $292,000

5.10.7.2.2 CDA CARES Act Funds: $125,000

5.10.7.3 Amendment Two: $5,000

5.10.7.4 Amendment Three: $33,000

5.10.7.5 Amendment Four: $123,680

5.10.7.5.1 Additional CDA CARES Act Funds: $105,000

5.10.7.5.2 FY 2019-20 FFCRA Carryover Funds: $18,680

V. Subparagraph 5.10.8 is deleted in its entirety and replaced as follows:

5.10.8 **Total Amount of Federal Funds Obligated to Subrecipient (Subaward Sum)**

5.10.8.1 Subaward Sum Year 1: $985,680

VI. Subparagraph 5.10.9 is deleted in its entirety and replaced as follows:

5.10.9 Total Amount of Federal Award (Maximum Subaward Sum): $985,680

VII. Subparagraph 5.10.12 is deleted in its entirety and replaced as follows:

5.10.12 **Assistance Listings Numbers and Titles:** 93.044 - Special Programs for the Aging, Title III, Part B (Grants for Supportive Services and Senior Centers); 93.045 - Special Programs for the Aging, Title III, Part C (Nutrition Services); 93.053 - Nutrition Services Incentive Program; and, 21.019 – Coronavirus Relief Fund

VIII. Subparagraph 8.25.8 is deleted in its entirety and replaced as follows:

8.25.8 Cyber Liability Insurance

8.25.8.1 Subrecipient shall secure and maintain cyber liability insurance coverage with limits of one point five million dollars ($1,500,000) per occurrence and in the aggregate during the term of Subaward, including coverage for: network security liability; privacy liability; privacy regulatory proceeding, defense, response, expenses and fines; technology professional liability (errors and omissions); privacy breach expense reimbursement (liability arising from the loss or disclosure of County Information no matter how it occurs); system breach; denial or loss of Service; introduction, implantation, or spread of malicious software code; unauthorized access to or use of computer systems; and Data/Information loss and business interruption; any other liability or risk that arises out of Subaward. Subrecipient shall add County as an additional insured to its cyber liability insurance policy and provide to County certificates of insurance evidencing the foregoing upon County's request. The procuring of the insurance described herein, or delivery of the certificates of insurance described herein, shall not be construed as a limitation upon Subrecipient's liability or as full performance of its indemnification obligations hereunder.

No exclusion/restriction for unencrypted portable devices/media may be on the policy.

IX. Exhibit W1 (Budget) Amendment 4 {FY 2020-21 Additional CDA CARES Act Funding}" is added as an addendum to "Exhibit W1 (Budget)", and is incorporated herein by reference.

X. "Exhibit W1 (Budget) Amendment 4 {FY 2019-20 FFCRA Carryover Funding for FY 2020-21} is added as an addendum to "Exhibit W1 (Budget)", and is incorporated herein by reference.

XI. "Exhibit W2 (Budget) Amendment 4 {FY 2019-20 FFCRA Carryover Funding for FY 2020-21} is added as an addendum to "Exhibit W1 (Budget)", and is incorporated herein by reference.

XII. "Exhibit X1 (Mandated Program Services) Amendment 4 {FY 2020-21 Additional CDA CARES Act Funding}" is added as an addendum to "Exhibit X1 (Mandated Program Service)", and is incorporated herein by reference.

XIII. "Exhibit X1 (Mandated Program Services) Amendment 4 {FY 2019-20 FFCRA Carryover Funding for FY 2020-21} is added as an addendum to "Exhibit X1 (Mandated Program Services)", and is incorporated herein by reference.

XIV. "Exhibit X2 (Mandated Program Services) Amendment 4 {FY 2019-20 FFCRA Carryover Funding for FY 2020-21} is added as an addendum to "Exhibit X2 (Mandated Program Services)", and is incorporated herein by reference.

XV. The " Fiscal Year 2020-21 (FY) Additional CDA CARES Act and FY 2019-20 FFCRA Carryover Funding Allocation for Elderly Nutrition Program Services " funding allocation letter is incorporated herein by reference.

All other terms and conditions of the Subaward shall remain in full force and effect.

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IN WITNESS WHEREOF, the Board of Supervisors of the County of Los Angeles has caused this **Amendment Four** to be subscribed on its behalf by the Acting Director of Workforce Development, Aging and Community Services, and the Subrecipient has subscribed the same through its Authorized Representative. The Authorized Representative(s) signing on behalf of Subrecipient warrants under penalty of perjury that he or she is authorized to bind Subrecipient.

COUNTY OF LOS ANGELES

By _____ _____
Otto Solórzano, Acting Director — Date
County of Los Angeles
Workforce Development, Aging
and Community Services

SUBRECIPIENT

City of Gardena
Subrecipient's Legal Name

ENP202105
Subaward Number

By Clint Osorio — Mar 17, 2021
Name of Authorized Representative — Date

City Manager
Title

Clint Osorio (Mar 17, 2021 11:23 PDT)
Signature

Approved as to Form:

OFFICE OF COUNTY COUNSEL
Rodrigo A. Castro-Silva, County Counsel

By _____
Lawrence M. Green
Senior Deputy County Counsel

By _____ _____
Name of Authorized Representative — Date

_____
Title

_____
Signature

FY 2020-21 ENP Amendment Four (City of Gardena) Final

Final Audit Report 2021-03-17

Created:	2021-03-17
By:	Irma Panosian (IPanosian@wdacs.lacounty.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAA0dhm1khSnfpCAtzGycJqFZAjQz1rk1b3

"FY 2020-21 ENP Amendment Four (City of Gardena) Final" History

Web Form created by Irma Panosian (IPanosian@wdacs.lacounty.gov)
2021-03-10 - 9:41:44 PM GMT

Web Form filled in by Clint Osorio (cosorio@cityofgardena.org)
2021-03-17 - 6:23:02 PM GMT- IP address: 64.201.101.66

Document emailed to Clint Osorio (cosorio@cityofgardena.org) for signature
2021-03-17 - 6:23:05 PM GMT

Email viewed by Clint Osorio (cosorio@cityofgardena.org)
2021-03-17 - 6:23:19 PM GMT- IP address: 64.201.101.66

E-signature verified by Clint Osorio (cosorio@cityofgardena.org)
2021-03-17 - 6:23:28 PM GMT- IP address: 64.201.101.66

Agreement completed.
2021-03-17 - 6:23:28 PM GMT

Adobe Sign

MEMORANDUM

TO: Honorable Mayor and City Council

FROM: Treasurer's Department

DATE: April 8, 2021

SUBJECT: WARRANT REGISTER
PAYROLL REGISTER

April 13, 2021	TOTAL WARRANTS ISSUED:	$4,292,940.70

Wire Transfer:	11990-11994
Prepay:	162650-162657
Check Numbers:	162658-162852
Checks Voided:	

Total Pages of Register: 25

March 26, 2021	TOTAL PAYROLL ISSUED:	$1,990,861.10
April 9, 2021	TOTAL PAYROLL ISSUED:	$1,418,384.96



for J. Ingrid Tsukiyama, City Treasurer

cc: City Clerk

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
11990	3/23/2021	104058 ADMINSURE INC.	032221		WORKERS' COMP CLAIMS	28,801.47
					Total :	**28,801.47**
11991	3/29/2021	419630 U.S. BANK	1738039		TAXABLE LEASE REVENUE REFUNDIN	281,651.83
					Total :	**281,651.83**
11992	3/30/2021	104058 ADMINSURE INC.	033021		WORKERS' COMP CLAIMS	16,692.81
					Total :	**16,692.81**
11993	3/30/2021	106110 ADVANCED BENEFIT SOLUTIONS, LLC	033021		HEALTH INSURANCE CLAIMS	113,486.48
					Total :	**113,486.48**
11994	3/31/2021	101641 CALPERS	100000016348262		SAFETY (CLASSIC) UAL PAYMENT FOR	586.92
					Total :	**586.92**
162650	3/23/2021	111492 VENTURA, OSMIN N.	PERMIT #50019-0003		PERMIT DEPOSIT REFUND - 14933 VAN	5,000.00
					Total :	**5,000.00**
162651	3/23/2021	101195 WASTE RESOURCES GARDENA	032321		WASTE COLLECTION	244,320.13
					Total :	**244,320.13**
162652	3/25/2021	111691 E3 VEHICLES, INC	030121	034-00472	ICON I40 ELECTRIC VEHICLE FOR R&H	12,822.00
					Total :	**12,822.00**
162653	3/25/2021	107735 GARDENA NISSAN	53304	034-00473	2021 NISSN FRONTIER 4X2 VIN #1N6EI	22,588.22
					Total :	**22,588.22**
162654	3/25/2021	111705 2025 S CENTRAL AVE LLC	SBAP-EHS		COVID-19 SMALL BUSINESS ASSISTAN	12,368.00
					Total :	**12,368.00**
162655	4/5/2021	111016 KAISER FOUNDATION HEALTH PLAN	APRIL 2021		HEALTH INSURANCE	266,390.44
					Total :	**266,390.44**
162656	4/5/2021	106110 ADVANCED BENEFIT SOLUTIONS, LLC	APRIL 2021		HEALTH, DENTAL & LIFE INSURANCE	104,140.02
					Total :	**104,140.02**
162657	4/5/2021	103312 SOUTH COAST AIR QUALITY, MGMT DISTRICT	2021		RULE 2202 - AIR QUALITY INVESTMENT	140.52

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162657	4/5/2021	103312 103312 SOUTH COAST AIR QUALITY, MGMT DIST (Continued)			**Total :**	**140.52**
162658	4/13/2021	101015 AARDVARK TACTICAL, INC.	PIN11576	035-01033	TACTICAL EQUIPMENT FOR SWAT OPE	3,518.85
					Total :	**3,518.85**
162659	4/13/2021	106086 ABC COMPANIES	3175688		GTRANS PARTS SUPPLIES	234.57
			3176063		GTRANS PARTS SUPPLIES	76.57
					Total :	**311.14**
162660	4/13/2021	107712 AFFORDABLE GENERATOR SERVICES, INC.	19212	037-09993	GTRANS EMERGENCY GENERATOR RI	2,048.46
					Total :	**2,048.46**
162661	4/13/2021	101748 AFTERMARKET PARTS COMPANY LLC, THE	82263348	037-09965	GTRANS AUTO PARTS	9.10
			82265484	037-09965	GTRANS AUTO PARTS	3.72
			82266391	037-09965	GTRANS AUTO PARTS	1,775.00
			82268559	037-09965	GTRANS AUTO PARTS	1,807.97
			82276371	037-09965	GTRANS AUTO PARTS	1,340.43
			82313481	037-09965	GTRANS AUTO PARTS	71.17
			82315643	037-09965	GTRANS AUTO PARTS	5.52
			82315653	037-09965	GTRANS AUTO PARTS	5,638.56
			82315714	037-09965	GTRANS AUTO PARTS	3.19
			82322655	037-09965	GTRANS AUTO PARTS	53.22
			82322774	037-09965	GTRANS AUTO PARTS	1,473.94
			82322782		GTRANS AUTO PARTS	431.30
				037-09965		
			82323891	037-09965	GTRANS AUTO PARTS	403.76
			82329021	037-09965	GTRANS AUTO PARTS	1,632.13
			82329149	037-09965	GTRANS AUTO PARTS	491.11
			82329153	037-09965	GTRANS AUTO PARTS	1,185.84
			82331852	037-09965	GTRANS AUTO PARTS	70.89
			82331983	037-09965	GTRANS AUTO PARTS	68.60
			82334057	037-09965	GTRANS AUTO PARTS	662.94
			82334058	037-09965	GTRANS AUTO PARTS	826.28
			82335061	037-09965	GTRANS AUTO PARTS	41.01
			82335067	037-09965	GTRANS AUTO PARTS	751.88
			82343625		GTRANS AUTO PARTS	887.50
				037-09965		

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162661	4/13/2021	101748 101748 AFTERMARKET PARTS COMPANY LLC, T (Continued)			**Total :**	**19,635.06**
162662	4/13/2021	111714 ALISHA JACKSON AS TRUSTEE FOR, MINOR E	19-35REC		SETTLEMENT - B.JACKSON V. CITY OF	24,623.48
					Total :	**24,623.48**
162663	4/13/2021	111697 ALLDATA LLC	INVC00391211		PW AUTOMOTIVE YEARLY SUBSCRIPT	1,500.00
					Total :	**1,500.00**
162664	4/13/2021	101308 ALTEC INDUSTRIES, INC.	7410182	024-00654	2021 FREIGHTLINER M2-106 AERIAL DE	199,154.44
					Total :	**199,154.44**
162665	4/13/2021	100925 AMERICAN MOVING PARTS	01A118230		GTRANS AUTO PARTS	102.86
			01A118691		GTRANS AUTO PARTS	572.77
					Total :	**675.63**
162666	4/13/2021	110832 ANTHONY'S AUTO DETAILING	81		CAR WASH DETAIL - PD	775.00
					Total :	**775.00**
162667	4/13/2021	106965 ASSA ABLOY ENTRANCE, SYSTEMS US INC.	SEI/1384356	034-00471	EMERGENCY REPAIR TO ROWLEY PAF	3,199.70
					Total :	**3,199.70**
162668	4/13/2021	104687 AT&T	16184995		TELEPHONE	283.19
			16184996		TELEPHONE	387.30
			16185306		TELEPHONE	10,374.32
			16188115		TELEPHONE	692.25
			16212961		TELEPHONE	33.78
			16212962		TELEPHONE	86.41
			16212976		TELEPHONE	33.78
			16212984		TELEPHONE	33.78
			16212985		TELEPHONE	87.52
					Total :	**12,012.33**
162669	4/13/2021	111170 AT&T FIRSTNET	287290395417x031021		PD CELL PHONE ACCT #287290395417	2,541.98
			287290885074X031021		CITYWIDE CELL PHONE ACCT #287290	2,590.47
			287295242065X031021		PD CELL PHONE ACCT #287295242065	467.17
					Total :	**5,599.62**
162670	4/13/2021	100474 AT&T LONG DISTANCE	031221		TELEPHONE	27.82

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162670	4/13/2021	100474 100474 AT&T LONG DISTANCE	(Continued)		**Total :**	**27.82**
162671	4/13/2021	100964 AT&T MOBILITY	287275680401X040121		CELL PHONE ACCT #287275680401	733.03
			828667974X03162021		CM CELL PHONE ACCT #828667974	86.46
			835577878X04012021		PD CELL PHONE ACCT #835577878	644.39
					Total :	**1,463.88**
162672	4/13/2021	102880 AUTOPLEX, INC.	12620		2017 FORD INTRCPTR #1488142 BATTE	227.96
					Total :	**227.96**
162673	4/13/2021	110686 AZTECH ELEVATOR COMPANY	AZ16829	024-00665	ELEVATOR MAINTENANCE - NCC	285.00
			AZ16830	024-00665	ELEVATOR MAINTENANCE - PW	285.00
			AZ16831	024-00665	ELEVATOR MAINTENANCE - NCC	100.00
			AZ16832	024-00665	ELEVATOR MAINTENANCE - CITY HALL	100.00
					Total :	**770.00**
162674	4/13/2021	412610 BANK OF NEW YORK MELLON, THE	252-2364736		ADMIN FEE- SBRPCA REFUNDING REV	1,870.00
					Total :	**1,870.00**
162675	4/13/2021	111481 BATEMAN COMMUNITY LIVING, LLC	INV4650004781	034-00458	SENIOR FEEDING PROGRAM	11,479.23
			INV4650004811	034-00458	SENIOR FEEDING PROGRAM	11,646.81
					Total :	**23,126.04**
162676	4/13/2021	102054 BAVCO	991814		(18) BACKFLOW VALVE INSPECTIONS	1,150.00
					Total :	**1,150.00**
162677	4/13/2021	102035 BD WHITE TOP SOIL CO., INC.	84616		STREET MAINT SUPPLIES	142.35
					Total :	**142.35**
162678	4/13/2021	103641 BECNEL UNIFORMS	29364		BUS UNIFORM SUPPLIES	421.52
			33838		BUS UNIFORM SUPPLIES	112.24
			35447		BUS UNIFORM SUPPLIES	297.85
			35498		BUS UNIFORM SUPPLIES	431.54
			35584		BUS UNIFORM SUPPLIES	428.10
			35589		BUS UNIFORM SUPPLIES	1,074.59
			35590		BUS UNIFORM SUPPLIES	1,150.14
			36209		BUS UNIFORM SUPPLIES	232.58
			36296		BUS UNIFORM SUPPLIES	277.58

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162678	4/13/2021	103641 BECNEL UNIFORMS	(Continued)			
			36343		BUS UNIFORM SUPPLIES	111.03
					Total :	**4,537.17**
162679	4/13/2021	102135 BEHRENDS, KENT	017	023-01291	IT NETWORK SUPPORT	3,400.00
					Total :	**3,400.00**
162680	4/13/2021	111709 BELTRAN, ARMANDO	04/11-04/14		ANNUAL JAIL TRAINING - PER DIEM	150.00
					Total :	**150.00**
162681	4/13/2021	102115 BGH INTERPRETING SERVICES	40261		INTERPRETING SERVICES - F.PEREZ V	470.00
			40294		INTERPRETING SERVICES - F.PEREZ V	490.00
					Total :	**960.00**
162682	4/13/2021	102331 BLUE DIAMOND MATERIALS	2141784		STREET MAINT SUPPLIES	85.20
					Total :	**85.20**
162683	4/13/2021	111607 BOARD OF STATE & COMMUNITY, CORRECTI(	CK #00012315		REPAYMENT OF UNUSED STC MENTAL	2,970.00
					Total :	**2,970.00**
162684	4/13/2021	102383 BROCK, DAVID	04/11-04/14		TRAINING COORDINATORS COURSE -	100.00
					Total :	**100.00**
162685	4/13/2021	105991 BURRO CANYON ENT., INC.	2339		RANGE FEES 03/09/21	60.00
					Total :	**60.00**
162686	4/13/2021	110399 C.A. SHORT COMPANY	7028504		AWARDS & RECOGNITION SUPPLIES	1,038.46
					Total :	**1,038.46**
162687	4/13/2021	103383 CALPORTLAND	94955471		STREET MAINT SUPPLIES	1,192.03
			94972552		STREET MAINT SUPPLIES	1,099.08
					Total :	**2,291.11**
162688	4/13/2021	110313 CALTIP	94-2021-MAR	037-09953	INSURANCE CLAIMS DEDUCTIBLE - MA	14,735.10
					Total :	**14,735.10**
162689	4/13/2021	110538 CANNON COMPANY	75060	024-00582	ROWLEY PARK RESTROOM IMPROVEM	2,567.50
			75062	024-00692	ROWLEY PARK BASEBALL DIAMND/RE	1,975.00

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162689	4/13/2021	110538 CANNON COMPANY	(Continued)			
			75480	024-00582	ROWLEY PARK RESTROOM IMPROVEM	1,910.00
					Total :	**6,452.50**
162690	4/13/2021	803420 CARPENTER, ROTHANS & DUMONT, LAW OFF	37422		PROFESSIONAL SERVICES	108.00
			37423		PROFESSIONAL SERVICES	180.00
			37424		PROFESSIONAL SERVICES	802.80
			37425		PROFESSIONAL SERVICES	701.00
			37426		PROFESSIONAL SERVICES	208.80
			37427		PROFESSIONAL SERVICES	669.60
			37428		PROFESSIONAL SERVICES	36.00
			37429		PROFESSIONAL SERVICES	90.00
			37430		PROFESSIONAL SERVICES	54.00
			37431		PROFESSIONAL SERVICES	673.20
			37432		PROFESSIONAL SERVICES	846.55
					Total :	**4,369.95**
162691	4/13/2021	103489 CF UNITED LLC	010121-013121-B		CAR WASH- JANUARY 2021	24.00
					Total :	**24.00**
162692	4/13/2021	110605 CHANDLER ASSET MANAGEMENT	2103GARDENA	013-00028	INVESTMENT SERVICES - MARCH 202	1,373.16
					Total :	**1,373.16**
162693	4/13/2021	108378 CHARLES E. THOMAS COMPANY INC.	68257	037-09946	HEALY QUARTERLY INSPECTION	142.50
			69975	037-09946	DESIGNATED OPERATOR SERVICES	200.00
			70224	037-09946	DESIGNATED OPERATOR SERVICES	200.00
			70964	037-09946	TEST MONITORING SYSTEM	1,980.00
			70965	037-09946	HEALY VAPOR REVERIFICATION TEST	700.00
					Total :	**3,222.50**
162694	4/13/2021	308112 CITY OF HAWTHORNE	2021-0224 GPD	035-01057	PD MEDICAL DIRECTOR SERVICES	25,000.00
					Total :	**25,000.00**
162695	4/13/2021	104152 CREATIVE BUS SALES, INC.	1344734	037-10005	GTRANS AUTO PARTS	175.00
			1344735	037-10005	GTRANS AUTO PARTS	175.00
			7023777	037-10005	GTRANS AUTO PARTS	1,938.85
					Total :	**2,288.85**

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162696	4/13/2021	103512 CRENSHAW LUMBER CO.	11167		STREET MAINT SUPPLIES	144.39
			12058		STREET MAINT SUPPLIES	25.36
			12074		STREET MAINT SUPPLIES	404.59
					Total :	**574.34**
162697	4/13/2021	103353 CRM COMPANY, LLC.	LA17443		SCRAP TIRE DISPOSAL FEE	29.50
			LA17444		SCRAP TIRE DISPOSAL FEE	29.50
			LA17445		SCRAP TIRE DISPOSAL FEE	29.50
			LA17446		SCRAP TIRE DISPOSAL FEE	29.50
					Total :	**118.00**
162698	4/13/2021	107082 CXTEC INC.	7080387	023-01320	DELL POWEREDGE R6525 SERVER FO	29,733.92
					Total :	**29,733.92**
162699	4/13/2021	102228 DAILY BREEZE	0011445433		NOTICE OF PUBLIC - 2019-20 CAPER	442.28
					Total :	**442.28**
162700	4/13/2021	102228 DAILY BREEZE	900550769 02/24/21		SUBSCRIPTION RENEWAL - ACCT #900	333.16
					Total :	**333.16**
162701	4/13/2021	106893 DATABANK IMX LLC	6112006572		PAPERVISION PROFESSIONAL SERVIC	512.50
					Total :	**512.50**
162702	4/13/2021	111377 DE NOVO PLANNING GROUP	2893	032-00080	PROFESSIONAL SERVICES - HOTEL DE	4,700.00
			2927	032-00080	PROFESSIONAL SERVICES - HOTEL DE	4,733.50
			2976	032-00081	PROFESSIONAL SERVICES - 141ST STI	7,853.25
			2977	032-00080	PROFESSIONAL SERVICES - HOTEL DE	22,571.00
			3000	032-00070	PROFESSIONAL SERVICES - 141ST STI	1,131.25
			3001	032-00080	PROFESSIONAL SERVICES - HOTEL DE	7,532.00
					Total :	**48,521.00**
162703	4/13/2021	104310 DEPARTMENT OF CONSERVATION	JAN-MAR 2021		STRONG MOTION INSTRUMENTATION	8,411.65
					Total :	**8,411.65**
162704	4/13/2021	107461 DEPARTMENT OF HEALTH CARE, SERVICES	C91400141A-001		SETTLEMENT - T.BRAXTON V. GARDEN	469.39
					Total :	**469.39**
162705	4/13/2021	303459 DEPARTMENT OF JUSTICE	496286		FINGERPRINT APPS - FEBRUARY 2021	1,606.00

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162705	4/13/2021	303459 303459 DEPARTMENT OF JUSTICE	(Continued)		**Total :**	**1,606.00**
162706	4/13/2021	312117 DEPARTMENT OF WATER & POWER	030321		LIGHT & POWER	60.90
			032621		LIGHT & POWER	89.80
					Total :	**150.70**
162707	4/13/2021	105182 DIRECTV	017280777X210315		DIRECTV SERVICE BUSINESS XTRA - A	1,841.82
					Total :	**1,841.82**
162708	4/13/2021	104343 DISCOUNT SCHOOL SUPPLY	P40228710103	331-00052	FCC PROGRAM SUPPLIES	419.71
			P40237120102	331-00052	FCC PROGRAM SUPPLIES	100.78
			P40240570101	331-00052	FCC PROGRAM SUPPLIES	507.68
			P40246910101	331-00052	FCC PROGRAM SUPPLIES	167.60
			P40252940101	331-00052	FCC PROGRAM SUPPLIES	331.08
					Total :	**1,526.85**
162709	4/13/2021	111712 DUNG H TANG TRUST	RA-PHAM		COVID-19 RENTAL ASSISTANCE PROGI	5,000.00
					Total :	**5,000.00**
162710	4/13/2021	110534 EL DORADO NATIONAL	402142	037-09973	2020 ENC AXXESS 40' CNG BUS #2012	704,259.38
			402145	037-09973	2020 ENC AXXESS 40' CNG BUS #2015	704,259.38
			90630586	037-09973	GTRANS BUS VEHICLE SUPPLIES	1,003.28
			90644548		GTRANS BUS VEHICLE SUPPLIES	56.28
			90645121		GTRANS BUS VEHICLE SUPPLIES	14.20
					Total :	**1,409,592.52**
162711	4/13/2021	110532 ELECTRIC CAR SALES & SERVICE	28378		GTRANS AUTO PARTS	145.13
					Total :	**145.13**
162712	4/13/2021	107353 EMERGENCY RESPONSE CRIME SCENE, CLE	T2021-192		SANITIZE & CLEANUP PUBLIC AREA	675.00
					Total :	**675.00**
162713	4/13/2021	105418 EMPIRE CLEANING SUPPLY	S4303763.002	024-00673	CUSTODIAL SUPPLIES	202.34
					Total :	**202.34**
162714	4/13/2021	105392 ENTENMANN-ROVIN COMPANY	0157564		PD UNIFORM SUPPLIES	1,121.07
					Total :	**1,121.07**

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162715	4/13/2021	106459 ENTERPRISE FM TRUST	FBN	023-01294	ENTERPRISE LEASE - APRIL 2021	6,373.68
			FBN4179864	023-01294	ENTERPRISE LEASE - APRIL 2021 - PD	9,048.41
					Total :	**15,422.09**
162716	4/13/2021	106859 ENVIROFORM INDUSTRIES	5399		COVID-19 EMERGENCY SUPPLIES	711.11
					Total :	**711.11**
162717	4/13/2021	109426 ESPINOSA, VANESSA	03/08-03/19/2021		PROFESSIONAL SERVICES - CASE WC	1,260.00
					Total :	**1,260.00**
162718	4/13/2021	105650 EWING IRRIGATION PRODUCTS	13657713		PARK MAINT SUPPLIES	36.62
			13658810		TREE PROGRAM SUPPLIES	109.88
			13767110		TREE PROGRAM SUPPLIES	51.25
					Total :	**197.75**
162719	4/13/2021	110320 EYEDEAL INTERIORS INC	CG104378	035-01058	PD ROLLER SHADE INSTALLATION	3,170.00
					Total :	**3,170.00**
162720	4/13/2021	104380 E-Z FLOW CONCRETE PUMPING	9357		STREET MAINT SUPPLIES	295.00
					Total :	**295.00**
162721	4/13/2021	105539 FACTORY MOTOR PARTS CO.	109-636301		PW AUTO PARTS	169.04
					Total :	**169.04**
162722	4/13/2021	100055 FAIR HOUSING FOUNDATION	FEBRUARY 2021		CDBG CONSULTANT	1,711.72
					Total :	**1,711.72**
162723	4/13/2021	106129 FEDEX	7-297-49173		SHIPPING SERVICES	34.27
			7-304-46619		SHIPPING SERVICES	5.07
			7-311-63001		SHIPPING SERVICES	37.89
					Total :	**77.23**
162724	4/13/2021	106545 FLEETPRIDE, INC	69572643		SEWER PROGRAM SUPPLIES	130.74
					Total :	**130.74**
162725	4/13/2021	108974 FLEX TECHNOLOGIES, INC.	17653		GTRANS AUTO SUPPLIES	842.82
					Total :	**842.82**

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162726	4/13/2021	111700 GARCIA, GREGORY	20-35PW		CLAIM FOR DAMAGES SETTLEMENT ~	500.00
					Total :	**500.00**
162727	4/13/2021	107030 GARDENA AUTO PARTS	131408		SEWER PROGRAM SUPPLIES	56.89
			131498		PW AUTO PARTS	29.79
			131519		PW AUTO PARTS	178.74
			132368		PW AUTO PARTS	13.43
			132444		PW AUTO PARTS	30.54
			132502		PW AUTO PARTS	66.13
					Total :	**375.52**
162728	4/13/2021	107011 GARDENA VALLEY NEWS, INC.	000104235		NOTICE - VIRTUAL WORKSHOP ON THI	168.00
					Total :	**168.00**
162729	4/13/2021	619005 GAS COMPANY, THE	040221		GAS	10,825.18
					Total :	**10,825.18**
162730	4/13/2021	107056 GENFARE	90171615		GTRANS AUTO PARTS	13.59
					Total :	**13.59**
162731	4/13/2021	619004 GOLDEN STATE WATER CO.	032421		WATER	12,606.30
					Total :	**12,606.30**
162732	4/13/2021	111549 HF & H CONSULTANTS, LLC	9718065	020-00029	CONSULTING SERVICES - SOLID WAST	3,093.75
					Total :	**3,093.75**
162733	4/13/2021	110371 HINDERLITER DE LLAMAS, & ASSOCIATES	SIN007250	023-01301	SALES TAX REPORTING FOR Q3	2,416.83
					Total :	**2,416.83**
162734	4/13/2021	108434 HOME DEPOT CREDIT SERVICES	0241992		HOME IMPROVEMENT PROGRAM	-14.76
			0320306		HOME IMPROVEMENT PROGRAM	54.49
			03208007		STREET MAINT SUPPLIES	47.80
			1314255		HOME IMPROVEMENT PROGRAM	74.57
			1320776		GTRANS MAINT SUPPLIES	112.30
			1530883		STREET MAINT SUPPLIES	50.46
			2035570		BLDG MAINT SUPPLIES	670.81
			2045765		BLDG MAINT SUPPLIES	298.87
			2282883		BLDG MAINT SUPPLIES	210.11

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162734	4/13/2021	108434 HOME DEPOT CREDIT SERVICES	(Continued)			
			3313807		HOME IMPROVEMENT PROGRAM	17.55
			4043708		GTRANS MAINT SUPPLIES	163.37
			4044258		BLDG MAINT SUPPLIES	847.23
			4044259		BLDG MAINT SUPPLIES	437.96
			4314156		HOME IMPROVEMENT PROGRAM	34.91
			4314620		HOME IMPROVEMENT PROGRAM	103.44
			4323090		HOME IMPROVEMENT PROGRAM	45.07
			5352471		HOME IMPROVEMENT PROGRAM	162.52
			5360963		GTRANS MAINT SUPPLIES	192.26
			6520371		BLDG MAINT SUPPLIES	413.56
			7043847		STREET MAINT SUPPLIES	47.80
			7055283 03/16/21		BLDG MAINT SUPPLIES	614.16
			7342820		HOME IMPROVEMENT PROGRAM	350.22
			8030590		BLDG MAINT SUPPLIES	40.63
			8050186		BLDG MAINT SUPPLIES	670.81
			8050187		BLDG MAINT SUPPLIES	126.91
			8055128		STREET MAINT SUPPLIES	251.37
			8352836		HOME IMPROVEMENT PROGRAM	14.32
			9051907		BLDG MAINT SUPPLIES	44.07
			9353120		STREET MAINT SUPPLIES	42.42
			9521365		PD PROGRAM SUPPLIES	36.32
					Total :	**6,161.55**
162735	4/13/2021	108430 HOME PIPE & SUPPLY	F29932		BLDG MAINT SUPPLIES	64.33
			F29986		BLDG MAINT SUPPLIES	8.65
			F30186		BLDG MAINT SUPPLIES	35.43
			F30324		BLDG MAINT SUPPLIES	807.22
			F30358		BLDG MAINT SUPPLIES	15.46
			F30442		BLDG MAINT SUPPLIES	217.09
			F30443		BLDG MAINT SUPPLIES	16.92
			F30445		SIGNS/SIGNALS SUPPLIES	9.88
			F30449		BLDG MAINT SUPPLIES	2.97
			F30504		BLDG MAINT SUPPLIES	11.17
					Total :	**1,189.12**
162736	4/13/2021	101031 HOUSING PROGRAMS	CDBG-21-1		CDBG - CAPER PREPPARATION	2,635.00

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162736	4/13/2021	101031 101031 HOUSING PROGRAMS	(Continued)		**Total :**	**2,635.00**
162737	4/13/2021	103314 HYDE, ERIC	04/13-04/19		TRAINING - SHERMAN BLOCK SUPERV	150.00
					Total :	**150.00**
162738	4/13/2021	111711 ICEHOUSE VENTURES V LLC	RA-DELANEY		COVID-19 RENTAL ASSISTANCE PROGI	3,675.00
					Total :	**3,675.00**
162739	4/13/2021	105513 INDUSTRIAL CLEANING SYSTEMS, INC.	39018		SERVICE CALL - REPAIR DUAL LANCE	334.06
					Total :	**334.06**
162740	4/13/2021	111593 INTER-CON SECURITY SYSTEMS INC	BD0042498	037-09992	GTRANS SECURITY SERVICES - JANU/	6,108.99
					Total :	**6,108.99**
162741	4/13/2021	106714 INTERSTATE BATTERIES OF, CALIFORNIA CO.	101135130		GTRANS AUTO PARTS	756.05
			140065528		GTRANS AUTO PARTS	149.87
					Total :	**905.92**
162742	4/13/2021	103064 ITERIS, INC.	132053	024-00717	TRAFFIC SIGNAL PROJECT - VERMONT	3,175.00
			132054	024-00677	CROSSWALK 133RD/VERMONT, JN 972	4,430.00
					Total :	**7,605.00**
162743	4/13/2021	110733 J & S PROPERTY MANAGEMENT AND, MAINTI	5426	037-09958	LANDSCAPE MAINTENANCE SERVICES	1,295.00
					Total :	**1,295.00**
162744	4/13/2021	108555 JALISCO TIRE & AUTO REPAIR	031321		FLAT REPAIR	10.00
			031821		(4) TIRES MOUNT & BALANCE	60.00
			032121		(4) TIRE MOUNT & BALANCE	60.00
			033021		TIRE MOUNT & BALANCE, SWAP	22.00
					Total :	**152.00**
162745	4/13/2021	110010 JANEK CORPORATION, THE	110029		GTRANS SHOP SUPPLIES	1,058.40
			110030		GTRANS SHOP SUPPLIES	2,116.80
					Total :	**3,175.20**
162746	4/13/2021	110853 JONES & MAYER	101831		ATTORNEY SERVICES	2,070.50
			102309	023-01295	ATTORNEY SERVICES	9,800.00
			102310		ATTORNEY SERVICES	500.00

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162746	4/13/2021	110853 JONES & MAYER	(Continued)			
			102311		ATTORNEY SERVICES	891.33
			102312		ATTORNEY SERVICES	41.00
			102313	023-01302	ATTORNEY SERVICES	1,783.50
			102314		ATTORNEY SERVICES	825.00
			102315		ATTORNEY SERVICES	2,009.00
			102316		ATTORNEY SERVICES	2,550.00
			102317		ATTORNEY SERVICES	1,455.50
			102318		ATTORNEY SERVICES	250.00
			102319		ATTORNEY SERVICES	100.00
			102320		ATTORNEY SERVICES	348.50
			102321		ATTORNEY SERVICES	820.00
			102322		ATTORNEY SERVICES	82.00
			102323		ATTORNEY SERVICES	20.50
			102324		ATTORNEY SERVICES	950.00
					Total :	**24,496.83**
162747	4/13/2021	120200 JONES, UNEICE	032221		MGMT ANNUAL HEALTH BENEFIT	591.28
					Total :	**591.28**
162748	4/13/2021	111517 KIRK'S AUTOMOTIVE INC.	1047874		GTRANS SHOP SUPPLIES	100.32
					Total :	**100.32**
162749	4/13/2021	111045 KJ SERVICES	2129		OIL DRANER CONTAINERS, 6QT	1,263.59
					Total :	**1,263.59**
162750	4/13/2021	111260 KJOS, BARBARA JEAN	MARCH 2021		GARDENA FAMILY CHILD CARE PROGF	1,595.00
					Total :	**1,595.00**
162751	4/13/2021	108475 L.A. CASCADE INC.	43579		TEMPURE LAB FREEZER - SERVICE	643.06
					Total :	**643.06**
162752	4/13/2021	312030 L.A. COUNTY ASSESSOR	21ASRE157		MAPS/POSTAGE	12.48
					Total :	**12.48**
162753	4/13/2021	312240 L.A. COUNTY DEPARTMENT OF, PUBLIC WOR	21030804751	024-00679	INDUSTRIAL WASTE SERVICES	8,718.79
			21030805051	024-00679	TRAFFIC SIGNAL MAINT - HIGHWAY SA	2,658.85

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162753	4/13/2021	312240 312240 L.A. COUNTY DEPARTMENT OF, PUBLIC (Continued)			**Total :**	**11,377.64**
162754	4/13/2021	312039 L.A. COUNTY FIRE DEPARTMENT	C0009786	023-01284	FIRE PROTECTION SERVICES - MAY 2(	647,680.43
					Total :	**647,680.43**
162755	4/13/2021	312113 L.A. COUNTY SHERIFF'S DEPT	211763BL		INMATE MEAL DELIVERY PROGRAM - F	379.30
					Total :	**379.30**
162756	4/13/2021	112436 L.A. TIMES	10020731057 03/16/21		SUBSCRIPTION RENEWAL - ACCT #10(	188.50
					Total :	**188.50**
162757	4/13/2021	110783 LA COUNTY METRO TRANSPORTATION, AGEI	FEB21		LA METRO TAP ADJUSTMENT - FEBRU/	1,245.60
					Total :	**1,245.60**
162758	4/13/2021	112014 LAKESHORE LEARNING MATERIALS	4340550321	331-00053	FCC PROGRAM SUPPLIES	77.16
			4340880321	331-00053	FCC PROGRAM SUPPLIES	422.32
			4497290321	331-00053	FCC PROGRAM SUPPLIES	282.33
			4497430321	331-00053	FCC PROGRAM SUPPLIES	217.68
			4497440321	331-00053	FCC PROGRAM SUPPLIES	500.00
			4547730321	331-00053	FCC PROGRAM SUPPLIES	380.26
			4547740321	331-00053	FCC PROGRAM SUPPLIES	476.77
			4569860321	331-00053	FCC PROGRAM SUPPLIES	523.53
			4603510321	331-00053	FCC PROGRAM SUPPLIES	508.55
			4610650321	331-00053	FCC PROGRAM SUPPLIES	489.38
			4656150321	331-00053	FCC PROGRAM SUPPLIES	505.35
			4663440321	331-00053	FCC PROGRAM SUPPLIES	498.78
			4677060321	331-00053	FCC PROGRAM SUPPLIES	510.29
			4678220321	331-00053	FCC PROGRAM SUPPLIES	540.02
			4693260321	331-00053	FCC PROGRAM SUPPLIES	525.89
			4718740321	331-00053	FCC PROGRAM SUPPLIES	497.31
			4769160321	331-00053	FCC PROGRAM SUPPLIES	549.03
			4791650321	331-00053	FCC PROGRAM SUPPLIES	461.90
					Total :	**7,966.55**
162759	4/13/2021	110257 LAPENNA-HUDA, ELISABETTA	0239	037-09997	EXECUTIVE COACHING - GTRANS	8,333.33
					Total :	**8,333.33**
162760	4/13/2021	111713 LAW OFFICE OF WABBY & WABBY	19-35REC2		SETTLEMENT - B.JACKSON V. GARDEI	33,333.33

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162760	4/13/2021	111713 111713 LAW OFFICE OF WABBY & WABBY (Continued)			**Total :**	**33,333.33**
162761	4/13/2021	111713 LAW OFFICE OF WABBY & WABBY	19-35REC1		SETTLEMENT - B.JACKSON V. GARDEN	33,333.33
					Total :	**33,333.33**
162762	4/13/2021	111713 LAW OFFICE OF WABBY & WABBY	19-35REC		SETTLEMENT - ATTORNEY FEES B.JAC	8,709.86
					Total :	**8,709.86**
162763	4/13/2021	105874 LAWSON PRODUCTS, INC.	9308282775		BUS SHOP SUPPLIES	792.92
			9308315914		BUS SHOP SUPPLIES	348.94
					Total :	**1,141.86**
162764	4/13/2021	112260 LIEBERT CASSIDY WHITMORE	1515602		PROFESSIONAL SERVICES	908.00
			1515603		PROFESSIONAL SERVICES	30.50
			1515604		PROFESSIONAL SERVICES	1,422.00
			1515606		PROFESSIONAL SERVICES	464.00
			1516730		PROFESSIONAL SERVICES	1,430.62
			1516831		PROFESSIONAL SERVICES	4,202.20
					Total :	**8,457.32**
162765	4/13/2021	109446 LINSCOTT, LAW & GREENSPAN, ENGINEERS	14396-00103	032-00082	TRAFFIC ENGINEERING SERVICES - H	2,729.00
					Total :	**2,729.00**
162766	4/13/2021	109517 LOAD N' GO BUILDING MATERIALS	18854		STREET MAINT SUPPLIES	47.62
			18871		STREET MAINT SUPPLIES	41.34
			18893		STREET MAINT SUPPLIES	128.84
			18899		STREET MAINT SUPPLIES	33.57
					Total :	**251.37**
162767	4/13/2021	108807 LOCKE LORD LLP	1635550		PROFESSIONAL SERVICES	1,309.00
					Total :	**1,309.00**
162768	4/13/2021	111707 LOPEZ, REFUGIO	CIT #311126037		REFUND - CITATION OVERPAYMENT	70.00
					Total :	**70.00**
162769	4/13/2021	109804 LOPEZ, TRACEY	04/11-04/14		ANNUAL JAIL TRAINING - PER DIEM	150.00
					Total :	**150.00**

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162770	4/13/2021	112602 LUBRICATION ENGINEERS, INC.	IN444334		AUTO ENGINE OIL	1,994.49
					Total :	**1,994.49**
162771	4/13/2021	109563 LUCKY LADY CASINO	0850000109		ECONOMIC ASSISTANCE - NOVEMBER	2,039.19
					Total :	**2,039.19**
162772	4/13/2021	112615 LU'S LIGHTHOUSE, INC.	01191372	037-09974	GTRANS SHOP SUPPLIES	8.55
					Total :	**8.55**
162773	4/13/2021	813030 MANNING & KASS	701309		LEGAL SERVICES	19,707.01
					Total :	**19,707.01**
162774	4/13/2021	110306 MARIPOSA LANDSCAPES, INC	91968	024-00669	MEDIAN LANDSCAPE MAINTENANCE	6,924.00
			92739	024-00669	MEDIAN LANDSCAPE MAINTENANCE	6,924.00
					Total :	**13,848.00**
162775	4/13/2021	107951 MARK HANDLER & ASSOCIATES	JANUARY 2021	032-00065	BUILDING INSPECTION SERVICES	11,537.50
					Total :	**11,537.50**
162776	4/13/2021	113046 MARX BROS. FIRE EXTINGUISHER, CO., INC.	P30477		FIRE EXTINGUISHER SERVICE - CITY C	1,200.00
			P30479	024-00719	FIRE EXTINGUISHER SERVICE - ROWL	3,450.00
			P30480	024-00719	FIRE EXTINGUISHER SERVICE - MAS F	1,600.00
			P30481	024-00719	FIRE EXTINGUISHER SERVICE - FREEI	2,550.00
			P30482	024-00719	FIRE EXTINGUISHER SERVICE - JOHNS	1,600.00
			P30488		FIRE EXTINGUISHER SERVICE - PW	93.08
			S11525		FIRE EXTINGUISHER SERVICE - NCC	80.00
					Total :	**10,573.08**
162777	4/13/2021	104106 MCCAIN, INC.	INV0257327	024-00680	SIGNS/SIGNALS SUPPLIES	4,628.92
					Total :	**4,628.92**
162778	4/13/2021	113064 MCMASTER-CARR SUPPLY COMPANY	54847590		GTRANS SHOP SUPPLIES	680.45
			54952810		GTRANS SHOP SUPPLIES	159.48
					Total :	**839.93**
162779	4/13/2021	110206 MICHELIN NORTH AMERICA, INC.	DA0046165025	037-09862	GTRANS' BUS TIRE LEASE SERVICES -	4,021.46
					Total :	**4,021.46**

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Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162780	4/13/2021	111604 MICRO ELECTRONICS, INC	11163786	023-01321	(2) VIDEO EDITING PC & (5) REPLACEM	8,484.74
					Total :	**8,484.74**
162781	4/13/2021	103093 MOBILE RELAY ASSOCIATES, INC.	101006827		GTRANS BUS RADIO SUPPLIES	235.00
			108001140		GTRANS BUS RADIO SUPPLIES	275.87
			80015763	037-09964	GTRANS BUS RADIO SYSTEM RENTAL	11,059.49
			80015871	037-09858	GTRANS BUS RADIO SYSTEM RENTAL	271.53
					Total :	**11,841.89**
162782	4/13/2021	111699 MORALES, YESSENIA	21-04PD		CLAIM FOR DAMAGES SETTLEMENT ~	1,120.00
					Total :	**1,120.00**
162783	4/13/2021	113355 MR. HOSE INC.	185607		PW AUTO PARTS	239.68
					Total :	**239.68**
162784	4/13/2021	110573 MURILLO, ERNESTO	04/11-04/14		ANNUAL JAIL TRAINING - PER DIEM	150.00
					Total :	**150.00**
162785	4/13/2021	113605 MUTUAL LIQUID GAS & EQUIPMENT, CO., INC	519232		PROPANE GAS	126.55
					Total :	**126.55**
162786	4/13/2021	110819 NORTHERN SAFETY CO., INC.	904346361		BUS SHOP SUPPLIES	218.30
					Total :	**218.30**
162787	4/13/2021	110575 OCCUPATIONAL HEALTH CENTERS, OF CALIF	031021		FIRST AID MEDICAL SERVICES	437.64
			03252021		FIRST AID MEDICAL SERVICES	235.46
			032521		FIRST AID MEDICAL SERVICES	484.06
			70676140		ANNUAL PHYSICAL RECERTIFICATION	375.50
			70821557		RANDOM TEST & ANNUAL PHYSICAL R	825.50
					Total :	**2,358.16**
162788	4/13/2021	115168 OFFICE DEPOT	153820507		PD OFFICE SUPPLIES	-29.73
			160760827		PD OFFICE SUPPLIES	30.85
			161210510		PD OFFICE SUPPLIES	55.10
			161475818		CM OFFICE SUPPLIES	51.97
			161534828		HR OFFICE SUPPLIES	74.31
			162434280		REC OFFICE SUPPLIES	54.96
			162434398		REC OFFICE SUPPLIES	7.93

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162788	4/13/2021	115168 OFFICE DEPOT	(Continued)			
			162861683		REC OFFICE SUPPLIES	87.42
			164114468		PD OFFICE SUPPLIES	63.01
					Total :	**395.82**
162789	4/13/2021	111358 O'REILLY AUTO PARTS	100515		PW AUTO PARTS	19.98
			101682		SEWER PROGRAM SUPPLIES	68.71
			102258		GTRANS AUTO PARTS	138.10
			103929		PW AUTO PARTS	61.72
			105161		PW AUTO PARTS	70.51
			495796		PW AUTO PARTS	425.02
			495969		PW AUTO PARTS	-120.45
				G		
			496044		PW AUTO PARTS	-38.51
				G		
			497594		SEWER PROGRAM SUPPLIES	39.69
					Total :	**664.77**
162790	4/13/2021	115810 ORKIN PEST CONTROL	207750883		PEST CONTROL - ACCT #27336703	230.90
			207750888		PEST CONTROL - ACCT #27336703	230.90
			212647678		PEST CONTROL - ACCT #27336703	237.00
					Total :	**698.80**
162791	4/13/2021	110535 P. F. PETTIBONE & CO	180145		CLERK DEPT SUPPLIES	709.68
					Total :	**709.68**
162792	4/13/2021	103673 PACIFIC PRODUCTS & SERVICE, LLC	28301		SIGNS/SIGNALS SUPPLIES	1,212.20
					Total :	**1,212.20**
162793	4/13/2021	110971 PAPER RECYCLING & SHREDDING, SPECIALI	483275		ON-SITE SHREDDING SERVICES	800.00
					Total :	**800.00**
162794	4/13/2021	111698 PELLEGRINO, RAYMOND	RA-VAILS		COVID-19 RENTAL ASSISTANCE PROGI	4,650.00
					Total :	**4,650.00**
162795	4/13/2021	110403 PENN RECORDS MANAGEMENT	0122577		OFF-SITE STORAGE SERVICES - FEBR	54.25
			0122975		OFF-SITE STORAGE SERVICES - MARC	54.25

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162795	4/13/2021	110403 110403 PENN RECORDS MANAGEMENT	(Continued)		**Total :**	**108.50**
162796	4/13/2021	111706 PEREZ, WENDY LIZETH	RECEIPT #45661		REFUND - REPLACEMENT BADGE NOT	50.00
					Total :	**50.00**
162797	4/13/2021	116140 PETE'S ROAD SERVICE, INC.	484857		TIRES - ST22575R15 TRAILER	1,590.03
					Total :	**1,590.03**
162798	4/13/2021	307101 PETTY CASH FUND	12/09-03/25/21		REPLENISH PETTY CASH	942.81
					Total :	**942.81**
162799	4/13/2021	111702 PHAM, DIEM	PERMIT #50019-1082		PERMIT DEPOSIT REFUND - 16918 BRI	5,000.00
					Total :	**5,000.00**
162800	4/13/2021	108600 PHOENIX GROUP INFORMATION, SYSTEMS	0220211211	035-01020	PARKING CONTRACT SERVICES - FEBI	32.25
			022021211	035-01020	PARKING CONTRACT SERVICES - FEBI	6,947.45
					Total :	**6,979.70**
162801	4/13/2021	105574 PINNACLE PETROLEUM, INC.	0243112	024-00681	87 OCTANE REGULAR UNLEADED CAR	20,051.53
			0243115	024-00681	ULTA LOW SULFUR CARB RENEWABLE	1,692.09
					Total :	**21,743.62**
162802	4/13/2021	100123 PINTO, ALEXANDER	030921		MEDICAL REIMBURSEMENT	1,909.42
					Total :	**1,909.42**
162803	4/13/2021	102677 PROVIDENCE HEALTH & SERVICES	1010125 02/05/21		SART EXAMS	1,800.00
					Total :	**1,800.00**
162804	4/13/2021	106092 PRUDENTIAL OVERALL SUPPLY	42604963		UNIFORM & SUPPLY RENTAL	138.20
			42606996	024-00682	CUSTODIAL SUPPLIES	193.80
			42606997		UNIFORM & SUPPLY RENTAL	143.73
			42606998		UNIFORM & SUPPLY RENTAL	43.78
			42606999		SUPPLY RENTAL - MATS - GTRANS	50.10
			42607000		SUPPLY RENTAL - MATS - NCC	13.65
			42607001		SUPPLY RENTAL - MATS - CH	19.00
			42607002		SUPPLY RENTAL - MATS - PD	91.60
			42607003		SUPPLY RENTAL - MATS - HS	11.60
			42607330		UNIFORM & SUPPLY RENTAL	386.09

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162804	4/13/2021	106092 PRUDENTIAL OVERALL SUPPLY	(Continued)			
			42608814	024-00682	CUSTODIAL SUPPLIES	2,804.49
			42608815		UNIFORM & SUPPLY RENTAL	143.73
			42608816		UNIFORM & SUPPLY RENTAL	43.78
			42608817		SUPPLY RENTAL - MATS - GTRANS	50.10
			42609130		UNIFORM & SUPPLY RENTAL	1,496.69
			42611473		UNIFORM & SUPPLY RENTAL	272.00
					Total :	**5,902.34**
162805	4/13/2021	116820 PSOMAS	170999	037-09987	GTRANS DESIGN BUILD CONSTRUCTI(	2,264.63
					Total :	**2,264.63**
162806	4/13/2021	111574 RACE COMMUNICATIONS	RC482699		FIBER INTERNET SERVICES - APRIL 20	5,464.80
					Total :	**5,464.80**
162807	4/13/2021	118476 RICOH USA, INC.	5061650073		RICOH SP8200DN COPIER USAGE CHA	1,155.77
			9028804675		RICOH MPC3503 COPIER LEASE - CLEI	175.70
			9028804679		RICOH PRO8100SE COPIER LEASE - PI	459.79
			9028804681		RICOH MCP3503 COPIER LEASE - CM -	246.46
			9028804683		RICOH MPC3503 COPIER LEASE - CD -	236.10
			9028804684		RICOH MPC6502SP COPIER LEASE - PI	738.33
			9028813019		RICOH MPC3503 COPIER LEASE - REC	187.53
			9028813403		RICOH MPC3503 COPIER LEASE - PW -	165.00
					Total :	**3,364.68**
162808	4/13/2021	118536 RIO HONDO COLLEGE	S21-26-ZGDA		TUITION - POST SUPERVISORY COURS	456.00
					Total :	**456.00**
162809	4/13/2021	100585 RKA CONSULTING GROUP	30976		ENGINEERING PLAN CHECK SERVICES	980.00
			30977		ENGINEERING PLAN CHECK SERVICES	1,260.00
					Total :	**2,240.00**
162810	4/13/2021	107146 ROADLINE PRODUCTS INC. U.S.A.	S117565693		STREET MAINT SUPPLIES	185.22
					Total :	**185.22**
162811	4/13/2021	111495 ROBINSON-PASSLEY, SHARON	APRIL 2021		COBRA REIMBURSEMENT	588.25
					Total :	**588.25**

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162812	4/13/2021	110205 ROSS & BARUZZINI, INC.	43596	037-09885	CONSULTING SERVICES FOR SCHEDU	4,800.00
			43597	037-09901	CONSULTING SERVICES FOR MACRO	3,091.49
					Total :	**7,891.49**
162813	4/13/2021	119126 S.B.R.P.C.A.	02220	035-01059	PATROL VEHICLE SET-UP - UNIT P-3	9,515.19
			03955		PD AUTO PARTS	24.26
			03956		PD AUTO PARTS	40.90
			03957		PD AUTO PARTS	40.90
			03958		PD AUTO PARTS	45.58
			03959		PD AUTO PARTS	45.58
			03960		PD AUTO PARTS	116.36
			03961		PD AUTO PARTS	116.36
			03962		PD AUTO PARTS	191.17
			03964		PD AUTO PARTS	435.49
			03965		PD AUTO PARTS	623.59
			03966		PD AUTO PARTS	752.86
					Total :	**11,948.24**
162814	4/13/2021	119022 SAFE MART OF SOUTHERN, CALIFORNIA, INC	91950		PD PROGRAM SUPPLIES	321.93
			91972		BLDG MAINT SUPPLIES	51.76
			92057		BUS PROGRAM SUPPLIES	13.23
					Total :	**386.92**
162815	4/13/2021	119015 SAFETY-KLEEN CORPORATION	85240683	024-00722	CLEANING OF CLARIFIER AND SUMPS	3,422.00
					Total :	**3,422.00**
162816	4/13/2021	110424 SANTOS, CHARLES	031821		MEDICAL REIMBURSEMENT	2,750.00
					Total :	**2,750.00**
162817	4/13/2021	108654 SECTRAN SECURITY INC.	21020646		ARMORED TRANSPORTATION SERVICI	183.62
			21030652		ARMORED TRANSPORTATION SERVICI	185.22
					Total :	**368.84**
162818	4/13/2021	107006 SHAMROCK COMPANIES	2485071		PARK MAINT SUPPLIES	59.14
					Total :	**59.14**
162819	4/13/2021	109918 SHIGE'S FOREIGN CAR SERVICE	81161	035-01021	2016 FORD INTRCPTR #1484145 BRAKI	260.88
			81190	035-01021	2018 FORD INTRCPTR #1555072 OIL &	27.37

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162819	4/13/2021	109918 SHIGE'S FOREIGN CAR SERVICE	(Continued)			
			81229	035-01021	2015 FORD INTRCPTR #1462933 BRAKI	1,170.06
			81230	035-01021	2015 TOY SIENNA #577636 SERVICE &	221.64
			81242	035-01021	2014 FORD INTRCPTR #1442248 OIL &	27.56
			81261	035-01021	2016 FORD INTRCPTR #1488058 FUEL	298.44
			81272	035-01021	2018 FORD INTRCPTR #1554676 SERVI	623.34
			81273	035-01021	2016 FORD INTRCPTR #1484145 SERVI	105.01
					Total :	**2,734.30**
162820	4/13/2021	109155 SOCIAL SOLUTIONS GLOBAL, INC.	566751	035-01060	APRICOT ANNUAL SOFTWARE RENEW	4,381.77
					Total :	**4,381.77**
162821	4/13/2021	119202 SOUTH BAY DOCUMENT DESTRUCTION, INC	77751		DOCUMENT DESTRUCTION 03/15/21	100.00
					Total :	**100.00**
162822	4/13/2021	119447 SOUTH BAY FORD	503003		2016 FORD EXPLR #1488058 SERVICE	666.10
					Total :	**666.10**
162823	4/13/2021	619003 SOUTHERN CALIFORNIA EDISON	032421		LIGHT & POWER	52,329.25
					Total :	**52,329.25**
162824	4/13/2021	108238 SPARKLETTS	14211220 032421		DRINKING WATER FILTRATION SYSTEM	36.99
					Total :	**36.99**
162825	4/13/2021	104126 SPECTRUM SOLUTIONS	0851122021221		CABLE SERVICES - PD	73.50
			0851122031221		CABLE SERVICES - PD	136.92
					Total :	**210.42**
162826	4/13/2021	104453 SPICERS PAPER, INC.	2626662	023-01297	PRINT SHOP PAPER	1,400.18
					Total :	**1,400.18**
162827	4/13/2021	119548 ST. JOHN LUTHERAN CHURCH	APRIL 2021		SENIOR CITIZENS DAY CARE	900.00
					Total :	**900.00**
162828	4/13/2021	119594 STANLEY PEST CONTROL	COG 0321		PEST CONTROL SERVICE - 1670 W 162	654.00
			COG 0321-1		PEST CONTROL SERVICE - 2320 W. 149	117.00
					Total :	**771.00**

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162829	4/13/2021	119010 STAPLES ADVANTAGE	3471592767		ENGINEERING OFFICE SUPPLIES	409.70
			3471592769		ENGINEERING OFFICE SUPPLIES	76.13
			3471592771		PW OFFICE SUPPLIES	84.03
			3471592772		PW OFFICE SUPPLIES	40.51
			3471592783		PW OFFICE SUPPLIES	36.55
			3471717622		PW OFFICE SUPPLIES	12.12
					Total :	**659.04**
162830	4/13/2021	106525 SUPERIOR ELECTRICAL, ADVERTISING INC.	PERMIT #50020-0953		PERMIT DEPOSIT REFUND - 1199 W. AI	5,000.00
					Total :	**5,000.00**
162831	4/13/2021	111487 TERACAI CORPORATION	8076599		CISCO MERAKI 3M 100GE QSFP CABLE	1,288.40
					Total :	**1,288.40**
162832	4/13/2021	109775 TOMS TRUCK CENTER NORTH COUNTY	1219900	037-09979	GTRANS AUTO PARTS	1,634.00
			1220714	037-09975	GTRANS AUTO PARTS	17,851.51
			1221266	037-09979	GTRANS AUTO PARTS	225.43
					Total :	**19,710.94**
162833	4/13/2021	120525 TRANS UNION LLC	02104846		CREDIT REPORT	88.74
					Total :	**88.74**
162834	4/13/2021	110092 TRILLIUM SOLUTIONS, INC.	3830		GTRANS GTFS MANAGER SOFTWARE	1,000.00
					Total :	**1,000.00**
162835	4/13/2021	100896 U.S. BANK	2110025926	023-01318	LINE OF CREDIT QUARTERLY FEE	8,035.41
					Total :	**8,035.41**
162836	4/13/2021	109900 U.S. BANK CORPORATE PAYMENT, SYSTEMS	BEEMAN 03/22/21		CAL CARD STATEMENT 02/23-03/22/21	590.74
			FCC 02/22/21		CAL CARD STATEMENT 01/23-02/22/21	2,769.24
			FCC 03/22/21		CAL CARD STATEMENT 02/23-03/22/21	2,873.71
			FINANCE 03/22/21		CAL CARD STATEMENT 02/23-03/22/21	1,709.07
			MACIEL 03/22/21		CAL CARD STATEMENT 02/23-03/22/21	18.80
			MCCLAIN 03/22/.21		CAL CARD STATEMENT 02/23-03/22./21	100.00
			PD TRAINING 02/22/21		CAL CARD STATEMENT 01/23-02/22/21	1,343.42
			PD TRAINING2 2/22/21		CAL CARD STATEMENT 01/23-02/22/21	621.00
			PD TRAINING3 2/22/21		CAL CARD STATEMENT 01/23-02/22/21	2,668.74
			PD TRAINING4 2/22/21		CAL CARD STATEMENT 01/23-02/22/21	1,547.28

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162836	4/13/2021	109900 U.S. BANK CORPORATE PAYMENT, SYSTEMS	(Continued)			
			V.OSORIO 02/22/21		CAL CARD STATEMENT 01/23-02/22/21	381.73
			VERCELES 03/22/21		CAL CARD STATEMENT 02/23-03/22/21	529.01
			WARD 03/22/21		CAL CARD STATEMENT 02/23-03/22/21	273.31
					Total :	**15,426.05**
162837	4/13/2021	104692 ULINE	131546165		BUS SHOP SUPPLIES	736.98
			131632546		BUS SHOP SUPPLIES	762.97
					Total :	**1,499.95**
162838	4/13/2021	121010 UNITED RENTALS	192178492		RENTAL - VIBRATOR MOTO 3HP ELECT	225.73
					Total :	**225.73**
162839	4/13/2021	121407 UPS	649922111 03/13/21		SHIPPING SERVICE CHARGES	132.90
					Total :	**132.90**
162840	4/13/2021	110614 USA SHADE & FABRIC STRUCTURES	74483-01	024-00653	MAS FUKAI PARK SUN SHADE STRUCT	53,936.01
					Total :	**53,936.01**
162841	4/13/2021	122050 VERIZON WIRELESS	9875218890		PW CELL PHONE SERVICE~	989.13
			9875748514		BUS CELL PHONE SERVICE~	535.24
			9875897227		REC CELL PHONE SERVICE~	919.97
					Total :	**2,444.34**
162842	4/13/2021	122435 VISTA PAINT CORPORATION	2021-837064-00		GTRANS FACILITY PAINT	100.34
					Total :	**100.34**
162843	4/13/2021	108353 WALTERS WHOLESALE ELECTRIC CO	S117565693		SIGNS/SIGNALS SUPPLIES	230.58
			S117565767		BLDG MAINT SUPPLIES	39.55
			S117565767.002		BLDG MAINT SUPPLIES	285.05
			S117573430		GTRANS MAINT SUPPLIES	222.39
			S117667665		BLDG MAINT SUPPLIES	156.19
			S117745527		BLDG MAINT SUPPLIES	36.17
					Total :	**969.93**
162844	4/13/2021	111701 WARNER, GAYLE	RA-ROY		COVID-19 RENTAL ASSISTANCE PROG	4,050.00
					Total :	**4,050.00**

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount
162845	4/13/2021	101903 WATER TECHNIQUES	77869		DRINKING WATER SYSTEM RENTAL	45.00
					Total :	**45.00**
162846	4/13/2021	100107 WAYNE ELECTRIC CO.	199598		GTRANS AUTO PARTS	488.46
					Total :	**488.46**
162847	4/13/2021	123154 WEST COAST ARBORISTS, INC.	170475	024-00676	TREE TRIMMING SERVICES FY 2021	15,169.00
					Total :	**15,169.00**
162848	4/13/2021	110370 WESTERN COLLISION CENTER, INC	1040	035-01022	2018 NISSN FRONTIER #1529604 BODY	343.79
			1044	035-01022	2018 NISSN FRONTIER #1529606 BODY	874.88
			1048	035-01022	2017 FORD EXPLR #1368928 BODY REI	3,851.44
			1049	035-01022	2018 FORD EXPLR #1554678 BODY REI	1,526.39
			1055	035-01022	2016 FORD EXPLR #1488057 BODY REI	225.00
					Total :	**6,821.50**
162849	4/13/2021	119387 WEX BANK	70601595		FUEL PURCHASES	160.07
					Total :	**160.07**
162850	4/13/2021	111704 WILSHIRE LAW DBA BEVERLY LAW	18-36PD		SETTLEMENT - T.BRAXTON V. GARDEN	23,030.61
					Total :	**23,030.61**
162851	4/13/2021	125001 YAMADA COMPANY, INC.	80534		PARK MAINT SUPPLIES	33.86
					Total :	**33.86**
162852	4/13/2021	104934 ZUMAR INDUSTRIES, INC.	92196		SIGNS/ SIGNALS SUPPLIES	1,181.47
			92196-A		SIGNS/ SIGNALS SUPPLIES	1,220.30
			92196-CM		SIGNS/ SIGNALS SUPPLIES	-1,181.47
					Total :	**1,220.30**

208 Vouchers for bank code : usb **Bank total :** **4,292,940.70**

208 Vouchers in this report **Total vouchers :** **4,292,940.70**

Bank code : usb

Voucher	Date	Vendor	Invoice	PO #	Description/Account	Amount

CLAIMS VOUCHER APPROVAL

I hereby certify that the demands or claims covered by the checks listed on pages 1 to 25 inclusive of the check register are accurate and funds are available for payment thereof.

By: _____

City Manager

This is to certify that the claims or demands covered by checks listed on pages 1 to 25 inclusive of the check register have been audited by the City Council of the City of Gardena and that all of the said checks are approved for payment except check numbers:

_____

_____ 04/13/2021

Mayor Date

_____ _____

Councilmember Date

_____ _____

Councilmember Date

Acknowledged:

_____ _____

Councilmember Date

_____ _____

Councilmember Date

CITY OF GARDENA
PLANNING & ENVIRONMENTAL QUALITY COMMISSION
CITY COUNCIL CHAMBER ■ 1700 WEST 162nd STREET
Telephone: (310) 217-9524 ■ E-mail address: CDDPlanningandZoning@cityofgardena.org

REPORT OF ACTIONS
April 6, 2021

5. PUBLIC HEARING ITEMS:

A. Environmental Assessment #14-20, Conditional Use Permit #4-20

The Planning Commission considered a request for a conditional use permit to allow the on-site sale and consumption of beer, wine, and distilled spirits at an existing restaurant located in the General Commercial and Mixed-Use Overlay (C-3/MUO) zones.

Project Location: 2222 Rosecrans Avenue
Applicant: Krave Dine & Lounge Inc.

Commission Action: The Commission approved Resolution No. PC 5-21, approving Conditional Use Permit #4-20.

B. Environmental Assessment #1-20; General Plan Amendment #1-20; Specific Plan #1-20; Zone Change #1-20; Zoning Code Amendment #3-20; Development Agreement #1-20; Lot Line Adjustment #1-20; Site Plan Review #1-20

The Planning Commission considered a request for a General Plan Amendment, Specific Plan, Zone Change, Zone Code Amendment, Development Agreement, Site Plan Review, and a Lot Line Adjustment all related to the development of a 265-dwelling unit apartment building on a 1.33-acre site, with a 2,500-square-foot dynamic, digital display on the north side of the building. An Environmental Impact Report (EIR), Mitigation Monitoring and Reporting Plan (MMRP), CEQA Findings, and a Statement of Overriding Consideration were prepared to address the environmental impacts and were considered by the Commission.

Project Location: 12850-12900 Crenshaw Boulevard
Applicant: Din/Cal 4, Inc.

Commission Action: The Commission approved Resolution No. PC 4-21, recommending the City Council certify the EIR, adopt the MMRP, Finding Related to Alternatives and Mitigation Measures, and Statement of Overriding Considerations for purposes of the Project. At the same time the Commission recommended the City Council approve General Plan Amendment #1-20, Specific Plan #1-20, Zone Change #1-20, Zone Code Amendment #3-20, Development Agreement #1-20, and Site Plan Review #1-20.

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 13.B
Section: DEPARTMENTAL ITEMS - ELECTED & ADMINISTRATIVE OFFICES
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: ORDINANCE NO. 1827, AMENDING SECTION 8.08.035 (AMENDMENT OF SECTION 7802.3) OF CHAPTER 8.08 (FIRE CODE) AND AMENDING SECTIONS 8.16.010 (DEFINITIONS), 8.16.020 (PERMIT-REQUIRED), SECTION 8.16.130 (DATES AND HOURS OF SALE AND USE), SECTION 8.16.150 (PROHIBITIONS ON DISCHARGE), 8.16.170 (VIOLATION-PENALTY) AND ADDING SECTION 8.16.155 (SOCIAL HOST LIABILITY) OF CHAPTER 8.16 (FIREWORKS) OF TITLE 8 (HEALTH AND SAFETY) OF THE GARDENA MUNICIPAL CODE

COUNCIL ACTION REQUIRED:

Staff Recommendation: Staff respectfully recommends that Council Introduce Ordinance No. 1827

RECOMMENDATION AND STAFF SUMMARY:

On July 28, 2020, Mayor Cerda directed staff to research additional tools to assist in deterring the use of illegal fireworks in the City.

The Gardena Police Department receives a large number of calls from citizens regarding the use of illegal fireworks in the City during the weeks leading up to the 4th of July holiday on an annual basis. To properly address these concerns, the City's Municipal Code Chapter relating to Fireworks (GMC Chapter 8.16) was re-written in 2013, allowing "Safe and Sane" fireworks to be discharged between noon and 10:00 pm on the 4th of July only. It is illegal to discharge any fireworks within City limits outside of the specified timeframe and date.

Despite the rewriting of the GMC, the City has experienced an increasing number of fireworks related incidents throughout the year—not just during the holiday. The detonation of illegal fireworks is a complex problem. Reports of illegal fireworks activity have steadily risen over the last few years with an average of 421 calls from May to July in the years 2018-2020. The City Council has heard and understood citizen complaints in this matter and has directed the City and Police Department to develop a program to deal with the negative effects of illegal fireworks within our community. The use of illegal fireworks impacts all Gardena residents, and particularly Gardena's special needs constituents, including young children, elderly, veterans, and animals. As a result, residents and visitors have expressed their concern surrounding both illegal and Safe and Sane fireworks and requested a more robust system for dealing with this issue.

	2018	2019	2020
Police Calls for Service	May: 3 June: 65 July: 205	May: 19 June: 69 July: 143	May: 112 June: 403 July: 244

In December 2020, a Task Force was formed to address the fireworks issue. The Task Force is comprised of members from the Gardena Police Department, Code Enforcement, City Attorney's Office, LA County Fire Department and citizens of Gardena. This Task Force aims to outline ideas and suggestions for enforcement of the City's municipal code pertaining to fireworks and expanding educational outreach. As such, City staff plans to utilize a two-prong approach that emphasizes education and enforcement.

In January 2021 a plan was formulated for an educational campaign, including flyer, mailers, social media and public service announcements which would focus on fire danger, physical danger, PTSD, and pet welfare. Additionally, the Task Force decided to focus on administrative citations as opposed to criminal prosecutions in most cases. Any of the major cases (felonies) will still be referred to the Los Angeles District Attorney's Office.

Staff has also evaluated the creation of a Social Host Ordinance to deter illegal fireworks use. One of the many challenges of firework enforcement is that illegal fireworks are often be discharged from private and public property in areas where officers cannot see who is responsible for igniting the firework. One solution to this problem is that the City adopt a Social Host Ordinance. A Social Host Ordinance ensures that those who have possession of a residence or other property are held legally responsible for dangerous illegal firework possession and use on that property.

A Social Host Ordinance allows officers to issue an administrative citation fine for the ignition of dangerous fireworks to the person responsible for the property or gathering, without the need for the officer to witness who ignited the devise.

A recent example of the devastation that can be caused by illegal fireworks happened on March 16, 2021 in the city of Ontario, California where two men were killed by a stockpile of illegal fireworks. The explosion shattered windows of nearby houses and cast a field of debris across approximately 80 properties. A huge plume of smoke was seen for miles. This is a worst-case scenario but one that the Police Department is proactively trying to ensure does not occur in Gardena; this Ordinance is one tool allowing the City to make a positive impact in the fireworks problem.

Under the proposed Ordinance, "Social Host" is defined as 1) any owner of property as listed on the most recent assessment roll; 2) any person who has the right to use, possess or occupy a property under a lease, permit, license, rental agreement, reservation or contract; or 3) any person who hosts, organizes, supervises, officiates, conducts or accepts responsibility

for a gathering.

The proposed Ordinance does recognize that the Social Host shall be strictly liable and subject to an administrative citation fine for any unlawful ignition, use, discharge or display of any fireworks in violation of GMC Chapter 8.16 at their property or gathering, **except** that 1) no owner of private property shall be liable for a violation if the owner can demonstrate that at the time of such violation they had rented or leased the property to another, the owner was not present, and the owner had no prior knowledge of the violation or 2) no person who has the right to use, possess or occupy a unit in a multifamily residential property under a lease, rental agreement, contract or covenant shall be liable for violations occurring in the common areas of the property.

Additionally, clean-up changes to Chapters 8.08 and 8.16 are proposed in order to repeal Ordinance 1785, which was deemed invalid by the ruling in the action of *Gardena Valley Assembly of God Church vs. City of Gardena* (BC YC073006).

The Ordinance has been drafted to show additions by underscore and deletions by strikethrough ~~strikethrough~~.

It must be noted that the proposed Ordinance does NOT modify the ability of the City to hold Safe and Sane Fireworks Booths, ability of citizens to possess Safe and Sane Fireworks between June 28 and July 4, nor the ability of citizens to ignite Safe and Sane Fireworks on July 4th between noon and 10 pm.

The City encourages Gardena residents to have fun on the 4 th of July but to avoid events with illegal fireworks like skyrockets, firecrackers and explosives. The purpose of the proposed Ordinance is to ensure all Gardena residents a safe and celebratory 4th of July experience, and ensure there is no ignition of illegal fireworks which can cause fires, injury and even death, not to mention their effects on those with PTSD and on pets.

IN CONCLUSION, Staff respectfully recommends that the Council introduce Ordinance No. 1827.

FINANCIAL IMPACT/COST:
N/A

ATTACHMENTS:
ORDINANCE No. 1827.rtf

APPROVED:



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Clint Osorio, City Manager

ORDINANCE NO. 1827

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, AMENDING SECTION 8.08.035 (AMENDMENT OF SECTION 7802.3) OF CHAPTER 8.08 (FIRE CODE) AND AMENDING SECTIONS 8.16.010 (DEFINITIONS), 8.16.020 (PERMIT -REQUIRED), SECTION 8.16.130 (DATES AND HOURS OF SALE AND USE), 8.16.150 (PROHIBITIONS ON DISCHARGE), 8.16.170 (VIOLATION- PENALTY) AND ADDING SECTION 8.16.155 (SOCIAL HOST LIABILITY) OF CHAPTER 8.16 (FIREWORKS) OF TITLE 8 (HEALTH AND SAFETY) OF THE GARDENA MUNICIPAL CODE

WHEREAS, the City of Gardena (City) may adopt regulations to protect the health, safety, and welfare of the public under California Constitution Article XI, §7 and California Government Code §37100, and thereby is authorized to declare what use or condition constitutes a public nuisance; and

WHEREAS, the City has the authority under California Government Code §53069.4 to issue administrative citations for violations of the City's ordinances; and

WHEREAS, the City is authorized to regulate or prohibit the sale, use, or discharge of fireworks pursuant to California Health and Safety Code §12541; and

WHEREAS, pursuant to Chapter 8.16 (Fireworks) of the City of Gardena Municipal Code (GMC), the City currently prohibits the sale, possession and use of "dangerous fireworks," as defined by state law, within the City and permits the discharge of safe and sane fireworks, as defined by state law, within the City only during the hours between 12:00 noon and 10:00 p.m. on July 4th; and

WHEREAS, the City periodically reviews its ordinances to ensure that they are achieving their aims, while continuing to adhere to legal requirements; and

WHEREAS, City Council of the City of Gardena finds that the aims of Chapter 8.16 would be better achieved by penalizing not only those individuals who use fireworks in violation of the GMC, but also those individuals who allow such illegal use on property that they either own or control; and

WHEREAS, Chapter 8.16 of the Municipal Code, however, does not currently include a fireworks "social host" ordinance; and

WHEREAS, the City has experienced an increased use of illegal fireworks around the 4th of July and New Year's Eve celebrations each year and wishes to implement an ordinance in order to reduce the likelihood of injuries or property damage as a result of these illegal fireworks; and

WHEREAS, the City desires to implement a new "social host" regulation in order to ensure those who have possession of a residence or other property are held legally responsible for dangerous illegal firework possession and use on that property; and

WHEREAS the City Council finds that holding property owners responsible for illegal firework use is necessary to protect the public health, safety and welfare; and

WHEREAS the City Council desires to amend and update its Municipal Code to reflect the current needs of the City, and to ensure the health, safety and welfare of the public and law enforcement personnel.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, DOES HEREBY ORDAIN, AS FOLLOWS:

SECTION 1. The forgoing recitals are true and correct and incorporated herein by this reference.

SECTION 2. Section 8.08.035 (Amendment of Section 7802.3) of Chapter 8.08 (Fire Code) of Title 8 (Health and Safety) of the Gardena Municipal Code is amended to read, as follows:

8.08.035 Amendment of Section 7802.3.

Section 7802.3 of the Uniform Fire Code as adopted by Section 8.08.010 of the Gardena Municipal Code is amended to read as follows:

Section 7802.3. Except as provided in Chapter 8.16 of Title 8 of this code, the storage, use and handling of fireworks are prohibited.

Any provision of the Uniform Fire Code or of any subsequent revised edition of the Uniform Fire Code, related to prohibiting the storage, sale, handling and discharge of fireworks, as adopted in accordance with Section 8.08.010 of the Gardena Municipal Code, is hereby amended to add an exception for safe and sane fireworks which shall be regulated in accordance with Chapter 8.16 of Title 8 of this Code, as that Chapter 8.16 may from time to time be amended by the city council to regulate, but not prohibit, the storage, sale, handling, and discharge of safe and sane fireworks in the city.

SECTION 3. Section 8.16.010 (Definitions) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code is amended to read, as follows:

8.16.010 Definitions.

The following words and phrases, as used in this chapter, are defined as follows:

A. “Dangerous fireworks” means dangerous fireworks as set forth in California State Fireworks Law (Sections 12505 and 12561 of the Health and Safety Code and the relevant sections of Title 19, Code of Regulations, Subchapter 6) which are hereby incorporated by reference.

B. “Safe and sane fireworks” or “fireworks” (a.k.a. “state-approved fireworks) means safe and sane fireworks as set forth in California State Fireworks Law

(Sections 12529 and 12562 of the Health and Safety Code and the relevant sections of Title 19, Code of Regulations, Subchapter 6) which are hereby incorporated by reference.

C. “Person” means and includes ~~any individual, firm, partnership, joint venture, association, concern, corporation, state, trust, business trust, receiver, syndicate, or any other group of combination acting as a unit~~ a natural person or a legal entity that is also an owner, tenant, lessee and/or other person with any right to possession or control of the property.

D. “Nonprofit organization” means (1) any nonprofit association, charity, church, corporation, club, or society, organized primarily for veteran, patriotic, welfare, civic, benevolent, betterment, youth activities, or charitable purposes, or (2) a group which is an integral part of a recognized nonprofit national organization, or (3) an organization affiliated with and officially recognized by an elementary, junior high, high school, school district, and/or college that serves, in whole or in part, the residents of Gardena, and has obtained a nonprofit status with either the California Franchise Tax Board or the Internal Revenue Service.

E. “Principal and permanent meeting place” means and includes, but not be limited to, a permanent structure, playing field, geographic area, or service population which resides in or is located within the city of Gardena.

F. “Gardena city clerk” or “city clerk” means the Gardena city clerk and/or his or her designee or designees.

G. “Residents of the city” or “city residents” means and includes owners of businesses and/or property in the city as well as occupants of residential dwellings.

H. “Director” shall mean the community development director or his or her designee(s).

I. “Fire Chief” shall mean the Fire Chief of the County of Los Angeles and/or his or her designee or designees

J. "Property" means:

1. Private Property including: a home, yard, apartment, condominium, accessory dwelling unit, hotel, or motel room or other dwelling unit, a hall or meeting room, or commercial property, whether occupied on a temporary or permanent basis, whether occupied as a dwelling, party or other social function, and whether owned, leased, rented, or used with or without compensation.

2. Public Property such as rented or reserved public facilities including space at a public park.

K. "Social host" means any of the following:

1. Any owner of property as listed on the most recent assessment roll;

2. Any person who has the right to use, possess or occupy a property under a lease, permit, license, rental agreement, reservation or contract; or

3. Any person who hosts, organizes, supervises, officiates, conducts, or accepts responsibility for a gathering.

SECTION 4. Section 8.16.020 (Permit -Required) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code is amended to read, as follows:

8.16.020 Permit – Required.

A. Except as provided in this chapter, it is unlawful to offer for sale or sell at retail "safe and sane fireworks" without having first applied for and been issued a permit therefor, in the manner set forth in this chapter.

B. Permits for the sale of safe and sane fireworks shall be issued only to Nonprofit organizations, and such safe and sane fireworks shall be sold only at the outdoor sales stands, as more specifically set forth hereinafter. No more than eight (8) such permits shall be issued and be outstanding at any time.

~~C. The City Council may, by resolution, suspend the issuance of permits for sale of safe and sane fireworks in the City in any given year.~~

SECTION 5. Section 8.16.130 (Dates and hours of sale and use) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code is amended to read, as follows:

8.16.130 Dates and hours of sale and use.

~~Except in years in which sale of safe and sane fireworks is suspended in accordance with Section 8.16.020,~~ Safe and sane fireworks may be sold or displayed within Gardena between the hours of 9:00 a.m. and 10:00 p.m. during the period between June 28th and July 4th of each year. Safe and sane fireworks may be possessed during the period from June 28th to 10:00 p.m. on July 4th of each year. All sale, display and possession shall be conducted pursuant to the provisions of this chapter and not otherwise. It is unlawful for any person to discharge any safe and sane fireworks except during the hours between 12:00 noon and 10:00 p.m. on July 4th of each year in any area of the city.

SECTION 6. Section 8.16.150 (Prohibitions on Discharge) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code is amended to read, as follows:

8.16.150 Prohibitions on discharge.

A. It is unlawful for any person to ignite, use, discharge, sell, offer for sale, or display for sale any dangerous fireworks, or take any action requiring a permit under Section 12640 of the California Health and Safety Code, without a permit from the fire chief.

B. It is unlawful for any person to ignite, explode, project, or otherwise fire or use any fireworks, or permit the ignition, explosion or projection thereof, upon or over onto the property of another without his/her consent, or to ignite, explode, project, or otherwise fire or make use of any fireworks within ten feet of any residence dwelling or other structure used as a place of habitation by human beings.

C. It is unlawful for individuals under eighteen years of age to sell, purchase, possess, use, or discharge safe and sane fireworks. Proof of age shall be required.

D. It is unlawful for any person having the care, custody or control of a minor (under eighteen years old) to permit such minor to discharge, explode, fire or set off any dangerous fireworks, at any time.

E. It is unlawful for any person having the care, custody or control of a minor (under eighteen years old) to permit such minor to discharge or set off any “safe and sane fireworks” unless such minor does so under the direct supervision of a person over eighteen years of age and during the hours and on the days permitted by this chapter.

~~It is unlawful, in any year in which the city council, by resolution, has suspended issuance of permits for sale of safe and sane fireworks, for any person to possess, use, or discharge safe and sane fireworks in the city. (Ord. 1785 § 4, 2018: Ord. 1671 § 1, 2005; Ord. 1564 § 2 (part), 1999. Formerly 8.16.160)~~

SECTION 7. Section 8.16.155 (Social Host Liability) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code is added to read, as follows:

8.16.155 Social Host Liability

Any social host shall be strictly liable and subject to a fine for any unlawful ignition, use, discharge or display of any fireworks in violation of this Chapter at their property or gathering; except that:

1. No owner of private property shall be liable under this section for a violation of Sections 8.16.130, 8.16.140 or 8.16.150 on that property if the

owner can demonstrate that at the time of such violation they (i) had rented or leased the property to another, (ii) was not present, and (iii) had no prior knowledge of the violation.

2. No person who has the right to use, possess or occupy a unit in a multifamily residential property under a lease, rental agreement, contract or covenant shall be liable under this section for violations of Section 8.16.130, 8.16.140 or 8.16.150 occurring in the common areas of the property.

SECTION 8. Section 8.16.170 (Violation- Penalty) of Chapter 8.16 (Fireworks) of Title 8 (Health and Safety) of the Gardena Municipal Code is amended to read, as follows:

8.16.170 Violation – Penalty.

A. Any person found to be in violation of California Health and Safety Code Sections 12500 – 12726 shall be subject to the punishments, fines and penalties set forth in California Health and Safety Code Section 12700 – 12702, inclusive.

B. Any person found to be in violation of Section 8.16.140 or 8.16.150 of the chapter is guilty of a misdemeanor in accordance with the provisions of Chapter 1.16 of the Gardena Municipal Code.

C. Any person violating any other provisions of this chapter is guilty of an infraction which upon conviction thereof is punishable in accordance with the provisions of Chapter 1.16 of the Gardena Municipal Code.

D. Any person found to be in violation of any provision of this chapter is subject to the issuance of an administrative citation and fine in accordance with the provisions of Chapter 1.20 (Administrative Citations) of the Gardena Municipal Code, without prior issuance of a notice of violation.

E. Any person violating any of the provisions of state law or this chapter set forth in this section shall have his permit to sell fireworks revoked.

SECTION 9. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this ordinance, or any part thereof is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portion of this ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase be declared unconstitutional.

SECTION 10. Environmental Review. The City Council finds that this Ordinance is not subject to the California Environmental Quality Act (CEQA) pursuant to Section 15060(c)(2) of the CEQA Guidelines, California Code of Regulations, Article 5, Title 14, Chapter 3, as the activity will not result in a direct or reasonably foreseeable

indirect physical change in the environment and Section 15060(c)(3) of the CEQA Guidelines as it is not a project as defined by CEQA per Section 15378.

SECTION 11. Certification. The City Clerk shall certify the passage of this ordinance and shall cause the same to be entered in the book of original ordinances of said City; shall make a minute passage and adoption thereof in the records of the meeting at which time the same is passed and adopted; and shall, within fifteen (15) days after the passage and adoption thereof, cause the same to be published as required by law, in a publication of general circulation.

SECTION 12. Effective Date. This ordinance shall be in full force and effect thirty (30) days after its second reading and adoption.

Passed, approved, and adopted this _____ day of _____, 2021.

_____
TASHA CERDA, Mayor

ATTEST:

_____
MINA SEMENZA, City Clerk

APPROVED AS TO FORM:



_____
CARMEN VASQUEZ, City Attorney

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 13.C
Section: DEPARTMENTAL ITEMS - ELECTED & ADMINISTRATIVE OFFICES
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: RESOLUTION NO. 6506, CONDEMNING AND COMBATING ACTS OF RACISM, XENOPHOBIC RHETORIC AND HARASSMENT AGAINST ASIAN AMERICANS AND PACIFIC ISLANDERS

COUNCIL ACTION REQUIRED:
Staff Recommendation: Adopt Resolution No. 6506

RECOMMENDATION AND STAFF SUMMARY:

On March 23, 2021, Mayor Cerda and Mayor Pro Tem Henderson directed staff to prepare a Resolution condemning and combating acts of racism, xenophobic rhetoric and harassment against Asian American and Pacific Islanders.

The City of Gardena is committed to upholding an unwavering standard of safety for people of all races, national origins, and ethnicities.

According to 2019 US Census data, the Asian American and Pacific Islanders (AAPI) communities comprise over 25% of the City of Gardena's population.

The use of anti-Asian terminology and rhetoric surrounding the COVID-19 pandemic have perpetuated and amplified anti-Asian hate, resulting in a 114% increase in anti-Asian hate crimes in the Los Angeles Area from 2019 to 2020. The AAPI communities throughout Los Angeles County and beyond have been unjustly blamed, harassed, and assaulted for the COVID-19 pandemic.

Attached for City Council consideration and adoption, is Resolution 6506, which resolves that the City Council stands in solidarity with the AAPI communities and vehemently denounces the violent and discriminatory attacks against AAPI communities.

Staff respectfully recommends that the City Council adopt Resolution 6506.

FINANCIAL IMPACT/COST:
N/A

ATTACHMENTS:
Reso No. 6506 - Condemning Combating AAPI Hate.docx

APPROVED:



_____

Clint Osorio, City Manager

RESOLUTION NO. 6506

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, CONDEMNING ACTS OF RACISM, XENOPHOBIC RHETORIC, AND HARASSMENT AGAINST ASIAN AMERICANS AND PACIFIC ISLANDERS

THE CITY COUNCIL OF THE CITY OF GARDENA DOES HEREBY RESOLVE AS FOLLOWS:

WHEREAS, the City of Gardena is committed to upholding an unwavering standard of safety for people of all races, national origins, and ethnicities; and

WHEREAS, according to 2019 US Census data, the Asian American and Pacific Islanders (AAPI) communities comprise over 25% of the City of Gardena's population; and

WHEREAS, on November 8, 1962, L. Pete Jensen and Takejiro Ukiya, Mayors of the City of Gardena and the City of Ichikawa, Japan, proclaimed the two as "Sister Cities"; and

WHEREAS, the use of anti-Asian terminology and rhetoric surrounding the COVID-19 pandemic have perpetuated and amplified anti-Asian hate, resulting in a 114% increase in anti-Asian hate crimes in the Los Angeles Area from 2019 to 2020; and

WHEREAS, AAPI communities throughout Los Angeles County and beyond have been unjustly blamed, harassed, and assaulted for the COVID-19 pandemic; and

WHEREAS, the City Council stands in solidarity with the AAPI communities and vehemently denounces the violent and discriminatory attacks against AAPI communities; and

WHEREAS, the City of Gardena intends to demonstrate a united front against all forms of intolerance and send a message that any violation will not be left unaddressed.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GARDENA, CALIFORNIA, DOES HEREBY FIND, DETERMINE, AND RESOLVE, AS FOLLOWS:

SECTION 1. The City Council hereby condemns all acts of racism, xenophobic rhetoric, and harassments against AAPI communities.

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BE IT FURTHER RESOLVED that the City Clerk shall certify to the passage and adoption of this Resolution; shall cause the same to be entered among the original Resolutions of said City; and shall make a minute of the passage and adoption thereof in the records of the proceedings of the City Council of said City in the minutes of the meeting at which the same is passed and adopted.

Passed, approved, and adopted this_____day of April, 2021.

_____
TASHA CERDA, Mayor

ATTEST:

_____
MINA SEMENZA, City Clerk

APPROVED AS TO FORM:



_____
CARMEN VASQUEZ, City Attorney

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 17.A
Section: DEPARTMENTAL ITEMS - TRANSPORTATION
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: APPROVE AGREEMENT WITH CLEAN ENERGY FOR THE DESIGN AND CONSTRUCTION OF GTRANS' CNG FUELING STATION AND MAINTENANCE BAY UPGRADES FOR A TOTAL CONTRACT VALUE OF $4,839,018 AND AUTHORIZE A PROJECT TOTAL OF $5,419,700.

COUNCIL ACTION REQUIRED:

Staff Recommendation: Approve Agreement

RECOMMENDATION AND STAFF SUMMARY:

In order to meet GTrans' Council-approved, immediate fleet replacement goals of transitioning to 80 percent Compressed Natural Gas buses and 20 percent zero emission buses, GTrans will need to upgrade its fueling and maintenance facilities to accommodate natural gas. To do this, GTrans embarked on a two-step, design-build method of contracting. This process entails first issuing a Request for Qualifications to get a short list of firms that are qualified for the work, and then issuing a Request for Proposals to those firms. Additional details about the project as a whole are provided in the attached Staff Report.

GTrans issued a Request for Qualification (RFQual) to obtain interested and qualified firms through PlanetBids, which was also communicated through a broad outreach to newspapers and organizations. GTrans received six submissions, and through evaluations based on criteria outlined in the RFQual, narrowed down the prospers to a short-list of five qualified firms. Subsequently, staff issued a Request for Proposal (RFP) to those five firms. GTrans received four proposals in response to the RFP. Staff proceeded to evaluate these firms and their proposals further based on provided weighted criteria which included: Experience/Qualification of the Firm (35 percent), Work Plan/Project Approach (35 percent) and Cost (30 percent). GTrans evaluated and scored the four proposals based on the scoring methodology discussed above, and the proposals were ranked as depicted below:

Ranking	Proposer Name
1	Clean Energy
2	Trillium
3	EFS West
4	TruStar

GTrans began the negotiation process with the highest ranked firm, Clean Energy. This process included a series of technical, contractual, and cost clarifications with the firm, leading to a Best and Final Offer (BAFO). After clarifications and negotiations, GTrans staff reviewed the BAFO proposal and costs to ensure that they are fair and reasonable, and now recommends a contract with Clean Energy for this project. Clean Energy's proposal is $4,839,018, which includes all costs for both the CNG fueling station and garage safe modification, and options for a higher capacity buffer vessel, defueling equipment and a 650kW backup generator. GTrans also requested option pricing to pave the compressor compound with concrete, which amounts to a cost of $9,702 and is also included in the total price. As required in the RFP, Clean Energy shall furnish a faithful performance bond in the amount of 100 percent of the contract price, and a payment bond in the amount of 100 percent of the contract price both in a form satisfactory to the City Attorney. GTrans is also requesting authorization for a project contingency of 12% (or $580,682) of the total overall contract cost. This contingency would only be used for unforeseen expenses, or additional work that GTrans wishes to require of the contractor as discovered during the design and construction process. Such expenditures would not be allowed unless agreed upon and approved in advance by GTrans management.

IN CONCLUSION, Staff respectfully recommends that Council approve award of a contract to Clean Energy for the Design and Construction of GTrans' CNG Fueling Station and Maintenance Bay Upgrades for a total contract value of $4,839,018, and approve a project total of $5,419,700, which includes a 12 percent contingency.

FINANCIAL IMPACT/COST:

GTrans has worked for the past several years to assemble a funding package specifically for this project. Staff has already obligated funds under two FTA grants specifically designated for this project, along with a grant from the Mobile Source Air Pollution Reduction Review Committee (MSRC) under the direction of the South Coast Air Quality Management District (AQMD). GTrans has additionally obligated additional state and local funding to complete the funding package. There is no impact to the General Fund.

ATTACHMENTS:

Design and Construction of CNG Station - Agenda STAFF REPORT 4_13_21.pdf
RFP 2020-05 Contract Documents 3.31.21.pdf
Attachment D - CNG Fueling Facility Specification 3.31.21.pdf
Attachment A - Special Provisions (with addendum no. 7) 3.31.21.pdf
Attachment 1 - Exclusion Clarification Revised 3.31.21.pdf
Solicitation Packet- RFP 2020-05 Design and Build of a CNG Fueling Station.pdf
Best and Final Offer Request for RFP 2020-05.pdf
Best and Final Offer Response from Clean Energy (RFP 2020-05).pdf
Clean Energy Proposal for RFP 2020-05.pdf
Summary of Cost Proposal from Clean Energy (RFP 2020-05).pdf

APPROVED:



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Clint Osorio, City Manager

City of Gardena
City Council Meeting

Agenda Item No.: 17A

Department: DEPARTMENTAL ITEMS - TRANSPORTATION

Meeting Date:April 13, 2021

Reso or Ordinance No.:

AGENDA STAFF REPORT

AGENDA TITLE:
Approve Agreement with Clean Energy for the Design and Construction of GTrans' CNG Fueling Station and Maintenance Bay Upgrades for a total contract value of $4,839,018 and authorize a project total of $5,419,700.

RECOMMENDATION:

Staff respectfully recommends that Council approve the agreement and project total.

BACKGROUND:

Over the next five years, GTrans will acquire up to 46, 40-foot, Compressed Natural Gas (CNG) buses to replace existing 40-foot gasoline electric hybrid buses reaching the end of their useful life of 12 years or 500,000 miles, as defined by the Federal Transit Administration (FTA). In February 2017, the Council adopted GTrans' FY2017-2023 Fleet Replacement Plan, which called for the purchase of both Compressed Natural Gas (CNG) buses (80 percent) and zero emission buses (20 percent), and the implementation of associated fueling infrastructure. This replacement plan will allow GTrans to then transition to a 100 percent, zero-emission fleet in accordance with the adopted California Air Resources Board (CARB) regulations. CARB adopted regulations which set a statewide goal for public transit agencies to gradually transition to 100 percent zero-emission bus fleets by 2040. In 2019, City Council approved the purchase of 18 CNG buses which GTrans has received and is now deploying into revenue service. In September 2020, GTrans did a solicitation for offsite CNG fueling services to allow the new CNG buses to be fueled until its on-site fueling station was operational. That contract was awarded to Clean Energy, who has since been providing these services to GTrans.

To fuel and maintain these buses, GTrans must build a fueling station and upgrade its maintenance bays to allow for proper venting and alarm systems that meet state and local regulations. In preparation for this, GTrans hired Fuel Solutions, a design and engineering firm specializing in alternative and conventional fueling facilities. Fuel Solutions provided design and engineering services to develop technical performance specifications and the 30 percent design documents to include in the solicitation. Most recently GTrans hired Psomas in late 2020 to serve as construction managers for the design and construction process.

Procurement Process

GTrans opted to use the Design-Build method of contracting, combining professional design services and construction services into a single contract with the City. This contracting approach provides several efficiencies over the traditional approach of awarding separate contracts for design services and construction, commonly known as the design-bid-build approach. These

benefits include greater flexibility in awarding a contract, higher quality work, greater cost certainty, fewer claims, etc. This contracting approach is codified by both State law for local agencies, including cities, as well as FTA Circular 4220.1F.

Following a two-step process for awarding this federally funded project, GTrans issued a Request for Qualifications (RFQual) in March of 2020 through PlanetBids, providing notification to 430 firms. GTrans also advertised through the Gardena Valley New, the Daily Breeze, and several transit-specific professional organizations to maximize competition. Finally, staff contacted several minority and women business associations, including:

- Regional Hispanic Chamber of Commerce
- Greater Los Angeles African American Chamber of Commerce
- Korean American Chamber of Commerce of Los Angeles
- Chinese American Construction Professionals Association
- Southern California Minority Business Development
- National Association of Women Business Owners
- Latin Business Association
- Black Business Association
- Asian Business Association
- American Indian Chamber of Commerce
- Arab American Association of Engineers & Architects – California Chapter
- California Korean Construction Association

Through this outreach, 48 vendors downloaded the solicitation, which included three Disadvantaged Business Enterprises (DBEs) and two Women Business Enterprises (WBEs). GTrans received six submissions. The RFQual stipulated the development of a short list of five firms, which would be based on Entity and Team Experience, Key Personnel Experience and Financial Capabilities. GTrans performed reference checks and evaluated submissions in accordance with the process outlined in the RFQual. The following firms were shortlisted to move to the formal Request for Proposal phase:

Cissel Mueller	Trillium
Clean Energy	TruStar
EFS West	

GTrans then issued a formal Request for Proposal (RFP) to the short-listed firms in August 2020, with a job walk held on September 8, 2020. The RFP included scoring criteria outlined below to evaluate proposals:

Scoring Criteria	Weight
Experience / Qualification of the Firm	35%
Work Plan / Project Approach	35%
Costs	30%

GTrans received four proposals in response to the RFP. Staff assembled an evaluation team to review and score the proposals based on the criteria, and staff verified the responsiveness and responsibility of firms, who were also required to submit bid bonds along with their proposals.

GTrans evaluated and scored the four proposals based on the scoring methodology and weighting discussed above, and the proposals were ranked as depicted below:

Ranking	Proposer Name
1	Clean Energy
2	Trillium
3	EFS West
4	TruStar

GTrans began the negotiation process with the highest ranked firm, Clean Energy. This process included a series of technical, contractual, and cost clarifications with the firm, leading to a Best and Final Offer (BAFO). After clarifications and negotiations, GTrans staff reviewed the BAFO proposal and costs to ensure that they are fair and reasonable, and now recommends a contract with Clean Energy for this project.

Clean Energy has designed, built, and maintained hundreds of CNG stations over the last 24 years and has completed over 45 design-build maintenance facility upgrades since 2012. Clean Energy most recently completed the design-build of three CNG stations at local transit agencies including LA Metro's Division 13 in Los Angeles, City of Torrance Transit, and the City of Norwalk Transit. Coupled with its significant experience and qualifications, Clean Energy had a superior work plan for both facility modifications and the CNG fueling station itself, a solid and experienced team, and a reasonable schedule for completion of the project (approximately 11 - 12 months from Notice to Proceed.)

Clean Energy's proposal is $4,839,018, which includes all costs for both the CNG fueling station and garage safe modification, and options for a higher capacity buffer vessel, defueling equipment and a 650kW backup generator. GTrans also requested option pricing to pave the compressor compound with concrete, which amounts to a cost $9,702 and is also included in the total price. As required in the RFP, Clean Energy shall furnish a faithful performance bond in the amount of

100 percent of the contract price and a payment bond in the amount of 100 percent of the contract price, both in a form satisfactory to the City Attorney.

GTrans is also requesting authorization for a project contingency of 12% (or $580,682) of the total overall contract cost. This contingency would only be used for unforeseen expenses, or additional work that GTrans wishes to require of the contractor as discovered during the design and construction process. Such expenditures would not be allowed unless agreed upon and approved in advance by GTrans management.

Disadvantaged Business Enterprise (DBE) Program

An important component of the project is Disadvantaged Business Enterprise (DBE) participation. GTrans' annual overall goal for DBE participation for FY 2019-21 is 7.0 percent. Since GTrans' DBE program does not allow for specific DBE participation goals to be required for its federally funded contracts, GTrans worked diligently to encourage DBE participation for this contract by proposers themselves, and/or in the form of subcontractors performing a variety of types of work. As noted above, the level of outreach for this project to DBE firms was high. Two of the four proposing firms included DBE subcontractors as part of their project teams. Clean Energy proposed over 20 percent DBE participation through its subcontracts with Verduzco Electric Inc. and RMS Life Safety firms, amounting to $1,029,129 of their total proposed contract value. GTrans staff verified that both firms are certified DBEs. GTrans will be required to monitor participation by these firms to ensure both Clean Energy and the DBE firms comply with all DBE requirements.

Funding

GTrans has worked for the past several years to assemble a funding package specifically for this project. Staff has already obligated funds under two FTA grants specifically designated for this project, along with a grant from the Mobile Source Air Pollution Reduction Review Committee (MSRC) under the direction of the South Coast Air Quality Management District (AQMD). GTrans has additionally obligated additional state and local funding to complete the funding package. There is no impact to the General Fund.

IN CONCLUSION, Staff respectfully recommends that Council approve award of an agreement with Clean Energy for the Design and Construction of GTrans' CNG Fueling Station and Maintenance Bay Upgrades for a total contract value of $4,839,018 and approve a project total of $5,419,700, which includes a 12% contingency.

Submitted by: Ernie Crespo Date: April 5, 2021

Attachment

GTRANS RFP 2020-05

CONTRACT DOCUMENTS

CONTRACT DOCUMENTS

RFP. No. 2020-05

AGREEMENT

THIS AGREEMENT, made and entered into this 13th day of April, 2021, by and between CITY OF GARDENA in the State of California, hereinafter referred to as "CITY" and CLEAN ENERGY, hereinafter referred to as "CONTRACTOR."

The City and the Contractor mutually agree as follows:

ARTICLE I.

THE PROJECT

For and in consideration of the mutual promises set forth herein, Contractor agrees to perform and complete in a good and workmanlike manner all work required by the Contract Documents for City Project No. 2020-05, which is described as follows:

Title: DESIGN AND BUILD OF A CNG FUELING STATION

Said work shall be performed in accordance with the Plans, Specifications and other Contract Documents, all of which are referenced in Article III hereof and incorporated herein as though fully set forth. Contractor shall furnish at its own expense all labor, materials, equipment and services necessary therefor, except such labor, materials, equipment and services as are provided in the Contract Documents to be furnished by City.

ARTICLE II.

CONTRACT SUM AND PAYMENT

For performing and completing the work in accordance with the Contract Documents, City shall pay Contractor, in full compensation therefore, the contract sum of Four Million Eight Hundred Thirty-Nine Thousand and Eighteen Dollars ($4,839,018). Said sum shall include the following items:

Item	Total Cost
CNG Fueling Station	$3,962,625
Garage Modification	$727,097
Alternate - Adder cost for generator upgrade to run two of four compressors	$139,594
Alternate - Adder cost for concrete paving of housekeeping pad	$9,702
Grand Total	**$4,839,018**

Said sum shall constitute payment in full for all work performed hereunder, including, without limitation, all labor, materials, equipment, tools and services used or incorporated in the work, supervision, administration, overhead, expenses and any and all other things required, furnished or incurred for completion of the work as specified in the Contract Documents. City shall make payments to Contractor on account of the contract sum at the time, in the manner, and upon the conditions specified in the Contract Documents.

Contractor shall provide complete and functional system at its total proposed cost and shall provide all quantities of materials necessary to meet functional specifications intended and specified in RFP documents and subsequent addenda, notwithstanding any quantities indicated in the bid form.

ARTICLE III.

CONTRACT DOCUMENTS

The Contract Documents, which constitute the entire agreement between the City and the Contractor, are enumerated as follows: Request for Proposal Document (RFP No. 2020-05 Design and Build of a CNG Fueling Station) in its entirety; this Agreement; Specifications; Technical Provisions (including Attachment D – CNG Fueling Facility Specification 3.31.21); Drawings; Plans; any Best and Final Offer, Attachment A Special Provisions (with addendum no. 7) 3.31.21, Attachment 1 – Exclusion Clarification 3.31.21, and all addenda issued prior to and all modifications issued after the execution of this Agreement. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.
In the event of any inconsistency between the terms of the proposal and this agreement, the following order of precedence shall apply with the higher documents taking precedent over the lower documents:

FIRST:	Requirements of law, including the Code and Ordinances of the City of Gardena.
SECOND:	Permits from other agencies as many be required by law.
THIRD:	Permits from City of Gardena Departments as may be required by law or ordinance.
FOURTH:	The Contract Document [including Attachment A Special Provisions (with addendum no. 7) 3.31.21, Attachment D – CNG Fueling Facility Specification 3.31.21, and Attachment 1 – Exclusion Clarification Revised 3.31.21].
FIFTH:	Specifications (to include changes indicated by Addenda No. 1-9).
SIXTH:	Technical Provisions.
SEVENTH:	Drawings (to include changes indicated by Addenda No. 1-9).
EIGHTH:	Request for Proposal (RFP) No. 2020-05 Design and Build of a CNG Fueling Station.
NINTH:	Contractor's Best and Final Offer (BAFO).
TENTH:	Contractor's Proposal.

ARTICLE IV.

EFFECTIVE DATE

This Agreement shall become effective and commence as of the date set forth below on which the last of the parties, whether City or Contractor, executes said Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and attested by their proper officers thereunto duly authorized.

CITY

By: Tasha Cerda
MAYOR (Sign)

April 13, 2021 Seal
Date

Attest By: 4/13/2021
CITY CLERK (Sign) Date

CONTRACTOR

By: Robert M. Vreeland Chief Financial Officer
NAME Title

Sign: _____
Date

Attest By: _____
Name/Title (Sign) Date

APPROVED AS TO FORM

Attest By: Carmen Vasquez 4/13/2021
CITY ATTORNEY (Sign) Date

CONTRACT DOCUMENTS

RFP. No. 2020-05

FAITHFUL PERFORMANCE BOND

WHEREAS, the City of Gardena has awarded to Clean Energy, hereinafter designated as the "Principal", a Contract for:

PROJECT: DESIGN AND BUILD OF A CNG FUELING STATION

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, we,_____
as Principal, and_____
as Surety, are held and firmly bound unto the City in the sum of Four Million Eight Hundred Thirty-Nine Thousand and Eighteen Dollars ($ 4,839,018), this amount being not less than one hundred percent (100%) of the total Contract price, lawful money of the United States of America, for payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. In case suit is brought upon this bond, the Surety will pay all court costs and reasonable attorneys' fees to the City of Gardena in an amount to be fixed by the court.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the said Contract and any alteration thereof, made as therein provided, all within the time and in the manner therein designated and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition, or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City is the principal beneficiary of this bond and has all rights of a party hereto.

This bond shall remain in full force and effect for a warranty period of one full year after acceptance of the job by the City.

IN WITNESS WHEREOF, three (3) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and

Surety named herein, on the 13th day of April 2021, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

[PRINCIPAL]

By _____

Title _____

_____

Signature

[SURETY]

By _____

Title _____

Address _____

_____

Phone No. _____

_____

Signature

All signatures must be notarized.

Appropriate modifications shall be made to this form if the bond is being furnished for the performance of an act not provided for by agreement.

Corporations must affix corporate seal.

CONTRACT DOCUMENTS

RFP. No. 2020-05

PAYMENT BOND

WHEREAS, the City of Gardena has awarded to Clean Energy, as Contractor, a contract for the work described as follows:

PROJECT: DESIGN AND BUILD OF A CNG FUELING STATION

AND WHEREAS, said Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen and other persons, as provided by law;

NOW, THEREFORE, we, the undersigned Contractor and Surety, are held firmly bound unto the City in the sum of Four Million Eight Hundred Thirty-Nine Thousand and Eighteen Dollars ($4,839,018) this amount being not less than one hundred percent (100%) of the total Contract price, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if said Contractor, its heirs, executors, administrators, successors, assigns, or subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, or any other amounts due to persons under any applicable project contract or law, with respect to such work and labor, then the Surety or Sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said Surety will pay all court costs and reasonable attorneys' fees to the plaintiff(s) and City in an amount to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Further, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition, or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849.

This bond shall remain in full force and effect for six full months after the period in which verified claims may be filed as provided for in Section 3184 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this 13th day of April 2021.

[PRINCIPAL]

By _____

Title _____

_____

Signature

[SURETY]

By _____

Title _____

Address _____

_____

Phone No. _____

_____

Signature

All signatures must be notarized.

Appropriate modifications shall be made to this form if the bond is being furnished for the performance of an act not provided for by agreement.

Corporations must affix corporate seal.

CONTRACT DOCUMENTS

RFP. No. 2020-05

WORKER'S COMPENSATION INSURANCE CERTIFICATE

The Contractor shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

> I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of the Contract.

DATED:_____

Robert M. Vreeland
CONTRACTOR

By_____
Signature

Chief Financial Officer
Title

ATTEST:

By_____
Signature

_____
Title

CONTRACT DOCUMENTS

RFP. No. 2020-05

INDEMNIFICATION AND HOLD HARMLESS AGREEMENT AND WAIVER OF SUBROGATION AND CONTRIBUTION

DESIGN AND BUILD OF A CNG FUELING STATION

To the fullest extent permitted by law, Indemnitor hereby agrees, at its sole cost and expense, to defend, protect, indemnify, and hold harmless the City of Gardena and its respective elected officials, officers, attorneys, agents, employees, volunteers, successors, and assigns (collectively "Indemnitees") from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, or other professionals and all costs associated therewith (collectively "Liabilities"), arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to any act, failure to act, error, or omission of Indemnitor or any of its officers, agents, servants, employees, subcontractors, materialmen, suppliers or their officers, agents, servants or employees, arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to the above-referenced contract, agreement, license, or permit (the "Agreement") or the performance or failure to perform any term, provision, covenant, or condition of the Agreement, including this indemnity provision. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence. This indemnity provision shall survive the termination of the Agreement and is in addition to any other rights or remedies which Indemnitees may have under the law. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity provision, and an entry of judgment against an Indemnitee shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision. Indemnitor shall pay Indemnitees for any attorney fees and costs incurred in enforcing this indemnification provision. Notwithstanding the foregoing, nothing in this instrument shall be construed to encompass (a) Indemnitees' sole negligence or willful misconduct to the limited extent that the underlying Agreement is subject to Civil Code 2782(a), or (b) the contracting public agency's active negligence to the limited extent that the underlying Agreement is subject to Civil Code 2782(b). This indemnity is effective without reference to the existence or applicability of any insurance coverages which may have been required under the Agreement or any additional insured endorsements which may extend to Indemnitees.

In the event there is more than one person or entity named in the Agreement as an Indemnitor, then all obligations, liabilities, covenants and conditions under this instrument shall be joint and several.

"Indemnitor"

Company/Contractor Clean Energy

Name & Title Robert M. Vreeland, Chief Financial Officer

Signature & Date _____

CONTRACT DOCUMENTS

RFP. No. 2020-05

INSURANCE

CERTIFICATION OF INSURANCE (COI) SHALL BE SUBMITTED BY THE CONTRACTOR

1. **COMMENCEMENT OF WORK**. Contractor shall not be authorized to commence Work under this Contract until it has obtained approved insurance. Before beginning Work hereunder, during the entire period of this Contract, for any extensions hereto, and for periods after the end of this Contract as may be indicated below, Contractor must have and maintain in place not less than the insurance coverages required in this Section at his sole cost and expense. Contractor's insurance shall comply with all items specified by this Contract. Any subcontractors shall be subject to all of the requirements of this Section and Contractor shall be responsible to obtain evidence of insurance from each subcontractor and provide it to City before the subcontractor commences work. Alternatively, Contractor's insurance may cover all subcontractors. The insurance requirements are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this Contract.

2. **INSURANCE COMPANY REQUIREMENTS.** All insurance policies used to satisfy the requirements imposed hereunder shall be issued by insurers admitted to do business in the State of California. Insurers shall have a current Best's rating of not less than A-:VII, unless otherwise approved by City.

3. **COVERAGES, LIMITS AND POLICY REQUIREMENTS**. Contractor shall maintain the types of coverages indicated below:

4. **COMPREHENSIVE GENERAL LIABILITY INSURANCE.** A policy of comprehensive general liability insurance written on a per occurrence basis in an amount not less than either two million dollars ($2,000,000) per occurrence or five million dollars ($5,000,000) aggregate.

5. **COMMERCIAL AUTO LIABILITY INSURANCE**. A policy including all coverages provided by and to the extent afforded by Insurance Services Office form CA 0001, ed. 12/93, including Symbol 1 (any auto) with no special limitations affecting City. The minimum auto insurance coverage shall be one million dollars ($5,000,000) combined single limit per accident.

6. **WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE**. A policy which meets all statutory benefit requirements of the Labor Code, or other applicable law, of the State of California. The minimum coverage limits for said insurance shall be no less than one million dollars ($1,000,000) per occurrence. The policy shall be issued by an insurance company which is admitted to do business in the State of California and shall contain a clause that the policy may not be canceled without thirty (30) days prior written notice, return receipt requested, is mailed to City.

In accordance with the provisions of section 1860 of the California Labor Code, Contractor's attention is directed to the requirement that in accordance with the provisions of section 3700 of the California Labor Code, Contractor and every subcontractor will be required to secure the payment of compensation of his or her employees, or obtain a certificate of consent to self-insurance by the Director of Industrial Relations in accordance with the requirements of Section 3700 of the California Labor Code.

In accordance with the provisions of section 1861 of the California Labor Code, Contractor shall sign and file with the awarding body the following certification prior to performing any work on the Project:

> "I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

7. **PROFESSIONAL LIABILITY.** If design/build, with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate.

8. **Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards)** with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate.

9. **OTHER INSURANCE.** Contractor may be required to obtain such other insurance coverage as may be required by applicable law or by the Agency. The added cost for additional coverage required by the Agency will be reimbursed to the Contractor.

10. **EXCESS OR UMBRELLA LIABILITY INSURANCE (OVER PRIMARY).** If an excess or umbrella liability policy is used to meet limit requirements, the insurance must provide coverage at least as broad as specified for the underlying coverages. Any such coverage provided under an excess or umbrella liability policy must include a "drop down provision" providing primary coverage above a maximum $25,000 self-insured retention for liability not covered by primary but covered by the umbrella. Coverage must be provided on a "pay on behalf" basis, with defense costs payable in addition to policy limits. There must be no cross-liability exclusion precluding coverage for claims or suits by one insured against another. Coverage must be applicable to Agency for injury to employees of Contractor, its subcontractors or others performing work to satisfy Contractor's obligations under this Agreement. The scope of coverage provided is subject to approval of Agency following receipt of proof of insurance as required herein. Limits are subject to review, but in no event may be less than $2,000,000 per occurrence and aggregate.

11. **POLICY REQUIREMENTS.** The policies set forth above shall comply with the following, as evidenced by the policies or endorsements to the policies:

    (i) City and its appointed and elected officers, employees, agents and volunteers shall be added as additional insured to the policy as respects liabilities arising out of the performance of any work done under the Contract.

    (ii) The insurer shall agree to provide City with thirty (30) days prior written notice, return receipt requested, of any cancellation, non-renewal or material change in coverage.

(iii) For any claims with respect to the Project covered by this Contract, Contractor's insurance coverage shall be primary insurance as respects City and its elected and appointed officers, employees, agents and volunteers. Any insurance or self-insurance maintained by City and its elected and appointed officers, employees, agents and volunteers shall be excess of Contractor's insurance and shall not contribute with it.

(iv) The policy shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the company's liability.

12. **COURSE OF CONSTRUCTION INSURANCE.** Contractor shall provide course of construction insurance covering for "all risks" of loss in the amount of the completed value of the Work. The City shall be named as a loss payee and the insurer shall waive all rights of subrogation against the City. This policy shall be issued by an insurance company which is admitted to do business in the State of California and shall contain a clause that the policy may not be canceled until thirty (30) days written notice, return receipt requested, is mailed to the City. Course of Construction Insurance may be provided for each separate Phase.

13. **ADDITIONAL REQUIREMENTS.** The procuring of required insurance shall not be construed to limit Contractor's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract. City shall notify Contractor in writing of changes in the insurance requirements. If Contractor does not deposit copies of acceptable insurance policies or endorsements with City incorporating such changes within sixty (60) days of receipt of such notice, Contractor shall be deemed in default hereunder.

14. **DEDUCTIBLES.** Any deductible or self-insured retentions must be declared to and approved by City. Contractor shall guarantee that, at the option of the City, either: the insurer shall eliminate or reduce such deductibles or self-insured retentions with respect to City, its officers, employees, agents and volunteers (with additional premium, if any, to be paid by Contractor); or Contractor shall provide satisfactory financial guarantee for payment of losses and related investigations, claim administration and defense expenses in the amount of any deductibles or self-insured retentions.

15. **VERIFICATION OF COMPLIANCE.** Contractor shall furnish City with the required endorsements attached hereto. All documents are to be received and approved by City before Work commences. Not less than fifteen (15) days prior to the expiration date of any policy of insurance required by this Contract, Contractor shall deliver to City a binder or certificate of insurance with respect to each renewal policy, bearing a notation evidencing payment of the premium therefore, or accompanied by other proof of payment satisfactory to City. Contractor shall provide full copies of any requested policies to City within three (3) days of any such request by City.

16. **TERMINATION FOR LACK OF REQUIRED COVERAGE.** If Contractor, for any reason, fails to have in place, at all times during the term of this Contract, including any extension hereto, all required insurance and coverage, City may immediately obtain such coverage at Contractor's expense and/or terminate this Contract. Contractor shall indemnify, defend and hold harmless City and its elected and appointed officers, employees, agents and volunteers from any claim resulting from failure of either Contractor or any subcontractor to take out or maintain any insurance required by this Contract.

17. **EQUIPMENT COVERAGE**. Any policy or policies of insurance Contractor or his subcontractors elect to carry as insurance against loss or damage to construction equipment and tools or other personal property shall include a provision waiving the insurer's right of subrogation against City.

18. **SUBCONTRACTORS.** Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Agency is an additional insured on insurance required from subcontractors. For CGL coverage subcontractors shall provide coverage with a format least as broad as CG 20 38 04 13

19. **SPECIAL RISKS OR CIRCUMSTANCES.** Agency reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage

CONTRACT DOCUMENTS

RFP. No. 2020-05

AUDIT REVIEW PROCEDURES

DESIGN AND BUILD OF A CNG FUELING STATION

A. Any dispute concerning a question of fact arising under an interim or post audit of this Agreement that is not disposed of by Agreement, shall be reviewed by City's Chief Financial Officer.

B. Not later than thirty (30) calendar days after issuance of the final audit report, Contractor may request a review by City's Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by City will excuse Contractor from full and timely performance, in accordance with the terms of this Agreement.

D. Contractor and subcontractor Agreements, including cost proposals and Indirect Cost Rates (ICR), may be subject to audits or reviews such as, but not limited to, an Agreement audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the Agreement, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review it is Contractor's responsibility to ensure federal, City, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The Agreement, cost proposal, and ICR shall be adjusted by Contractor and approved by City Contract Administrator to conform to the audit or review recommendations. Contractor agrees that individual terms of costs identified in the audit report shall be incorporated into the Agreement by this reference if directed by City at its sole discretion. Refusal by Contractor to incorporate audit or review recommendations, or to ensure that the federal, City or local governments have access to CPA work papers, will be considered a breach of Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

E. Contractor's Cost Proposal may be subject to a CPA ICR Audit Work Paper Review and/or audit by the Independent Office of Audits and Investigations (IOAI). IOAI, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. The Cost Proposal shall be adjusted by the Contractor and approved by the City Contract Administrator to conform to the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the Contractor to incorporate the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report will be considered a breach of the Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

1. During IOAl's review of the ICR audit work papers created by the Contractor's independent CPA, IOAI will work with the CPA and/or Contractor toward a resolution of issues that arise during the review. Each party agrees to use its best efforts to resolve any audit disputes in a timely manner. If IOAI identifies significant issues during the review and is unable to issue a cognizant approval letter, City will reimburse the Contractor at an accepted ICR until a FAR (Federal Acquisition Regulation) compliant ICR {e.g. 48 CFR

Part 31; GAGAS (Generally Accepted Auditing Standards); CAS (Cost Accounting Standards), if applicable; in accordance with procedures and guidelines of the American Association of State Highways and Transportation Officials (AASHTO) Audit Guide; and other applicable procedures and guidelines}is received and approved by IOAI. Accepted rates will be as follows:

a. If the proposed rate is less than one hundred fifty percent (150%) - the accepted rate reimbursed will be ninety percent (90%) of the proposed rate.

b. If the proposed rate is between one hundred fifty percent (150%) and two hundred percent (200%) - the accepted rate will be eighty-five percent (85%) of the proposed rate.

c. If the proposed rate is greater than two hundred percent (200%) - the accepted rate will be seventy-five percent (75%) of the proposed rate.

2. If IOAI is unable to issue a cognizant letter per paragraph E. 1. above, IOAI may require Contractor to submit a revised independent CPA-audited ICR and audit report within three (3) months of the effective date of the management letter. IOAI will then have up to six (6) months to review the Contractor's and/or the independent CPA's revisions.

3. If the Contractor fails to comply with the provisions of this paragraph E, or if IOAI is still unable to issue a cognizant approval letter after the revised independent CPA audited ICR is submitted, overhead cost reimbursement will be limited to the accepted ICR that was established upon initial rejection of the ICR and set forth in paragraph E.e1. above for all rendered services. In this event, this accepted ICR will become the actual and final ICR for reimbursement purposes under this Agreement.

4. Contractor may submit to City final invoice only when all of the following items have occurred: (1) IOAI accepts or adjusts the original or revised independent CPA audited ICR; (2) all work under this Agreement has been completed to the satisfaction of City; and, (3) IOAI has issued its final ICR review letter. The Contractor must submit its final invoice to City no later than sixty (60) calendar days after occurrence of the last of these items. The accepted ICR will apply to this Agreement and all other agreements executed between City and the Contractor, either as a prime or subContractor, with the same fiscal period ICR.

Company/Contractor Clean Energy

Name & Title Robert M. Vreeland, Chief Financial Officer

Signature & Date _____

CONTRACT DOCUMENTS

RFP. No. 2020-05

COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

DESIGN AND BUILD OF A CNG FUELING STATION

A. The Contractor agrees that 48 CFR Part 31, Contract Cost Principles and Procedures, shall be used to determine the allowability of individual terms of cost.

B. The Contractor also agrees to comply with Federal procedures in accordance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

C. Any costs for which payment has been made to the Contractor that are determined by subsequent audit to be unallowable under 48 CFR Part 31 or 2 CFR Part 200 are subject to repayment by the Contractor to City.

D. When a Contractor or SubContractor is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.

Company/Contractor Clean Energy

Name & Title Robert M. Vreeland, Chief Financial Officer

Signature & Date _____

RFP 2020-05
DESIGN AND BUILD OF A CNG FUELING STATION

ATTACHMENT D

CNG FUELING FACILITY SPECIFICATION

Section 43 01 04

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PART 1 - GENERAL

1.01 SUMMARY OF WORK REQUIREMENTS

A. Summary Scope Description.

1. This specification includes requirements for designing, constructing and starting up a complete, new CNG-fueling facility and system to be procured by GTrans or the City of Gardena (“Owner”).

2. This project is being developed as a ‘design-build’ project. Accordingly, the Contractor that is awarded the project shall prepare a complete and engineered set of construction drawings as required for construction, and as required for plan-check approval by the authorities having jurisdiction (AHJs).

B. Base equipment and features to be provided under this procurement by the Contractor includes:

1. Four (4) total compressors where any three (3) running units will produce an aggregate flow of at least 1950 SCFM, based on the design conditions specified herein. Alternately, three (3) total compressors where any two (2) running units will produce an aggregate flow of at least 1950 SCFM, based on the design conditions specified herein. Include appurtenances as required.

2. Matching motor-starter panels for the provided CNG-compressor package and appurtenances,

3. Matching remote control & communication panel and appurtenances,

4. One-tower gas dryer with onboard regeneration and appurtenances,

5. Buffer-type priority-valve panel and appurtenances,

6. Two (2) transit-CNG dispensers and appurtenances,

7. Four (4) CNG-storage vessels and appurtenances,

8. One (1) CNG defueling panel (vent to atmosphere) and appurtenances.

9. Backup CNG-fueled generator and transfer switch (additive alternate)

10. All equipment pads, supports, conduit, wiring, utility interconnects, protection, lighting, security fencing and features, control-air tie in, fuel-management tie in, IP communication tie in, signage and related appurtenances associated with the installation and function of the items listed in paragraph 1.01.B above.

11. The Contractor shall provide and install all equipment and materials needed to complete the CNG-fueling facility, including equipment, utility upgrades, structural work and other appurtenances and site work as required to deliver a complete, code-compliant and safe CNG-fueling system.

C. Related Documents: The following documents are related to this technical specification:

1. Contract drawings for preliminary design of CNG fueling facility and CNG-safe garage modifications.

2. Specifications for CNG-safe garage modifications.

3. Other procurement documents issued by the Owner.

D. Design Build. The CNG fueling-station project indicated in this specification and accompanying drawings shall be constructed on a design-build basis, which calls for the Contractor to prepare a set of stand-alone, engineered and approved construction drawings for all required disciplines, including mechanical, electrical and structural, as well as appropriate cover sheet. The Contractor's design and construction shall be approved by the Owner and by the City of Gardena Building Department, and the Los Angeles County Fire Department, and shall also comply with the project plans and specifications, except where deviations are approved by the Owner.

1. The Contractor shall be responsible for constructing the facility per the listed codes and standards, and shall comply with the requirements of the Authorities Having Jurisdiction. The Contractor shall provide all equipment, components, material, labor, documentation and warranties required to comply with the plans and specifications.

2. If the Contractor seeks to change any design elements as indicated in the drawings or specifications, the Contractor shall describe and request the changes to the Owner, in writing, and execute any such design changes only after the Owner approves of them, in writing. The Contractor shall be responsible for design drawings and details for all such changes that deviate from the approved construction drawings. All drawings and details shall be sealed by a California-Registered Professional Engineer (PE). The design revisions shall be approved by the authorities having jurisdiction (AHJs), when warranted.

E. Other Contractor Responsibilities. The Contractor shall also be responsible for designing and constructing the facility per the listed codes and standards, and is subject to complying with the requirements of the AHJ. The Contractor shall also be responsible for providing all equipment, components, material, labor, documentation and warranties required to comply with the plans and specifications.

F. Additive Alternates. Pricing for each additive alternate shall be provided net and incrementally to the base work including credit for any items from the base scope that are replaced under the alternate, and shall be complete and turnkey for each listed item. Items shall be procured at the Owner's discretion, including the possibility of procuring none of the additive alternates.

1. Alternate #1: Two (2) CNG-storage vessels and appurtenances.

G. Summary Contract Requirements. Work under this Specification requires all construction drawings, site construction, furnishing, delivering and starting equipment as required to make the systems functional. Also provide field-startup and a one (1)-year warranty covering all parts, materials, labor and travel, following acceptance by the Owner. Excludes costs for consumable materials and parts are those items that are expected to be replaced or

replenished within twelve (12) months of normal operation, per the replacement schedules published by the respective component or system manufacturers.

H. Shipping, Delivery and Offload. The Contractor shall ship all equipment to the GTrans Bus Facility, 13999 S. Western Ave, Gardena, CA 90249. The Contractor shall be responsible for coordinating delivery timing and for performing offload as required. Also coordinate weights and offload-rigging requirements for all equipment.

I. Exclusions: Items related to the project, but that are not required under this specification include:

1. Fuel-management systems for transit fueling.

2. Gas utility meterset, though the Contractor is responsible for coordinating exact location and point of connection with meterset.

3. Electric utility transformer, though the Contractor will be responsible for providing conduits to new service e entrance and other service-connection requirements per SoCal Edison.

1.02 STANDARDS

A. The latest editions of the following listed codes, specifications and standards shall be considered an integral part of this specification, to the extent that they apply to the design, manufacture and assembly of the specified equipment. Compliance with the following documents is mandatory:

1. ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, latest edition with latest addenda.

2. ANSI/ASME B31.3 -2002- Process Piping.

3. ANSI/ASME B16.5 Steel Pipe Flanges and Fittings.

4. National Electrical Code (NFPA 70) with California amendments.

5. International Mechanical Code with California amendments.

6. International Fire Prevention Code with California amendments.

7. National Fire Protection Association (NFPA) 52, Compressed Natural Gas Vehicular Systems Code, 2013 Edition.

1. Title 8, Code of California Regulations (Industrial Relations), Division 1. (Department of Industrial Relations, Ch. 4. (Division of Industrial Safety), Subchapter 1 – Unfired Pressure Vessel Safety Orders

8. Occupational Safety and Health Act, Standards, 29 CFR - Occupational Noise Exposure, 1910.95.

9. Buy America Act – U.S. Department of Transportation.

    a. Requirements. The contractor agrees to comply with 49 U.S.C. § 5323(j), as amended by MAP-21 or its successor and 49 C.F.R. part 661, to the extent consistent with MAP-21, and subsequent amendments to those regulations that may be promulgated. The Contractor also agrees to comply with FTA directives to the extent those directives are consistent with MAP-21, except to the extent that FTA determines otherwise in writing. Buy America requirements state that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waiver requirements are listed in 49 CFR 661.7.

B. The following documents form a part of the Specification to the extent that their respective content is pertinent to the products and methods contained herein and to the extent that work required under this project applies to the documents.

1. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section V: Nondestructive Examination.

2. ANSI NGV 4.8-2012.

3. American Society for Nondestructive Testing (ASNT) SNT-TC-1A: Recommended Practice.

4. American Society for Testing and Materials (ASTM)
    a. ASTM A 36: Standard specification for structural steel.
    b. ASTM A213: Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes.

5. American Welding Society (AWS) D1.1-88: Structural Welding Code - Steel.

6. National Electrical Manufacturers Association (NEMA) NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum), latest edition.

C. Other Scope. Comply with other electrical and building codes as required by the disciplines associated with all work shown in the project drawings.

1.03 SUBMITTALS

A. Design-Construction Drawing Package.

1. General. The Contractor shall prepare the design-construction drawings so that they are consistent with the general location and configuration of the equipment and systems shown on the conceptual CNG Facility & Garage Modification drawing set. Deviations shall be subject to approval by the Owner. The Contractor's drawings shall including any procured alternates.

2. Stand-Alone Package. Drawing package shall be stand-alone and not part of the drawing package that is to be prepared for the parallel garage-modification / detection / heater scope that is part of this overall project.

3. Drawings Provided by the Owner.

    a. CAD Files. The Owner will provide the Contractor with all CAD files used to prepare the preliminary project drawings. The CAD will be provided as-is, and shall be field verified by the Contractor.
    b. As-Built Drawings. The Owner will provide record drawings from the original construction of the entire bus-maintenance facility. These will be provided on an as-is and unverified basis, and shall be verified by the Contractor.

4. Prepare the following drawings.
    a. Cover sheet showing drawing list, project information, site map, project-team information and other information required by AHJs.
    b. Site Plans showing the location of gas meter sets, adjacent structures and property lines, new CNG equipment, defueling station, backup generator, electrical equipment and other pertinent site features.
    c. Piping and instrumentation diagram for entire CNG facility, including compressed-air system. Indicate pipe/tubing diameters and materials.
    d. Piping plan showing routing of all new piping, tubing and related mechanical connections and systems, including compressed air.
    e. Electrical drawings, including a single-line diagram, load schedule, block wiring diagram, grounding-bonding plan, conduit and cable schedule, electrical conduit plan, required utility details, and hazardous-area plan. Includes depiction of electrical upgrade, backup genset, transfer switch, motor starters and power distribution and wiring for all CNG, controls and lighting loads. Also provide details for electric-utility upgrades as required by and coordinated with SCE.
    f. Structural drawings showing equipment foundation for all new equipment, including compressor skid, gas dryer, motor-starter panel, and storage vessels shown on the plans.
    g. Civil drawings showing plan location, sections and details for demolition, paving, trenching, fencing, gates, bollards and safety equipment.

5. Drawing-Submittal Sequence. Provide drawing submittals at the following development levels:

    a. 30% schematic design
    b. 60% design development
    c. 90% construction documents (plan check submittal)
    d. 100% construction documents (plan-check corrections / approved drawings)

6. Other Design Requirements
    a. Stamping By Professional Engineer. All drawings called for under article 1.03.A. shall be stamped by an appropriate California-licensed Professional Engineer, in accordance with California law.
    b. Format. All drawings shall be prepared on ‘D’ sheets at 24” x 36”. All plan drawings shall include a graphic scale, and a statement of the scale used.

c. AHJ Corrections. Design revisions and corrections required by AHJ's shall be provided by the Contractor as part of the project scope.

B. Manufacturers' Warranties. All manufacturers' original warranties for material, components and assemblies shall be passed through to the Owner. These are in addition to the comprehensive Facility warranty that is the responsibility of the Contractor.

C. Approvals. Prior to shipping equipment to site, the Owner shall approve all information required under articles 1.03.C.1 and 1.03.C.2.

1. Submittals are required for all pre-packaged equipment listed in this Section, and are subject to approval by Owner. Submittals shall include, the additive alternates ordered by the Owner, and include all of the equipment listed below, if ordered:
   a. Automatic site-supply valve.
   b. 'MSB' electrical-distribution panel.
   c. Electric utility and service-upgrade equipment and materials.
   d. CNG-compressor skids and accompanying MCC's.
   e. Master control panel / PLC.
   f. CNG storage vessels.
   g. CNG compressor, including run simulation.
   h. Motor-starter panels (MCC's).
   i. PLC control system for CNG compressor skids with communications subsystem or panel.
   j. Gas dryer.
   k. Communication module.
   l. CNG defueling panel.
   m. Backup generator and transfer switch.
   n. Materials required for electrical-utility service upgrade.

2. Submittals are required for all listed components and materials installed between packaged equipment and used in manufacture of prepackaged equipment, and are subject to approval by Owner. Submittals shall include, at a minimum:
   a. Actuated and manual valves.
   b. ESD buttons.
   c. Pressure relief valves.
   d. Stainless steel tubing and unions.
   e. CS piping, unions and joints for natural gas and CNG.
   f. Fencing and gates.
   g. Supports, brackets, and appurtenances.

D. Required documentation.

1. The following are required as applicable for each size or type of item listed in article 1.03.B.1 of this Section, as applicable.
   a. Manufacturers' data sheets with dimensional drawings, with pressure rating and testing data for dispenser and other hoses, piping, tubing and valves.
   b. Installation and operating instructions and test procedures.
   c. Recommended maintenance instructions and schedules.
   d. Listing of special tools required for maintenance and testing.
   e. Warranties, including those of the original manufacturer.

f. Piping and instrumentation shop drawings of supplied equipment.
g. Electrical and wiring-termination schematics of supplied equipment.
h. Test data indicating compliance with all normal and specified functions and processes, including dispenser authorization, dispenser valve-flow control, dispenser pulse-count output for mass, compressor start-stop, compressor ESD, and faults for high dryer-heater temperature, low- and high-pressure compressor suction, high-pressure compressor discharge, high-temperature compressor discharge, low and high compressor-oil pressure.
i. Documented compliance with Buy America requirements for all equipment and components as required.

2. Submittal books shall be grouped and tabbed by assembly or logical system, including a front index of contents. All data for a particular packaged system shall be grouped, i.e. Piping and Instrumentation Diagrams, required sub-component listings, shop drawings, test data, etc. Cut sheets or catalog sheets containing multiple product listings shall include marks to clearly indicate actual unit(s) proposed for use, and all submittals shall include a mark or reference indicating intended location of use or application, i.e. '3rd stage pressure relief valve', 'compressor inlet manual ball valve', etc. Submittals shall be provided in searchable PDF documents with logical file names.

1.04 QUALITY ASSURANCE

A. Provide all materials, components and services in accordance with a quality control program that assures compliance with the applicable codes, standards, and this specification.

B. Provide qualified personnel to perform test and inspection functions as required during manufacturing process. Personnel qualifications shall be made available to Owner upon request.

C. All instruments, controls, and other electrical equipment must be qualified for the hazardous area classification where the equipment is to be installed.

1.05 PREPARATION AND COORDINATION

A. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure and complete pre-packaged component.

B. Coordinate accepted equipment changes from those scheduled or specified with other equipment affected.

1.06 PRODUCT DELIVERY AND HANDLING

A. Materials shall be delivered in the manufacturer's original unopened packaging, labeled to indicate the manufacturer's name and product identification.

B. Delivered materials shall be handled to ensure that the packaging and labeling remain intact until installation of material. Materials shall be stored and protected from ground contact and from the elements.

C. All containers, including internal containers, shall be indelibly labeled with item description(s) per title.

D. Mis-delivered equipment, material and packages shall be corrected at the Contractor's expense.

1.07 PAINTING AND FINISH

A. All packaged and manufactured equipment shall be delivered to the work site with specified factory finish. Should the finish be damaged in transit or during the installation, it shall be finished to present a neat workmanlike appearance to the satisfaction of the Owner prior to acceptance.

B. All other materials and components installed or fabricated on site shall have a suitable multi-coat industrial-grade finish applied, as specified elsewhere in this Specification.

1.08 PROJECT COMPLETION

A. Submit factory test-record data as required under article 1.10, (3) operating and maintenance manuals, and similar final record information.

B. Delivery of all procured equipment and included appurtenances to the Owner's location.

C. Deliver tools, spare parts, and similar physical items as applicable.

D. Complete onsite start-up testing of systems and instruction to the Owner's operating and maintenance personnel.

E. Document compliance with all of the safety, functional and performance requirements indicated in the project documents.

F. Complete the Owner's punch list corrections related to equipment.

1.09 RECOMMENDED SPARE PARTS LIST (RSPL)

A. Prepare a listing of all parts on a RSPL form for each individual piece of equipment or system that is of a maintenance significant nature and that is provided by the Contractor.

B. Prior to commissioning, submit the RSPL to the Owner for approval. Procurement of spare parts will be under a separate contract than the equipment procurement described herein.

1.10 INSPECTION, TESTING AND ACCEPTANCE

A. General. The Contractor shall be responsible for proving to the satisfaction of the Owner that the minimum specifications for the Equipment and installation work, as specified herein, have been met. The Owner will require the execution of various inspections and tests, including their documentation, prior to accepting the Facility as complete and in compliance with these specifications. Such inspections and tests shall be based on recommendations by the Contractor. If the Owner determines that such recommended inspections and tests are not adequate, the Owner shall require additional inspections and tests as needed. Inspections,

witnessing of tests, or waiving of any such procedure by the Owner shall not release the Contractor, or other vendors from full responsibility for compliance with equipment, material and functional requirements according to the project specifications.

B. The Contractor shall also provide test equipment, material and labor to conduct on-site testing and start-up procedures. Such procedures will be provided to the Owner to include each of the above components and systems. All tests shall be made available to be witnessed by the Owner to verify compliance with specifications.

C. Construction-Site Inspections. Inspections and tests shall be performed at the construction site in accordance with construction schedule as required by the Contractor standards and jurisdictional building codes and per specification article 3.05.

D. Additional Inspections. Additional inspections will be carried out by the Owner to determine compliance with performance, materials and component specifications that may be beyond the scope of jurisdictional inspections. The Owner will prescribe a final punch list as a result of start-up tests and end-to-end functional demonstrations.

E. Criteria. All design performance pass/fail criteria to be recommended by the Contractors' primary equipment manufacturer and other vendors shall be submitted with the Contractor bid proposal as limits of acceptability for performance requirements of all equipment provided as required herein.

F. Acceptance. The Owner will only accept facility as complete after the Contractor provides compliance with the requirements under article 1.10, and article 3.08.

1.11 WARRANTY

A. General. The Contractor shall warrant that all components, systems, labor and materials specified herein shall be free from defects in design and manufacture for a period of one year, commencing upon CNG Station Substantial Completion [defined as date following completion of the CNG Station Reliability Test (Attachment D, Section 3.08, Part C) and GTrans has beneficial use of the facility.] The Contractor shall pay all costs for parts, labor & travel required to satisfy warranty claims.

B. Original Component Warranties. All manufacturers' original standard specifications and warranties for material, components and assemblies shall be forwarded to the Owner. These are in addition to the comprehensive Facility warranty that is the responsibility of the Contractor. The Contractor shall design the system, and complete all work in such manner so as to not invalidate any applicable Original Component Warranties.

C. Warranty Enforcement. In case warranty is invoked, the Contractor shall ensure that the appropriate installer, supplier, and/or manufacturer, i.e. component manufacturers and/or sub-vendors and suppliers(s), shall respond with suitable repair within forty-eight (48) hours of notification.

If the Owner makes PLC software changes including adjustments to setpoints, Contractor cannot guarantee the operation of the equipment and may void the one-year warranty. Any Owner changes to the PLC source code or set points during the warranty period require the

review and written approval by the Contractor prior to the changes being made to avoid voiding Clean Energy's one-year warranty.

1.12 QUALIFICATION OF MANUFACTURER-PACKAGER

A. General. Manufacturers and models for equipment, components and performance shall be provided on CNG equipment data form. All sections of the form are required and shall be complete to define minimum standards for function, performance and quality.

B. References for Supplied Equipment. Provide three customer-owner references in the U.S. for fueling facilities that have the proposed equipment in use for at least twenty-four (24) months. For each reference, include facility name and location, date installed, and include contact name, phone, email for an owner representative that was involved with the construction of the CNG facility.

C. Compressor Skids. Manufacturers of CNG-compressor skids and Valve panel shall also meet the following requirements:

1. Provide documentation that the packager of the compressor skids, controls and valve panel have provided at least four (4) CNG-equipment packages with at least 500 aggregate HP for compressor drive at each site or installation within the last two (2) years. Submit three (3) customer-owner references for U.S. projects with compressor skid and valve panel matching the equipment similar to that required in the Owner's equipment specifications that has been in service for at least six (6) months without significant problems, with reference responses subject to approval by The Owner. For each reference, include # skids, motor HP, cooler configuration (air or liquid), location, date installed, and owner, contact name, phone, email.

2. Provide manufacturer's data sheet demonstrating that the unit can produce CNG per specifications article 2.03. Data sheet should be marked as approved by an Engineering Manager or equivalent.

3. Verify that each unit can provide the required flow using a maximum 300 HP drive motor.

4. Provide statement verifying that the controller can provide lead-lag starting, based on run skid-hours, different storage pressures and based on time of day, and otherwise meet the operating requirements of the specifications.

5. As part of bid, provide diagrammatic and written description of flow balance in terms of how flow will be controlled, i.e. at each dispenser, compressor or valve panel, or any combination of equipment that will allow vehicle fill pressure of an active hose to remain the same at the time of a second vehicle connection, also maintaining fill pressure with the connection of a third vehicle.

PART 2 - PRODUCTS

2.01 GENERAL

A. New Equipment. Equipment to be supplied by the Contractor shall be in new condition unless otherwise permitted by the Owner, in writing, and shall include all components and systems necessary to operate the respective system or component, fuel-management system, maintenance equipment, generator equipment, safety systems, skid, frame and enclosure, and other related components and systems as described herein.

B. Pressure Ratings. All piping, tubing, unions, vessels, valves, filter bodies and appurtenances used in the manufacture and assembly of the specified equipment shall have a manufacturer's rated normal working pressure that is equal to or above its respective normal duty pressure, with a burst-safety factor as specified by either ASME B31.3, or the ASME Boiler and Pressure Vessel Code, as appropriate. Such ratings shall be indicated on component and material submittals to be approved by the Owner.

C. Electrical Classifications. All electrical and electronic components shall be installed and configured appropriately for their respective service conditions and locations. All such installations shall comply with NFPA 70 standards for Class I, Group D, Divisions 1 and 2, and as stipulated in Table 7.4.2.9 of NFPA 52 (2013) or other requirements as called for by AHJs.

D. Material Compatibility. The Contractor shall be responsible for providing and installing components and materials throughout the entire Facility that are compatible with, and do not adversely react to other component or material that could be expected to come in contact during normal operation.

E. Ball Valves. All ball valves shall use 2-piece construction. Ball valves smaller than NPS 2 shall include bodies, balls and stems fabricated from 304 or 316 stainless steel, and shall have a listed MAWP of not less than the highest service pressure normally existing in the process segment where it will be located. Ball valves in sizes NPS 2, or larger, may have carbon steel bodies, but otherwise shall otherwise meet the above specification for ball valves smaller than NPS 2. Actuated ball valves shall use pneumatic operators powered by a common control-air system, or by regulated CNG, in which case all actuators shall be listed for compatibility with natural gas and its typical lubricants.

F. Buy America Act. All equipment and materials provided under this specification shall comply with Buy America Act provisions as required by the U.S. Department of Transportation for infrastructure projects.

2.02 CNG COMPRESSOR SKIDS

A. General. Furnish complete compressor skids each designed for use with natural gas and with a minimum per-compressor discharge capacity of 650 SCFM at 4500 PSIG, at 81 PSIG inlet pressure. Since the MSA gas supply will be unregulated, the Contractor shall indicate the maximum allowed skid-inlet pressure as needed to maintain proper operation of the equipment over the entire range of possible MSA-supply pressures.

B. ESD Buttons. A mushroom-head push-type ESD button shall be located on the outside of each skid enclosure.

C. Enclosures. Each skid shall be enclosed in a weather-resistant rain-tight lockable enclosure. Doors and panels shall be removable to facilitate servicing.

D. Enclosure Accessories.

1. Doors. Doors may be of either swing out, sliding, and/or rollup type, shall be lockable and if personnel can be closed in, design shall include a means to open at least one (1) door from the inside, even if locked from the outside.

2. Interior Lighting. Install a manual wall switch inside each enclosure for skid lighting control. Luminaries, switch and conduit shall be listed for Class-1, Division-2 Group-D service. Furnish either of the following luminaries.

   a. One (1) 4’ long T8 fluorescent luminary with two (2) lamps or equivalent LED luminary and located so as to provide uniform illumination throughout the interior area.

   b. Two (2) compact-fluorescent fixtures located to provide uniform lighting levels throughout the skid interior.

3. Methane Detection. Ceiling-mounted infrared point methane detection shall be provided and shall interface with the skid controller. Detection of 20% to 49% LEL methane shall annunciate an alarm at the master control panel. Detection of 50% LEL methane shall annunciate an alarm at the control panel and shut down the compressor system equal to activation of the ESD. Methane detectors shall be Drager Polytron, Sensor Electronics, General Monitor/MSA or Honeywell.

4. Sound Attenuation. Enclosure shall provide sound-attenuation features, including sound-absorbing interior-wall surface and sound-attenuated louvers for cooler-air intake and exhaust.

E. Vibration Speed. The compressor skid frame shall have a maximum vibration speed of 0.8” per second. Provide analog vibration sensor mounted to each compressor frame and wire to controller. Sensor shall have sensitivity range of at least .1” to 1.5” per second vibration speed.

F. Control Air. Provide 1/2" tubing connection at skid edge for connection to remote 100 PSIG control-air supply header. Include pressure gauge scaled to 200 PSIG at line inlet.

G. CNG compressor skid manufacturers:

1. ANGI Energy Systems LLC
   Janesville, WI 53563
   Telephone: (800) 955-4626

2. JW Power
   122 Dovel Rd.

Longview TX 75603
Telephone: (720) 385-3033

3. Safe / IMW Industries
43676 Progress Way
Chilliwack, BC, V2R 0C3, CANADA
Telephone: (732) 237-0001

H. Qualification for Equal.

1. Provide references per article 1.12

2. Also provide the following information for compressor skid references.

a. For each ref., include # of skids, each motor HP, cooler configuration (air or liquid), site location, date installed and owner contact name, phone and E-mail.
b. Provide manufactures data sheet demonstrating that each compressor can produce at least ***650*** std. ft. / minute (SCFM) at the operating conditions listed in the specifications. Data sheet shall be marked as approved by an Engineering Manager or equivalent. Proposed systems with three (3) total compressors shall indicate a flow of at least 975 SCFM per compressor.
c. Provide statement verifying that the controller can provide lead-lag starting, based on run skid hours, different storage pressures and based on the time of day and otherwise meet the operating requirements of the specifications.

2.03 CNG COMPRESSORS

A. General. These requirements apply to Ariel JGQ, IMW-50 or equal compressors, and related equipment mounted on a skid with weather-resistant enclosure, intended for vehicular-use natural gas only, a design-maximum discharge temperature immediately downstream of each stage of compression of no more than 20° F greater than the design ambient temperature of up to 110ºF and outdoor un-shaded installation.

B. Required Capacity. Each compressor shall be sized to produce not less than ***650*** SCFM of CNG at a discharge pressure of 4500 PSIG. The design capacity shall also allow for all pressure drops through filters, pulsation bottles, interstage devices, dryer, coolers and piping from the inlet flange to the discharge-tubing connection on the skid.

C. Compressor Size. The compressor frame shall be furnished with cylinders which, when operating at normal operating condition(s), shall, as closely as practical, load the electric motor to its full rated load.

D. Interstage Velocity. The velocity of gas from inlet to discharge shall not exceed 50 feet per second at the design conditions. All piping, coalescers, valves, unions etc. shall be sized appropriately.

E. Accessories. Compressors shall be provided with direct or belt drive assemblies, interstage and discharge coalescers, and interstage- and after-cooling. Each compressor shall be designed for automatic starting, unloading and captured blowdown and equipped with a normally-closed actuated inlet valve, suction check valve, discharge check valve, suction flex

line, suction particulate filter, and discharge coalescing filter. The actuated inlet valve shall be controlled by the PLC.

F. Lubrication System. Compressor cylinders may be either be oil-lubricated or non-lubricated. Crankshafts shall be oil lubricated.

1. Lubricating Oil Consumption. Net carryover of lubrication oil from the compressor crankcases through to the dispensers shall be no greater than 0.5 pounds of oil per million SCF of compressed natural gas. Net carryover shall not include oil drained or recovered from the blowdown receiver and coalescers.

2. Piston Rings. All compressor piston rings shall be ferrous or synthetic, subject to approval by Owner.

3. Lube Oil. Compressor-lube oil for both crankcase lubrication and cylinder lubrication shall be a PAG-type synthetic oil, and as approved by the compressor-skid packager.

4. Day Tank. All force-lubricated compressors shall include a 5-gallon day tank with sight glass. Include low- or no-oil level switch in oil system.

G. Compressor Crankcase Ventilation. Each compressor shall be equipped with means to prevent an accumulation of combustible gases in the crankcase. Vent exhaust shall be directed to a safe location inside or outside of the skid enclosure and shall be protected from rain and debris by a rain cap or similar means.

H. Interstage Coalescing Filters. Each oil-lubricated stage shall include an oil-coalescing filter downstream of the cooler outlet for that stage. Coalescing filters shall be fitted with automatic drainage to the compressor's blowdown-recovery vessel.

I. Loadings. Compressors, drive motors and auxiliary equipment shall be designed and constructed to operate under full load at normal operating conditions.

J. Pressure Rating For Controls. All gas controls shall have an MAWP equal to or greater than the maximum pressure to which they will be subjected during normal operation of the compressors.

K. Appurtenances. Each compressor stage shall include a surge chamber with enough capacity to adequately dampen the effects of compressor pulsation on adjacent components, and shall include a flexible inlet pipe section to protect against vibration and movement of the compressor vs. the suction-supply piping. Final discharge from each compressor shall be tied to a common tube/pipe to edge of skid. The MSA and each compressor discharge shall be protected by check valves.

L. Alignment. Direct compressor-drive alignment shall be set in the factory using a commercial laser alignment system, (e.g., Hamar Laser) or high-precision runout-dial gauge. Laser or gauge alignment shall verify rigidity of the motor mount (avoid excessive soft-foot alignment), and parallelism of the axes of rotation between the motor and compressor crankshaft prior to shipment. Alignment shall be mechanically field verified to factory tolerance following completion of all anchor connections but prior to any bump-over or startup on site, and

alignment method shall adhere to the written instructions of the skid or compressor manufacturer.

M. Design Conditions. The compressor system shall be capable of operating within the full range of conditions specified below. Values listed as 'design' shall be used for sizing the compressors with respect to specified flow rate.

1. Gas Conditions. The incoming gas supply will have a design specific gravity of 0.59 and a temperature of 75ºF.

2. Ambient Temperature. The ambient temperature will range from 35ºF - 110ºF, with a design temperature of 90ºF.

2.04 CNG COOLING SYSTEM

A. Design. Forced draft or induced draft air circulation shall be used to cool the CNG from the heat of compression. Fan drive may be either derived from the prime mover or by its own electric drive motor.

B. Design Criteria. The criteria to be used for design shall include the following:

1. Max. design ambient temperature 110° F.

2. Site elevation above mean sea level 50 feet.

3. Max. compressor suction gas temperature 75° F.

4. Max. allowable aftercooler gas discharge temp. Ambient temp. plus 20°F.

C. Tube Material. Tube material for final-stage cooler shall be Type 316 or 304 stainless steel, seamless, and manufactured and labeled according to ASTM A213. Tube material for other cooler stages shall be either SS per above or A-103 grade B CS.

D. Cooler Configuration. Cooler intake and exhaust sections shall be oriented so as to minimize the introduction of exhaust air from existing and new adjacent skids into the intake of either skid. Coolers shall include sound-attenuating louvers at their intake and exhaust sections.

2.05 SKID-MOUNTED PRESSURE VESSELS

A. Stamping. All vessels requiring ASME stamping shall also be stamped with the following:

- MAWP.
- The water volume of the vessel.
- ASME U-stamp.

B. Suction Filter. Furnish one (1) particulate filter upstream of each 1st stage compressor inlet.

1. Specification. This filter shall eliminate all suction gas particles (liquid and solids) with a diameter of 50 microns or greater. The filter shall be adequately sized for the maximum

compressor throughput. The filter body design pressure shall not be less than the blowdown receiver relief valve set pressure.

2. Ancillary Equipment. Furnish the suction filter with:
   a. A drain line controlled by a manual valve.
   b. A differential pressure gauge for indicating pressure drop between filter inlet and outlet.

C. Pulsation/Volume Bottles. Pulsation bottles sufficient in capacity to adequately dampen the effects of compressor pulsation on adjacent components shall be included in the following locations: upstream of the first-stage inlet; downstream of final-stage discharge.

1. Compliance. Design of compressor system shall comply with the guidelines of the Compressed Air and Gas Handbook, fifth edition, chapter 10, published by the Compressed Air and Gas Institute, so as to minimize the effects of harmonics and pulsation. Pressure curves in Handbook (Figure 10.50, approximate bottle sizing chart) shall be extrapolated to pertinent working pressures of the relevant compression stages and systems.

2. Drains. Pulsation bottles shall be equipped with drains.

D. Interstage Oil Removal. Interstage coalescer downstream of each oil-lubricated cylinder between the interstage cooler and next-stage compressor inlet shall be provided.

1. Size. Coalescing filters shall be housed in Parker J4 housings, or larger, and shall be designed to eliminate ninety-five (95) percent of entrained liquids and handle liquid accumulation, which may result from twelve (12) hours of continuous compressor operation. Automated in-process blowdown to drain oil accumulations is allowed.

2. Drains. Drains shall be minimum 3/8-inch pipe and be fitted with a matching check valve. An automatic valve for each blowdown circuit shall be provided to allow liquid blowdown to the blowdown receiver vessel. Drain lines and the actuated valve shall be sized to handle compressor idling gas volumes.

E. Two-Stage Discharge-Coalescing Filtration (force-lube compressors). Both pre-coalescer and coalescer filters shall be housed in a Parker J4SL housing at minimum and shall be located immediately downstream of the final stage aftercooler. Lesser filtration may be proposed for compressors that do not have force-lube injection on all cylinders.

1. Specification. Coalescer filter discharge shall contain no more oil or other liquid hydrocarbons, exclusive of non-condensables, than 50 part per million on a mass basis. The filters shall be sized for the maximum compressor gas flow rate over gas pressures ranging from 2,000 to 4,500 PSIG so that pressure drop does not exceed 2%. The first filter shall use a Parker Hannifin grade-10 coalescer element and the second filter shall use a Parker Hannifin grade-4 coalescer element.

2. Drains. The filter(s) shall have an automatic liquids purge to the blowdown receiver. An automatic valve shall be provided to allow liquid blowdown to the blowdown receiver vessel. Drain lines and the actuated valve shall be sized to handle compressor idling gas volumes.

F. Blowdown Receiver. Blowdown receiver of adequate capacity and pressure rating for the normal operation of each compressor shall be included. Design working pressure for each blowdown system shall be sized appropriately to accommodate the blowdown volume and pressure of the compressor and allow up to two (2) start / stop cycles within five (5) minutes.

G. Connections. The blowdown receiver(s) shall have the following connections:

1. Condensate drain. A 1/2-inch ball valve or needle valve and drain port shall be provided in a readily accessible location for manual draining of liquids accumulation in the blowdown receiver. Ball valve shall be piped to edge of skid exterior and shall include downward

2. Interstage separator blowdown. A manual ball valve shall be provided to isolate the blowdown receiver from the actuated blowdown valve, to facilitate servicing of the blowdown piping, without the need to depressurize the receiver.

3. Gas connection to compressor suction from the blowdown receiver and its regulator shall be upstream of suction filter and downstream of the suction check valve.

2.06 SUCTION NATURAL GAS DRYER

A. General Requirements. A low-pressure, manually operated, temperature-swing absorber heat regenerative gas dryer shall be provided. The system shall include inlet and outlet particulate filters, and pressure gauges for measuring inlet pressure, differential pressure across the dryer-inlet and -outlet filters, and across the entire dryer assembly, i.e. flange to flange.

B. Configuration. Provide a manual-simplex design consisting of one desiccant vessel, and 3” diameter connections and all gas-process piping and valves shall be 3” nominal.

C. Pressure Relief Valves. Full-port PRV’s shall protect the desiccant vessel and heater-vessel assembly, and shall include lock-open ball valves at their inlets. PRVs shall be rated for the MAWP of the vessel that they are protecting and shall be by Mercer or Anderson Greenwood.

D. Maximum Allowable Discharge-Moisture Content. The discharge gas shall comply with SAE standard J-1616, based on inlet natural gas with 7 lb moisture per MMSCF, and a design low ambient temperature of 40º F.

E. Adsorbent. The adsorbent shall be 3Å molecular sieve and shall not affect the character and odor of the incoming gas. The dryer design shall be such that the adsorbent shall have a minimum useful life of five (5) years.

F. Other Requirements.

1. Piping, vessels and valves shall be sized, configured and ported so that pressure drop between inlet and outlet flanges of dryer does not exceed 5 PSI at the design MSA-outlet pressure of 86 PSIG and a flow of 1950 SCFM. Dryer shall be pre-assembled on a skid and shall include common connection at system inlet and outlet.

2. MAWP of vessels, piping and complete assembly shall be min. 150 PSIG.

3. Provide redundant thermocouples at all heater units. TC's may be internal or external to the heaters.

G. Drying Capacity. The dryer shall be sized so that regeneration of the desiccant bed shall be required after no less than one hundred seventy-five (175) hours of 1950 SCFM gas throughput during the normal operation of the compressor system, based on an inlet gas-moisture content of 7 lb./MMSCF.

H. Instrumentation. An in-line dew-point sensor alarm shall be provided at the dryer-discharge port. The detector shall have two (2) levels of alarm; one light shall be activated upon moisture at dryer discharge approaching maximum saturation and a second light be activated upon moisture upon dryer discharge reaching maximum saturation. Inlet and outlet connections shall each be equipped with a pressure gauge scaled to 125% of the dryer MAWP. Differential-pressure gauges shall be provided on the inlet and outlet filters, and across the entire dryer assembly.

I. Regeneration. Regeneration of any desiccant bed shall be by temperature swing with closed loop gas circulation, and shall be initiated manually and terminate automatically. Maximum regeneration and cooling time shall be eight (8) hours. A design that requires burping to reduce the closed system pressure for regeneration is acceptable. Provide embossed placard or sign with basic regeneration procedure on dryer.

J. Bypass Capability. Dryer bypass and isolation manual ball or butterfly valves shall be provided so that the compressors may operate while the entire dryer is off line.

K. Recirculation Blower. Blower shall include pressure transducers to detect low and high differential pressures. Blower hose shall be reinforced with stainless steel braid or other equivalent means to resist kinking of the hose.

L. Regeneration Heater Assemblies. Each heating vessel shall include a PRV that cannot be isolated from its vessel, and a redundant thermocouple for detection of over-temperature.

M. Manufacturers:

1. ANGI Energy Systems
   305 W. Delevan Dr.
   Janesville, WI 53546
   Telephone: (800) 955-4626

2. PSB Industries, Inc.
   1202 W. 12th Street
   Erie, PA 16501
   Telephone: (814) 453-3651

3. SPX/Pneumatic Products Corp.
   4647 S.W. 40th Avenue
   Ocala, FL 34474
   Telephone: (352) 873-5763; (352) 237-5500

4. Xebec Inc.
   730 Boulevard Industrial
   Laval, QC, H7L-3M5
   CANADA
   Telephone: (450) 979-8718

5. Or approved equal.

2.07 DEFUELING PANEL

A. General. Provide CNG defueling panel with dual capability to return defueled gas to compressor suction and to alternately vent CNG to atmosphere.

B. Specification. Include adjustable regulator system designed to reduce CNG-vehicle pressure from 4500 psig to 110 psig at panel discharge. Panel shall be housed in a NEMA 3R cabinet and include redundant parallel regulators, ½" SS process lines and valves throughout. All regulator stages shall be protected by full-port PRV's. Defueler shall include manual valving to allow selection of either 'closed' mode for discharge at 95 psig (adjustable), or 'vent mode for discharge to atmosphere. Outlets for PRV's and vent mode shall be routed to a 2" dia. sch. 80 galvanized CS pipe that is 12' long, which will allow the lower 2' to be set in a below-grade footer, and will allow the top to be 10' above grade when installed. Provide inline ball and needle valves for throttling flow through both modes and provide pressure gauges to monitor vehicle pressure and outlet pressure downstream of regulators.

C. Hoses & Nozzles. Provide 12' long x 3/8" conductive hose rated for 5000 psi equip hose with 'ILB-1' inline breakaway and BDN defueling nozzle. Also provide Snaptite quick-connect hose end with appropriate threaded adapter, shipped loose in cabinet.

2.08 INSTRUMENTS AND CONTROLS FOR COMPRESSOR SYSTEM

A. General. Compressor-system controls, including start and shutdown shall be electronic and shall operate automatically and unattended. Allen Bradley 'Remote I/O' or similar/Centurion architecture is acceptable. If a master controller or PLC is provided, the compressor skid shall include a local touch-panel HMI for monitoring status of its skid, including typical pressures, temperatures and fault conditions.

B. Control System. A micro-processor based controller (controller) in a NEMA 3-R enclosure shall be provided for the compressor and mounted in an area consistent with its electrical classification. System shall be designed in accordance with the following:

1. Performance Specification. This controller shall be capable of controlling operations of its associated compressor skid as required, without reliance on any parallel controllers. All set points for this controller shall be modifiable at a local input/output display panel and shall also be modifiable remotely by network / Internet IP connection.

2. Programmability. The Owner shall have unimpeded access to modify set points and operating parameters upon completion of the Work. The Contractor shall verify that the PLC program is developed using a commercially available PC-based platform such as Studio 5000, as needed to modify controller program. Provide compiled and annotated source code for PLC program ***in .ACD file format*** on USB flash drive.

3. Local Display. Master controller shall include an outdoor-rated 7" LCD touch HMI, Skid controllers shall be an outdoor rated 5" LCD touch HMI, viewing shall include backlight and be visible in bright sunlight for fault annunciation, display of operating conditions and interface for modifying set points. Modification of set points shall require a password. Display shall include a backlight and shall be rated for outdoor installation. Display shall be protected or oriented on site so that it is clearly visible in any day lighting condition.

C. Telecom. All set points for this controller shall be modifiable at a local input/output display panel and by remote IP connection via web-based interface. Controller system shall also provide automatic SMS and email-based notification to the Owner via IP connection in case of fault. Includes either cellular-data modem or wired LAN connection to local IP switch.

D. Performance Specification.

1. Compressor Starting. Logic in controller shall prohibit subsequent compressor from starting within sixty (60) seconds of the primary-starting compressor but shall allow up to five (5) total compressors to operate concurrently, based on demand from the fast-fill dispensers and storage pressure, which shall be adjustable. Controller shall facilitate incremental compressor start based on threshold-storage pressure. Incremental compressor-start sequence shall be associated with storage-bank pressure, i.e. the first compressor starts when storage falls to 3,600 PSIG; the second compressor starts when storage falls to 3,300 PSIG and when two (2) dispensers are active; third compressor starts when storage falls to 3,000 PSIG, etc. Set points shall be adjustable. The number of compressors allowed to run simultaneously shall be limited based on time of day.

2. Storage Bypass. Controller shall control and prioritize compressor discharge to priority storage banks or fast-fill direct supply. Priorities and control-pressure set points shall be user adjustable via the controller.

E. Shutdowns, Alarms and Annunciators.

1. General. All shutdowns, alarms and annunciators shall be electronic and adjustable.

2. Specifications. The first column, below, lists the relevant component or system. The second column lists the corresponding required action (i.e. shutdown, alarm, indicator):

3. Compressors:

a.	Low suction pressure:	Shutdown
b.	High interstage pressure, all stages:	Shutdown
c.	High discharge pressure:	Shutdown
d.	Low lube oil pressure:	Shutdown
e.	High discharge temp., each cylinder:	Shutdown
f.	High compressor & cooler vibration:	Shutdown
g.	High vibration:	Shutdown
h.	20% LEL methane detection level:	Alarm
i.	50% LEL methane-detection level:	Shutdown
j.	High storage pressure, each bank:	Shutdown
k.	Nearing low control-air pressure (header):	Alarm
l.	Low control-air pressure (air-supply header):	Shutdown
m.	High blowdown pressure (95% MAWP):	Shutdown

4. Electric motors:

    a. High winding temperature: Shutdown.

F. Additional Requirements. In addition to the devices previously listed, the panel shall include:

1. Manual shutdown switch.

2. Key lockout.

3. Lights to indicate main power is energized, condition light for each compressor indicating “running”, “standby” or “fault.

4. Compressor automatic-start-cycle failure.

5. First-out fault annunciation.

6. An emergency shutdown switch shall be provided at the control panel. The ESD switch shall shut off the compressor motor power supply and close the actuated suction valve at each compressor. ESD system shall be expandable to other locations on a common 24VDC or 120VAC circuit.

7. Hourmeter. Each compressor shall have a non-resettable hour meter to record cumulative time of operation and may be part of a multi-functional digital display with a backup battery.

8. Motor overload. The annunciator need not specifically call out "compressor motor overload" or "cooler motor overload". Rather the annunciator may indicate a message such as "compressor motor failure".

9. Temperature for high interstage and discharge temperatures shall be measured at the outlet of each cylinder.

10. Design PLC for integration with up to four total compressor skids from the same skid packager, including allowance to control lead-lag starting, and limit number of compressors that can run based on time of day and storage pressure.

G. Instrumentation.

1. Temperature Measurement. Thermocouples or resistance thermometer devices (RTDs) shall be used to sense temperature for control functions.

2. Pressure Measurement.
    a. Required Pressure Gauges. Pressure gages shall be provided for compressor suction, interstage pressures, blowdown receiver and final compressor discharge for each compressor.
    b. Calibration Valve. All pressure switches and transducer/transmitters shall have a dedicated block-and-vent valve to facilitate pressure calibration. The block valve should be lockable with a wire and lead seal.
    c. Pressure Gauges. Manual pressure gauges shall monitor the following pressures:

i. + Compressor lube oil
ii. + First-stage suction
iii. + Each stage discharge
iv. + Blowdown receiver

H. Timer Control. PLC system shall include ability to program the start/run of any compressor based on time of day (i.e., no start unit B between 5:30 AM and 6:00 PM daily).

I. Manufacturers.
1. Allen Bradley Contrologix or Compactlogix.
2. Horner.
3. Siemens.
4. Or approved equal.

2.09 REMOTE COMMUNICATIONS PANEL/MODULE

A. General. Remote communications may be provided by either a standalone panel or as part of an integrated PLC-control system. House in a NEMA 3R cabinet.

B. Requirements. Provide remote-communications package to facilitate web-based monitoring of PLC / status of CNG system. Include automatic SMS messaging and emailing to four recipients in case of any fault and ability to connect remotely via web-browser interface to monitor status and change control parameters with password protection. Communication may be either via cell or locally wired IP Ethernet connection. House in weather-tight cabinet and provide local setup for owner monitoring capability. Web interface shall provide data and interface matching that of the local HMI.

2.10 VALVE-PANEL SYSTEM

A. General. Provide connections for all proposed compressors with 1" compressor-discharge connections. The valve-panel system shall direct the flow of CNG from skid discharge to dispensing lines that supply two (2) transit-CNG dispensers, or to the one-bank storage system. Panel shall include 1” process lines and valves throughout, shall be free standing, and shall be housed in a NEMA 3R cabinet.

B. Functional Requirements.

1. Provide CNG flow from compressor discharge to single-volume CNG-storage bank.
2. CNG supply to transit dispensers shall be one-bank configuration.
3. Include back-pressure regulator or automatic buffer-bypass valve with pressure-transducer control that only allows the storage to be replenished when the dispenser-supply headers are all above 4000 PSIG (adjustable). Valve or regulator shall be sized to prevent excess backpressure to compressor discharge when storage is being replenished. This feature shall allow compressor discharge to flow to the dispensers as priority, maintaining full flow to each dispenser while on priority fill, unless they are not in use, in which case the compressor discharge will flow to CNG storage.
4. Provide description of valve panel functions to provide required flow as stated above
5. Provide fail-closed ball valves for storage bank that automatically isolate all storage upon ESD activation.

6. Provide manual ball valves at each inlet and outlet connection. Provide 6000 PSI pressure gauge at each inlet and outlet connection and arrange so that gauges are visible with the cabinet closed.
7. See requirements in paragraph 2.12.D. An alternate valve-panel configuration may be provided as allowed in that paragraph.

C. Manufacturers:

1. ANGI Energy Systems
   305 W. Delevan Dr.
   Janesville, WI 53546
   Telephone: (800) 955-4626

2. Safe / IMW Industries
   43676 Progress Way
   Chilliwack, BC, V2R 0C3, CANADA
   Telephone: (732) 237-0001

3. JW Power
   Longview, TX
   Telephone: (903) 643-3413

4. Trillium CNG
   Houston, TX
   Telephone: (800) 920-1166

5. Tulsa Gas Technologies
   10117 E. 48th Street
   Tulsa, OK 74146
   Telephone: (918) 665-2641

6. Manufacturer of valve panel shall be approved by the manufacturer-packager of the CNG compressor and controls system.

D. Qualification for Equal.

1. Provide documentation that the manufacture of the compressor skids and the manufacture of the valve panel have reciprocal approvals for each other's equipment.

2. Provide customer references with bid for three projects that meet the requirements of article 2.10.

3. Provide narrative or schematic with bid to illustrate technical compliance with article 2.10.

2.11 STORAGE VESSELS

A. General. Four (4) ASME-rated spherical or cylindrical CNG storage vessels shall be provided. Vessels shall have a minimum capacity of 11,500 SCF each at 4,500 PSIG, an MAWP of 5,500 PSIG, shall include framing and bracing suitable for IBC seismic classification-E.

Vessels shall be fabricated in accordance with ASME Section VIII, Division 1, and shall be painted white.

B. Arrangement. Configure vessels as shown on plan or other arrangement approved by the Owner. If cylindrical vessels are provided, vessels shall be arranged 2 wide x 2 tall, with foundation system designed to support a 2 wide x 3 tall configuration. Provide a 1" SS capped tee for connection of additional vessels. Spherical vessels shall be spaced to 18" clear and all valves shall be accessible.

C. Valves And Drains. Each vessel shall include a full-port 3/4" pressure relief valve (PRV) set at 5500 PSIG with a full-port 3/4" ball valve locked open between the PRV and the vessel. Each vessel shall include a 3/4" service ball valve, a drain port at its low point with a throttling plug valve and a pressure-rated discharge pipe or tube convenient for draining. Outlet of drain port shall be anchored and shall be directed away from servicing personnel. For cylindrical vessels, slope towards drain end.

D. Vent Riser. Furnish a 1" dia sch 80 elbow and vent-riser pipe at each PRV outlet with opening min. 10' AFF. Or, provide a common 2" dia. Sch 80 CS vent-riser pipe.

E. Manufacturers and Packagers:

1. Allied Equipment
   Midland, TX
   432-367-6000

2. ANGI Energy Systems
   Janesville, WI
   Telephone: 800-955-4626

3. CP Industries
   McKeesport, PA
   Telephone: 412-664-6681

4. FIBA Technologies
   Littleton, MA
   508-887-7162

5. Or approved equal.

2.12 TRANSIT FAST-FILL DISPENSERS

A. General. Provide high-capacity CNG dispensers. All tubing and valves in dispensers shall be minimum 1" diameter. Each dispenser shall include a backlight display, an Endress-Hauser model CNGMass-DN25 meter with 1" process and matching transmitter with pulse output, a 1" manual ball valve and a 1" air-actuated ball valve. Dispensers shall include a 6000 PSIG pressure gauge mounted near the hose connection at cabinet exterior, and shall include two (2) coalescing filters in J6 housings at initial dispenser inlet. Dispensers shall include a vent valve that is common to the pressure gauge and the filter housings. Dispensers shall be furnished with temperature compensation logic to fill equivalent to 3600 PSIG at 70 °F. Dispensers shall include a keeper bucket or factory supplied holster. Dispensers shall be

configured for and connected to the existing Ward fuel-management terminals on the service islands. Provide both dispensers with a Transit hose. Provide one (1) dispenser with a Transit hose and an Auxiliary hose.

B. Operation. Dispensers shall include start and stop buttons, activity lights, an analog vehicle-pressure gauge, auto-fill completion with light annunciation, and backlit display for volume dispensed in GGE's. Vent gas shall be vented to the top of the dispenser via bulkhead fitting. Vent piping or tubing shall be sized to prevent backpressure under all operating conditions.

C. Hoses and Nozzles. Hoses shall be 13' long. Hoses shall have retractors to keep the hoses off of the ground when retracted as needed.
   1. Transit Hoses. Hose supply and vent lines shall include ILB-5 and ILB-1 breakaway couplings respectively, and be electrically conductive. Hoses shall be ¾" with 3/8" vent lines and include retractors that keep hoses off the ground when nozzles are parked in their keepers. Nozzles shall be OPW/Sherex CT-5000 – FLB-5000 or WEH TK26 with steel locking jaws. Include nozzle rest or keeper. Configuration shall prevent hose from projecting more than 6" beyond the front of the dispenser when nozzle is in its keeper.
   2. Auxiliary Light-Duty Hose. One (1) dispenser shall include an auxiliary hose for fueling light-duty NGVs, tee'd from the main dispenser line and meter. Hose shall be 1/2" x 12' long, 5000 PSI-rated with inline breakaways for supply and vent lines, and include an NGV1 type-2 P36 nozzle with a yellow collar.

D. Dispenser-Flow Balance. CNG system shall include means to balance flow of CNG to each transit-CNG dispenser. Acceptable means include either a 'matrix' style priority valve panel with discrete connections between a compressor and dispenser with automatic valve operation as needed, or proportioning dispensers, where each of the two dispensers are equipped with parallel 1" and 3/8" actuated ball valves and automatic PLC-controlled priority, such as ANGI model FF-150-2-B-1-PR or equal. Flow-balance system shall allow CNG to flow to all authorized dispensers simultaneously, and shall provide 'first-in first-out' fueling performance.

   1. Provide customer references with bid for three projects that meet the requirements of article 2.12.D.

   2. Provide narrative or schematic with bid to illustrate technical compliance with article 2.12.D, including description of 'flow balance' dispenser or matrix-type valve panel.

E. Dispenser shall be outfitted with an emergency shutdown button (ESD). The ESD system will shut down the compressors, close all ESD valves, and de-energize the dispensers.

2.13 COMPRESSOR PRIME MOVERS

A. General. Each gas compressor prime mover shall be a 460V AC, 60 Hz, 3-phase squirrel cage induction motor. Prime movers shall be totally enclosed and fan-cooled (TEFC), having a minimum continuous rating of 250 HP (base specification), with a 1.15 service factor. Prime movers shall be designed, constructed and tested in accordance with NEMA Standard MG1-1998. Motors shall also comply with the applicable portions of the Energy Policy Act of 1992, and meet NEMA Premium Efficiency design and performance standards.

B. Ratings. Prime movers shall be rated for continuous duty at 60 HZ, single voltage with across-the-line full voltage start at 460 VAC. Prime movers shall have a 1.15 service factor. Torque characteristic shall be NEMA Design B. Motors shall have four (4) poles, and a full load rated speed of 1,785 RPM. Motors shall be listed for use in Group D, Class 1, Division 2 hazardous atmospheres.

C. Service Conditions. Motors shall be suitable for continuous duty operation without de-rating under the following service conditions:

1. Exposure to ambient temperatures from 40ºF to 110ºF, plus temperature rise resulting from friction, compression and normal system operation.

2. Exposure to altitudes up to 50 feet.

Electrical Design. Motor efficiency shall be evaluated in accordance with IEEE standard 112-1991, Subclause 6.4, Method B. The nominal efficiency, 3⁄4-load efficiency and guaranteed minimum efficiency shall be stamped on the motor's nameplate.

D. Motor Insulation. Motor insulation shall be a non-hygroscopic, chemical and humidity resistant system. The minimum thermal rating of the system shall be Class F, as defined in NEMA MG1-1998. The stator windings shall meet or exceed NEMA MG1-1998, Part 31. Stator shall be double dipped and baked in varnish to form a heavy build that exceeds the test criteria of moisture resistance per NEMA MG-1. When operated at rated horsepower, voltage and frequency, the temperature rise of the stator winding shall not exceed 80°C, when measured by winding resistance. Motor insulation shall be designed and tested to withstand 2000 Volt transients without premature motor failure, and have no cable limitations in motor application.

E. Service Factor. Motors shall be rated for a 1.15 service factor on sine wave power in a 40°C ambient temperature.

F. Mechanical Design. Motor shall be totally enclosed and fan cooled (TEFC). Motor bearings have a degree of protection of IP54, from moisture and foreign material. Motors shall be equipped with ball bearings or roller bearings. Ball bearings shall be the same size on both ends. Bearings shall be re-greasable without disassembling the fan or fan cover and provide for the elimination of purged grease through fittings extending beyond the fan cover. Inner bearing caps shall be provided for bearing retention and to prevent harmful amounts of lubricant from entering the motor interior. For direct-coupled motors, stabilized bearing temperature shall not exceed a temperature rise of 45°C, as measured by a thermocouple on the surface of the bearing house.

1. Bearings shall provide for an L-10 life of at least 26,000 hours per ANSI/AFBMA 9-1990, based on NEMA belting application limits per NEMA MG1-1993, section 14.41. The insulation system and motor leads shall be compatible with mineral oil.

2. Condensation drain holes shall be provided at the low points in the end brackets and shall be supplied with corrosion resistant breather drain plugs.

3. Ventilating fans shall be of non-sparking conductive plastic material. The proper fan rotation direction shall be indicated by a permanent label on the outside of the motor.

4. The motor's conduit box shall be equipped with a ground lug. Gaskets shall be provided between the conduit box and frame, and between conduit box base and cover, to provide a moisture resistant barrier.

5. Shouldered eyebolts with a minimum safety factor of 10 shall be provided for motor lifting. All fastening hardware shall be hex-head bolts or socket head cap screws with zinc plating. Cast iron motor components shall be primed and painted to surpass a 250-hour salt spray test per ASTM B117-90.

G. Nameplate. Motor nameplate shall be stainless steel, and shall contain the following information in addition to that noted in section 10.40 of NEMA MG1-1993.
1. AFBMA bearing ID.
2. Manufacture date code.
3. Motor weight.
4. Guaranteed minimum efficiency.

H. Airborne Sound. Motor sound power level, when measured at a no load condition, shall not exceed 90 dBA, when determined in accordance with IEEE Standard 85-1973.

I. Vibration. Motor vibration measured in any direction on the bearing housing meets the levels listed below when tested per section 12.08 of NEMA MG1-1993:

1. Unfiltered vibration at rated voltage and frequency shall not exceed 0.15 in/s peak velocity.

J. Production Tests. The motor manufacturer shall perform production tests according to NEMA MG-1-12 and ANSI/IEEE Standard 112, Method B.

1. The following test information shall be recorded and inserted in the motors' shipper.
   a. Winding Resistance.
   b. No load current and speed at rated line voltage and frequency.
   c. Current input at rated frequency with rotor at stand-still.
   d. High-potential test.
   e. The following five unfiltered vibration readings, measured as described above: drive end (horizontal, vertical, and axial) and opposite drive end (horizontal and vertical).

K. Warranty. Motor components shall have a full three (3) year performance warranty when operated on sine wave power and three (3) year warranty on inverter power.

L. Manufacturers and Models.

1. TECO Westinghouse MAX-E1 Premium Efficiency Severe Duty TEFC.

2. Siemens – Medallion Motors, Premium Efficiency Severe Duty TEFC Type CZ.

3. WEG Severe Duty TEFC.

4. US Motors Catalog No. C50P2C.

5. Baldor TEFC.

2.14 MOTOR STARTER PANEL

A. General. Starters matched to the compressor prime movers, cooler-fan motors, and pre-lube pump motors as applicable shall be provided with the compressor system, shall be controlled by the programmable-logic control (PLC) system and shall be located in a non-hazardous area, or in a hazardous area if panel is listed for Class 1 Division 2 Group D service per NEC. For starter assemblies located outside of the hazardous area, house in NEMA 3R or NEMA 4 cabinet. All motor starters shall include TVSS protection.

B. Electromechanical Motor Control.

1. Compressor fan drive motors and pre-lube pump motors shall be controlled by Full-Voltage Non-Reversing (FVNR) magnetic starters, i.e. across-the-line starters.

2. Magnetic starters through NEMA Size 9 shall be equipped with double-break silver alloy contacts. The starter must have straight-through wiring. Each starter shall have one (1) NO auxiliary contact.

3. Solid-State Overload Relay.
   a. Provide a solid-state overload relay for protection of the motors. The relay shall be Cutler Hammer type CEP7 or approved equal.
   b. The overload relay shall be modular in design, be an integral part of a family of relays to provide a choice of levels of protection, and be listed under UL Standard 508.
   c. The overload relay shall have the following features:
      1) Be self-powered.
      2) Class 10 or 20 fixed tripping characteristics.
      3) Manual or automatic reset.
      4) Provide phase loss protection. The relay shall trip in two (2) seconds or less under phase loss condition when applied to a fully loaded motor.
      5) Visible trip indication.
      6) One NO and one NC isolated auxiliary contact.
      7) Test button that operates the normally closed contact.
      8) Test trip function that trips both the NO and NC contacts.
      9) A current adjustment range of 3.2:1 or greater.
      10) Ambient temperature compensated.
      11) Ground fault protection. Relay shall trip at 50% of full load ampere setting.
      12) Jam/Stall protection. Relay shall trip at 400% of full load ampere setting, after inrush.
      13) FVNR Motor starters shall be Cutler-Hammer Freedom Series or approved equal.

C. Solid-State Reduced Voltage Motor Control for compressor drive. For this procurement, vendor shall provide the following configurations as directed by the Owner:

• 2x duplex MCC's to drive four (4) total 650-SCFM compressors and appurtenances specified under this base procurement, or

• 3x simplex MCCs to drive three (3) 975 compressors and appurtenances specific under this procurement specified under this procurement.

1. Controller for each compressor prime mover shall be Cutler-Hammer type S811 or equal, and shall have PLC control unit complete with built-in 24VDC control power transformer or other similar programmable soft starter.

2. The solid-state reduced-voltage starter shall be UL and CSA listed.

3. The solid-state reduced-voltage starter shall be an integrated unit with power SCRs, logic board, paralleling bypass contactor, and electronic overload relay enclosed in a single molded housing. The SCR-based power section shall consist of six (6) back-to-back SCRs and shall be rated for a minimum peak inverse voltage rating of 1500 volts PIV.

4. Units using triacs or SCR/diode combinations shall not be acceptable.

5. Resistor/capacitor snubber networks shall be used to prevent false firing of SCRs due to dV/dT effects.

6. The logic board shall be mounted for ease of testing, service and replacement. It shall have quick disconnect plug-in connectors for current transformer inputs, line and load voltage inputs and SCR gate firing output circuits.

7. The paralleling run bypass contactor shall energize when the motor reaches 90 of full speed and close/open under one (1) times motor current.

8. The paralleling run bypass contactor shall utilize an intelligent coil controller to limit contact bounce and optimize coil voltage during varying system conditions.

9. The coil shall have a five (5)-year warranty.

10. Starter shall be provided with electronic overload protection as standard and shall be based on inverse time-current algorithm. Overload protection shall be capable of being disabled during ramp start for long acceleration loads via a DIP switch setting on the device keypad.

11. Overload protection shall be adjusted via the device keypad and shall have a motor full load ampere adjustment from 30 to 100% of the maximum continuous ampere rating of the starter.

12. Starter shall have selectable overload class setting of 5, 10, 20 or 30 via a DIP switch setting on the device keypad. Starter shall be capable of either an electronic or mechanical reset after a fault. Units using bimetal overload relays are not acceptable. Over-temperature protection (on heat sink) shall be standard.

13. Starters shall provide protection against improper line-side phase rotation as standard. Starter will shut down if a line-side phase rotation other than A-B-C exists. This feature shall be disableable via a switch on the device keypad.

14. Starters shall provide protection against a phase loss or unbalance condition as standard. Starter will shut down if a 50% current differential between any two phases is encountered. This feature shall be disableable by a switch on the device keypad.

15. Start shall provide protection against a motor stall or jam condition as a standard feature. Starter shall be provided with a Form C normally open (NO), normally closed (NC) contact that shall change state when a fault condition exists. Contacts shall be rated 60 VA (resistive load) and 20 VA (inductive load). In addition, a display on the device keypad shall indicate type of fault (Overtemperature, Phase Loss, Jam, Stall, Phase Reversal and Overload).

16. The following control function adjustments on the device keypad are required:
    a. Selectable Torque Ramp Start or Current Limit Start.
    b. Adjustable Kick Start Time: 0-2 seconds.
    c. Adjustable Kick Start Torque: 0-85%.
    d. Adjustable Ramp Start Time: 0.5-180 seconds.
    e. Adjustable Initial Starting Ramp Torque: 0-85%.
    f. Adjustable Smooth Stop Ramp Time: 0-60 seconds.
    g. Units enclosed in motor control centers shall be of the same manufacturer as that of the circuit breaker and motor control center for coordination and design issues.
    h. Maximum continuous operation shall be at 115% of continuous ampere rating.

17. Each starter shall be equipped with MOV surge protection on the line side of motor starter.
    a. Cutler Hammer model EMS39 or equal.
    b. Coordinate short circuit rating of starters with Utility and plan check requirements.

18. Factory testing. Standard factory tests shall be performed on the equipment provided under this section.
    a. All tests shall be in accordance with the latest version of UL and NEMA standards.
    b. The manufacturer shall provide three (3) certified copies of factory test reports.

D. Transient Voltage Surge Suppression.

1. General. Furnish a surge suppression device or devices (SPD) to protect equipment serving the CNG skid and control system. SPD shall be listed in accordance with UL 1449, Second Edition, to include Section 37.3 - highest fault current category. SPD shall be listed under UL 1283.

2. SPD shall provide surge current diversion paths for all modes of protection; L-N, L-G, N-G in WYE systems, and L-L, L-G in DELTA systems.

3. SPD shall meet or exceed the following criteria:

    a. Minimum surge current capability (single pulse rated) per phase shall be 80kA per phase

    b. UL 1449 Listed Suppression Voltage Ratings for distribution shall not exceed the following:

VOLTAGE	L-N	L-G	N-G	Max. Continuous Overvoltage (MCOV)
208Y/120V	330V	330V	330V	150V
480Y/277V	700V	700V	600V	320V

4. SPD shall have a minimum EMI/RFI filtering of –50dB at 100kHz with an insertion ratio of 50:1 using MIL-STD-220A methodology.

E. Appurtenances.

1. Provide single-phase transformer for controls and lighting and other single-phase loads directly associated with the compressor system.

2.15 CONTROL-AIR SYSTEM

A. General. Except as stated otherwise, any valves in the CNG system that require compressed gas to power the actuators shall be equipped with valve actuators that can operate using 90-PSIG compressed air. Regulators and actuators shall be listed for air and methane/natural gas service.

B. Line Size and Type. Connect minimum 1/2" SS or type-K CU tubing and route to valve panel and compressor skid as required. Provide a full-port isolation ball valve and 200-PSIG pressure gauge at each new branch connection to the existing CA system. Support and protect lines as needed to protect from contact. New or modified CA lines shall be rated for and tested to 200 PSIG.

C. Auxiliary Connections. Provide a ½" CA connections at the valve panel, at each compressor skid and at the dispensers for connecting outside control air regulated to 100 PSIG. Provide ball vale immediately upstream of each auxiliary connection.

D. Supply. Intercept and tap into existing CA system in compressor-pump room. Provide ¾" header to CNG system, including tee, pressure gauge, ball valve and connection for separate external emergency-supply CA line. Provide check valve to protect existing CA system.

2.16 EMERGENCY SHUTDOWN SYSTEM

A. An emergency shutdown system shall be provided that, when activated, shall interrupt the power supply to the compressor motor, shut off the inlet natural gas supply valve to the compressor and shutoff the electrical power and the discharge of CNG to the dispensers. The system shall be controlled in the control panel, common to all compressors, be on a normally closed circuit and shall be expandable so that additional switches may be added. Buttons shall be push-in mushroom-head type and appropriately rated as required by location.

B. Specification.

1. Circuit. ESD shall be 120VAC normally closed serial-type circuit, so that the opening (activation) of any ESD switch shall cause an ESD fault. Control panel shall require manual reset from ESD activation.

2. Buttons. ESD buttons shall be red mushroom-headed press-to-open type and must be pulled out to reset. Button shall have a protective fence flush with its face in order to minimize accidental pressing. Buttons shall be rated for class-1 division-2 service if located within a hazardous area.

3. Locations. Install one (1) ESD button on fuel-management terminal, one on exterior wall of CNG-equipment compound, and as otherwise shown on the plans.

2.17 BACKUP GENERATOR

A. General. Provide natural gas-fueled generator sized to start and run one (1) CNG compressor skid, the fuel-management system, both CNG dispensers and area lighting. Genset shall include weather-tight enclosure with muffler. Unit shall be rated for operation in ambient temperature of 110ºF.

B. Sizing Requirements. Minimum power rating for genset is 400kW. Genset shall otherwise be sized and configured to start and run any tow of the 250 HP compressor skid and all CNG-station accessories, except for the fuel-management terminals, existing air compressor and the gas dryer. Generator shall be sized to allow a maximum 15% voltage drop for connected loads, or as otherwise recommended by the manufacturer of the CNG-compressor skid. Contractor shall coordinate and document required starting loads for compressor skids with skid manufacturer prior to final sizing and selection of genset.

C. Approved Manufacturers.
1. Caterpillar.
2. Cummins.
3. Generac.
4. Other manufacturer as approved by the Owner.

2.18 MANUAL TRANSFER SWITCH

A. General. Provide a manual transfer switch rated for connection to utility power as needed to operate two (2) 250 HP compressor skids + all indicated accessory loads. Configure for automatic transfer to genset power per specification item 2.17. House in NEMA 3R or 4 enclosure and provide key lockout for transfer function.

B. Contactor Signal. Include dry contact and wiring from MTS to CNG-control system to indicate when genset-power mode is engaged, for the purpose of allowing the control system to limit the number of compressors that may start to two (2), when genset power is engaged.

C. Additive Alternate. The genset and ATS shall be bid as an additive alternate. Provide supporting conduits and equipment pad as part of the base scope of work.

D. Approved Manufacturers.
1. Eaton
2. Square D
3. Other manufacturer as approved by the Owner.

2.19 ACCESSORIES AND APPURTENANCES

A. Safety Signs. The Contractor shall provide a complete safety sign package per NFPA 52 requirements needed for the new equipment. Signs shall be fabricated from metal and all materials and finished surfaces shall be listed for outdoor use and shall be UV resistant.

B. Fire Extinguishers. Provide one (1) 4A:60BC fire extinguisher co-located at each new ESD button location.

C. Spare Conduits. Provide spare buried conduits in common trenches as listed below. Conduit shall be 1" sch 40 PVC UG. Conduit risers shall terminate 4"-6" AFF and shall be constructed of PVC-coated RGS and shall include a treaded galvanized-steel cap. Provide pull strings.

1. Between CNG SWBD and main SWBD.

2. Between CNG compressor control panel and the CNG SWBD.

3. Between genset ATS and compressor skid.

D. Protection. See article 3.04.A for requirements for protection of equipment.

2.20 CATHODIC PROTECTION SYSTEM

A. General. Provide sacrificial-type cathodic protection system for all steel piping that is directly buried. Provide magnesium anodes with test stations as required. System shall be designed by a professional or firm that is experienced in the design of cathodic-protection systems, and as approved by the Owner. If SS lines are routed underground in continuous polyethylene sleeves that are rated for burial, CP system is not required.

B. Test Stations. Stations shall be contained in pre-cast hand holes or boxes set at grade, and lids shall be marked with ‘CP’. Test terminals shall be labeled.

C. Insulation. Transition of buried pipe to above-grade pipe shall include insulating kits at first available flange.

2.21 PREFABRICATED STORAGE UNIT

A. General. Provide pre-engineered and pre-fabricated storage unit, complete with concrete pad, anchorage, and interior lighting.

B. Requirements. Unit shall be min. 8’ x 8’, be fabricated from steel and include a lockable roll-up door. Provide with 100W equivalent LED light fixture and wall switch inside. Lighting, conduit and switch shall be Division 2, if unit is located < 15 ft. from compression, storage and ancillary equipment.

2.22 AREA LIGHTING

A. General. Provide LED lighting in compressor-equipment compound that is suitable for nighttime maintenance work. Lighting levels shall be min. 300 LUX throughout inside of equipment compound. Provide ‘dark sky’ cutoff fixtures. Include photo switch with manual override. Provide power from 1-phase transformer and contactor integrated with CNG MCC.

B. Codes. Lighting shall be class 1 division 2 as required. Provide Title 24 documentation with 60% and 90% drawings.

2.23 VENTILATION AT FUELING CANOPY

A. General. Provide two (2) passive mechanical ventilators on roof of fueling canopy, above each of two (2) bus-fueling positions. Provide flashing and sealant at and otherwise repair roof penetrations as needed to be rain tight.

B. Requirements. Ventilators shall have throat dimensions of 18” x 36” and be aligned over the center of their respective service lanes, with exact locations along lane length to be coordinated with the Owner. Provide roof flashing and roof mastic as needed to make penetrations in roof rain tight.

C. Manufacturers. Provide Loren Cook model TRE-18X36X3TIER or approved equal.

PART 3 - EXECUTION

3.01 GENERAL

A. Execution is described in the respective Product description of this section, except as otherwise described within article 3 of this section.

B. All components and equipment shall be installed according to the respective manufacturers' instructions and recommendations. Industry-standard practices shall apply if no manufacturer instructions exist.

D. The Contractor shall coordinate location and timing of all excavation and open trench work that may affect the normal movement of vehicles and personnel on the job site. The Contractor shall also provide trench plates as required for the traffic they may be exposed to until trenches are repaired to match surrounding grade.

E. Contractor shall install all equipment, as listed herein and on project drawing D-501. This shall include the following work:

1. Facilitate and coordinate shipping, receive and offload equipment at the project site, including inspecting the equipment with the Owner at time of delivery and documenting its condition.

2. Set, anchor, wire, plumb, pipe, terminate and make all mechanical and electrical systems ready to initialize, as directed by the written instructions of the manufactures of all equipment.

3. Facilitate and coordinate the field-startup services of equipment manufacturers for all equipment that is provided by the Owner and the Contractor, though the field labor and travel expenses for the startup services of Owner-provided equipment will be paid by the Owner.

3.02 WORKMANSHIP

A. Labor shall be performed by mechanics skilled in their particular trade. Pipe and equipment shall be installed square and plumb accessible for proper operation and service. Installation shall be consistent with completeness and appearance whether concealed or exposed.

B. Seals and Sealants. Seals and sealants that are exposed to natural gas or CNG shall be compatible with natural gas as well as the PAG-type compressor-lube oil as applicable.

3.03 SAWCUT AND REPAIR

A. Demolition. All concrete and AC pavement that is excavated shall be saw cut in neat and straight lines. No saw overcuts will be allowed.

B. AC Pavement Repairs. Repairs, including for trench work, shall be made to match pre-demolition conditions, including thickness and approximate color. Apply new pavement over 6-inch Class II aggregate base, 95% compacted.

C. Concrete Repairs. Repairs, including for trench work, shall be made to match pre-demolition conditions, including thickness and approximate color. Contractor shall install No. 5, 18" long smooth steel dowels at 18-inches on center, epoxy embedded in concrete pavement slab using epoxy compound. Replacement concrete pavement section shall be 8-inch PCC, 3000 PSI mix design, but no special inspection required, with #4 rebar at 18-inch on-center, each way over 6-inch Class II aggregate base, 95% compacted

3.04 PROTECTION OF EQUIPMENT

A. General. CNG compression, storage and dispensing equipment shall be protected against unauthorized entry and vehicular impact. The CNG equipment compound shall be secured by 8 ft. tall x 8" thick CMU wall, or other lesser wall/fence as directed by the Owner. Protect electrical equipment and dispensers with concrete-filled pipe bollards as located on the drawings, or by means otherwise required by the AHJ's.

B. Fence and Gates. Provide 6' tall chain-link fence with one (1) 4' swing gate and one (1) 10' rolling gate around upgrade CNG equipment compound. Gates shall be lockable. Abut and secure new fence to existing fence around LCNG compound. Match height, toping and style of existing fencing and provide posts at max. spacing of 10' O.C., set into 12" dia. x 24" deep concrete footers.

C. Bollards. Pipe bollards shall be set plumb then filled with concrete and painted safety yellow and have a finished ht. of at least 3'-6" AFF.

1. Fixed bollards shall be constructed from 6'-6" long x 6" diameter sch 40 CS pipe that is set into a poured concrete footer measuring 36" deep x 18" diameter.

2. Removable bollards shall be constructed from 6'-6" long x 6" diameter sch 40 CS pipe that is placed into an 8" dia. sch 40 pipe sleeve. Provide steel lifting D-rings welded to top of two sides of removable bollards. Sleeves shall be 3' long and set flush with grade, and be set into a poured concrete footers measuring 36" deep x 18" diameter. Provide removable bollards along west side of compressor skid and aligned with 10' rolling gate.

3.05 PIPING AND APPURTENANCES

A. General. Seamless stainless steel tubing, stainless steel pipe, or seamless carbon steel pipe shall be used to conduct CNG. Piping between the valve panel and each time fill CNG post

shall consist of a stainless steel tubing manifold per drawings. Piping between the valve panel and fast fill dispensers shall be per drawings.

1. Service Pressure. Piping, tubing and appurtenances downstream of compressor discharge shall have a manufacturer-rated working pressure of 5,000 PSI, in accordance with ANSI B31.3, *Process Piping*.

2. Shipping. While in transit, all hose and flexible metal hose and tubing, including their connections, shall be protected from wear or injury and shall be capped.

3. Markings. Hose, metallic hose, flexible metal hose and tubing shall be distinctly marked either by the manufacturer's permanently attached tag or by distinct markings every five (5) feet indicating the manufacturer's name or trademark, material grade, service and working pressure.

4. Dissimilar Metals. Connections between dissimilar metals shall include dielectric insulation. This includes piping and other metallic connections.

5. Blowdown Tees. Within specified equipment, piping and high-pressure tubing systems and sections shall be equipped with blocking ball valves and blowdown tees or needle valves to facilitate equipment maintenance. Blowdown valves shall discharge in a manner that directs the discharging gas safely away from the person using the blowdown valve. Discharge lines on blowdown valves shall be equipped with threaded end caps to seal the line in normal service, so as to prevent accidental line depressurization and gas release. Block valves and blowdown tees shall be provided at all filter locations for safe depressurization of filter housings.

B. Pipe Routing. All gas, CNG and control-air piping inside the CNG-equipment compound shall be located and routed aboveground, unless shown as dashed piping on the plan drawings. Piping may be installed below grade, if it is installed in a pre-cast concrete pipe trench that is covered and rated for traffic and loads to which it may be exposed. Piping shall be ganged on common runs, racks and carriers where appropriate and shall be insulated against cathodic action and contact with dissimilar metals. Piping and tubing outside of the compound shall be routed underground.

C. Piping.

1. Pipe Specification. Pipe containing flammable material shall be seamless carbon steel manufactured in accordance with ASTM A-106 Grade B. All pipe, fittings and other piping components shall be suitable for the full range of pressures, temperatures and loadings to which they may be subjected with a factor of safety of at least four (4). Any material used, including gaskets and packing, shall be compatible with natural gas and its service conditions.

2. Connections.

a. Small Pipe Connections. For 2-inch or under nominal pipe size with maximum operation pressure greater than 15 PSIG, the connections shall be socket welded in accordance with ASME/ANSI B31.3, except that twenty five (25) percent random dye-penetrant examination and one hundred (100) percent visual examination is

required. Each weld shall be de-scaled and internally cleaned from any welding slag. Documentation of examination shall be transmitted to the Owner within five (5) working days of examination. One hundred (100) percent of pipe welds made outside of the CNG-equipment area shall be inspected via dye-penetrant examination.

b. Large Pipe Connections. For over 2-inch nominal pipe size with maximum operation pressure greater than 15 PSIG, the connections shall be butt welded in accordance with ASME/ANSI B31.3 except that twenty five (25) percent random radiographic x-ray examination and one hundred (100) percent visual examination is required. Each weld shall be de-scaled and internally cleaned from any welding slag. Documentation of examination shall be transmitted to the Owner within five (5) working days of examination.

c. Flange Joint. Flanges shall be in accordance with ANSI B16.5. Weldneck raised face flanges shall be used unless specified otherwise. Ring-type joints or spiral-wound metallic gaskets with centering ring shall be employed for ANSI class 900 flanges or higher.

d. Sealing. Threaded pipe joints shall be seal welded. However, seal welding is not required on instruments or where disassembly is required for maintenance.

e. Pre-start Pipe Cleaning. All piping sections between packaged components that include piping or tubing shall be blown clean prior to connection to equipment. Blow out shall be achieved by closing the downstream end of pipeline with a 5,000 PSI-rated ball valve, connecting a minimum 1,650 PSI-source pressure vessel to the upstream end of the pipeline, opening supply valve at source so that minimum 750 PSI accumulates in pipeline, then opening outlet ball valve to atmosphere. Procedure shall be repeated until no solid or particulate matter is discharged from the pipeline.

    1) Personnel opening and closing ball valve at downstream end shall take care to keep clear of the discharge path of the blowout, and shall wear eye and ear protection during procedure.

    2) Direction of blowout flow shall be performed in both directions if possible.

    3) The Contractor shall take care to clear area at pipeline discharge to prevent property damage or injury during procedure.

f. Startup Filtration. ‘Witch’s hat’ or similar strainer devices shall be installed where practical at termination of such piping sections prior to system startup and shall be checked, cleaned and replaced by the Contractor as required until all residual pipe debris has been removed.

3. Pipe Fabrication. All internal pipe surfaces of piping between components shall be cleaned over its entire length, removing dirt, debris and loose corrosion products before pipe is lined up for welding. The open ends of all strings of pipe shall be kept securely closed to prevent the entrance of dirt, debris, water or animals into the pipe.

4. Field-applied Paint. All aboveground carbon steel pipe, pipe supports and pipe bollards shall be painted using a suitable industrial maintenance coating, including exterior grade, and resistance to UV. Surface preparation and selection and application of primer and finish coat shall conform to the paint manufacturer's written instructions.

D. High-Pressure Tubing.

1. Tubing Specification. Gas tubing shall be stainless steel ASTM A-213 or ASME SA213 cold drawn, bright annealed seamless tubing. Tube material shall be Type 316 stainless steel.

2. Installation of Tubing and Tube Fittings. Swagelok, Parker A-Lok, or Hoke tube fittings shall be used. The Contractor shall use tube fittings from a single manufacturer throughout a prepackaged component, so as to simplify use and consistency of appropriate repair parts. Type 316 stainless steel fittings shall be used with stainless steel tubing smaller than ¾", and Zinc coated carbon steel Parker seal 1010c will be used for fittings ¾" and larger. Manufacturers' personnel who install tubing and tube fittings shall be trained and certified by the fitting manufacturer for such activity, and proof shall be provided. Tubing shall be installed neatly and in a workman-like manner as per manufacturer's design and recommendation. All tubing shall be properly anchored, supported or pitched and shall be protected from impact. As CNG tubing dilates and contracts in response to its wide range of operating pressures, Parker ParKlamp assemblies, or approved similar resilient anchors, shall be used to support gas tubing. Parker Seal-lok fittings shall be used for tube fittings for tubing ¾" or larger.

3. Valve Clearance. All valves shall be accessible for easy operation and maintenance.

E. Instrument Piping. Provisions shall be made in installation of piping and tubing to accommodate field servicing and calibration of instruments.

F. Valves.

1. General. All valve bodies shall be permanently marked by the manufacturer with their service pressure ratings, suitable submittal for specific valves is required if not marked by the manufacture.
2. Shut-off Valve. A full-port manual ball valve shall be installed immediately downstream from the connection to each compressor-discharge line and the skid outlet line, to facilitate servicing.
3. Compressor Discharge Check Valve. A backflow preventer (check valve) shall be provided at each high-pressure outlet, in order to prevent backflow into the compressors from ancillary equipment. Backflow preventers shall be suitable for use at the maximum pressure to which they are subjected. Each compressor discharge line shall be provides with a check valve and a manual ball valve, which can be either inside or outside of the skid.
4. Pressure Relief Valves. Pressure relief valves installed to protect each isolated piping system shall have sufficient capacity and shall be set to open at a pressure not exceeding 125% of system MAWP or the pressure which produces a hoop stress of 75% of specified minimum yield strength, whichever is lower. Pressure relief valve (PRV) shall be of the following type, or equal: Anderson Greenwood or Mercer type constructed of

either stainless steel or carbon steel, having an orifice size appropriate for the pressure and volume/rate that it is protecting.

5. Stamping. All relief valves shall be ASME rated and stamped with their set pressure and date of setting by manufacturer. Date stamp shall be less than twelve (12) months from date of delivery to site.
6. Control. There shall be no shutoff means in the discharge line of a pressure-limiting device or between the relief valve and the pressure source that it controls.
7. Relief Valve Venting. Each relief valve shall be connected to a vent pipe constructed of schedule 80 carbon steel pipe with primed and epoxy coating, or approved equal coating. The vent pipe shall vent released gas at an elevation ten (10) feet above grade or another approved, safe location and shall be properly anchored and supported against anticipated vent force. Escaping gas shall not impinge on a vessel, valves or fittings. Except for safety valves that are integral with service valves, relief-valve vent pipes on tanks shall be installed in a vertical position and shall be fitted weep holes at the low point of the pipe.
8. Relief Valve Vents. Each vent pipes shall be capped with rain caps as a means of preventing the entry of water and debris.
9. Prohibited Pressure Relief Devices. Fusible plugs and/or rupture plugs are prohibited for primary relief devices.
10. Actuated Valves. All valves requiring automatic actuation shall be ball type with port sizes not smaller than the largest line connection. Actuators shall be pneumatic, and matched to valve, subject to the Owner's approval. Solenoid valves or actuation by regulated gas or electric operators are prohibited unless specifically approved by the Owner during facility design and submittal review.

3.06 LABELING

A. Major Equipment. The manufacturer shall provide a stainless steel, etched aluminum, or brass nameplate on each major item of equipment. The nameplate shall be mechanically affixed and shall be embossed with the manufacturer's name, address, model number, serial number, pressure rating and flow capacity.

B. Valves. The Contractor shall provide a uniform brass, etched aluminum, or stainless steel embossed nameplate on or adjacent to valves located as listed below. The nameplate shall be mechanically affixed.
   1. All dryer valves.
   2. Gas and CNG connections at the exterior perimeter of the compressor skid.
   3. CNG valves and connections at the valve panel.
   4. All valves for the control-air system.
   5. CNG connections at the dispensers.

3.07 FIELD-STARTUP SERVICES

A. General. The Contractor shall provide field-startup services from manufacturers' authorized representatives and vendors, including on-site assistance as required for the following equipment:

   1. Compressor skid, including control panel, MCCs and remote-communication panel.
   2. Gas dryer.
   3. Dispensers.

4. Valve panel.
5. Defueling panel.
6. Backup generator and MTS.

B. Joint Vendor Meetings. The Contractor shall facilitate joint, on-site meeting(s) consisting of technicians from the Contractor, the Contractor's electrical subcontractor, the Contractor's mechanical-piping subcontractor, CNG-skid manufacturer, dryer manufacturer, valve-panel manufacturer, dispenser manufacturer, and fuel-management vendor. First joint meeting shall be conducted upon completion of all mechanical connections, final terminations and energizing of all systems listed herein, for the purpose of coordinating debugging activities. The Contractor shall facilitate as many such joint meetings as may be required to achieve final acceptance and test compliance as described under article 1.10 and article 3.06.

3.08 ADJUSTING, BALANCING AND TESTING

A. After completion of the installation, start, regulate, adjust and test all equipment and devices. Testing will be performed by the installing contractor under a separate contract, or by the Owner. Any failure will be the responsibility of the Contractor under this procurement to remedy, if the fault is verified to be related to the equipment and not the installation.

B. Functional Tests.

1. Leak tests of high-pressure CNG piping sections, systems and appurtenances shall be performed by maintaining a nitrogen charge of 110 percent of its respective working pressure for a duration of thirty (30) minutes with charge source disconnected. The tests shall use a gauge that is scaled to between 110 percent and 200 percent of the test pressure. Piping and tubing shall also be subject to soap-bubble testing. Alternate hydro-pressure test may be performed, based on approval of method by the Owner and AHJs.

2. Functional Testing. At minimum, successful completion of the following functional tests shall be required.

    a. ESD / emergency shutdown at all button/station locations, including required valve closures.
    b. Low suction pressure, each skid (close skid-supply ball valves).
    c. Temperature-compensated dispenser fill for each dispenser, including correct dispenser start on button, auto-stop on fill completion, and verify 'settled' fill pressure vs. ambient temperature two (2) hours following fills. Must be within 4 percent of design-fill pressure, temperature compensated to 70ºF.
    d. Correct operation of fuel-management system at each dispenser, including authorization of transaction, energizing of dispenser, and recording of transaction data (fill volume, time/date stamp, event ID, and pump number).
    e. Manual initiation of dryer regeneration.
    f. Correct annunciation on controller / PLC shall be required for all test events, as appropriate.
    g. Observe compressor operation, including stage pressures and temperatures, and verifying function of controller, including triggering selected faults, such as high interstage temperature.

C. Reliability Test. Reliability test shall consist of fueling under normal-use conditions for four (4) consecutive work days. System shall have no failures of compressor operation, dryer operation, normal dispenser operation, or operation of the fuel-management system during the test period. If any failure occurs, the test shall be repeated in its entirety. Final acceptance of the facility shall only be declared upon successful completion of the test. The Contractor shall be responsible for all onsite coordination of troubleshooting and coordination of suppliers and trades during test.

1. Failure is defined as the occurrence of any of the following:
    a. Inability of the CNG system to dispense CNG at the pressures and rate specified, including accounting for temperature compensation at settled conditions.
    b. Failure of the dryer to provide dried gas or not be able to auto switch or regenerate as applicable.
    c. Failure of a compressor to start and run within factory-listed operating pressures and temperatures.
    d. Failure of the controller/PLC, valve panel, fuel-management system and/or dispensers to operate as specified.
    e. Presence of an audible or visible gas or CNG leak.
    f. Occurrence of an auto-fault shutdown of either or both CNG compressors, except those caused by ESD-button activation, gas-detection system outside of skids, variations in gas supply pressure, or damage to the facility beyond the Contractor's control.

3. The Contractor may take equipment offline for scheduled maintenance during the test period, provided maintenance is consistent with manufacturer's recommendations, and does not impinge on the Owner's ability to fuel vehicles during the normal daily fueling window between 4:00PM and 12:00AM (midnight). The Owner may modify the nightly fueling window at its discretion. The Contractor shall be responsible for maintenance through successful completion of test, including provision of consumables.

2. Corrective work conducted by the Contractor and all subcontractors and suppliers preceding and during the performance test shall be documented at the time of the repair by the technician performing the repair. If the technician suspects a cause of fault that is beyond the scope of his respective firm or responsibility, technician shall notify the Owner immediately and shall not implement repairs until condition of failure has been documented and the other firm(s) have been notified and been provided documentation of the condition. The Owner shall not pay the Contractor for any work or repair that is implemented during testing above of the contract amount, unless the work or condition is beyond the control of the Contractor, the Contractor's subcontractors, or the Contractor's suppliers. The Contractor shall notify the Owner in writing of intent to perform any work that the Contractor deems to be outside of the contract scope, prior to performance of any such work.

3.09 OPERATION AND MAINTENANCE DATA AND TRAINING

A. Maintenance Manuals: Organize maintenance and operating manual information into suitable sets of manageable size, and bind into individual binders, properly identified and indexed (thumb-tabbed). Examples: Dryer, CNG compressors, compressor drivers, CNG dispensers, etc. Include emergency instructions, safety procedures, spare parts listings, warranties, guarantee, wiring diagrams, recommended maintenance intervals, inspection

procedures, shop drawings, product data, and similar applicable information. Use a standard method for highlighting safety procedures. Bind each manual of each set in a heavy-duty 2-inch, three ring vinyl-covered binder and include pocket folders for folded sheet information. Mark identification on both the front and spine of each binder, including "Volume ## of ##" information.

1. Data:

    a. Manuals shall cover the CNG facility as a complete system.
    b. Include instructions by manufacturer's representatives where installers are not expert in the required procedures.
        1) Review of maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, cleaning, and similar procedures and facilities for operational equipment to demonstrate start-up, shut-down, emergency adjustments, and similar operations.
        2) Review of maintenance and operations in relation to applicable guarantees, warranties, agreements to maintain bonds, and similar continuing commitments.

2. Format & Delivery.

    a. Supply three (3) complete printed copies of all manuals for approval with the commencement of the delivery of the equipment to the site.
    b. Supply three (3) electronic versions of the manual on USB thumb drive. PDF version shall be identical to that of the printed versions. All PDF content shall be unified into a common PDF file, be text searchable and shall be organized the same as that of the printed version.

B. CNG Fueling Operation and Maintenance Training.

1. General:

    a. At least thirty (30) days prior to scheduled date for commencement of training, submit training syllabus with time allotments per topic and instructional materials to the Owner for review and approval. Upon review of syllabus, the Owner may require additional time be allotted to certain training topics.
    b. Where specified, develop and conduct a program to train selected Owner personnel in the safe operating procedures, and maintenance of equipment and systems furnished during the hours required by the Owner. Also include in the training program key hazards and their protectors, and corrective actions for violation of safety rules.
    c. Furnish instructors, instructional materials and audio-visual aids and equipment.
    d. Begin instruction upon successful completion of Testing as specified in this Section, or as otherwise approved in writing by the Owner.

2. Program content. At a minimum, instruction will include material covered in the operation and maintenance manuals. Organize the training content so that it is directed to A) vehicle fuelers, and B) facility-maintenance personnel. Include at least the following content where appropriate.

a. Theory of operation of CNG system.
b. Practical aspects of operation.
c. Description of system, equipment and components.
d. Functional characteristics of system, equipment and components.
e. Emergency operating procedures.
f. Maintenance procedures.
g. Servicing intervals and schedules.
h. Diagnosis and problem solving (troubleshooting).
i. Repair.
j. All segments characterizing CNG equipment.
k. Instruction manual will contain measurable training objectives.
l. Hazards relative to CNG Facility operations.
m. Conduct preventive maintenance checks and services.
n. Perform general and location Emergency Response.
o. Perform personal precautions in Emergency Situations such as Fires, Leaks or Spills.
p. Perform corrective actions to respond to Emergency Situations such as Fires, Leaks or Spills.
q. Operations and Safety personnel will perform CNG Shop Operations such as Prepare Maintenance Request; Maintain Records for Hazard of CNG Operations.
r. Perform CNG vehicle fueling.
s. Operation, reading, interpretation and resetting of control panel.

C. Special tools or equipment.

1. The Contractor will supply special tools or equipment.
   a. The special equipment or tools are defined as, other than those nominally found in a mechanic's toolbox, necessary for the general upkeep, maintenance and overhaul of the equipment or products contained in equipment and components delivered under this contract.
   b. A list of special tools or equipment will be provided to the Owner. The list must be submitted for approval no later than sixty (60) days after awarding contract.
   c. Any tools not found in the catalogue or over-the-counter of a local supply company is considered a specialty tool or equipment.

D. Duration.

1. Training for maintenance, facility operation and troubleshooting shall be sixteen (16) total hours.
   a. Provide initial eight (8) to twelve (12) hours within five (5) days of startup of the CNG system.
   b. Provide the remaining four (4) to eight (8) hours of follow-up training within three (3) weeks of completion of the initial training sessions.
2. Actual durations for each type of training may be reduced at the discretion of the Owner.

E. Emergency response training.

1. In addition to Maintenance training, the Contractor shall provide emergency response training and facility familiarization to Gardena (LA County) Fire Department personnel as related to faults that may occur during operation of the CNG system and during the

fueling of CNG-fueled vehicles at all dispensers. The Contractor shall provide up to two (2) sessions lasting forty-five (45) minutes each, and shall include familiarization of overall facility layout and function, location of service disconnects for gas and electrical connections, demonstration of ESD function and address questions from FD relating to proper response procedures.

END OF SECTION

ATTACHMENT A

SPECIAL PROVISIONS

The following Special Provisions supplement and amend the "Standard Specifications for Public Works Construction", Most Recent Available Edition. As a reference they have been arranged into a sequence, which parallels the arrangement of the Standard Specifications.

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SPECIAL PROVISIONS

PREFACE: STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.

The Standard Specifications for Public Works Construction ("Greenbook") written and promulgated by the Southern California Chapter of the American Public Works Association and the Southern California Districts of the Associated General Contractors of California shall be the Standard Specifications of the City. All work shall conform to the 2015 edition, including supplements of the Standard Specifications, the Special Provisions which supplement or modify the Standard Specifications, and the Standard Drawings as issued by the City (defined herein as "Agency") available at the time proposals are opened unless otherwise specified in the Contract Documents.

The above referenced Standard Specifications, Special Provisions and Standard Drawings are hereby made a part of the Contract Documents.

For the convenience of the Contractor, the section and subsection numbering system used in these Special Provisions corresponds to that used in the Standard Specifications.

SECTION 1 - TERMS, DEFINITION, ABBREVIATIONS, UNITS OF MEASURE AND SYSMBOLS.

1-2 TERMS AND DEFINITIONS. Whenever in the Standard Specification the following terms are used, they shall be understood to mean and refer to the following:

(a)	AGENCY	The City of Gardena (GTrans), a California municipal corporation.
(b)	BOARD	The City Council of the City of Gardena
(c)	CONTRACT DOCUMENTS	Documents including but not limited to the proposal forms, Standard "Greenbook" Specifications, Special Provisions, Technical Provisions, Notice Inviting Proposals, Instructions to Proposers, Bonds, Insurance, Contract and all Addenda setting forth any modifications of the documents.
(d)	CONSTRUCTION MANAGER	The City of Gardena's (GTrans) Construction Manager for this project, Construction Manager or his authorized representative.
(e)	BIDDER	An individual, co-partnership, association or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.
(f)	LEGAL ADDRESS OF CONTRACTOR	The legal address of the Contractor to be the address given on the Contractor's proposal and is hereby designated as the place to which all notices, letters or other communications to the Contractor shall be mailed or delivered.
(g)	LABORATORY	An established laboratory approved and authorized by the

		Construction Manager for testing materials and work involved in the contract.
(h)	CNG STATION SUBSTANTIAL COMPLETION	Date following completion of the CNG Station Reliability Test (Attachment D, Section 3.08, Part C) and GTrans has beneficial use of the facility. This is the start of the one-year warranty period.
(i)	CNG STATION FINAL ACCEPTANCE	Date that all items are complete; including punch list, as-built drawings, O&M manuals, warranty documentation, training, labor compliance documentation, and the start of the one-year warranty period. This shall not include items expected to continue long term, such as work under warranty, landscape establishment period, or extended insurance requirements.
(i)	GAS DETECTION AND HEATING MODIFICATIONS FINAL ACCEPTANCE	Date that all items are complete; including punch list, as-built drawings, O&M manuals, warranty documentation, training, labor compliance documentation, and the start of the five-year warranty period. This shall not include items expected to continue long term, such as work under warranty, landscape establishment period, or extended insurance requirements.

SECTION 2 - SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF THE CONTRACT.

2-1.1 Proposal. The proposal shall be fully executed and submitted on the forms provided by the Agency and shall be enclosed in a sealed envelope marked and addressed as directed in the "Notice Inviting Proposals".

If the proposal is made by an individual, it shall be signed and his or her full name and address shall be given; if it is made by a firm it shall be signed with co-partnership name by a general partner thereof, who shall also sign his or her known name, and the name and address of each member of such co-partnership shall be given; if made by a corporation, the name of the corporation shall be signed by its duly authorized officers and attested by the corporate seal.

Proposers are warned against making erasures or alterations of any kind on their Proposal. Proposals which contain omissions, erasures, alterations, conditions or additions not called for may be rejected.

At the time the Contract is awarded by the Agency, the Contractor shall be licensed under the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California to do the type of work contemplated in the Contract and shall be skilled and regularly engaged in the general class or type of work required by this Contract.

2-1.2 Examination of Plans, Specifications and Project Site. Proposers shall read the specifications, review the drawings and examine the existing facilities to fully understand the project in order to plan for the improvements as shown in the contract, including local condition, uncertainty of weather and all other contingencies.

Proposers shall satisfy themselves by personal examination of the proposed work sites, and by such other means as they may choose as to actual conditions and requirements and as to the accuracy of the quantities stated in the Proposal forms. Information derived from the maps, plans, specifications, profiles, drawings, or from the Engineer/Architect of the record, shall not relieve the proposer of this responsibility, and the interpretation of the data disclosed by borings or other preliminary investigations is not guaranteed nor is any liability assumed by the Agency.

2-1.3 Interpretation of Drawings and Documents. If a prospective proposer is in doubt as to the true meaning or intent of any part of the Contract Documents including the Specifications, or discovers discrepancies in, or omissions from, the Specifications or Drawings, he may submit to the Construction Manager a written request for an interpretation or a correction thereof. Interpretations or corrections of the Contract Documents including the Specifications and Drawings, shall be made only by addendum duly issued by the Construction Manager, and a copy of such addendum will be sent by certified mail, postage prepaid, or delivered to each person receiving a set of the Contract Documents whose address is known to the Construction Manager and such addendum shall be considered a part of and incorporated in the Contract Documents.

2-1.5 Execution of Contract. A proposer whose proposal is accepted shall properly sign a written contract with the Agency on the form attached hereto and return said contract together with good and approved bonds and insurance certificates as required by the Contract Documents **within twenty-one (21) calendar days** from the date of the mailing of a notice from the Agency to the proposer, according to the address given by him, of acceptance of his proposal.

Contract bonds and certificates of insurance, if required, shall be filed in all instances before delivering any equipment, materials, or performing any work under the contract; also before any purchase order shall be issued. An executed Power of Attorney form shall be submitted with all contract bonds herein specified.

If a proposer whose proposal is accepted fails or refuses to enter into a contract as herein provided, or to conform to any stipulated requirement in connection therewith, the money represented by his check or proposer's bond shall be refunded less the difference between the low proposal and the proposal of the proposer with whom the Agency enters into an agreement in accordance with the provisions of the Public Contracts Code Section 20174. At the discretion of the Agency, an award may be made to the proposer whose proposal is next most acceptable to the Agency, and such proposer and his surety shall fulfill every stipulation embraced herein as if he were the party to whom the first award was made.

A corporation to which an award is made may be required before the contract is finally signed to furnish evidence of its corporate existence, of its right to do business in California and of the authority of the officer signing the contract and bonds for the corporation to so sign.

2-1.6 Return of Proposal and Guarantee. The check or bond of a proposer to whom the contract has been awarded will be returned to him after all of the acts, for the performance of which said security is required, have been fully performed. The checks or proposal bonds of the second and third lowest proposers will be returned when the proposer to whom the contract has been awarded has properly executed all of the required Contract Documents. Check or proposal bonds of other proposers will be returned when their proposals are rejected or in any event at the expiration of forty-five (45) days from the date of opening proposals.

2-5 PLANS AND SPECIFICATIONS.

2-5.2 Precedence of Contract Documents. The order of precedence of contract documents shall be:

FIRST	Requirements of law, including the Code and Ordinances of the City of Gardena.
SECOND	Permits from other agencies as may be required by law.
THIRD	Permits from City of Gardena Departments as may be required by law or ordinance.
FOURTH	The Contract Document [including Attachment A Special Provisions (with addendum no. 7) 3.31.21, Attachment D – CNG Fueling Facility Specification 3.31.21, and Attachment 1 – Exclusion Clarification Revised 3.31.21].
FIFTH	Specifications (to include changes indicated by Addenda No. 1-9).
SIXTH	Technical Provisions.
SEVENTH	Drawings (to include changes indicated by Addenda No. 1-9).
EIGHTH	Request for Proposal (RFP) No. 2020-05 Design and Build of a CNG Fueling Station.
NINTH	Contractor's Best and Final Offer (BAFO).
TENTH	Contractor's Proposal.

Change orders, supplemental agreements and approved revisions to Plans and Specifications will take precedence over documents listed above, except those listed as FIRST, SECOND and THIRD. Detailed plans shall have precedence over general plans.

2-9 SURVEYING.

2-9.1 Permanent Survey Markers. The Contractor is required to locate and tie out survey monuments in the project area prior to construction involving street and highways, or City public right of way and to file with the County Surveyor a Corner Record of any such work. Prior to final payment and the issuance of a completion certificate, the Contractor is required to file a Corner Record for survey monumentation that is replaced. All such survey work shall be performed under the supervision of a California licensed Land Surveyor or a Civil Engineer authorized to perform such work.

The Contractor shall provide the Agency a copy of the office calculations and documents submitted to the County for filing in connection with the aforementioned work.

The payment for surveying, related professional services, office calculation, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

2-9.2 Survey Service. Unless otherwise provided in the Technical Provisions, establishing lines and grades for construction shall be the responsibility of the Contractor, with the following provisions:

All work under this contract shall be built in accordance with the lines and grades shown on the plans. Field survey for establishing these, and for the control of construction, shall be the responsibility of the Contractor. All such surveys, including construction staking, shall be performed on all items ordinarily requiring grade and alignment, at intervals normally accepted by the agencies and trade involved.

The Contractor shall provide a copy of the office calculations and grade sheets to the Agency's Inspector. The Contractor shall be responsible for any error in the finished work, and shall notify the Construction Manager within 24 hours of any discrepancies or design errors discovered during staking.

Unless a separate proposal item is provided, the payment for surveying, construction staking, professional services, office calculations, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

SECTION 3 – CHANGES IN WORK

3-3 EXTRA WORK. If extra work is performed on a "time and materials" basis, the following percentages shall be added to the Contractor's cost and shall constitute the markup for all overhead and profits.

1) Labor 15
2) Materials 15
3) Equipment Rental.....15
4) Other Items and Expenditures.....15

To the sum of the costs and markups provided for in this section, 1 percent shall be added as compensation for bonding.

Upon submittal for payment, Contractor's request shall include appropriate documentation to support the invoice adheres to the above requirements including subcontractor invoices, etc. prior to Agency issuing any payment.

For any work completed as part of this section on a time and materials basis, the Agency and the Contractor shall be required to have an agreed-upon, fair and reasonable not-to-exceed amount be applicable to the grand total prior to executing the change order agreement.

3-4 SUBSURFACE CONDITIONS. Notwithstanding anything to the contrary in the Contract Documents: (1) Contractor will notify City if during the course of geotechnical investigation or excavation during construction, subsurface contamination is suspected or discovered, but Contractor shall not be legally or financially responsible for the removal of any subsurface structures or any repair of any damage to subsurface structures unless damage is caused by Contractor's negligence or willful misconduct; and (2) in the event it is determined that underground hazards, soil contaminants or soil conditions exist that were not brought to the site by Contractor that either (a) require removal, replacement, and disposal of soils or materials, (b) require remediation, or (c) require unanticipated soil or foundation preparation work, Contractor shall not be financially and/or legally responsible for such underground hazards, soil contaminants, and/or soil conditions and any required testing, remediation, removal, replacement preparation work, import of clean material, and/or disposal.

3-5 DISPUTED WORK.

3-5.1 Retention of Imperfect Work. If any portion of the work done or materials furnished under the contract proves defective or not in accordance with the specifications and contract drawings, and if the imperfection in the same is not of sufficient magnitude or importance to make the work dangerous or undesirable, or if the removal of such work is impracticable or will create conditions which are dangerous or undesirable in the opinion of the Construction Manager, the Construction Manager shall have the right and authority to retain the work instead of requiring it to be removed and reconstructed, but he shall make deductions therefore in the payment of the contract item due Contractor as may be just and reasonable.

SECTION 6 – PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

6-1.1 Construction Schedule. Prior to issuing the Notice to Proceed, the Construction Manager will schedule a preconstruction meeting with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination, discuss construction methods and clarify inspection procedures. The Contractor shall submit its schedule a minimum of 72 hours prior to the scheduled preconstruction meeting.

The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered.

The names, addresses and telephone numbers of the Contractor and subcontractors, or their representatives, shall be filed with the Construction Manager prior to beginning work. A separate emergency contact list, identifying key supervisory contacts of the Contractor and subcontractors shall also be submitted.

6-1.1.1 General. Development of the schedule and project status reporting requirements of the Contract shall employ computerized Critical Path Method (CPM) scheduling. The CPM schedule and all reports should be prepared with the latest version of Microsoft Project®, or approved equal. Where submittals are required hereunder, the Contractor shall submit four color copies of each submittal item. The Contractor shall provide the Owner with the scheduling software and/or license throughout the duration of the project.

6-1.1.2 Qualifications. Upon notice of award and prior to initiation of compiling the schedule, the Contractor shall submit a statement of computerized CPM capability to document either that the Contractor has in-house capability qualified to use CPM technique and the required software or that the Contractor will arrange for the services of a CPM consultant so qualified. In either event the statement shall identify the individual who will perform the CPM scheduling. Capability shall be verified by description of construction projects on which the individual has successfully applied computerized CPM and shall include at least two projects of similar nature, scope and value not less than one-half the Total Proposal Price of this project. This statement shall also identify the contact persons for the referenced projects with current telephone and address information. Compilation of the schedule shall not commence until the statement of CPM capability is approved by the Construction Manager.

6-1.1.3 MINIMUM PROJECT PHASING AND CONSTRAINTS

a. General: The Contactor shall submit a construction phasing plan in conjunction with the CPM schedule to the Construction Manager for review and approval. The plan shall identify work

limits and working hours that will allow the Contractor to complete the project while complying with traffic control / lane closure schedules and mitigating impacts to vehicular traffic, pedestrians, and businesses. The plan shall utilize the minimum phasing and constraints requirements herein. By submitting its proposal, the Contractor acknowledges it has considered the phasing and constraints included herein and can execute the project within the Contract Time, including sub-milestone requirements. The City may consider and approve alternatives to these phasing and constraints requirements if proposed by the Contractor, however no deviation will be allowed without prior written approval by the City.

The Construction Manager shall have 10 working days to review and comment on the plan. Work will not be allowed to commence without an approved phasing plan and project schedule.

6-1.1.4 CPM SCHEDULE SUBMITTALS

a. Original CPM Schedule: Within 5 working days from the date of the City approves the Scheduling Capabilities submittal and in no case later than 72 hours prior to the Preconstruction conference, the Contractor shall submit for review by the Construction Manager, (4) colored hard copies of the CPM schedule and the computerized Microsoft Project® schedule electronic file. This submittal shall already have been reviewed and approved by the Contractor's project manager, project superintendent and project estimator prior to submission. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered.
b. Original CPM Schedule Review Meeting: The Contractor's submitted CPM schedule and the City's review comments will be discussed as part of the preconstruction meeting. The Contractor shall have the Project Manager, Project Superintendent, and the Project Scheduler in attendance. The Construction Manager's review will be limited to the conformance to the Contract Documents. However, the review may also include:
    1. Clarifications of the design intent, process, and startup requirements.
    2. Directions to include activities and information missing from the submittal.
    3. Requests to the Contractor to clarify the schedule.
c. Revisions to the Original CPM Schedule: Contractor shall have revised the original CPM schedule to address all review comments from the preconstruction meeting and resubmit the Construction Manager's review within 5 calendar days. The Construction Manager, within 5 calendar days from the date that the Contractor submitted the revised schedule will either (1) accept the schedule and cost loaded activities submitted, or (2) advise the Contractor in writing to review any part or parts of the schedule which either do not meet the Contract requirements or are unsatisfactory for the Construction Manager to monitor the project's progress and status or evaluate monthly payment requests by the Contractor. The Construction Manager may accept the schedule with conditions that the first monthly CPM schedule update be revised to correct deficiencies identified. When the schedule is accepted, it shall be considered as the "Original CPM Schedule" until an updated schedule has been submitted. The Construction Manager reserves the right to require that the Contractor adjust, add to, or clarify any portion of the schedule which may later be discovered to be insufficient for the monitoring of the Work or approval of progress payment requests. No additional compensation will be provided for such adjustments, additions, or clarifications.
d. Acceptance: Acceptance of the Contractor's schedule by the Construction Manager will be based solely upon compliance with the requirements. By way of the Contractor assigning activity durations and proposing the sequence of the Work, the Contractor agrees to utilize sufficient and necessary management and other resources to perform the Work in accordance with the schedule. Upon submittal of a schedule update, the updated schedule shall be considered the "current" project schedule. Submission of the Contractor's progress schedule to the City shall not relieve the Contractor of total responsibility for scheduling, sequencing, and pursuing the Work to comply with the requirements of the Contract Documents, including adverse effects such as delays resulting from ill-timed Work.

e. Monthly Updates and Periodic CPM Schedule Submittals: Following the acceptance of the Contractor's original schedule, the Contractor shall monitor the progress of the Work and adjust the schedule each month to reflect actual progress and any changes in planned future activities. Each schedule update submitted shall be complete including all information requested in the original schedule submittal and be in the schedule report format indicated below. Each update shall continue to show all Work activities including those already completed. Completed activities shall accurately reflect "as built" information by indicating when the Work was actually started and completed. Each update shall be submitted 10 days prior to submittal of progress payment applications. **Failure to submit the updated progress report may result in the withholding of ten percent (10%) of the progress payment.**

Neither the submission nor the updating of the Contractor's original schedule submittal nor the submission, updating, change, or revision of any other report, curve, schedule, or narrative submitted to the Construction Manager by the Contractor under this Contract, nor the Construction Manager's review or acceptance of any such report, curve, schedule, or narrative shall have the effect of amending or modifying, in any way, the Contract Times, interim milestone or milestone dates or of modifying or limiting, in any way, the Contractor's obligations under this contract. Only a signed, fully executed Change Order can modify contractual obligations.

The monthly schedule update submittal will be reviewed with the Contractor during a weekly construction progress meeting. The goal of these meetings is to enable the Contractor and the Construction Manager to initiate appropriate remedial action to minimize any known or foreseen delay in the completion of the Work and to determine the amount of Work completed sine the last month's schedule update. The status of the Work will be determined by the percent complete of each activity in the updated CPM Schedule. These meetings are considered a critical component of the overall monthly schedule update submittal, and the Contractor shall have appropriate personnel attend. At a minimum, these meetings shall be attended by the Contractor's Project Manager and General Superintendent. Within 7 working days after the monthly schedule submittal review, the Contractor shall submit the revised CPM schedule, the revised CPM computerized tabulations as noted in this Section, the revised success/predecessor report, the project status report as defined below and the Contractor's Application for Payment. Within 5 working days of receipt of the revised submittals, the Construction Manager will either accept or reject the monthly schedule update submittal. If accepted, the percent complete in the monthly update shall be the basis for the Application for Payment to be submitted by the Contractor. If rejected, the update shall be corrected and resubmitted by the Contractor before the Application for Payment for the update period will be processed.

Schedule Revisions: The Contractor shall highlight or otherwise identify all changes to the schedule logic or activity durations made from the previous schedule. The Contractor shall modify any portions of the CPM schedule which become infeasible because of activities behind schedule or for any other valid reason.

f. 4-Week Look Ahead submittals. The Contractor shall submit and be prepared to discuss a 4week look ahead of the current schedule, on or before noon Monday each week. The 4-week look ahead will show all activities that are currently in progress or planned to occur over the next working month. **Failure to submit any 4-week look ahead schedules may result in a $250 back charge to the Contractor.**

6-1.2 Commencement of the Work. Prior to issuing the Notice to Proceed, the Construction Manager will schedule a preconstruction meeting with the Contractor to review the proposed

construction schedule and delivery dates, arrange utility coordination, discuss construction methods and clarify inspection procedures.

The names, addresses and telephone numbers of the Contractor and subcontractors, or their representatives, shall be filed with the Public Works Manager and the County Sheriff's Department or the City Police Department prior to beginning work.

The Contractor shall also notify the City of Gardena and the owners of all utilities and substructures within the Project area not less than 48 hours prior to starting construction. The following utility companies list of names and telephone numbers is intended for the convenience of the contractor and is not guaranteed to be complete or correct:

COMPANY	***CONTACT***	***TELEPHONE NO.***
Southern California Edison	Cynthia Carrillo	310.413.4497
Southern California Gas	Melissa Fukunaga: Tech Services Planning: Attn - Lead Planner	213.231.7281
AT&T	Terence Little	626.817.4252
	Raymond Dover	310.515.4257
Gardena Police	Dispatch	310.3237911
L.A. County Fire Dept.		310.323.7911
Time Warner Communications	Arturo Fernandez	310.750.9099
Crown Castle	Hector Aguilera	951.454.5111
Waste Resources of Gardena	Lorena Rodriguez	310.366.7600
Golden State Water Co.	Conde Ventura	310.436.6950 x107
	Joseph Salcido	310.660.0320 x101
L.A. County Flood Control	Daryll Chenoweth	626.458.3129
L.A. Sanitation District	Jon Ganz	562.908.4288
Metropolitan Water District	Civil Eng. Substructures Section	213.217.7059
Chevron Pipeline	Dave Zerler	310.669.4014
Underground Service Alert		800.422.4133

6-7 TIME OF COMPLETION.

6-7.2 Working Day. The Contractor's working hours shall be limited to the hours between 8:00 A.M. and 4:00 P.M., Monday through Friday except holidays. Deviation from normal working hours will not be allowed unless written permission has been duly obtained beforehand from the Agency through the Construction Manager. The Contractor shall provide adequate light for proper prosecution of the work, for the safety of the workmen and the public, and for proper inspection.

If the Contractor works beyond the allowed working hours without prior written approval from the Construction Manager, the Contractor may be charged Five Hundred ($500) for each occurrence as required by the Construction Manager. The amount will be deducted from a progress payment or bond.

Contractor hereby acknowledges and shall be required to comply with the provisions of California Labor Code Section 1810 et seq. According to those sections, eight (8) hours of labor shall

constitute a legal day's work. Contractor shall pay to the Agency a penalty of Twenty-Five Dollars ($25.00) for each worker employed in the execution of this Contract by Contractor, or by any Subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day or forty (40) hours in any one (1) calendar week, except when payment for overtime is made at not less than one and one-half (1-1/2) times the basic rate for that worker.

In the event of either a requested or emergency deviation, inspection service fees will be charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead and travel time. The service fees will be deducted from any amounts due to the Contractor.

6-8 COMPLETION, ACEPTANCE, AND WARRANTY. In addition to the guarantees as required in Section 2-4 of the Standard Specifications, the Faithful Performance Bond shall remain in full force and effect for a period of one year after acceptance of the work by the Agency to insure that defects, which may appear within said period, will be repaired, replaced, or corrected by the Contractor, at his own cost and expense, to the satisfaction of the Construction Manager within thirty (30) days after written notice thereof by the Agency.

6-9 LIQUDATED DAMAGES. For the CNG Station, Liquidated Damages are tied to the approved schedule Substantial Completion date, which occurs after CNG Station Reliability Test (Attachment D, Section 3.08, Part C). Liquidated Damages will be assessed for every calendar day beyond the scheduled date of CNG Station Substantial Completion that CNG Station Substantial Completion is not achieved at the rate of $1,000 per day. Warranty would start from the date of CNG Station Substantial Completion, and Liquidated Damages will not be taken during warranty period.

For the Gas Detection and Heat Modifications, Liquidated Damages are tied to the approved schedule Gas Detection and Heating Modifications Final Acceptance date, which occurs after Gas Detection and Heating Modifications Final Acceptance (Attachment D, Section 3.08, Part C). Liquidated Damages will be assessed for every calendar day beyond the scheduled date of Gas Detection and Heating Modifications Final Acceptance that Gas Detection and Heating Modifications Final Acceptance is not achieved at the rate of $1,000 per day. Warranty would start from the date of Gas Detection and Heating Modifications Final Acceptance, and Liquidated Damages will not be taken during warranty period."

6-10 FORCE MAJEURE. In the event that the Contractor is prevented from performing its duties and obligations pursuant to the Contract Documents by circumstances reasonably beyond its control, including, without limitation, fires, floods, pandemics, quarantines, labor disputes, war, acts of terrorism, the interruptions of utility services, or Acts of God (hereinafter referred to as "Force Majeure"), then Contractor shall be excused from performance hereunder during the period of such disability (the "Force Majeure Period") and the Liquidated Damages deadline(s) and all other dates associated with the performance of the Work shall be fair and equitably extended based on the length of the delay.

SECTION 7 – RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General.

7-1.1.1 Contractor's Responsibility for Work. Until the formal acceptance of the work by the Agency, the Contractor shall have the charge and care thereof and shall, subject to the insurance

protection furnished in accordance with 7-3 hereof, bear the risk of accident, loss or damage to any part thereof by action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and otherwise correct damages to any portion of the work occasioned by any of the above causes before its acceptance.

In case of suspension of work from any cause whatever, the Contractor shall be responsible for all materials and the proper temporary storage thereof.

7-1.1.2 Notice and Service Thereof. Any notice required or given by one party to the other under the contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall not be effective for any purpose whatever unless served in the following manner:

Notice shall be given to the Agency by personal delivery thereof to the Construction Manager or by depositing the same in the United States mail enclosed in a sealed envelope, registered and with postage prepaid, addressed to:

City of Gardena's GTrans
Attention Rod Goldman
13999 S. Western Avenue
Gardena, CA 90249

Notice shall be given to the Contractor by personal delivery thereof to said Contractor or to his authorized representative at the site of the project, or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to said Contractor at the address established for the conduct of the work under this Contract, postage prepaid and registered.

Notice shall be given to the Surety, or any other person, by personal delivery to said Surety or other person, or by depositing the same in the United States Mail, enclosed in a sealed envelope addressed to such Surety or persons at the address of said Surety or persons last communicated to the party giving the notice, postage prepaid and registered.

Notification of Property Owners and Tenants - The Contractor shall notify each property owner and/or tenant in the project area in writing five (5) working days prior to the start of construction. If pedestrian or vehicular access to private property is to be blocked, the Contractor shall again notify each property owner and/or tenant in writing five (5) working days prior to construction activities. The Contractor shall provide additional notices when a lapse time occurs during each phase/segment work.

The written notice shall be submitted to the Construction Manager for approval prior to being delivered.

7-1.1.3 Warranty of Title. No materials, supplies or equipment for the work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier.

The Contractor warrants clear and good title to all materials, supplies and equipment installed and incorporated in the work, and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him to the Agency free from any claims, liens, encumbrances or charges, and further agrees that neither he nor any person, firm or corporation furnishing any material or labor for work covered by the Contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon; provided, that this shall not preclude the Contractor from installing metering devices or

other equipment of utility companies the title of which is commonly retained by the utility company. Nothing contained in this section, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor, which are in the hands of the Agency.

The provisions of this section shall be inserted in all subcontractor's and material contracts, and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into regarding such materials.

7-3 INSURANCE. Refer to the Contract Documents Attachment F, Page 10 for detail requirements.

7-5 PERMITS. The Contractor will obtain, at no cost to the Agency, all permits necessary to perform the work on streets, highways, railways or other rights-of-ways. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to those permits required for night work, overload, blasting and demolition. For private contracts, the Contractor shall obtain all permits incidental to the work or made necessary by its operations, and pay all costs incurred by the permit requirements.

The Contractor and each subcontractor employed upon the work must have or obtain a valid City of Gardena Business License in accordance with the provisions of the Gardena Municipal Code.

7-6 THE CONTRACTOR'S REPRESENATIVE. The Contractor shall furnish the Construction Manager with the name, address and cell/ business/home telephone numbers of the person responsible for the maintenance of barricades, traffic control signs, lights and other safety devices.

7-8 WORK SITE MAINTENACE.

7-8.1. General. The Contractor shall keep the work site clean and free from rubbish and debris. The Contractor shall abate dust nuisance by cleaning, sweeping and sprinkling with water in keeping with the AQMD and NPDES requirements. Debris, soil or other matter shall not be washed into storm drains but shall be collected and disposed of in a legal, responsible manner. The construction area shall be cleaned with a power sweeper at the end of every workday and when deemed necessary by the Construction Manager.

The Contractor shall maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Use temporary sandbags to control the site perimeter. At the completion of the project sandbags shall become the property of the City of Gardena and shall be remain in place.

The Contractor shall not spill on haul routes. Any such spillage shall be removed immediately, and the area cleaned.

Stockpiling of construction materials or debris on City right-of-way shall be in accordance with the NPDES permit and shall be approved by the inspector. At the completion of work, the Contractor shall thoroughly clean all work areas.

7-8.4 Storage of Equipment and Material.

7-8.4.1 General. All costs associated with the disposal of all excavated or demolition materials, including any gate fees, shall be paid by the Contractor. These costs shall be included in the proposal price for the applicable proposal items.

Prior to any excavated or demolition material being removed from the construction site the Contractor shall notify the City as to the hauling route and destination for disposal. If the location for disposal is other than a county landfill then the Contractor shall provide the City with written permission and release of liability for the City from the owner of the property where the material will be deposited.

The City has an exclusive agreement with Waste Resources, Inc. and no other firm may provide bulk trash bins in the event the work requires this service.

7-8.4.2 Storage in Public Streets. Construction equipment shall not be stored at the construction site, any public street or publicly owned facilities without approval of the City. Contractor shall store equipment at a contractor's rental yard.

All excavated material that is to be hauled to and disposed of at a County landfill site by the Contractor is subject to a County gate fee based on tonnage.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. Any facilities, structures, water lines, landscaping, surfaces, signs, pavement markings, painted curbs, house numbers, etc., which are damaged during construction shall be restored to the satisfaction of the City. Damaged water lines shall be repaired immediately at no additional cost to the city.

7-9.1 Access to Private Property. The Contractor shall be aware that business and residential access must be maintained at all times. The Contractor shall schedule operations to minimize interference with access to private property.

The main access way to any business or home shall not be completely blocked for more than one four-hour period a day except blockage shall be limited to one twenty-four (24) hour period when concrete is poured.

Temporary access ways shall be provided from the street to the main access way of all businesses and homes by use of traffic rated steel plates or any other method approved by the city.

Payment for this item shall be included in the applicable contract work item.

7-10 SAFETY

7-10.1 Public Convenience and Safety Access. The Contractor shall provide temporary "No Parking" and all other signs which are necessary for the safe and orderly conduct of vehicular traffic as directed by the Construction Manager and as specified herein. Contractor shall also provide an approval barricaded area in the parking lane for pedestrian traffic during such time as the parkway is unfit to be used for pedestrian traffic.

At such times as driveways are inaccessible due to the Contractor's work, they shall be blocked by two (2) Class II barricades or one (1) Class II barricade and two (2) delineators. Driveways that are ramped or planked for temporary access shall be provided with a barricade or delineator at each side. The Contractor shall give 24-hour notice to affected property owners prior to blocking any driveway.

The Contractor shall provide access for refuse collection on the regularly scheduled days. He shall also facilitate or assist in the collection where such work is hampered by his operations.

7-10.2 Street Closures, Detours, and Barricades. The Contractor shall not close any street within the City of Gardena without first obtaining the approval of the Construction Manager. Barricading, traffic control and detour diagrams in connection with street closures shall be submitted by the contractor as required by the Construction Manager.

The Contractor shall provide and install barricades, delineators, warning devices and construction signs in accordance with the California Manual of Temporary Traffic Controls or W.A.T.C.H. Handbook. During adverse weather or unusual traffic or working conditions additional traffic devices shall be placed as directed by the Construction Manager. All traffic signs and devices shall also conform to the California Manual of Temporary Traffic Controls or W.A.T.C.H. Handbook.

The Contractor shall provide and maintain Type II barricades along excavation edges parallel to the flow of traffic at a maximum spacing of twenty-five feet. Type II barricades mounted with flashers shall be installed around work areas in parkways. Type II barricades shall have alternating reflective orange and reflective white stripes at an angle of 45 degrees. The strip width shall be in accordance with Table 5-1 "Barricade Characteristics" "Manual of Traffic Controls for Construction and Maintenance Work Zones".

During paving operations, barricades may be supplemented with minimum size eighteen-inch high traffic cones and delineators such that spacing between barricades and/or cones or delineators is no greater than twenty feet. Traffic cones and delineators used within State right-of-way shall be a minimum size of twenty-eight inches high. At all access points such as intersecting streets, alleys and driveways, barricades and/or cones shall be provided at five-foot intervals so as to prevent vehicular access to the paving area. Where access from an intersecting street is prohibited, a "Road Closed" sign shall be provided at the nearest prior intersection. "No Left Turn" signs shall be provided wherever required by the Construction Manager.

When one-way access from a side street or alley is permitted, barricades and cones shall be provided at five-foot intervals for a distance of fifty feet on either side of the centerline of the intersecting street, or alley.

Should the Contractor fail to furnish a sufficient number of traffic and/or pedestrian safety devices, the Agency will place such necessary items and the Contractor shall be liable to the Agency for providing such devices in accordance with the following provisions:

1. For placing of barricades: $5.00 per barricade for the first day or any part thereof and $2.00 per barricade, per day, for each day thereafter or any part thereof. For flashers: $2.50 per flasher for the first day or any part thereof and $1.00 per flasher, per day, for each day thereafter or any part thereof. For traffic cones: $1.00 per cone for each day or any part thereof.

2. In the event that the services of the Agency are required between the hours of 5:00 P.M. and 8:00 A.M., during the normal week or at any time on Saturday, Sunday or a Agency holiday, there shall be an additional charge to the above set forth minimums of $188.00 for each service trip required.

Contractor shall relocate, preserve and maintain the visibility of all existing signs within the project limits which affect the flow of traffic, as directed by the Construction Manager. Any signs which are damaged or found to be missing during the course of construction shall be replaced by the Contractor at his expense as directed by the Construction Manager. All other signs that interfere with the course of work and are not necessary for the safe flow of traffic will be removed and replaced by the Agency. Traffic control signs include Stop Signs, Speed Limit, Parking Restrictions and other regulatory signs.

7-10.4 Safety.

7-10.4.4 Hazardous Substances. As required by Public Contract Code Section 7104, if this Contract involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall promptly, and prior to disturbance of any conditions, notify the Agency of: (1) any material discovered in excavation that Contractor believes to be a hazardous waste that is required to be removed to a Class I, Class II or Class III disposal site; (2) subsurface or latent physical conditions at the site differing from those indicated by the Agency; and (3) unknown physical conditions of an unusual nature at the site, significantly different from those ordinarily encountered in such contract work. Upon notification, the Agency shall promptly investigate the conditions to determine whether a change order is appropriate. In the event of a dispute, Contractor shall not be excused from any scheduled completion date and shall proceed with all work to be performed under the Contract but shall retain all rights provided by the Contract and by law for making protests and resolving the dispute.

7-10.4.4.1 Edison Energized Conductors. Contractor hereby promises and agrees that in the performance of the work specified in this Contract, it will employ and utilized only qualified persons, as hereinafter defined, to work in
proximity to Edison's secondary, primary and transmission facilities. The term "qualified person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

> "Qualified Person: A person who by reason of experience or instruction is familiar with the operation to be performed and the hazards involved."
>
> Contractor further promises and agrees that the provisions of this section shall be and are binding upon any subcontractor or subcontractors that may be retained by it, and that Contractor shall take such steps as are necessary to assure compliance by said subcontractor or subcontractors with the requirements of this section.

7-10.4.4.2 Emergency Provisions. Unusual conditions may arise on the work which will require that immediate and unusual provision be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

Whenever, in the opinion of the Agency, an emergency exists of which the Agency is aware and against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured by the progress of construction; and whenever, in the opinion of the Agency, immediate action shall be considered necessary in order to protect public or private personnel or property interests, or prevent likely loss of human life or damage on account of the operations under the Contract, then in that event the Agency may provide suitable protection to said interests by causing such work to be done and material to be furnished, as in the opinion of the Agency may seem reasonable and necessary, all at the expense of the Contractor.

7-14 ANTITRUST CLAIMS. By entry into this Contract, Contractor hereby acknowledges the terms of Section 7103.5 of the Public Contract Code and hereby offers and agrees to assign to the Agency all rights, title and interest in all causes of action it may have as outlined above.

SECTION 8 – FACILITIES FOR AGENCY PERSONNEL

8-2 FIELD OFFICE FACILITIES. The Contractor shall provide the class of field office indicated below:

□ Class "A" □ Class "B" □ Class "C"

In the event none of the boxes are marked above, no specific field office will be required, and the use therefor of any field office will be at the Contractor's discretion. The location of any field office shall be as provided on the plans, in these Specifications or as designated by the Construction Manager.

SECTION 9- MEASUREMENT AND PAYMENT

9-3 PAYMENT.

9-3.1 Payment Milestone Schedule. The milestone payment schedules are outlined below:

Design and Build of CNG Fueling Station

No.	Description	Percentage
1	90% of Design: % complete billed monthly	1%
2	100% of Design: Billed at plan check submittal	1%
3	Permits Issued	1%
4	CNG Equipment Submittals: 50% on submission, 50% on approval	15%
5	Electrical Equip. Submittals: 50% on submission, 50% on approval	3%
6	CNG Equip. Fabrication: % complete billed monthly	15%
7	Electrical Equip. Fabrication: % complete billed monthly	3%
8	CNG Equip. Delivery: Billed on delivery to jobsite	15%
9	Electrical Equip. Delivery: Billed on delivery to jobsite	3%
10	Mobilization: Billed at start of construction	2%
11	Civil Construction: % complete billed monthly	9%
12	Mechanical Construction: % complete billed monthly	9%
13	Electrical Construction: % complete billed monthly	11%
14	Startup/Commissioning: Billed once station is fully operable – this is equivalent to Substantial Completion	6%
15	Training/Closeout: Billed at completion – this is equivalent to Final Acceptance	1%
16	Retention	5%
Total		**100%**

Vehicle Maintenance Facility Upgrades

No.	Description	Percentage
1	90% of Design: % complete billed monthly	4.0%
2	100% of Design: Billed at plan check submittal	2.0%
3	Permits Issued	1.0%
4	Gas Detection Submittals: 50% on submission, 50% on approval	4.0%
5	Electrical/Mechanical Equip. Submittals: 50%, 50%	4.0%
6	Gas Detection Equip. Fabrication: % complete billed monthly	4.0%

7	Electrical/Mechanical Equip. Fabrication: % completed billed monthly	4.0%
8	Gas Detection Equip. Delivery: Billed on delivery to jobsite	4.0%
9	Electrical/Mechanical Equip. Delivery: Billed on delivery to jobsite	4.0%
10	Mobilization: Billed at start of construction	5.0%
11	Gas Detection Construction: % complete billed monthly	15.0%
12	Mechanical Construction: % complete billed monthly	20.0%
13	Electrical Construction: % complete billed monthly	20.0%
14	Startup/Commissioning: Billed as facility is fully operable – this is equivalent to Substantial Completion	2.0%
15	Training/Closeout: Billed at completion – the is equivalent to Final Acceptance	2.0%
16	Retention	5.0%
Total		**100%**

9-3.2 Partial and Final Payment. The closure date for periodic progress payments will be the twenty-fifth day of each month. Authorization to pay is commonly received on the tenth day of the following month. However, payments will be withheld pending receipt of any outstanding reports required by the Contract Documents.

9-3.5 Work Performed Without Direct Payment. Tools and materials of any class for which no price is fixed in the Proposal, it shall be understood that such work, equipment, labor, tools and materials shall be provided without extra charge, allowance, or direct payment of any kind. The cost of performing such work or furnishing such equipment, labor, tools and materials shall be included in the unit proposal prices in the Proposal and no additional compensation will be paid therefore.

9-4. DISPUTE RESOLUTION.

9-4.1 Requests for Contract Adjustments and Relief. If either Contractor or the Agency believes that it is entitled to relief against the other for any event arising out of or related to the work or Project, such party shall provide written notice to the other party of the basis for its claim for relief. Such notice shall, if possible, be made prior to incurring any cost or expense and in accordance with any specific notice requirements contained in the applicable sections of this Contract.

In the absence of any specific notice requirement, written notice shall be given within a reasonable time, not to exceed fourteen (14) days, after the occurrence giving rise to the claim for relief or after the claiming party reasonably should have recognized the event or condition giving rise to the request, whichever is later. Such notice shall include sufficient information to advise the other party of the circumstances giving rise to the claim for relief, the specific contractual adjustment or relief requested and the basis of such request.

9-4.2 Dispute Avoidance and Resolution. The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, Contractor and the Agency each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the work under the Contract.

Contractor and the Agency will first attempt to resolve disputes or disagreements at the field level through discussions between Contractor's Representative and the Construction Manager.

If a dispute or disagreement cannot be resolved through the Contractor's Representative and the Construction Manager, Contractor's Chief Executive Officer or similar senior representative and the Gardena City Manager, or designee, upon the request of the other party, shall meet as soon as conveniently possible, but in no case later than twenty (20) days after such a request is made, to attempt to resolve such dispute or disagreement. Prior to any meeting between the parties' senior representatives, the parties will exchange relevant information that will assist the parties in resolving their dispute or disagreement.

If, after meeting, the senior representatives determine that the dispute or disagreement cannot be resolved on terms satisfactory to both parties, the parties may submit the dispute to binding or non-binding mediation. The mediation shall be conducted in any manner and by any person or mediation association mutually acceptable to the parties.

9-4.3 Arbitration. Any claims, disputes or controversies between the parties arising out of or relating to the Contract, or the breach thereof, which have not been resolved in accordance with the procedures set forth in Section 9-4.2 above may be decided by binding or non-binding arbitration. The arbitration shall be conducted in any manner and by any person or arbitration association mutually acceptable to the parties.

9-4.4 Claims Disputes. Any claims of Contractor, as "claims" are defined in California Public Contract Code Section 9204 shall be processed in accordance with that section. Section 9204 provides in relevant part that upon receiving a claim from a contractor, together with reasonable documentation to support the claim, a contracting public entity shall conduct a reasonable review of the claim and, within a period not to exceed 45 days [except as otherwise provided in Section 9204], shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed.

Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, Section 9-4.3 shall apply. If the contractor disputes the public entity's written response, or if the public entity fails to respond to a claim within the time prescribed, the contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute.

Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed.

Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the contractor sharing the associated costs equally. The public entity and contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to other applicable procedures.

END OF SPECIAL PROVISIONS

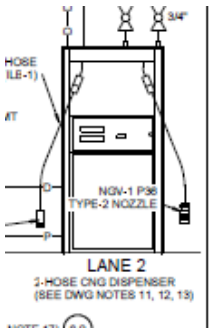
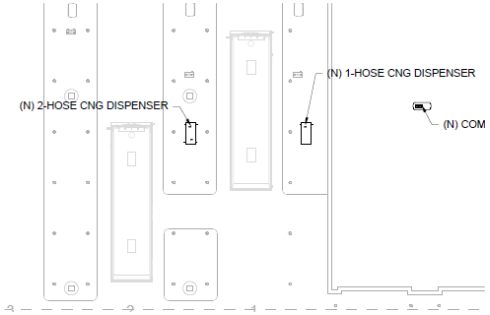
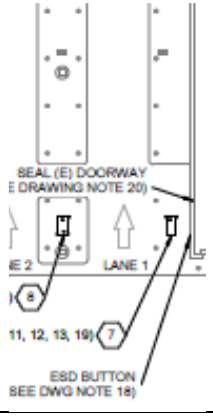
RESPONSE TO CLEAN ENERGY'S
RECOMMENDED CHANGE STO THE CONTRACT DOCUMENTS
GTRANS RFP 2020-05 DESIGN AND BUILD OF A CNG FUELING STATION

ATTACHMENT 1: EXCLUSION CLARIFICATION
Updated: March 31, 2021

Category	Clean Energy's Exclusion	GTrans Comments	Clean Energy Response 3.29.21	GTrans Response 3.31.21
General	"We cannot guarantee delivery of 10 DGE/minute simultaneously to both dispensers pers Section 4.14. Our equipment will provide 1,968 SCFM (14.1 DGE/minute) total to both dispensers. Additional flow from storage may be realized but it is not guaranteed."	We accept this as a limitation. However, the variation in flow rate between the dispensers cannot be more than 15% and the total DGE between the two dispensers must be 20 DGE/minute.	The prescribed compressors are only capable of producing around 14 DGEs/minute which is split between the active dispensers and will only be higher if there is contribution from storage (which is not always available and cannot be guaranteed by Clean Energy).	This is acceptable.
	"Facility upgrade: The Authority having Jurisdiction may require additional changes or upgrades to the maintenance facility beyond what is required to allow servicing and storing natural gas vehicles. Any changes will be quoted separately from this proposal."	Minor requirements that are substantially consistent with the design do not deserve a change order, but substantial orders required by the code officials will be negotiated.	-	-

ANGI Component	"Section 2.01E - ANGI uses standards ball valves that are properly rated for pressure and media."	This is acceptable.	-	-
	"Section 2.02E - ANGI provides equipment based on acceptable ANGI/Ariel vibration limits. On site vibration testing can be provided at an additional cost."	This is acceptable.	-	-
	"Section 2.03F - ANGI is unable to commit to a lubrication consumption or piston ring life. ANGI will select rings based on the proven ANGI/Ariel design."	This is acceptable.	-	-
	"Section 2.05 - ANGI Pulsation bottles will be design per ANGI standard design, drains excluded. Filters will be sized based on ANGI standard design. Differential pressure gauges excluded."	This is acceptable.	-	-

	"Section 2.07 - Defuel panel will be designed per addendum 7. Per addendum 7, no provision will be provided to return gas to compressor inlet."	This is acceptable.	-	-
ANGI Component	"Section 2.08 - ANGI will provide controls per ANGI standard design. PLC programming can be made available upon execution of NDA. Programming software and equipment provided by others as needed. ANGI typical shutdowns and warnings apply. Motor winding temperature excluded. Master controller to have XL7 or AB HMI as proposed which may be smaller than requested HMI. CP400 to be utilized for typical remote fault call outs. Hour meter to display on HMI."	We accept this limitation. However, GTrans would like to finalize the negotiation on the size of the HMI so that it meets the specifications set on the HMI. Please confirm that Clean Energy will be providing CP400 with an extra remote communication/network connectivity.	The station will be installed with 7" HMI screens on each compressor and the MCP. There will also be an HMI screen on the dryer. This meets the requirements in the specification. Clean Energy has included and will install a CP400 communication panel. Regarding network connectivity, Clean Energy will connect the station to our secure VPN utilizing an LTE modem for commissioning and testing. This allows us to remotely monitor the station and gives us the ability to make any needed PLC software adjustments and changes remotely. While on the Clean Energy VPN. the station should not be on the GTrans network at the same time for network security purposes. Alarm notifications can be sent to GTrans staff via email while on the Clean Energy VPN.	This is acceptable.

	"Section 2.12 - ANGI will provide dispensers with Micro Motion CNG-050 meter as indicated in drawing D-501 in lieu of Endress Hauser Meter. Hose lengths as proposed. Dispenser to utilize start button, stop button excluded."	We accept this limitation. However, please confirm that stop button is included and that the dispenser will fit within the given space shown on the drawing.	For the ANGI Series II dispenser with the Micro Motion meter, a stop button is not included. If the fueler wishes to end a fill before the dispenser auto completes, the fueler can drop the handle on the side of the dispenser. This raises the question of which dispenser GTrans wishes Clean Energy to install. Those with Micro Motion meters (similar to a retail dispensers as shown on drawing D601) as indicated by GTrans' acceptance of our exception or dispensers with Endress Hauser meters in an industrial style cabinet as requested by GTrans for inclusion in Clean Energy's BAFO? The drawings contradict where to install the CNG dispensers. Drawing E101 indicates one location and Drawing D101 indicates another. The locations need to be finalized for Clean Energy to confirm that they fit the selected location. **Drawing D601**  **DRAWING E101**  **DRAWING D101** 	Drawing D101 is correct, dispensers are located at the end of islands. Please confirm that dispenser meters are 1" Endress Hauser, housed in industrial-style dispensers.

	"Section 2.13 - ANGI to utilize a standard compressor prime driver. ANGI standard 1-year limited parts only warranty applies. Other specification requirements excluded. Motor starter panel to be located in non-hazardous location based on ANGI standard design."	Clean Energy must make up for any warranty deficiency (Refer to the warranty requirements in the specifications and in the drawing notes). These should be provided without any vendor limitation.	Yes, Clean Energy is responsible for the one-year warranty and manages any applicable backup warranties from suppliers during the one-year warranty period.	-
	"Section 2.14 - ANGI will provide a standard motor starter panel."	This is acceptable.	-	-

REQUEST FOR PROPOSALS

FOR

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

City of Gardena

Transportation Department

13999 S. Western Avenue

Gardena, CA 90249

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INVITATION FOR REQUEST FOR PROPOSALS
NO. 2020-05
DESIGN AND BUILD OF A CNG FUELING STATION

City of Gardena's Transportation Department (GTrans) invites and shall receive proposals from **only the prequalified firms resulting from GTrans' Request for Qualifications #2020-02** for up to the hour of **3:00 PM (PST) on September 25, 2020** for the design and build of a CNG Fueling Station at GTrans facility located at 13999 S. Western Ave., Gardena, CA.

This procurement is a Federal Transit Administration (FTA) funded project and therefore Proposers are hereby bound by all applicable federal, state, and local laws and regulations, and certifications. In accordance with the Civil Rights Act of 1964, Proposers are hereby notified that Disadvantaged Business Enterprises (DBEs) and Small Business Enterprises (SBE) are encouraged to submit Proposals and will be afforded full opportunity to submit and participate in this request. Prime contractors should exert best efforts to subcontract work to DBEs and SBEs as part of their Proposal. Proposals received after the date and time specified above shall be rejected by GTrans as non-responsive.

GTrans' annual overall goal for DBE participation for Fiscal Year 2019-21 is 7.0%. A specific DBE participation goal has not been established for this contract. However, DBE and SBE subcontractors are **STRONGLY ENCOURAGED** to compete for this contract, which will be awarded fairly, without discrimination on the basis of race, color, sex, or national origin.

In addition, it has been determined that the work herein described falls into the category of public works construction projects. The awarded contractor will be required to comply with all of the terms and conditions (including Federal and State General Prevailing Wage requirements) prescribed for performing public works construction projects. It shall be mandatory that the awarded contractor comply with California Labor Code and Federal Department of Labor requirements, which include, but are not limited to, the employment of apprentices, hours of labor, retention of payroll records, etc. to the extent applicable.

Copies of the proposals and any addendums may be obtained by visiting GTrans' online procurement platform, "PlanetBids", which can be accessed via GTrans webpage at:

http://ridegtrans.com/contact/how-to-do-business-with-gtrans/

Proposals shall only be accepted via PlanetBids and are due by no later than **September 25, 2020 @ 3:00 PM PST.**

PROCUREMENT SCHEDULE

The schedule of activities and corresponding due dates related to this RFP, are as follows.

GTrans reserves the right to modify this schedule as needed.

ACTIVITY	DATE
Release of Request for Proposal	August 20, 2020
Pre-Proposal Meeting	TBD *
Deadline for Questions	September 11, 2020 @ 3:00 PM PST
Deadline for Submission of Proposal	September 25, 2020 @ 3:00 PM PST
Estimated Contract Start Date	November 2020

** Pre-proposal meeting details will be released at a later date via PlanetBids*

SECTION I

GENERAL TERMS AND CONDITIONS

A. Pre-proposal Conference

Details of the pre-proposal meeting are pending and will be posted via PlanetBids.

B. Proposer's Acknowledgement

By submitting a proposal, each Proposer represents that it has fully investigated and become completely familiar with the RFP requirement and applicable local, state, and federal laws and regulations. GTrans shall not consider claims for additional compensation based upon the Proposer's lack of knowledge of such documents, statutes, regulations, resolutions, laws, or conditions.

C. Amendments

Any changes to the requirements will be made by written amendment to this Request for Proposal, which shall be incorporated into the terms and conditions of any resulting contract or agreement. The Proposers shall rely only on written amendments by the GTrans in submitting or revising proposals. In no event should a prospective Proposer submit a proposal based upon an oral interpretation of the RFP by any GTrans representative or by any other firm or individual.

D. Question and Answer Period

Should a Proposer have inquiries, require clarifications, or request deviations to this RFP, the Proposer shall notify GTrans in writing via PlanetBids only. Should GTrans, in its sole discretion, determine that the point in question is not clearly and fully set forth, GTrans will issue a written addendum clarifying the matter via PlanetBids.

All inquiries, clarifications, or requests for deviations shall be submitted by September 11, 2020 at 3:00 PM PST via PlanetBids.

Responses and addendums shall also be published via PlanetBids.

E. Submission of Proposal

All Proposals shall be submitted via PlanetBids by September 25, 2020 at 3:00PM PST.

Failure to comply with this or any other paragraph of the Request for Proposals shall be sufficient reason for rejection of the proposal. The responsibility for submitting the proposal to GTrans on or before the above stated time and date is solely that of the Proposer.

***LATE PROPOSALS SHALL NOT BE ACCEPTED*.**

GTrans shall not be liable for any costs incurred by a Proposer prior to entering into a contract.

F. Modification of Proposals

Any modification of the proposal by the Proposer which is inconsistent with or in addition to all of the terms and conditions herein set forth shall be void and of no effect unless and to the extent expressly accepted by GTrans in writing. Proposals shall be submitted upon the response forms and in the manner prescribed in this document. GTrans reserves the right to refuse to consider any proposal not tendered on proposal forms furnished by GTrans, to waive minor discrepancies, or to reject proposals because of minor discrepancies as it sees fit.

G. Errors, Omissions

No Proposer shall at any time after submission of the proposal make any claim or assertion that there

was any misunderstanding or lack of information regarding the nature or specifications of the RFP for a satisfactory response to this Notice. Any errors, omissions or discrepancies found in the proposal documents shall be called to the attention of the City of Gardena and clarified in writing prior to the submission of the Proposal, no later than the deadline for questions.

H. Legal Compliance

The Proposer agrees to abide by all laws, rules and regulations promulgated by the United States of America, the State of California, or any agencies or subdivisions thereof; specifically including Cal/OSHA and OSHA regulations currently in effect at time proposals are due and for the duration of the project.

I. Affirmative Action

GTrans is an equal opportunity employer, and all Contractors working on GTrans projects are required to follow a policy of affirmative action in regard to the requirements of Executive Order 11246.

J. Key Personnel and Facilities

Proposers must identify key personnel to serve as contacts and facilities necessary to accomplish the work within the required time.

K. Terms and Conditions

The Proposal shall include all terms, conditions and requirements of this Request for Proposal and any amendments thereto. Any agreements resulting from this Request for Proposal, including subcontract or supplier agreements, shall be subject to and incorporate such terms, conditions, and requirements.

L. Disadvantaged Business Enterprise (DBE) Participation

GTrans hereby notifies all Proposers that it will affirmatively ensure that, in regard to any agreement entered into pursuant to this advertisement, disadvantaged businesses will be afforded full opportunity to submit offers in response to this solicitation.

M. Confidentiality of Proposals

Confidentiality of proposals is considered by GTrans an essential element of maintaining fairness during the evaluation process. However, confidentiality cannot be guaranteed under the California Public Records Act.

If a member of the public demands in writing to review portions of proposals which have been **marked** or **identified** as confidential, proprietary, or business secrets, GTrans will notify the affected Proposer prior to releasing such portions of the proposal. The Proposer shall take such legal actions as it deems necessary to protect its interests. If the Proposer has not commenced such actions within five (5) calendar days after receipt of the notice from GTrans of a demand to review such portions of its proposal and provided GTrans written notice of the actions, GTrans may make such portions available for review by the public as GTrans deemed necessary to comply with State law.

The Proposer asserting that portions of its proposal are legally protectable shall bear all costs of defending such assertion, including indemnifying and reimbursing GTrans for its administrative, expert and legal costs and judgments involved in defending itself in actions arising from such assertions by the Proposer. By submitting a proposal with portions marked confidential, proprietary, business secrets

or the like, the Proposer has thereby agreed to the provisions of this section, including the defense and reimbursement obligations.

N. Suspension and Debarment

Proposer shall certify by signature, that none of the Contractor, or its principals, as defined in 49 CFR 29.995 or affiliates, as defined at 49 CFR 29.905, are excluded, or disqualified as defined at 49 CFR 29.940 and 29.945.

Proposer shall also submit proof of non-debarment or suspension, by providing a printout or screenshot from the U.S. Government's official website www.sam.gov showing they are not debarred or suspended with their proposal package. If proposer is not currently registered as a vendor on www.sam.gov, then the proposer shall submit proof of application for registration with their proposal.

O. Licensing Requirements

In conformance with the current statutory requirements of Section 7028.15 of the Business and Professions Code of the State of California, regarding submission of a Proposal without a license, the Proposer shall provide as part of the Proposal the license number, class (or type), and date of expiration of the license.

Furthermore, the Proposer shall ensure that all subcontractors fully comply with the appropriate licensing requirements. The Proposer shall also certify that all information provided, and representations made in the Proposal are true and correct, and made under penalty of perjury. Proposers shall provide this information on form entitled "Designation of Subcontractors" presented in the RFP. Failure to provide the information on the certification form or elsewhere as part of the Proposal shall render the Proposer nonresponsive to this solicitation and will result in the rejection of the Proposal.

P. Contract Documents

Refer to Attachment F for contract documents.

Q. Contract Type

This shall be a firm fixed fee contract.

R. Progress Payments / Milestone Schedule

Payments shall be made based on the contractor meeting the agreed upon milestones to GTrans satisfaction and approval. Proposers shall submit a proposed payment milestone schedule with their proposal. In addition, please take note of the Prompt Payment Clause included in Attachment B – Federal Clauses page 12.

S. Modifications or Change Orders

Should GTrans at any time during the progress of said work request any alterations, deviations, additions or omissions from said specifications or other contract documents, it shall be at liberty to do so by written authorization to Contractor, and the same shall in no way affect or make void the Agreement. The value of such will be added to or deducted from the contract price, as the case may be, by a fair and reasonable valuation. No compensation shall be paid to the Contractor for additional services, which are not specifically approved by the GTrans in writing. The Contractor shall be liable for all costs resulting from, and/or for satisfactorily correcting, any specification changes not properly

ordered by written modification to the Contract and signed by the City of Gardena. Payment by City under this Agreement shall not be deemed a waiver of defects, even if such defects were known to GTrans at the time of payment.

The costs (labor rates, overhead, profit, materials, etc.) offered in the firm's proposal shall be used as a basis for any modifications or change orders. Refer to Attachment A, Special Provisions, SP-4 for other modifications terms.

T. Public Records Policy

Responses (proposals) to this Request for Proposal (RFP) and the documents constituting any agreement entered into thereafter become the exclusive property of GTrans and shall be subject to the California Public Records Act (Government Code Section 6250 et seq.). GTrans' use and disclosure of its records are governed by this Act.

Those elements in each proposal which Proposer considers to be trade secrets, as that term is defined in Civil Code Section 3426.1(d), or otherwise exempt by law from disclosure, should be prominently marked as "TRADE SECRET", "CONFIDENTIAL", or "PROPRIETARY" by Proposer. GTrans will use its best efforts to inform Proposer of any request for disclosure of any such document. GTrans shall not in any way be held liable or responsible for the disclosure of any such records including, without limitation, those so marked if disclosure is deemed to be required by law or by an order of the Court.

In the event of litigation concerning disclosure of information, the Proposer considers exempt from disclosure, GTrans will act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If GTrans is required to defend an action arising out of a Public Records Act request for any of the contents of a Proposer's proposal marked "Confidential", "Proprietary", or "Trade Secret", Proposer shall defend and indemnify GTrans from all liability, damages, costs, and expense, including attorneys' fees, in any action or proceeding arising under the Public Records Act.

To ensure confidentiality, Proposers are instructed to enclose all "Confidential", "Proprietary", or "Trade Secret" data in separate sealed envelopes, which are then included with the proposal documents. Because the proposal documents are available for review by any person after award of an agreement resulting from an RFP, GTrans shall not in any way be held responsible for disclosure of any "Confidential", "Proprietary", or "Trade Secret" documents that are <u>not</u> contained in envelopes and prominently marked.

U. Federal Clauses

Refer to Attachment B for applicable Federal clauses.

V. Interests of Members of, or Delegates to Congress

No members of, or delegates to, the Congress of the United States shall be admitted to any share or part of an agreement or to any benefit arising therefrom.

No member, officer, or employee of the public body or of a local public body during his tenure or for one year thereafter shall have any interest, direct or indirect, in this solicitation or the proceeds thereof.

W. Laws to be Observed

Each Proposer shall keep itself fully informed of all existing and future State and Federal laws, all

municipal and state regulations all such orders, decrees, ordinances and laws of bodies, or tribunals, including other municipalities or counties whether in the State of California, or another State, having any jurisdiction or authority over which in any manner affect those engaged or employed in the work, or the materials used in the work or in any way affect the conduct of the work.

Failure by Contractor to carry out these requirements is a material breach of agreement, which may result in the termination of this solicitation or contract or other such remedy as GTrans may deem appropriate.

X. Debris Removal Requirements

Refer to Attachments H, I, and K for the City's requirements regarding debris removal, waste removal, and recycling.

Y. Inspections Guide

Refer to Attachment J regarding the City's requirements for inspections.

Z. Bid Bond/Security

Proposals are to be accompanied by a bid bond in the form of a cash deposit, a certified or cashier's check, or a bidder's bond, made payable to the City of Gardena, in an amount not less than twenty (20) percent of the total bid submitted.

Bid bonds are to be delivered to GTrans' administrative office (attention to Dana Pynn) located at 13999 S. Western Ave Gardena, CA 90249 by no later than the proposal submission deadline. Proposers may submit their bid bonds via mail, or they may contact Rachel Yoo at ryoo@gardenabus.com or at (310) 965-8803 to make an appointment to submit the bid bonds in person. Failure to deliver the bid bond by the deadline may result in the proposal being deemed non-responsive.

AA. Faithful Performance and Payment Bond

The successful proposer will be required to furnish a faithful performance bond in the amount of 100 percent of the contract price, and a payment bond in the amount of 100 percent of the contract price, both in a form satisfactory to the City Attorney.

BB. Substitute of Securities

Pursuant to Public Contract Code Section 22300, the Contractor may, at Contractor's sole cost and expense, substitute securities equivalent to any monies withheld by the City to ensure performance under the contract unless applicable federal regulations or policies do not allow such substitution. Such security shall be deposited with the City, or a state or federally chartered bank as escrow agent, who shall pay such monies to the Contractor upon satisfactory completion of the Contract. The Contractor shall be the beneficial owner of any security substituted for monies withheld and shall receive any accrued interest thereon. Securities eligible for investment shall include those listed in Government Code Section 16430 or bank or savings and loan certificates of deposit. No such substitution shall be accepted until the escrow agreement, letter of credit, form of security and any other document related to said substitution is reviewed and found acceptable by the City Attorney.

CC.Compliance with California Labor Code

Proposers are advised that this Project is a public work for purposes of the California Labor Code, which requires payment of prevailing wages. Accordingly, the bidder awarded the Contract and all

subcontractors shall be required to pay not less than the prevailing rate of per diem wages, as determined by the Director of the California Department of Industrial Relations, and otherwise comply with the provisions of Section 1770 et seq. of the California Labor Code, California Code of Regulations, Title 8, Section 16000 et seq., and any other applicable laws, rules and regulations adopted with respect thereto ("California Prevailing Wage Laws"). Copies of such prevailing rates of per diem wages are on file at the Gardena City Clerk's office and the office of the City Engineer, and copies shall be made available to any interested party on request. The prevailing rates of per diem wages referred to herein are hereby made a part of this Notice by reference.

Attention is directed to the provisions of Sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by Contractor or any Subcontractor under it. Contractor and any Subcontractor under if shall comply with the requirements of said sections in the employment of apprentices.

The Contractor is prohibited from performing work on this project with a subcontractor who is ineligible to perform work on the project pursuant to Section 1777.1 or 1777.7 of the Labor Code.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement) in a format prescribed by the Labor Commissioner no less than monthly.

As of January 1, 2016, the requirement to furnish electronic certified payroll records to the Labor Commissioner will apply to all public works projects, whether new or ongoing.

Exceptions: The Labor Commissioner may (but is not required to) excuse contractors and subcontractors from furnishing electronic certified payroll records to the Labor Commissioner on a project that is under the jurisdiction of one of the four legacy DIR-approved labor compliance programs (Caltrans, City of Los Angeles, Los Angeles Unified School District, and County of Sacramento) or that is covered by a qualifying project labor agreement.

These requirements will apply to all public works projects that are subject to the prevailing wage requirements of the Labor Code without regard to funding source.

The State General Prevailing Wage Determination is as established by the California Department of Industrial Relations (available at http://www.dir.ca.gov/DLSR/PWD/index.htm).

Award of Contract: The following are conditions to the award of the contract:

Each contractor and subcontractor listed on the bid must be registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5. subject to the limited exceptions set forth in Labor Code Section 1771.1(a) (regarding the submission of a bid as authorized by Business & Professions Code Section 7029.1 or Public Contract Code Section 10164 or 20103.5 provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract was awarded): and

No contractor or subcontractor may be awarded this contract unless the contractor and each subcontractor listed on the bid is registered with the Department of Industrial Relations pursuant to Section 17265.5.

Proof of registration is required to be submitted with your proposal for the prime contractor and all proposed subcontractors.

DD. JOBSITE SAFETY PLAN

GTrans will require the successful proposer to provide its Jobsite Safety Plan for GTrans' approval prior to work beginning on site. The purpose of this Plan is to ensure that the successful proposer has a plan outlined to ensure the health and well-being of all workers, subcontractors and suppliers each and every day. The Jobsite Safety Plan should include, but not be limited to the following components:

1. Social Distancing Protocol Policy and Checklist (how to conduct meetings of workers onsite, etc.)
2. Daily Crew Assessment Policy and Checklist (daily health check of all workers on jobsite)
3. Supplier/Visitor Assessment Policy and Questionnaire
4. Zero Tolerance Policy for Working Sick
5. How to Manage Sick Workers
6. Jobsite Standards and Cleaning/Sanitation Protocols (i.e. hand washing stations, no sharing of tools, etc.)
7. Project Response Investigation Policy and Checklist (in the event a worker/individual exhibits symptoms consistent with COVID-19)
8. Sample Notice Form from Company's Human Resources Department (if an employee has a confirmed COVID-19 case)
9. Sample Notice to Communication to Employees and Key Stakeholders of Actions Taken Onsite (if an employee has a confirmed COVID-19 case)

SECTION II

SCOPE OF WORK

SCOPE OF WORK
SUMMARY

1. Background. The City is in the process of deploying a fleet of compressed natural gas (CNG) buses. To meet the needs of the CNG-bus fleet, the City is procuring the design and construction of a CNG Fueling Station and of Vehicle Maintenance Facility Upgrades needed to support the CNG-bus fleet.

2. Project Intent. The City intends to procure the services of one general contractor to provide the turnkey design-build work scope for both the CNG station and the maintenance-facility upgrades under a common contract. The scope of work for each of the two project elements are described further below, as well as in the accompanying technical specifications and preliminary design drawings.

3. Payment Milestone Schedule. Payments shall be made based on progress. Proposers shall submit a payment milestone schedule with their proposals based on achievement of significant milestones throughout the project.

SCOPE OF WORK
DESIGN-BUILD CNG FUELING STATION

1. Scope of Work. Contractor shall provide to the City a complete "turn-key" CNG vehicle refueling station located at GTrans Facility, 13999 S. Western Ave. Gardena, CA 90249. As this is a Design-Build project, the Contractor shall be required to design, obtain all required permits, construct, manufacture, procure equipment/material, install, and the vehicle refueling station to support the current CNG bus fleet and future growth. The gas supply from the Southern California Gas Company (SCGC) Meter Set Assembly (MSA) line will be installed by SCGC after the City has issued a Notice to Proceed (NTP) to the Contractor. All construction related activities relating to establishment of a house gas line [gas meter to CNG dryer flange] and downstream thereof shall be the responsibility of the Contractor.

It is currently anticipated that the City will issue a Notice to Proceed in November of 2020.

Note, during the procurement of the CNG facility design-and-build services, GTrans may request offers for an Operations and Maintenance contract option. If so, the request will come in the form of an addendum or separate solicitation. Proposers are not required to submit any related information at this time.

1.1 Project Goal. The CNG station shall be capable of fast fueling up to forty-eight (48) CNG buses on an average of fifty-five (55) Diesel Equivalent Gallons (DEG) per bus to 3,600 psi, temperature adjusted to seventy (70) degrees Fahrenheit in a five (5) hour period or shall provide the fueling capacity and functionality shown in the drawings and specifications, whichever is greater. Station shall have defueling capabilities.

It is the priority of GTrans to begin and complete the necessary maintenance facility modifications during the first phase of construction to meet operational needs. Therefore, the Contractor's schedule and efforts shall prioritize that part of the project work.

1.2 Design. The design of the CNG station shall be prepared as prescribed in the technical specifications and per notes on project drawing G-002.

2. Drawings and Specification Requirement. Contractor shall produce all detailed engineering drawings, as-built drawings, and specifications to permit and construct the facility in AUTO CAD 2018, REVIT 2018, or approved CAD software, and deliver (3) full-sized copies as well as on a Compact Disc (CDR) or USB flash drive.

The list below is a summary of the minimum required drawings that must be completed for the CNG facility, submitted, and approved by the City prior to permitting and construction. Also see drawing requirements in the technical specifications. A similar and separate set of drawings shall be prepared for the maintenance-facility modifications scope.

Drawing No. Drawing Title
1 CS Cover Sheet
2 C-1 Facility Site Plan

3 C-2 Site Plan – CNG Station, drier and storage system
4 M-1 Flow Schematic Diagram
5 M-2 Piping & Instrumentation Diagram
6 M-3 Piping and Equipment Plan
7 M-4 Piping Sections and Details Sheet 1 Compressor & Dryer
8 M-5 Piping Sections and Details Sheet 2 Storage and Dispensers
9 S-1 Foundation Plan and Details – Compressors/Vessels/Dryer
10 S-3 Foundation Plan and Details – Support equipment
11 E-1 Electrical Single Line Diagram & Panel Schedule
12 E-2 Electrical Plot Plan
13 E-3 Electrical Grounding Plan and Details
14 E-4 Electrical Controls Schematics
15 E-5 Electrical Details
16 SS-1 Safety Signs – Sheet 1
17 SS-2 Safety Signs – Sheet 2
18 FPGD-1 Fire Protection/Gas Detection System
19 FPGD-2 Fire Protection/Gas Detection System

3. Safety Requirements. Contractor shall submit the following to City at the time of final drawings and permits:

3.1 A complete drawing and specification package with dedicated safety drawings related to system safety signs and safety labels.

3.2 Checklist for testing safety equipment and alarms before startup.

3.3 A plan for CNG station and fueling systems startup and punch list.

3.4 Safety audit upon completion of the project.

3.5 Final walk through with and approval by the Los Angeles County Fire Department (LACFD) and California Title 8 officials at the completion of the project.

3.6 Permit to Construct and operate shall be posted at the site at all times during the contract.

3.7 Material Safety Data Sheets (MSDS) shall posted at the compressor compound and the fueling island and copies supplied to City.

4. Contractor Responsibilities. Contractor shall provide submittals of all detailed drawings, specifications, calculations, and all other related documents required for permit acquisition, scheduling permit inspections, and final sign-off of all applicable permits. Contractor shall also review and adhere to the design guidance and performance intent conveyed in the preliminary design-drawing package 'Attachment C' and addenda.

4.1 Contractor shall secure all permit approvals and present evidence to City and obtain

the new CNG station “Permit to operate.”

4.2 Contractor shall provide and install all CNG station components, sized to meet daily fueling requirements with redundant/backup compressor. Contractor to specify compressor size in conjunction with City requirements, compressors and related equipment enclosed in skid. Function and performance of the CNG equipment provided shall alternately meet the requirements indicated in the technical specifications and preliminary drawing package, whichever is greater.

4.3 Contractor shall coordinate with Southern California Edison (SCE) to install appropriate electrical power supply for a new, properly-sized transformer with metered main service board (MSB) and installation required to support the CNG station power load levels, as well as make back-feed connection to the existing main service board,which will be reconfigured as a distribution board, and as shown in the preliminary design drawings. GTrans shall be directly responsible for any necessary SCE equipment and utility costs. Therefore, proposers shall not include these costs in their proposal.

4.4 Contractor shall connect properly sized pipeline to SCGC natural gas supply line meter. Provide and install all piping to the compressor compound area, dryer, compressor and storage/cascade system. Connect storage system outlet to fueling dispensers feed line. Provide all trenching, backfill, and finish grade for all below grade piping installation. Provide and install all ancillary piping/tubing required.

4.5 Contractor shall coordinate with City to minimize disruptions to current bus fueling and operations. Bus fueling and operations shall not be impeded. Fueling occurs approximately between 4PM and midnight daily.

4.6 Contractor shall install gas detection monitors, and passive ventilators above each dispenser at the fuel island overhead canopy.

4.7 Contractor shall conduct operational tests to ensure the complete fueling station meets or exceeds City requirements.

4.8 Contractor shall install temporary barrier system around the CNG compound site perimeter during construction. Contractor shall install bollards and an eight-foot (8’) security fence around the station after construction, bollard, and fencing design and placement to be coordinated with GTrans during design.

4.9 Contractor’s design shall provide Internet based website access for City monitoring of the CNG station operating systems including dispenser operation.

4.10 Procure and fabricate new skidded components off-site for the complete fueling station. Perform all site preparation work prior to skid delivery to GTrans construction site.

4.11 Deliver skids and complete construction of the CNG fueling station, including paving and trenching/repair, safety signs, and a gas detection and alarm system.

4.12 Supply all electric power for the compressor drive electric motors and the entire CNG station from a new power source directly from SCE.

4.13 Conduct system performance testing and validate the entire system meets all mechanical, electrical, quality, and regulatory specifications. Verify CNG fuel delivery rate meets or exceeds minimum requirements.

4.14 Deliver to the bus, on spec CNG fuel at 10 DEG/minute at 3,600 psi (temperature compensated to 70 degrees F) simultaneously to each of the two (2) fast fill dispenser fueling nozzles for filling City buses or meet the function and performance indicated on the technical specifications and drawings, whichever is greater.

5. Environmental Requirements. All Environmental permitting and permits required by regulatory agencies and the City of Gardena for the CNG station project shall be contractor's responsibility. Contractor will comply with all applicable environmental regulations throughout the duration of the contract.

6. Startup and Debug/Performance Testing. Contractor shall utilize the approved City approved comprehensive plan for system startup and performance testing. The performance testing shall include number of tests CNG buses required for filling, specifications require a minimum of six (6) bus fills in one hour. The testing will encompass various system testing protocols, utility support, and vendor resources planned for the event. The CNG station shall operate for four consecutive operating days without leaking, system fault or other operating failure, as a condition of the work being declared as complete.

6.1 The Contractor will submit a plan to the City ten (10) working days prior to system start-up for review of both the start-up plan and the performance test plan.

6.2 Contractor will be allocated (10) calendar days in the schedule to have the system operational and complete the performance tests. Any equipment failures or safety incidents during this period will be the sole responsibility of the Contractor.

6.3 The City shall provide CNG buses to the fuel island for test filling purposes and will provide City personnel to connect the CNG fueling nozzles to the CNG buses only and only after training of City personnel has been completed.

6.4 Performance tests will be conducted in the following manner:

6.4.1 The fueling rate at the two (2) transit style dispensers must be tested Simultaneously through the filling of at least six buses, to verify that the dispensing-flow rate equals or exceeds the rate identified in the technical specifications.

6.4.2 The CNG fueling station must fill 6 buses per article 4.14 above under typical operating conditions for four (4) consecutive days without any operating problems, alarms, shutdowns, and/or deficiencies. A complete four (4) day retest is required if a failure occurs in the four (4) day test

period.

6.4.3 The gas detection and monitoring systems shall be tested using 20% and 50% LEL test gas at each sensor in the compressor compound area and at the fueling island dispenser area and provide gas detection system activation and shutdown. The LACFD shall approve this testing.

6.4.4 Each of the Emergency Shutdown Devices (ESD) must be tested independently to verify proper operation.

6.4.5 The backup power systems must be tested to verify the gas detection and emergency systems function properly in a power outage, including powering of any two compressors and all accessories except the gas dryer.

6.4.6 The noise and methyl mercaptan odor levels shall be tested to ensure they are within specifications.

6.4.7 The compressed gas in the filter coalescers and at the dispenser nozzle will be checked to verify water and lube oil levels are < = maximum levels.

6.4.8 Contractor shall provide dryer testing for water removal and regeneration to verify operating performance meets manufacturer specifications.

7. Training. Contractor's Training Plan program included in the submitted proposal shall be adopted and shall include the following:

7.1 Train local Fire officials on all aspects of CNG fueling, maintenance, emergency response, system deactivation and isolation, and safety equipment operation of the CNG station.

7.2 Train City personnel on safe and efficient use of CNG Station, including the mechanical, electrical, and safety equipment operation of the CNG station.

7.3 Turn over all manuals, as-built drawings, test documentation, and warranty documentation for components and the entire CNG-station project.

7.4 Contractor shall provide GTrans a syllabus of training courses, provide a training plan that accommodates multiple work shifts, an electronic version of the training plan to "train the trainer" for new hires, and an evacuation plan with maps.

SCOPE OF WORK
VEHICLE MAINTENANCE FACILTY UPGRADES

1. Scope of Work. The Contractor shall design, engineer, fabricate, permit, install, test and ensure a methane detection alarming system and components work seamlessly together. The methane detection system shall minimize the risk to City personnel and facilities in the event of a release of gaseous natural gas from within the Vehicle Maintenance Facility. Contractor shall also review and adhere to the design guidance and performance intent conveyed in the preliminary design-drawing package 'Attachment C' and addenda.

The systems shall meet all Uniform Fire Codes and Title 08, as interpreted by the City of Gardena Building and Safety Department, and Los Angeles County Fire Department. It is the Contractor's responsibility to determine all appropriate regulations. The major components, which are designed and manufactured per US codes and standards including appropriate stamps and labels, must be approved by the City of Gardena. All remaining construction activities must be performed by Contractors and subcontractors bonded and licensed
in the State of California. Contractor will be required to obtain a city of Gardena Business License.

2. System Design. The selection of components and layout shall be based on all Code parameters set in the California Fire Code chapter 23, NFPA 30A Motor Fuel Dispensing Facilities and Repair Garages and NFPA 52 Vehicular Fuel Systems Code. Contractor shall install and/or perform the following:

a. Methane detection system.
b. Verification of existing explosion proof exhaust fans and ducting.
Verification of existing forced-air ventilation system providing at least five (5) air changes per hour (ACH) continuously or when occupied, as required by the AHJs.
c. Uninterrupted Power Supply (UPS) or battery backup for gas detection and annunciation system.
d. Auto dialer or IP connectivity for emergency agency or owner notification.
e. Warning light and horn assemblies with interior/exterior green, amber and red units.
f. Point detection infrared gas monitor with transmitters.
g. Gas monitoring control panel and HMI.
h. Modification of routing, location and configuration of make-up air outlets to near-floor level per code. Includes verification of existing of air balance of new exhaust system.
i. Removal and replacement of existing tube heating system with CNG-listed radiant-heating system.

3.0 Contractor Provisions. Contractor shall provide the following:

3.1 Permitting. Secure all permit approvals and provide evidence to City of Gardena.

3.2 Preliminary Drawings. Submit all detailed drawings, specifications, calculations and all other related documents required for permit acquisitions, schedule permit inspections, and final sign-off of permits.

Drawings shall include a vehicle maintenance facility layout, methane detection zones, and air exchange

requirements as well as electrical schematic layout to operate service bay doors and audible alarm and lights for the methane Vehicle Maintenance Facility. The City shall approve all proposed systems before Contractor proceeds with detailed design and engineering. The plot plan and schematic shall include major components, grounding, heater locations, and LED strobe lights: exhaust vents with dampeners, equipment configuration and location, and emergency shutdown devices.

Codes and Standards. The drawings must be proven to provide early warning and or exceed California and Fire Codes for the repair and maintenance of CNG vehicles in an open garage. The system shall be designed in full compliance with the latest edition of the applicable sections of the following codes, standards, and guidelines. Where conflict exists, Contractor shall follow the most stringent or the direction of the Authority Having Jurisdiction (AHJ).

i. American National Standards Institute (ANSI)
ii. American Society of Testing Materials (ASTM)
iii. American Institute of Steel Construction (AISC)
iv. American Welding Society (AWS)
v. National Institute of Standards and Testing (NIST)
vi. California Code of Regulations (CCR)
vii. California Environmental Quality Act (CEQA)
viii. Uniform Building Code (UBC)
ix. Uniform Fire Code (UFC)
x. National Fire Protection Association (NFPA)
xi. National Electrical Code (NEC)
xii. National Electrical Manufacturers Associations (NEMA)
xiii. Underwriters Laboratory (UL)
xiv. Factory Mutual (FM)
xv. American Gas Association Natural Gas Vehicles (AGA-NGV)
xvi. Instrument Society of America (IAS)
xvii. State of California Department of Health and Safety – Title 8 Article 7

3.3 Safety Requirements. The complete set of drawings and specification package shall include dedicated safety drawings related to system safety signs and labels.

3.4 Emergency Evacuation Map. Contractor shall develop and provide an "Emergency Evacuation Map" that shall be posted in a minimum of four (4) locations within the Vehicle Maintenance Facility. Maps shall be printed and laminated onto durable material and placed on an aluminum panel, in a frame that has tempered glass to protect it from the Vehicle Maintenance Facility elements.

3.5 Final Drawings. All design and engineering calculations, drawings and specifications must be stamped and signed by Registered Engineers in the State of California with specialty knowledge appropriate for the work being approved. Contractor shall develop the final design documents, consisting of the vehicle maintenance facility layout, flow schematic, and schedule. Contractor shall provide final as build drawings at the completion of the project to be provided to the City in the forms as listed:

a. AUTO CAD 2019 or REVIT 2019
b. BOUND HARD COPY (24x36 and 11x17 white sheets)
c. COMPACT DISC or USB flash drive with label
d. ADOBE ACROBAT format on electronic media

The Drawings Package shall contain the following:

Drawing No. Drawing Title
1 CS Cover Sheet
2 C-1 Facility Site Plan
3 E-1 Electrical System
4 E-2 Electrical Plan
5 E-3 Electrical Grounding Plan and Details
6 E-4 Electrical Controls Schematics
7 E-5 Electrical Details
8 SS-1 Safety Signs
9 FPGD -1 Fire Protection/Gas Detection System
10 Heating Upgrade Plans and Details
11 Ventilation and Duct Modifications and Details
12 Schedules, Supporting Ventilation Calculations and Sequence or Operation

3.6 Equipment. Contractor shall acquire, fabricate, and install all methane detection systems and components for the complete system integration.

3.7 Electrical. Contractor shall identify electrical panels that will be utilized and shall determine the electrical power requirements, including voltage and amperage and meters from Southern California Edison (SCE). Contractor shall refer to vehicle maintenance facility drawings as well as physically checking and inspecting electrical outlets.

3.8 Installation. Contractor shall coordinate with the City to minimize disruption to the daily operations of the Vehicle Maintenance Facility. Contractor shall be responsible and accountable for the complete construction of the Vehicle Maintenance Facility modifications, including associated electrical systems, grounding, safety signs, and a gas detection and alarm system with remote monitoring enunciator panel. Contractor shall perform the following:

3.8.1 Installation of methane detection monitors in all service bays and parts warehouse.

3.8.2. Replacement of existing space heaters mounted above all service bays located in the Vehicle Maintenance Facility. Contractor shall use the most efficient inferred heating system in the available market that will provide the same heating levels as the incumbent.

3.9 Performance Testing. Contractor shall conduct system performance testing to confirm the system meets all mechanical and electrical performance as designed in detection of CNG activating necessary early warning systems for the safety of all staff within effected safety zone. Contractor shall utilize a checklist sheet(s) for testing safety equipment and shall be provide copy

of all test sheets to the City at final acceptance by the City. Contractor shall include the City in the safety audit upon completion of the installation. Test results shall meet or exceed the performance specifications criteria.

3.10 Training. Contractor shall train City staff and local Fire Department on all aspects of mechanical, electrical, emergency response, system deactivation and isolation, and safety equipment operation of the methane detection system.

3.11 Manuals. Contractor shall provide the following:
a. A detailed user training program manuals on Compact Disc and Adobe Acrobat.
b. Three (3) 8” x 11” bound photocopies of “Operations and Maintenance” manuals containing methane detection system, components/parts and include operating procedures and vendor/manufacture information.

3.12 Turn over all manuals, as-built drawings, test documentation, and warranty documentation for components and the entire facility-modification project.

SECTION III

PROPOSAL CONTENT

A. GENERAL

Proposals shall be typed and submitted on 8 1/2" x 11" size paper. Proposals should not include any unnecessarily elaborate or promotional or marketing material.

This section allows proposers to update and modify previously submitted information from the Request for Qualifications (RFQual 2020-02). Proposers shall clearly highlight any updated or modified information.

B. PROPOSAL CONTENTS

Each proposal shall contain the following and be submitted with the following sections.

Section 1 - Transmittal Letter Form

Submit complete form with signature stating offer is to remain valid for a period of no less than 120 days from the date of submittal.

Section 2 – Statement of Qualifications (Limit to No More Than 10 Pages)

Proposal shall include a comprehensive statement of firm qualifications describing all related qualifications and experience. If multiple firms are proposed, information for all firms should be submitted.

Proposer shall provide references of the three largest design-build transportation projects performed within the last ten years. The design-build projects may be public or private and located anywhere in the United States. Names and references must be current and verifiable. It is the sole responsibility of the proposer to provide accurate contact information in order to ensure references can be validated.

Section 3 – Work Plan and Management Approach

Include a narrative description of the proposer's management and organizational approach for accomplishing the design-build project and meeting all requirements in the scope of work. The narrative description should describe the methodology for integrating the Design-Build Entity and the different areas of expertise within the team into an efficient and effective organization. The management approach must reflect an understanding of the use of the design-build project delivery methodology for transportation projects. The narrative description shall also provide a brief description of the significant functional relationships among participants outlined in its organizational chart(s) and how the proposed organization will function as an integrated Design-Build Entity.

The organizational chart(s) for the Design-Build Entity showing the flow of the "chain of command" with lines identifying participants who are responsible for performing the major functions to be performed, and their reporting relationships, in managing, designing and constructing the project. The chart(s) must show the functional structure of the organization down to the design discipline or construction superintendent level.

The chart(s) shall identify all of the members of the Design-Build Entity and identify the project management, project administration, construction management, quality assurance and quality control, safety, environmental compliance, subcontractors, and administration.

Include resumes of and reference information for **only** the Key Personnel that shall be assigned to work under this contract.

Describe previous major contracts or projects worked together with named subcontractors over the last ten (10) years.

Include the Jobsite Safety Plan as outlined in Section I (DD).

Provide two (2) separate, proposed schedules showing key milestones for each sub scope (Design-Build CNG Fueling Facility and Design-Build Vehicle Maintenance Facility Upgrade). The schedule shall be based from the date of Notice to Proceed and be shown in calendar days. The final schedules shall be approved by GTrans between the time of contract award and the issuance of the Notice to Proceed. The two schedules shall be submitted separately in two separate files and labeled accordingly. Proposers shall refer to Attachment C, Sheet G-002, note #6 for more detail on schedule components.

Proposers shall include submittal schedules and list of long-lead items. Note GTrans shall only process and approve invoices for equipment that has already been received at the GTrans facility.

Finally, describe any competing projects that would take place during or around the time that GTrans' project would also take place. Furthermore, describe the proposer's plan to ensure resources would be allocated and managed to sufficiently complete GTrans' project on time and within the proposed contractual amount.

Section 4 - Required Forms and Documentation

Proposer shall include all required forms per Form A Proposal Submittal Checklist. Failure to submit complete or incorrect forms may result in proposals being deemed non-responsive.

Section 5 - Cost Proposal

Proposer shall submit a cost proposal by only utilizing the cost Excel template provided, refer to Attachment G. There are four tabs that shall be completed with the entries required in highlighted yellow boxes. Note, in each section there are additional lines for any additional proposed costs. If necessary, proposers are allowed to add **a single page** explanation of costs to supplement their cost proposal and/or to clarify any costs.

In addition, the cost proposal shall be provided in two formats: 1) an excel version with fields unlocked for ease of analysis and 2) a signed PDF version. These two cost proposal formats shall be uploaded and submitted as separate documents, separate from the technical proposal.

GTrans reserves the right to deem any proposals that do not follow any of the above instructions as non-responsive.

SECTION IV

EVALUATION AND AWARD

A. EVALUATION CRITERIA

Only the proposals deemed as responsive shall proceed to the next steps of being evaluated and ranked.

The evaluation committee reserves the right to contact and evaluate the Firm's references; contact any Firm to clarify any response; contact any current clients of a Firm; solicit information from any available source deemed pertinent to the evaluation process.

GTrans may request additional information while reviewing proposals and may conduct interviews and negotiations.

GTrans shall ultimately select a proposal that is most advantageous to the City.

The following selection criteria shall be used in determining the highest ranked Proposer:

Experience and Qualification of the Firm – 35%

A. Company size, over-all capabilities, project controls, history, and related project information.
B. Technical skills, experience, and resources to undertake a project of this size and complexity.
C. Demonstrated success and timely completion of past projects.
D. Financial responsibility.

Work Plan / Project Approach – 35%

E. Quality of work plan and methodology of meeting the requirements of the Scope of Work.
F. Ability to meet proposed project schedule.
G. Flexibility and availability of firm and its resources during and around the contract start date and for the duration of the contract.
H. Training and Maintenance plan for GTrans employees.
I. Safety record.
J. Project Manager's expertise related to the requirements of the Scope of Work to manage the proposed team and the project.
K. Project team's overall skills, experience, and knowledge.
L. Experience of team collaboration on previous projects and on development, design/build, and operation projects similar in scope and performance to this project.
M. Related experience of staffing and in-house or subcontractor resources.

Costs – 30%

N. Total costs comprised of the overall cost of the base contract.

B. REJECTION OF PROPOSALS

In its discretion, GTrans reserves the right to:

Reject any and/or all proposals for no reason or any reason including but not limited to the following:

The proposal is incomplete, non-responsive, obscure, irregular or lacking necessary detail and specificity.

The offeror, in the sole judgment of GTrans, lacks the qualifications, experience, and/or responsibility necessary to provide the services.

The offeror failed or neglected to complete and submit any information within the time specified by GTrans, and as may be otherwise required herein.

Reject any proposal that, in the opinion of The City is so unbalanced in comparison to other proposals received and/or to GTrans' internal estimates that it does not accurately reflect the cost to perform.

Accept all or any part of a proposal.

Cancel the entire RFP.

Issue subsequent RFPs.

Waive any errors or informalities in any proposal, to the extent permitted by law.

Award to one or more offerors in part or whole or award to none.

C. RESPONSIBILITY

GTrans shall only accept the responsive and responsible offer which is in compliance with the requirements of this RFP. The responsiveness and responsibility of the offeror shall be evaluated by GTrans after bid opening.

The successful offeror will be deemed to be a responsible contractor possessing the ability, willingness, and integrity to perform successfully under the terms and conditions of the contract. The prospective contractor is to demonstrate affirmatively to GTrans that it qualifies as "responsible" and that its proposed subcontractors also qualify as "responsible." Factors of responsibility determinations include:

Integrity and Ethics - Has a satisfactory record of integrity and business ethics, in compliance with 49 U.S.C. Section 5325(j)(2)(A).

Debarment and Suspension - Is neither debarred nor suspended from Federal programs under U.S. Department of Transportation (DOT) regulations, "Nonprocurement Suspension and Debarment," 2 CFR Parts 180 and 1200, or under the FAR at 48 CFR Chapter 1, Part 9.4.

Affirmative Action and DBE - Is in compliance with the Common Grant Rules' affirmative action and DOT's Disadvantaged Business Enterprise requirements.

Public Policy - Is in compliance with the public policies of the Federal Government, as required by 49 U.S.C. Section 5325(j)(2)(B).

Administrative and Technical Capacity - Has the necessary organization, experience, accounting, and operational controls, and technical skills, or the ability to obtain them, in compliance with 49 U.S.C. Section 5325(j)(2)(D).

Licensing and Taxes - Is in compliance with applicable licensing and tax laws and regulations.

Financial Resources - Has, or can obtain, sufficient financial resources to perform the contract, as required by 49 U.S.C. Section 5325(j)(2)(D).

Production Capability - Has, or can obtain, the necessary production, construction, and technical equipment and facilities.

Timeliness - Is able to comply with the required delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments.

Performance Record - Is able to provide a satisfactory current and past performance record.

No agreement shall exist until the City Council or City Manager has awarded the Agreement and it has been mutually executed. The City reserves the right to reject any and all bids for any reasons, to waive

any informality or minor errors as determined by The City in any Bid and to award the Agreement as the interest of The City may require.

D. CONTRACT AWARD

Contract award shall be made to the firm offering a proposal that is most advantageous to the City and with whom GTrans is able to reach an agreement.

GTrans shall notify the successful Proposer by a contract award letter. Contract award will be contingent upon receipt of evidence of the Contractor's ability to meet the insurance requirements, other requirements in this proposal, and City Council authorization.

E. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) CLAUSES

The preceding provisions include, in part, certain Standard Terms and Conditions required by Department of Transportation (DOT), whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Request for Proposals. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any GTrans requests which would cause GTrans to be in violation of the FTA terms and conditions.

F. DISADVANTAGED BUSINESS ENTERPRISE

This procurement is a Federal Transit Administration (FTA) funded project and therefore Proposers are hereby bound by all applicable federal, state, and local laws and regulations, and certifications. In accordance with the Civil Rights Act of 1964 and Title 49, Part 26 of the Code of Federal Regulations (49 CFR 26), Proposers are hereby notified that Disadvantaged Business Enterprises (DBEs) and Small Business Enterprises (SBE) are encouraged to submit Proposals and will be afforded full opportunity to submit and participate in this request. Prime contractors should exert best efforts to subcontract work to DBEs and SBEs as part of their Proposal. Proposals received after the date and time specified above shall be rejected by GTrans as non-responsive.

GTrans' annual overall goal for DBE participation for Fiscal Year 2019-21 is 7.0%. A specific DBE participation goal has not been established for this contract. However, DBE and SBE prime contractors and DBE and SBE subcontractors are STRONGLY ENCOURAGED to compete for this contract, which will be awarded fairly, without discrimination on the basis of race, color, sex, or national origin.

G. OTHER GENERAL TERMS AND CONDITIONS

Issuance of the Request for Proposal does not commit GTrans to award an agreement to pay any cost incurred in the preparation of the firm's RFP response or to procure or contract for services or supplies. GTrans reserves the right to accept or reject any or all RFP responses received as a result of this request, to negotiate with all qualified sources or to cancel all or part of this RFP.

Submission of a proposal means that those firms submitting proposals hereby agrees to all terms and conditions set forth in all the pages of this solicitation.

1. Award: The firms/entities chosen to provide services to Design and Build a CNG Fueling Station may be required to participate in negotiations and to submit such revisions of their proposals as may result from negotiations. GTrans reserves the right to award a

contract/select a service provider without discussion based upon the initial proposals received, without interviews. GTrans reserves the right to introduce additional terms and conditions at the time the final contract is negotiated. Any additional terms or conditions would be limited to ones having the effect of clarifying the RFP language and/or correcting defects, such as omissions or misstatements, which are discovered after the RFP is issued.

2. Insurance: Those firms proposing are required to furnish evidence of insurance coverage. The form of the insurance policy is subject to approval by GTrans and must be provided by insurers to transact insurance business in California with a rating of "A" or better in the Best's Key Rating Guide, Property-Casualty, United States, 2000 Edition.

GTrans shall be furnished a copy of the policy and an endorsement that the "GTrans, its officers, employees, and agents are named as additional insureds" prior to Contractor commencing duties under this Request for Proposals. Said policy of liability insurance shall provide GTrans, "coverage thereunder as applied to GTrans, its officers, employees, and agents shall be primary and non-contributing as to any other insurance and self-insurance as may be maintained by GTrans." The policy shall contain severability of interest, specifying that the coverage afforded by the policy applies separately to each insured thereunder. The policy shall be endorsed to expressly provide GTrans with thirty (30) calendar days' advance written notice of cancellation, non-renewal or material change in coverage.

3. Business License: Shall be required to obtain and maintain a current business license from the place of operation.

4. Professional Licensing: The Contractor and any sub proposers shall possess any necessary license(s) relative to the work to be performed required by an appropriate licensing authority of the State of California and shall provide evidence of such to GTrans with their proposal or prior to commencement of the work in such form as GTrans shall require.

5. Assignment/Sub-contracting: The selected Contractor shall not assign or subcontract services or responsibilities without the prior written consent of GTrans. GTrans acknowledges that subcontracting can be in GTrans' best interest but reserves the right of final approval.

6. Solicitation & Withdrawal: GTrans reserves the right to withdraw this solicitation for a proposal at any time without prior notice. Further, GTrans makes no representations that any agreement will be awarded to any firm submitting a proposal.

7. Right of Rejection: GTrans reserves the right to reject any and all proposals submitted in response to this request and to reject any Sub-Proposers specified in any proposal pursuant to this RFP.

8. Pre-Contractual Expenses: GTrans shall not be liable or responsible for any pre-contract expenses incurred by a proposed or selected Contractor. Those proposing shall not include any expenses as part of the price proposed set forth in its proposal. Pre-contract expenses are defined as expenses incurred by those proposing in:

a. Preparing the proposal;

b. Submitting proposal to GTrans;

c. Negotiating with GTrans or any matter related to proposal; or

d. Any other expenses incurred by those proposing prior to date award.

9. Verbal Agreements: No prior, current, or post-award verbal agreement(s) with any officer, agent, or employee of GTrans shall affect, modify, or supersede any terms or modifications of this Request for Proposal or any written agreement or option resulting from this process.

10. Addenda: Any changes to the proposal requirements will be made by written addendum. All parts of the Request for Proposal including any and all addenda and any other supporting documents that may be included as part of the solicitation, shall be considered part of the agreement between GTrans and selected Contractor and shall be incorporated therein.

11. Irregularities: GTrans reserves the right to waive any minor irregularities, informalities or oversights in the RFP documents, or any corresponding proposals at its sole discretion. The term "minor" as used herein means any Proposer or GTrans irregularity, or oversight that does not materially affect or alter the intent and purpose of this RFP which is not in violation of any State of California or Federal Government rules, laws and regulations that may apply to this procurement.

12. Single Proposal: If only one proposal is received in response to the Proposal, GTrans will review the proposal to determine whether or not the Proposer is both responsive and responsible. A detailed cost proposal is required of the single proposer. A cost and price analysis, evaluation will be conducted and an audit may be performed on the cost proposal in order to determine if the price is fair and reasonable.

H. PROTEST PROCEDURES

City of Gardena Ordinance No. 1493 specifies the policies and procedures to be used to ensure that all purchases, contracts, and services are obtained through fair and open competition. The Purchasing Officer has the authority and the responsibility to ensure that all procurement is in compliance with this policy. The Purchasing Officer shall also ensure that all prospective Proposers are informed of the procedures to file a "Proposal Protest".

Should any individual, organization or group believe that these policies have been violated they may make an appeal in writing to the Purchasing Officer who is obligated to investigate the protest and provide an official response to the protest.

Protests shall be submitted within ten (10) working days of notification that a proposal has been awarded. All protests shall state specifically:

1. The Proposal title, opening or award date, purchase order or other identifying data;

2. The specific policy that is alleged to have been violated;

3. The adverse effect alleged to have resulted from the policy violations;

4. The corrective action being sought as a remedy.

The Purchasing Officer will respond in writing to the protester no later than ten (10) working days from receipt of the protest. The response shall include:

1. Review of the policy as applied in the transaction being questioned.

2. Response to each material issue raised in the protest.

3. Statement of whether a violation has indeed occurred.
4. Corrective action to be taken if any is warranted.

A copy of the complaint and the response will be forwarded to the City Manager for review prior to submittal to the protester. According to City policies, the decision of the Purchasing Officer is appealable to the City Manager. If no appeal has been received in the office of the City Manager, the decision of the Purchasing Officer shall be considered final on the fifth working day following the date of notification to the protester. Should an appeal be received by the City Manager, a response will be provided to the protester within five (5) working days and shall be considered final.

Whenever possible, the award of procurement will not be made final until all Proposal protests have been satisfactorily resolved. Final award will not be made until five (5) days after notification of protest decision has been provided to the protesting parties. The City does reserve the right to proceed with the award pending the resolution of the proposal protest when it is determined that:

1. The items to be procured are urgently required;
2. Deliver or performance will be unduly delayed by failure to make the award promptly; or
3. Failure to make prompt award will otherwise cause undue harm to the City or funding agent.

When federal or state funding is involved, these procedures will be followed and will be supplemented by the regulations of the funding source. Should there be a conflict in the funding regulations and those set forth herein by the City, the more restrictive procedure shall take precedence.

Proposal protests are to be directed in writing to:

City of Gardena – GTrans
Attn: Purchasing Officer
Proposal Protest for – RFP No. 2020-05 DESIGN AND BUILD OF A CNG FUELING STATION
13999 S. Western Avenue
Gardena, CA 90249

Formal Protests shall clearly state the following on the *outside* of the envelope:

PROPOSAL PROTEST FOR – RFP No. 2020-05 DESIGN AND BUILD OF A CNG FUELING STATION

SECTION V

REQUIRED FORMS

FORM A
PROPOSAL SUBMISSION CHECKLIST

This checklist shall be completed and returned with your proposal. Failure to return this checklist and the required documents may be cause for considering the proposal non-responsive.

	DESCRIPTION	REQUIRED FORMS REFERENCE LETTER	PROPOSER'S INITIALS
1.	Proposal Submission Checklist (This Form)	FORM A	
2.	Transmittal Letter Form	FORM B	
3.	Business Questionnaire	FORM C	
4.	Addendum Acknowledgement	FORM D	
5.	Designation of Subcontractors	FORM E	
6.	Affidavit of Non-Collusion	FORM F	
7.	Conflicts of Interest Statement	FORM G	
8.	Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion	FORM H	
9.	Certification of Restrictions on Lobbying	FORM I	
10.	Proof of Non-Debarment or Suspension (SAM.gov)	FORM J	
11.	Proof of Registration with the DIR	FORM K	
12.	Proof of Required Licenses	FORM L	
13.	Buy America Certification	FORM M	
14.	Evidence of Insurance	FORM N	
15.	Bid Bond	FORM O	
16.	Iran Contracting Act Certification	FORM P	
17.	Payment Milestone Schedule	FORM Q	
18.	Cost Proposal (refer to instructions)	ATTACHMENT G	

FORM A Continued
PROPOSAL SUBMISSION CHECKLIST

Company Name:	
Name of Proposer initialing document (print):	
Email address of Company Contact:	
Signature:	
Title:	
Date:	

FORM B
TRANSMITTAL LETTER FORM

City of Gardena GTrans
Dana Pynn, Transit Administrative Officer
13999 S. Western Ave.
Gardena, CA 90249

1. Proposer acknowledges receipt of RFP 2020-05 and Addenda No. (s) _____

2. Proposer acknowledges its familiarity with requirements defined in Scope of Services.

3. This offer shall remain firm for_____days from the RFP close date.
(minimum 120)

Company Name: _____

Address: _____

_____

Telephone: _____

Print Name/Title: _____

E-mail: _____

Date Signed: _____

Signature: _____

FORM C
BUSINESS QUESTIONNAIRE

1. Name of Proposed Contractor ("Business", herein): _____

_____

Doing Business As: _____
Other business name, if applicable)

EIN#_____

2. Business Mailing Address: _____
Street Address

_____
City State Zip Code

3. Business Telephone Number: ( )_____Fax Number: ( ) _____

E-mail address:

_____

4. Business Type: ☐ Individual ☐ Corporation ☐ Partnership ☐ Joint Venture

5. Number of Years in Business: _____

6. Annual Gross Revenue: (M represents Millions)

☐ $1M or less ☐ $1M-$5M ☐ $5M-$10M ☐ $10M-$16M ☐ $16M or Over

7. Number of Employees:

☐ Less than 50 ☐ 50-100* ☐ 101-750 ☐ 751-1,000 ☐ 1,001 or over

8. Is Business Owned by Minority Ethnicity? ☐ Yes ☐ No

9. Ethnic Group: ☐ African American ☐ Hispanic American ☐ Native American
☐ Asian Pacific American ☐ Subcontinent Asian American ☐ Caucasian
☐ Other (Please Specify) _____

10. Female Owned Business? ☐ Male Owned Business? ☐

11. Type of Work Performed: ☐ Construction ☐ Wholesale/Distributor ☐ Manufacturing
☐ Professional Service ☐ General/Technical Service ☐ Retail

12. Please provide a brief description of your materials and/or services:

_____

_____

_____

13. Is the Business a subsidiary of another entity? ☐ Yes ☐ No

14. Has the Business, or any officer or partner thereof, failed to complete a contract? ☐Yes ☐ No

15. Is any litigation pending against the Business? ☐ Yes ☐ No

16. Has the Business ever been declared a "not responsible" vendor by a public agency? ☐ Yes ☐ No

17. Has the Business been debarred, suspended, proposed for debarment, declared ineligible, voluntarily excluded, or otherwise disqualified from bidding, proposing, or contracting? ☐ Yes ☐ No

FORM C Continued
BUSINESS QUESTIONNAIRE

18. Has the Business been a defaulter, as principal, surety or otherwise? ☐ Yes ☐ No

19. Has the government or other public entity requested or required enforcement of any of its rights under a surety agreement on the basis of a default or in lieu of declaring the Business in default? ☐ Yes ☐ No

20. Is the Business in arrears upon a contract or debt? ☐ Yes ☐ No

21. Are there any proceedings pending relating to the Business' responsibility, debarment, suspension, voluntary exclusion or qualification to receive a public contract? ☐ Yes ☐ No

22. Have liquidated damages or penalty provisions been assessed against the Business for failure to complete the work on time or for any other reason? ☐ Yes ☐ No

23. If a "yes" response is given under questions 15 through 22, please provide a detailed explanation including dates, references to contract information, contacts, etc. (attach additional pages as necessary). GTrans reserves the right to inquire further with respect thereto.

24. Name of principal financial institution for financial responsibility reference.

Name of Bank:_____

Address:_____

City and State:_____

Officer familiar with proposers account:_____

Federal Taxpayer I.D. number:_____

25. Please check all classifications that apply to your business:

☐ DBE ☐ WBE ☐ MBE ☐ SBE ☐ SBRA ☐ LSAF

I, individually and on behalf of the business named above, do by my signature below certify that the information provided in this questionnaire is true and correct. I understand that if the information provided herein contains any false statements or any misrepresentations: 1) GTrans will have the grounds to terminate any or all contracts which GTrans has or may have with the business; 2) GTrans may disqualify the business named above from consideration for contracts and may remove the business from GTrans' proposers list; or/and 3) GTrans may have grounds for initiating legal action under federal, state or local law.

Note: This questionnaire is also a certification form; the information requested will be used to determine small business status as per 13 CFR Part 121. Additionally, this information will allow GTrans to report the amount of subcontracting activity with all businesses that offer the commodities and services used by GTrans.

Printed Name:_____ Title_____

Signature of Owner:_____ Date:_____

(Owner, CEO, President, Majority Stockholder or Designated Representative)

FORM D
ADDENDUM ACKNOWLEDGEMENT

Proposer acknowledges receipt of the following addenda which are attached to the Proposal:

Addendum No. _____ Date_____
Addendum No. _____ Date_____
Addendum No. _____ Date _____

Failure to acknowledge the receipt of all addenda may cause the Proposal to be considered non-responsive.

If Proposer is a corporation, state the legal name of the corporation and the name(s) of person(s) authorized to sign Proposals; if a partnership, state true name of firm and the names of all individual partners; if an individual, state name in full.

_____

_____

_____

_____

_____

Date:_____, 20____

Company: _____

Signed: _____

Name: _____

Title: _____

Telephone: _____

FORM E
DESIGNATION OF SUBCONTRACTORS

Propose shall provide the names and business addresses of each subcontractor who will perform work under the contract.

Attach additional copies of this form if more space is needed.

Company Name and Address / Contact Name and Phone No.	DBE (Included in CUCP List) (Yes / No)	Small Business Enterprise (Yes / No)	Description of Work/Services	Estimated Dollar Amount

FORM F
AFFIDAVIT OF NON-COLLUSION

Submit this form with the Price Proposal, failure to do so is grounds for disqualification.

I hereby swear (or affirm) under penalty of perjury that:

1. I am the Proposer (if the Proposer is an individual), a partner in the proposal (if the Proposer is a partnership), or an officer or employee of the proposing corporation and have authority to sign on its behalf (if the Proposer is a corporation);
2. The Proposer has independently produced the attached proposal(s) without collusion, agreement, understanding or planned common course of action, with any other source, that would limit independent proposing competition;
3. The contents of the proposal(s) have not been communicated by the Proposer and or its employees and or agents to any person not an employee and or agent of the Proposer or its surety, on any bond furnished with the proposal, and will not be communicated to any such person prior to the official opening of the proposal, and
4. I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Proposer's Company Name _____

Legal Structure (corp./partner/proprietor) _____

Principal Office Address _____

City, ST, Zip _____

Phone Number _____

Fax Number _____

E-Mail _____

Federal Employer Identification Number _____

Title of Person Authorized to Sign _____

Print Name of Person Authorized to Sign _____

Authorized Signature and Date _____

FORM G
CONFLICTS OF INTEREST STATEMENT

Proposers shall provide a list of all entities with which it has relationships that create, or would appear to create, a conflict of interest with the work that is contemplated by this project. The list should indicate the name of the entity, the relationship to the Proposer, and a discussion of the conflict.

Name of Entity: _____

Relationship to Proposer: _____

Conflict: _____

Name of Entity: _____

Relationship to Proposer: _____

Conflict: _____

Name of Entity: _____

Relationship to Proposer: _____

Conflict: _____

OR

I,_____, hereby certify that
Authorized Official

_____has no known relationships that
Company

create or would appear to create a conflict of interest with the work that is contemplated by this project.

Executed this_____ day of_____, 20_____

By_____
(Signature of Authorized Official

FORM H
CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

Instructions for Certification: By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out below.

1. It will comply and facilitate compliance with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 CFR part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 CFR part 180,

2. To the best of its knowledge and belief, that its Principals and Subrecipients at the first tier:

   a. Are eligible to participate in covered transactions of any Federal department or agency and are not presently:

      1. Debarred
      2. Suspended
      3. Proposed for debarment
      4. Declared ineligible
      5. Voluntarily excluded
      6. Disqualified

   b. Its management has not within a three-year period preceding its latest application or proposal been convicted of or had a civil judgment rendered against any of themfor:

      1. Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction, or contract under a public transaction,
      2. Violation of any Federal or State antitrust statute, or
      3. Proposed for debarment commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making any false statement, or receiving stolen property

   c. It is not presently indicted for, or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses listed in the preceding subsection 2.b of this Certification,

   d. It has not had one or more public transactions (Federal, State, or local) terminated for cause or default within a three-year period preceding this Certification,

   e. If, at a later time, it receives any information that contradicts the statements of subsections 2.a – 2.d above, it will promptly provide that information to FTA,

   f. It will treat each lower tier contract or lower tier subcontract under its Project as a covered lower tier contract for purposes of 2 CFR part 1200 and 2 CFR part 180 ifit:

      1. Equals or exceeds $25,000,
      2. Is for audit services, or
      3. Requires the consent of a Federal official,and

   g. It will require that each covered lower tier contractor and subcontractor:

      1. Comply and facilitate compliance with the Federal requirements of 2 CFR parts 180 and 1200, and
      2. Assure that each lower tier participant in its Project is not presently declared by any Federal department or agency to be:
         a. Debarred from participation in its federally funded Project,
         b. Suspended from participation in its federally funded Project,
         c. Proposed for debarment from participation in its federally fundedProject,
         d. Declared ineligible to participate in its federally fundedProject,
         e. Voluntarily excluded from participation in its federally funded Project, or
         f. Disqualified from participation in its federally funded Project,and

3. It will provide a written explanation as indicated on a page attached in FTA's TrAMS•Web or the Signature Page if it or any of its principals, including any of its first tier Subrecipients or its Third Party Participants at a lower tier, is unable to certify compliance with the preceding statements in this Certification Group.

Certification

Contractor:	*Name Contractor's Authorized Official:*	*Date:*
Signature of Authorized Official:	*Title of Contractor's Authorized Official:*	
Signature of notary and SEAL:		

FORM I
CERTIFICATION OF RESTRICTIONS ON LOBBYING

I,_____hereby certify (Name and title of official)

On behalf of_____that: (Name of Bidder/Company Name)

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, "Disclosure Form to Report Lobbying," in accordance with itsinstructions.

The undersigned shall require that the language of this certification be included in the award documents for all sub•awards at all tiers (including sub•contracts, sub•grants and contracts under grants, loans, and cooperative agreements) and that all sub•recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure

The undersigned certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification and understands that the provisions of 31 U.S.C. Section 3801, et seq., are applicable thereto.

Certification

Name ofBidder/Company Name:
Type or printname:
Signature of authorized representative:
Date:
Signature of notary and SEAL:

FORM J
PROOF OF NON-DEBARMENT OR SUSPENSION
(*THIS IS A SAMPLE ONLY)

WWW. SAM.GOV

SAM Search Results
List of records matching your search for :

Search Term : new* flyer*
Record Status: Active

SAMPLE

ENTITY	New Flyer of America Inc.	Status: Active
DUNS: 621887959	+4:	CAGE Code: 3MCK9 DoDAAC:
Expiration Date: Apr 30, 2019	Has Active Exclusion?: No	Debt Subject to Offset?: No
Address: 6200 Glenn Carlson Dr City: Saint Cloud ZIP Code: 56301-8852		State/Province: MINNESOTA Country: UNITED STATES

FORM K
PROOF OF REGISTRATION WITH THE DIR

Submit proof of registration with the DIR as the prime contractor and all proposed subcontractors.

FORM L
PROOF OF REQUIRED LICENSES

Submit proof of all valid licenses required to perform this contract.

FORM M
BUY AMERICA CERTIFICATION STEEL OR MANUFACTURED PRODUCTS

General Requirement (as stated in 49 CFR 661.5)

a. Except as provided in 49 CFR 661.7 and 49 CFR 661.11, no funds may be obligated by FTA for a grantee project unless all iron, steel, and manufactured products used in the project are produced in the United States.

b. All steel and iron manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

c. The steel and iron requirements apply to all construction materials made primarily of steel or iron and used in infrastructure projects such as, transit or maintenance facilities, rail lines, and bridges. These items include, but are not limited to, structural steel or iron, steel or iron beams and columns, running rail and contact rail. These requirements do not apply to steel or iron used as components or subcomponents of other manufactured products or rolling stock, or to bimetallic power rail incorporating steel or iron components.

d. For a manufactured product to be considered produced in the United States:

   1. All of the manufacturing processes for the product must take place in the United States; and

   2. All of the components of the product must be of U.S. origin. A component is considered of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.

If steel, iron, or manufactured products (as defined in 49 CFR 661.3 and 661.5) are being procured, the appropriate certificate as set forth below shall be completed and submitted by each bidder or offeror in accordance with the requirement contained in 49 CFR 661.13(b).

Certificate of Compliance with Buy America Requirements

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 CFR part 661.

COMPANY			
NAME		TITLE	
SIGNATURE		DATE	

Certificate of Noncompliance with Buy America Steel or Manufactured Products Requirements

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception to the requirement pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulations in 49 C.F.R. 661.7.

COMPANY			
NAME		TITLE	
SIGNATURE		DATE	

FORM N
EVIDENCE OF INSURANCE

Submit evidence of insurance to prove firm meets insurance requirements as specified in Attachment F, Contract Documents.

FORM O
BID BOND

Proposals are to be accompanied by a bid bond in the form of a cash deposit, a certified or cashier's check, or a bidder's bond, made payable to the City of Gardena, in an amount not less than 10 percent of the total bid submitted.

Bid bonds are to be delivered to GTrans' administrative office (attention to Dana Pynn) located at 13999 S. Western Ave Gardena, CA 90249 by no later than the proposal submission deadline. Proposers may submit their bid bonds via mail, or they may contact Rachel Yoo at ryoo@gardenabus.com or at (310) 965-8803 to make an appointment to submit the bid bonds in person. Failure to deliver the bid bond by the deadline may result in the proposal being deemed non-responsive.

FORM P
IRAN CONTRACTING ACT CERTIFICATION

Pursuant to the Iran Contract Act of 2010 (Public Contract Code 2200-2208), Vendors/Bidders are ineligible to bid on or submit a proposal for any contract with a public entity for goods or services of one million dollars ($1,000,000) or more if the Vendor/Bidder engages in investment activities in Iran.

MUST BE SUBMITTED WITH BID PROPOSAL IF BID AMOUNT IS $1,000,000 OR MORE

Prior to bidding on, submitting a proposal, or executing a contract or renewal for a public entity contract for goods or services of $1,000,000 or more, a vendor must either: a) certify it is not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b) and is not a financial institution extending $20,000,000 or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; or b) demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your vendor or financial institution name and Federal ID Number (if available) and complete one of the options below. Please note California law establishes penalties for providing false certifications, including civil penalties equal to the greater of $250,000 or twice the amount of the contract for which the false certification was made, contract termination, and three-year ineligibility to bid on contracts. (Pub. Cont. Code § 2205.)

OPTION #1 - CERTIFICATION

I, the official named below, certify I am duly authorized to execute this certification on behalf of the vendor/financial institution identified below, and the vendor/financial institution identified below is not on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars ($20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Vendor Name/Financial Institution (Printed)	*Federal ID Number (or n/a)*
By (Authorized Signature)	
Printed Name and Title of Person Signing	*Date Executed*

FORM P Continued
IRAN CONTRACTING ACT CERTIFICATION

OPTION #2 – EXEMPTION

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a vendor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or enters into or renews, a contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

Vendor Name/Financial Institution (Printed)	*Federal ID Number (or n/a)*
By (Authorized Signature)	
Printed Name and Title of Person Signing	*Date Executed*

FORM Q
PAYMENT MILESTONE SCHEDULE

Proposers shall submit a proposed payment milestone schedule based on progress and achieving significant milestones throughout the project.

ATTACHMENT A

SPECIAL PROVISIONS

The following Special Provisions supplement and amend the "Standard Specifications for Public Works Construction", Most Recent Available Edition. As a reference they have been arranged into a sequence, which parallels the arrangement of the Standard Specifications.

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SPECIAL PROVISIONS

PREFACE: STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.

The Standard Specifications for Public Works Construction ("Greenbook") written and promulgated by the Southern California Chapter of the American Public Works Association and the Southern California Districts of the Associated General Contractors of California shall be the Standard Specifications of the City. All work shall conform to the 2015 edition, including supplements of the Standard Specifications, the Special Provisions which supplement or modify the Standard Specifications, and the Standard Drawings as issued by the City (defined herein as "Agency") available at the time proposals are opened unless otherwise specified in the Contract Documents.

The above referenced Standard Specifications, Special Provisions and Standard Drawings are hereby made a part of the Contract Documents.

For the convenience of the Contractor, the section and subsection numbering system used in these Special Provisions corresponds to that used in the Standard Specifications.

SECTION 1 - TERMS, DEFINITION, ABBREVIATIONS, UNITS OF MEASURE AND SYSMBOLS.

1-2 TERMS AND DEFINITIONS. Whenever in the Standard Specification the following terms are used, they shall be understood to mean and refer to the following:

(a)	AGENCY	The City of Gardena (GTrans), a California municipal corporation.
(b)	BOARD	The City Council of the City of Gardena
(c)	CONTRACT DOCUMENTS	Documents including but not limited to the proposal forms, Standard "Greenbook" Specifications, Special Provisions, Technical Provisions, Notice Inviting Proposals, Instructions to Proposers, Bonds, Insurance, Contract and all Addenda setting forth any modifications of the documents.
(d)	CONSTRUCTION MANAGER	The City of Gardena's (GTrans) Construction Manager for this project, Construction Manager or his authorized representative.
(e)	BIDDER	An individual, co-partnership, association or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.
(f)	LEGAL ADDRESS OF CONTRACTOR	The legal address of the Contractor to be the address given on the Contractor's proposal and is hereby designated as the place to which all notices, letters or other communications to the Contractor shall be mailed or delivered.
(g)	LABORATORY	An established laboratory approved and authorized by the

Construction Manager for testing materials and work involved in the contract.

SECTION 2 - SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF THE CONTRACT.

2-1.1 Proposal. The proposal shall be fully executed and submitted on the forms provided by the Agency and shall be enclosed in a sealed envelope marked and addressed as directed in the "Notice Inviting Proposals".

If the proposal is made by an individual, it shall be signed and his or her full name and address shall be given; if it is made by a firm it shall be signed with co-partnership name by a general partner thereof, who shall also sign his or her known name, and the name and address of each member of such co-partnership shall be given; if made by a corporation, the name of the corporation shall be signed by its duly authorized officers and attested by the corporate seal.

Proposers are warned against making erasures or alterations of any kind on their Proposal. Proposals which contain omissions, erasures, alterations, conditions or additions not called for may be rejected.

At the time the Contract is awarded by the Agency, the Contractor shall be licensed under the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California to do the type of work contemplated in the Contract and shall be skilled and regularly engaged in the general class or type of work required by this Contract.

2-1.2 Examination of Plans, Specifications and Project Site. Proposers shall read the specifications, review the drawings and examine the existing facilities to fully understand the project in order to plan for the improvements as shown in the contract, including local condition, uncertainty of weather and all other contingencies.

Proposers shall satisfy themselves by personal examination of the proposed work sites, and by such other means as they may choose as to actual conditions and requirements and as to the accuracy of the quantities stated in the Proposal forms. Information derived from the maps, plans, specifications, profiles, drawings, or from the Engineer/Architect of the record, shall not relieve the proposer of this responsibility, and the interpretation of the data disclosed by borings or other preliminary investigations is not guaranteed nor is any liability assumed by the Agency.

2-1.3 Interpretation of Drawings and Documents. If a prospective proposer is in doubt as to the true meaning or intent of any part of the Contract Documents including the Specifications, or discovers discrepancies in, or omissions from, the Specifications or Drawings, he may submit to the Construction Manager a written request for an interpretation or a correction thereof. Interpretations or corrections of the Contract Documents including the Specifications and Drawings, shall be made only by addendum duly issued by the Construction Manager, and a copy of such addendum will be sent by certified mail, postage prepaid, or delivered to each person receiving a set of the Contract Documents whose address is known to the Construction Manager and such addendum shall be considered a part of and incorporated in the Contract Documents.

2-1.5 Execution of Contract. A proposer whose proposal is accepted shall properly sign a written contract with the Agency on the form attached hereto and return said contract together with good and approved bonds and insurance certificates as required by the Contract Documents **within twenty-one (21) calendar days** from the date of the mailing of a notice from

the Agency to the proposer, according to the address given by him, of acceptance of his proposal.

Contract bonds and certificates of insurance, if required, shall be filed in all instances before delivering any equipment, materials, or performing any work under the contract; also before any purchase order shall be issued. An executed Power of Attorney form shall be submitted with all contract bonds herein specified.

If a proposer whose proposal is accepted fails or refuses to enter into a contract as herein provided, or to conform to any stipulated requirement in connection therewith, the money represented by his check or proposer's bond shall be refunded less the difference between the low proposal and the proposal of the proposer with whom the Agency enters into an agreement in accordance with the provisions of the Public Contracts Code Section 20174. At the discretion of the Agency, an award may be made to the proposer whose proposal is next most acceptable to the Agency, and such proposer and his surety shall fulfill every stipulation embraced herein as if he were the party to whom the first award was made.

A corporation to which an award is made may be required before the contract is finally signed to furnish evidence of its corporate existence, of its right to do business in California and of the authority of the officer signing the contract and bonds for the corporation to so sign.

2-1.6 Return of Proposal and Guarantee. The check or bond of a proposer to whom the contract has been awarded will be returned to him after all of the acts, for the performance of which said security is required, have been fully performed. The checks or proposal bonds of the second and third lowest proposers will be returned when the proposer to whom the contract has been awarded has properly executed all of the required Contract Documents. Check or proposal bonds of other proposers will be returned when their proposals are rejected or in any event at the expiration of forty-five (45) days from the date of opening proposals.

2-5 PLANS AND SPECIFICATIONS.

2-5.2 Precedence of Contract Documents. The order of precedence of contract documents shall be:

FIRST	Requirements of law, including the Code and Ordinances of the City of Gardena.
SECOND	Permits from other agencies as may be required by law.
THIRD	Permits from City of Gardena Departments as may be required by law or ordinance.
FOURTH	The Contract.
FIFTH	The Proposal.
SIXTH	Addenda.
SEVENTH	Notice Inviting Proposals.
EIGHTH	Instructions to Proposers.
NINTH	Plans.

TENTH	Special Provisions of the Standard Specifications.
ELEVENTH	Standard Specifications for Public Works Construction (current edition).

Change orders, supplemental agreements and approved revisions to Plans and Specifications will take precedence over documents listed above, except those listed as FIRST, SECOND and THIRD. Detailed plans shall have precedence over general plans.

2-9 SURVEYING.

2-9.1 Permanent Survey Markers. The Contractor is required to locate and tie out survey monuments in the project area prior to construction involving street and highways, or City public right of way and to file with the County Surveyor a Corner Record of any such work. Prior to final payment and the issuance of a completion certificate, the Contractor is required to file a Corner Record for survey monumentation that is replaced. All such survey work shall be performed under the supervision of a California licensed Land Surveyor or a Civil Engineer authorized to perform such work.

The Contractor shall provide the Agency a copy of the office calculations and documents submitted to the County for filing in connection with the aforementioned work.

The payment for surveying, related professional services, office calculation, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

2-9.2 Survey Service. Unless otherwise provided in the Technical Provisions, establishing lines and grades for construction shall be the responsibility of the Contractor, with the following provisions:

All work under this contract shall be built in accordance with the lines and grades shown on the plans. Field survey for establishing these, and for the control of construction, shall be the responsibility of the Contractor. All such surveys, including construction staking, shall be performed on all items ordinarily requiring grade and alignment, at intervals normally accepted by the agencies and trade involved.

The Contractor shall provide a copy of the office calculations and grade sheets to the Agency's Inspector. The Contractor shall be responsible for any error in the finished work, and shall notify the Construction Manager within 24 hours of any discrepancies or design errors discovered during staking.

Unless a separate proposal item is provided, the payment for surveying, construction staking, professional services, office calculations, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

SECTION 3 – CHANGES IN WORK

3-3 EXTRA WORK. If extra work is performed on a "time and materials" basis, the following percentages shall be added to the Contractor's cost and shall constitute the markup for all overhead and profits.

1) Labor 15
2) Materials 15
3) Equipment Rental.....15
4) Other Items and Expenditures.....15

To the sum of the costs and markups provided for in this section, 1 percent shall be added as compensation for bonding.

Upon submittal for payment, Contractor's request shall include appropriate documentation to support the invoice adheres to the above requirements including subcontractor invoices, etc. prior to Agency issuing any payment.

For any work completed as part of this section on a time and materials basis, the Agency and the Contractor shall be required to have an agreed-upon, fair and reasonable not-to-exceed amount be applicable to the grand total prior to executing the change order agreement.

3-5 DISPUTED WORK.

3-5.1 Retention of Imperfect Work. If any portion of the work done or materials furnished under the contract proves defective or not in accordance with the specifications and contract drawings, and if the imperfection in the same is not of sufficient magnitude or importance to make the work dangerous or undesirable, or if the removal of such work is impracticable or will create conditions which are dangerous or undesirable in the opinion of the Construction Manager, the Construction Manager shall have the right and authority to retain the work instead of requiring it to be removed and reconstructed, but he shall make deductions therefore in the payment of the contract item due Contractor as may be just and reasonable.

SECTION 6 – PROSECUTION, PROGRESS, AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

6-1.1 Construction Schedule. Prior to issuing the Notice to Proceed, the Construction Manager will schedule a preconstruction meeting with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination, discuss construction methods and clarify inspection procedures. The Contractor shall submit its schedule a minimum of 72 hours prior to the scheduled preconstruction meeting.

The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered.

The names, addresses and telephone numbers of the Contractor and subcontractors, or their representatives, shall be filed with the Construction Manager prior to beginning work. A separate emergency contact list, identifying key supervisory contacts of the Contractor and subcontractors shall also be submitted.

6-1.1.1 General. Development of the schedule and project status reporting requirements of the Contract shall employ computerized Critical Path Method (CPM) scheduling. The CPM schedule and all reports should be prepared with the latest version of Microsoft Project®, or approved equal. Where submittals are required hereunder, the Contractor shall submit four color copies of each submittal item. The Contractor shall provide the Owner with the scheduling software and/or license throughout the duration of the project.

6-1.1.2 Qualifications. Upon notice of award and prior to initiation of compiling the schedule, the Contractor shall submit a statement of computerized CPM capability to document either that the Contractor has in-house capability qualified to use CPM technique and the required software or that the Contractor will arrange for the services of a CPM consultant so qualified. In either event the statement shall identify the individual who will perform the CPM scheduling. Capability shall be verified by description of construction projects on which the individual has successfully applied computerized CPM and shall include at least two projects of similar nature, scope and value not less than one-half the Total Proposal Price of this project. This statement shall also identify the contact persons for the referenced projects with current telephone and address information. Compilation of the schedule shall not commence until the statement of CPM capability is approved by the Construction Manager.

6-1.1.3 MINIMUM PROJECT PHASING AND CONSTRAINTS

a. General: The Contactor shall submit a construction phasing plan in conjunction with the CPM schedule to the Construction Manager for review and approval. The plan shall identify work limits and working hours that will allow the Contractor to complete the project while complying with traffic control / lane closure schedules and mitigating impacts to vehicular traffic, pedestrians, and businesses. The plan shall utilize the minimum phasing and constraints requirements herein. By submitting its proposal, the Contractor acknowledges it has considered the phasing and constraints included herein and can execute the project within the Contract Time, including sub-milestone requirements. The City may consider and approve alternatives to these phasing and constraints requirements if proposed by the Contractor, however no deviation will be allowed without prior written approval by the City.

The Construction Manager shall have 10 working days to review and comment on the plan. Work will not be allowed to commence without an approved phasing plan and project schedule.

6-1.1.4 CPM SCHEDULE SUBMITTALS

a. Original CPM Schedule: Within 5 working days from the date of the City approves the Scheduling Capabilities submittal and in no case later than 72 hours prior to the Preconstruction conference, the Contractor shall submit for review by the Construction Manager, (4) colored hard copies of the CPM schedule and the computerized Microsoft Project® schedule electronic file. This submittal shall already have been reviewed and approved by the Contractor's project manager, project superintendent and project estimator prior to submission. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered.
b. Original CPM Schedule Review Meeting: The Contractor's submitted CPM schedule and the City's review comments will be discussed as part of the preconstruction meeting. The Contractor shall have the Project Manager, Project Superintendent, and the Project Scheduler in attendance. The Construction Manager's review will be limited to the conformance to the Contract Documents. However, the review may also include:
    1. Clarifications of the design intent, process, and startup requirements.
    2. Directions to include activities and information missing from the submittal.
    3. Requests to the Contractor to clarify the schedule.
c. Revisions to the Original CPM Schedule: Contractor shall have revised the original CPM schedule to address all review comments from the preconstruction meeting and resubmit the Construction Manager's review within 5 calendar days. The Construction Manager, within 5 calendar days from the date that the Contractor submitted the revised schedule will either (1) accept the schedule and cost loaded activities submitted, or (2) advise the Contractor in writing to review any part or parts of the schedule which either do not meet the Contract requirements or are unsatisfactory for the Construction Manager to monitor the project's progress and status or evaluate monthly payment requests by the Contractor. The

Construction Manager may accept the schedule with conditions that the first monthly CPM schedule update be revised to correct deficiencies identified. When the schedule is accepted, it shall be considered as the "Original CPM Schedule" until an updated schedule has been submitted. The Construction Manager reserves the right to require that the Contractor adjust, add to, or clarify any portion of the schedule which may later be discovered to be insufficient for the monitoring of the Work or approval of progress payment requests. No additional compensation will be provided for such adjustments, additions, or clarifications.

d. Acceptance: Acceptance of the Contractor's schedule by the Construction Manager will be based solely upon compliance with the requirements. By way of the Contractor assigning activity durations and proposing the sequence of the Work, the Contractor agrees to utilize sufficient and necessary management and other resources to perform the Work in accordance with the schedule. Upon submittal of a schedule update, the updated schedule shall be considered the "current" project schedule. Submission of the Contractor's progress schedule to the City shall not relieve the Contractor of total responsibility for scheduling, sequencing, and pursuing the Work to comply with the requirements of the Contract Documents, including adverse effects such as delays resulting from ill-timed Work.

e. Monthly Updates and Periodic CPM Schedule Submittals: Following the acceptance of the Contractor's original schedule, the Contractor shall monitor the progress of the Work and adjust the schedule each month to reflect actual progress and any changes in planned future activities. Each schedule update submitted shall be complete including all information requested in the original schedule submittal and be in the schedule report format indicated below. Each update shall continue to show all Work activities including those already completed. Completed activities shall accurately reflect "as built" information by indicating when the Work was actually started and completed. Each update shall be submitted 10 days prior to submittal of progress payment applications. **Failure to submit the updated progress report may result in the withholding of ten percent (10%) of the progress payment.**

Neither the submission nor the updating of the Contractor's original schedule submittal nor the submission, updating, change, or revision of any other report, curve, schedule, or narrative submitted to the Construction Manager by the Contractor under this Contract, nor the Construction Manager's review or acceptance of any such report, curve, schedule, or narrative shall have the effect of amending or modifying, in any way, the Contract Times, interim milestone or milestone dates or of modifying or limiting, in any way, the Contractor's obligations under this contract. Only a signed, fully executed Change Order can modify contractual obligations.

The monthly schedule update submittal will be reviewed with the Contractor during a weekly construction progress meeting. The goal of these meetings is to enable the Contractor and the Construction Manager to initiate appropriate remedial action to minimize any known or foreseen delay in the completion of the Work and to determine the amount of Work completed sine the last month's schedule update. The status of the Work will be determined by the percent complete of each activity in the updated CPM Schedule. These meetings are considered a critical component of the overall monthly schedule update submittal, and the Contractor shall have appropriate personnel attend. At a minimum, these meetings shall be attended by the Contractor's Project Manager and General Superintendent. Within 7 working days after the monthly schedule submittal review, the Contractor shall submit the revised CPM schedule, the revised CPM computerized tabulations as noted in this Section, the revised success/predecessor report, the project status report as defined below and the Contractor's Application for Payment. Within 5 working days of receipt of the revised submittals, the Construction Manager will either accept or reject the monthly schedule update submittal. If accepted, the percent complete in the monthly update

shall be the basis for the Application for Payment to be submitted by the Contractor. If rejected, the update shall be corrected and resubmitted by the Contractor before the Application for Payment for the update period will be processed.

Schedule Revisions: The Contractor shall highlight or otherwise identify all changes to the schedule logic or activity durations made from the previous schedule. The Contractor shall modify any portions of the CPM schedule which become infeasible because of activities behind schedule or for any other valid reason.

f. 4-Week Look Ahead submittals. The Contractor shall submit and be prepared to discuss a 4week look ahead of the current schedule, on or before noon Monday each week. The 4-week look ahead will show all activities that are currently in progress or planned to occur over the next working month. **Failure to submit any 4-week look ahead schedules may result in a $250 back charge to the Contractor.**

6-1.2 Commencement of the Work. Prior to issuing the Notice to Proceed, the Construction Manager will schedule a preconstruction meeting with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination, discuss construction methods and clarify inspection procedures.

The names, addresses and telephone numbers of the Contractor and subcontractors, or their representatives, shall be filed with the Public Works Manager and the County Sheriff's Department or the City Police Department prior to beginning work.

The Contractor shall also notify the City of Gardena and the owners of all utilities and substructures within the Project area not less than 48 hours prior to starting construction. The following utility companies list of names and telephone numbers is intended for the convenience of the contractor and is not guaranteed to be complete or correct:

COMPANY	***CONTACT***	***TELEPHONE NO.***
Southern California Edison	Cynthia Carrillo	310.413.4497
Southern California Gas	Melissa Fukunaga: Tech Services Planning: Attn - Lead Planner	213.231.7281
AT&T	Terence Little	626.817.4252
	Raymond Dover	310.515.4257
Gardena Police	Dispatch	310.3237911
L.A. County Fire Dept.		310.323.7911
Time Warner Communications	Arturo Fernandez	310.750.9099
Crown Castle	Hector Aguilera	951.454.5111
Waste Resources of Gardena	Lorena Rodriguez	310.366.7600
Golden State Water Co.	Conde Ventura	310.436.6950 x107
	Joseph Salcido	310.660.0320 x101
L.A. County Flood Control	Daryll Chenoweth	626.458.3129
L.A. Sanitation District	Jon Ganz	562.908.4288
Metropolitan Water District	Civil Eng. Substructures Section	213.217.7059
Chevron Pipeline	Dave Zerler	310.669.4014
Underground Service Alert		800.422.4133

6-7 TIME OF COMPLETION.

6-7.2 Working Day. The Contractor's working hours shall be limited to the hours between 8:00 A.M. and 4:00 P.M., Monday through Friday except holidays. Deviation from normal working hours will not be allowed unless written permission has been duly obtained beforehand from the Agency through the Construction Manager. The Contractor shall provide adequate light for proper prosecution of the work, for the safety of the workmen and the public, and for proper inspection.

If the Contractor works beyond the allowed working hours without prior written approval from the Construction Manager, the Contractor may be charged Five Hundred ($500) for each occurrence as required by the Construction Manager. The amount will be deducted from a progress payment or bond.

Contractor hereby acknowledges and shall be required to comply with the provisions of California Labor Code Section 1810 et seq. According to those sections, eight (8) hours of labor shall constitute a legal day's work. Contractor shall pay to the Agency a penalty of Twenty-Five Dollars ($25.00) for each worker employed in the execution of this Contract by Contractor, or by any Subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day or forty (40) hours in any one (1) calendar week, except when payment for overtime is made at not less than one and one-half (1-1/2) times the basic rate for that worker.

In the event of either a requested or emergency deviation, inspection service fees will be charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead and travel time. The service fees will be deducted from any amounts due to the Contractor.

6-8 COMPLETION, ACEPTANCE, AND WARRANTY. In addition to the guarantees as required in Section 2-4 of the Standard Specifications, the Faithful Performance Bond shall remain in full force and effect for a period of one year after acceptance of the work by the Agency to insure that defects, which may appear within said period, will be repaired, replaced, or corrected by the Contractor, at his own cost and expense, to the satisfaction of the Construction Manager within thirty (30) days after written notice thereof by the Agency.

6-9 LIQUDATED DAMAGES. The liquidated damages shall be assessed and incurred for every calendar day following the date of Substantial Completion, based on the approved schedules for each project sub scope (fueling and maintenance facility). Liquidated damages will also be assessed for every day after the respective date of substantial completion that either the CNG system does not meet the project performance requirements and/or all specified garage modifications are not fully functional, unless otherwise approved by the City in advance and in writing. The amount of liquidated damages is hereby set at one thousand dollars (**$1,000.00)** for each calendar day until the final inspection and facilities are turned over to the Agency. $1,000.00 liquidated damages apply separately to each project sub scope (fueling and maintenance facility).

SECTION 7 – RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General.

7-1.1.1 Contractor's Responsibility for Work. Until the formal acceptance of the work by the Agency, the Contractor shall have the charge and care thereof and shall, subject to the insurance protection furnished in accordance with 7-3 hereof, bear the risk of accident, loss or damage to any part thereof by action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and otherwise correct damages to any portion of the work occasioned by any of the above causes before its acceptance.

In case of suspension of work from any cause whatever, the Contractor shall be responsible for all materials and the proper temporary storage thereof.

7-1.1.2 Notice and Service Thereof. Any notice required or given by one party to the other under the contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative of such party. Any such notice shall not be effective for any purpose whatever unless served in the following manner:

Notice shall be given to the Agency by personal delivery thereof to the Construction Manager or by depositing the same in the United States mail enclosed in a sealed envelope, registered and with postage prepaid, addressed to:

City of Gardena's GTrans
Attention Rod Goldman
13999 S. Western Avenue
Gardena, CA 90249

Notice shall be given to the Contractor by personal delivery thereof to said Contractor or to his authorized representative at the site of the project, or by depositing the same in the United States mail, enclosed in a sealed envelope addressed to said Contractor at the address established for the conduct of the work under this Contract, postage prepaid and registered.

Notice shall be given to the Surety, or any other person, by personal delivery to said Surety or other person, or by depositing the same in the United States Mail, enclosed in a sealed envelope addressed to such Surety or persons at the address of said Surety or persons last communicated to the party giving the notice, postage prepaid and registered.

Notification of Property Owners and Tenants - The Contractor shall notify each property owner and/or tenant in the project area in writing five (5) working days prior to the start of construction. If pedestrian or vehicular access to private property is to be blocked, the Contractor shall again notify each property owner and/or tenant in writing five (5) working days prior to construction activities. The Contractor shall provide additional notices when a lapse time occurs during each phase/segment work.

The written notice shall be submitted to the Construction Manager for approval prior to being delivered.

7-1.1.3 Warranty of Title. No materials, supplies or equipment for the work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein or any part thereof is retained by the seller or supplier.

The Contractor warrants clear and good title to all materials, supplies and equipment installed and incorporated in the work, and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him to the

Agency free from any claims, liens, encumbrances or charges, and further agrees that neither he nor any person, firm or corporation furnishing any material or labor for work covered by the Contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon; provided, that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies the title of which is commonly retained by the utility company. Nothing contained in this section, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor, which are in the hands of the Agency.

The provisions of this section shall be inserted in all subcontractor's and material contracts, and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into regarding such materials.

7-3 INSURANCE. Refer to the Contract Documents Attachment F, Page 10 for detail requirements.

7-5 PERMITS. The Contractor will obtain, at no cost to the Agency, all permits necessary to perform the work on streets, highways, railways or other rights-of-ways. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to those permits required for night work, overload, blasting and demolition. For private contracts, the Contractor shall obtain all permits incidental to the work or made necessary by its operations, and pay all costs incurred by the permit requirements.

The Contractor and each subcontractor employed upon the work must have or obtain a valid City of Gardena Business License in accordance with the provisions of the Gardena Municipal Code.

7-6 THE CONTRACTOR'S REPRESENATIVE. The Contractor shall furnish the Construction Manager with the name, address and cell/ business/home telephone numbers of the person responsible for the maintenance of barricades, traffic control signs, lights and other safety devices.

7-8 WORK SITE MAINTENACE.

7-8.1. General. The Contractor shall keep the work site clean and free from rubbish and debris. The Contractor shall abate dust nuisance by cleaning, sweeping and sprinkling with water in keeping with the AQMD and NPDES requirements. Debris, soil or other matter shall not be washed into storm drains but shall be collected and disposed of in a legal, responsible manner. The construction area shall be cleaned with a power sweeper at the end of every workday and when deemed necessary by the Construction Manager.

The Contractor shall maintain drainage within and through the work areas. Earth dams will not be permitted in paved areas. Use temporary sandbags to control the site perimeter. At the completion of the project sandbags shall become the property of the City of Gardena and shall be remain in place.

The Contractor shall not spill on haul routes. Any such spillage shall be removed immediately, and the area cleaned.

Stockpiling of construction materials or debris on City right-of-way shall be in accordance with the NPDES permit and shall be approved by the inspector. At the completion of work, the Contractor shall thoroughly clean all work areas.

7-8.4 Storage of Equipment and Material.

7-8.4.1 General. All costs associated with the disposal of all excavated or demolition materials, including any gate fees, shall be paid by the Contractor. These costs shall be included in the proposal price for the applicable proposal items.

Prior to any excavated or demolition material being removed from the construction site the Contractor shall notify the City as to the hauling route and destination for disposal. If the location for disposal is other than a county landfill then the Contractor shall provide the City with written permission and release of liability for the City from the owner of the property where the material will be deposited.

The City has an exclusive agreement with Waste Resources, Inc. and no other firm may provide bulk trash bins in the event the work requires this service.

7-8.4.2 Storage in Public Streets. Construction equipment shall not be stored at the construction site, any public street or publicly owned facilities without approval of the City. Contractor shall store equipment at a contractor's rental yard.

All excavated material that is to be hauled to and disposed of at a County landfill site by the Contractor is subject to a County gate fee based on tonnage.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. Any facilities, structures, water lines, landscaping, surfaces, signs, pavement markings, painted curbs, house numbers, etc., which are damaged during construction shall be restored to the satisfaction of the City. Damaged water lines shall be repaired immediately at no additional cost to the city.

7-9.1 Access to Private Property. The Contractor shall be aware that business and residential access must be maintained at all times. The Contractor shall schedule operations to minimize interference with access to private property.

The main access way to any business or home shall not be completely blocked for more than one four-hour period a day except blockage shall be limited to one twenty-four (24) hour period when concrete is poured.

Temporary access ways shall be provided from the street to the main access way of all businesses and homes by use of traffic rated steel plates or any other method approved by the city.

Payment for this item shall be included in the applicable contract work item.

7-10 SAFETY

7-10.1 Public Convenience and Safety Access. The Contractor shall provide temporary "No Parking" and all other signs which are necessary for the safe and orderly conduct of vehicular traffic as directed by the Construction Manager and as specified herein. Contractor shall also provide an approval barricaded area in the parking lane for pedestrian traffic during such time as the parkway is unfit to be used for pedestrian traffic.

At such times as driveways are inaccessible due to the Contractor's work, they shall be blocked by two (2) Class II barricades or one (1) Class II barricade and two (2) delineators. Driveways that are ramped or planked for temporary access shall be provided with a barricade or delineator at each side. The Contractor shall give 24-hour notice to affected property owners prior to blocking any driveway.

The Contractor shall provide access for refuse collection on the regularly scheduled days. He shall also facilitate or assist in the collection where such work is hampered by his operations.

7-10.2 Street Closures, Detours, and Barricades. The Contractor shall not close any street within the City of Gardena without first obtaining the approval of the Construction Manager. Barricading, traffic control and detour diagrams in connection with street closures shall be submitted by the contractor as required by the Construction Manager.

The Contractor shall provide and install barricades, delineators, warning devices and construction signs in accordance with the California Manual of Temporary Traffic Controls or W.A.T.C.H. Handbook. During adverse weather or unusual traffic or working conditions additional traffic devices shall be placed as directed by the Construction Manager. All traffic signs and devices shall also conform to the California Manual of Temporary Traffic Controls or W.A.T.C.H. Handbook.

The Contractor shall provide and maintain Type II barricades along excavation edges parallel to the flow of traffic at a maximum spacing of twenty-five feet. Type II barricades mounted with flashers shall be installed around work areas in parkways. Type II barricades shall have alternating reflective orange and reflective white stripes at an angle of 45 degrees. The strip width shall be in accordance with Table 5-1 “Barricade Characteristics” “Manual of Traffic Controls for Construction and Maintenance Work Zones”.

During paving operations, barricades may be supplemented with minimum size eighteen-inch high traffic cones and delineators such that spacing between barricades and/or cones or delineators is no greater than twenty feet. Traffic cones and delineators used within State right-of-way shall be a minimum size of twenty-eight inches high. At all access points such as intersecting streets, alleys and driveways, barricades and/or cones shall be provided at five-foot intervals so as to prevent vehicular access to the paving area. Where access from an intersecting street is prohibited, a “Road Closed” sign shall be provided at the nearest prior intersection. “No Left Turn” signs shall be provided wherever required by the Construction Manager.

When one-way access from a side street or alley is permitted, barricades and cones shall be provided at five-foot intervals for a distance of fifty feet on either side of the centerline of the intersecting street, or alley.

Should the Contractor fail to furnish a sufficient number of traffic and/or pedestrian safety devices, the Agency will place such necessary items and the Contractor shall be liable to the Agency for providing such devices in accordance with the following provisions:

1. For placing of barricades: $5.00 per barricade for the first day or any part thereof and $2.00 per barricade, per day, for each day thereafter or any part thereof. For flashers: $2.50 per flasher for the first day or any part thereof and $1.00 per flasher, per day, for each day thereafter or any part thereof. For traffic cones: $1.00 per cone for each day or any part thereof.

2. In the event that the services of the Agency are required between the hours of 5:00 P.M. and 8:00 A.M., during the normal week or at any time on Saturday, Sunday or a Agency holiday, there shall be an additional charge to the above set forth minimums of $188.00 for each service trip required.

Contractor shall relocate, preserve and maintain the visibility of all existing signs within the project limits which affect the flow of traffic, as directed by the Construction Manager. Any signs

which are damaged or found to be missing during the course of construction shall be replaced by the Contractor at his expense as directed by the Construction Manager. All other signs that interfere with the course of work and are not necessary for the safe flow of traffic will be removed and replaced by the Agency. Traffic control signs include Stop Signs, Speed Limit, Parking Restrictions and other regulatory signs.

7-10.4 Safety.

7-10.4.4 Hazardous Substances. As required by Public Contract Code Section 7104, if this Contract involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall promptly, and prior to disturbance of any conditions, notify the Agency of: (1) any material discovered in excavation that Contractor believes to be a hazardous waste that is required to be removed to a Class I, Class II or Class III disposal site; (2) subsurface or latent physical conditions at the site differing from those indicated by the Agency; and (3) unknown physical conditions of an unusual nature at the site, significantly different from those ordinarily encountered in such contract work. Upon notification, the Agency shall promptly investigate the conditions to determine whether a change order is appropriate. In the event of a dispute, Contractor shall not be excused from any scheduled completion date and shall proceed with all work to be performed under the Contract but shall retain all rights provided by the Contract and by law for making protests and resolving the dispute.

7-10.4.4.1 Edison Energized Conductors. Contractor hereby promises and agrees that in the performance of the work specified in this Contract, it will employ and utilized only qualified persons, as hereinafter defined, to work in
proximity to Edison's secondary, primary and transmission facilities. The term "qualified person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

> "Qualified Person: A person who by reason of experience or instruction is familiar with the operation to be performed and the hazards involved."
>
> Contractor further promises and agrees that the provisions of this section shall be and are binding upon any subcontractor or subcontractors that may be retained by it, and that Contractor shall take such steps as are necessary to assure compliance by said subcontractor or subcontractors with the requirements of this section.

7-10.4.4.2 Emergency Provisions. Unusual conditions may arise on the work which will require that immediate and unusual provision be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

Whenever, in the opinion of the Agency, an emergency exists of which the Agency is aware and against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured by the progress of construction; and whenever, in the opinion of the Agency, immediate action shall be considered necessary in order to protect public or private personnel or property interests, or prevent likely loss of human life or damage on account of the operations under the Contract, then in that event the Agency may provide suitable protection to said interests by causing such work to be done and material to be furnished, as in the opinion of the Agency may seem reasonable and necessary, all at the expense of the Contractor.

7-14 ANTITRUST CLAIMS. By entry into this Contract, Contractor hereby acknowledges the terms of Section 7103.5 of the Public Contract Code and hereby offers and agrees to assign to the Agency all rights, title and interest in all causes of action it may have as outlined above.

SECTION 8 – FACILITIES FOR AGENCY PERSONNEL

8-2 FIELD OFFICE FACILITIES. The Contractor shall provide the class of field office indicated below:

□ Class "A" □ Class "B" □ Class "C"

In the event none of the boxes are marked above, no specific field office will be required, and the use therefor of any field office will be at the Contractor's discretion. The location of any field office shall be as provided on the plans, in these Specifications or as designated by the Construction Manager.

SECTION 9- MEASUREMENT AND PAYMENT

9-3 PAYMENT.

9-3.2 Partial and Final Payment. The closure date for periodic progress payments will be the twenty-fifth day of each month. Authorization to pay is commonly received on the tenth day of the following month. However, payments will be withheld pending receipt of any outstanding reports required by the Contract Documents.

9-3.5 Work Performed Without Direct Payment. Tools and materials of any class for which no price is fixed in the Proposal, it shall be understood that such work, equipment, labor, tools and materials shall be provided without extra charge, allowance, or direct payment of any kind. The cost of performing such work or furnishing such equipment, labor, tools and materials shall be included in the unit proposal prices in the Proposal and no additional compensation will be paid therefore.

9-4. DISPUTE RESOLUTION.

9-4.1 Requests for Contract Adjustments and Relief. If either Contractor or the Agency believes that it is entitled to relief against the other for any event arising out of or related to the work or Project, such party shall provide written notice to the other party of the basis for its claim for relief. Such notice shall, if possible, be made prior to incurring any cost or expense and in accordance with any specific notice requirements contained in the applicable sections of this Contract.

In the absence of any specific notice requirement, written notice shall be given within a reasonable time, not to exceed fourteen (14) days, after the occurrence giving rise to the claim for relief or after the claiming party reasonably should have recognized the event or condition giving rise to the request, whichever is later. Such notice shall include sufficient information to advise the other party of the circumstances giving rise to the claim for relief, the specific contractual adjustment or relief requested and the basis of such request.

9-4.2 Dispute Avoidance and Resolution. The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, Contractor and the Agency each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the work under the Contract.

Contractor and the Agency will first attempt to resolve disputes or disagreements at the field level through discussions between Contractor's Representative and the Construction Manager.

If a dispute or disagreement cannot be resolved through the Contractor's Representative and the Construction Manager, Contractor's Chief Executive Officer or similar senior representative and the Gardena City Manager, or designee, upon the request of the other party, shall meet as soon as conveniently possible, but in no case later than twenty (20) days after such a request is made, to attempt to resolve such dispute or disagreement. Prior to any meeting between the parties' senior representatives, the parties will exchange relevant information that will assist the parties in resolving their dispute or disagreement.

If, after meeting, the senior representatives determine that the dispute or disagreement cannot be resolved on terms satisfactory to both parties, the parties may submit the dispute to binding or non-binding mediation. The mediation shall be conducted in any manner and by any person or mediation association mutually acceptable to the parties.

9-4.3 Arbitration. Any claims, disputes or controversies between the parties arising out of or relating to the Contract, or the breach thereof, which have not been resolved in accordance with the procedures set forth in Section 9-4.2 above may be decided by binding or non-binding arbitration. The arbitration shall be conducted in any manner and by any person or arbitration association mutually acceptable to the parties.

9-4.4 Claims Disputes. Any claims of Contractor, as "claims" are defined in California Public Contract Code Section 9204 shall be processed in accordance with that section. Section 9204 provides in relevant part that upon receiving a claim from a contractor, together with reasonable documentation to support the claim, a contracting public entity shall conduct a reasonable review of the claim and, within a period not to exceed 45 days [except as otherwise provided in Section 9204], shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed.

Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, Section 9-4.3 shall apply. If the contractor disputes the public entity's written response, or if the public entity fails to respond to a claim within the time prescribed, the contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute.

Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed.

Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the contractor sharing the associated costs equally. The public entity and contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to other applicable procedures.

END OF SPECIAL PROVISIONS

ATTACHMENT B

FEDERAL CLAUSES

FEDERAL CLAUSES

Fly America Requirements – Applicability – all contracts involving transportation of persons or property, by air between the U.S. and/or places outside the U.S. These requirements do not apply to micro-purchases ($10,000 or less, except for construction contracts over $2,000). Contractor shall comply with 49 USC 40118 (the "Fly America" Act) in accordance with General Services Administration regulations 41 CFR 301-10, stating that recipients and subrecipients of Federal funds and their contractors are required to use US Flag air carriers for US Governmentfinanced international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a US flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. Contractor shall include the requirements of this section in all subcontracts that may involve international air transportation.

Buy America Requirements – Applicability – Construction Contracts and Acquisition of Goods or Rolling Stock (valued at more than $150,000) Contractor shall comply with 49 USC 5323(j) and 49 CFR 661, stating that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7, and include software, microcomputer equipment and small purchases (currently less than $150,000) made with capital, operating, or planning funds. Separate requirements for rolling stock are stated at 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock must be manufactured in the US and have a minimum 60% domestic content for FY2016 and FY2017, a minimum 65% domestic content for FY2018 and FY2019 and a minimum 70% domestic content for FY2020 and beyond. A bidder or offeror shall submit appropriate Buy America certification to the recipient with all bids on FTA-funded contracts, except those subject to a general waiver. Proposals not accompanied by a completed Buy America certification shall be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

Cargo Preference - Use of US-Flag Vessels – Applicability – Contracts involving equipment, materials or commodities which may be transported by ocean vessels. These requirements do not apply to micro-purchases ($10,000 or less, except for construction contracts over $2,000). Contractor shall: a. use privately owned US-Flag commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for US flag commercial vessels; b. furnish within 20 working days following the loading date of shipments originating within the US or within 30 working days following the loading date of shipments originating outside the US, a legible copy of a rated, "on-board" commercial bill-of-lading in English for each shipment of cargo described herein to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the recipient (through contractor in the case of a subcontractor's bill-of-lading.) c. include these requirements in all subcontracts issued pursuant to this contract when the subcontract involves the transport of equipment, material, or commodities by ocean vessel.

Seismic Safety – Applicability – Construction of new buildings or additions to existing buildings. These requirements do not apply to micro-purchases ($10,000 or less, except for construction contracts over $2,000). Contractor agrees that any new building or addition to an existing building shall be designed and constructed in accordance with the standards required in USDOT Seismic Safety Regulations 49 CFR 41 and shall certify compliance to the extent required by the regulation. Contractor shall also ensure that all work performed under this contract, including work performed by subcontractors, complies with the standards required by 49 CFR 41 and the certification of compliance issued on the project.

Energy Conservation – Applicability – All Contracts except micro-purchases ($10,000 or less, except for construction contracts over $2,000) Contractor shall comply with mandatory standards and policies relating to energy efficiency, stated in the state energy conservation plan issued in compliance with the Energy Policy & ConservationAct.

Clean Water – Applicability – All Contracts and Subcontracts over $150,000. Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq. Contractor shall report each violation to the recipient and understands and agrees that the recipient shall, in turn, report each violation as required to FTA and the appropriate EPA Regional Office. Contractor shall include these requirements in each subcontract exceeding $150,000 financed in whole or in part with FTA assistance.

Lobbying – Applicability – Construction/Architectural and Engineering/Acquisition of Rolling Stock/Professional Service Contract/Operational Service Contract/Turnkey contracts over $100,000 Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104- 65 [to be codified at 2 U.S.C. § 1601, et seq.] - Contractors who apply or bid for an award of $100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

Access to Records and Reports – Applicability – As shown below. These requirements do not apply to micro-purchases ($10,000 or less, except for construction contracts over $2,000) The following access to records requirements apply to this Contract:

1. Where the purchaser is not a State but a local government and is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 CFR 18.36(i), contractor shall provide the purchaser, the FTA, the US Comptroller General or their authorized representatives access to any books, documents, papers and contractor records which are pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor shall also, pursuant to 49 CFR 633.17, provide authorized FTA representatives, including any PMO contractor, access to contractor's records and construction sites pertaining to a capital project, defined at 49 USC 5302(a)1, which is receiving FTA assistance through the programs described at 49 USC 5307, 5309 or5311.

2. Where the purchaser is a State and is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 CFR 633.17, contractor shall provide the purchaser, authorized FTA representatives, including any PMO Contractor, access to contractor's records and construction sites pertaining to a capital project, defined at 49 USC 5302(a)1, which receives FTA assistance through the programs described at 49 USC 5307, 5309 or 5311. By definition, a capital project excludes contracts of less than the simplified acquisition threshold currently set at $250,000.
3. Where the purchaser enters into a negotiated contract for other than a small purchase or under the simplified acquisition threshold and is an institution of higher education, a hospital or other non-profit organization and is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 CFR 19.48, contractor shall provide the purchaser, the FTA, the US Comptroller General or their authorized representatives, access to any books, documents, papers and record of the

   contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions.
4. Where a purchaser which is an FTA recipient or a subgrantee of FTA recipient in accordance with 49 USC 5325(a) enters into a contract for a capital project or improvement (defined at 49 USC 5302(a)1) through other than competitive bidding, contractor shall make available records related to the contract to the purchaser, the Secretary of USDOT and the US Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
5. Contractor shall permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
6. Contractor shall maintain all books, records, accounts and reports required under this contract for a period of not less than three (3) years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case contractor agrees to maintain same until the recipient, FTA Administrator, US Comptroller General, or any of their authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Re: 49 CFR 18.39(i)(11).

FTA does not require the inclusion of these requirements in subcontracts.

Federal Changes – Applicability – All Contracts except micro-purchases ($10,000 or less, except for construction contracts over $2,000)
Contractor shall comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between the recipient and FTA, as they may be amended or promulgated from time to time during the term of the contract. Contractor's failure to comply shall constitute a material breach of the contract.

Bonding Requirements – Applicability – For those construction or facility improvement contracts or subcontracts exceeding $250,000, FTA may accept the bonding policy and requirements of the recipient, provided that they meet the minimum requirements for construction contracts as follows:

a. A bid guarantee from each bidder equivalent to five (5) percent of the bid price. The "bid guarantees" shall consist of a firm commitment such as a bid bond, certifies check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
b. A performance bond on the part to the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
c. A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment, as required by law, of all persons supplying labor and material in the execution of the work provided for in the contract. Payment bond amounts required from Contractors are as follows:
   (1) 50% of the contract price if the contract price is not more than $1 million;
   (2) 40% of the contract price if the contract price is more than $1 million but not more than $5 million; or
   (3) $2.5 million if the contract price is more than $5 million.
d. A cash deposit, certified check or other negotiable instrument may be accepted by a grantee in lieu of performance and payment bonds, provided the grantee has established a procedure to assure that the interest of FTA is adequately protected. An irrevocable letter of credit would also satisfy the requirement for a bond.

Bid Bond Requirements (Construction)

(a) Bid Security - A Bid Bond must be issued by a fully qualified surety company acceptable to (Recipient) and listed as a company currently authorized under 31 CFR, Part 223 as possessing a Certificate of Authority as described thereunder.

(b) Rights Reserved - In submitting this Bid, it is understood and agreed by bidder that the right is reserved by (Recipient) to reject any and all bids, or part of any bid, and it is agreed that the Bid may not be withdrawn for a period of [ninety (90)] days subsequent to the opening of bids, without the written consent of (Recipient). It is also understood and agreed that if the undersigned bidder should withdraw any part or all of his bid within [ninety (90)] days after the bid opening without the written consent of (Recipient), shall refuse or be unable to enter into this Contract, as provided above, or refuse or be unable to furnish adequate and acceptable Performance Bonds and Labor and Material Payments Bonds, as provided above, or refuse or be unable to furnish adequate and acceptable insurance, as provided above, he shall forfeit his bid security to the extent of (Recipient's) damages occasioned by such withdrawal, or refusal, or inability to enter into an agreement, or provide adequate security therefor. It is further understood and agreed that to the extent the defaulting bidder's Bid Bond, Certified Check, Cashier's Check, Treasurer's Check, and/or Official Bank Check (excluding any income generated thereby which has been retained by (Recipient) as provided in [Item x "Bid Security" of the Instructions to Bidders]) shall prove inadequate to fully recompense (Recipient) for the damages occasioned by default, then the undersigned bidder agrees to indemnify (Recipient) and pay over to (Recipient) the difference between the bid security and (Recipient's) total damages, so as to make (Recipient) whole. The undersigned understands that any material alteration of any of the above or any of the material contained on this form, other than that requested, will render the bid unresponsive. Performance and Payment Bonding Requirements (Construction)

The Contractor shall be required to obtain performance and payment bonds as follows:

(a) Performance bonds
1. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the (Recipient) determines that a lesser amount would be adequate for the protection of the (Recipient).
2. The (Recipient) may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The (Recipient) may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
(b) Payment bonds

1. The penal amount of the payment bonds shall equal:

(i) Fifty percent of the contract price if the contract price is not more than $1 million.

(ii) Forty percent of the contract price if the contract price is more than $1 million but not more than $5 million; or

(iii) Two and one half million if the contract price is more than $5 million.

2. If the original contract price is $5 million or less, the (Recipient) may require additional protection as required by subparagraph 1 if the contract price is increased.
Performance and Payment Bonding Requirements (Non-Construction) The Contractor may be required to obtain performance and payment bonds when necessary to protect the (Recipient's) interest.

(a) The following situations may warrant a performance bond:
1. (Recipient) property or funds are to be provided to the contractor for use in performing the contract or as partial compensation (as in retention of salvaged material).
2. A contractor sells assets to or merges with another concern, and the (Recipient), after recognizing the latter concern as the successor in interest, desires assurance that it is financially capable.
3. Substantial progress payments are made before delivery of end items starts.
4. Contracts are for dismantling, demolition, or removal of improvements.

(b) When it is determined that a performance bond is required, the Contractor shall be required to obtain performance bonds as follows:
1. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the (Recipient) determines that a lesser amount would be adequate for the protection of the (Recipient).
2. The (Recipient) may require additional performance bond protection when a contract price is
increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The (Recipient) may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) A payment bond is required only when a performance bond is required, and if the use of payment bond is in the (Recipient's) interest.

(d) When it is determined that a payment bond is required, the Contractor shall be required to obtain payment bonds as follows:
1. The penal amount of payment bonds shall equal:

(i) Fifty percent of the contract price if the contract price is not more than $1 million;

(ii) Forty percent of the contract price if the contract price is more than $1 million but not more than $5 million; or

(iii) Two and one half million if the contract price is increased. Advance Payment Bonding Requirements The Contractor may be required to obtain an advance payment bond if the contract contains an advance payment provision and a performance bond is not furnished. The (recipient) shall determine the amount of the advance payment bond necessary to protect the (Recipient). Patent Infringement Bonding Requirements (Patent Indemnity) The Contractor may be required to obtain a patent indemnity bond if a performance bond is not furnished and the financial responsibility of the Contractor is unknown or doubtful. The (recipient) shall determine the amount of the patent indemnity to protect the (Recipient).
Warranty of the Work and Maintenance Bonds

1. The Contractor warrants to (Recipient), the Architect and/or Engineer that all materials and equipment furnished under this Contract will be of highest quality and new unless otherwise specified by (Recipient), free from faults and defects and in conformance with the Contract Documents. All work not so conforming to these standards shall be considered defective. If required by the [Project Manager], the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

2. The Work furnished must be of first quality and the workmanship must be the best obtainable in the various trades. The Work must be of safe, substantial and durable construction in all respects. The Contractor hereby guarantees the Work against defective materials or faulty workmanship for a minimum period of one (1) year after Final Payment by (Recipient) and shall replace or repair any defective materials or equipment or faulty workmanship during the period of the guarantee at no cost to (Recipient). As additional security for these guarantees, the Contractor shall, prior to the release of Final Payment [as provided in Item X below], furnish separate Maintenance (or Guarantee) Bonds in form acceptable to (Recipient) written by the same corporate surety that provides the Performance Bond and Labor and Material Payment Bond for this Contract. These bonds shall secure the Contractor's obligation to replace or repair defective materials and faulty workmanship for a minimum period of one (1) year after Final
Payment and shall be written in an amount equal to ONE HUNDRED PERCENT (100%) of the CONTRACT SUM, as adjusted (if at all).

Clean Air – Applicability – All contracts over $150,000. 1) Contractor shall comply with all applicable standards, orders or regulations pursuant to the Clean Air Act, 42 USC 7401 et seq. Contractor shall report each violation to the recipient and understands and agrees that the recipient will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office. 2) Contractor shall include these requirements in each subcontract exceeding
$150,000 financed in whole or in part with FTA assistance.

Recycled Products – Applicability – All contracts for items designated by the EPA, when the purchaser or contractor procures $10,000 or more of one of these items during the current or previous fiscal year using Federal funds. The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

Davis-Bacon and Copeland Anti-Kickback Acts – Applicability – Construction contracts and subcontracts, including actual construction, alteration and/or repair, including decorating and painting, over $2,000

1. Minimum wages - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. (ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met: (1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and (2) The classification is utilized in the area by the construction industry; and (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and (4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed. (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary. (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30day period that additional time is necessary. (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof. (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (v)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met: (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (2) The classification is utilized in the area by the construction industry; and (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary. (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(v) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

2. Withholding - The recipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the grantee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the recipient for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005- 00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following: (1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete; (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3; (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract. (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a) (3)(ii)(B) of this section. (D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code. (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees - (i) Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.(ii) Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved. (iii) Equal employment opportunity - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

5. Compliance with Copeland Act requirements - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility - (i) By entering into this contract, contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1). (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1). (iii) The penalty for making false statements is prescribed in 18 USC 1001.

Contract Work Hours & Safety Standards Act – Applicability – Contracts over $250,000

(1) Overtime requirements - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages - In the event of any violation of the clause set forth in para. (1) of this section, contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in para. (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in para. (1) of this section.

(3) Withholding for unpaid wages and liquidated damages - the recipient shall upon its own action or upon written request of USDOL withhold or cause to be withheld, from any moneys payable on account of work performed by contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours & Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in para. (2) of this section.

(4) Subcontracts - Contractor or subcontractor shall insert in any subcontracts the clauses set forth in this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. Prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this section.

No Government Obligation to Third Parties – Applicability – All contracts except micropurchases ($10,000 or less, except for construction contracts over $2,000)

(1) The recipient and contractor acknowledge and agree that, notwithstanding any concurrence by the US Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the US Government, the US Government is not a party to this contract and shall not be subject to any obligations or liabilities to the recipient, the contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

(2) Contractor agrees to include the above clause in each subcontract financed in whole or in part with FTA assistance. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

Program Fraud and False or Fraudulent Statements or Related Acts – Applicability – All contracts except micro-purchases ($10,000 or less, except for construction contracts over $2,000)

(1) Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 USC 3801 et seq. and USDOT regulations, "Program Fraud Civil Remedies," 49 CFR 31, apply to its actions pertaining to this project. Upon execution of the underlying contract, contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submittal, or certification, the US Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act (1986) on contractor to the extent the US Government deems appropriate.

(2) If contractor makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submittal, or certification to the US Government under a contract connected with a project that is financed in whole or in part with FTA assistance under the authority of 49 USC 5307, the Government reserves the right to impose the penalties of 18 USC 1001 and 49 USC 5307(n)(1) on contractor, to the extent the US Government deems appropriate. (3) Contractor shall include the above two clauses in each subcontract financed in whole or in part with FTA assistance. The clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

Termination – Applicability – All Contracts over $10,000, except contracts with nonprofit organizations and institutions of higher learning, where the threshold is $250,000

a. Termination for Convenience (General Provision) the recipient may terminate this contract, in whole or in part, at any time by written notice to contractor when it is in the recipient's best interest. Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. Contractor shall promptly submit its termination claim to the recipient. If contractor is in possession of any of the recipient's property, contractor shall account for same, and dispose of it as the recipient directs.

b. Termination for Default [Breach or Cause] (General Provision) If contractor does not deliver items in accordance with the contract delivery schedule, or, if the contract is for services, and contractor fails to perform in the manner called for in the contract, or if contractor fails to comply with any other provisions of the contract, the recipient may terminate this contract for default. Termination shall be effected by serving a notice of termination to contractor setting forth the manner in which contractor is in default. Contractor shall only be paid the contract price for supplies delivered and accepted, or for services performed in accordance with the manner of performance set forth in the contract. If it is later determined by the recipient that contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of contractor, the recipient, after setting up a new delivery or performance schedule, may allow contractor to continue work, or treat the termination as a termination for convenience.

c. Opportunity to Cure (General Provision) the recipient in its sole discretion may, in the case of a termination for breach or default, allow contractor an appropriately short period of time in which to cure the defect. In such case, the notice of termination shall state the time period in which cure is permitted and other appropriate conditions If contractor fails to remedy to the recipient's satisfaction the breach or default or any of the terms, covenants, or conditions of this Contract within ten (10) days after receipt by contractor or written notice from the recipient setting forth the nature of said breach or default, the recipient shall have the right to terminate the Contract without any further obligation to contractor. Any such termination for default shall not in any way operate to preclude the recipient from also pursuing all available remedies against contractor and its sureties for said breach or default.

d. Waiver of Remedies for any Breach In the event that the recipient elects to waive its remedies for any breach by contractor of any covenant, term or condition of this Contract, such waiver by the recipient shall not limit its remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

e. Termination for Convenience (Professional or Transit Service Contracts) the recipient, by written notice, may terminate this contract, in whole or in part, when it is in the recipient's interest. If the contract is terminated, the recipient shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

f. Termination for Default (Supplies and Service) If contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension or if the contractor fails to comply with any other provisions of this contract, the recipient may terminate this contract for default. The recipient shall terminate by delivering to contractor a notice of termination specifying the nature of default. Contractor shall only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract. If, after termination for failure to fulfill contract obligations, it is determined that contractor was not in default, the rights and obligations of the parties shall be the same as if termination had been issued for the recipient's convenience.

g. Termination for Default (Transportation Services) If contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension or if contractor fails to comply with any other provisions of this contract, the recipient may terminate this contract for default. The recipient shall terminate by delivering to contractor a notice of termination specifying the nature of default. Contractor shall only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.
If this contract is terminated while contractor has possession of the recipient goods, contractor shall, as directed by the recipient, protect and preserve the goods until surrendered to the recipient or its agent. Contractor and the recipient shall agree on payment for the preservation and protection of goods. Failure to agree on an amount shall be resolved under the Dispute clause. If, after termination for failure to fulfill contract obligations, it is determined that contractor was not in default, the rights and obligations of the parties shall be the same as if termination had been issued for the recipient's convenience.

h. Termination for Default (Construction) If contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified, or any extension, or fails to complete the work within this time, or if contractor fails to comply with any other provisions of this contract, the recipient may terminate this contract for default. the recipient shall terminate by delivering to contractor a notice of termination specifying the nature of default. In this event, the recipient may take over the work and compete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. Contractor and its sureties shall be liable for any damage to the recipient resulting from contractor's refusal or failure to complete the work within specified time, whether or not contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the recipient in completing the work.
Contractor's right to proceed shall not be terminated nor shall contractor be charged with damages under this clause if:
1. Delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of contractor. Examples of such causes include: acts of God, acts of the recipient, acts of another contractor in the performance of a contract with the recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. Contractor, within 10 days from the beginning of any delay, notifies the recipient in writing of the causes of delay. If in the recipient's judgment, delay is excusable, the time for completing the work shall be extended. The recipient's judgment shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.
If, after termination of contractor's right to proceed, it is determined that contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if termination had been issued for the recipient's convenience.

i. Termination for Convenience or Default (Architect & Engineering) the recipient may terminate this contract in whole or in part, for the recipient's convenience or because of contractor's failure to fulfill contract obligations. The recipient shall terminate by delivering to contractor a notice of termination specifying the nature, extent, and effective date of termination. Upon receipt of the notice, contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the recipient all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process. If termination is for the recipient's convenience, it shall make
an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services. If termination is for contractor's failure to fulfill contract obligations, the recipient may complete the work by contact or otherwise and contractor shall be liable for any additional cost incurred by the recipient. If, after termination for failure to fulfill contract obligations, it is determined that contractor was not in default, the rights and obligations of the parties shall be the same as if termination had been issued for the recipient's convenience.

j. Termination for Convenience or Default (Cost-Type Contracts) the recipient may terminate this contract, or any portion of it, by serving a notice or termination on contractor. The notice shall state whether termination is for convenience of the recipient or for default of contractor. If termination is for default, the notice shall state the manner in which contractor has failed to perform the requirements of the contract. Contractor shall account for any property in its possession paid for from funds received from the recipient, or property supplied to contractor by the recipient. If termination is for default, the recipient may fix the fee, if the contract provides for a fee, to be paid to contractor in proportion to the value, if any, of work performed up to the time of termination. Contractor shall promptly submit its termination claim to the recipient and the parties shall negotiate the termination settlement to be paid to contractor. If termination is for the recipient's convenience, contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination. If, after serving a notice of termination for default, the recipient determines that contractor has an excusable reason for not performing, such as strike, fire, flood, events which are not the fault of and are beyond the control of contractor, the recipient, after setting up a new work schedule, may allow contractor to continue work, or treat the termination as a termination for convenience.

Government-Wide Debarment and Suspension (Nonprocurement) – Applicability – Contracts over $25,000 The Recipient agrees to the following:

(1) It will comply with the requirements of 2 C.F.R. part 180, subpart C, as adopted and supplemented by U.S. DOT regulations at 2 C.F.R. part 1200, which include the following: (a) It will not enter into any arrangement to participate in the development or implementation of the Project with any Third Party Participant that is debarred or suspended except as authorized by: 1 U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. part 1200, 2 U.S. OMB, "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 C.F.R. part 180, including any amendments thereto, and 3 Executive Orders Nos. 12549 and 12689, "Debarment and Suspension," 31 U.S.C. § 6101 note, (b) It will review the U.S. GSA "System for Award Management," https:// www.sam.gov, if required by U.S. DOT regulations, 2 C.F.R. part 1200, and (c) It will include, and require each of its Third Party Participants to include, a similar provision in each lower tier covered transaction, ensuring that each lower tier Third Party Participant: 1 Will comply with Federal debarment and suspension requirements, and 2 Reviews the "System for Award Management" at https://www.sam.gov, if necessary to comply with U.S. DOT regulations, 2 C.F.R. part 1200, and (2) If the Recipient suspends, debars, or takes any similar action against a Third Party Participant or individual, the Recipient will provide immediate written notice to the: (a) FTA Regional Counsel for the Region in which the Recipient is located or implements the
Project, (b) FTA Project Manager if the Project is administered by an FTA Headquarters Office, or (c) FTA Chief Counsel,

Contracts Involving Federal Privacy Act Requirements – Applicability – When a grantee maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier, the Privacy Act requirements apply to all contracts except micro-purchases ($10,000 or less, except for construction contracts over $2,000)
The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

(1) The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

(2) The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

Civil Rights Requirements – Applicability – All contracts except micro-purchases ($10,000 or less, except for construction contracts over $2,000) The following requirements apply to the underlying contract:
The Recipient understands and agrees that it must comply with applicable Federal civil rights laws and regulations, and follow applicable Federal guidance, except as the Federal Government determines otherwise in writing. Therefore, unless a Recipient or Program, including an Indian Tribe or the Tribal Transit Program, is specifically exempted from a civil rights statute, FTA requires compliance with that civil rights statute, including compliance with equity in service:

a. Nondiscrimination in Federal Public Transportation Programs. The Recipient agrees to, and assures that each Third Party Participant will, comply with Federal transit law, 49 U.S.C. § 5332 (FTA's "Nondiscrimination" statute): (1) FTA's "Nondiscrimination" statute prohibits discrimination on the basis of: (a) Race, (b) Color, (c) Religion, (d) National origin, (e) Sex, (f) Disability, (g) Age, or (h) Gender identity and (2) The FTA "Nondiscrimination" statute's prohibition against discrimination includes: (a) Exclusion from participation, (b) Denial of program benefits, or (c) Discrimination, including discrimination in employment or business opportunity, (3) Except as FTA determines otherwise in writing: (a) General. Follow: 1 The most recent edition of FTA Circular 4702.1, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients," to the extent consistent with applicable Federal laws, regulations, and guidance, and 2 Other applicable Federal guidance that may be issued, but (b) Exception for the Tribal Transit Program. FTA does not require an Indian Tribe to comply with FTA program-specific guidelines for Title VI when administering its projects funded under the Tribal Transit Program,

b. Nondiscrimination – Title VI of the Civil Rights Act. The Recipient agrees to, and assures that each Third Party Participant will: (1) Prohibit discrimination based on: (a) Race, (b) Color, or (c) National origin, (2) Comply with: (a) Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000d et seq., (b) U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964," 49 C.F.R. part 21, and (c) Federal transit law, specifically 49 U.S.C. § 5332, as stated in the preceding section a, and
(3) Except as FTA determines otherwise in writing, follow: (a) The most recent edition of FTA Circular 4702.1, "Title VI and Title VI-Dependent Guidelines for Federal Transit Administration Recipients," to the extent consistent with applicable Federal laws, regulations, and guidance. (b) U.S. DOJ, "Guidelines for the enforcement of Title VI, Civil Rights Act of 1964," 28 C.F.R. § 50.3, and (c) Other applicable Federal guidance that may be issued,

c. Equal Employment Opportunity. (1) Federal Requirements and Guidance. The Recipient agrees to, and assures that each Third Party Participant will, prohibit discrimination on the basis of race, color, religion, sex, or national origin, and: (a) Comply with Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e et seq., (b) Facilitate compliance with Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order No. 11246, Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note, (c) Comply with Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a, and (d) Comply with FTA Circular 4704.1other applicable EEO laws and regulations, as provided in Federal guidance, including laws and regulations prohibiting discrimination on the basis of disability, except as the Federal Government determines otherwise in writing, (2) General. The Recipient agrees to: (a) Ensure that applicants for employment are employed and employees are treated during employment without discrimination on the basis of their: 1 Race, 2 Color, 3 Religion, 4 Sex, 5 Disability, 6 Age, or 7 National origin, (b) Take affirmative action that includes, but is not limited to: 1 Recruitment advertising, 2 Recruitment, 3 Employment, 4 Rates of pay, 5 Other forms of compensation, 6 Selection for training, including apprenticeship, 7 Upgrading, 8 Transfers, 9 Demotions, 10 Layoffs, and 11 Terminations, but (b) Indian Tribe. Title VII of the Civil Rights Act of 1964, as amended, exempts Indian Tribes under the definition of "Employer".

(3) Equal Employment Opportunity Requirements for Construction Activities. In addition to the foregoing, when undertaking "construction" as recognized by the U.S. Department of Labor (U.S. DOL), the Recipient agrees to comply, and assures the compliance of each Third Party Participant, with: (a) U.S. DOL regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and (b) Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order No. 11246, Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note,

d. Disadvantaged Business Enterprise. To the extent authorized by applicable Federal law, the Recipient agrees to facilitate, and assures that each Third Party Participant will facilitate, participation by small business concerns owned and controlled by socially and economically disadvantaged individuals, also referred to as "Disadvantaged Business Enterprises" (DBEs), in the Project as follows: 1) Requirements. The Recipient agrees to comply with: (a) Section 1101(b) of Map-21, 23 U.S.C. § 101 note, (b) U.S. DOT regulations, "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs," 49 C.F.R. part 26, and (c) Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a, (2) Assurance. As required by 49 C.F.R. § 26.13(a), (b) DBE Program Requirements. Recipients receiving planning, capital and/or operating assistance that will award prime third party contracts exceeding $250,000 in a Federal fiscal year must: 1 Have a DBE program meeting the requirements of 49 C.F.R. part 26, 2 Implement a DBE program approved by FTA, and 3 Establish an annual DBE participation goal, (c) Special Requirements for a Transit Vehicle Manufacturer. The Recipient understands and agrees that each transit vehicle manufacturer, as a condition of being authorized to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has complied with the requirements of 49 C.F.R. part 26,
(d) the Recipient provides assurance that: The Recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 C.F.R. part 26. The Recipient shall take all necessary and reasonable steps under 49 C.F.R. part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The Recipient's DBE program, as required by 49 C.F.R. part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the Recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under 49 C.F.R. part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. § 1001 and/or the Program Fraud Civil Remedies Act of 1986, 31 U.S.C. § 3801 et seq., (2) Exception for the Tribal Transit Program. FTA exempts Indian tribes from the Disadvantaged Business Enterprise regulations at 49 C.F.R. part 26 under Map-21and previous legislation,

e. Nondiscrimination on the Basis of Sex. The Recipient agrees to comply with Federal prohibitions against discrimination on the basis of sex, including: (1) Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq., (2) U.S. DOT regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 C.F.R. part 25, and (3) Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a,

f. Nondiscrimination on the Basis of Age. The Recipient agrees to comply with Federal prohibitions against discrimination on the basis of age, including:
(1) The Age Discrimination in Employment Act (ADEA), 29 U.S.C. §§ 621 – 634, which prohibits discrimination on the basis of age, (2) U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, which implements the ADEA, (3) The Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., which prohibits discrimination against individuals on the basis of age in the administration of programs or activities receiving Federal funds, (4) U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, which implements the Age Discrimination Act of 1975, and (5) Federal transit law, specifically 49 U.S.C. § 5332, as stated in section a,

g. Nondiscrimination on the Basis of Disability. The Recipient agrees to comply with the following Federal prohibitions pertaining to discrimination against seniors or individuals with disabilities: (1) Federal laws, including: (a) Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of disability in the administration of federally funded programs or activities, (b) The Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. § 12101 et seq., which requires that accessible facilities and services be made available to individuals with disabilities, 1 General. Titles I, II, and III of the ADA apply to FTA Recipients, but 2 Indian Tribes. While Titles II and III of the ADA apply to Indian Tribes, Title I of the ADA exempts Indian Tribes from the definition of "employer," (c) The Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities, (d) Federal transit law, specifically 49 U.S.C. § 5332, which now includes disability as a prohibited basis for discrimination, and (e) Other applicable laws and amendments pertaining to access for elderly individuals or individuals with disabilities, (2) Federal regulations, including: (a) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. part 37, (b) U.S. DOT regulations, "Nondiscrimination on the Basis of Disability in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. part 27, (c) U.S. DOT regulations, "Transportation for Individuals with Disabilities: Passenger Vessels," 49 C.F.R. part 39, (d) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB) and U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. part 1192 and 49 C.F.R. part 38, (e) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. part 35, (f) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. part 36, (g) U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. part 1630, (h) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for Persons with Disabilities," 47 C.F.R. part 64, Subpart F, (i) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. part 1194, and (j) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. part 609, and (3) Other applicable Federal civil rights and nondiscrimination guidance,

h. Drug or Alcohol Abuse - Confidentiality and Other Civil Rights Protections. The Recipient agrees to comply with the confidentiality and civil rights protections of: (1) The Drug Abuse Office and Treatment Act of 1972, as amended, 21 U.S.C. § 1101 et seq., (2) The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, as amended, 42 U.S.C. § 4541 et seq., and (3) The Public Health Service Act, as amended, 42 U.S.C. §§ 290dd – 290dd-2,

i. Access to Services for People with Limited English Proficiency. Except as the Federal Government determines otherwise in writing, the Recipient agrees to promote accessibility of public transportation services to people whose understanding of English is limited by following: 1) Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," August 11, 2000, 42 U.S.C. § 2000d-1 note, and (2) U.S. DOT Notice, "DOT Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficiency (LEP) Persons," 70 Fed. Reg. 74087, December 14, 2005,

j. Other Nondiscrimination Laws. Except as the Federal Government determines otherwise in writing, the Recipient agrees to: (1) Comply with other applicable Federal nondiscrimination laws and regulations, and (2) Follow Federal guidance prohibiting discrimination.

k. Remedies. Remedies for failure to comply with applicable Federal Civil Rights laws and Federal regulations may be enforced as provided in those Federal laws or Federal regulations.

Breaches and Dispute Resolution – Applicability – All contracts over $250,000 Disputes arising in the performance of this contract which are not resolved by agreement of the parties shall be decided in writing by the recipient's authorized representative. This decision shall be final and conclusive unless within ten days from the date of receipt of its copy, contractor mails or otherwise furnishes a written appeal to the recipient's CEO. In connection with such appeal, contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the recipient's CEO shall be binding upon contractor and contractor shall abide by the decision. FTA has a vested interest in the settlement of any violation of Federal law including the False Claims Act, 31 U.S.C. § 3729.

Performance During Dispute - Unless otherwise directed by the recipient, contractor shall continue performance under this contract while matters in dispute are being resolved. Claims for Damages - Should either party to the contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within ten days after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the recipient and contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the residing State.

Rights and Remedies - Duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the recipient or contractor shall constitute a waiver of any right or duty afforded any of them under the contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Disadvantaged Business Enterprise (DBE) – Applicability – Contracts over $10,000 awarded on the basis of a bid or proposal offering to use DBEs

a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The recipient's overall goal for DBE participation is listed elsewhere. If a separate contract goal for DBE participation has been established for this procurement, it is listed elsewhere.
b. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this contract. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the municipal corporation deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).
c. If a separate contract goal has been established, Bidders/offerors are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53.
d. If no separate contract goal has been established, the successful bidder/offeror will be required to report its DBE participation obtained through race- neutral means throughout the period of performance.
e. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the recipient. In addition, the contractor may not hold retainage from its subcontractors or must return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed or must return any retainage payments to those subcontractors within 30 days after incremental acceptance of the subcontractor's work by the recipient and contractor's receipt of the partial retainage payment related to the subcontractor's work.
f. The contractor must promptly notify the recipient whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of the recipient.

Prompt Payment – Applicability – All contracts except micropurchases $10,000 or less, (except for construction contracts over $2,000)

The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contract receives from the Recipient. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractors work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Recipient. This clause applies to both DBE and non-DBE subcontracts.

Incorporation of Federal Transit Administration (FTA) Terms – Applicability – All contracts except micro-purchases ($10,000 or less, except for construction contracts over $2,000)
The preceding provisions include, in part, certain Standard Terms & Conditions required by USDOT, whether or not expressly stated in the preceding contract provisions. All USDOTrequired contractual provisions, as stated in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The contractor shall not perform any act, fail to perform any act, or refuse to comply with any request that would cause the recipient to be in violation of FTA terms and conditions.

Other Federal Requirements:

Full and Open Competition - In accordance with 49 U.S.C. $ 5325(h) all procurement transactions shall be conducted in a manner that provides full and open competition.

Prohibition Against Exclusionary or Discriminatory Specifications - Apart from inconsistent requirements imposed by Federal statute or regulations, the contractor shall comply with the requirements of 49 USC 5323(h)(2) by refraining from using any FTA assistance to support procurements using exclusionary or discriminatory specifications.

Conformance with ITS National Architecture - Contractor shall conform, to the extent applicable, to the National Intelligent Transportation Standards architecture as required by SAFETEA-LU Section 5307(c), 23 U.S.C. Section 512 note and follow the provisions of FTA Notice, "FTA National Architecture Policy on Transit Projects," 66 Fed. Reg.1455 etseq., January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.

Access Requirements for Persons with Disabilities - Contractor shall comply with 49 USC 5301(d), stating Federal policy that the elderly and persons with disabilities have the same rights as other persons to use mass transportation services and facilities and that special efforts shall be made in planning and designing those services and facilities to implement that policy. Contractor shall also comply with all applicable requirements of Sec. 504 of the Rehabilitation Act (1973), as amended, 29 USC 794, which prohibits discrimination on the basis of handicaps, and the Americans with Disabilities Act of 1990 (ADA), as amended, 42 USC 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments thereto.

Notification of Federal Participation - To the extent required by law, in the announcement of any third party contract award for goods and services (including construction services) having an aggregate value of $500,000 or more, contractor shall specify the amount of Federal assistance to be used in financing that acquisition of goods and services and to express that amount of Federal assistance as a percentage of the total cost of the third party contract.

Interest of Members or Delegates to Congress - No members of, or delegates to, the US Congress shall be admitted to any share or part of this contract nor to any benefit arising therefrom.

Ineligible Contractors and Subcontractors - Any name appearing upon the Comptroller General's list of ineligible contractors for federally- assisted contracts shall be ineligible to act as a subcontractor for contractor pursuant to this contract. If contractor is on the Comptroller General's list of ineligible contractors for federally financed or assisted construction, the recipient shall cancel, terminate or suspend this contract.

Other Contract Requirements - To the extent not inconsistent with the foregoing Federal requirements, this contract shall also include those standard clauses attached hereto, and shall comply with the recipient's Procurement Guidelines, available upon request from the recipient.

Compliance With Federal Regulations - Any contract entered pursuant to this solicitation shall contain the following provisions: All USDOT- required contractual provisions, as set forth in FTA Circular 4220.1F, are incorporated by reference. Anything to the contrary herein notwithstanding, FTA mandated terms shall control in the event of a conflict with other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any grantee request that would cause the recipient to be in violation of FTA terms and conditions. Contractor shall comply with all applicable FTA regulations, policies, procedures and directives, including, without limitation, those listed directly or incorporated by reference in the Master Agreement between the recipient and FTA, as may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

Real Property - Any contract entered into shall contain the following provisions: Contractor shall at all times comply with all applicable statutes and USDOT regulations, policies, procedures and directives governing the acquisition, use and disposal of real property, including, but not limited to, 49 CFR 18.31-18.34, 49 CFR 19.30-19.37, 49 CFR Part 24, 49 CFR 5326 as amended by Map-21, 49 CFR part 18 or 19, 49 USC 5334, applicable FTA Circular 5010, and FTA Master Agreement, as they may be amended or promulgated during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

Access to Services for Persons with Limited English Proficiency - To the extent applicable and except to the extent that FTA determines otherwise in writing, the Recipient agrees to comply with the policies of Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," 42 U.S.C. § 2000d 1 note, and with the provisions of U.S. DOT Notice, "DOT Guidance to Recipients on Special Language Services to Limited English Proficient (LEP) Beneficiaries," 70 Fed. Reg. 74087, December 14, 2005.

Environmental Justice - Except as the Federal Government determines otherwise in writing, the Recipient agrees to promote environmental justice by following: (1) Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," February 11, 1994, 42 U.S.C. $ 4321 note, as well as facilitating compliance with that Executive Order, and (2) DOT Order 5610.2, "Department of Transportation Actions To Address Environmental Justice in Minority Populations and Low-Income Populations," 62 Fed. Reg. 18377, April 15, 1997, and (3) The most recent and applicable edition of FTA Circular 4703.1, "Environmental Justice Policy Guidance for Federal Transit Administration Recipients," August 15, 2012, to the extent consistent with applicable Federal laws, regulations, and guidance,

Environmental Protections - Compliance is required with any applicable Federal laws imposing environmental and resource conservation requirements for the project. Some, but not all, of the major Federal laws that may affect the project include: the National Environmental Policy Act of 1969; the Clean Air Act; the Resource Conservation and Recovery Act; the comprehensive Environmental response, Compensation and Liability Act; as well as environmental provisions with Title 23 U.S.C., and 49 U.C. chapter 53. The U.S. EPA, FHWA and other federal agencies may issue other federal regulations and directives that may affect the project. Compliance is required with any applicable Federal laws and regulations in effect now or that become effective in the future.

Geographic Information and Related Spatial Data - (NOT APPLICABLE TO THE TRIBAL TRANSIT PROGRAM) Any project activities involving spatial data or geographic information systems activities financed with Federal assistance are required to be consistent with the National Spatial Data Infrastructure promulgated by the Federal Geographic Data Committee, except to the extent that FTA determines otherwise in writing.

Geographic Preference - All project activities must be advertised without geographic preference, (except in A/E under certain circumstances, preference for hiring veterans on transit construction projects and geographic-based hiring preferences as proposes to be amended in 2 CFR Part 1201).

Federal Single Audit Requirements - For State Administered Federally Aid Funded Projects Only Non Federal entities that expend $750,000 or more in a year in Federal awards from all sources are required to comply with the Federal Single Audit Act provisions contained in U.S. Office of Management and Budget (OMB) Circular No. A 133, "Audits of States, Local Governments, and Non Profit Organizations" (replaced with 2 CFR Part 200,"Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" effective December 26, 2014 as applicable). Non Federal entities that expend Federal awards from a single source may provide a program specific audit, as defined in the Circular. Non Federal entities that expend less than the amount above in a year in Federal awards from all sources are exempt from Federal audit requirements for that year, except as noted in Sec. 215 (a) of OMB Circular A-133 Subpart B--Audits, records must be available for review or audit by appropriate officials of the cognizant Federal agency the New York State Department of Transportation, the New York State Comptrollers Office and the U.S. Governmental Accountability Office (GAO). Non Federal entities are required to submit a copy of all audits, as described above, within 30 days of issuance of audit report, but no later than 9 months after the end of the entity's fiscal year, to the New York State Department of Transportation, Contract Audit Bureau, 50 Wolf Road, Albany, NY 12232. Unless a time extension has been granted by the cognizant Federal Agency and has been filed with the New York State Department of Transportation's Contract Audit Bureau, failure to comply with the requirements of OMB Circular A-133 may result in suspension or termination of Federal award payments. Catalog of Federal Domestic Assistance (CFDA) Identification Number The municipal project sponsor is required to identify in its accounts all Federal awards received and expended, and the Federal programs under which they were received. Federal program and award identification shall include, as applicable, the CFDA title and number, award number and year, name of the Federal agency, and name of the pass through entity.

Veterans Preference - As provided by 49 U.S.C. 5325(k), to the extent practicable, the Recipient agrees and assures that each of its Subrecipients:
(1) Will give a hiring preference to veterans, as defined in 5 U.S.C. § 2108, who have the skills and abilities required to perform construction work required under a third party contract in connection with a Capital Project supported with federal assistance appropriated or made available for 49 U.S.C. chapter 53, and (2) Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

Safe Operation of Motor Vehicles
a. Seat Belt Use. The Recipient agrees to implement Executive Order No. 13043, “Increasing Seat Belt Use in the United States,” April 16, 1997, 23 U.S.C. § 402 note, (62 Fed. Reg. 19217), by: (1) Adopting and promoting on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles, and (2) Including a “Seat Belt Use” provision in each third party agreement related to the Award. b. Distracted Driving, Including Text Messaging While Driving. The Recipient agrees to comply with: (1) Executive Order No. 13513, “Federal Leadership on Reducing Text Messaging While Driving,” October 1, 2009, 23 U.S.C. § 402 note, (74 Fed. Reg. 51225), (2) U.S. DOT Order 3902.10, “Text Messaging While Driving,” December 30, 2009, and (3) The following U.S. DOT Special Provision pertaining to Distracted Driving: (a) Safety. The Recipient agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Recipient owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the Award, or when performing any work for or on behalf of the Award, (b) Recipient Size. The Recipient agrees to conduct workplace safety initiatives in a manner commensurate with its size, such as establishing new rules and programs to prohibit text messaging while driving, re-evaluating the existing programs to prohibit text messaging while driving, and providing education, awareness, and other outreach to employees about the safety risks associated with texting while driving, and (c) Extension of Provision. The Recipient agrees to include the preceding Special Provision of section 34.b(3)(a) – (b) of this Master Agreement in its third party agreements, and encourage its Third Party Participants to comply with this Special Provision, and include this Special Provision in each third party subagreement at each tier supported with federal assistance.

Catalog of Federal Domestic Assistance (CFDA) Identification Number - The municipal project sponsor is required to identify in its accounts all Federal awards received and expended, and the Federal programs under which they were received. Federal program and award identification shall include, as applicable, the CFDA title and number, award number and year, name of the Federal agency, and name of the pass through entity.

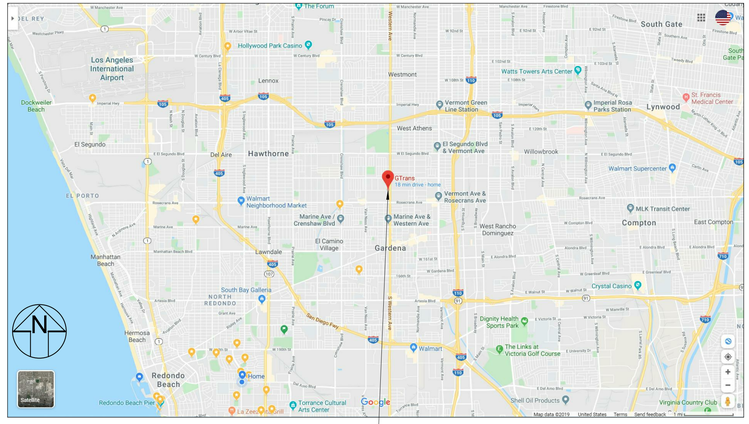
The CFDA number for the Federal Transit Administration - Nonurbanized Area Formula (Section 5311) is 20.509. A Recipient covered by the Single Audit Act Amendments of 1996 and OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," (replaced with 2 CFR Part 200,"Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards" effective December 26, 2014 as applicable) agrees to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by OMB Circular A-133. The Recipient agrees to accomplish this by identifying expenditures for Federal awards made under Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF-SAC by CFDA number, and inclusion of the prefix "ARRA" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF-SAC.

Organizational Conflicts of Interest - The Recipient agrees that it will not enter into a procurement that involves a real or apparent organizational conflict of interest described as follows: (1) When It Occurs. An organizational conflict of interest occurs when the Project work, without appropriate restrictions on certain future activities, results in an unfair competitive advantage: (a) To that Third Party Participant or another Third Party Participant performing the Project work, and (b) That impairs that Third Party Participant's objectivity in performing the Project work, or (2) Other. An organizational conflict of interest may involve other situations resulting in fundamentally unfair competitive conditions, (3) Disclosure Requirements. Consistent with FTA policies, the Recipient must disclose to FTA, and each of its Subrecipients must disclose to the Recipient: (a) Any instances of organizational conflict of interest, or (b) Violations of federal criminal law, involving fraud, bribery, or gratuity violations potentially affecting the federal award, and (4) Failure to Disclose. Failure to make required disclosures can result in remedies for noncompliance, including debarment or suspension.

GTRANS

CNG FUELING FACILITY AND GARAGE MODIFICATION

13999 S. WESTERN AVE., GARDENA, CA 90249



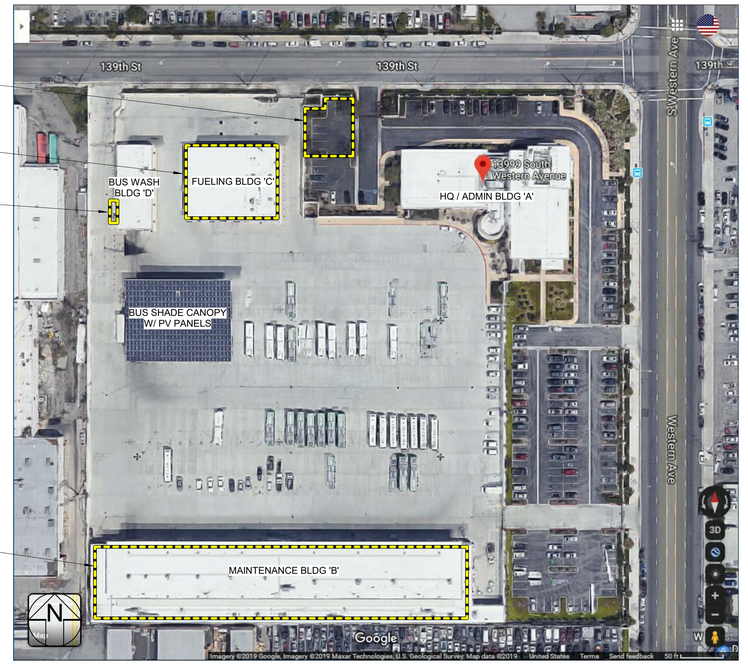
PROJECT LOCATION

CNG FUELING FACILITY
CNG EQUIPMENT COMPOUND

CNG FUELING FACILITY
FUELING BUILDING

CNG ELECTRICAL UPGRADE

GARAGE MODIFICATION



PROJECT AREA

PROJECT INFORMATION

PROPERTY OWNER
CITY OF GARDENA, GTRANS
13999 S WESTERN AVE, GARDENA, CA 90249
(310) 965-8888 / RGOLDMAN@GARDENABUS.COM
ATTN: ROD GOLDMAN, PROJECT MANAGER

PROJECT CONSULTANTS

LEAD DESIGN AND PRELIMINARY MECHANICAL ENGINEERING
FUEL SOLUTIONS, INC.
5755 UPLANDER WAY, SUITE A
CULVER CITY, CA 90230
310-207-8548
ATTN: REB GUTHRIE, FAYE FARAHMAND, P.E.

PRELIMINARY ELECTRICAL ENGINEERING
C&J TECHNICAL SOLUTIONS & SERVICES, INC.
4000 VALLEY BLVD. #103
WALNUT, CA 91789
(909) 598-6067
ATTN: JOHN JOLLEY, P.E.

SHEET LIST

SHEET	TITLE
OVERALL PROJECT	
G-001	COVER SHEET & SHEET LIST
G-002	GENERAL PROJECT NOTES & CODES
G-101	PROJECT SITE PLAN
G-102	CIVIL SURVEY PLAN
CNG FUELING FACILITY	
D-001	CNG FUEL SYSTEM GENERAL NOTES
D-101	CONCEPTUAL CNG EQUIPMENT PLAN
D-501	EQUIPMENT SCHEDULE
D-601	CONCEPTUAL PROCESS FLOW DIAGRAM
ELECTRICAL DRAWINGS	
E-001	ELECTRICAL NOTES
E-101	ELECTRICAL PLAN
E-601	CONCEPTUAL SINGLE-LINE DIAGRAM
GARAGE MODIFICATION	
M-001	CNG GARAGE MODIFICATION GENERAL NOTES
M-100	BLDG. B LEVEL 1 PLAN
M-101	BLDG. B LEVEL 1 AREA A
M-102	BLDG. B LEVEL 1 AREA B
M-501	EQUIPMENT SCHEDULE
M-502	HVAC CALCULATIONS
M-503	GAS DETECTION SEQUENCE OF OPERATIONS
M-504	IR HEATER SCHEDULE

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

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CNG FUELING FACILITY AND GARAGE MODIFICATION
13999 S. WESTERN AVE., GARDENA, CA 90249
Client

Sub Consultants

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COVER SHEET & SHEET LIST
Sheet Title

Project No
Scale
G-001
Sheet No
Sheet 1 of
Project Status

Designer Designed
Drawn
Checker Checked
Approver Approved
02/13/20 Issue Date

FUEL SOLUTIONS
5755 Uplander Way Suite A
Culver City, CA 90230
310-207-8548

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GENERAL PROJECT NOTES

1. THE TERM 'CONTRACTOR' OR 'CONTRACTORS' AS USED IN THESE GENERAL NOTES SHALL REFER TO THE PRIME CONTRACTOR OR GENERAL CONTRACTOR AS WELL AS TO ALL SUBCONTRACTORS PERFORMING THE PROJECT WORK.

2. CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO IMPLEMENT COMPLETE, FULLY FUNCTIONAL, CODE COMPLIANT AND SAFE CNG FUELING FACILITY AND CNG GARAGE MODIFICATION UPGRADE AS REQUIRED IN THIS SET OF DRAWINGS.

3. THIS SET OF SCHEMATIC DESIGN DOCUMENTS COVERS CONCEPTUAL DESIGN. CONTRACTOR SHALL PROVIDE FULLY ENGINEERED DESIGN DRAWINGS AND SPECIFICATIONS SEALED BY CALIFORNIA LICENSED ENGINEERS. CONTRACTOR SHALL OBTAIN APPROVAL FROM AUTHORITY HAVING JURISDICTION ON PLAN CHECK APPROVAL AND PERMIT.

4. ALL REQUIREMENTS IN THESE NOTES APPLY SIMILARLY TO EACH PROJECT PART, UNLESS WRITTEN OTHERWISE. THIS PROJECT IS COMPRISED OF TWO PARTS, AS FOLLOWS:

   A. DESIGN AND CONSTRUCTION OF A CNG FUELING SYSTEM FOR TRANSIT BUS FUELING.

   B. DESIGN AND CONSTRUCTION OF MODIFICATIONS TO AN EXISTING MAINTENANCE GARAGE AS NEEDED TO ALLOW FOR SAFE SERVICING OF CNG FUELED VEHICLES.

5. PROJECT IS DESIGN-BUILD TYPE. CONTRACTOR SHALL PREPARE TWO SEPARATE AND COMPLETE SETS OF CONSTRUCTION DRAWINGS, INCLUDING ONE EACH FOR THE FUELING FACILITY AND FOR THE GARAGE MODIFICATIONS.

   A. EACH DRAWING SET SHALL BE STANDALONE AND SHALL INCLUDE ALL REQUIRED DESIGN DISCIPLINES, INCLUDING MECHANICAL, ELECTRICAL AND STRUCTURAL PROJECT ELEMENTS SO THAT EACH PROJECT PART WILL BE COMPLETE, SAFE, FUNCTIONAL AND CODE COMPLIANT.

   B. EACH CONSTRUCTION DRAWING PACKAGE PREPARED BY THE CNG CONTRACTOR SHALL BE SEALED BY PROFESSIONAL ENGINEERS LICENSED IN THE STATE OF CALIFORNIA.

   C. DRAWING PACKAGES SHALL BE APPROVED FOR CONSTRUCTION BY THE CITY OF GARDENA BUILDING DEPARTMENT, AND THE CITY OF GARDENA FIRE DEPARTMENT.

   D. CONTRACTOR'S DESIGNS SHALL BE GENERALLY CONSISTENT WITH THE CONCEPTUAL DESIGNS SHOWN IN THIS DRAWING PACKAGE, AND SHALL BE APPROVED BY THE OWNER.

   E. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR DESIGN OF EACH PROJECT PART.

6. CONTRACTOR SHALL PREPARE AND MAINTAIN TWO SCHEDULES SHOWING KEY MILESTONES FOR EACH PROJECT PART. EACH SCHEDULE SHALL INCLUDE TRACKING OF:

   - DESIGN DELIVERABLES AT 30%, 60%, 90% (PLAN CHECK SUBMITTAL), AND 100% (PLAN CHECK APPROVAL)
   - SUBMITTALS FOR EQUIPMENT AND MATERIALS
   - MANUFACTURE, SHIPPING AND DELIVERY OF KEY COMPONENTS AND EQUIPMENT
   - SITE MOBILIZATION
   - ANY INTERRUPTION OF USE OF EXISTING INFRASTRUCTURE OR OTHER DOWNTIME
   - PRECOMMISSIONING
   - COMMISSIONING
   - USER TRAINING
   - TURN OVER OF MAINTENANCE MANUALS
   - PLACE INTO REGULAR SERVICE / DECLARATION OF SUBSTANTIAL COMPLETION
   - PREPARATION AND DELIVERY OF ASBUILT DRAWINGS
   - START OF WARRANTY PERIOD

7. ALL INSTALLATION AND CONSTRUCTION WORK SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS AT THE MOST CURRENT VERSION AS ADOPTED BY THE STATE OF CALIFORNIA AND CITY OF GARDENA:

   - CALIFORNIA BUILDING CODE (CBC)
   - CALIFORNIA MECHANICAL CODE (CMC)
   - CALIFORNIA ELECTRIC CODE (CEC)
   - CALIFORNIA FIRE CODE (CFC), INCLUDING SECTION 2311
   - NFPA 30A - MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES
   - INSTALLATION SHALL ALSO CONFORM TO OTHER REQUIREMENTS SET FORTH IN THE PROJECT DOCUMENTS
   - NFPA 52 - VEHICULAR NATURAL GAS FUEL SYSTEMS CODE
   - TITLE 24 OF THE CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, SECTION 8
   - ANSI/ASME B31.3
   - INSTALLATION SHALL ALSO CONFORM TO OTHER REQUIREMENTS SET FORTH IN THE PROJECT DOCUMENTS, AND AS REQUIRED BY AHJ'S.
   - COMPLY WITH 'BUY AMERICA' REQUIREMENTS, PER CONTRACT DOCUMENTS.

8. ANY INTERRUPTION OF USE OF EXISTING WORK SPACE OR FUNCTIONAL AREA OF THE FACILITY SHALL BE COORDINATED AND SCHEDULED WITH AND APPROVED BY THE OWNER AT LEAST 3 WORK DAYS IN ADVANCE.

9. IN THE EVENT OF A CONFLICT BETWEEN DRAWINGS, WRITTEN SPECIFICATIONS, AND/OR REFERENCED STANDARDS, THE REFERENCE THAT IS MOST STRINGENT OR THAT PROVIDES THE MOST PROTECTION TO THE OWNER SHALL GOVERN.

10. THE CONTRACTOR SHALL PRESERVE AND MAINTAIN ACCESS TO EXISTING EXITS AND MAKE EVERY EFFORT TO MINIMIZE DISRUPTIONS TO EXISTING OPERATIONS AT ALL TIMES DURING CONSTRUCTION.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL MATERIALS, LABOR, INSTALLATION, FABRICATION, ETC., SHALL CONFORM TO ALL CODES AND REGULATIONS OF APPLICABLE GOVERNING AGENCIES.

12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND SITE CONDITIONS AND CONSTRUCTABILITY PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES THAT ARE FOUND BETWEEN THE DESIGN DOCUMENTS AND THE SITE CONDITIONS AND CONFIGURATION, WHICH MAY IMPACT THE SCOPE OF WORK OR THE CONSTRUCTABILITY OF ANY DESIGN ELEMENT SHOWN IN THE DRAWINGS.

13. CONTRACTOR SHALL MAINTAIN JOB SITE IN A CLEAN AND ORDERLY CONDITION, AND FREE OF DEBRIS AND LITTER.

14. CONSTRUCTION MATERIALS STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE AND DETERIORATION UNTIL USED OR INSTALLED. FAILURE TO PROTECT MATERIALS MAY BE CAUSE FOR REJECTION OF WORK.

15. CONTRACTOR SHALL PROTECT NEW AND EXISTING FINISHES AND CONSTRUCTION FROM DAMAGE THAT MAY OCCUR DURING CONSTRUCTION. DAMAGE TO NEW OR EXISTING FINISHES SHALL BE REPAIRED OR REPLACED, AS DIRECTED BY THE OWNER, AND WITH MATERIAL, FINISH AND COLOR THAT MATCHES THE ORIGINAL, AND AT THE CONTRACTOR'S EXPENSE.

16. PROVIDE SUBMITTALS FOR ALL MATERIALS AND EQUIPMENT SHOWN ON THE DRAWINGS, INCLUDING SENSOR, TRANSMITTER, CONTROLLER, ANNUNCIATORS, OPERATIONAL SOFTWARE, WIRING, CONDUIT, SUPPORT MATERIALS AND APPURTENANCES, AS WELL AS IR HEATING SYSTEM ELEMENTS, MOTORIZED DAMPERS AND VOLUME DAMPERS.

17. CONTRACTOR SHALL INSTALL AND COMMISSION ALL EQUIPMENT, COMPONENTS AND MATERIALS IN COMPLIANCE WITH RESPECTIVE MANUFACTURERS' WRITTEN INSTALLATION INSTRUCTIONS.

18. THE CONTRACTOR SHALL COMPLETE AND WARRANTY EACH PROJECT PART INDEPENDENTLY. THE MATERIALS AND WORKMANSHIP FOR EACH OF THE TWO PROJECT PARTS SHALL BE WARRANTED TO BE FREE OF DEFECTS IN DESIGN, MANUFACTURE, AND INSTALLATION FOR A PERIOD OF 12 MONTHS FOLLOWING THE DECLARATION OF SUBSTANTIAL OF EACH PROJECT PART AS BEING COMPLETE BY THE OWNER.

No	Revision Description	Date
2	ADDENDUM 03	09/24/20
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FUELING FACILITY AND GARAGE MODIFICATION
13999 S. WESTERN AVE., GARDENA, CA 90249

Client

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GENERAL PROJECT NOTES & CODES

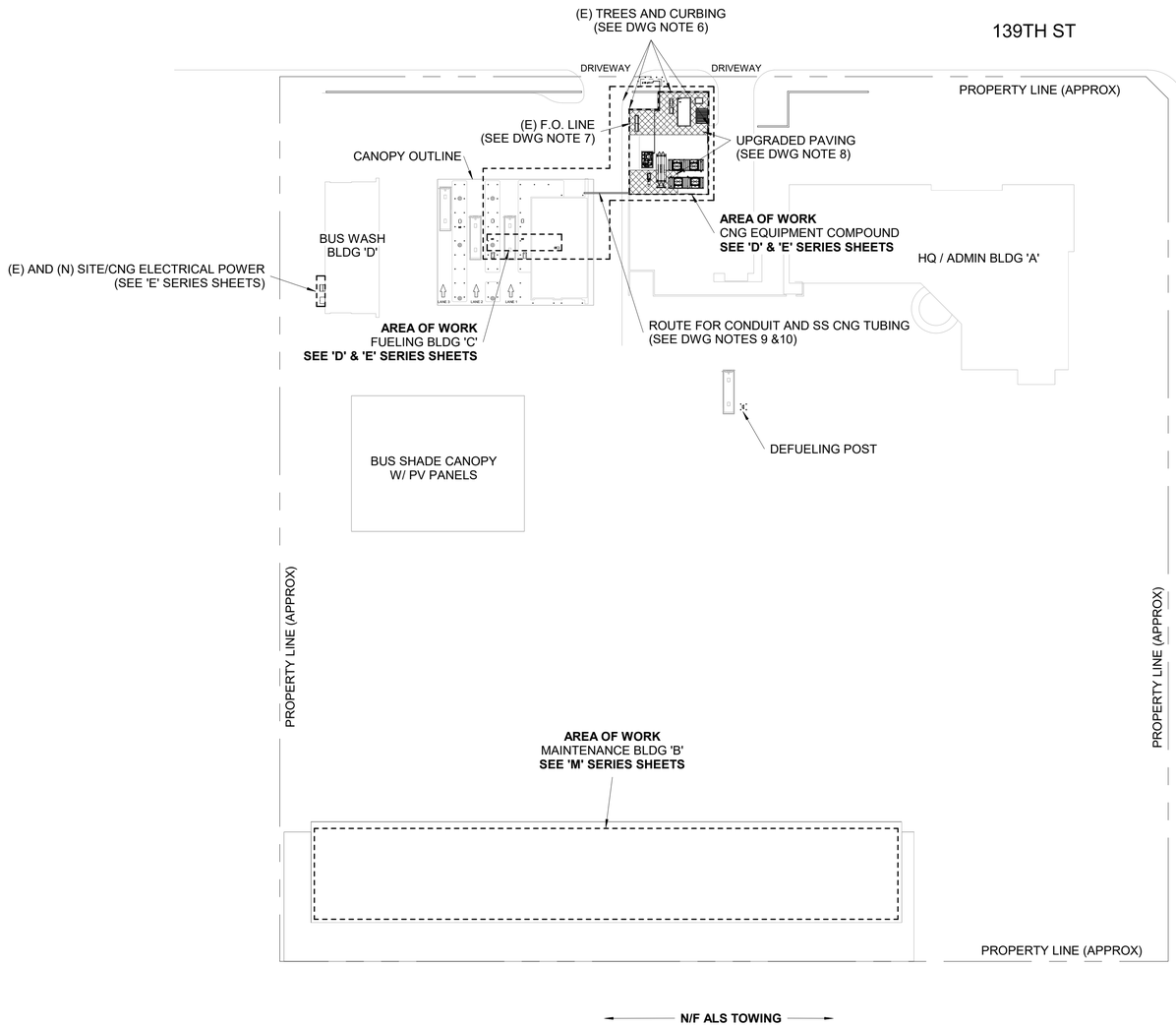
Sheet Title

Designer: Designed	Project No: Project Number		
Drawn	Scale		
Checker: Checked	Sheet No: G-002	Sheet 1 of 1	
Approver: Approved	Project Status: 30% SD		
12/27/19: Issue Date			

FUEL SOLUTIONS
5755 Uplander Way, Suite A
Culver City, CA 90230
310-207-8548

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2 SITE PLAN
1" = 50'-0"

DRAWING NOTES

1. SEE OVERALL PROJECT REQUIREMENTS AND SCOPE ON SHEET G-002 AND SPECIFICATIONS MANUAL.
2. SEE 'M' SERIES DRAWINGS FOR REQUIREMENTS FOR GARAGE MODIFICATIONS AT MAINTENANCE BUILDING.
3. SEE 'D' AND 'E' SERIES DRAWINGS FOR REQUIREMENTS FOR CNG-FUELING SYSTEM.
4. LOCATION OF DEFUELING POST (HEX-KEY #16) IS PRELIMINARY. COORDINATE EXACT LOCATION WITH THE OWNER. SEE SHEET D-501 FOR ADDITIONAL REQUIREMENTS FOR DEFUELING POST.
5. PROTECT DEFUELING POST WITH (4) 6" DIA. PIPE BOLLARDS SPACED 4' O.C.
6. REMOVAL OF EXISTING SITE FEATURES IN PROJECT AREA:
   A. REMOVE CONCRETE CURBING AS REQUIRED TO PROVIDE A UNIFORM GRADE.
   B. REMOVE TREES AND LANDSCAPING AS REQUIRED SO THAT NO VEGETATION OR TREE TRUNK IS WITHIN 25' OF THE COMPOUND FENCE.
   C. REPAIR AND RESTORE FUNCTION OF EXISTING IRRIGATION LINES AND OUTLETS IN THE PROJECT AREA, FOLLOWING COMPLETION OF CIVIL SITE WORK. INCLUDES VERIFYING FUNCTION WITH OWNER PRIOR TO WORK.
   D. SEE SHEET G-102 FOR PRELIMINARY LOCATION OF (E) TREES AND CURBS. FIELD VERIFY ITEMS TO BE REMOVED AS REQUIRED.
7. IDENTIFY AND PROTECT (E) UNDERGROUND UTILITIES.
   A. WHEN EXCAVATING IN AREA SHOWN, TAKE CARE TO NOT DAMAGE FIBER OPTIC CABLE.
   B. PROVIDE 'GPR' SURVEY IN AREAS REQUIRING EXCAVATION OR OTHERWISE LOCATE AND PROTECT ALL EXISTING UNDERGROUND UTILITIES.
   C. ANY UTILITIES THAT ARE DAMAGED SHGALL BE REPAIRED IMMEDIATELY.
8. DEMOLISH EXISTING PAVING IN HATCHED AREA, AS REQUIRED TO ACCOMMODATE (N) EQUIPMENT PADS AND U/G LINES, OR AS OTHERWISE DIRECTED BY THE OWNER. REPAVE OVER COMPACTED NATIVE SOIL WITH MIN. 4" AGGREGATE SUBBASE AND 4" HOT ROLLED ASPHALT. CUT LINES SHALL BE STRAIGHT AND NEAT, AND FINISHED SURFACE SHALL MATCH LEVEL OF EXISTING SURFACE. TOTAL AREA FOR PAVEMENT REPAIR ASSUMED TO NOT EXCEED 3,000 S.F.
9. PROTECT ALL OPEN TRENCHES W/ H20 RATED TRENCH PLATES. COORDINATE EXCAVATION WORK THAT INTERRUPTS BUS FLOW WITH THE OWBER AT LEAST 2 WORK DAYS IN ADVANCE.
10. REPAIR TRENCH WITH CLEAN DIRT COMPACTED TO 95%. TOP WITH 8" THK CONCRETE, DOWELED TO EXISTING ADJACENT CONCRETE USING #8 REBAR DOWELS SPACED AT 18" ALONG EACH SIDE OF TRENCH. CUT LINES SHALL BE STRAIGHT AND NEAT, AND FINISHED SURFACE SHALL MATCH LEVEL OF EXISTING SURFACE.

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FUELING FACILITY AND GARAGE MODIFICATION
13999 S. WESTERN AVE., GARDENA, CA 90249

CITY OF GARDENA GTRANS
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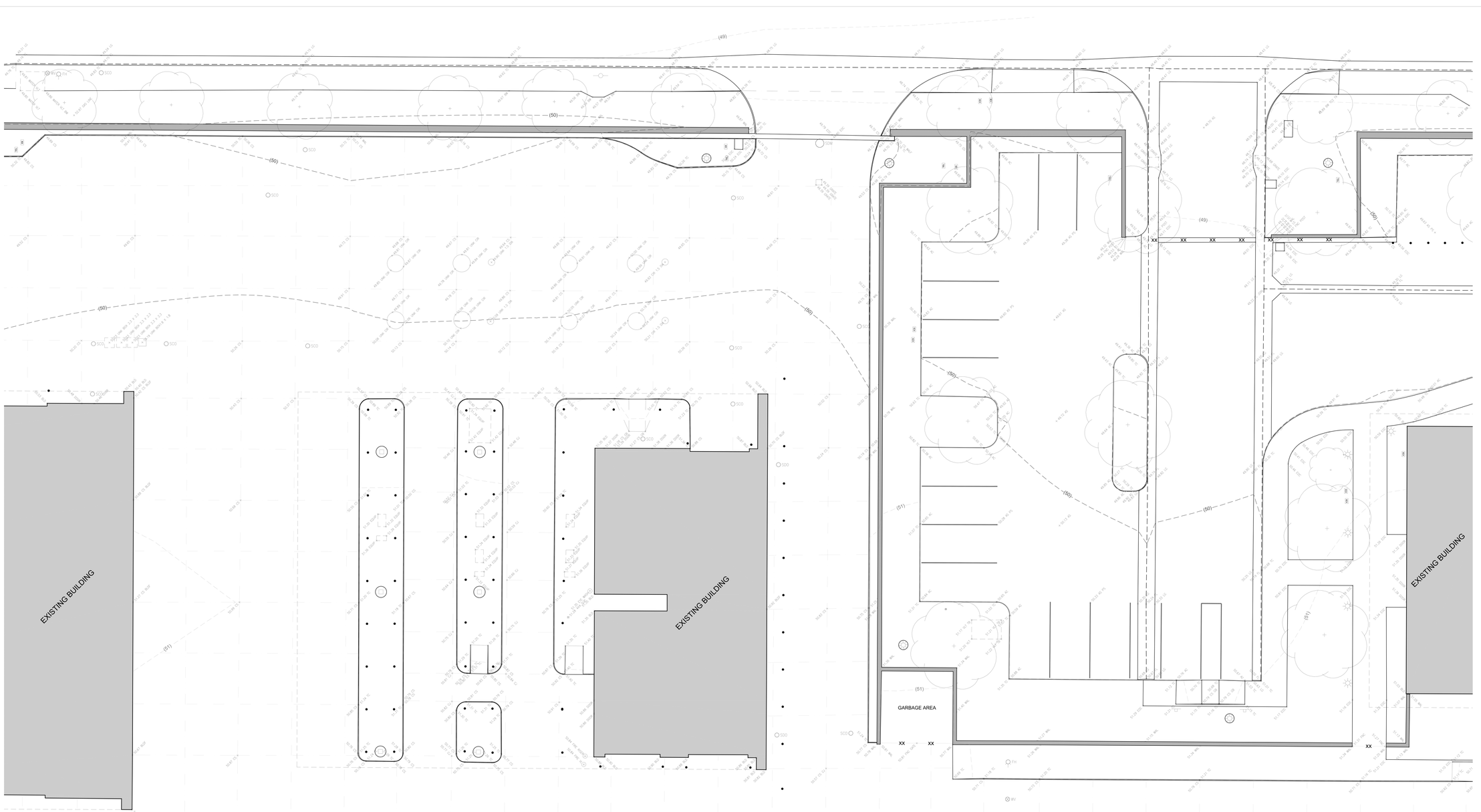
PROJECT SITE PLAN
Sheet Title

Designer: Designed	Project No: Project Number		
Drawn	Scale: 1" = 50'-0"	G-101	
Checker: Checked	Sheet No: Sheet 1 of 1		
Approver: Approved	Project Status: 30% SD		
12/17/19	Issue Date		

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SURVEY NOTES

BASIS OF BEARING
THE BASIS OF BEARING FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 5, NAD 83 EPOCH 2017.50 AS DETERMINED LOCALLY BY THE INTERSECTION OF W 139TH STREET & S WESTERN AVE AND THE INTERSECTION OF 141 STREET & S WESTERN AVE HAVING THE BEARING OF S00°19'28"W AS DERIVED FROM GEODETIC VALUES PUBLISHED BY CALIFORNIA REFERENCE CENTER.

BENCHMARK
RY547

FOUND L&T IN CURB RETURN 1FT SOUTH OF BCR AT NORTHEAST CORNER ROSECRANS AVE & WESTERN AVE.

ELEV = 49.621 NAVD 1988

ABBREVIATIONS

AC	ASPHALT	EM	ELECTRICAL METER	PS	PARKING STRIPE
AS	ASPHALT SPOT SHOT	EOC	EDGE OF CONCRETE	SDM	STORM DRAIN MANHOLE
BC	BEGIN CURVE	FF	FINISH FLOOR	SQ	SQUARE
BLD	BUILDING	FL	FLOW LINE	SSM	SEWER MANHOLE
BDLF	BUILDING FACE	FNC	FENCE	TC	TOP OF CURB
BW	BACK OF WALL	FW	FACE OF WALL	TEM	TELCO MANHOLE
BX	BOTTOM TRANSITION	GB	GRADE BREAK	TOE	BOTTOM OF GRADE BREAK
CB	CATCH BASIN	GM	GAS METER	TOP	TOP GRADE BREAK
COR	CORNER	GS	GROUND SHOT	TW	TOP OF WALL
CP	FOUND CONTROL	HC	HANDICAP	TX	TOP OF TRANSITION
CS	CONCRETE SPOT	HW	HEADWALL	UNK	UNKNOWN
DB	DOUBLE	IP	IRON PIPE	VLT	VAULT
DEC	DECORATIVE	LG	LIP OF GUTTER	WAL	WALL
DIA	DIAMETER	LT	LEAD & TACK	WALF	WALL FACE
EB	ELECTRICAL BOX	LTT	LEAD, TACK & TAG	WV	WATER VALVE
EC	END CURVE	OC	ON CURVE		
EEM	ELECTRICAL MANHOLE	PO	POST		

LEGEND

- EXISTING CHAINLINK FENCE
- EXISTING WALL
- EXISTING FLOW LINE
- EXISTING GRADE BREAK
- EXISTING ROAD CENTERLINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING EASEMENT
- (XXX) EXISTING MAJOR CONTOUR
- (XXX) EXISTING MINOR CONTOUR
- LIGHT POLE
- FIRE HYDRANT
- BOLLARD
- WM WATER METER
- EB ELECTRICAL BOX
- TS TRAFFIC SIGNAL BOX
- WV WATER VALVE
- GV GAS VALVE
- SIGN

SCALE: 1" = 10'
(NOT TO SCALE)

METZ
SURVEYING INC
24303 WALNUT ST, SUITE D
SANTA CLARITA, CA 91321
WWW.METZSURVEYING.COM

TOPOGRAPHIC SURVEY

GTRANS - DETAILED SURVEY AREA

CITY OF GARDENA, LOS ANGELES COUNTY, CALIFORNIA

JOB:	N/A
DATE:	12/10/19
DRN:	JL
DES:	CD
CHK:	EM

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FUELING FACILITY AND GARAGE MODIFICATION
13999 S. WESTERN AVE., GARDENA, CA 90249

CITY OF GARDENA
GTRANS
Client

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310-207-8548

Sub Consultants

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CIVIL SURVEY PLAN
Sheet Title

Designer	Designed	Project No	Project Number
Drawn		Scale	
Checker	Checked	Sheet No	G-102
Approver	Approved	Sheet	1 of 1
12/27/19	Issue Date	Project Status	30% SD

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CNG FUEL SYSTEM GENERAL NOTES

1. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT AND MATERIALS, AND PERFORM ALL INSTALLATION, TESTING, AND STARTUP NEEDED TO PROVIDE A COMPLETE, SAFE, FUNCTIONAL AND CODE-COMPLIANT CNG FUELING SYSTEM. SCOPE INCLUDES INSTALLATION OF THE EQUIPMENT LISTED BELOW AND AS DESCRIBED ELSEWHERE ON THE DRAWINGS. THE PRELIMINARY DESIGN SHOWN IN THE DRAWINGS IS PRELIMINARY AND SHOWS THE PROJECT INTENT AND DEFINES THE BASIS OF PERFORMANCE. ALTERNATE CONFIGURATIONS MAY BE PROVIDED, IF APPROVED IN WRITING BY THE OWNER PRIOR TO THE CLOSE OF THE PROPOSAL PERIOD.
   - A. COORDINATION OF GAS METER CONNECTION WITH SO CAL GAS,
   - B. (1) 4" BALL VALVE WITH AIR/GAS ACTUATOR,
   - C. (1) SINGLE VESSEL DESICCANT DRYER,
   - D. (2) DUPLEX COMPRESSOR SKIDS WITH SOUNDPROOF ENCLOSURES,
   - E. (4) CNG STORAGE GROUND VESSELS,
   - F. (2) CNG TRANSIT DISPENSERS,
   - G. (1) CNG BUFFER VALVE PANEL,
   - H. REPAIR AND UPGRADE OF ASPHALT PAVING IN THE AREA OF THE CNG-EQUIPMENT COMPOUND,
   - I. EQUIPMENT FOUNDATIONS AND INFILL ASPHALT PAVING WITHIN THE CNG EQUIPMENT COMPOUND,
   - J. PIPING, TUBING AND SUPPORTS FROM THE CNG COMPOUND TO THE FUELING CANOPY, TO BE INSTALLED PER PLANS.
   - K. MOTOR-CONTROL CENTER, SYSTEM CONTROLS, REMOTE-COMMUNICATION PANEL AND OTHER ELECTRICAL AND ELECTRONIC SYSTEMS REQUIRED FOR THE CNG-FUELING SYSTEM, PER THE DRAWINGS AND SPECIFICATIONS.
   - L. COMPLETE GROUNDING & BONDING SYSTEM FOR CNG EQUIPMENT & FENCING PER NEC.
2. REFER TO SPECIFICATION SECTION 43 01 05 - CNG FUELING FACILITY SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS.
3. CARBON STEEL PIPING USED FOR GAS OR CNG SHALL BE SEAMLESS AND PER ASTM A106, GRADE B. ALL ABOVEGROUND CARBON STEEL PIPING SHALL BE COATED WITH TWO COATS OF ZINC BASED PRIMER AND TWO COATS OF EXTERIOR GRADE ENAMEL TOP COAT. COORDINATE COLOR BY PRODUCT CONTENT OF EACH PIPE WITH THE OWNER.
4. CARBON STEEL PIPING SHALL BE WELDED OR FLANGED, WITH THE FOLLOWING EXCEPTION. EQUIPMENT CONNECTIONS NPS 1, OR SMALLER, REQUIRING PERIODIC SERVICING MAY BE MADE USING NPT. WELDED STEEL PIPE CONNECTIONS LARGER THAN NPS2 SHALL BE BUTT WELDED, OR OTHERWISE SOCKET WELDED. FLANGED CONNECTIONS SHALL BE CLASS 150, RAISED FACE, FORGED CARBON STEEL, ASTM A105, CONFORMING TO ANSI B16.5.
5. UNDERGROUND GAS PIPING SHALL BE INSTALLED NOT LESS THAN 24" BELOW GRADE.
   - A. UNDERGROUND GAS SERVICE PIPING SHALL BE SCHEDULE 80 CS (A104 GRADE B).
   - B. ABOVEGROUND STEEL GAS SERVICE PIPING SHALL BE SCHEDULE 40 CS (A104 GRADE B) WITH ZINC OXIDE PRIMER AND GREEN EPOXY TOP COAT.
   - C. BURIED PIPING MAY BE HDPE IF MAXIMUM SERVICE PRESSURE IS LESS THAN THE INSTALLED MAWP FOR THE PIPE AND IS INSTALLED WITH TRACE WIRE AND ANODELESS RISERS.
6. ALL BURIED PIPING OR TUBING SHALL INCLUDE WARNING TAPE PLACED IN PIPE TRENCH BACKFILL, APPROXIMATELY 1FT ABOVE TOP OF PIPE. USE YELLOW POLYETHYLENE TAPE MANUFACTURED FOR IDENTIFYING UNDERGROUND UTILITIES, 6" WIDE AND 4 MIL THICK, CONTINUOUSLY INSCRIBED WITH "GAS".
7. HIGH PRESSURE CNG PIPING DOWNSTREAM FROM COMPRESSOR DISCHARGE SHALL BE SEAMLESS CARBON STEEL, ASTM A106, GRADE B. NPS 1 AND SMALLER PIPE SHALL BE SCHEDULE 160; NPS 1 1/2" AND NPS 2" SHALL BE XXS. NOMINAL PIPE SIZES SHALL BE 3/4" OR 1", AS SHOWN IN THE DRAWINGS. HIGH PRESSURE CNG PIPING WITH DIAMETERS OF NPS 2" OR SMALLER SHALL BE SOCKET WELDED. SOCKET WELD FITTINGS SHALL BE FORGED STEEL, ASTM A105, CLASS 6000, & MANUFACTURED PER ANSI B16.11 - 2001.
8. FLANGES FOR HIGH PRESSURE CNG PIPING SHALL BE CLASS 2500 FORGED STEEL, ASTM A105, WELD NECK, RTJ OR RF, CONFORMING TO ANSI B16.5, WITH BORE MATCHING THE INSIDE DIAMETER OF THE CONNECTED PIPE.
9. FLANGE BOLTS SHALL BE HEAVY HEXAGONAL CAP SCREWS, ASTM A307 GRADE B, WITH HEAVY HEX NUTS, ASTM A194, GRADE 2H. PIPE FLANGE BOLTS SHALL SHOW A MINIMUM OF (2) THREADS THROUGH THEIR BACKING NUT, WHEN FULLY TIGHTENED.
10. INSULATED FLANGES: FURNISH FLANGE INSULATING KITS WHERE UNDERGROUND STEEL PIPE TRANSITIONS TO ABOVEGROUND PIPE OR WHERE PIPES OF DISSIMILAR ALLOYS ARE JOINED, OR WHERE SHOWN ON THE DRAWINGS.
    - A. KITS FOR RAISED FACE FLANGES SHALL INCLUDE AN INSULATED FULL-FACED FLANGE GASKET, PIPELINE SEAL & INSULATOR, INC., LINE BACKER TYPE E, 1/8 " THICK, WITH PHENOLIC RETAINER AND VITON SEALING ELEMENT. KITS FOR RING TYPE JOINTS SHALL INCLUDE A TYPE D GASKET.
    - B. ALL INSULATING KITS SHALL INCLUDE THE FOLLOWING:
    - C. ONE FULL-LENGTH PHENOLIC SLEEVE, EXTENDING HALF WAY INTO BOTH STEEL WASHERS FOR EACH FLANGE BOLT. THE SLEEVE SHALL BE A 1/32" THICK TUBE.
    - D. (2) 1/8" THICK PHENOLIC ISOLATING WASHERS FOR EACH BOLT.
    - E. (3) 1/8" THICK ZINC PLATED, HOT ROLLED STEEL WASHERS FOR EACH BOLT. THE I.D. OF ALL WASHERS SHALL FIT OVER THE ISOLATING SLEEVE, AND BOTH THE STEEL AND ISOLATING WASHERS SHALL HAVE THE SAME I.D. AND O.D. PHENOLIC SLEEVES SHALL HAVE A MIN. DIELECTRIC STRENGTH OF 400 VOLTS/MIL, AND WATER ABSORPTION OF 0.10% OR LESS.
11. CORROSION PROTECTION OF UNDERGROUND PIPING.
    - A. ALL UNDERGROUND STEEL GAS PIPING THAT IS DIRECTLY BURIED SHALL BE FACTORY COATED WITH FUSION-BONDED EPOXY, CONFORMING TO NACE RP0394 - STANDARD RECOMMENDED PRACTICE, "APPLICATION, PERFORMANCE, AND QUALITY CONTROL OF PLANT-APPLIED FUSION-BONDED EPOXY EXTERNAL PIPE COATING". COATING SHALL BE 3M "SCOTCHKOTE 6233" OR APPROVED EQUAL. PIPE JOINTS SHALL BE PREPARED AND FIELD-COATED ACCORDING TO THE FACTORY COATING MANUFACTURER'S WRITTEN RECOMMENDATIONS.
    - B. PROVIDE CATHODIC PROTECTION WITH SACRIFICIAL ANODES AND TEST STATIONS FOR ALL STEEL PIPING THAT IS DIRECTLY BURIED. CATHODIC PROTECTION DESIGN SHALL BE SEALED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA, THAT IS PRACTICED IN THE DESIGN OF CATHODIC PROTECTION SYSTEMS, AND THAT IS APPROVED BY THE AHJ.
    - C. PIPING THAT TRANSITIONS FROM UNDER GROUND TO ABOVE GRADE AND THAT PASSES THROUGH A CONCRETE SLAB SHALL BE PROTECTED BY A PVC PIPE SLEEVE. SEAL SLEEVE OPENING AGAINST ENTRY OF WATER WITH DURABLE OUTDOOR-RATED SEALANT.
12. EXCEPT AS NOTED, ALL BALL VALVES USED IN NATURAL GAS PIPING SHALL HAVE TYPE 316 STAINLESS STEEL BALLS, BODIES AND STEMS; HOWEVER, FACTORY-PAINTED VALVES NPS2 AND LARGER MAY HAVE CARBON STEEL BODIES.
13. ALL FLEXIBLE PIPE CONNECTORS SHALL BE CONSTRUCTED USING TYPE 316 STAINLESS STEEL FITTINGS AND BRAIDS, AND PTFE LINERS. PERMANENTLY LABEL FLEX CONNECTORS WITH MAWP, MANUFACTURER'S NAME, AND MODEL NO.
14. CONTRACTOR SHALL FURNISH ALL PIPE, TUBING AND WELD FITTINGS. SUBMIT MATERIAL CERTIFICATIONS FOR ALL GAS PIPE AND PIPE-FITTINGS. WELDING ON GAS PIPE AND TUBE SHALL BE PERFORMED IN ACCORDANCE WITH ASME/ANSI B31.3. WELDING PROCEDURES SHALL BE QUALIFIED IN ACCORDANCE WITH ASME BOILER AND PRESSURE VESSEL CODE, SECTION IX. QUALIFIED WELD PROCEDURES & WELDERS' CERTIFICATIONS SHALL BE KEPT ON FILE AND AVAILABLE FOR INSPECTION BY THE OWNER'S REPRESENTATIVE. NO WELDING SHALL BE PERFORMED BY ANY WELDER FOR WHOM A CURRENT CERTIFICATION IS NOT ON FILE. USING ALIGNMENT LUGS IS ACCEPTABLE, BUT LUGS SHALL BE CUT OFF AND GROUND FLUSH AFTER WELDING IS COMPLETE.
15. CONTRACTOR SHALL PROVIDE AND PAY FOR THE INSPECTION AND LEAK TESTING OF ALL FIELD FABRICATED TUBING AND WELDED GAS PIPING. CONTRACTOR SHALL UTILIZE A QUALIFIED INSPECTOR TO INSPECT WELDS IN ACCORDANCE WITH CHAPTER VI OF ASME B31.3. EVERY WELD SHALL BE EXAMINED VISUALLY. ALL BUTT WELDS SHALL BE RADIOGRAPHED, AND WRITTEN TEST REPORT(S) FURNISHED TO THE ENGINEER, BEFORE PRESSURIZING THE PIPE. EXAMINE NOT LESS THAN 25% OF ALL SOCKET WELDS BY DYE PENETRATION AND FURNISH WRITTEN TEST REPORT(S) TO THE ENGINEER, BEFORE PRESSURING THE PIPE.
16. CNG PRESSURE TUBING.
    - A. PRESSURE TUBING SHALL BE SEAMLESS AND MANUFACTURED AND LABELED ACCORDING TO ASTM A-213, USING TYPE 316 OR 304 S.S. TUBING WITH DIAMETERS LESS THAN 3/4" SHALL BE CONNECTED USING TYPE 316 SS SWAGED FITTINGS. ALL SWAGED FITTING SHALL BE SUPPLIED FROM A SINGLE MANUFACTURER.
    - B. ACCEPTABLE SS TUBING PRODUCTS ARE SWAGELOK, HOKE GYROLOK OR PARKER A-LOK. SWAGED FITTING SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 5,000 PSI. PRESSURE TUBING 3/4" AND LARGER SHALL BE JOINED USING PARKER SEAL-LOK FACE SEAL FITTINGS. O-RING MATERIAL FOR FACE SEAL FITTINGS SHALL BE VITON. ALL SS TUBING SHALL BE MARKED 'MADE IN USA'.
    - C. ALL SS TUBING ROUTED UNDERGROUND SHALL BE CONTINUOUS WITH NO FITTINGS OR UNIONS AND SHALL BE PROTECTED FROM DIRECT BURIAL BY A CONTINUOUS SLEEVE THAT IS LISTED FOR BURIAL IN DIRT. SLEEVE OPENINGS SHALL BE SEALED AGAINST ENTRY OF WATER AND DEBRIS.
17. PRESSURE TUBING SHALL HAVE THE FOLLOWING MINIMUM WALL THICKNESS (IN INCHES):

NOMINAL SIZE OD	WALL THICKNESS
0.250	0.035
0.375	0.049
0.500	0.070
0.750	0.104
1.000	0.134
1.500	0.188

18. PRESSURE TESTING OF CNG PIPING AND TUBING. BEFORE CONNECTING THE CNG PIPING AND TUBE TO THE STORAGE VESSELS OR DISPENSER LINES, ALL HIGH-PRESSURE CNG PIPING AND TUBING SHALL BE INSPECTED, LEAK TESTED, AND PRESSURE TESTED WITH NITROGEN. THE TEST GAS SOURCE SHALL BE CAPABLE OF PRESSURIZING THE PIPING TO NOT LESS THAN 5,500 PSIG. PERFORM TESTING IN THE FOLLOWING STEPS.
    - A. COMPRESS PIPING TO 25 PSIG AND SOAP-TEST ALL JOINTS FOR LEAKS. IF ANY LEAKAGE IS DETECTED, RELIEVE THE PRESSURE AND REPAIR THE LEAK(S). REPEAT TESTING AT 25 PSIG UNTIL ALL LEAKS ARE ELIMINATED.
    - B. CONNECT A PRECISION (<1% ERROR) PRESSURE TRANSDUCER AND DATA RECORDER TO THE CNG PIPING SYSTEM AND ARRANGE THE VALVING TO SEAL THE SYSTEM AND ALLOW ISOLATE IT TO BE ISOLATED FROM THE PRESSURE SOURCE. SLOWLY INCREASE THE PRESSURE TO 500 PSIG AND INSPECT FOR LEAKS. INCREASE PRESSURE AGAIN, IN 1000 PSI INCREMENTS, TO 5,500 PSIG. HOLD PRESSURE CONSTANT FOR AT LEAST 10 MINUTES BEFORE INCREASING TO THE NEXT INCREMENT. WITH THE SYSTEM PRESSURIZED TO 5,500 PSIG, AND ISOLATED FROM THE PRESSURE SOURCE, ADEQUATE LEAK INTEGRITY SHALL BE VERIFIED BY NO LOSS OF PRESSURE OVER A PERIOD OF AT LEAST 2 HR. SUBMIT A RECORD OF PRESSURE, MEASURED AT 10 MINUTE INTERVALS, AS EVIDENCE OF SUCCESSFUL PRESSURE TESTING.
    - C. AFTER PNEUMATIC TESTING, RELIEVE THE PIPING SYSTEM PRESSURE TO ATMOSPHERIC, CONNECT IT TO NATURAL GAS COMPRESSOR(S) AND STORAGE, AND PURGE WITH NATURAL GAS. PRESSURIZE WITH NATURAL GAS AND INSPECT FOR LEAKS WITH SOAP BUBBLE TEST AT NORMAL OPERATING PRESSURES.
19. PRESSURE TEST INSTRUMENT AIR/GAS PIPING BY PRESSURIZING WITH NITROGEN TO 200 PSIG, AND SOAP TESTING WITH NO LEAKAGE AT ANY VALVE OR FITTING. WITH THE AIR/GAS PIPING SEALED AT ALL ABOVEGROUND RISERS, AND COMPRESSED TO 200 PSIG, THE AIR PIPING SHALL DEMONSTRATE NO LOSS OF PRESSURE OVER 1 HOUR, AS INDICATED BY A 1% PRECISION BOURDON TUBE GAUGE. THE GAUGE SHALL HAVE A FULL-SCALE PRESSURE OF 250 PSIG. DO NOT BACKFILL PIPE TRENCHES UNTIL LEAK TESTING HAS BEEN SUCCESSFULLY COMPLETED.
20. LEAK TESTING OF NATURAL GAS SERVICE PIPING. NATURAL GAS PIPING FROM THE METER TO THE GAS-DRYER INLET SHALL BE LEAK TESTED WITH NITROGEN, ACCORDING TO APPLICABLE SOCAL GAS GAS-TEST PROCEDURES. AT MINIMUM, TEST SHALL INCLUDE HOLDING MAWP FOR 20 MINUTES AND SOAP BUBBLE TEST OF ALL JOINTS AND UNIONS.
21. PERFORM LEAK TESTING AND WELD INSPECTIONS OF ALL STEEL PIPING BEFORE APPLYING FIELD COATINGS OR PAINT.
22. CONTRACTOR SHALL VERIFY DIMENSIONS AND INTERFACES FOR EQUIPMENT, PENETRATIONS, PIPING AND POINTS OF CONNECTION FOR CONSISTENCY WITH EQUIPMENT SHOP DRAWINGS, PRIOR TO CONSTRUCTION.
23. CNG EQUIPMENT SHALL BE INSTALLED PER THE WRITTEN INSTRUCTIONS OF THE RESPECTIVE SYSTEM AND COMPONENT MANUFACTURERS THAT ARE USED IN THE PROJECT. CNG CONTRACTOR SHALL HAVE APPROVAL TO INSTALL EQUIPMENT FROM THE RESPECTIVE MANUFACTURERS OF THE CNG COMPRESSOR SKIDS, GAS DRYER, CNG DISPENSERS AND FUEL MANAGEMENT SYSTEM PRIOR TO START OF CONSTRUCTION.
24. CNG-CONTROL SYSTEM SHALL INCLUDE A PLC-BASED CONTROLLER THAT WILL INITIATE EMERGENCY SHUTDOWN OF STATION SYSTEMS, ACCORDING TO THE "ESD CONTROL MATRIX FOR CNG FUELING STATION", AS SHOWN BELOW. WEEKS OF DECLARATION OF SUBSTANTIAL COMPLETION BY THE OWNER.
25. CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF APPROVED PROJECT DRAWINGS AT THE PROJECT SITE. DRAWINGS SHALL BE REGULARLY UPDATED BY THE CONTRACTOR WITH RED MARKS TO INDICATE ANY SIGNIFICANT DEVIATION OR CHANGE FROM THE APPROVED DESIGN. CONTRACTOR SHALL PROVIDE ASBUILT DRAWINGS IN CAD AND PDF FORMAT WITHIN 2 WEEKS OF DECLARATION OF SUBSTANTIAL COMPLETION BY THE OWNER.
26. PROVIDE THIRD PARTY INSPECTION AND TESTING WITH DOCUMENTATION AS FOLLOWS:
    - A. ASSESS AND IDENTIFY EXACT AREA TO BE REPAVED IN VICINITY OF CNG-EQUIPMENT COMPOUND WITH OWNER, ≤ 3,000 S.F.
    - B. CONCRETE PLACEMENT FOR EQUIPMENT FOUNDATIONS
    - C. CONCRETE STRENGTH / CRUSH FOR EQUIPMENT FOUNDATIONS
    - D. PLACEMENT AND/OR TORQUE TEST FOR ANCHOR BOLTS
    - E. WELDED PIPE JOINTS (DYE PENETRANT AND RADIOGRAPHY AS REQUIRED)
    - F. PRESSURE TESTING OF FIELD-INSTALLED PIPING AND TUBING
    - G. OTHER TESTS AS REQUIRED BY AHJ'S.
    - H. AND/OR DOCUMENTATION OF SELF-PERFORMED TESTING AS OTHERWISE APPROVED BY THE OWNER AND AHJ'S.
27. ASPHALT REPAIR:
    - A. ASSESS AND IDENTIFY AREA TO BE REPAVED IN VICINITY OF CNG-FUELING SYSTEM WITH OWNER, ≤ 3,000 S.F.
    - B. DEMO, REMOVE AND HAUL OFF EXISTING ASPHALT.
    - C. LEVEL THE AREA WITH SOIL REDISTRIBUTION, IMPORT AND EXPORT AS REQUIRED TO PROVIDE DRAINAGE TOWARDS EXISTING SWALES AND SITE DRAINAGE.
    - D. PROVIDE COMPACTED ABC SUBBASE, MIN. 4" THICK.
    - E. PROVIDE HOT ASPHALT PAVING, MIN. 4" THICK.

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FUELING FACILITY AND GARAGE MODIFICATION
13999 S. WESTERN AVE., GARDENA, CA 90249

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Sheet Title
CNG FUEL SYSTEM GENERAL NOTES

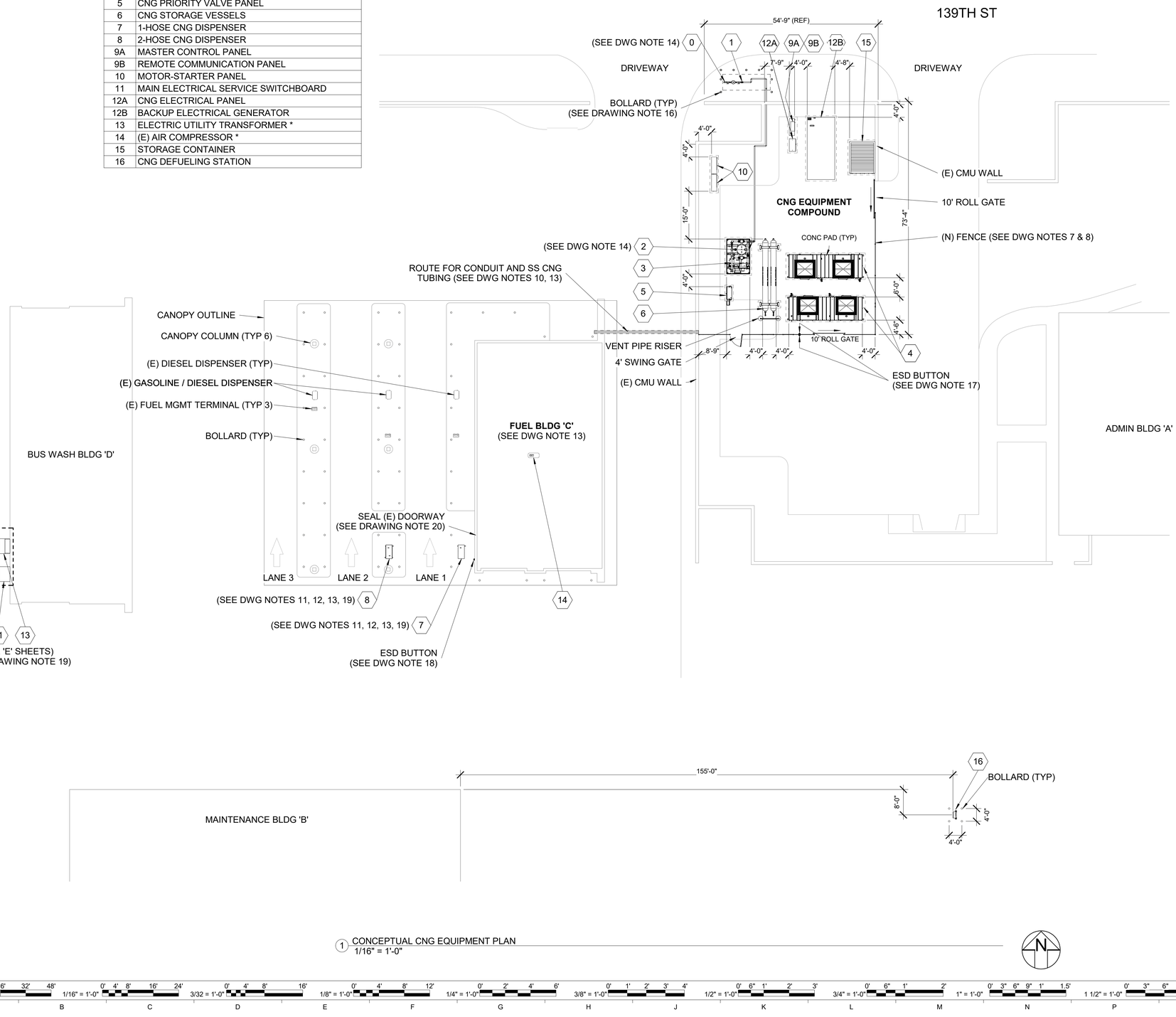
Designer: Designed	Project No: Project Number		
Drawn: Checker: Checked	Scale	D-001	Sheet No: Sheet 1 of 1
Approver: Approved	Project Status: 30% SD		
02/10/20 Issue Date			

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1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0" | 12" = 1'-0"

EQUIP SCHEDULE	
KEY	DESCRIPTION
0	GAS METER SET *
1	SEISMIC-SHUTOFF VALVE
2	ESD VALVE
3	NATURAL GAS DRYER
4	DUPLEX COMPRESSOR SKID
5	CNG PRIORITY VALVE PANEL
6	CNG STORAGE VESSELS
7	1-HOSE CNG DISPENSER
8	2-HOSE CNG DISPENSER
9A	MASTER CONTROL PANEL
9B	REMOTE COMMUNICATION PANEL
10	MOTOR-STARTER PANEL
11	MAIN ELECTRICAL SERVICE SWITCHBOARD
12A	CNG ELECTRICAL PANEL
12B	BACKUP ELECTRICAL GENERATOR
13	ELECTRIC UTILITY TRANSFORMER *
14	(E) AIR COMPRESSOR *
15	STORAGE CONTAINER
16	CNG DEFUELING STATION



1 CONCEPTUAL CNG EQUIPMENT PLAN
1/16" = 1'-0"

SCHEDULE NOTES

1. SEE SHEET D-501 FOR DETAILED EQUIPMENT SCHEDULE.
2. LOCATION OF ITEMS MARKED WITH * ASTERISK IS APPROXIMATE. COORDINATE FINAL LOCATION WITH UTILITIES. FIELD VERIFY LOCATION OF TIE-IN TO EXISTING COMPRESSED AIR SYSTEM.

DRAWING NOTES

1. DRAWING AND EQUIPMENT LAYOUT IS CONCEPTUAL TO SHOW INTENT.
2. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
3. FINAL LAYOUT MAY DEVIATE FROM THAT SHOWN BUT MUST CONTAIN THE FUNCTIONAL EQUIPMENT SHOWN, AND MUST COMPLY WITH MAINTENANCE CLEARANCES PUBLISHED BY THE EQUIPMENT MANUFACTURERS, AS WELL AS MEET CODE REQUIREMENTS.
4. SITE CONDITIONS ARE EXISTING, UNO.
5. SEE REQUIREMENTS FOR PAVEMENT REPAIR ON SHEET D-001, NOTE 27.
6. SEE LOCATION REQUIREMENTS FOR DEFUELING STATION ON SHEET G-101.
7. PROVIDE 8FT TALL SECURITY FENCE. FENCE SYSTEM SHALL BE 8" THICK CMU OR OTHER SIMILAR OR LESSER FENCE TYPE AS DIRECTED BY THE OWNER. PROVIDE SECURE ROLLING AND SWING GATES. EXTEND FENCE OR PROVIDE FENCE TOPING ON EXISTING WALL AS REQUIRED TO PROVIDE A SECURE PERIMETER AROUND THE CNG EQUIPMENT COMPOUND.
8. PROVIDE 75 L.F. OF SOUND-ATTENUATING PANELS ALONG INSIDE OF NEW SECURITY FENCE. COORDINATE EXACT LOCATION OF PANELS WITH OWNER. PANELS SHALL BE AT LEAST 8FT TALL, AND SHALL BE RATED FOR OUTDOOR INSTALLATION.
9. PROVIDE (2) 1" SS TUBING CARRYING CNG FROM VALVE PANEL AT CNG EQUIPMENT COMPOUND TO CNG DISPENSERS AT FUELING BUILDING. SEE SHEET D-601 FOR MORE REQUIREMENTS.
10. ROUTE CONDUITS AND SS TUBING UNDERGROUND BETWEEN CNG EQUIPMENT COMPOUND AND EAST END OF NORTH WALL OF FUELING BUILDING. PROVIDE MIN 24" COVER AND ROUTE TUBING IN CONTINUOUS PVC OR PE SLEEVES. SEAL SLEEVE OPENINGS AT DAYLIGHT POINTS. CONTINUE CONDUITS AND TUBING UP NORTH WALL TO ROOF.
11. ROUTE CONDUITS AND SS TUBING ACROSS ROOF TOWARDS FUEL ISLANDS. PROVIDE TUBING SUPPORTS ANCHORED TO ROOF. REPAIR AND SEAL ROOF AT ALL PENETRATIONS AS REQUIRED TO PROVIDE RAIN-TIGHT FINISH FOR CNG-RELATED WORK.
12. ROUTE CONDUITS AND SS TUBING TO ABOVE EACH OF TWO DISPENSER LOCATIONS AND PENETRATE ROOF AS NEEDED TO PROVIDE OVERHEAD CONNECTION TO CNG DISPENSERS.
13. CONNECT NEW COMPRESSED AIR LINE IN PUMP ROOM AND PROVIDE ISOLATING BALL VALVE, 100 PSI PRESSURE REGULATOR AND PRESSURE GAUGE. ROUTE 1/2" CU HEADER TO CNG DISPENSERS VIA OVERHEAD CONNECTIONS. ROUTE 3/4" CU HEADER TO CNG COMPRESSOR COMPOUND AS REQUIRED.
14. COORDINATE EXACT LOCATION OF UTILITY MSA WITH SOCAL GAS. PIPE HOUSE LINE FROM MSA OUTLET TO SITE ESD VALVE (HEX ITEM 1) AND TO GAS DRYER INLET USING ABOVE-GRADE PIPING.
15. ALL PIPING AND CONDUITS THAT ARE ROUTED ABOVE-GRADE SHALL BE ANCHORED AND SHALL BE PROTECTED BY ALUMINUM OR GALVANIZED STEEL WALK-OVER BRIDGE.
16. PROVIDE AND LOCATE BOLLARDS AS REQUIRED TO PROTECT MSA, PER COORDINATION WITH SOCAL GAS UTILITY.
17. PROVIDE ESD BUTTONS ON INSIDE AND OUTSIDE OF FENCE NEAR GATE.
18. PROVIDE ESD BUTTON BETWEEN 25-75FT FROM NEAREST CNG DISPENSER.
19. CONTRACTOR SHALL COORDINATE AND ADJUST THE LOCATION OF NEW EQUIPMENT AS REQUIRED TO AVOID CONFLICTS WITH EXISTING EQUIPMENT, WHICH SHALL INCLUDE SERVICE CLEARANCES AND BOLLARD PROTECTION AS APPROPRIATE
20. REMOVE DOORS TO VACUUM ROOM NEAR CNG DISPENSER #1 PERMANENTLY AND COMPLETELY SEAL OPENING WITH CMU DOWELED TO EXISTING WALL ON ALL SIDES at 18" O.C. PAINT TO MATCH EXISTING. PROVIDE NEW BUTTON-OPERATED DOOR CONTROLLER MATCHING EXISTING CONTROLLER AND INSTALL AT LOCATION COORDINATED WITH THE OWNER.

No	Revision Description	Date
2	ADDENDUM 03	09/24/20
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FUELING FACILITY AND GARAGE MODIFICATION
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CONCEPTUAL CNG EQUIPMENT PLAN
Sheet Title

Project No.	Project Number	Sheet No.	D-101
Scale	1/16" = 1'-0"	Sheet	1 of 1
Project Status	30% SD		

Designer	Designed	Approver	Approved
Drawn		12/17/19	Issue Date
Checker	Checked		

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EQUIPMENT SCHEDULE

#	KEY	DESCRIPTION	QTY	SPECIFICATIONS	MFR / VENDOR	MODEL
	0	GAS METER SET *	1	OUTLET-PRESSURE OF 70-125 PSIG, DESIGN TYPICAL 81 PSIG, 4" RFF CONNECTION. 5 PSIG, DESIGN TYPICAL 81 PSIG, 4" RFF CONNECTION.	GAS UTILITY (NIC)	~
	1	SEISMIC-SHUTOFF VALVE	1	VALVE DESIGNED TO AUTOMATICALLY CLOSE IN CASE OF SEISMIC ACTIVITY OR OTHER SIMILAR HORIZONTAL GROUND MOVEMENT. VALVE SHALL HAVE 4" LINE SIZE, BE RATED FOR MIN. OF 125 PSIG MAWP, BE DESIGNED FOR HORIZONTAL INSTALLATION, BE LISTED FOR USE WITH NATURAL GAS, AND HAVE CLASS 150 FLANGED CONNECTIONS AT BOTH ENDS.	PACIFIC SEISMIC PRODUCTS OR EQUAL	~
	2	ESD VALVE	1	4" GAS-ACTUATED, NORMALLY CLOSED FULL-PORT BALL VALVE WITH SS BALL TRIM AND BODY, FIRE RATED PER API 607-5, CLASS 150 RFF. VALVE SHALL BE CONTROLLED TO OPEN ONLY WHEN AT LEAST ONE COMPRESSOR IS RUNNING.	SVF	B41
	3	NATURAL GAS DRYER	1	SINGLE-VESSEL DESICCANT DRYER, 1950 SCFM MINIMUM CAPACITY AT 125 PSIG, NPS 4" CLASS 150 ASME B16.5 RFF CONNECTIONS, 150 PSIG MAWP, INTEGRAL MANUALLY-CONTROLLED REGENERATION SYSTEM, BYPASS VALVES, HYGROMETER WITH 2-LEVEL ALARM, INLET-COALESCING AND OUTLET-PARTICULATE FILTERS; TOTAL PRESSURE DROP ≤ 5 PSI AT DESIGN CONDITIONS.	PSB	NG-SR-21-4-DDP OR EQUAL ANGI, SPX OR XEBEC
	4	DUPLEX COMPRESSOR SKID	2	SKID EQUIPPED WITH (2) CNG COMPRESSORS, EACH RATED AT 650 SCFM AT COMPRESSOR SUCTION OF 81 PSIG, DRIVEN BY (2) 250HP NEMA PREMIUM EFFICIENCY TEFC MOTOR. FURNISH WITH WEATHER-TIGHT ENCLOSURE, INTERSTAGE COOLERS, AIR-ACTUATED BALL VALVES, RECEIVERS FOR CAPTURED BLOWDOWN, AND ON-SKID MODULE TO COMMUNICATE WITH ON-SKID MASTER PLC. PROVIDE REDUCING PRESSURE REGULATOR AT UPSTREAM IF REQUIRED BY COMPRESSOR MANUFACTURER.	ANGI ENERGY	NG300E-DUPLEX OR EQUAL JW POWER OR IMW/SAFE
	5	CNG PRIORITY VALVE PANEL	1	EQUIPPED WITH GAS-ACTUATED BALL VALVES AND CONTROLS TO AUTOMATICALLY DIRECT CNG FROM CNG COMPRESSOR DISCHARGE TO THREE-BANK STORAGE ARRAY OR TO DIRECT DISPENSER BYPASS IF STORAGE IS DEPLETED. PRIORITY PANEL IS INTEGRATED ON COMPRESSOR SKID. FURNISH WITH CONTROL GAS REGULATOR WITH PRESSURE INDICATOR AT UPSTREAM AND BALL VALVES AT BOTH SIDES.	ANGI ENERGY OR EQUAL TULSA GAS TECH OR IMW/SAFE	~
	6	CNG STORAGE VESSELS	4	CYLINDRICAL CNG STORAGE VESSELS WITH 11,500 SCF CAPACITY EACH AT 4,500 PSIG, AND 5,500 PSIG MAWP, FABRICATED TO ASME SECTION VIII DIVISION 2. INCLUDE 5,500 PSIG-RATED PRV'S X 3/4" PORT, SERVICE & DRAIN VALVES AND APPURTENANCES, AND MOUNTING BRACKETS.	CP INDUSTRIES, FIBA, OR ALLIED EQUIPMENT	~
	7	1-HOSE CNG DISPENSER	1	1-HOSE WITH 1" PROCESS TUBING, ONE BANK, PNEUMATICALLY GAS ACTUATED BALL VALVE AND CONNECTIONS, WITH MAWP OF 5500 PSIG, AND ONE MM CNG-050 METER, AND (2) PARKER J6 FILTERS. SUPPLY HOSE SHALL BE 3/4" X 16' AND SIAMEESE VENT HOSE SHALL BE 3/8" X 16' WITH ILB-5 AND ILB-1 BREAKAWAYS, OPW NOZZLE CT-5000. FILL LOGIC FOR DELIVERING FILLS, TEMPERATURE COMPENSATED TO 3600 PSIG @ 70º F. PROVIDE FITTINGS AND PENETRATIONS AT TOP OF DISPENSER FOR ALL MECHANICAL, ELECTRICAL AND ELECTRONIC CONNECTIONS AND LINES.	ANGI ENERGY TRANSIT OR EQUAL TULSA GAS TECH OR KRAUS	~
	8	2-HOSE CNG DISPENSER	1	2-HOSE WITH 1" PROCESS TUBING, ONE BANK, PNEUMATICALLY GAS ACTUATED BALL VALVE AND CONNECTIONS, WITH MAWP OF 5500 PSIG, AND ONE MM CNG-050 METER, AND (2) PARKER J6 FILTERS. SUPPLY HOSE SHALL BE 3/4" X 16' AND SIAMEESE VENT HOSE SHALL BE 3/8" X 16' WITH ILB-5 AND ILB-1 BREAKAWAYS, OPW NOZZLE CT-5000 AT ONE SIDE; AND 1/2" X 16' SUPPLY & 1/4" VENT WITH ILB-1 BREAKAWAYS AND NGV-1 P36 NOZZLE TYPE 2 AT THE OTHER SIDE. FILL LOGIC FOR DELIVERING FILLS, TEMPERATURE COMPENSATED TO 3600 PSIG @ 70º F. PROVIDE FITTINGS AND PENETRATIONS AT TOP OF DISPENSER FOR ALL MECHANICAL, ELECTRICAL AND ELECTRONIC CONNECTIONS AND LINES.	ANGI ENERGY TRANSIT OR EQUAL TULSA GAS TECH OR KRAUS	~
	9A	MASTER CONTROL PANEL	1	INCLUDES INTEGRATED PLC FOR MONITORING AND CONTROL OF ALL COMPRESSOR SKIDS. INCLUDE LEAD-LAG CONTROL, MONITORING OF INTERSTAGE PRESSURES AND TEMPERATURES, STORAGE PRESSURE, AND OTHER PARAMETERS PER SPECIFICATIONS MANUAL.	ALLEN BRADLEY CONTROLOGIX OR COMPACTLOGIX, PACKAGED BY ANGI ENERGY, JW ENERGY, OR IMW/SAFE	~
	9B	REMOTE COMMUNICATION PANEL	1	INCLUDES MONITORING AND REMOTE CONTROL OF CNG COMPRESSORS AND INTERFACE WITH MASTER CONTROL PANEL. PROVIDE WITH IP COMMUNICATION CAPABILITY AS NEEDED TO GENERATE REMOTE WEB-BASED INTERFACE FOR STATUS, FAULT HISTORY AND PARAMETER MODIFICATIONS. ALSO PROVIDE AUTOMATIC EMAIL OR SMS NOTIFICATION TO AT LEAST (4) RECIPIENTS UPON ANY FAULT SHUTDOWN, AND INCLUDE FAULT ID AND TIME STAMP. WIRE CAT6E DATA CABLE TO OWNER'S DATA SWITCH OR PROVIDE CELLULAR-DATA MODEM, AS COORDINATED WITH THE OWNER. COMM. PANEL FUNCTIONS MAY BE INTEGRATED WITH PASTER CONTROL PANEL.	SQUARE-D, ABB OR EQUAL, PACKAGED BY COMPRESSOR-SKID PACKAGER	~
	10	MOTOR-STARTER PANEL	2	DRIVERS AND POWER DISTRIBUTION TO ALL 3-PHASE AND 1-PHASE ELECTRICAL LOADS FOR COMPRESSOR SKID OPERATION. PROVIDE WITH (2) 250 HP ELECTRONIC SOFT STARTERS FOR COMPRESSOR MOTOR, 15HP FV STARTERS FOR COOLER-FAN MOTORS, (1) 480V 45A DRYER CIRCUIT, AND 1-PHASE TRANSFORMER FOR 120V CONTROL LOADS. HOUSE IN A NEMA 3R CABINET.	SQUARE-D, ABB OR EQUAL, PACKAGED BY COMPRESSOR-SKID PACKAGER	~
	11	MAIN ELECTRICAL SERVICE SWITCHBOARD	1	NEW UPGRADED 480V SWITCH PANEL 'MS' WITH SERVICE ENTRANCE, UTILIUTY METER AND MAIN ELECTRICAL DISTRIBUTION. INCLUDES BACK-FEED TO (E) ADJACENT ELECTRICAL PANELBOARD. PROVIDE PROVIDE W/ LOCKABLE NEMA 3R OR NEMA 4 ENCLOSURE. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.	SEE ELECTRICAL DRAWINGS	~
	12A	CNG ELECTRICAL PANEL	1	480V ELECTRICAL DISTRIBUTION PANEL 'CNG'. PROVIDE HOUSEKEEPING PAD. PROVIDE W/ LOCKABLE NEMA 3R OR NEMA 4 ENCLOSURE. LOCATE MIN. 15 FT. CLEAR OF GASEOUS CNG EQUIPMENT. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.	SEE ELECTRICAL DRAWINGS	~
	12B	BACKUP ELECTRICAL GENERATOR	1	NATURAL GAS-FUELED GENERATOR RATED AT 750KW OR AS OTHERWISE REQUIRED TO START AND RUN ANY TWO COMPRESSOR UNITS. FINAL DETERMINED BY CONTRACTOR. PROVIDE WITH SOUND-ATENUATING ENCLOSURE AND AUTOMATIC EXERCISER. PROVIDE W/ MANUAL TRANSFER SWITCH FOR POWERING CNG SYSTEM FROM EITHER UTILITY POWER OR GENSET POWER.. INCLUDE DRY-CONTACT WIRE FROM SWITCH TO MASTER CONTROL PANEL TO INFORM PANEL WHEN GENSET POWER IS ENGAGED. LOCATE MIN. 15 FT. CLEAR OF GASEOUS CNG EQUIPMENT. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.	SEE ELECTRICAL DRAWINGS	~
	13	ELECTRIC UTILITY TRANSFORMER *	1	AS PROVIDED BY UTILITY. PROVIDE PAD AND CONNECTING CONDUITS AS SPECIFIED BY UTILITY. ACTUAL TRANSFORMER AND PRIMARY AND SECONDARY WIRES PROVIDED BY UTILITY. COORDINATE WITH UTILITY AS REQUIRED.	SCE & CONTRACTOR; SEE ELECTRICAL DRAWINGS	~
	14	(E) AIR COMPRESSOR *	1	EXISTING AIR COMPRESSOR IN PUMP ROOM. CONNECT TO HEADER DOWNSTREAM OF (E) AIR DRYER AS REQUIRED TO DRIVE ACTUATORS IN CNG SYSTEM.	EXISTING	~
	15	STORAGE CONTAINER	1	PREFABRICATED ISO CONTAINER WITH DIMENSIONS OF 9'-10" L X 8'-0" W X 8'-6" H. PROVIDE WITH PROVISIONS TO ANCHOR TO SLAB AND INCLUDE SLAB AND ANCHORING.	VARIOUS	10FT ISO SHIPPING CONTAINER
	16	CNG DEFUELING STATION	1	CNG DEFUELING STATION CONFIGURED FOR VENT-TO-ATMOSPHERE OPERATION. PANEL SHALL BE HOUSED IN A NEMA 3R CABINET AND INCLUDE 1/2" SS PROCESS LINES AND VALVES THROUGHOUT. INCLUDE INLINE BALL VALVE AND NEEDLE VALVE INSIDE CABINET AND PROVIDE 6000 PSI GAUGE UPSTREAM OF VALVES THAT IS VISIBLE FROM OUTSIDE OF CABINET. INCLUDE A 3" DIA. SCH. 80 GALVANIZED CS RISER PIPE WITH OPENING AT LEAST 10FT ABOVE GRADE. PROTECT OPENING W/ A TEE USING 3" PIPE TEE AND 6" ARMS.	ANGI ENERGY OR EQUAL TULSA GAS TECH OR IMW/SAFE	~

SCHEDULE NOTES

1. SEE SHEET D-101 FOR LOCATION OF HEX-KEYED EQUIPMENT.
2. EQUIPMENT LISTED IS FOR REFERENCE AND IS INTENDED TO INDICATE REQUIRED PERFORMANCE AND FEATURES FOR THE CNG FUELING SYSTEM.
3. CONTRACTOR MAY PROPOSE ALTERNATE EQUIPMENT, PROVIDED IT MEETS THE FUNCTIONAL, SIZE AND PERFORMANCE REQUIREMENTS OF THE LISTED EQUIPMENT AND MEETS THE REQUIREMENTS FOR FUNCTION, PERFORMANCE AND CUSTOMER REFERENCES/EXPERIENCE LISTED IN THE PROJECT SPECIFICATIONS.
4. EQUIPMENT MARKED WITH AN * ASTERISK ARE EITHER EXISTING OR PARTLY OR COMPLETELY PROVIDED BY OTHERS. COORDINATE AS REQUIRED.

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1/32" = 1'-0" | 1/16" = 1'-0" | 3/32" = 1'-0" | 1/8" = 1'-0" | 1/4" = 1'-0" | 3/8" = 1'-0" | 1/2" = 1'-0" | 3/4" = 1'-0" | 1" = 1'-0" | 1 1/2" = 1'-0" | 3" = 1'-0" | 6" = 1'-0" | 12" = 1'-0"

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FUELING FACILITY AND GARAGE MODIFICATION
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Seal

Sheet Title: EQUIPMENT SCHEDULE

Designer: Designed	Project No: Project Number		
Drawn	Scale	Sheet No: D-501	Sheet 1 of 1
Checker: Checked			Project Status: 30% SD
Approver: Approved			12/17/19 Issue Date

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SYMBOLS LEGEND

- COMPRESSOR
- DATUM
- AIR / GAS FILTER
- BREAKAWAY FITTING
- FLEX HOSE
- PI — PRESSURE INDICATOR
- REDUCER
- PRESSURE REGULATOR
- Y-TYPE STRAINER
- CONICAL STRAINER
- PT — PRESSURE TRANSDUCER
- 3-WAY BALL VALVE
- NC NO — MANUAL BALL VALVE
- CHECK VALVE
- NEEDLE VALVE
- PLUG VALVE
- E — ESD VALVE, AIR / GAS ACTUATED
- P — POSITION VALVE
- PRESSURE RELIEF VALVE
- SEISMIC VALVE
- S — SOLENOID VALVE
- VENT, TEE

CONNECTIONS

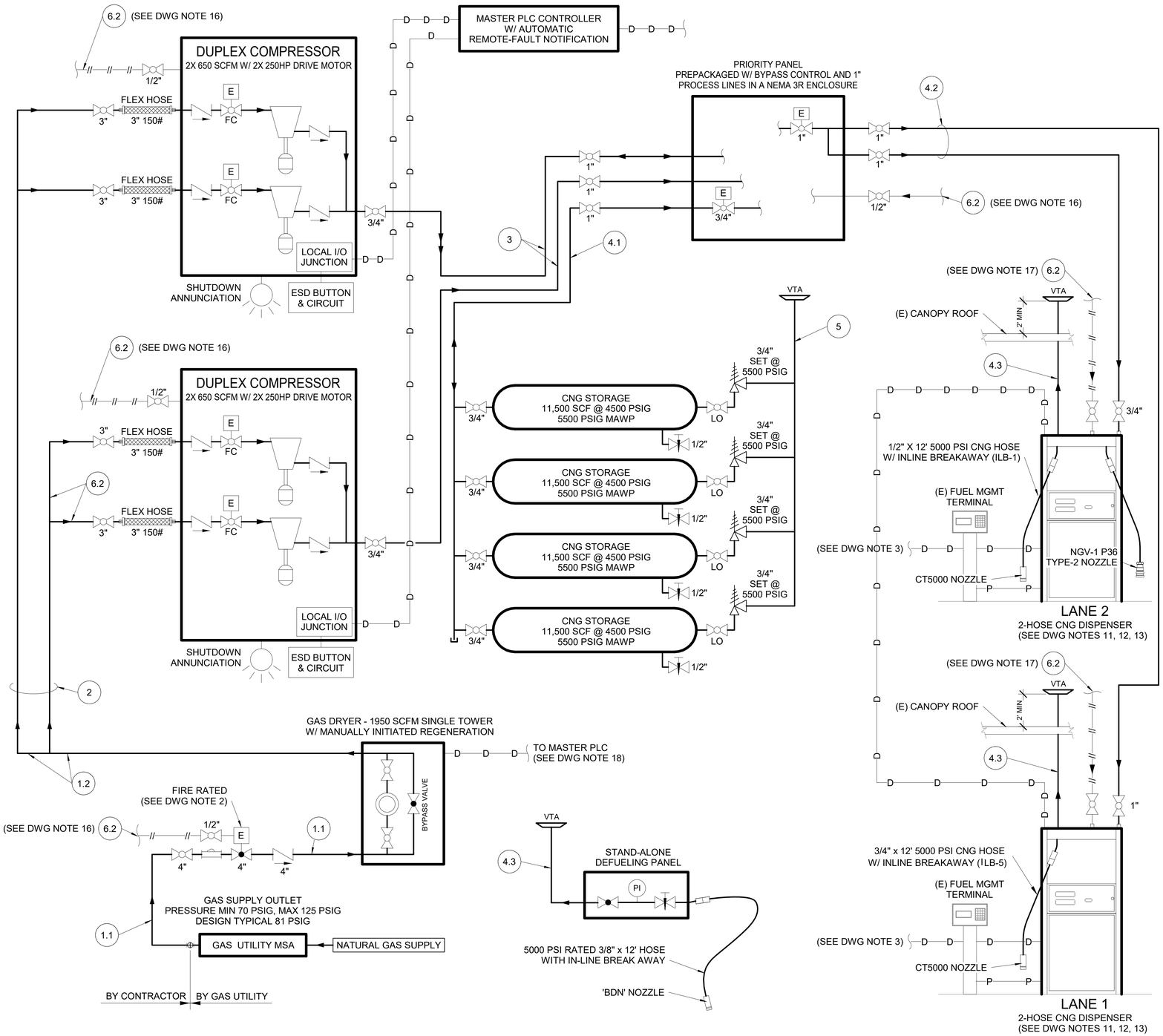
- BUTT WELDED
- FLANGED
- POINT OF CONNECTION
- SOCKET WELDED
- THREADED

LINES

- E—E — 120V AUTHORIZE SIGNAL
- D—D — IP OR LOW-VOLTAGE DATA LINE W/ CONDUIT
- //—// — INSTRUMENT SIGNAL, COMPRESSED AIR OR GAS
- P—P — POWER LINE W/ CONDUIT
- COMPRESSED NAT GAS

LINE TYPES

- (N) NEW (BLK)
- (E) EXISTING (GRY)



DRAWING NOTES

1. ALL HIGH PRESSURE CNG PIPING AND TUBING SHALL HAVE A LISTED MAWP OF 5200 PSIG OR GREATER.
2. ACTUATED VALVES SHALL BE POWERED BY COMPRESSED AIR REGULATED TO 100 PSIG. (SEE DRAWING NOTE 13 ON SHEET D-101)
3. WIRE (N) CNG DISPENSERS TO (E) FUEL MANAGEMENT TERMINALS ON EACH OF TWO ISLANDS.
4. AUTOMATIC VALVES IN DISPENSERS SHALL BE BALL VALVES AND BE LOCATED DOWNSTREAM OF DISPENSER FILTERS.
5. ESD VALVES MARKED 'E' SHALL BE CONTROLLED SO THEY ARE NORMALLY CLOSED AND ONLY OPEN ON DEMAND.
6. ALL GAS SHUTOFF VALVES SHALL HAVE A SAFETY FACTOR OF 3X NORMAL WORKING PRESSURE.
7. ALL RELIEF VALVES DISCHARGE OPENINGS SHALL BE PROTECTED FROM ENTRY FROM PRECIPITATION BY A HORIZONTAL TEE WITH 6" LONG ARMS.
8. CONFIGURATION SHOWN IS CONCEPTUAL AND DEPICTS FUNCTIONAL AND PERFORMANCE INTENT. CONTRACTOR'S FINAL DESIGN MAY VARY, PROVIDED IT MEETS THE PERFORMANCE AND REDUNDANCY PARAMETERS OF THIS DIAGRAM, AS APPROVED BY THE OWNER.
9. PROVIDE A MANUAL PRESSURE GAUGE AT ALL C.A. AND CNG CONNECTIONS TO THE VALVE PANEL. CNG GAUGES SHALL BE SCALED TO 6000 PSIG AND SHALL BE VISIBLE WITH THE PANEL DOOR(S) CLOSED.
10. MASTER PLC SHALL BE WIRED TO REMOTE SKID CONTROLLERS OR LOCAL I/O JUNCTIONS. MASTER PLC SHALL LIMIT THE NUMBER OF COMPRESSORS THAT CAN OPERATE SIMULTANEOUSLY TO A MAXIMUM OF ANY (3) OF THE (4) TOTAL COMPRESSORS. NUMBER OF COMPRESSORS ALLOWED TO RUN SIMULTANEOUSLY SHALL BE BASED ON PERMISSIVE FOR # OF AUTHORIZED OR ACTIVE DISPENSERS, TIME OF DAY, AND PRESSURE IN CNG STORAGE, ALL OF WHICH SHALL BE ADJUSTABLE.
11. DISPENSERS SHALL OPERATE ONLY WHEN '120V AUTHORIZE' SIGNAL IS PROVIDED BY ITS FUEL MANAGEMENT TERMINAL.
12. CONNECT INTEGRATED VIBRATION SWITCH IN EACH DISPENSER TO ESD CIRCUIT.
13. CONNECT DATA WIRE BETWEEN DISPENSERS AS NEEDED FOR DISPENSER CONTROLLERS TO COMMUNICATE FOR LEAD/LAG AND FLOW-BALANCE FUNCTION.
14. WIRE DEW POINT ALARM CONTACTOR TO MASTER PLC.
15. CONFIGURE MASTER PLC TO ALLOW NO MORE THAN ANY (3) OF (4) TOTAL COMPRESSORS TO RUN SIMULTANEOUSLY. ONE COMPRESSOR SHALL BE A ROTATING SPARE.
16. ROUTE AIR LINE TO 3/4" SUPPLY HEADER AND CONNECT TO (E) COMPRESSED AIR SYSTEM IN LUBE-COMPRESSOR ROOM. PROVIDE 3/4" BALL VALVE, ADJUSTABLE PRESSURE REGULATOR, AND 200 PSI PRESSURE GAUGE AT CONNECTION TO (E) COMPRESSED AIR SYSTEM. SET REGULATOR AT 100 PSIG.
17. ROUTE COMPRESSED AIR LINES #6.2 TO 3-WAY SOLENOID VALVES, WHICH ARE NOT SHOWN, THEN ROUTE LINES FROM SOLENOIDS TO VALVE ACTUATORS. WIRE SOLENOID VALVES TO CONTROLLER FOR OPERATION AS REQUIRED. SOLENOIDS AND VALVES SHALL BE CONFIGURED TO OPERATE AS FAIL CLOSED, SO THAT PRESSURE IS REQUIRED TO OPEN THE VALVES.

(#)

PIPE SCHEDULE			
KEY	QTY	SIZE	DESCRIPTION
1.1	1	4"	SCH40 CS PIPE
1.2	2	4"	SCH40 CS PIPE
2	2	3"	SCH40 CS PIPE
3	3	3/4"	SS TUBING W/ .134" MIN WALL
4.1	1	1"	SS TUBING W/ .134" MIN WALL
4.2	3	1"	SS TUBING W/ .134" MIN WALL
4.3	2	1"	SS TUBING W/ .134" MIN WALL
4.4	4	1"	SS TUBING W/ .134" MIN WALL
5	1	4"	SCH80 CS PIPE
6.1	2	3/4"	TYPE K COPPER PIPE
6.2	4	1/2"	TYPE K COPPER PIPE

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1	ISSUED FOR RFP	08/12/20

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CONCEPTUAL PROCESS FLOW DIAGRAM
Sheet Title

Designer	Project No.	Project Number	
Designed	Scale	12" = 1'-0"	D-601
Drawn	Sheet No	Sheet 1 of 1	
Checker	Project Status	30% SD	
Checked			
Approver	12/17/19		
Approved	Issue Date		

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ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
1P	ONE POLE	MC	METAL CLAD CABLE
2P	TWO POLE	MCB	MAIN CIRCUIT BREAKER
3P	THREE POLE	MDP	MAIN DISTRIBUTION PANEL
1P2W	ONE POLE, TWO WIRE	MISC	MISCELLANEOUS
2P3W	TWO POLE, THREE WIRE	MLO	MAIN LUGS ONLY
3P3W	THREE POLE, THREE WIRE	MTD	MOUNTED
3P4W	THREE POLE, FOUR WIRE	MTG	MOUNTING
A	AMPERE	N/A	NOT APPLICABLE
AC	ALTERNATING CURRENT	NC	NORMALLY CLOSED
AF	AMP FRAME OR AMP FUSE	NEC	NATIONAL ELECTICAL CODE
AFF	ABOVE FINISHED FLOOR	NIC	NOT IN CONTRACT
AIC	AMPERE INTERRUPTING CAPACITY	NL	NIGHT LIGHT
AS	AMP SWITCH	NM	NONMETALLIC SHEATHED CABLE
AT	AMP TRIP	NO	NORMALLY OPEN
A/V	AUDIO VISUAL	NRTL	NATIONALLY RECOGNIZED TESTING LAB
ASCC	AVAILABLE SHORT CIRCUIT CURRENT	#	NUMBER
BLDG	BUILDING	NTS	NOT TO SCALE
C	CONDUIT (GENERIC FOR RACEWAY)	P	POLE
CAM	CAMERA	PB	PULL BOX
CAT	CATALOG	PC	PLUMBING SYSTEM CONTRACTOR
CATV	CABLE TELEVISION	PH	PHASE
CB	CIRCUIT BREAKER	PNL	PANEL(BOARD)
CKT	CIRCUIT	P.O.C.	POINT OF CONNECTION
COL	COLUMN	P.O.D.	POINT OF DISCONNECTION
CT	CURRENT TRANSFORMER	PR	PAIR
CU	COPPER	PRI	PRIMARY
(D)	DEMOLISH	PT	POTENTIAL TRANSFORMER
DLM	DIGITAL LIGHTING MANAGEMENT	PVC	POLYVINYL CHLORIDE CONDUIT
DISC	DISCONNECT	PWR	POWER
DWG	DRAWING	REC	RECESSED
DT	DUST TIGHT (NEMA # PREFERRED)	RT	RAINTIGHT
E	WIRED ON EMERGENCY CIRCUIT	RGC	RIGID GALVANIZED CONDUIT
EC	ELECTRICAL CONTRACTOR	S	SURFACE MOUNTED
EMS	ENERGY MANAGEMENT SYSTEM	SEC	SECONDARY
EMT	ELECTRIC METALLIC TUBING	SIG	SIGNAL
EOL	END OFLINE	SN	SOLID NEUTRAL
EWC	ELECTRIC WATER COOLER	SP	SPARE
(E)	EXISTING	SPL	SPLICE
(F)	FUTURE	SS	STAINLESS STEEL
FA	FIRE ALARM	STP	SHIELDED TWISTED PAIR
FBO	FURNISHED BY OTHERS	STL	CARBON STEEL
FC	FIRE PROTECTION CONTRACTOR	SUSP	SUSPENDED
FLA	FULL LOAD AMPS	SW	SWITCH
FMC	FLEXIBLE METALLIC CONDUIT	SWBD	SWITCHBOARD
FRE	FIBERGLASS REINFORCED EPOXY CONDUIT	SWG	SWITCHGEAR
GC	GENERAL CONTRACTOR	TC	TELEPHONE CABINET
G.E.C.	GROUNDING ELECTRODE CONDUCTOR	TCI	TELECOMM. CABLING INSTALLER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TEL/DATA	TELEPHONE/DATA
GND	GROUND	TEL	TELEPHONE
GRC	GALVANIZED RIGID CONDUIT	TERM	TERMINATOR(S)
HP	HORSEPOWER	TYP	TYPICAL
HV	HIGH VOLTAGE	UON	UNLESS OTHERWISED NOTED
HVAC	HEATING, VENTILATION & AIR CONDITIONING	UTP	UNSHIELDED TWISTED PAIR
Hz	HERTZ (CYCLE) PER SECOND	V	VOLT
IG	ISOLATED GROUND	Y	WYE
IMC	INTERMEDIATE METAL CONDUIT	W	WATT
JB	JUNCTION BOX	WH	WATTHOUR
KCMIL	THOUSAND CIRCULAR MILS	WP	WEATHERPROOF
K/O	KNOCK-OUT	WT	WATERTIGHT
KVA	KILOVOLT AMPERE	XFMR	TRANSFORMER
KVAR	KILOVOLT AMPERE REACTIVE	+72	MTG UNITS TO CENTERLINE AFF OR AFG
KW	KILOWATT		
LFMC	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT		
LFNC	LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT		
LP	LIGHTING PANELBOARD		
LS	LIMIT SWITCH		
LTG	LIGHTING		
LV	LOW VOLTAGE		

*NOT ALL ABBREVIATIONS USED

BRANCH CIRCUIT SYMBOLS

A-1,3,5	THREE SINGLE PHASE CIRCUITS TO PANEL 'A' WITH COMMON NEUTRAL
A-1&3&5	ONE THREE PHASE CIRCUIT TO PANEL 'A' – NO NEUTRAL
A-1&3	ONE SINGLE PHASE CIRCUIT TO PANEL 'A' – NO NEUTRAL
A-1/3/5	THREE SINGLE PHASE CIRCUITS WITH SEPARATE NEUTRALS TO PANEL 'A'
	HOMERUN TO PANEL OR CABINET AS DESIGNATED
	CONDUIT RUN CONCEALED IN WALL OR ABOVE FINISHED CEILING UON, WITH 3/4"C – 2#12, 1#12 GRD (MINIMUM)
	CONDUIT IN OR UNDER FLOOR, OR UNDERGROUND, 1" MINIMUM WITH CONDUCTORS AS INDICATED (2#12, 1#12 MINIMUM.)
	CONDUIT RUN EXPOSED
ER	EXISTING CONDUIT/WIRING TO REMAIN, UNLESS OTHERWISE NOTED ER– INDICATES EXISTING CONDUIT/WIRING TO BE REMOVED
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	CONDUIT, STUBBED OUT AND CAPPED
	*3/4"C–3#12 *3/4"C–4#12 *3/4"C–5#12 *1"C–6#12
	* PROVIDE MIN. #12 GREEN GRD. WIRE IN EACH CONDUIT RUN (NOT INDICATED ON PLAN)
#10	NUMBER NEXT TO THE HASH MARKS INDICATES CONDUCTOR SIZE (AWG). PROVIDE EQUIPMENT GROUNDING CONDUCTOR IN EACH CONDUIT RUN PER CEC TABLE 250.122.

POWER SYMBOLS

- SINGLE RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- DUPLEX RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- DOUBLE DUPLEX RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- C — DUPLEX, CONTROLLED RECEPTACLE, BOTTOM HALF TO BE SWITCHED, WALL MOUNTED AT +18" A.F.F.
- C — DOUBLE DUPLEX, CONTROLLED RECEPTACLE, TOP HALF TO BE SWITCHED, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- DUPLEX, GFCI RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- DOUBLE DUPLEX, GFCI RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- DUPLEX, ISOLATED GROUND RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- DEDICATED 20 AMP DUPLEX RECEPTACLE WALL MOUNTED AT +18" A.F.F. OR AS NOTED. OR AS NOTED.
- 1,3 — COMBINATION DOUBLE DUPLEX: ONE ISOLATED GROUND DUPLEX RECEPTACLE AND ONE DUPLEX RECEPTACLE, WALL MOUNTED AT +18" A.F.F. OR AS NOTED.
- WP–A — DUPLEX, GFCI WITH WEATHERPROOF COVER. WP INDICATES WEATHERPROOF, A,B OR C INDICATES THE TYPE OF COVER, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
- CORD DROP MOUNTED GFCI DUPLEX RECEPTACLE OUTLET, CONVENIANCE, 20 AMP
- FLUSH FLOOR MOUNTED FIRE RATED JUNCTION BOX, TELE/DATA AND DUPLEX OUTLET.
- FLOOR SURFACE MOUNTED JUNCTION BOX FOR POWER AND TELEPHONE DATA IN–FEED FOR WORKSTATIONS, UNLESS OTHERWISE NOTED. VERIFY POWER REQUIREMENTS WITH THE FURNITURE VENDER AND THE ELECTRICAL DRAWINGS FOR THE NUMBER OF CIRCUITS TO BE PROVIDED. AT TELEPHONE DATA PROVIDE A 1–1/2" CONDUIT FROM FLOOR BOX BACK TO AN ACCESSIBLE CEILING ON THE TENANTS FLOOR. EXACT LOCATION AND POWER REQUIREMENTS TO BE DETERMINED BY TENANT'S FURNITURE VENDOR.
- J — JUNCTION BOX, WATERTIGHT, FLUSH FLOOR MOUNTED RATED FOR POWER FOR APPLICATION DENOTED ON PLAN. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C..
- J — JUNCTION BOX, WALL MOUNTED AT +18" A.F.F. OR AS NOTED. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C..
- J — JUNCTION BOX, MOUNTED IN ACCESSIBLE CEILING FOR APPLICATION DENOTED ON PLAN. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C.
- F# — FEEDER NUMBER CALL OUT. REFER TO FEEDER SCHEDULE ON SHEET E0.X.
- (2)(2) — IN–FEED THROUGH POWER POLE FOR WORKSTATIONS POWER AND TELEPHONE/DATA. PROVIDE JUNCTION BOX ABOVE CEILING. COMMUNICATION POWER POLE 1–1/4" INSIDE DIAMETER. PROVIDE SEPARATION BETWEEN THE COMMUNICATION AND ELECTRICAL WIRING. POWER POLE LOCATION AND SIZE TO BE PROVIDED BY FURNITURE VENDOR. POWER POLE PROVIDED BY GENERAL CONTRACTOR. POWER POLE INSTALLED BY GENERAL CONTRACTOR.
- T — THERMOSTAT OUTLET BOX, PROVIDE 1/2"C.O. TO RESPECTIVE MECHANICAL UNIT.
- EXHAUST FAN, OR MOTOR LOAD. REFER TO MECHANICAL, PLUMBING OR KITCHEN DRAWINGS FOR SPECIFIC LOAD REQUIREMENTS OR AS NOTED.
- FLUSH MOUNTED ELECTRICAL PANELBOARD OR LOAD CENTER. REFER TO PANEL SCHEDULE.
- SURFACE MOUNTED ELECTRICAL PANELBOARD OR LOAD CENTER. REFER TO PANEL SCHEDULE.
- DISTRIBUTION SWITCHBOARD. REFER TO SINGLE LINE DIAGRAM.
- T — TRANSFORMER, REFER TO FLOOR PLAN.
- TRANSFORMER, REFER TO SINGLE LINE DIAGRAM.
- FUSED DISCONNECT SWITCH, HP RATED WITH FUSES PER EQUIPMENT MANUFACTURER AND WEATHERPROOF AS REQUIRED. PROVIDE FINAL CONNECTION TO UNIT EQUIPMENT.
- NON–FUSED DISCONNECT SWITCH, HP RATED AND WEATHERPROOF AS REQUIRED. PROVIDE FINAL CONNECTION TO UNIT EQUIPMENT
- (E)PANEL "A" — PANELBOARD WITH DESIGNATION "A" OR AS NOTED.
- (1) — NON–FUSED COMBINATION DISCONNECT SWITCH, (1) INDICATES SIZE 1 STARTER.
- (1) — FUSED COMBINATION DISCONNECT SWITCH, (1) INDICATES SIZE 1 STARTER.
- VFD — VARIABLE FREQUENCY DRIVE
- M — UTILITY COMPANY METER. PROVIDE "CT's" AND "PT's" AS REQUIRED, REFER TO SINGLE LINE DIAGRAM.
- CIRCUIT BREAKER
- FUSIBLE SWITCH
- GROUND CONNECTION, SIZE AS INDICATED OR AS REQUIRED.
- MOTOR RATED SWITCH
- a,b — SINGLE POLE SWITCHES, WALL MOUNTED AT +48" A.F.F. (MAX). SUBSCRIPTS AT SYMBOL INDICATE THE FOLLOWING:

2 – DOUBLE POLE	P – PILOT LIGHT
3 – THREE WAY	R – REMOTE CONTROL
4 – FOUR WAY	M – MOTOR STARTING
K – KEY OPERATED	RL – ROTARY LOCK KEY TYPE
LV – LOW VOLTAGE	PB – PUSHBUTTON

G, b, c, ETC. – DESIGNATES QUANTITY OF SWITCHES AT EACH LOCATION. NOTE: ALL WALL SWITCHES CONTROLLING EMERGENCY CIRCUITS SHALL BE ENGRAVED WITH "EMERGENCY"

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND ORDINANCES AS ADOPTED BY THE STATE OF CALIFORNIA AND THE CITY OF GARDENA INCLUDING BUT NOT LIMITED TO:
   2019 CALIFORNIA BUILDING CODE (CBC)
   2019 CALIFORNIA ELECTRICAL CODE (CEC)
   2019 LOS ANGELES COUNTY FIRE CODE (CFC)
2. THE ELECTRICAL CONTRACTOR SHALL FIELD INSPECT THE PROJECT TO BE FULLY INFORMED AS TO THE SCOPE OF WORK AND ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK. VERIFY ALL EXISTING ELECTRICAL, ELEVATIONS, SIZES AND POINT OF CONNECTIONS PRIOR TO START OF WORK. NOT ALL CONDITIONS INDICATED ON PLANS.
3. PROVIDE PROPERLY SIZED EQUIPMENT GROUNDING CONDUCTOR(S) PER CEC 250.122.
4. UNLESS LISTED OTHERWISE, THE AMPACITY OF 600 VOLTS OR LESS CONDUCTORS SHALL BE BASED ON 60°C (140°F) FOR CIRCUITS RATED 100A OR LESS, OR MARKED FOR 14AWG THROUGH 1AWG CONDUCTORS, 75°C (167°F) FOR CIRCUITS RATED OVER 100 AMPERES, OR MARKED FOR CONDUCTORS LARGER THAN 1AWG PER CEC 110.14(C)(1).
5. THROUGH PENETRATIONS OF FIRE RESISTANCE–RATED WALLS SHALL COMPLY WITH CBC SECTION 714.3.1.1 OR 714.3.1.2. THROUGH PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E 814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.0.1 INCH (2.49 PA) OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE–RESISTANCE RATING OF THE WALL PENETRATED. CBC 714.3.1.
6. ALL GROUNDING ELECTRODES THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SHALL BE BONDED TOGETHER PER CEC 250.50, 250.52(A).
7. INSULATED CONDUCTORS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF TABLE 310.15(B)(16). ALL WIRING SHALL BE THHN COPPER CONDUCTOR UNLESS OTHERWISE NOTED.
8. THIS SET OF PLANS IS CONSIDERED TO BE PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL PLANS, INCLUDING BUT NOT LIMITED TO CIVIL, STRUCTURAL AND MECHANICAL. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO THE START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED.
9. ANY WORK PERFORMED OR MATERIALS USED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY APPLICABLE CODE AND/OR GOVERNING REGULATIONS SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. ALL MATERIALS USED ON THE PROJECT SHALL BE U.L. LABELED OR LISTED.
11. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
12. ANY DEFICIENCY PERTAINING TO WORKMANSHIP FOUND BY THE INSPECTOR SHALL BE CORRECTED WITHOUT ADDITIONAL COST TO THE OWNER.
13. ALL WIRING SHALL BE IN RIGID METAL CONDUIT, OR ELECTRICAL METALLIC TUBING, 3/4" MINIMUM UNLESS OTHERWISE NOTED. RIGID CONDUIT SHALL BE USED IN AREAS WHERE CONDUITS MAY BE EXPOSED TO PHYSICAL OR WEATHER DAMAGE. EMT MAY BE USED IN AREAS WHERE CONDUITS ARE NOT SUBJECT TO PHYSICAL OR WEATHER DAMAGE.
14. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION AND SERVICES AS INDICATED ON THE PLANS AND SPECIFICATIONS FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. ALL MATERIALS AND WORK SHALL COMPLY WITH THE APPLICABLE CODES AND GOVERNING REGULATIONS.
15. THE ELECTRICAL CONTRACTOR SHALL NOT BORE, NOTCH, OR IN ANY OTHER WAY CUT INTO STRUCTURAL MEMBERS WITHOUT THE WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
16. THE ELECTRICAL CONTRACTOR SHALL PROVIDE SEISMIC BRACING PER CBC FOR ELECTRICAL EQUIPMENT AND INSTALLATION INCLUDING SWITCHBOARDS, TRANSFORMERS, CABLE TRAYS AND OVERHEAD CONDUITS.
17. LINE VOLTAGE WIRING, ALL CONDUIT, DISCONNECT SWITCHES AND FINAL CONNECTION BY ELECTRICAL CONTRACTOR. LOW VOLTAGE CONDUIT AND WIRING AND FINAL CONNECTION BY MECHANICAL CONTRACTOR.
18. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.
19. NOTE: FOR THE PURPOSE OF CLARITY AND LEGIBILITY, THE PLANS ARE ESSENTIALLY DIAGRAMMATIC AND ALTHOUGH SIZES AND LOCATIONS OF EQUIPMENT ARE DRAWN TO SCALE WHEREVER POSSIBLE, THE ELECTRICAL CONTRACTOR SHALL MAKE USE OF ALL DATA IN THE CONTRACT DOCUMENTS AND VERIFY THIS INFORMATION BEFORE ORDERING, FABRICATING OR INSTALLING ANY MATERIALS.
20. SIGNAL, CONTROL AND POWER WIRING SHALL EACH BE ROUTED IN SEPARATE CONDUITS TO AVOID INTERFERENCE.
21. INSULATED CONDUCTORS AND CABLES USED IN SPECIFIC LOCATIONS SHALL BE LISTED IN ARTICLE 310.10 IN THE CEC.
22. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN A LEGIBLE SET OF REDLINE PLANS DOCUMENTING ALL CHANGES TO THE STAMPED AND APPROVED CONSTRUCTION SET.
23. WHERE A GROUND ROD IS REQUIRED, A MINIMUM OF 8 FEET MUST BE IN CONTACT WITH THE SOIL AND MUST MEET THE REQUIREMENTS OF 250.56 [250.52(A)(5) AND 250.53(G)]. IF THE RESISTANCE EXCEEDS 25 OHMS, A SECOND GROUND ROD WILL BE DRIVEN WITHIN 6' OF THE FIRST GROUND ROD.

SCOPE OF WORK

FURNISH AND INSTALL A NEW 4000A, FULLY RATED, NEMA 3R SWITCHBOARD WITH SCE COMPLIANT METER SECTION. THE NEW SWITCHBOARD WILL BACK FEED THE EXISTING 2500A SWITCHBOARD AND FEED THE 2500A NEMA 3R SWITCHGEAR FOR THE CNG YARD.

PROVIDE POWER FOR THE TWO NEW DUPLEX COMPRESSOR SKIDS AT THE SOUTH SIDE OF THE CNG EQUIPMENT COMPOUND. EACH DUPLEX SKID HAS TWO 250HP COMPRESSORS. ANY THREE OF THE FOUR COMPRESSORS WILL BE ABLE TO RUN AT ONE TIME.

PROVIDE POWER TO TWO NEW MOTOR CONTROL CENTERS TO SERVE THE LOADS OF EACH SKID. PROVIDE POWER TO A NEW GAS DRYER.

PROVIDE A NEW 750KW NATURAL GAS STANDBY GENERATOR AND TRANSFER SWTICH TO ALLOW ANY TWO COMPRESSOR MOTORS TO OPERATE IN THE EVENT OF NORMAL POWER LOSS.

PROVIDE POWER TO TWO NEW CNG DISPENSERS.

LINE TYPE AND HATCHING LEGEND

- (E)EXISTING
- NEW WORK

No	Revision Description	Date
1	ISSUED FOR RFP	04/28/20

GTRANS
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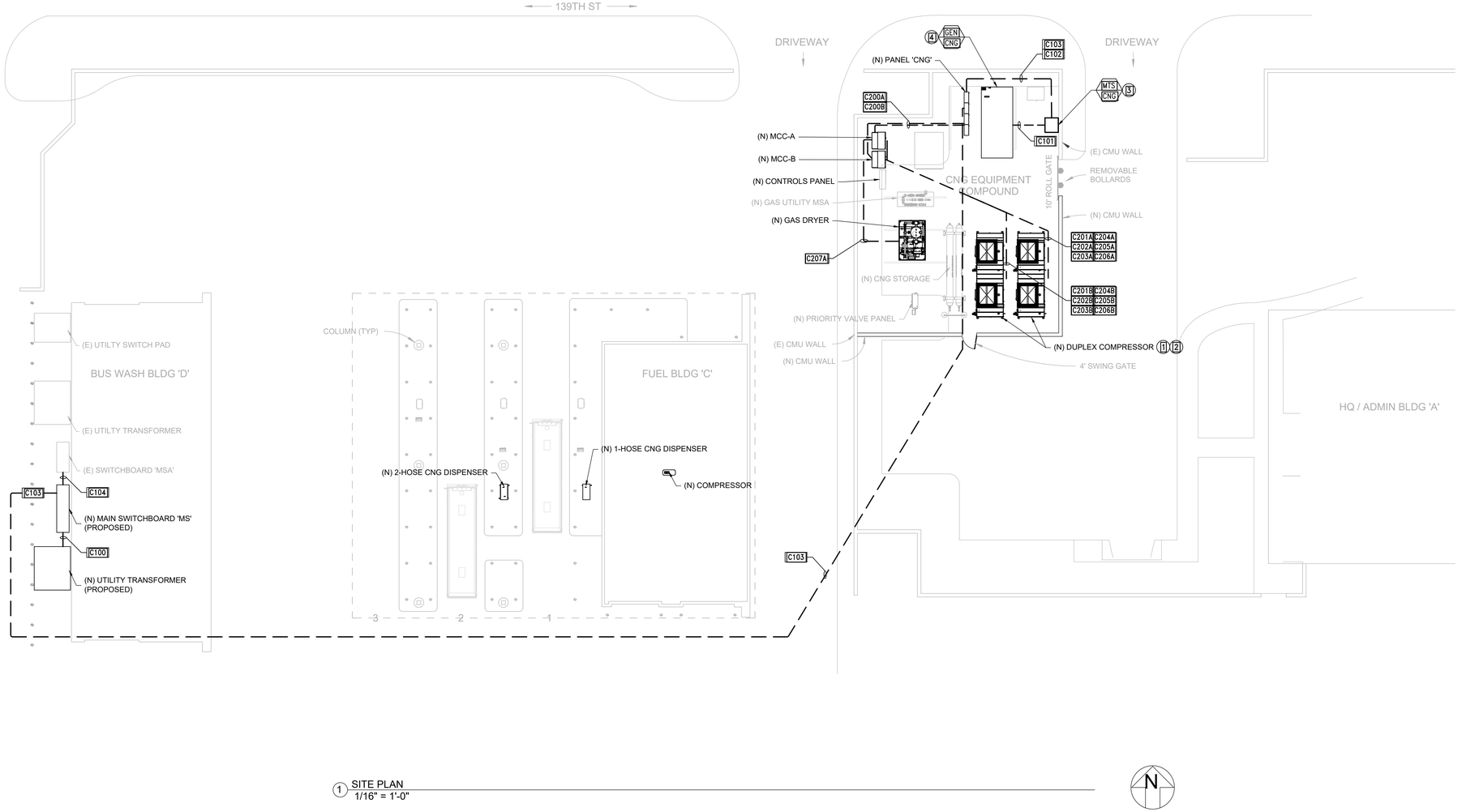
ELECTRICAL LEGEND, NOTES, ABBREVIATIONS AND CALCULATIONS

Sheet Title

J/O	Project No	C19190	
Designed	Scale		Sheet No E-001 Sheet 1 of 3
Drawn AA			
Checked			Project Status
JLJ			
Approved			
02/06/20			
Issue Date			

FUEL SOLUTIONS
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1 SITE PLAN
1/16" = 1'-0"

SHEET NOTES

1. REFER TO DRAWING NOTES 7, 9 AND 10 ON SHEET G-101 AS WELL AS OTHER PROJECT REQUIREMENTS RELATED TO UNDERGROUND WORK.
2. THE APPROXIMATE LOCATIONS OF THE EXISTING SYSTEMS ARE SHOWN FOR REFERENCE ONLY. THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY PRIOR TO COMMENCING ANY WORK.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT SHUTDOWNS REQUIRED IN THE COURSE OF THIS WORK WITH GENERAL CONTRACTOR AND BUILDING OWNER PRIOR TO COMMENCING ANY WORK.
4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE FINAL EQUIPMENT PLACEMENT WITH THE STRUCTURAL ENGINEERS PLANS.
5. EQUIPMENT SHALL BE INSTALLED FOLLOWING THE MANUFACTURER'S INSTALLATION MANUAL AND ALL APPLICABLE CODES.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE NEW WORK WITH EXISTING WORK WHERE CONNECTION TO EXISTING CIRCUITS AND OR SERVICES IS REQUIRED.
7. FINAL ROUTING OF THE FEEDER IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. THE FEEDER LENGTHS ARE ESTIMATED AND THESE PLANS SERVE AS A GUIDE.
8. POWER SHALL BE TURNED OFF, SAFELY LOCKED OUT AND LABELED USING APPROVED LOCKOUT TAGOUT PROCEDURES PRIOR TO SERVICING, REPLACING OR REPAIRING ANY EQUIPMENT.
9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE UPDATED PANEL BOARD SCHEDULES PRIOR TO FINAL ACCEPTANCE AND CLOSEOUT.
10. EQUIPMENT CONFIGURATION AND CONNECTIONS ARE BASIS OF DESIGN. VERIFY ACTUAL EQUIPMENT CONFIGURATION AND CONNECTION WITH EQUIPMENT PROVIDED BY CONTRACTOR.
11. THE INSTALLING CONTRACTOR TO FIELD VERIFY CURRENT LOCATION OF PANELS AND EQUIPMENT AND PROVIDE ADDITIONAL CONDUIT AS NEEDED.
12. ALL ELECTRICAL WIRING SHALL COMPLY WITH 2019 CEC 514.4 AND 2019 CEC SECTION 501.10(A) FOR CLASS 1 DIVISION 1 AREAS, SECTION 501.10(B) FOR CLASS 1 DIVISION 2 AREAS.
13. CONTRACTOR SHALL PROVIDE CONDUIT SEALS WHERE REQUIRED BY CHAPTER 500 AND ARTICLE 514 OF THE 2019 CEC FOR CLASSIFIED AREAS.
14. REFER TO NFPA 52 TABLE 8.4.2.9 FOR EXTENT OF CLASSIFIED AREA(S) FOR PROPOSED COMPRESSED NATURAL GAS.
15. COORDINATE EQUIPMENT INSTALLATION AND CONDUIT ROUTING WITH OTHER WORK.
16. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES AND UNDERGROUND PIPING AND CONDUITS PRIOR TO START OF EXCAVATION.
17. EQUIPMENT DIMENSIONS AND TIE-IN POINTS ARE APPROXIMATE. COORDINATE INSTALLATION IN THE FIELD BASED UPON ACTUAL EQUIPMENT AND EQUIPMENT INSTALLATION MANUALS PROVIDED.
18. THE ROUTE FOR CONDUIT AND WIRING IS SCHEMATIC. CONTRACTOR SHALL VERIFY UNDERGROUND CONDITIONS AND ROUTE LINES ACCORDINGLY
19. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND PRESERVING EXISTING UNDERGROUND UTILITIES.

CONSTRUCTION NOTES

(1) PROVIDE #4/0 BC GROUND LOOP WITH GROUND WELLS AROUND CNG COMPOUND. PROVIDE (2) GROUND CONNECTIONS TO EACH PIECE OF CNG EQUIPMENT SIZED PER NEC TABLE 250.66. NON-ENERGIZED EQUIPMENT SUCH AS STORAGE VESSELS WILL BE CONNECTED WITH A MINIMUM #2 GROUND WIRE.

(2) PROVIDE WITH A #3/0 BC GROUND CONNECTION TO THE GROUNDING GRID.

(3) PROVIDE WITH A 3/4" CONDUIT FOR THE DRY CONTACT SIGNAL WIRE TO THE MASTER PLC.

(4) PROVIDE WITH A 1" CONDUIT FOR 120V POWER TO THE GENERATOR BLOCK HEATER AND BATTERY CHARGER. CONTRACTOR SHALL USE MINIMUM #12AWG.

No	Revision Description	Date
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ELECTRICAL SITE PLAN

Sheet Title

JQ Designed	Project No. C19190		
Drawn AV	Scale	E-101	Sheet 2 of 3
Checked JLJ	Sheet No		Project Status
Approved 02/05/20	Issue Date		

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LEGEND

DEMOLITION WORK

EXISTING

NEW WORK

LOAD CALCULATIONS

EXISTING LOAD	V	A	kVA
(E) DISTR. BOARD 'ADH'	480	522.0	434.0
(E) DIST. BOARD 'MDH'	480	947.8	788.0
(E) ATS-F	480	333.2	277.0
(E) WASHER, VEHICLE VW4000	480	173.2	144.0
TOTAL EXISTING LOAD		1976.3	1,643.0
ADDED LOAD	**V**	**A**	**kVA**
COMPRESSOR A1	480	302.0	251.1
COMPRESSOR A2	480	302.0	251.1
BLOWER FAN A1	480	21.0	17.5
BLOWER FAN A2	480	21.0	17.5
LUBE PUMP A1	480	1.1	0.9
LUBE PUMP A2	480	1.1	0.9
DRYER	480	60.0	49.9
TRANSFORMER 'TA1'	480	31.3	15.0
COMPRESSOR B1	480	302.0	251.1
COMPRESSOR B2	480	302.0	251.1
BLOWER FAN B1	480	21.0	17.5
BLOWER FAN B2	480	21.0	17.5
LUBE PUMP B1	480	1.1	0.9
LUBE PUMP B2	480	1.1	0.9
TRANSFORMER 'TB1'	480	31.3	15.0
TOTAL ADDED LOAD		1392.5	1,157.7
TOTAL LOAD	**480.0**	**3,368.7**	**2,800.7**

SERVICE LOAD CALCULATION

EXISTING LOAD	1643.0	KVA
ADDED LOAD	888.2	KVA
SUBTOTAL LOAD	2531.2	KVA
25% FOR FUTURE	632.8	KVA
TOTAL LOAD	3164.0	KVA
I (EQ)	3805.7	A
RATING OF SWITCHBOARD	4000	A

SERVICE LOAD CALCULATION NOTES:
UTILITY BILLS WERE NOT AVAILABLE AT THE TIME THIS DRAWING SET WAS DEVELOPED. ESTIMATED LOADS WERE PREPARED BASED ON THE RECORD DRAWINGS FROM 2009 PROVIDED BY GARDENA TRANSIT.
THE SUCCESSFUL BIDDER SHALL CONFIRM THE EXISTING LOADS BASED 12-MONTH UTILITY BILLS PRIOR TO ORDERING EQUIPMENT.

*STATION CONTROLS WILL ONLY ALLOW 3 OF THE 4 CNG COMPRESSORS TO RUN AT ONE TIME. COMPRESSOR B2 LOADS REMOVED FROM CALCULATION.

LOAD CALCULATIONS - GENERATOR

BLOWER FAN A1	480	21	17.5
BLOWER FAN A2	480	21	17.5
LUBE PUMP A1	480	1.1	0.9
LUBE PUMP A2	480	1.1	0.9
DRYER	480	60	49.9
TRANSFORMER 'TA1'	480	31.25	15.0
TOTAL ADDED LOAD		**726.2**	**603.8**

***Only (2) Compressors shall operate when on Generator power.**

Table 8.4.2.9 Electrical Installations

Location	Division or Zone	Extent of Classified Area
Containers (other than mounted fuel supply containers)	2	Within 10 ft (3 m) of container
Area containing compression and ancillary equipment	2	Up to 15 ft (4.6 m) from equipment
Dispensing equipment outdoors	1	Inside the dispenser enclosure
Outdoors	2	From 0 to 5 ft (0 to 1.5 m) from the dispenser
Indoors	1	Inside the dispenser enclosure
Indoors	2	Entire room, with adequate ventilation *(see 8.4.3)*
Discharge from relief valves or vent		
Outdoors	1	5 ft (1.5 m) in all directions from the point source
Outdoors	2	Beyond 5 ft (1.5 m) but within 15 ft (4.6 m) in all directions from point of discharge
Valves, flanges of screwed fittings	None	Unclassified
Discharge from relief valves within 15 degrees of the line of discharge	1	15 ft (4.6 m)

CODE REFERENCES

NOT TO SCALE

2

CONDUIT SCHEDULE - POWER

TAG	DESCRIPTION	FROM	TO	QTY	SIZING	WIRING
C100	UTILITY SERVICE	SCE XFMR	MS	9	4"	TO BE PROVIDED BY OTHERS
C101	GENERATOR POWER	GEN-CNG	MTS-CNG (E SIDE)	3	4"	4#600MCM + 1#3/0 GND
C102	CNG PANEL FEEDER	MTS-CNG	PANEL CNG	6	4"	4#600MCM + 1#350MCM GND
C103	NORMAL POWER	MS	MTS-CNG (N SIDE)	6	4"	4#600MCM + 1#350MCM GND
C104	EXISTING LOADS	MS	(E) SWBD MSA	8	4"	4#500MCM + 1#350MCM GND
C200A	MCC-A FEEDER	PANEL CNG	MCC-A	3	4"	4#600MCM + 1#3/0 GND
C201A	COMPRESSOR A1	MCC-A	COMPRESSOR A1	2	2-1/2"	3#3/0 + 1#2 GND
C202A	COMPRESSOR A2	MCC-A	COMPRESSOR A2	2	2-1/2"	3#3/0 + 1#2 GND
C203A	BLOWER FAN A1	MCC-A	BLOWER FAN A1	1	3/4"	3#10 + 1#10 GND
C204A	BLOWER FAN A2	MCC-A	BLOWER FAN A2	1	3/4"	3#10 + 1#10 GND
C205A	LUBE PUMP A1	MCC-A	LUBE PUMP A1	1	3/4"	3#12 + 1#12 GND
C206A	LUBE PUMP A2	MCC-A	LUBE PUMP A2	1	3/4"	3#12 + 1#12 GND
C207A	DRYER	MCC-A	DRYER	1	1-1/2"	3#2 + 1#8 GND
C208A	OIL HEATER	MCC-A	OIL HEATER	1	3/4"	2#12 + 1#12 GND
C209A	LIGHTS	MCC-A	LIGHTS	1	3/4"	2#12 + 1#12 GND
C200B	MCC-B FEEDER	PANEL CNG	MCC-B	3	4"	4#600MCM + 1#3/0 GND
C201B	COMPRESSOR B1	MCC-B	COMPRESSOR B1	2	2-1/2"	3#3/0 + 1#2 GND
C202B	COMPRESSOR B2	MCC-B	COMPRESSOR B2	2	2-1/2"	3#3/0 + 1#2 GND
C203B	BLOWER FAN B1	MCC-B	BLOWER FAN B1	1	3/4"	3#10 + 1#10 GND
C204B	BLOWER FAN B2	MCC-B	BLOWER FAN B2	1	3/4"	3#10 + 1#10 GND
C205B	LUBE PUMP B1	MCC-B	LUBE PUMP B1	1	3/4"	3#12 + 1#12 GND
C206B	LUBE PUMP B2	MCC-B	LUBE PUMP B2	1	3/4"	3#12 + 1#12 GND
C207B	OIL HEATER	MCC-B	OIL HEATER	1	3/4"	2#12 + 1#12 GND
C208B	LIGHTS	MCC-B	LIGHTS	1	3/4"	2#12 + 1#12 GND

SHEET NOTES

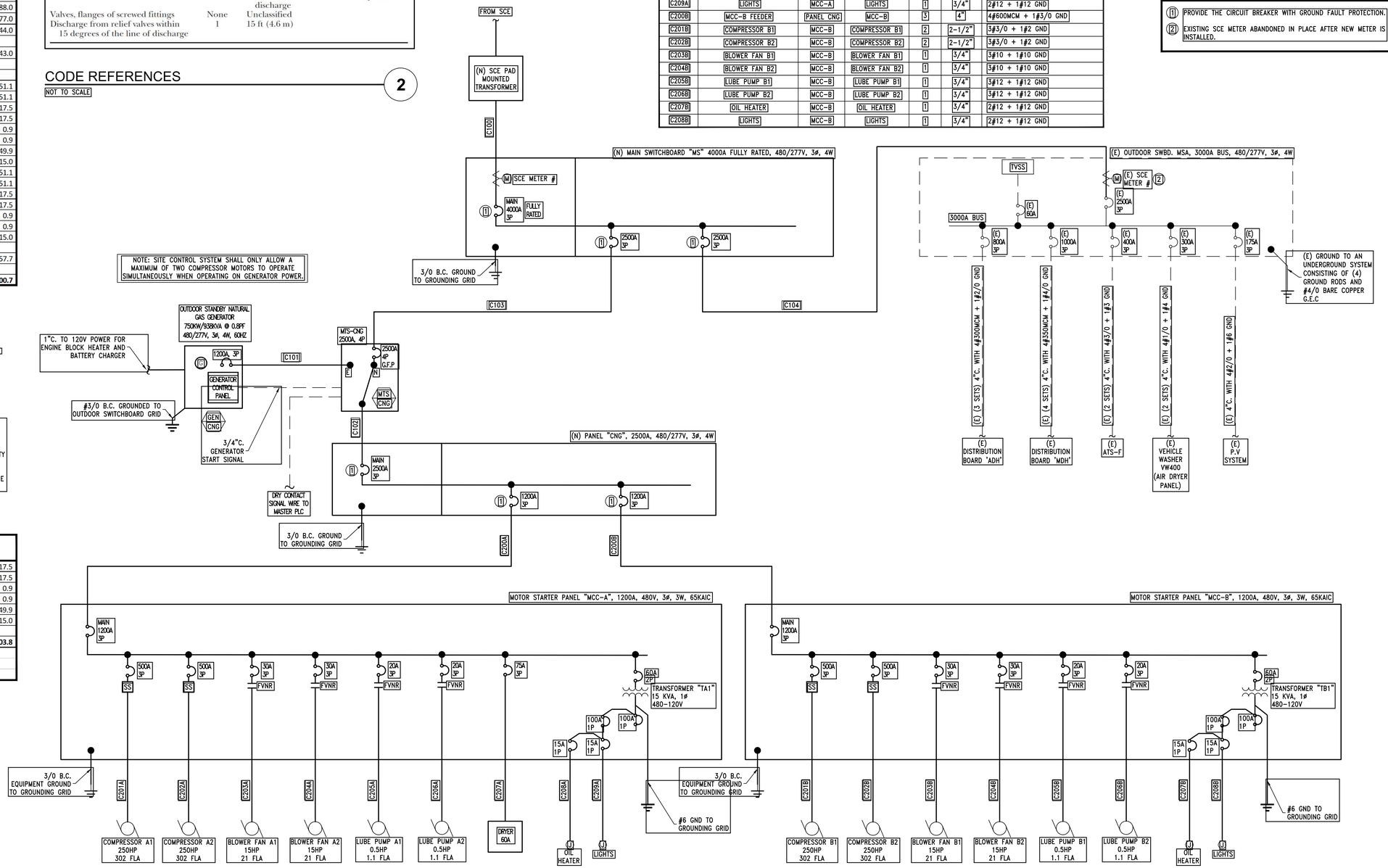
1. THE CONFIGURATION SHOWN ON DRAWING IS CONCEPTUAL TO SHOW INTENT AND IS NOT APPROVED FOR CONSTRUCTION.
2. CONTRACTOR SHALL PREPARE COMPLETE AND ENGINEERED ELECTRICAL DESIGN-DRAWING PACKAGE AS REQUIRED TO POWER THE NEW EQUIPMENT SHOWN ON THIS DRAWING AND AS OTHERWISE INDICATED IN THE CONTRACTOR'S PROPOSAL.
3. COORDINATE PERTINENT REQUIREMENTS FOR NEW OR MODIFIED UTILITY SERVICE WITH SOUTHERN CALIFORNIA EDISON PLANNER ANGEL MEJIA AT (310)783-9339.
4. ELECTRICAL DESIGN SHALL MEET CLASSIFIED-AREA REQUIREMENTS SHOWN IN TABLE 8.4.2.9 AND AS OTHERWISE REQUIRED IN THE NEC.
5. GENERATOR SIZING IS PRELIMINARY. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION AND SIZING OF THE GENERATOR TO ENSURE A WORKING SYSTEM.

CONSTRUCTION NOTES

(1) PROVIDE THE CIRCUIT BREAKER WITH GROUND FAULT PROTECTION.

(2) EXISTING SCE METER ABANDONED IN PLACE AFTER NEW METER IS INSTALLED.

NOTE: SITE CONTROL SYSTEM SHALL ONLY ALLOW A MAXIMUM OF TWO COMPRESSOR MOTORS TO OPERATE SIMULTANEOUSLY WHEN OPERATING ON GENERATOR POWER.



SINGLE LINE DIAGRAM

SCALE: NONE

1

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ELECTRICAL SINGLE LINE DIAGRAM AND CALCULATIONS

Designed	Drawn	Checked	Approved	Issue Date
JQ	AW	JLJ	JLJ	02/06/20

Project No C19190 | Scale | Sheet No E-601 | Sheet 3 of 3 | Project Status A

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CNG GARAGE MODIFICATION GENERAL NOTES

1. SEE GENERAL PROJECT REQUIREMENTS ON SHEET G-002 AND OTHER CONTRACT DOCUMENTS AS APPROPRIATE.
2. ALL INSTALLATION AND CONSTRUCTION WORK SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS AT THE MOST CURRENT VERSION AS ADOPTED BY THE STATE OF CALIFORNIA AND CITY OF GARDENA:
   - CALIFORNIA BUILDING CODE (CBC)
   - CALIFORNIA MECHANICAL CODE (CMC)
   - CALIFORNIA ELECTRIC CODE (CEC)
   - CALIFORNIA FIRE CODE (CFC), INCLUDING SECTION 2311
   - NFPA 30A - MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES
   - INSTALLATION SHALL ALSO CONFORM TO OTHER REQUIREMENTS SET FORTH IN THE PROJECT DOCUMENTS.
3. THE CONTRACTOR SHALL PROVIDE ACCURATE ASBUILT RECORD DRAWINGS AT THE COMPLETION OF CONSTRUCTION. RECORD DRAWINGS WILL BE MADE BY REDLINING APPROVED CONSTRUCTION DRAWINGS TO IDENTIFY ALL CHANGES MADE IN THE FIELD. REDLINED DRAWINGS SHALL BE NEAT AND LEGIBLE.
4. CONTRACTOR SHALL PROVIDE TRAINING TO ASSIGNED STAFF THAT PROVIDES OPERATION, ROUTINE MAINTENANCE AND MONITORING INSTRUCTIONS FOR HARDWARE AND SOFTWARE SYSTEMS THAT ARE INSTALLED AS PART OF THE PROJECT. THIS INCLUDES GAS DETECTION SYSTEM AND IR HEATING SYSTEM.
5. REQUIREMENTS FOR PROJECT COMPLETION INCLUDE PROVISION OF THE FOLLOWING TO THE OWNER:
   A. COMPLETED FUNCTIONAL AND PERFORMANCE TESTING, AS AGREED BETWEEN THE CONTRACTOR AND THE OWNER, TO INCLUDE DOCUMENTATION OF SUCCESSFUL TESTING FOR ALL NEW SENSORS, BUTTONS, SOFTWARE APPLICATIONS, CONTROL PANELS AND INTERFACE PANELS.
   B. APPROVED FIELD INSPECTIONS BY AHJ'S AS REQUIRED.
   C. COMPLETION OF ALL OWNER-PROVIDED PUNCH-LIST INSPECTION ITEMS.
   D. DELIVERY OF (3) COMPLETE EQUIPMENT MANUALS IN LABELED BINDERS AND (2) COPIES IN MATCHING AND TEXT-SEARCHABLE PDF FORMAT ON USB 'FLASH DRIVES'. MANUAL SHALL INCLUDE COMPLETED TESTING DOCUMENTATION AND A RECOMMENDED SPARE PARTS LIST FOR ALL CONTRACTOR-PROVIDED EQUIPMENT.

SCOPE OF WORK

1. REMOVE EXISTING IR HEATING BURNERS, COMBUSTION TUBES AND EMITTER TUBES.
2. REMOVE REFLECTORS, HANGERS AND OTHER PARTS OF EXISTING HEATING SYSTEM IF NOT USABLE FOR NEW CNG COMPLIANT IR HEATING SYSTEM. CAP AND SECURE REMAINING GAS-SUPPLY LINES.
3. INSTALL NEW AND COMPLETE IR HEATING SYSTEMS RATED FOR CNG REPAIR GARAGE.
4. INSTALL CONTROLLERS THERMOSTATS AND ALL OTHER APPURTENANCES NEEDED FOR A COMPLETE AND FULLY FUNCTIONAL IR HEATING SYSTEM RATED FOR CNG GARAGE.
5. INSTALL NEW METHANE-LEAK SENSORS NEAR THE CEILING AT LOCATIONS AS INDICATED ON DESIGN DRAWINGS.
6. INSTALL DUAL TRANSMITTER, ONE FOR EACH PAIR OF SENSORS.
7. INSTALL NEW CONTROL-MONITORING PANEL FOR DETECTION SYSTEM.
8. INSTALL NEW ANNUNCIATORS AND WIRE ALL ANNUNCIATORS TO GAS DETECTION SYSTEM CONTROLLER.
9. WIRE COMMUNICATION CIRCUITS FROM GAS DETECTION SYSTEM CONTROL PANEL TO EXISTING BUILDING AUTOMATION SYSTEM (BAS) CONTROLLER.
10. MODIFY BAS PROGRAM TO CONTROL HVAC SYSTEM PER GAS DETECTION SEQUENCE OF CONTROL.
11. INSTALL DUCT WORK WITH ALL NEEDED HANGERS AND SUPPORTS AND CONNECT TO EXISTING FANS DUCT SYSTEMS.
12. INSTALL EXPLOSION PROOF AND SPARK RESISTANT MOTORIZED DAMPERS, AND VOLUME DAMPERS AS CALLED FOR ON DRAWINGS.
13. WIRE MOTORIZED DAMPERS TO GAS DETECTION SYSTEM CONTROLLER.
14. CONTRACTOR MAY USE EXISTING CONDUIT (IF ANY) FOR NEW WIRING BETWEEN GAS DETECTION SYSTEM CONTROLLER IN BUILDING B TO BAS CONTROLLER IN BUILDING A.PROVIDE ALL NEEDED WIRING, CONDUIT, HANGER AND SUPPORTS AS NEEDED FOR SAFE, SECURE AND FULLY FUNCTIONAL SYSTEMS.
15. VERIFY AND ANALYZE EXISTING FORCED-AIR VENTILATION SYSTEM AND CONFIRM THAT ALL AREAS OF THE MAINTENANCE GARAGE ARE CAPABLE OF PROVIDING AT LEAST 5 AIR CHANGES PER HOUR (ACH). IF ANY AREAS ARE FOUND TO BE DEFICIENT, REPORT FINDINGS TO THE OWNER IMMEDIATELY.
16. REMOVE EXISTING STEAM CLEANER IN BAY 14 AND REPLACE WITH UNIT THAT IS APPROPRIATE FOR CNG-REPAIR GARAGE. UNIT SHALL HAVE BTU RATING EQUAL TO THAT OF EXISTING UNIT, NO OPEN FLAME, NO SURFACE TEMPERATURE ABOVE 700ºF, AND SHALL BE CONFIGURED WITH PRESSURE RATING, GPM RATING, HOSE, WAND AND CONTROLS SIMILAR TO THAT OF EXISTING UNIT.

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

GTRANS
CNG FACILITY AND GARAGE MODIFICATION
13999 S WESTERN AVE, GARDENA, CA 90249

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CNG GARAGE MODIFICATION GENERAL NOTES
Sheet Title

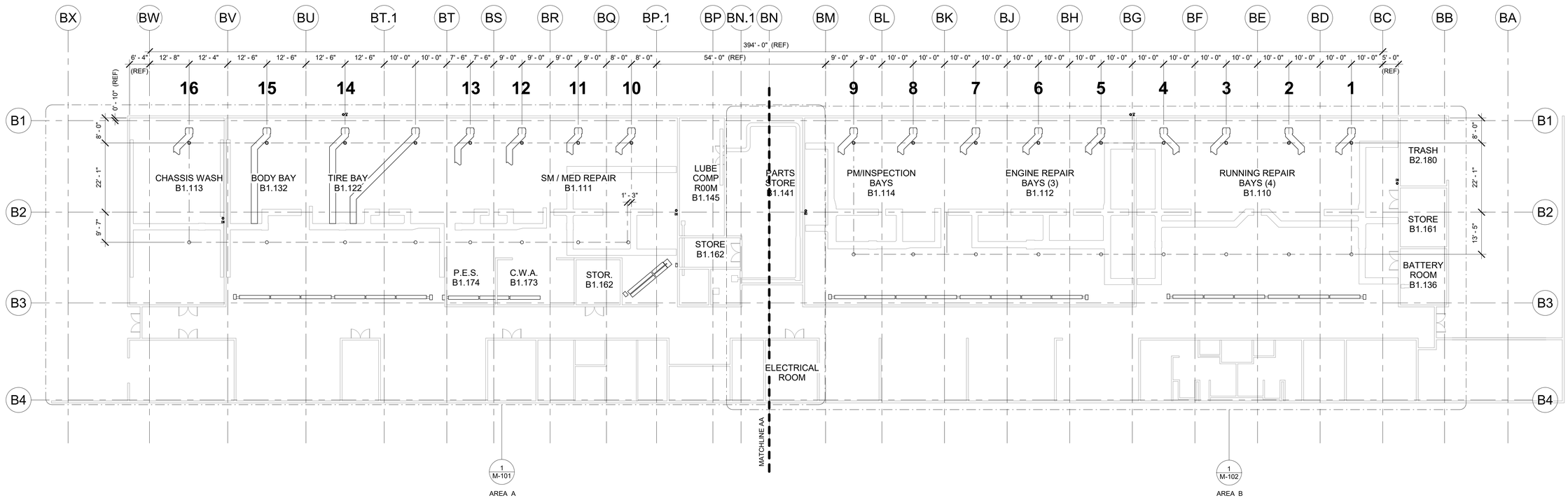
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Approver: Approved
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1 MAINTENANCE GARAGE PLAN
1/16" = 1'-0"

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EQUIP SCHEDULE		
KEY	QTY	DESCRIPTION
1	34	METHANE DETECTOR SENSOR
2	17	METHANE DETECTOR TRANSMITTER
3	4	VISIBLE ALARM INDOOR
4	4	AUDIBLE ALARM INDOOR
5	2	VISIBLE ALARM OUTDOOR
6	2	AUDIBLE ALARM OUTDOOR
7	1	CONTROL PANEL AND RELAYS
8	1	POWER SUPPLY AND BATTERY BACKUP

SCHEDULE NOTES

1. SEE SHEET M-501 FOR DETAILED EQUIPMENT SCHEDULE.

GENERAL DRAWING NOTES

A. THIS PLAN IS CONCEPTUAL. CONTRACTOR SHALL PROVIDE COMPLETE CONSTRUCTION DRAWINGS WITH ALL NEEDED DETAILS FOR PERMIT AND CONSTRUCTION.

B. CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, DIMENSIONS AND INFRASTRUCTURE OF EQUIPMENT, PIPING AND POINTS OF CONNECTION FOR CONSISTENCY WITH EQUIPMENT PRIOR TO COMMENCING ANY WORK AND ORDERING EQUIPMENT.

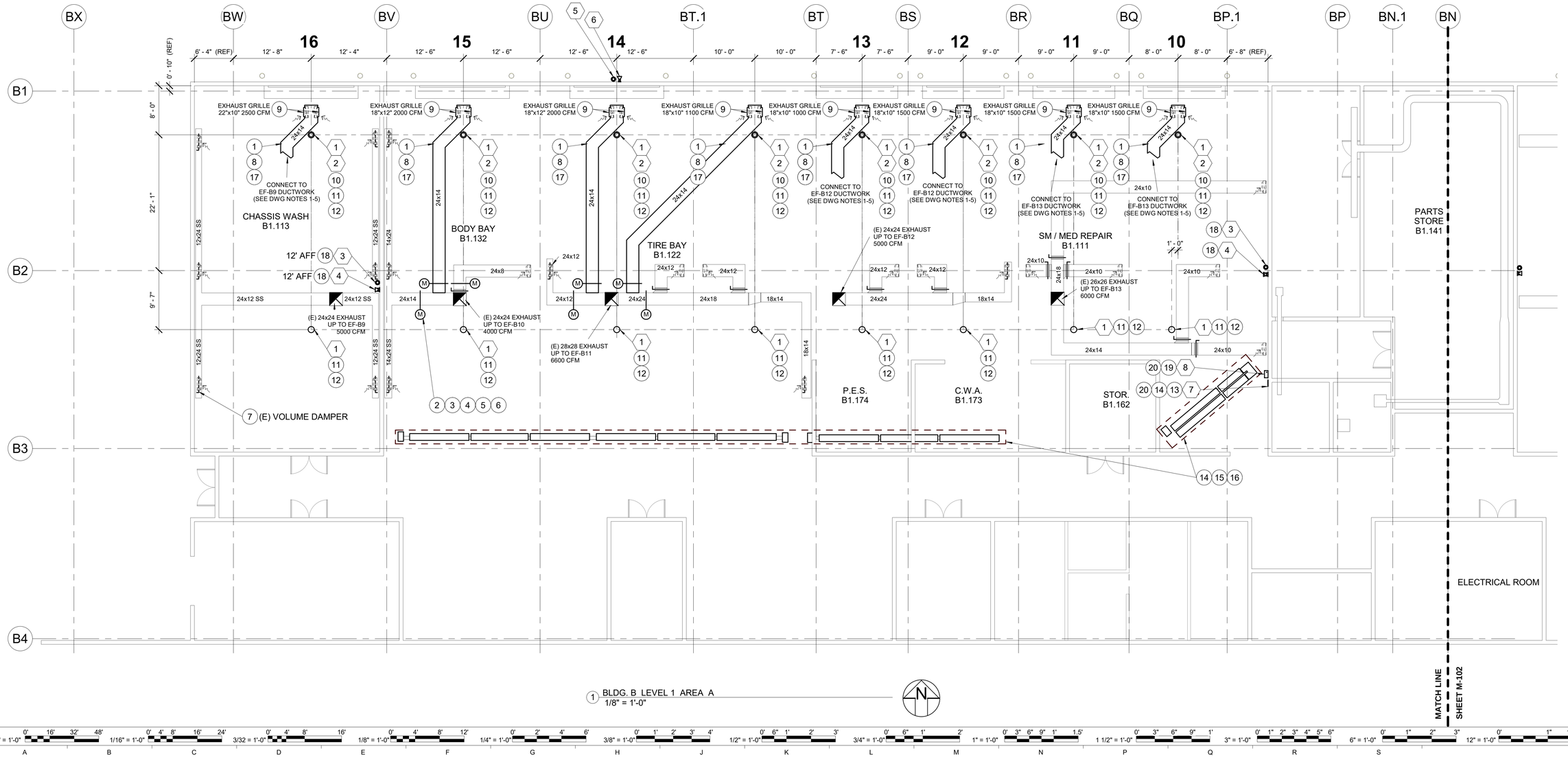
C. INSTALLATION AND START-UP OF ALL EQUIPMENT AND COMPONENTS SHALL BE IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURERS WRITTEN RECOMMENDATIONS AND SPECIFICATIONS.

D. IN THE EVENT OF ANY INCONSISTENCY BETWEEN DRAWINGS, WRITTEN SPECIFICATIONS, AND/OR REFERENCED STANDARDS, THE MOST STRINGENT ONE SHALL GOVERN.

E. ALL NEW AND EXISTING CONDUITS AND ELECTRICAL FIXTURES WITHIN 18" BELOW CEILING SHALL BE IN COMPLIANCE WITH CLASS 1 DIVISION 2 HAZARDOUS AREA. MODIFY EXISTING IF NEEDED FOR COMPLIANCE.

KEYED NOTES

1. DUCTWORK SHALL BE SHEET METAL AND SIZED BASED ON FRICTION LOSS OF NO MORE THAN 0.1 INCH OF WATER COLUMN PER 100 FEET OF DUCT. PROVIDE HANGERS AND SUPPORTS FOR ALL NEW AND MODIFIED DUCTWORK.
2. PROVIDE MOTORIZED DAMPER AT EACH NEW AND EXISTING DUCT DIRECTLY CONNECTED TO EXHAUST FAN PLANUM. THE MOTORIZED DAMPER SHALL ISOLATE CEILING AIR INTAKE GRILLES FROM FLOOR AIR INTAKE GRILLES.
3. ALL MOTORIZED DAMPERS SHALL BE HEAVY DUTY EXPLOSION PROOF, WITH SPARK RESISTANT ALUMINUM CONSTRUCTION ACMA TYPE A.
4. PROVIDE 120VAC POWER WIRING AND CONDUIT TO ALL MOTORIZED DAMPERS. CONNECT TO GAS DETECTION CONTROL SYSTEM RELAY.
5. MOTORIZED DAMPERS ON DUCTS WITH UNDER-CEILING AIR INTAKE SHALL OPEN UPON GAS LEAK DETECTION AND SHALL REMAIN CLOSE IN NORMAL CONDITION.
6. MOTORIZED DAMPERS ON DUCTS WITH LOW-MOUNT AIR INTAKE SHALL CLOSE UPON GAS LEAK DETECTION AND SHALL REMAIN OPEN IN NORMAL CONDITION.
7. IN ANY LOCATION THAT EXISTING VOLUME DAMPER DOESN'T ALLOW INSTALLATION OF NEW ISOLATION MOTORIZED DAMPER, RELOCATE EXISTING VOLUME DAMPER TO CREATE ENOUGH SPACE FOR MOTORIZED DAMPER.
8. PROVIDE VOLUME DAMPER WHERE MORE THAN ONE BRANCH WITH A PAIR OF AIR INTAKE GRILLES ARE ON ONE NEW DUCT SYSTEM.
9. PROVIDE TITUS EXHAUST GRILLE MODEL 350ZRS OR APPROVED EQUAL. EXHAUST GRILLES SHALL BE HEAVY DUTY VERTICAL BLADES SPACED 3/4" APART AND HAVE REINFORCED CORNERS.
10. PROVIDE A DUAL TRANSMITTER FOR EACH PAIR OF DETECTORS AT EACH BAY. PROVIDE AND CONNECT WIRING. PROVIDE WIRING AND CONDUITS FROM EACH TRANSMITTER TO GAS DETECTION CONTROLLER.
11. INSTALL SENSORS WITHIN 12" OF CEILING AND WIRE TO TRANSMITTER AS REQUIRED.
12. PROVIDE TYGON TUBING FROM EACH GAS SENSOR TO 5' AFF FOR TESTING AND CALIBRATION OF SENSORS. SECURE TUBING ALONG CELING FRAMING, COLUMNS OR WALLS AS APPROPRIATE BUT DO NOT KINK TUBING. SECURE AND CAP TUBING ENDS AND PROVIDE PERMANENT LABELS AT EACH TUBE END IDENTIFYING ITS ASSOCIATED SENSOR.
13. SECURE CONTROL PANEL TO WALL SO THAT HMI IS 5' AFF. PROVIDE WIRING AND CONDUIT (IF NO SPARE AVAILABLE) FROM GAS DETECTION CONTROL SYSTEM AT BUILDING B TO BUILDING AUTOMATION SYSTEM CONTROLLER AT BUILDING A DATA ROOM A1.141 AS NEEDED TO FACILITATE COMMUNICATION BETWEEN GAS DETECTION CONTROLLER AND MAIN SITE CONTROLLER. MODIFY BUILDING AUTOMATION SYSTEM PROGRAM TO CONTROL HVAC SYSTEM PER DETECTION SYSTEM SEQUENCE OF OPERATION.
14. REMOVE AND REPLACE EXISTING IR HEATING SYSTEM. ADJUST AND CONNECT GAS PIPING TO NEW BURNERS. INCLUDE A SOLENOID VALVE AT ALL GAS-SUPPLY HEADERS FEEDING IR HEATING SYSTEM, AND WIRE TO CONTROL PANEL.
15. PROVIDE 4" GALVANIZED STEEL AIR INTAKE AND 4" COMBUSTION AIR FOR EACH BURNER. USE EXISTING ROOF PENETRATION POINT IF POSSIBLE.
16. VENT AND COMBUSTION AIR DUCT SHALL BE 20' OR LESS. NO MORE THAN (2) 90° ELBOWS SHALL BE USED FOR EACH. MATERIALS SHALL BE PER HEATING SYSTEM MANUFACTURER'S WRITTEN INSTRUCTIONS.
17. DUCTS AND APPURTENANCES IN CHASSIS WASH SHALL BE STAINLESS STEEL.
18. INSTALL AUDIBLE AND VISIBLE ANNUNCIATORS AT 14' AFF. WIRE TO 24V RELAYS AT CONTROL PANEL.
19. MOUNT POWER SUPPLY ON WALL NEAR CONTROL PANEL. PROVIDE 120V INPUT POWER FROM (E) PANELBOARD IN ELECTRICAL ROOM. ROUTE 24V POWER FROM POWER SUPPLY TO CONTROL PANEL AND DETECTOR TRANSMITTERS.
20. PROVIDE RETURN 24V POWER WIRING FROM TRANSMITTER THAT IS FARTHEST FROM POWER SUPPLY BACK TO POWER SUPPLY. PROVIDE RETURN MODBUS OR OTHER DATA WIRING FROM TRANSMITTER THAT IS FARTHEST FROM CONTROLLER BACK TO CONTROLLER. EITHER RETURN-WIRING RUN MAY BE OMITTED, IF APPROVED IN WRITING BY THE GAS-DETECTOR MANUFACTURER.



1 BLDG. B LEVEL 1 AREA A
1/8" = 1'-0"

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

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BLDG. B LEVEL 1 AREA A

Sheet Title

Designer Designed		Project No	Project Number
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Checker Checked		Sheet No	M-101
Approver Approved		Sheet	of
01/04/20 Issue Date		Project Status	Project Status

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EQUIP SCHEDULE		
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2	17	METHANE DETECTOR TRANSMITTER
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SCHEDULE NOTES

1. SEE SHEET M-501 FOR DETAILED EQUIPMENT SCHEDULE.

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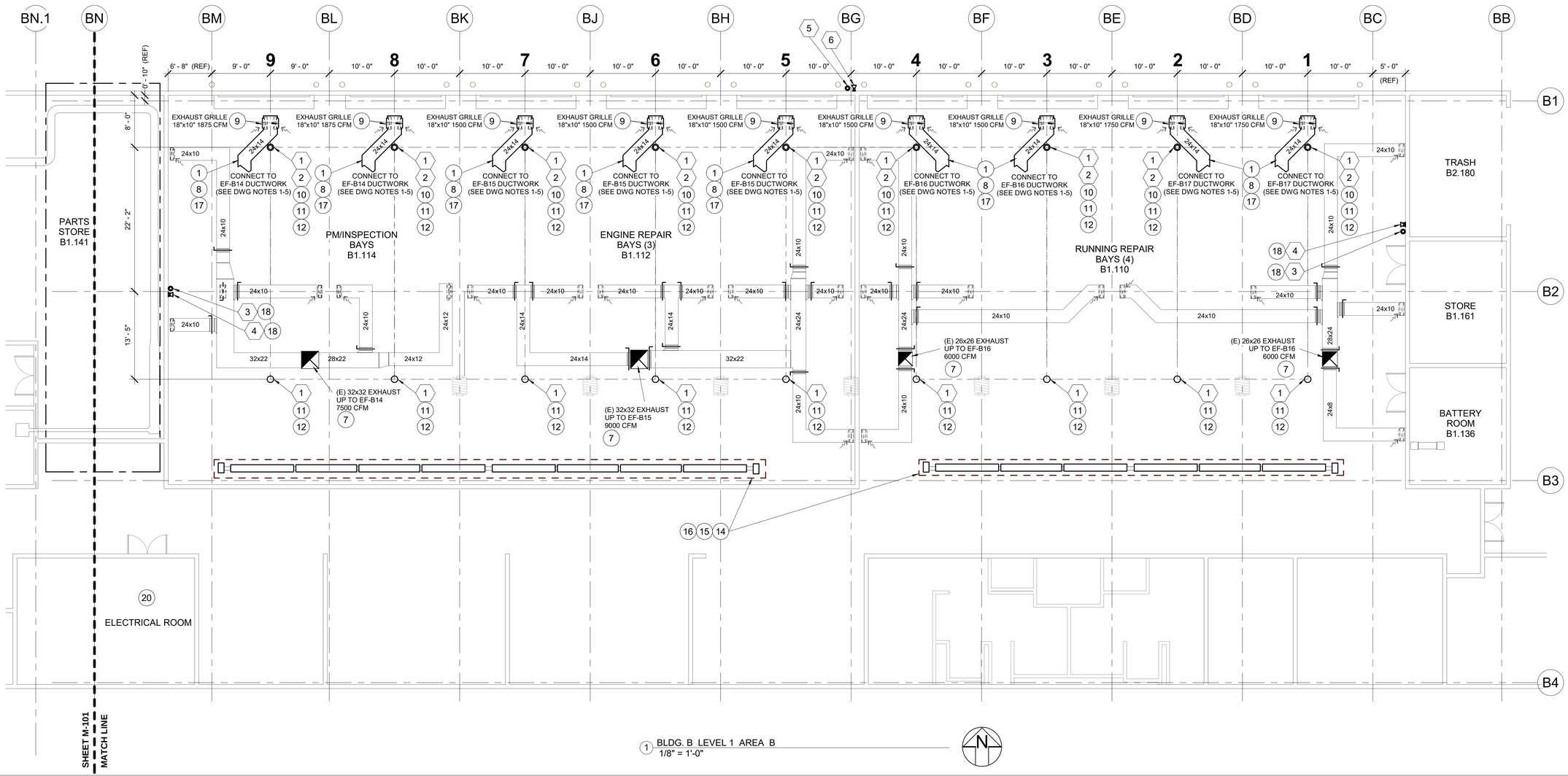
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11. INSTALL SENSORS WITHIN 12" OF CEILING AND WIRE TO TRANSMITTER AS REQUIRED.
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19. MOUNT POWER SUPPLY ON WALL NEAR CONTROL PANEL. PROVIDE 120V INPUT POWER FROM (E) PANELBOARD IN ELECTRICAL ROOM. ROUTE 24V POWER FROM POWER SUPPLY TO CONTROL PANEL AND DETECTOR TRANSMITTERS.
20. PROVIDE RETURN 24V POWER WIRING FROM TRANSMITTER THAT IS FARTHEST FROM POWER SUPPLY BACK TO POWER SUPPLY. PROVIDE RETURN MODBUS OR OTHER DATA WIRING FROM TRANSMITTER THAT IS FARTHEST FROM CONTROLLER BACK TO CONTROLLER. EITHER RETURN-WIRING RUN MAY BE OMITTED, IF APPROVED IN WRITING BY THE GAS-DETECTOR MANUFACTURER.



1 BLDG. B LEVEL 1 AREA B
1/8" = 1'-0"

No	Revision Description	Date
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Sheet Title

Project No	Project Number
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Project Status	Project Status
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Approver / Approved	
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#	KEY	DESCRIPTION	QTY	SPECIFICATIONS	MFR / VENDOR	MODEL
	1	METHANE DETECTOR SENSOR	34	INFRARED SELF CONTAINED OPTICAL METHANE GAS DETECTOR, CEILING MOUNT, GAS DETESCTION RANGE OF 0-100% LEL, FAULT AND CALIBRATION SIGNALS; ACCURACY OF +/- 3% LEL AT 0-50% LEL, MAX POWER CONSUMPTION OF 5 W; LISTED FOR HAZARDOUS AREA CLASS 1 DIV 2 GROUP D, UL 2075 FOR METHANE 0-100% LEL. SHALL BE ATTACHED TO DIGITAL TRANSMITTER (M1-B). PROVIDE WITH REMOTE CALIBRATION CAPABILITY.	SENSOR ELECTRONICS	MILLENIUM INFRARED HYDROCARBON DETECTOR P/N: 49000000100L12
	2	METHANE DETECTOR TRANSMITTER	17	INTEGRATED DIGITAL GAS TRANSMITTER WITH DUAL INTERFACE CAPABILITY, ISOLATED RS485 MODBUS INTERFACE, EXPLOSION PROOF RATED FOR CLASS 1 DIV 1 GROUP D, WITH BACK-LIGHTED LCD DISPLAY, OPERATING AT 24VDC, ATTACHED TO METHANE DETECTOR SENSOR (M1-A).	SENSOR ELECTRONICS	DIGITAL TRANSMITTER P/N: 3120
	3	VISIBLE ALARM INDOOR	4	HAZARDOUS LOCATION STROBE WARNING LIGHTS, LED MULTI-STATUS INDICATOR, STEADY GREEN FOR NORMAL CONDITION, AMBER FLASHING FOR LOW ALARM, AND RED FLASHING FOR HIGH ALARM. UL LISTED FOR GROUP D CLASS 1 DIV. 2 HAZARDOUS ENVIRONMENT, IN NEMA 4X ENCLOSURE. 24VDC, 60HZ.	EDWARDS SIGNALING	CHAMELEON XTRA-BRITE P/N:105XBRiRGA24D
	4	AUDIBLE ALARM INDOOR	4	AUDIBLE SIGNAL, MILLENNIUM CLASS, HEAVY-DUTY INDUSTRIAL, VOLUME CONTROL, MULTI-TONE FOR DIFFERENT CONDITION. ALARM SHALL GENERATE 110 DB AT 10'. UL LISTED FOR CLASS 1 DIV. 2 GROUP D. 24VDC, 60HZ.	EDWARDS SIGNALING	5531M-24AQ
	5	VISIBLE ALARM OUTDOOR	2	HAZARDOUS LOCATION STROBE WARNING LIGHTS, LED MULTI-STATUS INDICATOR, STEADY GREEN FOR NORMAL CONDITION, AMBER FLASHING FOR LOW ALARM, AND RED FLASHING FOR HIGH ALARM. IN NEMA 4X ENCLOSURE. 24VDC, 60HZ.	EDWARDS SIGNALING	CHAMELEON XTRA-BRITE P/N:105XBRiRGA24D
	6	AUDIBLE ALARM OUTDOOR	2	AUDIBLE SIGNAL, HEAVY-DUTY INDUSTRIAL ELECTRONIC HORN AND SIREN, D2 CKASS, VOLUME CONTROL, MULTI-TONE FOR DIFFERENT CONDITION. ALARM SHALL GENERATE 114 DB AT 10'. UL LISTED FOR OUTDOOR APPLICATION. EQUIP WITH WATERPROOF BACKBOX FOR OUTDOOR INSTALLATION. OPERATING AT 24VDC, 60HZ.	EDWARDS SIGNALING	5520-AQ
	7	CONTROL PANEL AND RELAYS	1	FULLY PROGRAMMABLE GAS DETECTION SYSTEM CONTROL PANEL, SUITABLE FOR INDOOR INSTALLATION IN EXISTING MAINTENANCE GARAGE BUILDING TO INTER FACE WITH ALL GAS DETECTORS IN THE RELATED ZONE. EXPANDABLE WITH UP TO 254 NETWORK DEVICES. WITH ALARM AND RELAY CONTACTS, ETHERNET PORT, CAPABLE OF MONITORING SYSTEM REMOTELY VIA INTERNET, ASSIGNED IP ADDRESS FOR EACH GAS DETECTOR AND RELAYS AS NEEDED. CONTINUOUS DIGITAL READOUT OF 0-100% LEL FOR EACH SENSOR WITH INDICATORS FOR POWER ON , LEAK CONDITION, AND SYSTEM FAULT. OPERATES PER SEQUENCE OF OPERATION ON THIS SET OF DRAWINGS. OPERATES AT 24VDC, 40W. CONTROLLER SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 2017. FURNISH WITH MIN. 8MB MEMORY CARD, AND ADEQUATE QUANTITY OF RELAYS AS NEEDED PER SEQUENCE OF OPERATION.	SENSOR ELECTRONICS	SEC 3500
	8	POWER SUPPLY AND BATTERY BACKUP	1	POWER SUPPLY WITH BATTERY BACKUP CAPABLE OF OPERATING ENTIRE DETECTION SYSTEM CONTINUOUSLY, INCLUDING DETECTORS, CONTROL PANEL, AND ANNUNCIATORS UP TO 40 MINUTES IN THE EVENT OF POWER OUTAGE. OUTPUT 24VDC, INPUT 120VAC.	ALTRONIX	AL600ULX

SCHEDULE NOTES

1. SEE SHEETS M-101 AND M-102 FOR LOCATION OF HEX-KEYED EQUIPMENT.
2. ENTIRE GAS DETECTION SYSTEM INCLUDING ALL ITEMS IN THIS EQUIPMENT SCHEDULE SHALL BE POWERED BY 120V CIRCUIT(S) THAT ARE BACKED UP BY THE EXISTING EMERGENCY GENERATOR.
3. THE LIST OF EQUIPMENT GIVEN HERE IS PARTIAL. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND PROVIDE LABOR, CONDUIT, WIRE, MATERIALS, APPURTENANCES, AND TESTING SERVICES AS NEEDED TO DELIVER A COMPLETE AND FUNCTIONAL CNG FUELING SYSTEM REQUIRED BY PLANS, DRAWINGS, AND SPECIFICATIONS, AND AS APPROVED BY THE OWNER. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. MANUFACTURER AND MODEL LISTINGS ARE FOR REFERENCE ONLY AND ARE INTENDED TO DEFINE A BASIS OF PERFORMANCE AND FUNCTION FOR THE RESPECTIVE ITEM. OTHER MANUFACTURERS AND MODELS MAY BE PROVIDED, IF THEY MEET THE REFERENCE PERFORMANCE AND FUNCTION, AND ARE APPROVED BY THE OWNER.

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EQUIPMENT SCHEDULE
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Project No: Project Number
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Sheet No: M-501
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Project Status: Project Status
Designer: Designed
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Checker: Checked
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GAS DETECTION SYSTEM GENERAL NOTES

1. PROVIDE COMPLETE IR HEATING SYSTEM COMPATIBLE WITH CNG REPAIR GARAGE REQUIREMENTS MADE BY DETROIT RADIANT.
2. PROVIDE BURNERS PER MBH INPUT ON ABOVE SCHEDULE, PRESET 4" COMBUSTION AIR INLET COLLAR THROUGH CEILING. BURNERS SHALL BE SET TO PROVIDE SURFACE TEMPERATURE NOT EXCEEDING 750° F AT ALL PARTS OF HEATING SYSTEM, AND CERTIFIED FOR INDUSTRIAL USAGE. INSTALL BELOW 18" FROM ROOF AND IN A LEVEL TO AVOID HAZARDOUS AREA AND TO PROVIDE ADEQUATE CLEARANCE FOR GARAGE ACTIVITIES. USE EXISTING HANGERS AND SUPPORTS AS FEASIBLE. PROVIDE NEW HANGERS AND SUPPORTS AS NEEDED.
3. PROVIDE COMBUSTION TUBES WITH TITANIUM ALLOY TREATED STEEL COMBUSTION CHAMBER (TR-C). REFLECTORS SHALL BE HIGHLY POLISHED ALUMINUM OR STAINLESS STEEL, WITH CONTINUOUS OVERLAP DESIGN, ANTI-RATTLE TENSION SPRINGS. ALL SHALL BE WITH REFLECTORS. PROVIDE ONE CENTER SUPPORT PER REFLECTOR. NEED EXISTING HANGERS AS POSSIBLE.
4. PROVIDE ALUMINIZED EMITTER TUBES WITH REFLECTORS, 16GA 4" O.D. COATED ALUMINIZED STEEL RADIANT TUBES, 0.95 EMISSIVE, CORROSION RESISTANT BLACK COATING. REFLECTORS SHALL BE HIGHLY POLISHED ALUMINUM OR STAINLESS STEEL, WITH CONTINUOUS OVERLAP DESIGN, AND INCLUDE ANTI-RATTLE TENSION SPRINGS. PROVIDE ONE CENTER SUPPORT PER REFLECTOR.
5. VERIFY TUBE LENGTHS IN FIELD, AND AS REQUIRED TO MAINTAIN EXISTING BTU RATING IN ALL AREAS OF GARAGE.
6. PROVIDE FLEXIBLE GAS CONNECTOR, GAS SHUT-OFF VALVE AND (IF NEEDED) GAS REGULATOR FRO EACH BURNER.

GARDENA TRANSIT – CNG VEHICLE REPAIR GARAGE MODIFICATION
BUILDING B VENTILATION CALCULATIONS

Running Repair - Lanes 1-4 (Zone 1)

Volume and Rate Calculations

Higher Ceiling Garage Area (North):					
Area:				5,053.00	ft²
Ave. Ceiling Height:				23.00	ft
Volume:				116,219.00	Cu.Ft.
High Ceiling Garage Volume:					
				116,219.00	**Cu.Ft.**
Lower Ceiling Garage Area (South):					
Area:				1,152.00	ft²
Ave. Ceiling Height:				14.50	ft
Volume:				16,704.00	Cu.Ft.
Lower Ceiling Garage Area (South)Volume:					
				16,704.00	**Cu.Ft.**
Total Garage Area:				**6,205.00**	**ft²**
Total Garage Volume:				**132,923.00**	**Cu.Ft.**

Running Repair - Lanes 1-4 (Zone 1)

Area, SF	Volume,ft³	CFM	ACH	CFM/ft²	CFM/12ft³
6,205	132,923	13,000	5.87	2.10	1.17
Serving EF's	EF-B16	EF-B17			
CFM (each fan)	6,000	7,000			

Engine Repair and Inspection Bays - Lanes 5-9 (Zone 2)

Volume and Rate Calculations

Higher Ceiling Garage Area (North):					
Area:				6,277.00	ft²
Ave. Ceiling Height:				23.00	ft
Volume:				144,371.00	Cu.Ft.
High Ceiling Garage Volume:					
				144,371.00	**Cu.Ft.**
Inspection Pit:					
Area:				2,408.00	ft²
Ave. Ceiling Height:				8.58	ft
Volume:				20,660.64	Cu.Ft.
Inspection Pit Volume:					
				20,660.64	**Cu.Ft.**
Total Garage Area:				**8,685.00**	**ft²**
Total Garage Volume:				**165,031.64**	**Cu.Ft.**

Engine Repair and Inspection Bays - Lanes 5-9 (Zone 2)

Area, SF	Volume,ft³	CFM	ACH	CFM/ft²	CFM/12ft³
8,685	165,032	16,500	6.00	1.90	1.20
Serving EF's	EF-B14	EF-B15			
CFM (each fan)	7,500	9,000			

Repair Garage - Lanes 10-15 (Zone 3)

Volume and Rate Calculations

Higher Ceiling Garage Area (North):					
Area:				8,700.00	ft²
Ave. Ceiling Height:				23.00	ft
Volume:				200,100.00	Cu.Ft.
Higher Ceiling Heavy Duty Garage Volume:					
				200,100.00	**Cu.Ft.**
Lower Ceiling Garage Area (South):					
Area:				1,846.00	ft²
Ave. Ceiling Height:				14.50	ft
Volume:				26,767.00	Cu.Ft.
Lower Ceiling Garage Area Volume:					
				26,767.00	**Cu.Ft.**
Total Garage Area:				**10,546.00**	**ft²**
Total Garage Volume:				**226,867.00**	**Cu.Ft.**

Repair Garage - Lanes 10-15 (Zone 3)

Area, SF	Volume,ft³	CFM	ACH	CFM/ft²	CFM/12ft³
10,546	226,867	21,600	5.71	2.05	1.14
Serving EF's	EF-B10	EF-B11	EF-B12	EF-B13	
CFM (each fan)	4,000	6,600	5000.00	6000.00	

Chassis Wash - Lane 16 (Zone 4)

Volume and Rate Calculations

Area:				1,800.00	ft²
Ave. Ceiling Height:				23.00	ft
Volume:				41,400.00	Cu.Ft.
Lower Ceiling Heavy Duty Garage Volume:					
				41,400.00	**Cu.Ft.**
Total Garage Area:				**1,800.00**	**ft²**
Total Garage Volume:				**41,400.00**	**Cu.Ft.**

Chassis Wash - Lane 16 (Zone 4)

Area, SF	Volume,ft³	CFM	ACH	CFM/ft²	CFM/12ft³
1,800	41,400	5,000	7.25	2.78	1.45
Serving EF's	EF-B09				
CFM (each fan)	5,000				

No	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

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HVAC CALCULATIONS

Sheet Title

Project No: Project Number
Scale
Sheet No: M-502
Sheet of
Project Status: Project Status

Designer: Designed
Drawn
Checker: Checked
Approver: Approved
Issue Date: 02/10/20

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GAS DETECTION SYSTEM - SEQUENCE OF OPERATION

		METHANE DETECTION SYSTEM CONDITION										
			ZONE 1 (LANES 1-4)		ZONE 2 (LANES 5-9)		ZONE 3 (LANES 10-15)		ZONE 4 (LANE 16)		ALL ZONES	ALL ZONES
No.	OPERATION	NORMAL (<10%)	10% LEL	25% LEL	10% LEL	25% LEL	10% LEL	25% LEL	10% LEL	25% LEL	DROP TO < 10% LEL (1) (MAINTAIN FOR 5 MINS)	FAILURE[2]
1	GREEN LIGHT AT ALARM STATIONS IN ZONE 1 AND ALL OUTDOOR, AND MONITORING PANEL	ON	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	OFF
2	AMBER LIGHT AT ALARM STATIONS IN ZONE 1 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
3	RED LIGHT AT ALARM STATIONS IN ZONE 1 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
4	SOUND 10% HORN AT ALARM STATIONS IN ZONE 1 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
5	SOUND 25% HORN AT ALARM STATIONS IN ZONE 1 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
6	TURN ON EF'S- B16 & 17 AND RELATED EQUIPMENT PER (E) LOGIC, OR STAY ON IF WERE RUNNING [4]	STEADY[7]	YES	YES	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	YES	YES
7	GREEN LIGHT AT ALARM STATIONS IN ZONE 2 AND ALL OUTDOOR, AND MONITORING PANEL	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	ON	OFF
8	AMBER LIGHT AT ALARM STATIONS IN ZONE 2 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
9	RED LIGHT AT ALARM STATIONS IN ZONE 2 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
10	SOUND 10% HORN AT ALARM STATIONS IN ZONE 1 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
11	SOUND 25% HORN AT ALARM STATIONS IN ZONE 2 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
12	TURN ON EF'S- B14 & 15 AND RELATED EQUIPMENT PER (E) LOGIC, OR STAY ON IF WERE RUNNING [4]	STEADY[7]	STEADY[7]	STEADY[7]	YES	YES	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	YES	YES
13	GREEN LIGHT AT ALARM STATIONS IN ZONE 3 AND ALL OUTDOOR, AND MONITORING PANEL	ON	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	OFF
14	AMBER LIGHT AT ALARM STATIONS IN ZONE 3 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
15	RED LIGHT AT ALARM STATIONS IN ZONE 3 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
16	SOUND 10% HORN AT ALARM STATIONS IN ZONE 3 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
17	SOUND 25% HORN AT ALARM STATIONS IN ZONE 3 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
18	TURN ON EF'S- B10, 11, 12 & 13 AND RELATED EQUIPMENT PER (E) LOGIC, OR STAY ON IF WERE RUNNING [4]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	YES	YES	STEADY[7]	STEADY[7]	YES	YES
19	GREEN LIGHT AT ALARM STATIONS IN ZONE 4 AND ALL OUTDOOR, AND MONITORING PANEL	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	ON	OFF
20	AMBER LIGHT AT ALARM STATIONS IN ZONE 4 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
21	RED LIGHT AT ALARM STATIONS IN ZONE 4 AND ALL OUTDOOR, AND MONITORING PANEL	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
22	SOUND 10% HORN AT ALARM STATIONS IN ZONE 4 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
23	SOUND 25% HORN AT ALARM STATIONS IN ZONE 4 AND ALL OUTDOOR, AND MONITORING PANEL (3)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
24	TURN ON EF'S- B9 AND RELATED EQUIPMENT PER (E) LOGIC, OR STAY ON IF WERE RUNNING [4]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	STEADY[7]	YES	YES	YES	YES
25	DE-ENERGIZED CIRCUITS FEEDING WELDING MACHINES IN ZONE WITH DETECTED GAS LEAK [5]	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
26	CLOSE GAS SUPPLY SOLENOID-VALVE IN ZONE WITH DETECTED GAS LEAK	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
27	SEND EMAIL ALERT, SMS, AND PHONE CALL TO FIRE ALARM MONITOR COMPANY AND TO FACILITY SUPERVISOR	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
28	OCCUPANTS TO EVACUATE [6]	NO	NO	YES	NO	YES	NO	YES	NO	YES	YES	NO

NOTES

1. AUTOMATICALLY RESET 5 MINUTES AFTER GAS CONCENTRATION DROPS TO BELOW 10% LEL.
2. FAILURE OF THE GAS DETECTION SYSTEM.
3. SET CONTINUOUS TONE FOR 25% AND STACCATO TONE FOR 10% LEL EVENTS. SOUND OF HORN THAT ANNUNCIATES 10% LEL DETECTION SHALL BE SUBSTANTIALLY DIFFERENT FROM SOUND OF HORN ANNOUNCING 25% LEL DETECTION. SET BUZZER TONE TO ANNOUNCE FAILURE OF DETECTION SYSTEM.
4. MAINTAIN (E) LOGIC FOR HVAC CONTROL IN BUILDING AUTOMATION SYSTEM (BAS), IN CASE GAS DETECTION OVERRIDE THE LOGIC PER THIS SEQUENCE OF OPERATION.
5. ALLOW 3-5 SECONDS BETWEEN EACH SHUNT TRIP ACTION.
6. PROVIDE SIGNAGE INSTRUCTING STAFF TO EVACUATE BUILDING UPON >25% LEL GAS DETECTION ALARM.
7. HVAC SYSTEM SHALL OPERATE PER EXISTING SEQUENCE OF OPERATION BY EXISTING “BUILDING AUTOMATION SYSTEM” DURING NORMAL OPERATION.

No.	Revision Description	Date
1	ISSUED FOR RFP	08/12/20

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GAS DETECTION SEQ

Sheet Title

Project No: Project Number
Scale
Sheet No: M-503 Sheet of
Project Status: Project Status

Designer: Designed
Drawn
Checker: Checked
Approver: Approved
02/10/20: Issue Date

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REPLACEMENT HEATING SYSTEM GENERAL NOTES

1. PROVIDE COMPLETE IR HEATING SYSTEM COMPATIBLE WITH CNG REPAIR GARAGE REQUIREMENTS MADE BY DETROIT RADIANT.

2. PROVIDE BURNERS PER MBH INPUT ON ABOVE SCHEDULE, PRESET 4" COMBUSTION AIR INLET COLLAR THROUGH CEILING. BURNERS SHALL BE SET TO PROVIDE SURFACE TEMPERATURE NOT EXCEEDING 750° F AT ALL PARTS OF HEATING SYSTEM, AND CERTIFIED FOR INDUSTRIAL USAGE. INSTALL BELOW 18" FROM ROOF AND IN A LEVEL TO AVOID HAZARDOUS AREA AND TO PROVIDE ADEQUATE CLEARANCE FOR GARAGE ACTIVITIES. USE EXISTING HANGERS AND SUPPORTS AS FEASIBLE. PROVIDE NEW HANGERS AND SUPPORTS AS NEEDED.

3. PROVIDE COMBUSTION TUBES WITH TITANIUM ALLOY TREATED STEEL COMBUSTION CHAMBER (TR-C). REFLECTORS SHALL BE HIGHLY POLISHED ALUMINUM OR STAINLESS STEEL, WITH CONTINUOUS OVERLAP DESIGN, ANTI-RATTLE TENSION SPRINGS. ALL SHALL BE WITH REFLECTORS. PROVIDE ONE CENTER SUPPORT PER REFLECTOR. NEED EXISTING HANGERS AS POSSIBLE.

4. PROVIDE ALUMINIZED EMITTER TUBES WITH REFLECTORS, 16GA 4" O.D. COATED ALUMINIZED STEEL RADIANT TUBES, 0.95 EMISSIVE, CORROSION RESISTANT BLACK COATING. REFLECTORS SHALL BE HIGHLY POLISHED ALUMINUM OR STAINLESS STEEL, WITH CONTINUOUS OVERLAP DESIGN, AND INCLUDE ANTI-RATTLE TENSION SPRINGS. PROVIDE ONE CENTER SUPPORT PER REFLECTOR.

5. VERIFY TUBE LENGTHS IN FIELD.

6. PROVIDE FAIL-CLOSED SOLENOID VALVE WIRED TO RELAY(S) AT DETECTION-CONTROL PANEL, FLEXIBLE GAS CONNECTOR, GAS SHUT-OFF VALVE FOR EACH BURNER. PROVIDE GAS REGULATOR FOR EACH BURNER AS REQUIRED.

INFRARED HEATER SCHEDULE

TAG	LOCATION	DESCRIPTION	MAX INPUT (MBH)	TUBE LENGTH	TUBE MATERIAL	FUEL TYPE	V	PH	Hz	FLA	MANUFACTURER & MODEL NO (AS STANDARD)	REMARKS
IR-1	~	INFRARED HEATER	75	30'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-30-75N	SEE NOTES
IR-2	~	INFRARED HEATER	75	30'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-30-75N	SEE NOTES
IR-3	~	INFRARED HEATER	75	30'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-30-75N	SEE NOTES
IR-4	~	INFRARED HEATER	50	30'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-30-50N	SEE NOTES
IR-5	~	INFRARED HEATER	75	40'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-40-75N	SEE NOTES
IR-6	~	INFRARED HEATER	75	40'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-40-75N	SEE NOTES
IR-7	~	INFRARED HEATER	50	30'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-30-50N	SEE NOTES
IR-8	~	INFRARED HEATER	50	30'	4'Ø BLACK COATED ALUMINIZED STEEL	NAT GAS	120	1	60	4.8	DETROIT RADIANT CX3L-30-50N	SEE NOTES

SCHEDULE NOTES

1. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.
2. VERIFY TUBE LENGTH IN FIELD PRIOR TO ORDERING.
3. MIN. 5 IN. WCg.
4. FURNISH COMPLETE WITH ALUMINUM REFLECTORS, STAINLESS STEEL BURNER, MOUNTING CHAINS, FLEXIBLE GAS CONNECTOR AND GAS SHUT-OFF.
5. MOUNT INFRARED HEATERS AS HIGH AS POSSIBLE PER MANUFACTURER'S RECOMMENDATION.

No	Revision Description	Date
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IR HEATER SCHEDULE — Sheet Title

Designer	Designed
Drawn	
Checker	Checked
Approver	Approved
Issue Date	02/11/20
Project No	Project Number
Scale	
Sheet No	M-504
Sheet	of
Project Status	Project Status

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RFP 2020-05
DESIGN AND BUILD OF A CNG FUELING STATION

ATTACHMENT D

CNG FUELING FACILITY SPECIFICATION

Section 43 01 04

Table of Contents

PART 1: General 2
PART 2: Production 11
PART 3: Execution 35

PART 1 - GENERAL

1.01 SUMMARY OF WORK REQUIREMENTS

A. Summary Scope Description.

1. This specification includes requirements for designing, constructing and starting up a complete, new CNG-fueling facility and system to be procured by GTrans or the City of Gardena ("Owner").

2. This project is being developed as a 'design-build' project. Accordingly, the Contractor that is awarded the project shall prepare a complete and engineered set of construction drawings as required for construction, and as required for plan-check approval by the authorities having jurisdiction (AHJs).

B. Base equipment and features to be provided under this procurement by the Contractor includes:

1. Four (4) total compressors where any three (3) running units will produce an aggregate flow of at least 1950 SCFM, based on the design conditions specified herein. Alternately, three (3) total compressors where any two (2) running units will produce an aggregate flow of at least 1950 SCFM, based on the design conditions specified herein. Include appurtenances as required.

2. Matching motor-starter panels for the provided CNG-compressor package and appurtenances,

3. Matching remote control & communication panel and appurtenances,

4. One-tower gas dryer with onboard regeneration and appurtenances,

5. Buffer-type priority-valve panel and appurtenances,

6. Two (2) transit-CNG dispensers and appurtenances,

7. Four (4) CNG-storage vessels and appurtenances,

8. One (1) CNG defueling panel (vent to atmosphere) and appurtenances.

9. Backup CNG-fueled generator and transfer switch (additive alternate)

10. All equipment pads, supports, conduit, wiring, utility interconnects, protection, lighting, security fencing and features, control-air tie in, fuel-management tie in, IP communication tie in, signage and related appurtenances associated with the installation and function of the items listed in paragraph 1.01.B above.

11. The Contractor shall provide and install all equipment and materials needed to complete the CNG-fueling facility, including equipment, utility upgrades, structural work and other appurtenances and site work as required to deliver a complete, code-compliant and safe CNG-fueling system.

C. Related Documents: The following documents are related to this technical specification:

1. Contract drawings for preliminary design of CNG fueling facility and CNG-safe garage modifications.

2. Specifications for CNG-safe garage modifications.

3. Other procurement documents issued by the Owner.

D. Design Build. The CNG fueling-station project indicated in this specification and accompanying drawings shall be constructed on a design-build basis, which calls for the Contractor to prepare a set of stand-alone, engineered and approved construction drawings for all required disciplines, including mechanical, electrical and structural, as well as appropriate cover sheet. The Contractor's design and construction shall be approved by the Owner and by the City of Gardena Building Department, and the Los Angeles County Fire Department, and shall also comply with the project plans and specifications, except where deviations are approved by the Owner.

1. The Contractor shall be responsible for constructing the facility per the listed codes and standards, and shall comply with the requirements of the Authorities Having Jurisdiction. The Contractor shall provide all equipment, components, material, labor, documentation and warranties required to comply with the plans and specifications.

2. If the Contractor seeks to change any design elements as indicated in the drawings or specifications, the Contractor shall describe and request the changes to the Owner, in writing, and execute any such design changes only after the Owner approves of them, in writing. The Contractor shall be responsible for design drawings and details for all such changes that deviate from the approved construction drawings. All drawings and details shall be sealed by a California-Registered Professional Engineer (PE). The design revisions shall be approved by the authorities having jurisdiction (AHJs), when warranted.

E. Other Contractor Responsibilities. The Contractor shall also be responsible for designing and constructing the facility per the listed codes and standards, and is subject to complying with the requirements of the AHJ. The Contractor shall also be responsible for providing all equipment, components, material, labor, documentation and warranties required to comply with the plans and specifications.

F. Additive Alternates. Pricing for each additive alternate shall be provided net and incrementally to the base work including credit for any items from the base scope that are replaced under the alternate, and shall be complete and turnkey for each listed item. Items shall be procured at the Owner's discretion, including the possibility of procuring none of the additive alternates.

1. Alternate #1: Two (2) CNG-storage vessels and appurtenances.

G. Summary Contract Requirements. Work under this Specification requires all construction drawings, site construction, furnishing, delivering and starting equipment as required to make the systems functional. Also provide field-startup and a one (1)-year warranty covering all parts, materials, labor and travel, following acceptance by the Owner. Excludes costs for consumable materials and parts are those items that are expected to be replaced or

replenished within twelve (12) months of normal operation, per the replacement schedules published by the respective component or system manufacturers.

H. Shipping, Delivery and Offload. The Contractor shall ship all equipment to the GTrans Bus Facility, 13999 S. Western Ave, Gardena, CA 90249. The Contractor shall be responsible for coordinating delivery timing and for performing offload as required. Also coordinate weights and offload-rigging requirements for all equipment.

I. Exclusions: Items related to the project, but that are not required under this specification include:

1. Fuel-management systems for transit fueling.

2. Gas utility meterset, though the Contractor is responsible for coordinating exact location and point of connection with meterset.

3. Electric utility transformer, though the Contractor will be responsible for providing conduits to new service e entrance and other service-connection requirements per SoCal Edison.

1.02 STANDARDS

A. The latest editions of the following listed codes, specifications and standards shall be considered an integral part of this specification, to the extent that they apply to the design, manufacture and assembly of the specified equipment. Compliance with the following documents is mandatory:

1. ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, latest edition with latest addenda.

2. ANSI/ASME B31.3 -2002- Process Piping.

3. ANSI/ASME B16.5 Steel Pipe Flanges and Fittings.

4. National Electrical Code (NFPA 70) with California amendments.

5. International Mechanical Code with California amendments.

6. International Fire Prevention Code with California amendments.

7. National Fire Protection Association (NFPA) 52, Compressed Natural Gas Vehicular Systems Code, 2013 Edition.

1. Title 8, Code of California Regulations (Industrial Relations), Division 1. (Department of Industrial Relations, Ch. 4. (Division of Industrial Safety), Subchapter 1 – Unfired Pressure Vessel Safety Orders

8. Occupational Safety and Health Act, Standards, 29 CFR - Occupational Noise Exposure, 1910.95.

9. Buy America Act – U.S. Department of Transportation.

    a. Requirements. The contractor agrees to comply with 49 U.S.C. § 5323(j), as amended by MAP-21 or its successor and 49 C.F.R. part 661, to the extent consistent with MAP-21, and subsequent amendments to those regulations that may be promulgated. The Contractor also agrees to comply with FTA directives to the extent those directives are consistent with MAP-21, except to the extent that FTA determines otherwise in writing. Buy America requirements state that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waiver requirements are listed in 49 CFR 661.7.

B. The following documents form a part of the Specification to the extent that their respective content is pertinent to the products and methods contained herein and to the extent that work required under this project applies to the documents.

    1. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section V: Nondestructive Examination.

    2. ANSI NGV 4.8-2012.

    3. American Society for Nondestructive Testing (ASNT) SNT-TC-1A: Recommended Practice.

    4. American Society for Testing and Materials (ASTM)
        a. ASTM A 36: Standard specification for structural steel.
        b. ASTM A213: Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes.

    5. American Welding Society (AWS) D1.1-88: Structural Welding Code - Steel.

    6. National Electrical Manufacturers Association (NEMA) NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum), latest edition.

C. Other Scope. Comply with other electrical and building codes as required by the disciplines associated with all work shown in the project drawings.

1.03 SUBMITTALS

A. Design-Construction Drawing Package.

    1. General. The Contractor shall prepare the design-construction drawings so that they are consistent with the general location and configuration of the equipment and systems shown on the conceptual CNG Facility & Garage Modification drawing set. Deviations shall be subject to approval by the Owner. The Contractor's drawings shall including any procured alternates.

2. Stand-Alone Package. Drawing package shall be stand-alone and not part of the drawing package that is to be prepared for the parallel garage-modification / detection / heater scope that is part of this overall project.

3. Drawings Provided by the Owner.

    a. CAD Files. The Owner will provide the Contractor with all CAD files used to prepare the preliminary project drawings. The CAD will be provided as-is, and shall be field verified by the Contractor.
    b. As-Built Drawings. The Owner will provide record drawings from the original construction of the entire bus-maintenance facility. These will be provided on an as-is and unverified basis, and shall be verified by the Contractor.

4. Prepare the following drawings.
    a. Cover sheet showing drawing list, project information, site map, project-team information and other information required by AHJs.
    b. Site Plans showing the location of gas meter sets, adjacent structures and property lines, new CNG equipment, defueling station, backup generator, electrical equipment and other pertinent site features.
    c. Piping and instrumentation diagram for entire CNG facility, including compressed-air system. Indicate pipe/tubing diameters and materials.
    d. Piping plan showing routing of all new piping, tubing and related mechanical connections and systems, including compressed air.
    e. Electrical drawings, including a single-line diagram, load schedule, block wiring diagram, grounding-bonding plan, conduit and cable schedule, electrical conduit plan, required utility details, and hazardous-area plan. Includes depiction of electrical upgrade, backup genset, transfer switch, motor starters and power distribution and wiring for all CNG, controls and lighting loads. Also provide details for electric-utility upgrades as required by and coordinated with SCE.
    f. Structural drawings showing equipment foundation for all new equipment, including compressor skid, gas dryer, motor-starter panel, and storage vessels shown on the plans.
    g. Civil drawings showing plan location, sections and details for demolition, paving, trenching, fencing, gates, bollards and safety equipment.

5. Drawing-Submittal Sequence. Provide drawing submittals at the following development levels:

    a. 30% schematic design
    b. 60% design development
    c. 90% construction documents (plan check submittal)
    d. 100% construction documents (plan-check corrections / approved drawings)

6. Other Design Requirements
    a. Stamping By Professional Engineer. All drawings called for under article 1.03.A. shall be stamped by an appropriate California-licensed Professional Engineer, in accordance with California law.
    b. Format. All drawings shall be prepared on ‘D’ sheets at 24” x 36”. All plan drawings shall include a graphic scale, and a statement of the scale used.

c. AHJ Corrections. Design revisions and corrections required by AHJ's shall be provided by the Contractor as part of the project scope.

B. Manufacturers' Warranties. All manufacturers' original warranties for material, components and assemblies shall be passed through to the Owner. These are in addition to the comprehensive Facility warranty that is the responsibility of the Contractor.

C. Approvals. Prior to shipping equipment to site, the Owner shall approve all information required under articles 1.03.C.1 and 1.03.C.2.

1. Submittals are required for all pre-packaged equipment listed in this Section, and are subject to approval by Owner. Submittals shall include, the additive alternates ordered by the Owner, and include all of the equipment listed below, if ordered:
   a. Automatic site-supply valve.
   b. 'MSB' electrical-distribution panel.
   c. Electric utility and service-upgrade equipment and materials.
   d. CNG-compressor skids and accompanying MCC's.
   e. Master control panel / PLC.
   f. CNG storage vessels.
   g. CNG compressor, including run simulation.
   h. Motor-starter panels (MCC's).
   i. PLC control system for CNG compressor skids with communications subsystem or panel.
   j. Gas dryer.
   k. Communication module.
   l. CNG defueling panel.
   m. Backup generator and transfer switch.
   n. Materials required for electrical-utility service upgrade.

2. Submittals are required for all listed components and materials installed between packaged equipment and used in manufacture of prepackaged equipment, and are subject to approval by Owner. Submittals shall include, at a minimum:
   a. Actuated and manual valves.
   b. ESD buttons.
   c. Pressure relief valves.
   d. Stainless steel tubing and unions.
   e. CS piping, unions and joints for natural gas and CNG.
   f. Fencing and gates.
   g. Supports, brackets, and appurtenances.

D. Required documentation.

1. The following are required as applicable for each size or type of item listed in article 1.03.B.1 of this Section, as applicable.
   a. Manufacturers' data sheets with dimensional drawings, with pressure rating and testing data for dispenser and other hoses, piping, tubing and valves.
   b. Installation and operating instructions and test procedures.
   c. Recommended maintenance instructions and schedules.
   d. Listing of special tools required for maintenance and testing.
   e. Warranties, including those of the original manufacturer.

f. Piping and instrumentation shop drawings of supplied equipment.
g. Electrical and wiring-termination schematics of supplied equipment.
h. Test data indicating compliance with all normal and specified functions and processes, including dispenser authorization, dispenser valve-flow control, dispenser pulse-count output for mass, compressor start-stop, compressor ESD, and faults for high dryer-heater temperature, low- and high-pressure compressor suction, high-pressure compressor discharge, high-temperature compressor discharge, low and high compressor-oil pressure.
i. Documented compliance with Buy America requirements for all equipment and components as required.

2. Submittal books shall be grouped and tabbed by assembly or logical system, including a front index of contents. All data for a particular packaged system shall be grouped, i.e. Piping and Instrumentation Diagrams, required sub-component listings, shop drawings, test data, etc. Cut sheets or catalog sheets containing multiple product listings shall include marks to clearly indicate actual unit(s) proposed for use, and all submittals shall include a mark or reference indicating intended location of use or application, i.e. '3rd stage pressure relief valve', 'compressor inlet manual ball valve', etc. Submittals shall be provided in searchable PDF documents with logical file names.

1.04 QUALITY ASSURANCE

A. Provide all materials, components and services in accordance with a quality control program that assures compliance with the applicable codes, standards, and this specification.

B. Provide qualified personnel to perform test and inspection functions as required during manufacturing process. Personnel qualifications shall be made available to Owner upon request.

C. All instruments, controls, and other electrical equipment must be qualified for the hazardous area classification where the equipment is to be installed.

1.05 PREPARATION AND COORDINATION

A. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure and complete pre-packaged component.

B. Coordinate accepted equipment changes from those scheduled or specified with other equipment affected.

1.06 PRODUCT DELIVERY AND HANDLING

A. Materials shall be delivered in the manufacturer's original unopened packaging, labeled to indicate the manufacturer's name and product identification.

B. Delivered materials shall be handled to ensure that the packaging and labeling remain intact until installation of material. Materials shall be stored and protected from ground contact and from the elements.

C. All containers, including internal containers, shall be indelibly labeled with item description(s) per title.

D. Mis-delivered equipment, material and packages shall be corrected at the Contractor's expense.

1.07 PAINTING AND FINISH

A. All packaged and manufactured equipment shall be delivered to the work site with specified factory finish. Should the finish be damaged in transit or during the installation, it shall be finished to present a neat workmanlike appearance to the satisfaction of the Owner prior to acceptance.

B. All other materials and components installed or fabricated on site shall have a suitable multi-coat industrial-grade finish applied, as specified elsewhere in this Specification.

1.08 PROJECT COMPLETION

A. Submit factory test-record data as required under article 1.10, (3) operating and maintenance manuals, and similar final record information.

B. Delivery of all procured equipment and included appurtenances to the Owner's location.

C. Deliver tools, spare parts, and similar physical items as applicable.

D. Complete onsite start-up testing of systems and instruction to the Owner's operating and maintenance personnel.

E. Document compliance with all of the safety, functional and performance requirements indicated in the project documents.

F. Complete the Owner's punch list corrections related to equipment.

1.09 RECOMMENDED SPARE PARTS LIST (RSPL)

A. Prepare a listing of all parts on a RSPL form for each individual piece of equipment or system that is of a maintenance significant nature and that is provided by the Contractor.

B. Prior to commissioning, submit the RSPL to the Owner for approval. Procurement of spare parts will be under a separate contract than the equipment procurement described herein.

1.10 INSPECTION, TESTING AND ACCEPTANCE

A. General. The Contractor shall be responsible for proving to the satisfaction of the Owner that the minimum specifications for the Equipment and installation work, as specified herein, have been met. The Owner will require the execution of various inspections and tests, including their documentation, prior to accepting the Facility as complete and in compliance with these specifications. Such inspections and tests shall be based on recommendations by the Contractor. If the Owner determines that such recommended inspections and tests are not adequate, the Owner shall require additional inspections and tests as needed. Inspections,

witnessing of tests, or waiving of any such procedure by the Owner shall not release the Contractor, or other vendors from full responsibility for compliance with equipment, material and functional requirements according to the project specifications.

B. The Contractor shall also provide test equipment, material and labor to conduct on-site testing and start-up procedures. Such procedures will be provided to the Owner to include each of the above components and systems. All tests shall be made available to be witnessed by the Owner to verify compliance with specifications.

C. Construction-Site Inspections. Inspections and tests shall be performed at the construction site in accordance with construction schedule as required by the Contractor standards and jurisdictional building codes and per specification article 3.05.

D. Additional Inspections. Additional inspections will be carried out by the Owner to determine compliance with performance, materials and component specifications that may be beyond the scope of jurisdictional inspections. The Owner will prescribe a final punch list as a result of start-up tests and end-to-end functional demonstrations.

E. Criteria. All design performance pass/fail criteria to be recommended by the Contractors' primary equipment manufacturer and other vendors shall be submitted with the Contractor bid proposal as limits of acceptability for performance requirements of all equipment provided as required herein.

F. Acceptance. The Owner will only accept facility as complete after the Contractor provides compliance with the requirements under article 1.10, and article 3.08.

1.11 WARRANTY

A. General. The Contractor shall warrant that all components, systems, labor and materials specified herein shall be free from defects in design and manufacture for a period of one year, commencing upon ten (10) continuous days of operation of the installed equipment without any shutdown faults that are attributable to material and labor provided by the Contractor. The Contractor shall pay all costs for parts, labor & travel required to satisfy warranty claims.

B. Original Component Warranties. All manufacturers' original standard specifications and warranties for material, components and assemblies shall be forwarded to the Owner. These are in addition to the comprehensive Facility warranty that is the responsibility of the Contractor. The Contractor shall design the system, and complete all work in such manner so as to not invalidate any applicable Original Component Warranties.

C. Warranty Enforcement. In case warranty is invoked, the Contractor shall ensure that the appropriate installer, supplier, and/or manufacturer, i.e. component manufacturers and/or sub-vendors and suppliers(s), shall respond with suitable repair within forty-eight (48) hours of notification.

1.12 QUALIFICATION OF MANUFACTURER-PACKAGER

A. General. Manufacturers and models for equipment, components and performance shall be provided on CNG equipment data form. All sections of the form are required and shall be complete to define minimum standards for function, performance and quality.

B. References for Supplied Equipment. Provide three customer-owner references in the U.S. for fueling facilities that have the proposed equipment in use for at least twenty-four (24) months. For each reference, include facility name and location, date installed, and include contact name, phone, email for an owner representative that was involved with the construction of the CNG facility.

C. Compressor Skids. Manufacturers of CNG-compressor skids and Valve panel shall also meet the following requirements:

1. Provide documentation that the packager of the compressor skids, controls and valve panel have provided at least four (4) CNG-equipment packages with at least 500 aggregate HP for compressor drive at each site or installation within the last two (2) years. Submit three (3) customer-owner references for U.S. projects with compressor skid and valve panel matching the equipment similar to that required in the Owner's equipment specifications that has been in service for at least six (6) months without significant problems, with reference responses subject to approval by The Owner. For each reference, include # skids, motor HP, cooler configuration (air or liquid), location, date installed, and owner, contact name, phone, email.

2. Provide manufacturer's data sheet demonstrating that the unit can produce CNG per specifications article 2.03. Data sheet should be marked as approved by an Engineering Manager or equivalent.

3. Verify that each unit can provide the required flow using a maximum 300 HP drive motor.

4. Provide statement verifying that the controller can provide lead-lag starting, based on run skid-hours, different storage pressures and based on time of day, and otherwise meet the operating requirements of the specifications.

5. As part of bid, provide diagrammatic and written description of flow balance in terms of how flow will be controlled, i.e. at each dispenser, compressor or valve panel, or any combination of equipment that will allow vehicle fill pressure of an active hose to remain the same at the time of a second vehicle connection, also maintaining fill pressure with the connection of a third vehicle.

PART 2 - PRODUCTS

2.01 GENERAL

A. New Equipment. Equipment to be supplied by the Contractor shall be in new condition unless otherwise permitted by the Owner, in writing, and shall include all components and systems necessary to operate the respective system or component, fuel-management system,

maintenance equipment, generator equipment, safety systems, skid, frame and enclosure, and other related components and systems as described herein.

B. Pressure Ratings. All piping, tubing, unions, vessels, valves, filter bodies and appurtenances used in the manufacture and assembly of the specified equipment shall have a manufacturer's rated normal working pressure that is equal to or above its respective normal duty pressure, with a burst-safety factor as specified by either ASME B31.3, or the ASME Boiler and Pressure Vessel Code, as appropriate. Such ratings shall be indicated on component and material submittals to be approved by the Owner.

C. Electrical Classifications. All electrical and electronic components shall be installed and configured appropriately for their respective service conditions and locations. All such installations shall comply with NFPA 70 standards for Class I, Group D, Divisions 1 and 2, and as stipulated in Table 7.4.2.9 of NFPA 52 (2013) or other requirements as called for by AHJs.

D. Material Compatibility. The Contractor shall be responsible for providing and installing components and materials throughout the entire Facility that are compatible with, and do not adversely react to other component or material that could be expected to come in contact during normal operation.

E. Ball Valves. All ball valves shall use 2-piece construction. Ball valves smaller than NPS 2 shall include bodies, balls and stems fabricated from 304 or 316 stainless steel, and shall have a listed MAWP of not less than the highest service pressure normally existing in the process segment where it will be located. Ball valves in sizes NPS 2, or larger, may have carbon steel bodies, but otherwise shall otherwise meet the above specification for ball valves smaller than NPS 2. Actuated ball valves shall use pneumatic operators powered by a common control-air system, or by regulated CNG, in which case all actuators shall be listed for compatibility with natural gas and its typical lubricants.

F. Buy America Act. All equipment and materials provided under this specification shall comply with Buy America Act provisions as required by the U.S. Department of Transportation for infrastructure projects.

2.02 CNG COMPRESSOR SKIDS

A. General. Furnish complete compressor skids each designed for use with natural gas and with a minimum per-compressor discharge capacity of 650 SCFM at 4500 PSIG, at 81 PSIG inlet pressure. Since the MSA gas supply will be unregulated, the Contractor shall indicate the maximum allowed skid-inlet pressure as needed to maintain proper operation of the equipment over the entire range of possible MSA-supply pressures.

B. ESD Buttons. A mushroom-head push-type ESD button shall be located on the outside of each skid enclosure.

C. Enclosures. Each skid shall be enclosed in a weather-resistant rain-tight lockable enclosure. Doors and panels shall be removable to facilitate servicing.

D. Enclosure Accessories.

1. Doors. Doors may be of either swing out, sliding, and/or rollup type, shall be lockable and if personnel can be closed in, design shall include a means to open at least one (1) door from the inside, even if locked from the outside.

2. Interior Lighting. Install a manual wall switch inside each enclosure for skid lighting control. Luminaries, switch and conduit shall be listed for Class-1, Division-2 Group-D service. Furnish either of the following luminaries.

    a. One (1) 4' long T8 fluorescent luminary with two (2) lamps or equivalent LED luminary and located so as to provide uniform illumination throughout the interior area.

    b. Two (2) compact-fluorescent fixtures located to provide uniform lighting levels throughout the skid interior.

3. Methane Detection. Ceiling-mounted infrared point methane detection shall be provided and shall interface with the skid controller. Detection of 20% to 49% LEL methane shall annunciate an alarm at the master control panel. Detection of 50% LEL methane shall annunciate an alarm at the control panel and shut down the compressor system equal to activation of the ESD. Methane detectors shall be Drager Polytron, Sensor Electronics, General Monitor/MSA or Honeywell.

4. Sound Attenuation. Enclosure shall provide sound-attenuation features, including sound-absorbing interior-wall surface and sound-attenuated louvers for cooler-air intake and exhaust.

E. Vibration Speed. The compressor skid frame shall have a maximum vibration speed of 0.8" per second. Provide analog vibration sensor mounted to each compressor frame and wire to controller. Sensor shall have sensitivity range of at least .1" to 1.5" per second vibration speed.

F. Control Air. Provide 1/2" tubing connection at skid edge for connection to remote 100 PSIG control-air supply header. Include pressure gauge scaled to 200 PSIG at line inlet.

G. CNG compressor skid manufacturers:

1. ANGI Energy Systems LLC
   Janesville, WI 53563
   Telephone: (800) 955-4626

2. JW Power
   122 Dovel Rd.
   Longview TX 75603
   Telephone: (720) 385-3033

3. Safe / IMW Industries
   43676 Progress Way
   Chilliwack, BC, V2R 0C3, CANADA
   Telephone: (732) 237-0001

H. Qualification for Equal.

1. Provide references per article 1.12

2. Also provide the following information for compressor skid references.

   a. For each ref., include # of skids, each motor HP, cooler configuration (air or liquid), site location, date installed and owner contact name, phone and E-mail.
   b. Provide manufactures data sheet demonstrating that each compressor can produce at least *650* std. ft. / minute (SCFM) at the operating conditions listed in the specifications. Data sheet shall be marked as approved by an Engineering Manager or equivalent. Proposed systems with three (3) total compressors shall indicate a flow of at least 975 SCFM per compressor.
   c. Provide statement verifying that the controller can provide lead-lag starting, based on run skid hours, different storage pressures and based on the time of day and otherwise meet the operating requirements of the specifications.

2.03 CNG COMPRESSORS

A. General. These requirements apply to Ariel JGQ, IMW-50 or equal compressors, and related equipment mounted on a skid with weather-resistant enclosure, intended for vehicular-use natural gas only, a design-maximum discharge temperature immediately downstream of each stage of compression of no more than 20° F greater than the design ambient temperature of up to 110ºF and outdoor un-shaded installation.

B. Required Capacity. Each compressor shall be sized to produce not less than ***650*** SCFM of CNG at a discharge pressure of 4500 PSIG. The design capacity shall also allow for all pressure drops through filters, pulsation bottles, interstage devices, dryer, coolers and piping from the inlet flange to the discharge-tubing connection on the skid.

C. Compressor Size. The compressor frame shall be furnished with cylinders which, when operating at normal operating condition(s), shall, as closely as practical, load the electric motor to its full rated load.

D. Interstage Velocity. The velocity of gas from inlet to discharge shall not exceed 50 feet per second at the design conditions. All piping, coalescers, valves, unions etc. shall be sized appropriately.

E. Accessories. Compressors shall be provided with direct or belt drive assemblies, interstage and discharge coalescers, and interstage- and after-cooling. Each compressor shall be designed for automatic starting, unloading and captured blowdown and equipped with a normally-closed actuated inlet valve, suction check valve, discharge check valve, suction flex line, suction particulate filter, and discharge coalescing filter. The actuated inlet valve shall be controlled by the PLC.

F. Lubrication System. Compressor cylinders may be either be oil-lubricated or non-lubricated. Crankshafts shall be oil lubricated.

1. Lubricating Oil Consumption. Net carryover of lubrication oil from the compressor crankcases through to the dispensers shall be no greater than 0.5 pounds of oil per

million SCF of compressed natural gas. Net carryover shall not include oil drained or recovered from the blowdown receiver and coalescers.

2. Piston Rings. All compressor piston rings shall be ferrous or synthetic, subject to approval by Owner.

3. Lube Oil. Compressor-lube oil for both crankcase lubrication and cylinder lubrication shall be a PAG-type synthetic oil, and as approved by the compressor-skid packager.

4. Day Tank. All force-lubricated compressors shall include a 5-gallon day tank with sight glass. Include low- or no-oil level switch in oil system.

G. Compressor Crankcase Ventilation. Each compressor shall be equipped with means to prevent an accumulation of combustible gases in the crankcase. Vent exhaust shall be directed to a safe location inside or outside of the skid enclosure and shall be protected from rain and debris by a rain cap or similar means.

H. Interstage Coalescing Filters. Each oil-lubricated stage shall include an oil-coalescing filter downstream of the cooler outlet for that stage. Coalescing filters shall be fitted with automatic drainage to the compressor's blowdown-recovery vessel.

I. Loadings. Compressors, drive motors and auxiliary equipment shall be designed and constructed to operate under full load at normal operating conditions.

J. Pressure Rating For Controls. All gas controls shall have an MAWP equal to or greater than the maximum pressure to which they will be subjected during normal operation of the compressors.

K. Appurtenances. Each compressor stage shall include a surge chamber with enough capacity to adequately dampen the effects of compressor pulsation on adjacent components, and shall include a flexible inlet pipe section to protect against vibration and movement of the compressor vs. the suction-supply piping. Final discharge from each compressor shall be tied to a common tube/pipe to edge of skid. The MSA and each compressor discharge shall be protected by check valves.

L. Alignment. Direct compressor-drive alignment shall be set in the factory using a commercial laser alignment system, (e.g., Hamar Laser) or high-precision runout-dial gauge. Laser or gauge alignment shall verify rigidity of the motor mount (avoid excessive soft-foot alignment), and parallelism of the axes of rotation between the motor and compressor crankshaft prior to shipment. Alignment shall be mechanically field verified to factory tolerance following completion of all anchor connections but prior to any bump-over or startup on site, and alignment method shall adhere to the written instructions of the skid or compressor manufacturer.

M. Design Conditions. The compressor system shall be capable of operating within the full range of conditions specified below. Values listed as 'design' shall be used for sizing the compressors with respect to specified flow rate.

1. Gas Conditions. The incoming gas supply will have a design specific gravity of 0.59 and a temperature of 75ºF.

2. Ambient Temperature. The ambient temperature will range from 35ºF - 110ºF, with a design temperature of 90ºF.

2.04 CNG COOLING SYSTEM

A. Design. Forced draft or induced draft air circulation shall be used to cool the CNG from the heat of compression. Fan drive may be either derived from the prime mover or by its own electric drive motor.

B. Design Criteria. The criteria to be used for design shall include the following:

1. Max. design ambient temperature 110° F.

2. Site elevation above mean sea level 50 feet.

3. Max. compressor suction gas temperature 75° F.

4. Max. allowable aftercooler gas discharge temp. Ambient temp. plus 20°F.

C. Tube Material. Tube material for final-stage cooler shall be Type 316 or 304 stainless steel, seamless, and manufactured and labeled according to ASTM A213. Tube material for other cooler stages shall be either SS per above or A-103 grade B CS.

D. Cooler Configuration. Cooler intake and exhaust sections shall be oriented so as to minimize the introduction of exhaust air from existing and new adjacent skids into the intake of either skid. Coolers shall include sound-attenuating louvers at their intake and exhaust sections.

2.05 SKID-MOUNTED PRESSURE VESSELS

A. Stamping. All vessels requiring ASME stamping shall also be stamped with the following:

• MAWP.
• The water volume of the vessel.
• ASME U-stamp.

B. Suction Filter. Furnish one (1) particulate filter upstream of each 1st stage compressor inlet.

1. Specification. This filter shall eliminate all suction gas particles (liquid and solids) with a diameter of 50 microns or greater. The filter shall be adequately sized for the maximum compressor throughput. The filter body design pressure shall not be less than the blowdown receiver relief valve set pressure.

2. Ancillary Equipment. Furnish the suction filter with:
   a. A drain line controlled by a manual valve.
   b. A differential pressure gauge for indicating pressure drop between filter inlet and outlet.

C. Pulsation/Volume Bottles. Pulsation bottles sufficient in capacity to adequately dampen the effects of compressor pulsation on adjacent components shall be included in the following locations: upstream of the first-stage inlet; downstream of final-stage discharge.

1. Compliance. Design of compressor system shall comply with the guidelines of the Compressed Air and Gas Handbook, fifth edition, chapter 10, published by the Compressed Air and Gas Institute, so as to minimize the effects of harmonics and pulsation. Pressure curves in Handbook (Figure 10.50, approximate bottle sizing chart) shall be extrapolated to pertinent working pressures of the relevant compression stages and systems.

2. Drains. Pulsation bottles shall be equipped with drains.

D. Interstage Oil Removal. Interstage coalescer downstream of each oil-lubricated cylinder between the interstage cooler and next-stage compressor inlet shall be provided.

1. Size. Coalescing filters shall be housed in Parker J4 housings, or larger, and shall be designed to eliminate ninety-five (95) percent of entrained liquids and handle liquid accumulation, which may result from twelve (12) hours of continuous compressor operation. Automated in-process blowdown to drain oil accumulations is allowed.

2. Drains. Drains shall be minimum 3/8-inch pipe and be fitted with a matching check valve. An automatic valve for each blowdown circuit shall be provided to allow liquid blowdown to the blowdown receiver vessel. Drain lines and the actuated valve shall be sized to handle compressor idling gas volumes.

E. Two-Stage Discharge-Coalescing Filtration (force-lube compressors). Both pre-coalescer and coalescer filters shall be housed in a Parker J4SL housing at minimum and shall be located immediately downstream of the final stage aftercooler. Lesser filtration may be proposed for compressors that do not have force-lube injection on all cylinders.

1. Specification. Coalescer filter discharge shall contain no more oil or other liquid hydrocarbons, exclusive of non-condensables, than 50 part per million on a mass basis. The filters shall be sized for the maximum compressor gas flow rate over gas pressures ranging from 2,000 to 4,500 PSIG so that pressure drop does not exceed 2%. The first filter shall use a Parker Hannifin grade-10 coalescer element and the second filter shall use a Parker Hannifin grade-4 coalescer element.

2. Drains. The filter(s) shall have an automatic liquids purge to the blowdown receiver. An automatic valve shall be provided to allow liquid blowdown to the blowdown receiver vessel. Drain lines and the actuated valve shall be sized to handle compressor idling gas volumes.

F. Blowdown Receiver. Blowdown receiver of adequate capacity and pressure rating for the normal operation of each compressor shall be included. Design working pressure for each blowdown system shall be sized appropriately to accommodate the blowdown volume and pressure of the compressor and allow up to two (2) start / stop cycles within five (5) minutes.

G. Connections. The blowdown receiver(s) shall have the following connections:

1. Condensate drain. A 1/2-inch ball valve or needle valve and drain port shall be provided in a readily accessible location for manual draining of liquids accumulation in the blowdown receiver. Ball valve shall be piped to edge of skid exterior and shall include downward

2. Interstage separator blowdown. A manual ball valve shall be provided to isolate the blowdown receiver from the actuated blowdown valve, to facilitate servicing of the blowdown piping, without the need to depressurize the receiver.

3. Gas connection to compressor suction from the blowdown receiver and its regulator shall be upstream of suction filter and downstream of the suction check valve.

2.06 SUCTION NATURAL GAS DRYER

A. General Requirements. A low-pressure, manually operated, temperature-swing absorber heat regenerative gas dryer shall be provided. The system shall include inlet and outlet particulate filters, and pressure gauges for measuring inlet pressure, differential pressure across the dryer-inlet and -outlet filters, and across the entire dryer assembly, i.e. flange to flange.

B. Configuration. Provide a manual-simplex design consisting of one desiccant vessel, and 3" diameter connections and all gas-process piping and valves shall be 3" nominal.

C. Pressure Relief Valves. Full-port PRV's shall protect the desiccant vessel and heater-vessel assembly, and shall include lock-open ball valves at their inlets. PRVs shall be rated for the MAWP of the vessel that they are protecting and shall be by Mercer or Anderson Greenwood.

D. Maximum Allowable Discharge-Moisture Content. The discharge gas shall comply with SAE standard J-1616, based on inlet natural gas with 7 lb moisture per MMSCF, and a design low ambient temperature of 40º F.

E. Adsorbent. The adsorbent shall be 3Å molecular sieve and shall not affect the character and odor of the incoming gas. The dryer design shall be such that the adsorbent shall have a minimum useful life of five (5) years.

F. Other Requirements.

1. Piping, vessels and valves shall be sized, configured and ported so that pressure drop between inlet and outlet flanges of dryer does not exceed 5 PSI at the design MSA-outlet pressure of 86 PSIG and a flow of 1950 SCFM. Dryer shall be pre-assembled on a skid and shall include common connection at system inlet and outlet.

2. MAWP of vessels, piping and complete assembly shall be min. 150 PSIG.

3. Provide redundant thermocouples at all heater units. TC's may be internal or external to the heaters.

G. Drying Capacity. The dryer shall be sized so that regeneration of the desiccant bed shall be required after no less than one hundred seventy-five (175) hours of 1950 SCFM gas throughput during the normal operation of the compressor system, based on an inlet gas-moisture content of 7 lb./MMSCF.

H. Instrumentation. An in-line dew-point sensor alarm shall be provided at the dryer-discharge port. The detector shall have two (2) levels of alarm; one light shall be activated upon moisture at dryer discharge approaching maximum saturation and a second light be activated

upon moisture upon dryer discharge reaching maximum saturation. Inlet and outlet connections shall each be equipped with a pressure gauge scaled to 125% of the dryer MAWP. Differential-pressure gauges shall be provided on the inlet and outlet filters, and across the entire dryer assembly.

I. Regeneration. Regeneration of any desiccant bed shall be by temperature swing with closed loop gas circulation, and shall be initiated manually and terminate automatically. Maximum regeneration and cooling time shall be eight (8) hours. A design that requires burping to reduce the closed system pressure for regeneration is acceptable. Provide embossed placard or sign with basic regeneration procedure on dryer.

J. Bypass Capability. Dryer bypass and isolation manual ball or butterfly valves shall be provided so that the compressors may operate while the entire dryer is off line.

K. Recirculation Blower. Blower shall include pressure transducers to detect low and high differential pressures. Blower hose shall be reinforced with stainless steel braid or other equivalent means to resist kinking of the hose.

L. Regeneration Heater Assemblies. Each heating vessel shall include a PRV that cannot be isolated from its vessel, and a redundant thermocouple for detection of over-temperature.

M. Manufacturers:

1. ANGI Energy Systems
   305 W. Delevan Dr.
   Janesville, WI 53546
   Telephone: (800) 955-4626

2. PSB Industries, Inc.
   1202 W. 12th Street
   Erie, PA 16501
   Telephone: (814) 453-3651

3. SPX/Pneumatic Products Corp.
   4647 S.W. 40th Avenue
   Ocala, FL 34474
   Telephone: (352) 873-5763; (352) 237-5500

4. Xebec Inc.
   730 Boulevard Industrial
   Laval, QC, H7L-3M5
   CANADA
   Telephone: (450) 979-8718

5. Or approved equal.

2.07 DEFUELING PANEL

A. General. Provide CNG defueling panel with dual capability to return defueled gas to compressor suction and to alternately vent CNG to atmosphere.

B. Specification. Include adjustable regulator system designed to reduce CNG-vehicle pressure from 4500 psig to 110 psig at panel discharge. Panel shall be housed in a NEMA 3R cabinet and include redundant parallel regulators, ½" SS process lines and valves throughout. All regulator stages shall be protected by full-port PRV's. Defueler shall include manual valving to allow selection of either 'closed' mode for discharge at 95 psig (adjustable), or 'vent mode for discharge to atmosphere. Outlets for PRV's and vent mode shall be routed to a 2" dia. sch. 80 galvanized CS pipe that is 12' long, which will allow the lower 2' to be set in a below-grade footer, and will allow the top to be 10' above grade when installed. Provide inline ball and needle valves for throttling flow through both modes and provide pressure gauges to monitor vehicle pressure and outlet pressure downstream of regulators.

C. Hoses & Nozzles. Provide 12' long x 3/8" conductive hose rated for 5000 psi equip hose with 'ILB-1' inline breakaway and BDN defueling nozzle. Also provide Snaptite quick-connect hose end with appropriate threaded adapter, shipped loose in cabinet.

2.08 INSTRUMENTS AND CONTROLS FOR COMPRESSOR SYSTEM

A. General. Compressor-system controls, including start and shutdown shall be electronic and shall operate automatically and unattended. Allen Bradley 'Remote I/O' or similar/Centurion architecture is acceptable. If a master controller or PLC is provided, the compressor skid shall include a local touch-panel HMI for monitoring status of its skid, including typical pressures, temperatures and fault conditions.

B. Control System. A micro-processor based controller (controller) in a NEMA 3-R enclosure shall be provided for the compressor and mounted in an area consistent with its electrical classification. System shall be designed in accordance with the following:

1. Performance Specification. This controller shall be capable of controlling operations of its associated compressor skid as required, without reliance on any parallel controllers. All set points for this controller shall be modifiable at a local input/output display panel and shall also be modifiable remotely by network / Internet IP connection.

2. Programmability. The Owner shall have unimpeded access to modify set points and operating parameters upon completion of the Work. The Contractor shall verify that the PLC program is developed using a commercially available PC-based platform such as Studio 5000, as needed to modify controller program. Provide compiled and annotated source code for PLC program ***in .ACD file format*** on USB flash drive.

3. Local Display. Master controller shall include an outdoor-rated 7" LCD touch HMI, Skid controllers shall be an outdoor rated 5" LCD touch HMI, viewing shall include backlight and be visible in bright sunlight for fault annunciation, display of operating conditions and interface for modifying set points. Modification of set points shall require a password. Display shall include a backlight and shall be rated for outdoor installation. Display shall be protected or oriented on site so that it is clearly visible in any day lighting condition.

C. Telecom. All set points for this controller shall be modifiable at a local input/output display panel and by remote IP connection via web-based interface. Controller system shall also provide automatic SMS and email-based notification to the Owner via IP connection in case of fault. Includes either cellular-data modem or wired LAN connection to local IP switch.

D. Performance Specification.

1. Compressor Starting. Logic in controller shall prohibit subsequent compressor from starting within sixty (60) seconds of the primary-starting compressor but shall allow up to five (5) total compressors to operate concurrently, based on demand from the fast-fill dispensers and storage pressure, which shall be adjustable. Controller shall facilitate incremental compressor start based on threshold-storage pressure. Incremental compressor-start sequence shall be associated with storage-bank pressure, i.e. the first compressor starts when storage falls to 3,600 PSIG; the second compressor starts when storage falls to 3,300 PSIG and when two (2) dispensers are active; third compressor starts when storage falls to 3,000 PSIG, etc. Set points shall be adjustable. The number of compressors allowed to run simultaneously shall be limited based on time of day.

2. Storage Bypass. Controller shall control and prioritize compressor discharge to priority storage banks or fast-fill direct supply. Priorities and control-pressure set points shall be user adjustable via the controller.

E. Shutdowns, Alarms and Annunciators.

1. General. All shutdowns, alarms and annunciators shall be electronic and adjustable.

2. Specifications. The first column, below, lists the relevant component or system. The second column lists the corresponding required action (i.e. shutdown, alarm, indicator):

3. Compressors:

a.	Low suction pressure:	Shutdown
b.	High interstage pressure, all stages:	Shutdown
c.	High discharge pressure:	Shutdown
d.	Low lube oil pressure:	Shutdown
e.	High discharge temp., each cylinder:	Shutdown
f.	High compressor & cooler vibration:	Shutdown
g.	High vibration:	Shutdown
h.	20% LEL methane detection level:	Alarm
i.	50% LEL methane-detection level:	Shutdown
j.	High storage pressure, each bank:	Shutdown
k.	Nearing low control-air pressure (header):	Alarm
l.	Low control-air pressure (air-supply header):	Shutdown
m.	High blowdown pressure (95% MAWP):	Shutdown

4. Electric motors:

a.	High winding temperature:	Shutdown.

F. Additional Requirements. In addition to the devices previously listed, the panel shall include:

1. Manual shutdown switch.

2. Key lockout.

3. Lights to indicate main power is energized, condition light for each compressor indicating “running”, “standby” or “fault.

4. Compressor automatic-start-cycle failure.

5. First-out fault annunciation.

6. An emergency shutdown switch shall be provided at the control panel. The ESD switch shall shut off the compressor motor power supply and close the actuated suction valve at each compressor. ESD system shall be expandable to other locations on a common 24VDC or 120VAC circuit.

7. Hourmeter. Each compressor shall have a non-resettable hour meter to record cumulative time of operation and may be part of a multi-functional digital display with a backup battery.

8. Motor overload. The annunciator need not specifically call out "compressor motor overload" or "cooler motor overload". Rather the annunciator may indicate a message such as "compressor motor failure".

9. Temperature for high interstage and discharge temperatures shall be measured at the outlet of each cylinder.

10. Design PLC for integration with up to four total compressor skids from the same skid packager, including allowance to control lead-lag starting, and limit number of compressors that can run based on time of day and storage pressure.

G. Instrumentation.

1. Temperature Measurement. Thermocouples or resistance thermometer devices (RTDs) shall be used to sense temperature for control functions.

2. Pressure Measurement.
   a. Required Pressure Gauges. Pressure gages shall be provided for compressor suction, interstage pressures, blowdown receiver and final compressor discharge for each compressor.
   b. Calibration Valve. All pressure switches and transducer/transmitters shall have a dedicated block-and-vent valve to facilitate pressure calibration. The block valve should be lockable with a wire and lead seal.
   c. Pressure Gauges. Manual pressure gauges shall monitor the following pressures:
      i. + Compressor lube oil
      ii. + First-stage suction
      iii. + Each stage discharge
      iv. + Blowdown receiver

H. Timer Control. PLC system shall include ability to program the start/run of any compressor based on time of day (i.e., no start unit B between 5:30 AM and 6:00 PM daily).

I. Manufacturers.
   1. Allen Bradley Contrologix or Compactlogix.

2. Horner.
3. Siemens.
4. Or approved equal.

2.09 REMOTE COMMUNICATIONS PANEL/MODULE

A. General. Remote communications may be provided by either a standalone panel or as part of an integrated PLC-control system. House in a NEMA 3R cabinet.

B. Requirements. Provide remote-communications package to facilitate web-based monitoring of PLC / status of CNG system. Include automatic SMS messaging and emailing to four recipients in case of any fault and ability to connect remotely via web-browser interface to monitor status and change control parameters with password protection. Communication may be either via cell or locally wired IP Ethernet connection. House in weather-tight cabinet and provide local setup for owner monitoring capability. Web interface shall provide data and interface matching that of the local HMI.

2.10 VALVE-PANEL SYSTEM

A. General. Provide connections for all proposed compressors with 1" compressor-discharge connections. The valve-panel system shall direct the flow of CNG from skid discharge to dispensing lines that supply two (2) transit-CNG dispensers, or to the one-bank storage system. Panel shall include 1” process lines and valves throughout, shall be free standing, and shall be housed in a NEMA 3R cabinet.

B. Functional Requirements.

1. Provide CNG flow from compressor discharge to single-volume CNG-storage bank.
2. CNG supply to transit dispensers shall be one-bank configuration.
3. Include back-pressure regulator or automatic buffer-bypass valve with pressure-transducer control that only allows the storage to be replenished when the dispenser-supply headers are all above 4000 PSIG (adjustable). Valve or regulator shall be sized to prevent excess backpressure to compressor discharge when storage is being replenished. This feature shall allow compressor discharge to flow to the dispensers as priority, maintaining full flow to each dispenser while on priority fill, unless they are not in use, in which case the compressor discharge will flow to CNG storage.
4. Provide description of valve panel functions to provide required flow as stated above
5. Provide fail-closed ball valves for storage bank that automatically isolate all storage upon ESD activation.
6. Provide manual ball valves at each inlet and outlet connection. Provide 6000 PSI pressure gauge at each inlet and outlet connection and arrange so that gauges are visible with the cabinet closed.
7. See requirements in paragraph 2.12.D. An alternate valve-panel configuration may be provided as allowed in that paragraph.

C. Manufacturers:

1. ANGI Energy Systems
   305 W. Delevan Dr.

Janesville, WI 53546
Telephone: (800) 955-4626

2. Safe / IMW Industries
43676 Progress Way
Chilliwack, BC, V2R 0C3, CANADA
Telephone: (732) 237-0001

3. JW Power
Longview, TX
Telephone: (903) 643-3413

4. Trillium CNG
Houston, TX
Telephone: (800) 920-1166

5. Tulsa Gas Technologies
10117 E. 48th Street
Tulsa, OK 74146
Telephone: (918) 665-2641

6. Manufacturer of valve panel shall be approved by the manufacturer-packager of the CNG compressor and controls system.

D. Qualification for Equal.

1. Provide documentation that the manufacture of the compressor skids and the manufacture of the valve panel have reciprocal approvals for each other's equipment.

2. Provide customer references with bid for three projects that meet the requirements of article 2.10.

3. Provide narrative or schematic with bid to illustrate technical compliance with article 2.10.

2.11 STORAGE VESSELS

A. General. Four (4) ASME-rated spherical or cylindrical CNG storage vessels shall be provided. Vessels shall have a minimum capacity of 11,500 SCF each at 4,500 PSIG, an MAWP of 5,500 PSIG, shall include framing and bracing suitable for IBC seismic classification-E. Vessels shall be fabricated in accordance with ASME Section VIII, Division 1, and shall be painted white.

B. Arrangement. Configure vessels as shown on plan or other arrangement approved by the Owner. If cylindrical vessels are provided, vessels shall be arranged 2 wide x 2 tall, with foundation system designed to support a 2 wide x 3 tall configuration. Provide a 1" SS capped tee for connection of additional vessels. Spherical vessels shall be spaced to 18" clear and all valves shall be accessible.

C. Valves And Drains. Each vessel shall include a full-port 3/4" pressure relief valve (PRV) set at 5500 PSIG with a full-port 3/4" ball valve locked open between the PRV and the vessel.

Each vessel shall include a 3/4" service ball valve, a drain port at its low point with a throttling plug valve and a pressure-rated discharge pipe or tube convenient for draining. Outlet of drain port shall be anchored and shall be directed away from servicing personnel. For cylindrical vessels, slope towards drain end.

D. Vent Riser. Furnish a 1" dia sch 80 elbow and vent-riser pipe at each PRV outlet with opening min. 10' AFF. Or, provide a common 2" dia. Sch 80 CS vent-riser pipe.

E. Manufacturers and Packagers:

1. Allied Equipment
   Midland, TX
   432-367-6000

2. ANGI Energy Systems
   Janesville, WI
   Telephone: 800-955-4626

3. CP Industries
   McKeesport, PA
   Telephone: 412-664-6681

4. FIBA Technologies
   Littleton, MA
   508-887-7162

5. Or approved equal.

2.12 TRANSIT FAST-FILL DISPENSERS

A. General. Provide high-capacity CNG dispensers. All tubing and valves in dispensers shall be minimum 1" diameter. Each dispenser shall include a backlight display, an Endress-Hauser model CNGMass-DN25 meter with 1" process and matching transmitter with pulse output, a 1" manual ball valve and a 1" air-actuated ball valve. Dispensers shall include a 6000 PSIG pressure gauge mounted near the hose connection at cabinet exterior, and shall include two (2) coalescing filters in J6 housings at initial dispenser inlet. Dispensers shall include a vent valve that is common to the pressure gauge and the filter housings. Dispensers shall be furnished with temperature compensation logic to fill equivalent to 3600 PSIG at 70 °F. Dispensers shall include a keeper bucket or factory supplied holster. Dispensers shall be configured for and connected to the existing Ward fuel-management terminals on the service islands. Provide both dispensers with a Transit hose. Provide one (1) dispenser with a Transit hose and an Auxiliary hose.

B. Operation. Dispensers shall include start and stop buttons, activity lights, an analog vehicle-pressure gauge, auto-fill completion with light annunciation, and backlit display for volume dispensed in GGE's. Vent gas shall be vented to the top of the dispenser via bulkhead fitting. Vent piping or tubing shall be sized to prevent backpressure under all operating conditions.

C. Hoses and Nozzles. Hoses shall be 13' long. Hoses shall have retractors to keep the hoses off of the ground when retracted as needed.

1. Transit Hoses. Hose supply and vent lines shall include ILB-5 and ILB-1 breakaway couplings respectively, and be electrically conductive. Hoses shall be ¾" with 3/8" vent lines and include retractors that keep hoses off the ground when nozzles are parked in their keepers. Nozzles shall be OPW/Sherex CT-5000 – FLB-5000 or WEH TK26 with steel locking jaws. Include nozzle rest or keeper. Configuration shall prevent hose from projecting more than 6" beyond the front of the dispenser when nozzle is in its keeper.
2. Auxiliary Light-Duty Hose. One (1) dispenser shall include an auxiliary hose for fueling light-duty NGVs, tee'd from the main dispenser line and meter. Hose shall be 1/2" x 12' long, 5000 PSI-rated with inline breakaways for supply and vent lines, and include an NGV1 type-2 P36 nozzle with a yellow collar.

D. Dispenser-Flow Balance. CNG system shall include means to balance flow of CNG to each transit-CNG dispenser. Acceptable means include either a 'matrix' style priority valve panel with discrete connections between a compressor and dispenser with automatic valve operation as needed, or proportioning dispensers, where each of the two dispensers are equipped with parallel 1" and 3/8" actuated ball valves and automatic PLC-controlled priority, such as ANGI model FF-150-2-B-1-PR or equal. Flow-balance system shall allow CNG to flow to all authorized dispensers simultaneously, and shall provide 'first-in first-out' fueling performance.

1. Provide customer references with bid for three projects that meet the requirements of article 2.12.D.

2. Provide narrative or schematic with bid to illustrate technical compliance with article 2.12.D, including description of 'flow balance' dispenser or matrix-type valve panel.

E. Dispenser shall be outfitted with an emergency shutdown button (ESD). The ESD system will shut down the compressors, close all ESD valves, and de-energize the dispensers.

2.13 COMPRESSOR PRIME MOVERS

A. General. Each gas compressor prime mover shall be a 460V AC, 60 Hz, 3-phase squirrel cage induction motor. Prime movers shall be totally enclosed and fan-cooled (TEFC), having a minimum continuous rating of 250 HP (base specification), with a 1.15 service factor. Prime movers shall be designed, constructed and tested in accordance with NEMA Standard MG1-1998. Motors shall also comply with the applicable portions of the Energy Policy Act of 1992, and meet NEMA Premium Efficiency design and performance standards.

B. Ratings. Prime movers shall be rated for continuous duty at 60 HZ, single voltage with across-the-line full voltage start at 460 VAC. Prime movers shall have a 1.15 service factor. Torque characteristic shall be NEMA Design B. Motors shall have four (4) poles, and a full load rated speed of 1,785 RPM. Motors shall be listed for use in Group D, Class 1, Division 2 hazardous atmospheres.

C. Service Conditions. Motors shall be suitable for continuous duty operation without de-rating under the following service conditions:

1. Exposure to ambient temperatures from 40ºF to 110ºF, plus temperature rise resulting from friction, compression and normal system operation.

2. Exposure to altitudes up to 50 feet.

   Electrical Design. Motor efficiency shall be evaluated in accordance with IEEE standard 112-1991, Subclause 6.4, Method B. The nominal efficiency, 3⁄4-load efficiency and guaranteed minimum efficiency shall be stamped on the motor's nameplate.

D. Motor Insulation. Motor insulation shall be a non-hygroscopic, chemical and humidity resistant system. The minimum thermal rating of the system shall be Class F, as defined in NEMA MG1-1998. The stator windings shall meet or exceed NEMA MG1-1998, Part 31. Stator shall be double dipped and baked in varnish to form a heavy build that exceeds the test criteria of moisture resistance per NEMA MG-1. When operated at rated horsepower, voltage and frequency, the temperature rise of the stator winding shall not exceed 80°C, when measured by winding resistance. Motor insulation shall be designed and tested to withstand 2000 Volt transients without premature motor failure, and have no cable limitations in motor application.

E. Service Factor. Motors shall be rated for a 1.15 service factor on sine wave power in a 40°C ambient temperature.

F. Mechanical Design. Motor shall be totally enclosed and fan cooled (TEFC). Motor bearings have a degree of protection of IP54, from moisture and foreign material. Motors shall be equipped with ball bearings or roller bearings. Ball bearings shall be the same size on both ends. Bearings shall be re-greasable without disassembling the fan or fan cover and provide for the elimination of purged grease through fittings extending beyond the fan cover. Inner bearing caps shall be provided for bearing retention and to prevent harmful amounts of lubricant from entering the motor interior. For direct-coupled motors, stabilized bearing temperature shall not exceed a temperature rise of 45°C, as measured by a thermocouple on the surface of the bearing house.

   1. Bearings shall provide for an L-10 life of at least 26,000 hours per ANSI/AFBMA 9-1990, based on NEMA belting application limits per NEMA MG1-1993, section 14.41. The insulation system and motor leads shall be compatible with mineral oil.

   2. Condensation drain holes shall be provided at the low points in the end brackets and shall be supplied with corrosion resistant breather drain plugs.

   3. Ventilating fans shall be of non-sparking conductive plastic material. The proper fan rotation direction shall be indicated by a permanent label on the outside of the motor.

   4. The motor’s conduit box shall be equipped with a ground lug. Gaskets shall be provided between the conduit box and frame, and between conduit box base and cover, to provide a moisture resistant barrier.

   5. Shouldered eyebolts with a minimum safety factor of 10 shall be provided for motor lifting. All fastening hardware shall be hex-head bolts or socket head cap screws with zinc plating. Cast iron motor components shall be primed and painted to surpass a 250-hour salt spray test per ASTM B117-90.

G. Nameplate. Motor nameplate shall be stainless steel, and shall contain the following information in addition to that noted in section 10.40 of NEMA MG1-1993.

1. AFBMA bearing ID.
2. Manufacture date code.
3. Motor weight.
4. Guaranteed minimum efficiency.

H. Airborne Sound. Motor sound power level, when measured at a no load condition, shall not exceed 90 dBA, when determined in accordance with IEEE Standard 85-1973.

I. Vibration. Motor vibration measured in any direction on the bearing housing meets the levels listed below when tested per section 12.08 of NEMA MG1-1993:

1. Unfiltered vibration at rated voltage and frequency shall not exceed 0.15 in/s peak velocity.

J. Production Tests. The motor manufacturer shall perform production tests according to NEMA MG-1-12 and ANSI/IEEE Standard 112, Method B.

1. The following test information shall be recorded and inserted in the motors' shipper.
   a. Winding Resistance.
   b. No load current and speed at rated line voltage and frequency.
   c. Current input at rated frequency with rotor at stand-still.
   d. High-potential test.
   e. The following five unfiltered vibration readings, measured as described above: drive end (horizontal, vertical, and axial) and opposite drive end (horizontal and vertical).

K. Warranty. Motor components shall have a full three (3) year performance warranty when operated on sine wave power and three (3) year warranty on inverter power.

L. Manufacturers and Models.

1. TECO Westinghouse MAX-E1 Premium Efficiency Severe Duty TEFC.

2. Siemens – Medallion Motors, Premium Efficiency Severe Duty TEFC Type CZ.

3. WEG Severe Duty TEFC.

4. US Motors Catalog No. C50P2C.

5. Baldor TEFC.

2.14 MOTOR STARTER PANEL

A. General. Starters matched to the compressor prime movers, cooler-fan motors, and pre-lube pump motors as applicable shall be provided with the compressor system, shall be controlled by the programmable-logic control (PLC) system and shall be located in a non-hazardous area, or in a hazardous area if panel is listed for Class 1 Division 2 Group D service per NEC. For starter assemblies located outside of the hazardous area, house in NEMA 3R or NEMA 4 cabinet. All motor starters shall include TVSS protection.

B. Electromechanical Motor Control.

1. Compressor fan drive motors and pre-lube pump motors shall be controlled by Full-Voltage Non-Reversing (FVNR) magnetic starters, i.e. across-the-line starters.

2. Magnetic starters through NEMA Size 9 shall be equipped with double-break silver alloy contacts. The starter must have straight-through wiring. Each starter shall have one (1) NO auxiliary contact.

3. Solid-State Overload Relay.
   a. Provide a solid-state overload relay for protection of the motors. The relay shall be Cutler Hammer type CEP7 or approved equal.
   b. The overload relay shall be modular in design, be an integral part of a family of relays to provide a choice of levels of protection, and be listed under UL Standard 508.
   c. The overload relay shall have the following features:
      1) Be self-powered.
      2) Class 10 or 20 fixed tripping characteristics.
      3) Manual or automatic reset.
      4) Provide phase loss protection. The relay shall trip in two (2) seconds or less under phase loss condition when applied to a fully loaded motor.
      5) Visible trip indication.
      6) One NO and one NC isolated auxiliary contact.
      7) Test button that operates the normally closed contact.
      8) Test trip function that trips both the NO and NC contacts.
      9) A current adjustment range of 3.2:1 or greater.
      10) Ambient temperature compensated.
      11) Ground fault protection. Relay shall trip at 50% of full load ampere setting.
      12) Jam/Stall protection. Relay shall trip at 400% of full load ampere setting, after inrush.
      13) FVNR Motor starters shall be Cutler-Hammer Freedom Series or approved equal.

C. Solid-State Reduced Voltage Motor Control for compressor drive. For this procurement, vendor shall provide the following configurations as directed by the Owner:

   • 2x duplex MCC's to drive four (4) total 650-SCFM compressors and appurtenances specified under this base procurement, or

   • 3x simplex MCCs to drive three (3) 975 compressors and appurtenances specific under this procurement specified under this procurement.

1. Controller for each compressor prime mover shall be Cutler-Hammer type S811 or equal, and shall have PLC control unit complete with built-in 24VDC control power transformer or other similar programmable soft starter.

2. The solid-state reduced-voltage starter shall be UL and CSA listed.

3. The solid-state reduced-voltage starter shall be an integrated unit with power SCRs, logic board, paralleling bypass contactor, and electronic overload relay enclosed in a single molded housing. The SCR-based power section shall consist of six (6) back-to-back SCRs and shall be rated for a minimum peak inverse voltage rating of 1500 volts PIV.

4. Units using triacs or SCR/diode combinations shall not be acceptable.

5. Resistor/capacitor snubber networks shall be used to prevent false firing of SCRs due to dV/dT effects.

6. The logic board shall be mounted for ease of testing, service and replacement. It shall have quick disconnect plug-in connectors for current transformer inputs, line and load voltage inputs and SCR gate firing output circuits.

7. The paralleling run bypass contactor shall energize when the motor reaches 90 of full speed and close/open under one (1) times motor current.

8. The paralleling run bypass contactor shall utilize an intelligent coil controller to limit contact bounce and optimize coil voltage during varying system conditions.

9. The coil shall have a five (5)-year warranty.

10. Starter shall be provided with electronic overload protection as standard and shall be based on inverse time-current algorithm. Overload protection shall be capable of being disabled during ramp start for long acceleration loads via a DIP switch setting on the device keypad.

11. Overload protection shall be adjusted via the device keypad and shall have a motor full load ampere adjustment from 30 to 100% of the maximum continuous ampere rating of the starter.

12. Starter shall have selectable overload class setting of 5, 10, 20 or 30 via a DIP switch setting on the device keypad. Starter shall be capable of either an electronic or mechanical reset after a fault. Units using bimetal overload relays are not acceptable. Over-temperature protection (on heat sink) shall be standard.

13. Starters shall provide protection against improper line-side phase rotation as standard. Starter will shut down if a line-side phase rotation other than A-B-C exists. This feature shall be disableable via a switch on the device keypad.

14. Starters shall provide protection against a phase loss or unbalance condition as standard. Starter will shut down if a 50% current differential between any two phases is encountered. This feature shall be disableable by a switch on the device keypad.

15. Start shall provide protection against a motor stall or jam condition as a standard feature. Starter shall be provided with a Form C normally open (NO), normally closed (NC) contact that shall change state when a fault condition exists. Contacts shall be rated 60 VA (resistive load) and 20 VA (inductive load). In addition, a display on the device keypad shall indicate type of fault (Overtemperature, Phase Loss, Jam, Stall, Phase Reversal and Overload).

16. The following control function adjustments on the device keypad are required:
    a. Selectable Torque Ramp Start or Current Limit Start.
    b. Adjustable Kick Start Time: 0-2 seconds.
    c. Adjustable Kick Start Torque: 0-85%.

d. Adjustable Ramp Start Time: 0.5-180 seconds.
e. Adjustable Initial Starting Ramp Torque: 0-85%.
f. Adjustable Smooth Stop Ramp Time: 0-60 seconds.
g. Units enclosed in motor control centers shall be of the same manufacturer as that of the circuit breaker and motor control center for coordination and design issues.
h. Maximum continuous operation shall be at 115% of continuous ampere rating.

17. Each starter shall be equipped with MOV surge protection on the line side of motor starter.
    a. Cutler Hammer model EMS39 or equal.
    b. Coordinate short circuit rating of starters with Utility and plan check requirements.

18. Factory testing. Standard factory tests shall be performed on the equipment provided under this section.
    a. All tests shall be in accordance with the latest version of UL and NEMA standards.
    b. The manufacturer shall provide three (3) certified copies of factory test reports.

D. Transient Voltage Surge Suppression.

1. General. Furnish a surge suppression device or devices (SPD) to protect equipment serving the CNG skid and control system. SPD shall be listed in accordance with UL 1449, Second Edition, to include Section 37.3 - highest fault current category. SPD shall be listed under UL 1283.

2. SPD shall provide surge current diversion paths for all modes of protection; L-N, L-G, N-G in WYE systems, and L-L, L-G in DELTA systems.

3. SPD shall meet or exceed the following criteria:

    a. Minimum surge current capability (single pulse rated) per phase shall be 80kA per phase

    b. UL 1449 Listed Suppression Voltage Ratings for distribution shall not exceed the following:

VOLTAGE	L-N	L-G	N-G	Max. Continuous Overvoltage (MCOV)
208Y/120V	330V	330V	330V	150V
480Y/277V	700V	700V	600V	320V

4. SPD shall have a minimum EMI/RFI filtering of –50dB at 100kHz with an insertion ratio of 50:1 using MIL-STD-220A methodology.

E. Appurtenances.

1. Provide single-phase transformer for controls and lighting and other single-phase loads directly associated with the compressor system.

2.15 CONTROL-AIR SYSTEM

A. General. Except as stated otherwise, any valves in the CNG system that require compressed gas to power the actuators shall be equipped with valve actuators that can operate using 90-PSIG compressed air. Regulators and actuators shall be listed for air and methane/natural gas service.

B. Line Size and Type. Connect minimum 1/2" SS or type-K CU tubing and route to valve panel and compressor skid as required. Provide a full-port isolation ball valve and 200-PSIG pressure gauge at each new branch connection to the existing CA system. Support and protect lines as needed to protect from contact. New or modified CA lines shall be rated for and tested to 200 PSIG.

C. Auxiliary Connections. Provide a ½" CA connections at the valve panel, at each compressor skid and at the dispensers for connecting outside control air regulated to 100 PSIG. Provide ball vale immediately upstream of each auxiliary connection.

D. Supply. Intercept and tap into existing CA system in compressor-pump room. Provide ¾" header to CNG system, including tee, pressure gauge, ball valve and connection for separate external emergency-supply CA line. Provide check valve to protect existing CA system.

2.16 EMERGENCY SHUTDOWN SYSTEM

A. An emergency shutdown system shall be provided that, when activated, shall interrupt the power supply to the compressor motor, shut off the inlet natural gas supply valve to the compressor and shutoff the electrical power and the discharge of CNG to the dispensers. The system shall be controlled in the control panel, common to all compressors, be on a normally closed circuit and shall be expandable so that additional switches may be added. Buttons shall be push-in mushroom-head type and appropriately rated as required by location.

B. Specification.

1. Circuit. ESD shall be 120VAC normally closed serial-type circuit, so that the opening (activation) of any ESD switch shall cause an ESD fault. Control panel shall require manual reset from ESD activation.

2. Buttons. ESD buttons shall be red mushroom-headed press-to-open type and must be pulled out to reset. Button shall have a protective fence flush with its face in order to minimize accidental pressing. Buttons shall be rated for class-1 division-2 service if located within a hazardous area.

3. Locations. Install one (1) ESD button on fuel-management terminal, one on exterior wall of CNG-equipment compound, and as otherwise shown on the plans.

2.17 BACKUP GENERATOR

A. General. Provide natural gas-fueled generator sized to start and run one (1) CNG compressor skid, the fuel-management system, both CNG dispensers and area lighting. Genset shall include weather-tight enclosure with muffler. Unit shall be rated for operation in ambient temperature of 110ºF.

B. Sizing Requirements. Minimum power rating for genset is 400kW. Genset shall otherwise be sized and configured to start and run any tow of the 250 HP compressor skid and all CNG-station accessories, except for the fuel-management terminals, existing air compressor and the gas dryer. Generator shall be sized to allow a maximum 15% voltage drop for connected loads, or as otherwise recommended by the manufacturer of the CNG-compressor skid. Contractor shall coordinate and document required starting loads for compressor skids with skid manufacturer prior to final sizing and selection of genset.

C. Approved Manufacturers.
   1. Caterpillar.
   2. Cummins.
   3. Generac.
   4. Other manufacturer as approved by the Owner.

2.18 MANUAL TRANSFER SWITCH

A. General. Provide a manual transfer switch rated for connection to utility power as needed to operate two (2) 250 HP compressor skids + all indicated accessory loads. Configure for automatic transfer to genset power per specification item 2.17. House in NEMA 3R or 4 enclosure and provide key lockout for transfer function.

B. Contactor Signal. Include dry contact and wiring from MTS to CNG-control system to indicate when genset-power mode is engaged, for the purpose of allowing the control system to limit the number of compressors that may start to two (2), when genset power is engaged.

C. Additive Alternate. The genset and ATS shall be bid as an additive alternate. Provide supporting conduits and equipment pad as part of the base scope of work.

D. Approved Manufacturers.
   1. Eaton
   2. Square D
   3. Other manufacturer as approved by the Owner.

2.19 ACCESSORIES AND APPURTENANCES

A. Safety Signs. The Contractor shall provide a complete safety sign package per NFPA 52 requirements needed for the new equipment. Signs shall be fabricated from metal and all materials and finished surfaces shall be listed for outdoor use and shall be UV resistant.

B. Fire Extinguishers. Provide one (1) 4A:60BC fire extinguisher co-located at each new ESD button location.

C. Spare Conduits. Provide spare buried conduits in common trenches as listed below. Conduit shall be 1" sch 40 PVC UG. Conduit risers shall terminate 4"-6" AFF and shall be constructed of PVC-coated RGS and shall include a treaded galvanized-steel cap. Provide pull strings.

   1. Between CNG SWBD and main SWBD.

   2. Between CNG compressor control panel and the CNG SWBD.

3. Between genset ATS and compressor skid.

D. Protection. See article 3.04.A for requirements for protection of equipment.

2.20 CATHODIC PROTECTION SYSTEM

A. General. Provide sacrificial-type cathodic protection system for all steel piping that is directly buried. Provide magnesium anodes with test stations as required. System shall be designed by a professional or firm that is experienced in the design of cathodic-protection systems, and as approved by the Owner. If SS lines are routed underground in continuous polyethylene sleeves that are rated for burial, CP system is not required.

B. Test Stations. Stations shall be contained in pre-cast hand holes or boxes set at grade, and lids shall be marked with 'CP'. Test terminals shall be labeled.

C. Insulation. Transition of buried pipe to above-grade pipe shall include insulating kits at first available flange.

2.21 PREFABRICATED STORAGE UNIT

A. General. Provide pre-engineered and pre-fabricated storage unit, complete with concrete pad, anchorage, and interior lighting.

B. Requirements. Unit shall be min. 8' x 8', be fabricated from steel and include a lockable roll-up door. Provide with 100W equivalent LED light fixture and wall switch inside. Lighting, conduit and switch shall be Division 2, if unit is located < 15 ft. from compression, storage and ancillary equipment.

2.22 AREA LIGHTING

A. General. Provide LED lighting in compressor-equipment compound that is suitable for nighttime maintenance work. Lighting levels shall be min. 300 LUX throughout inside of equipment compound. Provide 'dark sky' cutoff fixtures. Include photo switch with manual override. Provide power from 1-phase transformer and contactor integrated with CNG MCC.

B. Codes. Lighting shall be class 1 division 2 as required. Provide Title 24 documentation with 60% and 90% drawings.

2.23 VENTILATION AT FUELING CANOPY

A. General. Provide two (2) passive mechanical ventilators on roof of fueling canopy, above each of two (2) bus-fueling positions. Provide flashing and sealant at and otherwise repair roof penetrations as needed to be rain tight.

B. Requirements. Ventilators shall have throat dimensions of 18" x 36" and be aligned over the center of their respective service lanes, with exact locations along lane length to be coordinated with the Owner. Provide roof flashing and roof mastic as needed to make penetrations in roof rain tight.

C. Manufacturers. Provide Loren Cook model TRE-18X36X3TIER or approved equal.

PART 3 - EXECUTION

3.01 GENERAL

A. Execution is described in the respective Product description of this section, except as otherwise described within article 3 of this section.

B. All components and equipment shall be installed according to the respective manufacturers' instructions and recommendations. Industry-standard practices shall apply if no manufacturer instructions exist.

D. The Contractor shall coordinate location and timing of all excavation and open trench work that may affect the normal movement of vehicles and personnel on the job site. The Contractor shall also provide trench plates as required for the traffic they may be exposed to until trenches are repaired to match surrounding grade.

E. Contractor shall install all equipment, as listed herein and on project drawing D-501. This shall include the following work:

1. Facilitate and coordinate shipping, receive and offload equipment at the project site, including inspecting the equipment with the Owner at time of delivery and documenting its condition.

2. Set, anchor, wire, plumb, pipe, terminate and make all mechanical and electrical systems ready to initialize, as directed by the written instructions of the manufactures of all equipment.

3. Facilitate and coordinate the field-startup services of equipment manufacturers for all equipment that is provided by the Owner and the Contractor, though the field labor and travel expenses for the startup services of Owner-provided equipment will be paid by the Owner.

3.02 WORKMANSHIP

A. Labor shall be performed by mechanics skilled in their particular trade. Pipe and equipment shall be installed square and plumb accessible for proper operation and service. Installation shall be consistent with completeness and appearance whether concealed or exposed.

B. Seals and Sealants. Seals and sealants that are exposed to natural gas or CNG shall be compatible with natural gas as well as the PAG-type compressor-lube oil as applicable.

3.03 SAWCUT AND REPAIR

A. Demolition. All concrete and AC pavement that is excavated shall be saw cut in neat and straight lines. No saw overcuts will be allowed.

B. AC Pavement Repairs. Repairs, including for trench work, shall be made to match pre-demolition conditions, including thickness and approximate color. Apply new pavement over 6-inch Class II aggregate base, 95% compacted.

C. Concrete Repairs. Repairs, including for trench work, shall be made to match pre-demolition conditions, including thickness and approximate color. Contractor shall install No. 5, 18" long smooth steel dowels at 18-inches on center, epoxy embedded in concrete pavement slab using epoxy compound. Replacement concrete pavement section shall be 8-inch PCC, 3000 PSI mix design, but no special inspection required, with #4 rebar at 18-inch on-center, each way over 6-inch Class II aggregate base, 95% compacted

3.04 PROTECTION OF EQUIPMENT

A. General. CNG compression, storage and dispensing equipment shall be protected against unauthorized entry and vehicular impact. The CNG equipment compound shall be secured by 8 ft. tall x 8" thick CMU wall, or other lesser wall/fence as directed by the Owner. Protect electrical equipment and dispensers with concrete-filled pipe bollards as located on the drawings, or by means otherwise required by the AHJ's.

B. Fence and Gates. Provide 6' tall chain-link fence with one (1) 4' swing gate and one (1) 10' rolling gate around upgrade CNG equipment compound. Gates shall be lockable. Abut and secure new fence to existing fence around LCNG compound. Match height, toping and style of existing fencing and provide posts at max. spacing of 10' O.C., set into 12" dia. x 24" deep concrete footers.

C. Bollards. Pipe bollards shall be set plumb then filled with concrete and painted safety yellow and have a finished ht. of at least 3'-6" AFF.

1. Fixed bollards shall be constructed from 6'-6" long x 6" diameter sch 40 CS pipe that is set into a poured concrete footer measuring 36" deep x 18" diameter.

2. Removable bollards shall be constructed from 6'-6" long x 6" diameter sch 40 CS pipe that is placed into an 8" dia. sch 40 pipe sleeve. Provide steel lifting D-rings welded to top of two sides of removable bollards. Sleeves shall be 3' long and set flush with grade, and be set into a poured concrete footers measuring 36" deep x 18" diameter. Provide removable bollards along west side of compressor skid and aligned with 10' rolling gate.

3.05 PIPING AND APPURTENANCES

A. General. Seamless stainless steel tubing, stainless steel pipe, or seamless carbon steel pipe shall be used to conduct CNG. Piping between the valve panel and each time fill CNG post shall consist of a stainless steel tubing manifold per drawings. Piping between the valve panel and fast fill dispensers shall be per drawings.

1. Service Pressure. Piping, tubing and appurtenances downstream of compressor discharge shall have a manufacturer-rated working pressure of 5,000 PSI, in accordance with ANSI B31.3, *Process Piping*.

2. Shipping. While in transit, all hose and flexible metal hose and tubing, including their connections, shall be protected from wear or injury and shall be capped.

3. Markings. Hose, metallic hose, flexible metal hose and tubing shall be distinctly marked either by the manufacturer's permanently attached tag or by distinct markings every five

(5) feet indicating the manufacturer's name or trademark, material grade, service and working pressure.

4. Dissimilar Metals. Connections between dissimilar metals shall include dielectric insulation. This includes piping and other metallic connections.

5. Blowdown Tees. Within specified equipment, piping and high-pressure tubing systems and sections shall be equipped with blocking ball valves and blowdown tees or needle valves to facilitate equipment maintenance. Blowdown valves shall discharge in a manner that directs the discharging gas safely away from the person using the blowdown valve. Discharge lines on blowdown valves shall be equipped with threaded end caps to seal the line in normal service, so as to prevent accidental line depressurization and gas release. Block valves and blowdown tees shall be provided at all filter locations for safe depressurization of filter housings.

B. Pipe Routing. All gas, CNG and control-air piping inside the CNG-equipment compound shall be located and routed aboveground, unless shown as dashed piping on the plan drawings. Piping may be installed below grade, if it is installed in a pre-cast concrete pipe trench that is covered and rated for traffic and loads to which it may be exposed. Piping shall be ganged on common runs, racks and carriers where appropriate and shall be insulated against cathodic action and contact with dissimilar metals. Piping and tubing outside of the compound shall be routed underground.

C. Piping.

1. Pipe Specification. Pipe containing flammable material shall be seamless carbon steel manufactured in accordance with ASTM A-106 Grade B. All pipe, fittings and other piping components shall be suitable for the full range of pressures, temperatures and loadings to which they may be subjected with a factor of safety of at least four (4). Any material used, including gaskets and packing, shall be compatible with natural gas and its service conditions.

2. Connections.

a. Small Pipe Connections. For 2-inch or under nominal pipe size with maximum operation pressure greater than 15 PSIG, the connections shall be socket welded in accordance with ASME/ANSI B31.3, except that twenty five (25) percent random dye-penetrant examination and one hundred (100) percent visual examination is required. Each weld shall be de-scaled and internally cleaned from any welding slag. Documentation of examination shall be transmitted to the Owner within five (5) working days of examination. One hundred (100) percent of pipe welds made outside of the CNG-equipment area shall be inspected via dye-penetrant examination.

b. Large Pipe Connections. For over 2-inch nominal pipe size with maximum operation pressure greater than 15 PSIG, the connections shall be butt welded in accordance with ASME/ANSI B31.3 except that twenty five (25) percent random radiographic x-ray examination and one hundred (100) percent visual examination is required. Each weld shall be de-scaled and internally cleaned from any welding slag.

Documentation of examination shall be transmitted to the Owner within five (5) working days of examination.

c. Flange Joint. Flanges shall be in accordance with ANSI B16.5. Weldneck raised face flanges shall be used unless specified otherwise. Ring-type joints or spiral-wound metallic gaskets with centering ring shall be employed for ANSI class 900 flanges or higher.

d. Sealing. Threaded pipe joints shall be seal welded. However, seal welding is not required on instruments or where disassembly is required for maintenance.

e. Pre-start Pipe Cleaning. All piping sections between packaged components that include piping or tubing shall be blown clean prior to connection to equipment. Blow out shall be achieved by closing the downstream end of pipeline with a 5,000 PSI-rated ball valve, connecting a minimum 1,650 PSI-source pressure vessel to the upstream end of the pipeline, opening supply valve at source so that minimum 750 PSI accumulates in pipeline, then opening outlet ball valve to atmosphere. Procedure shall be repeated until no solid or particulate matter is discharged from the pipeline.

1) Personnel opening and closing ball valve at downstream end shall take care to keep clear of the discharge path of the blowout, and shall wear eye and ear protection during procedure.

2) Direction of blowout flow shall be performed in both directions if possible.

3) The Contractor shall take care to clear area at pipeline discharge to prevent property damage or injury during procedure.

f. Startup Filtration. 'Witch's hat' or similar strainer devices shall be installed where practical at termination of such piping sections prior to system startup and shall be checked, cleaned and replaced by the Contractor as required until all residual pipe debris has been removed.

3. Pipe Fabrication. All internal pipe surfaces of piping between components shall be cleaned over its entire length, removing dirt, debris and loose corrosion products before pipe is lined up for welding. The open ends of all strings of pipe shall be kept securely closed to prevent the entrance of dirt, debris, water or animals into the pipe.

4. Field-applied Paint. All aboveground carbon steel pipe, pipe supports and pipe bollards shall be painted using a suitable industrial maintenance coating, including exterior grade, and resistance to UV. Surface preparation and selection and application of primer and finish coat shall conform to the paint manufacturer's written instructions.

D. High-Pressure Tubing.

1. Tubing Specification. Gas tubing shall be stainless steel ASTM A-213 or ASME SA213 cold drawn, bright annealed seamless tubing. Tube material shall be Type 316 stainless steel.

2. Installation of Tubing and Tube Fittings. Swagelok, Parker A-Lok, or Hoke tube fittings shall be used. The Contractor shall use tube fittings from a single manufacturer throughout a prepackaged component, so as to simplify use and consistency of appropriate repair parts. Type 316 stainless steel fittings shall be used with stainless steel tubing smaller than ¾", and Zinc coated carbon steel Parker seal 1010c will be used for fittings ¾" and larger. Manufacturers' personnel who install tubing and tube fittings shall be trained and certified by the fitting manufacturer for such activity, and proof shall be provided. Tubing shall be installed neatly and in a workman-like manner as per manufacturer's design and recommendation. All tubing shall be properly anchored, supported or pitched and shall be protected from impact. As CNG tubing dilates and contracts in response to its wide range of operating pressures, Parker ParKlamp assemblies, or approved similar resilient anchors, shall be used to support gas tubing. Parker Seal-lok fittings shall be used for tube fittings for tubing ¾" or larger.

3. Valve Clearance. All valves shall be accessible for easy operation and maintenance.

E. Instrument Piping. Provisions shall be made in installation of piping and tubing to accommodate field servicing and calibration of instruments.

F. Valves.

1. General. All valve bodies shall be permanently marked by the manufacturer with their service pressure ratings, suitable submittal for specific valves is required if not marked by the manufacture.
2. Shut-off Valve. A full-port manual ball valve shall be installed immediately downstream from the connection to each compressor-discharge line and the skid outlet line, to facilitate servicing.
3. Compressor Discharge Check Valve. A backflow preventer (check valve) shall be provided at each high-pressure outlet, in order to prevent backflow into the compressors from ancillary equipment. Backflow preventers shall be suitable for use at the maximum pressure to which they are subjected. Each compressor discharge line shall be provides with a check valve and a manual ball valve, which can be either inside or outside of the skid.
4. Pressure Relief Valves. Pressure relief valves installed to protect each isolated piping system shall have sufficient capacity and shall be set to open at a pressure not exceeding 125% of system MAWP or the pressure which produces a hoop stress of 75% of specified minimum yield strength, whichever is lower. Pressure relief valve (PRV) shall be of the following type, or equal: Anderson Greenwood or Mercer type constructed of either stainless steel or carbon steel, having an orifice size appropriate for the pressure and volume/rate that it is protecting.
5. Stamping. All relief valves shall be ASME rated and stamped with their set pressure and date of setting by manufacturer. Date stamp shall be less than twelve (12) months from date of delivery to site.
6. Control. There shall be no shutoff means in the discharge line of a pressure-limiting device or between the relief valve and the pressure source that it controls.
7. Relief Valve Venting. Each relief valve shall be connected to a vent pipe constructed of schedule 80 carbon steel pipe with primed and epoxy coating, or approved equal coating. The vent pipe shall vent released gas at an elevation ten (10) feet above grade or another approved, safe location and shall be properly anchored and supported against anticipated vent force. Escaping gas shall not impinge on a vessel, valves or fittings.

Except for safety valves that are integral with service valves, relief-valve vent pipes on tanks shall be installed in a vertical position and shall be fitted weep holes at the low point of the pipe.

8. Relief Valve Vents. Each vent pipes shall be capped with rain caps as a means of preventing the entry of water and debris.
9. Prohibited Pressure Relief Devices. Fusible plugs and/or rupture plugs are prohibited for primary relief devices.
10. Actuated Valves. All valves requiring automatic actuation shall be ball type with port sizes not smaller than the largest line connection. Actuators shall be pneumatic, and matched to valve, subject to the Owner's approval. Solenoid valves or actuation by regulated gas or electric operators are prohibited unless specifically approved by the Owner during facility design and submittal review.

3.06 LABELING

A. Major Equipment. The manufacturer shall provide a stainless steel, etched aluminum, or brass nameplate on each major item of equipment. The nameplate shall be mechanically affixed and shall be embossed with the manufacturer's name, address, model number, serial number, pressure rating and flow capacity.

B. Valves. The Contractor shall provide a uniform brass, etched aluminum, or stainless steel embossed nameplate on or adjacent to valves located as listed below. The nameplate shall be mechanically affixed.
   1. All dryer valves.
   2. Gas and CNG connections at the exterior perimeter of the compressor skid.
   3. CNG valves and connections at the valve panel.
   4. All valves for the control-air system.
   5. CNG connections at the dispensers.

3.07 FIELD-STARTUP SERVICES

A. General. The Contractor shall provide field-startup services from manufacturers' authorized representatives and vendors, including on-site assistance as required for the following equipment:

   1. Compressor skid, including control panel, MCCs and remote-communication panel.
   2. Gas dryer.
   3. Dispensers.
   4. Valve panel.
   5. Defueling panel.
   6. Backup generator and MTS.

B. Joint Vendor Meetings. The Contractor shall facilitate joint, on-site meeting(s) consisting of technicians from the Contractor, the Contractor's electrical subcontractor, the Contractor's mechanical-piping subcontractor, CNG-skid manufacturer, dryer manufacturer, valve-panel manufacturer, dispenser manufacturer, and fuel-management vendor. First joint meeting shall be conducted upon completion of all mechanical connections, final terminations and energizing of all systems listed herein, for the purpose of coordinating debugging activities. The Contractor shall facilitate as many such joint meetings as may be required to achieve final acceptance and test compliance as described under article 1.10 and article 3.06.

3.08 ADJUSTING, BALANCING AND TESTING

A. After completion of the installation, start, regulate, adjust and test all equipment and devices. Testing will be performed by the installing contractor under a separate contract, or by the Owner. Any failure will be the responsibility of the Contractor under this procurement to remedy, if the fault is verified to be related to the equipment and not the installation.

B. Functional Tests.

1. Leak tests of high-pressure CNG piping sections, systems and appurtenances shall be performed by maintaining a nitrogen charge of 110 percent of its respective working pressure for a duration of thirty (30) minutes with charge source disconnected. The tests shall use a gauge that is scaled to between 110 percent and 200 percent of the test pressure. Piping and tubing shall also be subject to soap-bubble testing. Alternate hydro-pressure test may be performed, based on approval of method by the Owner and AHJs.

2. Functional Testing. At minimum, successful completion of the following functional tests shall be required.

    a. ESD / emergency shutdown at all button/station locations, including required valve closures.
    b. Low suction pressure, each skid (close skid-supply ball valves).
    c. Temperature-compensated dispenser fill for each dispenser, including correct dispenser start on button, auto-stop on fill completion, and verify 'settled' fill pressure vs. ambient temperature two (2) hours following fills. Must be within 4 percent of design-fill pressure, temperature compensated to 70ºF.
    d. Correct operation of fuel-management system at each dispenser, including authorization of transaction, energizing of dispenser, and recording of transaction data (fill volume, time/date stamp, event ID, and pump number).
    e. Manual initiation of dryer regeneration.
    f. Correct annunciation on controller / PLC shall be required for all test events, as appropriate.
    g. Observe compressor operation, including stage pressures and temperatures, and verifying function of controller, including triggering selected faults, such as high interstage temperature.

C. Reliability Test. Reliability test shall consist of fueling under normal-use conditions for four (4) consecutive work days. System shall have no failures of compressor operation, dryer operation, normal dispenser operation, or operation of the fuel-management system during the test period. If any failure occurs, the test shall be repeated in its entirety. Final acceptance of the facility shall only be declared upon successful completion of the test. The Contractor shall be responsible for all onsite coordination of troubleshooting and coordination of suppliers and trades during test.

1. Failure is defined as the occurrence of any of the following:
    a. Inability of the CNG system to dispense CNG at the pressures and rate specified, including accounting for temperature compensation at settled conditions.
    b. Failure of the dryer to provide dried gas or not be able to auto switch or regenerate as applicable.

c. Failure of a compressor to start and run within factory-listed operating pressures and temperatures.
d. Failure of the controller/PLC, valve panel, fuel-management system and/or dispensers to operate as specified.
e. Presence of an audible or visible gas or CNG leak.
f. Occurrence of an auto-fault shutdown of either or both CNG compressors, except those caused by ESD-button activation, gas-detection system outside of skids, variations in gas supply pressure, or damage to the facility beyond the Contractor's control.

3. The Contractor may take equipment offline for scheduled maintenance during the test period, provided maintenance is consistent with manufacturer's recommendations, and does not impinge on the Owner's ability to fuel vehicles during the normal daily fueling window between 4:00PM and 12:00AM (midnight). The Owner may modify the nightly fueling window at its discretion. The Contractor shall be responsible for maintenance through successful completion of test, including provision of consumables.

2. Corrective work conducted by the Contractor and all subcontractors and suppliers preceding and during the performance test shall be documented at the time of the repair by the technician performing the repair. If the technician suspects a cause of fault that is beyond the scope of his respective firm or responsibility, technician shall notify the Owner immediately and shall not implement repairs until condition of failure has been documented and the other firm(s) have been notified and been provided documentation of the condition. The Owner shall not pay the Contractor for any work or repair that is implemented during testing above of the contract amount, unless the work or condition is beyond the control of the Contractor, the Contractor's subcontractors, or the Contractor's suppliers. The Contractor shall notify the Owner in writing of intent to perform any work that the Contractor deems to be outside of the contract scope, prior to performance of any such work.

3.09 OPERATION AND MAINTENANCE DATA AND TRAINING

A. Maintenance Manuals: Organize maintenance and operating manual information into suitable sets of manageable size, and bind into individual binders, properly identified and indexed (thumb-tabbed). Examples: Dryer, CNG compressors, compressor drivers, CNG dispensers, etc. Include emergency instructions, safety procedures, spare parts listings, warranties, guarantee, wiring diagrams, recommended maintenance intervals, inspection procedures, shop drawings, product data, and similar applicable information. Use a standard method for highlighting safety procedures. Bind each manual of each set in a heavy-duty 2-inch, three ring vinyl-covered binder and include pocket folders for folded sheet information. Mark identification on both the front and spine of each binder, including "Volume ## of ##" information.

1. Data:

a. Manuals shall cover the CNG facility as a complete system.
b. Include instructions by manufacturer's representatives where installers are not expert in the required procedures.
1) Review of maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards,

cleaning, and similar procedures and facilities for operational equipment to demonstrate start-up, shut-down, emergency adjustments, and similar operations.

2) Review of maintenance and operations in relation to applicable guarantees, warranties, agreements to maintain bonds, and similar continuing commitments.

2. Format & Delivery.

a. Supply three (3) complete printed copies of all manuals for approval with the commencement of the delivery of the equipment to the site.
b. Supply three (3) electronic versions of the manual on USB thumb drive. PDF version shall be identical to that of the printed versions. All PDF content shall be unified into a common PDF file, be text searchable and shall be organized the same as that of the printed version.

B. CNG Fueling Operation and Maintenance Training.

1. General:

a. At least thirty (30) days prior to scheduled date for commencement of training, submit training syllabus with time allotments per topic and instructional materials to the Owner for review and approval. Upon review of syllabus, the Owner may require additional time be allotted to certain training topics.
b. Where specified, develop and conduct a program to train selected Owner personnel in the safe operating procedures, and maintenance of equipment and systems furnished during the hours required by the Owner. Also include in the training program key hazards and their protectors, and corrective actions for violation of safety rules.
c. Furnish instructors, instructional materials and audio-visual aids and equipment.
d. Begin instruction upon successful completion of Testing as specified in this Section, or as otherwise approved in writing by the Owner.

2. Program content. At a minimum, instruction will include material covered in the operation and maintenance manuals. Organize the training content so that it is directed to A) vehicle fuelers, and B) facility-maintenance personnel. Include at least the following content where appropriate.

a. Theory of operation of CNG system.
b. Practical aspects of operation.
c. Description of system, equipment and components.
d. Functional characteristics of system, equipment and components.
e. Emergency operating procedures.
f. Maintenance procedures.
g. Servicing intervals and schedules.
h. Diagnosis and problem solving (troubleshooting).
i. Repair.
j. All segments characterizing CNG equipment.
k. Instruction manual will contain measurable training objectives.
l. Hazards relative to CNG Facility operations.

m. Conduct preventive maintenance checks and services.
n. Perform general and location Emergency Response.
o. Perform personal precautions in Emergency Situations such as Fires, Leaks or Spills.
p. Perform corrective actions to respond to Emergency Situations such as Fires, Leaks or Spills.
q. Operations and Safety personnel will perform CNG Shop Operations such as Prepare Maintenance Request; Maintain Records for Hazard of CNG Operations.
r. Perform CNG vehicle fueling.
s. Operation, reading, interpretation and resetting of control panel.

C. Special tools or equipment.

1. The Contractor will supply special tools or equipment.
   a. The special equipment or tools are defined as, other than those nominally found in a mechanic's toolbox, necessary for the general upkeep, maintenance and overhaul of the equipment or products contained in equipment and components delivered under this contract.
   b. A list of special tools or equipment will be provided to the Owner. The list must be submitted for approval no later than sixty (60) days after awarding contract.
   c. Any tools not found in the catalogue or over-the-counter of a local supply company is considered a specialty tool or equipment.

D. Duration.

1. Training for maintenance, facility operation and troubleshooting shall be sixteen (16) total hours.
   a. Provide initial eight (8) to twelve (12) hours within five (5) days of startup of the CNG system.
   b. Provide the remaining four (4) to eight (8) hours of follow-up training within three (3) weeks of completion of the initial training sessions.
2. Actual durations for each type of training may be reduced at the discretion of the Owner.

E. Emergency response training.

1. In addition to Maintenance training, the Contractor shall provide emergency response training and facility familiarization to Gardena (LA County) Fire Department personnel as related to faults that may occur during operation of the CNG system and during the fueling of CNG-fueled vehicles at all dispensers. The Contractor shall provide up to two (2) sessions lasting forty-five (45) minutes each, and shall include familiarization of overall facility layout and function, location of service disconnects for gas and electrical connections, demonstration of ESD function and address questions from FD relating to proper response procedures.

END OF SECTION

RFP 2020-05
DESIGN AND BUILD OF A CNG FUELING STATION

ATTACHMENT E

GAS DETECTION AND HEATING MODIFICATIONS

SECTION 28 33 13

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PART 1 - GENERAL

1.01 SUMMARY

A. The project manual, drawings, and general provisions of the Contract, General and additional terms and Conditions of the Contract, and all other Division 01 specification sections, apply to this section.

B. This Section includes the following requirements: Contractor shall design, provide, install, make fully functional and warrant the system to detect natural gas (also described as "Methane" or CH_4) inside the vehicle-repair bays at the project site and provide annunciation, control signals and alarms as specified in this section and related contract drawings. Required equipment includes:

1. Point-infrared (IR) natural gas leak sensors;
2. MODBUS Data transmitters for leak sensors;
3. Microprocessor-based gas detection controller for monitoring leak sensors and controlling addressable relay contacts via MODBUS communication protocol;
4. Human-Machine interface (HMI) for the natural gas detection control panel;
5. Backup battery or uninterruptible power supply for detection system;
6. Audible and visible annunciators;
7. Inter-component wiring and conduit;
8. Control connections to motor starters and power contactors;
9. Control connections to existing facility management control system (FMCS).
10. Telephone auto dialer;
11. Software for control and monitoring at control panel and remotely;
12. Infrared heating system listed for use in CNG vehicle heavy-repair garage.

C. Related Documents: The following documents are related to this technical specification:

1. Preliminary design drawings for modifications to maintenance garage.
2. Preliminary design drawings and specifications for the CNG fueling station.
3. Other project-procurement documents issued by the Owner. The project Owner is the City of Gardena, and may be referred to variously as the City of Gardena, GTrans or Owner.

D. Design Build. The garage-modification project indicated in this specification and accompanying drawings shall be constructed on a design-build basis, which calls for the Contractor to prepare a set of stand-alone, engineered and approved construction drawings for all required disciplines, including mechanical, electrical and structural, as well as appropriate cover sheet. The Contractor's design and construction shall be approved by the Owner and by the City of Gardena Building Department, and the Los Angeles County Fire Department, and shall also comply with the project plans and specifications, except where deviations are approved by the Owner.

1. Contractor shall be responsible for constructing the facility per the listed codes and standards, and shall comply with the requirements of the Authorities Having Jurisdiction (AHJs). Contractor shall provide all equipment, components, material, labor, documentation and warranties required to comply with the plans and specifications.

2. If the Contractor seeks to change any design elements as indicated in the drawings or specifications, the Contractor shall describe and request the changes to the Owner, in writing, and execute any such design changes only after the Owner approves of them, in writing. Contractor shall be responsible for design drawings and details for all such changes that deviate from the approved construction drawings. All drawings and details shall be sealed by a California-Registered Professional Engineer (PE). The design revisions shall be approved by the Authorities Having Jurisdiction (AHJs), when warranted.

E. Other Contractor Responsibilities. Contractor shall also be responsible for designing and constructing the facility per the listed codes and standards, and is subject to complying with the requirements of the AHJ. Contractor shall also be responsible for providing all equipment, components, material, labor, documentation and warranties required to comply with the plans and specifications.

F. Additive Alternates. Pricing for each additive alternate shall be provided net and incrementally to the base work including credit for any items from the base scope that are replaced under the alternate, and shall be complete and turnkey for each listed item. Items shall be procured at the Owner's discretion, including the possibility of procuring none of the additive alternates.

1. Alternate #1: None.

1.02 STANDARDS

A. Comply with all Municipal, County, State and Federal laws, ordinances, rules and regulations governing or relating to building construction, employment standards and public health and safety.

B. The latest enforced editions of the following listed codes, specifications and standards shall be considered an integral part of this specification, to the extent that they apply to the design, manufacture and assembly of the specified equipment. Compliance with the enforced version of following documents as amended by State of California and City of Gardena is mandatory:

1. California Electrical Code.

2. California Mechanical Code.

3. California Fire Code.

4. California Building Code.

5. Sheet Metal and Air Conditioning Contractor's National Association, Inc. (SMACNA), Guidelines for Seismic Restraints of Mechanical Systems and Plumbing and Piping systems.

6. All components for the gas detection system, from sensor(s) to control output will be tested by a recognized NRTL to meet or exceed ANSI/ISA Performance Standard 12.13.01 (2013).

7. The system detectors shall be listed with UL 2075 - Standard for Gas and Vapor Detectors and Sensors, and indicate the gases they are designed to detect.

8. The controller shall be listed with UL 2017 - Standard for General-Purpose Signaling Devices and Systems.

9. Buy America – U.S. Department of Transportation (FTA).

    a. Requirements. The Contractor agrees to comply with 49 U.S.C. § 5323(j), as amended by MAP-21 or its successor and 49 C.F.R. part 661, to the extent consistent with MAP-21, and subsequent amendments to those regulations that may be promulgated. The Contractor also agrees to comply with FTA directives to the extent those directives are consistent with MAP-21, except to the extent that FTA determines otherwise in writing. Buy America requirements state that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waiver requirements are listed in 49 CFR 661.7.

1.03 MATERIALS

A. Furnish and install all items required to make a complete and functioning system and as required elsewhere herein.

1.04 SUBMITTALS

A. Design-Construction Drawing Package.

1. General. The Contractor shall prepare the design-construction drawings so that they are consistent with the general location and configuration of the equipment and systems shown on the conceptual garage modification drawing set. Deviations shall be subject to approval by the Owner. The Contractor's drawings shall including any procured alternates.

2. Stand-Alone Package. Drawing package shall be stand-alone and not part of the drawing package that is to be prepared for the parallel CNG fueling facility that is part of this overall project.

3. Drawings Provided by Owner.

    a. CAD Files. The Owner will provide the Contractor with all CAD files used to prepare the preliminary project drawings. The CAD will be provided as-is, and shall be field verified by the Contractor.
    b. As-Built Drawings. The Owner will provide record drawings from the original construction of the entire bus-maintenance facility. These will be provided on an as-is and unverified basis, and shall be verified by the Contractor.

4. Prepare the following drawings.

    a. Cover sheet showing drawing list, project information, and site map.
    b. Demolition drawings showing existing heating systems to be removed and clarify items to be preserved as applicable.
    c. Site Plans showing the location of detectors/transmitters, controllers, HMIs, alarm stations, battery backup, and auto-dial-out / IP connections. Additional plans for the replacement IR heating system. Provide floor and reflected-ceiling plans as appropriate.
    d. Piping schematic for replacement radiant-heating system, including gas-supply connections, heating pipes, flues, fire boxes, bill of materials. Indicate pipe/tubing diameters and materials.
    e. Wiring plan showing schematic routing of all new line- and low-voltage lines and systems.
    f. Electrical drawings, including a single-line diagram, load schedule, block wiring diagram, conduit and cable schedule, electrical conduit plan, and any required utility details.
    g. Logic drawings, including sequence of operations, equipment schedules, and block-wiring diagrams as needed to convey the systems to be installed, their function under various conditions, and their relationship and interface with existing building systems (fans, etc.).
    h. Any need structural drawings showing equipment supports and bracing.

5. Drawing-Submittal Sequence. Provide drawing submittals at the following development levels:

    a. 30% schematic design
    b. 60% design development
    c. 90% construction documents (plan check submittal)
    d. 100% construction documents (plan-check corrections)

6. Other Design Requirements

    a. Stamping By Professional Engineer. All drawings called for under article 1.04.A. shall be stamped by an appropriate California-licensed Professional Engineer, in accordance with California law.
    b. Format. All drawings shall be prepared on ‘D’ sheets at 24” x 36”. All plan drawings shall include a graphic scale, and a statement of the scale used.
    c. AHJ Corrections. Design revisions and corrections required by AHJ’s shall be provided by the Contractor as part of the project scope.

B. Manufacturers’ Warranties. All manufacturers’ original warranties for material, components and assemblies shall be passed through to the Owner. These are in addition to the comprehensive Facility warranty that is the responsibility of the Contractor.

C. Approvals. Prior to shipping equipment to site, the Owner shall approve all information required under articles 1.03.C.1 and 1.03.C.2.

1. Submittals are required for all pre-packaged equipment listed in this Section, and are subject to approval by Owner. Submittals shall include, the additive alternates procured by the Owner, and include all of the equipment listed below, if ordered:

    a. Infrared-point natural gas-leak sensors and sensor transmitters.
    b. Gas detection system controller and relay panels.
    c. Alarms (visible and audible).
    d. Natural gas detection Human-Machine Interface (HMI) panel.
    e. Backup battery and power supply, or uninterruptible power supply for detection system.
    f. IP data connection module.
    g. Infrared heating system, including solenoids and valves for gas lines.

2. Submittals are required for all listed materials installed between packaged equipment and used in manufacture of prepackaged equipment, and are subject to approval by Owner. Submittals shall include, at a minimum:

    a. Actuated and manual valves.
    b. Tubing and CS piping, unions and joints for natural gas.
    c. Wiring and cables.
    d. Conduits.
    e. Supports, brackets, and appurtenances.

D. Required documentation.

1. The following are required as applicable for each size or type of item listed in article 1.04.C of this Section, as applicable.

    a. Manufacturers' data sheets with dimensional drawings, with pressure rating and testing data for dispenser and other hoses, piping, tubing and valves.
    b. Installation and operating instructions and test procedures.
    c. Recommended maintenance instructions and schedules.
    d. Listing of special tools required for maintenance and testing.
    e. Warranties, including those of the original manufacturer.
    f. Piping and instrumentation shop drawings of supplied equipment.
    g. Electrical and wiring-termination schematics of supplied equipment.
    h. Test data indicating compliance with all normal and specified functions and processes, including gas detection by LEL %, detector locations, alarm response and auto-notification on fault.
    i. Documented compliance with Buy America requirements for all equipment and components as required.

2. Submittal books shall be grouped and tabbed by assembly or logical system, including a front index of contents. All data for a particular packaged system shall be grouped, i.e. Piping and Instrumentation Diagrams, required sub-component listings, shop drawings, test data, etc. Cut sheets or catalog sheets containing multiple product listings shall include marks to clearly indicate actual unit(s) proposed for use, and all submittals shall include a mark or reference indicating intended location of use or application, i.e. ‘3rd

stage pressure relief valve', 'compressor inlet manual ball valve', etc. Submittals shall be provided in searchable PDF documents with logical file names.

1.05 QUALITY ASSURANCE

A. The Specifications and accompanying Drawings are intended to encompass a system that will be complete and which will fit into the available space. As it is not within the scope of the Drawings to show all necessary offsets and obstructions, it shall be the responsibility of the Contractor to install all work in such a manner that it will conform to the space available, avoid obstructions and interferences, preserve headroom, and keep openings and passageways clear.

B. Provide qualified personnel to perform tests and inspections. Personnel qualifications shall be made available to the Owner upon request.

C. All instruments, controls, and other electrical equipment must be qualified for the hazardous area classification where the equipment is to be installed.

1.06 PREPARATION AND COORDINATION WITH OTHER TRADES

A. Coordinate construction work as necessary with other trades to assure proper and adequate interface with all the Work.

B. Where equipment, pipes, electrical conduit and other items are shown in conflict with structural members and other equipment, provide labor and materials required for extensions, offsets, and supports to clear the encroachment.

C. Although such work may not be specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances, and devices incidental to or necessary for a sound, secure and complete installation.

D. Coordinate accepted equipment changes from those scheduled or specified with other trades affected.

1.07 PRODUCT DELIVERY AND HANDLING

A. Materials shall be delivered in the manufacturer's original unopened packaging, labeled to indicate the manufacturer's name and product identification.

B. Delivered materials shall be handled and stored so as to ensure that the packaging and labeling remain intact until the material is installed. Materials shall be stored and protected from ground contact and from the elements.

C. All containers, including internal containers, shall be indelibly labeled to clearly describe their contents. Labels shall show the manufacturer's name and clearly state the equipment type, size and catalog number.

1.08 PROJECT COMPLETION

A. Submit record data, as-built drawings, operating and maintenance manuals, final project photographs, damage or settlement survey, and similar final record information.

B. Deliver tools, spare parts, and similar physical items.

C. Complete start-up testing of specified systems.

D. Provide functional and operational training on use of the detection and alarm system, including theory of operation, troubleshooting, calibration and interpretation of display data. Training shall consist of one (1), four (4)-hour course, held at Owner's garage, for as many as eight (8) staff. Furnish a written course outline for approval by the Owner, at least two (2) weeks prior to the date that the training is given.

E. Remove temporary facilities and services from the project site, along with construction tools and facilities, mock-ups and similar elements.

F. Upon completion of the work, thoroughly clean all exposed portions of the installation, removing all traces of soil, labels, grease, oil, and other foreign material, and using only the type of cleaner recommended by the manufacturer of the item being cleaned.

1.09 INSPECTION, TESTING AND ACCEPTANCE

A. General. The Contractor shall be responsible for proving to the satisfaction of the Owner that the minimum specifications for the detection and alarm system, as described herein, have been met. The Owner will require the execution of various inspections and tests, and furnish written test reports, prior to accepting the leak detection and alarm system as being complete and in compliance with these specifications. Such inspections and tests shall be based on recommendations by the Contractor, as well as the main vendor and manufacturer/vendors of various components and systems of the detection and alarm system. If the Owner determines that such recommended inspections and tests are not adequate, the Owner shall require additional inspections and tests as needed. Neither inspection, witnessing of tests, nor waiving of any such procedures by the Owner shall release the component/system contractor, main vendor or other vendors from full responsibility for compliance with equipment, materials and functional requirements according to this specification.

B. Requirements. The Contractor shall supply the Owner with all manufacturer-recommended installation and start-up procedures for the following systems:

1. Infrared-point natural gas-leak sensors and sensor transmitters.

2. Gas detection system controller and relay panels.

3. Alarms (visible and audible).

4. Natural gas detection Human-Machine Interface (HMI) panel.

5. Backup battery or uninterruptible power supply for detection system.

6. Telephone auto dialer.

C. The Contractor shall also provide test equipment, material and labor during inspection to conduct construction testing and start-up. Construction-inspection procedures will be provided to the Owner to include each of the above components and systems. All tests shall be made available to be witnessed by the Owner to determine compliance with specifications.

D. Documentation and Notification. Recommended procedures for equipment testing during start-up will be submitted in writing to the Owner not more than thirty (30) days after contract award, or not later than two (2) weeks prior to start of testing, whichever occurs first. Off-the-shelf equipment must be accompanied with factory test and inspection reports and manufacturer warranties at the time of delivery to site. The Contractor shall notify the Owner's project manager of all planned start-up tests at least forty-eight (48) hours prior to the scheduled start of testing, so as to give the Owner adequate opportunity witness the testing.

E. Additional Inspections. Additional inspections will be carried out to by the Owner to determine compliance with material and component specifications that may be beyond the scope of jurisdictional inspections. The Owner will prescribe a final punch list following start-up tests and inspections. The content and completion schedule for the punch list will be agreed upon by the Owner, the Contractor and key equipment supplier(s).

1.10 WARRANTY

A. General. The Contractor shall warrant that the detection and alarm system be free from defects in design, installation, workmanship and construction for a period of five (5) years, commencing with the recording of the Notice of Completion. Provided warranty includes parts and labor.

B. Original Component Warranties. All manufacturers' original standard specifications and warranties for material, components and assemblies shall be forwarded to the Owner. These are in addition to the comprehensive leak detection and alarm system warranty that is the responsibility of the Contractor.

C. Warranty Enforcement. In case warranty is invoked, the Contractor shall ensure that the appropriate installer, supplier and/or manufacturer (i.e. contractor or supplier(s)) shall respond with suitable repair or replacement within two (2) working days.

PART 2 - PRODUCTS

2.01 GENERAL

A. New Equipment. All equipment to be supplied by the Contractor shall be in new condition unless otherwise expressly permitted by the Owner and shall include all components, appurtenances, and systems necessary for the leak detection and alarm system to function as described herein.

B. Substitutions. Substitute manufacturers of specific components listed herein may be proposed by the Contractor, and will be approved if the Owner determines that the alternate meets the function, quality and intent of the specified component. Such substitutions shall only be allowed when approved in writing by the Owner.

C. All detection components shall be from the same manufacturer, unless indicated or approved otherwise by the Owner.

D. Acceptable Products.

1. Each significant component specified within Part 2 of this specification includes at least one (1) acceptable product with corresponding manufacturer and model where applicable. These are listed to provide a basis of function and performance.

2. The Contractor may propose the use of alternative or substitute products, but it is the Contractor's responsibility to satisfy the Owner that the proposed substitution meets or exceeds the function and performance of the listed products. This includes provision of complete data sheets, manuals and at least three (3) customer references where the proposed substitution has been in service for at least twenty-four (24) months. Any variation from design drawings needed for alternative or substitute product will be the Contractor's responsibility to verify and design.

2.02 SYSTEM ARCHITECTURE AND FUNCTION

A. Theory of Operation.

1. Project site is a transit-fleet maintenance facility, which requires provisions for maintaining and 'heavy repair' of natural gas vehicles. The Contractor shall design, furnish, install and make operational a natural gas detection system in the maintenance garage as shown on the drawings that meets code requirements and complies with the intent of the specifications and preliminary design drawings that are part of this project. The natural gas detection system shall detect natural gas concentration as a percentage of lower-flammability limit (LFL), aka lower-explosion limit (LEL) of methane in air, initiate audible and visual alarms, start existing exhaust fans, shut down equipment that could be hazardous and automatically notify designated personnel via IP communication. The maintenance facility shall remain operational during construction and start-up.

2. The detection system shall use point-type infrared-absorption natural gas detectors at the locations shown in the drawings. Gas concentration and alarm signals from the detectors will be conveyed to a central programmable controller via a serial-type hard-wired Modbus data highway with addressable detectors. The system shall distinguish low alarms from high alarms, whereby:

   a. "low alarm" corresponds to natural gas concentrations detected that are between 10% and 25% of LFL;

   b. "high alarm" corresponds to natural gas concentrations detected that are 25% or more of LFL.

3. Each gas detector shall be addressable and identified with an assigned ID#. Gas leak detection events shall be automatically and immediately reported upon each detection event by the controller. The report message shall include: ID of detector that has detected gas leak, percentage of concentration of detected gas in terms of LEL, repair bay number in which gas leak has been detected.

4. The detection system shall have four (4) functional zones, that any leak detected in each zone shall cause the controller to initiate alarms and other responses for the indicated zone only.

   a. The Running Repair Bays (bays 1 to 4) shall be identified as 'Zone 1'.

b. The Engine Repair and Inspection Bays (bays 5 to 9) shall be identified as 'Zone 2'.

c. The SM./MED., Tire, and Body Bays (bays 10 to 15) shall be identified as 'Zone 3'.

d. The Chassis Wash (bay 16) shall be identified as 'Zone 4'.

B. Required functions during normal standby operation.

1. While no natural gas sensor is in alarm, the detection system shall:
   a. Continuously monitor all natural gas detectors for malfunctions;
   b. Illuminate a steady green lamp at all alarm stations.
   c. Display sensor data, including ID # and gas concentration being detected, and system status from the controller to authorized remote PC users via TCP-IP protocol.

2. Upon detecting a sensor malfunction, the Controller shall:
   a. Start (or continue running) exhaust fans in the zone(s) containing the malfunctioning detector(s).
   b. Signal the power contactor to disconnect power to welding machine(s) in the garage.
   c. Signal the power contactor to disconnect power to heating systems in the garage, if any.
   d. Shut off all green lamps at the visible alarm stations associated with the zones containing the malfunction item, initiate visible low alarms, consisting of amber lamps and audible alarm consisting of a 'trouble' tone, with exact sound pattern to be coordinated with the Owner.
   e. Start (or continue running) make-up air units near zone(s) containing the malfunctioning detector(s).
   f. Display the malfunctioning sensor or other piece of equipment on the HMI/Controller including location and ID, and visible to authorized remote PC users.
   g. Send an alert email, telephone call, and SMS message to the GTrans fire alarm monitor service, and to up to six (6) assigned supervisory staff reporting ID# of malfunctioning detector or other equipment and its location.

C. Actions required when a natural gas leak is detected. The system shall automatically execute all required responses within three (3) seconds after the alarm or other input signal is initiated.

1. Upon low-alarm condition detected by any natural gas detector, the control system shall perform the following actions only within the zone(s) in which the detection event(s) are located.
   a. Start (or continue running) exhaust fans in the zone(s) containing the malfunctioning detector(s).
   b. Signal the power contactor to disconnect power to welding machine(s) in the garage.
   c. Signal the power contactor to disconnect power to heating systems in the garage, if any.
   d. Shut off all green lamps at the visible alarm stations associated with the zones containing the leak event, and initiate audible and visible low alarms, consisting of amber flashing lamps and a "low alarm" horn tone.
   e. Display the sensor locations giving alarm on the HMI/Controller.

f. Display sensor data, including ID # and gas concentration being detected, and system status from the controller to authorized remote PC users via TCP-IP protocol.
g. Start (or continue running) make-up air units near zone(s) containing the malfunctioning detector(s).
h. Send an alert email, telephone call, and SMS message to RTC fire alarm monitor company, and to up to six (6) assigned supervisory staff reporting ID# of detector that has detected gas leak, percentage of concentration of detected gas in terms of % LEL, and building ID or name, in which gas leak has been detected.

2. Upon high-alarm condition detected by any natural gas detector, the control system shall automatically perform the following actions within the zones in which the detection event(s) are located.

a. Start (or continue running) exhaust fans in the zone(s) containing the malfunctioning detector(s).
b. Signal the power contactor to disconnect power to welding machine(s) in the garage.
c. Signal the power contactor to disconnect power to heating systems in the garage, if any.
d. Shut off all green and amber lamps at the visible alarm stations associated with the zones containing the leak event, and initiate audible and visible high alarm signals, consisting of red flashing lamps and an urgent “high alarm” horn tone.
e. Display sensor data, including ID # and gas concentration being detected, and system status from the controller to authorized remote PC users via TCP-IP protocol.
f. Display sensor data, including ID # and gas concentration being detected, and system status from the controller to authorized remote PC users via TCP-IP protocol.
g. Start (or continue running) make-up air units near zone(s) containing the malfunctioning detector(s).
h. Send an alert email, telephone call, and SMS message to RTC fire alarm monitor company, and to up to six (6) assigned supervisory staff reporting ID# of detector that has detected gas leak, percentage of concentration of detected gas in terms of % LEL, and building ID or name, in which gas leak has been detected.

D. Acknowledgement Stations. Provide an alarm acknowledgement station for each detection system adjacent to each controller. Each station shall consist of a push button for acknowledging methane-leak alarms. Acknowledgment shall shut off only the audible alarms, and leave visible alarms in effect until the natural gas concentration falls below the alarm level(s) and the fault is manually reset at the HMI. The system shall annunciate new alarms after previous alarms have been acknowledged.

E. Test Switches. Provide test switch(s) in the natural gas detection control panel. The switch(s) shall activate exhaust fans, horns and beacons, for testing purposes. Switches shall be selectable for testing system responses to either a simulated low natural gas leak alarm; or a simulated high natural gas leak alarm.

F. Provide signage that describes what each light color and each tone of audible annunciator mean. Include instruction to evacuate building upon detection alarm. Sign shall be affixed at a location visible to all staff.

2.03 SUMMARY COMPONENT DESCRIPTIONS

A. Equipment and components to be installed for the leak detection and alarm system are listed below. Quantities shall be provided as shown on the contract drawings.

1. Infrared natural gas detectors, point type.
2. MODBUS data transmitters for gas detectors.
3. MODBUS-based natural gas detection control & signaling panel.
4. MODBUS wiring for natural gas sensor array.
5. MODBUS relay modules.
6. Visible and audible alarms.
7. Human-Machine Interface (HMI) panel & graphics.
8. IP/network interface card or module.
9. 24 VDC power supply for natural gas detection and alarm systems.
10. Backup battery or uninterruptible power supply for detection system.
11. Acknowledgement and test stations/buttons.

2.04 INFRARED NATURAL GAS DETECTORS, POINT TYPE

A. Provide thirty-four (34) methane detectors. Detectors shall be infrared self-contained optical methane sensors with 4-20 mA analog output that detect gas in range of 0-100% LEL concentration, with accuracy of +/-3% within 0-50% LEL and +/-5% within 51-100% LEL. Detectors shall require recalibration no more frequently than annually. Detectors output shall provide remote alarm, fault and calibration signals. Remote calibration at controller shall be available. Detectors shall be powered by a 24 VDC supply, with 5 watts maximum power consumption.

B. Detectors shall be listed for use in Group D, Class 1, Division 1 hazardous areas, and listed per UL2075.

C. Furnish and install gas detectors at locations, as shown in the contract drawings.

D. Acceptable products.

1. Sensor Electronics Corp. – Millennium Hydrocarbon gas detector, PN: 49000000100L12.
2. Honeywell – Optima Plus.

2.05 TRANSMITTERS FOR GAS DETECTORS

A. Provide seventeen (17) transmitters. Transmitter shall receive input of 4-20mA signal from gas sensors, and shall have outputs for RS-485 MODBUS. Transmitters shall support dual sensors and shall be pre-programmed by the manufacturer for connection to matching detector and for location and installation on a serial-type MODBUS data path. Transmitters shall be rated for Class 1 Div 1 Group D, with back-lighted LCD display, capability of time stamped data logging using a removable memory module.

B. Transmitter shall be suitable for powering by 24V DC supply.

C. Acceptable products.

1. Sensor Electronics Corp. Model SCE 3120;

2. Honeywell XNX Universal Transmitter with MODBUS output option included.

D. Data Wiring. Route MODBUS serial wiring in loop configuration so that the first and last transmitter in the loop are both connected to the MODBUS system at the controller, and as recommended by the transmitter manufacturer.

E. Power Wiring. Route 24V power wiring in loop configuration so that the first and last transmitter in the loop are both connected to the power supply, and as recommended by the transmitter manufacturer.

2.06 NATURAL GAS DETECTION SYSTEM MONITOR, HMI AND RELAY PANEL

A. Furnish one (1) Natural Gas Detection System Monitor, human-machine interface (HMI) and Relay Panel, at each location shown on the contract drawings.

1. The System Monitor shall recognize natural gas detector data transmitters and relay modules on the MODBUS data path. The System Monitor shall be programmable by local input, and at the HMI panel, and shall include password protection for modifying settings or parameters. The System Monitor shall control dry relay contacts wired to the telephone emergency dialer, with separate contacts for separate voice messages for 1) system trouble; 2) low alarm; 3) high alarm. The System Monitor, HMI and Relay panel shall be installed in a non-hazardous area and are not required to be rated for hazardous areas.

2. HMI display shall show status of up to four (4) zones, including green, yellow, orange and red for each zone, with indication based on scaled detection level. HMI display shall indicate percentage of LFL detected at each detector simultaneously with the color status. The System Monitor shall provide outputs for RS485 serial communication, Ethernet with RJ45 connection and IP addressability, and the RS485 Modbus communication protocol. HMI shall include graphic representation of each active zone and location of each detector within each zone, including each detector's status, i.e. green, amber, red, fail.

B. Acceptable products.

1. Sensor Electronics 3500 HMI Operator Interface and System Monitor;

2. Honeywell:
   a. Touchpoint Pro series.

b. HA40 Controller.
c. HA71 Controller.

2.07 MODBUS WIRING FOR NATURAL GAS SENSOR ARRAY

A. Wiring between MODBUS input and relay devices shall be with Beldin-type cable with three (3) #16 conductors and twisted shielded design, and as otherwise required by the manufacturer's written installation instruction.

2.08 MODBUS RELAY MODULES

A. Each MODBUS output relay module shall have MODBUS input and provide eight (8) or sixteen (16) dry-contact outputs. Output shall be rated at either 8A at 30VDC, or 8A at 250VAC. Relay shall be programmed and addressable from the gas detection control panel).

B. Acceptable products

1. Sensor Electronics SEC 3500 relay controller;

2. Equivalent Honeywell output module.

2.09 VISIBLE ALARMS FOR INDOOR AND OUTDOOR

A. Provide visible alarms where shown in the Drawings. Visible alarm shall be illuminated by LED strobe warning light visible in bright daylight. Each visible alarm shall be multi status to indicate different color at each condition, mounted in a NEMA 4X enclosure. Shall be UL listed for use in hazardous locations Class 1, Division 2, Group D, and shall be powered by 120 VAC supply. Lamp shall stay green continuously in normal condition while no natural gas leak alarms is detected. Lamp shall illuminate flashing amber when a low natural gas leak (20%-40% LFL) is detected, and flashing red when a high natural gas leak ($\geq$40% LFL) is detected.

B. Acceptable products

1. Edwards Signaling Chameleon XTRA-BRITE 105XBRiRGA120A.

2.10 INDOOR AUDIBLE ALARMS

A. Provide audible alarms (horns), in locations as shown on the Drawings. Alarms shall be rated at 110 dbA at 10', listed for Class 1, Division 2, Group D hazardous locations; shall be powered by 120 VAC supply, and with volume control.

B. Alarms shall produce distinctly different tones for low alarm versus high alarm. Low alarm shall be a staccato tone with constant frequency, while high-alarm shall be a more urgent sound, such as warbling.

C. All audible alarms for methane-leak detection shall be distinct in tone and pattern from audible fire alarms annunciated in the vicinity of the repair garage, and shall not have a three-tone temporal pattern, which is reserved for the fire alarm.

D. Provide Edwards Electronic Audible Signal 5531M-120Y6

2.11 OUTDOOR AUDIBLE ALARMS

A. Provide audible alarms (horns), in locations as shown on the Drawings. Alarms shall be rated at 114 dbA at 10', and for outdoor usage housed in NEMA 4X enclosure; shall be powered by 120 VAC supply, and with volume control.

B. Alarms shall produce distinctly different tones for low alarm versus high alarm. Low alarm shall be a staccato tone with constant frequency, while high-alarm shall be a more urgent sound, such as warbling.

C. All audible alarms for methane-leak detection shall be distinct in tone and pattern from audible fire alarms annunciated in the vicinity of the repair garage, and shall not have a three-tone temporal pattern, which is reserved for the fire alarm.

D. Provide Edwards Signaling Horn 5520-N5.

2.12 TELEPHONE ALARM DIALER

A. Furnish a rugged industrial alarm dialer, UL listred, controller by the natural gas detection system monitor and relay panel.

1. Dialer shall have not less than three (3) dry contact inputs, and call out with separate stored voice messages upon:
   a. system trouble
   b. low alarm
   c. high alarm.
   d. Dialer shall be capable of calling up to eight (8) 32-digit phone numbers upon alarm.

2. Dialer shall utilize a standard RJ-11 telephone connection.

3. Acceptable Product: Silent Knight 5104, Sensaphone 2000, or equivalent.

2.13 BATTERY BACKUP AND POWER SUPPLY

A. General. Stand-by power source (battery back-up) capable of operating entire detection system continuously, including detectors, control panel, and annunciators up to forty (40) minutes in the event of power outage. Output 24 VDC, input 120 VAC. See electrical drawings for more details.

2.14 INFRARED HEATING SYSTEM

A. General. Provide fully functional natural gas fired Infrared heating system listed for CNG vehicle heavy-repair garage environment. Btu rating and surface area shall match that of the existing system that is being replaced. Use existing gas-supply lines, flues and supports where possible, and provide modified, replacement or added gas-supply lines, flues and supports as required.

B. Burner Boxes. Burners shall be sealed with cast iron combustion chamber, 4" combustion air inlet, and 1/2" FNPT gas connection. Surface temperature of the whole system including heat exchanger pipes shall not exceed 750° F. Provide aluminum top and side reflectors where

shown on plans. Utilize existing aluminum reflectors, if compliant with all requirements and approved by manufacturer.

C. Heating Tubes and Ducts. Provide new tubes, tube heaters, combustion air ducts and vent ducts as required to comply with CNG vehicle heavy-repair garage requirements.

D. Appurtenances. Provide all needed items, per manufacturer recommendation, to upgrade existing heating system for compliance with CNG heavy-repair garage requirements. This includes vacuum pump, controller, filter box, thermostat, and gas regulator. Provide full-port NC solenoid valves at all heater gas-supply lines, with control wires to detector controller. Configure valves to close upon low-level gas detection. Provide full-port ball valves immediately upstream of all solenoid valves.

E. Manufacturer and Models:

1. Provide Detroit Radiant Products Co. heating system. Models: CX3L-30-75N, CX3L-30-50N, CX3L-40-75N.

2. No substitute is acceptable.

PART 3 - EXECUTION

3.01 GENERAL

A. Execution is described in the respective Product description of this section, except as otherwise described within Part 3 of this specification.

B. All components and equipment shall be installed according to the respective manufacturers' instructions and recommendations. Industry-standard practices shall apply if no manufacturer instructions exist.

3.02 SUBMITTALS

A. Submittals shall be presented according to the terms of the contract.

B. Manufacturers' original standard specifications and warranties for material, components and assemblies. These are in addition to the comprehensive leak detection and alarm system warranty that is the responsibility of the Contractor.

C. Approvals. Prior to construction, the Owner shall approve all drawings and other information required under Part 3, section 3.02.

1. Submittals are required for all items listed in this Section, and are subject to approval by AHJs. Submittals shall include but are not limited to equipment listed under Article 2.03.A.

2. The following are required as applicable for each size and/or type of item listed in paragraphs 3.02.E of this Section, as applicable.

a. Manufacturers' data sheets with dimensional drawings.
b. Manufacturers certification complying to ANSI/ISA 12.13.01 (2013)
c. Installation and operating instructions and test procedures.
d. Recommended maintenance instructions and schedules.
e. Special tools required for maintenance and testing.
f. Warranties, including those of the original manufacturer.
g. Wiring diagrams.

D. Items requiring submittals:

1. Infrared-point natural gas-leak sensors and sensor transmitters.

2. Gas detection system controller and relay panels.

3. Alarms (visible and audible).

4. Natural gas detection Human-Machine Interface (HMI) panel.

5. Backup battery and power supply, or uninterruptible power supply for detection and alarm system.

6. Telephone auto dialer.

7. Infrared heating system.

3.03 WORKMANSHIP

A. Labor shall be performed in a workmanlike manner by electricians skilled in their particular trade. Conduit and equipment shall be installed square and plumb accessible for proper operation and service. Installation shall be consistent with completeness and appearance whether concealed or exposed.

3.04 LABELING

A. The manufacturer shall provide a stainless steel nameplate on each major component. The nameplate shall be permanently affixed and shall be embossed with the manufacturer's name, address, model number, serial number, pressure rating and flow capacity as well as the item description, equipment number, and mark number.

3.05 FIELD-STARTUP SERVICES

A. General. The Contractor shall provide complete field startup services for the leak detection and alarm system. The Contractor shall provide appropriate field-startup services from manufacturers and vendors, including on-site assistance from the main vendor.

B. Requirements. The Contractor shall initialize and make fully operational the following:

1. Natural gas sensors and control panel.

2. Telephone emergency dialer.

3. Alarm relays.

4. Control interfaces to building systems controlled by the natural gas detection system

5. Battery uninterruptible power system.

3.06 ADJUSTING, BALANCING AND TESTING

A. After completion of the installation, start, regulate, adjust and test all equipment and devices.

B. Functional testing shall verify that all sensors detect natural gas leaks, give signals, and initiate alarms and other responses as specified. Each sensor's function, and associated building controls initiated by the sensor(s) shall be tested using test gases with methane concentrations at 25% LFL and 50% LFL.

3.07 OPERATION AND MAINTENANCE DATA AND TRAINING

A. Maintenance Manuals: Organize maintenance and operating manual information into suitable sets of manageable size, and bind into individual binders, properly identified and indexed (thumb-tabbed). Examples: natural gas sensors, ventilators, pull stations, etc. Include emergency instructions, safety procedures, spare parts listings, warranties, wiring diagrams, recommended maintenance intervals, inspection procedures, shop drawings, product data, and similar applicable information. Use a standard method for highlighting safety procedures. Bind each manual of each set in a heavy-duty 2-inch, three ring vinyl-covered binder and include pocket folders for folded sheet information. Mark identification on both the front and spine of each binder, including "Volume ## of ##" information.

1. Data:
    a. Include all necessary information required for operation and maintenance of the equipment in the main text of the manuals and sufficient in itself for the purpose intended.
        1) Include manufacturer's leaflets (in original form) only to supplement the manual text and fully cross-reference to it.
    b. When incorporating manufacturer's leaflets, data and nomenclature, black items not related to the specific items(s) supplied or dearly indicated as not applicable.
2. Quantity and Delivery: Supply three (3) complete manuals for approval with the commencement of the delivery of the equipment to the site.

B. Leak detection and alarm system training.

1. General:
    a. At least fourteen (14) days prior to scheduled data for commencement of training, submit details of the training program and instructional materials to the Owner for review and approval.
    b. Where specified, develop and conduct a program to train selected Owner personnel in the safe operating procedures, and maintenance of equipment and systems furnished during the hours required by the Owner. Also include in the training program key hazards and their protectors, and corrective actions for violation of safety rules.
    c. Furnish instructors, instructional materials.
    d. The Owner is to furnish physical facilities and equipment.
    e. Begin instruction upon successful completion of Testing as specified in this Section.

2. Program content: At a minimum, instruction will include material covered in the operation and maintenance manuals as well as the following:
    a. Theory of operation.
    b. Practical aspects of operation.
    c. Description of system, equipment and components.
    d. Functional characteristics of system, equipment and components.
    e. Emergency operating procedures.
    f. Location, removal and reinstallation of components.
    g. Maintenance procedures.
    h. Servicing intervals and schedules.
    i. Diagnosis and problem solving (troubleshooting).
    j. Repair procedure.
    k. Hazards relative to leak detection and alarm system operations.
    l. Conduct preventive maintenance checks and services.
    m. Review emergency responses to be performed in the event of a natural gas leak.

C. Special tools or equipment.

3. Vendor will supply special tools or equipment.
    a. The special equipment or tools are defined as, other than those nominally found in a mechanic's toolbox, necessary for the general upkeep, maintenance and overhaul of the equipment or products contained in coaches delivered under this contract.
    b. A list of special tools or equipment will be provided to Owner. The list must be submitted for approval no later than thirty (30) days after awarding contract.
    c. Any tools not found in the catalogue or over-the-counter of a local supply company are considered a specialty tool or equipment.

D. Emergency response training.

1. The Contractor shall provide emergency response training and system familiarization for Fire Department and facility maintenance personnel.

END OF SECTION

ATTACHMENT F

CONTRACT DOCUMENTS

CONTRACT DOCUMENTS

RFP. No. 2020-05

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 20_____, by and between CITY OF GARDENA in the State of California, hereinafter referred to as "CITY" and_____, hereinafter referred to as "CONTRACTOR."

The City and the Contractor mutually agree as follows:

ARTICLE I.

THE PROJECT

For and in consideration of the mutual promises set forth herein, Contractor agrees to perform and complete in a good and workmanlike manner all work required by the Contract Documents for City Project No. _____, which is described as follows:

Title: DESIGN AND BUILD OF A CNG FUELING STATION

Said work shall be performed in accordance with the Plans, Specifications and other Contract Documents, all of which are referenced in Article III hereof and incorporated herein as though fully set forth. Contractor shall furnish at its own expense all labor, materials, equipment and services necessary therefor, except such labor, materials, equipment and services as are provided in the Contract Documents to be furnished by City.

ARTICLE II.

CONTRACT SUM AND PAYMENT

For performing and completing the work in accordance with the Contract Documents, City shall pay Contractor, in full compensation therefor, the contract sum set forth in the Bidding Schedule. Said sum shall constitute payment in full for all work performed hereunder, including, without limitation, all labor, materials, equipment, tools and services used or incorporated in the work, supervision, administration, overhead, expenses and any and all other things required, furnished or incurred for completion of the work as specified in the Contract Documents. City shall make payments to Contractor on account of the contract sum at the time, in the manner, and upon the conditions specified in the Contract Documents.

ARTICLE III.

CONTRACT DOCUMENTS

The Contract Documents, which constitute the entire agreement between the City and the Contractor, are enumerated as follows: Request for Proposal Document in its entirety,; this Agreement; Specifications;; Technical Provisions; Drawings; Plans; any Best and Final Offer, and all addenda issued prior to and all modifications issued after the execution of this Agreement. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

ARTICLE IV.

EFFECTIVE DATE

This Agreement shall become effective and commence as of the date set forth below on which the last of the parties, whether City or Contractor, executes said Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and attested by their proper officers thereunto duly authorized.

CITY

By:_____
MAYOR (Sign)

Date: _____

SEAL

Attest:
By: _____
CITY CLERK (Sign)

Date:_____

CONTRACTOR

By:_____
Sign / Title

Date: _____

Attest: (Contractor)

By:_____
Sign / Title

Date: _____

APPROVED AS TO FORM:

By:_____
CITY ATTORNEY (Sign)

Date:_____

CONTRACT DOCUMENTS

RFP. No. 2020-05

FAITHFUL PERFORMANCE BOND

WHEREAS, the City of Gardena has awarded to _____, hereinafter designated as the "Principal", a Contract for:

PROJECT: DESIGN AND BUILD OF A CNG FUELING STATION

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, we, _____
as Principal, and _____
as Surety, are held and firmly bound unto the City in the sum of _____
_____
Dollars ($_____), this amount being not less than one hundred percent (100%) of the total Contract price, lawful money of the United States of America, for payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. In case suit is brought upon this bond, the Surety will pay all court costs and reasonable attorneys' fees to the City of Gardena in an amount to be fixed by the court.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the said Contract and any alteration thereof, made as therein provided, all within the time and in the manner therein designated and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition, or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City is the principal beneficiary of this bond and has all rights of a party hereto.

This bond shall remain in full force and effect for a warranty period of one full year after acceptance of the job by the City.

IN WITNESS WHEREOF, three (3) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and

Surety named herein, on the_____ day of_____, 20___, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

[PRINCIPAL]

By _____

Title _____

_____

Signature

[SURETY]

By _____

Title _____

Address _____

_____

Phone No. _____

_____

Signature

All signatures must be notarized.

Appropriate modifications shall be made to this form if the bond is being furnished for the performance of an act not provided for by agreement.

Corporations must affix corporate seal.

CONTRACT DOCUMENTS

RFP. No. 2020-05

PAYMENT BOND

WHEREAS, the City of Gardena has awarded to _____, as Contractor, a contract for the work described as follows:

PROJECT: DESIGN AND BUILD OF A CNG FUELING STATION

AND WHEREAS, said Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen and other persons, as provided by law;

NOW, THEREFORE, we, the undersigned Contractor and Surety, are held firmly bound unto the City in the sum of _____, Dollars ($_____) this amount being not less than one hundred percent (100%) of the total Contract price, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if said Contractor, its heirs, executors, administrators, successors, assigns, or subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, or any other amounts due to persons under any applicable project contract or law, with respect to such work and labor, then the Surety or Sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said Surety will pay all court costs and reasonable attorneys' fees to the plaintiff(s) and City in an amount to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Further, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition, or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849.

This bond shall remain in full force and effect for six full months after the period in which verified claims may be filed as provided for in Section 3184 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this_____day of _____20_____.

[PRINCIPAL]

By _____

Title _____

_____

Signature

[SURETY]

By _____

Title _____

Address _____

_____

Phone No. _____

_____

Signature

All signatures must be notarized.

Appropriate modifications shall be made to this form if the bond is being furnished for the performance of an act not provided for by agreement.

Corporations must affix corporate seal.

CONTRACT DOCUMENTS

RFP. No. 2020-05

WORKER'S COMPENSATION INSURANCE CERTIFICATE

The Contractor shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

> I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of the Contract.

DATED:_____

_____
CONTRACTOR

By_____
Signature

_____
Title

ATTEST:

By_____
Signature

_____
Title

CONTRACT DOCUMENTS

RFP. No. 2020-05

INDEMNIFICATION AND HOLD HARMLESS AGREEMENT AND WAIVER OF SUBROGATION AND CONTRIBUTION

DESIGN AND BUILD OF A CNG FUELING STATION

To the fullest extent permitted by law, Indemnitor hereby agrees, at its sole cost and expense, to defend, protect, indemnify, and hold harmless the City of Gardena and its respective elected officials, officers, attorneys, agents, employees, volunteers, successors, and assigns (collectively "Indemnitees") from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, or other professionals and all costs associated therewith (collectively "Liabilities"), arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to any act, failure to act, error, or omission of Indemnitor or any of its officers, agents, servants, employees, subcontractors, materialmen, suppliers or their officers, agents, servants or employees, arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to the above-referenced contract, agreement, license, or permit (the "Agreement") or the performance or failure to perform any term, provision, covenant, or condition of the Agreement, including this indemnity provision. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence. This indemnity provision shall survive the termination of the Agreement and is in addition to any other rights or remedies which Indemnitees may have under the law. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity provision, and an entry of judgment against an Indemnitee shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision. Indemnitor shall pay Indemnitees for any attorney fees and costs incurred in enforcing this indemnification provision. Notwithstanding the foregoing, nothing in this instrument shall be construed to encompass (a) Indemnitees' sole negligence or willful misconduct to the limited extent that the underlying Agreement is subject to Civil Code 2782(a), or (b) the contracting public agency's active negligence to the limited extent that the underlying Agreement is subject to Civil Code 2782(b). This indemnity is effective without reference to the existence or applicability of any insurance coverages which may have been required under the Agreement or any additional insured endorsements which may extend to Indemnitees.

Indemnitor, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees, while acting within the scope of their duties, from all claims, losses and liabilities arising out of or incident to activities or operations performed by or on behalf of the Indemnitor regardless of any prior, concurrent, or subsequent active or passive negligence by the Indemnitees. Accountants, attorneys, or other professionals employed by Indemnitor to defend Indemnitees shall be selected by Indemnitees.

In the event there is more than one person or entity named in the Agreement as an Indemnitor, then all obligations, liabilities, covenants and conditions under this instrument shall be joint and several.

"Indemnitor"

Company/Contractor _____

Name & Title _____

Signature & Date _____

CONTRACT DOCUMENTS

RFP. No. 2020-05

INSURANCE

CERTIFICATION OF INSURANCE (COI) SHALL BE SUBMITTED BY THE CONTRACTOR

1. **COMMENCEMENT OF WORK**. Contractor shall not be authorized to commence Work under this Contract until it has obtained approved insurance. Before beginning Work hereunder, during the entire period of this Contract, for any extensions hereto, and for periods after the end of this Contract as may be indicated below, Contractor must have and maintain in place not less than the insurance coverages required in this Section at his sole cost and expense. Contractor's insurance shall comply with all items specified by this Contract. Any subcontractors shall be subject to all of the requirements of this Section and Contractor shall be responsible to obtain evidence of insurance from each subcontractor and provide it to City before the subcontractor commences work. Alternatively, Contractor's insurance may cover all subcontractors. The insurance requirements are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this Contract.

2. **INSURANCE COMPANY REQUIREMENTS.** All insurance policies used to satisfy the requirements imposed hereunder shall be issued by insurers admitted to do business in the State of California. Insurers shall have a current Best's rating of not less than A-:VII, unless otherwise approved by City.

3. **COVERAGES, LIMITS AND POLICY REQUIREMENTS**. Contractor shall maintain the types of coverages indicated below:

4. **COMPREHENSIVE GENERAL LIABILITY INSURANCE.** A policy of comprehensive general liability insurance written on a per occurrence basis in an amount not less than either two million dollars ($2,000,000) per occurrence or five million dollars ($5,000,000) aggregate.

5. **COMMERCIAL AUTO LIABILITY INSURANCE**. A policy including all coverages provided by and to the extent afforded by Insurance Services Office form CA 0001, ed. 12/93, including Symbol 1 (any auto) with no special limitations affecting City. The minimum auto insurance coverage shall be one million dollars ($5,000,000) combined single limit per accident.

6. **WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE**. A policy which meets all statutory benefit requirements of the Labor Code, or other applicable law, of the State of California. The minimum coverage limits for said insurance shall be no less than one million dollars ($1,000,000) per occurrence. The policy shall be issued by an insurance company which is admitted to do business in the State of California and shall contain a clause that the policy may not be canceled without thirty (30) days prior written notice, return receipt requested, is mailed to City.

   In accordance with the provisions of section 1860 of the California Labor Code, Contractor's attention is directed to the requirement that in accordance with the provisions of section 3700 of the California Labor Code, Contractor and every subcontractor will be required to secure the payment of compensation of his or her employees, or obtain a certificate of

consent to self-insurance by the Director of Industrial Relations in accordance with the requirements of Section 3700 of the California Labor Code.

In accordance with the provisions of section 1861 of the California Labor Code, Contractor shall sign and file with the awarding body the following certification prior to performing any work on the Project:

> "I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

7. **PROFESSIONAL LIABILITY.** If design/build, with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate.

8. **Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards)** with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate.

9. **OTHER INSURANCE.** Contractor may be required to obtain such other insurance coverage as may be required by applicable law or by the Agency.

10. **EXCESS OR UMBRELLA LIABILITY INSURANCE (OVER PRIMARY).** If an excess or umbrella liability policy is used to meet limit requirements, the insurance must provide coverage at least as broad as specified for the underlying coverages. Any such coverage provided under an excess or umbrella liability policy must include a "drop down provision" providing primary coverage above a maximum $25,000 self-insured retention for liability not covered by primary but covered by the umbrella. Coverage must be provided on a "pay on behalf" basis, with defense costs payable in addition to policy limits. There must be no cross-liability exclusion precluding coverage for claims or suits by one insured against another. Coverage must be applicable to Agency for injury to employees of Contractor, its subcontractors or others performing work to satisfy Contractor's obligations under this Agreement. The scope of coverage provided is subject to approval of Agency following receipt of proof of insurance as required herein. Limits are subject to review, but in no event may be less than $2,000,000 per occurrence and aggregate.

11. **POLICY REQUIREMENTS.** The policies set forth above shall comply with the following, as evidenced by the policies or endorsements to the policies:

    (i) City and its appointed and elected officers, employees, agents and volunteers shall be added as additional insured to the policy as respects liabilities arising out of the performance of any work done under the Contract.

    (ii) The insurer shall agree to provide City with thirty (30) days prior written notice, return receipt requested, of any cancellation, non-renewal or material change in coverage.

    (iii) For any claims with respect to the Project covered by this Contract, Contractor's insurance coverage shall be primary insurance as respects City and its elected and appointed officers, employees, agents and volunteers. Any insurance or self-insurance maintained by City and its elected and appointed officers,

employees, agents and volunteers shall be excess of Contractor's insurance and shall not contribute with it.

(iv) The policy shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the company's liability.

12. **COURSE OF CONSTRUCTION INSURANCE.** Contractor shall provide course of construction insurance covering for "all risks" of loss in the amount of the completed value of the Work. The City shall be named as a loss payee and the insurer shall waive all rights of subrogation against the City. This policy shall be issued by an insurance company which is admitted to do business in the State of California and shall contain a clause that the policy may not be canceled until thirty (30) days written notice, return receipt requested, is mailed to the City. Course of Construction Insurance may be provided for each separate Phase.

13. **ADDITIONAL REQUIREMENTS.** The procuring of required insurance shall not be construed to limit Contractor's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract. City shall notify Contractor in writing of changes in the insurance requirements. If Contractor does not deposit copies of acceptable insurance policies or endorsements with City incorporating such changes within sixty (60) days of receipt of such notice, Contractor shall be deemed in default hereunder.

14. **DEDUCTIBLES.** Any deductible or self-insured retentions must be declared to and approved by City. Contractor shall guarantee that, at the option of the City, either: the insurer shall eliminate or reduce such deductibles or self-insured retentions with respect to City, its officers, employees, agents and volunteers (with additional premium, if any, to be paid by Contractor); or Contractor shall provide satisfactory financial guarantee for payment of losses and related investigations, claim administration and defense expenses in the amount of any deductibles or self-insured retentions.

15. **VERIFICATION OF COMPLIANCE.** Contractor shall furnish City with the required endorsements attached hereto. All documents are to be received and approved by City before Work commences. Not less than fifteen (15) days prior to the expiration date of any policy of insurance required by this Contract, Contractor shall deliver to City a binder or certificate of insurance with respect to each renewal policy, bearing a notation evidencing payment of the premium therefore, or accompanied by other proof of payment satisfactory to City. Contractor shall provide full copies of any requested policies to City within three (3) days of any such request by City.

16. **TERMINATION FOR LACK OF REQUIRED COVERAGE.** If Contractor, for any reason, fails to have in place, at all times during the term of this Contract, including any extension hereto, all required insurance and coverage, City may immediately obtain such coverage at Contractor's expense and/or terminate this Contract. Contractor shall indemnify, defend and hold harmless City and its elected and appointed officers, employees, agents and volunteers from any claim resulting from failure of either Contractor or any subcontractor to take out or maintain any insurance required by this Contract.

17. **EQUIPMENT COVERAGE**. Any policy or policies of insurance Contractor or his subcontractors elect to carry as insurance against loss or damage to construction equipment and tools or other personal property shall include a provision waiving the insurer's right of subrogation against City.

18. **SUBCONTRACTORS.** Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Agency is an additional insured on insurance required from subcontractors. For CGL coverage subcontractors shall provide coverage with a format least as broad as CG 20 38 04 13

19. **SPECIAL RISKS OR CIRCUMSTANCES.** Agency reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage

CONTRACT DOCUMENTS

RFP. No. 2020-05

AUDIT REVIEW PROCEDURES

DESIGN AND BUILD OF A CNG FUELING STATION

A. Any dispute concerning a question of fact arising under an interim or post audit of this Agreement that is not disposed of by Agreement, shall be reviewed by City's Chief Financial Officer.

B. Not later than thirty (30) calendar days after issuance of the final audit report, Contractor may request a review by City's Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by City will excuse Contractor from full and timely performance, in accordance with the terms of this Agreement.

D. Contractor and subcontractor Agreements, including cost proposals and Indirect Cost Rates (ICR), may be subject to audits or reviews such as, but not limited to, an Agreement audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the Agreement, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review it is Contractor's responsibility to ensure federal, City, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The Agreement, cost proposal, and ICR shall be adjusted by Contractor and approved by City Contract Administrator to conform to the audit or review recommendations. Contractor agrees that individual terms of costs identified in the audit report shall be incorporated into the Agreement by this reference if directed by City at its sole discretion. Refusal by Contractor to incorporate audit or review recommendations, or to ensure that the federal, City or local governments have access to CPA work papers, will be considered a breach of Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

E. Contractor's Cost Proposal may be subject to a CPA ICR Audit Work Paper Review and/or audit by the Independent Office of Audits and Investigations (IOAI). IOAI, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. The Cost Proposal shall be adjusted by the Contractor and approved by the City Contract Administrator to conform to the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the Contractor to incorporate the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report will be considered a breach of the Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

1. During IOAI's review of the ICR audit work papers created by the Contractor's independent CPA, IOAI will work with the CPA and/or Contractor toward a resolution of issues that arise during the review. Each party agrees to use its best efforts to resolve any audit disputes in a timely manner. If IOAI identifies significant issues during the review and is unable to issue a cognizant approval letter, City will reimburse the Contractor at an accepted ICR until a FAR (Federal Acquisition Regulation) compliant ICR {e.g. 48 CFR Part 31; GAGAS (Generally Accepted Auditing Standards); CAS (Cost Accounting

Standards), if applicable; in accordance with procedures and guidelines of the American Association of State Highways and Transportation Officials (AASHTO) Audit Guide; and other applicable procedures and guidelines}is received and approved by IOAI. Accepted rates will be as follows:

a. If the proposed rate is less than one hundred fifty percent (150%) - the accepted rate reimbursed will be ninety percent (90%) of the proposed rate.

b. If the proposed rate is between one hundred fifty percent (150%) and two hundred percent (200%) - the accepted rate will be eighty-five percent (85%) of the proposed rate.

c. If the proposed rate is greater than two hundred percent (200%) - the accepted rate will be seventy-five percent (75%) of the proposed rate.

2. If IOAI is unable to issue a cognizant letter per paragraph E. 1. above, IOAI may require Contractor to submit a revised independent CPA-audited ICR and audit report within three (3) months of the effective date of the management letter. IOAI will then have up to six (6) months to review the Contractor's and/or the independent CPA's revisions.

3. If the Contractor fails to comply with the provisions of this paragraph E, or if IOAI is still unable to issue a cognizant approval letter after the revised independent CPA audited ICR is submitted, overhead cost reimbursement will be limited to the accepted ICR that was established upon initial rejection of the ICR and set forth in paragraph E.e1. above for all rendered services. In this event, this accepted ICR will become the actual and final ICR for reimbursement purposes under this Agreement.

4. Contractor may submit to City final invoice only when all of the following items have occurred: (1) IOAI accepts or adjusts the original or revised independent CPA audited ICR; (2) all work under this Agreement has been completed to the satisfaction of City; and, (3) IOAI has issued its final ICR review letter. The Contractor must submit its final invoice to City no later than sixty (60) calendar days after occurrence of the last of these items. The accepted ICR will apply to this Agreement and all other agreements executed between City and the Contractor, either as a prime or subContractor, with the same fiscal period ICR.

Company/Contractor _____

Name & Title _____

Signature & Date _____

CONTRACT DOCUMENTS

RFP. No. 2020-05

COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

DESIGN AND BUILD OF A CNG FUELING STATION

A. The Contractor agrees that 48 CFR Part 31, Contract Cost Principles and Procedures, shall be used to determine the allowability of individual terms of cost.

B. The Contractor also agrees to comply with Federal procedures in accordance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

C. Any costs for which payment has been made to the Contractor that are determined by subsequent audit to be unallowable under 48 CFR Part 31 or 2 CFR Part 200 are subject to repayment by the Contractor to City.

D. When a Contractor or SubContractor is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.

Company/Contractor _____

Name & Title _____

Signature & Date _____

ATTACHMENT G

COST PROPOSAL

PER ADDENDUM #7

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME: _____

MECHANICAL/CNG EQUIPMENT							
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
1	Natural gas house line	4" sched 40 CS pipe A/G from MSA, w/ welding, supports, 150 PSIG, 1950 SCFM max. flow	FT			$ -	$ -
2	Gas Dryer	1-tower, w/ manual onboard regeneration, 4" process, bypass, extra safety items, rated for 1950 SCFM	EA			$ -	$ -
3	Site-ESD valve	4" ball or butterfly w/ FC air actuator API-607 rated	EA			$ -	$ -
4	CNG compressor skids	Duplex w/ 2x 650 SCFM each skid w/ 2x 250 HP motor & common enclosure; 81 PSIG design suction	EA			$ -	$ -
5	CNG valve panel	1" tubing and ball valves, one-bank buffer	EA			$ -	$ -
6	CNG storage vessel	4' dia. sphere 11,600 SCF @ 4500 PSI, 5500 PSI MAWP	EA			$ -	$ -
7	Transit fast-fill dispenser - one hose	1" SS & meter, 'balance flow' w/ PLC, HD hose & nozzle	EA			$ -	$ -
8	Transit fast-fill dispenser - two hose	1" SS & meter, 'balance flow' w/ PLC, HD hose & nozzle + std. 1/2" hose and Type-2 nozzle	EA			$ -	$ -
9	Compressed-air lines - allowance	Cu pipe, valves, appurtenances, regulator, connection	EA			$ -	$ -
10	CNG motor control center	Drivers for duplex skid w/ 1-phase xfmr & A/C	Assy			$ -	$ -
11	Master PLC controller w/ comm	Remote PLC w/ HMI + IP-communication module	Assy			$ -	$ -
12	Fire extinguishers & signage	10 lb. w/ fiberglass housing + typ. Safety signage	EA			$ -	$ -
13	Gravity ventilators	Passive roof-mounted, Loren Cook, 18" x 36"	EA			$ -	$ -
14	CNG pressure tubing & sleeve	1" SS tubing in PE or ENT sleeve (transit)	FT			$ -	$ -
15	CNG pressure tubing & sleeve	3x 3/4" SS tubing in PE or ENT sleeve (public)	FT			$ -	$ -
16	Supports	Piping & conduit supports (Unistrut, Bline etc.)	EA			$ -	$ -
17						$ -	$ -
18						$ -	$ -
19						$ -	$ -
20						$ -	$ -
21						$ -	$ -
22						$ -	$ -
23						$ -	$ -
24						$ -	$ -
25						Mechanical Equipment Subtotal	$ -

ELECTRICAL EQUIPMENT							
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
26	Utility transformer	Allowance, including conduits to power pole	EA			$ -	$ -
27	Main switchboard / service	Allowance	EA			$ -	$ -
28	Backup generator	400kW for four comprs + aux. loads, NG fueled, encl.	EA			$ -	$ -
29	Transfer switch	Manual xfer for genset w/ lugs for portable genset	EA			$ -	$ -
30	Compound-area lighting	Div-2 lights on posts or wall pack	EA			$ -	$ -
31	Power conduit and wiring	120V and 480V	FT			$ -	$ -
32	Sensor and control conduit & wiring	24V and controls	FT			$ -	$ -
33						$ -	$ -
34						$ -	$ -
35						$ -	$ -
36						$ -	$ -
37						Electrical Equipment Subtotal	$ -

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME: _____

CIVIL WORK							
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
38	Demolition - allowance	Saw cut and remove pavement at compound area (asphalt) and U/G line to edge of fuel bldg (concrete)	LS				
39	Structural foundations for equipment	4 CNG skids, dryer skid, sto. vessels, genset & elec. gear	EA			$ -	$ -
40	Paving inside equipment compound	Repair asphalt and concrete pavement due to excavation and repair of asphalt pavement in area shown on Attachment C drawings.	LS				
41	Fencing for CNG compound	8' tall CMU wall and extension to existing wall with gates shown on Attachment C drawings	LF			$ -	$ -
42	Pre-fabricated container structure	8' x 10', steel construction, lockable rollup door	EA			$ -	$ -
43	Bollards	6" dia. Pipe bollards in concrete footers, 4' O.C. approx.	EA			$ -	$ -
44	Excavation	Allowance for other excavation / equipment etc.	LS				
45	Trenching	Pipe / conduit trenching w/ pavement repair	LF			$ -	$ -
46	Repair concrete	Trench to edge of fuel bldg., incl. Dowling repair	LF			$ -	$ -
47						$ -	$ -
48						$ -	$ -
49						$ -	$ -
50						$ -	$ -
51						$ -	$ -
52						Civil Work Subtotal	$ -

OTHER DIRECT COSTS - BASE							
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
53	Contractor labor	On-site construction / installation labor & materials not listed elsewhere (prevailing wage)	LS				
54	Equipment rental - allowance	Trench plates, ditch witch, saw cut, offload hoist	EA			$ -	$ -
55	Fuel-management labor	Specialty labor to tie in (existing terminals)	LS				
56	Third-party testing - allowance	Pipe welds (x-ray & dye penetrant) & concrete strength	LS				
57	Shipping, testing, startup - allowance	Skids, dispensers, vessels, dryer, genset + mfgr support	LS				
58	Design engineering & architecture	CNG and non-CNG-scope through plan-check approval	LS				
59							
60							
61							
62						Other Direct Costs - Base Subtotal	$ -

OPTIONS							
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
63	2x buffer vessels	Equipment only, match style of base vessels	EA			$ -	$ -
64	Defuel post	Vent-to-atmosphere only	EA			$ -	$ -
65	Install storage vessels & defuel post	Labor & site materials as needed - allowance	LS				
66	Bollards at defuel post	6" pipe bollards	EA			$ -	$ -
67	Shipping, testing and startup	2 vessels	LS				
68						$ -	$ -
69						$ -	$ -
70						$ -	$ -
71						Options Subtotal	$ -

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME: _____

	COST PROPOSAL SUMMARY - BASE		
72	GRAND TOTAL MATERIALS		$ -
73	GRAND TOTAL SALES TAX (10.25%)		$ -
74	GRAND TOTAL LABOR		$ -
75	**SUBTOTAL BASE (Direct Expenses)**		**$ -**
76	CONTRACTORS OVERHEAD AND G&A (%)		$ -
77	CONTRACTORS PROFIT (%)		$ -
78	**GRAND TOTAL BASE**		**$ -**

	COST PROPOSAL SUMMARY - OPTIONS		
79	GRAND TOTAL MATERIALS		$ -
80	GRAND TOTAL SALES TAX (10.25%)		$ -
81	GRAND TOTAL LABOR		$ -
82	**SUBTOTAL OPTIONS (Direct Expenses)**		**$ -**
83	CONTRACTORS OVERHEAD AND G&A (%)		$ -
84	CONTRACTORS PROFIT (%)		$ -
85	**GRAND TOTAL OPTIONS**		**$ -**

	COST PROPOSAL SUMMARY - BASE + OPTIONS	
86	GRAND TOTAL BASE	$ -
87	GRAND TOTAL OPTIONS	$ -
88	**GRAND TOTAL BASE + OPTIONS**	**$ -**

**proposed costs shall be in strict accordance with all conditions of the RFP including addenda*
**proposal shall be valid for 120 days from proposal due date*

_____

AUTHORIZED OFFICIAL PRINT NAME

_____

AUTHORIZED OFFICIAL SIGNAURE

_____

TITLE

_____

DATE

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME: _____

GENERAL REQUIREMENTS & LABOR									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
89	Contractor set-up / mobilization		LS						
90	Start-up/ Commissioning / Training		LS						
91	Equipment rental		EA		$ -	$ -	$ -		$ -
92	Contractor supervision, management		LS						
93	Engineering service to prepare construction drawings		LS						
94					$ -	$ -	$ -		$ -
95					$ -	$ -	$ -		$ -
96					$ -	$ -	$ -		$ -
97							General Requirements & Labor Subtotal		$ -

MECHANICAL & SPECIAL CONSTRUCTION									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	METHANE DETECTION SYSTEM								
98	Controller/HMI		EA		$ -	$ -	$ -		$ -
99	Additional relay module		EA		$ -	$ -	$ -		$ -
100	Methane infrared point sensors, Div-1 rated		EA		$ -	$ -	$ -		$ -
101	Transmitters (single and/or dual as required)		EA		$ -	$ -	$ -		$ -
102	Calibration kit w/ 10% and 25% LEL cylinders		EA		$ -	$ -	$ -		$ -
103	Sensor-Testing station w/ tubing		EA		$ -	$ -	$ -		$ -
104	Remote HMI		EA		$ -	$ -	$ -		$ -
105	Programming and set up of controller and HMI's		LS						
106					$ -	$ -	$ -		$ -
107					$ -	$ -	$ -		$ -
108					$ -	$ -	$ -		$ -
109					$ -	$ -	$ -		$ -
	ALARMS AND OTHER WORK								
110	Relocate veh.-exhaust reels to > 18" below ceiling - allowance		EA		$ -	$ -	$ -		$ -
111	Relocate OH door operators to > 18" below ceiling - allowance		EA		$ -	$ -	$ -		$ -
112	Visible alarm indoor/outdoor haz-rated, 3 lights		EA		$ -	$ -	$ -		$ -
113	Audible alarm indoor haz-rated		EA		$ -	$ -	$ -		$ -
114	Visible alarm outdoor		EA		$ -	$ -	$ -		$ -
115	Audible alarm outdoor		EA		$ -	$ -	$ -		$ -
116	Reprogramming of BAS - specialty subcontractor		LS						
117					$ -	$ -	$ -		$ -
118					$ -	$ -	$ -		$ -
119					$ -	$ -	$ -		$ -
120					$ -	$ -	$ -		$ -
121							Mechanical & Special Construction Subtotal		$ -

VENTILATION SYSTEM									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
122	Ductwork (16 duct assemblies)		LF		$ -	$ -	$ -		$ -
123	Motorized Damper		EA		$ -	$ -	$ -		$ -
124	Volume Damper		EA		$ -	$ -	$ -		$ -
125	Duct Grille		EA		$ -	$ -	$ -		$ -
126					$ -	$ -	$ -		$ -
127					$ -	$ -	$ -		$ -
128					$ -	$ -	$ -		$ -
129					$ -	$ -	$ -		$ -
130							Ventilation System Subtotal		$ -

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME:

	HEATING SYSTEM								
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
131	IR Heating system - replace existing in place < 700ºF		EA		$ -	$ -	$ -		$ -
132					$ -	$ -	$ -		$ -
133					$ -	$ -	$ -		$ -
134					$ -	$ -	$ -		$ -
135					$ -	$ -	$ -		$ -
136								Heating System Subtotal	$ -

	ELECTRICAL MATERIALS								
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
137	Relocate selected jbox's to > 18" below ceiling - allowance		EA		$ -	$ -	$ -		$ -
138	Wiring and conduit for gas sensors		EA		$ -	$ -	$ -		$ -
139	Wiring and conduit from detection controller to BAS panel		EA		$ -	$ -	$ -		$ -
140	Wiring and conduit from detection controller to EF's		EA		$ -	$ -	$ -		$ -
141	Wiring and conduits to controller motorized dampers		EA		$ -	$ -	$ -		$ -
142	Interlock to Make up air units		EA		$ -	$ -	$ -		$ -
143	Battery backup and power supply		EA		$ -	$ -	$ -		$ -
144					$ -	$ -	$ -		$ -
145					$ -	$ -	$ -		$ -
146					$ -	$ -	$ -		$ -
147					$ -	$ -	$ -		$ -
148								Electrical Materials Subtotal	$ -

	COST PROPOSAL SUMMARY		
149	GRAND TOTAL MATERIALS		$ -
150	GRAND TOTAL SALES TAX (10.25%)		$ -
151	GRAND TOTAL LABOR		$ -
152	**SUBTOTAL BASE (Direct Expenses)**		**$ -**
153	CONTRACTORS OVERHEAD AND G&A (%)		$ -
154	CONTRACTORS PROFIT (%)		$ -
155	**GRAND TOTAL BASE**		**$ -**

**proposed costs shall be in strict accordance with all conditions of the RFP including addenda*
**proposal shall be valid for 120 days from proposal due date*

AUTHORIZED OFFICIAL PRINT NAME

AUTHORIZED OFFICIAL SIGNAURE

TITLE

DATE

DESIGN AND BUILD OF A CNG FUELING STATION

ALTERNATES

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME: _____

ALTERNATES							
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
1	750kW for four comprs + aux. loads, NG fueled, encl.		EA			$ -	$ -
2	Secondary/Alternate Methane Detection System		EA	1		$ -	$ -
3	Cost Per LF exceeding 125 LF for as needed related work		LF				

DESIGN AND BUILD OF A CNG FUELING STATION

Disadvantaged Business Enterprises (DBE)

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME: _____

	FIRM NAME	ADDRESS	CONTACT PERSON	PHONE NUMBER	EMAIL	SUBCONTRACT DOLLAR AMOUNT	DESCRIPTION OF WORK
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11	GRAND TOTAL DISADVANTAGED BUSINESS ENTERPRISE					$ -	

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

COST PROPOSAL FORM - ADDENDUM 7

FIRM NAME:

COST PROPOSAL SUMMARY		
156	GRAND TOTAL BASE	$ -
157	GRAND TOTAL OPTIONS	$ -
158	GRAND TOTAL SAFE GARAGE MOD	$ -
159	**GRAND TOTAL**	**$ -**
160	GRAND TOTAL DISADVANTAGED BUSINESS ENTERPRISE	$ -
161	DBE AS PERCENT OF GRAND TOTAL	#DIV/0!

ATTACHMENT H
CONSTRUCTION AND DEMOLITION DEBRIS REMOVAL

Construction and Demolition Debris Removal

The City of Gardena has an Exclusive Franchise Agreement with Waste Resources to collect all solid waste generated within city limits. For construction and/or renovation projects, this means that all contractors, sub-contractors, business owners, and residents that are going to rent or contract for temporary hauling services, **must** hire Waste Resources to perform this service[1]. Waste Resources will deliver the material to a recycling facility in order to assist with recycling mandates and local ordinances.

Bins are available in the following sizes:

One-Time or Temporary Service[2]

3 cubic yard



Price for temporary service is based on number of pickups per week.

10, 15,25, and 40 cubic yards



Price includes service + dump fee and may include demurrage charges for bins that are not serviced regularly.

For contractors with their own bins, we encourage them to deliver all construction and demolition debris to a recycling facility for processing. A list of local facilities can be found at: http://ladpw.org/epd/brtap/recyclingsite/results.cfm?search=construction.

Waste Resources, Inc.
Today's Waste, Tomorrow's Resource

P.O. Box 2410
Gardena, CA 90247

Toll Free #: (888) 467-7600
www.wasteresources.com
info@wasteresources.com

T: (310) 366-7600
F: (310) 366-7606

[1] The only exception is when a prime general contractor owns their own bin and the debris is hauler by employees of the prime contractor.
[2] Prices quoted will include all City taxes and fees.

ATTACHMENT I
WASTE MANAGEMENT AND RECYCLING PLAN

Form CD-1: Waste Management and Recycling Plan

The City of Gardena (City) requires all construction and demolition permit applicants to prepare a waste management and recycling plan in accordance with Ordinance Number 1649 (Municipal Code Chapter 8.20). By completing this form, you are complying with the plan requirement to estimate project disposal tonnage, and identify job site practices for collection and disposition of wastes. If your project is exempt, please complete a separate Form CD-1a. If you have questions, please contact the Department of Community Development for assistance at (310) 217-9530. The completed plan is to be submitted to the City at the time your building permit application is submitted. The diversion deposit and administrative fee is paid directly to the Building & Safety Division. Be sure to retain your copy of this plan and the payment receipt for reimbursement. Please note that no hauler, other than WRG, may be used to transport debris and waste to disposal. Contractors are required to prepare and submit a C&D Waste Diversion Report within 60 days of completion of the project to the City for review and approval.

Job Site Address	
Applicant's Name	Title
Company	Telephone No.
Company Address	
Fax No.	Email Address
Type of Project: □ New Construction □ Demolition □ Renovation	
Type of Building: □ Commercial/Industrial □ Single Family Residence □ Multi-Family Residence	

How will waste be handled during your project? (Please check all that apply)

- ☐ **Job site separation.** Material will be segregated into two or more material-specific bins. For example, one bin for concrete, one bin for metals, one bin for wood, one bin for trash, etc.
- ☐ **Collection and delivery of mixed loads to a materials recovery facility.** Clean construction and demolition material is commingled into a bin. The mixed loads are then delivered to a materials recovery facility for sorting. Trash should be collected in a separate bin and delivered to a landfill.
- ☐ **Green Building.** The applicant is planning to construct its project using "green building" methods to reduce waste, use recycled content materials, incorporate energy conservation, and plan for deconstruction.
- ☐ **WRG.** The applicant will contact WRG at (310) 366-7600 to use WRG as hauler. **WRG is the City of Gardena's only authorized hauler. Failure to use WRG will result in denial of deposit refund.**

How much waste do you expect to generate for disposal through your project? (Specify) _____ tons.

Unless categorically exempt, each applicant who applies for a building and/or demolition permit shall post a deposit in an amount based on square footage of the project, but not less than $5,000.

Project Value	Deposit Paid
Project Sq. Footage	Project Acres

I hereby certify that the information submitted is true and accurate

Signature	Date

Office Use Only	
□ Exempt	□ Approved, Building Permit No.
Received by	Date

ATTACHMENT J
CONSTRUCTION AND INSPECTION GUIDE

Construction and Inspection Guide

Construction Inspections
Once a building permit has been issued, inspections for the work are required. This process helps assure that the work is being done according to building code safety and seismic standards. You or your contractor must request an inspection when the work has progressed to any of the required inspection points indicated on your permit. Do not cover anything before it is inspected.

To request INSPECTION BY PHONE, please call the Building & Safety Department at (310) 217-9510. Any request for an inspection must be made at least 24 hours in advance. Inspections are available in the morning or in the afternoon. A morning inspection will occur between the hours of 9:00 a.m. and 12:00 p.m. An afternoon inspection will occur between the hours of 1:00 p.m. and 4:00 p.m. When calling to request an inspection, please provide the following information:

1. Name and telephone number where you can be reached between 8 a.m. and 5 p.m.
2. Address of the job
3. Permit number
4. Type of inspection needed
5. Date and time preferred

Construction Debris and Other Building Materials Removal
Waste Resource of Gardena (WRG) is the only authorized hauler for construction/demolition/grading projects in the City of Gardena. Using any other hauler for any construction related project listed above will result in legal action and fines. WRG's customer service number is (310) 366-7600.

Construction Hours
All construction related activity is restricted to the hours of 7:00 a.m to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. No construction activity is permitted on Sundays or any of the following legally observed holidays: Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas Day and New Year's Day.

Construction Site Signage
Prior to the beginning of grading, demolition, or construction activity, at least one 12"X18" weatherproof sign must be posted on each street frontage of the project site at a location acceptable to the Building Inspector that displays the working hours and the name and emergency phone number of the contractor.

Construction Site Security
All construction sites are required to be secured from unauthorized access with an eight foot (8') chain link fence covered with a windscreen.

Best Practices for Construction Activities:

1. All persons working at the site should obtain, read, and understand the Best Management Practices pamphlet for the type(s) of construction being done.
2. Stockpiles of soil, demolition debris, cement, sand, top soil, etc. must be covered with waterproof material or bermed to prevent being washed off site.

3. Fuels, oils, paints, solvents, and other liquid materials must be kept inside bermed areas. Spills must not be washed to the street.
4. Waste concrete cannot be washed into street, storm drain catch basins, or public right-of-way. All dust and slurry from concrete cutting must be removed using a wet-dry vacuum or equivalent.
5. Trash and other construction solid wastes must be placed in a covered trash receptacle.
6. Eroded soil from disturbed slopes must be contained using berms, silt fences, setting basins, or good erosion management practices such as reseeding.
7. Wash water from cleaning construction vehicles and equipment must be kept on-site within a containment area.

ATTACHMENT K
CONSTRUCTION AND DEMOLITION DIVERSION PROGRAM

Construction and Demolition Diversion Program

City of Gardena



Community Development Department
1700 W. 162nd Street
Gardena, CA 90247

In 2003, the City of Gardena (City) adopted a diversion program for construction and demolition wastes. The purpose of the program is to provide an incentive to encourage the diversion (recycling or reuse) of specific materials that represent a large percentage of the City's overall municipal waste stream. Any contractor or builder that applies for a building permit is required to remit a diversion deposit in an amount set by resolution of the City Council (exceptions do exist, and are described below). The deposit is fully refundable if at least 65% of all wastes generated during construction and demolition are diverted from landfills, and appropriate documentation is provided to the City. This booklet will guide you through this process, and explain the amount of the deposit, the mechanism for refund, and the documentation required. There are four easy steps to follow to assure compliance with the program, and to ultimately save you money through reduced waste disposal cost.

Step 1 DETERMINE APPLICABILITY & COMPLETE FORM CD-1

Determine Applicability— Unless specifically exempted, each person (applicant) who applies for a building or demolition permit must fulfill the requirements of the construction and demolition program described in this package.

See next page for CALGreen Construction Waste Reduction Requirements and Applications.

Form CD-1—Unless exempt, an applicant is required to prepare a Waste Management and Recycling Plan by completing Form CD-1 (Form CD-1 is included in this booklet). On this form, the applicant will estimate the amount of waste they expect to generate through their construction and/or demolition project. Waste materials include, but are not limited to, soil, wood, wallboard, concrete, and mixed trash. As part of the waste management and recycling plan, the applicant should decide how they intend to assure that at least 65% of the waste that the project will generate, will be diverted from landfill. Wood, concrete, asphalt, metal, glass, drywall, ceramic, brick, and many other materials are all readily recyclable (or reusable if segregated properly). Please note that submittal and approval of an accurate and complete waste management and recycling plan is a precondition to issuance of any building permit. Submit your completed Form CD-1 to the City with your completed building permit application.

The following table contains the 2016 CALGreen Construction Waste Reduction Requirements:

Occupancy	2016 CALGreen State Code Requirements and Applications
	Effective 1/1/2017
Non–Residential Compliance Methods (5.408)	≥ 65% C&D Waste Diversion of non-hazardous materials are required to submit a construction waste management plan (5.408.1.1) and utilize a City approved waste management company (5.408.1.2)
New Construction	All newly constructed buildings.
Demolition	100% of all concrete and dirt . — 65% of all non-hazardous materials.
Addition (301.3)	All structures 1000 sq ft or more.
Alterations (301.3)	All structures $200,000 or more.
Tier 1 (Voluntary) (A5.408.3.1)	≥ 80% Construction Waste Diversion
Tier 2 (Voluntary) (A5.408.3.1.1)	≥ 95% Construction Waste Diversion
Residential Compliance Methods (4.408)	≥ 65% C&D Waste Diversion and may be required to submit a construction waste management plan (4.408.2) and utilize a City approved waste management company (4.408.3)
Low-Rise-3 stories or less (4.408.4)	≥ 65% C&D Waste Diversion
High-Rise-4 stories or more (4.408.4.1)	All permitted structures.
New Construction	All permitted structures
Demolition	100% of all concrete and dirt. - 65% of all non-hazardous materials.
Additions (301.1)	All permitted structures.
Alterations (301.1)	All permitted structures.
Tier 1 (Voluntary) (A4.408.1)	≥ 80% C&D Waste Diversion
Tier 2 (Voluntary)	≥ 95% C&D Waste Diversion

Step 2

PAY YOUR DIVERSION DEPOSIT & YOUR ADMINISTRATIVE FEE

Project Value	Deposit Amount
> $50,000—$99,999	$5,000
$100,000—$249,999	$7,500
$250,000—$499,999	$10,000
$500,000 +	$15,000

Diversion Deposit— Unless specifically exempted by one of the project types listed under step 1, each person (applicant) who applies for a building and/or demolition permit shall post a cash deposit in an amount as specified in the table above, but will not exceed $15,000.

The diversion deposit will be refunded in full upon proof that at least 65% of the project waste was recycled and/or diverted . Waste Resource Management (WRG) is the only authorized hauler for the City of Gardena. You can contact them at 310-366-7600. Failure to use WRG will result in denial of deposit refund.

Administrative Fee— In addition to the diversion deposit, an administrative fee must also be paid to the City. The fee will compensate the City for all expenses incurred in administering the construction and demolition program, including site inspections, document review, and processing. The administrative fee is non-refundable and is calculated based on one percent (1%) of the dollar value of a project, but not to exceed $5,000. If your project is exempt, there is no administrative fee.

Deposit and administrative fee payments can be made in the form of cash, check, cashier's check, money order, or credit card (VISA, Mastercard, or Discover Card). Payments should be made to the **City of Gardena**.

Make your payments when you submit your completed Form CD-1 and building permit application. If desired, a single payment can be issued to the City for both the diversion deposit and the administrative fee.

Step 3

DIVERT C&D WASTES THROUGH RECYCLING OR REUSE

It is the responsibility of every owner, general contractor, subcontractor, and developer to divert the maximum amount of salvageable and reusable materials away from landfilling. Materials diverted prior to demolition and during and after construction are equally eligible for diversion "credit." "Divert" or "diversion" means a reduction in the amount of waste being disposed in landfills by any of the following methods: use of new construction methods that reduce the amount of waste generated, onsite reuse of waste, job site separation and delivery to a recycling facility, delivery of mixed but clean materials to an approved materials recovery facility, and other methods as approved in advance by the City. All waste diversion methods that qualify for a refund of the diversion deposit are subject to restrictions and documentation requirements set forth in the City's Municipal Code.

Be sure to keep all weight receipts issued by any recycling facility and maintain records or logs of the volume and weight of materials reused on the job site.

To help you make decision about waste management and recycling, the City has prepared a separate booklet entitled "Recycling Practices for Construction and Demolition Projects" describing methods of diversion, local outlets for materials, and hints about best management practices for recycling and reuse.

The City will monitor and evaluate each construction and demolition project to gauge the project and progress toward the diversion requirements.



Step 4 APPLY FOR DEPOSIT REFUND

At the completion, and prior to, the final inspection and issuance of any certificate of occupancy of the demolition and/or construction project, the applicant shall submit documents to the Building and Safety Department, which proves compliance with the diversion requirements of this program. The documentation shall consist of:

1. A completed Form CD-2, "Recycling and Reuse Summary Report," summarizing the weight data of materials diverted and disposed (Form CD-2 is included in this booklet).
2. Originals or photocopies of receipts, weight tickets, or other records of measurement from recycling facilities, salvage companies, deconstruction contractors, waste haulers, processors, transfer stations, and landfills.

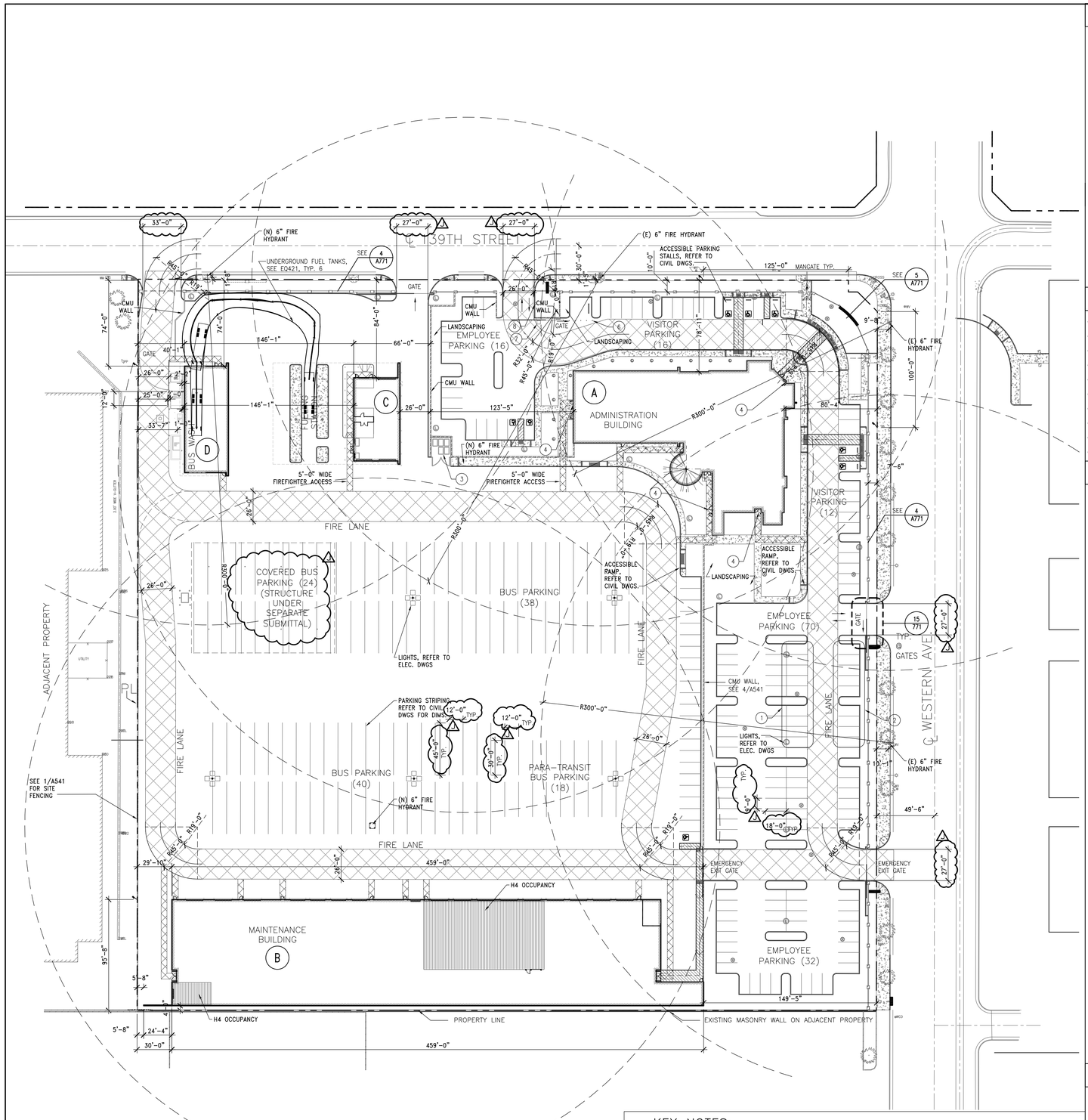
A properly completed "Recycling and Reuse Summary Report", and all receipts, must be submitted to the City at least five day prior to a request for final inspection and issuance of a certificate of occupancy.

Deposits will not be refunded to applicants who do not meet the timely reporting requirements of the Municipal Code. Also, failure to conform to the diversion requirements could affect approval of future permits. A deposit refund will be issued for any project where a building permit was withdrawn or cancelled before any work was begun.

What is a "green" building, and why should I care?

A green building is a sustainable building; that is, a structure designed, built, operated and reused in a resource efficient manner. Of the total expenditures owner may make over the course of the building's service lifetime, the design and construction cost (the so-called first costs) will account for 5 to 10% of the total life cycle cost. In contrast, operations and maintenance cost will account for 60 to 80% of the total life cycle cost.

Some easy tips: 1) minimize wastewater by using ultra low-flush toilets, and incorporate hot water re-circulating systems, and self-closing nozzles on hoses; 2) reuse and recycle C&D waste onsite such as inert wastes for base material for a parking lot; 3) protect and retain existing landscaping; and 4) take advantage of natural features including the use of plants that have low water and pesticide needs, and generate minimum plant trimmings.



KEY NOTES:

1. 8 PARKING SPOTS. STRIPE TO SHOW FOR CARPOOL ONLY
2. 8 PARKING SPOTS. STRIPE TO SHOW FOR LEVS ONLY
3. TWO RECYCLING DUMPSTERS: ONE IS FOR PAPER ONLY; THE OTHER IS FOR GLASS AND BOTTLE
4. POST SIGN NEAR THE BUILDING ENTRANCE, SHOWING "NO SMOKING IS ALLOWED IN THE BUILDING OR WITHIN 25 FEET OF THE BUILDING
5. BICYCLE RACK
6. BOLLARDS
7. GATE CONTROLLER INTERCOM

1 SITE PLAN
1/40" = 1'-0" A-SP.DWG

0 20 40 80 FT

PROJECT DATA

PROJECT TITLE & LOCATION

GARDENA MUNICIPAL BUS LINES
13999 S. WESTERN AVENUE
GARDENA, CA. 90247

PROJECT DESCRIPTION

CITY OF GARDENA TRANSIT MAINTENANCE FACILITY OPERATES THE TRANSIT SYSTEM FOR THE CITY OF GARDENA. SITE IS ACRES OF DEVELOPED LAND IN AN EXISTING COMERCIAL INDUSTRIAL PARK. IT IS BORDERD BY SOUTH WESTERN AVE. ON THE EAST AND 139TH STREET ON THE NORTH. IT VIA CONSIST OF THE ADMINISTRATION OPERATIONS AND MAINTENANCE FUNCTION OF THE DEPARTMENT.

ASSESSOR'S ID. NUMBER:

4061-027-020

BUILDING DESCRIPTION

1 BUILDING A (ADMINISTRATION BUILDING)
GROSS AREA: 22,906 SF.
NO. OF LEVELS: 2
OCCUPANCY: B, A3
CONSTRUCTION: TYPE V-N
SPRINKLERED: YES
BUILDING HEIGHT: 34'-6"

2 BUILDING B (MAINTENANCE BUILDING)
GROSS AREA: 42,315 SF.
NO. OF LEVELS: 1
OCCUPANCY: S-1, S-2, S-3, H-4, A-3
CONSTRUCTION: TYPE II-N
SPRINKLERED: YES
BUILDING HEIGHT: 21'-6"

3 BUILDING C (FUEL ISLAND)
GROSS AREA: 2,880 SF.
NO. OF LEVELS: 1
OCCUPANCY: S3 & S1
CONSTRUCTION: TYPE V-N
SPRINKLERED: YES
BUILDING HEIGHT: 21'-6"

4 BUILDING D (BUS WASH)
GROSS AREA: 3,264 SF.
NO. OF LEVELS: 1
OCCUPANCY: S3 & S2
CONSTRUCTION: TYPE V-N
SPRINKLERED: YES
BUILDING HEIGHT: 21'-6"

FOR CODE ANALISIS REFER TO SHEETS LS201, LS211 AND LS221

APPLICABLE CODES

- GARDENA CITY BUILDING CODE
- 2001 CALIFORNIA STATE BUILDING CODE
- GARDENA CITY AMENDMENTS
- TITLE 24 CALIFORNIA CODE OF REGULATIONS
- 2004 NATIONAL ELECTRICAL CODE
- 2001 CALIFORNIA PLUMBING CODE
- 2001 CALIFORNIA MECHANICAL CODE
- TITLE 22 LOS ANGELES COUNTY FIRE CODE
- 2001 CALIFORNIA FIRE CODE
- AMERICAN DISABILITIES ACT

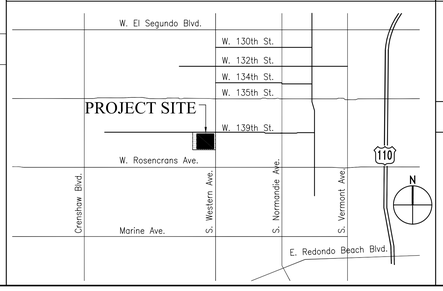
DEFERRED SUBMITTALS

BUS PARKING COVERED PLANS AND CALCULATIONS
FIRE ALARM SYSTEM
AUTOMATIC FIRE SPRINKLER SYSTEM
METAL FRAMED SKYLIGHT
UNDERGROUND TANK STORAGE

FIRE DEPARTMENT NOTES

1. PROVIDE A MINIMUM UNOBSTRUCTED WIDTH OF 26 FEET, CLEAR TO SKY, FIRE DEPARTMENT VEHICULAR ACCESS TO WITHIN 150 FEET OF ALL PORTIONS OF THE EXTERIOR BUILDING WALLS. SEE SITE PLAN FOR LOCATION. FIRE CODE 902.2.1.
2. FIRE DEPARTMENT VEHICULAR ACCESS ROADS MUST BE INSTALLED AND MAINTAINED IN A SERVICEABLE MANNER PRIOR TO AND DURING THE TIME OF CONSTRUCTION. FIRE CODE 901.3
3. BUILDING ADDRESS NUMBERS SHALL BE PROVIDED AND MAINTAINED SO AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY. THE NUMBERS SHALL BE A MINIMUM 3 INCHES HIGH, 1 INCH WIDE WITH A 3/8 INCH STROKE. FOR BUILDINGS SET BACK MORE THAN 150 FEET FROM THE STREET, THE NUMBERS SHALL BE A MINIMUM 5 INCHES HIGH, 2 INCHES WIDE WITH A 1 1/2 INCH STROKE. FIRE CODE 901.4.4
4. EXIT DOORS SHALL BE CAPABLE OF OPENING WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. BUILDING CODE 1003.3.1.8
5. EXIT DOORS SHALL SWING IN THE DIRECTION OF EXIT TRAVEL WHEN SERVING AN OCCUPANT LOAD OF 50 OR MORE OR WHEN SERVING HAZARDOUS OCCUPANCIES REGARDLESS OF THE OCCUPANT LOAD. BUILDING CODE 1003.3.1.5 AND 1007.4.4
6. THE REQUIRED FIRE FLOW FOR ON-SITE FIRE HYDRANTS AT THIS LOCATION IS 1250 GPM AT 20 PSI RESIDUAL PRESSURE. WHEN TWO OR MORE ON-SITE HYDRANTS ARE REQUIRED, THE FIRE FLOW SHALL BE 2500 GPM, WITH EACH ON-SITE FIRE HYDRANT BEING CAPABLE OF FLOWING 1250 GPM AT 20 PSI RESIDUAL PRESSURE. FIRE CODE 903.2 AND FIRE DEPARTMENT REGULATION 8.
7. THE MEANS OF EGRESS TRAVEL SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED WITH A LIGHT INTENSITY OF NOT LESS THAN 1 FOOT-CANDLE AT THE FLOOR LEVEL. BUILDING CODE 1003.2.9.1
8. THE POWER SUPPLY FOR THE MEANS OF EGRESS EXIT ILLUMINATION SHALL BE SUPPLIED FROM SEPARATE SOURCES IN ACCORDANCE WITH THE BUILDING CODE 1003.2.9.2
9. PORTABLE FIRE EXTINGUISHER REQUIREMENTS SHALL BE DETERMINED BY FIRE DEPARTMENT FIELD INSPECTOR IN ACCORDANCE WITH FIRE CODE 1002.1.
10. DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS (40.5 CU. FT.) OR MORE SHALL NOT BE STORED IN BUILDINGS OR PLACED WITHIN 5 FEET OF COMBUSTIBLE WALLS, OPENINGS OR COMBUSTIBLE ROOF EAVES, UNLESS AREAS CONTAINING DUMPSTERS OR CONTAINERS ARE PROTECTED BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM. FIRE CODE 1103.2.2
11. THE WIDTH AND HEIGHT OF REQUIRED EXIT DOORWAYS SHALL BE NOT LESS THAN 3 FEET IN NOMINAL WIDTH BY 6 FEET 8 INCHES IN NOMINAL HEIGHT AND SHALL BE CAPABLE OF OPENING SUCH THAT THE CLEAR WIDTH IS NOT LESS THAN 32 INCHES. BUILDING CODE 1003.3.1.3
12. FUEL DISPENSING SHALL COMPLY WITH UFC 5201.6.1 & 5201.6.2 REGARDING QUALIFIED ATTENDANT FOR DISPENSING OPERATIONS.
13. ELEVATOR IN BUILDING A (ADMINISTRATION BUILDING) IS 5'-5" DEEP x 6'-8" WIDE, CLEAR INSIDE CAB.
14. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE LOCATED ON THE ADDRESS SIDE OF THE BUILDING IT SERVES. THE FDC SHALL ALSO BE LOCATED A MINIMUM 25'-0" FROM THE BUILDING, AS CLOSE TO THE STREET CURB FACE AS POSSIBLE, AND BE WITHIN 150'-0" OF AN ACCESSIBLE PUBLIC FIRE HYDRANT, PER REGULATION #7. SHOW THE LOCATION OF THE FDC AND PUBLIC FIRE HYDRANT ON THE PLANS
15. THE PRIVATE UNDERGROUND LOOP SYSTEM SHALL BE DESIGNED PER REGULATION #7. PROVIDE ABOVE GRADE ACCESSIBLE SECTIONAL CONTROL VALVES (POST INDICATOR VALVE) ON EACH SIDE OF THE SUPPLY CONNECTION TO THE LOOP, AND ONE AT THE OPPOSITE SIDE OF THE LOOP. ADDITIONAL CONTROL VALVE SHALL BE REQUIRED FOR EACH COMBINATION OF (5) SPRINKLER RISERS AND/OR HYDRANT. ALL VALVES SHALL BE ELECTRICALLY MONITORED FOR SUPERVISION, PER THE 2002 COUNTY OF LOS ANGELES BUILDING CODE 904.3.1
16. THE PRIVATE ON-SITE FIRE HYDRANT SHALL BE LOCATED PER LOS ANGELES COUNTY FIRE DEPARTMENT APPROVED BUILDING PLANS
17. THE SPRINKLER SYSTEM CONTROL VALVE SHALL BE LOCATED OUTSIDE AND SHALL BE READILY VISIBLE AND ACCESSIBLE
18. UNDERGROUND PIPING GREATER THAN 10'-0" IN LENGTH SHALL NOT RUN UNDER A BUILDING PER REGULATION #7
19. ANY PIPING LOCATED UNDER THE BUILDING SHALL BE DUCTILE IRON PER REGULATION #7
20. THE INSTALLING CONTRACTOR SHALL BE A CALIFORNIA LICENSED C-16, 34, 36, OR GENERAL CONTRACTOR "A"

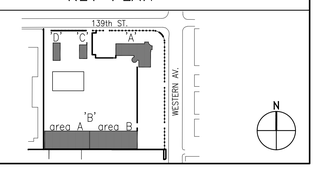
LOCATION MAP



SITE LEGEND:

WROUGHT IRON FENCE SEE A541 FOR ELEV.
PROPERTY LINE
MANGATE
ACCESSIBLE PATH OF TRAVEL

KEY PLAN



SPKINKLER SYSTEM GENERAL NOTES

1. IT IS THE RESPONSIBILITY OF THE OWNER TO PROPERLY MAINTAIN THE FIRE PROTECTION SYSTEM IN OPERABLE CONDITION AT ALL TIMES.
2. THE FIRE PROTECTION CONTRACTOR WILL PROVIDE THE OWNER WITH THE NECESSARY INSTRUCTION MANUALS FOR THE UPKEEP OF THE SYSTEM, AS WELL AS A COPY OF NFPA 25.
3. ONLY NEW SPRINKLERS SHALL BE EMPLOYED IN THE INSTALLATION OF THE SPRINKLER SYSTEM.
4. THE SYSTEM SHALL ONLY EMPLOY THE USE OF APPROVED MATERIALS AND DEVICES.
5. FIRE PROTECTION PLANS SHALL BE APPROVED PRIOR TO THE INSTALLATION OF ANY PIPE. A SET OF APPROVED PLANS SHALL BE MAINTAINED AT ALL TIMES ON THE JOB SITE.
6. AN APPOINTMENT SHALL BE MADE A MINIMUM OF TWO WORKING DAYS IN ADVANCE, WITH THE APPROPRIATE FIRE PREVENTION DIVISION REGIONAL OFFICE FOR ALL INSPECTIONS AND TESTS.
7. FIRE DEPARTMENT CONNECTIONS SHALL BE LOCATED ON THE ADDRESS SIDE OF THE BUILDING, FACE THE STREET, BE VISIBLE AND ACCESSIBLE, HAVE "NST" FEMALE INLETS, HAVE PROTECTIVE CAPS, AND AN ACCESSIBLE, APPROVED CHECK VALVE LOCATED IN THE MAIN LINE (AS CLOSE TO THE INLETS AS POSSIBLE).
8. A STOCK OF SPARE SPRINKLERS OF EACH STYLE , TYPE, AND TEMPERATURE RATING ALONG WITH A SPRINKLER WRENCH SHALL BE LOCATED AT THE MAIN RISER. THE AMOUNT OF SPRINKLERS AS PER NFPA-13 (1999) 3-2.8:
   - 8.1. FOR SYSTEMS HAVING LESS THAN 300 SPRINKLERS, NOT FEWER THAN 6 SPRINKLERS.
   - 8.2. FOR SYSTEMS HAVING LESS 300 TO 1000 SPRINKLERS, NOT FEWER THAN 12 SPRINKLERS.
   - 8.3. FOR SYSTEMS HAVING OVER 1000 SPRINKLERS, NOT FEWER THAN 24 SPRINKLERS.
9. WELDING SHALL BE PERFORMED PER "NFPA-13" REQUIREMENTS. SPRINKLER PIPING SHALL BE SHOP-WELDED (NFPA-13 3-1.22).
10. AUTOMATIC SPRINKLER SYSTEMS SHALL BE SUPERVISED BY A LISTED/APPROVED CENTRAL, PROPRIETARY, OR REMOTE STATION, OR A LOCAL ALARM WHEN APPROVED BY THE CHIEF, WHICH WILL GIVE AN AUDIBLE SIGNAL AT CONSTANTLY ATTENDED LOCATION WHEN THE NUMBER OF SPRINKLERS IS 100 OR MORE. EXCEPTION: 20 OR MORE IN GROUP 1, DIVISION 1.1 AND 1.2 OCCUPANCIES.
11. A MAXIMUM UNSUPPORTED ARMOVER NOT TO EXCEED 24" FOR STEEL PIPE, PER NFPA-13 6-2.3.4.
12. FIELD TO PROVIDE FLEXIBLE COUPLING AS FOLLOWS:
   - 12.1. WITHIN 24" OF THE TOP AND BOTTOM OF ALL RISERS.
   - 12.2. WITHIN 12" ABOVE AND WITHIN 24" BELOW THE FLOOR IN MULTISTORY BUILDINGS. WHEN THE FLEXIBLE COUPLING BELOW THE FLOOR IS ABOVE THE TIE-IN TO THE MAIN SUPPLY OF THAT FLOOR, FLEXIBLE COUPLING SHALL BE PROVIDED ON THE VERTICAL PORTION OF THE TIE-IN PIPING ON BOTH SIDES OF CONCRETE OR MASONRY WALLS WITHIN 1'-0" OF THE WALL SURFACE, UNLESS ADEQUATE CLEARANCE AROUND THE PIPE IS PROVIDED.
   - 12.3. WITHIN 24" OF BUILDING EXPANSION JOINTS.
   - 12.4. WITHIN 24" OF THE TOP AND BOTTOM OF DROPS TO HOSE LINES, RACK SPRINKLERS AND MEZZANINES REGARDLESS OF SIZE.
   - 12.5. ABOVE AND BELOW ANY INTERMEDIATE POINT OF SUPPORT FOR A RISER OR OTHER VERTICAL PIPE.
13. CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH FLOORS, PLATFORMS AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING. THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLE IS:
   - 13.1. 2" LARGER THAN PIPE FOR 1" NOMINAL TO 3½" NOMINAL PIPING
   - 13.2. 4" LARGER THAN THE PIPE FOR 4" AND LARGER NOMINAL PIPING.
14. AUXILIARY DRAIN SHALL BE PROVIDED WHERE A CHANGE IN PIPING DIRECTION PREVENTS DRAINAGE OF SYSTEM PIPING THROUGH THE MAIN DRAIN VALVE. NFPA-13 (99) 5-14.2.5.1.
15. ALL UNDERGROUND MAINS AND LEAD-IN CONNECTIONS SHALL BE FLUSHED, AS INDICATED IN NFPA PRIOR TO CONNECTING TO THE OVERHEAD PIPING. THE FLUSHING SHALL CONTINUE UNTIL THE WATER IS CLEAR. FLUSHING SHOULD BE PERFORMED AL THE TIME OF THE HYDROSTATIC TEST, AND SHALL BE WITNESSED BY A FIRE PREVENTION DIVISION INSPECTOR
16. SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS OR AT 50 PSI ABOVE THE MAXIMUM SYSTEM OPERATING PRESSURE, WHICHEVER IS GREATER
17. ANY PORTION OF A WET FIRE PROTECTION SYSTEM EXPOSED TO FREEZING TEMPERATURES SHALL BE ADEQUATELY PROTECTED.(HEAT TAPE IS NOT AN ACCEPTABLE METHOD OF PROTECTION)

PRIVATE FIRE HYDRANT

18. ALL PRIVATE FIRE HYDRANTS SHALL FLOW A MINIMUM OF 1250 GPM AT 20 PSI FOR DURATION OF TWO HOURS. IF MORE THAN ONE ON-SITE FIRE HYDRANT IS REQUIREMENT, THE ON-SITE FIRE FLOW SHALL BE AT LEAST 2500 GPM AT 20 PSI, FLOWING FROM THE MOST HYDRAULICALLY REMOTE HYDRANTS SIMULTANEOUSLY. ON-SITE FLOWS SHALL MATCH THE PUBLIC FLOW REQUIREMENTS
19. ALL PRIVATE ON-SITE FIRE HYDRANTS SHALL BE INSTALLED A MINIMUM OF 25 FEET FROM A STRUCTURE OR PROTECTED BY TWO-HOUR FIREWALL TO THE HIGHEST PORTION OF THE BUILDING ADJACENT TO THE HYDRANT
20. EACH PRIVATE FIRE SYSTEM SHALL HAVE A MAIN POST INDICATOR VALVE, OR OTHER APPROVED VALVE, AT THE CITY CONNECTION ON THE SIDE OF THE DETECTOR CHECK VALVE
21. ALL PRIVATE ON-SITE FIRE HYDRANTS SHALL BE EQUIPPED WITH A SHUT-OFF (GATE) VALVE, WHICH IS LOCATED AT LEAST 10 FEET, AND NOT MORE THAN 25 FEET, FROM THE FIRE HYDRANT. THE LOCATION MAY BE LESS THAN 10 FEET WHEN WATER MAIN IS EXISTING, AND THE 10 FOOT MINIMUM DISTANCE CANNOT BE SATISFIED. THE SHUT OFF VALVE SHALL BE READILY ACCESSIBLE AT ALL TIMES (LOCATING IT UNDER A PARKING STALL IS NOT ALLOWED)
22. ALL PRIVATE ON-SITE FIRE HYDRANTS SHALL BE INSTALLED TO THE FOLLOWING SPECIFICATIONS, PRIOR TO FLOW TEST AND ACCEPTANCE OF THE SYSTEM:
   - A. INSTALLED SO THAT THE CENTER LINE OF THE LOWEST OUTLET IS BETWEEN 14" AND 24" ABOVE FINISHED GRADE
   - B. INSTALLED SO THAT THE FRONT OF THE RISER IS BETWEEN 12" AND 24" BEHIND THE CURB FACE
   - C. INSTALLED SO THAT THE OUTLETS ARE FACING THE CURB AT A 45 DEGREE ANGLE TO THE CURB LINE
   - D. OF A TYPE AND CONSTRUCTION WHICH CONFORMS TO CURRENT AMERICAN WATER WORKS ASSOCIATION STANDARD C503
   - E. PROVIDE WITH A 3 FOOT UNOBSTRUCTED CLEARANCE ON ALL SIDES
   - F. INSTALLED SO THAT THE FIRE HYDRANT IS CENTERED ON A 3'X3'X1" THICK CONCRETE PAD
   - G. PROPERLY TREATED PRIOR TO PAINT APPLICATION, AND PAINTED WITH TWO COATS OF PRIMER AND ONE COAT OF "FIRE ENGINE RED" PAINT
   - H. PROVIDE WITH APPROVED PLASTIC OUTLET CAPS
23. ALL PRIVATE ON-SITE WATER MAINS, LATERALS, GATE VALVES, BURIES, AND RISERS FEEDING PRIVATE FIRE HYDRANTS SHALL BE A MINIMUM OF 6" IN DIAMETER.
24. WHEN SIDEWALKS ARE CONTINUOS WITH A CURB AND HAVE A WIDTH OF 5' OR LESS, THE FRONT OF THE FIRE HYDRANT RISER SHALL BE PLACED IMMEDIATELY BEHIND THE SIDEWALK. IN NO CASE SHALL A FIRE HYDRANT BE MORE THAN 6" FROM A CURB FACE
25. APPROVED FIRE HYDRANT BARRICADES SHALL BE INSTALLED IF CURB ARE NOT PROVIDED (SEE REGULATION 8)
26. ALL ON-SITE FIRE HYDRANT AND UNDERGROUND INSTALLATIONS ARE SUBJECT TO INSPECTION OF THE FOLLOWING ITEMS BY A REPRESENTATIVE OF THE DEPARTMENT
   - 26.1. PIPING MATERIALS, THRUST BLOCKS, AND THE BRACING AND SUPPORT THEREOF
   - 26.2. PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS OR AT 50 PSI ABOVE THE SYSTEM OPERATING PRESSURE, WHICHEVER IS GREATER
   - 26.3. ADEQUATE (10 FEET PER SECOND) FLUSHING OF PIPING, IN ACCORDANCE WITH NFPA 13
   - 26.4. FLOW TEST TO SATISFY FIRE REQUIREMENTS
27. IT SHALL BE THE RESPONSIBILITY OF THE PROPERTY MANAGEMENT COMPANY, THE HOMEOWNER'S ASSOCIATION, OR THE PROPERTY OWNER TO MAINTAIN ON-SITE FIRE HYDRANT AT ALL TIMES
28. ALL VALVES AND FIRE DEPARTMENT CONNECTIONS SHALL HAVE PERMANENTLY AFFIXED SIGNS, INDICATING THEIR FUNCTION

SYSTEM ACCEPTANCE TEST

29. UNDERGROUND PIPING AND FITTING SHALL NOT BE COVERED OR CONNECTED TO THE OVERHEAD PIPING UNTIL A HYDROSTATIC TEST AND INSPECTION HAS BEEN COMPLETED. (CENTER LOADING IS PERMISSIBLE).
30. ABOVE GROUND PIPING AND FITTING SHALL NOT BE CONCEALED UNTIL A HYDROSTATIC TEST AND INSPECTION HAS BEEN COMPLETED.
31. A FINAL INSPECTION BY DEPARTMENT PERSONNEL IS REQUIRED ON ALL SYSTEM

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Gardena Municipal Bus Lines

CITY OF GARDENA

GARDENA TRANSIT ADMINISTRATION, OPERATIONS & MAINTENANCE FACILITY

PROJECT ADDRESS

13999 WESTERN AVENUE
GARDENA, CA. 90247

PREPARED FOR:

CITY OF GARDENA

Project No: 04.24072.00

PINNER CONSTRUCTION COMPANY, INC.

Carter Burgess
Carter & Burgess, Inc.
4 Hutton Centre Drive, Suite 800
Santa Ana, CA 92707
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1829 CLEMENT AVE
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Professional seals

LICENSED ARCHITECT DALE ALLEN BAGGS C-15607 Exp. 11/30/09 STATE OF CALIFORNIA

No.	Issue Description	Date
A	50% PACAKGE	08/04/06
B	90% C/S/U.U. PACKAGE	08/31/06
C	75% PACKAGE	09/13/06
E	PLAN CHECK CORRECTION	11/20/06
F	2nd PLAN CHK CORRECTION	12/21/06
G	3rd PLAN CHK CORRECTION	01/24/07
1	FIRE DEPT. SITE PLAN	04/02/07
2	BULLETIN 38	04/14/09
J	REVISIONS TO PERMIT	03/31/09

PERMIT #:

Drawn by: FERRETTE Reviewed by: H.WONG

Project No: 04.24072.00

Sheet Titles:

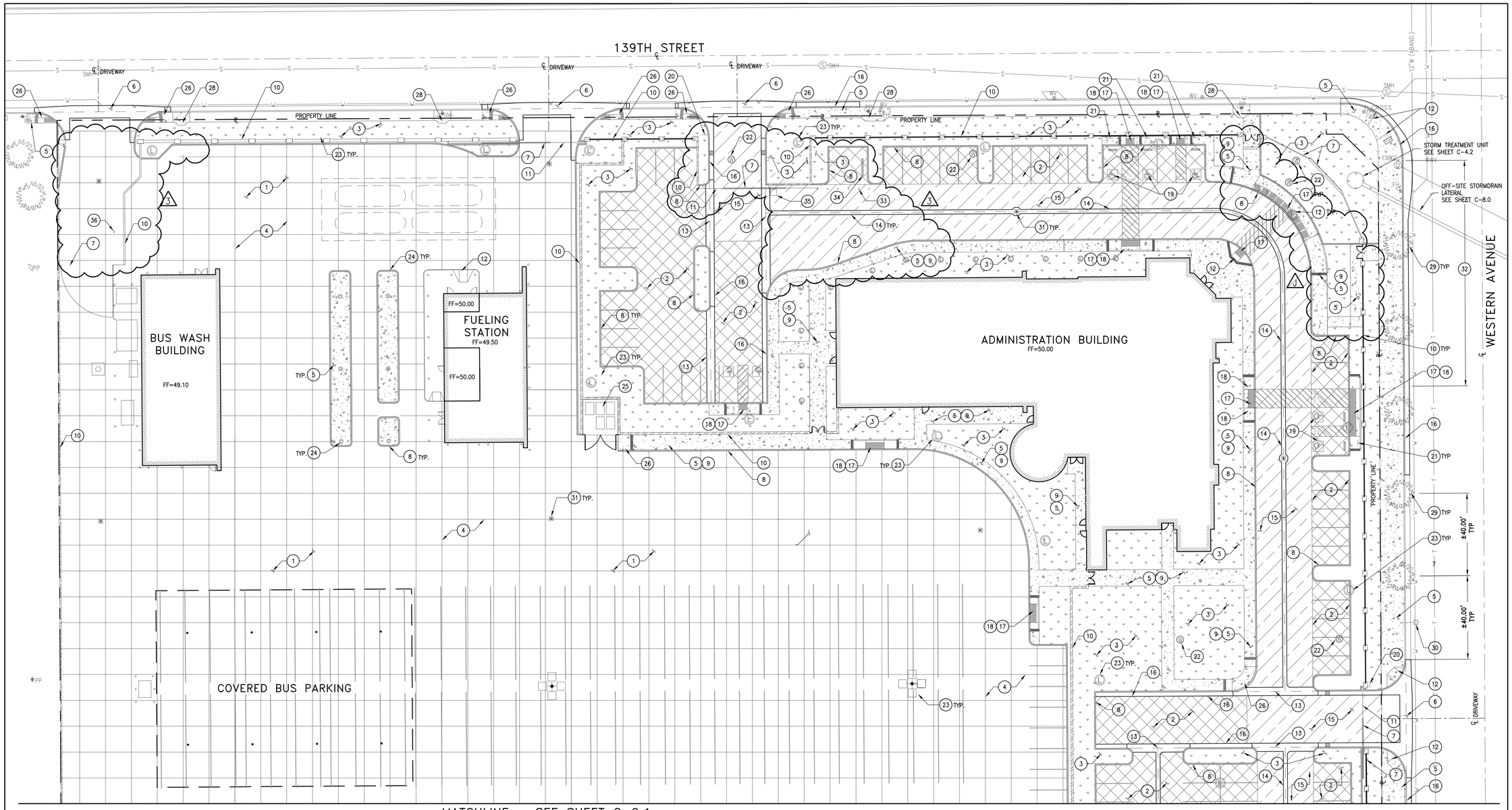
SITE PLAN

Sheet Number:

A101

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MATCHLINE – SEE SHEET C-2.1

CONSTRUCTION NOTES:

1. 9" THICK PCC PAVEMENT OVER 10" AGGREGATE BASE PER DETAIL 1 ON SHEET C-7.0.
2. 3" THICK CLASS C2 AC SURFACING OVER 6" AGGREGATE BASE.
3. LANDSCAPED AREA. SEE LANDSCAPE DRAWINGS.
4. INSTALL JOINTS IN CONCRETE PAVEMENT PER APWA STANDARD PLAN ST-112-1.
5. INSTALL 4" THICK CONCRETE SIDEWALK PER CITY OF GARDENA STANDARD PLAN ST-5B.
6. INSTALL CROSS GUTTER PER CITY OF GARDENA STANDARD ST-3.
7. INSTALL FENCE/GATE. SEE ARCHITECTURAL FOR FINISH AND TYPE.
8. CONCRETE CURB TYPE C-4 PER CITY OF GARDENA STANDARD PLAN ST-3.
9. DECORATIVE PAVING. SEE ARCHITECTURAL DRAWINGS, FOR MATERIAL AND PAVEMENT LIMITS.
10. CMU WALL PER APWA STD. 601-2, SEE ARCHITECTUAL PLANS FOR FINISH.
11. TRACK GRADE BEAM PER DETAIL 1 ON SHEET C-7.1.
12. FURNISH AND INSTALL CURB RAMP PER CITY OF GARDENA STANDARD PLAN ST-18
13. 4 FEET WIDE CONCRETE V-GUTTER, PER DETAIL 11 ON SHEET C-7.1.
14. 2 FEET WIDE CONCRETE V-GUTTER, PER DETAIL 3 ON SHEET C-7.0.
15. 5" THICK CLASS C2 AC SURFACING OVER 15" AGGREGATE BASE.
16. INSTALL CONCRETE CURB AND GUTTER TYPE C-1 PER CITY OF GARDENA STANDARD PLAN ST-7.
17. 36" WIDE BAND OF CAST IN PLACE DETECTABLE TRUNCATED DOME WARNING SURFACE PAVERS PER ADA STANDARD 4.24.2.
18. ACCESSIBLE RAMP PER DETAIL 12 ON SHEET C-7.1.
19. HANDICAP STALL PER DETAIL 3 ON SHEET C-7.1.
20. HANDICAP ENTRY SIGN PER DETAIL 4 ON SHEET C-7.1.
21. HANDICAP PARKING STALL SIGN PER DETAIL 8 ON SHEET C-7.1.
22. EXISTING WELLS SHALL BE ADJUSTED TO GRADE AND APPROPRIATE COVERS SHALL BE INSTALLED (BY OTHERS). WELLS SHALL BE PROTECTED IN PLACE DURING CONSTRUCTION.
23. LIGHT POLE WITH CONCRETE BASE. SEE ELECTRICAL PLANS.
24. FUELING STATION PUMP, SEE ARCHITECTURAL PLANS FOR DETAILS.
25. TRASH ENCLOSURE, SEE ARCHITECTURAL PLANS FOR DETAILS.
26. INSTALL RAMP CURB PER APWA DETAIL 111-3 CASE 'D' TYPE 2.
27. NOT USED
28. INSTALL SIDEWALK TURNOUT PER CITY STANDARD ST-5B AND DETAIL 5 SHEET C-7.2.
29. STREET TREES SHALL BE 36" BOX BRONZE LOQUAT @ APPROXIMATE ±40' APART, PER CITY OF GARDENA STANDARD PLAN ST-11
30. INSTALL NEW MARBELITE STREET LIGHTS. UNDER SEPERATE PERMIT FROM S.C.E. ATTACH "NO STOPPING ANYTIME" SIGN TO POLES.
31. STORM DRAIN CATCH BASIN. SEE SHEET C-4.2
32. RE-PAINT RED "BUS ZONE" CURB.

△3

33. INSTALL BOLLARDS
34. INSTALL BICYCLE RACKS
35. INSTALL GATE CONTROLLER
36. INSTALL INTERCOM PEDESTAL

SHEET NOTES:

1. FOR GENERAL NOTES, LEGEND AND ABBREVIATIONS, SEE DWG. C1.0
2. SEE ARCHITECTURAL DRAWINGS FOR OTHER SITE DIMENSIONS NOT SHOWN ON THIS DRAWING.
3. FOR CONCRETE STRUCTURE OR FEATURE DETAILS, SEE ARCHITECTURAL DRAWINGS. CONCRETE STRUCTURE OR FEATURE INCLUDES ARCHITECTURAL CONCRETE PAVEMENT, RAMP WITH GUARDRAILS, HANDICAP RAMP, PLANTER AREA, TRASH ENCLOSURE, AND TRANSFORMER ENCLOSURE. FOR LANDSCAPING AND IRRIGATION FEATURES, SEE LANDSCAPING DRAWINGS. FOR GAS, PLUMBING, SEWER WASTE LINES, ROOF DRAINS, FIRE WATER LINES, AND DOMESTIC WATER LINES, POINTS OF CONNECTION AT BUILDINGS, SEE MECHANICAL DRAWINGS. FOR TRANSFORMER ENCLOSURE AND CONCRETE PAD, SEE ELECTRICAL DRAWINGS.
4. ALL CURBS THAT HAD PARKING COLOR DESIGNATION SHALL BE RE-PAINTED TO CITY AND CALTRANS STANDARD, COORDINATE WITH CITY OF GARDENA.

GRADING NOTE:

PAVEMENT THICKNESS SHOWN ON PLANS ARE BASED ON THE ASSUMPTION THAT THE SOIL IS R-27 TYPE OR HIGHER PER SOILS ENGINEER. SOILS ENGINEER SHALL ENSURE R-27 TYPE OR HIGHER.

SURVEY NOTES*:

BASIS OF BEARINGS:

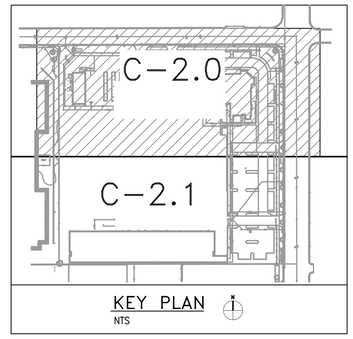
THE CENTERLINE BEARING OF WESTERN AVENUE BEING NORTH, AS PER REPLAT OF BLOCKS D AND E, STRAWBERRY PARK TRACT, M.B. 8-138, WAS USED AS THE BASIS OF BEARINGS SHOWN HEREON.

BENCHMARKS:

BM ID:6975
YEAR :1995
ELEVATION : 48.23

CS MON 250MM DN 300MM N/O CF @ NE COR. ROSECRANS AVENUE & WESTERN AVENUE 54.60M E & 12.50M N/O C/L INT MKD (BM 21-9A 1960)

*= SEE SHEET C-1.0 FOR TEMPORARY BENCHMARK LOCATION



KEY PLAN
NTS

SITE IMPROVEMENT PLAN
SCALE: 1"=20'
20 10 0 20 40

CITY OF GARDENA
GARDENA TRANSIT ADMINISTRATION, OPERATIONS & MAINTENANCE FACILITY

PROJECT ADDRESS

13999 WESTERN AVENUE
GARDENA, CA. 90247

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Project No: 04.24072.00

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Professional seals

REGISTERED PROFESSIONAL ENGINEER BENSON T. PYNN NO. 70932 EXP. 6-30-09 CIVIL STATE OF ILLINOIS

No.	Issue Description	Date
A	50% PACAKGE	08/04/06
B	90% C/S/U.U. PACKAGE	08/31/06
C	75% PACKAGE	09/13/06
E	PLAN CHECK CORRECTION	11/20/06
F	2nd PLAN CHK CORRECTION	12/21/06
G	3rd PLAN CHK CORRECTION	01/24/07
△1	RELOCATED/ADDED STREET LIGHTS	03/20/08
J	REVISIONS TO PERMIT	03/31/09
△2	BULLETIN 38	04/14/09
L	2ND REVISION TO PERMIT	05/12/09

PERMIT #:

Drawn by: BP Reviewed by: KS

Project No: 04.24072.00

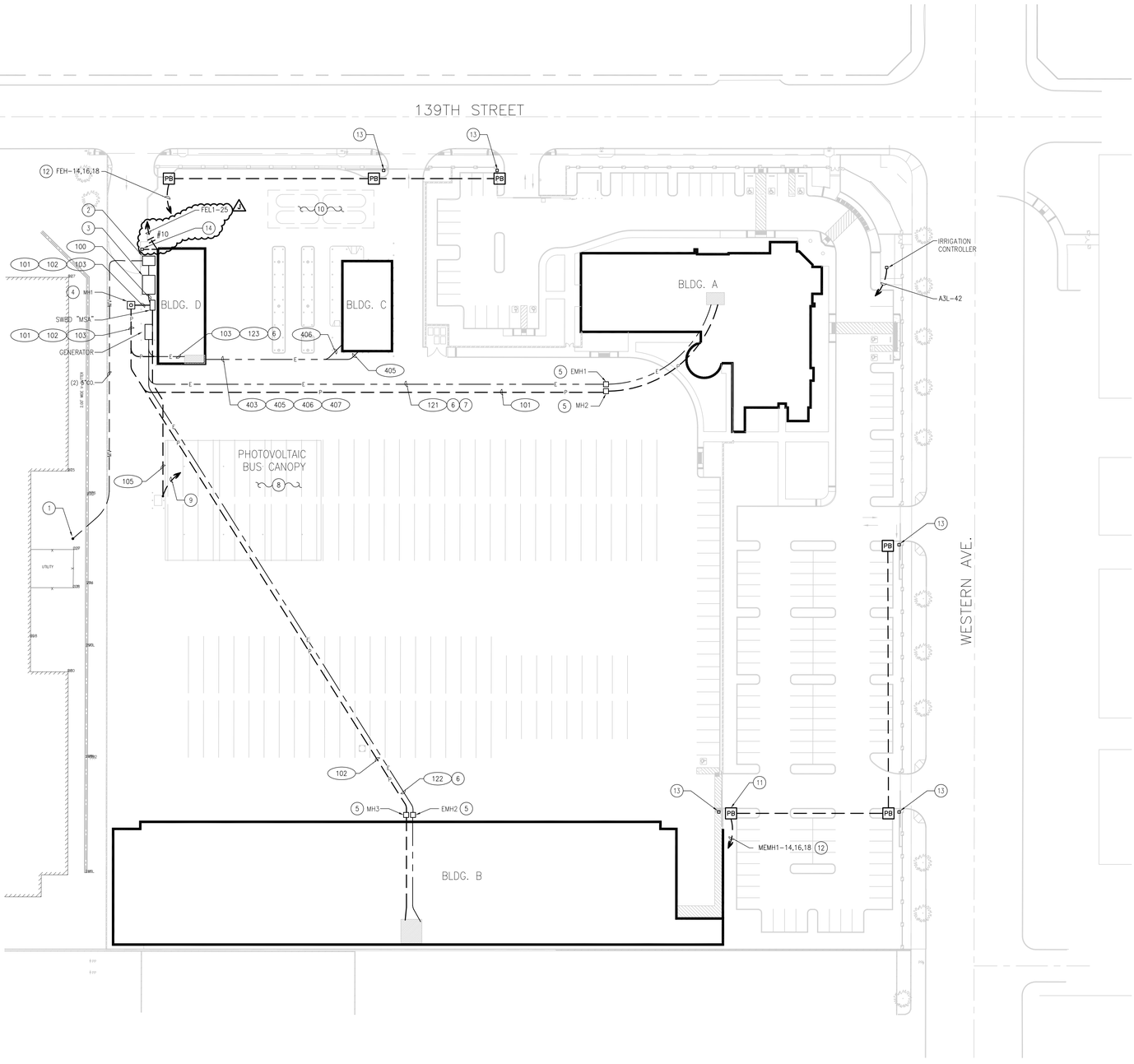
Sheet Titles:

SITE IMPROVEMENT PLAN
SHEET 1 OF 1

Sheet Number:
C-2.0

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1 SITE PLAN ELECTRICAL UTILITIES
1" = 40'-0" E1.01-SP-GMB01000.DWG
0 20 40 80 FT

N

GENERAL NOTES

1. REFER TO SHEET E001 FOR SYMBOLS AND LEGEND.
2. REFER TO SINGLE-LINE DIAGRAM SHEET E301 AND LOAD SUMMARY SHEET E501 FOR FEEDER SIZES AND ADDITIONAL INFORMATION.
3. REFER TO SITE PLAN LIGHTING SHEET E102 AND TECHNOLOGY SITE INFRASTRUCTURE PLAN FOR ADDITIONAL UNDERGROUND CONDUITS AND WIRE NOT SHOWN ON THIS PLAN.
4. REFER TO SHEET E401, DETAIL #1 FOR TYPICAL DUCT BANK.

KEY NOTES

1. APPROXIMATE LOCATION OF EXISTING UTILITY POLE. COORDINATE INCOMING SERVICE WITH SCE.
2. 8'x10' UTILITY SWITCH PAD WITH 4'x7'x42" DEEP ENCLOSURE.
3. 10'x12' UTILITY TRANSFORMER PAD WITH 5'x8'-6"x5' DEEP ENCLOSURE.
4. 6'x6'x7' CONCRETE MANHOLE WITH 30" CAST IRON COVER. SEE DETAIL #3 ON SHEET E401.
5. 4'x4'x4' CONCRETE PULLBOX WITH TRAFFIC RATED COVER. SEE DETAIL #2 ON SHEET E401.
6. PROVIDE 2"C WITH CONTROL WIRING FROM ATS FOR GENERATOR START SIGNAL. REFER TO SINGLE LINE DIAGRAM SHEET E301.
7. PROVIDE 2"C WITH WIRES FROM GENERATOR TO REMOTE ALARM INDICATOR PANEL LOCATED IN DISPATCH BUILDING "A".
8. PHOTOVOLTAIC SYSTEM DESIGNED BY GLOBAL SOLAR ENERGY, INC. DEFERRED SUBMITTAL.
9. PROVIDE (2) 2"CO FOR PHOTOVOLTAIC SYSTEM DATA AND CONTROLS, STUB UP INTO ELECTRICAL ROOM AT BUILDING "D".
10. FUEL EQUIPMENT DESIGNED BY BLYMYER ENGINEERING. REFER TO "FS" AND "FE" SERIES SHEETS FOR ELECTRICAL RELATED INFORMATION IN THIS AREA.
11. PROVIDE 13"X24"X18" POLYMER CONCRETE PULLBOX WITH TIER 5 RATED COVER IN LANDSCAPE AREA AND PARKING LOT ISLANDS FOR GATE CONTROLLERS.
12. 1"C-3#12 & 1#12 GND IN HOMERUN AND THROUGHOUT BRANCH CIRCUIT.
13. PROVIDE 30A/3P WEATHERPROOF DISCONNECT SWITCH AND CONNECTION TO GATE CONTROLLER. PROVIDE UNISTRUT SUPPORT.
14. PROVIDE 30A/1P WEATHERPROOF WALL MOUNTED DISCONNECT SWITCH AND CONNECTION TO SWING GATE CONTROLLER. △1

UTILITY CONTACT

POWER

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MR. KEN HORNBACK
(310) 515-2418

CITY OF GARDENA

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△1	REVISIONS TO PERMIT	03/31/09

PERMIT #:

Drawn by: AA Reviewed by: RM

Project No: 04.24072.00

Sheet Titles:

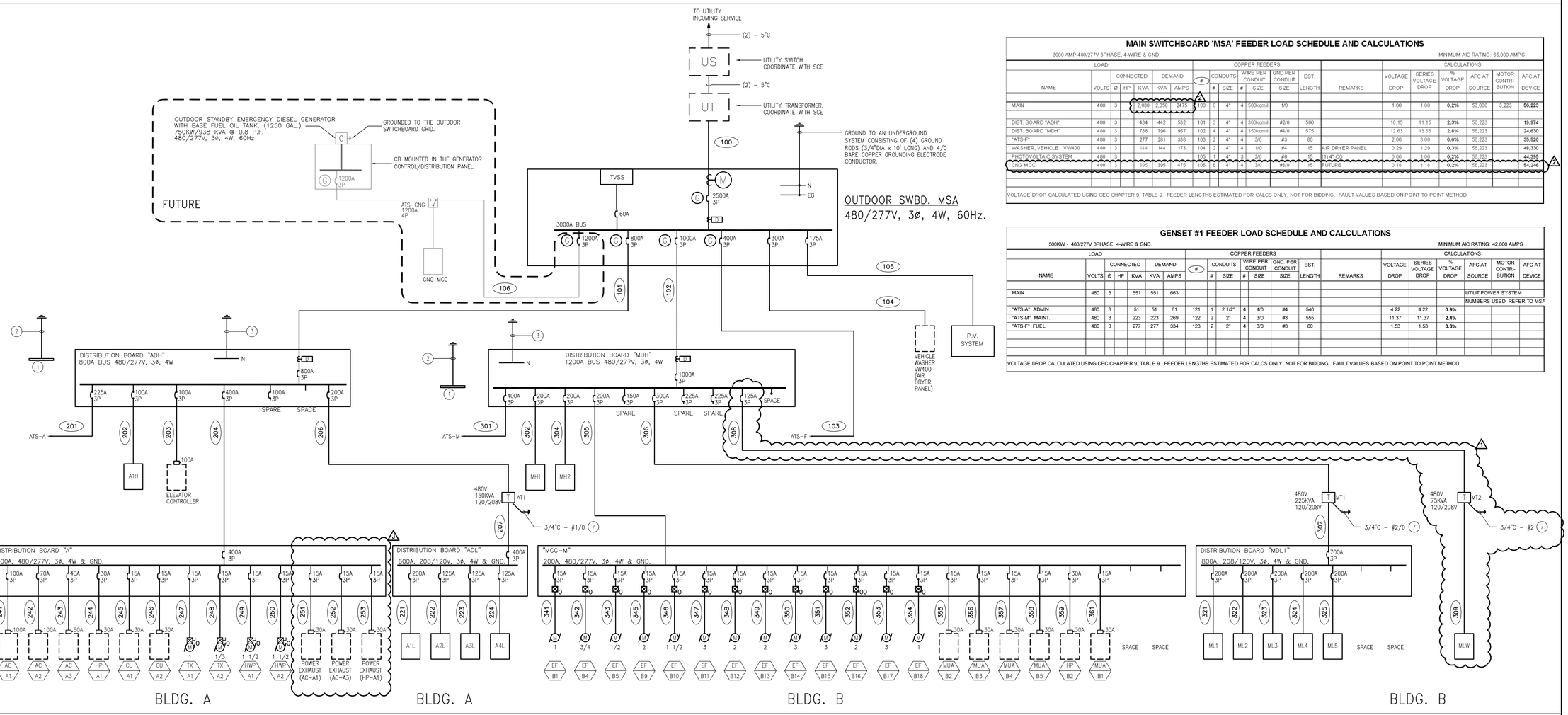
SITE PLAN
ELECTRICAL UTILITIES

Sheet Number:

E101

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NORMAL - SINGLE LINE DIAGRAM



MAIN SWITCHBOARD 'MSA' FEEDER LOAD SCHEDULE AND CALCULATIONS

3000 AMP 480/277V 3PHASE, 4-WIRE & GND. — MINIMUM AIC RATING: 65,000 AMPS

NAME	LOAD VOLTS	Ø	CONNECTED HP	CONNECTED KVA	DEMAND KVA	DEMAND AMPS	COPPER FEEDERS #	CONDUITS #	CONDUITS SIZE	WIRE PER CONDUIT #	WIRE PER CONDUIT SIZE	GND PER CONDUIT SIZE	EST. LENGTH	REMARKS	CALCULATIONS VOLTAGE DROP	SERIES VOLTAGE DROP	% VOLTAGE DROP	AFC AT SOURCE	MOTOR CONTRI-BUTION	AFC AT DEVICE
MAIN	480	3		1088	1088	1310	100	8	4"	4	500kcmil	1/0			1.00	1.00	0.2%	53,000	3,223	56,223
DIST. BOARD "ADH"	480	3		434	442	532	101	3	4"	4	300kcmil	#2/0	560		10.15	11.15	2.3%	56,223		19,974
DIST. BOARD "MDH"	480	3		788	796	957	102	4	4"	4	350kcmil	#4/0	575		12.63	13.63	2.8%	56,223		24,630
"ATS-F"	480	3		277	281	338	103	2	4"	4	3/0	#3	80		2.06	3.06	0.6%	56,223		35,520
WASHER, VEHICLE VW400	480	3		144	144	173	104	2	4"	4	1/0	#4	15	AIR DRYER PANEL	0.29	1.29	0.3%	56,223		48,330
PHOTOVOLTAIC SYSTEM	480	3					105	2	4"	4	3/0	#6	15	(1)4"C/2	0.26	1.26	0.2%	56,223		44,395
CNG MCC	480	3		295	295	378	106	3	4"	4	3/0	4/0	10	FUTURE	0.18	1.18	0.2%	56,223		54,240

VOLTAGE DROP CALCULATED USING CEC CHAPTER 9, TABLE 9. FEEDER LENGTHS ESTIMATED FOR CALCS ONLY, NOT FOR BIDDING. FAULT VALUES BASED ON POINT TO POINT METHOD.

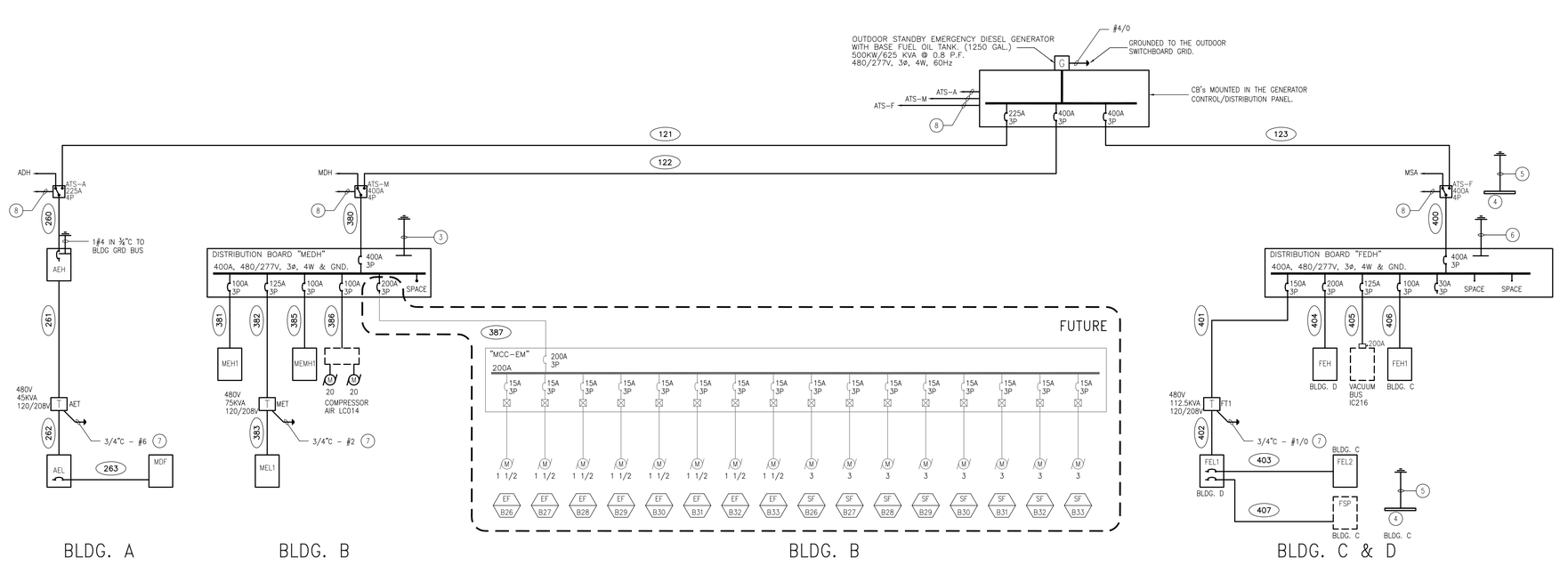
GENSET #1 FEEDER LOAD SCHEDULE AND CALCULATIONS

500KW - 480/277V 3PHASE, 4-WIRE & GND. — MINIMUM AIC RATING: 42,000 AMPS

NAME	LOAD VOLTS	Ø	CONNECTED HP	CONNECTED KVA	DEMAND KVA	DEMAND AMPS	COPPER FEEDERS #	CONDUITS #	CONDUITS SIZE	WIRE PER CONDUIT #	WIRE PER CONDUIT SIZE	GND. PER CONDUIT SIZE	EST. LENGTH	REMARKS	CALCULATIONS VOLTAGE DROP	SERIES VOLTAGE DROP	% VOLTAGE DROP	AFC AT SOURCE	MOTOR CONTRI-BUTION	AFC AT DEVICE
MAIN	480	3		551	551	663												UTILIT POWER SYSTEM		
																		NUMBERS USED. REFER TO MSA		
"ATS-A" ADMIN.	480	3		51	51	61	121	1	2 1/2"	4	4/0	#4	540		4.22	4.22	0.9%			
"ATS-M" MAINT.	480	3		223	223	269	122	2	2"	4	3/0	#3	555		11.37	11.37	2.4%			
"ATS-F" FUEL	480	3		277	277	334	123	2	2"	4	3/0	#3	60		1.53	1.53	0.3%			

VOLTAGE DROP CALCULATED USING CEC CHAPTER 9, TABLE 9. FEEDER LENGTHS ESTIMATED FOR CALCS ONLY, NOT FOR BIDDING. FAULT VALUES BASED ON POINT TO POINT METHOD.

EMERGENCY - SINGLE LINE DIAGRAM



GENERAL NOTES

1. COORDINATE WITH ELECTRICAL UTILITY SERVICE COMPANY FOR SPECIFIC REQUIREMENTS ON ELECTRICAL SERVICE CONNECTION. PROVIDE CONDUIT AND WIRE FROM UTILITY COMPANY EQUIPMENT TO FACILITY ELECTRICAL SERVICE EQUIPMENT AS DIRECTED BY UTILITY COMPANY. SEE SITE PLAN PACKAGE FOR MORE INFORMATION.
2. PROVIDE ELECTRICAL SERVICE EQUIPMENT AS SHOWN ON SINGLE LINE DIAGRAM AND ON ELECTRICAL POWER PLANS. PROVIDE CONCRETE PAD, BRACING, BONDING, GROUNDING AND LOCKS.
3. ELECTRICAL EQUIPMENT SHALL BE BONDED AND GROUNDED AS REQUIRED PER APPLICABLE CODES AND JURISDICTIONS. REFER TO SPECIFICATIONS FOR DETAILS.
4. ELECTRICAL EQUIPMENT SHALL BE FULLY RATED FOR THE MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT.
5. FIELD VERIFY AVAILABLE FAULT CURRENT AT SERVICE ENTRANCE WITH UTILITY COMPANY PRIOR TO PROCUREMENT OF ELECTRICAL DISTRIBUTION EQUIPMENT, AND VERIFY MINIMUM FAULT INTERRUPTING RATINGS OF MAIN SWITCHBOARD AND BRANCH PANELBOARDS.
6. SEE PLAN DRAWINGS FOR EQUIPMENT LOCATION AND OTHER DETAILS.
7. REFER TO SHEET E501 LOAD SCHEDULES FOR FEEDER SIZES.
8. GROUND FAULT PROTECTION RELAYS OF MAIN SWITCHBOARD TO BE TESTED AND CERTIFIED BY A QUALIFIED PERSON AND CERTIFICATION TO BE SUBMITTED TO BUILDING DEPARTMENT.
9. GENERATOR SHALL COMPLY WITH ARTICLE 445, CEC.

KEY NOTES

1. BUILDING GROUND BUS, 3"H x 24"L x ¼" THICK COPPER BUS BAR. SEE DETAIL #4 ON SHEET E401.
2. CONNECT 1#4/0 TYPE TW GROUNDING ELECTRODE CONDUCTOR IN 1"C TO EACH OF THE FOLLOWING:
   a. INCOMING COLD WATER PIPE. (CONNECT WITHIN 5 FT FROM THE POINT OF ENTRANCE)
   b. TO THE BUILDING STRUCTURAL STEEL.
   c. TO UFER GROUND.
3. CONNECT 1#4/0 TYPE TW GROUNDING ELECTRODE CONDUCTOR IN 1"C TO THE BUILDING GROUNDING BUS. SEE DETAIL #5 ON SHEET E401.
4. BUILDING GROUND BUS - 1½"H x 12"L x ¼" THICK BUS BAR. SEE DETAIL #4 ON SHEET E401.
5. CONNECT 1#2 TYPE TW GROUNDING ELECTRODE IN ¾"C EACH TO:
   a. INCOMING COLD WATER PIPE. (CONNECT WITHIN 5 FT. FROM THE POINT OF ENTRANCE)
   b. UFER GROUND.
6. CONNECT 1#2 TYPE TW IN ¾"C GROUNDING ELECTRODE CONDUCTOR TO BUILDING GROUND BUS. SEE DETAIL #5 ON SHEET E401.
7. CONNECT TO THE BUILDING GROUNDING BUS.
8. PROVIDE 2"C WITH CONTROL WIRING FOR GENERATOR START SIGNAL.

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Gardena Municipal Bus Lines

CITY OF GARDENA
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G	3rd PLAN CHK CORRECTION	01/24/07
1	BULLETIN 34	02/11/09
2	BULLETIN 34 - REVISION 1	03/16/09
3	REVISIONS TO PERMIT	03/31/09

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Drawn by: Reviewed by:

Project No: GMB01000

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NORMAL & EMERGENCY SINGLE LINE DIAGRAM

Sheet Number:

E301

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PANELBOARD 'AEL'

MAIN: 208/120VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: 125 AMP | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 10K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
600	DISPATCH A2.104		3		20 / 1	1	A	2	15 / 2			1	EAC-A3	936
600	DISPATCH A2.104		3		20 / 1	3	B	4	----	--	--	--	----------	936
400	DISPATCH A2.104		2		20 / 1	5	C	6	20 / 1			1	FACP	500
500	POWR. CON. FOR HVAC CNTR. PNL.	1			20 / 1	7	A	8	20 / 1			1	DUCT SMOKE DETECTOR SD	100
500	POWR. CON. FOR HVAC CNTR. PNL.	1			20 / 1	9	B	10	20 / 1			1	DUCT SMOKE DETECTOR SD	100
500	POWR. CON. FOR HVAC CNTR. PNL.	1			20 / 1	11	C	12	20 / 1			1	DUCT SMOKE DETECTOR SD	100
200	PANEL "EPSMS"	1			20 / 1	13	A	14	20 / 1			4	COM. FIRE/SMOKE DAMPER CFSD	800
500	FA BELL POWER CONNECTION	1			20 / 1	15	B	16	20 / 1			6	COM. FIRE/SMOKE DAMPER CFSD	1200
600	EES-1	1			20 / 1	17	C	18	20 / 1			2	COM. FIRE/SMOKE DAMPER CFSD	400
7740	PANEL "MDF"	1			70 / 3	19	A	20	20 / 1			1	SECURITY EQUIPMENT	1200
7740	----------	--	--	--	----	21	B	22	20 / 1			1	SECURITY POWER SUPPLY	500
7560	----------	--	--	--	----	23	C	24	20 / 1			1	SECURITY POWER SUPPLY	500
	SPARE				20 / 1	25	A	26	20 / 1			1	SECURITY POWER SUPPLY	500
	SPARE				20 / 1	27	B	28	20 / 1			1	SECURITY POWER SUPPLY	500
	SPARE				20 / 1	29	C	30					SPACE	
	SPARE				20 / 1	31	A	32					SPACE	
100	ELEVATOR PIT LIGHTING			1	20 / 1	33	B	34					SPACE	
180	ELEVATOR PIT RECEPTACLE		1		20 / 1	35	C	36					SPACE	
	SPACE					37	A	38					SPACE	
	SPACE					39	B	40					SPACE	
	SPACE					41	C	42					SPACE	

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	12576	12676	10740	36.0	KVA
(CONTINUOUS LOAD) @125% (100)	0	125	0	0.1	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (0)	0	0	0	0.0	KVA
REMAINING @100%	12576	12576	10740	35.9	KVA
PANEL TOTAL W/ DEMAND:	12576	12701	10740	36.0	KVA
FULL LOAD AMPS:	105	106	89	100.0	AMPS

PANEL LOCATION: BLDG."A" 1ST FL. EL. RM
FED BY: AEH VIA AET
100.0% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'A3L'

MAIN: 208/120VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: MLO | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 10K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
500	ELECTROSHADE A1.122, A1.131	2			20 / 1	1	A	2	20 / 1			2	FITNESS A2.125 RECEPTACLE	1000
500	ELECTROSHADE A1.122, A1.102	2			20 / 1	3	B	4	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
250	ELECTROSHADE A2.104	1			20 / 1	5	C	6	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
1260	A1.114, A1.123, A1.131, A1.143, A2.110	7			20 / 1	7	A	8	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
1080	A1.114, A1.123, A1.131, A1.143, A2.110	6			20 / 1	9	B	10	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
800	A1.114, A1.123, A1.131, A1.143, A2.110	4			20 / 1	11	C	12	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
1080	A1.113, A1.114, A1.115, A1.121, A2.106	6			20 / 1	13	A	14	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
1200	A1.113, A1.114, A1.115, A1.121, A2.106	6			20 / 1	15	B	16	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
1080	A1.113, A1.114, A1.115, A1.121, A2.106	6			20 / 1	17	C	18	20 / 1			1	FITNESS A2.125 RECEPTACLE	500
250	ELECTROSHADE A2.129	1			20 / 1	19	A	20	20 / 1			1	VENDING MACHINE RECEPTACLE	1200
500	SIMULATION CONSOLE		1		20 / 1	21	B	22	20 / 1			1	VENDING MACHINE RECEPTACLE	1200
500	LCD PROJECTOR		1		20 / 1	23	C	24	20 / 1			1	REFRIGERATOR RECEPTACLE	1000
	SPARE				20 / 1	25	A	26	20 / 1			1	GARBAGE DISPOSAL	972
528	PRE-ACTION AIR COMPRESSOR	1			20 / 1	27	B	28	20 / 1			1	MICROWAVE RECEPTACLE	1200
500	PRE-ACTION SYSTEM CP	1			20 / 1	29	C	30	20 / 1			1	MICROWAVE RECEPTACLE	1200
	SPARE				20 / 1	31	A	32	20 / 1			5	OUTDOOR RECEPTACLES	900
	SPARE				20 / 1	33	B	34	20 / 1			1	DRINKING FOUNTAIN EWC-1	552
1250	CU-A4	1			20 / 2	35	C	36	20 / 1			5	VAV 1-1 THRU 1-5	500
1250	----------	--	--	--	----	37	A	38	20 / 1			1	WATER HEATER GWH-1	1440
220	EAC-A4	1			15 / 2	39	B	40	15 / 1			1	CIRCULATING PUMP CP-1	528
220	----------	--	--	--	----	41	C	42	20 / 1			1	IRRIGATION CONTROLLER	500

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	10852	9008	9300	29.2	KVA
(CONTINUOUS LOAD) @125% (0)	0	0	0	0.0	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (6500)	2340	2280	1880	6.5	KVA
REMAINING @100%	8512	6728	7420	22.7	KVA
PANEL TOTAL W/ DEMAND:	10852	9008	9300	29.2	KVA
FULL LOAD AMPS:	90	75	77	80.9	AMPS

PANEL LOCATION: BLDG."A" 1ST FL. EL. RM
FED BY: ADL
100.0% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'A1H'

MAIN: 480/277VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: 200 AMP | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 22K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
	SPARE				20 / 1	1	A	2	20 / 1				SPARE	
	SPARE				20 / 1	3	B	4	20 / 1				SPARE	
	SPARE				20 / 1	5	C	6	20 / 1				SPARE	
	SPACE					7	A	8					SPACE	
	SPACE					9	B	10					SPACE	
	SPACE					11	C	12					SPACE	
	SPACE					13	A	14					SPACE	
	SPACE					15	B	16					SPACE	
	SPACE					17	C	18					SPACE	
	SPACE					19	A	20					SPACE	
	SPACE					21	B	22	20 / 1	2			MONUMENT SIGNS	194
	SPACE					23	C	24	20 / 2	9			SITE LTG - EMPLOYEE PARKING	2052
	SPACE					25	A	26	----	--	--	--	----------	2052
	SPACE					27	B	28	20 / 2	9			SITE LTG - EMPLOYEE PARKING	2052
	SPACE					29	C	30	----	--		--	----------	2052
	SPACE					31	A	32	20 / 1	70			LOBBY LIGHTING	862
	SPACE					33	B	34	20 / 1	70			LTG 2ND FLOOR	4163
	SPACE					35	C	36	20 / 1	43			EXTERIOR CANOPY LIGHTING	1505
	SPACE					37	A	38	20 / 1	74			WEST LTG 1ST FLOOR	4295
	SPACE					39	B	40	20 / 1	64			NORTHEAST LTG 1ST FLOOR	3912
	SPACE					41	C	42	20 / 1	67			HALLWAY & SOUTHEAST LTG 1ST FL	4152

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	7287	10321	9761	27.4	KVA
(CONTINUOUS LOAD) @125% (27369)	9109	12901	12201	34.2	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (0)	0	0	0	0.0	KVA
REMAINING @100%	0	0	0	0.0	KVA
PANEL TOTAL W/ DEMAND:	9109	12901	12201	34.2	KVA
FULL LOAD AMPS:	33	47	44	41.1	AMPS

PANEL LOCATION: BLDG."A" 1ST FL. EL.RM
FED BY: ADH
100.0% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'MDF'

MAIN: 208/120VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: MLO | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 100 AMP | MIN A.I.C. RATING: 10K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
180	EQUIPMENT RACK RECEPTACLE		1		20 / 1	1	A	2	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
180	EQUIPMENT RACK RECEPTACLE		1		20 / 1	3	B	4	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
180	EQUIPMENT RACK RECEPTACLE		1		20 / 1	5	C	6	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
180	EQUIPMENT RACK RECEPTACLE		1		20 / 1	7	A	8	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
180	EQUIPMENT RACK RECEPTACLE		1		20 / 1	9	B	10	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
180	EQUIPMENT RACK RECEPTACLE		1		20 / 1	11	C	12	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
540	CONVENIENCE RECEPTACLE		3		20 / 1	13	A	14	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
540	CONVENIENCE RECEPTACLE		3		20 / 1	15	B	16	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
360	CONVENIENCE RECEPTACLE		2		20 / 1	17	C	18	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
2040	RACK MOUNTED UPS RECEPTACLE		1		30 / 1	19	A	20	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
2040	RACK MOUNTED UPS RECEPTACLE		1		30 / 1	21	B	22	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
2040	RACK MOUNTED UPS RECEPTACLE		1		30 / 1	23	C	24	20 / 1			1	EQUIPMENT RACK RECEPTACLE	180
2040	RACK MOUNTED UPS RECEPTACLE		1		30 / 1	25	A	26	30 / 1			1	RACK MOUNTED UPS RECEPTACLE	2040
2040	RACK MOUNTED UPS RECEPTACLE		1		30 / 1	27	B	28	30 / 1			1	RACK MOUNTED UPS RECEPTACLE	2040
2040	RACK MOUNTED UPS RECEPTACLE		1		30 / 1	29	C	30	30 / 1			1	RACK MOUNTED UPS RECEPTACLE	2040
	SPARE				20 / 1	31	A	32	20 / 1				SPARE	
	SPARE				20 / 1	33	B	34	20 / 1				SPARE	
	SPARE				20 / 1	35	C	36	20 / 1				SPARE	
	SPARE				20 / 1	37	A	38					SPACE	
	SPARE				20 / 1	39	B	40					SPACE	
	SPARE				20 / 1	41	C	42					SPACE	

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	7740	7740	7560	23.0	KVA
(CONTINUOUS LOAD) @125% (0)	0	0	0	0.0	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (1440)	540	540	360	1.4	KVA
REMAINING @100%	7200	7200	7200	21.6	KVA
PANEL TOTAL W/ DEMAND:	7740	7740	7560	23.0	KVA
FULL LOAD AMPS:	64	64	63	64.0	AMPS

PANEL LOCATION: BL."A" 1ST FL. COM. RM
FED BY: AEL
100.0% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'A4L'

MAIN: 208/120VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: MLO | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 10K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
	SPARE				20 / 1	1	A	2	20 / 1			1	FLAT PANEL MONITOR	400
	SPARE				20 / 1	3	B	4	20 / 1			2	MULTIMEDIA INPUT PANEL RECEPT	360
	SPARE				20 / 1	5	C	6	20 / 1				SPARE	500
360	ELECTRICAL ROOM RECEPT.		2		20 / 1	7	A	8	20 / 1				SPARE	
540	ELECTRICAL ROOM RECEPT.		3		20 / 1	9	B	10	20 / 1				SPARE	
0	SPARE				20 / 1	11	C	12	20 / 1				SPARE	
0	SPARE				20 / 1	13	A	14	20 / 1				SPARE	
0	SPARE				20 / 1	15	B	16	20 / 1				SPARE	
0	SPARE				20 / 1	17	C	18	20 / 1				SPARE	
	SPACE					19	A	20					SPACE	
	SPACE					21	B	22					SPACE	
	SPACE					23	C	24					SPACE	
	SPACE					25	A	26					SPACE	
	SPACE					27	B	28					SPACE	
	SPACE					29	C	30					SPACE	
	SPACE					31	A	32					SPACE	
	SPACE					33	B	34					SPACE	
	SPACE					35	C	36					SPACE	
	SPACE					37	A	38					SPACE	
	SPACE					39	B	40					SPACE	
	SPACE					41	C	42					SPACE	

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	760	900	500	2.2	KVA
(CONTINUOUS LOAD) @125% (0)	0	0	0	0.0	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (900)	360	540	0	0.9	KVA
REMAINING @100%	400	360	500	1.3	KVA
PANEL TOTAL W/ DEMAND:	760	900	500	2.2	KVA
FULL LOAD AMPS:	6	7	4	6.0	AMPS

PANEL LOCATION: BLDG."A" 1ST FL. EL.RM
FED BY: ADL
100.0% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'A1L'

MAIN: 208/120VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: MLO | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 10K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
1440	A1.122, CONF. A1.125, OFF. A2.101 & A2.	8			20 / 1	1	A	2	50 / 2			1	EAC-A1	4888
1440	A1.122, CONF. A1.125, OFF. A2.101 & A2.	8			20 / 1	3	B	4	----	--	--	--	----------	4888
1260	A1.122, CONF. A1.125, OFF. A2.101 & A2.	7			20 / 1	5	C	6	50 / 2			1	EAC-A2	4888
1620	OFFICE A1.102, A2.101 & A2.103		9		20 / 1	7	A	8	----	--	--	--	----------	4888
1600	OFFICE A1.102, A2.101 & A2.103		8		20 / 1	9	B	10	20 / 1			9	VAV 1-6 THRU 1-14	900
1600	OFFICE A1.102, A2.101 & A2.103		8		20 / 1	11	C	12	20 / 1			1	DRINKING FOUNTAIN EWC-1	552
1440	DRIVER'S A2.120 RR A1.130 & A1.131		8		20 / 1	13	A	14	20 / 1			2	RESTROOM RECEPTACLE	360
1440	DRIVER'S A2.120 RR A1.130 & A1.131		8		20 / 1	15	B	16	20 / 1			8	OUTDOOR RECEPTACLE	1440
1440	DRIVER'S A2.120 RR A1.130 & A1.131		8		20 / 1	17	C	18	20 / 1				SPARE	
1440	RECEPTACLES R/R, ELEV. RM., LOBBY		8		20 / 1	19	A	20	20 / 1			1	VENDING MACHINE RECEPTACLE	1200
1440	RECEPTACLES R/R, ELEV. RM., LOBBY		8		20 / 1	21	B	22	20 / 1			1	VENDING MACHINE RECEPTACLE	1200
1440	RECEPTACLES R/R, ELEV. RM., LOBBY		8		20 / 1	23	C	24	20 / 1			1	REFRIGERATOR RECEPTACLE	1000
1600	FLOOR RECEPT. MEETING RM.		8		20 / 1	25	A	26	20 / 1			1	GARBAGE DISPOSAL	972
1600	FLOOR RECEPT. MEETING RM.		8		20 / 1	27	B	28	20 / 1			2	OVERCOUNTER RECEPTACLE	360
1600	FLOOR RECEPT. MEETING RM.		8		20 / 1	29	C	30	20 / 1			2	RANGE & HOOD RECEPTACLE	360
500	AV EQUIPMENT RACK EQ510		1		20 / 1	31	A	32	20 / 1			1	DISHWASHER RECEPTACLE	1000
500	CEILING MOUNTED PROJECTOR EQ511		1		20 / 1	33	B	34	20 / 1			1	MICROWAVE RECEPTACLE	1200
500	MULTIMEDIA INPUT PANEL EQ505		1		20 / 1	35	C	36	20 / 1			1	MICROWAVE RECEPTACLE	1200
500	AV EQUIPMENT RACK EQ500		1		20 / 1	37	A	38	20 / 1				SPARE	
500	MULTIMEDIA INPUT PANEL EQ504		1		20 / 1	39	B	40	20 / 1				SPARE	
500	CEILING MOUNTED PROJECTOR EQ50		1		20 / 1	41	C	42	20 / 1			2	FLOOR RECEPT. MEETING RM.	400

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	21848	18508	16740	57.1	KVA
(CONTINUOUS LOAD) @125% (0)	0	0	0	0.0	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (10080)	4482	2869	2689	10.0	KVA
REMAINING @100%	17348	15628	14040	47.0	KVA
PANEL TOTAL W/ DEMAND:	21830	18497	16729	57.1	KVA
FULL LOAD AMPS:	182	154	139	158.4	AMPS

PANEL LOCATION: BLDG."A" 1ST FL. EL.RM
FED BY: ADL
99.6% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'AEH'

MAIN: 480/277VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: 200 AMP | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 22K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
12576	XFMR "AET" (PANEL "AEL")	1			70 / 3	1	A	2	15 / 3			1	CU-A3	3050
12701	----------	--	--	--	----	3	B	4	----	--	--	--	----------	3050
10740	----------	--	--	--	----	5	C	6	----	--	--	--	----------	3050
	SPARE				20 / 1	7	A	8					SPACE	
	SPARE				20 / 1	9	B	10					SPACE	
	SPACE					11	C	12					SPACE	
	SPACE					13	A	14					SPACE	
	SPACE					15	B	16					SPACE	
	SPACE					17	C	18					SPACE	
	SPACE					19	A	20					SPACE	
	SPACE					21	B	22					SPACE	
	SPACE					23	C	24					SPACE	
	SPACE					25	A	26					SPACE	
	SPACE					27	B	28					SPACE	
	SPACE					29	C	30					SPACE	
	SPACE					31	A	32					SPACE	
	SPACE					33	B	34					SPACE	
	SPACE					35	C	36					SPACE	
	SPACE					37	A	38					SPACE	
	SPACE					39	B	40	20 / 1				EMERGENCY LIGHTING 2ND FLOOR	1893
	SPACE					41	C	42	20 / 1				EMERGENCY LIGHTING 1ST FLOOR	3575

PHASE	A	B	C	PANEL TOTAL	
PHASE TOTAL CONNECTED VA:	15626	17644	17365	50.6	KVA
(CONTINUOUS LOAD) @125% (5468)	0	2366	4469	6.8	KVA
(KITCHEN EQUIP.) @ 65% (0)	0	0	0	0.0	KVA
(LARGEST MOTOR) @125%: (0)	0	0	0	0.0	KVA
GEN. RECEPT. DEMAND (0)	0	0	0	0.0	KVA
REMAINING @100%	15626	15751	13790	45.2	KVA
PANEL TOTAL W/ DEMAND:	15626	18117	18259	52.0	KVA
FULL LOAD AMPS:	56	65	66	62.5	AMPS

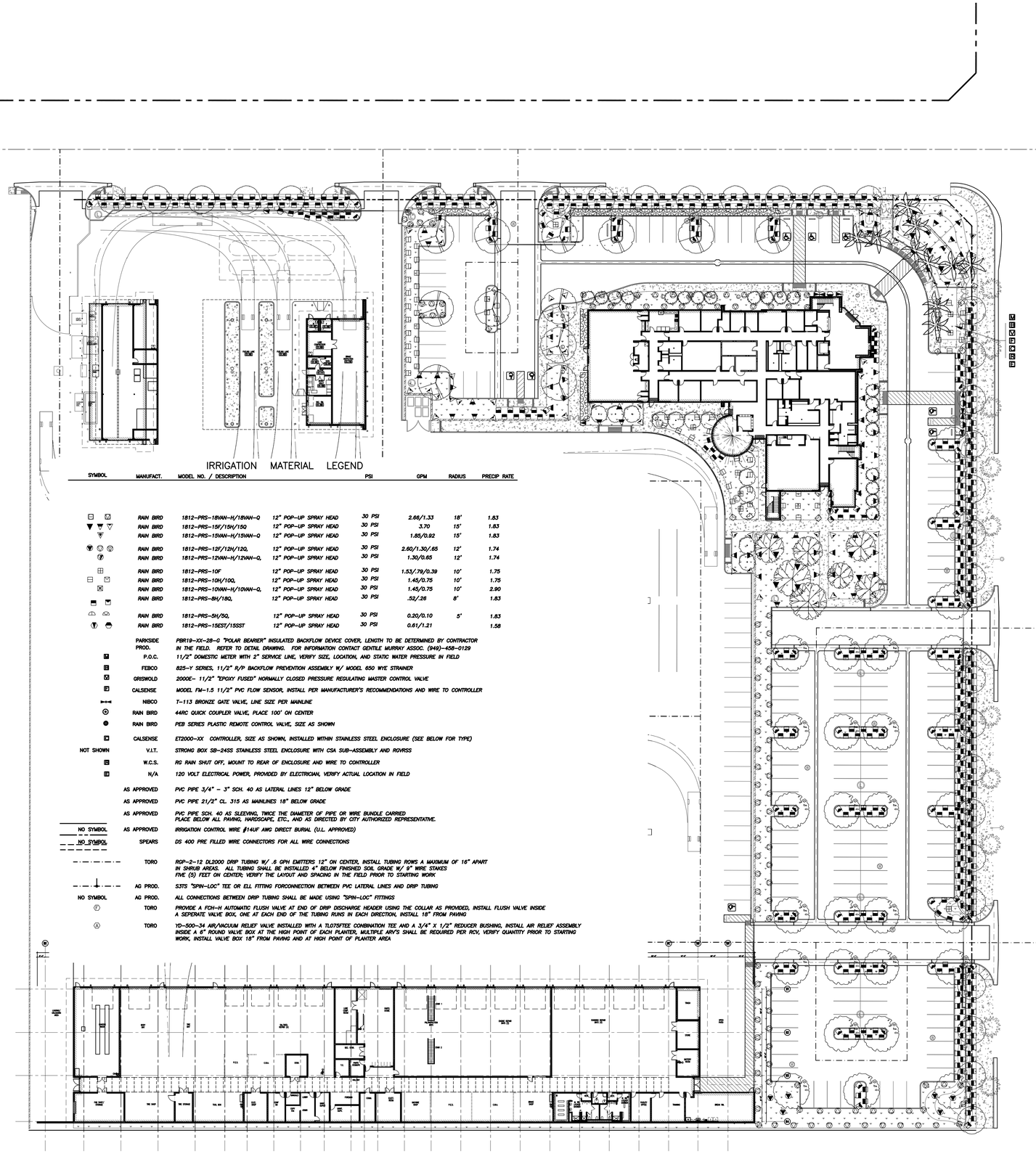
PANEL LOCATION: BLDG."A" 1ST FL. EL.RM
FED BY: ATS-A
100.0% (NET GEN. REC. DEMAND FACTOR)

PANELBOARD 'A2L'

MAIN: 208/120VOLT,3-PH,4-WIRE & GND | FEED TYPE: BOTTOM | MAIN BREAKER: MLO | MOUNTING: SURFACE
BUS: 1 SEC.: SINGLE LUGS | ENCL.: NEMA 1 | BUS: 200 AMP | MIN A.I.C. RATING: 10K

LOAD VA	LOAD DESCRIPTION	OUTLETS M	R	L	CB / P	CKT #	PHASE	CKT #	CB / P	OUTLETS L	R	M	LOAD DESCRIPTION	LOAD VA
900	OFFICE A1.204, A1.208 & A1.202		5		20 / 1	1	A	2	20 / 1			10	VAV 2-1 THRU 2-10	1000
1260	OFFICE A1.204, A1.208 & A1.202		7		20 / 1	3	B	4	20 / 1			1	DRINKING FOUNTAIN EWC-1	552
1080	OFFICE A1.204, A1.208 & A1.202		6		20 / 1	5	C	6	20 / 1			5	LOW ROOF RECEPTACLES	900
1080	OFFICE A1.205 & A1.210 CONF. A1.227		6		20 / 1	7	A	8	20 / 1			5	LOW ROOF RECEPTACLES	900
900	OFFICE A1.205 & A1.210 CONF. A1.227		5		20 / 1	9	B	10	20 / 1			1	COPIER	500
900	OFFICE A1.205 & A1.210 CONF. A1.227		5		20 / 1	11	C	12	20 / 1			1	FLAT PANEL MONITOR	400
900	OFFICE A1.201 & A1.203 CONF. A1.226		5		20 / 1	13	A	14	20 / 1			2	MULTIMEDIA INPUT PANEL RECEPT	360
1080	OFFICE A1.201 & A1.203 CONF. A1.226		6		20 / 1	15	B	16	20 / 1			1	BOILER B-A1	614
1080	OFFICE A1.201 & A1.203 CONF. A1.226		6		20 / 1	17	C	18	20 / 1			1	EES-1	600
540	OPEN OFFICE FLOOR RECEPTACLES		3		20 / 1	19	A	20	20 / 1			4	ROOF RECEPTACLES	720
360	OPEN OFFICE FLOOR RECEPTACLES		2		20 / 1	21	B	22	20 / 1			4	DECK RECEPTACLES	720
900	GENERAL RECEPTACLES		5		20 / 1	23	C	24	20 / 1			3	ELECTROSHADE A1.204, A1.202, A1.	750
720	RESTROOM RECEPTACLES		4		20 / 1	25	A	26	20 / 1			4	ELECTROSHADE A1.205, A1.210, A1.	1000
360	OPEN OFFICE RECEPTACLES		2		20 / 1	27	B	28	20 / 1			1	PUMP & BOILER CNTR PNL	500
	SPARE				20 / 1	29	C	30	20 / 1			1	AV EQUIPMENT RACK EQ300	500
380	EXHAUST FAN TX-A3	1			15 / 2	31	A	32	20 / 1			1	FLAT PANEL MONITOR EQ301	400
380	----------	--	--	--	----	33	B	34	20 / 1			1	MULTIMEDIA INPUT PANEL EQ302	500
380	EXHAUST FAN RF-A1	1			15 / 2	35	C	36	20 / 1				SPARE	

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IRRIGATION MATERIAL LEGEND

SYMBOL	MANUFACT.	MODEL NO. / DESCRIPTION		PSI	GPM	RADIUS	PRECIP RATE
	RAIN BIRD	1812-PRS-18VAN-H/18VAN-Q	12" POP-UP SPRAY HEAD	30 PSI	2.66/1.33	18'	1.83
	RAIN BIRD	1812-PRS-15F/15H/15Q	12" POP-UP SPRAY HEAD	30 PSI	3.70	15'	1.83
	RAIN BIRD	1812-PRS-15VAN-H/15VAN-Q	12" POP-UP SPRAY HEAD	30 PSI	1.85/0.92	15'	1.83
	RAIN BIRD	1812-PRS-12F/12H/12Q,	12" POP-UP SPRAY HEAD	30 PSI	2.60/1.30/.65	12'	1.74
	RAIN BIRD	1812-PRS-12VAN-H/12VAN-Q,	12" POP-UP SPRAY HEAD	30 PSI	1.30/0.65	12'	1.74
	RAIN BIRD	1812-PRS-10F	12" POP-UP SPRAY HEAD	30 PSI	1.53/.79/0.39	10'	1.75
	RAIN BIRD	1812-PRS-10H/10Q,	12" POP-UP SPRAY HEAD	30 PSI	1.45/0.75	10'	1.75
	RAIN BIRD	1812-PRS-10VAN-H/10VAN-Q,	12" POP-UP SPRAY HEAD	30 PSI	1.45/0.75	10'	2.90
	RAIN BIRD	1812-PRS-8H/8Q,	12" POP-UP SPRAY HEAD	30 PSI	.52/.26	8'	1.83
	RAIN BIRD	1812-PRS-5H/5Q,	12" POP-UP SPRAY HEAD	30 PSI	0.20/0.10	5'	1.83
	RAIN BIRD	1812-PRS-15EST/15SST	12" POP-UP SPRAY HEAD	30 PSI	0.61/1.21		1.58
	PARKSIDE PROD.	PBR19-XX-28-G "POLAR BEARIER" INSULATED BACKFLOW DEVICE COVER, LENGTH TO BE DETERMINED BY CONTRACTOR IN THE FIELD. REFER TO DETAIL DRAWING. FOR INFORMATION CONTACT GENTILE MURRAY ASSOC. (949)-458-0129					
	F.D.C.	11/2" DOMESTIC METER WITH 2" SERVICE LINE, VERIFY SIZE, LOCATION, AND STATIC WATER PRESSURE IN FIELD					
	FEBCO	825-Y SERIES, 11/2" R/P BACKFLOW PREVENTION ASSEMBLY W/ MODEL 850 WYE STRAINER					
	GRISWOLD	2000E- 11/2" "EPOXY FUSED" NORMALLY CLOSED PRESSURE REGULATING MASTER CONTROL VALVE					
	CALSENSE	MODEL FM-1.5 11/2" PVC FLOW SENSOR, INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND WIRE TO CONTROLLER					
	NIBCO	T-113 BRONZE GATE VALVE, LINE SIZE PER MAINLINE					
	RAIN BIRD	44RC QUICK COUPLER VALVE, PLACE 100' ON CENTER					
	RAIN BIRD	PEB SERIES PLASTIC REMOTE CONTROL VALVE, SIZE AS SHOWN					
	CALSENSE	ET2000-XX CONTROLLER, SIZE AS SHOWN, INSTALLED WITHIN STAINLESS STEEL ENCLOSURE (SEE BELOW FOR TYPE)					
NOT SHOWN	V.I.T.	STRONG BOX SB-24SS STAINLESS STEEL ENCLOSURE WITH CSA SUB-ASSEMBLY AND ROHSS					
	W.C.S.	RG RAIN SHUT OFF, MOUNT TO REAR OF ENCLOSURE AND WIRE TO CONTROLLER					
	N/A	120 VOLT ELECTRICAL POWER, PROVIDED BY ELECTRICIAN, VERIFY ACTUAL LOCATION IN FIELD					
	AS APPROVED	PVC PIPE 3/4" - 3" SCH. 40 AS LATERAL LINES 12" BELOW GRADE					
	AS APPROVED	PVC PIPE 21/2" CL. 315 AS MAINLINES 18" BELOW GRADE					
	AS APPROVED	PVC PIPE SCH. 40 AS SLEEVING, TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED PLACE BELOW ALL PAVING, HARDSCAPE, ETC., AND AS DIRECTED BY CITY AUTHORIZED REPRESENTATIVE.					
NO SYMBOL	AS APPROVED	IRRIGATION CONTROL WIRE #14UF AWG DIRECT BURIAL (U.L. APPROVED)					
NO SYMBOL	SPEARS	DS 400 PRE FILLED WIRE CONNECTORS FOR ALL WIRE CONNECTIONS					
	TORO	ROP-2-12 DL9000 DRIP TUBING W/ .6 GPH EMITTERS 12" ON CENTER, INSTALL TUBING ROWS A MAXIMUM OF 16" APART IN SHRUB AREAS. ALL TUBING SHALL BE INSTALLED 4" BELOW FINISHED SOIL GRADE W/ 9" WIRE STAKES FIVE (5) FEET ON CENTER; VERIFY THE LAYOUT AND SPACING IN THE FIELD PRIOR TO STARTING WORK					
	AG PROD.	53TS "SPIN-LOC" TEE OR ELL FITTING FORCONNECTION BETWEEN PVC LATERAL LINES AND DRIP TUBING					
NO SYMBOL	AG PROD.	ALL CONNECTIONS BETWEEN DRIP TUBING SHALL BE MADE USING "SPIN-LOC" FITTINGS					
(F)	TORO	PROVIDE A FCH-H AUTOMATIC FLUSH VALVE AT END OF DRIP DISCHARGE HEADER USING THE COLLAR AS PROVIDED, INSTALL FLUSH VALVE INSIDE A SEPERATE VALVE BOX, ONE AT EACH END OF THE TUBING RUNS IN EACH DIRECTION, INSTALL 18" FROM PAVING					
(A)	TORO	YD-500-34 AIR/VACUUM RELIEF VALVE INSTALLED WITH A TL075FTEE CONBINATION TEE AND A 3/4" X 1/2" REDUCER BUSHING, INSTALL AIR RELIEF ASSEMBLY INSIDE A 6" ROUND VALVE BOX AT THE HIGH POINT OF EACH PLANTER, MULTIPLE AIR'S SHALL BE REQUIRED PER ROY, VERIFY QUANTITY PRIOR TO STARTING WORK, INSTALL VALVE BOX 18" FROM PAVING AND AT HIGH POINT OF PLANTER AREA					

N

30' 15' 0' 30'

GRAPHIC SCALE
SCALE: 1" = 30'

CITY OF GARDENA
GARDENA TRANSIT ADMINISTRATION, OPERATIONS & MAINTENANCE FACILITY
PROJECT ADDRESS
13999 WESTERN AVENUE
GARDENA, CA. 90247

PREPARED FOR:
CITY OF GARDENA

Project No: 04.24072.00

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Professional seals

No.	Issue Description	Date
A	50% PACAGE	08/04/06
B	90% C/S/U.U. PACKAGE	08/31/06
C	75% PACKAGE	09/13/06
E	PLAN CHECK CORRECTION	11/20/06
F	2nd PLAN CHK CORRECTION	12/21/06
G	3rd PLAN CHK CORRECTION	01/24/07

PERMIT #:

Drawn by: Reviewed by:

Project No: 04-24072.00

Sheet Titles:

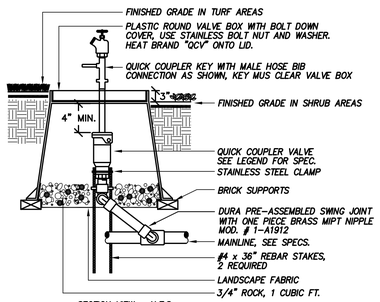
IRRIGATION PLAN

Sheet Number:

L200

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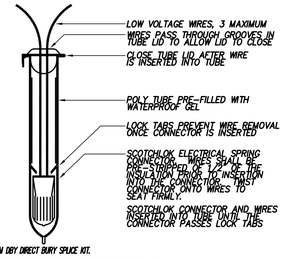
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SECTION VIEW – N.T.S.

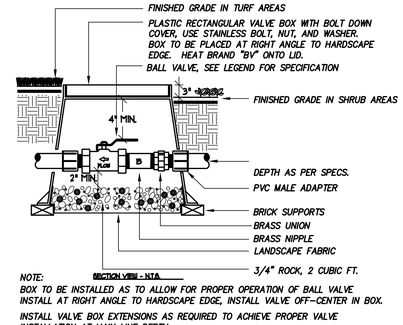
NOTE:
USE TEFLON TAPE ON ALL THREADED FITTINGS TYPICAL.

E QUICK COUPLER VALVE
SCALE: N.T.S.



NOTE:
WIRE CONNECTOR SHALL BE A 3M DBY DIRECT BURY SPLICE KIT.
KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPHENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED INSTALLED WITH GEL.
DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2 – 3 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.

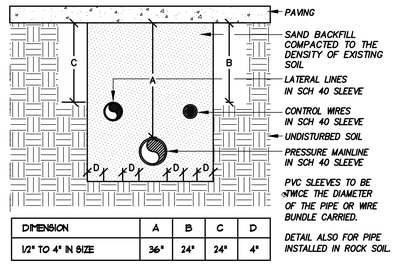
J WIRE CONNECTIONS
SCALE: N.T.S.



SECTION VIEW – N.T.S.

NOTE:
BOX TO BE INSTALLED AS TO ALLOW FOR PROPER OPERATION OF BALL VALVE INSTALL AT RIGHT ANGLE TO HARDSCAPE EDGE, INSTALL VALVE OFF-CENTER IN BOX.
INSTALL VALVE BOX EXTENSIONS AS REQUIRED TO ACHIEVE PROPER VALVE INSTALLATION AT MAIN LINE DEPTH.

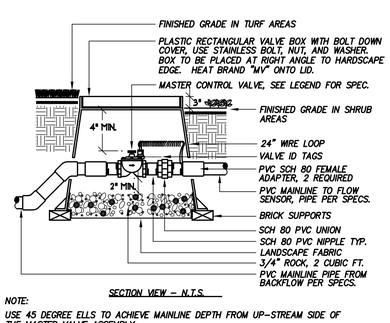
D BALL VALVE
SCALE: N.T.S.



DIMENSION	A	B	C	D
1/2" TO 4" IN SIZE	36"	24"	24"	4"

SECTION VIEW – N.T.S.

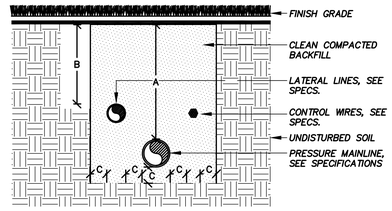
I SLEEVE INSTALLATION
SCALE: N.T.S.



SECTION VIEW – N.T.S.

NOTE:
USE 45 DEGREE ELLS TO ACHIEVE MAINLINE DEPTH FROM UP-STREAM SIDE OF THE MASTER VALVE ASSEMBLY.

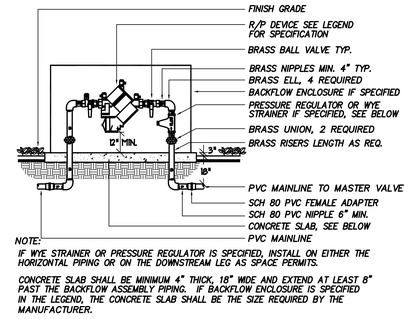
C MASTER VALVE
SCALE: N.T.S.



DIMENSION	A	B	C
1/2" TO 3" IN SIZE	18"	18"	4"
4" TO 6" IN SIZE	24"		4"

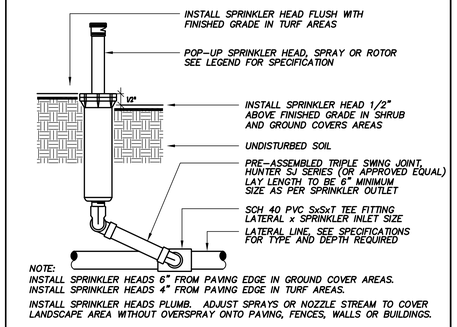
SECTION VIEW – N.T.S.

H PIPE INSTALLATION
SCALE: N.T.S.



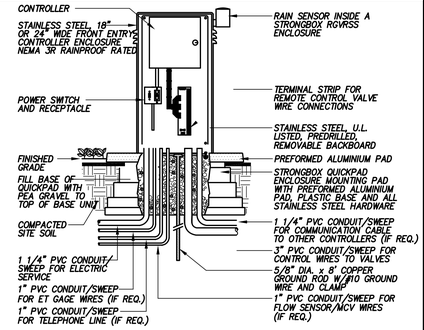
NOTE:
IF WYE STRAINER OR PRESSURE REGULATOR IS SPECIFIED, INSTALL ON EITHER THE HORIZONTAL PIPING OR ON THE DOWNSTREAM LEG AS SPACE PERMITS.
CONCRETE SLAB SHALL BE MINIMUM 4" THICK, 18" WIDE AND EXTEND AT LEAST 8" PAST THE BACKFLOW ASSEMBLY PIPING. IF BACKFLOW ENCLOSURE IS SPECIFIED IN THE LEGEND, THE CONCRETE SLAB SHALL BE THE SIZE REQUIRED BY THE MANUFACTURER.

B BACKFLOW PREVENTION
SCALE: N.T.S.

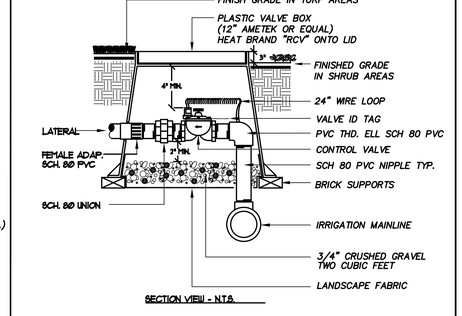


NOTE:
INSTALL SPRINKLER HEADS 6" FROM PAVING EDGE IN GROUND COVER AREAS.
INSTALL SPRINKLER HEADS 4" FROM PAVING EDGE IN TURF AREAS.
INSTALL SPRINKLER HEADS PLUMB. ADJUST SPRAYS OR NOZZLE STREAM TO COVER LANDSCAPE AREA WITHOUT OVERSPRAY ONTO PAVING, FENCES, WALLS OR BUILDINGS.

A POP-UP SPRINKLER
SCALE: N.T.S.



G CONTROLLER ENCLOSURE
SCALE: N.T.S.



SECTION VIEW – N.T.S.

F REMOTE CONTROL VALVE
SCALE: N.T.S.

IRRIGATION NOTES

1 ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.

2 THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.

3 THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.

4 THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.

5 THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.

6 DO NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.

7 INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.

8 ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

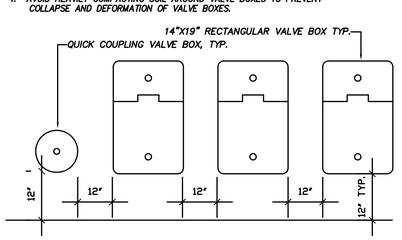
9 CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE TO THE END OF THE MAINLINE RUN IN TWO DIRECTIONS FROM THE CONTROLLER.

10 ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE TWICE THE DIAMETER OF THE PIPE CARRIED. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING. ALL SLEEVES TO BE AS SHOWN ON THE PLANS.

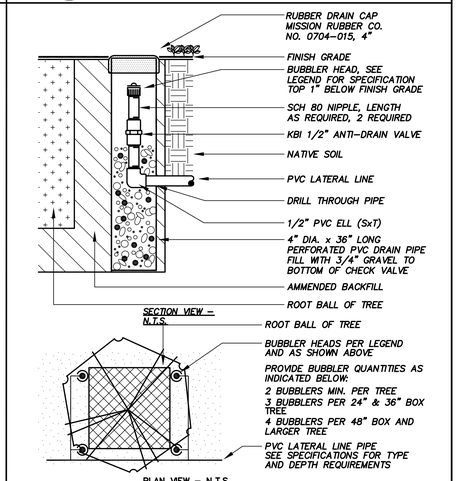
11 ALL QUICK COUPLER VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER VALVES WITHIN 18" OF HARDSCAPE.

12 ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.

NOTE:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET RCV AND VALVE BOX ASSEMBLY IN GROUND-COVER/SHRUB AREA WHERE POSSIBLE.
3. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
4. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOXES.



K VALVE BOX PLACEMENT
SCALE: N.T.S.



PLAN VIEW – N.T.S.

L DEEP WELL BUBBLER
SCALE: N.T.S.

CITY OF GARDENA
GARDENA TRANSIT ADMINISTRATION, OPERATIONS & MAINTENANCE FACILITY
PROJECT ADDRESS
13999 WESTERN AVENUE
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PREPARED FOR:
CITY OF GARDENA

Project No: 04.24072.00

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Professional seals

No.	Issue Description	Date
A	50% PACAKGE	08/04/06
B	90% C/S/U.U. PACKAGE	08/31/06
C	75% PACKAGE	09/13/06
E	PLAN CHECK CORRECTION	11/20/06
F	2nd PLAN CHK CORRECTION	12/21/06
G	3rd PLAN CHK CORRECTION	01/24/07

PERMIT #:

Drawn by: Reviewed by:

Project No:

Sheet Titles:

IRRIGATION DETAILS

Sheet Number:

L201

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13999 SOUTH WESTERN AVE. / GARDENA, CALIFORNIA 90249-3005 / WWW.RIDEGTRANS.COM / PHONE (310) 965-8888

February 11, 2021

Reagan Clemens
Account Manager, Clean Energy
4675 MacArthur Court, Suite 800
Newport Beach, CA 92660

Subject: **Best and Final Offer (BAFO) Request for RFP 2020-05 Design and Building of a CNG Fueling Station**

Dear Mr. Clemens,

GTrans is requesting a Best and Final Offer (BAFO) to be submitted to Dana Pynn via email at dpynn@gardenabus.com by no later than February 18, 2021 at 5:00 pm PST. If the BAFO is submitted after the deadline, the BAFO may be rejected in its entirety.

The BAFO shall be based on the terms and conditions set forth in RFP 2020-05, all addendum, all written clarifications to-date, and all considerations outlined below.

In the event of a conflict between previously released information and the information contained herein, the latter shall control.

The considerations are as follows:

The validity of proposal and offer in its entirety shall be extended for an additional sixty (60) calendar days and shall be stated as such in your BAFO response(s).

If a design approach that deviates from what is indicated in the drawing is implemented, then any alternate design must be code compliant.

TASHA CERDA, Mayor / MARK E. HENDERSON, Mayor Pro Tem
PAULETTE C. FRANCIS, Councilmember / ART KASKANIAN, Councilmember / RODNEY G. TANAKA, Councilmember
MINA SEMENZA, City Clerk / J. INGRID TSUKIYAMA, City Treasurer / CLINT OSORIO, City Manager / CARMEN VASQUEZ, City Attorney

1. CNG STATION

a. VIBRATION SENSORS

Compressor skids shall include analog-style vibration sensor-transmitters on compressor frame and cooler assembly. Settings for alarm-notice level and fault level will be coordinated at time of startup.

For ANGI to supply their standard ball valves, Clean Energy (CE) shall provide specifications for the valves and specifications for any other related information GTrans would need to consider.

Dispenser meter: provide 1" E+H meters as specified.

b. BUILDING MODIFICATION

GTrans' existing air handlers are class 1, division 2, explosive-proof exhaust fans. CE offer shall consider these specifications.

2. VALUE ENGINEERING IDEAS

a. GAS DRYER

CE shall offer gas dryer as specified in RFP.

b. WALL

CE shall offer CMU wall as specified in RFP.

c. TUBING

Compression fittings may be used, if approved in writing by Parker, Hoke or Swagelok, including meeting MAWP, diameter and material-grade requirements in the drawings. 1" tubing may be 0.120" wall thickens minimum (not 0.120" average wall).

d. DBE PARTICIPATION

CE shall maintain DBEs as originally offered in proposal.

e. ELIMINATION OF DUCT WORK

GTrans agrees to the elimination of duct work only if the design can achieve the required air exchange and functional requirements outlined in the drawings and applicable code sections.

f. ALARM CLASSIFICATION / HORNS

Detection-alarm annunciators may be non-classified, if approved by AHJ. If classified-area alarm annunciators are required by AHJ, cost of upgrade shall be documented and negotiated, and shall not exceed $11,000. Annunciators located outdoors shall be rated NEMA 3R or NEMA 4 in any case.

3. OTHER ITEMS

a. PERMIT COST

GTrans shall pay for all permits directly, CE shall remove costs of permits only.

b. TRENCHING

In the cost proposal, provide the correct LF amount that would be required for trenching within the CNG compound and trenching from the new Main switchboard to the CNG compound with the understanding that the overall price for item #45 will remain unchanged even if the LF amount is updated.

c. MILESTONE SCHEDULE

Confirm in writing, as part of the BAFO, of CE's acceptance of the agreed milestone (Attachment A).

d. O&M

GTrans is not considering an O&M agreement as part of this contract.

e. RNG SUPPLIER CONTRACT

GTrans is not considering an RNG contract as part of this contract.

f. ORDER OF PRECEDENCE / REVISED CONTRACT

Please acknowledge acceptance of attached revised contract including an "order of precedence" approved by GTrans' legal counsel (Attachment B).

g. BAFO COST TEMPLATE

Please utilize the attached modified BAFO cost template (Attachment C). Labor inputs have been added to the individual items for the CNG station. The new alternates/options are in the summary page as LS items for ease of entry and review. GTrans asks that CE perform a thorough review of costs and vet for any duplication prior to submission.

The cost template is unlocked and CE may modify as needed. As such, please verify all formulas are functioning as needed and calculation are accurate.

4. ALTERNATES / OPTIONS

a. CONCRETE PAVING

Provide alternate cost for upgrade of base AC pavement in compressor compound to concrete. Alternate shall include 4" thick 2500 PSI concrete over 4" compacted aggregate sub-base and reinforce with welded-wire mesh.

b. CEILING FANS FOR BUILDING MODIFICATION`

Drawing M-001 note 14: BAS (building automation system) integration may be omitted, if the fans are otherwise powered 24 hours a day 365 days a year, or via lighting-circuit integration, or other code-approved method to achieve the required ACH rate continuously, and as required to avoid a classified area near the ceiling.

c. VENTILATION SYSTEM

Provide alternate ventilation system for bid.

Sincerely,

Dana Pynn
Transit Administrative Officer

BEST AND FINAL OFFER REQUEST FOR
GTRANS RFP 2020-05 DESIGN AND BUILD OF A CNG FUELING STATION

ATTACHMENT A: PAYMENT MILESTONE SCHEDULE

Design and Build of CNG Fueling Station

No.	Description	Percentage
1	90% of Design: % complete billed monthly	1%
2	100% of Design: Billed at plan check submittal	1%
3	Permits Issued	1%
4	CNG Equipment Submittals: 50% on submission, 50% on approval	15%
5	Electrical Equip. Submittals: 50% on submission, 50% on approval	3%
6	CNG Equip. Fabrication: % complete billed monthly	15%
7	Electrical Equip. Fabrication: % complete billed monthly	3%
8	CNG Equip. Delivery: Billed on delivery to jobsite	15%
9	Electrical Equip. Delivery: Billed on delivery to jobsite	3%
10	Mobilization: Billed at start of construction	2%
11	Civil Construction: % complete billed monthly	9%
12	Mechanical Construction: % complete billed monthly	9%
13	Electrical Construction: % complete billed monthly	11%
14	Startup/Commissioning: Billed once station is fully operable	6%
15	Training/Closeout: Billed at completion	1%
16	Retention	5%
Total		**100%**

Vehicle Maintenance Facility Upgrades

No.	Description	Percentage
1	90% of Design: % complete billed monthly	4.0%
2	100% of Design: Billed at plan check submittal	2.0%
3	Permits Issued	1.0%
4	Gas Detection Submittals: 50% on submission, 50% on approval	4.0%
5	Electrical/Mechanical Equip. Submittals: 50%, 50%	4.0%
6	Gas Detection Equip. Fabrication: % complete billed monthly	4.0%
7	Electrical/Mechanical Equip. Fabrication: % completed billed monthly	4.0%
8	Gas Detection Equip. Delivery: Billed on delivery to jobsite	4.0%
9	Electrical/Mechanical Equip. Delivery: Billed on delivery to jobsite	4.0%
10	Mobilization: Billed at start of construction	5.0%
11	Gas Detection Construction: % complete billed monthly	15.0%
12	Mechanical Construction: % complete billed monthly	20.0%
13	Electrical Construction: % complete billed monthly	20.0%
14	Startup/Commissioning: Billed as facility is fully operable	2.0%
15	Training/Closeout: Billed at completion	2.0%
16	Retention	5.0%
Total		**100%**

BEST AND FINAL OFFER REQUEST FOR

GTRANS RFP 2020-05

ATTACHMENT B

CONTRACT DOCUMENTS

CONTRACT DOCUMENTS

RFP. No. 2020-05

AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 20_____, by and between CITY OF GARDENA in the State of California, hereinafter referred to as "CITY" and_____, hereinafter referred to as "CONTRACTOR."

The City and the Contractor mutually agree as follows:

ARTICLE I.

THE PROJECT

For and in consideration of the mutual promises set forth herein, Contractor agrees to perform and complete in a good and workmanlike manner all work required by the Contract Documents for City Project No. _____, which is described as follows:

Title: DESIGN AND BUILD OF A CNG FUELING STATION

Said work shall be performed in accordance with the Plans, Specifications and other Contract Documents, all of which are referenced in Article III hereof and incorporated herein as though fully set forth. Contractor shall furnish at its own expense all labor, materials, equipment and services necessary therefor, except such labor, materials, equipment and services as are provided in the Contract Documents to be furnished by City.

ARTICLE II.

CONTRACT SUM AND PAYMENT

For performing and completing the work in accordance with the Contract Documents, City shall pay Contractor, in full compensation therefor, the contract sum set forth in the Bidding Schedule. Said sum shall constitute payment in full for all work performed hereunder, including, without limitation, all labor, materials, equipment, tools and services used or incorporated in the work, supervision, administration, overhead, expenses and any and all other things required, furnished or incurred for completion of the work as specified in the Contract Documents. City shall make payments to Contractor on account of the contract sum at the time, in the manner, and upon the conditions specified in the Contract Documents.

ARTICLE III.

CONTRACT DOCUMENTS

The Contract Documents, which constitute the entire agreement between the City and the Contractor, are enumerated as follows: Request for Proposal Document (RFP No. 2020-05 Design and Build of a CNG Fueling Station) in its entirety; this Agreement; Specifications; Technical Provisions; Drawings; Plans; any Best and Final Offer, and all addenda issued prior to and all modifications issued after the execution of this Agreement. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

In the event of any inconsistency between the terms of the proposal and this agreement, the following order of precedence shall apply with the higher documents taking precedent over the lower documents:

FIRST:	Requirements of law, including the Code and Ordinances of the City of Gardena.
SECOND:	Permits from other agencies as many be required by law.
THIRD:	Permits from City of Gardena Departments as may be required by law or ordinance.
FOURTH:	The Contract Document.
FIFTH:	Specifications (to include changes indicated by Addenda No. 1-9).
SIXTH:	Technical Provisions.
SEVENTH:	Drawings (to include changes indicated by Addenda No. 1-9).
EIGHTH:	Request for Proposal (RFP) No. 2020-05 Design and Build of a CNG Fueling Station.
NINTH:	Contractor's Best and Final Offer (BAFO).
TENTH:	Contractor's Proposal.

ARTICLE IV.

EFFECTIVE DATE

This Agreement shall become effective and commence as of the date set forth below on which the last of the parties, whether City or Contractor, executes said Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and attested by their proper officers thereunto duly authorized.

CITY

By:_____
MAYOR (Sign)

Date: _____

SEAL

Attest:
By: _____
CITY CLERK (Sign)

Date:_____

CONTRACTOR

By:_____
Sign / Title

Date: _____

Attest: (Contractor)

By:_____
Sign / Title

Date: _____

APPROVED AS TO FORM:

By:_____
CITY ATTORNEY (Sign)

Date:_____

CONTRACT DOCUMENTS

RFP. No. 2020-05

FAITHFUL PERFORMANCE BOND

WHEREAS, the City of Gardena has awarded to _____, hereinafter designated as the "Principal", a Contract for:

PROJECT: DESIGN AND BUILD OF A CNG FUELING STATION

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract;

NOW, THEREFORE, we, _____
as Principal, and _____
as Surety, are held and firmly bound unto the City in the sum of _____
_____
Dollars ($_____), this amount being not less than one hundred percent (100%) of the total Contract price, lawful money of the United States of America, for payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. In case suit is brought upon this bond, the Surety will pay all court costs and reasonable attorneys' fees to the City of Gardena in an amount to be fixed by the court.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, well and truly keep and perform all the undertakings, terms, covenants, conditions and agreements in the said Contract and any alteration thereof, made as therein provided, all within the time and in the manner therein designated and in all respects according to their true intent and meaning, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

FURTHER, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition, or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of any such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849. The City is the principal beneficiary of this bond and has all rights of a party hereto.

This bond shall remain in full force and effect for a warranty period of one full year after acceptance of the job by the City.

IN WITNESS WHEREOF, three (3) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and

Surety named herein, on the_____ day of_____, 20___, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

[PRINCIPAL]

By _____

Title _____

_____

Signature

[SURETY]

By _____

Title _____

Address _____

_____

Phone No. _____

_____

Signature

All signatures must be notarized.

Appropriate modifications shall be made to this form if the bond is being furnished for the performance of an act not provided for by agreement.

Corporations must affix corporate seal.

CONTRACT DOCUMENTS

RFP. No. 2020-05

PAYMENT BOND

WHEREAS, the City of Gardena has awarded to _____, as Contractor, a contract for the work described as follows:

PROJECT: DESIGN AND BUILD OF A CNG FUELING STATION

AND WHEREAS, said Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen and other persons, as provided by law;

NOW, THEREFORE, we, the undersigned Contractor and Surety, are held firmly bound unto the City in the sum of _____, Dollars ($_____) this amount being not less than one hundred percent (100%) of the total Contract price, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if said Contractor, its heirs, executors, administrators, successors, assigns, or subcontractors shall fail to pay any of the persons named in Civil Code Section 3181, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, or any other amounts due to persons under any applicable project contract or law, with respect to such work and labor, then the Surety or Sureties herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said Surety will pay all court costs and reasonable attorneys' fees to the plaintiff(s) and City in an amount to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Further, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition, or modification to the terms of the Contract, or of the work to be performed thereunder, or the specifications for the same, shall in any way affect its obligations under this bond, and it does hereby waive notice of such change, extension of time, alteration, addition, or modification to the terms of the Contract or to the work or to the specifications thereunder. Surety hereby waives the provisions of California Civil Code §§ 2845 and 2849.

This bond shall remain in full force and effect for six full months after the period in which verified claims may be filed as provided for in Section 3184 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _____ day of _____ 20_____.

[PRINCIPAL]

By _____

Title _____

_____

Signature

[SURETY]

By _____

Title _____

Address _____

_____

Phone No. _____

_____

Signature

All signatures must be notarized.

Appropriate modifications shall be made to this form if the bond is being furnished for the performance of an act not provided for by agreement.

Corporations must affix corporate seal.

CONTRACT DOCUMENTS

RFP. No. 2020-05

WORKER'S COMPENSATION INSURANCE CERTIFICATE

The Contractor shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

> I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of the Contract.

DATED:_____

_____
CONTRACTOR

By_____
Signature

_____
Title

ATTEST:

By_____
Signature

_____
Title

CONTRACT DOCUMENTS

RFP. No. 2020-05

INDEMNIFICATION AND HOLD HARMLESS AGREEMENT AND WAIVER OF SUBROGATION AND CONTRIBUTION

DESIGN AND BUILD OF A CNG FUELING STATION

To the fullest extent permitted by law, Indemnitor hereby agrees, at its sole cost and expense, to defend, protect, indemnify, and hold harmless the City of Gardena and its respective elected officials, officers, attorneys, agents, employees, volunteers, successors, and assigns (collectively "Indemnitees") from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, or other professionals and all costs associated therewith (collectively "Liabilities"), arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to any act, failure to act, error, or omission of Indemnitor or any of its officers, agents, servants, employees, subcontractors, materialmen, suppliers or their officers, agents, servants or employees, arising or claimed to arise, directly or indirectly, out of, in connection with, resulting from, or related to the above-referenced contract, agreement, license, or permit (the "Agreement") or the performance or failure to perform any term, provision, covenant, or condition of the Agreement, including this indemnity provision. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence. This indemnity provision shall survive the termination of the Agreement and is in addition to any other rights or remedies which Indemnitees may have under the law. Payment is not required as a condition precedent to an Indemnitee's right to recover under this indemnity provision, and an entry of judgment against an Indemnitee shall be conclusive in favor of the Indemnitee's right to recover under this indemnity provision. Indemnitor shall pay Indemnitees for any attorney fees and costs incurred in enforcing this indemnification provision. Notwithstanding the foregoing, nothing in this instrument shall be construed to encompass (a) Indemnitees' sole negligence or willful misconduct to the limited extent that the underlying Agreement is subject to Civil Code 2782(a), or (b) the contracting public agency's active negligence to the limited extent that the underlying Agreement is subject to Civil Code 2782(b). This indemnity is effective without reference to the existence or applicability of any insurance coverages which may have been required under the Agreement or any additional insured endorsements which may extend to Indemnitees.

Indemnitor, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees, while acting within the scope of their duties, from all claims, losses and liabilities arising out of or incident to activities or operations performed by or on behalf of the Indemnitor regardless of any prior, concurrent, or subsequent active or passive negligence by the Indemnitees. Accountants, attorneys, or other professionals employed by Indemnitor to defend Indemnitees shall be selected by Indemnitees.

In the event there is more than one person or entity named in the Agreement as an Indemnitor, then all obligations, liabilities, covenants and conditions under this instrument shall be joint and several.

"Indemnitor"

Company/Contractor _____

Name & Title _____

Signature & Date _____

CONTRACT DOCUMENTS

RFP. No. 2020-05

INSURANCE

CERTIFICATION OF INSURANCE (COI) SHALL BE SUBMITTED BY THE CONTRACTOR

1. **COMMENCEMENT OF WORK**. Contractor shall not be authorized to commence Work under this Contract until it has obtained approved insurance. Before beginning Work hereunder, during the entire period of this Contract, for any extensions hereto, and for periods after the end of this Contract as may be indicated below, Contractor must have and maintain in place not less than the insurance coverages required in this Section at his sole cost and expense. Contractor's insurance shall comply with all items specified by this Contract. Any subcontractors shall be subject to all of the requirements of this Section and Contractor shall be responsible to obtain evidence of insurance from each subcontractor and provide it to City before the subcontractor commences work. Alternatively, Contractor's insurance may cover all subcontractors. The insurance requirements are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under this Contract.

2. **INSURANCE COMPANY REQUIREMENTS.** All insurance policies used to satisfy the requirements imposed hereunder shall be issued by insurers admitted to do business in the State of California. Insurers shall have a current Best's rating of not less than A-:VII, unless otherwise approved by City.

3. **COVERAGES, LIMITS AND POLICY REQUIREMENTS**. Contractor shall maintain the types of coverages indicated below:

4. **COMPREHENSIVE GENERAL LIABILITY INSURANCE.** A policy of comprehensive general liability insurance written on a per occurrence basis in an amount not less than either two million dollars ($2,000,000) per occurrence or five million dollars ($5,000,000) aggregate.

5. **COMMERCIAL AUTO LIABILITY INSURANCE**. A policy including all coverages provided by and to the extent afforded by Insurance Services Office form CA 0001, ed. 12/93, including Symbol 1 (any auto) with no special limitations affecting City. The minimum auto insurance coverage shall be one million dollars ($5,000,000) combined single limit per accident.

6. **WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE**. A policy which meets all statutory benefit requirements of the Labor Code, or other applicable law, of the State of California. The minimum coverage limits for said insurance shall be no less than one million dollars ($1,000,000) per claim. The policy shall be issued by an insurance company which is admitted to do business in the State of California and shall contain a clause that the policy may not be canceled without thirty (30) days prior written notice, return receipt requested, is mailed to City.

   In accordance with the provisions of section 1860 of the California Labor Code, Contractor's attention is directed to the requirement that in accordance with the provisions of section 3700 of the California Labor Code, Contractor and every subcontractor will be required to secure the payment of compensation of his or her employees, or obtain a certificate of

consent to self-insurance by the Director of Industrial Relations in accordance with the requirements of Section 3700 of the California Labor Code.

In accordance with the provisions of section 1861 of the California Labor Code, Contractor shall sign and file with the awarding body the following certification prior to performing any work on the Project:

> "I am aware of the provisions of section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

7. **PROFESSIONAL LIABILITY.** If design/build, with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate.

8. **Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards)** with limits no less than $1,000,000 per occurrence or claim, and $2,000,000 policy aggregate.

9. **OTHER INSURANCE.** Contractor may be required to obtain such other insurance coverage as may be required by applicable law or by the Agency.

10. **EXCESS OR UMBRELLA LIABILITY INSURANCE (OVER PRIMARY).** If an excess or umbrella liability policy is used to meet limit requirements, the insurance must provide coverage at least as broad as specified for the underlying coverages. Any such coverage provided under an excess or umbrella liability policy must include a "drop down provision" providing primary coverage above a maximum $25,000 self-insured retention for liability not covered by primary but covered by the umbrella. Coverage must be provided on a "pay on behalf" basis, with defense costs payable in addition to policy limits. There must be no cross-liability exclusion precluding coverage for claims or suits by one insured against another. Coverage must be applicable to Agency for injury to employees of Contractor, its subcontractors or others performing work to satisfy Contractor's obligations under this Agreement. The scope of coverage provided is subject to approval of Agency following receipt of proof of insurance as required herein. Limits are subject to review, but in no event may be less than $2,000,000 per occurrence and aggregate.

11. **POLICY REQUIREMENTS.** The policies set forth above shall comply with the following, as evidenced by the policies or endorsements to the policies:

    (i) City and its appointed and elected officers, employees, agents and volunteers shall be added as additional insured to the policy as respects liabilities arising out of the performance of any work done under the Contract.

    (ii) The insurer shall agree to provide City with thirty (30) days prior written notice, return receipt requested, of any cancellation, non-renewal or material change in coverage.

    (iii) For any claims with respect to the Project covered by this Contract, Contractor's insurance coverage shall be primary insurance as respects City and its elected and appointed officers, employees, agents and volunteers. Any insurance or self-insurance maintained by City and its elected and appointed officers, employees, agents and volunteers shall be excess of Contractor's insurance and shall not contribute with it.

(iv) The policy shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the company's liability.

12. **COURSE OF CONSTRUCTION INSURANCE.** Contractor shall provide course of construction insurance covering for "all risks" of loss in the amount of the completed value of the Work. The City shall be named as a loss payee and the insurer shall waive all rights of subrogation against the City. This policy shall be issued by an insurance company which is admitted to do business in the State of California and shall contain a clause that the policy may not be canceled until thirty (30) days written notice, return receipt requested, is mailed to the City. Course of Construction Insurance may be provided for each separate Phase.

13. **ADDITIONAL REQUIREMENTS.** The procuring of required insurance shall not be construed to limit Contractor's liability hereunder nor to fulfill the indemnification provisions and requirements of this Contract. City shall notify Contractor in writing of changes in the insurance requirements. If Contractor does not deposit copies of acceptable insurance policies or endorsements with City incorporating such changes within sixty (60) days of receipt of such notice, Contractor shall be deemed in default hereunder.

14. **DEDUCTIBLES.** Any deductible or self-insured retentions must be declared to and approved by City. Contractor shall guarantee that, at the option of the City, either: the insurer shall eliminate or reduce such deductibles or self-insured retentions with respect to City, its officers, employees, agents and volunteers (with additional premium, if any, to be paid by Contractor); or Contractor shall provide satisfactory financial guarantee for payment of losses and related investigations, claim administration and defense expenses in the amount of any deductibles or self-insured retentions.

15. **VERIFICATION OF COMPLIANCE.** Contractor shall furnish City with the required endorsements attached hereto. All documents are to be received and approved by City before Work commences. Not less than fifteen (15) days prior to the expiration date of any policy of insurance required by this Contract, Contractor shall deliver to City a binder or certificate of insurance with respect to each renewal policy, bearing a notation evidencing payment of the premium therefore, or accompanied by other proof of payment satisfactory to City. Contractor shall provide full copies of any requested policies to City within three (3) days of any such request by City.

16. **TERMINATION FOR LACK OF REQUIRED COVERAGE.** If Contractor, for any reason, fails to have in place, at all times during the term of this Contract, including any extension hereto, all required insurance and coverage, City may immediately obtain such coverage at Contractor's expense and/or terminate this Contract. Contractor shall indemnify, defend and hold harmless City and its elected and appointed officers, employees, agents and volunteers from any claim resulting from failure of either Contractor or any subcontractor to take out or maintain any insurance required by this Contract.

17. **EQUIPMENT COVERAGE**. Any policy or policies of insurance Contractor or his subcontractors elect to carry as insurance against loss or damage to construction equipment and tools or other personal property shall include a provision waiving the insurer's right of subrogation against City.

18. **SUBCONTRACTORS.** Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Agency is an additional insured on insurance required from subcontractors. For CGL

coverage subcontractors shall provide coverage with a format least as broad as CG 20 38 04 13

19. **SPECIAL RISKS OR CIRCUMSTANCES.** Agency reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage

20. **MAINTENANCE BOND.** If the Performance Bond provides for a one-year warranty a separate Maintenance Bond is not necessary. If the warranty period specified in the Contract Documents is for longer than one year, a Maintenance Bond equal to 10% of the contract price is required.

CONTRACT DOCUMENTS

RFP. No. 2020-05

AUDIT REVIEW PROCEDURES

DESIGN AND BUILD OF A CNG FUELING STATION

A. Any dispute concerning a question of fact arising under an interim or post audit of this Agreement that is not disposed of by Agreement, shall be reviewed by City's Chief Financial Officer.

B. Not later than thirty (30) calendar days after issuance of the final audit report, Contractor may request a review by City's Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by City will excuse Contractor from full and timely performance, in accordance with the terms of this Agreement.

D. Contractor and subcontractor Agreements, including cost proposals and Indirect Cost Rates (ICR), may be subject to audits or reviews such as, but not limited to, an Agreement audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the Agreement, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review it is Contractor's responsibility to ensure federal, City, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The Agreement, cost proposal, and ICR shall be adjusted by Contractor and approved by City Contract Administrator to conform to the audit or review recommendations. Contractor agrees that individual terms of costs identified in the audit report shall be incorporated into the Agreement by this reference if directed by City at its sole discretion. Refusal by Contractor to incorporate audit or review recommendations, or to ensure that the federal, City or local governments have access to CPA work papers, will be considered a breach of Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

E. Contractor's Cost Proposal may be subject to a CPA ICR Audit Work Paper Review and/or audit by the Independent Office of Audits and Investigations (IOAI). IOAI, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. The Cost Proposal shall be adjusted by the Contractor and approved by the City Contract Administrator to conform to the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the Contractor to incorporate the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report will be considered a breach of the Agreement terms and cause for termination of the Agreement and disallowance of prior reimbursed costs.

1. During IOAI's review of the ICR audit work papers created by the Contractor's independent CPA, IOAI will work with the CPA and/or Contractor toward a resolution of issues that arise during the review. Each party agrees to use its best efforts to resolve any audit disputes in a timely manner. If IOAI identifies significant issues during the review and is unable to issue a cognizant approval letter, City will reimburse the Contractor at an accepted ICR until a FAR (Federal Acquisition Regulation) compliant ICR {e.g. 48 CFR Part 31; GAGAS (Generally Accepted Auditing Standards); CAS (Cost Accounting Standards), if applicable; in accordance with procedures and guidelines of the American

Association of State Highways and Transportation Officials (AASHTO) Audit Guide; and other applicable procedures and guidelines}is received and approved by IOAI. Accepted rates will be as follows:

a. If the proposed rate is less than one hundred fifty percent (150%) - the accepted rate reimbursed will be ninety percent (90%) of the proposed rate.

b. If the proposed rate is between one hundred fifty percent (150%) and two hundred percent (200%) - the accepted rate will be eighty-five percent (85%) of the proposed rate.

c. If the proposed rate is greater than two hundred percent (200%) - the accepted rate will be seventy-five percent (75%) of the proposed rate.

2. If IOAI is unable to issue a cognizant letter per paragraph E. 1. above, IOAI may require Contractor to submit a revised independent CPA-audited ICR and audit report within three (3) months of the effective date of the management letter. IOAI will then have up to six (6) months to review the Contractor's and/or the independent CPA's revisions.

3. If the Contractor fails to comply with the provisions of this paragraph E, or if IOAI is still unable to issue a cognizant approval letter after the revised independent CPA audited ICR is submitted, overhead cost reimbursement will be limited to the accepted ICR that was established upon initial rejection of the ICR and set forth in paragraph E.e1. above for all rendered services. In this event, this accepted ICR will become the actual and final ICR for reimbursement purposes under this Agreement.

4. Contractor may submit to City final invoice only when all of the following items have occurred: (1) IOAI accepts or adjusts the original or revised independent CPA audited ICR; (2) all work under this Agreement has been completed to the satisfaction of City; and, (3) IOAI has issued its final ICR review letter. The Contractor must submit its final invoice to City no later than sixty (60) calendar days after occurrence of the last of these items. The accepted ICR will apply to this Agreement and all other agreements executed between City and the Contractor, either as a prime or subContractor, with the same fiscal period ICR.

Company/Contractor _____

Name & Title _____

Signature & Date _____

CONTRACT DOCUMENTS

RFP. No. 2020-05

COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

DESIGN AND BUILD OF A CNG FUELING STATION

A. The Contractor agrees that 48 CFR Part 31, Contract Cost Principles and Procedures, shall be used to determine the allowability of individual terms of cost.

B. The Contractor also agrees to comply with Federal procedures in accordance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

C. Any costs for which payment has been made to the Contractor that are determined by subsequent audit to be unallowable under 48 CFR Part 31 or 2 CFR Part 200 are subject to repayment by the Contractor to City.

D. When a Contractor or SubContractor is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.

Company/Contractor _____

Name & Title _____

Signature & Date _____

CITY OF GARDENA GTRANS RFP 2020-05

ATTACHMENT C
BAFO COST TEMPLATE

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: _____

MECHANICAL/CNG EQUIPMENT										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
1	Natural gas house line	4" sched 40 CS pipe A/G from MSA, w/ welding, supports, 150 PSIG, 1950 SCFM max. flow	FT			$ -	$ -	$ -		$ -
2	Gas Dryer	1-tower, w/ manual onboard regeneration, 4" process, bypass, extra safety items, rated for 1950 SCFM	EA			$ -	$ -	$ -		$ -
3	Site-ESD valve	4" ball or butterfly w/ FC air actuator API-607 rated	EA			$ -	$ -	$ -		$ -
4	CNG compressor skids	Duplex w/ 2x 650 SCFM each skid w/ 2x 250 HP motor & common enclosure; 81 PSIG design suction	EA			$ -	$ -	$ -		$ -
5	CNG valve panel	1" tubing and ball valves, one-bank buffer	EA			$ -	$ -	$ -		$ -
6	CNG storage vessel	4' dia. sphere 11,600 SCF @ 4500 PSI, 5500 PSI MAWP	EA			$ -	$ -	$ -		$ -
7	Transit fast-fill dispenser - one hose	1" SS & meter, 'balance flow' w/ PLC, HD hose & nozzle	EA			$ -	$ -	$ -		$ -
8	Transit fast-fill dispenser - two hose	1" SS & meter, 'balance flow' w/ PLC, HD hose & nozzle + std. 1/2" hose and Type-2 nozzle	EA			$ -	$ -	$ -		$ -
9	Compressed-air lines - allowance	Cu pipe, valves, appurtenances, regulator, connection	EA			$ -	$ -	$ -		$ -
10	CNG motor control center	Drivers for duplex skid w/ 1-phase xfmr & A/C	Assy			$ -	$ -	$ -		$ -
11	Master PLC controller w/ comm	Remote PLC w/ HMI + IP-communication module	Assy			$ -	$ -	$ -		$ -
12	Fire extinguishers & signage	10 lb. w/ fiberglass housing + typ. Safety signage	EA			$ -	$ -	$ -		$ -
13	Gravity ventilators	Passive roof-mounted, Loren Cook, 18" x 36"	EA			$ -	$ -	$ -		$ -
14	CNG pressure tubing & sleeve	1" SS tubing in PE or ENT sleeve (transit)	FT			$ -	$ -	$ -		$ -
15	CNG pressure tubing & sleeve	3x 3/4" SS tubing in PE or ENT sleeve (public)	FT			$ -	$ -	$ -		$ -
16	Supports	Piping & conduit supports (Unistrut, Bline etc.)	EA			$ -	$ -	$ -		$ -
17						$ -	$ -	$ -		$ -
18						$ -	$ -	$ -		$ -
19						$ -	$ -	$ -		$ -
20									Mechanical Equipment Subtotal	$ -

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: _____

	ELECTRICAL EQUIPMENT									
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
21	Utility transformer	Allowance, including conduits to power pole	EA			$ -	$ -	$ -		$ -
22	Main switchboard / service	Allowance	EA			$ -	$ -	$ -		$ -
23	Backup generator	400kW for four comprs + aux. loads, NG fueled, encl.	EA			$ -	$ -	$ -		$ -
24	Transfer switch	Manual xfer for genset w/ lugs for portable genset	EA			$ -	$ -	$ -		$ -
25	Compound-area lighting	Div-2 lights on posts or wall pack	EA			$ -	$ -	$ -		$ -
26	Power conduit and wiring	120V and 480V	FT			$ -	$ -	$ -		$ -
27	Sensor and control conduit & wiring	24V and controls	FT			$ -	$ -	$ -		$ -
28						$ -	$ -	$ -		$ -
29						$ -	$ -	$ -		$ -
30						$ -	$ -	$ -		$ -
31								Electrical Equipment Subtotal		$ -

	CIVIL WORK									
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
32	Demolition - allowance	Saw cut and remove pavement at compound area (asphalt) and U/G line to edge of fuel bldg (concrete)	LS							
33	Structural foundations for equipment	4 CNG skids, dryer skid, sto. vessels, genset & elec. gear	EA			$ -	$ -	$ -		$ -
34	Paving inside equipment compound	Repair asphalt and concrete pavement due to excavation and repair of asphalt pavement in area shown on Attachment C drawings.	LS							
35	Fencing for CNG compound	8' tall CMU wall and extension to existing wall with gates shown on Attachment C drawings	LF			$ -	$ -	$ -		$ -
36	Pre-fabricated container structure	8' x 10', steel construction, lockable rollup door	EA			$ -	$ -	$ -		$ -
37	Bollards	6" dia. Pipe bollards in concrete footers, 4' O.C. approx.	EA			$ -	$ -	$ -		$ -
38	Excavation	Allowance for other excavation / equipment etc.	LS							
39	Trenching	Pipe / conduit trenching w/ pavement repair	LF			$ -	$ -	$ -		$ -
40	Repair concrete	Trench to edge of fuel bldg., incl. Dowling repair	LF			$ -	$ -	$ -		$ -
41						$ -	$ -	$ -		$ -
42						$ -	$ -	$ -		$ -
43						$ -	$ -	$ -		$ -
44								Civil Work Subtotal		$ -

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

OTHER DIRECT COSTS - BASE										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
45	Bonds		LS							
46	Equipment rental - allowance	Trench plates, ditch witch, saw cut, offload hoist	EA			$ -	$ -	$ -		$ -
47	Fuel-management labor	Specialty labor to tie in (existing terminals)	LS							
48	Third-party testing - allowance	Pipe welds (x-ray & dye penetrant) & concrete strength	LS							
49	Shipping, testing, startup - allowance	Skids, dispensers, vessels, dryer, genset + mfgr support	LS							
50	Design engineering & architecture	CNG and non-CNG-scope through plan-check approval	LS							
51										
52										
53										
54									Other Direct Costs - Base Subtotal	$ -

OPTIONS										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
55	2x buffer vessels	Equipment only, match style of base vessels	EA			$ -	$ -	$ -		$ -
56	Defuel post	Vent-to-atmosphere only	EA			$ -	$ -	$ -		$ -
57	Install storage vessels & defuel post	Labor & site materials as needed - allowance	LS							
58	Bollards at defuel post	6" pipe bollards	EA			$ -	$ -	$ -		$ -
59	Shipping, testing and startup	2 vessels	LS							
60						$ -	$ -	$ -		$ -
61						$ -	$ -	$ -		$ -
62						$ -	$ -	$ -		$ -
63									Options Subtotal	$ -

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

	COST PROPOSAL SUMMARY - BASE		
64	GRAND TOTAL MATERIALS		$ -
65	GRAND TOTAL SALES TAX (10.25%)		$ -
66	GRAND TOTAL LABOR		$ -
67	**SUBTOTAL BASE (Direct Expenses)**		**$ -**
68	CONTRACTORS OVERHEAD AND G&A (%)		$ -
69	CONTRACTORS PROFIT (%)		$ -
70	**GRAND TOTAL BASE**		**$ -**

	COST PROPOSAL SUMMARY - OPTIONS		
71	GRAND TOTAL MATERIALS		$ -
72	GRAND TOTAL SALES TAX (10.25%)		$ -
73	GRAND TOTAL LABOR		$ -
74	**SUBTOTAL OPTIONS (Direct Expenses)**		**$ -**
75	CONTRACTORS OVERHEAD AND G&A (%)		$ -
76	CONTRACTORS PROFIT (%)		$ -
77	**GRAND TOTAL OPTIONS**		**$ -**

	COST PROPOSAL SUMMARY - BASE + OPTIONS	
78	GRAND TOTAL BASE	$ -
79	GRAND TOTAL OPTIONS	$ -
80	**GRAND TOTAL BASE + OPTIONS**	**$ -**

**proposed costs shall be in strict accordance with all conditions of the RFP including addenda*
**proposal shall be valid for 120 days from proposal due date*

AUTHORIZED OFFICIAL PRINT NAME

AUTHORIZED OFFICIAL SIGNAURE

TITLE

DATE

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

GENERAL REQUIREMENTS & LABOR									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
81	Contractor set-up / mobilization		LS						
82	Start-up/ Commissioning / Training		LS						
83	Equipment rental		EA		$ -	$ -	$ -		$ -
84	Contractor supervision, management		LS						
85	Engineering service to prepare construction drawings		LS						
86					$ -	$ -	$ -		$ -
87					$ -	$ -	$ -		$ -
88					$ -	$ -	$ -		$ -
89	General Requirements & Labor Subtotal								$ -

MECHANICAL & SPECIAL CONSTRUCTION									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	METHANE DETECTION SYSTEM								
90	Controller/HMI		EA		$ -	$ -	$ -		$ -
91	Additional relay module		EA		$ -	$ -	$ -		$ -
92	Methane infrared point sensors, Div-1 rated		EA		$ -	$ -	$ -		$ -
93	Transmitters (single and/or dual as required)		EA		$ -	$ -	$ -		$ -
94	Calibration kit w/ 10% and 25% LEL cylinders		EA		$ -	$ -	$ -		$ -
95	Sensor-Testing station w/ tubing		EA		$ -	$ -	$ -		$ -
96	Remote HMI		EA		$ -	$ -	$ -		$ -
97	Programming and set up of controller and HMI's		LS						
98					$ -	$ -	$ -		$ -
99					$ -	$ -	$ -		$ -
100					$ -	$ -	$ -		$ -
101					$ -	$ -	$ -		$ -

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

	ALARMS AND OTHER WORK								
102	Relocate veh.-exhaust reels to > 18" below ceiling - allowance		EA		$ -	$ -	$ -		$ -
103	Relocate OH door operators to > 18" below ceiling - allowance		EA		$ -	$ -	$ -		$ -
104	Visible alarm indoor/outdoor haz-rated, 3 lights		EA		$ -	$ -	$ -		$ -
105	Audible alarm indoor haz-rated		EA		$ -	$ -	$ -		$ -
106	Visible alarm outdoor		EA		$ -	$ -	$ -		$ -
107	Audible alarm outdoor		EA		$ -	$ -	$ -		$ -
108	Reprogramming of BAS - specialty subcontractor		LS						
109					$ -	$ -	$ -		$ -
110					$ -	$ -	$ -		$ -
111					$ -	$ -	$ -		$ -
112					$ -	$ -	$ -		$ -
113	Mechanical & Special Construction Subtotal								$ -

	VENTILATION SYSTEM								
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
114	Ductwork (16 duct assemblies)		LF		$ -	$ -	$ -		$ -
115	Motorized Damper		EA		$ -	$ -	$ -		$ -
116	Volume Damper		EA		$ -	$ -	$ -		$ -
117	Duct Grille		EA		$ -	$ -	$ -		$ -
118					$ -	$ -	$ -		$ -
119					$ -	$ -	$ -		$ -
120					$ -	$ -	$ -		$ -
121					$ -	$ -	$ -		$ -
122	Ventilation System Subtotal								$ -

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

	HEATING SYSTEM								
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
123	IR Heating system - replace existing in place < 700ºF		EA		$ -	$ -	$ -		$ -
124					$ -	$ -	$ -		$ -
125					$ -	$ -	$ -		$ -
126					$ -	$ -	$ -		$ -
127					$ -	$ -	$ -		$ -
128								Heating System Subtotal	$ -

	ELECTRICAL MATERIALS								
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
129	Relocate selected jbox's to > 18" below ceiling - allowance		EA		$ -	$ -	$ -		$ -
130	Wiring and conduit for gas sensors		EA		$ -	$ -	$ -		$ -
131	Wiring and conduit from detection controller to BAS panel		EA		$ -	$ -	$ -		$ -
132	Wiring and conduit from detection controller to EF's		EA		$ -	$ -	$ -		$ -
133	Wiring and conduits to controller motorized dampers		EA		$ -	$ -	$ -		$ -
134	Interlock to Make up air units		EA		$ -	$ -	$ -		$ -
135	Battery backup and power supply		EA		$ -	$ -	$ -		$ -
136					$ -	$ -	$ -		$ -
137					$ -	$ -	$ -		$ -
138					$ -	$ -	$ -		$ -
139					$ -	$ -	$ -		$ -
140								Electrical Materials Subtotal	$ -

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

	COST PROPOSAL SUMMARY		
141	GRAND TOTAL MATERIALS		$ -
142	GRAND TOTAL SALES TAX (10.25%)		$ -
143	GRAND TOTAL LABOR		$ -
144	**SUBTOTAL BASE (Direct Expenses)**		**$ -**
145	CONTRACTORS OVERHEAD AND G&A (%)		$ -
146	CONTRACTORS PROFIT (%)		$ -
147	**GRAND TOTAL BASE**		**$ -**

**proposed costs shall be in strict accordance with all conditions of the RFP including addenda*
**proposal shall be valid for 120 days from proposal due date*

AUTHORIZED OFFICIAL PRINT NAME

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TITLE

DATE

DESIGN AND BUILD OF A CNG FUELING STATION

ALTERNATES

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME:

ALTERNATES							
ITEM		DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
1	750kW for four comprs + aux. loads, NG fueled, encl.		EA			$ -	$ -
2	Secondary/Alternate Methane Detection System		EA	1		$ -	$ -
3	Cost Per LF exceeding 125 LF for as needed related work		LF				

DESIGN AND BUILD OF A CNG FUELING STATION

Disadvantaged Business Enterprises (DBE)

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: _____

	FIRM NAME	ADDRESS	CONTACT PERSON	PHONE NUMBER	EMAIL	SUBCONTRACT DOLLAR AMOUNT	DESCRIPTION OF WORK
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11	GRAND TOTAL DISADVANTAGED BUSINESS ENTERPRISE					$ -	

4675 MacArthur Court, Suite 800
Newport Beach, CA 92660
949.437.1000 | Fax 949.724.1397
www.cleanenergyfuels.com

Clean Energy

February 24, 2021

Dana Pynn
Transit Administrative Officer
City of Gardena GTrans
13999 S. Western Ave.
Gardena, CA 90249

Re: BAFO Response for RFP No. 2020-05 for Design Build of a CNG Station

Dear Ms. Pynn:

Clean Energy appreciates the City of Gardena GTrans' (GTrans) interest in our proposal and offers the enclosed best and final offer (BAFO) pricing and clarifications.

We listened to your comments from our interview and sharpened our pencils for this BAFO by 1) reducing contingencies, 2) negotiating lower pricing from suppliers and contractors, and 3) reducing our overhead and margin. These changes represent a 4.4% reduction in our overall price from our original proposal.

Clean Energy's BAFO is based on the terms and conditions set forth in RFP 2020-05, all addendum, all written clarifications to-date, and all considerations outlined below. In the event of a conflict between previously released information and the information attached to this letter, the latter shall control.

As requested, Clean Energy has provided detailed, line-item cost estimates in our cost proposal. That level of detail is provided for your information only. Clean Energy's total price is a firm fixed amount to complete the project as prescribed by the RFP documents (including amendments) and clarified by Clean Energy's written communication with GTrans.

The validity of our proposal and offer in its entirety is extended for an additional sixty (60) calendar days, per your request.

Reagan Clemens, Account Manager, is available to respond to your RFP questions. His contact information is Reagan.Clemens@cleanenergyfuels.com and (949) 437-1082. Clean Energy is prepared to deploy our expertise and resources to help ensure the success of your onsite CNG program.

Sincerely,

Robert M Vreeland

Robert M. Vreeland
Chief Financial Officer

Comments

Clean Energy's BAFO pricing includes the following assumptions:

1. **Generator.** Clean Energy has reviewed the station energy requirements and offers a 400 Kw generator in our base BAFO proposal. This configuration provides enough power to run the CNG station and one of the four compressors. As an alternate adder, Clean Energy proposes a 650 Kw generator which provides enough power to run the CNG Station and two of the four compressors. These requirements are outlined in section SECTION 43 01 04, part 2.17 of the RFP Attachment D. This generator requirement was also clarified during our conference call with GTrans on January 28, 2021.

   Clean Energy takes full responsibility that the generator option selected by GTrans and provided by Clean Energy will meet the RFP requirements. For our base proposal, the smaller 400 Kw generator is sized to operate one of the four compressors and other ancillary station equipment as described in the RFP. If the optional adder is selected, the larger 650 Kw generator is sized to operate two of the four compressors and other ancillary station equipment.

2. **Labor.** The BAFO price spreadsheet allows Clean Energy to separate labor from materials and to add new cost lines that were not available in the original proposal. Though helpful, the line-item labor estimates are derived from Clean Energy's review of subcontractor lump sum pricing and may not be precisely accurate on a line item basis. In total (including options), the cost shown for labor on the BAFO pricing spreadsheet is $1,198,711. This was determined by summing Column K in the CNG Fueling worksheet and summing Column J in the Safe Garage Mod worksheet. Dividing that sum by an average hourly labor rate of $110 to calculate an estimated total of 10,897 labor hours. Clean Energy believes that given the scope of work, project schedule duration, and expected crew sizes, this figure is reasonable for this project.

3. **DBE Participation.** Clean Energy is providing a high level of DBE participation from our subcontractors. Our overall DBE participation rate has increased slightly with our BAFO pricing and is now 21.9% of our total price.

4. **Equipment Exceptions.** Unless noted below, the exceptions to the equipment specification, identified in our original proposal, remain valid for this BAFO proposal.

5. **Contract form.** As noted previously, Clean Energy has not identified any terms and conditions in the draft contract form that we find objectionable. However, until we complete the BAFO process and have the full set of documents that will be included in the final contract, Clean Energy reserves the right to negotiate final contract terms.

6. **BAFO Spreadsheet.** Please note that the provided spreadsheet was missing formulas in cells M40 and M41 of the CNG Fueling worksheet, which we added.

Clean Energy response to GTrans BAFO request letter comments

Below are Clean Energy's comments to the GTrans letter dated February 11, 2021 requesting Clean Energy's best and final offer and pricing.

1. CNG STATION

a. **Compressor Vibration Sensors.** Compressor skids shall include analog-style vibration sensor-transmitters on compressor frame and cooler assembly.

Compressor Ball Valves. ANGI supplied ball valves in the gas stream meet all requirements of the specification. Other valves are designed and supplied to meet the requirements of their application.

Transit Dispensers. Clean Energy will provide ANGI designed dispensers that include Endress-Hauser meters as specified. The ANGI dispenser with Endress-Hauser meters does not fit in their standard Series II cabinet that looks like a retail dispenser. The provided dispenser has a more industrial look and includes a standalone Horner PLC to control dispenser operations.



b. **Building Modification.** Clean Energy BAFO pricing is for the duct work design provided in the specifications. As we investigated pricing for an alternative design using new fans proved to be much more expensive than the base design. Pricing for the alternative design is not provided since it is over $200K more costly.

Clean Energy reviewed the cost to put the existing roof fans or air handlers on the existing GTrans generator and found the generator does not have enough spare output to support those items. Clean Energy's bid does not include making any changes to the power source for the existing roof fans.

2. VALUE ENGINEERING IDEAS

a. **Gas Dryer.** Clean Energy has quoted the more expensive gas dryer specified in the RFP as requested.

b. **Wall.** Clean Energy has quoted the CMU wall as specified in the RFP.

c. **Tubing.** Clean Energy will utilize stainless steel tubing and compression fittings that meet MAWP, diameter, and material-grade as specified in the RFP. One inch tubing shall be 0.120" wall thickness minimum.

d. **DBE Participation.** Clean Energy bid includes using a DBE electrician and our overall DBE participation rate has increased with our BAFO pricing.

e. **Elimination of duct work.** Reference answer 1.b above.

f. **Alarm Classification / Horns.** The supplied outdoor horns and strobes shall be non-classified if approved by authorities having jurisdiction (AHJ). Outdoor annunciators shall be rated 3R or NEMA 4.

3. OTHER ITEMS

a. **Permit Cost.** Clean Energy has eliminated all permit costs from the BAFO pricing sheet and understands GTrans will pay for all permits directly.

b. **Trenching.** Clean Energy has estimated the correct linear feet (LF) amount required for trenching within the CNG compressor compound and

from the compressor compound to the new main switchboard. Regardless of the LF, Clean Energy's price for this item in the Civil Work section of CNG Fueling in the Attachment C - Cost Template sheet will remain unchanged.

c. **Milestone Schedule.** Clean Energy agrees to the Attachment A – Milestone Schedule provided by GTrans with their request for this best and final offer (BAFO).

d. **O&M.** As requested, equipment operation and maintenance is not included in Clean Energy's BAFO pricing.

e. **RNG Supplier Contract.** As requested, RNG gas supply is not included in Clean Energy's BAFO pricing.

f. **Order of Precedence.** Clean Energy accepts the order of precedence outlined in the revised contract provided with the BAFO request.

g. **BAFO Cost Template.** Clean Energy utilized the provided BAFO cost template to prepare our BAFO pricing as requested by GTrans.

4. ALTERNATIVES / OPTIONS

a. **Concrete Paving.** Clean Energy's BAFO pricing includes an alternative cost adder to provided 4" thick, 2,500 psi concrete in the compressor compound replacing the asphalt that was specified in the RFP.

b. **Ceiling Fans for Building Modification.** See answer 1.b above,

c. **Ventilation System.** See answer 1.b above.

CITY OF GARDENA GTRANS RFP 2020-05

ATTACHMENT C
BAFO COST TEMPLATE

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

MECHANICAL/CNG EQUIPMENT										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
1	Natural gas house line	4" sched 40 CS pipe A/G from MSA, w/ welding, supports, 150 PSIG, 1950 SCFM max. flow	FT	140	$ 75	$ 10,500	$ 1,076	$ 11,576	$ 29,130	$ 40,706
2	Gas Dryer	1-tower, w/ manual onboard regeneration, 4" process, bypass, extra safety items, rated for 1950 SCFM	EA	1	$ 82,198	$ 82,198	$ 8,425	$ 90,623	$ 15,750	$ 106,373
3	Site-ESD valve	4" ball or butterfly w/ FC air actuator API-607 rated	EA	1	$ 3,154	$ 3,154	$ 323	$ 3,477	$ 6,625	$ 10,102
4	CNG compressor skids	Duplex w/ 2x 650 SCFM each skid w/ 2x 250 HP motor & common enclosure; 81 PSIG design suction	EA	2	$ 435,553	$ 871,106	$ 89,288	$ 960,394	$ 20,075	$ 980,469
5	CNG valve panel	1" tubing and ball valves, one-bank buffer	EA	1	$ 41,220	$ 41,220	$ 4,225	$ 45,445	$ 12,250	$ 57,695
6	CNG storage vessel	Cylindrical 11,600 SCF @ 4500 PSI, 5500 PSI MAWP	EA	4	$ 22,500	$ 90,000	$ 9,225	$ 99,225	$ 11,750	$ 110,975
7	Transit fast-fill dispenser - one hose	1" SS & meter, 'balance flow' w/ PLC, HD hose & nozzle	EA	1	$ 45,080	$ 45,080	$ 4,621	$ 49,701	$ 13,250	$ 62,951
8	Transit fast-fill dispenser - two hose	1" SS & meter, 'balance flow' w/ PLC, HD hose & nozzle + std. 1/2" hose and Type-2 nozzle	EA	1	$ 53,170	$ 53,170	$ 5,450	$ 58,620	$ 13,250	$ 71,870
9	Compressed-air lines - allowance	Cu pipe, valves, appurtenances, regulator, connection	EA	1	$ 15,388	$ 15,388	$ 1,577	$ 16,965	$ 7,850	$ 24,815
10	CNG motor control center	Drivers for duplex skid w/ 1-phase xfmr & A/C	Assy	2	$ 35,050	$ 70,100	$ 7,185	$ 77,285	$ 10,000	$ 87,285
11	Master PLC controller w/ comm	Remote PLC w/ HMI + IP-communication module	Assy	1	$ 34,620	$ 34,620	$ 3,549	$ 38,169	$ 3,500	$ 41,669
12	Fire extinguishers & signage	10 lb. w/ fiberglass housing + typ. Safety signage	EA	1	$ 5,019	$ 5,019	$ 514	$ 5,533		$ 5,533
13	Gravity ventilators	Passive roof-mounted, Loren Cook, 18" x 36"	EA	4	$ 2,084	$ 8,336	$ 854	$ 9,190	$ 6,625	$ 15,815
	CNG pressure tubing & sleeve	1" SS tubing in PE or ENT sleeve (transit) includes all fittings	FT	620	$ 55	$ 34,100	$ 3,495	$ 37,595	$ 42,400	$ 79,995
	CNG pressure tubing & sleeve	3/4" SS tubing in PE or ENT sleeve	FT	120	$ 40	$ 4,800	$ 492	$ 5,292	$ 10,600	$ 15,892
	Supports	Piping & conduit supports (Unistrut, Bline etc.)	LS	1	$ 3,485	$ 3,485	$ 357	$ 3,842	$ 9,966	$ 13,808
	Signage	NFPA site signs	LS	1	$ 500	$ 500	$ 51	$ 551		$ 551
	Compressor Connections	Valves, flex lines, etc. provided by ANGI	EA	2	$ 3,640	$ 7,280	$ 746	$ 8,026	$ 5,200	$ 13,226
	Equipment contingency	1% equipment contingency	LS	1	$ 16,000	$ 16,000	$ 1,640	$ 17,640		$ 17,640
									Mechanical Equipment Subtotal	$ 1,757,373

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

ELECTRICAL EQUIPMENT										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	Utility transformer	Allowance, including conduits to power pole	EA	1	$ 9,760	$ 9,760	$ 1,000	$ 10,760	$ 30,300	$ 41,060
	Main switchboard / service	Allowance	EA	1	$ 86,075	$ 86,075	$ 8,823	$ 94,898	$ 88,400	$ 183,298
	Backup generator	400kW for one comprs + aux. loads, NG fueled, encl.	EA	1	$ 186,959	$ 186,959	$ 19,163	$ 206,122	$ 96,830	$ 302,952
	Transfer switch	Manual xfer for genset w/ lugs for portable genset	EA	1	$ 11,350	$ 11,350	$ 1,163	$ 12,513	$ 32,160	$ 44,673
	Compound-area lighting	Div-2 lights on posts or wall pack	EA	1	$ 4,155	$ 4,155	$ 426	$ 4,581	$ 29,160	$ 33,741
	Power conduit and wiring	120V and 480V	FT	1	$ 128,906	$ 128,906	$ 13,213	$ 142,119	$ 105,100	$ 247,219
	Sensor and control conduit & wiring	24V and controls	FT	1	$ 88,100	$ 88,100	$ 9,030	$ 97,130	$ 56,900	$ 154,030
	ESD buttons	ESD buttons in compound and at dispensers	EA	6	$ 365	$ 2,190	$ 224	$ 2,414	$ 500	$ 2,914
						$ -	$ -	$ -		$ -
						$ -	$ -	$ -		$ -
									Electrical Equipment Subtotal	$ 1,009,888

CIVIL WORK										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	Demolition - allowance	Saw cut and remove pavement at compound area (asphalt) and U/G line to edge of fuel bldg (concrete)	LS							$ 64,678
	Structural foundations for equipment	4 CNG skids, dryer skid, sto. vessels, genset & elec. gear	EA	1	$ 44,216	$ 44,216	$ 4,532	$ 48,748	$ 98,430	$ 147,178
	Paving inside equipment compound	Repair asphalt and concrete pavement due to excavation and repair of asphalt pavement in area shown on Attachment C drawings.	LS							$ 29,221
	Fencing for CNG compound	8' tall CMU wall and extension to existing wall with gates shown on Attachment C drawings	LF	165	$ 190	$ 31,350	$ 3,213	$ 34,563	$ 67,428	$ 101,991
	Pre-fabricated container structure	8' x 10', steel construction, lockable rollup door	EA	1	$ 7,862	$ 7,862	$ 806	$ 8,668		$ 8,668
	Bollards	6" dia. Pipe bollards in concrete footers, 4' O.C. approx.	EA	9	$ 200	$ 1,800	$ 185	$ 1,985	$ 6,050	$ 8,035
	Excavation	Allowance for other excavation / equipment etc.	LS							$ 25,000
	Trenching	Pipe / conduit trenching w/ pavement repair	LF	180	$ 125	$ 22,500	$ 2,306	$ 24,806	$ 48,818	$ 73,624
	Repair concrete	Trench to edge of fuel bldg., incl. Dowling repair	LF	33	$ 24	$ 792	$ 81	$ 873	$ 1,960	$ 2,833
						$ -	$ -	$ -		$ -
						$ -	$ -	$ -		$ -
						$ -	$ -	$ -		$ -
									Civil Work Subtotal	$ 461,228

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

OTHER DIRECT COSTS - BASE										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	Bonds		LS							$ 55,595
	Equipment rental - allowance	Trench plates, ditch witch, saw cut, offload hoist	EA	1	$ 12,063	$ 12,063	$ 1,236	$ 13,299		$ 13,299
	Fuel-management labor	Specialty labor to tie in (existing terminals)	LS							$ 3,000
	Third-party testing - allowance	Pipe welds (x-ray & dye penetrant) & concrete strength	LS							$ 15,000
	Shipping, testing, startup - allowance	Skids, dispensers, vessels, dryer, genset + mfgr support	LS							$ 75,755
	Design engineering & architecture	CNG and non-CNG-scope through plan-check approval	LS							$ 56,250
	Project Management	Project management and planning team labor	LS							$ 41,500
	Routine Maintenance	Warranty, first year of support and remote monitoring	LS							$ 25,600
	Construction Contingency	1% of construction quote	LS							$ 58,537
									Other Direct Costs - Base Subtotal	**$ 344,537**

OPTIONS										
	ITEM	DESCRIPTION	UNIT	QTY.	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	2x buffer vessels	Equipment only, match style of base vessels	EA	2	$ 22,500	$ 45,000	$ 4,613	$ 49,613		$ 49,613
	Defuel post	Vent-to-atmosphere only	EA	1	$ 13,860	$ 13,860	$ 1,421	$ 15,281		$ 15,281
	Install storage vessels & defuel post	Labor & site materials as needed - allowance	LS							$ 15,247
	Bollards at defuel post	6" pipe bollards	EA	4	$ 200	$ 800	$ 82	$ 882	$ 2,677	$ 3,559
	Shipping, testing and startup	2 vessels	LS							$ 3,418
	Shipping Testing startup	Defueling post	LS	1	$ 1,970	$ 1,970	$ 202	$ 2,172		$ 2,172
						$ -	$ -	$ -		$ -
						$ -	$ -	$ -		$ -
									Options Subtotal	**$ 89,289**

DESIGN AND BUILD OF A CNG FUELING STATION

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

COST PROPOSAL SUMMARY - BASE			
GRAND TOTAL MATERIALS		$	2,034,134
GRAND TOTAL SALES TAX (10.25%)		$	208,499
GRAND TOTAL LABOR		$	1,330,393
SUBTOTAL BASE (Direct Expenses)		**$**	**3,573,026**
CONTRACTORS OVERHEAD AND G&A (%)	4.10%	$	146,494
CONTRACTORS PROFIT (%)	4.10%	$	146,494
GRAND TOTAL BASE		**$**	**3,866,014**

COST PROPOSAL SUMMARY - OPTIONS			
GRAND TOTAL MATERIALS		$	61,630
GRAND TOTAL SALES TAX (10.25%)		$	6,317
GRAND TOTAL LABOR		$	21,342
SUBTOTAL OPTIONS (Direct Expenses)		**$**	**89,289**
CONTRACTORS OVERHEAD AND G&A (%)	4.10%	$	3,661
CONTRACTORS PROFIT (%)	4.10%	$	3,661
GRAND TOTAL OPTIONS		**$**	**96,611**

COST PROPOSAL SUMMARY - BASE + OPTIONS		
GRAND TOTAL BASE	$	3,866,014
GRAND TOTAL OPTIONS	$	96,611
GRAND TOTAL BASE + OPTIONS	**$**	**3,962,625**

**proposed costs shall be in strict accordance with all conditions of the RFP including addenda*
**proposal shall be valid for 120 days from proposal due date*

Robert M. Vreeland
AUTHORIZED OFFICIAL PRINT NAME

Robert M Vreeland
AUTHORIZED OFFICIAL SIGNAURE

Chief Financial Officer
TITLE

18-Feb-21
DATE

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

GENERAL REQUIREMENTS & LABOR									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
89	Contractor set-up / mobilization		LS						$ 3,152
90	Start-up/ Commissioning / Training		LS						$ 3,136
91	Equipment rental	1	EA	$ 2,000	$ 2,000	$ 205	$ 2,205		$ 2,205
92	Contractor supervision, management		LS						$ 53,050
93	Engineering service to prepare construction drawings		LS						$ 30,000
94					$ -	$ -	$ -		$ -
95					$ -	$ -	$ -		$ -
96					$ -	$ -	$ -		$ -
97							General Requirements & Labor Subtotal		$ 91,543

MECHANICAL & SPECIAL CONSTRUCTION									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
	METHANE DETECTION SYSTEM								
98	Controller/HMI	1	EA	$ 7,220	$ 7,220	$ 740	$ 7,960	$ 9,600	$ 17,560
99	Additional relay module	1	EA	$ 475	$ 475	$ 49	$ 524	$ 1,200	$ 1,724
100	Methane infrared point sensors, Div-1 rated	34	EA	$ 1,500	$ 51,000	$ 5,228	$ 56,228	$ 45,977	$ 102,205
101	Transmitters (single and/or dual as required)	17	EA	$ 1,165	$ 19,805	$ 2,030	$ 21,835	$ 29,600	$ 51,435
102	Calibration kit w/ 10% and 25% LEL cylinders	1	EA	$ 495	$ 495	$ 51	$ 546	$ 4,800	$ 5,346
103	Sensor-Testing station w/ tubing	1	EA	$ 1,850	$ 1,850	$ 190	$ 2,040	$ 4,800	$ 6,840
104	Remote HMI	1	EA	$ 6,000	$ 6,000	$ 615	$ 6,615	$ 9,600	$ 16,215
105	Programming and set up of controller and HMI's		LS						$ 8,685
106	Costs for 5 year warranty	1		$ 16,280	$ 16,280	$ 1,669	$ 17,949	$ 12,700	$ 30,649
107					$ -	$ -	$ -		$ -
108					$ -	$ -	$ -		$ -
109					$ -	$ -	$ -		$ -

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

	ALARMS AND OTHER WORK								
110	Relocate veh.-exhaust reels to > 18" below ceiling - allowance		EA		$ -	$ -	$ -	$ 9,600	$ 9,600
111	Relocate OH door operators to > 18" below ceiling - allowance		EA		$ -	$ -	$ -	$ 4,800	$ 4,800
112	Visible alarm indoor/outdoor haz-rated, 3 lights	4	EA	$ 200	$ 800	$ 82	$ 882	$ 9,000	$ 9,882
113	Audible alarm indoor haz-rated	4	EA	$ 175	$ 700	$ 72	$ 772	$ 9,600	$ 10,372
114	Visible alarm outdoor	2	EA	$ 650	$ 1,300	$ 133	$ 1,433	$ 7,200	$ 8,633
115	Audible alarm outdoor	2	EA	$ 1,170	$ 2,340	$ 240	$ 2,580	$ 4,800	$ 7,380
116	Reprogramming of BAS - specialty subcontractor		LS						$ 1,250
117					$ -	$ -	$ -		$ -
118					$ -	$ -	$ -		$ -
119					$ -	$ -	$ -		$ -
120					$ -	$ -	$ -		$ -
121								Mechanical & Special Construction Subtotal	$ 292,574

	VENTILATION SYSTEM								
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
122	Ductwork (16 duct assemblies)	440	LF	$ 30	$ 13,200	$ 1,353	$ 14,553	$ 12,100	$ 26,653
123	Motorized Damper	43	EA	$ 940	$ 40,420	$ 4,143	$ 44,563	$ 15,400	$ 59,963
124	Volume Damper	16	EA	$ 480	$ 7,680	$ 787	$ 8,467	$ 11,250	$ 19,717
125	Duct Grille	32	EA	$ 290	$ 9,280	$ 951	$ 10,231	$ 10,900	$ 21,131
126					$ -	$ -	$ -		$ -
127					$ -	$ -	$ -		$ -
128					$ -	$ -	$ -		$ -
129					$ -	$ -	$ -		$ -
130								Ventilation System Subtotal	$ 127,464

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

HEATING SYSTEM									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
131	IR Heating system - replace existing in place < 700°F	8	EA	$ 2,450	$ 19,600	$ 2,009	$ 21,609	$ 18,150	$ 39,759
132					$ -	$ -	$ -		$ -
133					$ -	$ -	$ -		$ -
134					$ -	$ -	$ -		$ -
135					$ -	$ -	$ -		$ -
136							Heating System Subtotal		$ 39,759

ELECTRICAL MATERIALS									
	ITEM DESCRIPTION	QTY	UNIT	UNIT COST	MAT'L COST	TAX 10.25%	TOTAL MAT'L COST	LABOR COST	EXTENDED COST
137	Relocate selected jbox's to > 18" below ceiling - allowance	1	EA		$ -	$ -	$ -	$ 21,200	$ 21,200
138	Wiring and conduit for gas sensors	1	EA	$ 6,400	$ 6,400	$ 656	$ 7,056	$ 9,400	$ 16,456
139	Wiring and conduit from detection controller to BAS panel	1	EA	$ 5,990	$ 5,990	$ 614	$ 6,604	$ 7,000	$ 13,604
140	Wiring and conduit from detection controller to EF's	1	EA	$ 6,110	$ 6,110	$ 626	$ 6,736	$ 8,200	$ 14,936
141	Wiring and conduits to controller motorized dampers	1	EA	$ 5,800	$ 5,800	$ 595	$ 6,395	$ 8,200	$ 14,595
142	Interlock to Make up air units	1	EA	$ 6,400	$ 6,400	$ 656	$ 7,056	$ 7,000	$ 14,056
143	Battery backup and power supply	1	EA	$ 1,910	$ 1,910	$ 196	$ 2,106	$ 7,000	$ 9,106
144	Annual calibration / testing on Methane Detection System	1	EA		$ -	$ -	$ -	$ 16,700	$ 16,700
145					$ -	$ -	$ -		$ -
146					$ -	$ -	$ -		$ -
147					$ -	$ -	$ -		$ -
148							Electrical Materials Subtotal		$ 120,653

DESIGN AND BUILD OF A CNG FUELING STATION

Safe Garage Modification

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

	COST PROPOSAL SUMMARY			
149	GRAND TOTAL MATERIALS		$	233,055
150	GRAND TOTAL SALES TAX (10.25%)		$	23,888
151	GRAND TOTAL LABOR		$	415,050
152	**SUBTOTAL BASE (Direct Expenses)**		**$**	**671,993**
153	CONTRACTORS OVERHEAD AND G&A (%)	4.10%	$	27,552
154	CONTRACTORS PROFIT (%)	4.10%	$	27,552
155	**GRAND TOTAL BASE**		**$**	**727,097**

**proposed costs shall be in strict accordance with all conditions of the RFP including addenda*
**proposal shall be valid for 120 days from proposal due date*

Robert M. Vreeland
AUTHORIZED OFFICIAL PRINT NAME

Robert M Vreeland
AUTHORIZED OFFICIAL SIGNAURE

Chief Financial Officer
TITLE

18-Feb-21
DATE

DESIGN AND BUILD OF A CNG FUELING STATION

ALTERNATES

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

ALTERNATES							
ITEM		DESCRIPTION	UNIT	QTY.	UNIT COST	TAX 10.25%	EXTENDED COST
1	**650kW for two comprs + aux. loads, NG fueled, encl.**	Added cost to upsize to 650 Kw, sized by Clean Energy to operate two of four compressors	EA	1	$ 126,616	$ 12,978	$ 139,594
2	**Secondary/Alternate Methane Detection System**	Adder cost for Sierra Monitor equipment	EA	1	$ 7,500	$ 769	$ 8,269
3	**Cost Per LF exceeding 125 LF for as needed related work**	Price includes 180 ft. of pipe and conduit trenching. Price includes concrete repair. This price per LF can per used if additional trenching is requested.	LF	0	$ 125	$ -	$ -
4	**Adder for Houskeeping Pad**	Concrete vs Asphault Adder for concrete	EA	1	$ 8,800	$ 902	$ 9,702

DESIGN AND BUILD OF A CNG FUELING STATION

Disadvantaged Business Enterprises (DBE)

RFP No. 2020-05

BAFO COST TEMPLATE

FIRM NAME: Clean Energy

	FIRM NAME	ADDRESS	CONTACT PERSON	PHONE NUMBER	EMAIL	SUBCONTRACT DOLLAR AMOUNT	DESCRIPTION OF WORK
1	Verduzco Electric Inc.	829 W. Compton Blvd	Carlos Verduzco	310-886-3068	verduzcoelectric@aol.com	$ 621,600	CNG Fueling Electrical
2	Verduzco Electric Inc.	829 W. Compton Blvd	Carlos Verduzco	310-886-3068	verduzcoelectric@aol.com	$ 257,600	Safe Garage Mod Electrical
3	RMS Life Safety	2698 Junipero Ave, Suite 105-107	Rick Mendoza	855-760-1822 x230	rmendoza@rmslifesafety.com	$ 149,929	Methane Detection Supplier
4							
5							
6							
7							
8							
9							
10							
11	**GRAND TOTAL DISADVANTAGED BUSINESS ENTERPRISE**					**$ 1,029,129**	

City of Gardena GTrans

RFP No. 2020-05 for Design Build of a CNG Station

Reagan Clemens
Account Manager, Sales
(949) 437-1082
Reagan.Clemens@cleanenergyfuels.com

4675 MacArthur Court, Suite 800
Newport Beach, CA 92660
949.437.1000
www.CleanEnergyFuels.com

Clean Energy

November 2, 2020



4675 MacArthur Court, Suite 800
Newport Beach, CA 92660
949.437.1000 | Fax 949.724.1397
www.cleanenergyfuels.com

November 2, 2020

Rachel Yoo
Administrative Analyst
City of Gardena GTrans
13999 S. Western Ave.
Gardena, CA 90249

Re: RFP No. 2020-05 for Design Build of a CNG Station

Dear Ms. Yoo:

The City of Gardena GTrans (GTrans) is in the process of deploying a fleet of compressed natural gas (CNG) buses. To meet the rollout of your CNG-bus fleet, GTrans is procuring the design and construction of a CNG fueling station and vehicle maintenance facility upgrades.

Clean Energy has designed, built, and maintained hundreds of CNG stations over the last 24 years and over 45 design-build maintenance facility upgrades since 2012. Below are strengths which summarize how we are able to meet GTrans' project expectations better than our competitors.

- **Most Experience in Design-Build of CNG Stations & Facility Upgrades.** Half of our 81 transit sites use the technology requested by GTrans. Our project team will apply their in-depth knowledge of the equipment and streamlined business practices to improve quality control and performance on GTrans' project.
- **Large Workforce of CNG Experts.** Clean Energy will tap into a large team of in-house experts for GTrans' entire project, whereas our competitors are likely to subcontract either the station or the facility upgrades. Our internal resources, compared to less experienced competitors, minimizes your project risks including manpower, budget control and communications.
- **Communication & Work Plan.** GTrans' CNG compound location requires construction within the entrance and exit points of your parking lot. In response to this site condition, our project manager will give adequate notice and coordinate with your staff to minimize disruption to your operations during construction. In recognition of your need to store and maintain the CNG buses that are currently operating as soon as possible, our schedule prioritizes completion for four maintenance facility bays initially.

Reagan Clemens, Account Manager, is available to respond to your RFP questions. His contact information is Reagan.Clemens@cleanenergyfuels.com and (949) 437-1082. Clean Energy is prepared to deploy our expertise and resources to promote the success of your onsite CNG program.

Sincerely,



Chad Lindholm
Vice President, Sales

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Section 1 - Transmittal Letter Form

Attached is the complete Transmittal Letter form with signature stating offer is to remain valid for a period of no less than 120 days from the date of submittal.

FORM B
TRANSMITTAL LETTER FORM

City of Gardena GTrans
Dana Pynn, Transit Administrative Officer
13999 S. Western Ave.
Gardena, CA 90249

1. Proposer acknowledges receipt of RFP 2020-05 and Addenda No. (s) 1 - 9

2. Proposer acknowledges its familiarity with requirements defined in Scope of Services.

3. This offer shall remain firm for 120 days from the RFP close date.
(minimum 120)

Company Name:	Clean Energy
Address:	4675 MacArthur Court, Suite 800, Newport Beach, CA 92660
Telephone:	(949) 437-1000
Print Name/Title:	Robert M. Vreeland, Chief Financial Officer
E-mail:	reagan.clemens@cleanenergyfuels.com
Date Signed:	October 28, 2020
Signature:	Robert M Vreeland

Clean Energy reserves the right to negotiate if awarded the contract.

Section 2 – Statement of Qualifications

Clean Energy Qualifications

As the largest provider of CNG services in the US, Clean Energy is changing the way fleets fuel their vehicles. We offer customers operational savings and a reduction in their environmental impacts through conventional and renewable natural gas supply to their vehicles. Our extensive station network in Southern California is supported by our large, local workforce of technicians, engineers, and project managers which far exceeds our competitors' capabilities.

Clean Energy has more than 20 years of experience developing and implementing natural gas fueling solutions for various fleet customers.

We offer a one-stop solution for our customers. We develop fast-fill and time-fill stations and provide design, build, operation and maintenance services. We have ownership in IMW Industries, a CNG compressor manufacturer, which provides us better communication and quicker turn times for replacement parts than our competitors.

Further, in 2012, Clean Energy recognized a growing need amongst our customers to modify their maintenance facilities. They needed an expert to assist them in navigating the sometimes confusing codes and compliance guidelines that exist to upgrade a maintenance facility to allow servicing and storing natural gas vehicles. Shortly thereafter, we established the Facility Modifications division to support our customers by offering design-build services to upgrade maintenance facilities across North America.

Clean Energy, headquartered in nearby Newport Beach, was established in 1996 and has been a publicly traded company since 2007 (Nasdaq: CLNE). We are owned by more than 75,000 shareholders and 129 institutional investors. Further, in June 2018, we received a significant equity investment from Total SA, the 4th largest energy company in the world. In 2019, Clean Energy reported $344 million in revenue and 400 million gallons of natural gas sold to customers across the United States. For additional financial information, please refer to our latest financial report at http://investors.cleanenergyfuels.com/financial-information/annual-reports.

Since inception of Clean Energy, we have constructed more than 400 natural gas fueling stations throughout North America.

Since we formed facility modifications group within Clean Energy in 2012, we have completed over 45 design-build projects for customers across North America.

Today, we own, operate and/or supply 550 natural gas fueling stations serving both public and private fleets at locations in 41 states and Canada. Clean Energy is also the

only provider in the natural gas industry with a dedicated facility modifications division, having completed more than 2,000,000 sq. ft. of building assessments and modifications in North America.

FASTECH Qualifications

FASTECH, a long-time partner in station build projects, is selected to be the General Contractor for this project. FASTECH has built 50 natural gas stations in California and has worked as Clean Energy's partner since 2012. FASTECH holds a California license no. 794519, classification A HAZ C21 C10 B and is registered with the DIR no. 1000020911. Clean Energy and FASTECH have collaborated and completed over 25 CNG station projects together.

References

See the below our references of the three largest design-build transportation projects performed within the last ten years. The design-build projects may be public or private and located anywhere in the United States. Names and references are current and verifiable.

Clean Energy's Customer References	
LA Metro Division 13	**Contact:** Tim Lindholm, Executive Officer-Program Management **Address:** 660 S. Figueroa Street, Los Angeles, CA 90017 **Telephone:** (213) 922-7297 **Email:** lindholmt@metro.net
City of Torrance	**Contact** James Lee, Chief Administrative Officer **Address:** 20500 Madrona Avenue, Torrance, CA 90503 **Office:** (310) 781-6924 **Cell:** (424) 398-2240 **Email:** Jameslee@torranceca.gov
City of Norwalk	**Contact:** Jim Parker, Director of Transportation **Address:** 12700 Norwalk Boulevard, Norwalk, CA 90650 **Telephone:** (562) 929-5533 **Email:** jparker@norwalkca.gov

Section 3 – Work Plan and Management Approach

The following describes our management capabilities, team philosophy, and process approach to deliver the project.

Overall Team Philosophy

Clean Energy will accomplish the successful completion of GTrans' design-build project by using an internal staff of specialized experts in CNG project design, engineering, planning and permitting, construction management, operations and commissioning. We will use FASTECH, a long-time partner in station build and facility upgrade projects, to complete the equipment installation and construction. Clean Energy will be responsible for the quality control and oversight of FASTECH's work.

The primary benefit to our internal staff plan approach is it minimizes the need to manage, communicate and coordinate with multiple external resources/partners. Our Senior Project Manager will be responsible for communications and completing quality control reviews with FASTECH's staff and work product. This streamlined management approach is enhanced by our effective project delivery process. Our project team's specialization in design-build of natural gas stations and facility upgrades for transit agencies will benefit GTrans because we will incorporate best practices from our previous work to promote design-build efficiencies.

Below highlights our team for GTrans' project:

- Clean Energy's Engineer of Record, Matt Loser, is an employee of Clean Energy and has designed 25 natural gas stations for transit agencies in the last 10 years.
- FASTECH, a long-time partner in station build projects, is selected to be the General Contractor for this project. Clean Energy and FASTECH have collaborated and completed over 25 CNG station and two facility upgrade projects together.
- Clean Energy's Faisal Abbas, Senior Project Manager, has seven years of natural gas experience including: successful design and engineering of over 25 natural gas stations, project management of over 10 natural gas stations, and project engineering & management for 15 CNG facility modifications across the US.

Project Delivery Process

Internal Project Kick-Off

Once awarded the contract or issued a notice to proceed, our project manager will host an internal project kick off meeting to discuss the project in detail. During this meeting, the project team will discuss and confirm:

- Project schedule and project deliverables
- Communication and reporting expectations
- Site plan evaluation and review of GTrans' 30% drawings
- Planning and permitting requirements
- Utility coordination

Following the internal project kick-off meeting the project manager will host an external project kick-off meeting with GTrans to introduce the project team, review the project schedule and project deliverables, communication and reporting requirements, and any technical issues, concerns or questions related to the 30% drawings reviews.

Engineering Design and Permitting

After the kickoff meeting, we will immediately work to finalize your station design by developing 60% design submittal.

During this time, our engineering team will review the current drawings to identify any civil, mechanical or electrical conflicts that might exist between the fueling system components and the existing infrastructure, including footing and structure design, utility placement, equipment space allocations, code requirements and offset requirements. We will conduct a site survey and geotechnical investigations as required by the AHJ.

Our engineering team will review the plans with our internal project management, engineers, designers, operations, commissioning and construction personnel to document and present value engineered solutions to GTrans. This value add process is effective and distinguishes Clean Energy's transit project delivery method from our competitors because our internal personnel have completed over 350 CNG stations, 45 facility upgrades and incorporated the best practices on similar projects to GTrans.

Once we have resolved any conflicts, our design group will prepare a full set of engineered plans and specifications that include the architectural, civil, mechanical, plumbing and electrical components. Our Engineer of Record will review, approve and stamp the designs.

The initial 60% design will show preferred placement and routing for equipment, mechanical piping and electrical conduits. We will prepare AutoCAD drawings that we

will review with GTrans to verify the accuracy of the site layout and design. If there are conflicts, we will address them and incorporate resolutions into our 90% design submittal.

Our Planning Manager will identify the permitting requirements and determine all drawings and documentation is being prepared in accordance with the AHJs requirements. The Planning Manager will submit the 90% drawings to the AHJ and coordinate the incorporation of any comments, questions or concerns until approval of the final drawings and issuance of the required permits. Our Project Manager will coordinate with gas and electric utility providers to ensure that all design and engineering drawings are in accordance with the utility requirements and that utilities will be provided to the site prior to station commissioning.

Once GTrans approves the 90% drawings, Clean Energy will ensure that all equipment and materials have been ordered and confirm the delivery dates prior to the start of construction.

Project Management & Preconstruction Services

Experience has proven that supervision and oversight by a single project manager throughout the entire project reduces the opportunity for cost increases, confusion and delay. Therefore, for every project, Clean Energy assigns a project manager to oversee the complete scope of work from concept to completion. He/she will be supported by senior management, engineering professionals, a station designer, planning manager, construction manager, a site superintendent, and commissioning/operations technician.

Clean Energy will schedule periodic status meetings with GTrans to discuss project schedule, budgetary concerns/constraints, permitting or engineering status, project construction activities and any opportunities for cost savings or shortening completion schedule. These meetings are typically every two weeks during engineering and permitting and once per week during construction. In addition to formal meetings, we encourage GTrans to reach out directly to the Project Manager at any time to discuss urgent matters that occur in between these meetings.

Clean Energy uses a cloud-based project management software (e-Builder) to assist the Project Manager and maintain transparency with GTrans. This program contains the project schedule, all project documentation, project cost reporting, and change order management. The Project Manager is responsible for continuous maintenance of the project information within e-Builder for the duration of the project.

Building Your CNG Fuel Station & Facility Upgrade

Once we secure all of the permits, we will schedule a pre-construction meeting with various stakeholders to go over the scope of work and tasks that each party must complete. There are several milestones that we must meet to complete the station construction within your schedule.

Project Coordination

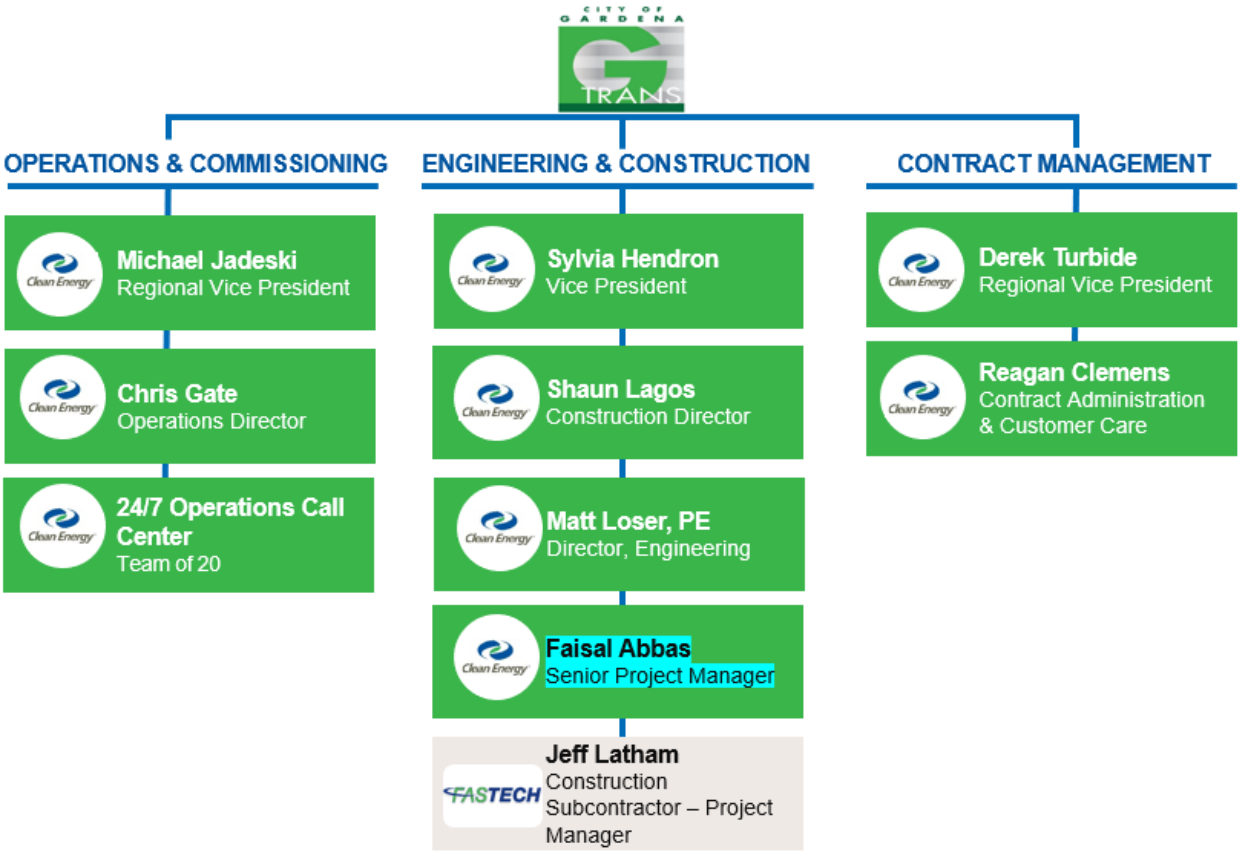
Faisal Abbas, Senior Project Manager, will oversee any subcontractors and maintain the project's construction schedule. He will also coordinate on-site activities to ensure that the construction team is aware of the activities underway and any upcoming activities that might influence their work. The Construction Manager typically communicates this information during informal, pre-work meetings each morning. These meetings are critical to successfully coordinating construction activities.

The Superintendent will be onsite and responsible for overseeing the day-to-day work at the construction site.

Our Project Manager will objectively measure project progress using detailed analysis through our contract management and scheduling system. By combining measurements of scope, schedule and cost, the Project Manager can detect in a single integrated system any early warning of project performance problems.

Organizational Chart(s)

The following Organizational Chart and Responsibility Table identifies major project participants, their roles and responsibilities, and company name in designing and building the project. The chart shows the functional structure of the work effort and the reporting relationships or "chain of command." The Responsibility Table explains the critical support elements such as project management, project administration, construction, construction management, quality assurance/quality control, system configuration and integration, operations, safety, environmental compliance and subcontractor administration.



Clean Energy Team – Responsibility Table GTrans CNG Station	
Key Personnel	**Functional Role**
Engineering & Construction Sylvia Hendron Design/Build Executive	• Manages engineering & construction staff
Engineering Matt Loser, PE, Engineer of Record & QA/QC	• Manages the design, and quality assurance and quality control process for GTrans' project • Responsible for the development, review and approval of 60%, 90% & completed

	design drawings, as well as for drafting the QA/QC project manual • Oversight & coordination of internal engineering staff
Construction & Project Management Shaun Lagos Construction Build & Project Management Lead	• Manages team of station and maintenance facility upgrade construction management staff and Project Managers • Provides executive oversight for the construction phase including management of the Construction Manager • Responsible for GTrans' project from start to finish • Oversees the procurement of equipment for this project. • Ensures environmental compliance is met
Design-Build Project Manager Faisal Abbas, Senior Project Manager	• Manages the construction of your CNG station and maintenance facility upgrade including estimating, quality control, subcontractor coordination and administration.
Station Safety James Wright, Corporate Health, Safety & Environmental Lead	• Responsible for the development, implementation, and administration of the health, safety, and environmental programs • Reviews all safety plans • Recommends safety initiatives • Implements critical safety training, oversees safety audits, and manages and reports all corporate safety metrics
Station Commissioning & Operations	• Oversees staff that conducts performance testing, functional checkout, and

Michael Jadeski Operations Lead	commissioning to ensure station meets the design & performance requirements. • Responsible for the oversight training for GTrans' personnel. • Oversees staff that are qualified to maintain the station operations should GTrans request this service. Oversight of the management staff with team of southern CA-based service technicians • Note: Clean Energy currently provides time and materials maintenance and repair for GTrans' existing station
Contract Derek Turbide Contract Management Lead	• Primary contact for the RFQ, contract and personnel related items • Contract negotiations, modifications and compliance

Information About Key Personnel

In addition to identification of key personnel in the Project Organizational Chart and Responsibility Table, attached please find key personnel resumes detailing their specific work experience, previous employment, education and more.

Information about Subcontractors

Describe previous contracts or projects worked together with named subcontractors over the last ten years?

Clean Energy's Customer References	
Foothill Transit	**Contact:** Sharlane R. Bailey, Project Manager **Address:** 100 S. Vincent Ave, Suite 200, West Covina, CA 91790 **Telephone:** (626) 931-7253 **Email:** sbailey@foothilltransit.org **Duration of design and construction:** 8/19/16 – 7/19/17

	Project Description: Foothill Transit's site included five IMW compressor skids, two of which are electric-drive units but the third featured a CNG gas drive to provide some fueling capability in the event of a power outage. Due to increased site volume, higher maintenance costs, and the increased difficulty of obtaining the required air-quality permits, the agency determined in 2016 that it would be advantageous to replace the gas-drive unit with a pair of new electric-drive units. This also required a new valve panel and upgrades to site controls to effectively perform the work. **Design and construction challenges and resolution:** Challenge was to keep an existing system operational while installing a new system, all without any downtime in fueling. Specifically challenging, the project required several ten-foot sections of concrete right in front of Foothill's bus wash to be removed. This was resolved by thorough engineering, planning and coordination. All coordination and planning minimized the impact on the customer's daily operation and ensured there were no interruptions in fueling or washing of buses. **Description of work actually performed by the Major Participants:** Design-Engineering, Permitting, Construction and Maintenance.
City of Culver City	**Contact** Allison Cohen, Management Analyst **Address:** 4343 Duquesne Avenue at Jefferson Boulevard, Culver City, CA 90232 **Telephone:** (310) 253-6543 **Email:** allison.cohen@culvercity.org **Duration of design and construction:** 10/17/16 – 6/29/17 **Project Description:** Culver City required updates to their station that included the replacement of an older twin IMW compressor skid and dispensers. Clean Energy won this RFP with our proposal to provide two new IMW single compressors on the same pad as the previous twin skid and replacing the outdated dispensers with new Kraus transit-style units. The project also required upgrades to the existing controls and electrical systems to accommodate the updated equipment. **Design and construction challenges and resolution:** The main challenge was to keep an existing system operational while installing a new system, and without any downtime in fueling. Specifically, the controls upgrade was imperative to this project, however, without controls, the station can't fuel buses and trucks

	accordingly. Clean Energy resolved this by coordinating the controls upgrade in a specific period of time including weekend work while also accommodating the system to continue fueling. **Description of work actually performed by the Major Participants:** Design-Engineering, Permitting, Construction

Jobsite Safety Plan

We have included the Jobsite Safety Plan as outlined in Section I (DD) in the appendix. This plan was developed in coordination with our contractor six months ago in response to COVID19.

Fuel Station Proposal

GTrans requires a private fast-fill CNG station which allows fueling of 30 buses with 55 DGEs each in 5 hours. This requires fueling six buses per hour with a total of 330 DGE.

Fuel Station Specifications		
Specification	**RFP Requirement**	**Our Proposed Solution**
Fleet Size (trucks)	30	30
DGEs per Bus	55 per day	55 per day
Buses fueled per hour	6	15.4
Station Flowrate (SCFM) @ 81 psi	1,950	1,968

Equipment Selection

Clean Energy's equipment exceeds the desired fueling performance of six buses per hour with a total site flowrate of over 849 DGE/hour. GTrans can effectively fuel 15 buses per hour using this design.

CNG Station Equipment Summary		
Equipment	**Specifications**	**Key Advantages**
Compressor	Two ANGI duplex 250 HP compressor skids 2 x 656 SCFM @ 81 psi inlet per skid	• Redundant compressor for backup
Dryer	One PSB, single tower 21-4 gas dryer with manual regeneration, equipped with Digital Dew Point meter, sensor and alarm	• Industry standard
Gas Storage	Four ASME storage vessels with an approximate capacity of 46,000 SCF	• Increases fueling flow rate
Priority Panel	ANGI 1" Matrix Valve panel with 2 compressor inlets, 2 dispenser outlets & storage connection	• Independently directs flow from compressors to dispensers • No "fuel robbing"

Dispenser #1	ANGI Series II single hose HD dispenser with 1" piping and CT5000 nozzle	• High flow fueling
Dispenser #2	ANGI dual hose heavy-duty dispenser with 1" piping and CT5000 nozzle on first hose, Staubli P36 nozzle on second hose	• Flexible fueling for heavy-duty or light-duty vehicles
Site Control Panel	Centralized control of fueling process including lead-lag for compressors and data logging	• Controls fueling • Balances compressor run hours
Defueling Panel	ANGI manual defueling post with vent to atmosphere operation and 15' hose	• Simple operation
Generator	400 kW natural gas generator with manual transfer switch to operate one compressor and auxiliary loads during power outage	

Fueling Strategy

We recommend using ANGI's matrix panel for fueling control because it is the simplest way to direct fuel to specific dispensers. Specifically, this will allow GTrans to operate with a first-in-first-out refueling experience for the fleet. It can direct any combination of duplex compressor flow to any refueling hose. The initial setup will have two compressors from one duplex with a staggered start to direct their flow to the first active dispenser. If the other dispenser becomes active, then one of the other two compressors on the second duplex skid will be commanded to start and flow to the second dispenser. This will offer complete independence for refueling at each dispenser.

The initial start of the fill will be supplied by CNG stored in the buffer vessel. When the fill at the first dispenser is complete, two of the running compressors stop in a staggered fashion according to Lead Lag operation as commanded by the Site Control Panel. The second compressor on the second skid will then be able to start to complete the fill at the second dispenser. When the fill at the second dispenser is complete, the two running compressors will refill the buffer and stop in a staggered fashion according to Lead Lag operation as commanded by the Site Control Panel. The number of active compressors for vehicle refueling is selectable on the site control panel HMI.

Matrix Panel Operation

The Matrix Panel independently directs compressor gas flow to active dispenser hoses with the assistance of buffer storage:

- When a dispenser becomes active gas can flow from the buffer to the vehicle.
- One or more compressors are staged to start immediately.
- As compressors become available, start up and begin to produce gas, the matrix panel will direct gas to the active dispenser.
- As more dispensers become active additional compressors are staged to start and direct independent gas flow from specific compressors to specific hoses.

Value Engineering – Fuel Station

The specifications as written include many special requirements for the dryer that add unnecessary cost. Clean Energy has constructed hundreds of CNG stations using an industry standard PSB dryer. We have included in our price sheet an option for GTrans to use a standard dryer in place of the special dryer. This will allow GTrans to realize a savings.

Project Schedule – Fuel Station

We are providing two separate, pro**posed schedules showing key milestones for each sub scope (Design-Build CNG Fuel**ing Station and Design-Build Vehicle Maintenance Facility Upgrade) as requested.

We will have one general contractor managing and coordinating both projects. Our project manager will coordinate performance of work on the station and facility upgrade projects simultaneously for timely completion.

As a leading CNG contractor, Clean Energy is consistently working on up to multiple projects in various stages of development. These projects are divided among our eight project managers. We regularly evaluate workload to insure that all of our projects are able to keep moving forward and stay on schedule. Our Project Manager, Faisal Abas, will be focused on the GTrans project to make sure that we meet the agency's expectations.

Our project schedule for the CNG fueling station represents our best estimate based on similar projects we have undertaken in the past. We anticipate 23.5 weeks to complete the design and permitting process. Construction will then commence and take about 16 weeks to complete. With these milestones, we will substantially complete the station project 40 weeks after the Notice to Proceed (NTP). The project close out will then

begin with commissioning, testing, final inspections, training and as-built drawings being completed in four weeks.

Project Schedule – CNG Fueling Station		
Milestone	**Completion Date**	**Deliverable**
NTP	-	
Site Investigation Report	2 weeks after NTP	
Major Equipment Submittal for Approval	3 weeks after NTP	Equipment Submittals
30% Design Drawings	5 weeks after NTP	Basic Design Drawings
60% Design Drawings	7.5 weeks after NTP	Detailed Design Drawings
Station 90% Design Drawings for Permit Submittal	10.5 weeks after NTP	Final Design Drawings
Final GTrans Design Approval	11.5 weeks after NTP	Permit Submission Package
Permits Issued	23.5 weeks after NTP	Permitted Drawings
Construction Begins	25 weeks after NTP	
Project Substantially Completed	40 weeks after NTP	O&M Manual Draft
Station Commissioned	42 weeks after NTP	
GTrans' Staff Training	42 weeks after NTP	
Final Deliverables for CNG Station Acceptance	44 weeks after NTP	As-built drawings

Note: A full Gantt Chart is attached which shows additional detailed steps.

Facility Upgrade Proposal

We understand that a successful CNG program begins with three pillars: a CNG fueling station, reliable CNG vehicles, and a safe, CNG-compliant vehicle maintenance facility. Clean Energy is pleased to apply our 10 years of facility upgrade experience to this project, and propose a cost-effective, code complaint solution to GTrans. Clean Energy follows the three aspects of a successful facility upgrade: detection, dilution, and extraction. When properly designed and constructed, these three pillars will keep a facility safe while servicing or storing natural gas vehicles.

We expand on the requirements and our approach to GTrans' facility upgrade sub-scope.

NFPA 30A

Per NFPA 30A code, repairs made to a vehicle that include engine, fuel system, and body and/or welding or grinding are considered major repairs. Clean Energy will use the definition of major repair for guidance on the requirements to upgrade GTrans' facility to allow servicing and storing your new CNG bus fleet.

Gas Detection System Upgrades

The methane detection control system and detectors will act as the brains of this systems. We recommend mounting infrared-type methane detectors in the upper 18" of the ceiling area, within the footprint of the service bays. These detectors will be connected to the methane detection control panel. The control panel will connect to audible alarms, and strobes located around the facility, along with the ventilation systems. All components that are part of the methane detection and control system will be UL listed.

The maintenance facility will be divided into four different zones, per the sequence of operations provided in the RFP documents:

- Zone 1: Bays 1-4
- Zone 2 Bays 5-9
- Zone 3: Bays 10-15
- Zone 4: Wash Bay

Each zone will be handled individually upon detection of a leak event (either 10% or 25%). While slightly different than the provided sequence of operations, we recommend

notifying staff throughout the building if a leak is detected in any one of the zones, by at least activating the horn assembly.

When the level of detected gas reaches 10% of the lower flammability level for methane, the system will activate yellow lights (warning), horns (audible), the ventilation systems, and the make-up air system. Once the detected level of methane returns to a safe amount, and five minutes have passed, the system will auto-reset itself.

If the level of detected methane exceeds 10%, and reaches 25%, then all horns and red strobes will activate, along with the ventilation systems. This level of detection is latching, and will not automatically re-set, it will need to be re-set manually by properly trained personnel. Clean Energy will work with GTrans' safety team to provide training materials for staff so everyone understands how to react during a 10% or 25% leak event. Again, for a leak in any particular zone; Clean Energy recommends evacuating the entire building for a leak that is above 25%.

Clean Energy has provided pricing for Sierra Monitor and Sensor Electronics methane detection equipment for GTrans' maintenance facility. Clean Energy has successfully used both manufacturers in previous projects, and both systems are "Buy America" complaint. Sierra will provide the methane detection sensors as well as the main system controller. Two previous projects where Sierra Monitor equipment was installed include:

Cummins Sales and Service (2016)

6140 River Road

Hodgkins, IL

Cummins Sales and Service (2016)

890 Zergea Ave

Bronx, NY 10473

Two previous projects where Sensor Electronics equipment was installed include:

City of Riverside Fleet Maintenance Facility (2018)

8095 Lincoln Ave

Riverside, CA 92504

Progressive Waste (2015)

500 Seven Oaks Blvd

Westwego, LA 70094

Mechanical Ventilation System Upgrades

Ventilation systems in CNG maintenance facilities are required to be non-sparking and meet certain flow levels to remove a plume of gas out of the facility as quickly as possible. By modifying the existing ventilation system already installed in the facility, we will add louvers and dampers to ensure a leak will be ventilated out of the upper 18" zone, as required per code. To keep the ventilation system balanced, fresh air must be introduced to the facility as soon as the fans are activated. We recommend opening at least one bay door to allow fresh air to be introduced into the facility.

Space Heating Upgrades

NFPA 30A specifies that the heating systems in a natural gas compliant service area may not have any surface temperatures hotter than 750°F and may not have any combustion inside the facility. The existing tube heaters will need to be removed and replaced with new infrared tube heaters assemblies that are designed to meet the requirements of a CNG repair facility.

Area Classification/Electrical System Upgrades

In a CNG compliant facility, the 18" under the ceiling is considered a classified zone (Class 1 Div. 2) due to the possibility that a methane leak can accumulate in the space. Any electrical or spark-producing devices must be moved out of the area or upgraded to explosion-proof. As a best practice, Clean Energy recommends lowering all electrical out of the space. While upgrading the equipment to explosion-proof, or running continuous ventilation are options, the initial capital cost of lowering electrical is typically the most economical.

Project Schedule - Facility Upgrade

We will continue with design based on the preliminary design drawings that were provided by GTrans. We understand that time is of the essence for the facility modification, as GTrans already has CNG buses on site. We will develop a set of 30%, then 60%, and finally 90% drawings for presentation to GTrans' staff and consultants. Once all of the details of the design have been finalized, Clean Energy will begin the plan check process with the local Authority having Jurisdiction.

For the construction process, we propose moving through the facility in three or four phases.

Phase 1. Bays 1 – 4. As is a logical starting point for this project, we recommend starting with upgrading bays 1 – 4 first. We will isolate our construction teams from the rest of the shop to minimize disruptions to GTrans' maintenance staff. Typically for this type of project, we recommend completing all construction activities, then commissioning the system towards the end. For this project, we recommend completing construction on bays 1 – 4, including commissioning of the methane detection system, and providing training for GTrans' staff. If the GTrans' agrees with this plan, your staff is able to begin servicing buses immediately after commissioning and training. We anticipate completing the first four bays 22 weeks after receiving the Notice to Proceed documentation.

Phase 2. Bays 5 – 15. The second phase of the project will be upgrading the rest of the maintenance shop (bays 5 - 15) and the wash bay. Please reference our proposed project schedule for additional details and work plan. Once all of the construction is complete, we plan to do a final commissioning of the entire system to ensure everything is functioning properly. For final close-out, Clean Energy will provide as-built drawings as well as training materials so GTrans staff understands what the new building upgrades are, and how to react to a leak event.

Project Schedule – Maintenance Facility Upgrade	
Milestone	**Completion Date**
NTP	-
Site Investigation Report	2 weeks after NTP
30% Design Drawings complete	5 weeks after NTP
60% Design Drawings complete	9 weeks after NTP
90% Design Drawings complete	12 weeks after NTP
Customer Design Review	12 weeks after NTP
Begin Plan Check Process	13 weeks after NTP
Permits Ready to be Issued	16 weeks after NTP
Construction Mobilization	17 weeks after NTP

Construction Bays 1 – 4 complete	21 weeks after NTP
Commissioning / Training: Bays 1 - 4	22 weeks after NTP
Construction Bays 5 – 9 complete	25 weeks after NTP
Construction Bays 10 – 15 complete	29 weeks after NTP
Construction Wash Bay	30 weeks after NTP
Project Substantially Complete	30 weeks after NTP
Full Commissioning / Training Complete	31 weeks after NTP
Final Deliverables to GTrans	34 weeks after NTP

Clarifications

- We cannot guarantee delivery of 10 DGE/minute simultaneously to both dispensers per section 4.14. Our equipment will provide 1,968 SCFM (14.1 DGE/minute) total to both dispensers. Additional flow from storage may be realized but is not guaranteed.
- Our equipment supplier ANGI took exception to the following specifications:
  - Section 43 01 04 #2.01E - ANGI uses standard ball valves that are properly rated for pressure and media.
  - Section 43 01 04 #2.02E - ANGI provides equipment based on acceptable ANGI/Ariel vibration limits. On site vibration testing can be provided at an additional cost.
  - Section 43 01 04 #2.03F ANGI is unable to commit to a lubrication consumption or piston ring life. ANGI will select rings based on the proven ANGI/Ariel design.
  - Section 43 01 04 #2.05 ANGI Pulsation bottles will be design per ANGI standard design, drains excluded. Filters will be sized based on ANGI standard design. Differential pressure gauges excluded.
  - Section 43 01 04 #2.07 ANGI will provide vent to atmosphere defueling panel only per addendum 7.
  - Section 43 01 04 #2.08 ANGI will provide controls per ANGI standard design. PLC programming can be made available upon execution of NDA. Programming software and equipment provided by others as needed. ANGI typical shutdowns and warnings apply. Motor winding temperature excluded. Master controller to have XL7 or AB HMI as proposed which may

be smaller than requested HMI. CP400 to be utilized for typical remote fault call outs. Hour meter to display on HMI.

- Section 43 01 04 #2.12 ANGI will provide dispensers with Micro Motion CNG-050 meter as indicated in drawing D-501 in lieu of Endress Hauser Meter. Hose lengths as proposed. Dispenser to utilize start button, stop button excluded.
- Section 43 01 04 #2.13 ANGI to utilize a standard compressor prime driver. ANGI standard 1-year limited parts only warranty applies. Other specification requirements excluded. Motor starter panel to be located in non-hazardous location based on ANGI standard design
- Section 43 01 04 #2.14 ANGI will provide a standard motor starter panel.

- Facility Upgrade: The Authority having Jurisdiction may require additional changes or upgrades to the maintenance facility beyond what is required to allow servicing and storing natural gas vehicles. Any changes will be quoted separately from this proposal.

SYLVIA HENDRON

VICE PRESIDENT, ENGINEERING AND CONSTRUCTION Based in Newport Beach, CA

PROFESSIONAL PROFILE

Sylvia is responsible for overseeing the engineering and construction department for CNG and LNG infrastructure initiatives at Clean Energy. She has more than 20 years of experience in the development, management, engineering, and construction of large-scale and diverse energy infrastructure projects. Sylvia has a proven history of meeting and exceeding customer performance, cost, and schedule objectives.

PROFESSIONAL EXPERIENCE

VICE PRESIDENT, ENGINEERING AND CONSTRUCTION
Clean Energy, 2019 - Present

DIRECTOR OF ENGINEERING
Terratech, Inc., 2010 - 2013

SENIOR PROJECT MANAGER
Clean Energy, 2013 - 2019

PROJECT MANAGER
Eide Industries, 2007 - 2009

RELEVANT PROJECT EXPERIENCE

SALT LAKE COUNTY SANITATION DISTRICT
Salt Lake City, UT

Facility type: Private time-fill CNG station for refuse vehicles.

Scope of work: Equipment supply and installation for two 250hp compressors, dryer, storage, and 25 dual time-fill hoses.

CITY OF SPOKANE, SOLID WASTE DISPOSAL
Spokane, WA

Facility type: Private time-fill CNG for 100 refuse vehicles

Scope of work: Design-build for two 250hp compressors, storage, 20 time-fill posts, dryer, and fast-fill frame for future expansion.

MONTEBELLO TRANSIT
Montebello, CA

Facility type: Private, fast-fill CNG fueling station for transit buses

Scope of work: Medium-capacity (1,000 SCFM) buffered fast-fill fueling station, and gas detection, leak alarms, and emergency ventilation in fueling building.

REFERENCE

Evan Wade
RTC of Southern Nevada
702-296-8142

RELEVANT EXPERIENCE

20+ Years

EDUCATION

University of Illinois, Champaign-Urbana

- MS, Civil Engineering, 1998

University of Illinois, Champaign-Urbana

- BS, Civil Engineering, 1997

AREAS OF EXPERTISE

Municipal
Refuse
Transit

MATT LOSER, PE

DIRECTOR OF ENGINEERING

PROFESSIONAL PROFILE

Matt is Clean Energy's engineer of record for the design elements of CNG and LNG stations and facility upgrades. He also supervises the Design Engineering staff. He has more than 20 years of professional experience with the design of CNG and LNG fueling facilities, having engineered more than 100 throughout the US. He participated in the design of the initial template for Clean Energy's *America's Natural Gas Highway* stations. From 2009–2017, Matt was involved in national rollout of CNG stations for several natural gas station providers. In addition, he has experience in industrial, residential, commercial development services throughout the US, Canada, and Yanbu, Saudi Arabia. Matt managed all phases of development including conceptual site planning, entitlements, technical studies (hydrology and hydraulics), engineering and permitting, and infrastructure (Sewer, Water and Storm Drain Master Plans and highway interchange development.

PROFESSIONAL EXPERIENCE

DIRECTOR OF ENGINEERING
Clean Energy, 2019 - Present

SENIOR CIVIL ENGINEER
Saudi Arabian Parsons Limited, 2011 - 2013

DIRECTOR OF ENGINEERING
Clean Energy, 2009 - 2011

MANAGING MEMBER
Valley Civil Design Group, 2008 - 2019

MANAGING MEMBER
Saudi Arabian Parsons Limited, 2011 - 2013

DIRECTOR OF ENGINEERING
EKN Engineering, 2002 - 2008

RELEVANT PROJECT EXPERIENCE

Mr. Loser has successfully designed new/upgraded the below CNG stations (partial list).

- Translink, Port Coquitlam, Canada – Transit Station for South Coast British Columbia Transit Authority. Installation included two 150 HP IMW compressors, two 250 HP IMW compressors, new dryer, defueling panel as well as HCNG blending.
- Foothill Irwindale Dispenser Upgrade: Added a public access fueling island approximately 1000 feet away from the existing compound. Scope included full civil engineering.
- Questar Fueling Fontana – Public Access Station: Three 300 HP Ariel compressors, 2700 scfm, sequencing panel, three dual hose dispensers w/ three transit hose & nozzles and three light duty hoses.
- Questar Fueling Dallas - Public Access Station: Three 300HhP Ariel compressors, 3300 scfm, sequencing panel,
- Los Angeles County MTA Division 2, 8, 9, 15 – Electrification project for Los Angeles Metropolitan Transit Authority. Oversaw the design for the upgrades.

REFERENCE

Chris Balling, Dominion Energy (formerly Questar Fueling), (801) 324-3183

RELEVANT EXPERIENCE

20+ Years

EDUCATION

Texas AM University, College Station, TX

- BS, Civil Engineering, 1998

LICENSING

- Registered Professional Civil Engineer in 14 states (California No. C63002

SHAUN LAGOS

CONSTRUCTION DIRECTOR

PROFESSIONAL PROFILE

Mr. Lagos oversees construction projects including supervision of a team of project managers, construction managers and third party vendors nationwide. He manages construction quality, budgets, and project schedules.

Since 2008, Mr. Lagos has managed 30+ CNG fueling construction and installation projects for Weaver, Inc. (acquired by Clean Energy 2011) and/or Clean Energy. In addition, he managed the installation of multiple hydrogen fueling stations for General Motors and Toyota. Over the years, Mr. Lagos has managed projects which include a range of CNG compressor brands like IMW, methane detectors, back-up generators, and time-fill and fast-fill applications for diverse fleets (trucking, refuse, transit). His construction management experience not only includes project management, but also a specialty in managing "system start-up."

CONSTRUCTION EXPERIENCE

10+ Years

EDUCATION

Chapman University
BS, Business Administration, 2006

LICENSING / CERTIFICATIONS / TRAINING

- Orbital Welding and Tube Fittings Training Certificates
- Swagelok, August 2012
- Hoke Tube Fittings
- IMW Compressors /Programming
- ANGI Compressors /Programming
- Certification for CNG Service Installation
- Railroad Commission of Texas, June 2012
- Texas Railroad Commission CNG/LNG Installers License
- First Aid/CPR
- OSHA 30
- Kraus

PROFESSIONAL EXPERIENCE

CONSTRUCTION DIRECTOR
Clean Energy, 2018 - Present

MANAGER
Fueling and Service Technologies, Inc. 2015 – 2018

SENIOR PROJECT MANAGER
Clean Energy, 2011 - 2015

PROJECT MANAGER
Weaver Inc., 2008-2011

RELEVANT PROJECT EXPERIENCE

COVANTA ENERGY Newark, NJ	Scope of work: Design, build, operate, maintain fast-fill CNG station with 2,400 SCFM
ATLANTIC CITY JITNEY Atlantic City, NJ	Scope of work: Design, build, operate, maintain fast-fill CNG station with 944 SCFM
STARK AREA RAPID TRANSIT Canton, OH	Scope of work: Design, build, operate, maintain fast-fill CNG station with 1,100 SCFM

REFERENCE

Michael Sherrill, MV Transportation, (562) 335-7980

FAISAL ABBAS

SENIOR PROJECT MANAGER

PROFESSIONAL PROFILE

Mr. Abbas will manage the design and construction for the City's project. He will bring his start-to-finish knowledge of design, permitting, project management, construction, startup, and staff training of station and facility projects. Mr. Abbas' experience includes design and engineering of over 25 natural gas stations, project management of over 10 natural gas stations, and project engineering & management for 15 CNG facility modifications across the US.

PROFESSIONAL EXPERIENCE

SENIOR PROJECT MANAGER, ENGINEERING & CONSTRUCTION
Clean Energy, 2018 – Present

PROJECT ENGINEER, FACILITY MODIFICATIONS
Clean Energy, 2017 - 2018

DESIGNER, ENGINEER AND CONSTRUCTION
Clean Energy, 2014 – 2017

RELEVANT PROJECT EXPERIENCE

ORANGE COUNTY TRANSPORTATION AUTHORITY
Santa Ana, CA

Facility type: Multi-bay CNG vehicle repair facility for transit buses

Scope of work: Provide turnkey construction for facility modification to achieve natural gas compliance

ALAMEDA COUNTY INDUSTRIES
San Leandro, CA

Facility type: Private time fill CNG station

Scope of Work: Provide turnkey construction of a CNG station

LIVERMORE SANITATION
Livermore, CA

Facility type: Private time fill CNG station

Scope of Work: Provide turnkey construction of a CNG station

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
San Diego, CA

Facility type: Two locations in San Diego, totaling 15 bays serving as CNG vehicle repair facilities

Scope of work: Provide facility assessment and upgrade of over 50 sensors and multiple system controllers. Identified malfunctioning equipment and necessary repairs

ENGINEERING EXPERIENCE

7+ Years

EDUCATION

University of California, Irvine,
BS, Civil Engineering, 2010

California State University, Los Angeles,
MS, Civil Engineering, 2012

LICENSING / CERTIFICATIONS / TRAINING

- EIT, State of California
- LEED Green Associate, USGBC

Areas of Expertise

- Natural Gas Facility Modifications & CNG Fueling Station Design
- Permitting
- Scheduling
- Construction
- Project Management

SACRAMENTO PARATRANSIT Sacramento, CA	Facility type: Facility modification to retrofit existing 10-bay CNG vehicle repair garage and office space Scope of work: Provide facility assessment and installation of 17 sensors and system controllers. Retrofit ventilation and install heating in compliance with CNG.
CITY OF RIVERSIDE Riverside, CA	Facility type: Facility modification to retrofit existing 10-bay CNG vehicle repair garage and office space Scope of work: Provide facility assessment and installation of 12 sensors and system controllers. Retrofit ventilation and install heating in compliance with CNG vehicle repair garage requirements.
MARTIN BROWER Roanoke, TX	Facility type: Multi-bay repair CNG vehicle facility Scope of work: Design-build vehicle maintenance facility for 3 assessment to determine upgrade paths at sites across the US
REPUBLIC SERVICES Nationwide	Facility type: Private time-fill CNG fueling station for refuse vehicles Scope of work: Design CNG fueling stations throughout the US
RYDER CORPORATION Nationwide	Facility type: Private, natural gas repair facility for trucks Scope of work: Design-build CNG facility modifications at Ryder locations throughout the country
INDIANA HARBOR BELT RAILROAD Hammond, IN	Facility type: Facility modification to retrofit existing 4-bay CNG rail repair facility and office space Scope of work: Provide facility assessment and installation of 12 sensors and system controllers. Retrofit ventilation and install heating in compliance with CNG vehicle repair facility requirements.
LOS ANGELES COUNTY SANITATION DISTRICT Whittier, CA	Facility type: Public fast fill and private time fill CNG station Scope of Work: Provide turnkey construction of a CNG station. Demolish and remove existing LCNG station

Jeffrey Latham
Construction Project Manager

Jeff has operated as a project manager for FASTECH on alternative fueling station development and construction, including LNG, hydrogen, CNG, and conventional fueling systems. He manages in-house labor forces, equipment, materials and subcontractors for projects ranging from $500,000 to $2 million in value. Jeff has created detailed project schedules, negotiated payment terms, produced subcontracts documents and overseen project billing. Jeff has also managed design, construction, and design-build style contracts.

As project manager he has undertaken lead management roles in a variety of projects for public and private clients including: City of Anaheim, Capistrano USD, Walnut Valley USD, Kern County Superintendent of Schools, Southern California Gas Company, Chevron Corp, Shell Oil Company, Clean Energy Fuels Corp, Linde Group, Air Products and Chemicals, Air Liquide, and Toyota.

Jeff has also spent two years as the lead Construction Project Estimator where he was responsible for creating detailed estimates based on public and private bid requests using specialized takeoff and estimating software. He developed detailed scopes of work for all subcontractors and material suppliers on a job-specific basis as well as reviewing bids for compliance with state and federal codes and labor requirements, including prevailing wage work.

Expertise

- 4 years experience in fueling systems with FASTECH
- Managing alternative fueling stations including LNG, Hydrogen, CNG
- Experience as lead estimator at FASTECH
- Large scale project engineering experience at Shimmick Construction and Kiewit Infrastructure

Education

University of California Los Angeles
Bachelor of Science, Civil Engineering
Specializations: Geotechnical & Structural

Reference

Matt McClory, Toyota, 310-756-8681
Mike Tosca, CTE (Center for Transportation and the Environment), 818-324-0305
Patrick Fiedler, Fiedler Group, 213-381-3118



RELEVANT EXPERIENCE

27+ Years – Natural Gas

33+ Years – Project Management

EDUCATION

Mohawk College of Applied Arts and Technology

- Mechanical Engineering Technology Program, 1989

LICENSING/ CERTIFICATIONS/ TRAINING

- OSHA 40-Hour
- Cathodic Protection
- LNG Training
- Sierra Monitor
- Tubing and Installation

MICHAEL JADESKI

REGIONAL VICE PRESIDENT, OPERATIONS Based in Newport Beach, CA

PROFESSIONAL PROFILE

Michael is responsible for overseeing all day-to-day operations and maintenance for Clean Energy's CNG and LNG fueling stations in the Western region of the US. Michael directs and supervises the local service technicians responsible for all preventative, scheduled, and unscheduled maintenance and repair services. In addition, Mike oversees the commissioning and startup staff.

Michael has more than 20 years of experience in high-level management roles for the natural gas industry. Prior his tenure at Clean Energy, Michael worked for Stewart Stevenson, a licensed Waukesha engine packager and Wilson Technologies Inc, one of the nation's largest CNG fueling station packagers, as Vice President of Manufacturing.

PROFESSIONAL EXPERIENCE

REGIONAL VICE PRESIDENT, OPERATIONS
Clean Energy, 2016 - Present

DIRECTOR OF QUALITY & COMMISSIONING
Clean Energy, 2012 - 2015

PROJECT MANAGER
Stewart Stevenson, 2003 - 2006

ASSISTANT VP, QUALITY & COMMISSIONING
Clean Energy, 2015 - 2016

SENIOR PROJECT MANAGER
Clean Energy, 2006 - 2012

VICE PRESIDENT, MANUFACTURING
Wilson Technologies Inc., 1991 - 2001

RELEVANT PROJECT EXPERIENCE

Mr. Jadeski has experience with managing the construction and/or commissioning of more than 200 CNG stations in North America including the following:

- LA County Metropolitan Transit Authority (LACMTA), CA
- Anaheim Transportation Network, CA
- City of Glendale, CA
- City of Montebello, CA
- City of Norwalk, CA
- City of Torrance, CA

EQUIPMENT TRAINING

Compressors: GE, Ariel, Gemini, Greenfield, Clean Energy Compression, Knox Western
Engines: Caterpillar, Waukesha,
Microprocessors & Controllers: Allen Bradley, Eaton, IMW, Murphy, GE Fanuc, Horner
Dispensers: ANGI, IMW, Kraus, Tulsa
CNG Dryers: Xebec, PSB, PPC

REFERENCE

Andi Wang, Los Angeles County Metropolitan Transportation Authority, 213-922-4722



RELEVANT EXPERIENCE

13+ Years

Education

- National University
  MBA, 2005
- LEAD San Diego
  Graduate, 2006
- University of Rhode Island
  BA, Marine Affairs, International Development, 2000

Areas of Expertise

- Business Development
- Government Affairs
- Public Relations
- Contract Management
- Contract Negotiations
- Profit & Loss
- Government Contracts
- Grants
- Project Management
- Federally Funded projects

DEREK TURBIDE

REGIONAL VICE PRESIDENT, SALES

PROFESSIONAL PROFILE

Derek has nearly two decades of business, contract and financial management experience working in various business development and management roles. He has 14 years of natural gas vehicle fueling industry experience and presently works with Clean Energy's largest public transportation contracts including the Los Angeles County Metro and the Cities of Los Angeles, Phoenix, and more. Products and services managed include fueling station equipment, design-build and operation and maintenance, compressed natural gas, liquefied natural gas, and renewable natural gas. Prior to his career at Clean Energy, he was the chief executive of a longstanding environmental organization in San Diego.

Derek has served on the Board of Directors for the San Diego Regional Clean Fuels Coalition and the San Diego & Imperial Counties American Lung Association. He also served as a Resource Conservation Commissioner for the City of Chula Vista and Chairman of both the San Diego County Integrated Waste Management Citizen Advisory Committee and the San Diego Regional Sustainability Partnership's Clean Transportation Committee.

PROFESSIONAL EXPERIENCE

REGIONAL VICE PRESIDENT
Clean Energy, 2014-Present

REGIONAL MANAGER, TRANSIT
Clean Energy, 2010-2014

BUSINESS DEVELOPMENT MANAGER
Clean Energy, 2006-2010

EXECUTIVE DIRECTOR
I Love a Clean San Diego, 2001 - 2006

REGIONAL MANAGER
Green Mountain Energy Company, 2000-2001

RELEVANT PROJECT EXPERIENCE

ORANGE COUNTY TRANSPORTATION AUTHORITY
Irvine, CA
December 2007-Present

Facility Type: Private fast-fill CNG station
Scope of Work: Design, build, operate, maintain, upgrades

LOS ANGELES METROPOLITAN TRANSIT AUTHORITY (LAMTA)
Los Angeles, CA
April 2010 - Present

Facility Type: Private fast-fill CNG fueling stations for transit buses (11 stations)
Scope of Work: Design, build, operate, maintain, upgrades

FOOTHILL TRANSIT
West Covina, CA
December 2009 - Present

Facility Type: Private and public fast-fill CNG fueling stations for transit buses (2 stations)
Scope of Work: Design, build, operate, maintain, upgrades

REFERENCE

Victor Ramirez, Los Angeles County Metropolitan Transportation Authority, 213-840-9274

FASTECH	**Daily Tailgate Meeting & Work Clearance Form**	Issue: July 8, 2011 Revision: July 1, 2020 Form 17-011 Do NOT pre-populate any fields

Job Location: Job Number:				Date:
Lead Tech:		Helper:		

List activities to be performed **today**:	
Has a HRP number been assigned to complete any permitted activities?	☐ Yes ☐ No* ☐ N/A
Permitted Activities (specific permit to be competed):	☐ Confined Space Entry ☐ Excavation/Trenching ☐ Hot Work ☐ LOTO ☐ Working at Heights (greater than 6 feet) ☐ Hoisting/Rigging (any lifting with equipment)

Emergency Staging Location:		Spill Kit Location :	
First Aid Kit/Eye Wash Location/Expiration Date:		Fire Extinguisher Location: Expiration Date:	
Emergency cut-off switches:		Designated Cell Phone Use Area(s)	

Has the Site Manager / Owner been notified of our activities?	☐ Yes ☐ No ☐ N/A
Have all personnel reviewed and understand the site specific Health and Safety plan?	☐ Yes ☐ No*
Does each activity have a Job Safety Analysis (JSA)?	☐ Yes ☐ No*
Does each subcontractor have JSAs for their activities?	☐ Yes ☐ No* ☐ N/A
Have JSAs been reviewed by all affected personnel on-site?	☐ Yes ☐ No*
Has a site walk been performed to identify additional hazards?	☐ Yes ☐ No*
Additional Hazards Identified:	
Have any newly identified hazards been documented on the JSA?	☐ Yes ☐ No* ☐ N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	☐ Yes ☐ No*
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	☐ Yes ☐ No* ☐ N/A
Have equipment checks (Lock out tag out, etc.) been completed, documented, and reviewed?	☐ Yes ☐ No* ☐ N/A
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the FASTECH Site Supervisor of any injury near miss, unsafe condition or hazard observation?	☐ Yes ☐ No*
If permits are required, have they been reviewed and permit conditions understood by the team?	☐ Yes ☐ No* ☐ N/A

** If No, then work cannot be performed until corrective action is completed and documented.*

Title of JSAs reviewed today:	
All personnel are wearing (regardless of activity):	☐ Hard Hat ☐ Safety Glasses/Face Shields ☐ Safety Vest/Hi Vis Shirt ☐ Steel-Toed Boots ☐ Gloves (appropriate for task) ☐ Hearing Protection *See JSA for additional task specific PPE requirements*.

SITE WORKERS (including FASTECH Contractors and Subcontractors): By signing here, you are stating the following:

* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
* You understand the Safety rules and are aware that tasks or work that is not risk-assessed shall not be performed.
* You are aware of your authority and obligation to 'Stop Work'.
* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.
* You understand and will follow the FASTECH Vehicle Safety Rules while on site, and that failure to comply with any rule may be cause for negative consequences, up to and including dismissal from working on site or the potential for your company to be banned from working on future FASTECH projects.

I arrived and departed fit for duty:

* You are physically and mentally fit for duty.
* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the FASTECH Site Supervisor.

*You signed-out uninjured unless you have otherwise informed the FASTECH Site Supervisor.

FASTECH	Daily Tailgate Meeting & Work Clearance Form	Issue: July 8, 2011 Revision: July 1, 2020 Form 17-011 Do NOT pre-populate any fields

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time

(Attach additional Site Worker sign-in/out sheets if needed)

Complete the following once field activities for the day have been concluded:		
Has the Site Manager/Owner conducted a post-work site walk and are they happy with the way you left the site (including the location of waste drums and/or equipment?	☐ Yes ☐ No	If no, provide details:
Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	☐ Yes ☐ No	If yes, details:
Were there any 'Stop Work' interventions?	☐ Yes ☐ No	If yes, details:
Were there any areas for improvement noted?	☐ Yes ☐ No	If yes, details:
At the conclusion of the day, area was clean/ed and I certify that the job site is being left in a safe condition and there were no reports of injury or first aid.	☐ Yes ☐ No	FASTECH Site Supervisor Signature:

Control Number: 17-011 A updated 7/1/2020

NOTES/DETAILS

Excavation Permit

Permit Number_____ Job Number _____

SECTION A

Equipment Number:

Description of work: Where, dimension of space, length of time, etc)

List Types of Tools & Equipment Required:

Yes No

- ☐ ☐ Excavations deeper than 4 feet
- ☐ ☐ Excavation or drilling within 10 feet of a buried high-pressure gas line (verified by supervisor)
- ☐ ☐ Excavation or drilling within 3 feet of a buried active product line or active electrical line (verified by manager)
- ☐ ☐ Work involving equipment (such as a pulling unit, mast truck, backhoe or excavator) within 15 feet of active overhead electrical line or pole supporting an electrical line (verified by manager)
- ☐ ☐ Soil Survey was completed

Dig Alert #_____

General Safety Precautions

SECTION B

Equipment & Precautions

Yes No

- ☐ ☐ Underground Piping verified and marked
- ☐ ☐ Underground Electric Cables verified and marked
- ☐ ☐ Underground Utilities (e.g. piping) verified and marked
- ☐ ☐ Underground Piping Isolation required
- ☐ ☐ Underground Electric Cables Isolation required
- ☐ ☐ Underground Utilities (e.g. natural gas) Isolation required
- ☐ ☐ Overhead Services (e.g. electrical) have been identified
- ☐ ☐ Above Ground Services Isolation required
- ☐ ☐ Safe Access into / from Excavation required to be provided
- ☐ ☐ Excavation to be Shored / Sloped / Benched as required (to be based on soil survey)
- ☐ ☐ Verification that Excavation will not affect any work in progress
- ☐ ☐ Precautions have been taken to prevent cave-in when personnel must enter excavations deeper than 4 feet
- ☐ ☐ Precautions have been taken when excavating or drilling within 10 feet of a buried high-pressure gas line
- ☐ ☐ Precautions have been taken when excavating or drilling within 3 feet of a buried active product line or active electrical line
- ☐ ☐ Precautions have been taken for work involving equipment (such as a pulling unit, mast truck, backhoe or excavator) within 15 feet of active overhead electrical line or pole supporting an electrical line

Work Area Isolation & Traffic Control

Yes No

- ☐ ☐ Level 1 (Use a minimum of four cones or delineators per work area)
- ☐ ☐ Level 2 (Barrier tape on delineators with flags and the use of field vehicles)
- ☐ ☐ Level 3 (Plastic Security Fencing and\or Type 2 or 3 barricades)
- ☐ ☐ Level 4 (DOT signage and protection devices per Manual on Uniform Traffic Control Devices

List additional hazards, equipment or site precautions, special requirements or instructions:

Approvals

SECTION C

If all requirements and conditions of this Form remain in effect, the work can be performed safely.

Permit Holder: Date:	Helper: Date:
Signature:	Signature:

Form Closure

All work has been completed in accordance with this Permit and the site has been left in a safe and satisfactory condition. I understand that by signing below this Form will be closed and no longer valid.

Permit Holder:	Helper:
Signature:	Signature:

Isolation (Lock out / Tag out)

Permit Number_____ Job Number_____

SECTION A

Equipment Number:

Description of work & type of possible exposure:

List Types of Tools & Equipment Required: (valves, switches, breakers, etc.)

General Safety Precautions

SECTION B

Steps for Lockout – (*Check when Task has been Completed)*

- ☐ Notify all affected employees
- ☐ Conduct a normal shutdown
- ☐ Turn off controls and shut valves
- ☐ Install lockout devices and tags
- ☐ Release stored, residual or potential energy by de-energizing, relieved, disconnected, restrained or blocked
- ☐ Verification of zero energy state completed
- ☐ Manager or Site operator notified of lockout
- ☐ Tag completed with all affected personnel
- ☐ JSA for specific LOTO completed / printed / etc. (please attached to this form on the job attachments)

Note: When an energy-isolating device is not capable of being locked out, a tagout system must be used. Lockout and tagout devices must indicate the identity of the employee applying the device(s).

at the end of the loto ***Lead Tech has verified system is ready to be energized: _____

Work Area Isolation & Traffic Control

Yes	No	
☐	☐	Level 1 (Use a minimum of four cones or delineators per work area)
☐	☐	Level 2 (Barrier tape on delineators with flags and the use of field vehicles)
☐	☐	Level 3 (Plastic Security Fencing and\or Type 2 or 3 barricades)
☐	☐	Level 4 (DOT signage and protection devices)

List additional hazards, equipment or site precautions, special requirements or instructions:

Equipment Isolation Checklist

Isolation Point	Equipment Isolation Point	Lock Installed	Tag Installed	Tested	Lock Removed	Tested	Normal Operation Restored	Initials	Task Complete	Misc.	Initials
1											
2											
3											
4											

Approvals

SECTION C

If all requirements and conditions of this Form remain in effect, the work can be performed safely.

Permit Holder: Date:	Helper: Date:
Signature:	Signature:

Form Closure

All work has been completed in accordance with this Permit and the site has been left in a safe and satisfactory condition. I understand that by signing below this Form will be closed and no longer valid.

Permit Holder:	Helper:
Signature:	Signature:

Hot Work

Permit Number: _____ Job Number: _____

SECTION A

Equipment Number:

Description of work:

List Types of Tools & Equipment Required:

General Safety Precautions

SECTION B

Equipment & Precautions

Yes No

- ☐ ☐ All provisions and requirements specified on the associated General Work Permit met
- ☐ ☐ Equipment to be positively isolated (e.g., blinded, electrical breaker removed, etc.)
- ☐ ☐ Approved Fire Watch at job site (Must observe site for 30 minutes after completion of Hot Work)
- ☐ ☐ Proper Fire Extinguisher(s) located at job site within 10 ft. of hot work
- ☐ ☐ Spark containment or fire resistant tarpaulins in use
- ☐ ☐ All surface drains covered within 50 ft. of job site
- ☐ ☐ 35 Feet from any fuelling system components
- ☐ ☐ Special PPE equipment and/or clothing please note below
- ☐ ☐ Fire hose / water hose on site
- ☐ ☐ Respiratory protection as listed - List type required below
- ☐ ☐ Additional instructions, conditions and/or requirements listed below met
- ☐ ☐ Adequate ventilation provided when welding in confined spaces (See Confined Space Form)
- ☐ ☐ Piping on which hot work is being performed is isolated with either blanking/blinding, air gapping or double blocked and bled
- ☐ ☐ Atmospheric testing is conducted to ensure that the hot work area is at 0% L.E.L.
- ☐ ☐ All roof, floor, machinery, wall openings are covered

Work Area Isolation & Traffic Control

Yes No

- ☐ ☐ Level 1 (Use a minimum of four cones or delineators per work area)
- ☐ ☐ Level 2 (Barrier tape on delineators with flags and the use of field vehicles)
- ☐ ☐ Level 3 (Plastic Security Fencing and\or Type 2 or 3 barricades)
- ☐ ☐ Level 4 (DOT signage and protection devices)

List additional hazards, equipment or site precautions, special requirements or instructions:

Gas Test Results

☐ **Gas Test Frequency Rate- Once Per _____ Minutes**

☐ **Continuous Gas Test Required Throughout Job**

Date	Time	% LEL	% O2	Other	Results	Other	Results	Instrument	Gas Tester

Approvals

SECTION C

If all requirements and conditions of this Form are in effect, the work can be performed safely, please sign below.

Permit Holder:	Helper:
Signature:	Signature:

Form Closure

All work has been completed in accordance with this Permit and the site has been left in a safe and satisfactory condition. I understand that by signing below this Form will be closed and no longer valid.

Permit Holder:	Helper:
Signature:	Signature:

Confined Space Entry

Permit Number _____ Job Number _____

SECTION A

Equipment Number:

Description of work: (equipment being entered & dimension of space)

List Types of Tools & Equipment Required:

General Safety Precautions

SECTION B

Training Verification

The following persons successfully completed required training and training is current for the space to be entered

Position	Training Completed		Name & Title
	YES	NO	
Entry Supervisor/ Attendant	☐	☐	
Entrant	☐	☐	
Entry Supervisor Name	Entry Supervisor Signature		Date

Equipment & Precautions

Yes	No		Yes	No		Yes	No	
☐	☐	Bump Test Performed	☐	☐	Hoisting Equipment	☐	☐	Safety Harness
☐	☐	Confined Space Inerted	☐	☐	Life Line	☐	☐	Barricades and Warning Signs
☐	☐	Fall Arrest Gear	☐	☐	Mechanical Ventilation	☐	☐	Temp of space is below 100° F
☐	☐	Fire Extinguishers	☐	☐	Protective Clothing	☐	☐	Communication Equipment
☐	☐	Gas Monitor	☐	☐	Respiratory Protection			

Requirements:

1. **Before an employee enters the space, the internal atmosphere shall be tested with a calibrated direct-reading instrument for oxygen content, flammable gases and vapors, and for potential toxic air contaminants, in that order.**
2. **Forced air ventilation must be used for 10 minutes prior to entrance and for the duration of the job.**
3. **At least one attendant is provided outside the permit space into which entry is authorized for the duration of entry operations.**
4. **The HASP will be reviewed by all on-site employees for procedures on contacting, notifying and summoning rescue and emergency services, for rescuing entrants from permit spaces, for providing necessary emergency services to rescued employees, and for preventing unauthorized personnel from attempting a rescue prior to beginning any Confined Space Entry work.**

Work Area Isolation & Traffic Control

Yes	No	
☐	☐	Level 1 (Use a minimum of four cones or delineators per work area)
☐	☐	Level 2 (Barrier tape on delineators with flags and the use of field vehicles)
☐	☐	Level 3 (Plastic Security Fencing and\or Type 2 or 3 barricades)
☐	☐	Level 4 (DOT signage and protection devices per Manual on Uniform Traffic Control Devices (MUTCD))

List additional hazards, equipment or site precautions, special requirements or instructions:

Approvals

SECTION C

If all requirements and conditions of this Form remain in effect, the work can be performed safely.

Permit Holder: Date:	Helper: Date:
Signature:	Signature:

Form Closure

All work has been completed in accordance with this Permit and the site has been left in a safe and satisfactory condition. I understand that by signing below this Form will be closed and no longer valid.

Permit Holder:	Helper:
Signature	Signature

Confined Space Entry

Permit Number _____ Job Number _____

SECTION D – Gas Test Results

Gas Test Results

☐ **Gas Test Frequency Rate – Once Per _____Minutes**

☐ **Continuous Gas Test Required Throughout Job**

Date	Time	Location	% O2	LEL	H2S:	CO:	Results	Instrument	Gas Tester

Work at Heights

Permit Number:_____ Job Number: _____

Working at heights is any situation where the workers feet are greater than 6 feet above grade. If not above six feet, a permit is not required.

SECTION A

Equipment Number:

List Types of Tools & Equipment Required:

☐ Equipment Inspected before use

General Safety Precautions

SECTION B

Equipment & Precautions

Yes	No	
☐	☐	Ladders
☐	☐	Scissor Lift
☐	☐	Aerial Lift, Cherry Picker or Bucket Truck
☐	☐	Scaffold erected by a Competent Person
☐	☐	Guardrail, Mid Rails, Toe Boards, Screens
☐	☐	Fall Protection / Fall Arrest Equipment (must be used on roof when you are working 15ft or less from edge)
☐	☐	The ability to contact Emergency Services is available
☐	☐	Ladders, Scaffolding and other equipment used for working at heights are properly load rated, placed on dry stable ground and properly secured for the task being performed
☐	☐	Overhead services/obstructions have been identified/isolated
☐	☐	Fragile Areas of roof have been noted and marked below (as needed)
☐	☐	Appropriate anchor point has been selected
☐	☐	Skylights have been mapped and noted

Work Area Isolation & Traffic Control

Yes	No	
☐	☐	Level 1 (Use a minimum of four cones or delineators per work area)
☐	☐	Level 2 (Barrier tape on delineators with flags and the use of field vehicles)
☐	☐	Level 3 (Plastic Security Fencing and\or Type 2 or 3 barricades)
☐	☐	Level 4 (DOT signage and protection devices)

List additional hazards, equipment or site precautions, special requirements or instructions:

Approvals

SECTION C

If all requirements and conditions of this Form are in effect, the work can be performed safely, please sign below.

Permit Holder:	Helper:
Signature:	Signature:

Form Closure

All work has been completed in accordance with this Permit and the site has been left in a safe and satisfactory condition. I understand that by signing below this Form will be closed and no longer valid.

Permit Requester:	Helper:
Signature:	Signature:

FASTECH

Hoisting and Rigging

Permit Number_____ Job Number _____

SECTION A

Description of work:

List Types of Tools & Equipment Required:

General Safety Precautions

SECTION B

Equipment & Precautions

Yes	No	
☐	☐	Lift Plan was completed by a Competent Person and communicated
☐	☐	Operator is Certified for the equipment
☐	☐	Equipment is rated for work to be performed
☐	☐	A diagram of directional hand signals to the crane operator is posted and reviewed before work begins
☐	☐	Overhead electric lines, within a 10 radius of the equipment, have been de-energized prior to work
☐	☐	All Hoisting / Rigging components, equipment and tools have been inspected by a Competent Person equipment used *list below*: (straps, chains, and weight ratings)

☐ ☐ Rated Load Capacities, recommended Operating Speeds, Special Hazard Warnings, or instruction, is conspicuously posted on all equipment and visible to the operator while at the control station

Work Area Isolation & Traffic Control

Yes	No	
☐	☐	Level 1 (Use a minimum of four cones or delineators per work area)
☐	☐	Level 2 (Barrier tape on delineators with flags and the use of field vehicles)
☐	☐	Level 3 (Plastic Security Fencing and\or Type 2 or 3 barricades)
☐	☐	Level 4 (DOT signage and protection devices)

Approvals

SECTION C

If all requirements and conditions of this Form remain in effect, the work can be performed safely

Permit Holder: Date:	Helper: Date:
Signature:	Signature:

Form Closure

All work has been completed in accordance with this Permit and the site has been left in a safe and satisfactory condition. I understand that by signing below this Form will be closed and no longer valid.

Permit Holder:	Helper:
Signature	Signature

RETAIL PETROLEUM • RETAIL NATURAL GAS • CAR WASH SYSTEMS

Construction Covid Policy

1. Purpose

To establish a construction Covid policy to promote a safer work environment for employees, contractors, sub-contractors, guests and other on-site people.

2. Scope

This procedure will cover all construction jobs until this virus in contained or eradicated.

3. Construction Covid Requirements

- Working in enclosed areas without the ability to maintain 6-foot distance will not be done.
- No employees will be allowed to carpool.
- Practice social distancing by maintaining a minimum 6-foot distance from others.
- Preclude gatherings of any size, and anytime two or more people must meet, ensure a minimum 6-foot separation. Interactions with 3rd parties should be handled by phone if at all possible.

Personal protective equipment (PPE) such as gloves, goggles and face shields as appropriate for the activity being performed. Face coverings must be worn on construction sites at all times. Examples of acceptable face coverings are N95/KN95/surgical masks, cloth masks, bandanas, and/or neck gaiters

- Before wearing your face covering – please follow CDC guidelines for hand washing prior to placing your mask on. Nitrile gloves/face coverings must be worn at all-times outside of their vehicles including interaction with other employees. A new pair is to be changed out each time a surface is contacted that may pose a transmission hazard.

The owner/contractor shall designate a site-specific COVID-19 supervisor to enforce this guidance. A designated COVID-19 supervisor shall be present on the construction site at all times during construction activities. The COVID19 supervisor can be an on-site worker who is designated to carry this role.

Fever screening must be include by taking the temperature of person as they arrive at the site & at the end of shift. The readings must be kept separate from public forms and if a fever is detected please notify HR as soon as possible. Temperatures should be taken using a reliable touch less thermometer. Form 17-022

A daily self-evaluation form provided by LACSD will be completed by each on site employee daily

- Identify "choke points" and "high-risk areas" where workers are forced to stand together, such as hallways, hoists and elevators, break areas, and buses, and control them so social distancing is maintained. Those "choke points" and "high-risk areas" will be noted below and updated as necessary.

- Minimize interactions when picking up or delivering equipment or materials, ensure minimum 6-foot separation.

- Stagger the trades as necessary to reduce density and maintain minimum 6-foot separation social distancing. Drivers should remain in their vehicles if the load will allow it and must wash and sanitize their hands before unloading their goods and materials.

- Workers are not to use each other's phones, desks, offices, work tools and equipment. If found necessary to use shared tools - the tool will be cleaned and disinfect before and after use. No shared pens or pencils should also be adhered.

- Post, in areas visible to all workers, required hygienic practices including not touching face with unwashed hands or with gloves; washing hands with soap and water for at least 20 seconds; use of hand sanitizer with at least 60% alcohol, cleaning AND disinfecting frequently touched objects and surfaces such as workstations, keyboards, telephones, handrails, machines, shared tools, elevator control buttons and doorknobs; covering the mouth and nose when coughing or sneezing as well as other hygienic recommendations by the CDC. A minimum of 2 signs in each general area. Portable rest rooms need to be serviced 2-3 times per week.

- Place wash stations or hand sanitizers in multiple locations to encourage hand hygiene.

- Require anyone on the project to stay home if they are sick, except to get medical care. Immediate removal of anyone showing symptoms of the corona virus (fever, cough, difficulty breathing).

- Have employees inform their supervisor immediately if they have a sick family member at home with COVID-19.

- Maintain a daily attendance log of all workers and visitors.

- Daily safety meeting updates on COVID-19 – must be documented.

- Any close contacts to an ill worker should be identified and asked to remain at home in quarantine.

- All employees should remove PPE prior to leaving job site and disposed of it/clean it properly. Take care to wipe off hard hats, safety glasses, steering wheel and touchable surfaces prior to leaving.

Attachments:

- CDC Face Covering Guidance
- CDC Shared Facts about Covid-19 sheet
- CDC Stay home from work sheet
- CDC Stop the spread of germs sheet
- GBDA Corona Virus Tool Box Talk
- Fastech Construction Postings
- OSHA Covid 19 Resources https://www.osha.gov/SLTC/covid-19/
- OSHA guidance on preparing workplaces for COVID-19 https://www.osha.gov/Publications/OSHA3990.pdf
- DOL Covid-19 Resources https://www.dol.gov/coronavirus
- LA County corona virus construction guidance http://publichealth.lacounty.gov/media/Coronavirus/docs/business/GuidanceConstructionSites.pdf

Choke points/high risk areas of site listed below:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Date: _____

Name: _____

Signature: _____

CONSTRUCTION • STATION MAINTENANCE
TESTING • CAR WASH SYSTEMS

Site Safety and Health Plan

Clean Energy – City of Gardena Transit
13999 S. Western Ave.
Gardena, Ca. 90249

Design and build a new CNG Station

10-12-2020

Job #

APPROVALS

Reviewed and Approved by:

Scott Happ
Fueling and Service Technologies, Safety Manager

Written by:

Scott Happ
Fueling and Service Technologies, Safety Manager

EMERGENCY CONTACTS

In the event of any situation or unplanned occurrence requiring outside assistance or support services, the appropriate contact(s) from the list below should be made. The Field Team Leader will have a radio or a mobile phone. Field workers' names and cell phone numbers will be recorded on Page V of this Health and Safety Plan, "Project Contacts." In addition, cell phones should be programmed with important emergency phone numbers for easy access.

Ambulance/Fire Emergency ..... Landline 911

Security Emergency .....Landline 911 or Cell 911

Hospital 310-532-4200

Chem-trec (Emergency Chemical Spill Response Information) 800-424-9300

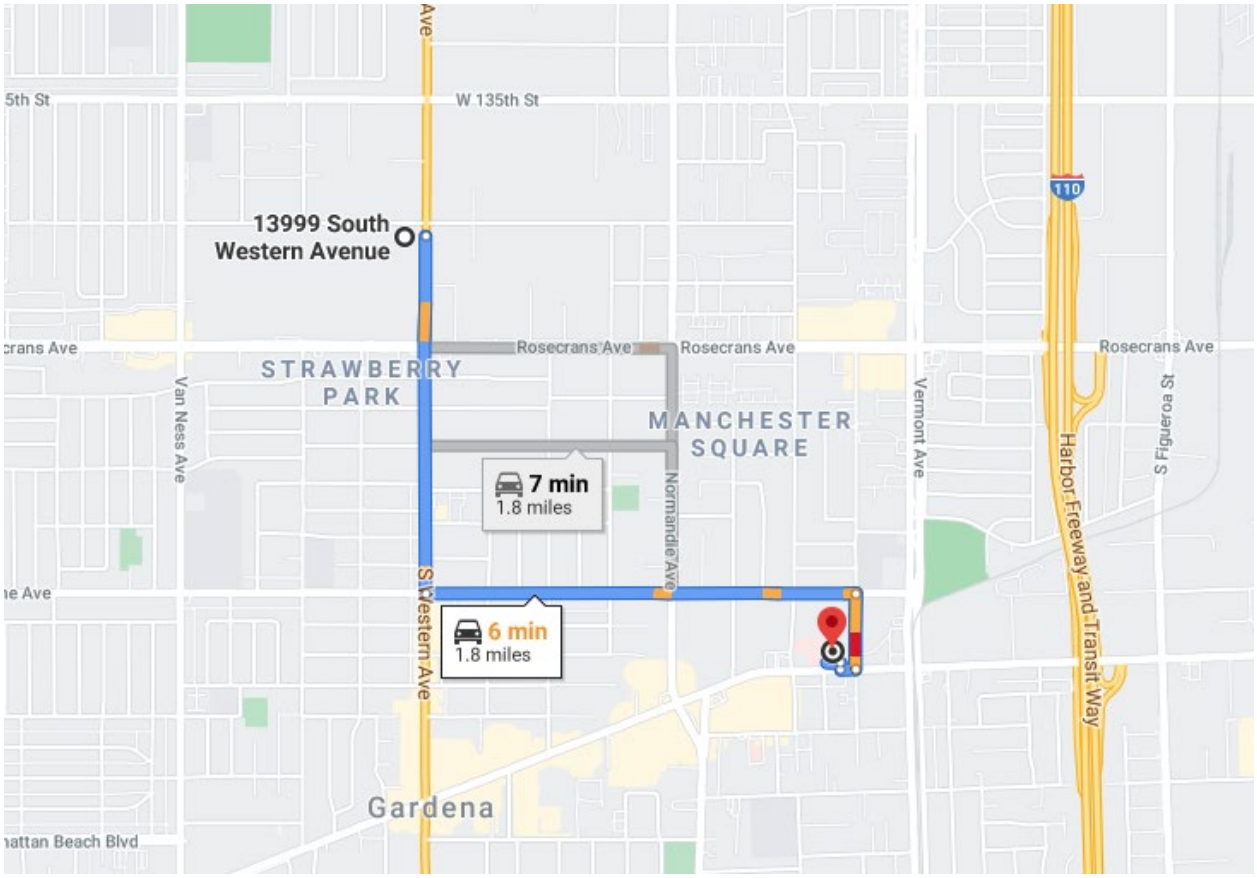
Fueling & Service Technologies Inc. Emergency 800-788-8815

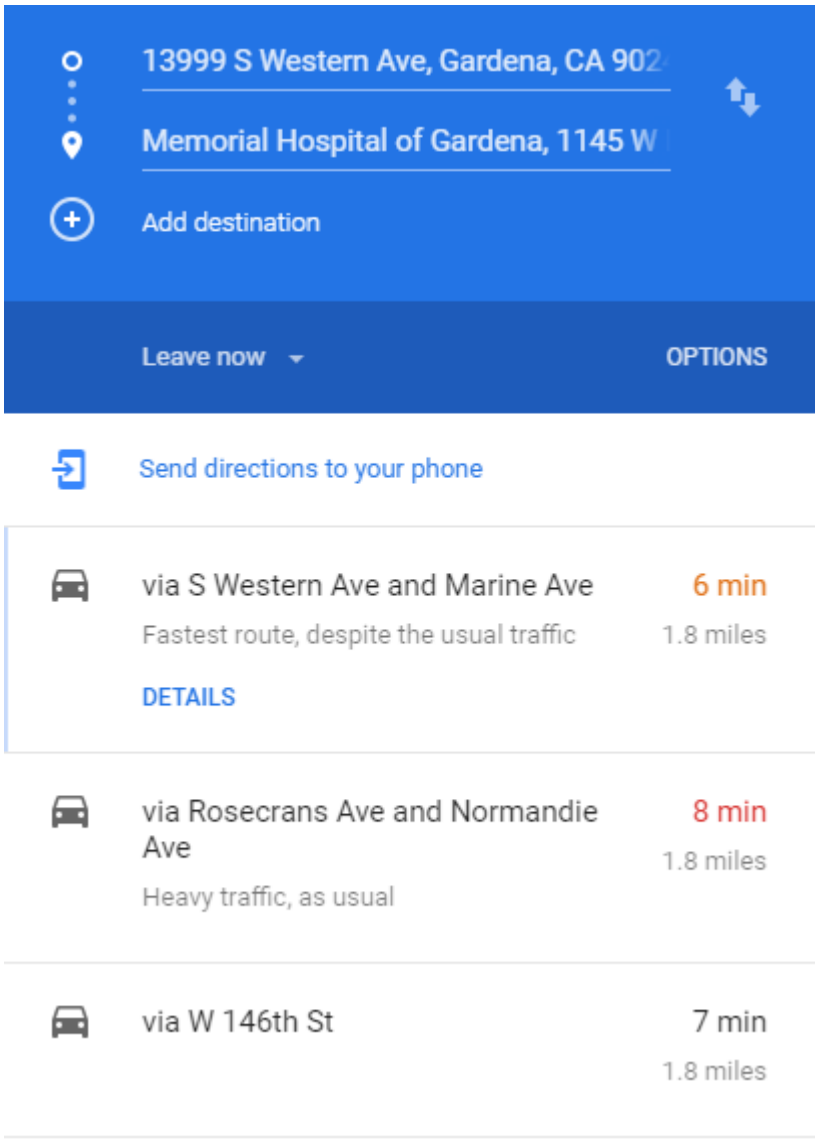
Fueling & Service Technologies, Inc. Medical Records.....800-883-0352

NEAREST EMERGENCY ROOM

Memorial Hospital of Gardena
1145 W. Redondo Beach Blvd.
Gardena, Ca.90247
310-532-4200
(24 hour emergency room)

HOSPITAL ROUTE MAP

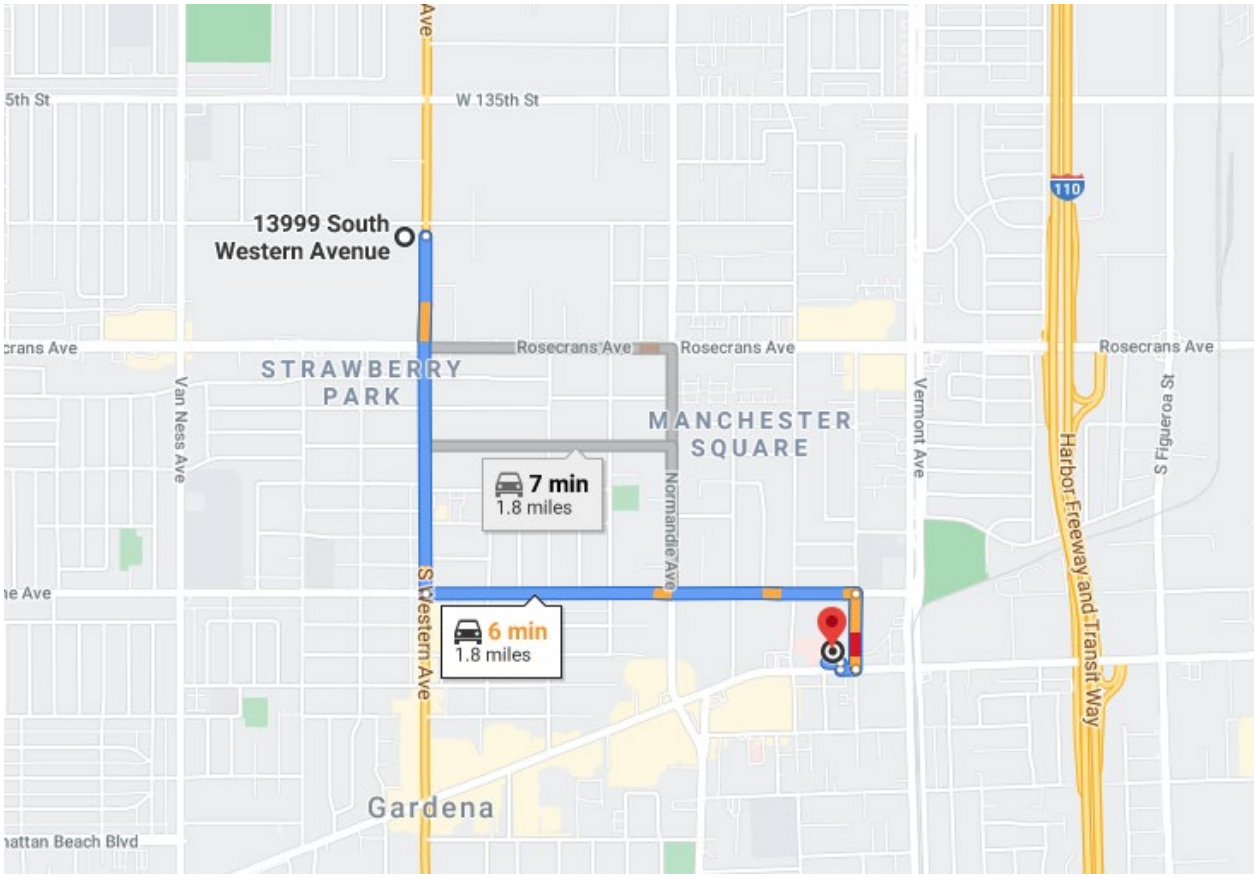


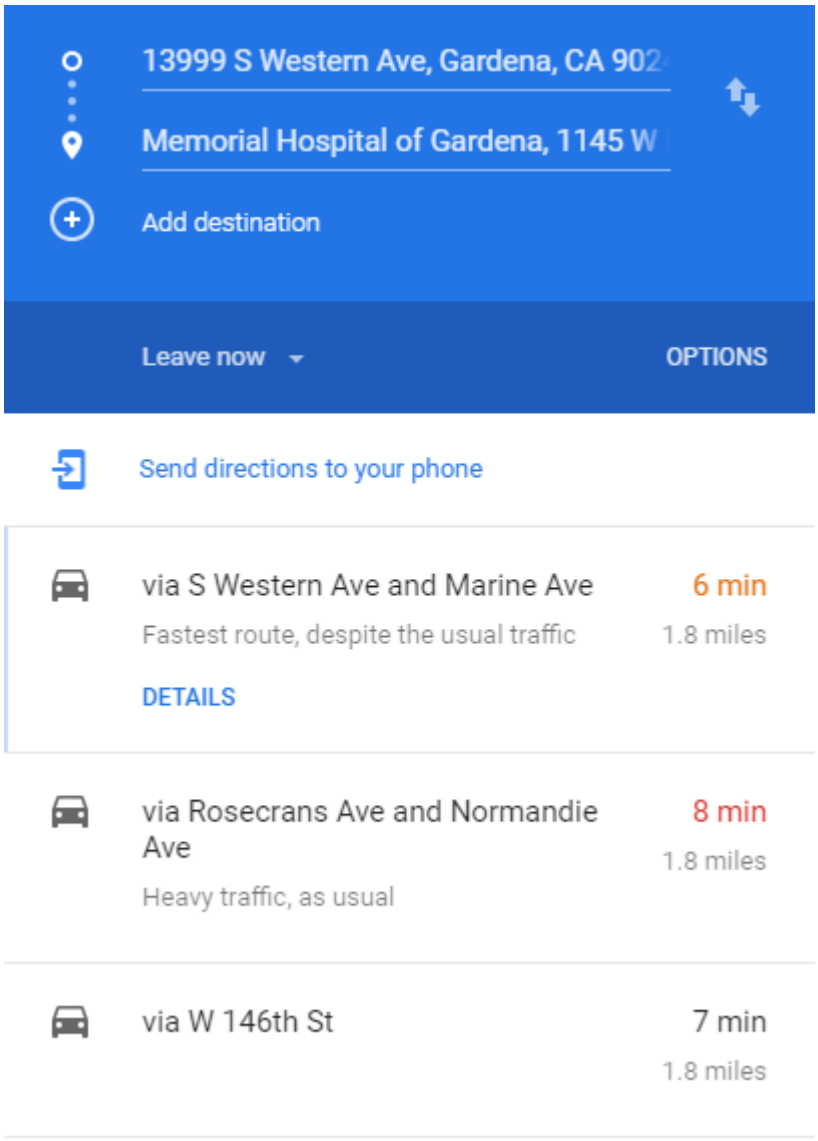


NEAREST OCCUPATIONAL CLINIC

Memorial Hospital of Gardena
1145 W. Redondo Beach Blvd.
Gardena, Ca.90247
310-532-4200
(24 hour emergency room)

OCCUPATIONAL CLINIC MAP




13999 S Western Ave, Gardena, CA 902
Memorial Hospital of Gardena, 1145 W
Add destination
Leave now
OPTIONS
Send directions to your phone
via S Western Ave and Marine Ave
6 min
Fastest route, despite the usual traffic
1.8 miles
DETAILS
via Rosecrans Ave and Normandie Ave
8 min
1.8 miles
Heavy traffic, as usual
via W 146th St
7 min
1.8 miles

FASTECH PROJECT CONTACTS

NAME On-Site Superintendent Phone #	Tim Caldwell FASTECH Construction Manager (714) 686-7374
Scott Happ FASTECH Safety Manager (951) 403-4182	NAME FASTECH Project Manager Phone #

INCIDENT COMMUNICATION CHART

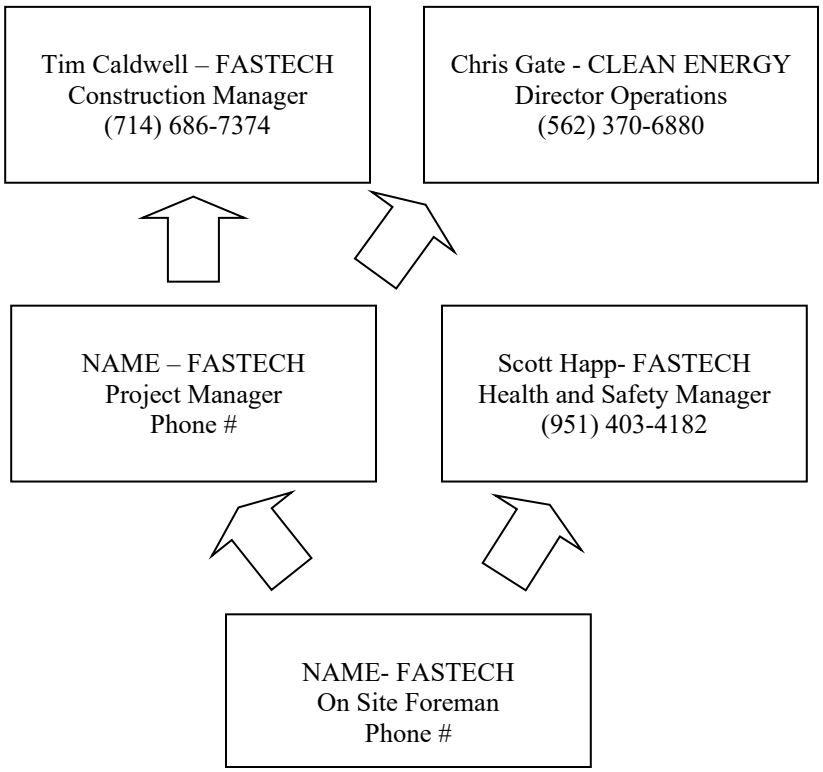


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SECTION 1
PURPOSE AND POLICY

1.1 Introduction

This Health & Safety Plan (HASP) establishes personnel protection standards and mandatory safety practices and procedures for the field activities. The HASP assigns responsibilities, establishes standard operating procedures, and provides for contingencies that may arise during site activities. It is the objective of this plan to establish procedures that will ensure Incident Free Operation (IFO) during field activities.

All site personnel (*Fueling & Service Technologies, Inc., and subcontractors*) shall use this HASP as the primary source of information on health and safety matters. This HASP will be kept on site during field activities.

FASTECH has implemented Behavioral Based Safety programs. The procedures for the specific program being used at the site are included in this HASP as needed. Major aspects of the programs will deal with job safety or hazard analyses, field observations and how to investigate near losses and incidents.

The Site Health & Safety (H&S) Officer will conduct a pre-mobilization briefing on the contents of this HASP for all site personnel involved in the covered activities. All such personnel must sign the Plan Acceptance Form in Appendix A acknowledging that they have attended the pre-mobilization meeting, and have read and understood this HASP and will abide by its contents.

The Site Safety Officer or designee will conduct daily "tailgate" health & safety meetings to discuss work to be performed that day and the potential hazards that will be monitored during the work. The Daily Field Safety Form in Appendix A will be completed and signed by all personnel after the "tailgate" meeting and before commencing the day's activities. The Field Team Leader or the Site Safety Officer will maintain a copy of the form and transmit it to the Project H&S Officer at the end of each day.

1.2 Regulatory Framework

This plan and all site activities will be in compliance with the requirements of the California and Federal Hazardous Waste Operations and Emergency Response Standards (29 Code of Federal Regulations [CFR] 1910.120) and Title 8 California Code of Regulations [CCR] 5192.

1.3 Modifications to the HASP

Although the HASP focuses on the specific site conditions described here, it must remain flexible because conditions may change and unforeseen situations may arise that require deviations from the original Plan. This flexibility allows modification of the HASP by the Project or Site Manager, Field Team Leader, Site Safety Officer, and Health & Safety Officer to take into account changing site conditions such as new data on chemical hazards, weather, and modifications to the scope of work.

Addendums to the HASP, as needed, will be clearly displayed in the Appendices. Changes to the HASP must be approved by the Health & Safety Officer and the *Project or Site* Manager. If unanticipated field conditions are encountered on site that is not addressed in this HASP, these conditions shall be immediately reported to the Field Team Leader, the Site Safety Officer, and Project H&S Officer. If necessary, any field activities shall be halted until the HASP has been

amended to reflect changed conditions and reviewed and approved by the Health & Safety Officer and *Project or Site* Manager.

1.4 Stop Work Authority

All site personnel are empowered, expected, and have the responsibility to stop work if any person's safety or the environment are at risk. NO repercussions will result from this action. Site or project conditions that are possible reasons to stop work and to consider modifications to the HASP include:

Site temperatures outside the range predicted in this HASP (possibly resulting in greater risk of heat or cold stress)

PPE breakthrough or unexpected degradation

Unexplained, elevated readings on an organic vapor monitor

Changes in activities that are unplanned

Observation of activities that are deemed unsafe

This list is not comprehensive and should be used only as guidance (also refer to Section 6, for emergency response procedures).

If you or your company is discouraged from exercising the "Stop Work Authority" or if there are penalties for doing so, then you and your company should report this action to HES Manager at 951-403-4182.

1.5 Contractor / Subcontractor Coordination

Certain activities performed at may require the use of another contractor and/or subcontractor. All contractors and subcontractors will be provided with a copy of this HASP, which they must adopt. This plan is applicable to the other contractors/subcontractors insofar as Fueling & Service Technologies, Inc. employees will be directing the work of contractors/subcontractors performing this work.

In addition, other contractors/subcontractors will prepare their own HASP, which must meet or exceed the requirements of this HASP, for activities specific to their portion of the work or that are not covered by this plan. The other contractors/subcontractors HASP will be reviewed by the *Project or Site* Manager and Project H&S Officer prior to commencement of field activities. Any plan not acceptable to the *Project or Site* Manager and Health & Safety Officer will be rejected, and contractors/subcontractors will not proceed unless the plan is amended as required. Field supervisors will adopt and comply with the contractors/subcontractors HASP insofar as they will be directing the contractors/subcontractors work.

1.6 Drug and Alcohol Policy

While it is not the intent of the Company to infringe upon the private lives of our employees, management has the responsibility to provide a safe and hazard free work environment. Additionally, the Company has an obligation required by its customers to promote a safe and drug-free expectation of all employees. FASTECH has been certified by the National Compliance Management Service (NCMS) in order to maintain business operations with our customers. The NCMS acts as agent for our customers to ensure that all contractors (including FASTECH) are meeting expectations regarding safety. Failure to comply with the requirements of the NCMS would place FASTECH in jeopardy of losing its business. Therefore, all employees are expected to arrive at work fit for duty and unimpaired by the use or consumption

of either alcohol, illegal drugs or controlled substances, and are expected to remain so for the entire work period. All employees working in safety sensitive positions are subject to random drug/alcohol screenings as required by the NCMS at any time during their employment, as allowed by law.

No employee may enter Company premises, or a company job site, while either under the influence or impaired by, or have in his/her possession any intoxicating beverage or behavior altering substance of any kind. Likewise, the use, sale, transfer or possession of alcohol, illegal drugs or controlled substances on the job, on Company property, at job sites, in Company vehicles, at Company sponsored meetings, or in personal vehicles while on Company business is prohibited. In addition, employees are strictly forbidden to arrive or return to work from breaks or meal periods impaired by alcohol or drugs to adversely affect work performance or present a safety hazard of any kind.

Employees using medication prescribed by a licensed physician may be required to provide management with proof that such medication was prescribed. Management will have sole discretion as to whether or not it will be safe for those employees to remain on duty.

All employees are subject to the provisions of this policy, and, as determined appropriate by management, vendors, suppliers, contractors or subcontractors performing work or supplying products or services to the Company on its property or job sites may also be subject to the policy. Any such person determined to be engaged in a prohibited activity set forth within this policy during working time, while on Company property, at job sites, or in a vehicle on Company business will be removed from the premises, shall not be permitted to return without written permission of the Company and may be subject to disciplinary action up to and including termination. Such persons may also be required to submit to a drug/alcohol test and may not be permitted to return to work pending the results of the test. As a condition of employment, employees must agree to abide by the terms of this policy.

The Company reserves the right to conduct reasonable searches of employees or their personal effects, including, but not limited to vehicles, desks, lockers, lunchboxes, purses and baggage located in or brought onto Company property or Company work sites for the purpose of enforcing this policy.

Management reserves the right to require and conduct drug or alcohol tests when, at its sole discretion, reasonable cause exists that an employee is under the influence of drugs, controlled substances, or alcohol. Alcohol and/or drug screening may also be required for all employees in safety sensitive positions following any serious work-related accident. A medical facility which is knowledgeable in the proper chain-of-custody protocol and uses a National Institute on Drug Abuse (NIDA) approved laboratory for all drug/alcohol testing will be used.

Employees whose work comes under the jurisdiction of the Drug Free Workplace Act, Department of Defense, or Department of Transportation regulations are subject to random drug testing as allowed by law. In addition, employees are required to notify the Company of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such a conviction. The Company shall, in turn, notify the contracting agency within ten (10) days of receiving notice of such conviction.

Any employee who refuses to cooperate in searches of any kind or drug/alcohol testing may face disciplinary action up to and including termination. Further, any employee who provides the Company or the medical facility where testing occurs with false information or knowingly misleads the Company or the medical facility during a search, investigation, or testing, may be subject to disciplinary action up to and including termination.

Employees who voluntarily come forward to management, prior to a situation requiring testing and who cooperate with the Company with regard to treatment, may not be subject to

disciplinary action. An employee who requests a leave of absence to enter a drug or alcohol rehabilitation program will be reasonably accommodated with an unpaid leave of absence, as required by law, to enroll in such a program if such an accommodation is not an undue hardship on the Company. Employees voluntarily entering a drug or alcohol rehabilitation program may be required to provide medical validation of satisfactory completion of the program. Employees returning to work following satisfactory completion of a rehabilitation program may be subject to drug or alcohol tests without prior notice for up to one (1) year following the return date. A recurrence of a positive drug or alcohol test following return to work may lead to disciplinary action up to and including termination.
Nothing in this policy prohibits the Company from taking disciplinary action against employees, up to and including termination, whose conduct may have been caused by alcohol, drug or controlled substance abuse, even if the employee requests time off for rehabilitation.

1.7 General Safety Rules

Please observe the following Rules:
1. Smoking is prohibited on all FASTECH job sites as it presents a hazard when smoking around bulk flammable materials. FASTECH must meet or exceed its clients' safety concerns, as such; a zero tolerance policy towards smoking on job sites has been adopted. Working on the same level as our clients, violations of the policy will be dealt with severely. Employees that violate this policy will be terminated immediately. FASTECH and its clients have made this policy in order to limit their liability and to provide a safe work environment by prohibiting smoking on their sites.
2. Notify your supervisor of any emergency situation. If you are injured or become sick at work, no matter how slightly, you must inform your supervisor IMMEDIATELY.
3. Understand your job fully and follow instructions. If you are not sure of the safe procedure, do not guess . . . ask your supervisor.
4. Use, adjust and repair machines and equipment only if you are trained and qualified.
5. Get help when lifting or pushing heavy objects.
6. The use of alcoholic beverages, illegal or controlled substances or the abuse of legal prescription drugs during working hours will not be tolerated. The possession of alcoholic beverages, illegal or controlled substances on the Company's property or at job sites is strictly forbidden.
7. Know the locations, contents and use of first aid and firefighting equipment. Any use of fire extinguishers must be reported immediately to the Health & Safety Manager and the extinguisher turned in for refill.
8. When the job requires it, employees must wear safety glasses, hard hats, lumbar support belts and earplugs that are provided by the Company.
9. Each employee is responsible for knowing OSHA rules as outlined in the IIPP materials provided.
You must take the responsibility to report any health or safety hazards, including violations of safety procedures, to your immediate supervisor. Remember, if you have an accident or injury, you must report it immediately to your supervisor. Failure to observe safety procedures may lead to disciplinary action up to and including termination.

1.8 Housekeeping

During site activities, work areas will be continuously policed for identification of excess trash and unnecessary debris. Excess debris and trash will be collected and stored in an appropriate container prior to disposal. At no time will debris or trash be intermingled with waste PPE or contaminated materials.

Trash – Trash to be hauled off site daily.

Spoils – Any spoils from excavation (if it exists) shall be maintained on site in a safe, customer approved location.

SECTION 2
SITE DESCRIPTION AND SCOPE OF WORK

2.1 Site Description

Existing Transit Facility

2.2 Site Map

Please see site map with approved permits and drawings

2.3 Scope of Work

The basic scope is to design and build a CNG station for the facility.

SECTION 3
PROJECT TEAM ORGANIZATION AND RESPONSIBILITIES

3.1 Health & Safety Officer

The Health & Safety Officer is responsible for ensuring that activities conducted are performed in conformance with this HASP and applicable contractors/subcontractors HASP(s). He/she has the authority to stop work if actions or conditions are judged unsafe or not in conformance with the HASP(s), including, but not limited to, inadequate or improper use of required PPE. Should unexpected conditions arise during fieldwork that warrant changes to this or other HASP(s), those changes must be reviewed and approved by him/her.

The responsibilities of the Health & Safety Officer will be:

Establish and direct the safety program

Assure all personnel assigned to the site have the proper training for their assigned tasks

Conduct pre-mobilization health and safety training for field team members

Advise and consult with the Site Safety Officer and *Project or Site* Manager on all matters related to the health and safety of those involved in site operations.

He/she will maintain documented proof of the following requirements:

Participation in medical monitoring for each Field Team Member

Compliance with HAZWOPER and, if applicable, CPR/First Aid training requirements for each Field Team Member

Certification for Respirator Usage, as required, for Field Team Members.

3.2 Site Safety Officer

The Site Safety Officer is responsible for ensuring that day-to-day on-site activities are performed in conformance with this HASP and applicable contractors/subcontractors HASP(s). He/she has the authority to stop work if actions or conditions are judged unsafe or not in conformance with the HASP(s), including, but not limited to, inadequate or improper use of required PPE. An appropriate person will serve as the alternate Site Safety Officer when the primary Site Safety Officer is not on site.

The responsibilities of the Site Safety Officer will be:

Assure that appropriate personnel protective equipment is available and is properly utilized by all on-site contractor personnel

Assure that personnel are aware of the provisions of this plan and are instructed in the work practices necessary to ensure safety and the procedures for dealing with emergencies

Assure the completion of the Briefing Acknowledgment Form (see Appendix A) by all personnel prior to their going on site, and ensuring that they understand the provisions of the form

Conduct tailgate H&S meetings as required by this HASP

Assure that personnel are aware of potential hazards associated with the site

Monitor the safety performance of all personnel to ensure that the required work practices are employed

Immediately stop work and correct any work practices or conditions that may result in injury or unsafe conditions

Conduct safety inspections and complete appropriate forms weekly (see Appendix A)

Follow and implement the Behavioral Based Safety program (see Appendix E)

Prepare accident/incident and near loss reports (see Appendix E)

Consult with the Health & Safety Officer.

He/she will maintain documented proof of the following requirements:

- Copies of the Briefing Acknowledgement Form
- Minutes of tailgate H&S meetings
- Copies of safety construction inspections
- Copies of accident/incident and near loss reports
- Records of any decisions or changes made from consultations with the Project H&S Officer.

3.3 Field Workers

All field workers, including contractors/subcontractors, are responsible for their personal health and safety and the safety of their co-workers. All field team members are responsible for reading and complying with this and other project HASP(s). As required by this HASP they are responsible for becoming aware of any hazardous site conditions, wearing the appropriate PPE, paying attention at all times, and stopping work and reporting any unsafe working conditions to the Site Safety Officer or Field Supervisor. No person shall perform an activity that he or she believes may endanger his or her health and safety or the health and safety of others. Everyone has the responsibility to stop work in the face of unsafe working conditions or practices.

3.4 Other Contractors and Subcontractors

The other contractor/subcontractor's site supervisors will report to the Field Supervisor. The other contractor/subcontractor's site safety representatives will report to the Site Safety Officer. All safety representatives and officers will collaborate to ensure this and other applicable HASPs are complied with and followed.

SECTION 4
TRAINING AND MEDICAL MONITORING REQUIREMENTS

4.1 General Training

All workers at the site will have received a general safety orientation for the site, including, but not limited to, a review of the contents of this Health and Safety Plan. All workers will have received API training and OSHA 40 hr. Hazwoper training. If required by site conditions, all workers involved in field operations will have received at least OSHA 10-hour health and safety training that meets the requirements of 29 CFR 1910.120. Field workers and other contractors/subcontractors must have completed an 8-hour refresher training course during the past 12 months if the 40-hour training course was received prior to the past 12 months. No person shall work alone in a field operation.

At all times, there will be at least one person trained in First Aid/CPR

The Field Supervisor and the Site Safety Officer must have completed an 8-hour Supervisory training course in addition to the above training requirements, when required by site conditions. Health and safety personnel working at the site will be familiar with the operation, calibration and limitations of all field monitoring equipment.

Field workers who may need to wear respirators during site activities will receive instructions, demonstration and practice on how the respirator should be worn, how to adjust it, and how to determine if the respirator fits properly, as described in the Respiratory Protection Program for their company. Certification of fit-testing will be provided to the Project H&S Officer before respirator usage is implemented.

4.2 Site-Specific Training

The Fueling & Service Technologies, Inc. Health & Safety Officer, On-Site Safety Officer, and Project Manager will participate in a pre-job H&S briefing prior to mobilization. The briefing will cover the contents of this HASP including roles and responsibilities, job hazard analysis and safe work practices. The site's emergency response and evacuation practices will be reviewed in detail.

Prior to the start of any site activities, The Site Safety Officer or designee will conduct a daily "tailgate" health and safety meeting to discuss the work to be performed that day and the potential hazards that will be monitored during the work. The Site Safety Officer or his/her designee will note the topics covered during the daily "tailgate" training on the Daily Field Safety Form.

The Site Safety Officer or his/her designee will also ensure the site specific Behavioral Based Safety Program is implemented according to the procedures outlined in Appendix D. Furthermore, during construction activities, the Site Safety Officer will conduct weekly safety inspection.

4.3 Medical Monitoring

Employees will participate in medical surveillance as required by 29 CFR 1910.120. Participation will be based on the following:

- All employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year;
- All employees who wear a respirator for 30 days or more a year or as required by 1910.134;
- All employees who are injured, become ill or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation;

Note: Fueling & Service Technologies, Inc. employees are not members of HAZMAT teams.

SECTION 5
SITE HAZARD ANALYSIS

Potential chemical and non-chemical hazards associated with fieldwork are covered in this section.

5.1 Chemical Hazards

The properties and potential health hazards associated with each of the known contaminants are listed in Appendix C. Note that the potential health hazards in the table are those expected from exposure to elevated concentrations, such as pure product. Concentrations at the site are expected to be in the parts per billion to parts per million ranges (with the exception of a few inorganic compounds).

Unprotected site workers could be exposed to chemicals via inhalation of volatiles or dust, dermal contact, and incidental ingestion of contaminated material. Administrative and engineering controls shall be used to minimize exposures (*e.g.*, wetting soil to reduce dust). Site workers shall wear the personnel protective equipment (PPE) prescribed in Section 7 of this HASP as protection from these potentially harmful exposures.

Materials of trade (*e.g.*, reagents, compressed gases, preservatives, decontamination solutions) can be hazardous if stored or handled improperly. MSDSs shall be maintained on site for all of these chemicals. Such materials that might be used include isobutylene for calibrating the PID, and hexane for decontamination when sampling for petroleum hydrocarbons. If these materials are transferred to another container, the container will be properly labeled according to the OSHA HAZCOM requirements.

The U.S. Department of Transportation (DOT) might define some chemicals brought to the site as hazardous materials. All workers who ship the materials or transport them by road must receive training in shipping dangerous goods. All hazardous materials that are shipped (*e.g.*, via Federal Express) or are transported by road must be properly identified, labeled, packed, and documented by trained workers. Contact the Field Supervisor or the Health & Safety Manager for additional information.

5.2 Non-Chemical Hazards

The three broad categories of non-chemical hazards include safety, physical, and biological hazards. The anticipated hazards and the required controls to reduce or eliminate these hazards include:

Table 5-1 Safety Hazards

- Slip, trips and falls
- Sharp objects
- Construction and heavy equipment hazards
- Overhead utilities
- Buried utilities
- Suspended loads
- Back strain or injury
- Vehicle traffic
- Dike stability
- Fire
- Entanglement
- Poor lighting
- Flying debris/objects (line-of-fire)
- Electrical or other energized equipment
- Visible lightning
- Pinch points (*e.g.*, cuts to hands, crushed fingers or toes)
- Soft ground conditions
- Working on/near water

Table 5-2 Physical Hazards

- Noise
- Low light / darkness
- Muscle strain
- Heat stress
- Cold stress
- Wet conditions

Table 5-3 Biological Hazards

- Insect stings (wasps, bees)
- Arthropod bites (spiders, ticks)
- Loose or feral animals
- Poisonous plants (i.e., poison oak, ivy, or sumac)
- Mosquitoes
- Snakes and other poisonous animals

5.3 Hazard Analysis and Mitigations by Task

Safety, physical, and biological hazards can be mitigated by the use of proper work procedures and controls, safety equipment (*e.g.*, hard hat, safety glasses, steel-toed/shanked shoes, protective gloves), good communication among all on-site personnel, and being alert to potential hazards.

5.4 High Risk Activities

All high risk activities are covered by the Permit to Work associated with the task. Job Safety Analysis will also be used as a tool for review and mitigating the hazards.

Heavy Equipment and Vehicle Operations

Heavy equipment may produce hazardous noise and pose a potential hazard to pedestrians and workers. When in motion, heavy equipment could strike equipment, other vehicles, overhead power lines, or workers.

In order to assure that all equipment used on site presents no unwarranted safety hazards, the owner of each piece of heavy equipment must perform a safety evaluation and certification in accordance with the procedures and requirements found in S3NA-309-PR Mobile or Heavy Equipment. The owner/vendor supplying the heavy equipment must complete the S3NA-309-FM1 Certification Form for Machinery and Mechanized Equipment and then submit the completed form to the CM prior to the equipment's use onsite. Each operator must complete the S3NA-309-FM2 Heavy Equipment Pre-Operations Inspection Checklist daily and submit the completed form(s) to the CSSO at the end of the week/month.
Heavy equipment and site vehicles present serious hazards site personnel. Blind spots, failure to yield, and other situations may cause heavy equipment/vehicles to come into contact with personnel. To reduce the possibility of contact between equipment/traffic and personnel, always adhere to the following:

- Personnel must wear a high-visibility, reflective safety vest at all times when working near heavy equipment and/or other vehicle traffic.
- Personnel must always yield to equipment/vehicle traffic and stay as far as possible from all equipment/vehicle traffic. Always maintain eye contact with operators.
- When feasible, place barriers between work areas and equipment/vehicle traffic.
- Always ensure that reverse warning alarms are working and louder than surrounding noise. Personnel must report inoperative reverse warning alarms.
- Confirm Daily Equipment Safety Inspections are being performed and that documentation is filed at the site.
- During hoisting or lifting operations, utilize a spotter to assist with the position and moving of the suspended load and to aid in the communication with the operator.

Heavy equipment safety establishes the minimum safety requirements for the use or operation of heavy/mechanized equipment at the various sites. These procedures were established to ensure the safety of site personnel working near operating heavy/mechanized equipment and vehicles, operators, and visitors. This procedure requires that all personnel working on/visiting the project sites, where heavy equipment operations are ongoing, must maintain visual communication with equipment operators. All equipment must be inspected and certified to be in safe working condition before the equipment can work at the site using an approved certification or inspection form for machinery and mechanized equipment and operators must perform daily pre-operational inspections to ensure the mechanized equipment continues to operate safely. Inspections should

also correspond to the manufacturer's recommendations and Federal Regulations 29 CFR 1926.600-604.
All heavy equipment operators must have the specific equipment training to operate onsite. The NCCCO requires operators on all cranes (rubber tired, tracked and stationary) to have current certification with the National Commission for the Certification of Crane Operators (NCCCO). In addition to crane operators being certified, powered industrial truck (fork lift) operators must be licensed per Federal Regulations 29 CFR 1926.600-602 (Subpart O) and 29 CFR 1910.178.

Cutting

Concrete surfaces may be removed by wet cutting or impact break-up. All concrete saws will utilize a wet-method to minimize the amount of concrete dust generated, all saws will be inspected prior to use, and all saws will utilize a guard system to prevent projectile material from leaving the immediate area. Hearing protection and additional eye/face protection (face shield used in conjunction with safety glasses) will be required during this activity and a barricade system will be used to prevent unauthorized personnel from entering the area.

Welding/Torch Cutting

Welding or torch cutting or brazing activities will be necessary to install new structural steel, and/or removal of steel-reinforced rebar concrete. These operations will be performed frequently and will be long-duration activities. Hot work permits will be obtained prior to initiating welding, cutting, or brazing activities. If welding activities must be performed outdoors, then appropriate welding shields will be employed to protect bystanders from an accidental exposure to a welding flash or arc. The specific Hot Work requirements are identified in Section 4.6.

Excavation and Trenching

The primary hazard of trenching and excavation is employee injury from collapse. Soil analysis is important in order to determine appropriate sloping, benching, and shoring. Additional hazards include working with heavy machinery; manual handling of materials; working in proximity to traffic; electrical hazards from overhead and underground power-lines; underground utilities, such as natural gas; and around existing underground tanks.

Because of their inherent dangers, entry into trenches and excavations shall not be performed if there are means other than entry to perform the work. Where entry into trenches and excavations is necessary, strict adherence to the procedures specified in 29 CFR 1926.650 (Subpart P - Excavations) is extremely important and will not be deviated from. A "Competent Person" must be present during all work which involves entry by contractor personnel into trenches or excavations greater than five (5) feet in depth. A "Competent Person" must be qualified per 29 CFR 1926.32(f).
All openings on site will be temporarily covered when not in immediate use as well as at the end of each day in accordance with OSHA Regulations. Coverings must be capable of supporting the weight of an average person and must be marked with "**Hole**", "**Opening**", or "**Do Not Stand**", and secured to prevent being displaced by the wind of other inadvertent means.

General Electrical Hazards

Electrical and powered equipment may be used during a variety of site activities. Injuries associated with electrical and powered equipment include electric shock, cuts/lacerations, eye damage (from flying debris), and burns. To reduce the potential of injury from the hazards associated with electrical and powered equipment, always comply with the following:

- Use ground fault circuit interrupters (GFCIs) when using electrical powered tools/equipment. GFCIs prevent electrical shock by detecting the loss of electricity from a power cord and/or electrical device.
- Confirm that generators are properly grounded, including the use of a grounding rod driven to a depth of 3 feet.
- Wear ANSI-approved (Z87.1) safety glasses. Face shields may be required to provide additional face protection from flying debris.
- Wear appropriate work gloves. Work gloves may reduce the severity of burns and cuts/lacerations.

All temporary electric installations (site trailer, subpanels) will comply with OSHA (29 CFR 1926, Subpart K, and 29 CFR 1910, Subpart S) guidelines. Only qualified and competent individuals (licensed electrician) will provide electrical service/servicing. Refer to S3NA-302-PR Electrical, General, for additional requirements and information.
Use lockout/tag-out procedures when performing maintenance or repairs on equipment.
It is the responsibility of Contractors to verify that all remediation equipment is locked out before employees perform any maintenance or repair work on the system. The source must be locked out; it is not enough to push the power switch to off and disconnect the breaker. Anyone can re-engage power under these circumstances. Locking out the power source is the only way to guarantee that the power will not be inadvertently reactivated.
A lock-out/tag-out kit will be located at the site for the duration of the project. The kit includes standard locks, keys, and lock-out notices.

5.5 Waste Management

Trash- Will be collected in a roll off bin and disposed of as needed.

Used PPE- Will be collected in a 55 gallon drum and disposed of as needed.

Concrete and Asphalt- Will be stock piled and trucked off to a city approved recycler.

Soil- Will be stock piled in accordance with AQMD rule 1166 on plastic and covered with plastic. Soil will be then trucked to an appropriate landfill.

SECTION 6
EMERGENCY RESPONSE PLAN

All site activities present a degree of risk to on-site personnel. During routine operations, risk is minimized by establishing good work practices, staying alert and using proper personal protective equipment. Unpredictable events such as physical injury, chemical exposure, or fire may occur and must be anticipated. First aid kits and portable fire extinguishers will be kept on site during all fieldwork.

6.1 Guidelines for Pre-Emergency Planning and Training

Workers must read this HASP and familiarize themselves with the information in this chapter. Before any field work, the field workers should review the HASP and its emergency response procedures. Workers shall have a copy of the emergency contacts and phone numbers immediately accessible on site and know the route to the nearest emergency medical services (see the front of this HASP). In addition, task-specific overviews and any addendums/revisions to this HASP will be kept current in the front of this document. Posting of emergency contact information will be done at a conspicuous place on the property. If there is not a building where the emergency information can be posted, the site safety officer will determine an appropriate location and notify all personnel working on the site of its location.

In addition, all workers must be familiar with site safe work practices and evacuation procedures included in the site specific training (Section 4.2). Furthermore, any and all incidents such as near misses/losses, injuries, accidents, and related investigations must be reported per the requirements of FASTECH's Behavioral Based Safety program.

6.2 Emergency Recognition and Prevention

Emergency conditions are considered to exist if:

Any member of the field crew is involved in an accident or experiences any adverse effects or symptoms of exposure while on site.

A condition is discovered that suggests the existence of a situation more hazardous than anticipated.

Some ways of preventing emergency situations are listed below.

Workers should remain close together to assist each other during emergencies.

During operations, on-site workers act as safety backup to each other. Off-site personnel provide emergency assistance.

All field workers should make use of their senses to alert themselves to potentially dangerous situations that they should avoid, *e.g.*, presence of strong and irritating or nauseating odors, odors different from those normally encountered at the site.

Workers should practice unfamiliar operations before doing the actual procedure in the field.

Field workers shall be familiar with the physical characteristics of investigations, including:

- Wind direction in relation to contamination zones
- Accessibility to co-workers, equipment, and vehicles
- Communications

- Areas of known or suspected contamination
- Site access and egress
- Nearest water sources.

Workers and equipment in the work area enclosure should be minimized, consistent with effective site operations.

Work areas for various operational activities must be established.

In the event that any member of a field work team experiences any adverse effects or symptoms of exposure while on the scene, or organic vapors and combustible vapors exceed the action limits, the entire field team will immediately halt work and act according to the instructions provided by the Site Safety Officer.

The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated will result in the evacuation of the field team and reevaluation of the hazard and the level of protection required.

6.3 Personnel Roles, Lines of Authority, and Communication Procedures during an Emergency

All personnel should know their responsibilities during an emergency; know who is in charge during an emergency, and the extent of their authority. This section outlines worker roles, lines of authority, and communication procedures during emergencies.

In the event of an emergency at the site, the Site Safety Officer will assume control and will be responsible for on-site decision-making. This individual has the authority to resolve all disputes about health and safety requirements and precautions. He/she will also be responsible for coordinating all activities until the ambulance, rescue, fire personnel, *etc*. arrives on site.

The Site Safety Officer will ensure that other contractors/subcontractors Safety Officer(s), the Health & Safety Officer, the Fueling & Service Technologies, Inc. Project Manager, and the FASTECH Project or Site Manager are contacted as soon as possible after the emergency occurs. The Site Safety Officer and other on-site personnel will have an established line of communication for emergency calls and reports (e.g., radio, cell phone, etc.).

6.4 Evacuation Routes and Procedures, Safe Distances, and Places of Refuge

In the event of an on-site emergency, employees will evacuate the area as instructed by the Site Safety Officer, transport injured personnel, or take other measures to mitigate the situation. The *site-specific evacuation location* will be the on-site place of refuge during an emergency. Should conditions warrant or as directed by the Site Safety Officer, site personnel should use the shelter-in-place facility as a secondary place of refuge. Field workers will identify evacuation routes to the evacuation locations before initiating work. Section 9 includes evacuation procedures if personnel are working on FASTECH Sites.

In the event of an off-site emergency, remain on site until instructions to relocate are given. If wind conditions or the nature of the emergency make the site-specific location building unsafe as

a place of refuge, the Site Safety Officer will consult with the Project Manager and make the decision to relocate.

Off-site emergencies at the s*ite location* are indicated by verbal notification. If verbally notified, work will stop immediately, equipment will be de-energized and/or secured as necessary for safety reasons and personnel will go immediately to the site staging area. Personnel will follow the emergency decontamination procedures described in Section 6.5 before entering the evacuation location. Personnel will follow the directions of the Site Safety Officer, who will determine the nature of the emergency and appropriate steps to take.

6.5 Decontamination of Personnel During an Emergency

Uninjured employees that are required to evacuate a contaminated area in an emergency situation should follow the decontamination procedures described in Section 10 of this HASP, if possible. If the emergency precludes following the procedures in Section 10 (*i.e*. the emergency presents an immediate threat to employee health and safety), then at a minimum, personnel should move into a safe area and remove protective equipment. Care should be taken to minimize contamination of the safe area and personnel. Contaminated clothing should be placed in plastic garbage bags or other suitable containers for later drumming and disposal. Employees should wash or shower as soon as possible.

If a member of the field team is injured or exposed to chemicals, the emergency procedures outlined in Section 6.7 below should be followed.

6.6 Emergency Site Security and Control

For this project, the Site Safety Officer and/or the Project Safety Officer will maintain a list of personnel who are on site and who are in the work area. This list will be compiled on the Daily Field Safety Form (Appendix A) that will be completed during the daily "tailgate" meetings. The names and cell phone numbers of the field crew will also be written on Page V of this HASP. In an emergency situation, all personnel will be evacuated except rescue and response personnel who are needed to attend to the injured.

6.7 Procedures for Emergency Medical Treatment and First Aid

6.7.1 Chemical Exposure

In the event of chemical exposure (skin contact, inhalation, ingestion) the following procedures should be implemented:

Another team member (buddy) should remove the individual from the immediate area of contamination.

Precautions should be taken to avoid exposure of other individuals to the chemical.

If the chemical is on the individual's clothing, the clothing should be removed if it is safe to do so.

If the chemical has contacted the skin, the skin should be washed with copious amounts of water, preferably under a shower.

In case of eye contact, emergency eyewash should be used. For site work activities with a high splash potential, a portable eyewash station will be located at the site. Eyes should be washed for at least 15 minutes.

If necessary, the victim should be transported to the nearest hospital or medical center (refer to Hospital Location Map of this HASP). The Project Manager and Site Safety Officer should be notified as soon as possible. If necessary, an ambulance should be called to transport the victim.

6.7.2 Personal Injury

In the event of personal injury:

Field team members trained in first aid can administer treatment to an injured worker.

If the injury is more serious than a first-aid case, the victim should be transported to the nearest hospital or medical center. If necessary, an ambulance should be called to transport the victim.

The Site Safety Officer is responsible for completing an Incident Report Form, appropriate Behavioral Based Safety forms and submitting them to the H&S Officer and the Site Manager.

6.7.3 Fire or Explosion

In the event of a fire or explosion, personnel will evacuate the area immediately and administer necessary first aid to injured employees. First aid kits will be kept on site during field work as a part of the field H&S kit, along with a fire extinguisher, which is available for small fires. Personnel will proceed to a safe area, contact the Site Safety Officer (see emergency contact numbers at the front of this HASP), and phone *911*. Upon contacting *911*, state your name, nature of the hazard (fire, high combustible vapor levels), the location of the incident, and whether there were any physical injuries requiring an ambulance. Do not hang up until *911* has indicated that they have all of the information they require.

6.7.4 Emergency Contact

Emergency phone numbers and a map to the hospital are found at the front of this HASP.

6.8 Incident Reporting and Investigation

Personnel will report all "incidents" to the Project Manager, Site Safety Officer and the Project H&S Officer. Incidents include both accidents where a personal injury or other loss (*e.g*., property damage, release) has occurred *and* events that had the potential to cause a personal injury or other loss, but did not (*e.g*., "near losses"). In the event an accident occurs, the Site Safety Officer will complete an Incident Report Form, appropriate Behavioral Based Safety forms and submit them to the Project H&S Officer. The Fueling & Service Technologies, Inc. Project Manager will be responsible for all record keeping requirements.

All incidents will be investigated by, at least, the Site Safety Officer and H&S Officer to determine their root cause. Corrective actions will be taken to address the safety issue before work recommences. The HASP will be modified, if necessary, as described in Section 1

6.9 Safety Audits

FASTECH will perform periodic internal safety audits. Any negative finds will be reported as per contract.

LEVELS OF PERSONAL PROTECTION REQUIRED FOR SITE ACTIVITIES

Personal protective equipment (PPE) that will be required on site during the field activities is described in this section. Additional PPE may be required depending on other permit requirements (excavation, safe entry) requirements (see Section 9) and/or field conditions.

7.1 Dermal Protection

Minimum dermal protection for all field team members will be Level D, which includes standard work clothes that include sleeved shirts, long pants, approved safety glasses with side shields or "wrap around" protection, hardhat, and steel-toed/shanked leather work boots. For specific tasks, Level D dermal protection shall be upgraded as follows:

All personnel who perform sampling or monitoring activities shall wear inner surgical-style nitrile and outer chemical-resistant nitrile gloves. For groundwater sampling only, outer gloves may be removed to assure adequate dexterity when handling sampling containers. If surgical-style nitrile gloves become wet, they should be dried immediately. Surgical-style gloves should be changed frequently to assure their integrity.

Steel toed/shanked neoprene or rubber boots or over boots shall be worn when in wet/muddy areas.

Uncoated Tyvek® suits shall be worn over standard works clothes as described above whenever contact is likely with contaminated soils, poisonous plants, or stickers.

Water impermeable (*e.g.*, Saranex®) coveralls shall be worn when sampling surface water, and whenever contact is likely with wet contaminated soils, groundwater, sediments or surface water.

Safety vests must be worn when working around heavy equipment or vehicles.

Hearing protection will be worn when working around construction, heavy, or other equipment or tools or whenever conversations cannot be held at distances of 3 feet or less without shouting.

Certain activities, such as hand excavation of contaminated soils, may require Level C dermal protection. Dermal protection for Level C includes the following items to supplement Level D protection: impermeable suit (e.g. coated Tyvek® or Saranex® suit), impermeable boots (e.g. coated Tyvek® or Saranex® booties), and nitrile gloves. Particular tasks to be performed in Level C dermal protection can be upgraded as described above for Level D.

7.2 Respiratory Protection

Level D - No respiratory protection.

Level C - Full-face piece air purifying respirator (APR) equipped with a cartridge (NIOSH approved) to be determined based on the hazards present, as appropriate.

Level B - is not expected to be needed for these operations.

7.3 Health and Safety Equipment

The on-site field team will have the health and safety equipment noted below readily available during site activities.

Copy of the HASP(s)

Radio or cell phone

First-aid kit

Fire extinguisher (type A-B-C)

Paper towels and hand soap

Traffic safety vests (for work around heavy equipment)

Work gloves (when handling equipment)

Nitrile outer gloves (minimum glove required while working on site)

Perimeter fencing and barricade tape and/or barricades.

Liquids to drink (water).

Organic vapor monitor equipped with a PID (with 10.6 eV lamp) (during intrusive work and sampling)

PPE as appropriate to Task as described in Sections 7.1 and 7.2

Water for decontamination

SECTION 8
DUST CONTROL

8.1 Dust Suppression

Water will be used at the primary method of Dust Suppression on the site.

SECTION 9
SITE CONTROL MEASURES

9.1 Site Access

This site is an existing CNG fueling station. Prior to starting a field event the Project Manager, Site Manager and Site Safety Officer will be notified and discuss the work to be conducted. *See example form on next page. Sign in sheet is in the Site Sign-In Binder.*

9.2 Permits

Prior to starting any field activities, appropriate approvals and permits should be obtained. Any field activities, independently of its size, will require a Fueling & Service Technologies, Inc. Work Permit. Additional permits may be required depending the site; operating facilities may have several permit procedures. Some of these include, but are not limited to, a soil excavation permit, hot work permit, confined space entry permit, and other state or local permits.

9.3 Work Zones

Prior to starting any field activities, an area in which work will be conducted will be classified as the works zone. The work zone will be properly protected, barricaded, or cordoned off in order to maintain a clear and distinct separation from work activity and non-work activity areas

9.4 Traffic Hazards

Transportation incidents and workers struck by vehicles or mobile equipment account for many fatal constructions work injuries. Workers in highway construction activities and in areas where there are moving vehicles and traffic are exposed to those moving hazards. Work zones will be utilized to move traffic in an approved direction and are typically identified by signs, cones, barrels and barriers.
High visibility vests should be required when working in /around traffic hazards.

APPENDIX A
FORMS

Site
Sign-In Sheet

FASTECH	Daily Tailgate Meeting & Work Clearance Form	Issue: July 8, 2011 Revision: July 1, 2020 Form 17-011 Do NOT pre-populate any fields

Job Location:		Date:	
Lead Tech:		Helper:	

List activities to be performed **today**:	
Has a HRP number been assigned to complete any permitted activities?	☐ Yes ☐ No* ☐ N/A
Permitted Activities (specific permit to be competed):	☐ Confined Space Entry ☐ Excavation/Trenching ☐ Hot Work ☐ LOTO ☐ Working at Heights (greater than 6 feet) ☐ Hoisting/Rigging (any lifting with equipment)

Emergency Staging Location:		Spill Kit Location :	
First Aid Kit/Eye Wash Location:		Fire Extinguisher Location:	
Emergency cut-off switches:		Designated Cell Phone Use Area(s)	

Has the Site Manager / Owner been notified of our activities?	☐ Yes ☐ No ☐ N/A
Have all personnel reviewed and understand the site specific Health and Safety plan?	☐ Yes ☐ No*
Does each activity have a Job Safety Analysis (JSA)?	☐ Yes ☐ No*
Does each subcontractor have JSAs for their activities?	☐ Yes ☐ No* ☐ N/A
Have JSAs been reviewed by all affected personnel on-site?	☐ Yes ☐ No*
Has a site walk been performed to identify additional hazards?	☐ Yes ☐ No*
Additional Hazards Identified:	
Have any newly identified hazards been documented on the JSA?	☐ Yes ☐ No* ☐ N/A
Have all members of the work team confirmed understanding of the work, hazards, and controls/ mitigation?	☐ Yes ☐ No*
Have work areas been properly cordoned-off to protect workers, site staff, and the public?	☐ Yes ☐ No* ☐ N/A
Have equipment checks (Lock out tag out, etc.) been completed, documented, and reviewed?	☐ Yes ☐ No* ☐ N/A
Do all site workers understand injury/ intervention reporting requirements including immediately notifying the FASTECH Site Supervisor of any injury near miss, unsafe condition or hazard observation?	☐ Yes ☐ No*
If permits are required, have they been reviewed and permit conditions understood by the team?	☐ Yes ☐ No* ☐ N/A

** If No, then work cannot be performed until corrective action is completed and documented.*

Title of JSAs reviewed today:	
All personnel are wearing (regardless of activity):	☐ Hard Hat ☐ Safety Glasses/Face Shields ☐ Safety Vest/Hi Vis Shirt ☐ Steel-Toed Boots ☐ Gloves (appropriate for task) See JSA for additional task specific PPE requirements.

SITE WORKERS (including FASTECH Contractors and Subcontractors): By signing here, you are stating the following:

* You have been involved in reviewing the JSAs and understand the hazards and control measures associated with each task you are about to perform.
* You understand the permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
* You understand the Safety rules and are aware that tasks or work that is not risk-assessed shall not be performed.
* You are aware of your authority and obligation to 'Stop Work'.
* All employees will stop the job and reassess a task, hazards, and mitigations, and then amend the JSA as needed.
* You understand and will follow the FASTECH Vehicle Safety Rules while on site, and that failure to comply with any rule may be cause for negative consequences, up to and including dismissal from working on site or the potential for your company to be banned from working on future FASTECH projects.

I arrived and departed fit for duty:

* You are physically and mentally fit for duty.
* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or fatigue issue you may have to the FASTECH Site Supervisor.

*You signed-out uninjured unless you have otherwise informed the FASTECH Site Supervisor.

FASTECH

Daily Tailgate Meeting & Work Clearance Form

Issue: July 8, 2011
Revision: July 1, 2020
Form 17-011

Do NOT pre-populate any fields

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time

(Attach additional Site Worker sign-in/out sheets if needed)

Complete the following once field activities for the day have been concluded:		
Has the Site Manager/Owner conducted a post-work site walk and are they happy with the way you left the site (including the location of waste drums and/or equipment?	☐ Yes ☐ No	If no, provide details:
Were there any Incidents, Near Misses, Potential Incidents, or Positive Interventions today?	☐ Yes ☐ No	If yes, details:
Were there any 'Stop Work' interventions?	☐ Yes ☐ No	If yes, details:
Were there any areas for improvement noted?	☐ Yes ☐ No	If yes, details:
At the conclusion of the day, area was clean/ed and I certify that the job site is being left in a safe condition and there were no reports of injury or first aid.	☐ Yes ☐ No	FASTECH Site Supervisor Signature:

Control Number: 17-011 A updated 7/1/2020

NOTES/DETAILS

HEAT AND COLD STRESS HAZARDS

Table B-1 Heat Stress Symptoms, Treatment and Prevention

	Heatstroke and Heat Hyperpyrexia
Symptoms	***Heatstroke:*** (1) hot dry skin; red, mottled, or cyanotic; (2) high and rising core temperature, 40.5ºC or over; (3) brain disorders; mental confusion, loss of consciousness, convulsions, or coma, as core temperature continues to rise. Fatal if treatment delayed. ***Heat Hyperpyrexia:*** milder form; core temperature lower; less severe brain disorders; some sweating.
Treatment	***Heatstroke:*** immediate and rapid cooling by immersion in chilled water with massage, or by wrapping in wet sheet with vigorous fanning with cool dry air. Avoid overcooling. Treat shock if present. ***Heat hyperpyrexia:*** less drastic cooling required if sweating still present and core temperature <40.5ºC.
Prevention	Medical screening of workers. Selection based on health and physical fitness. Acclimatization for 8 to 14 days by graded work and heat exposure. Monitoring workers during sustained work in severe heat.
	Heat Syncope
Symptoms	Fainting while standing erect and immobile in heat.
Treatment	Remove to cooler area. Recovery prompt and complete.
Prevention	Acclimatization. Intermittent activity to assist venous return to heart.
	Heat Exhaustion
Symptoms	(1) Fatigue, nausea, headache, giddiness; (2) skin clammy and moist, complexion pale, muddy, or with hectic flush; (3) may faint on standing, with rapid thready pulse and low blood pressure; (4) oral temperature normal or low but rectal temperature usually elevated (37.5 to 38.5ºC). Water-restriction type: urine volume small, highly concentrated. Salt-restriction type: urine less concentrated, chlorides less than 3 g/liter.
Treatment	Remove to cooler environment. Administer salted fluids by mouth or give intravenous infusions of normal saline (0.9 percent) if patient is unconscious or vomiting. Keep at rest until urine volume and salt content indicate that salt and water balances have been restored.
Prevention	Acclimatize workers using a breaking-in schedule for 1 or 2 weeks. Supplement dietary salt only during acclimatization. Ample drinking water to be available at all times and to be taken frequently during workday.
	Heat Cramps
Symptoms	Painful spasms of muscles used during work (arms, legs, or abdominal). Onset during or after work hours.
Treatment	Salted liquids by mouth, or more prompt relief by intravenous infusion.

Prevention	Adequate salt intake with meals. In un acclimatized men, provide salted (0.1 percent) drinking water.
	Heat Rash
Symptoms	Profuse tiny raised red vesicles (blister like) on affected areas. Pricking sensations during heat exposure.
Treatment	Mild drying lotions. Skin cleanliness to prevent infection.
Prevention	Cooled sleeping quarters to allow skin to dry between heat exposures.
	Heat Fatigue — Transient
Symptoms	Impaired performance of skilled sensorimotor, mental, or vigilance tasks, in heat.
Treatment	Not indicated unless accompanied by other heat illness
Prevention	Acclimatized and training for work in the heat.

Table B-2 Cold Stress Symptoms, Treatment and Prevention

	Frostbite
Symptoms	Pale, waxy-white, hard, numb skin and tissue.
Treatment	Move person to warm, dry area. Remove wet or tight clothing that may cut off blood flow to the affected area. **DO NOT** rub the affected area. **Gently** place the affected area in a warm (105ºF) water bath and monitor the water temperature to **slowly** warm the tissue. Warming takes about 25-40 minutes. After the affected area has been warmed, it may become puffy and blister, and have a burning feeling or numbness. When normal feeling, movement, and skin color has returned, the affected area should be dried and wrapped to keep it warm If there is a chance that the affected area may get cold again, do not warm the skin; this can cause severe tissue damage. Seek medical attention as soon as possible.
Prevention	Dress appropriately. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (i.e., polypropylene). Take frequent breaks in warm, dry shelters. Change wet clothes as soon as possible. Perform work during the warmest part of the day. Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
	Impending Hypothermia
Symptoms	Skin may become pale, numb, and waxy. Muscles become tense. Fatigue and weakness begins to show. Body's core temperature drops to or below 95ºF.
Treatment	Move the person to a warm, dry area. **DO NOT** leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets. Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. Avoid drinks with caffeine (coffee, tea, or hot chocolate) or alcohol. Have the person move their arms and legs to create muscle heat. If they are unable to do so, place warm bottles or hot packs in the arm pits, groin, neck, and head areas **DO NOT** rub the person's body or place them in a warm water bath – this may stop the heart.
Prevention	Dress appropriately. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (i.e., polypropylene). Take frequent breaks in warm, dry shelters. Change wet clothes as soon as possible. Perform work during the warmest part of the day. Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
	Mild Hypothermia

Symptoms	Uncontrolled shivering begins. The individual is still alert, but movement becomes less coordinated and some pain and discomfort exists. The body's core temperature drops to 93.2ºF.
Treatment	Call for emergency help (ambulance or 911). Move the person to a warm, dry area. **DO NOT** leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets. Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. Avoid drinks with caffeine (coffee, tea, or hot chocolate) or alcohol. Have the person move their arms and legs to create muscle heat. If they are unable to do so, place warm bottles or hot packs in the arm pits, groin, neck, and head areas **DO NOT** rub the person's body or place them in a warm water bath – this may stop the heart.
Prevention	Dress appropriately. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (i.e., polypropylene). Take frequent breaks in warm, dry shelters. Change wet clothes as soon as possible. Perform work during the warmest part of the day. Avoid exhaustion or fatigue because energy is needed to keep muscles warm.

Severe Hypothermia	
Symptoms	The skin becomes cold and may appear bluish in color. The individual is weak and uncoordinated. Speech is slurred, and the victim appears exhausted, denies problem, and may resist help. Gradually, there is a loss of consciousness, with little or no breathing occurring. The individual may be rigid and appear dead. Body's core temperature drops below 87.8ºF.
Treatment	Call for emergency help (ambulance or 911). Check for pulse and breathing. If neither is present, begin CPR and mouth-to-mouth resuscitation. Continue until medical help arrives. **Never give up on a victim**. Move the person to a warm, dry area. **DO NOT** leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets. Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. Avoid drinks with caffeine (coffee, tea, or hot chocolate) or alcohol. Have the person move their arms and legs to create muscle heat. If they are unable to do so, place warm bottles or hot packs in the arm pits, groin, neck, and head areas **DO NOT** rub the person's body or place them in a warm water bath – this may stop the heart.

Prevention Dress appropriately. Layer clothing to adjust to changing environmental temperatures. Wear a hat and gloves, in addition to underwear that will keep water away from the skin (i.e., polypropylene). Take frequent breaks in warm, dry shelters. Change wet clothes as soon as possible. Perform work during the warmest part of the day. Avoid exhaustion or fatigue because energy is needed to keep muscles warm.

APPENDIX C
HEALTH HAZARD QUALITIES
OF CHEMICAL HAZARDS

Table C -1 Health Hazard Qualities of Chemical Hazards

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
Acetone	1,000 (2,400 mg/m^3)	1,000 (2,400 mg/m^3)	2,500 [10% LEL]	NA	9.69	Colorless liquid with a fragrant, mint-like odor. Irritation eyes, nose, throat; headache, dizziness, central nervous system depression; dermatitis.
Aldrin	0.25 mg/m^3	0.25 mg/m^3	0.25 mg/m^3	0.017	NA	White crystalline solid with a mild chemical odor. Binds to soil and can become airborne with soil disturbance. Irritation eyes, nose, throat; headache, dizziness, nausea and vomiting, loss of coordination, coma, respiratory depression.
Ammonia	50 (35 mg/m^3)	25 (18 mg/m^3)	300	NA	10.18	Colorless gas with a pungent, suffocating odor. Irritation eyes, nose, throat; dyspnea (breathing difficulty), wheezing, chest pain; pulmonary edema; pink frothy sputum; skin burns, vesiculation; liquid: frostbite.
Antimony	0.5 mg/m^3	0.5 mg/m^3	50 mg/m^3			Noncombustible solid in bulk form, but a moderate explosion hazard in the form of dust when exposed to flame. Causes irritation eyes, skin, nose, throat, mouth; cough; dizziness; headache; nausea, vomiting, diarrhea; stomach cramps; insomnia; anorexia; unable to smell properly.
Arsenic (Inorganic, as As)	0.01 mg/m^3 [29CFR 1910.1018] [r/] [8 CCR 5214] [g/]	0.01 mg/m^3	5 mg/m^3	NA	NA	Silver-gray or tin-white, brittle, odorless solid. Causes ulceration of the nasal septum, dermatitis, gastrointestinal disturbances, nervous system degeneration, respiratory irritation, skin spots, and lung and lymphatic cancer. Mutagen, experimental teratogen, and carcinogen.
Barium (soluble compounds as Ba)	0.5 mg/m^3	0.5 mg/m^3	50 mg/m^3	NA	NA	White, odorless solid, although appearance and properties vary with specific compounds. Irritates eyes, skin, and upper respiratory tract. Causes skin burns, gastroenteritis, muscle spasms, potassium decrease, slow pulse, and momentary arrhythmia.
Benzene	1 [29 CFR 1910.1028] [r/] [8 CCR 5218] [g/]	0.5 [skin]	500	4.7	9.24	Colorless to light-yellow liquid (solid<42^{o}F) with an aromatic odor. Eye, nose, skin, and respiratory system irritant. Causes giddiness, headaches, nausea, staggered gait, fatigue, anorexia, exhaustion, dermatitis, bone marrow depression, and leukemia. Mutagen, experimental teratogen, and carcinogen.
Beryllium	0.002 mg/m^3	0.002 mg/m^3	4 mg/m^3	NA	NA	Hard, brittle, gray-white, metallic solid. Irritates lungs, skin, eyes, and mucous membranes. Causes berylliosis, anorexia, low-weight, weakness, chest pain, coughing, blue skin, clubbed fingers, pulmonary insufficiency, dermatitis, and lung cancer. Mutagen and carcinogen.

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
Biphenyl	0.2 (1 mg/m^3)	0.2 (1 mg/m^3)	100 mg/m^3	NA	7.95	Colorless to pale-yellow solid with a pleasant, characteristic odor. Irritation eyes, throat; headache, nausea, lassitude (weakness, exhaustion), numb limbs; liver damage.
Cadmium (dust)	0.005 mg/m3 [n/] [29CFR 1910.1027] [r/] [8 CCR 1532 & 5207] [g/]	0.01 mg/m3 [i/] 0.002 mg/m3 [h/]	9 mg/m^3	NA	NA	Silver-white, blue-tinged, lustrous, odorless, metallic solid. Causes pulmonary edema, shortness of breath, coughing, chest tightness/pain, loss of sense of smell, chills, muscle aches, headaches, nausea, vomiting, diarrhea, mild anemia, and prostatic and lung cancer. Also attacks kidneys. Mutagen, experimental teratogen, and carcinogen.
Carbon Disulfide	20 (30) [ceiling] (100) [30-min max peak]	1 (3 mg/m^3) [skin]	500	NA	10.08	Colorless to faint-yellow liquid with a sweet ether-like odor. Dizziness, headache, poor sleep, lassitude (weakness, exhaustion), anxiety, anorexia, weight loss; psychosis; polyneuropathy; Parkinson-like syndrome; ocular changes; coronary heart disease; gastritis; kidney, liver injury; eye, skin burns; dermatitis; reproductive effects.
Chlordane	0.5 mg/m^3	0.5 mg/m^3	NA	NA	NA	Amber, viscous liquid with a mild, pungent odor. Headaches, irritability, confusion, weakness, vision problems, vomiting, stomach cramps, diarrhea, and jaundice have occurred in people who breathed air containing high concentrations of chlordane or accidentally swallowed small amounts of chlordane. Large amounts of chlordane taken by mouth can cause convulsions and death.
Chromium (metal)	1 mg/m^3	0.5 mg/m^3	250 mg/m^3	NA	NA	Blue-white to steel gray, lustrous, brittle, hard, odorless, metallic solid. Irritates eyes, skin, and respiratory system. Causes lung fibrosis.
Chromium (II) and (III) Compounds (as Cr)	0.5 mg/m^3	0.5 mg/m^3	250 mg/m^3(II) 25 mg/m^3 (III)	NA	NA	Properties vary with compound. Irritates eyes and causes sensitization dermatitis.
Chromium (VI) (water soluble compounds)	0.5 mg/m^3	0.05 mg/m^3	15 mg/m^3	NA	NA	CrO_3 occurs as dark red, odorless flakes or powder, often used in solution as H_2CrO_4, which may burst a sealed container due to CO_2 release. Properties vary with compound. Causes eye, respiratory, and skin irritation. Causes nasal septum perforation, eye injury, conjunctivitis, skin ulcers, sensitization dermatitis, blood cell disorders, liver and kidney damage, and lung cancer. Mutagen and carcinogen.
Cobalt metal (dust and fumes as Co)	0.1 mg/m^3	0.02 mg/m^3	20 mg/m^3	>1 mg/m3 [l/]	NA	Odorless, silver-gray to black, magnetic, somewhat malleable, hard, solid metal. Causes coughing, shortness of breath,

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
						wheezing, decreased pulmonary function, dermatitis, low-weight, fibrosis, asthma, and respiratory hypersensitivity. Fumes cause metal fume fever. Suspected carcinogen.
Copper (dust and mists as Cu)	1 mg/m^3	1 mg/m^3	100 mg/m^3	NA	NA	Reddish, lustrous, malleable, and odorless, solid metal. Irritates eyes, nose, skin, and pharynx. Causes a metallic taste, nasal perforation, nausea, vomiting, and dermatitis. In animals, causes anemia and lung, liver, and kidney damage. Experimental teratogen.
DDT	1 mg/m^3	1 mg/m^3	500 mg/m^3	NA	NA	White, crystalline solid with no odor or taste. Nervous system effects including excitability, tremors, and seizures.
Dieldrin	0.25 mg/m^3	0.25 mg/m^3	0.5 mg/m^3	0.041	NA	White crystalline solid with a mild chemical odor. Binds to soil and can become airborne with soil disturbance. Irritation eyes, nose, throat; headache, dizziness, nausea and vomiting, loss of coordination, coma, respiratory depression.
Endrin	0.1 mg/m^3	0.1 mg/m^3	NA	0.018	NA	White or colorless solid. Central nervous system effects including headaches, dizziness, nervousness, confusion, nausea, vomiting, and convulsions.
Ethylbenzene	100 (435 mg/m^3)	100 (435 mg/m^3)	800 [10% LEL]	NA	8.76	Colorless liquid with an aromatic odor. Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma.
bis-(2-Ethylhexyl)phthalate	5 mg/m^3	5 mg/m^3	5,000 mg/m^3	NA	NA	Colorless, oily liquid with a slight odor. Eyes, respiratory system, central nervous system, liver, reproductive system, gastrointestinal tract.
Fluorene	0.1 (0.2 mg/m^3)	0.1 (0.2 mg/m^3)	25	NA	15.70	Nonflammable gas, but an extremely strong oxidizer. Irritation eyes, nose, respiratory system; laryngeal spasm, wheezing; pulmonary edema; eye, skin burns; in animals: liver, kidney damage.
Gasoline	NA	NA	NA	NA	NA	Clear liquid with a characteristic odor. Irritation eyes, skin, mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid); possible liver, kidney damage; [potential occupational carcinogen].
Heptachlor	0.5 mg/m^3	0.5 mg/m^3	NA	0.3 mg/m^3	NA	White powder with camphor (mothball) odor. Central nervous system effects including dizziness, confusion, or convulsions.
Hydrogen Sulfide	20 (50) [10-min max peak]	10 (15 mg/m^3) [10-min]	100	0.00001-0.8 [k/]	10.46	Colorless gas with strong odor of rotten eggs. Rapidly fatigues sense of smell. Irritates eyes and respiratory tract. Causes interrupted breathing, coma, convulsions, conjunctivitis, eye pain, tearing, visual intolerance to light, corneal vesicles,

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
						dizziness, headaches, fatigue, irritability, insomnia, and gastrointestinal disturbances.
Isophorone	25 (140 mg/m^3)	4 (23 mg/m^3)	2,000	NA	9.07	Colorless to white liquid with a peppermint-like odor. Irritation eyes, nose, throat; headache, nausea, dizziness, lassitude (weakness, exhaustion), malaise (vague feeling of discomfort), narcosis; dermatitis; in animals: kidney, liver damage.
Isopropyl benzene	50 (245 mg/m^3)	50 (245 mg/m^3)	900 [10% LEL]	NA	8.75	Colorless liquid with a sharp, penetrating, aromatic odor. Irritation eyes, skin, mucous membrane; dermatitis; headache, narcosis, coma.
2-Methyl phenol	5 (22 mg/m^3) [skin]	2.3 (10 mg/m^3)	250	NA	8.93	White crystals with a sweet, tarry odor (a liquid above 88°F). Irritation eyes, skin, mucous membrane; central nervous system effects: confusion, depression, respiratory failure; dyspnea (breathing difficulty), irregular rapid respiration, weak pulse; eye, skin burns; dermatitis; lung, liver, kidney, pancreas damage.
4-Methyl phenol	5 (22 mg/m^3) [skin]	2.3 (10 mg/m^3)	250	NA	8.97	Crystalline solid with a sweet, tarry odor (a liquid above 95°F). Irritation eyes, skin, mucous membrane; central nervous system effects: confusion, depression, respiratory failure; dyspnea (breathing difficulty), irregular rapid respiration, weak pulse; eye, skin burns; dermatitis; lung, liver, kidney, pancreas damage.
Lead	0.05 mg/m^3 [29 CFR 1910.1025] [r/] [8 CCR 5198] [g/]	0.05 mg/m^3	100 mg/m^3	NA	NA	Heavy, ductile, bluish-gray, soft metal. Irritates eyes. Causes weakness, exhaustion, insomnia, facial pallor, anorexia, low-weight, malnutrition, constipation, abdominal pain, gastritis, colic, constipation, gingival lead line, anemia, wrist and ankle paralysis, joint pains, tremors, low blood pressure, and kidney disease. Mutagen, experimental teratogen, and suspected carcinogen.
Mercury (alkyl as Hg)	0.01 mg/m^3 0.04 mg/m^3 [ceiling]	0.01 mg/m^3 [skin]	2 mg/m^3	NA	NA	Appearance and odor vary depending on the specific compound. Silver-white, heavy, odorless, liquid or tin-white ductile,
(alky)	0.01 mg/m^3 [ceiling]	0.05 mg/m^3 [skin]	10 mg/m^3	NA	NA	malleable, soft, solid metal. Causes skin tingling, incoordination, joint dysfunction, visual and hearing disturbances, spasticity,
(elemental and inorganic)	0.025 mg/m^3 [vapor] [skin]	0.025 mg/m^3 [inorg] [skin]	10 mg/m^3	NA	NA	jerking limbs, dizziness, salivation, tearing, nausea, vomiting, diarrhea, constipation, skin burns, emotional disturbances, kidney injury, and possible teratogenic effects.

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
Methane	NA	NA	NA	NA	NA	Colorless, odorless, tasteless gas. Simple asphyxiant, which diminishes the amount of oxygen in the air that is breathed. Causes rapid respiration, air hunger, diminished mental alertness, impaired muscular coordination, faulty judgment, depressed sensations, emotional instability, fatigue, nausea, vomiting, collapse, unconsciousness, convulsions, deep coma, and death. Dangerous fire and explosion hazard when exposed to hear or flame.
Methylene chloride	25	50		160-620		Colorless liquid with mild, sweet odor. Irritation skin. If you breathe in large amounts of methylene chloride you may feel unsteady, dizzy, and have nausea and a tingling or numbness of your finger and toes. A person breathing smaller amounts of methylene chloride may become less attentive and less accurate in tasks requiring hand-eye coordination.
Molybdenum (soluble compounds as Mo)	5 mg/m^3	5 mg/m^3	1,000 mg/m^3	NA	NA	Appearance and odor vary with specific compound. In animals, irritates eyes, nose, and throat, and causes anorexia, incoordination, shortness of breath, anemia, and kidney disorders. Mutagen and experimental teratogen.
Naphthalene	10 (50 mg/m^3)	10 (50 mg/m^3)	250	NA	8.12	Colorless to brown solid with an odor of mothballs. Irritation eyes; headache, confusion, excitement, malaise (vague feeling of discomfort); nausea, vomiting, abdominal pain; irritation bladder; profuse sweating; jaundice; hematuria (blood in the urine), renal shutdown; dermatitis, optical neuritis, corneal damage.

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
Nickel metal and other compounds (as Ni)	1 mg/m^3	0.015 mg/m^3	10 mg/m^3	NA	NA	Metal: Lustrous, silvery, odorless solid. Sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen]
Octane	500 (2350 mg/m^3)	75 (350 mg/m^3) (385) [ceiling] (1,800 mg/m^3) [ceiling 15-min]	1,000 [10% LEL]	NA	9.82	Colorless liquid with a gasoline-like odor. Irritation eyes, nose; drowsiness; dermatitis; chemical pneumonitis (aspiration liquid); in animals: narcosis.
Selenium	0.2 mg/m^3	0.2 mg/m^3	1 mg/m^3	0.0002 mg/m3 [n/]	NA	Amorphous or crystalline, red to gray solid. Irritates eyes, skin, nose, and throat. Causes visual disturbances, pallor, nervousness, depression, headaches, chills, fever, shortness of breath, bronchitis, metallic taste, garlic breath, gastrointestinal disturbances, dermatitis, brittle hair and nails, and eye and skin burns. In animals, causes cirrhosis and localized death of liver tissue, and kidney and spleen damage. Experimental teratogen and questionable carcinogen.
Silver (metal dust and soluble compounds, as Ag)	0.01 mg/m^3	0.01 mg/m^3	10 mg/m^3	NA	NA	Metal: White, lustrous solid. Blue-gray eyes, nasal septum, throat, skin; irritation, ulceration skin; gastrointestinal disturbance.
Thallium (soluble compounds, as Tl)	0.1 mg/m^3 [skin]	0.1 mg/m^3 [skin]	15 mg/m^3	NA	NA	Appearance and odor vary depending upon the specific soluble thallium compound. Nausea, diarrhea, abdominal pain, vomiting; ptosis, strabismus; peri neuritis, tremor; retrosternal (occurring behind the sternum) tightness, chest pain, pulmonary edema; convulsions, chorea, psychosis; liver, kidney damage; alopecia; paresthesia legs.
Toluene	200 (300) [ceiling] (500) [10-min max peak]	100 (375 mg/m^3)	500	NA	8.82	Colorless liquid with sweet, pungent, benzene-like odor. Irritates eyes and nose. Causes fatigue, weakness, dizziness, headaches, hallucinations or distorted perceptions, confusion, euphoria, dilated pupils, nervousness, tearing, muscle fatigue, insomnia, skin tingling, dermatitis, bone marrow changes, and liver and kidney damage. Mutagen and experimental teratogen.
Toxaphene	0.5 mg/m^3	0.5 mg/m^3	200 mg/m^3	0.14	NA	Amber, waxy solid with turpentine odor. High doses can cause lung, nervous system, and kidney damage.
Trichloroethylene	100 [n/]	50 [n/]	NA	100	NA	Colorless liquid with mild, sweet odor and sweet, burning taste. Breathing small amounts may cause headaches, lung

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
						irritation, dizziness, poor coordination, and difficulty concentrating. Breathing large amounts may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage. Drinking large amounts may cause nausea, liver damage, unconsciousness, impaired heart function, or death. Drinking small amounts for long periods may cause liver and kidney damage, impaired immune system function, and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear. Skin contact for short periods may cause skin rashes.
1,2,4-Trimethylbenzene	NA	25 (125 mg/m^3)	NA	NA	8.27	Clear, colorless liquid with a distinctive, aromatic odor. Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, fatigue, dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid).
1,3,5-Trimethylbenzene	NA	25 (125 mg/m^3)	NA	NA	8.39	Clear, colorless liquid with a distinctive, aromatic odor. Irritation eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid).
Vanadium (dust)	0.5 mg V_2O_5/m^3 [ceiling] [resp]	0.05 mg V/m^3 [15-min]	35 mg/m^3			Yellow-orange powder or dark-gray, odorless flakes dispersed in air. Irritation eyes, skin, throat; green tongue, metallic taste, eczema; cough; fine rales, wheezing, bronchitis, dyspnea (breathing difficulty).
Xylene (o-, m-, and p-isomers)	100 (435 mg/m^3)	100 (435 mg/m^3)	900	0.05-200 [f/]	8.56 8.44 (p)	Colorless liquid with aromatic odor. P-isomer is a solid <56°F. Irritates eyes, skin, nose, and throat. Causes dizziness, drowsiness, staggered gait, incoordination, irritability, excitement, corneal irregularities, conjunctivitis, dermatitis, anorexia, nausea, vomiting, abdominal pain, and olfactory and pulmonary changes. Also targets blood, liver, and kidneys. Mutagen and experimental teratogen.
Zinc (zinc oxide)	5 mg/m^3 [m/] (10 mg/m^3) [s/]	5 mg/m^3 [m/] (15 mg/m^3) [s/] [ceiling]	500 mg/m^3	NA	NA	Fine, white or yellowish, odorless particulate. Irritates respiratory system. Causes metallic taste, cough, chills, fever, tight chest, headaches, rales, blurred vision, muscle aches, nausea, vomiting, dry throat, weakness, lower back pain, exhaustion, fatigue, vague discomfort, shortness of

Compound	PEL [a/] (ppm)	TLV [b/] (ppm)	IDLH [c/] (ppm)	Odor Threshold [d/] (ppm)	Ionization Potential [e/] (eV)	Physical Description/Health Effects/Symptoms[t/]
						breath, and decreased pulmonary function. Fumes cause metal fume fever. Mutagen and experimental teratogen.

a/ PEL = Permissible Exposure Limit. OSHA-enforced average air concentration to which a worker may be exposed for an 8-hour workday without harm. Expressed as parts per million (ppm) unless noted otherwise.
b/ TLV = Threshold Limit Value - Time-Weighted Average. Average air concentration (same definition as PEL, above) recommended by the American Conference of Governmental Industrial Hygienists (ACGIH), *2001 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices.*
c/ IDLH = Immediately Dangerous to Life or Health. Air concentration at which an unprotected worker can escape without debilitating injury or health effects. Expressed as ppm unless noted otherwise. IDLH values are published in the *NIOSH Pocket Guide to Chemical Hazards*, June 1997.
d/ When a range is given, use the highest concentration.
e/ Ionization Potential, measured in electron volts (eV), used to determine if field air monitoring equipment can detect substance. Values are published in the *NIOSH Pocket Guide to Chemical Hazards*, June 1997.
f/ Olfactory fatigue has been reported for the compound and odor may not serve as an adequate warning property.
g/ Refer to expanded rules for this compound in Title 8 of the California Code of Regulations
h/ Respirable fraction.
i/ Total dust.
j/ (ceiling) = Ceiling concentration which should not be exceeded at any time.
k/ Based on exposure limits for petroleum distillates (petroleum naphtha).
l/ Irritation threshold.
m/ Based on fume.
n/ NIOSH recommends reducing exposure to the lowest feasible concentration, and limiting the number of workers exposed.
o/ Based on selenium oxide.
p/ Indicates that the IDLH value was based on 10% of the lower explosive limit for safety considerations, even though relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations *(NIOSH Pocket Guide to Chemical Hazards,* June 1997*).*
q/ Based on dust.
r/ Refer to expanded rules for this compound in the Code of Federal Regulations.
s/ Total dust containing no asbestos and less than 1% crystalline silica.
t/ Descriptions and toxic properties reflect chemicals in their concentrated or pure form. Chemical concentrations at the site are mostly expected to be in the parts per billion or parts per million range.
u/ Based on coal tar pitch volatiles

APPENDIX D
EVACUATION MAP

APPENDIX E
JOURNEY MANAGEMENT PLAN

Journey Management Plan for Non-Professional Drivers

This Journey Management Plan (JMP) is intended for non-professional drivers in passenger vehicles or company vehicles for trips to job sites.

Preplanning

- Ensure the vehicle has been maintained per the manufacturer's requirements and that tires have proper pressure and are in good condition and your vehicle fluid levels (wiper, oil, steering, washer fluid, etc) are of proper level.
- Check the weather forecast and make alternate arrangements if it may not be safe to travel
- Plan your primary and backup routes and identify safe rest stops as needed.
- Get a good night's rest and do not take any medication that can affect your driving
- Identify any emergency numbers or contacts
- Ensure you have an emergency/safety car kit

Departure

- Perform walk-around inspection of the vehicle, tires and ensure proper condition
- Put on your seatbelt
- Turn on the headlights
- If in use, set any navigation aids and do not make adjustments, or look at a map while the vehicle is moving
- If a navigation aid (GPS) is used, it must be mounted and should have voice guided directions, preferably audible vs. visual

During the trip

- Do not exceed the speed limit or safe driving speed
- Do not use mobile phones or other devices that can distract your attention
- Do not allow unauthorized passengers into the vehicle
- If at any time you become drowsy or tired, stop and get necessary rest before resuming the trip

Specifics

- Start Location: _____ Departure Time _____
- Destination Location: _____ Arrival Time _____

Employees cannot exceed 10 hours of driving, or a combination of work/drive of 14 hours in one day and must make alternative arrangements with their Project Manager.

I have read and understand what I must do to adhere to this Journey Management Plan:

Name: _____ Date: _____

Employees Signature:_____

APPENDIX F
PROGRAMS

Fueling and Service Technologies

SUBCONTRACTORS POLICY

FASTECH
CONSTRUCTION • STATION MAINTENANCE
TESTING • CAR WASH SYSTEMS

12.1 Introduction

It is the responsibility of each Subcontractor to adhere to the requirements of this plan. Each Subcontractor shall incorporate safety into the planning of each task, assure the safety of their personnel, provide all safety devices necessary for their employees, establish a safe and drug-free work environment, and confirm that their equipment meets the applicable safety standards. Each Subcontractor is responsible for any actions of their personnel that may endanger or otherwise expose other participants to potential hazards on the project site.

The Subcontractor will be solely responsible for all construction means, methods, techniques, sequences and procedures. This includes all safety precautions and programs in connection with the work, as well as coordinating all portions of the work. Each lower-tier subcontractor is likewise required to be responsible for all safety precautions and programs in connection with the work under the Subcontractor's contractual agreement.

Each Subcontractor will submit a written safety program in compliance with the Project safety requirements for review. This safety program will meet or exceed all applicable Project safety requirements. Accident prevention is a continuing process, not a fixed program. The Project recognizes that Subcontractors may have their own specific safety requirements. It is, therefore, each subcontractor's responsibility to identify to the Project how their programs will comply with the guidelines set forth in this plan before beginning work on the project site.

While it is the responsibility of each individual to work safely, it is ultimately each Subcontractor's management's responsibility to see that all safety and health policies and practices are followed and enforced. Active participation by each subcontractor's personnel in safety and health programs established for the Project is mandatory. Each Subcontractor's line management must demonstrate to their employee's complete support and continuing involvement in all safety, and health policies and efforts.

Failure to fully carry out the responsibility to work safely and participate in the safety and health programs can result in removal of individuals from the Project at the direction of the Project Manager.

Safety is not to be compromised for production. Safety must be considered an integral part of the planning process. The Project's goal, along with each subcontractor's goal, is to eliminate accidents. Each Subcontractor's line management is charged with the responsibility for developing, implementing, and enforcing the Safety and Health programs and policies established for the Project.

12.2 Subcontractor's Safety and Health Program

A written safety program that complies with the requirements of this Plan must be submitted within five calendar days after award for review and approval by the Project Manager.

Each Subcontractor will budget to establish and maintain a safety and health program that meets or exceeds the requirements contained in this Plan and the applicable sections of 29 Code of Federal Regulation (CFR) 1926.

Each Subcontractor is solely responsible for carrying out their safety and health program. Therefore, the Project requires that each Subcontractor designate a competent on-site employee to carry out this responsibility. Along with the Subcontractor's line managers, this employee is directly responsible for ensuring that the Subcontractor's program and employee actions comply with the minimum safety standards required by this document.

12.2.1 Personnel Experience, Knowledge, and Skill

Each Subcontractor must commit to using a workforce on the Project that has the ability to do work safely and efficiently. Each individual associated with the Project shall possess the experience, knowledge, skills, and abilities necessary to discharge his or her responsibilities. Line managers must ensure that their workers are competent to safely accomplish the work through the hiring and training processes. Line management must ensure that training and qualification requirements are flowed down to their personnel, and are responsible for their performance.

12.2.2 Equipment and Machinery

Subcontractor employees shall be trained in the operation, inspection, and maintenance of the equipment; and the safety features and procedures to be utilized during operation, inspection, and maintenance of the equipment. This training shall be based on the equipment operating manual and the hazard analysis for the activity.

12.2.3 Workers

All employees and on-site subcontractors are responsible for becoming knowledgeable of and maintaining awareness of the hazards associated with their work, for contributing to the formulation of hazard controls, and for conducting their work safely in accordance with those controls. They are encouraged to identify ES&H issues in their workplace, to work with their management to provide input for improvements and to resolve concerns, and to exercise stop-work authority in cases of imminent danger to health and safety of workers or the public, or threat to the environment.

12.3 Subcontractor Responsibilities

12.3.1 Expectations

The safety procedures established for the Project are based on anticipated work activities. Future work activities may require the development of additional safety procedures or clarification of existing policies and procedures. It is the responsibility of each employee to work in a safe manner. However, it is ultimately the Subcontractor's line management's responsibility to see that all safety and health rules and practices are followed.

Safety is never to be sacrificed for production. The safety goal for this Project is to eliminate the actions that cause accidents or illness.

Each Subcontractor has the explicit responsibility to perform work in accordance with this plan. Subcontractors' line managers are accountable for fulfilling the responsibilities listed in this section, in addition to compliance with their own company requirements and attending meetings to discuss or resolve safety issues. A Subcontractor with 40 or more total employees on-site must have a dedicated safety representative assigned to the site full time to carry out the duties described below. A Subcontractor with fewer than 40 employees on-site must delegate these duties to an on-site supervisor (who will be referred to as a safety designee).

12.3.2 Field Manager or Supervisors

Each Subcontractor's Field Managers and Supervisors have the responsibility for overall training, control, and conduct of personnel on their crew. As first-line supervisors, their role in the safety and health program is crucial because they set standards by which their employees work.

The field supervisors' responsibilities include, but are not limited to:

- Conducting task-specific safety training,
- Conducting daily safety inspections,
- Conducting safety sampling,
- Conducting toolbox safety meetings
- Keep the Project Manager apprised of any safety-related problems that have or may develop.
- Conduct investigations of all accidents and incidents and submit reports to the Project Manager.
- Compile OSHA statistical information and report this information to the Project

12.4 Orientation

12.4.1 Introduction

All personnel will be required to attend the Project orientation provided by the Project Manager before working at the Project site. This shall include each Subcontractor's Owners and Officers.

Each Subcontractor's Manager shall ensure that their employees are briefed on what they can expect and what is expected of them on this project site.

Newly employed, promoted, and/or transferred personnel shall be fully instructed in the safety practices required by their assignments. All employees must receive orientation prior to starting work. Visitors must also receive orientation prior to leaving the office areas or be escorted while on the site. The initial indoctrination is to be performed by the Subcontractor's safety designee or dedicated safety representative. The orientation is required before an employee can enter the Project site or begin work.

In addition to the Subcontractor's safety and health policies, the orientation must include:

- Employee safety requirements and policies specific to the Project;
- Site-specific safety and health requirements;
- Permitting procedures (if applicable), including work permits, hot work permits, etc.;
- Hazard communication on a multi-employer work site;
- Emergency and medical procedures; and
- Other topics as circumstances require.

All employees will complete an Orientation Acknowledgment form at the end of the orientation. A copy will be submitted to the Project in order for the employee to obtain approval to enter the Project site or begin work.

12.4.2 Contractual Requirements

Fueling & Service Technologies, Inc. is committed to providing a safe workplace for the workers assigned to the Project, promoting high standards of employee health, and fostering productivity that satisfies their Quality expectations. Consistent with the intent and spirit of this commitment, the Project has established a substance abuse testing specification for the Project with the goal of maintaining a work environment that is free from the effects of the use of illegal drugs and alcohol.

This specification is not intended as a substitute for the Subcontractor's complete written substance abuse policy. Normally, such policies include other important features, including, but not limited to, an employee education and awareness program, a supervisor-training program, and an employee assistance program.

All Subcontractors must have and enforce a written Substance Abuse Program incorporating the testing requirements, term, and conditions set forth in this plan. This plan is applicable to all employees, current and prospective, in order to be eligible to perform work at the project site. The Subcontractor must comply with this plan. Suppliers, vendors, and visitors are subject to confirmation of their abstinence from the possession or use of substances indicated in this plan. A copy of the substance abuse program must be submitted to the Project for approval prior to commencement of work on the project site.

The Substance Abuse Program must apply to the employees of the Subcontractors and subcontractors of any tier working on the project site. This includes workers, new hires, replacement workers, and supervisory personnel. No employee or prospective employee of a Subcontractor shall be permitted to work on the project site unless such employee has submitted to testing as required by this plan and unless the results of such testing are negative as hereinafter defined. Subcontractor must provide the Project with a Monthly Summary Report of the Substance Abuse Program compliance.

All Contractors must train their respective employees in methods that will allow them to recognize substance abusers. Supervisory employees of the Subcontractor or its subcontractor shall be trained to take action, and to confront a substance abuser in a manner consistent with generally accepted safety training procedures.

The costs of implementing the Substance Abuse Program shall be borne by each respective Subcontractor affected by this plan.

The Project reserves the right to audit any substance abuse program required by this plan to verify compliance results within 24 hours of the Project's notification of intent to audit. The Project shall have free right of access to all relevant records of the subcontractor and their subcontractors and suppliers for this purpose, provided such record disclosures are within the scope of guidelines pertaining to confidentiality of employee records.

The Contractors' pre-engagement employees who receive a positive test result shall immediately leave the project site. Transportation of employees receiving a positive test result is the direct responsibility of the employing Subcontractor. Furthermore, pre-engagement employees receiving a positive test result shall not be permitted to return to the project site earlier than 90 days from the date of the positive test. At that time the employee may begin the process outlined by this specification again.

If a current employee testing positive qualifies and successfully completes the Subcontractor assessment/substance abuse treatment program, a program approved by the Project, the employee will be exempt from the 90-day requirement if said employee agrees to the following:

- Submit to substance abuse testing as described in this specification and receive a negative test result; and
- Agree to random substance abuse testing not to exceed one test per 500 work hours over a 3-year period from the date of return to the project site.

12.5 Short Service Employee

Short Service Employees (SSEs) must be oriented to the company under close supervision, and should receive regular retraining. They also need a mentor, or an experienced employee that the new employee can assist, observe, question and emulate, and who will in turn provide feedback and direction.

Preparation for dealing with Short Service Employees must begin in the Human Resources Department. Human Resources must inform the superintendents of new SSEs assigned to their job at least 24 hours in advance. This will allow the superintendent to allot time for the SSEs orientation and assign them a supervisor to meet with at least one hour prior to the start of each shift.

You will also need a Short Service Employees Designation System. The purpose is to make the SSE more visible to other workers on the jobsite. This will encourage them to observe the SSE worker more closely in critical situations. Some methods might include:

- A hardhat of highly visible color
- Highly visible hardhat stickers
- An orange highway worker's vest
- Other approved system

The supervisor's responsibilities are slightly more complicated than just leading a craftsman. He will personally conduct a site orientation and set performance goals before they are allowed to start work. He must approve of and utilize the approved SSE Designation System and assign each SSE a mentor. The supervisor would be well advised to meet with the mentors at the end of each shift to review the performance of the assigned SSEs.

The mentor must follow his supervisor's directions regarding assigned SSEs. He should take the time to review the Job Hazard Analysis for each critical task to be performed that day. His main job is to closely observe the SSE for application of safety techniques to craft skill and provide a high level of direction in the form of hands-on suggestions and other performance feedback. He will also meet with the supervisor to review the performance of the SSE.

For this to work, the Short Service Employee must make every effort to assist, observe, question and emulate his or her mentor. It will tough for self-starters, but they must refrain from performing non-assigned tasks and always use the SSE Designation System. Wearing the appropriate Personal Protective Equipment (PPE) and following the safety policy will often be the biggest challenge. Those who can demonstrate ability and competency in the assigned tasks will be gratifying, but rare.

In the safety profession, we say, "What gets measured is what gets done." In managing Short Service Employees, supervisors must measure the critical tasks, those which are essential functions, more frequently. They are sufficiently important to the time line, or are non-typical for the company; which creates unfamiliarity with the procedures. Of course, any task which may present a significant risk of accident or injury must also be covered fully.

The best beginning for your Short Service Employees is the Safety Council's Basic Orientation Plus and our corresponding computer and web based training. In today's world, most people learn better from computers than from any other source. Let the Safety Council help bring your new ones up to speed.

Fueling and Service Technologies

SHORT SERVICE EMPLOYEE GUIDELINE

Short Service Employees (SSEs) must be oriented to the company under close supervision, and should receive regular retraining. They also need a mentor, or an experienced employee that the new employee can assist, observe, question and emulate, and who will in turn provide feedback and direction.

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FASTECH
CONSTRUCTION • STATION MAINTENANCE
TESTING • CAR WASH SYSTEMS

SHORT SERVICE EMPLOYEE (SSE) FORM

Short Service Employee form must be completed and submitted to the FASTECH Project Manager for approval at least 24 hours prior to the arrival of the SSE to the Job Site.

Contractor Name:_____Request Date:_____

Site and Number:_____

Site Address:_____

SSE Name:_____

Date of Employment:_____Years' Experience:_____

Current Job Title:_____Experience in Present Position:____Yrs.____Mos

1. Is the SSE in compliance with the Substance Abuse Program?_____Yes____No
2. Have the QSE policies been reviewed with SSE?_____Yes_____No
   By Whom?_____
3. Who has been assigned as the SSE Mentor?_____
   Mentor's experience in present position (yrs & mos.):_____
4. List all of the training you provided for the SSE: List previous special training:

_____
_____
_____

SSE(s) is identified by: ☐ High Visibility Orange Hard Hat ☐ Approved Visitor Color Hard Hat
☐ SSE Orange Baseball Cap (Must Comply With SSE Expectation)

SSE Crew Requirements:

☐ Single person crew - can not be a SSE_____
Site/Location Contractor Supervisor
☐ 2 to 4 person crew - no more than 1 SSE per crew_____
Site/Location Contractor Supervisor
☐ 5 or more person crew - no more than 20% per crew_____
Site/Location Contractor Supervisor
☐ Exceeding 20% per crew_____
Site/Location Contractor Supervisor
☐ Approved Variance Form by FASTECH Business Unit Manager Attached

Date Variance Form approved:____

SSE Review and Approval:

_____ Date:_____
Contractor's Management
_____ Date:_____

FASTECH Project Manager

Date:

FASTECH Business Unit Office Manager

Fueling & Service Technologies, Inc. Incorporated

FIXED OPEN BLADE KNIFE EXCEPTION PERMIT

Introduction

A permit to utilize a Fixed Open Blade Knife (FOBK) is a formal safety control system designed to prevent accidents, injury to employees, contractors and third parties as well as to property. The permit sets out the work to be done and the precautions to be taken.

Procedure

1. The permit must be completed by the designated safety officer, following discussion and liaison with the person responsible for the task.
2. Only persons competent to carry out work should be issued a permit.
3. All persons affected either directly or indirectly by the permit must be advised in advance of the work commencing.
4. A permit is issued for a designated task and cannot be passed from one person to another.
5. Where two permits are issued, the parties responsible must liaise with one another.
6. Managers and/or staff may not permit any contractor to undertake FOBK work without evidence of an approved FOBK permit. If in doubt, contact the designated safety officer.

Date: Job No.

Organization: Permit No.

Work Site (Project Location):

Work Type:

FIXED OPEN BLADE KNIFE EXCEPTION PERMIT

For each task identified, assure that the appropriate HASP, JSA, MSDS, and IIPP are attached, available and have been reviewed.

Task Requiring Use Of FOBK

Reason for Using FOBK

Trainer

I have reviewed the work to be performed.
I ACCEPT AND AGREE to the terms and conditions of the permit.

Applicant:_____ Title:_____

FASTECH PM Approval Name:_____

FASTECH PM Approval Signature:_____ Date:_____

FASTECH Safety Officer:_____ Date:_____

I understand that this Form will be in effect until job completion, but will not extend beyond the end of the shift (not to exceed a 12-hour period), in which the Form was issued.

Name:_____ Title:_____

Company:_____ Department:_____

Signature:_____ Date_____

Stop Work Authority

This form must be completed if any of the following criteria are met:

Imminent danger exists involving the public or employee's safety and health, the environment, facilities or property.

Continuing work or equipment usage will result in significant report, rework or removal.

There is a discrepancy, deficiency, or potential dangerous condition or act that likely to cause an unsafe or unhealthy situation or an imminent danger situation.

Project Name/Address:
Project Manager:
Project #:
Reported by:
Date/Time:
STOP WORK ORDER IS A RESULT OF THE FOLLOWING: Inspection/Audit ☐ Environmental Impairment ☐ Injury/Incident ☐ Unsafe Condition ☐ Unsafe Behavior/Act ☐ Improper Scope of work ☐ Other ☐
Stop Work Order (Describe):

All STOP WORK ORDER MUST BE SENT TO H&S MANAGER FOR REVIEW

Return to Work:

The above Stop Work Authority issues/concerns have been corrected and documented. By signing below, I certify that the above Stop Work Order scenario has been corrected and work is safe to resume.

Project Manager:
Individual/party issuing Stop Work Order:
Sub-Contractor Supervisor (if applicable):

Job Safety Analysis – Performing Field Work during COVID-19

Required addendum to all JSAs during the Stay at Home Order

Date:	4/14/2020
Work Type:	All Field Activities
Work Site:	Various
Organization:	Fueling & Services Technologies Inc.

Personal Protective Equipment (PPE), Level (D)

Hard Hat – specific to task	☒ Yes ☐ No
Steel-toed Boots	☒ Yes ☐ No
Hearing Protection—specific to task	Earplugs
High Visibility Traffic Safety Vest	☒ Yes ☐ No
Protective Gloves—	☒ Yes ☐ No
Safety Glasses	☒ Yes ☐ No
Other:	

#	Job Steps	Potential Hazard(s)	Critical Action(s)
1	Before you leave for work	Exposure to other employee and or public	If you have the following symptoms: DO NOT GO TO WORK – call your direct supervisor FEVER COUGH SHORTNESS OF BREATH CHILLS MUSCLE ACHES HEADACHE SORE THROAT RECENT LOSS OF TASTE OR SMELL
		Carpooling to job site	Each worker must drive their own car. No carpooling will be allowed.
		Using a pooled vehicle	For the time being, pooled vehicles will be removed from service.
		Overnight Travel	Overnight travel can only be approved by Supervisor and no sharing of hotel rooms will be allowed.

#	Job Steps	Potential Hazard(s)	Critical Action(s)
2	Work site preparation and protection	Working in an enclosed area. Work requiring interaction with third parties Work requiring more than 3 workers	Avoid work in occupied structures where proper distance of 6 feet or more cannot be maintained. Ensure entire crew is wearing PPE and face coverings. Interactions with third parties should be kept to a minimum and 6 feet of social distance must be maintained. Communications with third parties should be handled by phone if possible. A work crew more than 3 must be approved by a supervisor. Work can only be scheduled where proper social distance can be maintained.
3	Working around other employees	Potential for transmission of Coronavirus	If another employee on the crew is exhibiting symptoms, STOP WORK. Any employee not comfortable working during the Stay at Home order due to compromised immune system, underlying illness, age, caring for a compromised person should contact their supervisor immediately and make arrangements. Adhere to Social Distance requirements where possible: At all times, every employee must wear a face covering. Examples of acceptable face coverings are N95/KN95/surgical masks, cloth masks, bandanas, and/or neck gaiters All interactions with clients, public, and other employees must be minimized to the extent possible. In the field notices to site tenants/operators should be conducted with appropriate distance. All meetings should be scheduled to be virtual. Each worker should have their own pen to record name and information on H&S Plan and data sheets. Don't share pens. When checking in with station or site representatives, do not exchange paperwork, secure their verbal approval and indicate that on your paperwork. Employees are required to wash hands prior to eating lunch. Proper distance must be maintained during the lunch break.

#	Job Steps	Potential Hazard(s)	Critical Action(s)
4	Touching Objects, Locks, Equipment	Contact with any surface poses a transmission hazard	Workers should wear nitrile gloves at all times when outside their vehicle including when interacting with other workers or the public. No exceptions. Use a new pair of gloves every time. Hand washing must be performed once gloves are removed.
5	Shared Equipment/trucks	Contact with equipment shared at the job site or from day to day	All equipment must be decontaminated following use. Prior to handing off the equipment or leaving it for another worker each employee must decontaminate the unit and the case.
7	Leaving the Job Site	Allowing contamination to enter your car or truck causes a transmission hazard.	Any disposable PPE must be removed prior to entering your car/truck. Dispose of PPE in regular trash can. Make sure to wash hands with soap and water for at least 20 seconds. (hand sanitizer with at least 60% ethanol or 70% isopropanol can be used if hand washing is not available) Wipe down hard hat, safety glasses and non-disposable items prior to entering truck/vehicle. Wipe down the steering wheel and touchable surfaces prior to leaving. Face covering should be washed after each shift.

JSA Form originated by:

Leeanna Ruddell Safety Manager	4/14/2020	Revision #1
	4/23/2020	Revision #2 acceptable forms of face coverings
	5/12/2020	Revision #3 update before leaving for work

Section 4 - Required Forms and Documentation

All required forms per Form A Proposal Submittal Checklist are attached.

FORM A
PROPOSAL SUBMISSION CHECKLIST

This checklist shall be completed and returned with your proposal. Failure to return this checklist and the required documents may be cause for considering the proposal non-responsive.

	DESCRIPTION	REQUIRED FORMS REFERENCE LETTER	PROPOSER'S INITIALS
1.	Proposal Submission Checklist (This Form)	FORM A	
2.	Transmittal Letter Form	FORM B	
3.	Business Questionnaire	FORM C	
4.	Addendum Acknowledgement	FORM D	
5.	Designation of Subcontractors	FORM E	
6.	Affidavit of Non-Collusion	FORM F	
7.	Conflicts of Interest Statement	FORM G	
8.	Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion	FORM H	
9.	Certification of Restrictions on Lobbying	FORM I	
10.	Proof of Non-Debarment or Suspension (SAM.gov)	FORM J	
11.	Proof of Registration with the DIR	FORM K	
12.	Proof of Required Licenses	FORM L	
13.	Buy America Certification	FORM M	
14.	Evidence of Insurance	FORM N	
15.	Bid Bond	FORM O	
16.	Iran Contracting Act Certification	FORM P	
17.	Payment Milestone Schedule	FORM Q	
18.	Cost Proposal (refer to instructions)	ATTACHMENT G	

FORM A Continued
PROPOSAL SUBMISSION CHECKLIST

Company Name:	Clean Energy
Name of Proposer initialing document (print):	Robert M. Vreeland
Email address of Company Contact:	reagan.clemens@cleanenergyfuels.com
Signature:	
Title:	Chief Financial Officer
Date:	October 28, 2020

FORM C
BUSINESS QUESTIONNAIRE

1. Name of Proposed Contractor ("Business", herein): Clean Energy

Doing Business As: Not applicable
(Other business name, if applicable)

EIN# 95-430747

2. Business Mailing Address: 4675 MacArthur Court, Suite 800
Street Address

Newport Beach (City) CA (State) 92660 (Zip Code)

3. Business Telephone Number: ( ) (949) 437-1000 Fax Number: ( ) (949) 724-1397

E-mail address:
reagan.clemens@cleanenergyfuels.com

4. Business Type: ☐ Individual ☑ Corporation ☐ Partnership ☐ Joint Venture

5. Number of Years in Business: 24

6. Annual Gross Revenue: (M represents Millions)

☐ $1M or less ☐ $1M-$5M ☐ $5M-$10M ☐ $10M-$16M ☑ $16M or Over

7. Number of Employees:

☐ Less than 50 ☐ 50-100* ☑ 101-750 ☐ 751-1,000 ☐ 1,001 or over

8. Is Business Owned by Minority Ethnicity? ☐ Yes ☑ No

9. Ethnic Group: ☐ African American ☐ Hispanic American ☐ Native American
☐ Asian Pacific American ☐ Subcontinent Asian American ☐ Caucasian
☐ Other (Please Specify) Not applicable

10. Female Owned Business? ☐ Male Owned Business? ☐ Not applicable

11. Type of Work Performed: ☑ Construction ☑ Wholesale/Distributor ☑ Manufacturing
☐ Professional Service ☐ General/Technical Service ☑ Retail

12. Please provide a brief description of your materials and/or services:
Clean Energy designs, builds, operates and maintains CNG and LNG fueling stations.
We supply CNG, LNG, and Redeem natural gas as a transportation fuel.

13. Is the Business a subsidiary of another entity? ☑ Yes ☐ No

14. Has the Business, or any officer or partner thereof, failed to complete a contract? ☐ Yes ☑ No

15. Is any litigation pending against the Business? ☑ Yes ☐ No

16. Has the Business ever been declared a "not responsible" vendor by a public agency? ☐ Yes ☑ No

17. Has the Business been debarred, suspended, proposed for debarment, declared ineligible, voluntarily excluded, or otherwise disqualified from bidding, proposing, or contracting? ☐ Yes ☑ No

FORM C Continued
BUSINESS QUESTIONNAIRE

18. Has the Business been a defaulter, as principal, surety or otherwise? ☐ Yes ☑ No

19. Has the government or other public entity requested or required enforcement of any of its rights under a surety agreement on the basis of a default or in lieu of declaring the Business in default? ☐ Yes ☑ No

20. Is the Business in arrears upon a contract or debt? ☐ Yes ☑ No

21. Are there any proceedings pending relating to the Business' responsibility, debarment, suspension, voluntary exclusion or qualification to receive a public contract? ☐ Yes ☑ No

22. Have liquidated damages or penalty provisions been assessed against the Business for failure to complete the work on time or for any other reason? ☐ Yes ☑ No

23. If a "yes" response is given under questions 15 through 22, please provide a detailed explanation including dates, references to contract information, contacts, etc. (attach additional pages as necessary). GTrans reserves the right to inquire further with respect thereto.

24. Name of principal financial institution for financial responsibility reference.

Name of Bank: Plains Capital Bank

Address: 2911 Turtle Creek Blvd., #100

City and State: Lubbock, TX 79408

Officer familiar with proposers account: Kimberly Fry

Federal Taxpayer I.D. number: 75-0910774

25. Please check all classifications that apply to your business:

☐ DBE ☐ WBE ☐ MBE ☑ SBE ☐ SBRA ☐ LSAF

I, individually and on behalf of the business named above, do by my signature below certify that the information provided in this questionnaire is true and correct. I understand that if the information provided herein contains any false statements or any misrepresentations: 1) GTrans will have the grounds to terminate any or all contracts which GTrans has or may have with the business; 2) GTrans may disqualify the business named above from consideration for contracts and may remove the business from GTrans' proposers list; or/and 3) GTrans may have grounds for initiating legal action under federal, state or local law.

Note: This questionnaire is also a certification form; the information requested will be used to determine small business status as per 13 CFR Part 121. Additionally, this information will allow GTrans to report the amount of subcontracting activity with all businesses that offer the commodities and services used by GTrans.

Printed Name: Chief Financial Officer Title Clean Energy

Signature of Owner: Robert M Vreeland Date: Robert M. Vreeland

(Owner, CEO, President, Majority Stockholder or Designated Representative)

Response to City of Gardena RFQ regarding litigation against CE

15. Is any litigation pending against the Business? There is no pending or threatened litigation that may adversely affect Clean Energy's ability to successfully execute the proposed project. Notwithstanding the foregoing, the following is a litigation summary:

- In August 2018, Trillium Transportation Fuels, LLC and Trillium USA Company filed suit against Clean Energy in Dallas County, Texas. Trillium's claims in this lawsuit stem from the allegation that Clean Energy approached one of Trillium's public contracting agencies and provided it with public information about the prices Trillium charged its other public agency customers. Clean Energy believes Trillium's claims are wholly without merit and is vigorously defending itself. As a matter of law, Clean Energy did not interfere with any contract because it simply provided Trillium's own truthful public information to a public agency customer that had a unilateral right to cancel its contract at any time. Further, in any event, the contract at issue was not terminated so Trillium has no damages.

- Clean Energy is party to various legal proceedings involving former employees. All such proceedings are immaterial.

- From time to time, the Clean Energy has been party to various legal proceedings relating to motor accidents involving company-owned vehicles. Such proceedings are immaterial and are handled by the company's insurance carrier.

FORM D
ADDENDUM ACKNOWLEDGEMENT

Proposer acknowledges receipt of the following addenda which are attached to the Proposal:

Addendum No. 1 Date September 1, 2020
Addendum No. 2 Date September 9, 2020
Addendum No. 3 Date September 24, 2020
Addendum No. 4 Date: October 1, 2020
Addendum No. 5 Date: October 6, 2020
Addendum No. 6 Date: October 14, 2020
Addendum No. 7 Date: October 20, 2020
Addendum No. 8 Date: October 21, 2020
Addendum No. 9 Date: October 22, 2020

Failure to acknowledge the receipt of all addenda may cause the Proposal to be considered non-responsive.

If Proposer is a corporation, state the legal name of the corporation and the name(s) of person(s) authorized to sign Proposals; if a partnership, state true name of firm and the names of all individual partners; if an individual, state name in full.

Clean Energy
Andrew J. Littlefair, Mitchell W. Pratt, Robert M. Vreeland, Chad Lindholm

Date: October 28, 20 20

Company: Clean Energy

Signed: Robert M Vreeland

Name: Robert M. Vreeland

Title: Chief Financial Officer

Telephone: (949) 437-1000

FORM E
DESIGNATION OF SUBCONTRACTORS

Propose shall provide the names and business addresses of each subcontractor who will perform work under the contract.

Attach additional copies of this form if more space is needed.

Company Name and Address / Contact Name and Phone No.	DBE (Included in CUCP List) (Yes / No)	Small Business Enterprise (Yes / No)	Description of Work/Services	Estimated Dollar Amount
Fueling and Service Technologies, Inc. (FASTECH) 7050 Village Drive, Suite D Buena Park, CA 90621 Jeffrey Latham (714) 686-7374	No	No	General contractor	$1,096,400
Reliable Monitoring Services 2698 Junipero Ave, Suite 105-107 Signal Hill, CA 90755 Rick Mendoza (800) 760-1822	Yes	Yes	Methane detection equipment	$120,000
T. Mitchell Engineers, Inc. 14256 Doolittle Drive San Leandro, CA 94577 Tom Mitchell (510) 777-0520	No	No	Engineering design	$30,000
Verduzco Electric Inc. 829 W. Compton Blvd. Compton, CA 90220 Carlos Verduzco (310) 886-3068	Yes	Yes	CNG fueling and safe garage modification electrical subcontractor	$885,600

FORM F
AFFIDAVIT OF NON-COLLUSION

Submit this form with the Price Proposal, failure to do so is grounds for disqualification.

I hereby swear (or affirm) under penalty of perjury that:

1. I am the Proposer (if the Proposer is an individual), a partner in the proposal (if the Proposer is a partnership), or an officer or employee of the proposing corporation and have authority to sign on its behalf (if the Proposer is a corporation);
2. The Proposer has independently produced the attached proposal(s) without collusion, agreement, understanding or planned common course of action, with any other source, that would limit independent proposing competition;
3. The contents of the proposal(s) have not been communicated by the Proposer and or its employees and or agents to any person not an employee and or agent of the Proposer or its surety, on any bond furnished with the proposal, and will not be communicated to any such person prior to the official opening of the proposal, and
4. I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Proposer's Company Name	**Clean Energy**
Legal Structure (corp./partner/proprietor)	**Corporation**
Principal Office Address	**4675 MacArthur Court, Suite 800**
City, ST, Zip	**Newport Beach, CA 92660**
Phone Number	**(949) 437-1000**
Fax Number	**(949) 724-1397**
E-Mail	**reagan.clemens@cleanenergyfuels.com**
Federal Employer Identification Number	**95-430747**
Title of Person Authorized to Sign	**Chief Financial Officer**
Print Name of Person Authorized to Sign	**Robert M. Vreeland**
Authorized Signature and Date	Robert M Vreeland **October 28, 2020**

FORM G
CONFLICTS OF INTEREST STATEMENT

Proposers shall provide a list of all entities with which it has relationships that create, or would appear to create, a conflict of interest with the work that is contemplated by this project. The list should indicate the name of the entity, the relationship to the Proposer, and a discussion of the conflict.

Name of Entity: _____

Relationship to Proposer: _____

Conflict: _____

Name of Entity: _____

Relationship to Proposer: _____

Conflict: _____

Name of Entity: _____

Relationship to Proposer: _____

Conflict: _____

OR

I, Robert M. Vreeland, hereby certify that
Authorized Official

Clean Energy has no known relationships that
Company

create or would appear to create a conflict of interest with the work that is contemplated by this project.

Executed this 28th day of October, 2020

By Robert M Vreeland
(Signature of Authorized Official

FORM H
CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

Instructions for Certification: By signing and submitting this bid or proposal, the prospective lower tier participant is providing the signed certification set out below.

1. It will comply and facilitate compliance with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 CFR part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 CFR part 180,
2. To the best of its knowledge and belief, that its Principals and Subrecipients at the first tier:
   a. Are eligible to participate in covered transactions of any Federal department or agency and are not presently:
      1. Debarred
      2. Suspended
      3. Proposed for debarment
      4. Declared ineligible
      5. Voluntarily excluded
      6. Disqualified
   b. Its management has not within a three-year period preceding its latest application or proposal been convicted of or had a civil judgment rendered against any of them for:
      1. Commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction, or contract under a public transaction,
      2. Violation of any Federal or State antitrust statute, or
      3. Proposed for debarment commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making any false statement, or receiving stolen property
   c. It is not presently indicted for, or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses listed in the preceding subsection 2.b of this Certification,
   d. It has not had one or more public transactions (Federal, State, or local) terminated for cause or default within a three-year period preceding this Certification,
   e. If, at a later time, it receives any information that contradicts the statements of subsections 2.a – 2.d above, it will promptly provide that information to FTA,
   f. It will treat each lower tier contract or lower tier subcontract under its Project as a covered lower tier contract for purposes of 2 CFR part 1200 and 2 CFR part 180 if it:
      1. Equals or exceeds $25,000,
      2. Is for audit services, or
      3. Requires the consent of a Federal official, and
   g. It will require that each covered lower tier contractor and subcontractor:
      1. Comply and facilitate compliance with the Federal requirements of 2 CFR parts 180 and 1200, and
      2. Assure that each lower tier participant in its Project is not presently declared by any Federal department or agency to be:
         a. Debarred from participation in its federally funded Project,
         b. Suspended from participation in its federally funded Project,
         c. Proposed for debarment from participation in its federally funded Project,
         d. Declared ineligible to participate in its federally funded Project,
         e. Voluntarily excluded from participation in its federally funded Project, or
         f. Disqualified from participation in its federally funded Project, and
3. It will provide a written explanation as indicated on a page attached in FTA's TrAMS-Web or the Signature Page if it or any of its principals, including any of its first tier Subrecipients or its Third Party Participants at a lower tier, is unable to certify compliance with the preceding statements in this Certification Group.

Certification

Contractor: **Clean Energy**	*Name Contractor's Authorized Official:* **Robert M. Vreeland**	*Date:* **October 28, 2020**
Signature of Authorized Official: Robert M Vreeland	*Title of Contractor's Authorized Official:* **Chief Financial Officer**	
Signature of notary and SEAL:		

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On 10-29-2020 before me, Donna G Holck,
Date *Here Insert Name and Title of the Officer*

personally appeared Robert M. Vreeland,
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DONNA G. HOLCK
Notary Public – California
Orange County
Commission # 2191030
My Comm. Expires Apr 15, 2021

Signature Donna G Holck
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Certification Form H Document Date: 10-28-2020

Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
[ ] Corporate Officer — Title(s): _____
[ ] Partner — [ ] Limited [ ] General
[ ] Individual [ ] Attorney in Fact
[ ] Trustee [ ] Guardian or Conservator
[ ] Other: _____
Signer Is Representing: _____

Signer's Name: _____
[ ] Corporate Officer — Title(s): _____
[ ] Partner — [ ] Limited [ ] General
[ ] Individual [ ] Attorney in Fact
[ ] Trustee [ ] Guardian or Conservator
[ ] Other: _____
Signer Is Representing: _____

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FORM I
CERTIFICATION OF RESTRICTIONS ON LOBBYING

I, Robert M. Vreeland, Chief Financial Officer hereby certify (Name and title of official)

On behalf of Clean Energy that: (Name of Bidder/Company Name)

No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

If any funds other than federal appropriated funds have been paid or will be paid to any person influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form – LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure

The undersigned certifies or affirms the truthfulness and accuracy of the contents of the statements submitted on or with this certification and understands that the provisions of 31 U.S.C. Section 3801, et seq., are applicable thereto.

Certification

Name of Bidder/Company Name: Clean Energy
Type or print name: Robert M. Vreeland
Signature of authorized representative: Robert M Vreeland
Date: October 28, 2020
Signature of notary and SEAL:

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Orange)

On 10-29-2020 (Date) before me, Donna G Holck, Notary Public (Here Insert Name and Title of the Officer),

personally appeared Robert M Vreeland (Name(s) of Signer(s)),

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DONNA G. HOLCK
Notary Public - California
Orange County
Commission # 2191030
My Comm. Expires Apr 15, 2021

Signature Donna G Holck
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Certification - Form I Document Date: 10.28.2020

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
[ ] Corporate Officer — Title(s): _____
[ ] Partner — [ ] Limited [ ] General
[ ] Individual [ ] Attorney in Fact
[ ] Trustee [ ] Guardian or Conservator
[ ] Other: _____
Signer Is Representing: _____

Signer's Name: _____
[ ] Corporate Officer — Title(s): _____
[ ] Partner — [ ] Limited [ ] General
[ ] Individual [ ] Attorney in Fact
[ ] Trustee [ ] Guardian or Conservator
[ ] Other: _____
Signer Is Representing: _____

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FORM J
PROOF OF NON-DEBARMENT OR SUSPENSION
(*THIS IS A SAMPLE ONLY)

WWW. SAM.GOV

SAM Search Results
List of records matching your search for :

Search Term : new* flyer*
Record Status: Active

SAMPLE

ENTITY	New Flyer of America Inc.	Status: Active
DUNS: 621887959	+4:	CAGE Code: 3MCK9 DoDAAC:
Expiration Date: Apr 30, 2019	Has Active Exclusion?: No	Debt Subject to Offset?: No
Address: 6200 Glenn Carlson Dr City: Saint Cloud ZIP Code: 56301-8852		State/Province: MINNESOTA Country: UNITED STATES

SAM SYSTEM FOR AWARD MANAGEMENT

Michelle Wells Log Out

ALERT: SAM.gov will be down for scheduled maintenance Saturday, 09/12/2020 from 8:00 AM to 1:00 PM.

ALERT: CAGE is experiencing intermittent service interruptions. SAM registrants may encounter an error validating a CAGE Code. If this happens, please try again later.

Entity Dashboard

- Entity Overview
- Entity Registration
  - Core Data
  - Assertions
  - Reps & Certs
  - POCs
- Reports
  - Service Contract Report
  - BioPreferred Report
- Exclusions
  - Active Exclusions
  - Inactive Exclusions
  - Excluded Family Members

BACK TO USER DASHBOARD

Clean Energy
DUNS: 968301320 CAGE Code: 6VFN8
Status: Active
Expiration Date: 06/01/2021
Purpose of Registration: All Awards

4675 MacArthur Ct Ste 800
Newport Beach, CA, 92660-1895 ,
UNITED STATES

Entity Overview

Entity Registration Summary

DUNS: 968301320
Name: Clean Energy
Business Type: Business or Organization
Last Updated By: Michelle Wells
Registration Status: Active
Activation Date: 06/01/2020
Expiration Date: 06/01/2021

Exclusion Summary

Active Exclusion Records? No

GSA

FORM K
PROOF OF REGISTRATION WITH THE DIR

Submit proof of registration with the DIR as the prime contractor and all proposed subcontractors.

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Active
Registration Number
1000019152
Registration effective date
7/6/2020
Registration expiration date
6/30/2021
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?: No
Please provide your current workers

compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier

Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/28/2020

Contractor Information

Legal Entity Name
FUELING AND SERVICE TECHNOLOGIES, INC.
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000020911
Registration effective date
6/15/2018
Registration expiration date
6/30/2019
Mailing Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Physical Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Email Address
Trade Name/DBA
FASTECH
License Number(s)
CSLB:A
CSLB:D40
CSLB:C10
CSLB:HAZ
CSLB:C21

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/19/2017	6/30/2018
7/7/2016	6/30/2017
7/1/2015	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2022

Legal Entity Information

Corporation Number:
794519
Federal Employment Identification Number:
President Name:
DAN MCGILL
Vice President Name:
TOM WYPER
Treasurer Name:
ADAM LEITER
Secretary Name:
ADAM LEITER
CEO Name:
DAN MCGILL

Agent of Service Name:
DAN MCGILL
Agent of Service Mailing Address:
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

PEO Information	PEO Name	PEO Phone	PEO Email

Insured by Carrier
Policy Holder Name:FUELING AND SERVICE TECHNOLOGIES, INC.**Insurance Carrier:** LIBERTY MUTUAL INSURANCE COMPANY**Policy Number:**WC2-Z91-457955-037
Inception date:10/31/2017**Expiration Date:**10/31/2018

Contractor Information

Legal Entity Name
FUELING AND SERVICE TECHNOLOGIES, INC.
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000020911
Registration effective date
6/19/2017
Registration expiration date
6/30/2018
Mailing Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Physical Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Email Address
Trade Name/DBA
FASTECH
License Number(s)
CSLB:A
CSLB:HAZ
CSLB:C10
CSLB:D40
CSLB:C21

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/19/2017	6/30/2018
7/7/2016	6/30/2017
7/1/2015	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2022

Legal Entity Information

Corporation Number:
794519
Federal Employment Identification Number:
President Name:
DAN MCGILL
Vice President Name:
TOM WYPER
Treasurer Name:
ADAM LEITER
Secretary Name:
ADAM LEITER
CEO Name:
DAN MCGILL

Agent of Service Name:
DAN MCGILL
Agent of Service Mailing Address:
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:FUELING AND SERVICE TECHNOLOGIES, INC.**Insurance Carrier:**
LIBERTY MUTUAL INSURANCE COMPANY**Policy Number:**WC2-Z91-457955-037
Inception date:10/31/2017**Expiration Date:**10/31/2018

Contractor Information

Legal Entity Name
FUELING AND SERVICE TECHNOLOGIES, INC.
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000020911
Registration effective date
7/7/2016
Registration expiration date
6/30/2017
Mailing Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Physical Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Email Address
Trade Name/DBA
FASTECH
License Number(s)
CSLB:HAZ
CSLB:C21
CSLB:A
CSLB:C10
CSLB:D40

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/19/2017	6/30/2018
7/7/2016	6/30/2017
7/1/2015	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2022

Legal Entity Information

Corporation Number:
794519
Federal Employment Identification Number:
President Name:
DAN MCGILL
Vice President Name:
TOM WYPER
Treasurer Name:
ADAM LEITER
Secretary Name:
ADAM LEITER
CEO Name:
DAN MCGILL

Agent of Service Name:
DAN MCGILL
Agent of Service Mailing Address:
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

PEO Information	PEO Name	PEO Phone	PEO Email

Insured by Carrier
Policy Holder Name:FUELING AND SERVICE TECHNOLOGIES, INC.**Insurance Carrier:** LIBERTY MUTUAL INSURANCE COMPANY**Policy Number:**WC2-Z91-457955-037
Inception date:10/31/2017**Expiration Date:**10/31/2018

Contractor Information

Legal Entity Name
FUELING AND SERVICE TECHNOLOGIES, INC.
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000020911
Registration effective date
7/1/2015
Registration expiration date
6/30/2016
Mailing Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Physical Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Email Address
Trade Name/DBA
FASTECH
License Number(s)
CSLB:D40
CSLB:C21
CSLB:A
CSLB:HAZ
CSLB:C10

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/19/2017	6/30/2018
7/7/2016	6/30/2017
7/1/2015	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2022

Legal Entity Information

Corporation Number:
794519
Federal Employment Identification Number:
President Name:
DAN MCGILL
Vice President Name:
TOM WYPER
Treasurer Name:
ADAM LEITER
Secretary Name:
ADAM LEITER
CEO Name:
DAN MCGILL

Agent of Service Name:
DAN MCGILL
Agent of Service Mailing Address:
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:FUELING AND SERVICE TECHNOLOGIES, INC.**Insurance Carrier:**
LIBERTY MUTUAL INSURANCE COMPANY**Policy Number:**WC2-Z91-457955-037
Inception date:10/31/2017**Expiration Date:**10/31/2018

Contractor Information

Legal Entity Name
FUELING AND SERVICE TECHNOLOGIES, INC.
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000020911
Registration effective date
5/4/2015
Registration expiration date
6/30/2015
Mailing Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Physical Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Email Address
Trade Name/DBA
FASTECH
License Number(s)
CSLB:A
CSLB:C21
CSLB:HAZ
CSLB:D40
CSLB:C10

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/19/2017	6/30/2018
7/7/2016	6/30/2017
7/1/2015	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2022

Legal Entity Information

Corporation Number:
794519
Federal Employment Identification Number:
President Name:
DAN MCGILL
Vice President Name:
TOM WYPER
Treasurer Name:
ADAM LEITER
Secretary Name:
ADAM LEITER
CEO Name:
DAN MCGILL

Agent of Service Name:
DAN MCGILL
Agent of Service Mailing Address:
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

PEO Information	PEO Name	PEO Phone	PEO Email

Insured by Carrier
Policy Holder Name:FUELING AND SERVICE TECHNOLOGIES, INC.**Insurance Carrier:** LIBERTY MUTUAL INSURANCE COMPANY**Policy Number:**WC2-Z91-457955-037
Inception date:10/31/2017**Expiration Date:**10/31/2018

Contractor Information

Legal Entity Name
FUELING AND SERVICE TECHNOLOGIES, INC.
Legal Entity Type
Corporation
Status
Active
Registration Number
1000020911
Registration effective date
7/1/2019
Registration expiration date
6/30/2022
Mailing Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Physical Address
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 C...
Email Address
Trade Name/DBA
FASTECH
License Number(s)
CSLB:HAZ
CSLB:C10
CSLB:A
CSLB:D40
CSLB:C21

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/19/2017	6/30/2018
7/7/2016	6/30/2017
7/1/2015	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2022

Legal Entity Information

Corporation Number:
794519
Federal Employment Identification Number:
President Name:
DAN MCGILL
Vice President Name:
TOM WYPER
Treasurer Name:
ADAM LEITER
Secretary Name:
ADAM LEITER
CEO Name:
DAN MCGILL

Agent of Service Name:
DAN MCGILL
Agent of Service Mailing Address:
7050 VILLAGE DRIVE, SUITE D BUENA PARK 90621 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?: No

Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:FUELING AND SERVICE TECHNOLOGIES, INC.**Insurance Carrier:**
LIBERTY MUTUAL INSURANCE COMPANY**Policy Number:**WC2-Z91-457955-038
Inception date:10/31/2018**Expiration Date:**10/31/2019



State of California

Department of Industrial Rel

(https://www.dir.ca.gov/)

Contractor Information

Legal Entity Name
RELIABLE MONITORING SERVICES
Legal Entity Type
Corporation
Status
Active
Registration Number
1000004601
Registration effective date
07/01/20
Registration expiration date
06/30/22
Mailing Address
2698 Junipero Ave Suite 105-107 Signal Hill 90755 C...
Physical Address
2698 Junipero Ave Suite 105-107 Signal Hill 90755 C...
Email Address
smendoza@rmslifesafety.com
Trade Name/DBA
RMS Life Safety
RMS Construction
License Number (s)
CSLB:900304
CSLB:900304

Back to DIR>> (https://www.dir.ca.gov/)

Registration History

Effective Date	Expiration Date
06/14/18	06/30/19
06/21/17	06/30/18
06/21/16	06/30/17
07/13/15	06/30/16
01/02/15	06/30/15
07/01/19	06/30/20
07/01/20	06/30/22

Legal Entity Information

Corporation Entity Number: C2692260
Federal Employment Identification Number: 201887269
President Name: RICKY MENDOZA
Vice President Name: none
Treasurer Name: RICKY MENDOZA
Secretary Name: Sydney MENDOZA
CEO Name: RICKY MENDOZA

Agency for Service:

Agent of Service Name: RICKY MENDOZA
Agent of Service Mailing Address: 2698 JUNIPERO AVE SUITE 105-107 S

Worker's Compensation

Do you lease employees through Professional Employer Organization (PEO)?: No

Please provide your current worker's compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier

Policy Holder Name:	RELIABLE
Insurance Carrier:	Insurance
Policy Number:	WSD505
Inception date:	05/29/2
Expiration Date:	05/29/2

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(https://twitter.com/#!/CA_DIR)

(http://www.youtube.com/CaliforniaDIR)

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Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000019152
Registration effective date
6/15/2018
Registration expiration date
6/30/2019
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/29/2018

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000019152
Registration effective date
6/16/2017
Registration expiration date
6/30/2018
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional

Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

PEO Information	PEO Name	PEO Phone	PEO Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/29/2018

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000019152
Registration effective date
6/27/2016
Registration expiration date
6/30/2017
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/29/2018

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000019152
Registration effective date
6/29/2015
Registration expiration date
6/30/2016
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/29/2018

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000019152
Registration effective date
4/14/2015
Registration expiration date
6/30/2015
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?:
Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/29/2018

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Expired
Registration Number
1000019152
Registration effective date
7/1/2019
Registration expiration date
6/30/2020
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?: No

Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/28/2019

Contractor Information

Legal Entity Name
VERDUZCO ELECTRIC INC
Legal Entity Type
Corporation
Status
Active
Registration Number
1000016880
Registration effective date
7/1/2020
Registration expiration date
6/30/2023
Mailing Address
829 W. COMPTON BLVD. COMPTON 90220 CA ...
Physical Address
829 W. COMPTON BLVD. COMPTON 90220 CA ...
Email Address
Trade Name/DBA
VERDUZCO ELECTRIC INC.
License Number(s)
CSLB:660099
CSLB:660099

Registration History

Effective Date	Expiration Date
6/13/2018	6/30/2019
7/12/2017	6/30/2018
7/5/2016	6/30/2017
7/15/2015	6/30/2016
4/2/2015	6/30/2015
7/1/2019	6/30/2020
7/1/2020	6/30/2023

Legal Entity Information

Corporation Number:
2021576
Federal Employment Identification Number:
President Name:
CARLOS VERDUZCO
Vice President Name:
Treasurer Name:
Secretary Name:
ANTONIO VERDUZCO
CEO Name:

Agent of Service Name:
MICHAEL T UNGAR
Agent of Service Mailing Address:
715 SILVER SPUR RD. STE 209 ROLLING HILLS ESTATES 90274 CA United States of America

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?: No

Please provide your current workers compensation insurance information below:

	PEO	PEO	PEO
PEO Information	Name	Phone	Email

Insured by Carrier
Policy Holder Name:VERDUZCO ELECTRIC INC**Insurance Carrier:**
STATE COMPENSATION INSURANCE FUND**Policy Number:**9149952**Inception date:**12/31/2018
Expiration Date:12/31/2019

Contractor Information

Legal Entity Name
CLEAN ENERGY
Legal Entity Type
Corporation
Status
Active
Registration Number
1000019152
Registration effective date
7/6/2020
Registration expiration date
6/30/2021
Mailing Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Physical Address
4675 MACARTHUR COURT, SUITE 800 NEWPORT BEACH 9266...
Email Address
Trade Name/DBA
License Number(s)
CSLB:848450
CSLB:848450

Registration History

Effective Date	Expiration Date
6/15/2018	6/30/2019
6/16/2017	6/30/2018
6/27/2016	6/30/2017
6/29/2015	6/30/2016
4/14/2015	6/30/2015
7/1/2019	6/30/2020
7/6/2020	6/30/2021

Legal Entity Information

Agent of Service Name:
CT CORPORATION SYSTEM
Agent of Service Mailing Address:
818 W. 7TH STREET, 2ND FLOOR LOS ANGELES 90017 CA United States of America

Corporation Number:
Federal Employment Identification Number:
President Name:
ANDREW LITTLEFAIR
Vice President Name:
Treasurer Name:
Secretary Name:
CEO Name:

Workers Compensation

Do you lease employees through Professional Employer Organization (PEO)?: No
Please provide your current workers compensation insurance information below:
PEO PEO PEO

PEO InformationName Phone Email

Insured by Carrier
Policy Holder Name:CLEAN ENERGY**Insurance Carrier:**PACIFIC INDEMNITY COMPANY
Policy Number:71736418**Inception date:**11/29/2013**Expiration Date:**11/28/2020

FORM L
PROOF OF REQUIRED LICENSES

Submit proof of all valid licenses required to perform this contract.

CONTRACTORS STATE LICENSE BOARD

Contractor's License Detail for License # 848450

DISCLAIMER: A license status check provides information taken from the CSLB license database. Before relying on this information, you should be aware of the following limitations.

CSLB complaint disclosure is restricted by law (B&P 7124.6) If this entity is subject to public complaint disclosure, a link for complaint disclosure will appear below. Click on the link or button to obtain complaint and/or legal action information.
Per B&P 7071.17 , only construction related civil judgments reported to the CSLB are disclosed.
Arbitrations are not listed unless the contractor fails to comply with the terms of the arbitration.
Due to workload, there may be relevant information that has not yet been entered onto the Board's license database.

Data current as of 3/18/2019 10:53:38 AM

Business Information

CLEAN ENERGY
4675 MACARTHUR COURT SUITE 800
NEWPORT BEACH, CA 92660
Business Phone Number:(949) 437-1000

Entity	Corporation
Issue Date	10/19/2004
Reissue Date	02/28/2013
Expire Date	**02/28/2021**

License Status

This license is current and active.

All information below should be reviewed.

Additional Status

The license may be suspended at a future date if the qualifying person is not replaced by 04/07/2019.

Classifications

A - GENERAL ENGINEERING CONTRACTOR

Bonding Information

Contractor's Bond

This license filed a Contractor's Bond with BERKLEY INSURANCE COMPANY.
Bond Number: 0202632
Bond Amount: $15,000
Effective Date: 06/19/2016
Contractor's Bond History

Workers' Compensation

This license has workers compensation insurance with the PACIFIC INDEMNITY COMPANY
Policy Number:1871736418
Effective Date: 11/30/2018
Expire Date: 11/30/2019
Workers' Compensation History

Miscellaneous Information

11/27/2012 - SECRETARY OF STATE - MERGER
02/28/2013 - LICENSE REISSUED TO ANOTHER ENTITY

Other

Personnel listed on this license (current or disassociated) are listed on other licenses.

Home CONTRACTORS STATE LICENSE BOARD

Contractor's License Detail for License # 794519

DISCLAIMER: A license status check provides information taken from the CSLB license database. Before relying on this information, you should be aware of the following limitations.

- CSLB complaint disclosure is restricted by law (B&P 7124.6) If this entity is subject to public complaint disclosure click on link that will appear below for more information. Click here for a definition of disclosable actions.
- Only construction related civil judgments reported to CSLB are disclosed (B&P 7071.17).
- Arbitrations are not listed unless the contractor fails to comply with the terms.
- Due to workload, there may be relevant information that has not yet been entered into the board's license database.

Data current as of 11/2/2020 8:07:08 AM

Business Information

FUELING AND SERVICE TECHNOLOGIES INC
7050 VILLAGE DRIVE
BUENA PARK, CA 90621
Business Phone Number:(714) 523-0194

Entity Corporation
Issue Date 05/01/2001
Expire Date **05/31/2021**

License Status

This license is current and active.

All information below should be reviewed.

Classifications

- A - GENERAL ENGINEERING CONTRACTOR
- C21 - BUILDING MOVING, DEMOLITION
- C10 - ELECTRICAL
- B - GENERAL BUILDING CONTRACTOR

Certifications

- HAZ - HAZARDOUS SUBSTANCES REMOVAL

Bonding Information

Contractor's Bond

This license filed a Contractor's Bond with ATLANTIC SPECIALTY INSURANCE COMPANY.
Bond Number: 800018801
Bond Amount: $15,000
Effective Date: 04/01/2017
Contractor's Bond History

Bond of Qualifying Individual

- The qualifying individual MILTON DANIEL MC GILL certified that he/she owns 10 percent or more of the voting stock/membership interest of this company; therefore, the Bond of Qualifying Individual is not required.
  Effective Date: 04/12/2011
  BQI's Bond History
- This license filed Bond of Qualifying Individual number **800018813** for TIMOTHY MICHAEL CALDWELL in the amount of **$12,500** with ATLANTIC SPECIALTY INSURANCE COMPANY.
  Effective Date: 06/05/2019
  BQI's Bond History

Workers' Compensation

This license has workers compensation insurance with the LIBERTY MUTUAL INSURANCE COMPANY
Policy Number:WC2Z91457955030
Effective Date: 11/01/2020
Expire Date: 11/01/2021
Workers' Compensation History

Other

- Personnel listed on this license (current or disassociated) are listed on other licenses.

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Home CONTRACTORS STATE LICENSE BOARD

Contractor's License Detail for License # 900304

DISCLAIMER: A license status check provides information taken from the CSLB license database. Before relying on this information, you should be aware of the following limitations.

- CSLB complaint disclosure is restricted by law (B&P 7124.6) If this entity is subject to public complaint disclosure click on link that will appear below for more information. Click here for a definition of disclosable actions.
- Only construction related civil judgments reported to CSLB are disclosed (B&P 7071.17).
- Arbitrations are not listed unless the contractor fails to comply with the terms.
- Due to workload, there may be relevant information that has not yet been entered into the board's license database.

Data current as of 11/2/2020 12:40:52 PM

Business Information

RELIABLE MONITORING SERVICES
dba RMS CONSTRUCTION

2698 JUNIPERO AVE STE 105-107
SIGNAL HILL, CA 90755
Business Phone Number:(800) 760-1822

Entity Corporation
Issue Date 07/17/2007
Expire Date **07/31/2021**

License Status

This license is current and active.

All information below should be reviewed.

Classifications

- C10 - ELECTRICAL
- B - GENERAL BUILDING CONTRACTOR
- A - GENERAL ENGINEERING CONTRACTOR
- C-7 - LOW VOLTAGE SYSTEMS

Bonding Information

Contractor's Bond

This license filed a Contractor's Bond with OHIO CASUALTY INSURANCE COMPANY (THE).
Bond Number: 358117C
Bond Amount: $15,000
Effective Date: 08/26/2019
Contractor's Bond History

Bond of Qualifying Individual

The qualifying individual RICKY MENDOZA certified that he/she owns 10 percent or more of the voting stock/membership interest of this company; therefore, the Bond of Qualifying Individual is not required.
Effective Date: 06/13/2019
BQI's Bond History

Workers' Compensation

This license has workers compensation insurance with the INSURANCE COMPANY OF THE WEST
Policy Number:WSD505553300
Effective Date: 05/29/2020
Expire Date: 05/29/2021
Workers' Compensation History

Other

- Personnel listed on this license (current or disassociated) are listed on other licenses.

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Home CONTRACTORS STATE LICENSE BOARD

Contractor's License Detail for License # 660099

DISCLAIMER: A license status check provides information taken from the CSLB license database. Before relying on this information, you should be aware of the following limitations.

- CSLB complaint disclosure is restricted by law (B&P 7124.6) If this entity is subject to public complaint disclosure click on link that will appear below for more information. Click here for a definition of disclosable actions.
- Only construction related civil judgments reported to CSLB are disclosed (B&P 7071.17).
- Arbitrations are not listed unless the contractor fails to comply with the terms.
- Due to workload, there may be relevant information that has not yet been entered into the board's license database.

Data current as of 11/2/2020 12:38:25 PM

Business Information

VERDUZCO ELECTRIC INC
829 W COMPTON BLVD
COMPTON, CA 90220
Business Phone Number:(310) 886-3068

Entity Corporation
Issue Date 12/03/1992
Reissue Date 05/05/1998
Expire Date **05/31/2022**

License Status

This license is current and active.

All information below should be reviewed.

Classifications

C10 - ELECTRICAL

Bonding Information

Contractor's Bond

This license filed a Contractor's Bond with PHILADELPHIA INDEMNITY INSURANCE COMPANY.
Bond Number: PB03138600666
Bond Amount: $15,000
Effective Date: 01/01/2016
Contractor's Bond History

Bond of Qualifying Individual

The qualifying individual CARLOS ANDRADE VERDUZCO certified that he/she owns 10 percent or more of the voting stock/membership interest of this company; therefore, the Bond of Qualifying Individual is not required.
Effective Date: 05/05/1998

Workers' Compensation

This license has workers compensation insurance with the STATE COMPENSATION INSURANCE FUND
Policy Number:9149952
Effective Date: 01/01/2016
Expire Date: 01/01/2021
Workers' Compensation History

Miscellaneous Information

- 05/05/1998 - LICENSE REISSUED TO ANOTHER ENTITY

Other

- Personnel listed on this license (current or disassociated) are listed on other licenses.

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/

FORM M
BUY AMERICA CERTIFICATION STEEL OR MANUFACTURED PRODUCTS

General Requirement (as stated in 49 CFR 661.5)

a. Except as provided in 49 CFR 661.7 and 49 CFR 661.11, no funds may be obligated by FTA for a grantee project unless all iron, steel, and manufactured products used in the project are produced in the United States.

b. All steel and iron manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

c. The steel and iron requirements apply to all construction materials made primarily of steel or iron and used in infrastructure projects such as, transit or maintenance facilities, rail lines, and bridges. These items include, but are not limited to, structural steel or iron, steel or iron beams and columns, running rail and contact rail. These requirements do not apply to steel or iron used as components or subcomponents of other manufactured products or rolling stock, or to bimetallic power rail incorporating steel or iron components.

d. For a manufactured product to be considered produced in the United States:

   1. All of the manufacturing processes for the product must take place in the United States; and

   2. All of the components of the product must be of U.S. origin. A component is considered of U.S. origin if it is manufactured in the United States, regardless of the origin of its subcomponents.

If steel, iron, or manufactured products (as defined in 49 CFR 661.3 and 661.5) are being procured, the appropriate certificate as set forth below shall be completed and submitted by each bidder or offeror in accordance with the requirement contained in 49 CFR 661.13(b).

Certificate of Compliance with Buy America Requirements

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 CFR part 661.

COMPANY	Clean Energy		
NAME	Robert M. Vreeland	TITLE	Chief Financial Officer
SIGNATURE	Robert M Vreeland	DATE	October 28, 2020

Certificate of Noncompliance with Buy America Steel or Manufactured Products Requirements

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j), but it may qualify for an exception to the requirement pursuant to 49 U.S.C. 5323(j)(2), as amended, and the applicable regulations in 49 C.F.R. 661.7.

COMPANY			
NAME		TITLE	
SIGNATURE		DATE	

FORM N
EVIDENCE OF INSURANCE

Submit evidence of insurance to prove firm meets insurance requirements as specified in Attachment F, Contract Documents.

CLEAENE-05 KSHIPPEY

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/28/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0757776
Newport Beach, CA - HUB International Insurance Services Inc.
4695 MacArthur Court
Suite 600
Newport Beach, CA 92660

CONTACT NAME: Kimberly Shippey
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS: kimberly.shippey@hubinternational.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Federal Insurance Company	20281
INSURER B : Pacific Indemnity Company	20346
INSURER C : Evanston Insurance Company	35378
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Clean Energy Fuels Corp
Clean Energy, A CA Corp
4675 MacArthur Court, Suite 800
Newport Beach, CA 92660

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$	1,000,000
	CLAIMS-MADE X OCCUR	X	X	3581-68-98	11/30/2019	11/30/2020	DAMAGE TO RENTED PREMISES (Ea occurrence)	$	1,000,000
							MED EXP (Any one person)	$	10,000
							PERSONAL & ADV INJURY	$	1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$	2,000,000
	POLICY X PRO-JECT X LOC						PRODUCTS - COMP/OP AGG	$	2,000,000
	OTHER:							$	
A	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$	1,000,000
	X ANY AUTO	X	X	7352-19-89	11/30/2019	11/30/2020	BODILY INJURY (Per person)	$	
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$	
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$	
	X MCS-90 Form							$	
A	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	$	15,000,000
	EXCESS LIAB CLAIMS-MADE	X	X	7986-07-91	11/30/2019	11/30/2020	AGGREGATE	$	15,000,000
	DED RETENTION $							$	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE OTH-ER		
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N N / A (Mandatory in NH)		X	7173-64-18	11/30/2019	11/30/2020	E.L. EACH ACCIDENT	$	1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$	1,000,000
							E.L. DISEASE - POLICY LIMIT	$	1,000,000
A	Blkt Builder's Risk			3588-41-46	11/30/2019	11/30/2020	Deductible $250,000		6,000,000
C	E&O / Retro 6/1/2002			MKLV7PL0003928	11/30/2019	11/30/2020	Each Claim/Aggregate		5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Re: RFP No. 2020-05 Design and Build of a CNG Fueling Station
City of Gardena, its appointed and elected officers, employees, agents and volunteers are additional insured as respects general liability and auto liability, as required by written contract, and is primary and non-contributory, subject to the terms and conditions of the policy and attached forms. Waiver of subrogation applies as respects general liability, auto liability and workers' compensation, as requried by written contract, per the attached forms. Excess liability is following form. Separation of Insureds applies. 30 day notice of cancellation, except 10 days for non-payment.

CERTIFICATE HOLDER

City of Gardena - FOR BID PURPOSES
13999 South Western Ave
Gardena, CA 90249-3005

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Sample Certificate for Bid Purposes

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CHUBB®

Liability Insurance

Endorsement

Policy Period	NOVEMBER 30 2019 TO NOVEMBER 30 2020
Policy Number	3581-68-98 DAL
Insured	CLEAN ENERGY A CA CORPORATION
Name of Company	FEDERAL INSURANCE COMPANY

This Endorsement applies to the following forms:

GENERAL LIABILITY

Under Who Is An Insured, the following provision is added:

Who Is An Insured

Designated Persons Or Organizations

Any person or organization designated below is an **insured**; but they are **insureds** only with respect to their liability arising out of your acts or failure to act.

Designated Insured

"ANY PERSON OR ORGANIZATION BUT ONLY TO THE EXTENT SPECIFIED UNDER WRITTEN CONTRACT, AGREEMENT OR PERMIT SIGNED PRIOR TO THE DATE OF AN OCCURRENCE COVERED BY THIS POLICY."

All other terms and conditions remain unchanged.

Authorized Representative

CHUBB®

Liability Insurance

Endorsement

Policy Period	NOVEMBER 30 2019 TO NOVEMBER 30 2020
Policy Number	3581-68-98 DAL
Insured	CLEAN ENERGY A CA CORPORATION
Name of Company	FEDERAL INSURANCE COMPANY

This Endorsement applies to the following forms:

GENERAL LIABILITY
EMPLOYEE BENEFITS ERRORS OR OMISSIONS

Conditions

Under Conditions, the following provision is added to the condition titled Other Insurance.

Other Insurance - Primary, Noncontributory Insurance - Scheduled Person Or Organization

If you are obligated, pursuant to a written contract or agreement, to provide the person or organization described in the Schedule (that is also included in the Who Is An Insured section of this contract) with primary insurance such as is afforded by this policy, then this insurance is primary and we will not seek contribution from insurance available to such person or organization.

Schedule

"ANY PERSON OR ORGANIZATION THAT YOU ARE OBLIGATED, PURSUANT TO A WRITTEN CONTRACT, AGREEMENT OR PERMIT TO PROVIDE PRIMARY INSURANCE AS IS AFFORDED BY THIS POLICY, BUT ONLY TO THE MINIMUM EXTENT REQUIRED BY SUCH CONTRACT, AGREEMENT OR PERMIT."

CHUBB®

Liability Insurance

Endorsement

Policy Period	NOVEMBER 30 2019 TO NOVEMBER 30 2020
Policy Number	3581-68-98 DAL
Insured	CLEAN ENERGY A CA CORPORATION
Name of Company	FEDERAL INSURANCE COMPANY

This Endorsement applies to the following forms:

GENERAL LIABILITY

Conditions

Under Conditions, the provision titled Transfer Or Waiver Of Rights Of Recovery Against Others is deleted and replaced with the following:

Transfer Or Waiver Of Rights Of Recovery Against Others

We will waive the right of recovery we would otherwise have had against another person or organization, for loss to which this insurance applies, provided the **insured** has waived their rights of recovery against such person or organization in a contract or agreement that is executed before such loss.

Any waiver of our right of recovery granted under this endorsement:

- applies only to payments we make for injury or damage arising out of your ongoing operations; and
- ends when the contract or agreement requiring such waiver ends.

Conditions

Transfer Or Waiver Of Rights Of Recovery Against Others (continued)

To the extent that the **insured**'s rights to recover all or part of any payment made under this insurance have not been waived, those rights are transferred to us. The **insured** must do nothing after loss to impair them. At our request, the **insured** will bring **suit** to transfer those rights to us and help us enforce them.

This condition does not apply to **medical expenses**.

All other terms and conditions remain unchanged.

Authorized Representative 

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

COMMERCIAL AUTOMOBILE BROAD FORM ENDORSEMENT

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
This endorsement modifies the Business Auto Coverage Form.

1. **EXTENDED CANCELLATION CONDITION**
   Paragraph A.2.b. – CANCELLATION - of the COMMON POLICY CONDITIONS form IL 00 17 is deleted and replaced with the following:
   b. 60 days before the effective date of cancellation if we cancel for any other reason.
2. **BROAD FORM INSURED**
   A. Subsidiaries and Newly Acquired or Formed Organizations As Insureds
   The Named Insured shown in the Declarations is amended to include:
   1. Any legally incorporated subsidiary in which you own more than 50% of the voting stock on the effective date of the Coverage Form. However, the Named Insured does not include any subsidiary that is an "insured" under any other automobile policy or would be an "insured" under such a policy but for its termination or the exhaustion of its Limit of Insurance.
   2. Any organization that is acquired or formed by you and over which you maintain majority ownership. However, the Named Insured does not include any newly formed or acquired organization:
      (a) That is an "insured" under any other automobile policy;
      (b) That has exhausted its Limit of Insurance under any other policy; or
      (c) 180 days or more after its acquisition or formation by you, unless you have given us written notice of the acquisition or formation.

   Coverage does not apply to "bodily injury" or "property damage" that results from an "accident" that occurred before you formed or acquired the organization.

   B. Employees as Insureds
   Paragraph A.1. – WHO IS AN INSURED – of SECTION II – LIABILITY COVERAGE is amended to add the following:
   d. Any "employee" of yours while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

   C. Lessors as Insureds
   Paragraph A.1. – WHO IS AN INSURED – of SECTION II – LIABILITY COVERAGE is amended to add the following:
   e. The lessor of a covered "auto" while the "auto" is leased to you under a written agreement if:
      (1) The agreement requires you to provide direct primary insurance for the lessor; and
      (2) The "auto" is leased without a driver.

      Such leased "auto" will be considered a covered "auto" you own and not a covered "auto" you hire.
      However, the lessor is an "insured" only for "bodily injury" or "property damage" resulting from the acts or omissions by:
      1. You;
      2. Any of your "employees" or agents; or
      3. Any person, except the lessor or any "employee" or agent of the lessor, operating an "auto" with the permission of any of 1. and/or 2. above.

   D. Persons And Organizations As Insureds Under A Written Insured Contract
   Paragraph A.1 – WHO IS AN INSURED – of SECTION II – LIABILITY COVERAGE is amended to add the following:
   f. Any person or organization with respect to the operation, maintenance or use of a covered "auto", provided that you and such person or organization have agreed under an express provision in a written "insured contract", written agreement or a written permit issued to you by a governmental or public authority to add such person or organization to this policy as an "insured".
      However, such person or organization is an "insured" only:

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(1) with respect to the operation, maintenance or use of a covered "auto"; and
(2) for "bodily injury" or "property damage" caused by an "accident" which takes place after:
(a) You executed the "insured contract" or written agreement; or
(b) The permit has been issued to you.

3. **FELLOW EMPLOYEE COVERAGE**
EXCLUSION B.5. - FELLOW EMPLOYEE – of SECTION II – LIABILITY COVERAGE does not apply.
4. **PHYSICAL DAMAGE – ADDITIONAL TEMPORARY TRANSPORTATION EXPENSE COVERAGE**
Paragraph A.4.a. – TRANSPORTATION EXPENSES – of SECTION III – PHYSICAL DAMAGE COVERAGE is amended to provide a limit of $50 per day for temporary transportation expense, subject to a maximum limit of $1,000.
5. **AUTO LOAN/LEASE GAP COVERAGE**
Paragraph A. 4. – COVERAGE EXTENSIONS - of SECTION III – PHYSICAL DAMAGE COVERAGE is amended to add the following:
c. **Unpaid Loan or Lease Amounts**
In the event of a total "loss" to a covered "auto", we will pay any unpaid amount due on the loan or lease for a covered "auto" minus:
1. The amount paid under the Physical Damage Coverage Section of the policy; and
2. Any:
a. Overdue loan/lease payments at the time of the "loss";
b. Financial penalties imposed under a lease for excessive use, abnormal wear and tear or high mileage;
c. Security deposits not returned by the lessor:
d. Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease; and
e. Carry-over balances from previous loans or leases.

We will pay for any unpaid amount due on the loan or lease if caused by:
1. Other than Collision Coverage only if the Declarations indicate that Comprehensive Coverage is provided for any covered "auto";
2. Specified Causes of Loss Coverage only if the Declarations indicate that Specified Causes of Loss Coverage is provided for any covered "auto"; or
3. Collision Coverage only if the Declarations indicate that Collision Coverage is provided for any covered "auto.

6. **RENTAL AGENCY EXPENSE**
Paragraph A. 4. – COVERAGE EXTENSIONS – of SECTION III – PHYSICAL DAMAGE COVERAGE is amended to add the following:
d. **Rental Expense**
We will pay the following expenses that you or any of your "employees" are legally obligated to pay because of a written contract or agreement entered into for use of a rental vehicle in the conduct of your business:
MAXIMUM WE WILL PAY FOR ANY ONE CONTRACT OR AGREEMENT:
1. $2,500 for loss of income incurred by the rental agency during the period of time that vehicle is out of use because of actual damage to, or "loss" of, that vehicle, including income lost due to absence of that vehicle for use as a replacement;
2. $2,500 for decrease in trade-in value of the rental vehicle because of actual damage to that vehicle arising out of a covered "loss"; and
3. $2,500 for administrative expenses incurred by the rental agency, as stated in the contract or agreement.
4. $7,500 maximum total amount for paragraphs 1., 2. and 3. combined.

7. **EXTRA EXPENSE – BROADENED COVERAGE**
Paragraph A.4. – COVERAGE EXTENSIONS – of SECTION III – PHYSICAL DAMAGE COVERAGE is amended to add the following:
e. **Recovery Expense**
We will pay for the expense of returning a stolen covered "auto" to you.
8. **AIRBAG COVERAGE**
Paragraph B.3.a. - EXCLUSIONS – of SECTION III – PHYSICAL DAMAGE COVERAGE does not apply to the accidental or unintended discharge of an airbag. Coverage is excess over any other collectible insurance or warranty specifically designed to provide this coverage.
9. **AUDIO, VISUAL AND DATA ELECTRONIC EQUIPMENT - BROADENED COVERAGE**
Paragraph C.1.b. – LIMIT OF INSURANCE - of SECTION III - PHYSICAL DAMAGE is deleted and replaced with the following:
b. $2,000 is the most we will pay for "loss" in any one "accident" to all electronic equipment that reproduces, receives or transmits audio, visual or data signals which, at the time of "loss", is:
(1) Permanently installed in or upon the covered "auto" in a housing, opening or other location that is not normally used by the "auto" manufacturer for the installation of such equipment;
(2) Removable from a permanently installed housing unit as described in Paragraph 2.a. above or is an integral part of that equipment; or
(3) An integral part of such equipment.

10. **GLASS REPAIR – WAIVER OF DEDUCTIBLE**

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Under Paragraph D. - DEDUCTIBLE – of SECTION III – PHYSICAL DAMAGE COVERAGE the following is added:
No deductible applies to glass damage if the glass is repaired rather than replaced.

11. TWO OR MORE DEDUCTIBLES

Paragraph D.- DEDUCTIBLE – of SECTION III – PHYSICAL DAMAGE COVERAGE is amended to add the following:
If this Coverage Form and any other Coverage Form or policy issued to you by us that is not an automobile policy or Coverage Form applies to the same "accident", the following applies:

1. If the deductible under this Business Auto Coverage Form is the smaller (or smallest) deductible, it will be waived; or
2. If the deductible under this Business Auto Coverage Form is not the smaller (or smallest) deductible, it will be reduced by the amount of the smaller (or smallest) deductible.

12. AMENDED DUTIES IN THE EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS

Paragraph A.2.a. - DUTIES IN THE EVENT OF AN ACCIDENT, CLAIM, SUIT OR LOSS of SECTION IV - BUSINESS AUTO CONDITIONS is deleted and replaced with the following:

a. In the event of "accident", claim, "suit" or "loss", you must promptly notify us when the "accident" is known to:
   (1) You or your authorized representative, if you are an individual;
   (2) A partner, or any authorized representative, if you are a partnership;
   (3) A member, if you are a limited liability company; or
   (4) An executive officer, insurance manager, or authorized representative, if you are an organization other than a partnership or limited liability company.

   Knowledge of an "accident", claim, "suit" or "loss" by other persons does not imply that the persons listed above have such knowledge.
   Notice to us should include:
   (1) How, when and where the "accident" or "loss" occurred;
   (2) The "insured's" name and address; and
   (3) To the extent possible, the names and addresses of any injured persons or witnesses.

13. WAIVER OF SUBROGATION

Paragraph A.5. - TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US of SECTION IV – BUSINESS AUTO CONDITIONS is deleted and replaced with the following:

5. We will waive the right of recovery we would otherwise have against another person or organization for "loss" to which this insurance applies, provided the "insured" has waived their rights of recovery against such person or organization under a contract or agreement that is entered into before such "loss".

   To the extent that the "insured's" rights to recover damages for all or part of any payment made under this insurance has not been waived, those rights are transferred to us. That person or organization must do everything necessary to secure our rights and must do nothing after "accident" or "loss" to impair them. At our request, the insured will bring suit or transfer those rights to us and help us enforce them.

14. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

Paragraph B.2. – CONCEALMENT, MISREPRESENTATION or FRAUD of SECTION IV – BUSINESS AUTO CONDITIONS - is deleted and replaced with the following:
If you unintentionally fail to disclose any hazards existing at the inception date of your policy, we will not void coverage under this Coverage Form because of such failure.

15. AUTOS RENTED BY EMPLOYEES

Paragraph B.5. - OTHER INSURANCE of SECTION IV – BUSINESS AUTO CONDITIONS - is amended to add the following:

e. Any "auto" hired or rented by your "employee" on your behalf and at your direction will be considered an "auto" you hire. If an "employee's" personal insurance also applies on an excess basis to a covered "auto" hired or rented by your "employee" on your behalf and at your direction, this insurance will be primary to the "employee's" personal insurance.

16. HIRED AUTO – COVERAGE TERRITORY

Paragraph B.7.b.(5). - POLICY PERIOD, COVERAGE TERRITORY of SECTION IV – BUSINESS AUTO CONDITIONS is deleted and replaced with the following:

(5) A covered "auto" of the private passenger type is leased, hired, rented or borrowed without a driver for a period of 45 days or less; and

17. RESULTANT MENTAL ANGUISH COVERAGE

Paragraph C. of - SECTION V – DEFINITIONS is deleted and replaced by the following:
"Bodily injury" means bodily injury, sickness or disease sustained by any person, including mental anguish or death as a result of the "bodily injury" sustained by that person.

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POLICY NUMBER: 7352-19-89

COMMERCIAL AUTO
16-02-0316 Ed. 10 14

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NON-CONTRIBUTORY LIABILITY INSURANCE

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: CLEAN ENERGY, A CA CORPORATION

SCHEDULE

Name(s) Of Person(s) Or Organization(s): PERSONS OR ORGANIZATIONS DESCRIBED IN THE WHO IS AN INSURED SECTION OF THIS CONTRACT AND THAT YOU ARE OBLIGATED, PURSUANT TO A WRITTEN CONTRACT OR AGREEMENT, TO PROVIDE WITH PRIMARY INSURANCE AS IS AFFORDED BY THIS POLICY.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Item 5. – "**Other Insurance**" of Item B. – "**General Conditions**" under Section IV – "**Business Auto Conditions**":

e. Regardless of the provisions of Paragraph 5.a. through d. above, for any liability arising out of the ownership, maintenance, use, rental, lease, loan, hire or borrowing by an "insured" of a covered "auto" for which an "insured" is contractually obligated to provide primary insurance coverage to a client, this Coverage Form will be primary and non-contributory with respect to the Persons or Organizations in the schedule, regardless of the availability or existence of other collectible insurance under any other Coverage Form or policy that applies on a primary basis.

WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY

WC 124
(4-84)

WC 00 03 13

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

This endorsement changes the policy to which it is attached effective on the inception date of the policy unless a different date is indicated below.

(The following "attaching clause" need be completed only when this endorsement is issued subsequent to preparation of the policy.)

This endorsement, effective on **11/30/2019** (DATE) at 12:01 A. M. standard time, forms a part of

Policy No. 7173-64-18 of the PACIFIC INDEMNITY COMPANY (NAME OF INSURANCE COMPANY)

issued to CLEAN ENERGY, A CA CORPORATION

Endorsement No.

_____
Authorized Representative

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.*

This agreement shall not operate directly or indirectly to benefit any one not named in the Schedule.

Schedule

ANY PERSON OR ORGANIZATION WHEN REQUIRED BY WRITTEN CONTRACT SIGNED PRIOR TO THE DATE OF AN OCCURRENCE COVERED BY THIS POLICY.

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REVISED - FORM O
BID BOND

Proposals are to be accompanied by a bid bond in the form of a cash deposit, a certified or cashier's check, or a bidder's bond, made payable to the City of Gardena, in an amount not less than 20 percent of the total bid submitted.

Bid bonds are to be delivered to GTrans' administrative office (attention to Dana Pynn) located at 13999 S. Western Ave Gardena, CA 90249 by no later than the proposal submission deadline. Proposers may submit their bid bonds via mail, or they may contact Rachel Yoo at ryoo@gardenabus.com or at (310) 965-8803 to make an appointment to submit their bid bonds in person. Failure to deliver the bid bond by the deadline may result in the proposal being deemed non-responsive.

BID BOND

RFP No. 2020-05 DESIGN AND BUILD OF A CNG FUELING STATION

FOR

CITY OF GARDENA

WITHIN

GARDENA, CALIFORNIA

KNOW ALL MEN BY THESE PRESENT:

That Clean Energy, as Principal, hereinafter referred to as "CONTRACTOR", and Berkley Insurance Company, as SURETY, are held and firmly bound unto CITY OF GARDENA, hereinafter referred to as the "CITY", in the sum of Twenty Percent of Amount Bid dollars ($ 20%), **which is at least twenty percent (20%)** of the total amount bid by CONTRACTOR to CITY for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents..

WHEREAS, said Contractor has submitted a bid to the City to perform all work required under the following:

PROJECT: **DESIGN AND BUILD OF A CNG FUELING STATION**
RFP No. 2020-05

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas CONTRACTOR is about to submit a bid to CITY for the above stated project, if said bid is rejected, or if said bid is accepted and a Contract is awarded and entered into by CONTRACTOR in the manner and time specified, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of CITY.

In the event suit is brought upon this bond by the CITY and judgment is recovered, said Surety shall pay all costs incurred by the CITY in such suit, including a reasonable attorneys' fee to be fixed by the court.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals, this 28th day of October, 20 20.

Berkley Insurance Company (SEAL)

(SEAL)

SURETY

Berkley Insurance Company

Name of Surety

By: _____

Attorney in Fact James I. Moore

1411 Opus Place, Suite 450, Downers Grove, IL 60515

Mailing Address of Surety

630-468-5600

Telephone Number of Surety

PRINCIPAL

Clean Energy

Name of Principal

By: Mitchell W. Pratt

4675 MacArthur Court, Suite 800, Newport Beach, CA 92660

Mailing Address of Principal

949-437-1000

Telephone Number of Principal

Note: This bond must be dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney–in-fact must be attached.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of ORANGE)

On 10-29-2020 before me, Donna G Holck, Notary Public,
Date *Here Insert Name and Title of the Officer*

personally appeared Mitchell W. Pratt
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

DONNA G. HOLCK
Notary Public - California
Orange County
Commission # 2191030
My Comm. Expires Apr 15, 2021

Signature Donna G Holck
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Bid Bond Document Date: 10-28-2020

Number of Pages: 2 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
☑ Corporate Officer — Title(s): COO
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

Signer's Name: _____
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator
☐ Other: _____
Signer Is Representing: _____

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No. BI-112h-el

POWER OF ATTORNEY
BERKLEY INSURANCE COMPANY
WILMINGTON, DELAWARE

NOTICE: The warning found elsewhere in this Power of Attorney affects the validity thereof. Please review carefully.

KNOW ALL MEN BY THESE PRESENTS, that BERKLEY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Delaware, having its principal office in Greenwich, CT, has made, constituted and appointed, and does by these presents make, constitute and appoint: ***James I. Moore; Stephen T. Kazmer; Dawn L. Morgan; Kelly A. Gardner; Jennifer J. McComb; Melissa Schmidt; Tariese M. Pisciotto; Diane M. Rubright; Sinem Nava; or Martin Moss of HUB International Midwest Limited of Downers Grove, IL*** its true and lawful Attorney-in-Fact, to sign its name as surety only as delineated below and to execute, seal, acknowledge and deliver any and all bonds and undertakings, with the exception of Financial Guaranty Insurance, providing that no single obligation shall exceed **Fifty Million and 00/100 U.S. Dollars (U.S.$50,000,000.00),** to the same extent as if such bonds had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office in their own proper persons.

This Power of Attorney shall be construed and enforced in accordance with, and governed by, the laws of the State of Delaware, without giving effect to the principles of conflicts of laws thereof. This Power of Attorney is granted pursuant to the following resolutions which were duly and validly adopted at a meeting of the Board of Directors of the Company held on January 25, 2010:

RESOLVED, that, with respect to the Surety business written by Berkley Surety, the Chairman of the Board, Chief Executive Officer, President or any Vice President of the Company, in conjunction with the Secretary or any Assistant Secretary are hereby authorized to execute powers of attorney authorizing and qualifying the attorney-in-fact named therein to execute bonds, undertakings, recognizances, or other suretyship obligations on behalf of the Company, and to affix the corporate seal of the Company to powers of attorney executed pursuant hereto; and said officers may remove any such attorney-in-fact and revoke any power of attorney previously granted; and further

RESOLVED, that such power of attorney limits the acts of those named therein to the bonds, undertakings, recognizances, or other suretyship obligations specifically named therein, and they have no authority to bind the Company except in the manner and to the extent therein stated; and further

RESOLVED, that such power of attorney revokes all previous powers issued on behalf of the attorney-in-fact named; and further

RESOLVED, that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any power of attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligation of the Company; and such signature and seal when so used shall have the same force and effect as though manually affixed. The Company may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Company, notwithstanding the fact that they may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, the Company has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 26th day of April, 2019.

BERKLEY INSURANCE COMPANY CORPORATE SEAL 1975 DELAWARE

Attest:
By _____
Ira S. Lederman
Executive Vice President & Secretary

Berkley Insurance Company
By _____
Jeffrey M. Hafter
Senior Vice President

STATE OF CONNECTICUT)
) ss:
COUNTY OF FAIRFIELD)

Sworn to before me, a Notary Public in the State of Connecticut, this 26th day of April, 2019, by Ira S. Lederman and Jeffrey M. Hafter who are sworn to me to be the Executive Vice President and Secretary, and the Senior Vice President, respectively, of Berkley Insurance Company.

MARIA C RUNDBAKEN
NOTARY PUBLIC
CONNECTICUT
MY COMMISSION EXPIRES
APRIL 30, 2024

_____
Notary Public, State of Connecticut

CERTIFICATE

I, the undersigned, Assistant Secretary of BERKLEY INSURANCE COMPANY, DO HEREBY CERTIFY that the foregoing is a true, correct and complete copy of the original Power of Attorney; that said Power of Attorney has not been revoked or rescinded and that the authority of the Attorney-in-Fact set forth therein, who executed the bond or undertaking to which this Power of Attorney is attached, is in full force and effect as of this date.

BERKLEY INSURANCE COMPANY CORPORATE SEAL 1975 DELAWARE

Given under my hand and seal of the Company, this 28th day of October, 2020.

_____
Vincent P. Forte

State of Illinois }
} ss.
County of DuPage }

On October 28, 2020, before me, Melissa Schmidt, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared James I. Moore known to me to be Attorney-in-Fact of Berkley Insurance Company the corporation described in and that executed the within and foregoing instrument, and known to me to be the person who executed the said instrument in behalf of the said corporation, and he duly acknowledged to me that such corporation executed the same.
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in this certificate above.

My Commission Expires 05/14/2024

Melissa Schmidt, Notary Public



Commission No. 697161

FORM P
IRAN CONTRACTING ACT CERTIFICATION

Pursuant to the Iran Contract Act of 2010 (Public Contract Code 2200-2208), Vendors/Bidders are ineligible to bid on or submit a proposal for any contract with a public entity for goods or services of one million dollars ($1,000,000) or more if the Vendor/Bidder engages in investment activities in Iran.

MUST BE SUBMITTED WITH BID PROPOSAL IF BID AMOUNT IS $1,000,000 OR MORE

Prior to bidding on, submitting a proposal, or executing a contract or renewal for a public entity contract for goods or services of $1,000,000 or more, a vendor must either: a) certify it is not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b) and is not a financial institution extending $20,000,000 or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; or b) demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your vendor or financial institution name and Federal ID Number (if available) and complete one of the options below. Please note California law establishes penalties for providing false certifications, including civil penalties equal to the greater of $250,000 or twice the amount of the contract for which the false certification was made, contract termination, and three-year ineligibility to bid on contracts. (Pub. Cont. Code § 2205.)

OPTION #1 - CERTIFICATION

I, the official named below, certify I am duly authorized to execute this certification on behalf of the vendor/financial institution identified below, and the vendor/financial institution identified below is not on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars ($20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Vendor Name/Financial Institution (Printed)	*Federal ID Number (or n/a)*
Clean Energy	95-430747
By (Authorized Signature) Robert M Vreeland	
Printed Name and Title of Person Signing	*Date Executed*
Robert M. Vreeland, Chief Financial Officer	October 28, 2020

FORM P Continued
IRAN CONTRACTING ACT CERTIFICATION

OPTION #2 – EXEMPTION

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a vendor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or enters into or renews, a contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

Vendor Name/Financial Institution (Printed)	*Federal ID Number (or n/a)*
By (Authorized Signature)	
Printed Name and Title of Person Signing	*Date Executed*

FORM Q
PAYMENT MILESTONE SCHEDULE

Proposers shall submit a proposed payment milestone schedule based on progress and achieving significant milestones throughout the project.

Proposed milestone payments are below:

Milestone 1: 15% within 15 business days of the Effective Date of the agreement

Milestone 2: 15% Submission of engineered plans to AHJ

Milestone 3: 15% Receipt of Permits

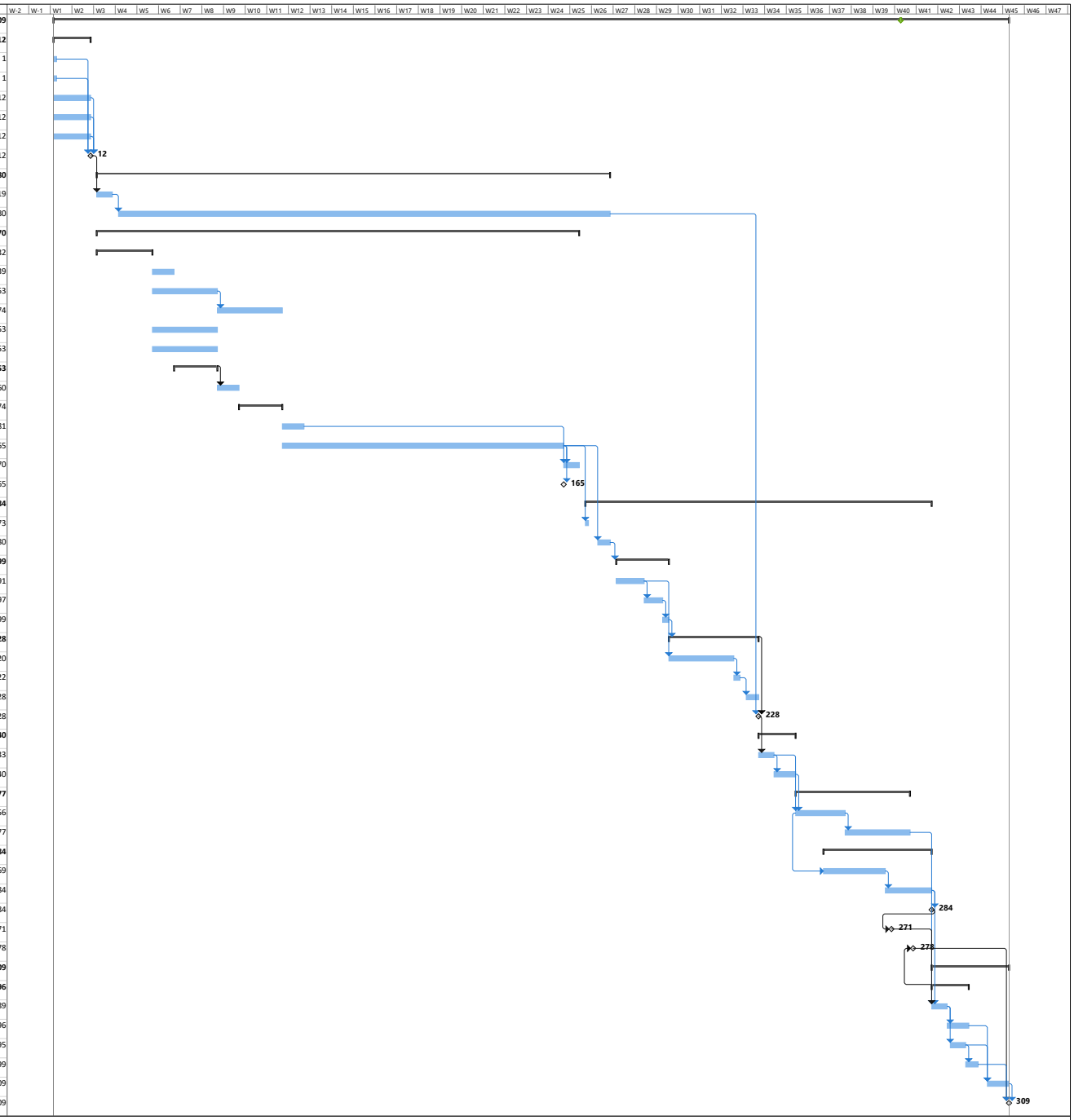
Milestone 4: 15% Mobilization of contractors

Milestone 5: 15% Operation of CNG Compressors

Milestone 6: 20% Substantial Completion

Milestone 7: Retention: 5% final completion

ID	Task Name	Duration	Start Day	Finish Day
1	**1 CNG Project**	**221 days**	**1**	**309**
2	**1.1 Project Initiation**	**10 days**	**1**	**12**
3	1.1.1 Agreement / LOA / AFE Signed	1 day	1	1
4	1.1.2 Project Summary Report Received	1 day	1	1
5	1.1.3 Geotech Report	2 wks	1	12
6	1.1.4 Boundary/Topo Survey	2 wks	1	12
7	1.1.5 Site investigation Report (SIR)	2 wks	1	12
8	1.1.6 Project Kick Off Meeting	0 days	12	12
9	**1.2 Equipment Procurement**	**120 days**	**15**	**180**
10	1.2.1 Engineering Equipment Approval	5 days	15	19
11	1.2.2 Supply Chain Procure/Secure Equipment	23 wks	22	180
12	**1.3 Engineering**	**112 days**	**15**	**170**
13	1.3.1 30% Drawings (SP, SLD, P&ID)	14 days	15	32
17	1.3.2 30% Client Review & Comments	5 days	33	39
18	1.3.3 Electrical - SP & SLD Review & Approval	15 days	33	53
19	1.3.4 Electrical Switchgear Review & Approval by Utility	15 days	54	74
20	1.3.5 Gas - SP & P & ID Review & Approval	15 days	33	53
21	1.3.6 Telephone - SP Review & Approval	15 days	33	53
22	1.3.7 60% Drawings (Preliminary Building Set)	**10 days**	**40**	**53**
26	1.3.8 60% Client Review & Comments	5 days	54	60
27	1.3.9 90% Drawings (Building Set)	10 days	61	74
31	1.3.10 90% Client Review & Comments	5 days	75	81
32	1.3.11 AHJ Submission for Permits & Review	13 wks	75	165
33	1.3.12 100% Drawings (Construction/Permit Set)	3 days	166	170
34	1.3.13 Permits Ready to Issue	0 days	165	165
35	**1.4 Construction**	**80 days**	**173**	**284**
36	1.4.1 Pre-Construction Meeting	1 day	173	173
37	1.4.2 Mobilize	4 days	177	180
38	**1.4.3 Civil Site Work**	**13 days**	**183**	**199**
39	1.4.3.1 Demo Parking Area for Compound	7 days	183	191
40	1.4.3.2 Trench for Underground Piping & Conduit	4 days	192	197
41	1.4.3.3 Defueling Island	2 days	198	199
42	**1.4.4 Equipment Pads Formed and Poured**	**21 days**	**200**	**228**
43	1.4.4.1 Equipment Compound	15 days	200	220
44	1.4.4.2 Defueling Island	2 days	221	222
45	1.4.4.3 Trenching Patchwork	4 days	225	228
46	1.4.5 Equipment Delivered	0 days	228	228
47	**1.4.6 Setting/ Anchoring Equipment**	**8 days**	**229**	**240**
48	1.4.6.1 Set Dispensers	3 days	229	233
49	1.4.6.2 Set Compound Equipment	5 days	234	240
50	**1.4.7 Mechanical Work**	**27 days**	**241**	**277**
51	1.4.7.1 Tie-In Mechanical	12 days	241	256
52	1.4.7.2 Tie-In Mechanical	15 days	257	277
53	**1.4.8 Electrical Work**	**25 days**	**250**	**284**
54	1.4.8.1 Electrical Rough-In	14 days	250	269
55	1.4.8.2 Pull & Terminate Electrical	11 days	270	284
56	1.4.9 Meter Release	0 days	284	284
57	1.4.10 System Start-Up/Performance Plan Submitted to City	1 day	271	271
58	1.4.11 Notice of Substantial Completion	1 day	278	278
59	**1.5 Commissioning**	**17 days**	**285**	**309**
60	**1.5.1 Startup & Inspection**	**8 days**	**285**	**296**
61	1.5.1.1 Commision New Equipment	3 days	285	289
62	1.5.1.2 Final Inspections	5 days	290	296
63	1.5.2 Training City Personnel	3 days	291	295
64	1.5.3 Performance Testing	4 days	296	299
65	1.5.4 Project Close Out/As-Builts/O&M's/ Manuals	5 days	303	309
66	1.5.5 Notice of Final Completion - Warranty Begins	0 days	309	309

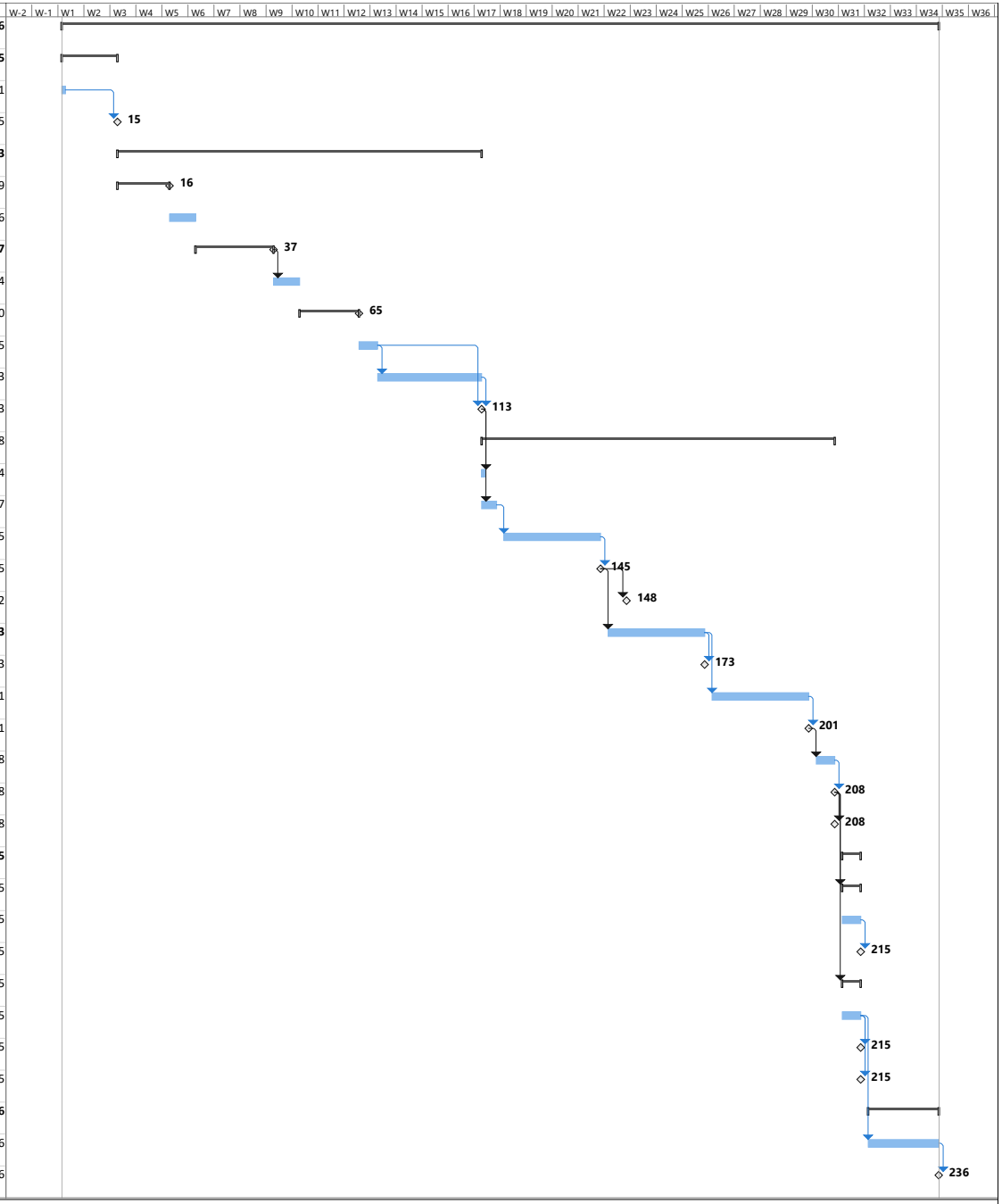


Project: City of Gardena GTrans
CNG Fueling Facility: Design-Build
Date: Thu 10/29/20

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress

Prepared by: Clean Energy Fuels

ID	Task Name	Duration	Start Day	Finish Day
1	**1 CNG Facility Modification**	**170 days**	**1**	**236**
2	**1.1 Project Initiation**	**11 days**	**1**	**15**
3	1.1.1 Notice to Proceed	1 day	1	1
4	1.1.2 Project Kick Off Meeting	0 days	15	15
5	**1.2 Engineering**	**70 days**	**16**	**113**
6	1.2.1 30% Drawings	10 days	16	29
10	1.2.2 30% Client Review & Comments	5 days	30	36
11	1.2.3 60% Drawings (Preliminary Set)	**15 days**	**37**	**57**
15	1.2.4 60% Client Review & Comments	5 days	58	64
16	1.2.5 90% Drawings (Permitting Set)	12 days	65	80
20	1.2.6 90% Client Review & Comments	3 days	81	85
21	1.2.7 Clean Energy begins Plan Check Process	4 wks	86	113
22	1.2.8 Permits Issued (Plan Check Complete - 100% Drawings)	0 days	113	113
23	**1.3 Construction**	69 days	114	208
24	1.3.1 Pre-Construction Meeting	1 day	114	114
25	1.3.2 Mobilize	4 days	114	117
26	1.3.3 Bays 1 - 4	20 days	120	145
27	1.3.4 Bays 1 - 4 Complete	0 days	145	145
28	1.3.5 Commissioning / Training -- Bays 1 - 4	5 days	148	152
29	1.3.6 Construciton Bays 5 - 9	**20 days**	**148**	**173**
30	1.3.7 Bays 5 - 9 Complete	0 days	173	173
31	1.3.8 Construction Bays 10 - 15	20 days	176	201
32	1.3.9 Bays 10-15 Complete	0 days	201	201
33	1.3.10 Construction Wash Bay	5 days	204	208
34	1.3.11 Wash Bay Complete	0 days	208	208
35	1.3.12 Notice of Substantial Completion	0 days	208	208
36	**1.4 Commissioning**	**5 days**	**211**	**215**
37	1.4.1 Startup & Commissioning	5 days	211	215
38	1.4.1.1 Commisioning for Bays 5 - 15 & Wash Bay	5 days	211	215
39	1.4.1.2 Commissioning Complete	0 days	215	215
40	1.4.2 City Staff Training / Project Close Out	5 days	211	215
41	1.4.2.1 Staff Training / Project Close-Outs	5 days	211	215
42	1.4.2.2 Training Complete	0 days	215	215
43	1.4.3 Final Completion Notice	0 days	215	215
44	**1.5 Deliverables**	**15 days**	**218**	**236**
45	1.5.1 Final Deliverables to City	15 days	218	236
46	1.5.2 Project Complete	0 days	236	236



Project: City of Gardena GTrans
CNG Facility Modification: Design-Upgrade
Date: Thu 10/29/20

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress

Prepared by: Clean Energy Fuels

Clean Energy's Final Cost Proposal

RFP No. 2020-05

Project Cost Breakdown

Project	Category	Cost (USD)	
CNG Fueling Station	Base Contract	$	3,866,014.00
	Options	$	96,611.00
Facility Modification	Base Contract	$	727,097.00
Subtotal		**$**	**4,689,722.00**
Alternatives	650kW Generator	$	139,594.00
	Concrete Paving	$	9,702.00
Grand Total		**$**	**4,839,018.00**

DBE Analysis

Grand Total DBE	$	1,029,129.00
DBE as Percent		**21.27%**

City of Gardena

Gardena City Council Meeting

AGENDA REPORT SUMMARY

Agenda Item No. 17.B
Section: DEPARTMENTAL ITEMS - TRANSPORTATION
Meeting Date: April 13, 2021

TO: THE HONORABLE MAYOR AND MEMBERS OF THE GARDENA CITY COUNCIL

AGENDA TITLE: RATIFY ADMINISTRATIVE APPROVAL OF PURCHASE OF PROTECTIVE DRIVER BARRIERS FROM POWER MANUFACTURING INC. IN THE AMOUNT OF $62,869.88

COUNCIL ACTION REQUIRED:

Staff Recommendation: Ratify Administrative Approval of the Purchase

RECOMMENDATION AND STAFF SUMMARY:

Throughout the COVID-19 pandemic, GTrans has continued to provide critical transit service for its customers, recognizing that this service is a lifeline for essential employees and essential trips. In order to help prevent the spread of the virus on buses, protect customers, bus operators and other staff, GTrans quickly implemented a number of important protocols including:

- Requiring the use of masks onboard the bus (and providing them to customers who don't have one)
- Cordoning off seats to encourage social distancing
- Providing additional cleaning of high-touch points
- Beginning the regular use of decontamination foggers of the buses and GTrans facilities
- Installing protective plastic curtain barriers between the driver and customers areas on the bus
- Providing bus operators with face masks, sanitizer and gloves

In addition to this, since March of 2020, GTrans suspended enforcement of fare collection so that all boarding could take place at the rear of the bus, minimizing the direct contact between bus operators and the public. Customers with disabilities or those needing access to the ramp are still able to board at the front. The suspension had and continues to have significant fiscal impact on GTrans, as it has now been a year without this critical revenue source.

In order to resume enforcement of fare collection while still continuing social distancing and other protective measures for employees and customers, GTrans will install polycarbonate driver barriers on its current fleet of buses. The barrier will be installed like a door that will hinge on the pole in the driver seat area. The door will have split levels: the lower one is opaque black, and the upper one is a clear, transparent polycarbonate material designed to allow the bus operator to maintain a clear view of the boarding passengers and their

surroundings. Once installed, GTrans plans to resume enforcement of fare collection sometime in May 2021.

GTrans evaluated a number of barriers from different vendors over the past several months. Specifically GTrans was seeking good visibility, ease of maintenance, quality and strength of build, and sufficient physical coverage. GTrans also sought input from bus operators and maintenance staff, some of whom were able to test samples installed on several buses in the yard. GTrans staff selected Power Manufacturing Inc., which can meet GTrans' specifications and accelerated timeline. Power Manufacturing specializes in aftermarket solutions and offers parts for New Flyer buses, which make up majority of GTrans' fleet. This firm has also recently installed similar barriers for other transit agencies, such as LADOT, Pasadena Transit, Gold Coast Transit and San Francisco Muni.

An important consideration is that GTrans is in the midst of a complete fleet replacement during the next three years, and these installed barriers would no longer be needed once a bus was decommissioned. With that in mind, GTrans felt it was most economical to purchase durable but less expensive barriers now to use on this outgoing fleet of 52 gasoline hybrid electric buses during the next three years. This will allow GTrans to immediately resume enforcement of fare collection. Staff will continue to seek a more permanent barrier solution for its future new buses, including its 18 CNG buses recently deployed into service. For these and for future new buses, GTrans will evaluate a longer-term solution that would provide both protection from virus transmission and a greater level of physical protection for bus operators. In the meantime GTrans will use these current barriers temporarily on the 18 CNG buses so that they can continue in revenue service until a permanent barrier is selected. For GTrans' 52 buses, the barriers cost $900 each, with an additional $175 per bus for installation at a prevailing wage. GTrans also purchased temporary installation kits which will allow these barriers to retrofit on the 18 new CNG buses until the permanent ones are selected.

GTrans requested emergency approval of this purchase by the City Manager in order to ensure these protective barriers could be manufactured and installed as soon as possible. Therefore it is recommended that Council ratify administrative approval of the purchase of protective driver barriers from Power Manufacturing Inc. in the amount of $62,869.88, which includes installation and sales tax.

FINANCIAL IMPACT/COST:

GTrans has eligible local capital funding set aside for the purchase of these bus barriers. There is no impact to the General Fund.

ATTACHMENTS:

Power Manufacturing Quote for Driver Barriers.pdf
Photographs of Driver Protective Barriers.pdf

APPROVED:



_____

Clint Osorio, City Manager

Power Manufacturing Inc

53087 Faith Ave
Elkhart, IN 46514-8712

Estimate

Date	Estimate #
3/11/2021	69

Name / Address	Ship To
Gardena Transit 13999 S. Western Ave Gardena, CA. 90249	Gardena Transit 13999 S. Western Ave Gardena, CA. 90249

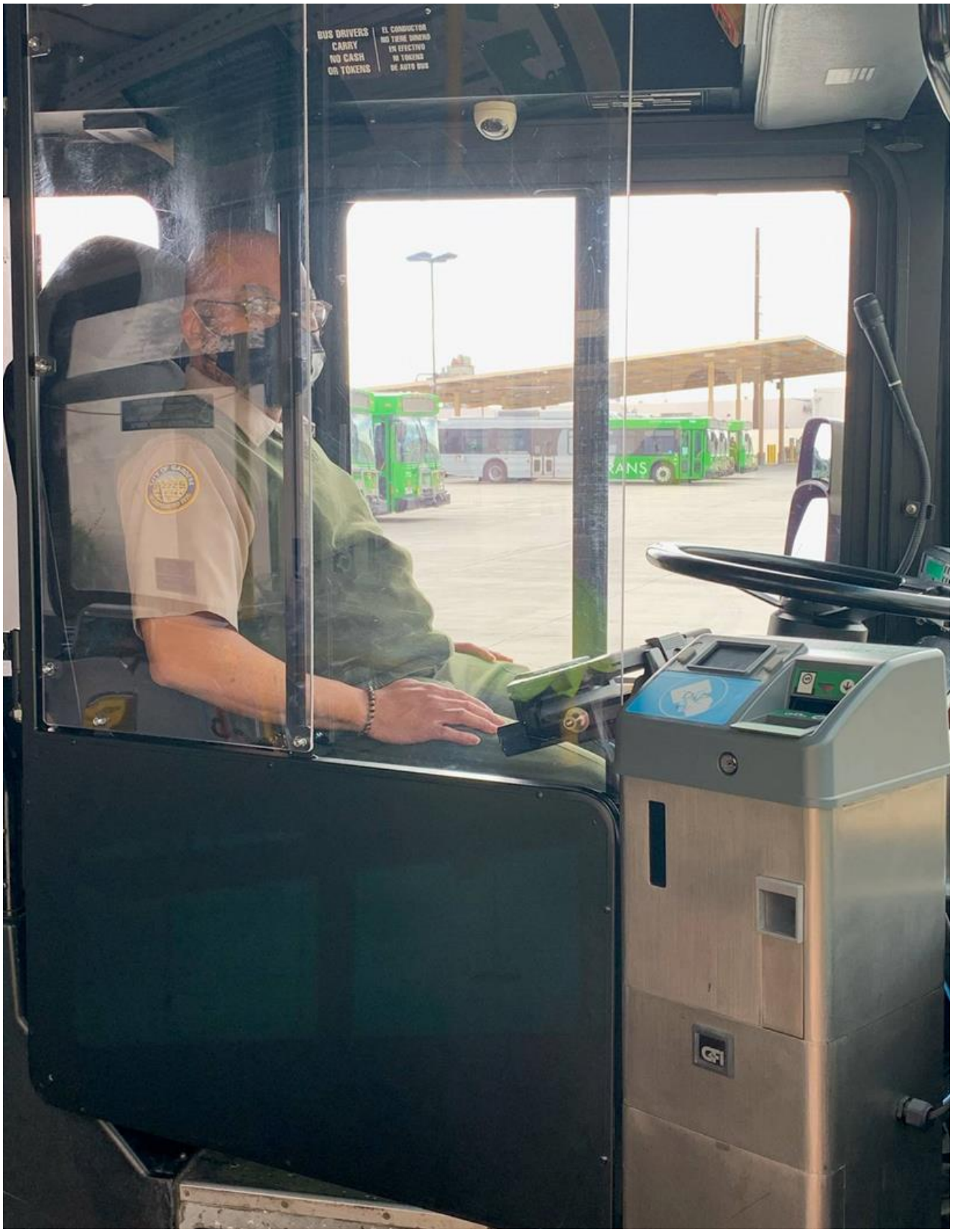
Terms	Project	Unit #/ Program
Net 30		

Item	Description	Qty	U/M	Rate	Total
MISC	New Flyer Drivers Barriers	52		900.00	46,800.00T
INSTALL	CHARGE FOR INSTALLATION	52		150.00	7,800.00
	**We are using a third party company to perform the installation of the above referenced barriers. We are paying this company a prevailing wage, higher then the average California rate. We are paying the company $125.00 per door.				
MISC	Temporary install kit	18		175.00	3,150.00T

Signature _____

Subtotal	$57,750.00
Sales Tax (10.25%)	$5,119.88
Total	$62,869.88


BUS DRIVERS
CARRY
NO CASH
OR TOKENS
WATCH YOUR STEP
Tiene cuidado con el escalon


BUS DRIVERS
CARRY
NO CASH
OR TOKENS
EL CONDUCTOR
NO TIENE DINERO
EN EFECTIVO
NI TOKENS
DE AUTO BUS