



TOWN OF GRAY
PLANNING BOARD
AGENDA • FEBRUARY 10, 2022

**Planning Board
Regular Meeting**

Online via Zoom videoconferencing
<https://us06web.zoom.us/j/85833119076>

7:00 PM

I. MEETING COMMENCES

- Roll Call
- Elevate alternate member into voting role

II. MINUTES APPROVAL

- a. Planning Board Minutes: Regular Meeting of January 13, 2022

III. INFORMATION EXCHANGE

- a. Community Development Block Grant application
- b. Contract Zone Application update
- c. Cambell Shores/Jenny Drive subdivision staff site visit

IV. NEW BUSINESS

V. PUBLIC HEARINGS

- a. Self-storage use zoning ordinance amendments
- b. Self-storage use 180-day moratorium
- c. Avesta Housing 27-unit senior housing development

A request by Avesta Housing Development Corporation, Avesta Meadowview II LP and Gray Senior Housing, Inc., represented by Nathaniel Howes of Avesta Housing and John Mahoney of Ransom Surveying, for site plan, conditional use and subdivision review of a proposed multi-family 27-unit senior housing development located near 16 Hancock Street, Tax Map 43, lot 405-39, in the Village Center Zoning District, owned by Gray Senior Housing, Inc. This application is subject to site plan, conditional use and subdivision review as well as multi-family housing standards and village design standards.

VI. ADJOURNMENT

** The Town of Gray is an equal opportunity employer and complies with all applicable equal access to public accommodations law. If you are planning to attend a Town Council or Town committee or board meeting and need assistance with a physical disability, please contact the Town Manager's office at least 48 hours in advance of the meeting to have the Town assist you. 657-3339. TTY 657-3931.*

Town of Gray Planning Board
Regular Meeting of January 13, 2022, 7 p.m.
Conducted virtually via Zoom videoconferencing

I. MEETING COMMENCED AT 7 p.m.

This meeting took place virtually.

a. Roll Call

Dan Cobb, Planning Board chair- Present
Tamara Lee Pinard, Planning Board member - Present
Kiersten Scarpati, Planning Board member—Absent, unexcused
Andrew Watson, Planning Board alternate—Absent, excused
Manny Archibald, Planning Board alternate – Present

Doug Webster, Community Development Director- Present
Kristen Muszynski, Community Planner – Present
Dan Maguire, Council liaison -- Present

b. Election of chair and vice-chair

Tamara Lee Pinard nominated Dan Cobb as chair, second by Manny Archibald. Unanimously approved.

Motion to appoint Dan Cobb as chairperson of the board for 2022.

RESULT:
MOVER:
SECONDER:
AYES:

APPROVED [UNANIMOUS]
Tamara Lee Pinard, Board Member
Manny Archibald, Board Member
Pinard, Archibald, Cobb

Manny questioned if Tamara would be open to being nominated as vice chairperson. She expressed reservations given her short time on the board. Election of a vice chairperson was tabled for consideration at the March 10, 2022 meeting.

c. Elevate an alternate member into the vacant full member seat.

Motion to appoint Manny Archibald as a voting member for this Jan. 13, 2022 meeting.

RESULT:
MOVER:
SECONDER:
AYES:

APPROVED [UNANIMOUS]
Tamara Lee Pinard, Board Member
Dan Cobb, Board Member
Pinard, Cobb, Archibald

II. MINUTES APPROVAL

a. Approve the Planning Board meeting minutes of Nov. 18, 2021.

Motion to approve the Planning Board meeting minutes of Nov. 18, 2021, as written.

RESULT:
MOVER:
SECONDER:
AYES:

APPROVED [UNANIMOUS]
Tamara Lee Pinard, Board Member
Manny Archibald, Board Member
Pinard, Cobb, Archibald

III. INFORMATION EXCHANGE

a. Circle K conditions of approval follow-up

Kristen Muszynski explained the outstanding conditions of approval, as outlined in the memo, and asked the board's input regarding the approach of adding landscaping elements rather than requiring the business to tear up the existing landscaping and add the berm. The board agreed that addition of plantings that will be 4' at maturity in that area of the berm would achieve the goal of blocking headlights from the site onto N. Raymond Road.

b. Bruns Bros.: Change of alignment of building expansion

Kristen explained the request from Bruns Bros. to change the alignment of the building expansion that was approved by the board in October 2021, to abut the existing building rather than extend perpendicularly from it. No other changes were proposed. The board agreed that the change was minimal and within the parameters of the original approval.

c. Self-storage ordinance: town council discussion

Kristen updated the board on the council's workshop of January 5, at which they agreed to consider changes to the zoning ordinance that would allow multiple-building storage facilities and discussed a potential moratorium on additional self-storage development proposals. She noted that the council's position at that meeting was to allow the two current proposals that have already been before the board to continue to progress.

Dan stated that he is in favor of the council pursuing changes to the zoning ordinance so that these two applicants can continue to pursue their efforts but is not in favor of any additional changes that would hold up their projects.

Dan Maguire noted that the council shares that sentiment, to avoid any impediments for those applicants, and that the moratorium is a separate discussion.

Doug Webster advised that the staff is moving ahead with presenting the zoning ordinance changes and the moratorium language for council consideration, with a first reading before the council at its Feb. 1, 2022 meeting.

d. ISM (turnpike bypass) solar project fencing poles

Kristen advised that ISM solar had reached out about changing to metal fence poles but had apparently not waited on a reply and has installed the wooden posts as outlined in the approved site plan. She asked for board input should future requests arise regarding the fencing.

Dan said he is opposed to metal posts, as the agricultural/rural aesthetics were a key component of the approval. Manny and Tamara agreed.

Dan added that he would have liked to see additional buffering around the site and suggested that future approvals should include strong buffering requirements.

e. Garrison Woods subdivision lot combination: plan to sign

Kristen advised that all Planning Board members who approved the subdivision plan have signed it, with the exception of Kiersten Scarpati. She will reach out to Kiersten to get it signed so the applicant can meet the statutory filing deadline with the Cumberland County Registry of Deeds.

Dan noted that the council will be hosting a workshop with the Gray Water District and the fire department to discuss cisterns and hydrant coverage, with a potential proposed change to the subdivision ordinance, and invited PB members to attend. Date TBD.

He also noted the Maine Municipal Association PB training on February 10. Doug and Kristen advised that it conflicts with the PB meeting. Tamara and Dan advised that they have already attended. Manny expressed interest and advised that he may consider attending the training and exiting before the final half hour, to participate in the PB meeting as well, or wait for another training opportunity.

IV. NEW BUSINESS

a. Sketch Plan Review/ Pre-application Conference

Scott Liberty, dba as Odessa Properties LLC, represented by JP Connolly of DM ROMA Consulting Engineers, is seeking Planning Board input for a proposal to create two lots on his property at 100 and 104 Lewiston Road, in the Commercial Zoning District. One lot is proposed for commercial development of self-storage units, while a second would be for a single-family residential use. The 4.35-acre parcel was divided into two lots in 2020, located at Map 28, Lots 26-2 and 26-2-1. This proposal is subject to minor subdivision review and site plan amendment review.

JP Connolly, representing Odessa LLC, gave an overview of the site and the project, with Google Earth images. He noted that they will be looking to move the stormwater infrastructure, create paving around the self-storage units and include a densely planted buffer along the road, of 29-33'. Little clearing will be required, he said, and he would pursue improved architectural standards for the buildings, such as a rough wood look or brick wainscoting.

Dan Cobb inquired about the other plan that they had submitted. JP explained that was a climate-controlled option and they will be pursuing the traditional multi-building proposal.

Dan Cobb suggested that the buildings could be shortened to increase the roadside buffer. JP said that would be possible, but not ideal for them, as he is already losing space for drainage and turning radius.

Dan Cobb advised that buffering between the lots will be advisable, and JP noted that they do want to keep vehicular access between the lots for overflow parking in anticipation of different uses at the existing building. Doug suggested that a fence/plantings along 1/2 or 1/3 of the building abutting the existing built lot could accomplish this goal.

JP noted that they would prefer to use plantings rather than fencing for buffering.

Tamara and Manny did not have comment, as they noted their questions were around buffering and had been addressed.

JP also noted that they are near their max impervious on the lots.

Dan Cobb inquired about signage and JP advised that a 3'x4', possibly unlighted, is being considered and any sign would conform to the ordinance.

The board agreed that a site walk would be appropriate when the council action on the self-storage ordinance changes is settled and a formal application is submitted, ideally before spring, and JP advised that he could mark out the edges of the proposed buildings and lot lines.

JP advised that they are pursuing DEP approvals and will be preparing the final plan within a few weeks.

V. PUBLIC HEARINGS

a. Cambell Shores/ Jenny Drive Subdivision Amendment

A request by Kristin Stanley, represented by Tom Noonan, for an amendment to an approved subdivision, to divide an existing 12-acre lot at 55 Cambell Shore Road, Tax Map 56, Lot 017-028-000 in the Cambell Acres/Cambell Shore Road/Jenny Drive subdivision, into three lots. The parcel is located in the Rural Residential & Agriculture Zoning District. The proposal is subject to minor subdivision plan review.

Tom Noonan, representing the applicant, gave an overview of the proposal, advising that the applicant plans to build on one lot and sell the other, with access on Jenny Drive. He shared the topographical map of the site, noting concerns about siting a shared driveway along the property line of the two lots on Jenny Drive due to the grades.

Kristen advised that there are many missing submittals for the application, including proposed location of driveways and Doug noted that Public Works input on the driveway locations will be necessary before the board makes any recommendations.

Dan noted that he may be more comfortable with two driveways if the lot remains large and questioned if the plan could include a provision against further division of the lot.

Tom agreed that is the plan, to keep the lot intact.

Doug noted the letter from abutter Rick Licht, submitted that morning for the public hearing and sent to PB members via email. The board did not discuss the letter, as Manny Archibald and the applicant had not yet seen it, but Tamara said she appreciated the input.

Dan Cobb advised the applicant that he should submit a list of requested waivers, with justification for each request, along with his full list of submittals for the boards review.

Manny Archibald noted that the board will need a more complete application before making decisions and Dan advised that they could likely conduct a site walk to review the driveway entrances at that point.

The public hearing was opened at 8:36 p.m. to take public comment and closed at 8:37 p.m. upon hearing none.

Dan Cobb advised the applicant to connect with Kristen to review the list of submittals and potential waivers.

Tamara Lee Pinard made a motion to table the application, seconded by Manny Archibald, unanimous vote.

Motion to table the application at 8:38 p.m.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Tamara Lee Pinard, Board Member
SECONDER:	Manny Archibald, Board Member
AYES:	Pinard, Archibald, Cobb

VI. ADJOURNMENT

Motion to adjourn at 8:39 p.m.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Tamara Lee Pinard, Board Member
SECONDER:	Manny Archibald, Board Member
AYES:	Pinard, Archibald, Cobb

MEMO

January 20, 2022

FROM: Community Development Staff

TO: Town Council

CC: Town Manager Nate Rudy

RE: Self-storage ordinance changes

In response to the council's input at the Town Council workshop of January 5, 2022 with regard to providing clarity to two applicants with self-storage proposals before the Planning Board, we are providing the council with the following motions to change the Zoning Ordinance.

These changes would:

- Allow multiple buildings in the definition of a self-storage facility (402.2.2)
- Explicitly exempt self-storage facilities from the single principal building requirement in our zoning ordinance (402.6.2)
- Prohibit outdoor storage within the self-storage use definition
- Require that all self-storage developments adhere to use-specific performance standards, (which will include design elements, screening and buffering)
- Prohibit marijuana-related uses in self-storage developments
- Correctly reference "multi-family housing," as the "cluster housing" terminology is no longer used in the zoning ordinance

DRAFT MOTIONS:

1. Move to amend the definition of "Self-Storage Facility" in the Town of Gray Zoning Ordinance Chapter 402.2.2 to read as follows:

"One or more structures containing separate storage spaces of varying size, leased or rented on an individual basis. Self-storage facilities made up of multiple buildings are limited to a maximum width of 50 feet and a height of 25 feet for each structure. Outdoor storage is prohibited. All self-storage uses are subject to performance standards. Self-storage shall not include any principal or accessory uses related to medical marijuana cultivation facilities, medical marijuana registered dispensaries, adult use marijuana establishments, marijuana food establishments, marijuana extraction, or the manufacturing of marijuana concentrate or marijuana products as defined herein, unless expressly authorized herein."

2. Move to amend the Town of Gray Zoning Ordinance Chapter 402.6.2.G.1, to allow multiple principal structures for a self-storage facility use, to read as follows:

G. Only One Principal Building per Lot

1. No more than one (1) principal structure and its accessory buildings as regulated in this Ordinance may be located on any one lot, except in the case of a multi-building Self-Storage Facility, Planned Unit Development and ~~Cluster~~ Multi-Family Housing, unless

all applicable space and dimensional standards are met separately for each principal structure or use on the lot, subject to the following: (...)

**TOWN OF GRAY
SELF-STORAGE MORATORIUM ORDINANCE**

THE TOWN OF GRAY hereby adopts a Moratorium in all the Town’s zoning districts for the construction or expansion of self-storage facilities.

Section 1. Definitions

Self-storage means any structure(s) containing separate storage spaces of varying size, leased or rented on an individual basis.

Zoning districts means the areas of town as delineated in the Town Zoning Ordinance

Section 2. Moratorium Declared.

WHEREAS, the Town has seen increasing interest in self-storage development in recent months, with two active proposals; and

WHEREAS, the construction of self-storage facilities has expanded significantly in surrounding towns within the past year; and

WHEREAS, self-storage facilities are only allowed as a conditional use in the Business District 1 (BD-1), the Business District 2 (BD-2), the Commercial District (C) and the Business Transitional District 1 (BT-1) and are not allowed in any other zoning district in the Town as either a permitted or a conditional use; and

WHEREAS, thoughtful zoning ordinances and performance standards protect land and property values for current and future Gray residents and businesses; and

WHEREAS, the Town’s current Zoning Ordinance does not contain sufficient standards to effectively provide municipal review and approval of proposals involving self-storage uses and the lack of such standards could result in serious public harm from improperly regulated development and establishment of self-storage uses; and

WHEREAS, the Town needs time to develop and revisit review criteria for self-storage use in the Town; and

WHEREAS, the Town is currently pursuing implementation of the 2020 Comprehensive Plan and Future Land Use plan, which encourages development with small-town rural character; and

WHEREAS, the Town Council first discussed the moratorium at their January 5, 2022 workshop;

NOW, THEREFORE, the Town does hereby ordain that this Ordinance be, and hereby is, enacted, and, in furtherance thereof, the Town does hereby declare a moratorium on proposals involving self-storage uses of any type, in all of the Town’s zoning districts, except as otherwise

established below. The moratorium shall remain in effect for one hundred and eighty (180) days from the date of applicability of this Ordinance, unless extended or modified by the Town Council, for the express purpose of drafting amendments to Town's ordinances to regulate projects involving any self-storage use; and

BE IT FURTHER ORDAINED that this Ordinance shall apply to any new proposals involving any self-storage use after the January 5, 2022 applicability date of this Ordinance, except as otherwise established by this Ordinance; and

BE IT FURTHER ORDAINED, that notwithstanding the provisions of 1 M.R.S.A 302 or any other law to the contrary, this Ordinance, when enacted, shall govern any new development proposal involving self-storage use for which an application for a site plan review, conditional use review, building permit, or any other required land use approval has not been submitted and finally acted on by the Code Enforcement Officer, Planning Board, Board of Appeals or other Town official or administrative board or agency prior to January 5, 2022, the applicability date of this Ordinance, except as otherwise established by this Ordinance; and

BE IT FURTHER ORDAINED, that no person or organization shall start or engage in the construction of a self-storage use or development on or after the January 5, 2022 applicability date of this Ordinance without complying with whatever ordinance amendment or amendments the Town may enact as a result of this moratorium, except as otherwise established by this Ordinance; and

BE IT FURTHER ORDAINED, that during the time this moratorium is in effect, no officer, official, employee, office, administrative board or agency of the Town shall accept, process, approve, deny, or in any other way act upon any application for a site plan review, conditional use review, building permit, or any other required land use approval related to self-storage uses or developments in the Town, including applications for any type of amendment to the Zoning Ordinance to allow such a use, except as otherwise established by this Ordinance; and

BE IT FURTHER ORDAINED, that those provisions of the Town's Zoning Ordinance or other ordinances that are inconsistent or conflicting with the provisions of this Ordinance are hereby repealed to the extent that they are applicable for the duration of the moratorium hereby ordained, and as it may be extended as permitted by law, but not otherwise, except as otherwise established by this Ordinance; and

BE IT FURTHER ORDAINED, that should any section or provision of this Ordinance be declared by any court of competent jurisdiction to be invalid, such a declaration shall not invalidate any other section or provision; and

BE IT FURTHER ORDAINED, that, notwithstanding any language in this Ordinance to the contrary, this moratorium shall not apply to the two (2) self-storage development proposals that have been before the Planning Board or Community Development staff for sketch plan review, Planning Board workshop and/or pre-application conference prior to January 5, 2022 in order to protect the investments made to date on these proposals, and these two proposals may continue to proceed under the provisions of the existing Zoning Ordinance.

Section 3. Violations; Civil Penalties

If the construction of or establishment of any self-storage use, facility or development is established in violation of this Ordinance, each day of any continuing violation shall constitute a separate violation of this Ordinance and the Town shall be entitled to all rights available to it in law and equity, including, but not limited to, fines and penalties in accordance with 30-A M.R.S.A. 4452, injunctive relief, and its reasonable attorney's fees and costs in prosecuting any such violations.

Section 4. Effective Date; Applicability Date

This Ordinance shall take effect thirty (30) days after passage by the Town Council. The applicability date of this Ordinance is January 5, 2022.

From: [Nancy](#)
To: [Kristen Muszynski](#)
Subject: Avesta (Meadowview2)
Date: Thursday, January 20, 2022 11:25:33 AM

Good morning Mr Cobb,

I Am a concerned resident of Meadowview, I reside in building 3 apt 17. I am concerned about the size of the new project and the 27 apartments. This could be 27 cars or it could be 40 cars more coming and going. They have only allowed for about 10 parking spaces at the new building and will have the rest park in our spaces. Many older people can't walk that far.

I really don't want the entrance or exit in my front yard, the best road would be behind building 3, especially for emergency personnel, they have large equipment and hard to turn around at the end of our driveway.

My opinion is that this project is way too big for this area, Gray is a quaint little town and I think it should stay that way. Thank you for listening

Nancy A King

Sent from my iPad

This electronic mail message and any attachments hereto, as well as any electronic mail message(s) that may be sent in response to it, may be considered public records, and may therefore be subject to public record requests for review and copying under Maine's Right to Know Law (Title 1, 401-521 of the Maine Revised Statutes).

Nancy Mason
16 Hancock Street #10
Gray, Maine 04039

May 10, 2021

Town of Gray Planning Board
24 Main Street
Gray, Maine 04039

We are residents of Meadowview and we'd like to voice our concerns about the Avesta plans of turning our small parking area (with two 90° turns) into a roadway.

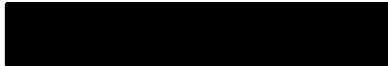
At this time we have 15 resident cars. Most come and go several times a day. Extra traffic throughout the week includes home health care, visitors, mail/package delivery, and sightseers. We would expect these numbers to at least double with the proposed new building.

It's very obvious our parking lot was never intended to be a thruway. There is not enough area to have two vehicles pass safely, especially with cars backing out of their parking spaces.

In an average week, we have 5 or more delivery trucks. Often these trucks park in the middle of the lot to deliver packages. Our fire/rescue vehicles also park in the middle of the lot for ease of handling emergency calls.

Many of our residents use canes and walkers and often walk across the lot to visit neighbors. Two way traffic through this area would be a huge safety concern for the seniors living here and would greatly impact our quality of living. It would turn our beautiful rural setting into a very unpleasant setting.

Sincerely,



Nov 29, 2021

Dear Planning Board,

My name is Santa McDowell. I just moved into the meadowview on Jan 23, 2021

moving from Portland (Woolfords corner), I was impressed by the location, serenity and privacy of the meadowview coming from such a busy section of the city.

I had a stroke, COPD, HTN, diabetes, anxiety and depression. I had a fall in 2016 and broke my Rt leg and Rt shoulder. I am disabled and have trouble with my speech. My goal is to be as independent as possible for the rest of my life.

I live in Apt 15, the last apartment on the right. It is my understanding that Avesta has plans to put an exit road to the new building about 100-150 feet from my bedroom and bathroom, right outside my back door ramp!!! Please don't let them do that. Don't let them take my privacy from me! Right now there is trees, birdhouses and a clothesline.

Avesta also wants to build a 27 apartment high rise 100-160 feet from me to the right of my apartment (#15) to look at instead of the meadow that I have right now. Avesta wants to allow people age 52+ to move in (section 8). I don't like to profile but It IS WHAT IT IS! Really!

IN closing, I would like to point out that Avesta does not have an entrance or exit into this property. So they

decided to build a road right, straight through our parking lot. They don't even have enough land to allow parking for all of the new residents. AND SO, Avesta is going to redesign our parking lot to accommodate the new building and leave ^{us} fighting for our parking spaces which right now is right outside our doors?

Furthermore I will have to cross a road to bring my trash to the dumpster and to do my Laundry. It will increase traffic by 100% (0% now) and we will have to turn into the road to get our cars out from our parking spaces.

It is my opinion that there is not enough land to build this project. I hope you agree with me. DON'T let Avesta take our independence and our privacy! Please look at the pros and cons that I have presented for you before you make a decisions.

Thank you very much



From: [CYNDIE ROGERS](#)
To: [Kristen Muszynski](#)
Subject: Avesta meeting 11/18/21
Date: Monday, January 17, 2022 10:20:51 PM

Dear Dan Cobb, Avesta and Board Members,

As a resident of Meadowview I just had to write after seeing November 18, 2021 meeting. Dan Cobb you hit the nail on the head stating the proposed Avesta building is too large for our development. If Avesta went with a smaller building with less units, I believe all issues would be solved: no parking issues, no road as an exit behind our building.

Nate from Avesta has held meetings with the residents and he said he definitely did not want to put a road behind our building (units 15-20) because it would put these units in an island situation. (Surrounded by roads). I believe he has tried to work with the residents, but what he is proposing now is not what he said to us at the meetings. With this new exit road, have you asked yourself:

- Where do the people coming down Hancock, which is a dead end, turn around? As of now they turn around in what we call the overflow parking lot, where Avesta wants to put that exit road.
- Also this overflow parking lot is where some of our visitors park when visiting. Where are they going to park especially when Avesta is taking away residents parking area and giving them to the new residents?
- Storms in the winter, we now have to move our cars to the overflow parking area so they can plow. Where are we to go when you put an exit road there?

I would like to address a few more issues please.

- There are 20 units here, with only 3 people that walk to nearby stores and they want to do this for exercise. Think about it, how many seniors do you know that walk to buy their supplies?
- There are no buses that provides services to Gray like other Avesta properties as you were led to believe by Avesta. My point being is that if you are senior and rent at Meadowview, you most likely will need a car. For 27 new proposed units there is NOT enough parking places.
- With this proposed exit road, what about speed? It's a straight shot up Hancock. What about the many people that use the hiking trail the town of Gray put in? Accident waiting to happen! With where we exit now, there is a large corner to turn and you can easily see the hiking path and pedestrians.

Dan, can Avesta build a smaller building that would not have to incorporate so many changes?

I do hope you think about my above letter and a logical solution can be reached between Meadowview residents, town of Gray and Avesta.

Thoughtfully,
Cyndie Rogers
Apt 18 Meadowview

Sent from my iPhone

This electronic mail message and any attachments hereto, as well as any electronic mail message(s) that may be sent in response to it, may be considered public records, and may therefore be subject to public record requests for review and copying under Maine's Right to Know Law (Title 1, 401-521 of the Maine Revised Statutes).

To the members of Gray Planning Board,
From written you about the Aveste plans off of
Hancock Rd.

Number one the existing development can't handle
the new traffic. When Fire and Rescue come here
the road is blocked. lately Fire and Rescue have been
here 2 times a week or close to it.

There's hardly any room for the fire truck or trucks
to turn around.

its not a safe thing then anything else
for against it.

[REDACTED] 1117?
Hancock Rd
Gray.

Sorry Pam Ram, out of Tank. one other thing
in the winter when it snows we put the cars at
the bottom of the street so they can move.

What are they going to do the snow if its a
bad winter

Plus the size and looks of the new
building does it really fit in here?

MEADOWVIEW II

16 HANCOCK STREET

GRAY, MAINE

ISSUED FOR PERMITTING

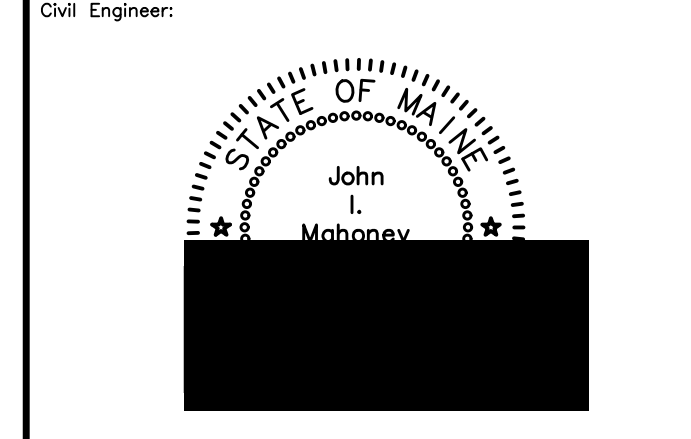


SHEET INDEX:

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	BOUNDARY & TOPOGRAPHIC SURVEY SHEET 2
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C1.1	SUBDIVISION PLAN
C1.2	SITE PLAN
C1.3	GRADING AND DRAINAGE PLAN
C1.4	UTILITY PLAN
C1.5	STORMWATER AND EROSION CONTROL PLAN
C2.1	EROSION AND SEDIMENTATION CONTROL PLAN NOTES AND DETAILS
C2.2	SITE AND UTILITY DETAILS
C2.3	UTILITY DETAILS
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L-1	LANDSCAPE AND LIGHTING PLAN
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Site:
AVESTA GRAY MEADOWVIEW II
16 HANCOCK STREET
GRAY, MAINE

Prepared for:
AVESTA HOUSING
307 CUMBERLAND AVENUE
PORTLAND, MAINE, 04101



JOHN I. MAHONEY, PE #12340
RANSOM CONSULTING, LLC
400 COMMERCIAL STREET, SUITE 404
PORTLAND, ME 04101
207-772-2891

Architect:
JSA DESIGN
273 CORPORATE DRIVE, SUITE 100
PORTSMOUTH, NH, 03801

Structural/Mechanical:
ALLIED ENGINEERING, INC.
160 VERANDA STREET
PORTLAND, MAINE, 04103

Soil Scientist/Site Evaluator:
ALBERT FRICK ASSOCIATES, INC.
380B MAIN STREET
GORHAM, MAINE, 04038

Landscape Architect:
RASOR LANDSCAPE ARCHITECTURE
87 MAIN STREET
YARMOUTH, MAINE, 04096

Surveyor:
OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE, 04105

400 Commercial Street, Suite 404
Portland, ME 04101
Tel. (207) 772-2891
Fax (207) 772-3248
www.ransomenv.com

A	PERMITTING	1/28/22

No.	Revision/Issue	Date
Design by:	DJV	Checked by: MPM
Drawn by:	DJV	Approved by: JIM
Project:	191.06051	Date: DECEMBER 2019

Sheet No:
COVER

OWNER:



AVESTA HOUSING DEVELOPMENT CORPORATION
307 Cumberland Avenue
Portland, ME 04101

ENGINEER:



400 Commercial Street, Suite 404
Portland, ME 04101
Tel. (207) 772-2891
Fax (207) 772-3248
www.ransomenv.com

ARCHITECT:



JSA DESIGN
273 Corporate Drive, Suite 100
Portsmouth, NH 03801

LANDSCAPE ARCHITECT:

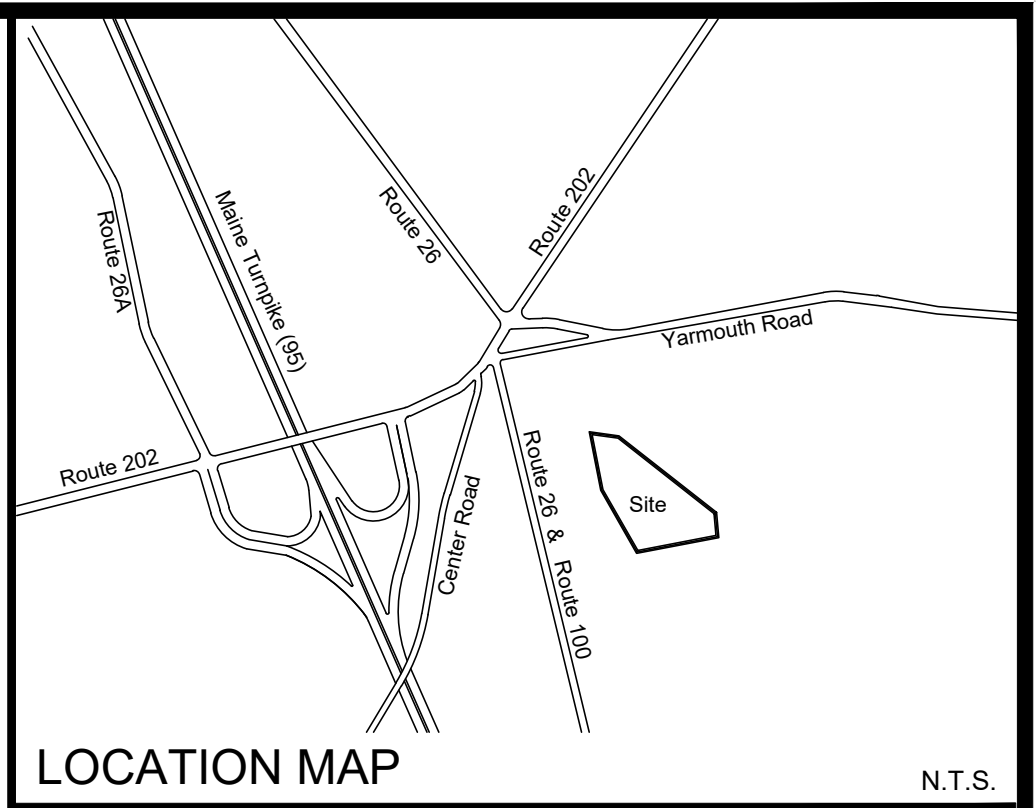
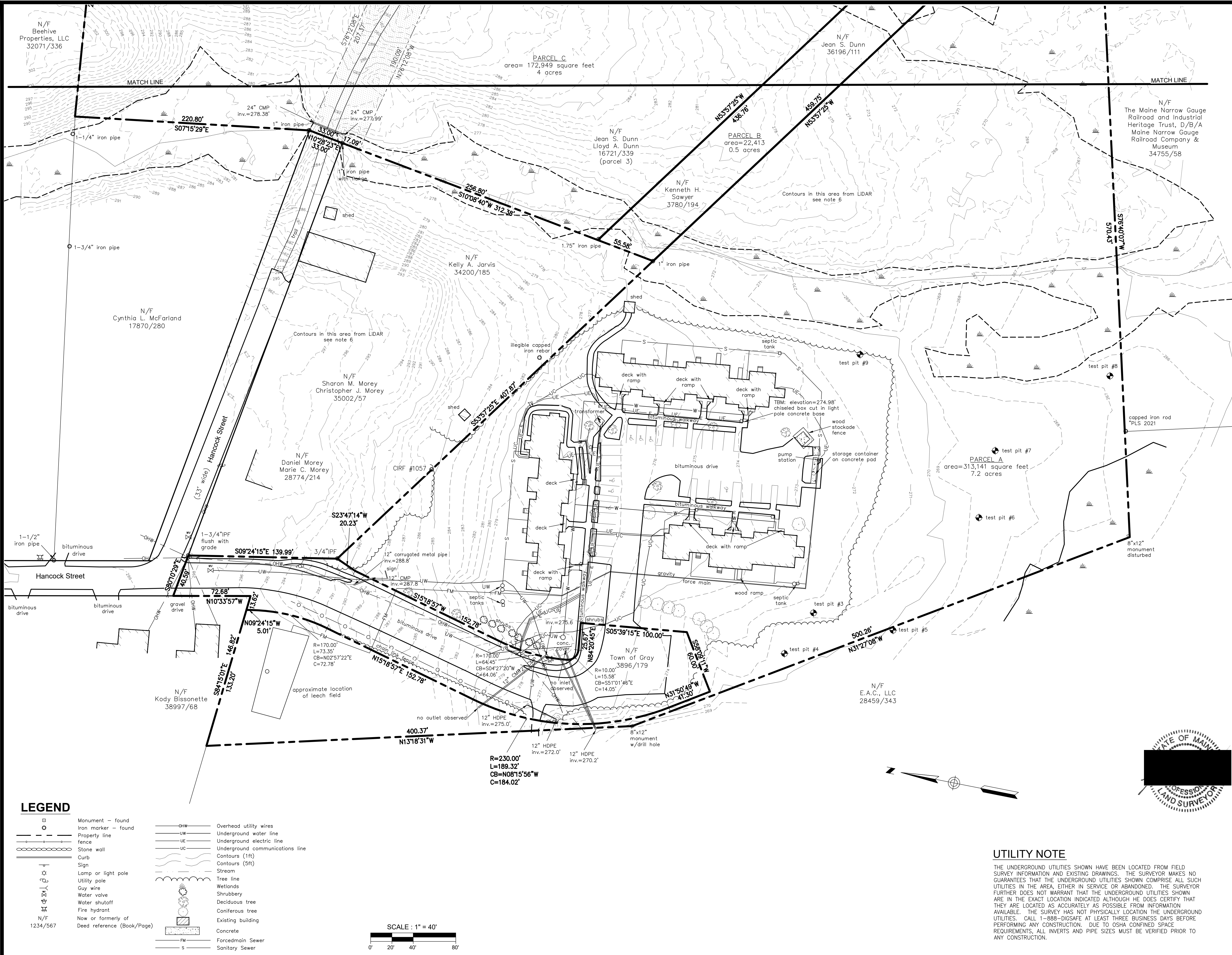


RASOR LANDSCAPE ARCHITECTURE
87 Main Street
Yarmouth, ME 04096

SURVEYOR:



OWEN HASKELL, INC.
390 US Route 1, Unit 10
Falmouth, ME 04105



PLAN REFERENCES

- BOUNDARY RETRACEMENT SURVEY OF THE GRAY MARKETPLACE OF THE PROPERTY LOCATED ALONG STATE ROUTES 26 & 100 GRAY, MAINE FOR DANIEL P. CRAWFEE BY PIONEER SURVEYING & MAPPING SERVICES, DATED FEBRUARY 2009 AND REVISED 11/23/09 & 02/02/2010 AS RECORDED IN PLAN BOOK 211, PAGE 34.
- STANDARD BOUNDARY SURVEY PROPERTY PLAN OF LOT CONFIGURATION 20-24 SKILLINGS STREET-GRAY, MAINE MADE FOR RICHARD & PATRICIA BARTER 22 HANCOCK STREET-GRAY, MAINE 04039 BY JOHN D. PALMITER, PLS 1057 DATED NOVEMBER 12, 2008 AS RECORDED IN PLAN BOOK 209, PAGE 167.
- PLAN OF PROPERTY FOR GRAY HOUSING INC. IN GRAY, MAINE BY JOHN D. PALMITER DATED JULY 1974 AS RECORDED IN PLAN BOOK 110, PAGE 9.
- PLAN OF PROPERTY FOR GRAY PLAZA INC. DATED APRIL, 1974 AND REVISED THROUGH SEPTEMBER 27, 1995 AS RECORDED IN PLAN BOOK 197, PAGE 16.
- SURVEY OF LEROY VERRILL PROPERTY IN GRAY, MAINE BY JOHN D. PALMITER R.L.S. #1057 DATED MARCH 1981 AS RECORDED IN PLAN BOOK 135, PAGE 21.
- BOUNDARY AND TOPOGRAPHIC SURVEY OF MEADOWVIEW, 16 HANCOCK STREET, GRAY, MAINE MADE FOR RANSOM CONSULTING, INC. JULY 19, 2019 BY TITCOMB ASSOCIATES.

GENERAL NOTES

- OWNERS OF RECORD:
 PARCEL A - GRAY SENIOR HOUSING, INC. C.C.R.D. BOOK 3676, PAGE 265 AND BOOK 3605, PAGE 257
 PARCEL B & B1 - JEAN S. DUNN C.C.R.D. BOOK 36196, PAGE 111
 PARCEL C AND C1 - JEAN S. DUNN AND LLOYD A. DUNN C.C.R.D. BOOK 16721, PAGE 339
- BEARINGS ARE REFERENCED TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83.
- ELEVATIONS ARE BASED ON GPS OBSERVATIONS, NAVD88 DATUM. BENCHMARK IS A CHISELED BOX CUT IN SOUTHEASTERN MOST LIGHT POLE CONCRETE BASE, AS DEPICTED ON THIS PLAN. ELEVATION: 274.98'
- UTILITY INFORMATION ON THIS PLAN IS APPROXIMATE, BASED ON LOCATION OF VISIBLE FEATURES. DIGSAFE AND/OR THE APPROPRIATE UTILITIES SHOULD BE CONTACTED PRIOR TO ANY CONSTRUCTION.
- WETLAND DELINEATION BY C.C. DORIAN GEOLOGICAL SERVICES, LLC OF 200 HIGH STREET, SUITE #20 PORTLAND, MAINE 04101.
- CONTOURS IN THIS AREA HAVE BEEN GENERATED WITH MAINE OFFICE OF GIS LIDAR DATA AND HAVE NOT BEEN FIELD VERIFIED.
- SANITARY SEWER LINE LOCATIONS ARE APPROXIMATE BASED ON DESIGN PLANS AND HAVE NOT BEEN FIELD VERIFIED.

EASEMENTS / ENCUMBRANCES

- PROPERTY IS SUBJECT TO A UTILITY EASEMENT CONVEYED TO THE PINE TREE TELEPHONE AND TELEGRAPH CO. BY GRAY PLAZA, INC. RECORDED IN BOOK 3798, PAGE 166.
- PROPERTY IS SUBJECT TO A UTILITY EASEMENT CONVEYED TO CENTRAL MAINE POWER COMPANY, INC. BY GRAY SENIOR HOUSING, INC. RECORDED IN BOOK 3723, PAGE 1.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

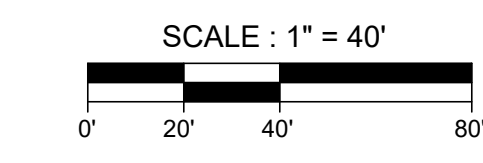
REX J. CROTEAU, PLS #2273
 DATE _____

Boundary & Topographic Survey of Meadowview
 16 Hancock Street, Gray, Maine
 Made for Ransom Consulting, LLC
 400 Commercial St., Ste 404, Portland, Maine

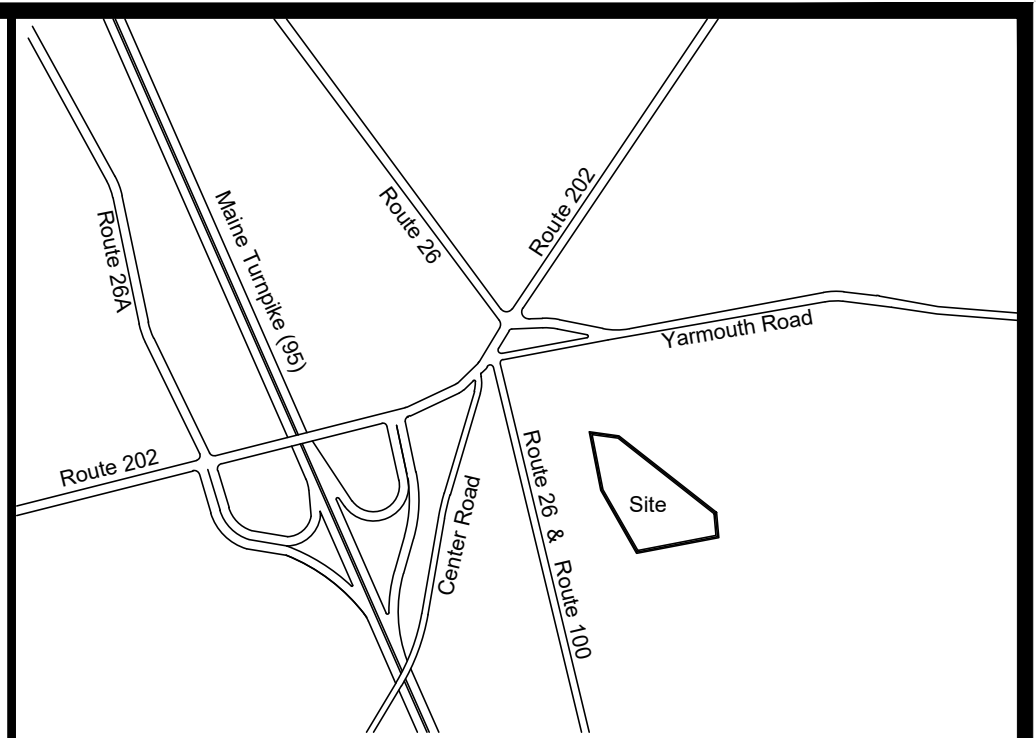
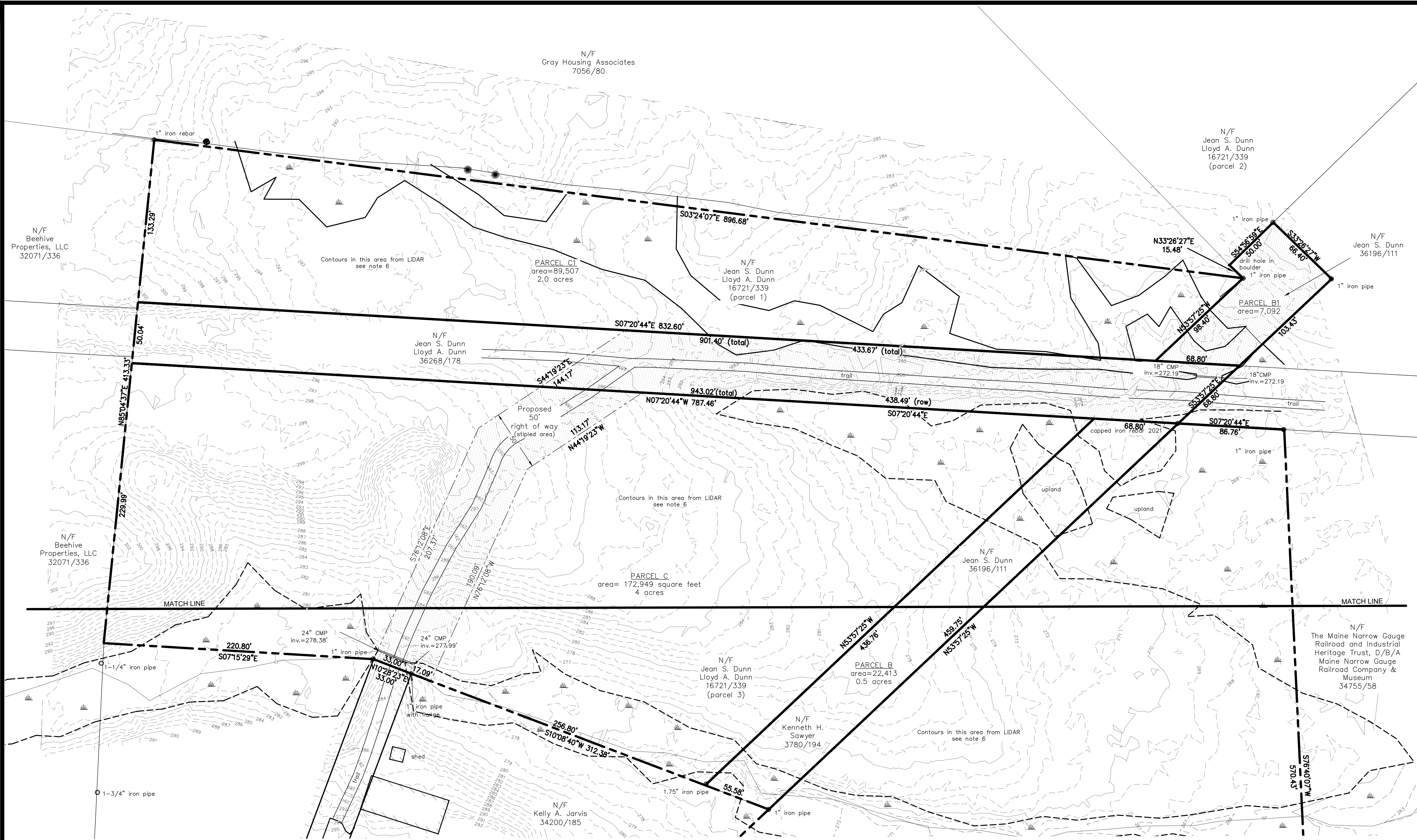
OWEN HASKELL, INC.
 PROFESSIONAL LAND SURVEYORS
 390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424
 DRAWN BY: RJC/JLW DATE: JAN. 12, 2022 JOB NO. 2022-006 GR
 CHECKED BY: RJC SCALE: 1" = 40' DRWG. NO. 1

LEGEND

	Monument - found		Overhead utility wires
	Iron marker - found		Underground water line
	Property line		Underground electric line
	fence		Underground communications line
	Stone wall		Contours (1ft)
	Curb		Contours (5ft)
	Sign		Stream
	Lamp or light pole		Tree line
	Utility pole		Wetlands
	Guy wire		Shrubbery
	Water valve		Deciduous tree
	Water shutoff		Coniferous tree
	Fire hydrant		Existing building
	Now or formerly of		Concrete
	Deed reference (Book/Page)		Forcedmain Sewer
			Sanitary Sewer



UTILITY NOTE
 THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.



LOCATION MAP N.T.S.

PLAN REFERENCES

- BOUNDARY RETRACEMENT SURVEY OF THE GRAY MARKETPLACE OF THE PROPERTY LOCATED ALONG STATE ROUTES 26 & 100 GRAY, MAINE FOR DANIEL P. CRAFFEY BY PIONEER SURVEYING & MAPPING SERVICES, DATED FEBRUARY 2009 AND REVISED 11/23/09 & 02/02/2010 AS RECORDED IN PLAN BOOK 211, PAGE 34.
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GENERAL NOTES

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 C.C.R.D. BOOK 3676, PAGE 265 AND BOOK 3605, PAGE 257
 PARCEL B & B1 - JEAN S. DUNN C.C.R.D. BOOK 36196, PAGE 111
 PARCEL C AND C1 - JEAN S. DUNN AND LLOYD A. DUNN
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- PROPERTY IS SUBJECT TO A UTILITY EASEMENT CONVEYED TO CENTRAL MAINE POWER COMPANY, INC. BY GRAY SENIOR HOUSING, INC. RECORDED IN BOOK 3723, PAGE 1.

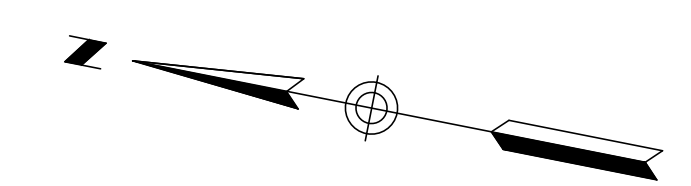
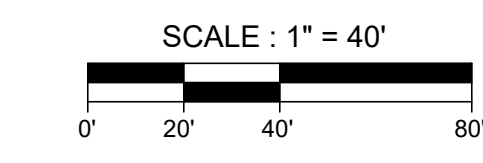
CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

REX J. CROTEAU, PLS #2273
 DATE _____

LEGEND

□	Monument - found	—OHW—	Overhead utility wires
○	Iron marker - found	—UW—	Underground water line
—	Property line	—UE—	Underground electric line
—	fence	—UC—	Underground communications line
—	Stone wall	—	Contours (1ft)
—	Curb	—	Contours (5ft)
—	Sign	—	Stream
—	Lamp or light pole	—	Tree line
—	Utility pole	—	Wetlands
—	Guy wire	—	Shrubbery
—	Water valve	—	Deciduous tree
—	Water shutoff	—	Coniferous tree
—	Fire hydrant	—	Existing building
—	Now or formerly of	—	Concrete
—	Deed reference (Book/Page)	—FM—	Forcedmain Sewer
		—S—	Sanitary Sewer

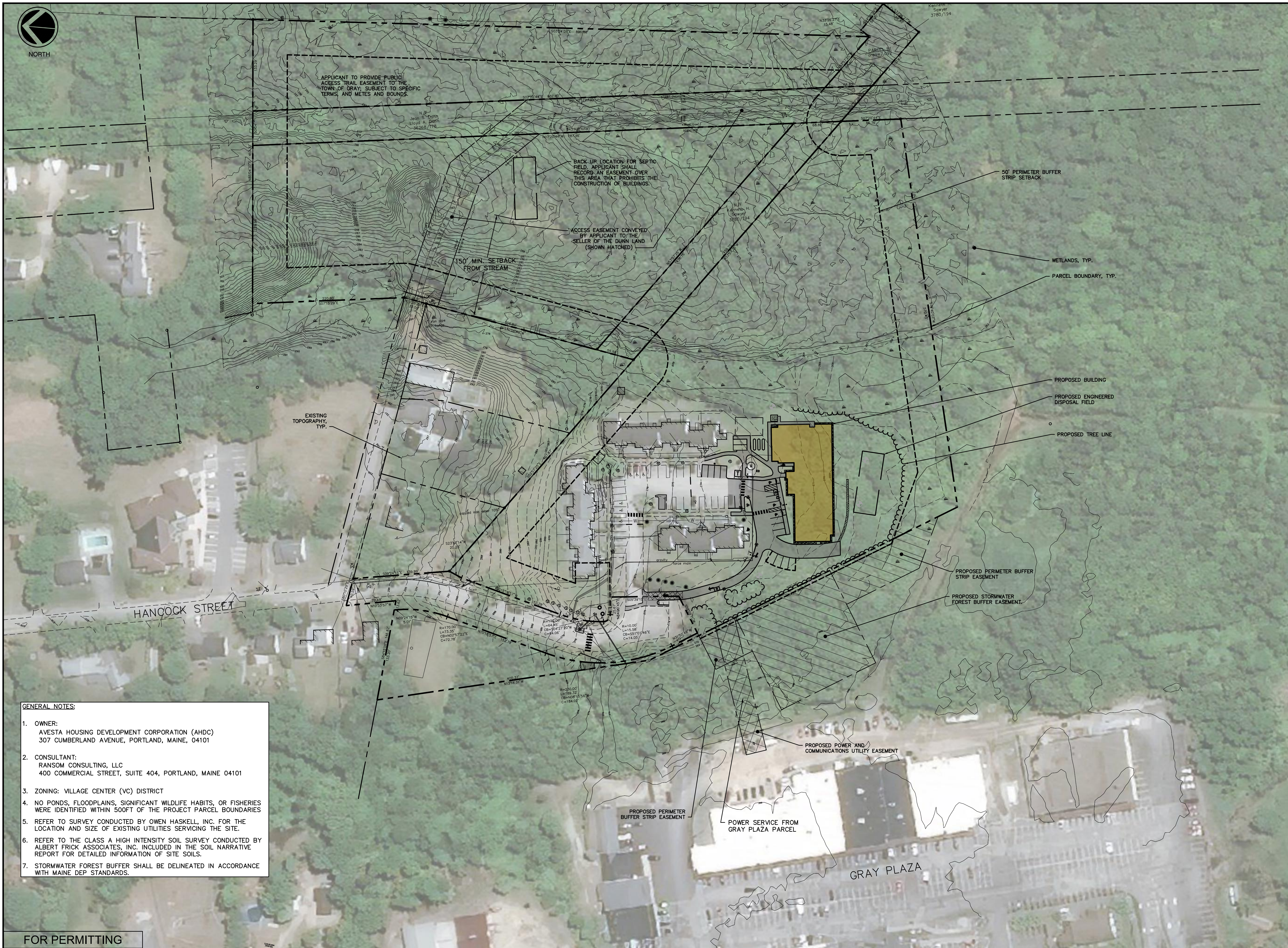


UTILITY NOTE

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Boundary & Topographic Survey
 Of
Meadowview
 16 Hancock Street, Gray, Maine
 Made for
Ransom Consulting, LLC
 400 Commercial St., Ste 404, Portland, Maine

OWEN HASKELL, INC.			
PROFESSIONAL LAND SURVEYORS			
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424			
DRAWN BY: RJC/JLW	DATE: JAN. 12, 2022	JOB NO. 2022-006 GR	
CHECKED BY: RJC	SCALE: 1" = 40'	DRWG. NO. 2	

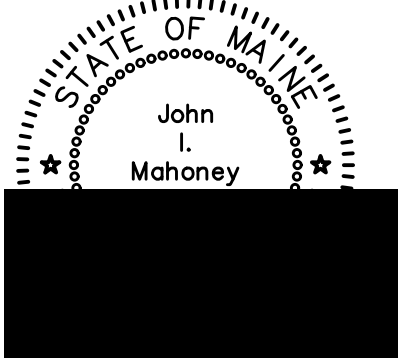


- GENERAL NOTES:**
- OWNER:
AVESTA HOUSING DEVELOPMENT CORPORATION (AHDC)
307 CUMBERLAND AVENUE, PORTLAND, MAINE, 04101
 - CONSULTANT:
RANSOM CONSULTING, LLC
400 COMMERCIAL STREET, SUITE 404, PORTLAND, MAINE 04101
 - ZONING: VILLAGE CENTER (VC) DISTRICT
 - NO PONDS, FLOODPLAINS, SIGNIFICANT WILDLIFE HABITS, OR FISHERIES WERE IDENTIFIED WITHIN 500FT OF THE PROJECT PARCEL BOUNDARIES
 - REFER TO SURVEY CONDUCTED BY OWEN HASKELL, INC. FOR THE LOCATION AND SIZE OF EXISTING UTILITIES SERVICING THE SITE.
 - REFER TO THE CLASS A HIGH INTENSITY SOIL SURVEY CONDUCTED BY ALBERT FRICK ASSOCIATES, INC. INCLUDED IN THE SOIL NARRATIVE REPORT FOR DETAILED INFORMATION OF SITE SOILS.
 - STORMWATER FOREST BUFFER SHALL BE DELINEATED IN ACCORDANCE WITH MAINE DEP STANDARDS.

FOR PERMITTING

AVESTA GRAY MEADOWVIEW II
16 HANCOCK STREET
GRAY, MAINE

Prepared for:
AVESTA HOUSING
307 CUMBERLAND AVENUE
PORTLAND, MAINE, 04101

Civil Engineer:


JOHN I. MAHONEY, PE #12340
RANSOM CONSULTING, LLC
400 COMMERCIAL STREET, SUITE 404
PORTLAND, ME 04101
207-772-2891

Architect:
JSA DESIGN
273 CORPORATE DRIVE, SUITE 100
PORTSMOUTH, NH, 03801

Structural/Mechanical:
ALLIED ENGINEERING, INC.
160 VERANDA STREET
PORTLAND, MAINE, 04103

Soil Scientist/Site Evaluator:
ALBERT FRICK ASSOCIATES, INC.
380B MAIN STREET
GORHAM, MAINE, 04038

Landscape Architect:
RASOR LANDSCAPE ARCHITECTURE
87 MAIN STREET
YARMOUTH, MAINE, 04096

Surveyor:
OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE, 04105

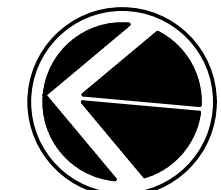
SCALE
0 30 60 120
SCALE in FEET
1"=60'

RANSOM Consulting, LLC.
400 Commercial Street, Suite 404
Portland, ME 04101
Tel. (207) 772-2891
Fax (207) 772-3248
www.ransomenv.com

OVERALL SITE INVENTORY PLAN

A	PERMITTING	1/28/22
No.	Revision/Issue	Date
Design by:	DJV	Checked by: MPM
Drawn by:	DJV	Approved by: JIM
Project:	191.06051	Date: DECEMBER 2019
Sheet No:	C1.0	

C:\Users\jrm0051\Documents\Drawings\191.06051_RANSOM_PlanSet.dwg, Jan 27, 2022, 5:10pm



NORTH

APPLICANT TO PROVIDE PUBLIC ACCESS TRAIL EASEMENT TO THE TOWN OF GRAY, SUBJECT TO SPECIFIC TERMS, AND METES AND BOUNDS.

N/F Beehive Properties, LLC 32071/336

N/F Beehive Properties, LLC 32071/336

N/F Cynthia L. McFarland 17870/280

N/F Kody Bissonette 38997/68

N/F Gray Housing Associates 7056/80

N/F Jean S. Dunn Lloyd A. Dunn 16721/339 (parcel 2)

N/F The Maine Narrow Gauge Railroad and Industrial Heritage Trust, D/B/A Maine Narrow Gauge Railroad Company & Museum 34755/58

N/F Kelly A. Jarvis 34200/185

N/F Sharon M. Morey Christopher J. Morey 35002/57

N/F Daniel Morey Marie C. Morey 28774/214

N/F Town of Gray 3896/179

N/F E.A.C., LLC 28459/343

ACCESS EASEMENT CONVEYED BY APPLICANT TO THE SELLER OF THE DUNN LAND (SHOWN HATCHED)

CONDO UNIT #1 CONSISTS OF THE THREE EXISTING BUILDINGS (20 APARTMENTS TOTAL)

CONDO UNIT #2 CONSISTS OF THE ONE PROPOSED BUILDING (27 APARTMENT UNITS TOTAL)

PUBLIC ACCESS EASEMENT CONVEYED FROM APPLICANT TO TOWN (SHOWN SHADED)

PROPOSED PERIMETER BUFFER STRIP EASEMENT

PROPOSED POWER AND COMMUNICATIONS UTILITY EASEMENT

PROPOSED PERIMETER BUFFER STRIP EASEMENT

PROPOSED STORMWATER FOREST BUFFER EASEMENT

PROPOSED COMMUNITY GARDEN

PROPOSED SHED

PROPOSED GAZEBO

PROPOSED ENGINEERED DISPOSAL FIELD

PROPOSED PARKING AREA

NOTES

- 1) Book and Page references are to the Cumberland County Registry of Deeds unless otherwise noted.
- 2) Bearings are referenced to grid north, Maine State Plane Coordinate System, NAD83, West Zone.
- 3) Utility information on this plan is approximate, based on location of visible features. DigSafe and/or the appropriate utilities should be contacted prior to any construction.

EASEMENTS / ENCUMBRANCES

- 1) Property is subject to a utility easement conveyed to The Pine Tree Telephone and Telegraph Co. by Gray Plaza, Inc. recorded in Book 3798, Page 166.
- 2) Property is subject to a utility easement conveyed to Central Maine Power Company, Inc. by Gray Senior Housing, Inc. recorded in Book 3723, Page 1.

PLAN REFERENCES

- 1) Boundary Retracement Survey of the Gray Marketplace of the property located along State Routes 26 & 100 Gray, Maine for Daniel P. Crafley by Pioneer Surveying & Mapping Services, dated February 2009 and revised 11/23/09 & 02/02/2010 as recorded in Plan Book 211, Page 34.
- 2) Standard Boundary Survey Property Plan of Lot Configuration 20-24 Skilling Street-Gray, Maine Made for Richard & Patricia Barter 22 Hancock Street-Gray, Maine 04039 by John D. Palmiter, PLS 1057 dated November 12, 2008 as recorded in Plan Book 209, Page 167.
- 3) Plan of Property for Gray Housing Inc. in Gray, Maine by John D. Palmiter dated July 1974 as recorded in Plan Book 110, Page 9.
- 4) Plan of Property for Gray Plaza Inc. dated April, 1974 and revised through September 27, 1995 as recorded in Plan Book 197, Page 16.
- 5) Survey of Leroy Verrill Property in Gray, Maine by John D. Palmiter R.L.S. #1057 dated March 1981 as recorded in Plan Book 135, Page 21.
- 6) Boundary and Topographic Survey made for Ransom Consulting, Inc. by Owen Haskell, Inc. dated January 12, 2022.

OWNERS OF RECORD

- Gray Senior Housing, Inc: Book 3676, Page 265 and Book 3605, Page 257
- Kenneth H. Sawyer Book 3780, Page 194
- Jean S. Dunn and Lloyd A. Dunn Book 16721, Page 339 and Book 36268, Page 178

LEGEND

- Monument - found
- Iron marker - found
- Property line (locus)
- Property line (abutter)
- Right of way line
- Easement line
- fence
- Stone wall
- Edge of pavement
- Edge of gravel
- Curb
- Sign
- Lamp or light pole
- Utility pole
- Guy wire
- Water valve
- Water shutoff
- Fire hydrant
- Overhead utility line
- Now or formerly of Dead reference (Book/Page)
- Tree line
- Shrubby
- Deciduous tree
- Coniferous tree
- Existing building
- Concrete

AVESTA GRAY MEADOWVIEW II

16 HANCOCK STREET GRAY, MAINE

Prepared for:

AVESTA HOUSING 307 CUMBERLAND AVENUE PORTLAND, MAINE, 04101

Architect:

JSA DESIGN 273 CORPORATE DRIVE, SUITE 100 PORTSMOUTH, NH, 03801

Structural/Mechanical:

ALLIED ENGINEERING, INC. 160 VERANDA STREET PORTLAND, MAINE, 04103

Soil Scientist/Site Evaluator:

ALBERT FRICK ASSOCIATES, INC. 380B MAIN STREET GORHAM, MAINE, 04038

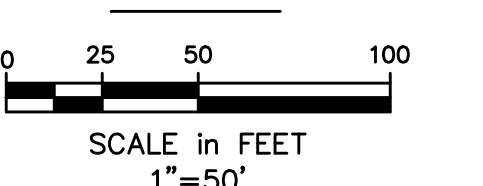
Landscape Architect:

RASOR LANDSCAPE ARCHITECTURE 87 MAIN STREET YARMOUTH, MAINE, 04096

Surveyor:

OWEN HASKELL, INC. 390 US ROUTE 1, UNIT 10 FALMOUTH, MAINE, 04105

SCALE



400 Commercial Street, Suite 404 Portland, ME 04101 Tel. (207) 772-2891 Fax (207) 772-3218 www.ransominc.com

SUBDIVISION PLAN

A	PERMITTING	1/26/22
No.	Revision/Issue	Date

Design by:	DJV	Checked by:	MPM
Drawn by:	DJV	Approved by:	JIM
Project:	191.06051	Date:	DECEMBER 2019

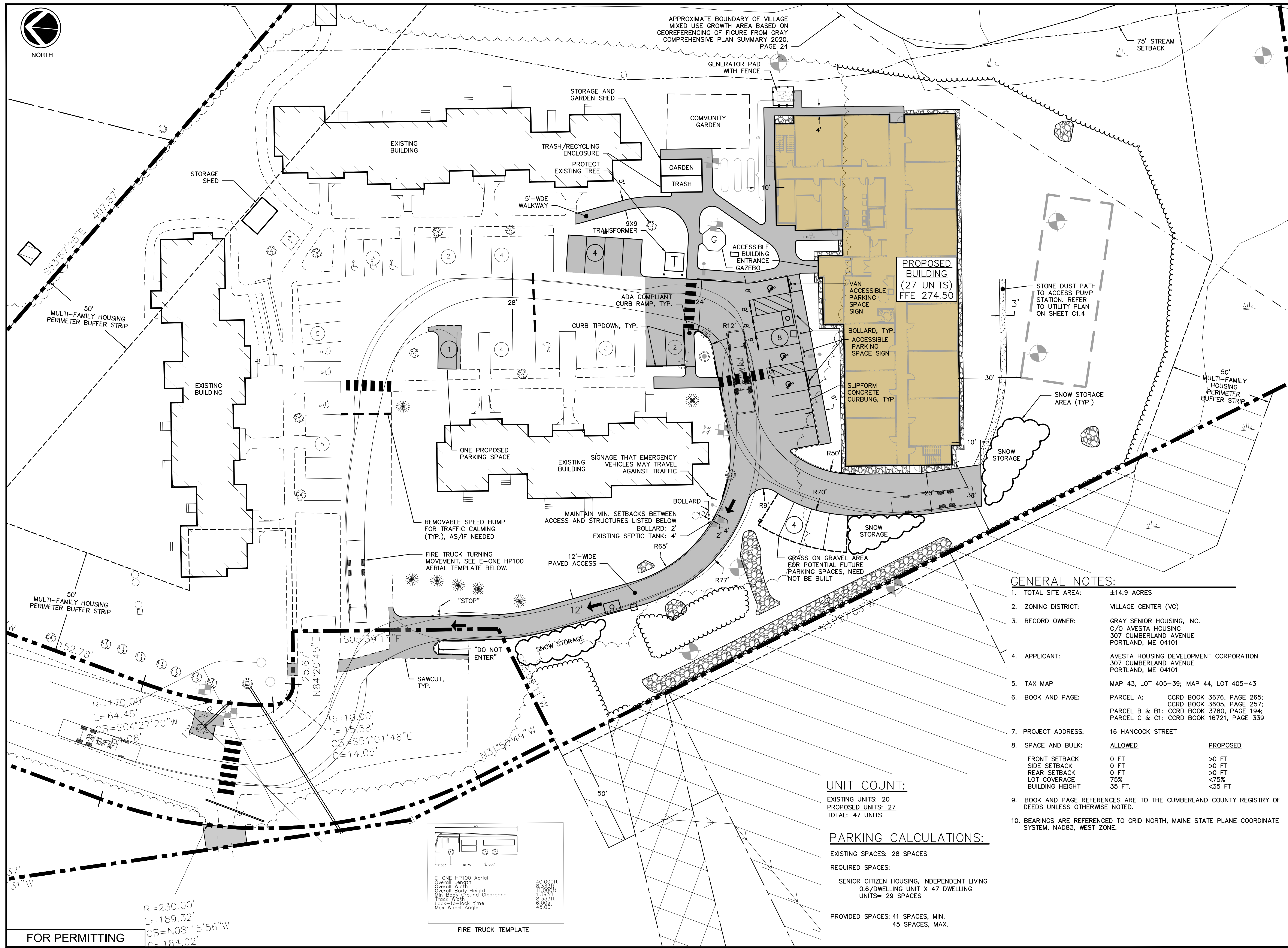
Sheet No: C1.1

FOR PERMITTING





APPROXIMATE BOUNDARY OF VILLAGE MIXED USE GROWTH AREA BASED ON GEOREFERENCING OF FIGURE FROM GRAY COMPREHENSIVE PLAN SUMMARY 2020, PAGE 24



GENERAL NOTES:

- TOTAL SITE AREA: ±14.9 ACRES
- ZONING DISTRICT: VILLAGE CENTER (VC)
- RECORD OWNER: GRAY SENIOR HOUSING, INC. C/O AVESTA HOUSING 307 CUMBERLAND AVENUE PORTLAND, ME 04101
- APPLICANT: AVESTA HOUSING DEVELOPMENT CORPORATION 307 CUMBERLAND AVENUE PORTLAND, ME 04101
- TAX MAP: MAP 43, LOT 405-39; MAP 44, LOT 405-43
- BOOK AND PAGE: PARCEL A: CCRD BOOK 3676, PAGE 265; CCRD BOOK 3605, PAGE 257; PARCEL B & B1: CCRD BOOK 3780, PAGE 194; PARCEL C & C1: CCRD BOOK 16721, PAGE 339
- PROJECT ADDRESS: 16 HANCOCK STREET
- SPACE AND BULK:

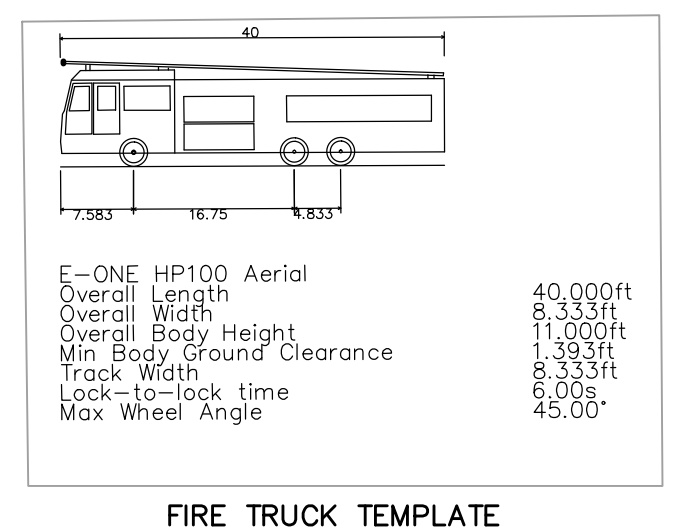
	ALLOWED	PROPOSED
FRONT SETBACK	0 FT	>0 FT
SIDE SETBACK	0 FT	>0 FT
REAR SETBACK	0 FT	>0 FT
LOT COVERAGE	75%	<75%
BUILDING HEIGHT	35 FT.	<35 FT
- BOOK AND PAGE REFERENCES ARE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS UNLESS OTHERWISE NOTED.
- BEARINGS ARE REFERENCED TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, NAD83, WEST ZONE.

UNIT COUNT:

EXISTING UNITS: 20
 PROPOSED UNITS: 27
 TOTAL: 47 UNITS

PARKING CALCULATIONS:

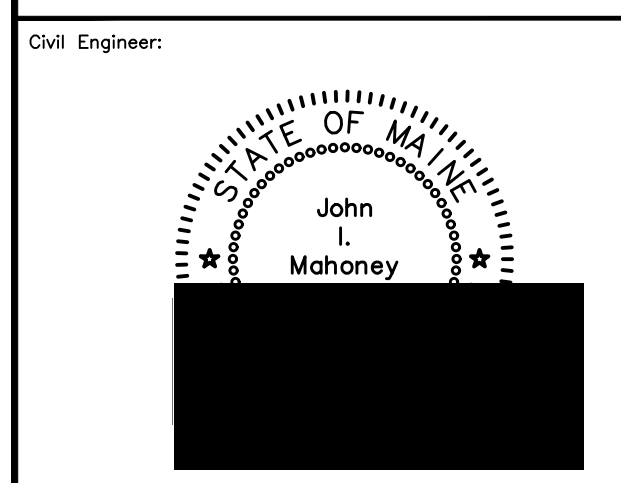
EXISTING SPACES: 28 SPACES
 REQUIRED SPACES:
 SENIOR CITIZEN HOUSING, INDEPENDENT LIVING
 0.6/DWELLING UNIT X 47 DWELLING UNITS= 29 SPACES
 PROVIDED SPACES: 41 SPACES, MIN.
 45 SPACES, MAX.



FOR PERMITTING

AVESTA GRAY MEADOWVIEW II
 16 HANCOCK STREET
 GRAY, MAINE

Prepared for:
 AVESTA HOUSING
 307 CUMBERLAND AVENUE
 PORTLAND, MAINE, 04101



JOHN I. MAHONEY, PE #12340
 RANSOM CONSULTING, LLC
 400 COMMERCIAL STREET, SUITE 404
 PORTLAND, ME 04101
 207-772-2891

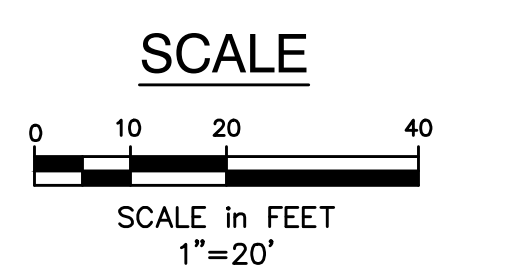
Architect:
 JSA DESIGN
 273 CORPORATE DRIVE, SUITE 100
 PORTSMOUTH, NH, 03801

Structural/Mechanical:
 ALLIED ENGINEERING, INC.
 160 VERANDA STREET
 PORTLAND, MAINE, 04103

Soil Scientist/Site Evaluator:
 ALBERT FRICK ASSOCIATES, INC.
 380B MAIN STREET
 GORHAM, MAINE, 04038

Landscape Architect:
 RASOR LANDSCAPE ARCHITECTURE
 87 MAIN STREET
 YARMOUTH, MAINE, 04096

Surveyor:
 OWEN HASKELL, INC.
 390 US ROUTE 1, UNIT 10
 FALMOUTH, MAINE, 04105

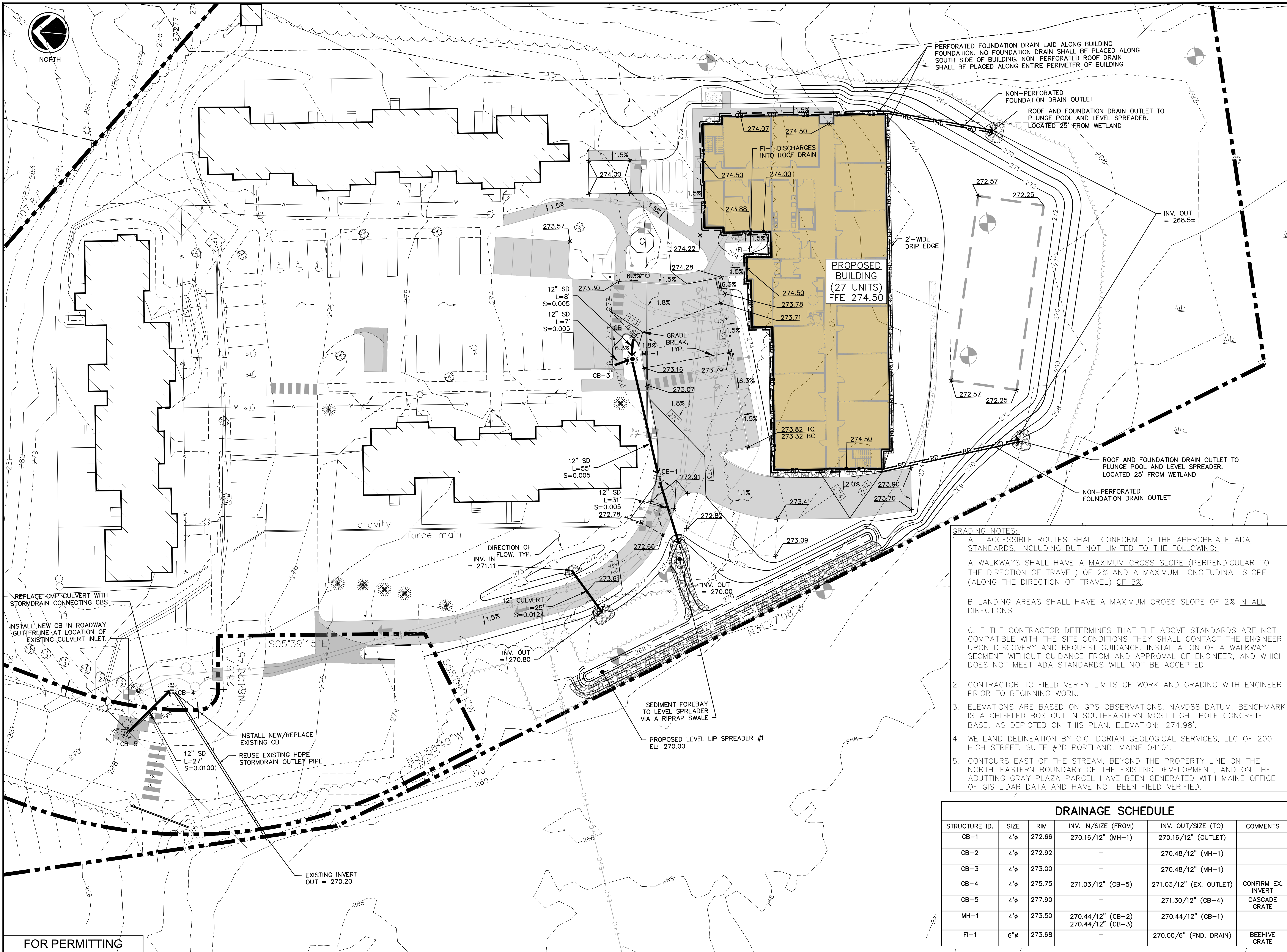


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 Tel. (207) 772-2891
 Fax (207) 772-3248
 www.ransomenv.com

SITE PLAN

No.	Revision/Issue	Date
A	PERMITTING	1/28/22
No.	Revision/Issue	Date
Design by:	DJV	Checked by: MPM
Drawn by:	DJV	Approved by: JIM
Project:	191.06051	Date: DECEMBER 2019

Sheet No: **C1.2**



PERFORATED FOUNDATION DRAIN LAID ALONG BUILDING FOUNDATION. NO FOUNDATION DRAIN SHALL BE PLACED ALONG SOUTH SIDE OF BUILDING. NON-PERFORATED ROOF DRAIN SHALL BE PLACED ALONG ENTIRE PERIMETER OF BUILDING.

NON-PERFORATED FOUNDATION DRAIN OUTLET
ROOF AND FOUNDATION DRAIN OUTLET TO PLUNGE POOL AND LEVEL SPREADER. LOCATED 25' FROM WETLAND

ROOF AND FOUNDATION DRAIN OUTLET TO PLUNGE POOL AND LEVEL SPREADER. LOCATED 25' FROM WETLAND

NON-PERFORATED FOUNDATION DRAIN OUTLET

GRADING NOTES:

- ALL ACCESSIBLE ROUTES SHALL CONFORM TO THE APPROPRIATE ADA STANDARDS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - A. WALKWAYS SHALL HAVE A MAXIMUM CROSS SLOPE (PERPENDICULAR TO THE DIRECTION OF TRAVEL) OF 2% AND A MAXIMUM LONGITUDINAL SLOPE (ALONG THE DIRECTION OF TRAVEL) OF 5%.
 - B. LANDING AREAS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% IN ALL DIRECTIONS.
 - C. IF THE CONTRACTOR DETERMINES THAT THE ABOVE STANDARDS ARE NOT COMPATIBLE WITH THE SITE CONDITIONS THEY SHALL CONTACT THE ENGINEER UPON DISCOVERY AND REQUEST GUIDANCE. INSTALLATION OF A WALKWAY SEGMENT WITHOUT GUIDANCE FROM AND APPROVAL OF ENGINEER, AND WHICH DOES NOT MEET ADA STANDARDS WILL NOT BE ACCEPTED.
- CONTRACTOR TO FIELD VERIFY LIMITS OF WORK AND GRADING WITH ENGINEER PRIOR TO BEGINNING WORK.
- ELEVATIONS ARE BASED ON GPS OBSERVATIONS, NAVD88 DATUM. BENCHMARK IS A CHISELED BOX CUT IN SOUTHEASTERN MOST LIGHT POLE CONCRETE BASE, AS DEPICTED ON THIS PLAN. ELEVATION: 274.98'
- WETLAND DELINEATION BY C.C. DORIAN GEOLOGICAL SERVICES, LLC OF 200 HIGH STREET, SUITE #2D PORTLAND, MAINE 04101.
- CONTOURS EAST OF THE STREAM, BEYOND THE PROPERTY LINE ON THE NORTH-EASTERN BOUNDARY OF THE EXISTING DEVELOPMENT, AND ON THE ABUTTING GRAY PLAZA PARCEL HAVE BEEN GENERATED WITH MAINE OFFICE OF GIS LIDAR DATA AND HAVE NOT BEEN FIELD VERIFIED.

DRAINAGE SCHEDULE					
STRUCTURE ID.	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)	COMMENTS
CB-1	4"	272.66	270.16/12" (MH-1)	270.16/12" (OUTLET)	
CB-2	4"	272.92	-	270.48/12" (MH-1)	
CB-3	4"	273.00	-	270.48/12" (MH-1)	
CB-4	4"	275.75	271.03/12" (CB-5)	271.03/12" (EX. OUTLET)	CONFIRM EX. INVERT
CB-5	4"	277.90	-	271.30/12" (CB-4)	CASCADE GRATE
MH-1	4"	273.50	270.44/12" (CB-2) 270.44/12" (CB-3)	270.44/12" (CB-1)	
FI-1	6"	273.68	-	270.00/6" (FND. DRAIN)	BEEHIVE GRATE

FOR PERMITTING

AVESTA GRAY MEADOWVIEW II
16 HANCOCK STREET
GRAY, MAINE

Prepared for:
AVESTA HOUSING
307 CUMBERLAND AVENUE
PORTLAND, MAINE, 04101

Civil Engineer:

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207-772-2891

Architect:
JSA DESIGN
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PORTSMOUTH, NH, 03801

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PORTLAND, MAINE, 04103

Soil Scientist/Site Evaluator:
ALBERT FRICK ASSOCIATES, INC.
380B MAIN STREET
GORHAM, MAINE, 04038

Landscape Architect:
RASOR LANDSCAPE ARCHITECTURE
87 MAIN STREET
YARMOUTH, MAINE, 04096

Surveyor:
OWEN HASKELL, INC.
390 US ROUTE 1, UNIT 10
FALMOUTH, MAINE, 04105

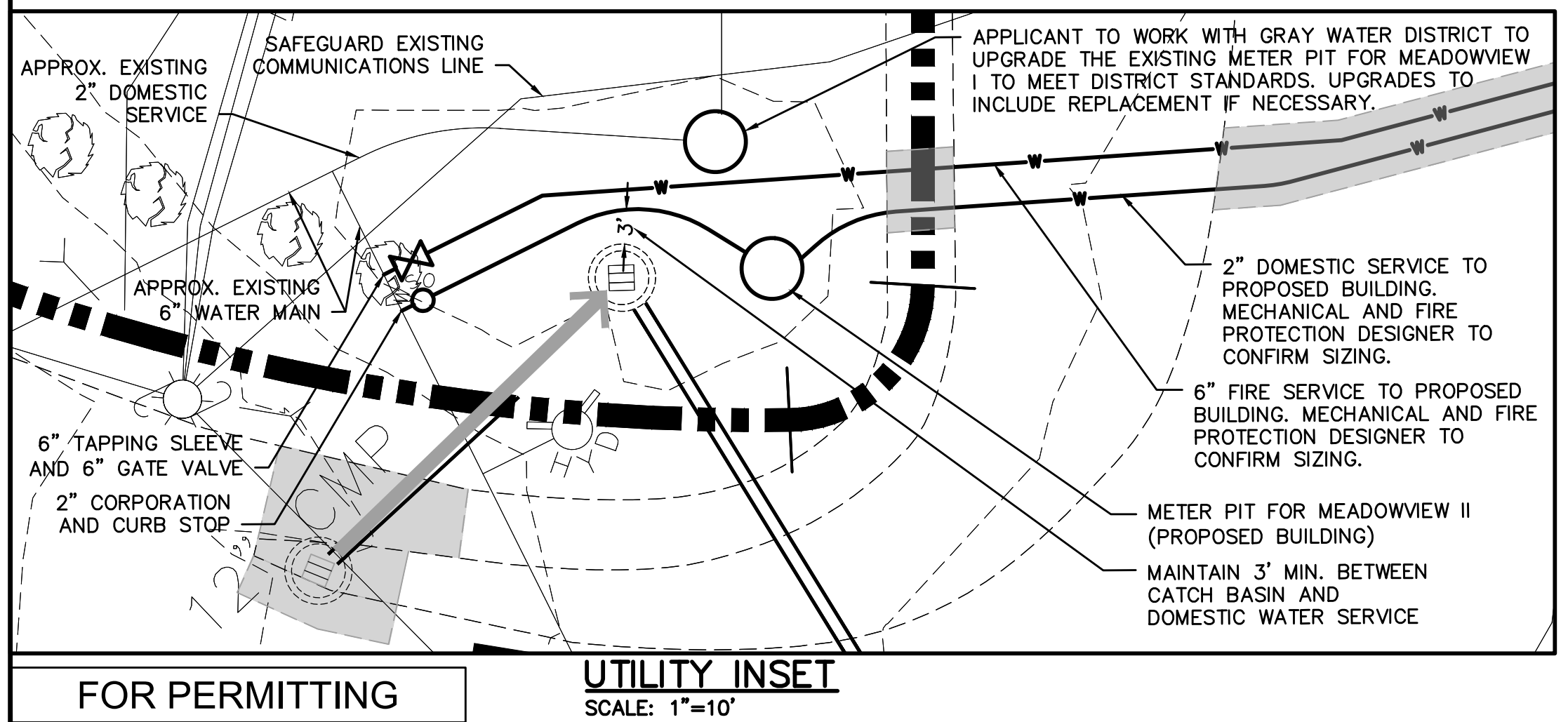
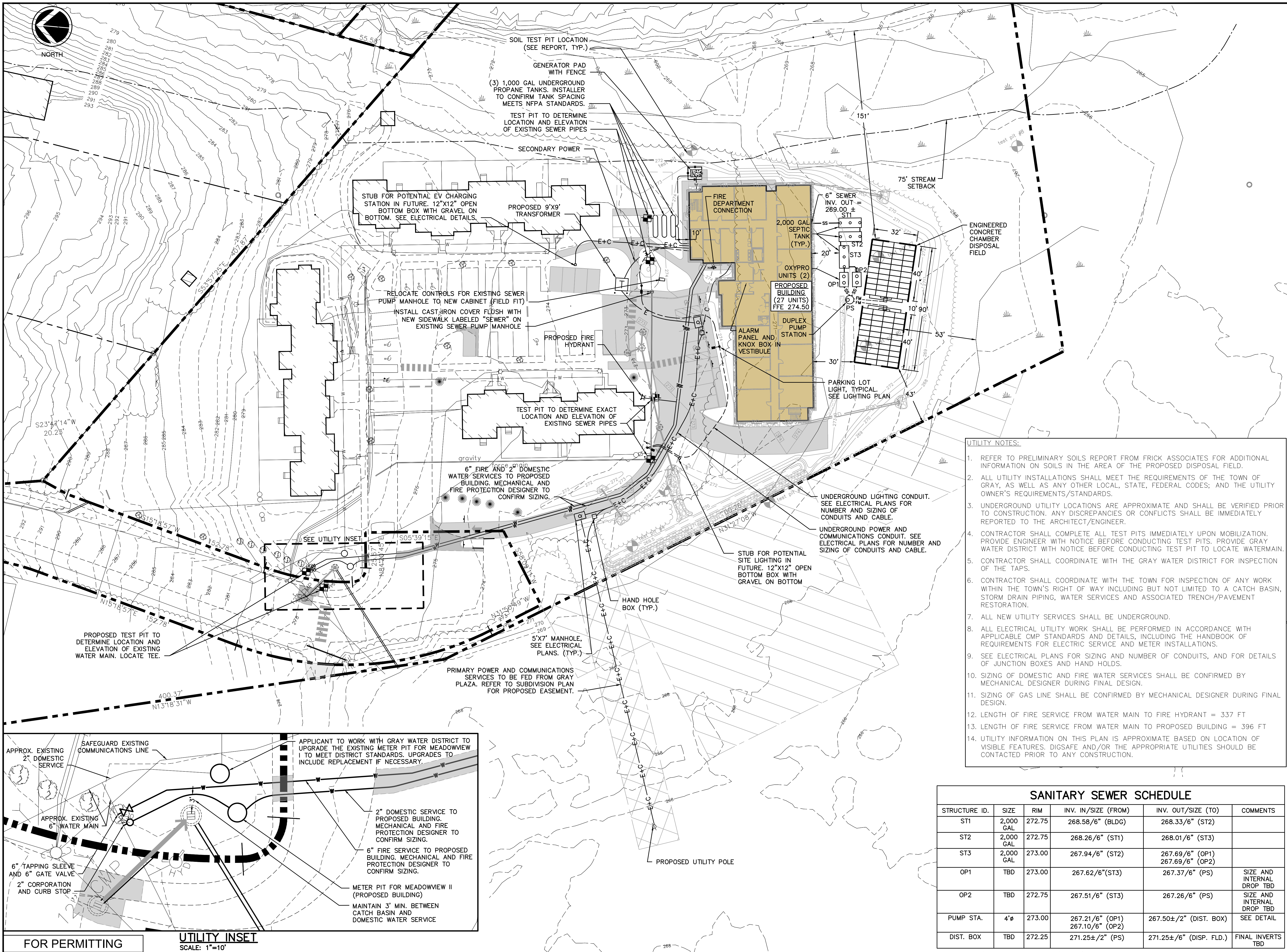
SCALE
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SCALE in FEET
1"=20'

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GRADING AND DRAINAGE PLAN

No.	Revision/Issue	Date
A	PERMITTING	1/28/22

Design by: DJV Checked by: MPM
Drawn by: DJV Approved by: JIM
Project: 191.06051 Date: DECEMBER 2019
Sheet No: **C1.3**



- UTILITY NOTES:**
- REFER TO PRELIMINARY SOILS REPORT FROM FRICK ASSOCIATES FOR ADDITIONAL INFORMATION ON SOILS IN THE AREA OF THE PROPOSED DISPOSAL FIELD.
 - ALL UTILITY INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE TOWN OF GRAY, AS WELL AS ANY OTHER LOCAL, STATE, FEDERAL CODES; AND THE UTILITY OWNER'S REQUIREMENTS/STANDARDS.
 - UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR CONFLICTS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER.
 - CONTRACTOR SHALL COMPLETE ALL TEST PITS IMMEDIATELY UPON MOBILIZATION. PROVIDE ENGINEER WITH NOTICE BEFORE CONDUCTING TEST PITS. PROVIDE GRAY WATER DISTRICT WITH NOTICE BEFORE CONDUCTING TEST PIT TO LOCATE WATERMAIN.
 - CONTRACTOR SHALL COORDINATE WITH THE GRAY WATER DISTRICT FOR INSPECTION OF THE TAPS.
 - CONTRACTOR SHALL COORDINATE WITH THE TOWN FOR INSPECTION OF ANY WORK WITHIN THE TOWN'S RIGHT OF WAY INCLUDING BUT NOT LIMITED TO A CATCH BASIN, STORM DRAIN PIPING, WATER SERVICES AND ASSOCIATED TRENCH/PAVEMENT RESTORATION.
 - ALL NEW UTILITY SERVICES SHALL BE UNDERGROUND.
 - ALL ELECTRICAL UTILITY WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CMP STANDARDS AND DETAILS, INCLUDING THE HANDBOOK OF REQUIREMENTS FOR ELECTRIC SERVICE AND METER INSTALLATIONS.
 - SEE ELECTRICAL PLANS FOR SIZING AND NUMBER OF CONDUITS, AND FOR DETAILS OF JUNCTION BOXES AND HAND HOLDS.
 - SIZING OF DOMESTIC AND FIRE WATER SERVICES SHALL BE CONFIRMED BY MECHANICAL DESIGNER DURING FINAL DESIGN.
 - SIZING OF GAS LINE SHALL BE CONFIRMED BY MECHANICAL DESIGNER DURING FINAL DESIGN.
 - LENGTH OF FIRE SERVICE FROM WATER MAIN TO FIRE HYDRANT = 337 FT
 - LENGTH OF FIRE SERVICE FROM WATER MAIN TO PROPOSED BUILDING = 396 FT
 - UTILITY INFORMATION ON THIS PLAN IS APPROXIMATE BASED ON LOCATION OF VISIBLE FEATURES, DIGSAFE AND/OR THE APPROPRIATE UTILITIES SHOULD BE CONTACTED PRIOR TO ANY CONSTRUCTION.

SANITARY SEWER SCHEDULE					
STRUCTURE ID.	SIZE	RIM	INV. IN/SIZE (FROM)	INV. OUT/SIZE (TO)	COMMENTS
ST1	2,000 GAL	272.75	268.58/6" (BLDG)	268.33/6" (ST2)	
ST2	2,000 GAL	272.75	268.26/6" (ST1)	268.01/6" (ST3)	
ST3	2,000 GAL	273.00	267.94/6" (ST2)	267.69/6" (OP1) 267.69/6" (OP2)	
OP1	TBD	273.00	267.62/6"(ST3)	267.37/6" (PS)	SIZE AND INTERNAL DROP TBD
OP2	TBD	272.75	267.51/6" (ST3)	267.26/6" (PS)	SIZE AND INTERNAL DROP TBD
PUMP STA.	4"ø	273.00	267.21/6" (OP1) 267.10/6" (OP2)	267.50±/2" (DIST. BOX)	SEE DETAIL
DIST. BOX	TBD	272.25	271.25±/2" (PS)	271.25±/6" (DISP. FLD.)	FINAL INVERTS TBD

AVESTA GRAY MEADOWVIEW II
16 HANCOCK STREET
GRAY, MAINE

Prepared for:
AVESTA HOUSING
307 CUMBERLAND AVENUE
PORTLAND, MAINE, 04101

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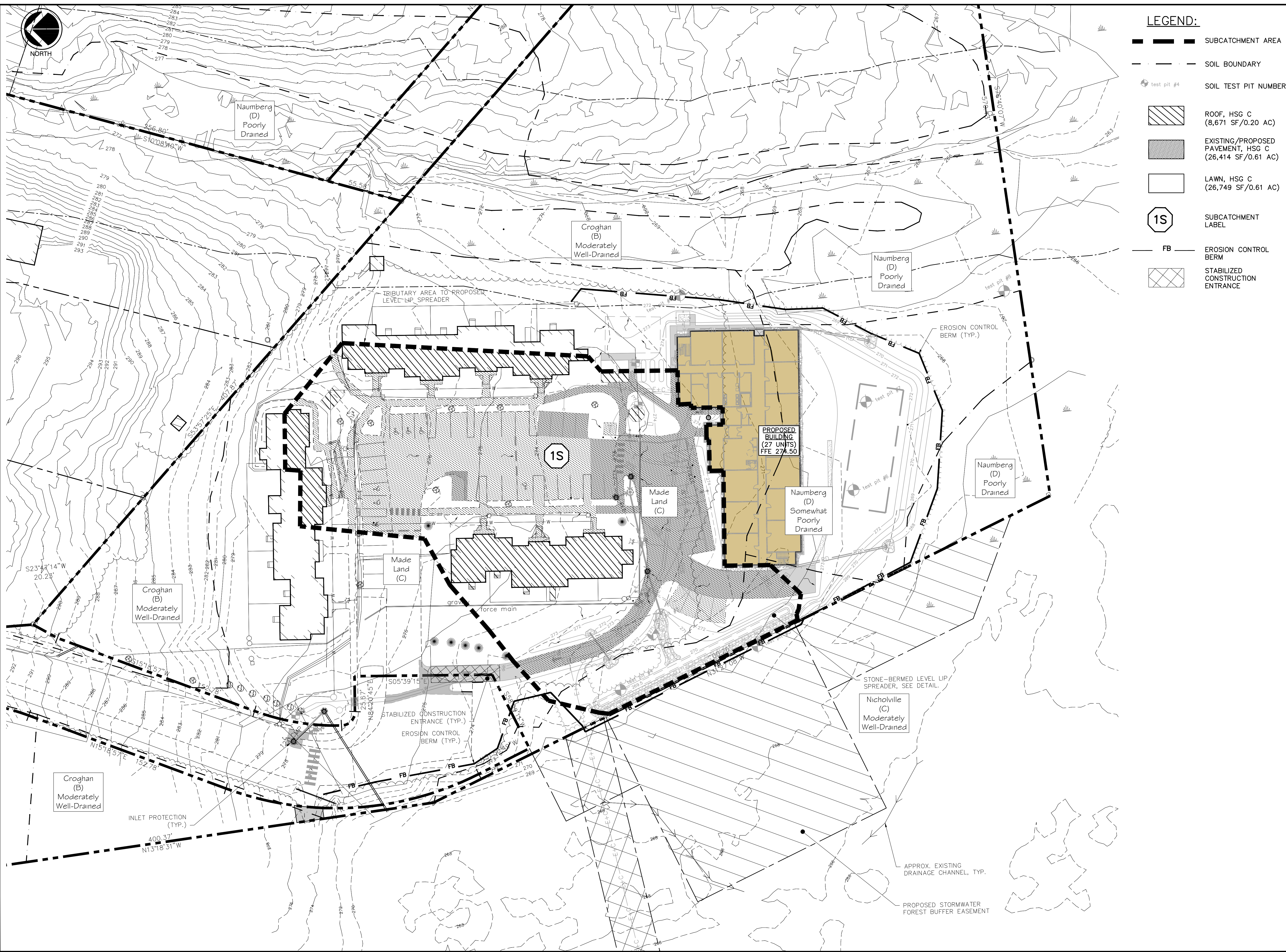
Surveyor:
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SCALE
0 15 30 60
SCALE in FEET
1"=30'

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UTILITY PLAN

Design by:	DJV	Checked by:	MPM
Drawn by:	DJV	Approved by:	JIM
Project:	191.06051	Date:	DECEMBER 2019
Sheet No:	C1.4		



- LEGEND:**
- SUBCATCHMENT AREA
 - SOIL BOUNDARY
 - test pit #4
 - ROOF, HSG C (8,671 SF/0.20 AC)
 - EXISTING/PROPOSED PAVEMENT, HSG C (26,414 SF/0.61 AC)
 - LAWN, HSG C (26,749 SF/0.61 AC)
 - SUBCATCHMENT LABEL
 - EROSION CONTROL BERM
 - STABILIZED CONSTRUCTION ENTRANCE

Site:
AVESTA GRAY MEADOWVIEW II
 16 HANCOCK STREET
 GRAY, MAINE

Prepared for:
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 87 MAIN STREET
 YARMOUTH, MAINE, 04096

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SCALE

 SCALE in FEET
 1" = 30'

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STORMWATER AND EROSION CONTROL PLAN

A	PERMITTING	1/28/22
No.	Revision/Issue	Date

Design by: DJV Checked by: MPM
 Drawn by: DJV Approved by: JIM

Project: 191.06051 Date: DECEMBER 2019

Sheet No: **C1.5**

EROSION AND SEDIMENTATION CONTROL NOTES

INSPECTION REQUIREMENTS

CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENTATION CONTROL MEASURES ON A WEEKLY BASIS AND AFTER RAIN/STORM EVENTS AND SHALL KEEP A LOG OF THESE INSPECTIONS. ANY ISSUES IDENTIFIED SHALL BE ADDRESSED AS SOON AS POSSIBLE AND BEFORE ADDITIONAL PRECIPITATION.

EROSION CONTROL MEASURES AND SITE STABILIZATION

THE PRIMARY EMPHASIS OF THE EROSION AND SEDIMENT CONTROL PLAN IS AS FOLLOWS:

- RAPID VEGETATION OF EXPOSED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
- RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID CHANNEL EROSION.
- THE USE OF ON-SITE MEASURES TO CAPTURE SEDIMENT (EROSION CONTROL BERM, STAKED HAY BALES ETC.)

THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL DEVICES WILL BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED WITHIN THIS REPORT. FOR FURTHER REFERENCE, SEE THE MAINE EROSION AND SEDIMENT CONTROL BMPs, (MOST RECENT REVISION).

TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING MEASURES ARE PLANNED AS TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. THESE TEMPORARY EROSION CONTROL MEASURES SHOULD BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

1. CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT SITE ENTRANCES.
2. WOOD WASTE COMPOST BERMS (EROSION CONTROL BERM) SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE TRIBUTARY AREAS ARE VEGETATED. THE EROSION CONTROL BERMS SHALL BE INSTALLED PER THE DETAILS PROVIDED AND INSPECTED REGULARLY, INCLUDING BEFORE AND AFTER A STORM EVENT OF 0.5 INCHES OR GREATER. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE OR BERM LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.
3. STRAW, HAY MULCH AND HYDROSEEDING IS INTENDED TO PROVIDE COVER FOR BARE OR SEEDED AREAS UNTIL VEGETATION IS ESTABLISHED AND SHOULD BE APPLIED WITHIN 7 DAYS AT A RATE OF 115 POUNDS PER 1000 SQUARE FEET. MULCH PLACED BETWEEN APRIL 15TH AND OCTOBER 15TH (ON SLOPES OF LESS THEN 15 PERCENT) SHALL BE ANCHORED BY APPLYING WATER. MULCH PLACED ON SLOPES OF EQUAL TO OR STEEPER THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. SLOPES STEEPER THAN 3:1 SHALL RECEIVE EROSION CONTROL BLANKETS OR RIP RAP.
4. USE STANDARD CONSERVATION SEED MIX OF 100% ANNUAL RYE GRASS OR FIELD BROMEGRASS. SEED APPLICATION RATE SHALL BE 40 LB/ACRE.
5. TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:

STOCKPILES SHALL BE STABILIZED WITHIN SEVEN DAYS BY EITHER TEMPORARILY SEEDING THE STOCKPILE BY A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH, SUCH AS SHREDDED HAY, STRAW, OR EROSION CONTROL MIX.

STOCKPILES SHALL BE SURROUNDED BY SEDIMENTATION BARRIER AT THE TIME OF FORMATION.
6. ALL DISTURBED AREAS THAT ARE WITHIN 75 FEET OF AN UNDISTURBED WETLAND SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL. ALL AREAS WITHIN 75 FEET OF AN UNDISTURBED WETLAND SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 48 HOUR WINDOW. IN OTHER AREAS, THE TIME PERIOD MAY BE EXTENDED TO 7 DAYS.
7. STATE AND LOCAL ROADS SHALL BE SWEEPED TO CONTROL MUD AND DUST AS NECESSARY. ADDITIONAL STONE SHALL BE ADDED TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.
8. WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MDOT SPECIFICATIONS--SECTION 637-DUST CONTROL.
9. LOAM AND SEED IS INTENDED TO SERVE AS THE PRIMARY PERMANENT VEGETATIVE MEASURE FOR ALL BARE AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP.
10. WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION SHALL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE. IN NO CASE SHALL THE FILTER BAG OR CONTAINMENT STRUCTURE BE LOCATED WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE.

PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION/SEDIMENTATION CONTROL PLAN:

ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (GRAVEL, PAVERS, RIPRAP, ETC.) WILL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED.

IMPLEMENTATION SCHEDULE

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO INSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPTIMIZED:

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE BY LIMITING THE DISTURBED AREA. THE CONSTRUCTION OF BMPs SHOULD EITHER BE PERFORMED AFTER THE TRIBUTARY AREA IS STABILIZED OR TEMPORARY EROSION CONTROL MEASURES NEED TO BE IMPLEMENTED TO PROTECT THE BMPs FROM BEING CLOGGED WITH CONSTRUCTION SEDIMENT.

1. INSTALL CRUSHED STONE TO STABILIZED CONSTRUCTION ENTRANCES.
2. INSTALL PERIMETER EROSION CONTROL BERM.
3. CLEAR AND GRUB SITE WITHIN THE SPECIFIED CLEARING LIMITS.
4. COMMENCE EARTHWORK AND GRADING TO SUBGRADE.
5. COMMENCE CONSTRUCTION OF BUILDING FOUNDATION.
6. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
7. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
8. COMPLETE INSTALLATION OF UTILITY INFRASTRUCTURE.
7. COMPLETE REMAINING EARTHWORK OPERATIONS.
8. INSTALL SUBBASE AND BASE GRAVEL WITHIN PROPOSED PARKING LOT.
9. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS.
10. ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
11. TOUCH UP LOAM AND SEED.

NOTE: ALL BARE AREAS NOT SUBJECT TO RIPRAP, OR GRAVEL; SHALL BE VEGETATED.

PRIOR TO CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE FOR THE COMPLETION OF THE WORK, WHICH WILL SATISFY THE ABOVE CONSTRUCTION SEQUENCE IN THE SPECIFIED ORDER, HOWEVER, SEVERAL SEPARATE ITEMS MAY BE CONSTRUCTED SIMULTANEOUSLY. WORK MUST ALSO BE SCHEDULED OR PHASED TO REDUCE THE EXTENT OF THE EXPOSED AREAS AS SPECIFIED BELOW. THE INTENT OF THIS SEQUENCE IS TO PROVIDE FOR EROSION CONTROL AND TO HAVE STRUCTURAL MEASURES SUCH AS EROSION CONTROL BERM AND CONSTRUCTION ENTRANCES IN PLACE BEFORE LARGE AREAS OF LAND ARE STRIPPED.

THE WORK SHALL BE CONDUCTED IN SECTIONS WHICH SHALL:

1. LIMIT THE AMOUNT OF EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PRECEDING 30 DAYS.
2. VEGETATE THE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN DAYS OF FINAL GRADING OR BEFORE A STORM EVENT; OR TEMPORARILY STABILIZED WITHIN 48 HOURS OF INITIAL DISTURBANCE OF SOIL FOR AREAS WITHIN 75 FEET OF AN UNDISTURBED WETLAND AND 7 DAYS FOR ALL OTHER AREAS.
3. INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEM AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

WINTER STABILIZATION PLAN

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15TH, THEN THE SITE SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT ANY AREA LEFT EXPOSED CAN BE CONTROLLED BY THE CONTRACTOR. EXPOSED AREAS SHALL BE LIMITED TO THOSE AREAS IN WHICH WORK IS EXPECTED TO COMMENCE AND COMPLETE IN THE NEXT FIFTEEN (15) DAYS AND THAT CAN BE MULCHED WITHIN ONE DAY PRIOR TO ANY SNOW EVENT.

ALL AREAS SHALL BE CONSIDERED TO BE BARE UNTIL THE SUBBASE GRAVEL IS INSTALLED WITHIN PAVEMENT/BUILDING AREAS OR THE AREAS HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 POUNDS PER 1,000 SQUARE FEET (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR SHALL INSTALL ANY ADDED MEASURES, WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 SF. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE SHALL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOODWASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

3. MULCHING

AN AREA SHALL BE CONSIDERED BARE UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 SF. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE-INCH DEPTH

OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1,000 SQUARE FEET (3 TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.

BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY PEG LINE, MULCH NETTING, TRACKING, OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH THEN COVER IS SUFFICIENT. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%.

MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

5. SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES, FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF THREE TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1000 SF. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 90% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

6. DEWATERING

WATER FROM CONSTRUCTION TRENCH DEWATERING SHALL PASS FIRST THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. THE DISCHARGE SITE SHALL BE SELECTED TO AVOID FLOODING, ICING, AND SEDIMENT DISCHARGES TO A PROTECTED RESOURCE.

7. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85% TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

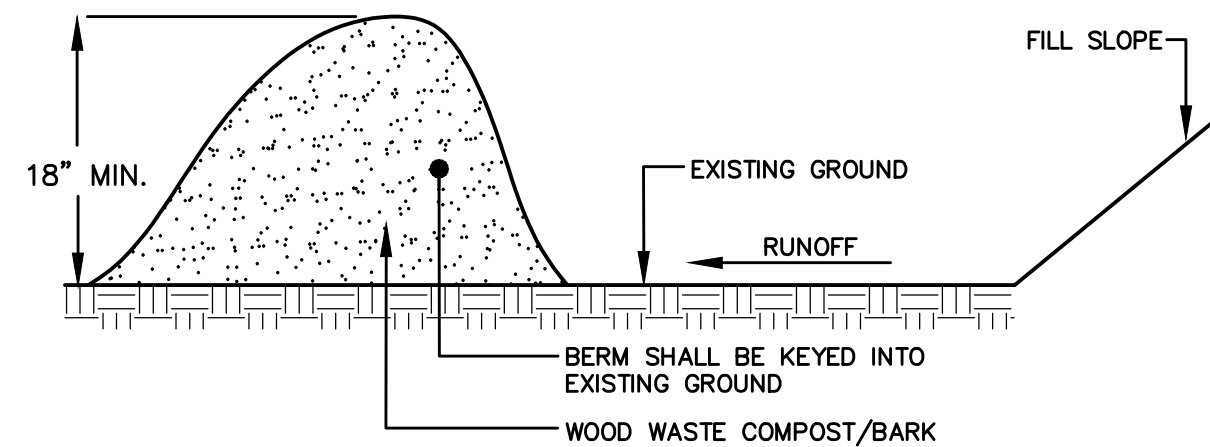
1. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH THE APPLICANT SHALL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE APPLICANT FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE APPLICANT SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

STABILIZE THE SOIL WITH TEMPORARY VEGETATION--BY OCTOBER 1ST THE APPLICANT SHALL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF THREE POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT SHALL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15TH, THEN THE APPLICANT SHALL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED ABOVE.

STABILIZE THE SOIL WITH SOD--THE APPLICANT SHALL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

STABILIZE THE SOIL WITH MULCH--BY NOVEMBER 15TH THE APPLICANT SHALL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.



EROSION CONTROL MULCH BERM

EROSION CONTROL MULCH CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

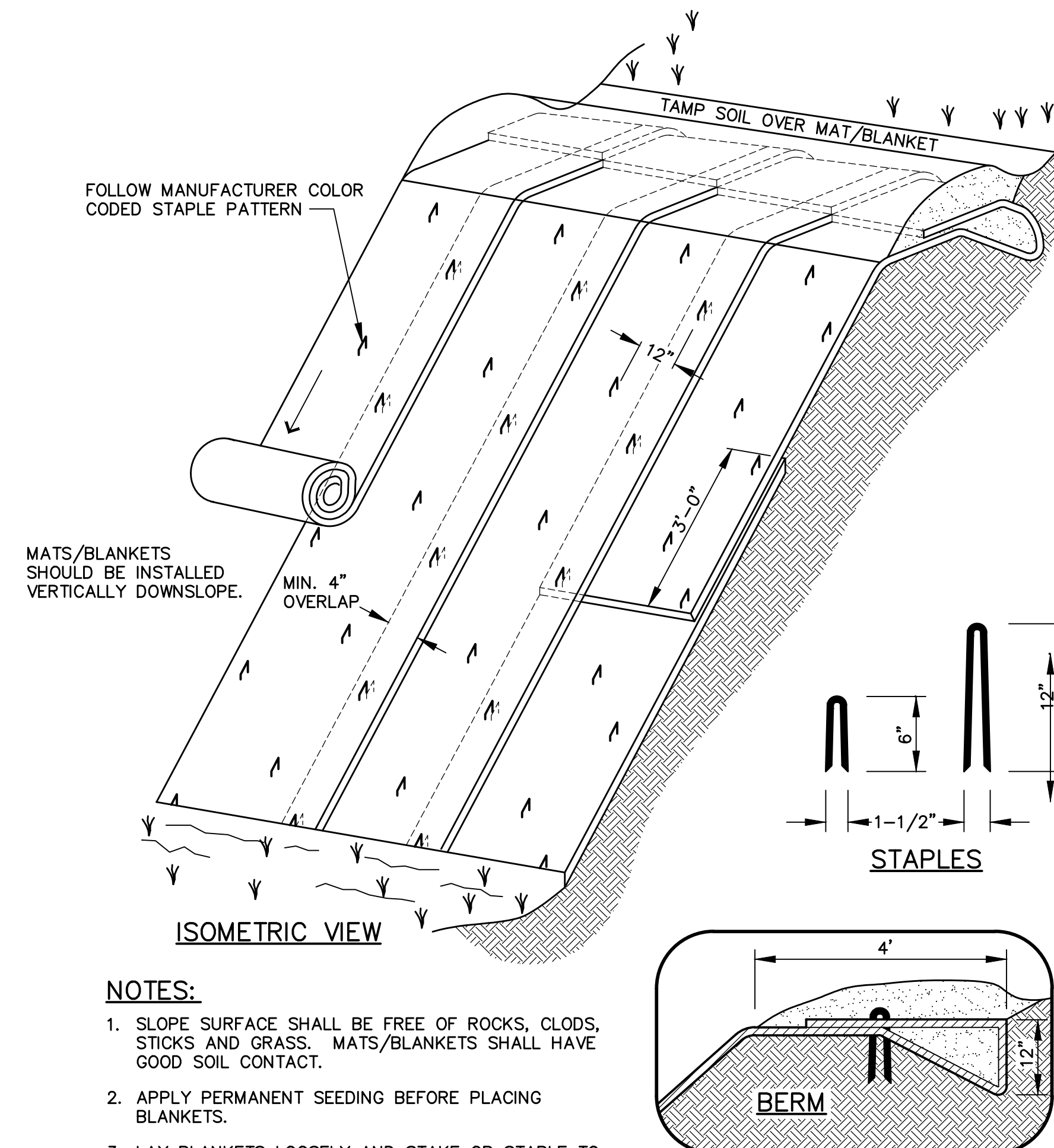
COMPOSITION

EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100 % PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM.
- THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.
- EROSION CONTROL MULCH BERM TO BE REMOVED AFTER SITE IS STABILIZED.

EROSION CONTROL MULCH BERM

NOT TO SCALE



NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
4. CHOOSE MATERIAL BASED ON SLOPE, SOILS, APPLICATION.

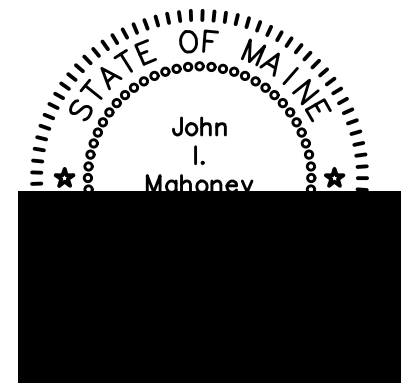
TYPICAL SLOPE SOIL STABILIZATION

NOT TO SCALE

Site:
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16 HANCOCK STREET
GRAY, MAINE

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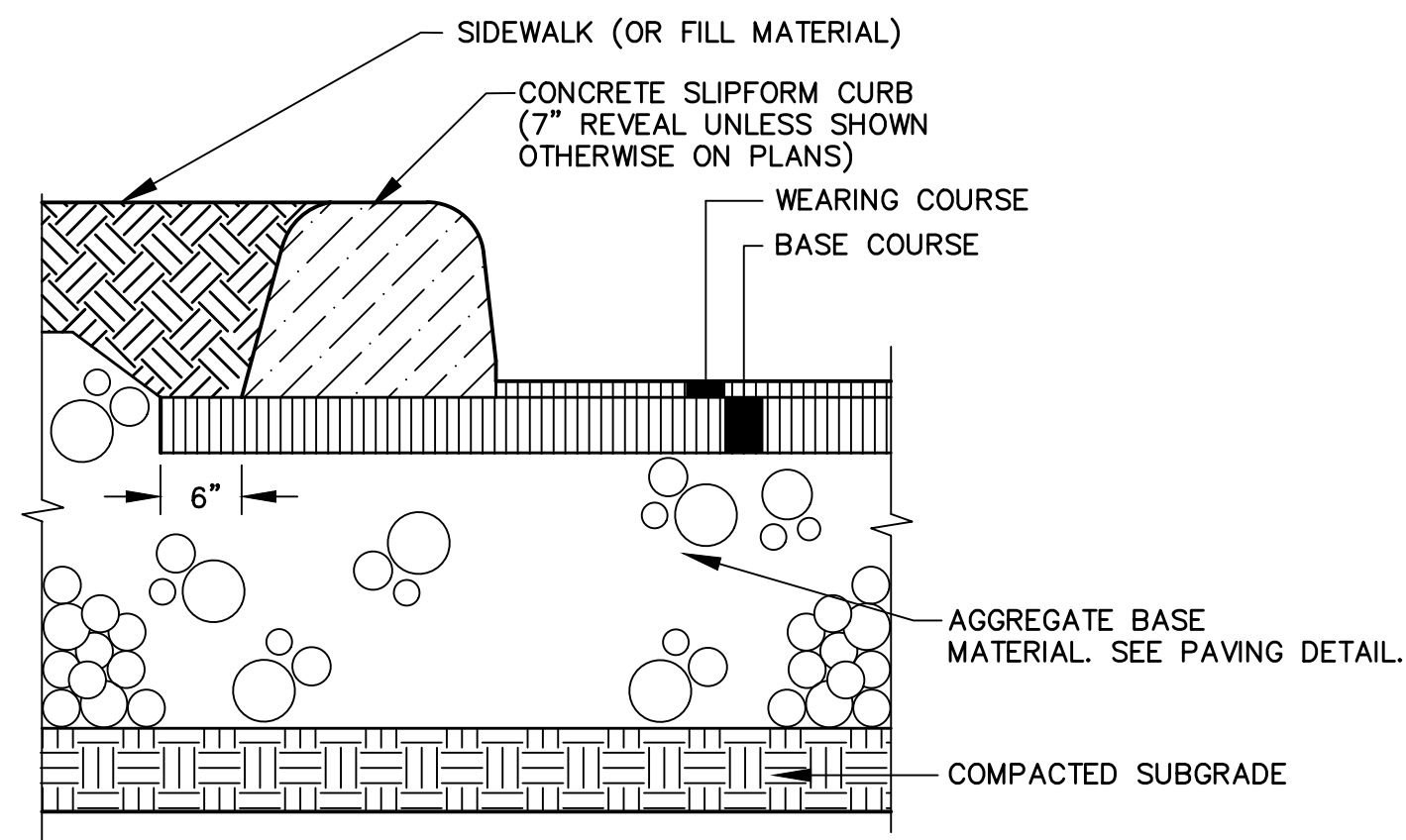


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EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

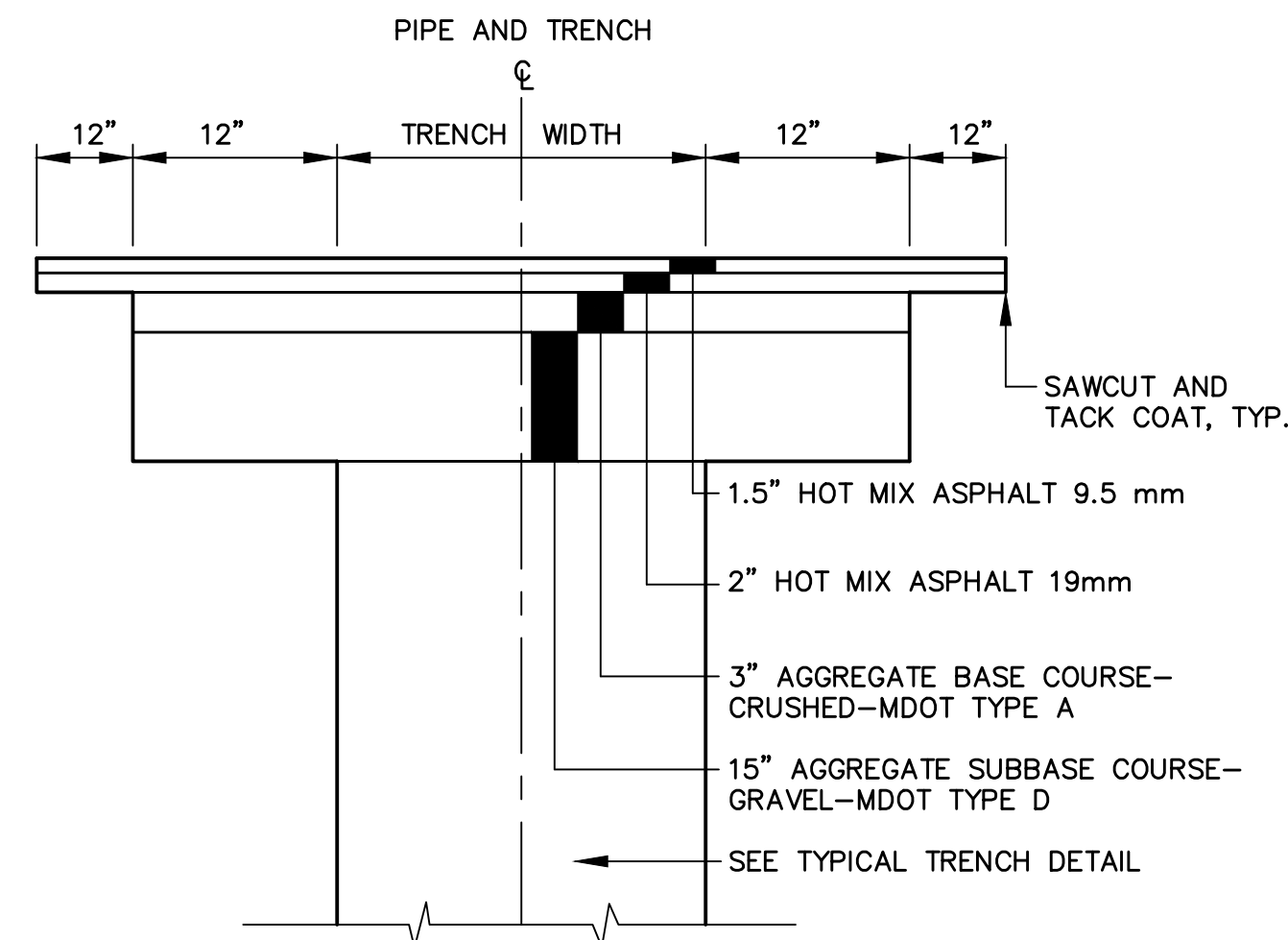
A	PERMITTING	1/28/22
No.	Revision/Issue	Date
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Drawn by:	DJV	Approved by: JIM
Project:	191.06051	Date: DECEMBER 2019
Sheet No:	C2.1	

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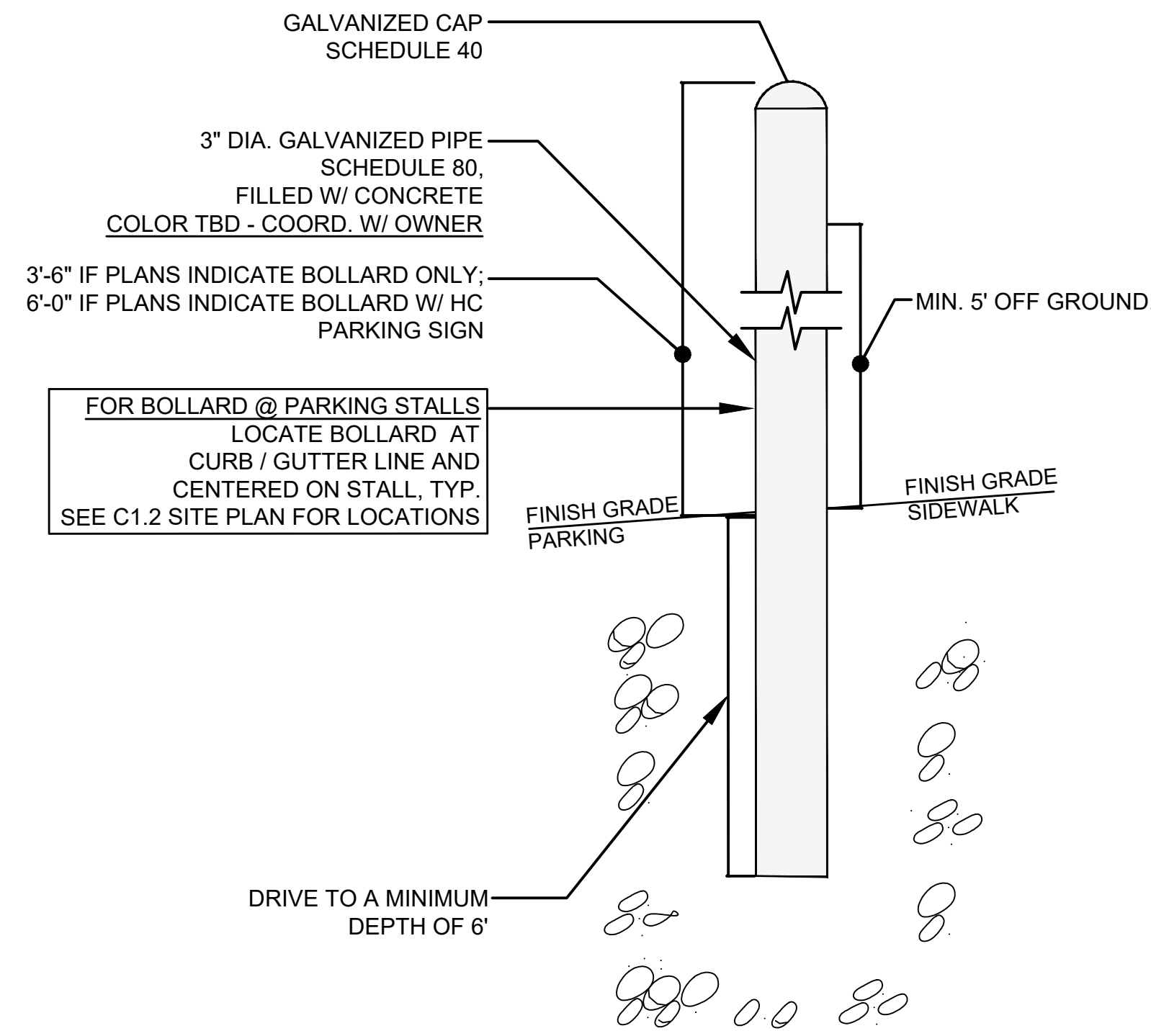
SLIPFORM CONCRETE CURBING

NOT TO SCALE



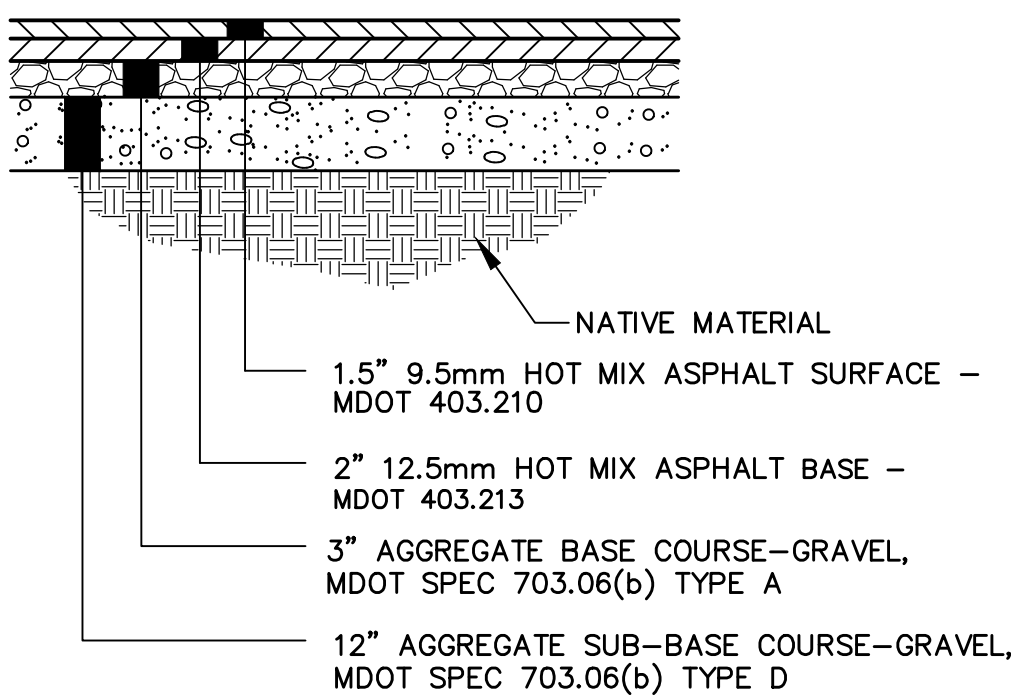
TYPICAL TRENCH PAVING IN ROW DETAIL

NOT TO SCALE



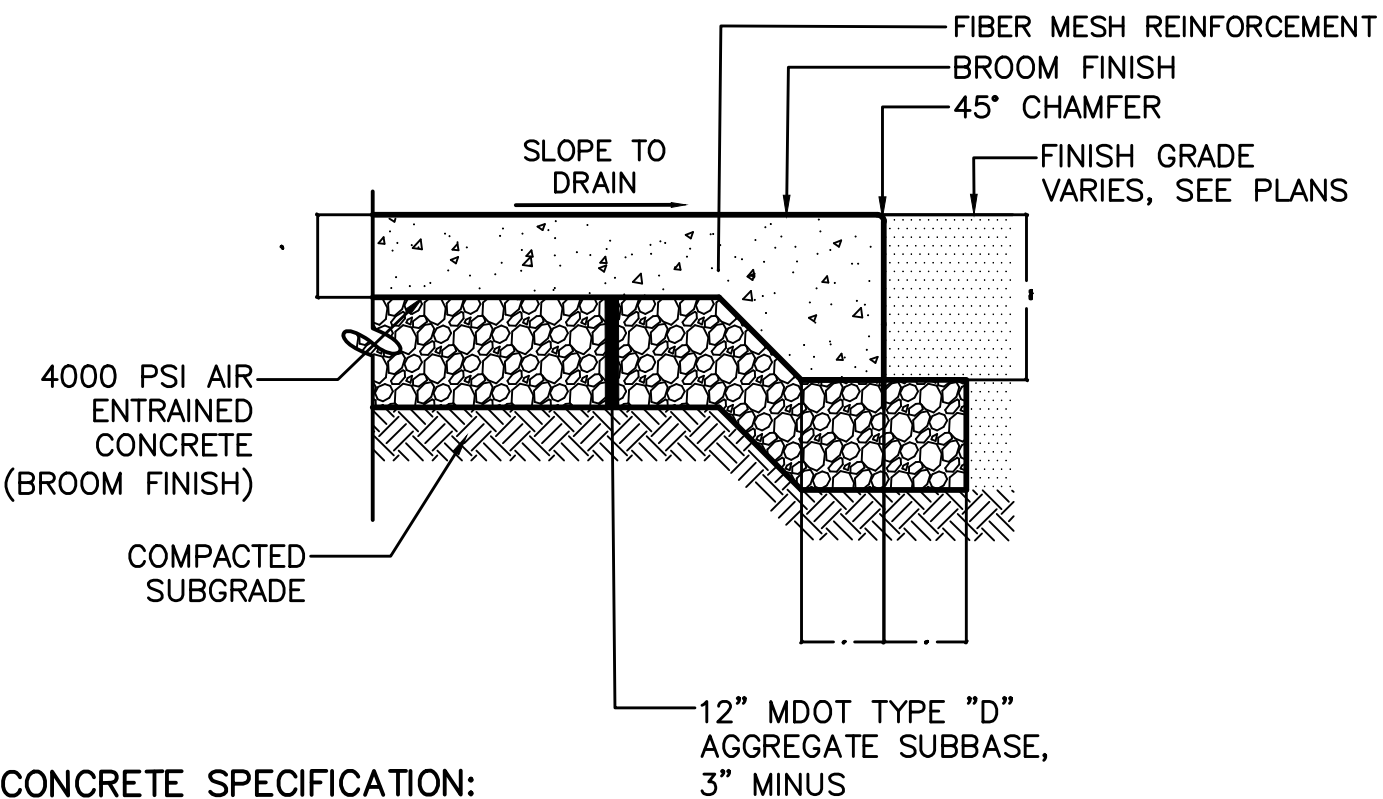
BOLLARD/ACCESSIBLE PARKING SIGN POST

NOT TO SCALE



TYPICAL PARKING AREA AND ACCESS ROAD DETAIL

NOT TO SCALE

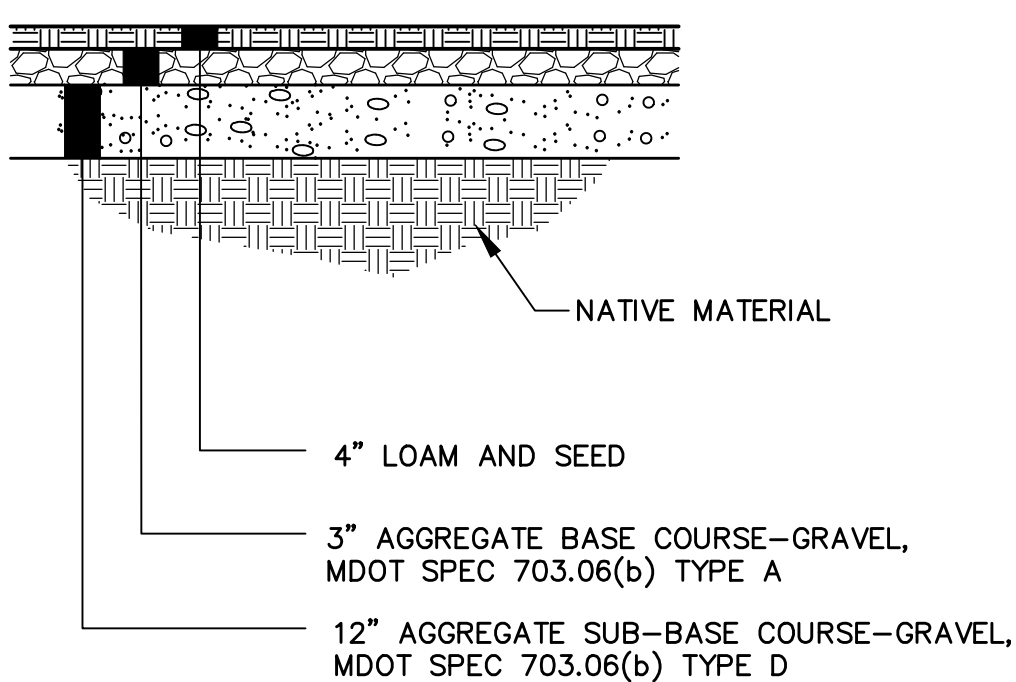


CONCRETE SPECIFICATION:

- 4000 p.s.i.
- 3/4" AGGREGATE
- 6 - 7 % AIR ENTRAINMENT
- SLUMP - 4" ± 1"
- SHALL MEET GENERATOR MANUFACTURER'S SPECIFICATIONS

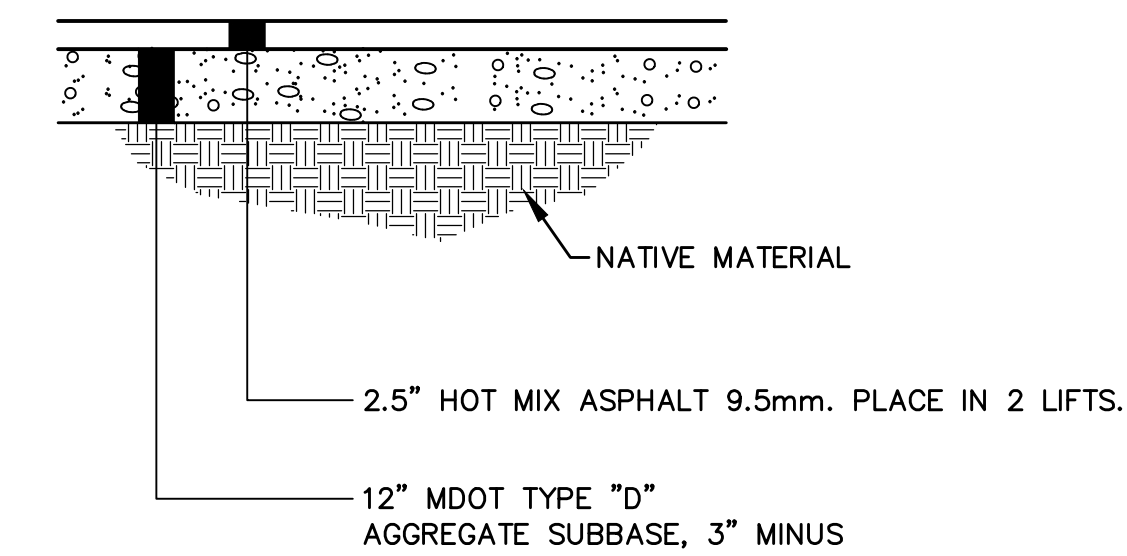
CONCRETE PAD FOR GENERATOR

NOT TO SCALE



TYPICAL GRASS ON GRAVEL PARKING SPACE DETAIL

NOT TO SCALE



PAVED HMA WALKWAY DETAIL

NOT TO SCALE

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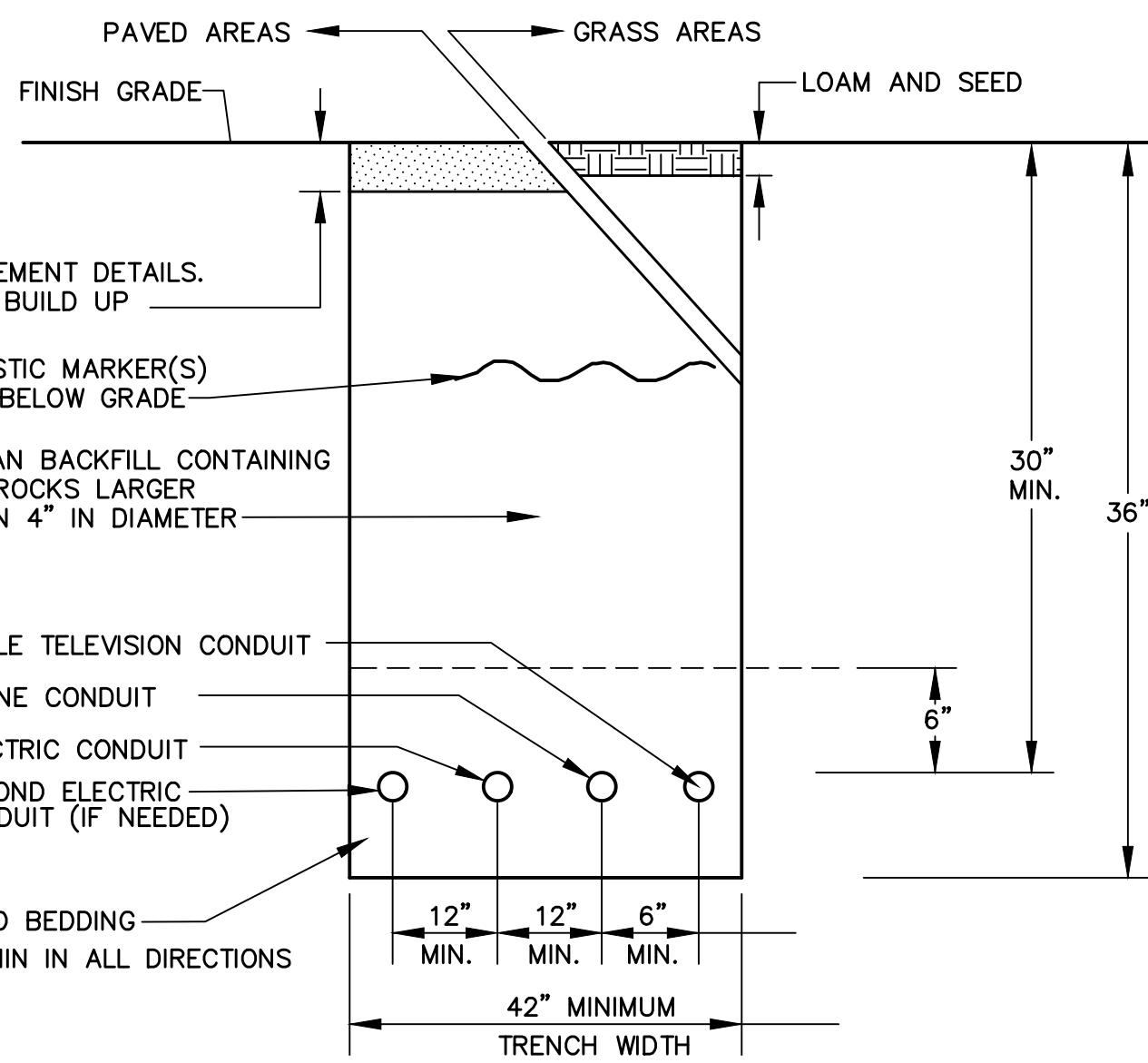
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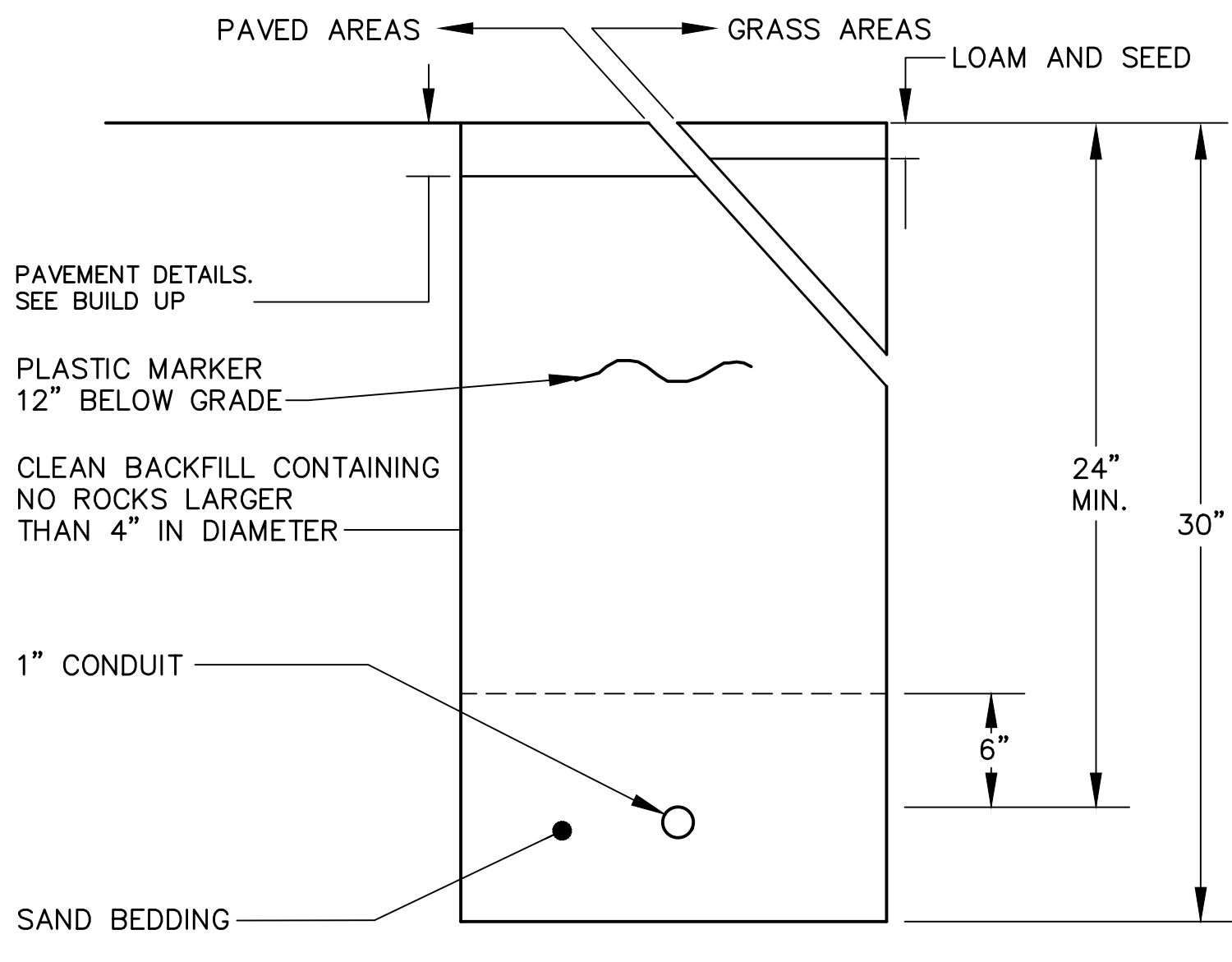
SITE AND UTILITY DETAILS

A	PERMITTING	1/28/22
No.	Revision/Issue	Date
Design by:	DJV	Checked by: MPM
Drawn by:	DJV	Approved by: JIM
Project:	191.06051	Date: DECEMBER 2019
Sheet No:	C2.2	

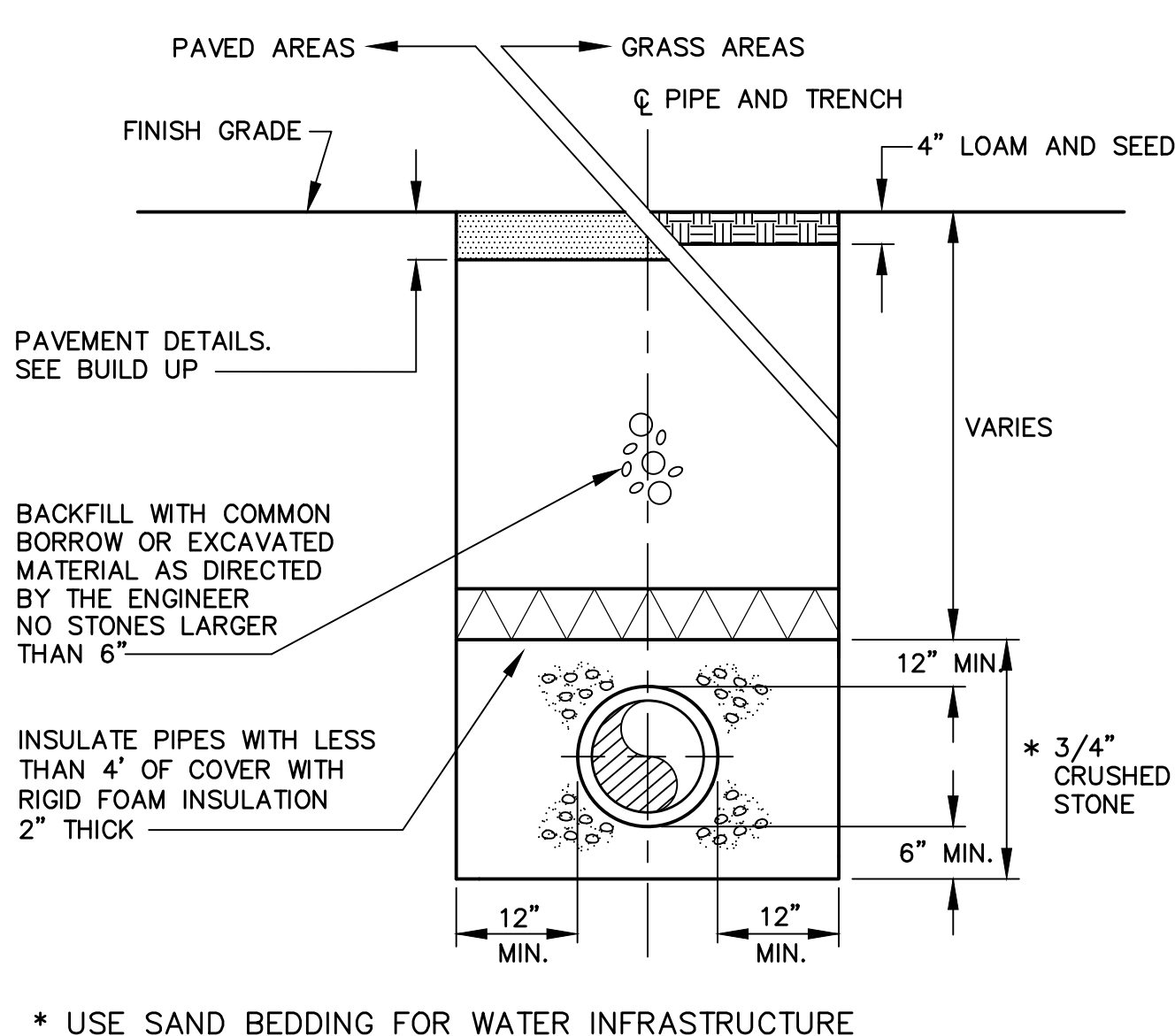
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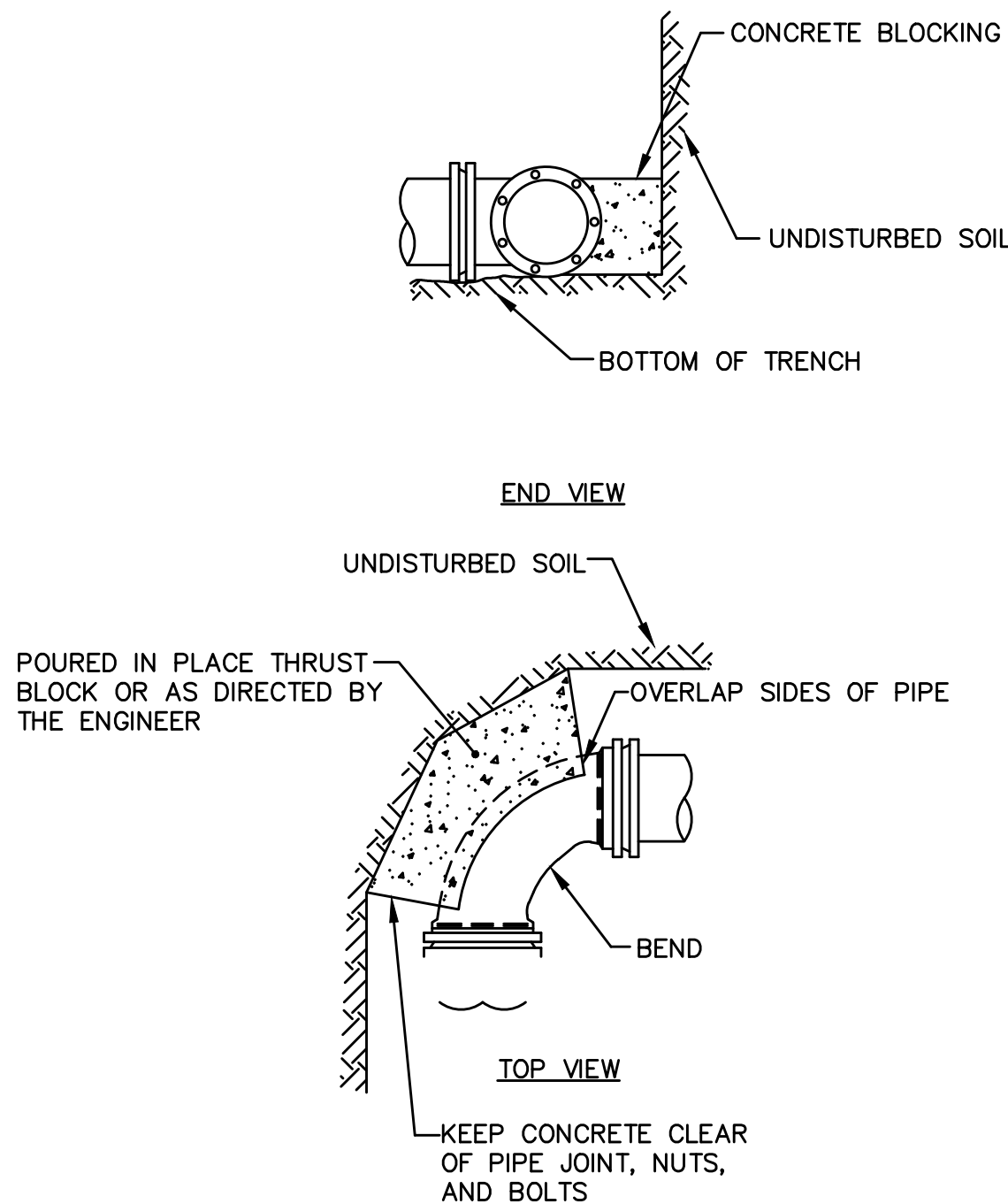
UTILITY TRENCH DETAIL
NOT TO SCALE



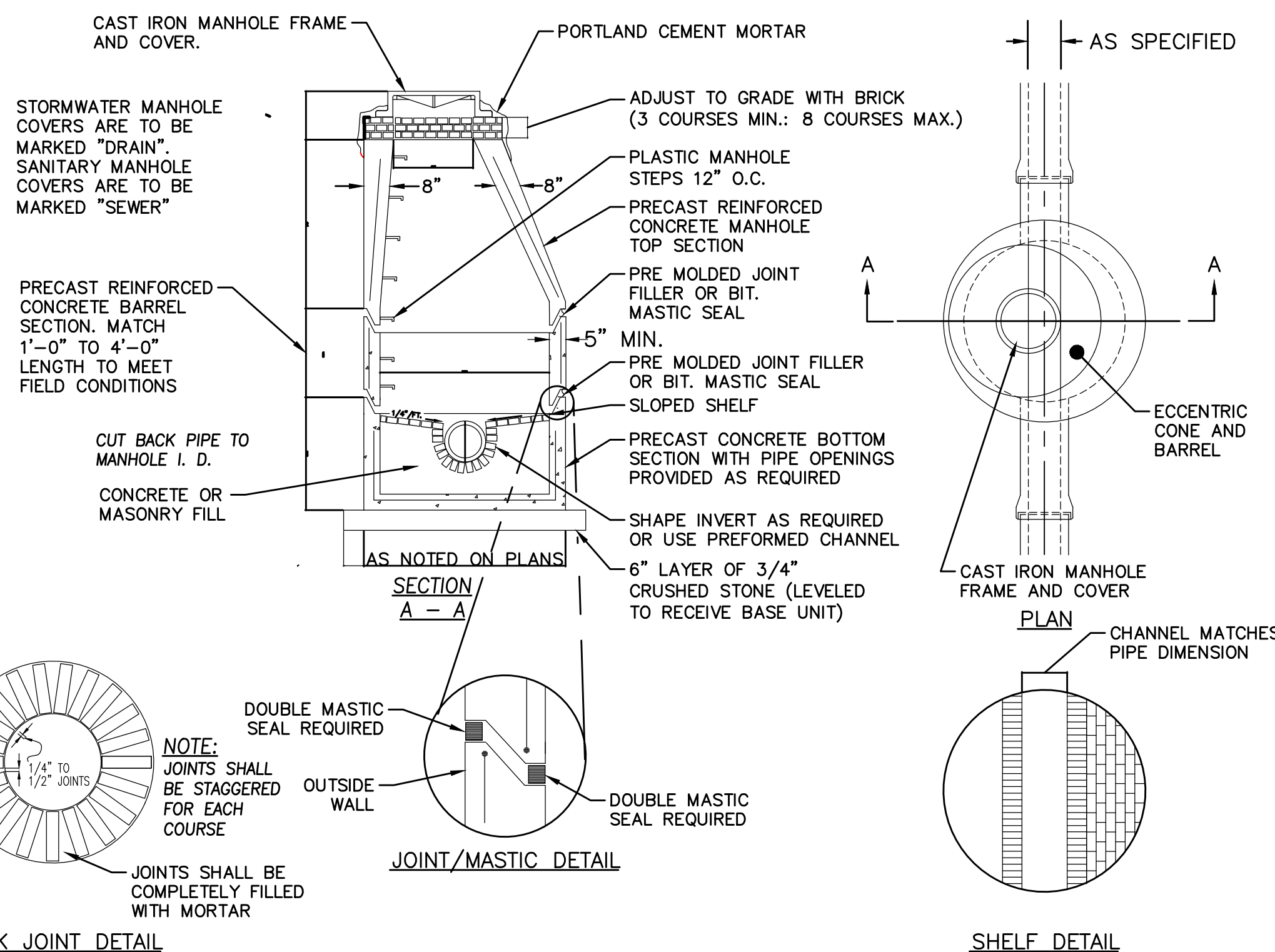
LIGHTING CONDUIT TRENCH DETAIL
NOT TO SCALE



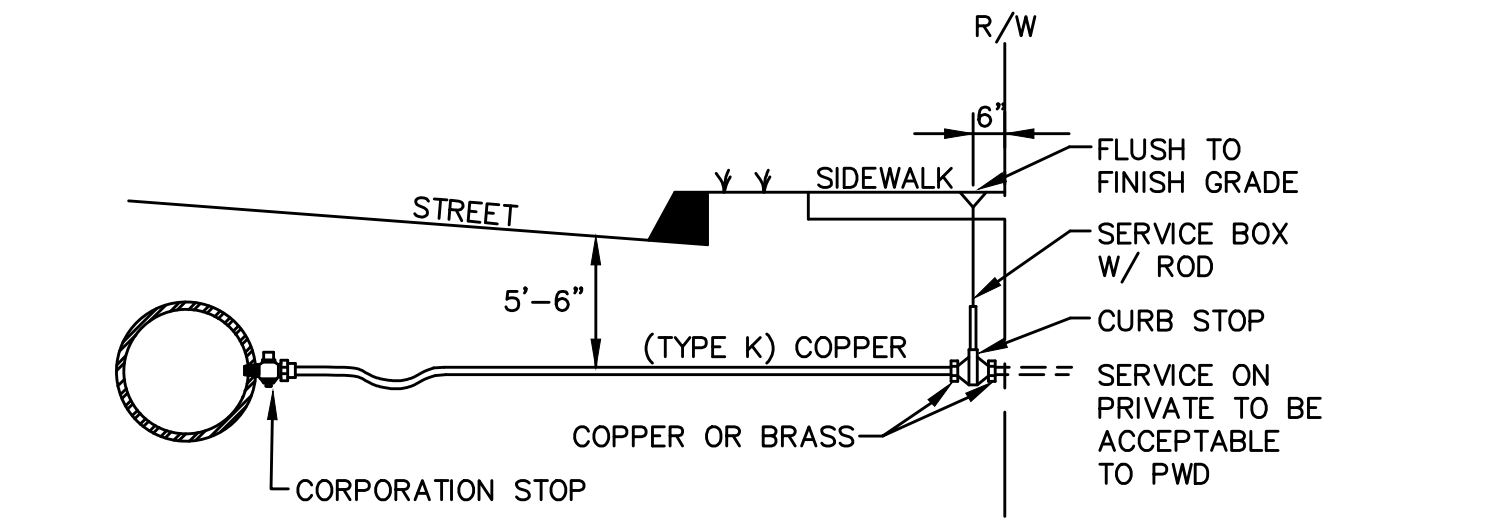
TYPICAL TRENCH DETAIL
NOT TO SCALE



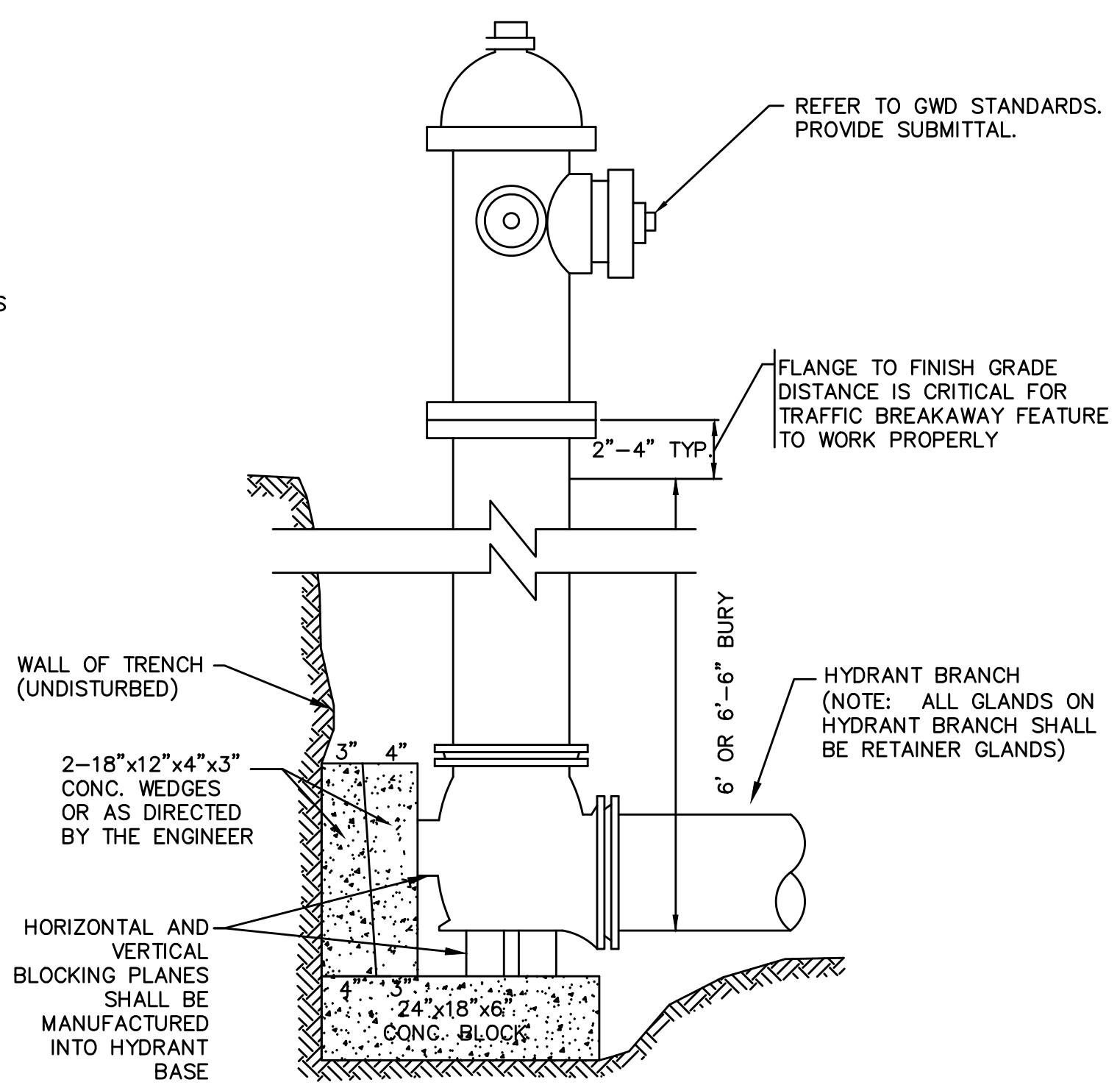
STANDARD BEND BLOCKING
NOT TO SCALE



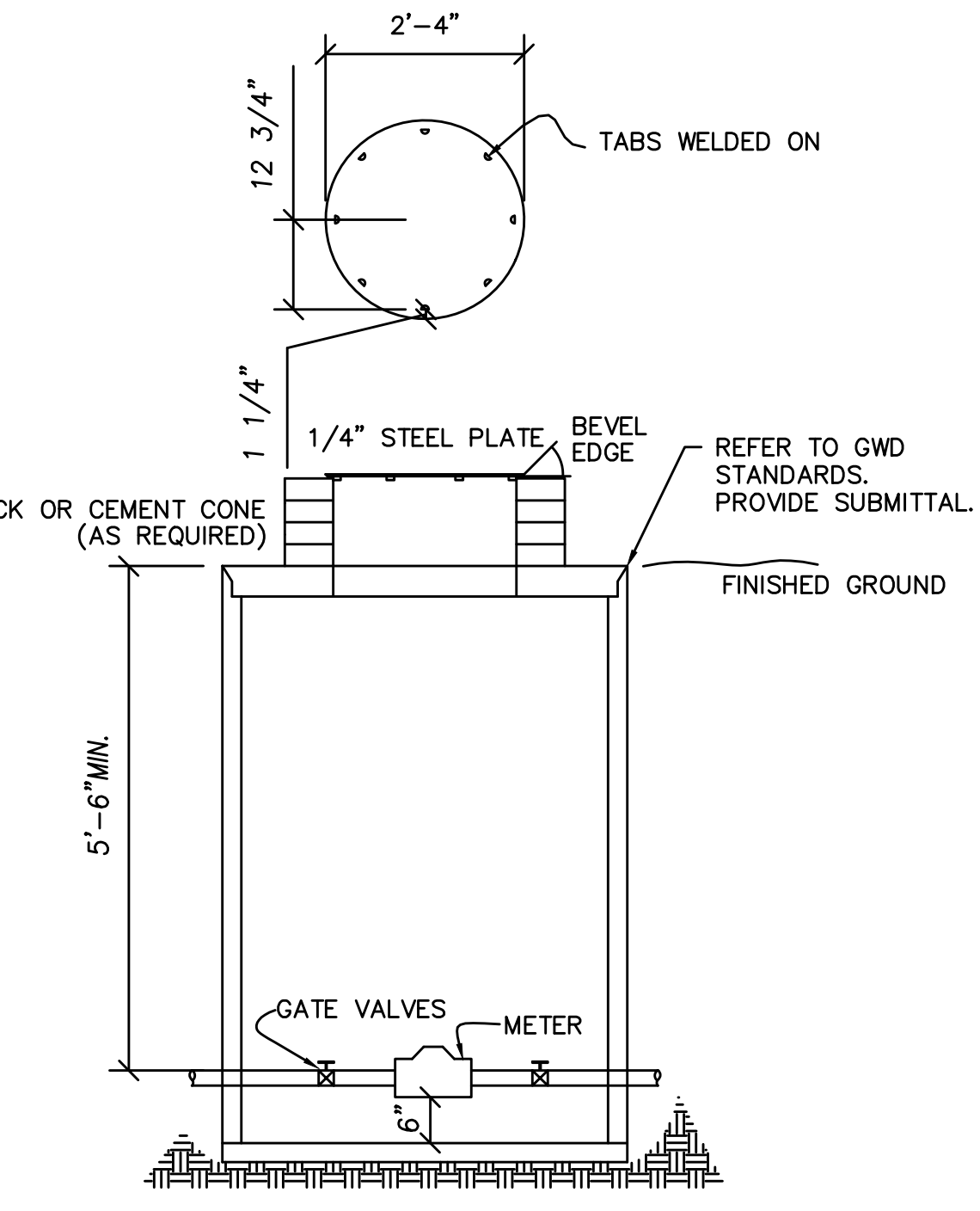
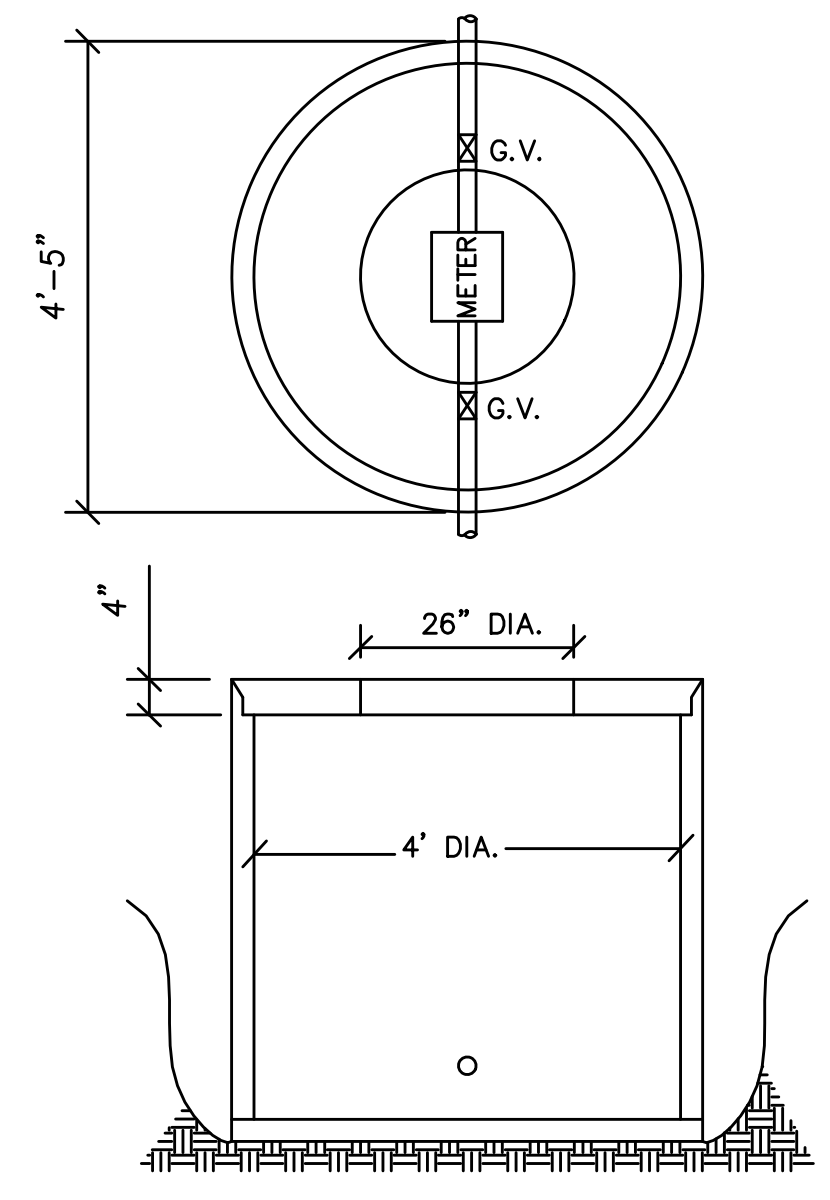
PRECAST CONCRETE MANHOLE
NOT TO SCALE



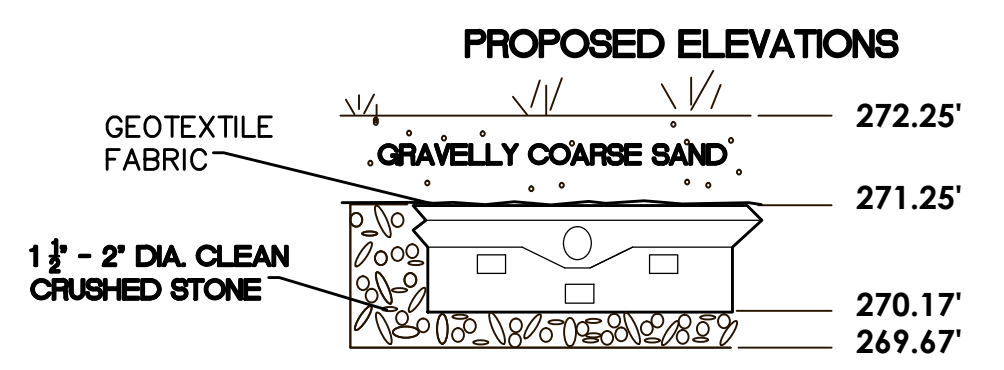
TYPICAL WATER SERVICE CONNECTION



TYPICAL HYDRANT INSTALLATION DETAIL
NOT TO SCALE



TYPICAL WATER METER PIT
NOT TO SCALE



CONCRETE CHAMBER DETAIL
NOT TO SCALE

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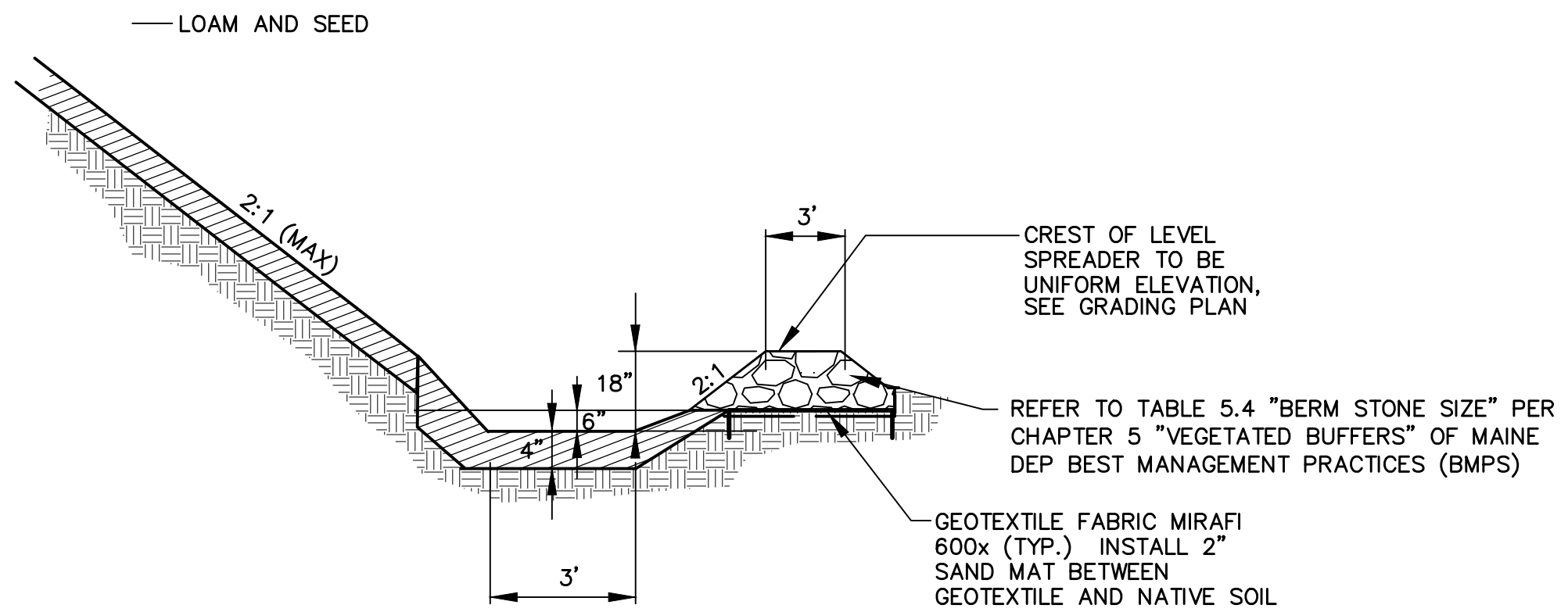
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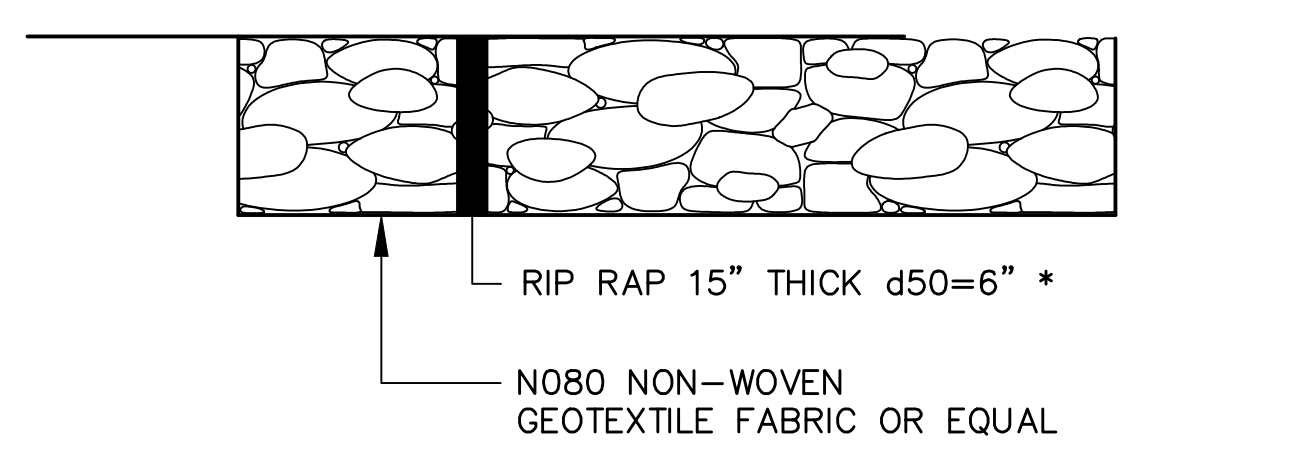
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UTILITY DETAILS

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Project:	191.06051	Date: DECEMBER 2019
Sheet No:	C2.3	

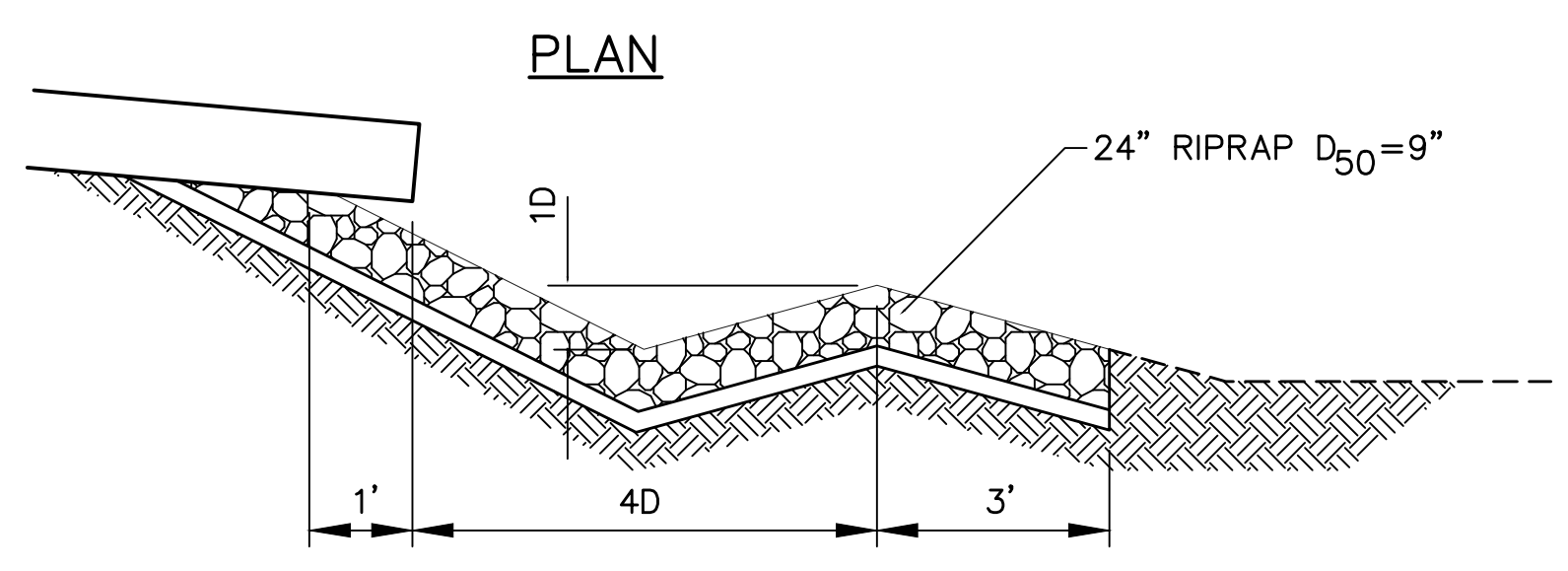
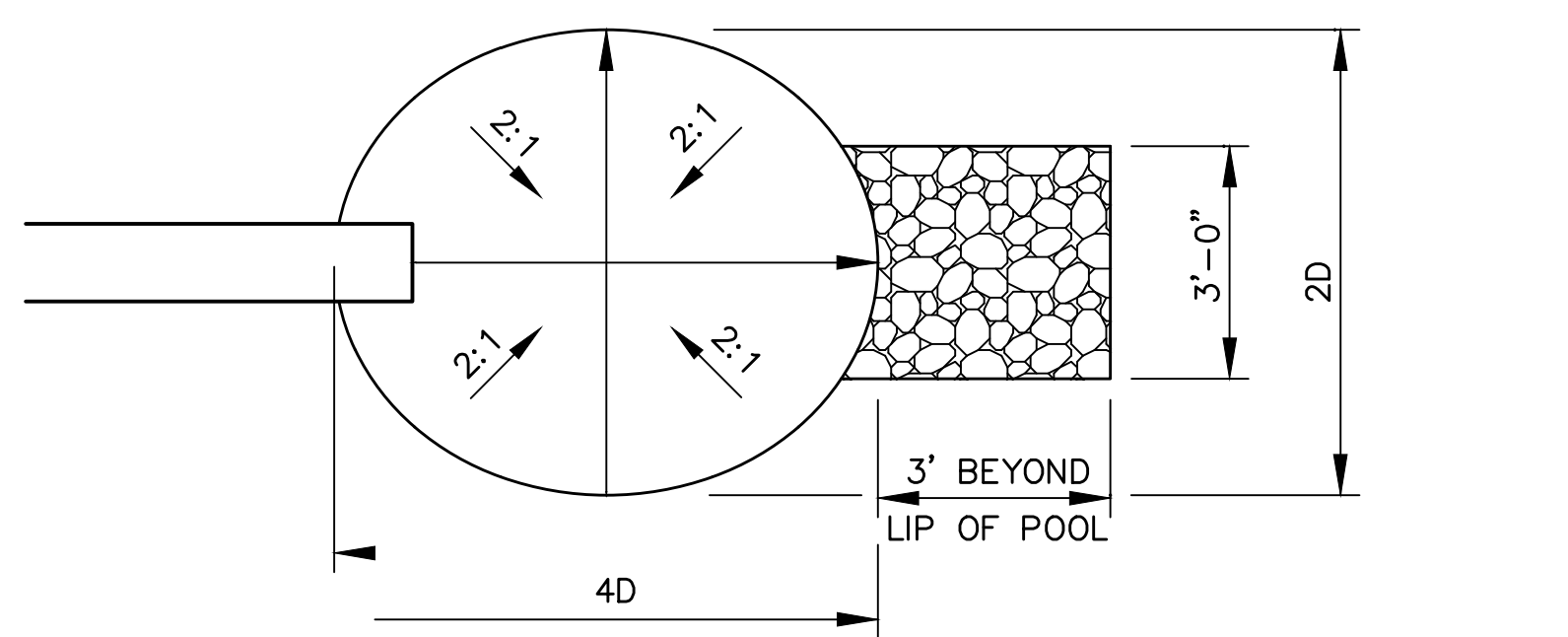


STONE BERMED LEVEL LIP SPREADER FOR FOREST BUFFER
NOT TO SCALE



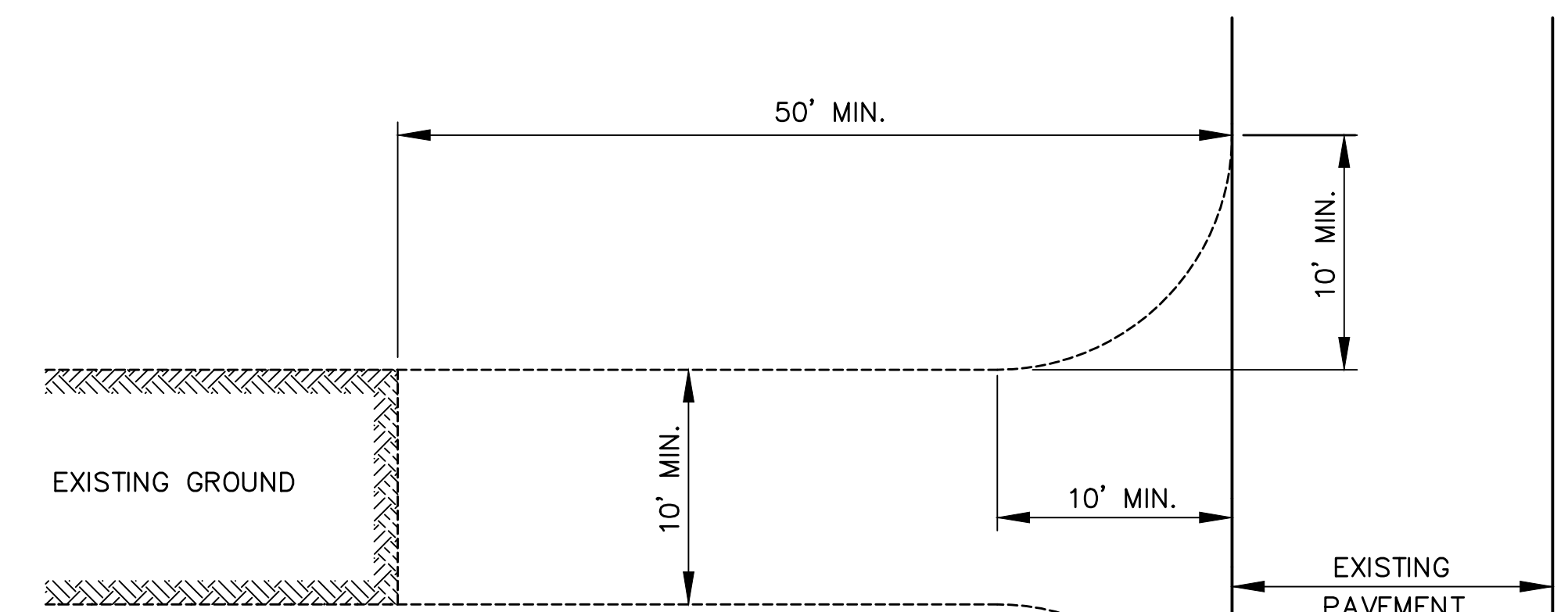
* RIP RAP TO CONSIST OF ROUNDED NATURAL STONE (SCREENINGS)
** SEE PLANS FOR SHAPE, SIZE & GRADING OF ENERGY DISSIPATORS/PLUNGE POOLS

ENERGY DISSIPATER/PLUNGE POOL DETAIL
NOT TO SCALE

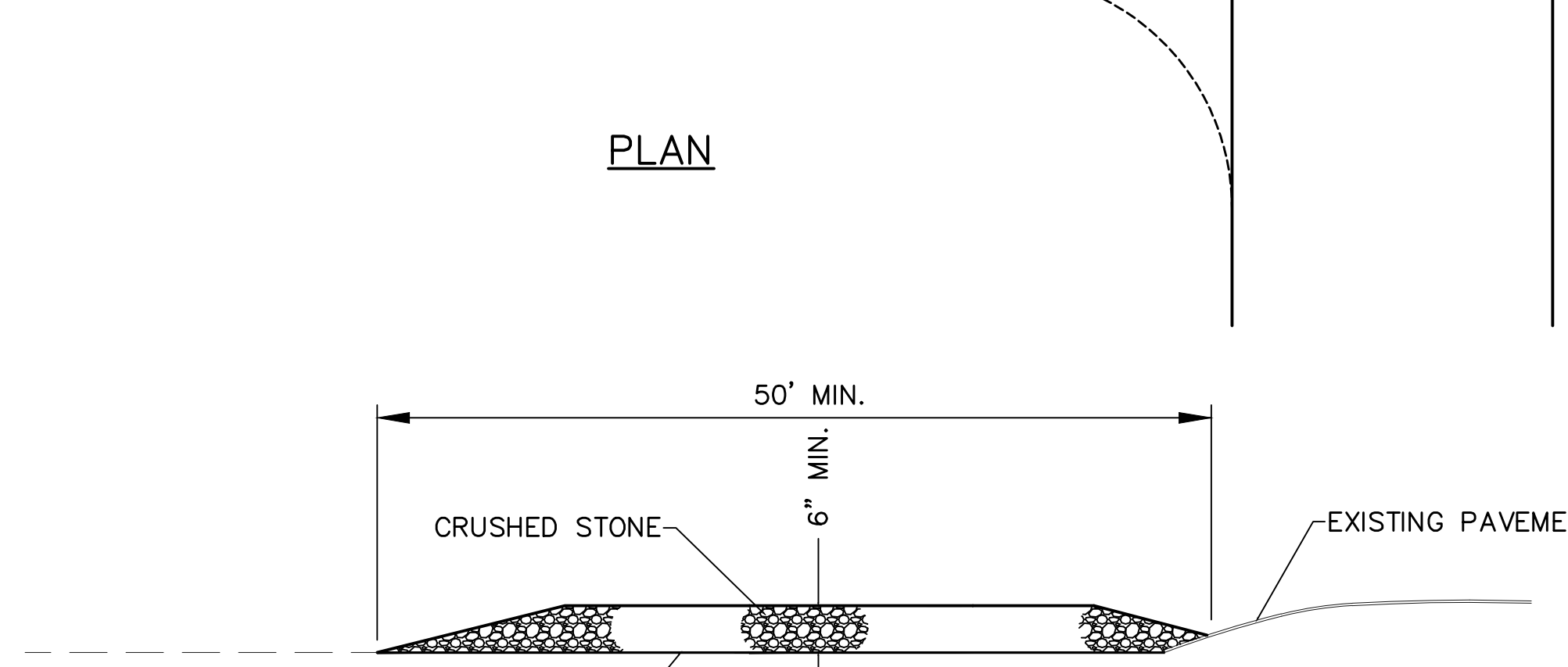


D = DIAMETER OF PIPE

OUTLET PLUNGE POOL
NOT TO SCALE

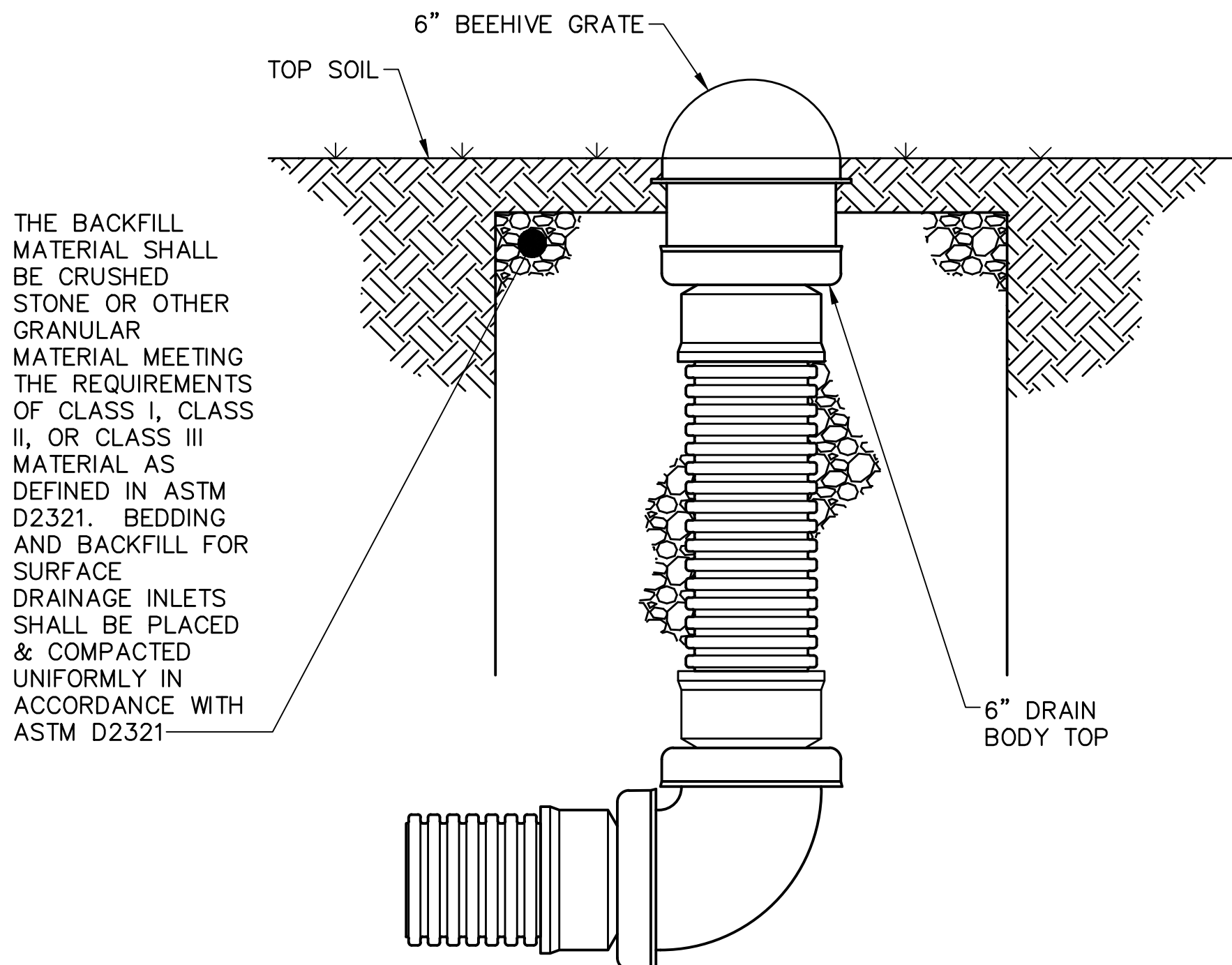


PLAN

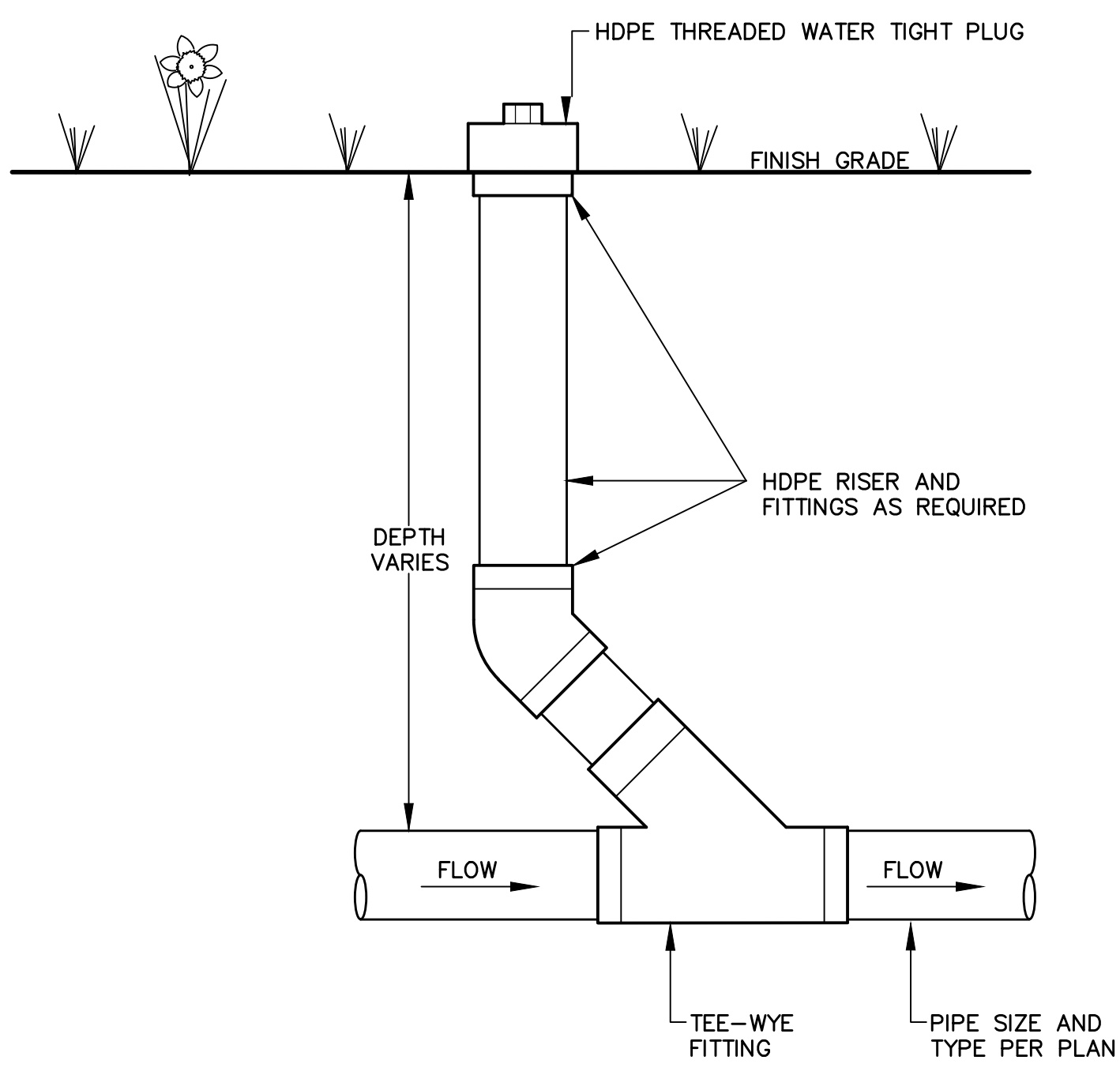


PROFILE

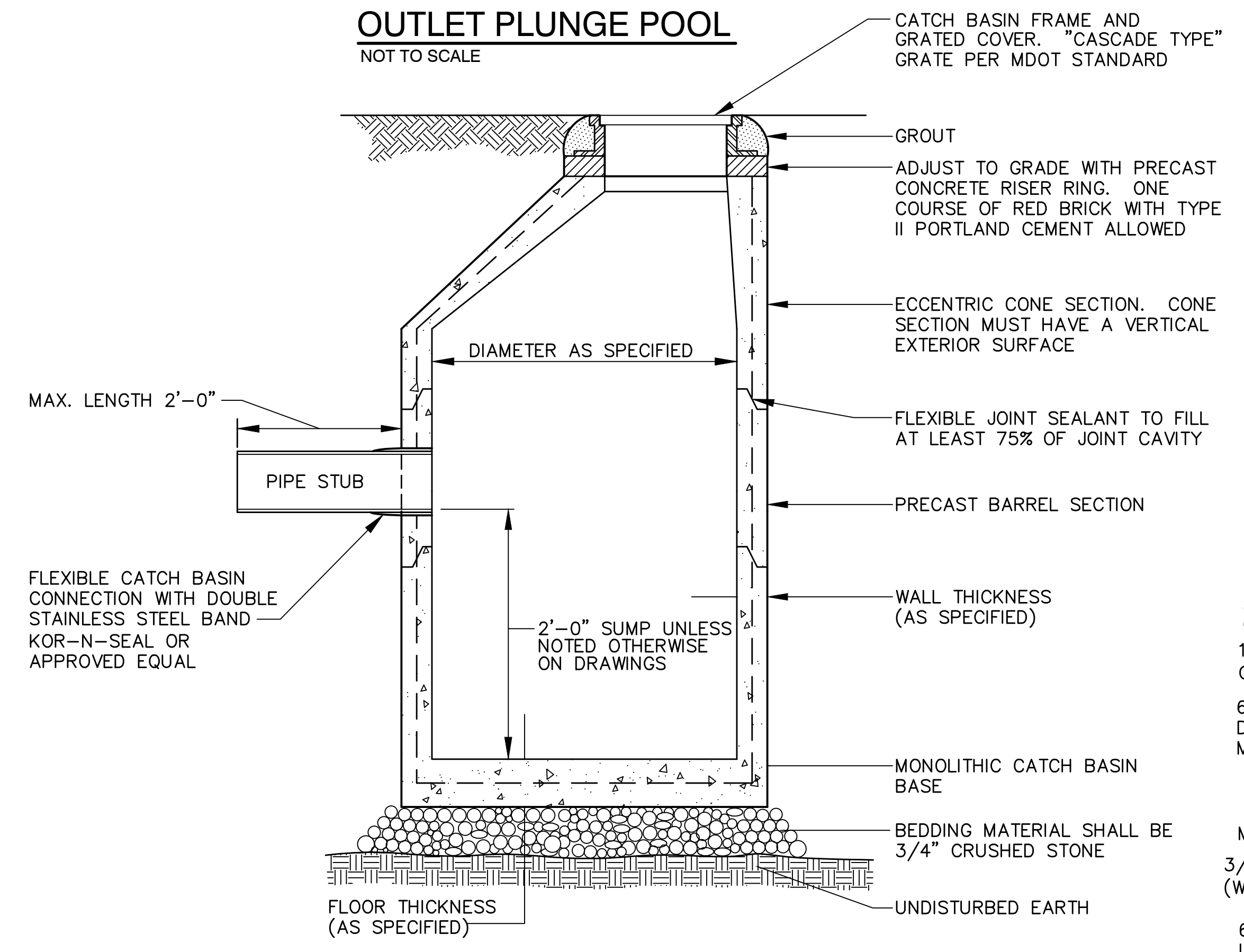
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



6\"/>

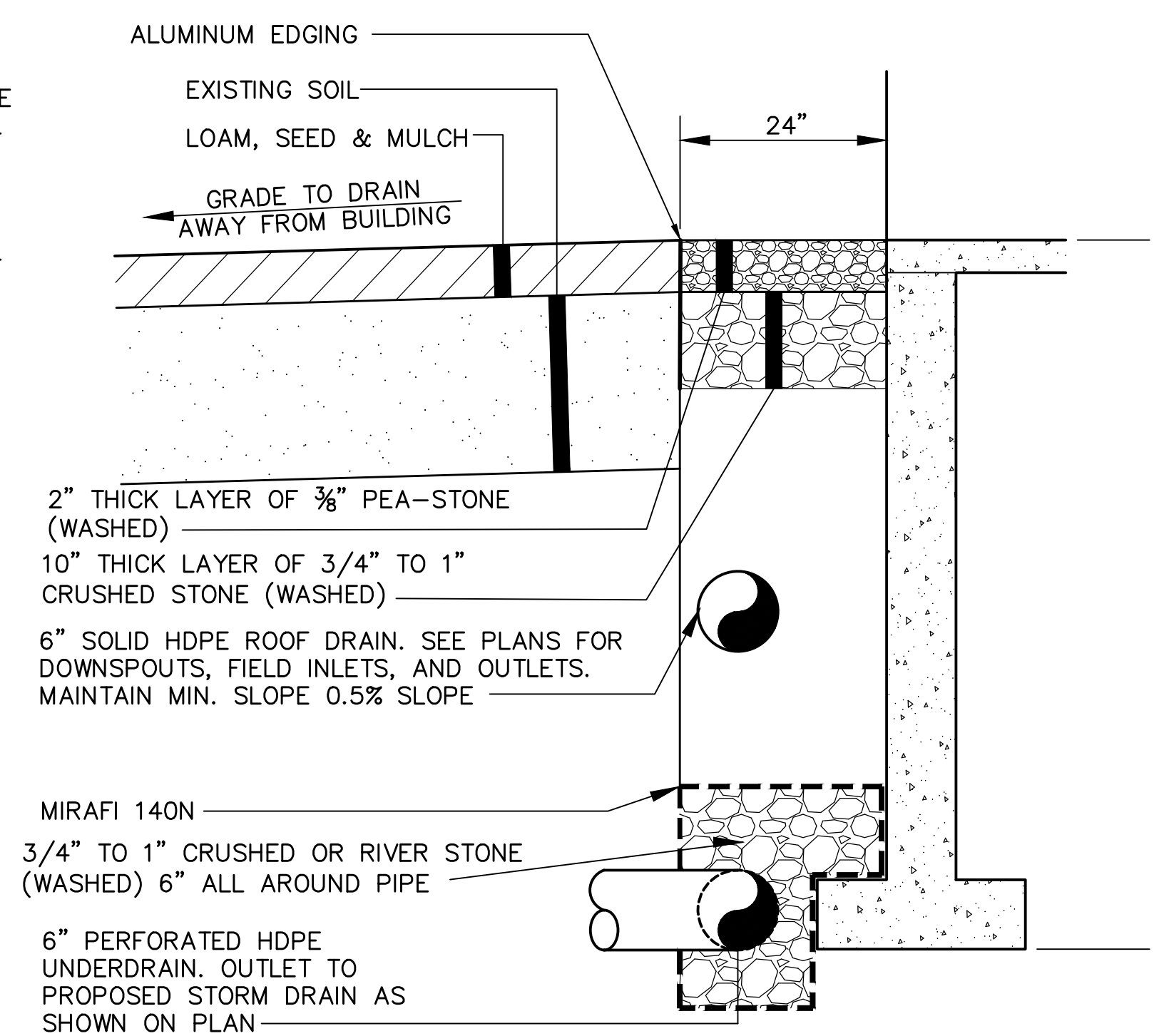


DRAIN CLEANOUT DETAIL
NOT TO SCALE



I.D.	WALL WIDTH	FLOOR THICKNESS
4'-0"	5"	6"

PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



UNDERDRAINED DRIP EDGE DRAIN DETAIL (FOR NEW CONSTRUCTION)
NOT TO SCALE

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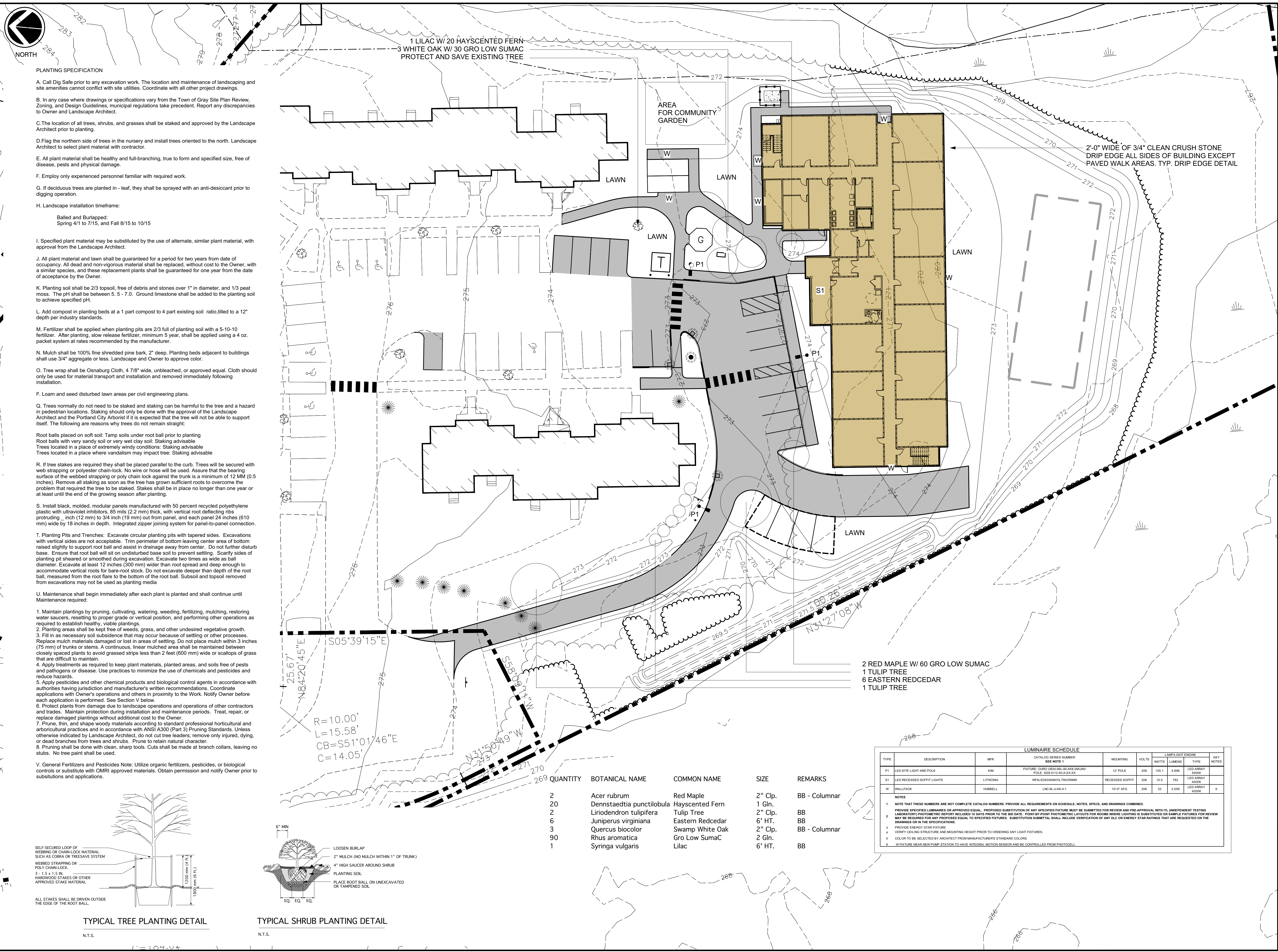
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GRADING AND STORMWATER DETAILS

No.	Revision/Issue	Date
A	PERMITTING	1/28/22

Design by: DJV
Checked by: MPM
Drawn by: DJV
Approved by: JIM
Project: 191.06051
Date: DECEMBER 2019
Sheet No: **C2.4**



- PLANTING SPECIFICATION**
- A. Call Dig Safe prior to any excavation work. The location and maintenance of landscaping and site amenities cannot conflict with site utilities. Coordinate with all other project drawings.
 - B. In any case where drawings or specifications vary from the Town of Gray Site Plan Review, Zoning, and Design Guidelines, municipal regulations take precedent. Report any discrepancies to Owner and Landscape Architect.
 - C. The location of all trees, shrubs, and grasses shall be staked and approved by the Landscape Architect prior to planting.
 - D. Flag the northern side of trees in the nursery and install trees oriented to the north. Landscape Architect to select plant material with contractor.
 - E. All plant material shall be healthy and full-branching, true to form and specified size, free of disease, pests and physical damage.
 - F. Employ only experienced personnel familiar with required work.
 - G. If deciduous trees are planted in - leaf, they shall be sprayed with an anti-desiccant prior to digging operation.
 - H. Landscape installation timeframe:
 - Balled and Burlapped: Spring 4/1 to 7/15, and Fall 8/15 to 10/15
 - I. Specified plant material may be substituted by the use of alternate, similar plant material, with approval from the Landscape Architect.
 - J. All plant material and lawn shall be guaranteed for a period for two years from date of occupancy. All dead and non-vigorous material shall be replaced, without cost to the Owner, with a similar species, and these replacement plants shall be guaranteed for one year from the date of acceptance by the Owner.
 - K. Planting soil shall be 2/3 topsoil, free of debris and stones over 1" in diameter, and 1/3 peat moss. The pH shall be between 5.5 - 7.0. Ground limestone shall be added to the planting soil to achieve specified pH.
 - L. Add compost in planting beds at a 1 part compost to 4 part existing soil ratio, tilled to a 12" depth per industry standards.
 - M. Fertilizer shall be applied when planting pits are 2/3 full of planting soil with a 5-10-10 fertilizer. After planting, slow release fertilizer, minimum 5 year, shall be applied using a 4 oz. packet system at rates recommended by the manufacturer.
 - N. Mulch shall be 100% fine shredded pine bark, 2" deep. Planting beds adjacent to buildings shall use 3/4" aggregate or less. Landscape and Owner to approve color.
 - O. Tree wrap shall be Osnaburg Cloth, 4 7/8" wide, unbleached, or approved equal. Cloth should only be used for material transport and installation and removed immediately following installation.
 - P. Loam and seed disturbed lawn areas per civil engineering plans.
 - Q. Trees normally do not need to be staked and staking can be harmful to the tree and a hazard in pedestrian locations. Staking should only be done with the approval of the Landscape Architect and the Portland City Arborist if it is expected that the tree will not be able to support itself. The following are reasons why trees do not remain straight:
 - Root balls placed on soft soil: Tamp soils under root ball prior to planting
 - Root balls with very sandy soil or very wet clay soil: Staking advisable
 - Trees located in a place of extremely windy conditions: Staking advisable
 - Trees located in a place where vandalism may impact tree: Staking advisable
 - R. If tree stakes are required they shall be placed parallel to the curb. Trees will be secured with web strapping or polyester chain-lock. No wire or hose will be used. Assume that the bearing surface of the webbing strapping or poly chain lock against the trunk is a minimum of 12 MM (0.5 inches). Remove all staking as soon as the tree has grown sufficient roots to overcome the problem that required the tree to be staked. Stakes shall be in place no longer than one year or at least until the end of the growing season after planting.
 - S. Install black, molded, modular panels manufactured with 50 percent recycled polyethylene plastic with ultraviolet inhibitors, 85 mils (2.2 mm) thick, with vertical root deflecting ribs protruding 1/2 inch (12 mm) to 3/4 inch (19 mm) out from panel, and each panel 24 inches (610 mm) wide by 18 inches in depth. Integrated zipper joining system for panel-to-panel connection.
 - T. Planting Pits and Trenches: Excavate circular planting pits with tapered sides. Excavations with vertical sides are not acceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit sheared or smoothed during excavation. Excavate two times as wide as ball diameter. Excavate at least 12 inches (300 mm) wider than root spread and deep enough to accommodate vertical roots for bare-root stock. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball. Subsoil and topsoil removed from excavations may not be used as planting media.
 - U. Maintenance shall begin immediately after each plant is planted and shall continue until Maintenance required:
 1. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring water saucers, resetting to proper grade or vertical position, and performing other operations as required to establish healthy, viable plantings.
 2. Planting areas shall be kept free of weeds, grass, and other undesired vegetative growth. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of settling. Do not place mulch within 3 inches (75 mm) of trunks or stems. A continuous, linear mulched area shall be maintained between closely spaced plants to avoid grassed strips less than 2 feet (600 mm) wide or scallops of grass that are difficult to maintain.
 3. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use practices to minimize the use of chemicals and pesticides and reduce hazards.
 4. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed. See Section V below.
 5. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings without additional cost to the Owner.
 6. Prune, thin, and shape woody materials according to standard professional horticultural and arboricultural practices and in accordance with ANSI A300 (Part 3) Pruning Standards. Unless otherwise indicated by Landscape Architect, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs. Prune to retain natural character.
 7. Pruning shall be done with clean, sharp tools. Cuts shall be made at branch collars, leaving no stubs. No tree paint shall be used.
 - V. General Fertilizers and Pesticides Note: Utilize organic fertilizers, pesticides, or biological controls or substitute with OMRI approved materials. Obtain permission and notify Owner prior to substitutions and applications.

1 LILAC W/ 20 HAYSCEATED FERN
3 WHITE OAK W/ 30 GRO LOW SUMAC
PROTECT AND SAVE EXISTING TREE

AREA FOR COMMUNITY GARDEN

2'-0" WIDE OF 3/4" CLEAN CRUSH STONE
DRIP EDGE ALL SIDES OF BUILDING EXCEPT
PAVED WALK AREAS. TYP. DRIP EDGE DETAIL

2 RED MAPLE W/ 60 GRO LOW SUMAC
1 TULIP TREE
6 EASTERN REDCEDAR
1 TULIP TREE

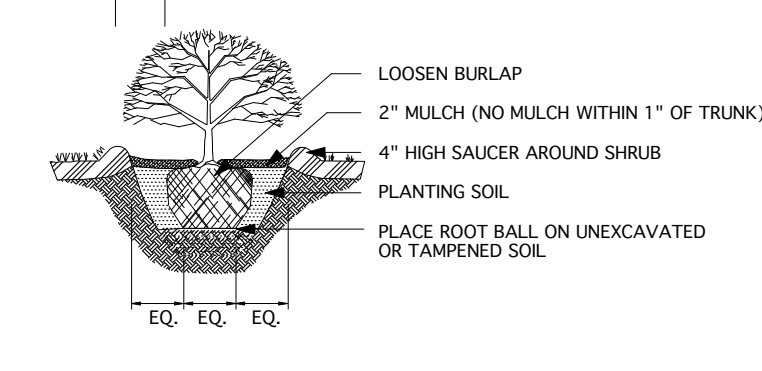
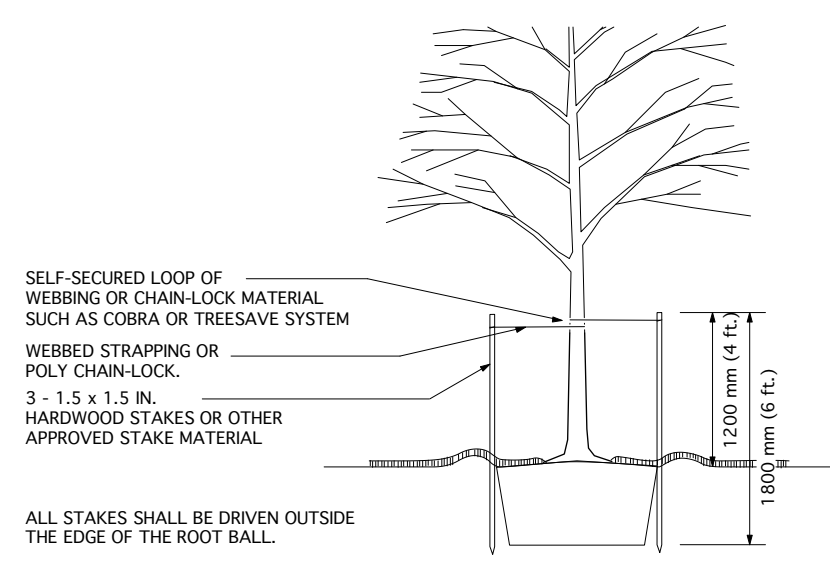
S05°39'15"E
N84°20'45"E
R=10.00'
L=15.58'
CB=S51°01'46"E
C=14.05'

QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
2	Acer rubrum	Red Maple	2" Clp.	BB - Columnar
20	Dennstaedtia punctilobula	Hayscenced Fern	1 Gln.	
2	Liriodendron tulipifera	Tulip Tree	2" Clp.	BB
6	Juniperus virginiana	Eastern Redcedar	6' HT.	BB
3	Quercus bicolor	Swamp White Oak	2" Clp.	BB - Columnar
90	Rhus aromatica	Gro Low Sumac	2 Gln.	
1	Syringa vulgaris	Lilac	6' HT.	BB

LUMINAIRE SCHEDULE									
TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER SEE NOTE 1	MOUNTING	VOLTS	WATTS	LUMENS	LAMP/LIGHT ENGINE	KEY NOTES
P1	LED SITE LIGHT AND POLE	KIM	FEATURE: CURO U920-96L-90-4K-3M-WV POLE: SSS-H-12-40-XXX-XX	12' POLE	208	195.1	4,896	LED ARRAY 4000K	
S1	LED RECESSED SOFFIT LIGHTS	LITHONIA	W4LED400MMVOLTTRCWRW	RECESSED SOFFIT	208	15.5	762	LED ARRAY 4000K	
W	WALLPACK	HUBBELL	UNCL-EL-14K-1	10"Ø AFG	208	22	2,059	LED ARRAY 4000K	6

NOTES

1. NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. PROVIDE ALL REQUIREMENTS ON SCHEDULE, NOTES, SPECS, AND DRAWINGS COMBINED.
2. PROVIDE SPECIFIED LUMINAIRE OR APPROVED EQUAL. PROPOSED SUBSTITUTION OF ANY SPECIFIED FEATURE MUST BE SUBMITTED FOR REVIEW AND PRE-APPROVAL WITH IT. INDEPENDENT TESTING LABORATORY PHOTOMETRIC REPORT INCLUDED 15 DAYS PRIOR TO THE BID DATE. POINT-BY-POINT PHOTOMETRIC LAYOUTS FOR ROOMS WHERE LIGHTING IS SUBSTITUTED OR SAMPLE FIXTURES FOR REVIEW DRAWINGS ON IN THE SPECIFICATIONS.
3. PROVIDE ENERGY STAR FIXTURES.
4. VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.
5. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.
6. W FIXTURE NEAR NEW PUMP STATION TO HAVE INTEGRAL MOTION SENSOR AND BE CONTROLLED FROM PHOTOCELL.



TYPICAL TREE PLANTING DETAIL
N.T.S.

TYPICAL SHRUB PLANTING DETAIL
N.T.S.

AVESTA GRAY MEADOWVIEW
16 HANCOCK STREET
GRAY, MAINE

Prepared for:
AVESTA HOUSING
307 CUMBERLAND AVENUE
PORTLAND, MAINE, 04101

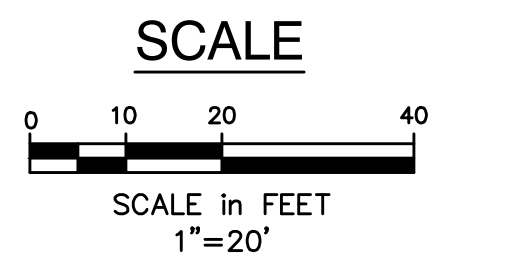


Architect:
JSA DESIGN
273 CORPORATE DRIVE, SUITE 100
PORTSMOUTH, NH, 03801

Structural/Mechanical:
ALLIED ENGINEERING, INC.
160 VERANDA STREET
PORTLAND, MAINE, 04103

Soil Scientist/Site Evaluator:
ALBERT FRICK ASSOCIATES, INC.
380B MAIN STREET
GORHAM, MAINE, 04038

Landscape Architect:
RASOR LANDSCAPE ARCHITECTURE
87 MAIN STREET
YARMOUTH, MAINE, 04096



400 Commercial Street, Suite 404
Portland, ME 04101
Tel. (207) 772-2891
Fax (207) 772-3248
www.ransomem.com

LANDSCAPE AND LIGHTING PLAN

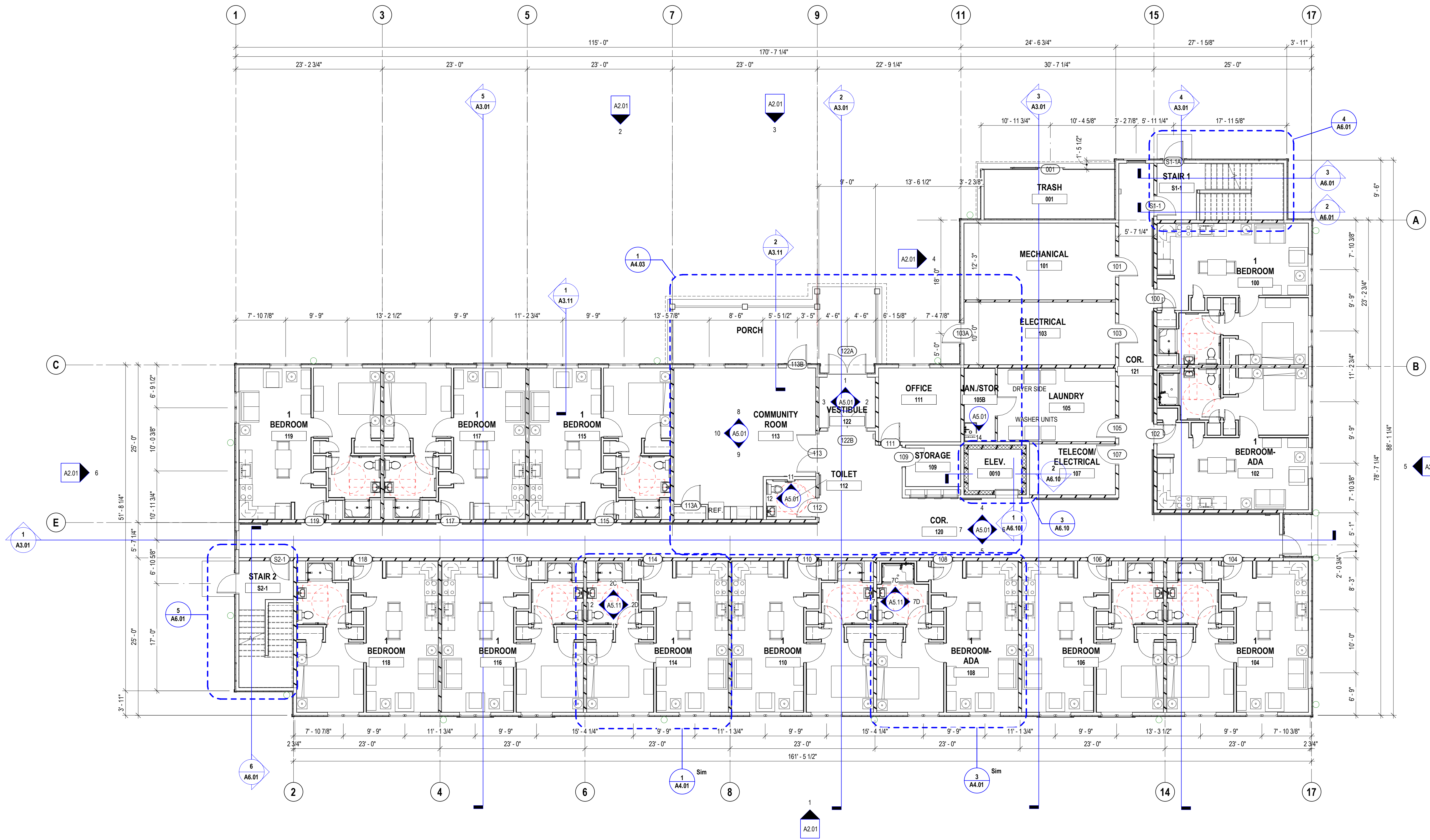
No.	Revision/Issue	Date
B	SKETCH PLAN	10/13/21
A	SKETCH PLAN	4/26/21

No.	Revision/Issue	Date

Design by:	ARF/DJV	Checked by:	JIM
Drawn by:	ARF/DJV	Approved by:	JIM
Project:	191.06051	Date:	DECEMBER 2019

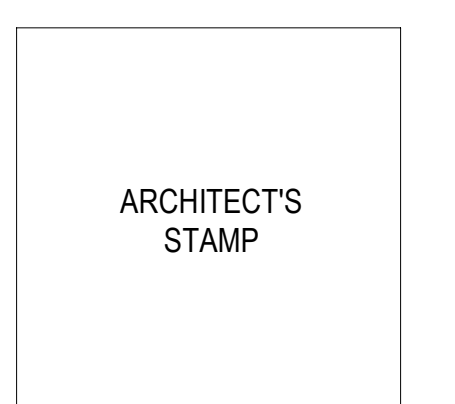
Sheet No: **L-1**

GENERAL PLAN NOTES	
1	GENERAL CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT IF FIELD CONDITIONS ARE DIFFERENT THAN SHOWN IN THE DRAWINGS.
2	REFERENCE LIFE SAFETY DRAWINGS LS.001.5.03 FOR ADDITIONAL INFORMATION.
3	REFERENCE DRAWING A8.01, A8.02, & A8.03 FOR EXTERIOR WALL AND PARTITION TYPES.
4	REFERENCE CIVIL ENGINEERING AND LANDSCAPE ARCHITECTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION. SITE INFORMATION SHOWN HERE FOR REFERENCE ONLY.
5	ACCESSIBLE CLEARANCES ARE REQUIRED AT ALL ACCESSIBLE FIXTURES AND EQUIPMENT.
6	EXTERIOR DIMENSION ARE GIVEN FROM FACE OF STUD TO FACE OF STUD, TYP.
7	INTERIOR DIMENSIONS ARE GIVEN FROM FACE OF STUD TO FACE OF STUD, U.N.O.
8	ALL DOORS SHALL BE INSTALLED WITH HINGED SIDE OF FINISHED OPENING 6" FROM ADJACENT WALL, OR CENTERED WITHIN WALL, UNLESS NOTED OTHERWISE.
9	ALL DOORS INTENDED FOR PASSAGE MUST MEET ACCESSIBILITY MANEUVERING CLEARANCES.
10	EXTERIOR OPENINGS ARE DIMENSIONED TO CENTER LINE OF OPENING UNLESS NOTED OTHERWISE.
11	ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL CODES AS WELL AS STATE AND FEDERAL GUIDELINES.
12	REFER TO A8.11 FOR DOOR AND FRAME TYPES.
13	REFER TO A8.31 FOR WINDOW AND LOUVER TYPES.
14	REFER TO A4 SERIES SHEETS FOR UNIT PLANS & ENLARGED PLANS.
15	SEE DETAIL 2/A1.01A FOR TYPICAL DETAIL AT ALL UNIT ENTRIES.
16	TYPICAL INTERIOR WALL PARTITION TO BE TYPE S6.S.A UNLESS NOTED OTHERWISE.



1 FIRST FLOOR
1/8" = 1'-0"

AVESTA MEADOWVIEW II
GRAY, MAINE



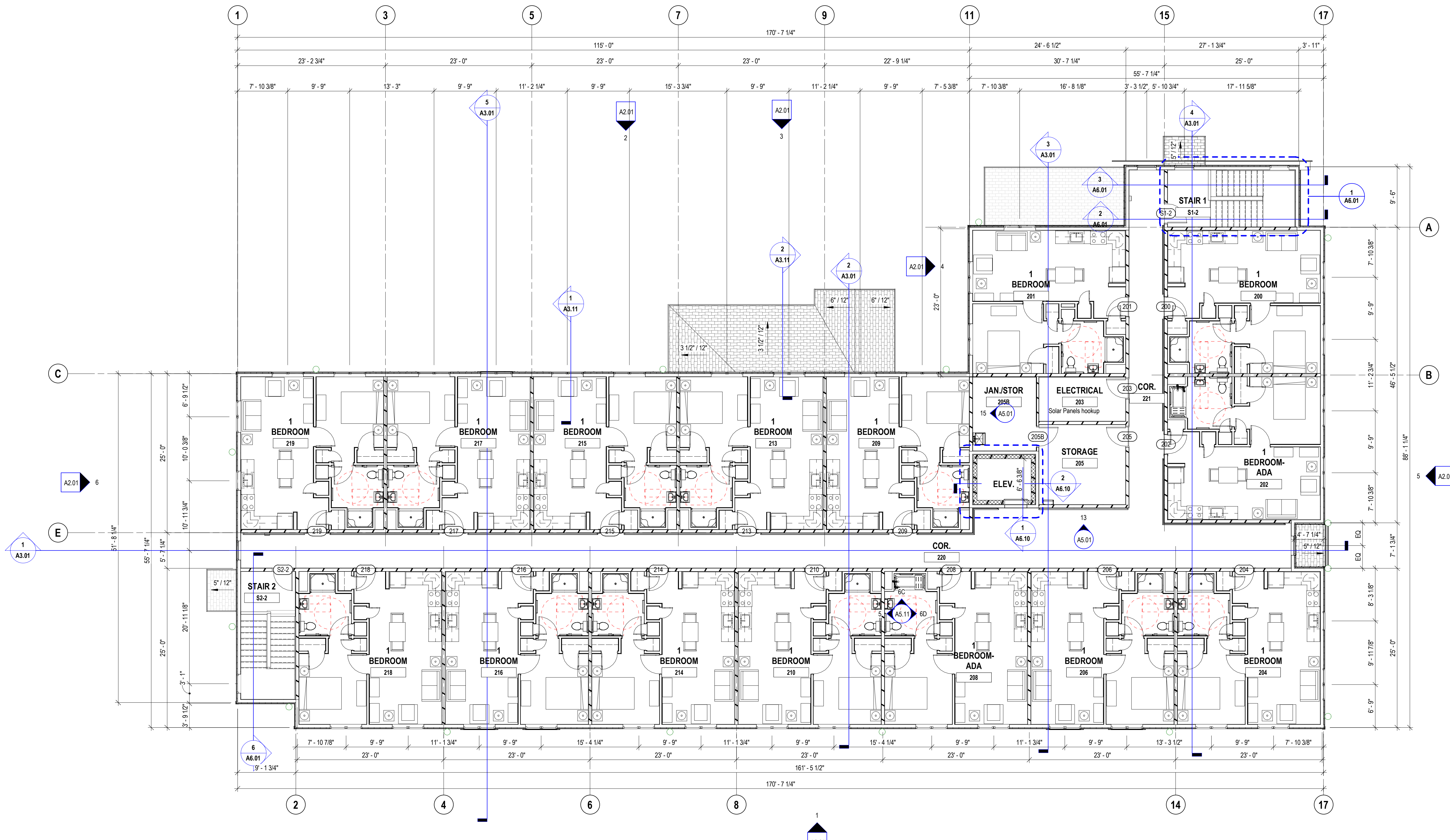
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Date: DECEMBER 30, 2021
Project Number: P19099.00

REVISIONS		
NO.	DESCRIPTION	DATE

VOLUME 1
CONSTRUCTION DOCUMENTS 50%
FIRST FLOOR PLAN

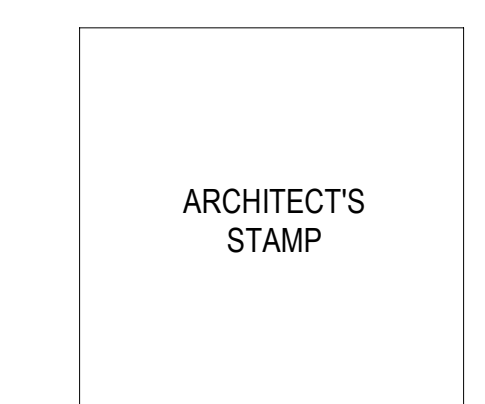
12/30/2021 10:12:11 AM/Revised projects/P099.00 - Avesta Meadowview (2021) - CTRL_jperca218v1.rvt

GENERAL PLAN NOTES	
1	GENERAL CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT IF FIELD CONDITIONS ARE DIFFERENT THAN SHOWN IN THE DRAWINGS.
2	REFERENCE LIFE SAFETY DRAWINGS LS.001.533 FOR ADDITIONAL INFORMATION.
3	REFERENCE DRAWING A8.01, A8.02, & A8.03 FOR EXTERIOR WALL AND PARTITION TYPES.
4	REFERENCE CIVIL ENGINEERING AND LANDSCAPE ARCHITECTURAL DRAWINGS FOR SITE SPECIFIC INFORMATION. SITE INFORMATION SHOWN HERE FOR REFERENCE ONLY.
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15	SEE DETAIL 2/A1.01A FOR TYPICAL DETAIL AT ALL UNIT ENTRIES.
16	TYPICAL INTERIOR WALL PARTITION TO BE TYPE S6.S.A UNLESS NOTED OTHERWISE.



1 SECOND FLOOR
1/8" = 1'-0"

AVESTA MEADOWVIEW II
GRAY, MAINE



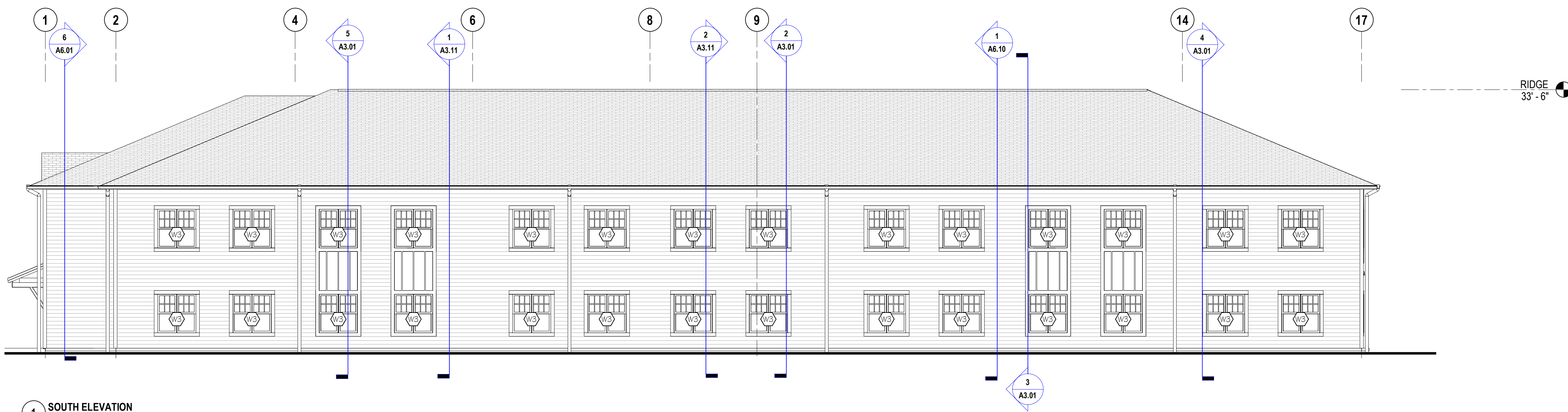
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Date: DECEMBER 30, 2021
Project Number: P19099.00

REVISIONS		
NO.	DESCRIPTION	DATE

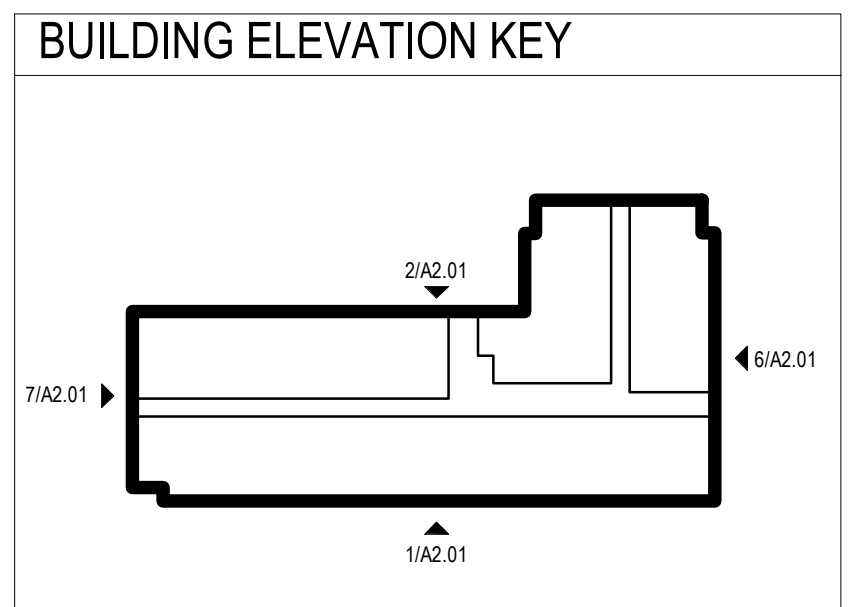
VOLUME 1
CONSTRUCTION DOCUMENTS 50%
SECOND FLOOR PLAN

A1.02

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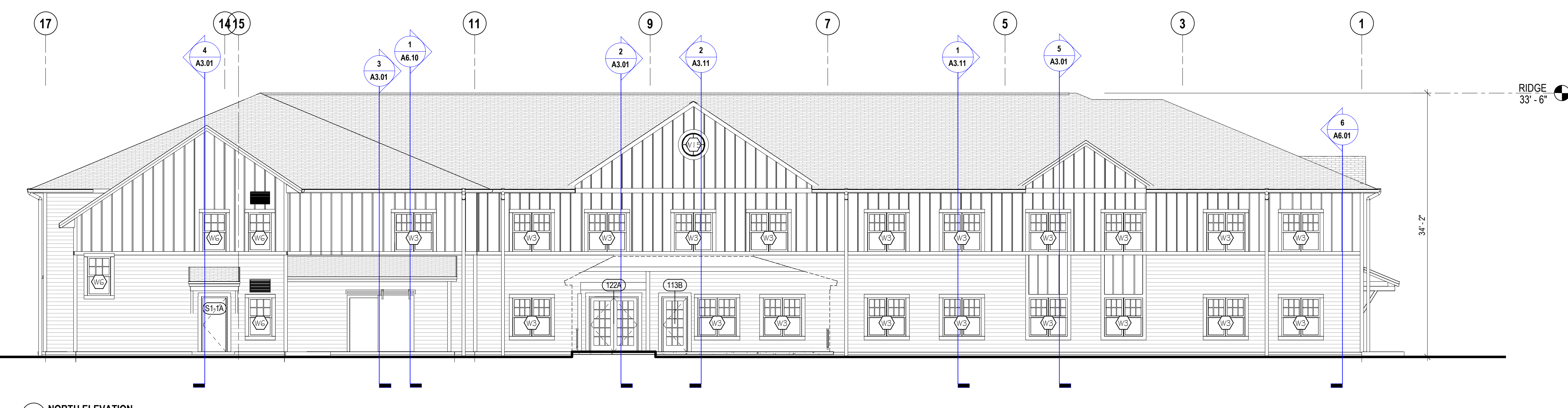


1 SOUTH ELEVATION
1/8" = 1'-0"

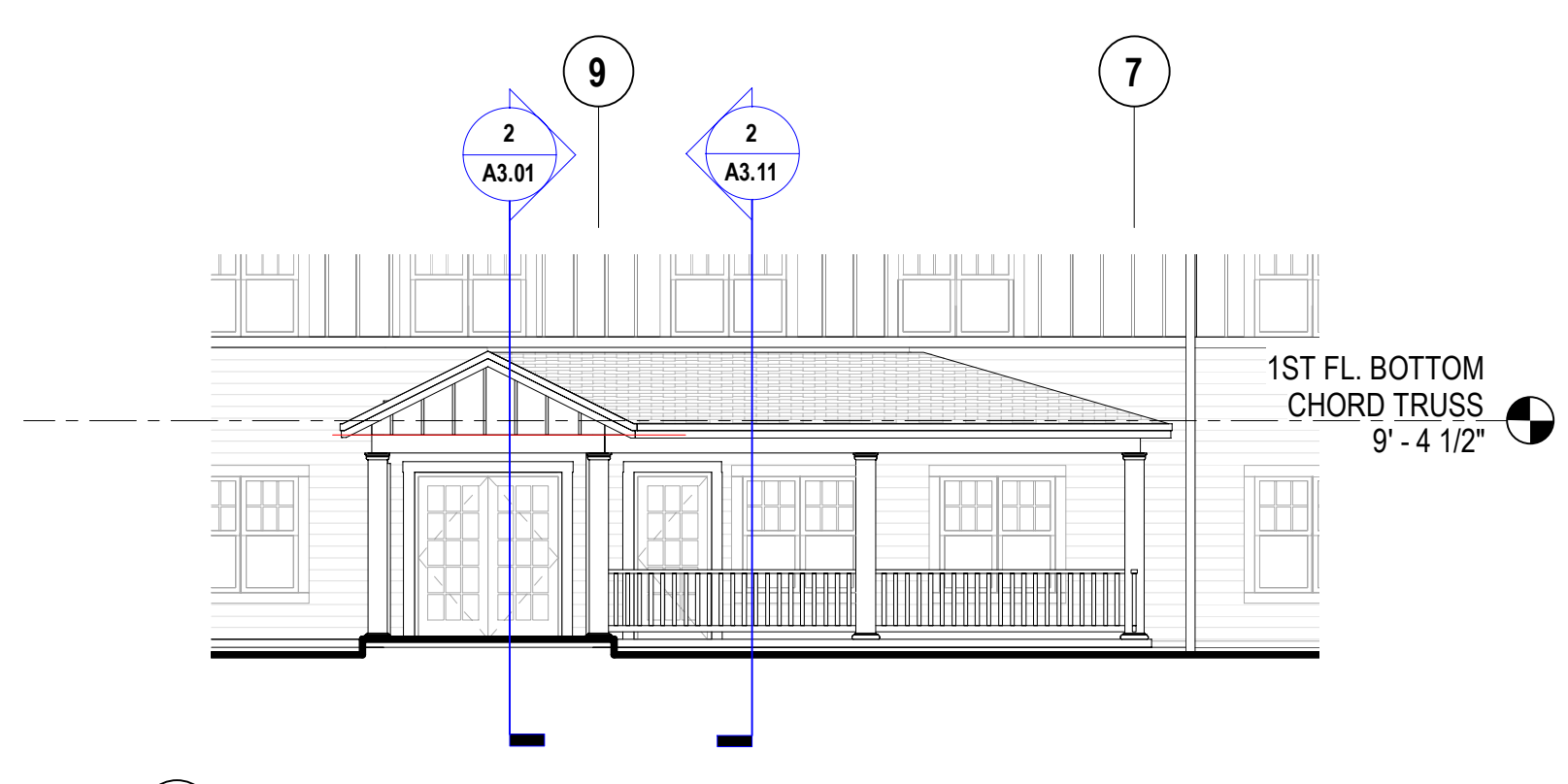


ELEVATION KEY NOTES

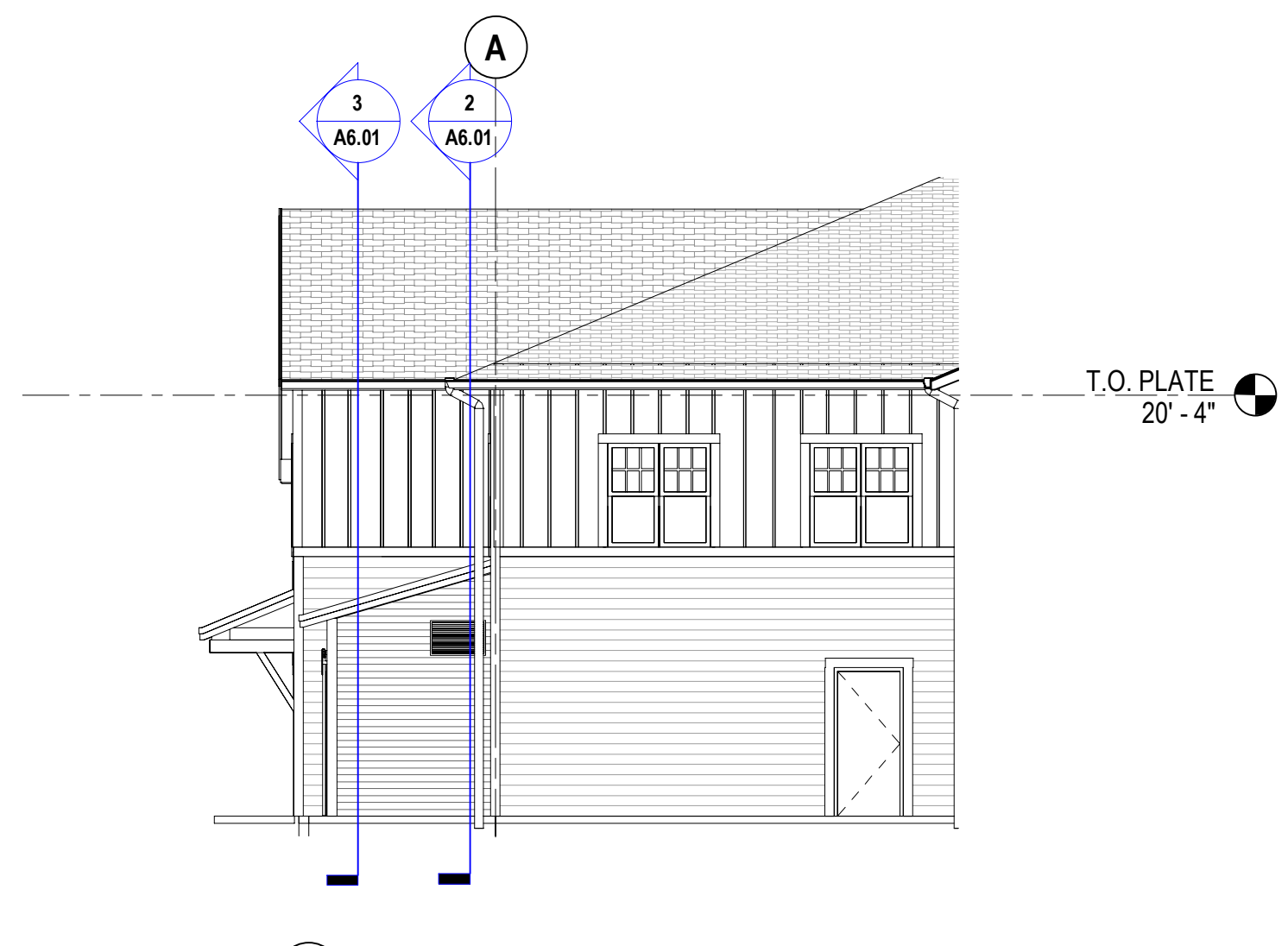
- 1. ARCHITECTURAL ASPHALT SHINGLE ROOF
- 2. METAL ROOF
- 3. VINYL CLAPBOARD SIDING 4"
- 4. VINYL CLAPBOARD SIDING 7"
- 5. VERTICAL BOARD AND BATTEN 16" - (VINYL & PVC)
- 6. PVC TRIM



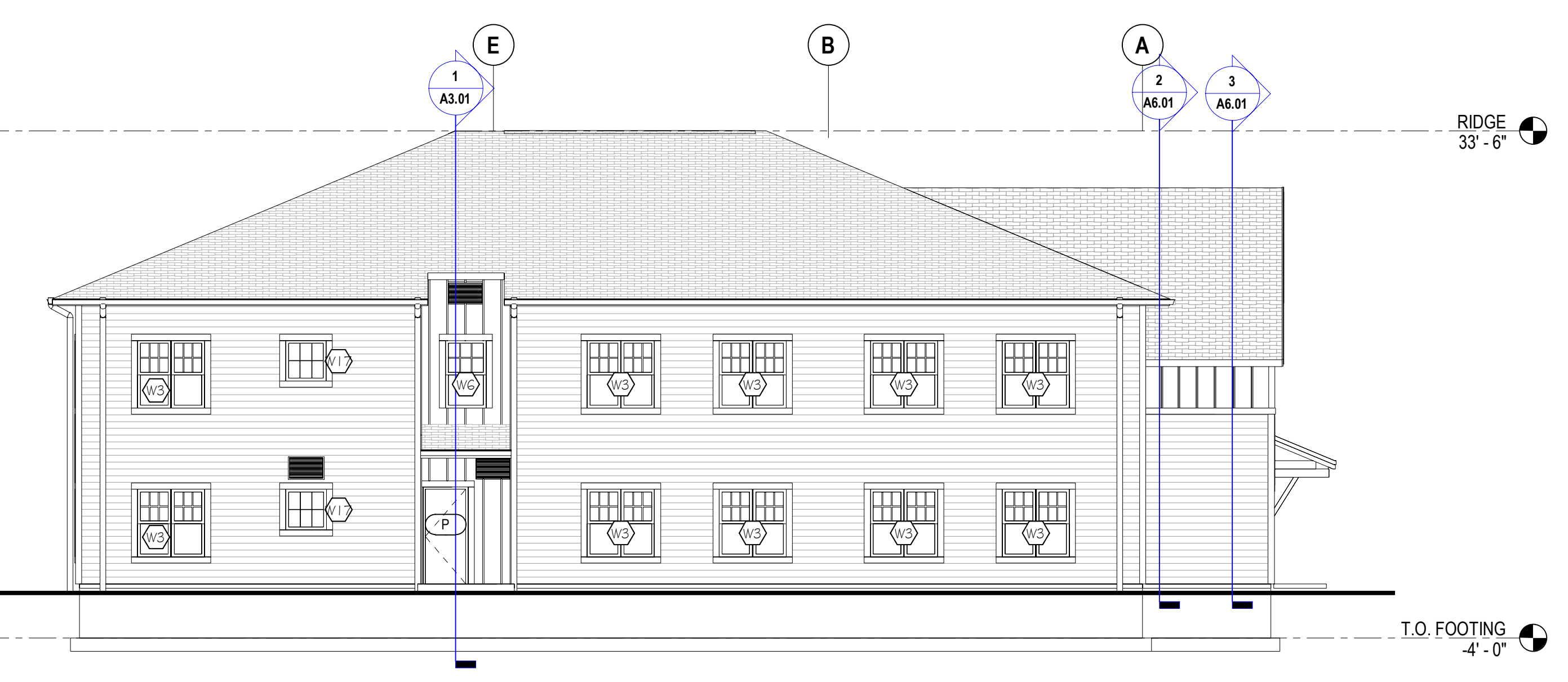
2 NORTH ELEVATION
1/8" = 1'-0"



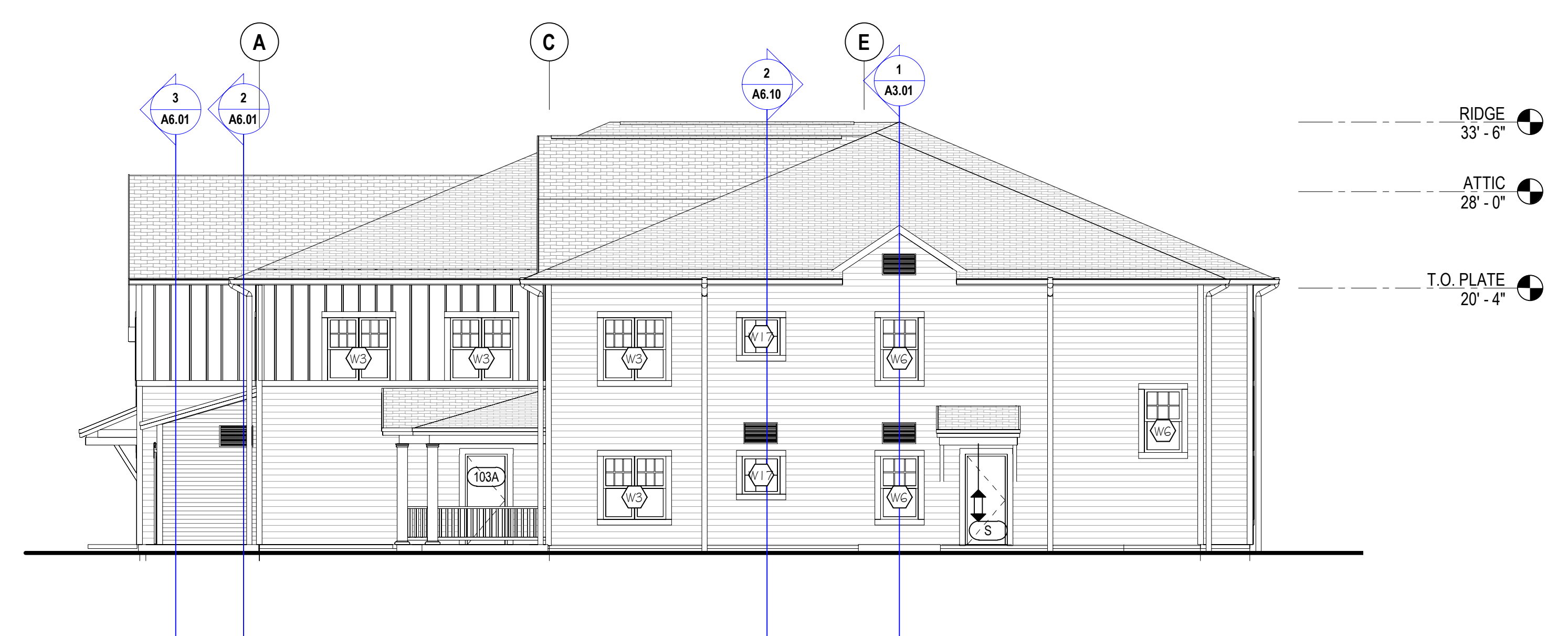
3 NORTH ELEVATION DETAIL
1/8" = 1'-0"



4 WEST ELEVATION DETAIL
1/8" = 1'-0"



5 EAST ELEVATION
1/8" = 1'-0"



6 WEST ELEVATION
1/8" = 1'-0"

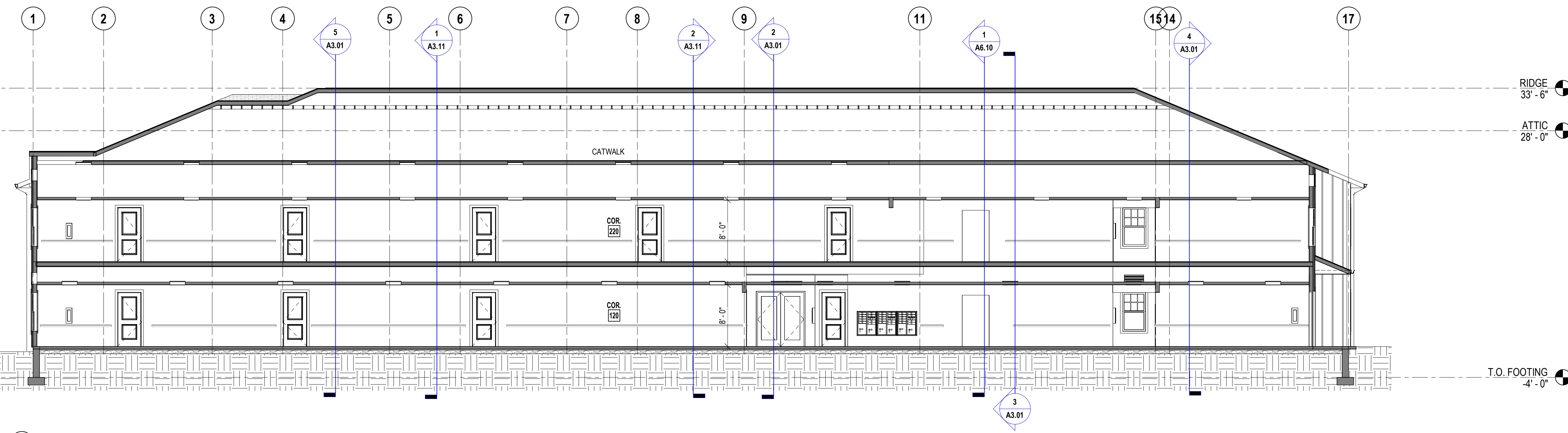
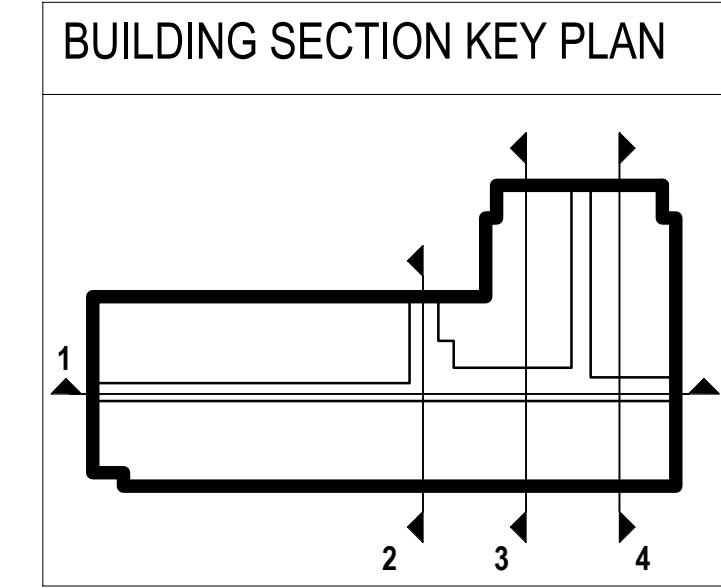
AVESTA MEADOWVIEW II
GRAY, MAINE



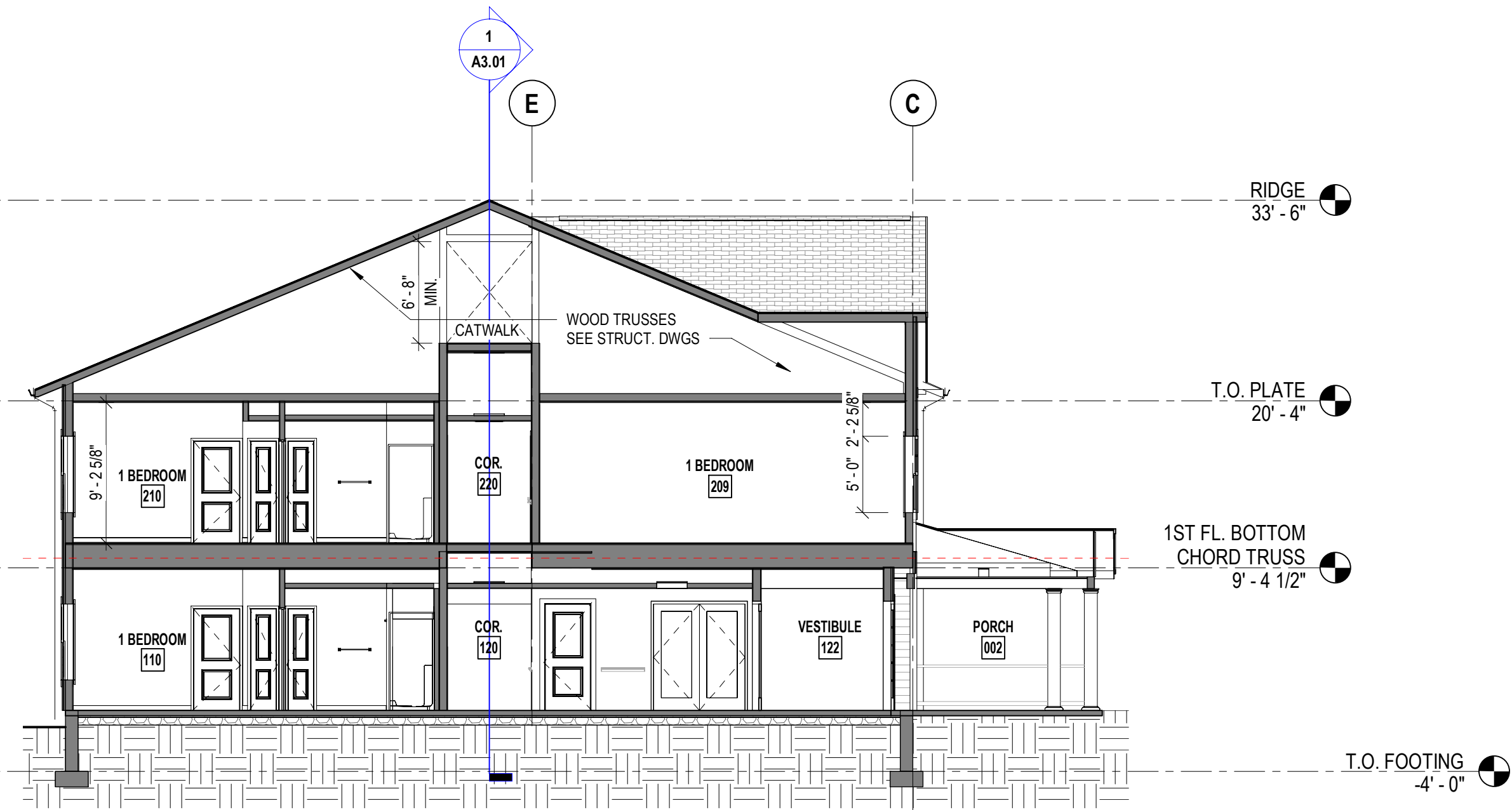
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Date: DECEMBER 30, 2021
Project Number: P19099.00

REVISIONS		
NO.	DESCRIPTION	DATE

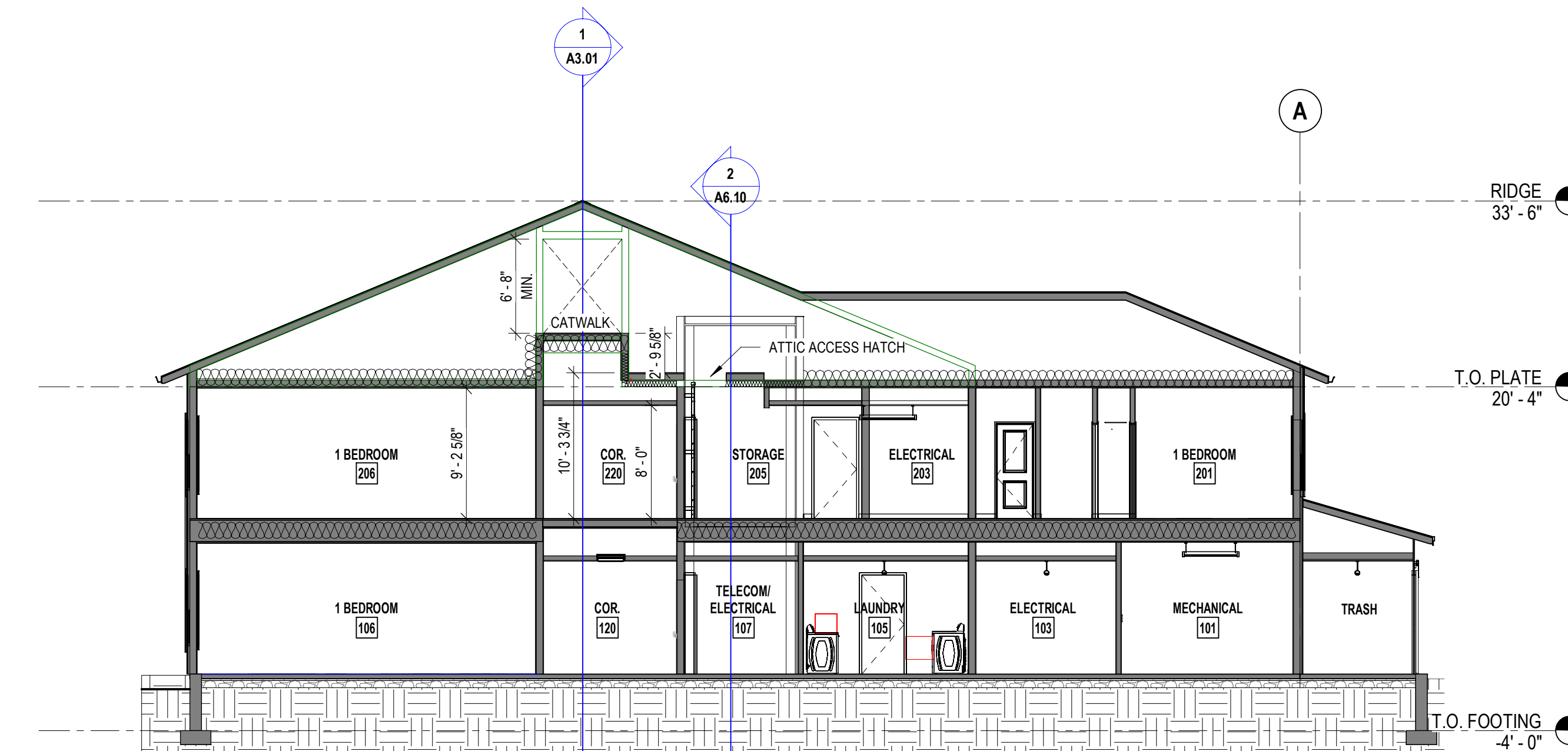
VOLUME 1
CONSTRUCTION DOCUMENTS 50%
EXTERIOR ELEVATIONS



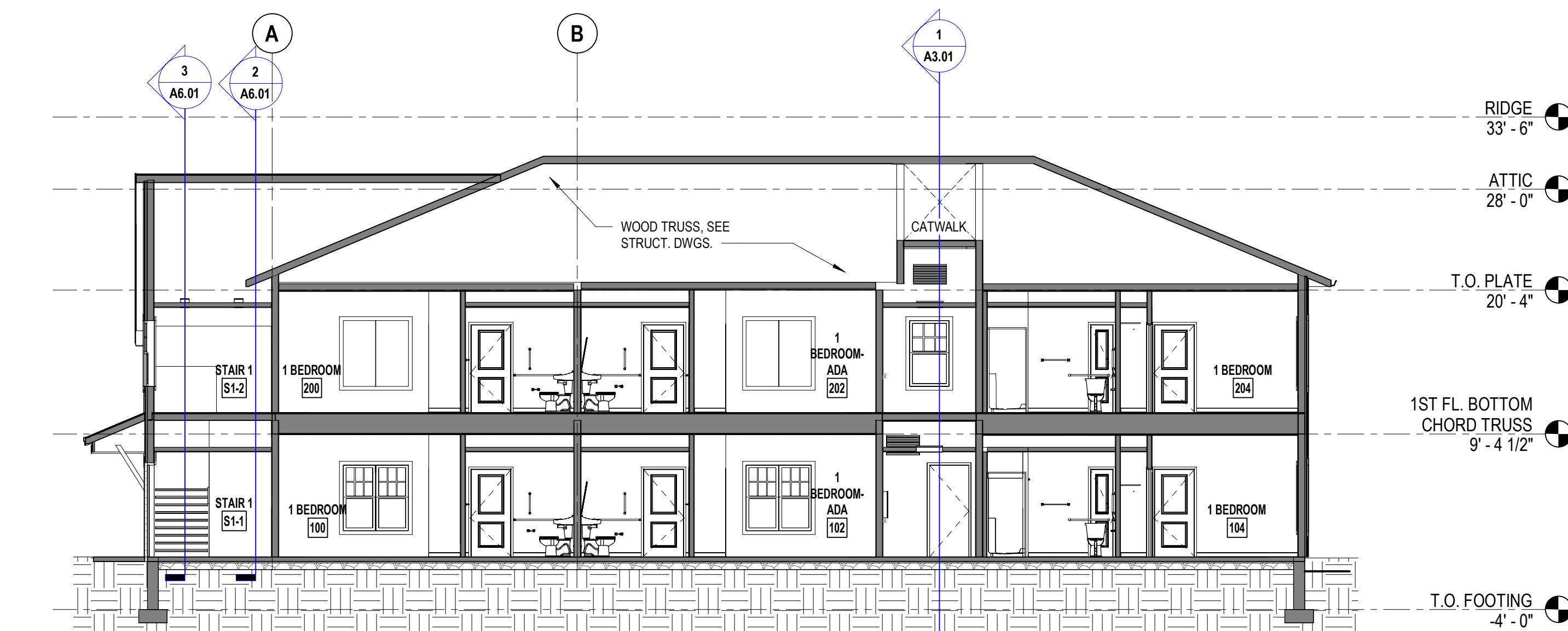
1 Section 1
1/8" = 1'-0"



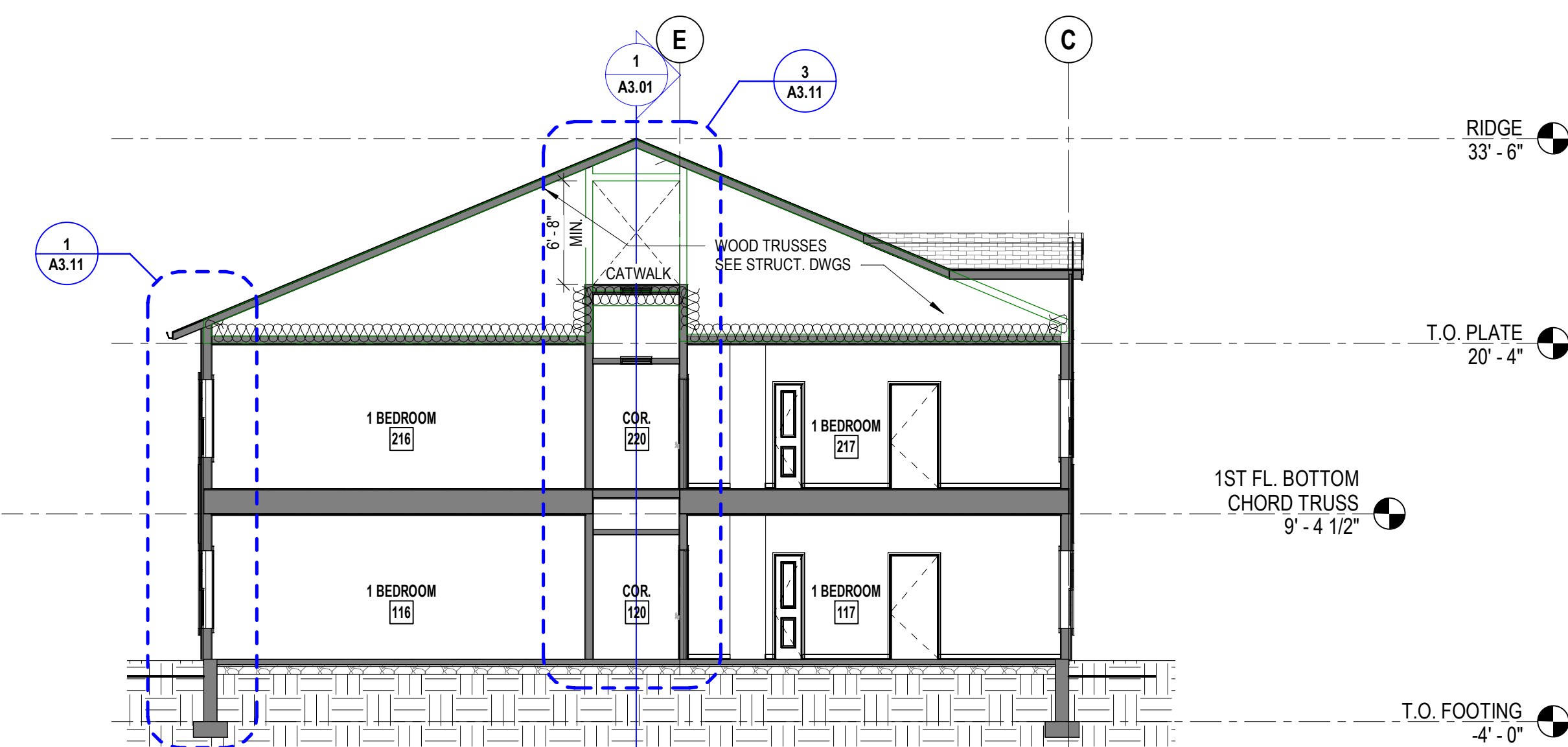
2 Section 2
1/8" = 1'-0"



3 Section 3
1/8" = 1'-0"



4 Section 4
1/8" = 1'-0"



5 Section 5
1/8" = 1'-0"

AVESTA MEADOWVIEW II
GRAY, MAINE



Scale: As indicated
Date: DECEMBER 30, 2021
Project Number: P19099.00

REVISIONS		
NO.	DESCRIPTION	DATE

VOLUME 1
CONSTRUCTION DOCUMENTS 50%
BUILDING SECTIONS

A3.01



400 Commercial Street, Suite 404
Portland, ME 04101
207.772.2891

January 28, 2021

Kristen Schulze Muszynski
Community Planner
Town of Gray
Municipal Complex
24 Main St., Gray, ME 04039

RE: Meadowview II | Application for Site Plan, Subdivision, Conditional Use and Village Center
Design Certificate
16 Hancock Street, Gray, Maine

Dear Kristen:

On behalf of Avesta Housing, we are pleased to submit this application for Major Site Plan review, Preliminary Major Subdivision review, Conditional Use review and Village Center Design review. The proposed development includes a new two-story building with 27 affordable one-bedroom units of senior housing, at the southern end of the existing Meadowview development, which currently contains 20 existing affordable housing units for seniors.

A check for **\$9,029** is included to cover permitting fees and escrow, as previously discussed.

Please review and do not hesitate to contact me if you have any questions or need additional documentation. We look forward to continued collaboration with your office and City Staff as this transformative project moves forward.

Sincerely,

RANSOM CONSULTING, LLC.



John Mahoney, P.E.
Project Manager/Design Engineer

In addition to the Site Plans (at the end of this packet in hardcopy and provided as a separate PDF in the electronic version), this application package includes the following:

- | | |
|--|--|
| 1. Completed Application Forms | 7. Appendix E – Hydrogeologic Assessment |
| 2. Project Narrative | 8. Appendix F – Stormwater Management Plan |
| 3. Appendix A – Right, Title and Interest | 9. Appendix G – Transportation Memo |
| 4. Appendix B – Gray Water District Letter | 10. Appendix H – Density Letter |
| 5. Appendix C – Soils Report | 11. Site Plans |
| 6. Appendix D – Financial Capacity | |

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PLANNING BOARD/STAFF REVIEW COMMITTEE APPLICATION TOWN OF GRAY MAINE

PROPERTY TO BE DEVELOPED

Property Location/Address	Property Map/Lot
Zoning District	Lot Acreage
Owner Name	Tax Sheet
Owner Address	Owner Phone

APPLICANT

Name (IF different than owner)	Contact Phone Number
Mailing Address	Alternate Phone Number
Mailing City/State/Zip	Fax Number
Email Address	

AGENT/CONSULTANT

Name	Contact Phone Number
Mailing Address	Alternate Phone Number
Mailing City/State/Zip	Fax Number
Email Address	

PROJECT

The undersigned requests that the Town of Gray Planning Board consider the following application for:

- | | |
|--|--|
| <input type="checkbox"/> Subdivision
<input type="checkbox"/> Sketch Plan Review
<input type="checkbox"/> Preliminary Plan Review (Major)
<input type="checkbox"/> Final Plan Review (Major)
<input type="checkbox"/> Minor

<input type="checkbox"/> Site Plan Review
<input type="checkbox"/> Pre-Application Conference
<input type="checkbox"/> Minor
<input type="checkbox"/> Major

<input type="checkbox"/> Shoreland Zoning Permit | <input type="checkbox"/> Other (specify)
<input type="checkbox"/> Conditional Use
<input type="checkbox"/> Amendment
<input type="checkbox"/> Extension
<input type="checkbox"/> Workshop
<input type="checkbox"/> Contract Zone Request |
|--|--|

Project Description / Comments:

Applicant Signature [REDACTED]

Date 1/24/22

See Page 2 for Co-Applicant Information and Signatures

Co-Applicant #1			
Name	Avesta Meadowview II LP	Contact Phone Number	207-232-1021
Mailing Address	307 Cumberland Ave	Alternate Phone Number	
Mailing City/State/Zip	Portland, ME 04101	Fax Number	
Email Address	nhowes@avestahousing.org		

Co-Applicant #1 Signature: [REDACTED]

Date: 1/24/2022

Co-Applicant #2			
Name	Gray Senior Housing, Inc.	Contact Phone Number	207-232-1021
Mailing Address	Avesta Meadowview II LP	Alternate Phone Number	
Mailing City/State/Zip	307 Cumberland Ave	Fax Number	
Email Address	Portland, ME 04101		
	nhowes@avestahousing.org		

Co-Applicant #2 Signature: [REDACTED]

Date: 1/24/2022



**VILLAGE CENTER/VILLAGE CENTER PROPER
DESIGN STANDARD CERTIFICATE APPLICATION
TOWN OF GRAY MAINE**

In accordance with the Village Center and Village Center Proper Design standards (Zoning Ordinance Section 402.8.3), amended and effective as of Oct. 23, 2021, developments within the Village Center and Village Center Proper zoning districts are required to secure a Design Standard Certificate (DSC) to ensure conformance with the design standards prior to issuance of a building permit.

PROPERTY TO BE DEVELOPED/ ALTERED

Property Location/Address	16 Hancock Street	Property Map/Lot(s)	043 405 039 000 - - - -
Owner Name	Gray Senior Housing		- - -
Owner Address City/ State/ ZIP	307 Cumberland Avenue, Portland, Maine 04101	Owner Email:	nhowes@avestahousing.org
		Owner Phone:	207-553-7780 x 3374 (Work)
Brief description of development/ alteration	The following lots (Map 44: Lot 405-43, Map 43: Lot 405-39 and the Narrow-Gauge Railroad corridor) will be combined into a single parcel. The entire parcel will be owned by a condominium association. The association will have two units, each with a share of ownership. The proposed new construction would be a two-story building with an elevator containing 27 one-bedroom, affordable housing rental units for tenants age 55+. The proposed building would be located at the southern end of the existing paved access drive.		

APPLICANT

Name (If different than owner)	Avesta Housing Development Corporation	Contact Phone Number	207-553-7780 x 3374 (Work)
Mailing Address	307 Cumberland Avenue	Alternate Phone Number	207-232-1021 (cell)
Mailing City/State/Zip	Portland, Maine 04101	Fax Number	
Email Address	nhowes@avestahousing.org		

AGENT/CONSULTANT

Name	John Mahoney, P.E. - Ransom Consulting, LLC	Contact Phone Number	207-831-6165 (cell)
Mailing Address	400 Commercial Street, Suite 404	Alternate Phone Number	207-831-6165 (cell)
Mailing City/State/ZIP	Portland, Maine 04101	Fax Number	207-772-3248
Email Address	john.mahoney@ransomenv.com		

APPLICATION SUBMISSIONS

The undersigned requests that the Town of Gray Planning Board/Code Enforcement Officer consider the following application for a Design Standard Certificate and confirms that the following required application components are included with this application:

- Site plan (See VI A. 4. a. for required details)
- Elevations (See VI A. 4.b. for required details)
- Photographs/Sketches/Descriptions (See VI A. 4.c. for required details)

APPLICANT SIGNATURE

DATE

[Redacted Signature]

1/27/22

MEADOWVIEW II PROJECT NARRATIVE

EXISTING CONDITIONS

The site contains three buildings that currently supports 20-units of affordable housing for seniors (“Meadowview I”). Meadowview I is USDA Rural Development assisted housing owned by Gray Senior Housing. Access throughout the site is provided off a dead end on Hancock Street via a paved drive with 28 parking spaces. The site is served by public water off the existing water main in Hancock Street with a 2” service that goes to a water meter pit and is then distributed to the individual dwelling units. Sanitary sewage is directed via gravity to a pump station located off the southern end of the parking area where it is conveyed via a force main to a disposal field located off the west side off Hancock Street near the site entrance. Electrical power and communication services run underground from a utility pole located on Hancock Street near the turnaround area at the dead end. Existing overhead electric lines on Hancock Street are single phase. Stormwater is discharged generally on the southern end of the site via overland flow. The eastern portion of the site is tributary to an unnamed stream and the western portion of the site drains to wetlands. No catch basins or drainage manholes are located on site.

The site is significantly underutilized with a large portion of the land lying vacant. The existing parking layout and terrain make the remaining vacant land on the site ideal for multifamily development and facilitate additional housing units with a minimum of additional impervious area. [When I wrote this GSH was not Avesta; it’s now the same]

PROPOSED DEVELOPMENT

The proposed new construction (“Meadowview II”) would be 27 affordable (60% AMI) rental units, all one-bedroom, in a two-story elevator building. The building would maintain the existing elderly demographic by being set aside for households 55+. We believe that the addition of the new housing with a large community room, porch, gazebo, and community garden will foster a sense of community through extensive social interaction. The garden, community building, porch, and gazebo will be open to residents of both properties and the shared use of these amenities should inspire a sense of community and create a campus feel. Below is a description of the proposed infrastructure related to the development.

Utilities

Water

The proposed development will be served from the existing 6” water main in Hancock Street with a 2” domestic line and 6” fire suppression line. The domestic line will be fed through a meter pit after branching off the water main.

Sewer

The sewage generated from the proposed development will be directed to an engineered septic system, due to the anticipated flows exceeding 2,000 gpd in accordance with Section 10 of Maine Subsurface Wastewater Disposal Rules, CMR241. As required by the subsurface plumbing rules, the system will be reviewed by the Maine Department of Health and Human Services, as well as

the Maine Department of Environmental Protection. The applicant will secure a permit for the septic system prior to applying to the Town for a building permit.

Electric/Communications

Underground power and communication services will drop off a proposed utility pole on the abutting Gray Plaza parcel. Services will be underground. The owner of the Gray Plaza has agreed to provide an easement for these utilities, see attached letter from the property owner in Appendix A

Common Areas

The garden, community building, porch, and gazebo will be open to residents of both properties and the shared use of these amenities should inspire a sense of community and create a campus feel.

OWNERSHIP STRUCTURE

Meadowview I is currently owned by Gray Senior Housing, Inc (GSH). Gray Senior Housing, Inc. has an identical board to Avesta Housing Development Corporation (AHDC). It is wholly controlled by the leadership of AHDC. GSH has fee ownership over half of the site.

The other half of the site (to the East of the unnamed stream) is currently owned by Lloyd Dunn, as called out on the Existing Conditions Survey. AHDC has an option agreement with Lloyd Dunn and will purchase this land prior to February 28th of 2022. AHDC and GSH therefore have full control over the site either via Fee Simple interest or option agreement.

Meadowview II will be developed by Avesta Meadowview II LP. Avesta housing will have a controlling interest in the limited partnership via control of the general partner by AHDC.

Ultimately, the combined parcels will be a two land-unit condominium association as shown on the Subdivision Plan. The first unit will remain controlled by Gray Senior Housing, Inc. This condo unit will include all three existing buildings. The second land condo unit will be the new building, which will be owned by Avesta Meadowview II LP, which is controlled by AHDC. The entire site then is owned and controlled by AHDC.

The applicable deeds, purchase and sale agreement, and documentation GHS and AHDC boards is included as Appendix A Right Title and Interest.

COMPLIANCE WITH TOWN REQUIREMENTS

The following is providing to document that the proposed development meets the Town's standards for Subdivision, Site Plan, Conditional Use, Multi-Family Housing, and the Village Center Design Standards. We are asking for a single waiver to the Multi-Family Housing Standards 402.10.14.E for the reasons described below.

401.13 Subdivision Performance & Design Standards

401.13.1 – Basic Subdivision Layout

1. Blocks.

Where street lengths exceed one thousand (1,000) feet between intersections with other streets, the Board may require a utility/pedestrian easement, at least twenty (20) feet in width, to provide for underground utility crossings and/or a pedestrian pathway of at least five feet in width constructed in accordance with design standards for sidewalks below. Maintenance obligations of the easement shall be included in the written description of the easement.

Response: NA, no new streets or blocks are proposed

2. Lots.

Response: NA, no new lots are proposed.

3. Utilities.

Utilities serving lots with a street frontage of one hundred and fifty (150 ft.) feet or less shall be installed underground.

Response: All proposed utilities will be underground.

4. Monuments.

Response: NA, no new lots or streets are proposed.

401.13.2 – Sufficient Water

Response: Water will be provided via a public watermain in Hancock via a 2” domestic service and a 6” fire service. The buildings will be sprinkled, and a hydrant will be provided in the location requested by the Gray Fire Department. Please refer to the letter from the Gray Water District in Appendix B, and the Utility Plan.

401.13.3 – Erosion and Sedimentation and Impact on Water Bodies

Response: The proposed development will comply with the Maine Department of Environmental Protection’s standards and recommended best practices for controlling Erosion and Sedimentation. Please refer to the attached Site Plans and the Erosion and Sedimentation Control Notes and Details.

401.13.4 – Sewage Disposal

The applicant shall submit evidence of site suitability for subsurface sewage disposal prepared by a Maine Licensed Site Evaluator in full compliance with the requirements of the State of Maine Subsurface Wastewater Disposal Rules.

Response: Please see attached soils reports from Albert Frick Associates, Inc. in Appendix C for documentation that the proposed septic system is in compliance and attached Utility Plan for location and configuration. An alternative location for the septic field is shown on the Overall Site Plan. The Applicant will provide an easement over this area that prohibits building.

401.13.5 – Solid Waste

If the additional solid waste from the proposed subdivision exceeds the capacity of the municipal solid waste facility, causes the municipal facility to no longer be in compliance with its license from the Department of Environmental Protection, or causes the municipality to exceed its contract with a non-municipal facility, the applicant shall make alternate arrangements for the disposal of solid waste. The alternate arrangements shall be at a disposal facility which is in compliance with its license. The Board may not require the alternate arrangement to exceed a period of five years.

Response: The applicant will contract with a private hauler for pickup of trash and recyclables.

401.13.6 – Impact on Natural Beauty, Aesthetics, Historic Sites, Wildlife Habitat, Rare Natural Areas or Public Access to the Shoreline

Response: The majority of the site will be preserved as woodlands providing habitat and scenic beauty. The applicant will provide the Town with public assessments for pedestrian use of trails and pathways.

401.13.7 – Conformance with Zoning Ordinance and Other Land Use Ordinances

All lots, other than those found within cluster developments approved pursuant to section 401.13.13, shall meet the minimum dimensional requirements of the Zoning Ordinance for the zoning district in which they are located. The proposed subdivision shall meet all applicable performance standards or design criteria from the Zoning Ordinance and other land use ordinances.

Response: No new lots are proposed for this subdivision. This application meets the applicable Ordinances as described herein.

401.13.8 – Financial and Technical Capacity

Response: Please refer to attached financial and technical capacity letter from Bangor Savings Bank dated January 13, 2022, in Appendix D.

401.13.9 – Impact on Groundwater Quality or Quantity

Response: Please refer to the Applicants Hydrogeologic Assessment in Appendix E .

401.13.10 – Floodplain Management

When any part of a subdivision is located in a special flood hazard area as identified by the Federal Emergency Management Agency.

Response: The proposed subdivision is not in a FEMA Flood Zone.

401.13.11 – Identification of Freshwater Wetlands, River, Streams or Brooks

Freshwater wetlands within the proposed subdivision shall be identified in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, published by the United States Army Corps of Engineers. Any rivers, streams, or brooks within or abutting the proposed subdivision shall be identified.

Response: Freshwater wetlands and the unnamed stream within the proposed subdivision were identified and flagged by C.C. Dorion Geological Services, LLC, and are shown on the existing conditions survey. The wetland investigation fieldwork was based on wetland identification methods described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0.

401.13.12 – Stormwater Management

Response: Please refer to the Applicants Stormwater Management Report in Appendix F

401.13.13 – Residential Open Space Subdivisions

Response: Not applicable to multi-family developments.

401.13.14 – Compliance with Timber Harvesting Rules

Response: Not applicable

401.13.15 – Traffic Conditions and Streets

Response: Please refer to the Applicant’s Transportation Memorandum in Appendix G.

401.13.16 – Specific Access and Street Design Standards (Adopted Dec 7, 2010)

Response: Please refer to the Applicant’s Transportation Memorandum in Appendix G

401.13.17 – Driveway Design Standards (Adopted May 18, 2010)

Response: Please refer to the Applicant’s Transportation Memorandum in Appendix G.

401.13.18 – Net Residential Area and Density

Response: Please refer to the attached density letter, calculation spreadsheet and supporting plan in Appendix H as well as the soils reports in Appendix C.

402.9.3.F Standards Applicable to Conditional Permitted Uses

It shall be the responsibility of the applicant to demonstrate that the proposed use meets all of the following criteria. The Board shall approve the application unless it makes written findings that one or more of these criteria have not been met:

5. Will be compatible with the general character of the neighborhood with regard to design, scale, and bulk of proposed structures.

Response: The proposed senior housing units will be located within an existing senior housing development/campus. The proposed building will be located towards the back of the site away from the public way and nearby residences, while still being close enough to the village to facilitate residents walking to town, the library and the adjacent shopping plaza.

6. Will not have a significant detrimental effect on the use and peaceful enjoyment of abutting property as a result of noise, vibrations, fumes, odor, dust, light or glare.

Response: The addition of senior housing to an existing senior housing development will not result in any of the detrimental effects described above. The proposed building will be located towards the back of the site, away from the public way and nearby residences, and surrounded by woodlands.

7. Will not have a significant adverse effect on adjacent or nearby property values.

Response: The proposed addition of senior housing to an existing senior housing development will not negatively impact adjacent or nearby property values. The proposed building will be located towards the back of the site, away from the public way and nearby residences, and surrounded by woodlands.

8. Will not result in significant hazards to pedestrian or vehicular traffic or significant traffic congestion.

Response: The proposed development will not result in significant hazards to pedestrian or vehicular traffic or significant traffic congestion. Please refer to the Applicant's Transportation Memorandum in Appendix G

9. Will not result in significant fire danger.

Response: The proposed development will not result in significant fire danger. The proposed building will be sprinkled for fire protection and a fire hydrant will be installed between the proposed building and the existing buildings.

10. Will not result in significant flood hazards or flood damage, drainage problems, ground or surface water contamination, or soil erosion.

Response: The proposed development will not result in significant flood hazards or flood damage, drainage problems, ground or surface water contamination, or soil erosion.

Please refer to the Applicant's Stormwater Management Plan in Appendix F and the Hydrogeologic Assessment in Appendix E.

11. Will be served adequately by, but will not overburden, existing public services and facilities, including fire protection services, roads, water and storm drainage systems.

Response: The proposed development will not existing public services and facilities, including fire protection services, roads, water and storm drainage systems. Please refer to the capacity to serve determination from the Gray Water District in Appendix B, the Transportation Memorandum in Appendix G, and the Applicant's Stormwater Management Plan in Appendix F.

402.10.14 Standards for Multi-Family Housing

A. Perimeter Buffer Strip

A buffer strip of at least fifty (50) feet in width shall be required around the perimeter of the land area for which the multi-family project is proposed. The required buffer strip shall consist of undisturbed vegetation provided that the existing vegetation consists of mature trees and acts as an effective screen. If existing vegetation provides a poor visual screen, a mix of new landscaping including trees, shrubs and grasses shall be planted.

Response: The required vegetated buffer strip will be provided as shown on the site plans. Portions of the buffer along the western property boundary will be provided on the adjacent Gray Plaza Property via a permanent easement recorded by the owner of the Gray Plaza property. Please refer to the Site and Subdivision plans for proposed easement locations and geometry, and to the letter from the property owner in Appendix A.

B. Driveways and Parking

The scale and surface area of parking areas, driveways and paved areas shall be compatible with adjacent structures, must be properly screened and must provide for parking in accordance with the requirements of Section 402.10.11. B.

Response: As shown on the Site Plans, the proposed surface area of parking area, driveways and paved areas are compatible with adjacent structures and well screened. Parking calculations are provided in the Transportation Memorandum in Appendix G.

C. Internal Road Access to all Units

Access to all housing units within the multi-family development shall be located on the new interior road system constructed as part of the development.

Response: Access to all housing units within the multi-family development will be provided via an internal access drive (parking aisle) which will be extended to provide parking for and access to the new building.

D. Orientation and Scale of Buildings

Buildings shall be oriented with respect to scenic vistas, natural landscape features, topography and natural drainage areas, in accordance with an overall plan for site development. Buildings shall be compatible in terms of physical size, visual impact, intensity of use, proximity to other structures and density of development with other permitted uses within the District.

Response: The building will be located within an existing campus of senior housing buildings set well away from adjacent residences. The building will be surrounded on three sides by woodlands, with the fourth side adjacent to the existing senior housing apartment buildings.

E. Number of Units per Building

The maximum number of attached dwelling units per structure shall be six (6) and the average number of attached dwelling units per structure shall be four (4). The distance between the foundations of any two principal structures shall be no less than the height of the taller of the two buildings, but in no event shall a building separation of less than thirty (30) feet be permitted.

Response: The applicant is seeking a waiver to this standard in order to construct the proposed two-story building with 27 apartment units. The proposed site configuration minimizes impervious coverage by constructing the units under one roof and utilizing the existing parking area and access drive, and will facilitate a campus where residents of the existing and new buildings can interact as a single community. The dead-end setting makes this spot ideal for the addition of housing and the creation of the community.

In order to meet this standard, 7 separate buildings would be required (27 units / average of 4 units per building = 6.75 buildings). Because there is only space for one to two buildings in the area that is currently proposed to be developed, meeting this standard would require the development to sprawl to the other side of the unnamed stream into area that is currently proposed to remain as woodlands. The design team looked at the option of multiple buildings conceptually, and we would estimate that 7 buildings would require approximately three times the impervious area compared with what is currently proposed, and approximately 5 times the area of tree clearing compared to what is currently proposed. Spreading the 27 units over 7 buildings would require building a road across the existing stream and piping the stream through a culvert; longer access driveways; and longer utility runs for water, sewer and power. Furthermore, it is not assured that the area beyond the stream is even buildable; we've mapped the area and there are significant low-lying areas with existing wetlands. Any development in this area would result in impacts to wetlands, in addition to the creation of impervious and clearing of trees.

One of the more detrimental effects of the sprawling development that this standard would require is that the senior citizen residents would have to walk substantially farther to access the public library, the Gray Plaza including the supermarket, and the many other walking destinations that the Village Center has to offer.

In summary, meeting this standard would not be feasible from a climate/sustainability perspective because of the additional impacts to woodlands/wetlands, increased impervious area, and the increased heating and cooling costs for multiple buildings. Also, the expanded site work, longer utility runs, and increased costs for multiple buildings would result in a project that is not financially viable for the applicant. A proposal that involved seven buildings would require seven heating systems, seven more extensive insulation packages and seven "make up air" systems. In today's market, where construction costs have increased by as much as 25% year over year, garden style apartments just aren't feasible, especially if you are building affordable housing; they are more costly on a square footage basis for the practical reasons noted above. We keep the rents low to make our apartments affordable. Our capacity for mortgages is limited and in this cost environment, every dollar counts.

F. Utilities

All dwelling units in the development shall be connected to a common water supply and distribution system (either public or private) in accordance with any policies of the Gray Water District, unless the developer shall clearly demonstrate to the Planning Board that such a system is not feasible and, in addition:

Response: The proposed development will be serviced by the Gray Water District.

Village Center Design Standards

Site Planning

1. Site Character

Response: The proposed senior housing units will be located within an existing senior housing development/campus. The proposed building will be located towards the back of the site away from the public way and nearby residences, while still being close enough to the village to facilitate residents walking to town, the library and the adjacent shopping plaza.

2. Land Use Buffering

Response: A 50' wide vegetated buffer strip will be provided as shown on the site plans. Portions of the buffer along the western property boundary will be provided on the adjacent Gray Plaza Property via a permanent easement recorded by the owner of the Gray Plaza property. Please refer to the Site and Subdivision plans for proposed easement locations and geometry, and to the letter from the property owner in Appendix A.

3. Building Placement

Response: The building will be located within an existing campus of senior housing buildings. The building will face the three existing buildings and all four buildings will share the same open space areas including, pathways, gazebo, and community gardens.

4. Color Standards

Response: Colors will be compatible with colors of the surrounding area.

5. Trash Loading/Storage Areas

Response: The trash and recyclables for the new building will be stored in totes in a trash room in the new building. Trash and recyclables for the existing buildings will be stored in a trash shed shown on the site plans. The applicant will contract with a private hauler for pickup. This arrangement will allow the applicant to remove the existing dumpster and enclosure.

Part 2 - Landscaping Standards

1. Standard Design Concepts

Response: Please see attached Landscape and Lighting Plan

2. Landscaping Requirements for Parking Lots Greater than 50 Spaces

Response: Not Applicable

Part 3 - Lighting Standards

Response: Please see attached Landscape and Lighting Plan

Part 4 – Residential Design Standards

Response: Not Applicable

APPENDIX A

Right, Title and Interest

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine

Know All Men by These Presents.

That GRAY PLAZA, INC.

a Corporation organized and existing under the laws of the State
of Maine and located at Gray
in the County of Cumberland and State of Maine
in consideration of One dollar and other valuable considerations

paid by GRAY SENIOR HOUSING, INC., a Maine Corporation with a
principal place of business at said Gray,

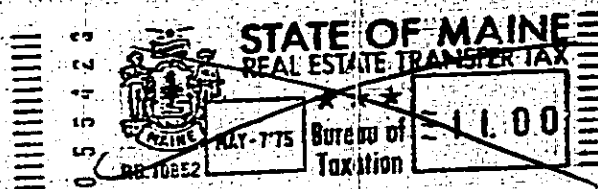
the receipt whereof it does hereby acknowledge, does hereby give, grant,
bargain, sell and convey unto the said

GRAY SENIOR HOUSING, INC., its successors,

has and assigns forever, a certain lot or parcel of land located
off Skillings Street in Gray and more particularly described as
follows:

Beginning at an iron pipe found where the Southwesterly corner of
the Bonney property meets the Northerly line of land of Gray Plaza,
Inc. and proceeding S 70°54'-28" W for a distance of 70.63' to an
iron pipe set; then S 37°09'-32" E for a distance of 867.47' to an
iron pipe set; then S 9°17'-00" W for a distance of 86.66' to an
iron pipe set; then N 86°32'-10" W for a distance of 570.76' to a
monument; then N 14°32'-10" W for a distance of 500' to a monument;
then N 3°27'-50" E for a distance of 400' to a monument; then
S 67°27'-08" E for a distance of 185.00' to point of beginning.

Meaning and intending to convey 7.8 acres, more or less, of the
property described in the Deed from HANSEN FARMS, INC. to GRAY
PLAZA, INC., dated May 27, 1969 and recorded in the Cumberland County
Registry of Deeds in Book 3087, Page 141.



As hereunto is held the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said

GRAY SENIOR HOUSING, INC., its successors
and assigns, to it and their use and behoof forever.

And the said Grantor Corporation does hereby covenant with the said Grantee, its successors and assigns, that it is lawfully seized in fee of the premises, that they are free of all incumbrances:

that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors, shall and will warrant and defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

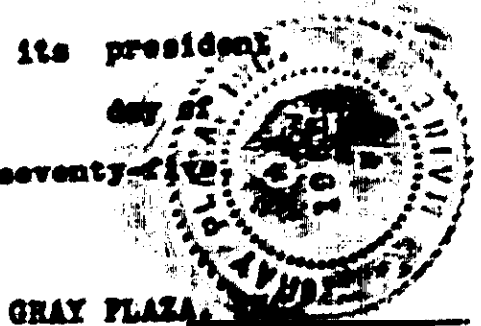
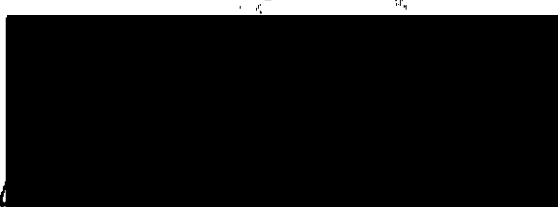
In Witness Whereof, the said
GRAY PLAZA, INC.

has caused this instrument to be sealed with its corporate seal and signed in its corporate name by

PHILIP A. COOK, its president,

thereunto duly authorized, this seventh day of May in the year one thousand nine hundred and seventy-five.

Signed, Sealed and Delivered in presence of



(CORPORATE SEAL)

State of Maine, Cumberland ss. May 7, 1975.

Personally appeared the above named PHILIP A. COOK, president of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed, in his said capacity, and the free act and deed of said corporation.

Before me,



SUSAN C. STANLEY, Notary Public
STATE OF MAINE
MY COMMISSION EXPIRES NOV. 27, 1988



MAY 7 1975
REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at 1 H 14 M P.M. and
BOOK 3076 PAGE 265.

[Redacted] Acting Register

The FINANCING STATEMENT is presented to a filing officer for filing pursuant to the Uniform Commercial Code.

1 Debtor(s) (Last Name First) and address(es) Debtors: Elizabeth F. and Tassie L. [unclear] Box 52 New Gloucester, Maine	2 Secured Party(ies) and address(es) Greyhound Exp. Credit Union 571 E. First St. S. Boston, Mass. 02127	3 Maturity date (if any): 179 For Filing Officer (Date, Time, Number, and Filing Office) REGISTRY OF DEEDS CUMBERLAND ss, MAINE FILED AUG 13 1973 AT 9 H 10 M A FILE # 3179 BK 3442 PG 219
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4 This financing statement covers the following types (or items) of property:

Permanent improvements to real estate owned by debtors, recorded at
Book 212, Page 17;
Finish Cellar, Drive Way, Game Room

REGISTRY OF DEEDS CUMBERLAND ss, MAINE
FILED AUG 23 1976
AT 8 H 30 M A
FILE # 3179 BK 3896 PG 179

No. of additional sheets presented: 0
Filed with:

TERMINATION STATEMENT
This statement of termination of financing is presented to a filing officer for filing pursuant to the Uniform Commercial Code.
The Secured Party certifies that the Secured Party no longer claims a security interest under the financing statement bearing the file number shown above.

Dated: August 17, 1976
By: [Signature] Treasurer
(Signature of Secured Party or Assignee of Record Not Valid until Signed.)

Filing Officer Copy — Acknowledgment — Filing officer is requested to note file number, date and hour of filing on this copy and return it to the person filing, as an acknowledgment.

20200

Know All Men by These Presents,

That GRAY SENIOR HOUSING, INC., (Title 13, Chapter 81)

a Corporation organized and existing under the laws of the State
of Maine and located at Gray
in the County of Cumberland and State of Maine
in consideration of

One dollar and other valuable considerations

paid by the Town of Gray in Cumberland County and State of Maine

the receipt whereof it does hereby acknowledge, does hereby give, grant,
convey, sell and convey unto the said

Town of Gray, its
successors
and assigns forever, a certain lot or parcel of land: the
road leading from Skillings Street to the development of Gray
Senior Housing, Inc., and more precisely described, with exact
measurements, in Plan Book 110, Page 9, in the Cumberland County
Registry of Deeds. This conveyance is made pursuant to an agreement
between the Grantor and Grantee herein, who agreed to accept said
parcel as a Town road.

The Grantor derives its ownership and title by:

1. Deed of Trustee from Paul L. Powers, Trustee under will of Gertrude M. Libby to Gray Senior Housing, Inc., dated September 5, 1974 and recorded in Cumberland County Registry of Deeds, Book 3605, Page 257; and
2. From a Warranty Deed from Gray Plaza, Inc. to Gray Senior Housing, Inc., dated May 7, 1975, and recorded in Cumberland County Registry of Deeds, Book 3676, Page 265.

130

To have and to hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said

Town of Gray, its ~~heirs~~ and assigns, to its successors and their use and behoof forever.

And the said Grantor Corporation does hereby covenant with the said Grantee, its successors ~~heirs~~ and assigns, that it is lawfully seized in fee of the premises, that they are free of all incumbrances; except for a mortgage held by United States of America acting through the Farmer's Home Administration, United States Department of Agriculture, dated May 7, 1975 and duly recorded in the Cumberland County Registry of deeds, which mortgagee has agreed to subject conveyance, that it has good right to sell and convey the same to the said

Grantee to hold as aforesaid; and that it and its successors, shall and will warrant and defend the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, the said

GRAY SENIOR HOUSING, INC.

has caused this instrument to be sealed with its corporate seal and signed in its corporate name by

George L. Freeman, Jr., its President

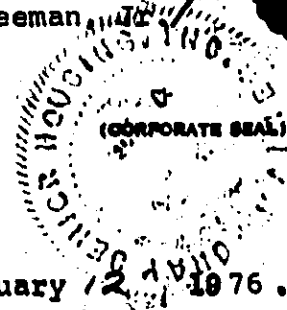
thereunto duly authorized, this *twelfth* day of January in the year one thousand nine hundred and seventy-six.

Signed, Sealed and Delivered in presence of



GRAY SENIOR HOUSING, INC.

By: George L. Freeman, Jr.



State of Maine, Cumberland ss. January 12 1976.

Personally appeared the above named

George L. Freeman, Jr. of said Grantor Corporation

as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.

Before me,



Justice of the Peace - Notary Public

AUG 23 1976

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at 8 H 30 AM, and recorded in

BOOK 3896 PAGE 179

Notary Register

21011

DEED OF TRUSTEE.

Know all men by these presents, that I, Paul L. Powers, of Freeport, in the County of Cumberland and State of Maine, sole acting Trustee under the Last Will and Testament of Gertrude M. Libby, late of Gray, in said County of Cumberland and State of Maine, whose estate is of record under Docket # 61715, in the Cumberland County Probate Court, by virtue of the authority given by the said Gertrude M. Libby, in her Last Will and Testament, in my capacity as Trustee as aforesaid, and in consideration of One Dollar to me paid by Gray Senior Housing, Inc. of Gray, in the County of Cumberland and State of Maine, the receipt whereof is hereby acknowledged, do hereby sell and convey unto Gray Senior Housing, Inc., its successors and assigns, the following described real estate, which was the property of the said Gertrude M. Libby, situated in the Town of Gray, in the County of Cumberland and State of Maine, and bounded and described as follows:

A parcel of land of the approximate dimensions of thirty-three (33) feet by sixty-five (65) feet; being the land between the Southerly end of Skillings Street, so-called, in said Gray, in a Southerly direction to land of Hans Hansen, now or formerly; and being the same lot or parcel in and through which Linwood F. Libby conveyed a certain easement grant or privilege, by his deed of quit-claim dated August 4, 1950 and recorded on May 22, 1959 in Cumberland County Registry of Deeds, in Book 2473, Page 395, to Gray Water District, the possession and use of the said premises being therein stated to be and remain in said Grantor, his heirs, executors, administrators and assigns, subject however to the grant therein made, as fully as if the conveyance had not been executed;

To have and to hold the above granted premises unto the said Gray Senior Housing, Inc., its successors and assigns, forever.

And I, the said Paul L. Powers, in my said capacity, do hereby covenant to and with the said Gray Senior Housing, Inc., its successors and assigns; that I am the sole acting Trustee under the Last Will and Testament of the said Gertrude M. Libby; that I have power under said will to sell as aforesaid; and that in making this conveyance, I have in all respects, acted in pursuance of the authority granted in and by said last will and testament.

In witness whereof I hereunto set my hand and seal in my said capacity, this 5th day of September, in the year of our Lord one thousand nine hundred and seventy-four.

Signed, sealed, and delivered in presence of

[Redacted signature]

[Redacted signature]



Trustee under Will of Gertrude M. Libby, late of Gray, Maine.

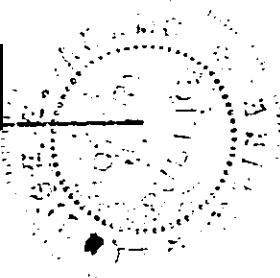
State of Maine
Cumberland, ss.

September, 5, 1974.

Personally appeared the above named Paul L. Powers and acknowledged the foregoing instrument by him signed to be his free act and deed in his capacity of Trustee under the Will of Gertrude M. Libby, late of Gray, Maine. Before me

[Redacted signature]

Notary Public
Justice of the Peace



OCT 1 1974

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE

Received at 1 35 PM and rec

BOOK 3605 PAGE 257

Register

OPTION AGREEMENT

THIS OPTION AGREEMENT (the "Agreement") made and entered into as of the 26th day of February, 2021, by and between JEAN S. DUNN and LLOYD A. DUNN, individuals with a mailing address of PO Box 15, Gray, ME 04039 (collectively the "Grantor") and AVESTA HOUSING DEVELOPMENT CORPORATION, a Maine nonprofit corporation with a place of business and mailing address of 307 Cumberland Avenue, Portland, Maine 04101 ("Grantee")

WITNESSETH:

In consideration of Two Thousand Five Hundred Dollars (\$2,500.00) (the "Option Consideration"), the receipt of which is hereby acknowledged by Grantor, Grantor and Grantee hereby agree as follows:

1. Grant of Option. Grantor hereby grants to Grantee, its successors and assigns, the exclusive and irrevocable option to acquire certain parcels of land with the buildings and all fixtures and improvements thereon, located on (i) Hancock Street, Gray, Maine, shown on Town of Gray Tax Map 44, Lot 405-43 (the "Tax Map"), and described in a deed recorded in the Cumberland County Registry of Deeds in Book 16721, Page 339, including approximately 8 acres of land, together with all easements appurtenant thereto (the "Hancock Street Parcel"), and (ii) that strip of land formerly owned by The Maine Narrow Gauge Railroad and Industrial Heritage Trust, d/b/a Maine Narrow Gauge Railroad Company & Museum, together with all easements appurtenant thereto, which bisects the Hancock Street Parcel, as shown on the Tax Map and which is described in a deed to Grantor dated December 10, 2019 and recorded in said Registry of Deeds in Book 36268, Page 178 (the "Railroad Parcel") and the strip of land abutting the above parcels containing 0.757 acres, more or less, as described in the deed to the Grantor recorded in Book 36257, Page 201, and together with the Hancock Street Parcel and Railroad parcel referred to as the "Property"). The Property shall be conveyed reserving to the Grantor and Grantor's successors and invitees an easement over the Property for recreational use providing access to Grantor's adjacent property. The scope of use and provisions of such easement shall be mutually agreed to by the parties within ninety (90) days after the date of this Agreement, subject, however, to the following conditions, which shall be set forth in the deed to the Property in the provisions reserving such easement: (i) The reserved easement shall not have a material adverse effect upon Grantee's proposed development or the approvals process for such development; and (ii) use of the reserved easement shall not cause damage to the Property or Grantee's building to be built on the Property, including, without limitation, damage due to erosion or runoff.

2. Expiration; Extension. This option shall expire on December 31, 2021, at midnight, Maine time unless exercised by that date and time. Grantee may as of right extend the term of this option for an additional six months, by written notice to Grantor. Grantee may with the written approval of Grantor, which shall not be unreasonably withheld, extend the term of this option for a second six month period, by written notice to Grantor.

3. Notice of Exercise; Failure to Exercise. This option may be exercised only by Grantee giving written notice of election to exercise to Grantor by first class mail, postage prepaid, registered or certified, return receipt requested, addressed to Grantor at the address set forth at the beginning of this Agreement, or to such other address as Grantor may designate to Grantee in writing. Said notice shall be deemed to have been duly given if postmarked prior to the expiration date and time specified herein. In the event that Grantee fails to exercise the option granted in this Agreement within the time specified in Section 2 above, the Option Consideration shall be retained by Grantor, and thereafter neither Grantor nor Grantee shall have any further rights or claims against the other.

4. Exercise. In the event that Grantee exercises the option granted in this Agreement to purchase the Property as provided herein, the following provisions shall be applicable:

a. Purchase Price. Subject to any adjustments and prorations hereinafter described, the total purchase price for the Property shall be the lesser of \$250,000 or \$10,000 per dwelling unit that is permitted to be constructed on the Property by the Planning Board of the Town of Gray (the "Purchase Price"), payable at closing by certified or bank cashiers' check or by wire transfer. Provided, however, that the minimum purchase price shall be \$150,000 in the event less than 15 dwelling units are permitted. The Option Consideration shall be credited against the Purchase Price at closing.

b. Title to the Property. At closing, Grantor shall convey to Grantee good and marketable title to the Property in fee simple, free and clear of all liens, claims and encumbrances except standard utility easements that do not materially and adversely affect the use and enjoyment of the Property. In the event that title to the Property is not as set forth in the previous sentence, Grantor shall be given a reasonable period of time, not to exceed thirty (30) days, after receipt of notice from Grantee in which to remedy any title defects. Grantor shall use reasonable efforts to remedy any title defects, but shall not be obligated to expend any funds to do so. In the event that any title defects cannot be corrected or remedied within said time period, then this Agreement shall terminate, whereupon Grantor shall fully refund to Grantee the Option Consideration. Grantee may elect to close notwithstanding such defects as may exist.

c. Closing. The closing under this Agreement shall take place not later than sixty (60) days after this option is exercised (the "Closing Date") at 10:00 AM, local time, at Grantee's counsel's office, or at such other time and place as Grantor and Grantee shall mutually agree upon in writing. At the closing, Grantor shall execute a Warranty Deed to the Property and such other documents and instruments as Grantee shall reasonably request and that are customary in commercial real estate transactions in Maine.

d. Risk of Loss. At all times during the term of this Agreement, all risk of loss to the Property prior to the closing shall be on Grantor.

e. Adjustments. Real property taxes shall be prorated as of the Closing Date based on the latest available tax bill. Grantee shall pay the cost to record the deed and any financing documents executed by Grantee. The parties shall share equally the Maine transfer tax according to law..

f. Default; Remedies. In the event that Grantee exercises its option but fails to close hereunder for a reason other than the default of Grantor, Grantor's sole remedy shall be to retain the Option Consideration as full and complete liquidated damages in lieu of any other legal or equitable remedy, whereupon this Agreement will terminate and neither party will be under any further obligation hereunder. In the event Grantor defaults under this Agreement, Grantee shall have available all remedies at law and in equity, including, without limitation, the right of specific performance or, in the alternative, the right to seek a complete refund of the Option Consideration.

g. Possession. Grantor shall deliver the Property to Grantee at closing free and clear of all leases, tenancies and occupancies by any person.

h. Condition Precedent. Grantee's obligation to acquire the Property under this Agreement is conditioned upon there having occurred no material adverse change in or to the Property between the date of Grantee's inspections and the Closing Date. If this condition is not satisfied as of the Closing Date, Grantee may terminate this Agreement and receive a full and complete refund of the Option Consideration.

i. Brokers. The parties represent to each other that neither has had any dealings with any real estate broker in connection with this transaction.

5. Inspection. At all times during the term of this Agreement, upon reasonable prior notice, Grantee and any prospective lender or investor of Grantee's shall have the right to enter the Property and perform, at Grantee's expense, any and all inspections, tests, surveys or other due diligence inquiries with respect to the Property as Grantee deems necessary or appropriate. Grantee agrees to return the Property as nearly as possible to its original condition after any of such tests and inspections. In the event Grantee is not satisfied for any reason by the results of such due diligence inspections, Grantee shall have the option of terminating this Agreement by written notice to Grantor. Without limiting the generality of the foregoing, this Agreement is subject to a determination by Maine State Housing Authority as to the desirability of the Property for Grantee's intended use as a result of the completion of the environmental review process required by the United States Department of Housing and Urban Development, and if such determination is unsatisfactory, Grantee may terminate this Agreement.

6. Notices. Except as provided in Section 3 above, all notices, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or on the first business day after mailing if mailed to the party to whom notice is to be given by first class mail, postage prepaid, registered or certified, return receipt requested, addressed to the recipient at the addresses set forth at the beginning of this Agreement. Either party may change its address for purposes of this Section by giving the other party notice of the new address in the manner described herein.

7. Assignment. Upon written notice to Grantor, Grantee may assign this Agreement and all its rights and obligations hereunder to an entity affiliated with Grantee. Upon notice of

such assignment, Grantor agrees to look solely to such affiliate for performance of the obligations of the Grantee hereunder.

8. Miscellaneous. Time is of the essence hereof. This Option Agreement constitutes the entire agreement between Grantor and Grantee, there are no agreements or understandings between the parties except as set forth herein, and all prior agreements and understandings are superseded by this Agreement. This Option Agreement will inure to the benefit of and bind the respective successors and assigns of Grantor and Grantee. As used in this Option Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

IN WITNESS WHEREOF, Grantor and Grantee have executed this Option Agreement as of the date first above written.

WITNESS:

[Redacted signature area]

[Redacted signature area]

Jean S. Dunn, Grantor

[Redacted signature area]

[Redacted signature area]

Lloyd A. Dunn, Grantor

[remainder of page left blank intentionally—signatures continue on next page]

IN WITNESS WHEREOF, Grantor and Grantee have executed this Option Agreement as of the date first above written.

WITNESS:

AVESTA HOUSING DEVELOPMENT CORPORATION, Grantee

[Redacted Signature]

By: [Redacted Signature]
Dana Totman, its President

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Law Office of
Robert H. Avaunt, P.A.

Robert H Avaunt, Esq.
Office located at:
31 Main Street Suite 2A
Gray, ME 04039

Mailing Address: P.O. Box 1029
Gray, Maine 04039-1029
ravaunt@gmail.com
Tel 207-657-5077

December 9, 2021

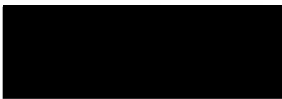
Maurice A. Selinger III
Curtis Thaxter LLC
One Canal Plaza, Ste. 1000
Portland, ME 04101

RE: AVESTA/DUNN

Dear Cito:

Enclosed please find two originals of the Amendment to the Option Agreement extending the expiration date until February 28, 2022. Please return one fully executed Amendment to me with the \$10,000 payment. Thank you.

Sincerely,



Robert H. Avaunt

RHA:ljb

Enc.

DunnL\342-05\12-9-21Salinger.ltr

AMENDMENT TO OPTION AGREEMENT

THIS AMENDMENT TO OPTION AGREEMENT made and entered into as of December _____, 2021, by and between LLOYD A. DUNN, an individual with a mailing address of 3 Hancock Street, Gray, ME 04039, for himself and as surviving spouse of Jean S. Dunn (the "Grantor"), and AVESTA HOUSING DEVELOPMENT CORPORATION, a Maine nonprofit corporation with a place of business in Portland, Maine and mailing address of 307 Cumberland Avenue, Portland, Maine 04101 (the "Grantee")

WITNESSETH:

WHEREAS, the parties entered into that certain Option Agreement dated as of February 26, 2021 (the "Agreement") concerning the sale of land to Buyer as more particularly described in the Agreement, and the parties now wish to amend the Agreement as set forth below;

NOW THEREFORE, FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

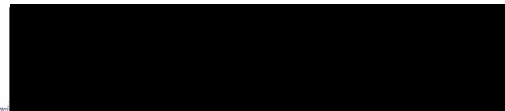
1. The parties agree the expiration date of the Agreement is hereby extended from December 31, 2021 to February 28, 2022 in consideration of an additional option payment to be made by Grantee contemporaneously with the execution of this Amendment in the amount of \$10,000. The definition of "Option Consideration" as set forth in the Agreement is hereby amended to include the original payment of \$2,500 previously made, together with the payment made herewith, for a total of \$12,500.

2. In the event there occur any changes in federal income tax laws between February 26, 2021 and the Closing Date under the Agreement that result in any increased capital gains tax to Grantor, Grantee shall reimburse Grantor for such increased capital gains tax (the "Increased Taxes"), provided that Grantor furnishes to Grantee a written statement from an independent certified public accountant specifically documenting the amount of Increased Taxes and explaining the changed federal tax law provisions that result in the Increased Taxes.

3. As amended hereby, the Agreement continues in full force and effect and the parties ratify and affirm their obligations to one another thereunder.

IN WITNESS WHEREOF, the parties have executed this Amendment to Option Agreement as of the date written above.

WITNESS:



Lloyd A. Dunn, Grantor

[signatures continue on next page]

IN WITNESS WHEREOF, the parties have executed this Amendment to Option Agreement as of the date written above.

WITNESS:

[Redacted Signature]

AVESTA HOUSING DEVELOPMENT CORPORATION, Grantee

By:

[Redacted Signature]

Dana Totman, its President

C:\OneDrive\Documents\CT\Avesta Housing (99475)\Gray Property (505)\Amendment to Option Agreement - Dunn.docx

AMENDMENT TO OPTION AGREEMENT

THIS AMENDMENT TO OPTION AGREEMENT made and entered into as of December _____, 2021, by and between LLOYD A. DUNN, an individual with a mailing address of 3 Hancock Street, Gray, ME 04039, for himself and as surviving spouse of Jean S. Dunn (the "Grantor"), and AVESTA HOUSING DEVELOPMENT CORPORATION, a Maine nonprofit corporation with a place of business in Portland, Maine and mailing address of 307 Cumberland Avenue, Portland, Maine 04101 (the "Grantee")

WITNESSETH:

WHEREAS, the parties entered into that certain Option Agreement dated as of February 26, 2021 (the "Agreement") concerning the sale of land to Buyer as more particularly described in the Agreement, and the parties now wish to amend the Agreement as set forth below;

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3. As amended hereby, the Agreement continues in full force and effect and the parties ratify and affirm their obligations to one another thereunder.

IN WITNESS WHEREOF, the parties have executed this Amendment to Option Agreement as of the date written above.

WITNESS:



Lloyd A. Dunn, Grantor

[signatures continue on next page]

IN WITNESS WHEREOF, the parties have executed this Amendment to Option Agreement as of the date written above.

WITNESS:

[Redacted]

AVESTA HOUSING DEVELOPMENT CORPORATION Grantee

By:

[Redacted]

Dana Totman, its President

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AVESTA HOUSING DEVELOPMENT CORPORATION

SECRETARY'S CERTIFICATE

I, Kimberly Twitchell, hereby certify that I am the duly elected and acting Secretary of Avesta Housing Development Corporation, a Maine corporation (the "Corporation").

I further certify that attached hereto as Exhibit A is a true and correct list of all board members of the Corporation currently serving as of the date of this Certificate.

I further certify that the following individuals were duly elected to and now hold the following offices in the Corporation:

Jonathan Culley:	Chair of the Board
Dana Totman:	President and Chief Executive Officer
Tim Agnew:	Treasurer
Kimberly Twitchell:	Secretary

Dated: January 19, 2022.



Kimberly Twitchell, Secretary
Avesta Housing Development Corporation

EXHIBIT A

Timothy Agnew
Peter Bass
Tony Cipollone
Jonathan Culley
Janice de Lima
Jim Elkins
Dr. Renee Fay-LeBlanc
Katherine Griffin
Chomba Kaluba
Raissa Kaze
Lori Parham
Andrea Patstone
Peter Pitegoff
Nathan Poore
Jeffrey Shaw
Amy Smith
Doug Stockbridge
Kimberly Twitchell

JAN 27 2022

January 24, 2022

Nate Howes
Development Officer
Avesta Housing Development Corporation
307 Cumberland Ave
Portland, ME 04101

Dear Nate:

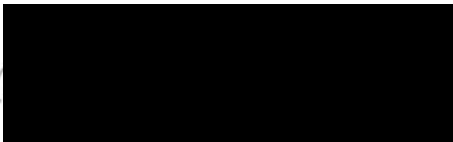


as owners of the Gray Plaza Property (more particularly described in Book 28459, Page 343 of the Cumberland County Registry of Deeds) plan to convey to Avesta Housing Development Corporation the wooded buffer and utility easements as generally depicted on Avesta's Subdivision Plan (dated January 21, 2022) for the Meadowview senior housing development on 16 Hancock Street.

It is our understanding that the utility easement is intended for underground power and communications utilities from existing lines at the Gray Plaza to service the proposed 27-unit apartment building. The wooded buffer easements are intended to provide visual buffering and stormwater treatment; and that tree removal/clearing will not be permitted in the buffer areas. Both the wooded buffering easements and the utility easement will be granted in perpetuity.

The easements are generally depicted on the above referenced plan and are subject to specific meets and bounds.

Sincerely:



Printed:

Title:

NEILY W SIKAW
DIRECTOR OPERATIONS

GRAY SENIOR HOUSING, INC.

SECRETARY’S CERTIFICATE

I, Kimberly Twitchell, hereby certify that I am the duly elected and acting Secretary of Gray Senior Housing, Inc., a Maine corporation (the “Corporation”).

I further certify that attached hereto as Exhibit A is a true and correct list of all board members of the Corporation currently serving as of the date of this Certificate.

I further certify that the following individuals were duly elected to and now hold the following offices in the Corporation:

Jonathan Culley:	Chair of the Board
Dana Totman:	President and Chief Executive Officer
Tim Agnew:	Treasurer
Kimberly Twitchell:	Secretary

Dated: January 19, 2022.


Kimberly Twitchell, Secretary
Gray Senior Housing, Inc.

EXHIBIT A

Timothy Agnew
Peter Bass
Tony Cipollone
Jonathan Culley
Janice de Lima
Jim Elkins
Dr. Renee Fay-LeBlanc
Katherine Griffin
Chomba Kaluba
Raissa Kaze
Lori Parham
Andrea Patstone
Peter Pitegoff
Nathan Poore
Jeffrey Shaw
Amy Smith
Doug Stockbridge
Kimberly Twitchell

APPENDIX B

Gray Water District Letter

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine

Gray Water District

P.O. BOX 196 80 SHAKER RD. GRAY, ME 04039-0196 (207) 657-3500

January 26, 2022

Doug Webster
Town of Gray
24 Main St
Gray, ME 04039

Re: Letter of Ability to Serve
Meadowview II
Hancock St.
Gray, ME 04039

Dear: Doug

Based on the approximate usage of 3420 gallons of water per day (GPD) reported to us by John Mahoney, P.E. on January 24, 2021 for the proposed 27-unit development it is my opinion that the Gray Water District does have the ability to serve the project for domestic service. A fire flow test was conducted on November 10, 2020 that showed available water flow at residual hydrant to be 1549 gallons per minute (GPM) at 20 PSI.

Sincerely,



Bill Gardner
GWD Superintendent

APPENDIX C

Soils Report

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine



Albert Frick Associates, Inc

Environmental Consultants

731 Foss Road Limerick, ME 04048
(207) 839-5563 FAX (207) 839-5564
www.albertfrick.com info@albertfrick.com

January 26, 2022

John Mahoney, P.E.
Project Manager / Design Engineer
Ransom Consulting, Inc
400 Commercial St. Suite 404
Portland, Maine 04101

Re: Preliminary Soils Testing- Avesta Gray Meadowview II, 16 Hancock Road

Dear John:

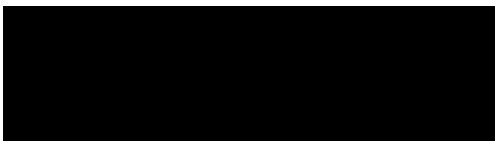
I performed preliminary soil testing at the above-referenced property on March 1, 2021. The purpose of the investigation was to determine the suitability of the property for on-site subsurface wastewater disposal. Enclosed is Ransom Consulting's Utility Plan, which illustrates the location of the test pits excavated. Also attached is the Soil Narrative Report that has soil profile descriptions.

The soil is suitable in the area of TP-6 & TP-7, as defined by the State of Maine Subsurface Wastewater Disposal Rules. The soils were observed to be "5 - D" which requires a medium size rating for design purposes. The tested area is sufficient to support (27) 1-bedroom units with the use of advanced wastewater treatment.

A complete engineered subsurface wastewater disposal system design (HHE-200 form) is needed for a permit to install the system once the overall site development is conceptualized.

Please contact me if you have any questions or additional matters for discussion.

Respectfully,



Brady A. Frick, LSE

Enc: Soil Narrative Report/Utility Plan



Albert Frick Associates, Inc

Environmental Consultants

731 Foss Road Limerick, ME 04048
(207) 839-5563 FAX (207) 839-5564
www.albertfrick.com info@albertfrick.com

AVESTA HOUSING SOIL NARRATIVE REPORT

LOCATION: 16 Hancock Street, Gray

DATE: Soil profiles observed March 1st, 2021.

BASE MAP: Contour map 1 foot intervals, scaled 1"=60', provided by Ransom Consulting Inc.

GROUND CONTROL: Test pits located by GeoXT sub meter GPS unit .

THE SOIL MAPPING CONFORMS WITH HIGH-INTENSITY CLASS "A" SURVEY STANDARDS AND THE TOWN OF GRAY'S SOIL MAPPING SUBDIVISION STANDARDS PER SECTION 401.13.18.C.

Class A - Soil Survey

1. Mapping units of 1/8 acre or greater.
2. Scale of 1" = 100' or larger.
3. Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar soils.
4. Ground control - base line and test pits located by land surveyor.
5. Base map with 2' contour lines.

Subdivision Standards per Section C.3.B - Soil Survey

Three (3) acre maximum inclusion size for soils of the following drainage classifications: Excessively Drained, Somewhat Excessively Drained, Well Drained and Moderately Well Drained.

(ii) One-half (1/2) acre maximum inclusion size for soils of the following drainage classifications: Somewhat Poorly Drained, Poorly Drained, and Very Poorly Drained.

Subdivision Standards per Section C.3.C - Soil Survey

(i) Requisite portions of the Natural Resources Conservation Service (NRCS) published soil survey with field verification of soil type boundaries for the following drainage classifications: Excessively Drained, Somewhat Excessively Drained, Well Drained, and Moderately Well Drained. The submitted soils documentation from the CSS must be adjusted to reflect the information obtained from field verification.

(ii) Two (2) acre maximum inclusion size for Poorly Drained and Very Poorly Drained soils which may be combined.

(iii) Two (2) acre maximum inclusion size for Somewhat Poorly Drained soils.

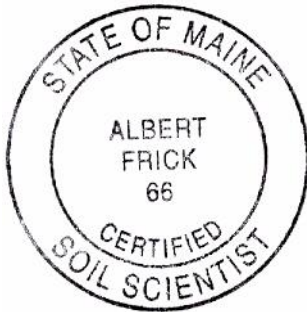
This was prepared for a commercial housing development on private septic and public water.

The accompanying soil profile descriptions, soil map and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.



Albert Frick

C.S.S. #66, S.E. 4 / 16 / 2021
Date



BRAYTON (Aeric Haplaquepts)

SETTING

Parent Material:	Compact loamy glacial till.
Landform:	Depressions and toeslopes of glaciated uplands.
Position in Landscape:	Lowest positions on landform.
Slope Gradient Ranges:	(A) 0-3% (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Poorly drained, with a perched water table 0 to 1.0 feet beneath the soil surface from November through May or during periods of excessive precipitation.	
Typical Profile Description:	Surface layer:	Very dark grayish brown sandy loam, 0-5"
	Subsurface layer:	Grayish brown sandy loam, 5-15"
	Subsoil layer:	Olive gray fine sandy loam, 15-24"
	Substratum:	Olive sandy loam, 24-65"
Hydrologic Group:	Group D	
Surface Run Off:	Moderate to moderately rapid.	
Permeability:	Moderate in solum, moderately slow or slow in dense substratum.	
Depth to Bedrock:	Deep, greater than 40 inches.	
Hazard to Flooding:	None	
Erosion Factors:	K: .24 - .32	

INCLUSIONS (Within Mapping Unit)

Similar:	Colonel, Westbury,
Dissimilar:	Naskeag, Peacham

USE AND MANAGEMENT

Soil limitations for Proposed Use: Soil limiting factor is high groundwater table. Brayton is hydric (wetland) soil. Areas within the Brayton soil series mapping unit may be jurisdictional wetland, if hydrology and wetland vegetation co-exist, and subjected to wetland impact regulations. Roadway and associated development will need to avoid these areas which are designated wetlands, or properly addressed with the wetland impact requirements.

CROGHAN

(Aquic Haplorthods)

SETTING

Parent Material:	Derived from outwash or deltaic sand.
Landform:	Occupy outwash terraces and sand plains.
Position in Landscape:	Usually are found in intermediate or upper positions in the landscape.
Slope Gradient Ranges:	(B) 3-8% (C) 8-20%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Moderately well-drained, with an apparent water table 1.5 to 2.0 feet below the soil surface from November through May. The water table fluctuates from approximately 1.5 feet during prolonged wet periods to depths greater than 4 feet in dry seasons.
Typical Profile Description:	Surface layer: Dark brown sand, 0-7" Subsurface layer: Strong brown/yellowish brown, brown & pale brown sand with mottles below 13", 7-52" Substratum: Grayish brown loose sand, 52-60"
Hydrologic Group:	Group B
Surface Run Off:	Slow to medium
Permeability:	Rapid to very rapid in the lower horizons.
Depth to Bedrock:	Deep, greater than 40".
Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar:	Adams
Dissimilar:	Nicholville, Naumburg, Lyman,

USE AND MANAGEMENT

.Stormwater Design: The Croghan soil is moderately well drained. The groundwater table is typically greater than 15 inches, but less than 40 inches in the spring and/or periods of heavy precipitation. The expected soil permeability is 6 to 20 inches/hr in the top 0-12 inches, and 20 inches/hr below 12 inch.

MADE LAND

SETTING

Parent Material:	Variable
Landform:	Variable
Position in Landscape:	Variable
Slope Gradient Ranges:	(A) 0-3% (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	None assigned
Typical Profile Description:	Surface layer:) Typically this map unit Subsurface layer:) consists of areas Subsoil layer:) excavated and reworked Substratum:) by man, then smoothed.
Hydrologic Group:	None assigned
Surface Run Off:	Variable
Permeability:	Variable
Depth to Bedrock:	Variable
Hazard to Flooding:	None

INCLUSIONS (Within Mapping Unit)

Similar:	Filled Land, Croghan
Dissimilar:	Small 'made' depressions that contain standing water or have other drainage implications. These may be caused by compaction by vehicular traffic, which is not synonymous with seasonal water tables.

USE AND MANAGEMENT

This map unit consists of areas reworked by man, so that the soils are no longer taxonomically classifiable. Limiting factor for development is soil drainage, though somewhat difficult to determine in these map units. This map unit usually has sandy soil material over the underlying finer textured original soils (silty and silty clay).

USE AND MANAGMENT

For stormwater management: The limiting factor for building site development is wetness due to the presence of a groundwater table. Naumburg (poorly drained) may be classified as wetlands, based on the combined consideration of hydric conditions hydrology, and vegetation. Expected permeabilities are expected to be 2-6 inches per hour in the upper 6", and 6-20 inches per hour at depths of 6"-60".

NAUMBURG (Aeric Haplaquods)

SETTING

Parent Material:	Derived from outwash, stratified drift and deltaic sediments.
Landform:	Usually occupies low sand plains and terraces.
Position in Landscape:	Naumburg soil is found in the lower positions of landscape.
Slope Gradient Ranges:	(A) 0-3% (B) 3-8% (C) 8-20%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Somewhat poorly to poorly drained, with an apparent water table 0 to 1.5 feet below the soil surface from November through May. The water table fluctuates from 0 feet during prolonged wet periods to depths greater than 1.5" in dry seasons.								
Typical Profile Description:	<table><tr><td>Surface layer:</td><td>Black organic, 6" thick</td></tr><tr><td>Subsurface layer:</td><td>Reddish gray loamy sand, 0-6"</td></tr><tr><td>Subsoil layer:</td><td>Mottled dark reddish brown, dark brown, and yellowish brown sand, fine sand or loamy sand, 6-30"</td></tr><tr><td>Substratum:</td><td>Light brownish gray sand, 30-60"</td></tr></table>	Surface layer:	Black organic, 6" thick	Subsurface layer:	Reddish gray loamy sand, 0-6"	Subsoil layer:	Mottled dark reddish brown, dark brown, and yellowish brown sand, fine sand or loamy sand, 6-30"	Substratum:	Light brownish gray sand, 30-60"
Surface layer:	Black organic, 6" thick								
Subsurface layer:	Reddish gray loamy sand, 0-6"								
Subsoil layer:	Mottled dark reddish brown, dark brown, and yellowish brown sand, fine sand or loamy sand, 6-30"								
Substratum:	Light brownish gray sand, 30-60"								
Hydrologic Group:	Group D								
Surface Run Off:	Very slow								
Permeability:	Rapid								
Depth to Bedrock:	Deep, greater than 40".								

INCLUSIONS (Within Mapping Unit)

Similar:	Au Gres, Finch (with cementation), Enosburg (Swanton), Roundabout
Dissimilar:	Searsport (in microdepressions)

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a groundwater table. Proper foundation drainage or site modification is recommended. Portions of this map may be suitable for subsurface wastewater disposal, where the depth to limiting factor is greater than 12" from the existing soil surface outside shoreland zone areas. Naumburg (poorly drained) may be classified as wetlands, based on the combined consideration of hydric conditions hydrology, and vegetation.

NICHOLVILLE (S.W.P.)

SETTING

Parent Material:	Lacustrine material having a high content of silt and fine sand.
Landform:	Commonly found on lake plains and upland till plains that have a mantle of water-deposited silt or very fine sand.
Position in Landscape:	Intermediate portion of landscape feature.
Slope Gradient Ranges:	(B) 3-8% (C) 8-20% (D) 20%+

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Nicholville (S.W.P.) is somewhat poorly drained, with a perched water table 0.5 to 1.5 feet below the soil surface from November through May and during periods of heavy precipitation.
Typical Profile Description:	Surface layer: Very dark grayish brown silt loam, 0-10" Subsurface layer: Dark yellowish brown silt loam, 10-13" Subsoil layer: Yellowish brown and grayish brown very fine sandy loam, 13-18" Substratum: Grayish brown loamy very fine sand, 18-70"
Hydrologic Group:	Group D
Surface Run Off:	Medium
Permeability:	Moderate throughout profiles.
Depth to Bedrock:	Very deep, greater than 60".
Hazard to Flooding:	None

INCLUSIONS (Within Mapping Unit)

Similar:	Nicholville, Naumburg (S.W.P.), Lamoine
Dissimilar:	Roundabout, Scantic,

USE AND MANAGEMENT

Development with stormwater: Nicholville (SWP) is a somewhat poorly drained soil exhibiting a seasonal high groundwater table 1.0 to 1.5 feet beneath the soil surface in the spring and during periods of heavy precipitation. Nicholville (SWP) soils exhibit permeabilities of 0.6-2.0 inches/hr throughout the profile.

NICHOLVILLE (Aquic Haplorthods)

SETTING

Parent Material:	Lacustrine material having a high content of silt and fine sand.
Landform:	Commonly found on lake plains and upland till plains that have a mantle of water-deposited silt or very fine sand.
Position in Landscape:	Intermediate and upper portions of landscape feature.
Slope Gradient Ranges:	(B) 3-8% (C) 8-20% (D) 20+%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Moderately well drained, with a perched water table 1.5 to 2.0 feet below the soil surface from November through May.								
Typical Profile Description:	<table><tr><td>Surface layer:</td><td>Very dark grayish brown silt loam, 0-10"</td></tr><tr><td>Subsurface layer:</td><td>Dark yellowish brown silt loam, 10-13"</td></tr><tr><td>Subsoil layer:</td><td>Yellowish brown and grayish brown very fine sandy loam, 13-18"</td></tr><tr><td>Substratum:</td><td>Grayish brown loamy very fine sand, 18-70"</td></tr></table>	Surface layer:	Very dark grayish brown silt loam, 0-10"	Subsurface layer:	Dark yellowish brown silt loam, 10-13"	Subsoil layer:	Yellowish brown and grayish brown very fine sandy loam, 13-18"	Substratum:	Grayish brown loamy very fine sand, 18-70"
Surface layer:	Very dark grayish brown silt loam, 0-10"								
Subsurface layer:	Dark yellowish brown silt loam, 10-13"								
Subsoil layer:	Yellowish brown and grayish brown very fine sandy loam, 13-18"								
Substratum:	Grayish brown loamy very fine sand, 18-70"								
Hydrologic Group:	Group C								
Surface Run Off:	Medium								
Permeability:	Moderate throughout the profile.								
Depth to Bedrock:	Very deep, greater than 60".								
Hazard to Flooding:	None								

INCLUSIONS

(Within Mapping Unit)

Similar:	Croghan, Elmwood
Dissimilar:	Nicholville (S.W.P.), Buxton, Lamoine, Made Land

USE AND MANAGEMENT

Stormwater design: Nicholville is a moderately well drained soil, exhibiting a seasonal high groundwater table 1.5-2.0 feet beneath the soil surface in the spring and during periods of high precipitation. Nicholville soils exhibit permeabilities of 0.6-2.0 inches/hour, through the profile.

SKERRY (Aquic Haplorthods)

SETTING

Parent Material:	Loamy glacial till underlain by sandy textured denser till.
Landform:	Drumlins and glaciated uplands.
Position in Landscape:	Usually occupies upper components of landform.
Slope Gradient Ranges:	(B) 3-8% (C) 8-20%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Moderately well-drained, with a perched water table 1.5 to 3.5 feet below the soil surface from November through May.
Typical Profile Description:	Surface layer: Light gray fine sandy loam, 0-4" Subsurface layer: Dark reddish brown fine sandy loam, 4-20" Subsoil layer: Yellowish brown fine sandy loam, 20-25" Substratum: Mixed brown and light olive brown fine sandy loam and sand, 25-65"
Hydrologic Group:	Group C
Surface Run Off:	Moderate
Permeability:	Moderate in solum and slow or moderately slow in the compact substratum.
Depth to Bedrock:	Deep, greater than 40".
Hazard to Flooding:	None

INCLUSIONS (Within Mapping Unit)

Similar:	Dixfield, Herman
Dissimilar:	Tunbridge, Lyman (less than 40" to bedrock), Colonel, Westbury

USE AND MANAGEMENT

Stormwater design: Skerry soils are moderately well drained. Soil permeabilities are expected to be 0.6 – 2.0 inches/hour in the upper portions of soil profile, and 0.06 – 0.6 inches/hour in the compact substratum, generally 25" – 65" beneath the soil surface.

Town, City, Plantation
GRAY

Street, Road Subdivision
16 HANCOCK STREET

Owner's Name
AVESTA HOUSING

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 5 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
VERY FINE SANDY LOAM		DARK BROWN	
	FRIABLE		
FINE SANDY		YELLOWISH BROWN	FEW, DISTINCT
VERY FINE SANDY LOAM		OLIVE BROWN	
SILTY CLAY	FIRM	GRAY	
LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	<input checked="" type="checkbox"/> Ground Water
Profile Condition	%	15"	<input type="checkbox"/> Restrictive Layer
Soil Series Name: NICHOLVILLE	Drainage Class: MODERATELY WELL DRAINED	Hydrologic Group: C	<input type="checkbox"/> Bedrock
			<input type="checkbox"/> Pit Depth
Soil Series Name: NICHOLVILLE (VARIANT)			

Observation Hole TP 6 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
FINE SANDY LOAM		DARK BROWN	
		LIGHT YELLOWISH BROWN	FEW, FAINT
FINE SAND	FRIABLE	OLIVE BROWN	△△△ FREE WATER
	SOMEWHAT FIRM		

Soil Classification	Slope	Limiting Factor	<input checked="" type="checkbox"/> Ground Water
Profile Condition	%	12"	<input type="checkbox"/> Restrictive Layer
Soil Series Name: NAUMBURG	Drainage Class: SOMEWHAT POORLY DRAINED	Hydrologic Group: D	<input type="checkbox"/> Bedrock
			<input type="checkbox"/> Pit Depth
Soil Series Name: NAUMBURG			

FOR WASTEWATER DISPOSAL →
FOR SOILS MAPPING →

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 7 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
LOAMY SAND		BROWN	
		STRONG BROWN	FEW, DISTINCT
FINE SAND	FRIABLE		
		LIGHT YELLOWISH BROWN	△△△ FREE WATER
MEDIUM SAND	SOMEWHAT FIRM	OLIVE BROWN	
LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	<input checked="" type="checkbox"/> Ground Water
Profile Condition	%	10"	<input type="checkbox"/> Restrictive Layer
Soil Series Name: NAUMBURG	Drainage Class: SOMEWHAT POORLY DRAINED	Hydrologic Group: D	<input type="checkbox"/> Bedrock
			<input type="checkbox"/> Pit Depth
Soil Series Name: NAUMBURG			

Observation Hole TP 8 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
LOAMY SAND		DARK BROWN	
		YELLOWISH BROWN	COMMON, DISTINCT
SAND	FRIABLE	LIGHT YELLOWISH BROWN	
		OLIVE BROWN	△△△ FREE WATER

Soil Classification	Slope	Limiting Factor	<input checked="" type="checkbox"/> Ground Water
Profile Condition	%	8"	<input type="checkbox"/> Restrictive Layer
Soil Series Name: NAUMBURG	Drainage Class: POORLY DRAINED	Hydrologic Group: D	<input type="checkbox"/> Bedrock
			<input type="checkbox"/> Pit Depth
Soil Series Name: NAUMBURG			

FOR WASTEWATER DISPOSAL →
FOR SOILS MAPPING →

Site Evaluator / Soil Scientist Signature

66 SE/CSS *

4/16/21 Date

ALBERT FRICK ASSOCIATES - 380-B MAIN STREET GORHAM, MAINE 04038 - (207) 839-5563

Town, City, Plantation
GRAY

Street, Road Subdivision
16 HANCOCK STREET

Owner's Name
AVESTA HOUSING

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole **TP 9** Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
MIXED LOAMY SAND (FILL)			
	FRIABLE	OLIVE BROWN	
LOAMY SAND		DARK BROWN	COMMON, DISTINCT
			FREE WATER
FINE SAND	FIRM	PALE BROWN	

Soil Classification: Profile _____ Condition _____ Slope: _____ % Limiting Factor: **30"**

Soil Series Name: **MADE LAND** Drainage Class: **MODERATELY WELL DRAINED** Hydrologic Group: **C**

Observation Hole **TP 10** Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
LOAMY SAND	FRIABLE	YELLOWISH BROWN	FEW, FAINT
FINE SAND	SOMEWHAT FIRM	PALE BROWN	

Soil Classification: Profile _____ Condition _____ Slope: _____ % Limiting Factor: **24"**

Soil Series Name: **CROGHAN** Drainage Class: **MODERATELY WELL DRAINED** Hydrologic Group: **A**

FOR WASTEWATER DISPOSAL →
FOR SOILS MAPPING →

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole **TP 11** Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
LOAMY SAND	FRIABLE	DARK BROWN	COMMON, DISTINCT
SAND		OLIVE GRAY	FREE WATER

Soil Classification: Profile _____ Condition _____ Slope: _____ % Limiting Factor: **7"**

Soil Series Name: **NAUMBURG** Drainage Class: **POORLY DRAINED** Hydrologic Group: **D**

Observation Hole **TP 12** Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
LOAMY SAND		DARK BROWN	
FINE SAND	FRIABLE	YELLOWISH BROWN	
REFUSAL			

Soil Classification: Profile _____ Condition _____ Slope: _____ % Limiting Factor: **26"**

Soil Series Name: **SKERRY (VARIANT)** Drainage Class: **WELL DRAINED** Hydrologic Group: **C**

FOR WASTEWATER DISPOSAL →
FOR SOILS MAPPING →

Site Evaluator / Soil Scientist Signature: _____ SE/CSS # **66** Date **4/16/21**

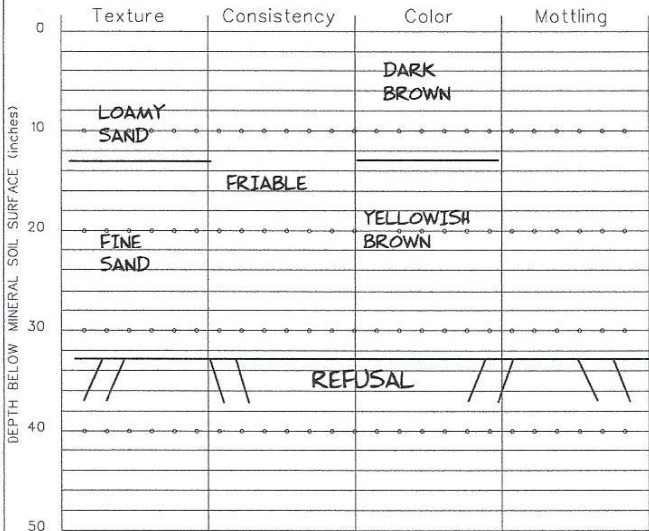
Town, City, Plantation
GRAY

Street, Road Subdivision
16 HANCOCK STREET

Owner's Name
AVESTA HOUSING

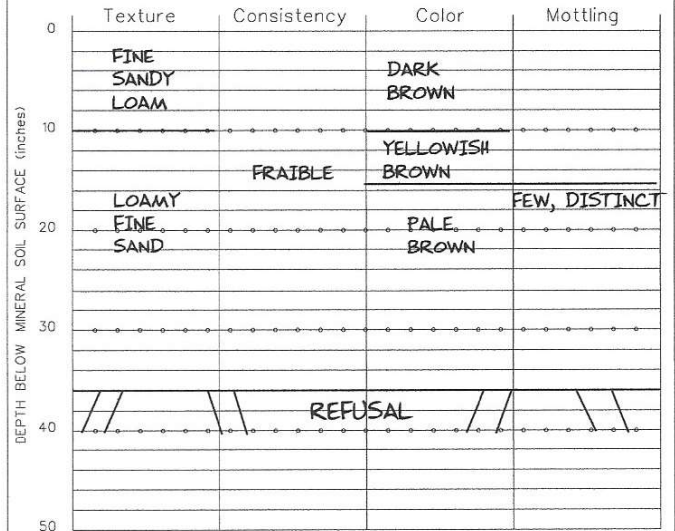
SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 13 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
Profile Condition	%	32"	
Soil Series Name: SKERRY (VARIANT)	Drainage Class: WELL DRAINED	Hydrologic Group: C	

Observation Hole TP 14 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil

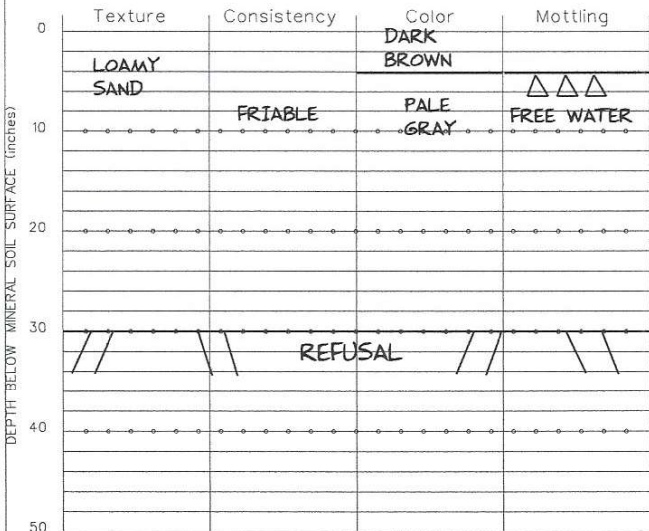


Soil Classification	Slope	Limiting Factor	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
Profile Condition	%	15"	
Soil Series Name: SKERRY (VARIANT)	Drainage Class: MODERATLY WELL DRAINED	Hydrologic Group: C	

FOR WASTEWATER DISPOSAL →
FOR SOILS MAPPING →

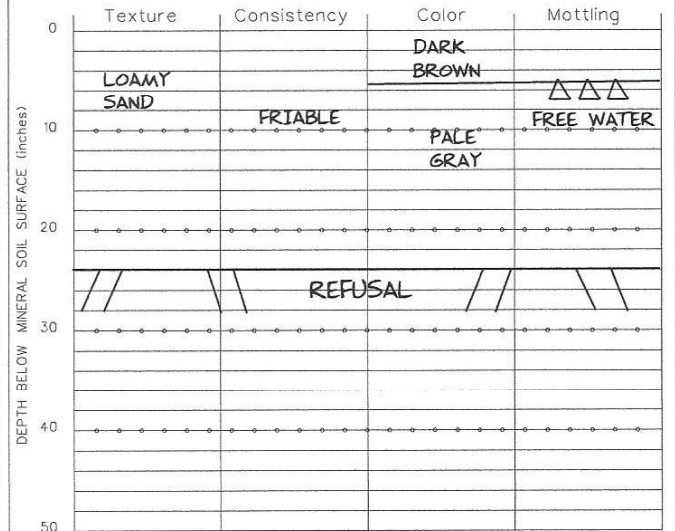
SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 15 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
Profile Condition	%	4"	
Soil Series Name: BRAYTON (VARIANT)	Drainage Class: POORLY DRAINED	Hydrologic Group: D	

Observation Hole TP 16 Test Pit Boring
" Depth of Organic Horizon Above Mineral Soil



Soil Classification	Slope	Limiting Factor	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
Profile Condition	%	5"	
Soil Series Name: BRAYTON (VARIANT)	Drainage Class: POORLY DRAINED	Hydrologic Group: D	

FOR WASTEWATER DISPOSAL →
FOR SOILS MAPPING →



66
SE/CSS #

4/16/21
Date

LIMITS OF SOILS MAPPING MEETING THE TOWN OF GRAYS ORDINANCE SECT. 3.C.3. (BLUE)

LIMITS OF SOILS MAPPING MEETING THE TOWN OF GRAYS ORDINANCE SECT. 3.C.B. (GREEN)

LIMITS OF CLASS A HIGH INTENSITY SOILS MAPPING (RED)

NOTE: SOIL MAPPING IN ACCORDANCE OF MAPPS STANDARDS AND TOWN OF GRAY CHAPTER 401.13.18.C REQUIREMENTS

4BER 2019

- SOILS MAP LEGEND:**
- SOIL TEST PIT (LOCATED BY SUBMETER GPS)
 - SOIL BOUNDARY LINE
 - LIMITS OF CLASS A HIGH INTENSITY SOILS MAPPING
 - LIMITS OF SOILS MAPPING PER TOWN STANDARDS
 - WETLAND AREA (BY OTHERS)
 - STREAM / POND

- SLOPE DESIGNATION**
- A — 0 - 3%
 - B — 3 - 8%
 - C — 8 - 20%
 - D — 20%+

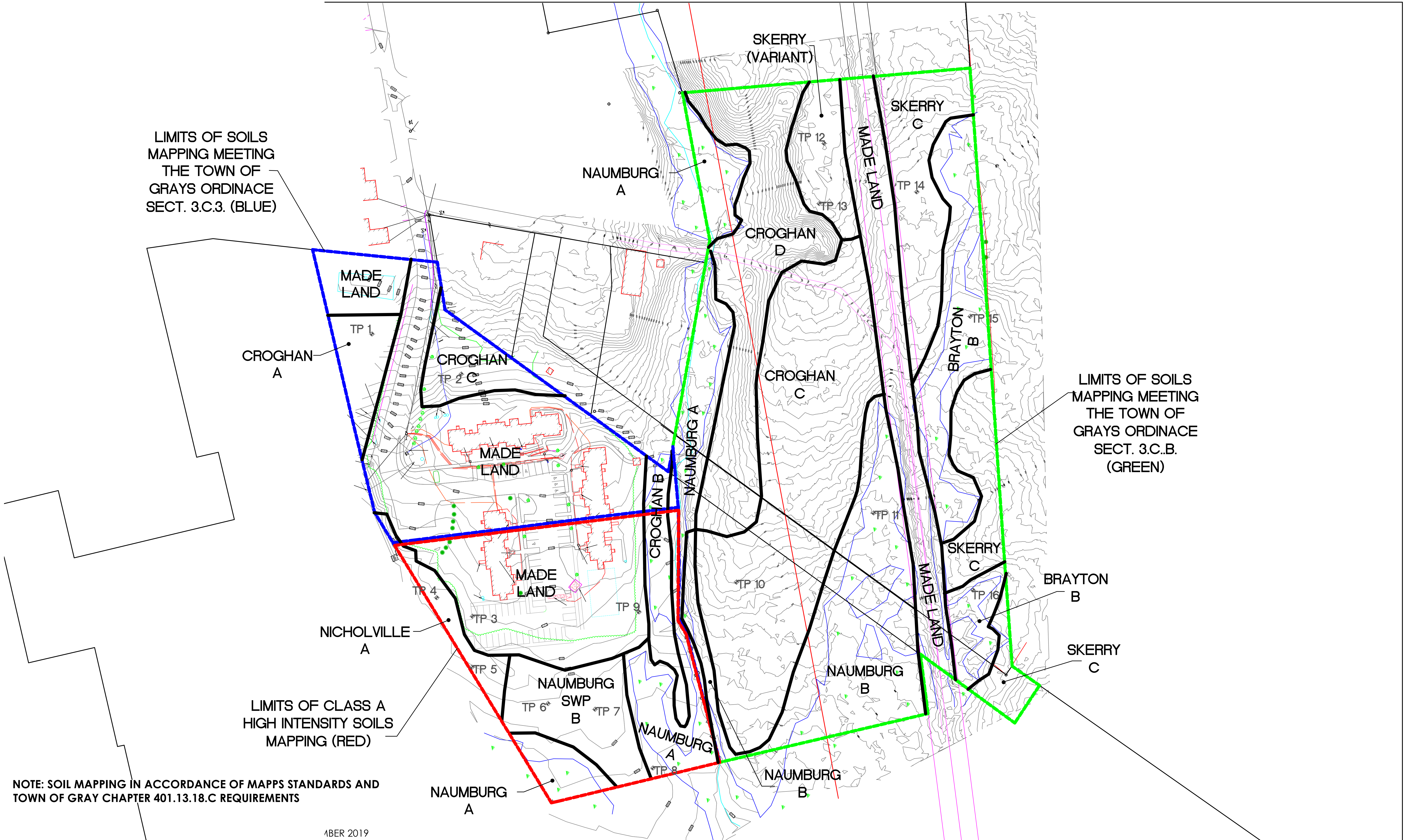
NOTE: SEE ACCOMPANYING SOIL NARRATIVE REPORT, DATED APRIL, 2021
 THE ACCOMPANYING SOILS SURVEY WAS DONE IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS, FEBRUARY 1995, AS AMENDED.

	DATE:	REVISIONS:

SOIL MAP
 HIGH INTENSITY
 PREPARED FOR
 AVESTA HOUSING
 16 HANCOCK STREET
 GRAY, MAINE

Albert Frick Associates, Inc.
 Environmental Consultants
 Gorham, Maine

Drawn By: B.J.	Checked By: A.F.
Date: 4/7/21	Scale: 1" = 60'



APPENDIX D

Financial Capacity

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine



January 13, 2022

Doug Webster
Town of Gray
24 Main Street
Gray, ME 04039

RE: Meadowview II

Dear Mr. Webster:

On behalf of Bangor Savings Bank I am pleased to provide this letter in support of Avesta Housing for the development of a 27-unit, affordable housing project to be located in Gray, Maine. Bangor Savings Bank has worked with Avesta Housing on multiple projects of a similar nature. Based on our prior experience working with the organization, we believe that the applicant has the ability to finance the projected project costs. In addition, they possess the management skill and development expertise to successfully complete the proposed project on time and on budget.

While this letter of support is not a commitment to lend, Bangor Savings Bank would welcome the opportunity to be a resource for project financing. Please feel free to call me at 541-2707 with any questions.

Sincerely,

A large black rectangular redaction box covering the signature area of the letter.

Shawn McKenna
Vice President
Commercial Banking

APPENDIX E

Hydrogeologic Assessment

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine

**HYDROGEOLOGIC ASSESSMENT
AVESTA GRAY MEADOWVIEW
16 HANCOCK STREET
GRAY, MAINE**

Prepared for:

AVESTA Housing
307 Cumberland Avenue
Portland, Maine 04101

Prepared by:



400 Commercial Street
Portland, Maine 04101
(207) 772-2891

Project 191.06051
January 27, 2022

Thomas B. Neilson, L.G.
Primary Author /
Project Geologist

John I. Mahoney, P.E.
Project Manager

Nicholas O. Sabatine, P.G.
Principal/Vice President

Aaron Martin, L.G.
Peer Review

EXECUTIVE SUMMARY

This Hydrogeologic Assessment has been prepared to support the Site Plan application for a proposed residential development at 19 Hancock Street in the Town of Gray, Cumberland County, Maine on behalf of AVESTA Housing (AVESTA). The proposed development includes construction of 27 apartment units on a parcel with 20 existing senior housing units. The development will include a construction of a septic system to handle wastewater from the new development with a design flow of 3,240 gallons per day. This assessment is intended to support AVESTA's Site Plan and Subdivision application and generally addresses the requirements of the Town of Gray Subdivision Ordinance Chapter 401 §401.13.9.

The Site is located south of the Gray ice-contact marine delta within an area of marine nearshore deposits, which are generally sandy with lesser components of silt, mud, and gravel, as identified by the Maine Geological Survey (MGS). The Site and surrounding properties are served by municipal water supplied by the Gray Water District, and neither the overburden nor the bedrock aquifers are currently utilized for potable water within the vicinity of the Site.

Ransom completed an analytical fate and transport model to assess the potential worst-case scenario impact of septic discharge on nitrate-nitrogen concentrations in groundwater down gradient from the proposed septic system. The downgradient boundary used in the analysis was the closest property line, approximately 43 feet from the corner of the proposed septic system. Other parameters for the model were based on field data or estimated using common geologic principles to be conservative. The model results indicate that nitrate-nitrogen concentrations at the downgradient property boundary are not likely to exceed the Maine Department of Environmental Protection's (MEDEP's) Maximum Concentration Limit (MCL) of 10 milligrams per liter.

Groundwater mounding beneath the proposed septic system was evaluated using an analytical model to estimate the height of the groundwater mound after 10 years of infiltration. The maximum height of the mound at the center of the proposed septic system would be approximately 1.18 feet above the water table, which would be approximately 10 inches below the septic system discharge chambers. With proper construction, the risk of effluent breakout downslope of the septic system is considered to be low.

Based on the information available for this assessment, the proposed development is not expected to have an unreasonable impact on groundwater resources at the Site or nearby.

This Executive Summary does not contain all the relevant information relating to this assessment. The conclusions and recommendations included herein should only be considered after reading the entirety of this document.

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FIGURES

Figure 1: Nitrate-Nitrogen Model Results

FIGURES

Appendix A: Mounding Analysis Output

1.0 INTRODUCTION

This hydrogeologic assessment has been completed by Ransom Consulting, LLC (Ransom) on behalf of AVESTA Housing (AVESTA) to support their proposed construction of a new residential apartment building and associated infrastructure at 19 Hancock Street in the Town of Gray, Cumberland County, Maine (the “Site” or “proposed development”). The Site encompasses 14.9 acres, much of which will be preserved as woodlands. The proposed development includes building a new building with 27 residential one-bedroom apartment units at an existing apartment complex with 20 one-bedroom apartment units owned by the Applicants. The development will include construction of a septic leach field to manage septic waste from the new building with a design flow of 3,240 gallons per day (gpd) located to the south of the proposed building. The existing buildings are served by an existing septic system located approximately 600 feet north of the proposed development.

This assessment is intended to address the general requirements of the Town of Gray Chapter 401 Subdivision Ordinance and provide worst-case scenario modeling results, conclusion, and recommendations related to fate and transport of nitrate-nitrogen (NO₃-N) effluent from the proposed septic system and groundwater mounding related to the septic system.

This report is based upon field data, publicly available geologic information, and reasonable estimates of geologic properties using common methods. It makes every effort to be conservative in the modeling approach while accurately representing the real environment to the extent possible.

This report is intended to accompany the Site Plan application package prepared by Ransom. The Site Plan drawings provide visual representations of many of the topics discussed in this report and should be referenced as needed when reviewing this report.

2.0 BACKGROUND

2.1 Site Topography and Drainage

The area of the proposed development is relatively low relief, with an un-named stream located east of the development area and wetlands or low-lying areas located to the south and west. North of the development area is a moderately steep slope that grades up toward to the top of the Gray marine delta, as identified by the Maine Geological Survey (MGS).

Drainage conditions at the Site are in the attached Civil Plan Set prepared by Ransom. The total impervious area at the Site is 58,292 square feet, which is equivalent to approximately 9% of the total Site area. Much of the stormwater generated from the impervious areas of the Site will be handled by the proposed stormwater management system and discharged via level-spreader to the ground surface adjacent to the Site, as shown on Sheet C1.6. The remainder of stormwater will be directed to the ground surface adjacent to the impervious areas. No stormwater will be directed to surface water features or storm drains that convey stormwater away from the Site and prevent infiltration. Based on the proportion of impervious area (or based on the proposed stormwater management plan), groundwater recharge at the Site is not anticipated to be substantially altered from the present condition.

2.2 Site Geology

2.2.1 Overburden Geology

The site is located south of the Gray ice-contact marine delta unit within the marine nearshore deposits immediately flanking the southern terminus of the delta (MGS; Weddle, 1997). The marine nearshore deposits are described as gravel, sand, and mud deposited by wave activity in nearshore or shallow marine environments. The eastern portion of the Site, located east of the un-named brook running through the Site, is mapped as glacial till. To the west the marine nearshore deposits transition into the Presumpscot Formation, typically a clayey silt unit deposited in a deeper marine setting, and to the south the Holocene wetland deposits of the Gray Meadow dominate.

On-Site test pits completed by Albert Frick Associates, Inc (Frick Associates) indicate that Site conditions generally align with the mapped surficial geology. Within the area of proposed development soils were typical of glacial outwash and nearshore marine environments, with varying amount of silt, fine sand, and sand. The eastern portion of the Site parcel, outside of the proposed development area, surficial geology included lesser amount of glacial till and delta/marine nearshore deposits.

Thickness of overburden material was generally greater than the depth of exploration, although bedrock was encountered in several test pits located on the eastern portion of the property, outside of the area of development. Well records from the MGS Water Well Database located nearby (within 2,000 feet) and within somewhat similar geologic conditions indicate thickness of overburden is 30 feet or greater.

Groundwater was observed in several test pits. Depth to the seasonal high-water table ranged from approximately 32 inches below grade to 7 inches below grade, with shallower depths to water in the southern portion of the Site adjacent to and within the delineated wetlands.

The Soil Narrative Report prepared by Frick Associates and accompanying soil map have been included in this Site Plan application package.

2.2.2 Bedrock Geology

The bedrock unit underlying the Site is mapped as be a muscovite-biotite granite with localized areas of pegmatite. No bedrock outcrops have been observed on Site and actual bedrock lithology has not been confirmed with field data.

2.3 Hydrogeologic Setting

Groundwater at the site was encountered in most of the test pits advanced on the property, and the seasonal high-water table was identified as being between 7 and 32 inches below grade in test pits. Groundwater flow in the overburden material at the site is expected to generally follow site topography. On a broader scale, topography suggests groundwater flow would be approximately southerly, although some groundwater may flow easterly toward the un-named stream or westerly toward low-lying wetlands. A groundwater elevation survey was not completed at the Site.

The nearest mapped water supply wells are approximately 1,200 feet away, and the existing units on the property, as well as the developments surrounding the Site, are connected to municipal water supply through the Gray Water District (GWD).

Based on available information, neither the surficial geologic unit(s) or bedrock in the vicinity of the proposed development are currently utilized as a potable water supply.

The surficial geology of the Site indicate that precipitation and stormwater likely infiltrate relatively easily in most areas of the site, as overburden materials generally consist of relatively sandy material with lesser components of fine-grained sediment.

2.4 Current Groundwater Quality

There are no known wells on the Site or neighboring properties, as the neighborhood surrounding the proposed development is served by the GWD. The nearest known wells are approximately 1,200 feet west of the proposed development and were not considered close enough to provide representative groundwater samples.

3.0 ANALYSIS OF SEPTIC WASTE DISPOSAL SYSTEM

The proposed use of the Site after development includes 27 new residential apartment units. An engineered septic system with a design capacity of 3,240 gpd is proposed to handle wastewater loads generated at from the new Site building. The proposed location, grading, and design of the proposed septic system are shown in the plan sheet C1.5 included in the Site Plan application package. Given this, Ransom has assessed potential nitrate-nitrogen (NO₃-N) loading from the proposed septic system at the Site.

The assessment presented below is a result of consideration of Site geologic characteristics and field data. It is important to recognize that hydrogeologic assessments often carry a significant degree of uncertainty, and the assessment provided herein represents Ransom's opinions about the hydrogeologic setting at the project Site given the information available at the time this assessment was conducted and standard geologic and hydrogeologic principles deemed appropriate for the Site setting.

3.1 Impacts at Existing Water Supply Wells

The Site and surrounding properties are, to the best of our understanding, served by municipal water provided by the GWD. The GWD utilizes groundwater from the sand and gravel aquifer associated with the glacio-marine delta deposits in the Libby Hill and Gray delta complexes, which are located approximately 7,000 feet north of the proposed development. The GWD source wells rely upon groundwater that has no direct hydraulic connection to the on-site groundwater. Septic discharge on Site is not expected to present risk to the GWD water supply.

According to the MGS Water Well Database, the closest existing water supply well is located approximately 1,200 feet west of the proposed development. Two additional wells are located within 2,000 feet of the proposed development (one to the west and one to the north). All three wells are listed as bedrock water supply wells and are not considered to be hydraulically connected to the overburden groundwater system at the Site. Septic discharge on Site is not expected to present risk to the mapped existing domestic water supply wells in the vicinity of the project.

Given our understanding of the existing users of the bedrock and overburden aquifers in the vicinity of the Site, the proposed septic discharge present low risk of impact to water supply wells.

3.2 Impacts at the Down Gradient Property Boundary

Per the requirements of the Town of Gray Chapter 401 Subdivision Ordinance §401.13.9, Ransom has performed an assessment of expected NO₃-N concentrations in groundwater at the downgradient property boundary from the proposed septic system.

For the purposes of this assessment, the downgradient boundary is considered to be the closest property boundary to the proposed septic system, which is 43 feet from the southwest corner of the septic system. Based on Site topography, the down-gradient boundary may be more accurately represented by the property line to the south of the proposed septic system, which is approximately 93 feet from the septic system. By using the closer boundary, the model results are made more conservative.

Ransom performed the NO₃-N assessment using standard techniques described in Domenico and Palciauskas (1982). Specifically, two conservative analytical models were employed to estimate the NO₃-

N concentration at the downgradient property boundary from the proposed septic system. Both models incorporate the following assumptions:

1. The measured concentration at the downgradient boundary is maintained constant (i.e. the flow is in steady state);
2. The aquifer is isotropic and homogeneous;
3. Groundwater flow is uniform;
4. Dilution occurs only through transverse dispersion (i.e. dispersion only occurs at right angles to the direction of flow in the horizontal and vertical directions);
5. Horizontal and vertical dispersion occurs at the same rate; and
6. The aquifer thickness is limited.

The equations used to model NO₃-N concentrations can be found as Equations 19 and 20 from Domenico and Palciauskas (1982). The MATLAB code used to compute the results can be provided upon request. Results from both models are presented below.

It is important to note that the assessment method selected only considers dilution of NO₃-N through dispersion into groundwater. Dilution through infiltration of precipitation, nutrient uptake through plants, or other factors are not included. The purpose of this assessment is not to predict the true concentration of NO₃-N at the downgradient boundary, but rather to estimate the worst-case concentration so that risk can be assessed conservatively.

3.2.1 Model Inputs

The input parameters for the model were based on field data collected from the Site through test pits and estimates of the geologic properties of the overburden aquifer at the Site. Where appropriate, conservative values for input parameters were selected. When typical values without field validation were used, a specific value was generally chosen from the conservative side of the range. The input parameters, and their sources, are listed below:

Parameter	Input Value	Units	Source/Comment
Initial Concentration	40	mg/l	MEDEP Site Location of Development Permit Guidance
Hydraulic Conductivity	10 ⁻⁵	m/s	Freeze and Cherry (1979) pg. 29. Value given for silty sand.
Porosity	0.35	unitless	Freeze and Cherry (1979) pg. 37. Value given as low end for silt and middle of range for sand.
Hydraulic Gradient	0.023	unitless	Estimated from elevation change of existing grade from septic system location to property boundary; approximately 1-foot elevation loss over 43 feet distance.
Dispersion Coefficient	1 ⁻⁶	m ² /s	Lower end of expected range. The lower the dispersion coefficient, the less dilution takes place.

Parameter	Input Value	Units	Source/Comment
Initial Plume Width	27.43 (90)	m (ft)	Design width of septic system at widest point. Note geometry of system presents a narrower width in the direction of the boundary under consideration.
Initial Plume Depth	0.33 (1.1)	m (ft)	Conservative estimate of depth of septic discharge at downgradient edge of septic field. Discharge will ultimately be above the groundwater table, even after mounding is considered.
Aquifer Thickness	10 (32.8)	m (ft)	Estimate of average thickness of the overburden aquifer based on depth to bedrock in closest wells mapped by Maine Geological Survey and mapped surficial geology.
Distance to Downgradient Boundary (River)	13.11 (43)	m (ft)	Approximate horizontal distance from the proposed septic field to the downgradient boundary (nearest property boundary).

3.2.2 Model Results

To assess the sensitivity of the two analytical models to each parameter, the model was run for a range of possible values for each of the nine input parameters while holding all other parameters constant. The results of this sensitivity analysis are shown in Figure 1. The result of the model was also plotted on the sensitivity analysis plots (shown as asterisks). The model result for the parameters listed above yielded an estimated concentration of 5.25 mg/l of NO₃-N in groundwater at the downgradient property boundary.

3.2.3 Model Conclusions

Based on the modeled results, NO₃-N concentrations in groundwater are not anticipated to exceed the Maine Site Law regulatory limit of 10 mg/l at the property boundary due to the septic effluent. Assuming background NO₃-N concentrations of 2 mg/l, the worst-case scenario NO₃-N concentrations are still below 10 mg/l. In addition, the models employed take an overly conservative approach to contaminant fate, as they assume that the only way NO₃-N concentrations are reduced with distance is through mixing with “clean” groundwater through dispersion. Other factors that are likely to decrease NO₃-N concentrations in groundwater at the Site that are not accounted for in the models include:

1. Mixing of NO₃-N with recharge from precipitation;
2. Uptake of NO₃-N from biological processes (e.g. grass and plant growth);
3. Chemical attenuation of NO₃-N; and
4. Denitrification systems employed upstream of the septic field discharge.

It is Ransom’s opinion that the NO₃-N load introduced to groundwater from the proposed septic field will be adequately mitigated by natural conditions present at the Site.

4.0 SEPTIC SYSTEM MOUNDING ANALYSIS

A mounding analysis was performed to assess the degree to which septic discharge to the proposed septic leach field would raise local groundwater elevations. The purpose of this analysis is to understand if there is potential for water to “break out” (i.e., flow to the ground surface) after long-term disposal of septic waste.

4.1 Model Selection and Inputs

Ransom utilized an analytical tool and solution presented by Carleton (2010) to iteratively solve equations developed by Hantush (1967). The tool relies upon a Microsoft Excel spreadsheet and macro program to iteratively solve for the maximum groundwater height beneath an infiltration structure. The tool was envisioned to be used for transient stormwater infiltration, however, by extending the infiltration time to 10 years it is possible to use the results to approximate steady-state groundwater conditions (though the calculations of groundwater mounding at some distance from the septic field are unreliable by this method).

The following table presents the variables required for the model and provides rationale for variable selection.

Parameter	Input Value	Units	Source/Comment
Recharge Rate	0.147	ft/day	The design load of the septic system is 3,240 gpd in an area of 2,944 sq. ft. This works out to a daily loading of 0.147 ft/day over the entire septic system.
Specific Yield	0.2	unitless	Estimated specific yield of sand 10% to 30% (Sterrett, 2007). Selected 20% based on soil descriptions from TP-6 and TP-7.
Horizontal Hydraulic Conductivity	28	ft/day	Used same hydraulic conductivity as NO ₃ -N model above.
½ of Total Width	16	ft	Design width is 32 feet.
½ of Total Length	46	ft	Design width is 92 feet.
Duration of Infiltration	3650	days	10-year duration used to approximate steady-state conditions
Initial Thickness of Saturated Zone	33	ft	Estimated thickness of saturated overburden material overlying bedrock.

4.2 Model Results

The maximum groundwater mounding beneath the center of the septic system was estimated to be 1.18 feet above the current seasonal high-water table. Based on test pits TP-6 and TP-7, the depth to the seasonal high-water table was between 10 and 12 inches below existing grade. This result indicates that the groundwater in the middle of the septic system would rise above the native soil surface and into the placed fill surrounding the septic system by approximately 4 inches (assuming 10 inches to the seasonal high-water table).

The proposed septic design includes placement of a minimum of approximately 14 inches of imported fill to the base of the septic discharge chambers, which are 13 inches tall, and covered with an additional 12

inches of material, resulting in approximately 3.25 feet of placed fill over the natural soil surface. The edges of the septic system will be graded at a 4:1 slope. The maximum height of the groundwater mound in the middle of the septic system would be approximately 10 inches below the bottom of the septic discharge chambers. The groundwater mound would diminish with distance away from the center of the septic system.

The output from the spreadsheet-based model can be seen in Appendix A of this report.

4.3 Model Conclusions and Recommendations

The proposed septic design includes sufficient fill placement beneath the septic system and in the 4:1 side-slopes to mitigate risk of groundwater rising above the grade of the septic system or breaking out along the toe of the proposed septic system during normal hydrologic conditions. The proposed fill to be used in the septic system should have higher vertical hydraulic conductivity when placed than the native soil, as estimated by sieve analysis, and care should be taken to ensure the native soil is not compacted during construction and the ground surface should be scarified prior to placement of fill material. The down-slope edge of the 4:1 side slope should be constructed of finer grained fill (or fill with a higher proportion of fines) to promote infiltration of septic discharge beneath the septic system and limit risk of septic discharge flowing laterally at the native soil-fill interface. All organic matter present at the surface of the existing grade should be removed prior to placement of fill to ensure fill is placed directly onto native mineral soil.

5.0 CONCLUSIONS

The following conclusions are based on the information and analyses presented in this report:

1. The proposed development is not expected to have an unreasonable impact on existing groundwater quantity. Specifically, infiltration of stormwater through stormwater management and limiting the total impervious area to 9% of the total Site area will not substantially reduce infiltration of stormwater at the Site.
2. There are no known uses of the overburden or bedrock aquifers as potable water supplies within the vicinity of the proposed development. The neighborhood and surrounding developments are currently served by municipal water.
3. Nitrate-nitrogen fate and transport modeling indicate that the proposed septic system effluent is unlikely to result in nitrate as nitrogen concentrations in excess of 10 mg/l at the downgradient property boundary. There are no known drinking water wells or other receptors in the vicinity of the proposed development.
4. Hydraulic modeling of the proposed septic system indicates that groundwater mounding beneath the septic system will be limited and is not likely to result in breakout down-slope of the septic system.

6.0 RECOMMENDATIONS

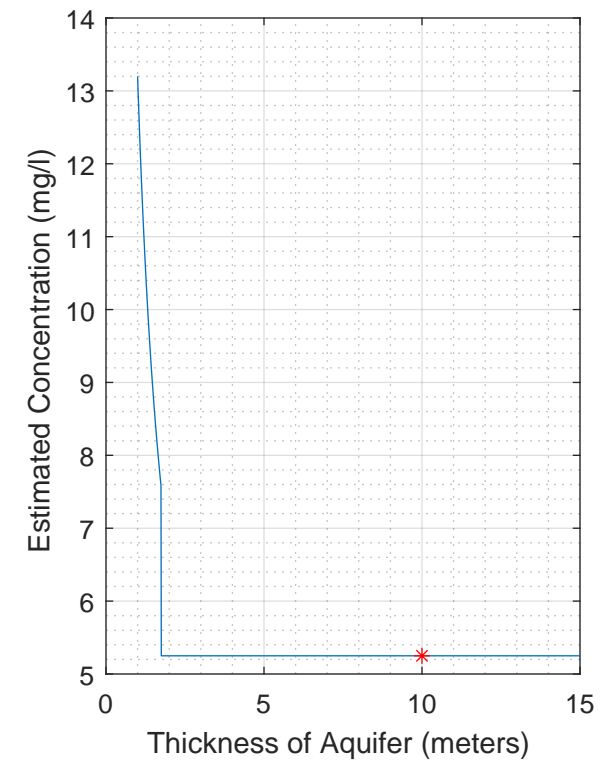
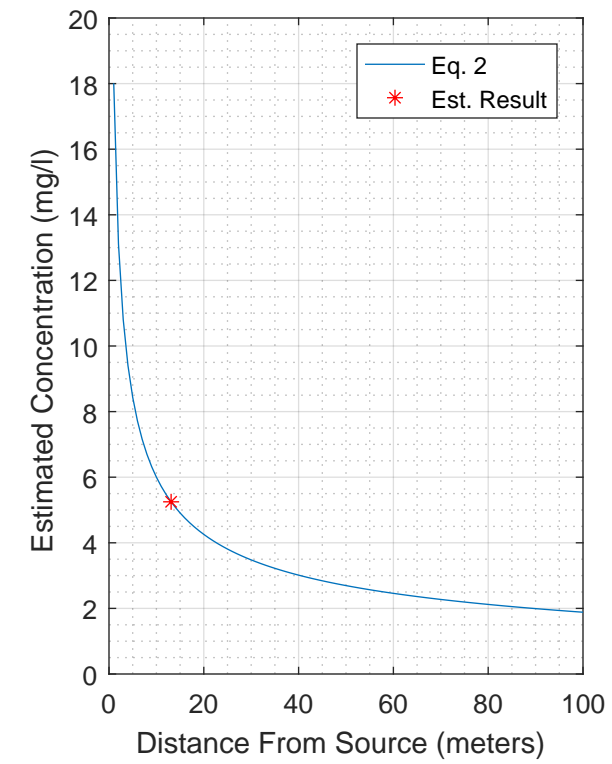
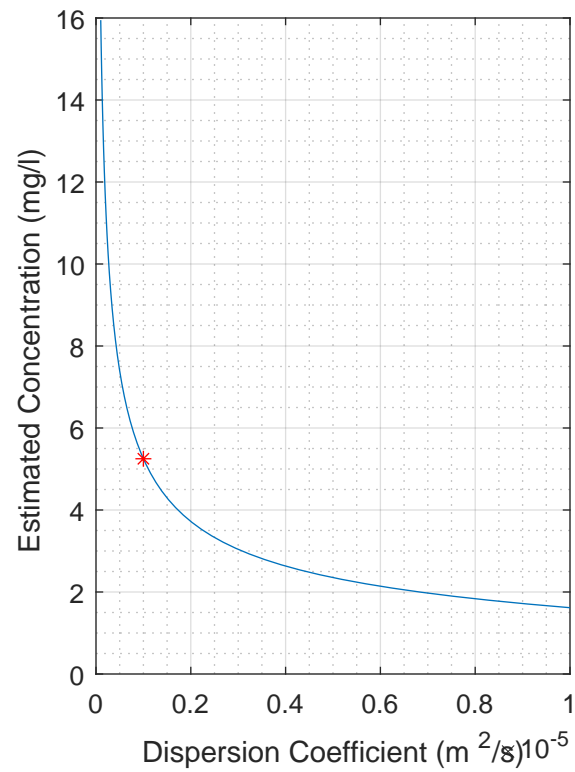
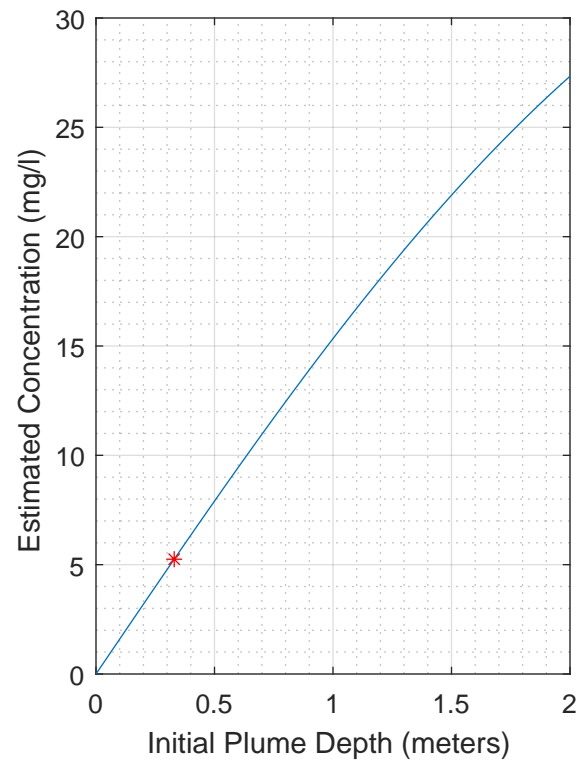
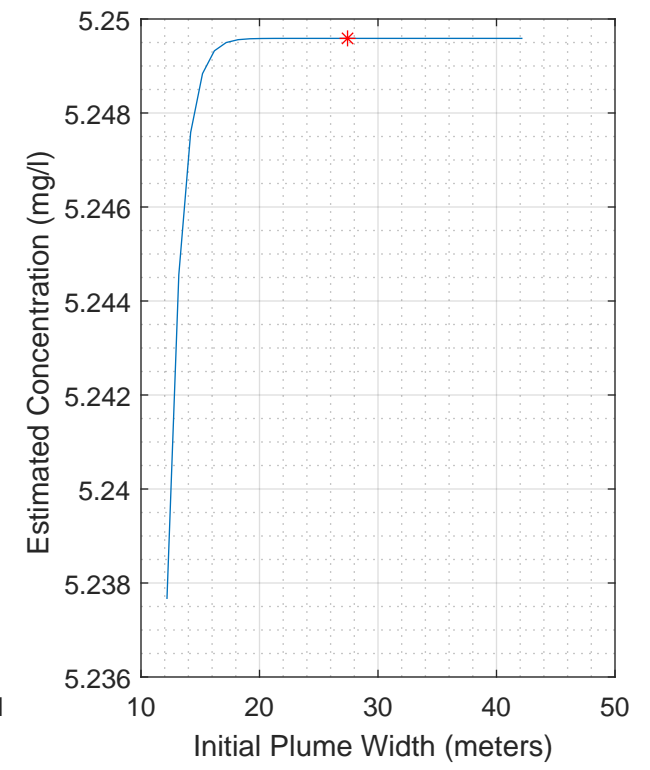
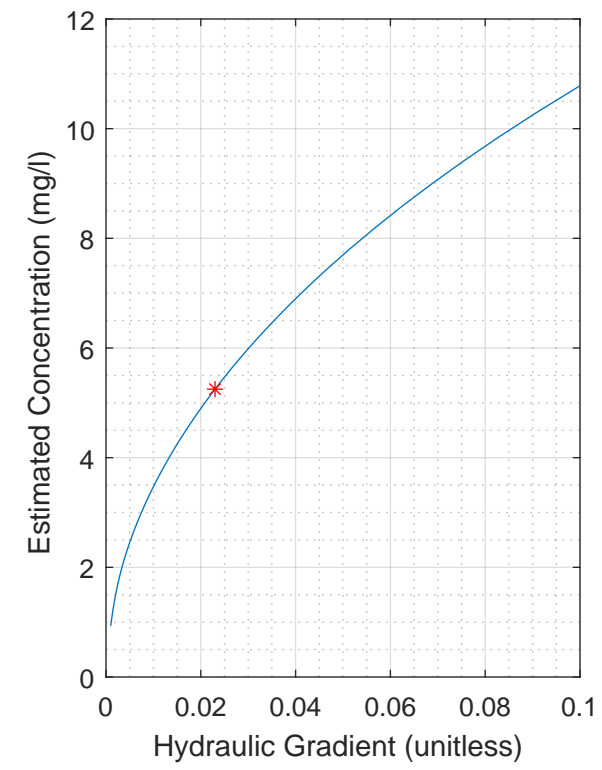
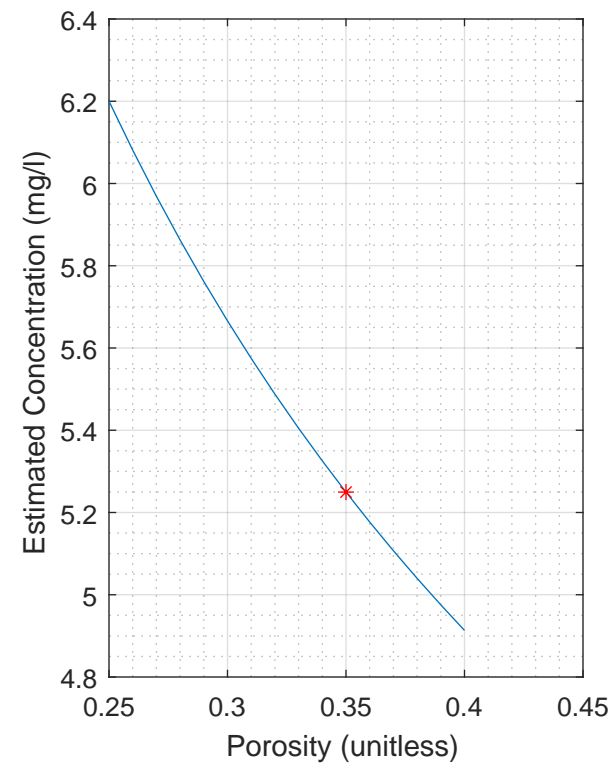
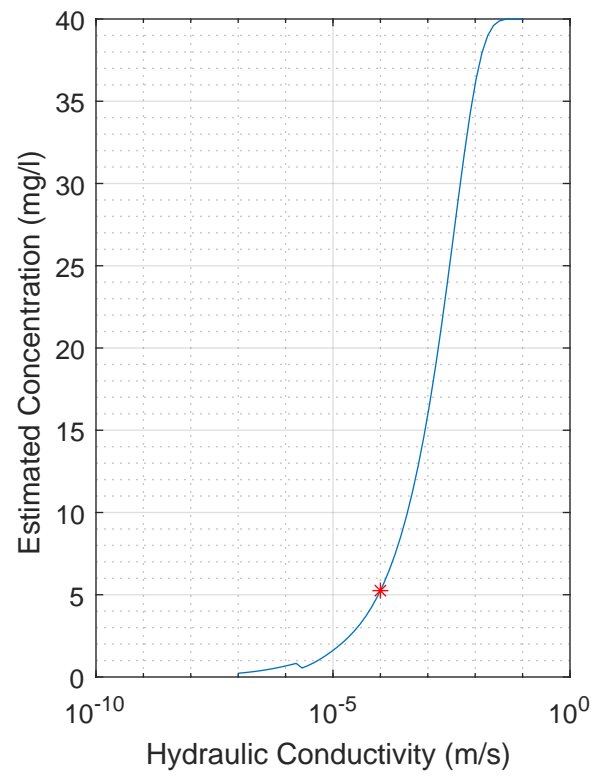
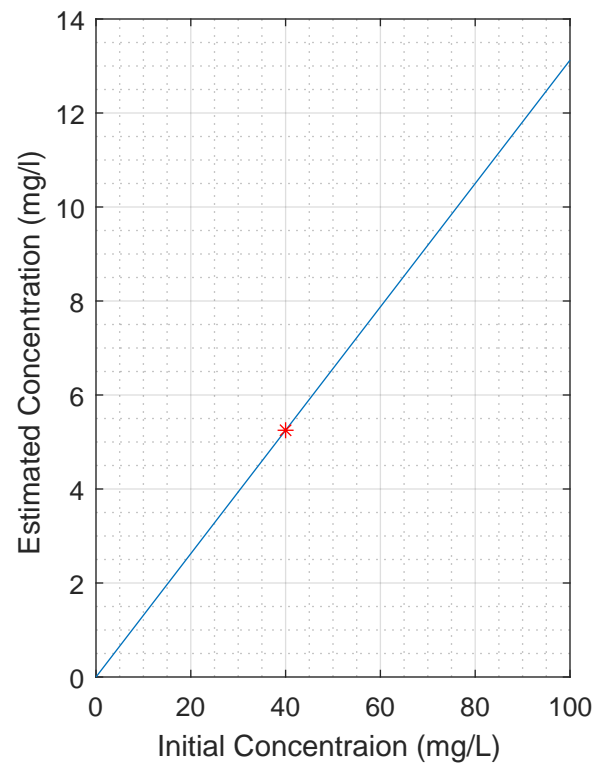
Ransom makes the following recommendations regarding the proposed development:

1. All organic material above the native mineral soil should be removed prior to placement of fill for the proposed septic system.
2. Care should be taken during construction not to compact the native soil in the vicinity of the proposed septic system and the native soil surface should be scarified prior to placement of fill.
3. Fill placed beneath the proposed septic system should have equal to or higher hydraulic conductivity (i.e., permeability) than the existing native soil once placed. The hydraulic conductivity of the native soil is estimated to be approximately 10^{-5} meters per second, which is equal to 28 feet per day or 14 inches per hour. Based on this, we recommend a hydraulic conductivity range of approximately 14 inches per hour to 30 inches per hour for this fill material.
4. The down-slope edge of the 4:1 slope of the proposed septic system should be constructed using finer-grained fill material with a hydraulic conductivity that is a minimum of 60% lower than the native soil when placed. The recommended range for this material is between approximately 0.5 inches per hour and 5 inches per hour. This fill material should comprise at least the lower 2 vertical feet of the slope. The purpose of this fill material is to prevent septic discharge from flowing down-gradient at the native soil-fill interface and promote infiltration into native soil beneath the septic system.

7.0 REFERENCES

1. Carleton, G.B., 2010, Simulation of groundwater mounding beneath hypothetical stormwater infiltration basins: U.S. Geological Survey Scientific Investigations Report 2010-2102, 64 p.
2. Creasy, John W. and Robinson, Alexander C., 1997, Bedrock geology of the Gray 7.5-minute quadrangle, Cumberland County, Maine: Maine Geological Survey, Open-File Report 97-3, 8 p. report and color map, scale 1:24,000. *Maine Geological Survey Maps*. 227. http://digitalmaine.com/mgs_maps/227
3. Domenico, P.A. and Palciauskas, V.V., 1982, Alternative Boundaries in Solid Waste Management. *Groundwater*, 20: 303-311. <https://doi.org/10.1111/j.1745-6584.1982.tb01351.x>
4. Freeze, R. A. and Cherry, J. A., 1997, *Groundwater*, Prentice-Hall.
5. Hantush, M.S., 1967, Growth and decay of groundwater mounds in response to uniform percolation: *Water Resources Research*, v. 3, p.227-234.
6. Sterrett, R. J. (Ed), 2007, *Groundwater and Wells*, 3rd ed., Johnson Screens.
7. Weddle, Thomas K., 1997, Surficial geology of the Gray 7.5-minute quadrangle, Androscoggin and Cumberland Counties, Maine: Maine Geological Survey, Open-File Report 97-73, 10 p. Maine Geological Survey Publications. 230. http://digitalmaine.com/mgs_publications/230

Figure 1: Nitrate-Nitrogen Model Results



Base Parameters:
 Initial Conc.=40 (mg/l)
 Hyd. Cond.=1.00E-04 (m/s)
 Porosity=0.35 (Unitless)
 Gradient=-0.02 (Unitless)
 Plume Width=27.43 (m)
 Disp. Coeff.=1.00E-06 (m²/s)
 Distance=13.11 (m)
 Aquifer Thickness=10.00 (m)
 Initial Plume Depth=0.33 (m)
 Results:
 Eq. 19/20 (Domenico and Palciauskas, 1982)=5.25 mg/l

APPENDIX A

Mounding Analysis Output

Hydrogeologic Assessment
Avesta Gray Meadowview
16 Hancock Street
Gray, Maine

This spreadsheet will calculate the height of a groundwater mound beneath a stormwater infiltration basin. More information can be found in the U.S. Geological Survey Scientific Investigations Report 2010-5102 "Simulation of groundwater mounding beneath hypothetical stormwater infiltration basins".

The user must specify infiltration rate (R), specific yield (Sy), horizontal hydraulic conductivity (Kh), basin dimensions (x, y), duration of infiltration period (t), and the initial thickness of the saturated zone (hi(0), height of the water table if the bottom of the aquifer is the datum). For a square basin the half width equals the half length (x = y). For a rectangular basin, if the user wants the water-table changes perpendicular to the long side, specify x as the short dimension and y as the long dimension. Conversely, if the user wants the values perpendicular to the short side, specify y as the short dimension, x as the long dimension. All distances are from the center of the basin. Users can change the distances from the center of the basin at which water-table aquifer thickness are calculated.

Cells highlighted in yellow are values that can be changed by the user. Cells highlighted in red are output values based on user-specified inputs. **The user MUST click the blue "Re-Calculate Now" button each time ANY of the user-specified inputs are changed** otherwise necessary iterations to converge on the correct solution will not be done and values shown will be incorrect. Use consistent units for all input values (for example, feet and days)

Input Values		use consistent units (e.g. feet & days or inches & hours)	Conversion Table		
			inch/hour	feet/day	
0.1470	R	Recharge (infiltration) rate (feet/day)	0.67	1.33	
0.200	Sy	Specific yield, Sy (dimensionless, between 0 and 1)			
28.00	K	Horizontal hydraulic conductivity, Kh (feet/day)*	2.00	4.00	In the report accompanying this spreadsheet (USGS SIR 2010-5102), vertical soil permeability (ft/d) is assumed to be one-tenth horizontal hydraulic conductivity (ft/d).
16.000	x	1/2 length of basin (x direction, in feet)			
46.000	y	1/2 width of basin (y direction, in feet)	hours	days	
3650.000	t	duration of infiltration period (days)	36	1.50	
33.000	hi(0)	initial thickness of saturated zone (feet)			
34.176	h(max)	maximum thickness of saturated zone (beneath center of basin at end of infiltration period)			
1.176	Δh(max)	maximum groundwater mounding (beneath center of basin at end of infiltration period)			

APPENDIX F

Stormwater Management Plan

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine

MEMO

Date: January 26, 2022

To: Avesta Housing Development Corporation (The Applicant)

From: John Mahoney, P.E./David Vitali, P.E.

Reviewed By: Maureen McGlone, P.E.

Re: Meadowview II – Stormwater Management Report - 16 Hancock Street, Gray Maine

INTRODUCTION

The project consists of constructing a 27-unit residential building on the existing Meadowview campus, a residential senior housing development located in Gray, Maine. The site contains three existing residential buildings comprised of 20 residential units total and a paved parking area between the buildings constructed in 1976. The project consists of a new two-story building, expanding the existing parking area, new emergency access drives and associated walkways.

The project proposes to purchase additional land to the east and create a single parcel with a two land-unit condominium association. The first unit will consist of the three existing buildings and the second unit will consist of the one proposed building. The combined parcel will contain a total of 14.9 acres. The existing impervious area is 0.81 acres (buildings, parking areas, walkways, etc.). The proposed development will result in approximately 1.38 acres of impervious area, an increase of 0.57 acres.

The disturbed area on the site due to the additional building area, septic system, parking and grading is approximately 62,750 square feet or 1.44 acres.

Minimal change to the existing stormwater runoff patterns is anticipated as part of the development and the design intent is to maintain the existing conditions with the stormwater runoff generally discharging to the southern end of the site and a portion flowing to the unnamed stream to the east of the site, as it does today. The entirety of the site is ultimately tributary to the Meadow Brook to the south.

Based on the amount of new disturbed and impervious area proposed in the project, the Maine Department of Environmental Protection (Maine DEP) General Standards and Flooding Standards do not apply. However, the project will require a Stormwater Permit by Rule (PBR) and will meet the Basic Standards. Please see the correspondence with the Maine DEP for the department’s initial review and permitting assessment of the proposed project, included with this report as Attachment A.

Section 401.13.12.G of the Town of Gray Subdivision Ordinance states that “[f]or all major subdivisions, regardless of size, a stormwater management plan shall be submitted which complies with the Flooding

Standard of DEP Chapter 500 Stormwater Management. For a project that does not require a DEP SLDA Permit, the Planning Board upon a request by the Applicant may waive the Flooding Standard, in the event that greater than seventy-five (75%) percent of the impervious and developed areas (as defined in Chapter 500) for both the lots and infrastructure are treated through the use of buffers in accordance with Chapter 500.”

The applicant proposes to treat the majority of the proposed parking area and a significant portion of the existing parking area and roof area (greater than 75% of additional impervious and developed area) with a stormwater Forest Buffer per Chapter 5 of the Maine DEP Best Management Practices (BMP) Manual. Stormwater runoff will pass through a stone-bermed level lip spreader for energy dissipation to allow for a slow release into the Forest Buffer.

The existing and proposed conditions are discussed in more detail below.

EXISTING CONDITIONS

The project proposes the creation of a 14.9-acre parcel located off a dead end on Hancock Street in Gray. The parcel contains three existing residential buildings with a parking area between the buildings. This developed portion of the site occupies the western portion of the larger proposed parcel. The eastern portion of the parcel contains significant amount of wooded area and an unnamed stream.

The soils on site are summarized in the Soil Narrative Report prepared by Albert Frick Associates, Inc dated April 16th, 2021 and are included in Appendix C of the applicant’s supporting documentation for the Site Plan and Subdivision submission package.

Currently, stormwater runoff flows generally from north to south across the site and discharges via overland flow to the adjacent parcels.

PROPOSED DEVELOPMENT

The applicant is proposing to construct a 27-unit building and expand the existing parking area as part of the proposed development. Walking paths are proposed around the proposed building that will connect with the existing walking paths on the site. An emergency access road is proposed to loop back to the dead end of Hancock Street. Additionally, a number of “grass on gravel” parking spaces are shown on the plan for future use that need not be built. For these spaces, the contractor will place loam and seed over the gravel base to accommodate for future paving, if required. The potential impervious area of these spaces has been included in the stormwater management design.

The proposed drainage area for the level spreader and forest stormwater buffer is shown on the Stormwater and Erosion Control Plan. The drainage area includes the majority of the proposed impervious surface as well as a significant amount of existing impervious area.

To meet municipal stormwater quality requirements, the majority of the proposed development area and a portion of the existing development area will be directed to a stone bermed level lip spreader to be distributed to a stormwater Forest Buffer via sheet flow. The subcatchment area to the Forest Buffer is shown on the Stormwater and Erosion Control Plan and was used to size the level spreader and buffer area. The design calculations used to size the stone bermed level spreader and Forest Buffer are included with this report as Attachment B.

MAINE DEP REQUIREMENTS – BASIC STANDARDS

Based on the amount of disturbed area (over one acre), the project triggers Stormwater Management Basic Standards. Erosion and sedimentation control measures will be implemented during construction as shown on the Stormwater and Erosion Control Plan. A Stormwater PBR permit application will be filed with the Maine DEP with the Notice of Intent to meet Maine Construction General Permit (MCGP) requirements prior to beginning construction. Good housekeeping practices will be in accordance with Maine DEP Best Management Practices.

MAINE DEP REQUIREMENTS – QUALITY (GENERAL STANDARDS)

This proposed project results in less than one acre of proposed new impervious surface, therefore General Standards do not apply.

MAINE DEP REQUIREMENTS – QUANTITY (FLOODING STANDARDS)

This proposed project results in less than three acres of proposed new impervious surface, therefore the Flooding Standards do not apply.

MUNICIPAL REQUIREMENTS - QUALITY

Section 401.13.12.G of the Town of Gray Subdivision Ordinance states that “[f]or all major subdivisions, regardless of size, a stormwater management plan shall be submitted which complies with the Flooding Standard of DEP Chapter 500 Stormwater Management. For a project that does not require a DEP SLDA Permit, the Planning Board upon a request by the Applicant may waive the Flooding Standard, in the event that greater than seventy-five (75%) percent of the impervious and developed areas (as defined in Chapter 500) for both the lots and infrastructure are treated through the use of buffers in accordance with Chapter 500.”

The applicant proposes to treat the majority of the proposed parking area and a significant portion of the existing parking area and roof area (greater than 75% of additional impervious and developed area) with a stormwater Forest Buffer in accordance with Chapter 5 of the Maine DEP Best Management Practices Manual. Stormwater runoff from the proposed parking lot will be collected in two catch basins (CB-1 and CB-2) located in the gutter line at each end of the parking lot. Stormwater runoff from the existing parking lot will be collected in CB-2 as well as an additional basin (CB-3). The proposed catch basins will discharge into a sediment forebay via a 12” storm drain prior to flowing to the stone-bermed level spreader via a riprap swale. Please refer to the following tables for a summary of the proposed stormwater treatment.

**Proposed Additional Impervious and Developed Areas
(Required Treatment Areas)**

Total Proposed Additional Impervious Area (A)	24,759 sf
Total Proposed Additional Developed Area (B)	37,652 sf

Areas Proposed to be Treated

Total Impervious Area to Be Treated (C)	35,085 sf
Percentage of Additional Impervious Area Treated = (C/A)	142%
Total Developed Area to Be Treated* (D)	61,954 sf
Percentage of Additional Developed Area Treated = (D/B)	164%

* This area is the entire subcatchment for the Forest Buffer (1S) as shown on the Stormwater and Erosion Control Plan and in HydroCAD.

The proposed Forest Buffer was designed in accordance with Table 5.5 in Chapter 5 of Maine DEP Stormwater BMP manual, as shown in Attachment B. The berm length is determined by the total amount of impervious area and lawn tributary to the buffer. The length of the flow path in the buffer is dictated by the existing slope, vegetative cover, and hydrologic soil group (HSG) in the proposed buffer. Based on the proposed subcatchment area and the soils and slope of the existing buffer, this results in a required berm length of 147' and length of flow path in the buffer of 150'. To be conservative, a berm length of 153' was used for design. The proposed Forest Buffer is 22,950-sf, measuring 153'x150' as shown on the Stormwater and Erosion Control Plan. Per Maine DEP's Chapter 500 Stormwater Management Law, the Forest Buffer easement needs to be protected from disturbance by deed restrictions and covenants. The Forest Buffer will be provided on the adjacent Gray Plaza property via a permanent easement recorded by the owner of the Gray Plaza property. The applicant has secured a verbal agreement with the property owner, and they have agreed to provide a letter of intent.

The subcatchment (1S) tributary to the stone bermed level spreader and Forest Buffer was modeled in HydroCAD to determine the anticipated flows. Chapter 8.3 of the Maine DEP BMP manual requires that the peak stormwater flow rate to a level spreader due to runoff from a 10-year, 24-hour storm be less than 0.25 cubic feet per second (cfs) per foot length of the level spreader lip. Based on the berm length of 153' stated above and attached, the flow from a 10-year, 24-hour storm may not exceed 38.25 cfs. The HydroCAD model shows that the anticipated flow from this storm for subcatchment 1S is 6 cfs, which is well under the maximum discharge for a stone bermed level spreader of this length.

Based on the tables above, the proposed Forest Buffer treats well over 75% of both the proposed additional impervious and developed areas. Therefore, based on this conservative approach of treating existing impervious and developed areas, the applicant is requesting a waiver to meeting the Maine DEP Flooding Standards per Section 402.13.12.G.

MUNICIPAL REQUIREMENTS - QUANTITY

This proposed project meets the requirements of Section 401.13.12.G of the Gray Subdivision Ordinance; therefore, Flooding Standards do not apply. The applicant is requesting a waiver to meeting the Maine DEP Flooding Standards per Section 402.13.12.G of the Town of Gray Subdivision Ordinance.

CONCLUSIONS

The proposed building addition will result in very little change to existing drainage patterns. It is our opinion that the proposed development will not result in adverse impact to downstream water resources or abutters.

ATTACHMENT A

Correspondence with Maine DEP

Meadowview II – Stormwater Management Report
16 Hancock Street
Gray Maine

David Vitali

From: McGill, Jennifer G <Jennifer.G.McGill@maine.gov>
Sent: Wednesday, November 4, 2020 2:14 PM
To: John I. Mahoney; Viola, Benedetto
Cc: Nathaniel Howes
Subject: RE: Avesta Meadowview II, Gray Stormwater Pre-app

Hi John –

Thank you for sending over the historical information for the Avesta Housing project in Gray. As I mentioned during our pre-application meeting earlier today, the dates of construction and existing amounts of impervious and developed area are important in determining jurisdictional thresholds for Site Law and Stormwater Law.

The information that you provided today indicates that there is currently 35,398 square feet (0.813 acres) of impervious area on the site that was constructed in 1976, and that you will be proposing an additional 16,900 square feet (0.388 acres) of impervious area for the proposed project consisting of one building and an additional parking area for a total of 1.2 acres of impervious.

Site Law Jurisdiction:

The current Site Law definition of structure is relevant October 1, 1975 and later. The definition of structure under Site Law is *“Buildings, parking lots, roads, paved areas, wharves or areas to be stripped, graded, and not to be revegetated that cause a total project to occupy a ground area in excess of three acres. Stripped or graded areas that are not revegetated within a calendar year are included in the 3-acre threshold.”* This project will not meet or exceed that threshold.

Stormwater Management Law (Chapter 500) Jurisdiction:

For jurisdiction under Stormwater Law the Department considers impervious area created July 1, 1997 or later when determining whether jurisdictional thresholds are exceeded. It appears in this case that none of the existing impervious area meets this criterion.

Therefore, for this project the Department would consider only the new proposed impervious area of 0.388 acres, which would not meet the Stormwater Law permitting threshold of one acre or more of impervious area in a watershed not most at risk for the General Standard. However, if the project will *disturb* more than one acre of soil (e.g. for installation of the septic system and any other areas stumped/grubbed), it will trigger the requirement for a Stormwater Permit by Rule.

If you will be disturbing less than one acre of soil in total for the project, no Department permit would be required under Stormwater Law.

Natural Resources Protection Act (NRPA):

We also discussed that any outfalls from stormwater BMPs required by the Town of Gray will require a NRPA Section 7 PBR if they are located within 75 feet of the upland edge of a freshwater wetland or within 75 feet of the stream that has been identified on the site.

Please let me know if you have any additional questions or concerns going forward.

Jennifer McGill
Environmental Specialist in the Bureau of Land Resources
Maine Department of Environmental Protection

(207)-699-9899

www.maine.gov/dep

From: John I. Mahoney <john.mahoney@ransomenv.com>
Sent: Wednesday, November 04, 2020 12:28 PM
To: McGill, Jennifer G <Jennifer.G.McGill@maine.gov>; Viola, Benedetto <Benedetto.Viola@maine.gov>
Cc: Nathaniel Howes <NHowes@AvestaHousing.org>
Subject: Avesta Meadowview II, Gray Stormwater Pre-app

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks for your time today Jennifer and Ben:

The existing buildings and site improvements were constructed in 1976. I've attached the tax assessment card from the Town.

The site's existing impervious area is 35,398 SF. This impervious area (consisting of existing buildings, parking and sidewalks) will remain and not be Redeveloped.

We are proposing to add approximately 16,900 SF of impervious area, which would result in a total impervious are for the site of 52,300 SF.

Could you clarify that we are below the applicable thresholds for requiring a State (Chapter 500) Stormwater permit or a State Site Law permit?

Please don't hesitate to reach our if you need additional information to make this determination.

Thanks again.

Best,
John Mahoney, P.E.
Project Manager / Design Engineer
RANSOM CONSULTING, INC.
400 Commercial St. Suite 404
Portland, Maine 04101
tel (207) 772-2891 Ex 32
Cell (207) 831-6165

From: Nathaniel Howes <NHowes@AvestaHousing.org>
Sent: Wednesday, November 4, 2020 11:52 AM
To: John I. Mahoney <john.mahoney@ransomenv.com>
Subject: Tax Card

Nate Howes
Development Officer
Avesta Housing
307 Cumberland Ave. | Portland, ME 04101
w: 207-553-7780, x3374 | c: 207-232-1021 |

www.AvestaHousing.org



ATTACHMENT B

Stone Bermed Level Lip Spreader and Forest Stormwater Buffer Design

Meadowview II – Stormwater Management Report
16 Hancock Street
Gray Maine

VEGETATED BUFFER SIZING

Task: Determine required dimensions of vegetated buffer.

References:

1. Maine DEP Best Management Practices Stormwater Manual, Chapter 5. Section 5.2 Buffer with stone bermed level lip spreader

Stone Berm Specifications: The stone berm to which the ditch turn-out delivers the runoff must be at least 20 feet in length and must be constructed along the contour. It must be at least one- foot high and two feet across the top with 2:1 side slopes.

<u>Tributary to Level Lip Spreader</u>	1	
Contributing Area	61,594	SF
	1.4	ACRES
Prop. Impervious Area		
Building/Roof	410	SF
Parking/Pvmt	10,693	SF
Total	11,103	SF
	0.25	ACRES
Exist. Impervious Area		
Building/Roof	8,261	SF
Parking/Pvmt	15,712	SF
Total	23,973	SF
	0.55	ACRES
Remaining Lawn Area	26,518	SF
	0.61	ACRES
Required Berm Length	147	FT
Req. Length of Flow Path in Buffer	150	FT

Hydrologic Soil Group	Length of Flow Path in Buffer (feet)	Berm Length (feet)							
		0-8% Slope				9-15% Slope			
		Per Acre of Impervious Area		Per Acre of Lawn		Per Acre of Impervious Area		Per Acre of Lawn	
		FB	MB	FB	MB	FB	MB	FB	MB
A	75	75	125	25	35	90	150	30	42
	100	65	75	20	25	78	90	24	30
	150	50	60	15	20	60	72	18	24
B	75	100	150	30	45	120	180	36	54
	100	80	100	25	30	96	120	30	36
	150	65	75	20	25	78	90	24	30
C Loamy Sand or Sandy Loam	75	125	150	35	45	150	180	42	54
	100	100	125	30	35	120	150	36	42
	150	75	100	25	30	90	120	30	36
C Silty Loam, Clay Loam or Silty Clay Loam	100	150	200	45	60	180	240	54	72
	150	100	150	30	45	120	180	36	54
D Non-Wetland	150	150	200	45	60	180	240	54	72

FB = Forest Buffer MB = Meadow Buffer
NOTE: These tables were developed using a 1.25 inch, 24 hour storm of type III distribution, giving a maximum unit flow rate of less than 0.009 cfs per foot.



400 Commerical Street, Suite 404
 Portland, ME 04101
 (207) 772-2891
 www.ransomenv.com

JOB	191.06051 - Meadowview		
SHEET NO.	2	OF	2
CALCULATED BY	DJV	DATE	1/27/2022
REVIEWED BY	MPM	DATE	1/27/2022
FILE NAME	B-2_Level Lip Spreader Calcs.		PRINT DATE 1/27/2022

LEVEL LIP SPREADER 1

Task: Determine required length of level spreader and dimensions of downstream vegetated buffer.

References:

1. Maine DEP Best Management Practices Stormwater Manual, Section 8.3 "Level Spreaders"

Discharge to a Level Spreader: The peak stormwater flow rate to a level spreader due to runoff from a 10-year, 24-hour storm should be less than 0.25 cubic feet per second (0.25 cfs) per foot length of level spreader lip. The maximum drainage area to the spreader should not exceed 0.10 acre per foot length of level spreader lip.

Length of Spreader: The level spreader length should not be more than 25 feet unless the receiving area is appropriate to handle the additional flow.

Tributary to Level Lip Spreader 1

A portion of subcatchment 1S is tributary to LLS 1

Contributing Area 61,594.00 SF

1.4 ACRES

Minimum Length based on Contributing Area 14 FT

Proposed Length* 153 FT

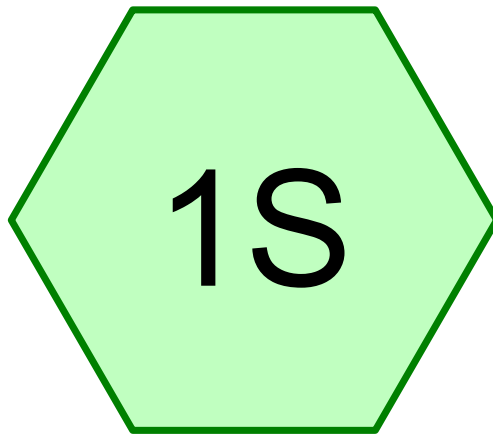
Runoff from a 10-year, 24-hour storm

From HydroCAD 6.00 CFS

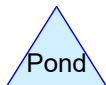
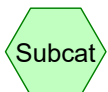
Minimum Length based on Flow 24.0 FT

Proposed Length* 153 FT

*The stone bermed level lip spreader is driven by the required size of the downstream Forest Buffer. It is our opinion that the downstream area is adequate to handle the anticipated flows.



Buffer Tributary Area



Routing Diagram for 191.06051 SW-POST
Prepared by Ransom Consulting, Printed 1/27/2022
HydroCAD® 10.00-26 s/n 05121 © 2020 HydroCAD Software Solutions LLC

191.06051 SW-POST

Prepared by Ransom Consulting

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Printed 1/27/2022

Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.617	86	<50% Grass cover, Poor, HSG C (1S)
0.805	98	Paved parking, HSG C (1S)

191.06051 SW-POST

Prepared by Ransom Consulting

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Page 3

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.422	HSG C	1S
0.000	HSG D	
0.000	Other	

191.06051 SW-POST

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Page 4

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.617	0.000	0.000	0.617	<50% Grass cover, Poor	1S
0.000	0.000	0.805	0.000	0.000	0.805	Paved parking	1S

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Type III 24-hr 10-yr Rainfall=4.60"

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Page 5

Summary for Subcatchment 1S: Buffer Tributary Area

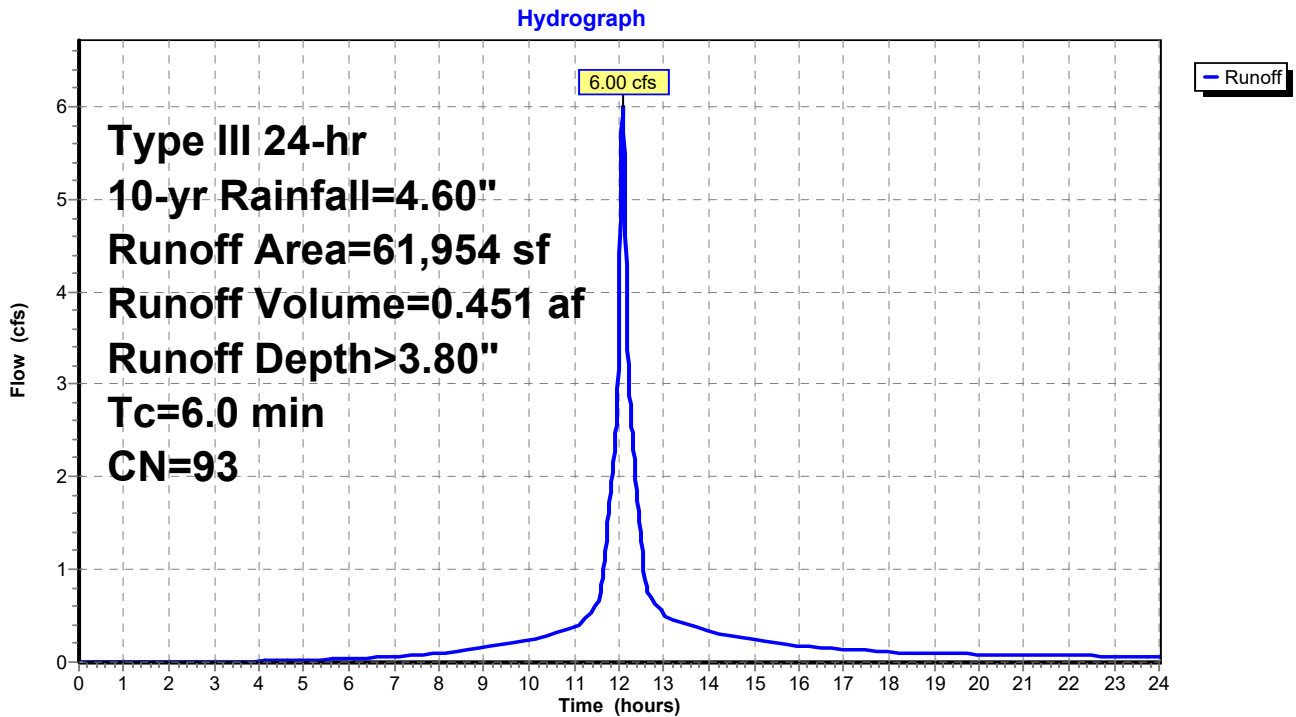
Runoff = 6.00 cfs @ 12.08 hrs, Volume= 0.451 af, Depth> 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=4.60"

Area (sf)	CN	Description
8,671	98	Paved parking, HSG C
26,414	98	Paved parking, HSG C
26,869	86	<50% Grass cover, Poor, HSG C
61,954	93	Weighted Average
26,869		43.37% Pervious Area
35,085		56.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 1S: Buffer Tributary Area



ATTACHMENT C

Post-Construction Stormwater Inspection and Maintenance Plan

Meadowview II – Stormwater Management Report
16 Hancock Street
Gray Maine

Meadowview II Post-Construction Stormwater Inspection and Maintenance Plan

Inspection and Maintenance Contract:

Long-term inspection and maintenance is the responsibility of the Owner and must be performed by a qualified stormwater maintenance inspector. Inspection and maintenance of stormwater management facilities shall be regularly provided under an inspection and maintenance agreement with the Town of Gray that must be certified annually to the Town of Gray Enforcement Authority under the requirements of the Town of Gray's Code of Ordinances. A legal agreement shall be established with responsibility for inspection and maintenance and should list specific maintenance responsibilities (including timetables) as well as provide for funding for the long-term inspection and maintenance of the project. Debris and sediment buildup shall be removed from plunge pools, level spreaders, or vegetated drainage channels, as needed.

Level Spreaders, Plunge Pools, Inlet and Outlet Protection:

Level spreaders and plunge pools and inlet and outlet pools should be inspected for sediment accumulation and debris that may reduce its capacity.

Maintenance criteria for the rip rap stormwater management facilities are:

- Sediment build-up should be removed when it has accumulated to approximately 25% of design volume or capacity. Dispose of the sediments appropriately.
- Remove debris such as leaf litter, branches, and tree growth. Control woody vegetation on the embankments.
- Do not store snow within level spreaders or plunge pools or in the area adjacent to inlet and outlet protection.
- Mowing of vegetated level spreaders can occur semi-annually to a height of no less than 6 inches. If mowing is desired only hand-held or push-mowers shall be used (no tractors). The cut vegetation should be removed to prevent the decaying of organic litter from adding pollutants to the discharge from the level spreader.

- Level spreaders may need to be reconstructed when sheet flow from the spreader channelizes into the buffer.

Culverts:

Inspect culverts in the spring, in late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit. Repair any erosion damage at the culvert's inlet and outlet.

Buffers:

Manage each buffer's vegetation consistently with the requirements in any deed restriction for the buffer. Inspect resource and treatment buffers once per year for evidence of erosion, concentrating flows and encroachment by development. Inspect vegetated slopes early in growing season or after heavy rains to identify active or potential erosion problems.

Maintenance criteria for the vegetated and wooded buffers are as follows:

- Wooded buffers must remain fully wooded and have no disturbance to the duff layer.
- Buffers should not be traversed by all-terrain vehicles or other vehicles. Activities within buffers should be conducted so as not to damage vegetation, disturb any organic duff layer, or expose soils.
- Replant bare areas. All eroded areas should be repaired, seeded and mulched.
- Where erosion rills are evident provide armor with turf reinforcement mat or riprap or divert flows to areas designed to withstand concentrated flows

APPENDIX G

Transportation Memo

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine

MEMO

Date: January 26, 2022

From: Thomas Nosal, P.E.

Review: John Mahoney, P.E.

Re: Transportation Memorandum – Meadowview II Housing Development – 16 Hancock St, Gray, Maine

The purpose of this memorandum is to describe the existing and proposed conditions of the site to be developed, as they pertain to transportation and traffic. It is demonstrated that the traffic expected to be generated by this development will not necessitate a Traffic Movement Permit (TMP) from the Maine Department of Transportation (Maine DOT), and the estimation of trips generated, and their approximate distribution is presented, in addition to the required amount of parking spaces.

SUMMARY OF EXISTING & PROPOSED DEVELOPMENT

The existing development consists of three buildings with 20 one-bedroom housing units for seniors. There are 26 parking spaces in an existing lot with bidirectional circulation to/from the end of Hancock Street.

The proposed development will consist of one additional building with 27 one-bedroom housing units for seniors. A minimum of 13 additional parking spaces will be constructed to suit the new units and an option for an additional four spaces has been incorporated into the site design should demand warrant additional parking.

ESTIMATED TRIP GENERATION

The 10th edition of the Institute of Transportation Engineers Trip Generation Manual was used to estimate the number of trips generated by the proposed development, and to determine whether a traffic impact analysis (TIA) or Traffic Movement Permit (TMP) with MaineDOT would potentially be required. Land Use 252 – Senior Adult Housing – Attached was selected as the most appropriate land use code from this edition.

The proposed development results in a peak hour trip generation estimate of 12 trips, which is below 100 trips and thus does not necessitate a TIS or TMP from Maine DOT.

Dwelling Units	AM*	PM*	Weekday Total
27 Proposed	12	5	83

1. *Estimates are for the AM and PM peak hour of the generator, not the adjacent street network, and total of entering and exiting traffic.

PARKING

Per the Town of Gray’s ordinance, senior housing requires 0.5 spaces per unit plus 0.1 guest spaces per unit for a total 0.6 spaces per unit. Applied to the total number of existing and proposed units (47), this development would require 29 parking spaces.

Avesta is proposing to provide 41 parking spaces, which is 0.87 spaces per unit. Space (and stormwater management accommodations) have been provided for 4 additional parking spaces that could be constructed if actual parking demand is greater than anticipated by the applicant based on their experience with other similar senior housing developments.

The table below presents the ratio of parking spaces to housing units for similar Avesta developments in southern Maine. Note that most developments have a lower ratio than is proposed at Meadowview, with utilization still generally below 100%. It is anticipated that the proposed number of parking spaces will be more than adequate.

Avesta Parking Study - Senior Properties (2016 Data)						
Senior Property	Town	Units	Vehicles	Ratio	No. Spots	Utilization
30 Birch Lane	Gorham	21	15	0.71	45	33%
Bayside East	Portland	20	8	0.40	18	44%
Butler School	Portland	39	13	0.33	13	100%
Cascade Brook	Saco	30	18	0.60	29	62%
Elwell Farms	Buxton	20	6	0.30	23	26%
Little Falls Landing	Windham	24	20	0.83	26	77%
New Marblehead 1	Windham	20	9	0.45	24	38%
New Marblehead 2	Windham	20	10	0.50	26	38%
New Marblehead 3	Windham	20	10	0.50	32	31%
Payson School	Portland	17	4	0.24	5	80%
Ridgewood	Gorham	20	12	0.60	42	29%
Stonecrest	Standish	37	29	0.78	54	54%
Unity Gardens	Windham	48	25	0.52	96	26%
Village Square	Gorham	48	35	0.73	53	66%
Average Parking Ratio				0.55		50%

CIRCULATION

As noted above, the existing parking lot is a dead end with bidirectional circulation to/from Hancock Street. The existing parking lot will be extended to provide additional parking for the proposed building.

The applicant met with the Gray Fire Department on site on November 4, 2021. The Department requested that the applicant construct an emergency access drive to connect the end of Hancock Street to the end of the proposed extension of the existing parking lot to better facilitate access for emergency response vehicles. It was agreed that a 12’ wide one-way drive would be adequate for emergency response needs. This driveway along with turning template graphics for the requested fore truck movements is shown on the Site Plan.

The addition of this driveway creates a loop within the site at the end of Hancock Street. Residents and guests can exit through the bidirectional portion of the lot or exit via the new driveway. Delivery trucks and other emergency vehicles could also use the one way as an exit, which may further alleviate resident concerns about congestion in the parking area.

The driveway meets the applicable design standards (401.13.17) and there is adequate sight distance (in excess of 155 feet) between the end of Hancock Street and the driveway exit.



APPENDIX H

Density Letter

Meadowview II
Site Plan and Preliminary Major Subdivision Review Submission
16 Hancock Street
Gray, Maine



April 23, 2020

Project 191.06051

Doug Webster
Municipal Complex
24 Main St.
Gray, ME 04039

RE: Meadowview II | Density, Ownership & Zoning Summary

On behalf of Avesta Housing, Ransom has developed this letter to describe why we believe that this project is compatible with the existing zoning based Avesta’s proposed ownership structure and considering the attached density calculation.

The following lots (Map 44: Lot 405-43, Map 43: Lot 405-39 and the Narrow-Gauge Railroad corridor) will be combined into a single parcel. The entire parcel will be owned by a condominium association. The association will have two units, each with a share of ownership.

The first unit (Unit 1) will consist the 20 existing senior housing apartments. These units are currently owned by Gray Senior Housing.

The second unit (Unit 2) will consist of the 27 proposed senior housing apartments. Unit 2 will be owned by a for-profit entity, that will be created by Avesta so that the proposed development is eligible for tax credit financing. Condominium documents will be developed to clarify ownership and responsibilities for the two units.

The funding and financing requirements require that ownership of Unit 1 and Unit 2 must remain separate.

The density calculation to determine the allowable number of units is based on land area of the entire parcel to be owned by the proposed condominium association (649,043 SF), subtracting areas as required by Town ordinance (156,426 SF), and dividing by the required land area senior housing per unit (Net Area / Min. Area per Dwelling Unit). Unsuitable land, as defined in the Gray Subdivision Ordinance Chapter 401.13.18, includes reductions for areas containing wetlands, poorly drained soils, greater than 25% slopes, and other restricted land uses. Please refer to attached spreadsheet. Soil mapping has been provided by Albert Frick Associates, please refer to attached soil map and report.

<u>Calculation</u>	
Lot Area (Lot 405-39, 405.43):	14.9 acres or 649,043 SF
Lot Area Unsuitable for Development:	3.59 acres or 156,426 SF
Net Residential Area:	11.3 acres of 492,617 SF
Minimum Area per Dwelling Unit:	10,000 SF
Density of Development:	49.3 Units

400 Commercial Street, Suite 404, Portland, Maine 04101, Tel (207) 772-2891, Fax (207) 772-3248
Pease International Tradeport, 112 Corporate Drive, Portsmouth, New Hampshire 03801, Tel (603) 436-1490
12 Kent Way, Suite 100, Byfield, Massachusetts 01922-1221, Tel (978) 465-1822
60 Valley Street, Building F, Suite 106, Providence, Rhode Island 02909, Tel (401) 433-2160
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090

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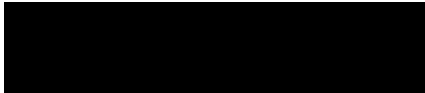
Doug Webster
Municipal Complex

The development proposes 27 additional units bringing the total unit to 47, which is within the allowed density as calculated above.

Please don't hesitate to contact me if you have any questions or concerns.

Sincerely,

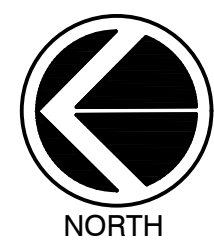
RANSOM CONSULTING, LLC.



John Mahoney, P.E.
Project Manager/Design Engineer

Net Residential Area Calculations

	Area (sf)	Deduction (sf)	Total Area (sf)
100% Deduction			
A Slopes 25% or steeper;	20,416	100%	20,416
B Land which is not able to be practically accessible, usable, or unavailable due to its location and/or existing site condition(s) such as being cut off from the main parcel;	0	100%	0
C All land areas within the 100-year floodplain FEMA FIRM Maps regardless of any other classification;	0	100%	0
D Land below the normal high water mark of any waterbody;	0	100%	0
E Land below the upland edge of freshwater wetlands except Forested Wetlands that are to remain undeveloped and not located in a 100-year floodplain (see 401.13.18.D.3.c);	0	100%	0
F All lands that have been determined to be a liquidation harvesting per standards established in Title 30-A, M.R.S., Section 4404, subsection 20;	0	100%	0
G Unusable areas larger than 1,500 sq. ft. such as significant rock outcroppings, etc.;	0	100%	0
H Portions of gravel pit(s) that will not be reclaimed when the project is complete; additional sureties may be required in such instances;	0	100%	0
I Poorly drained soils unless located in a Forested Wetland that are to remain undeveloped and not located in a 100-year floodplain (see 401.13.18.D.3.c);	66,758	100%	66,758
J Very poorly drained soils.	0	100%	0
50% Deduction			
A Somewhat poorly drained soils;	25,584	50%	12,792
B Land designated as Resource Protection that remain undeveloped;	0	50%	0
C Forested Wetlands that remain undeveloped not located in a 100-year floodplain; Boundaries of the areas on the parcel, to remain undeveloped, containing the following with field verification as necessary: (i) significant wildlife habitat as mapped by the Maine Department of Inland Fisheries and Wildlife (IF&W); (ii)	112,921	50%	56,460
D significant wildlife habitat as determined by the applicant in consultation with the Maine IF&W; (iii) endangered botanical resources as mapped by the Maine Natural Areas Program; (iv) endangered botanical resources as determined by the applicant consultation with the Maine Department of Conservation.	0	50%	0
		Total Deducted Area =	156,426 SF
		Parcel A	313,141 SF
		Parcel B	22,413 SF
		Parcel B1	7,092 SF
		Parcel C	172,949 SF
		Parcel C1	89,507 SF
		Narrow Gauge RR	43,941 SF
		Total Land Area (A, B, C, NGRR) =	649,043 SF
		Net Residential Area =	492,617 SF
		Minimum Area per Dwelling Unit =	10,000 SF
		Net Residential Density =	49.3 Units
			49 Units

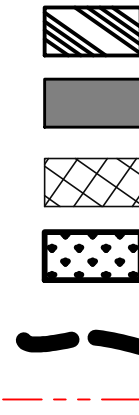


NORTH



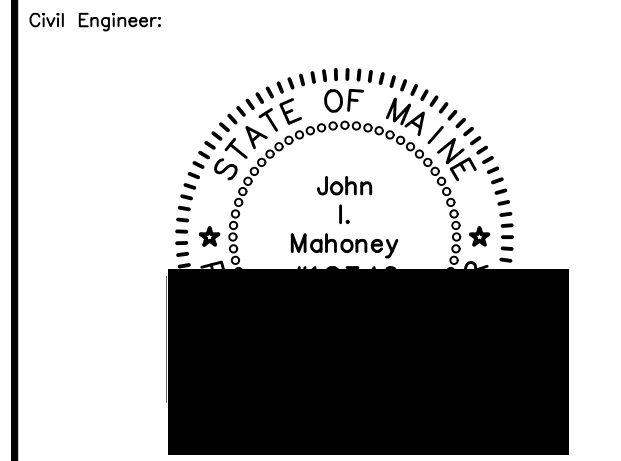
LEGEND

- SLOPES 25% OR STEEPER - 100% DEDUCTION (20,416 SF)
- POORLY DRAINED SOILS - 100% DEDUCTION (66,758 SF)
- SOMEWHAT POORLY DRAINED SOILS - 50% DEDUCTION (25,584 SF)
- FORESTED WETLANDS - 50% DEDUCTION (112,921 SF)
- SOIL BOUNDARY
- PROPERTY LINE



AVESTA GRAY MEADOWVIEW
16 HANCOCK STREET
GRAY, MAINE

Prepared for:
AVESTA HOUSING
307 CUMBERLAND AVENUE
PORTLAND, MAINE, 04101



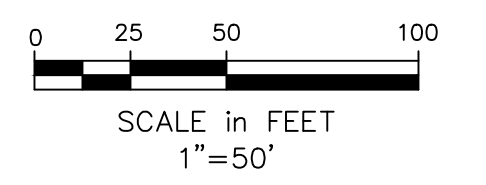
JOHN I. MAHONEY, PE #12340
400 COMMERCIAL STREET, SUITE 404
PORTLAND, ME 04101
207-772-2891

Architect:
JSA DESIGN
273 CORPORATE DRIVE, SUITE 100
PORTSMOUTH, NH, 03801

Structural/Mechanical:
ALLIED ENGINEERING, INC.
160 VERANDA STREET
PORTLAND, MAINE, 04103

Environmental:
ALBERT FRICK ASSOCIATES, INC.
380B MAIN STREET
GORHAM, MAINE, 04038

SCALE



400 Commercial Street, Suite 404
Portland, ME 04101
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NET RESIDENTIAL AREA CALCULATIONS

SOIL TABLE		
SOIL NAME	HSG CLASS	DESCRIPTION
BRAYTON	D	POORLY DRAINED
CROGHAN	B	MODERATELY WELL-DRAINED
MADE LAND	C	NONE ASSIGNED
NAUMBERG	D	SOMEWHAT POORLY TO POORLY DRAINED
NICHOLVILLE (S.W.P.)	D	SOMEWHAT POORLY DRAINED
NICHOLVILLE	C	MODERATELY WELL-DRAINED
SKERRY	C	MODERATELY WELL-DRAINED

GENERAL NOTES:
1. TEST PIT ANALYSIS WAS COMPLETED BY LICENSED SOIL EVALUATOR AND CERTIFIED SOIL SCIENTIST ALBERT FRICK, #66 OF ALBERT FRICK ASSOCIATES, AT 731 FOSS ROAD, LIMERICK, MAINE 04048.

No.	Revision/Issue	Date

Design by:	ARF/DJV	Checked by:	JIM
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