TOWNSHIP OF PALMER

NORTHAMPTON COUNTY, PENNSYLVANIA

3 Weller Place, Palmer Township, PA 18045

Palmer Township Planning Commission
Agenda

Tuesday, October 13, 2026 – 7:00 PM

Municipal Building, Lower Meeting Room | 3 Weller Place | Palmer Township

1. Call to Order

2. Approval of Agenda

3. Approval of Minutes for September 9, 2026

4. Plan Review

Process for Plan Review and Discussion

1. Community Development Department Report
2. Township Engineer Report
3. Applicant Presentation
4. Planning Commission Discussion
5. Public Comments
6. Motion

a. SALD-2025-13: Preliminary/Final Plan – Chick-fil-A (601 South 25th Street)

b. SALD-2026-01: Preliminary/Final Plan – Easton Area High School Phase 2

5. Ordinance Review

a. New Subdivision and Land Development Ordinance

6. Reports

a. Community Development Department Report

b. Commissioners' Reports

7. Public Comment

An opportunity for members of the public to address the Commission regarding matters not listed on the agenda. Speakers are allotted up to three minutes to provide comments.

8. Adjournment

Next Meeting: Tuesday, November 10, 2026 at 7:00 PM

Approval of Minutes for September 9, 2026

INFORMATION

ATTACHMENTS:

PC Minutes - September 2026.pdf

PALMER TOWNSHIP PLANNING COMMISSION

GENERAL BUSINESS MEETING

September 9, 2026

7:00 PM

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1) CALL TO ORDER

The Palmer Township Planning Commission held a meeting on Wednesday, September 9, 2026, at 7:00 p.m. in the Municipal Building meeting room. The following were in attendance: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III. Also in attendance were Craig Beavers, Shawn Casey, and Erik Allgood. Absent: Christopher Hess and Richard Wilkins.

2) APPROVAL OF AGENDA

Motion: Approve, Moved by Commission Member Thomas Grube, Seconded by Angelo Perrucci III. Passed. 5-0.

Commission Members voting Ayes: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III.

Commission Members Absent: Christopher Hess and Richard Wilkins.

3) APPROVAL OF MEETING MINUTES

3.a) Approval of August 11, 2026 Meeting Minutes

Motion: Approve, Moved by Commission Member Thomas Grube, Seconded by Anthony Lauro. Passed. 5-0.

Commission Members voting Ayes: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III.

Commission Members Absent: Christopher Hess and Richard Wilkins.

4) PLAN REVIEW

4.a) SALD-2026-05: Minor Plan – Dunkin’ Donuts (400 Trolley Line Drive)

Community Development Director Craig Beavers presented the staff report for a minor land development application submitted by Tabby Crossings LLC for the property located at 400 Trolley Line Drive at the intersection of Main Street and Trolley Line Drive in the north end of the township. The applicant proposes to construct a 2,260-square-foot Dunkin' Donuts and a 6,270-square-foot retail space. This project revises the previously approved SE Quadrant Lot 1 plan, specifically Planned Community Unit 4, which was originally approved in 2016 for a 325-seat sit-down restaurant. The applicant wishes to revise the plan for final tenant fit-outs for Dunkin' Donuts and retail spaces. Public improvements, including sidewalks, curbing, trees, street lighting, basic utility layouts, and stormwater management infrastructure, were previously installed under the Lot 1 project and will utilize existing stormwater conveyance. Department staff and consultants noted minor review comments that can be addressed as conditions of approval. Staff recommended conditional minor plan approval subject to twelve conditions: entering into a land development agreement with signed and sealed cost estimates; posting financial security for all improvements; entering into a blanket easement for stormwater management facilities; reconciling outstanding township invoices prior to recording; obtaining applicable township permits prior to construction; paying tap-in fees prior to building permit issuance; submitting as-built plans in PDF and AutoCAD formats upon completion; complying with township engineer review comments (Carol Engineering); complying with landscape and lighting consultant comments (Gilmore and Associates); complying with sanitary comments (NTEC Engineers); complying with township staff comments (Community Development, Codes, and Zoning); and complying with Lanta review comments.

Applicant Prasad Chalikonda, developer and operator of the proposed Dunkin' Donuts, alongside Casey Bonner of Base Engineering, presented the project. Mr. Chalikonda explained that Dunkin' Donuts will anchor the center alongside three or four additional retail, office, or dentist spaces depending on tenant needs. He noted that Dunkin' deliveries will occur during off-peak hours in the early morning or late morning. The drive-through design includes an express bypass lane around the menu board to accommodate online order pick-ups and merge before the pick-up window, which speeds up service without interfering with main site circulation. In response to Commission concerns regarding evening parking lot gathering issues similar to nearby locations, Mr. Chalikonda noted that parking spaces were reduced in favor of green space, lawn, shrubbery, and night surveillance cameras to deter unauthorized activities. Staff noted that the project reduces overall site impervious coverage and utilizes an existing regional stormwater basin. The applicant agreed to all recommended review conditions. No public comments were offered.

Motion: Preliminary Conditional Approval, Moved by Commission Member Thomas Grube, Seconded by Angelo Perrucci III. Passed. 5-0.

Commission Members voting Ayes: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III.

Commission Members Absent: Christopher Hess and Richard Wilkins.

4.b) SALD-2026-10: Preliminary Plan – Van Buren West Phase 1 (1492 Van Buren Road)

Community Development Director Craig Beavers presented the preliminary land development application for Greystone Capital to construct 92 townhomes on approximately 14 acres on the west side of Van Buren Road. The project is governed by a court-approved settlement agreement executed in May 2025 following land use appeals, which establishes design criteria for the townhomes and apartment developments in lieu of traditional zoning, stormwater, and SALDO regulations. Commission review is limited to receiving the presentation and providing feedback, as the project layout and basic elements are established by court order. Township Engineer Shawn Casey of Gilmore and Associates confirmed that following technical revisions, no major engineering objections remain for preliminary approval. Staff recommended conditional preliminary plan approval subject to addressing remaining engineer comments in accordance with the settlement agreement.

Gabe Solms of Greystone Capital presented project details, noting that Phase 1 focuses exclusively on the townhouse portion, consisting of 20 buildings containing 92 townhomes. Each unit is 24 feet wide and includes a two-car garage with two driveway parking spaces. Primary site access is provided via a northern entrance on Van Buren Road, with a gated southern access point designated for emergency vehicles. Restricted Park areas will feature a lit walking trail lined with trees and benches. Following Commission discussion regarding trail connectivity, the applicant acknowledged suggestions to evaluate direct connection footpaths from interior roads. Stormwater management involves an above-ground detention basin with a spray irrigation system over parkland in accordance with site geology studies. Utilities will extend from Van Buren Road through the site to a Shoni Creek crossing at the southern boundary to serve future apartment phases. The applicant outlined ongoing outside agency reviews, including NPDES permitting, LVPC review, and a detailed flood study and map revision with FEMA regarding a culvert stormwater feature near Van Buren Road. Engineer Shawn Casey clarified that garage setbacks were pushed back during review to provide

20 feet between garages and sidewalks to ensure vehicle overhang does not obstruct pedestrian paths. No public comments were offered.

Motion: Preliminary Conditional Approval, Moved by Commission Member Angelo Perrucci III, Seconded by Thomas Grube. Passed. 5-0.

Commission Members voting Ayes: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III.

Commission Members Absent: Christopher Hess and Richard Wilkins.

4.c) SALD-2026-11: Subdivision Plan – Greystone Subdivision (1492 Van Buren Road)

Community Development Director Craig Beavers outlined the subdivision application for the Greystone site in his previous report on the Preliminary Plan, which proposes splitting the overall property into two distinct lots to separate Phase 1 (townhomes) from Phase 2 (apartments).

Motion: Preliminary Conditional Approval, Moved by Commission Member Thomas Grube, Seconded by Angelo Perrucci III. Passed. 5-0.

Commission Members voting Ayes: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III.

Commission Members Absent: Christopher Hess and Richard Wilkins.

5) REPORTS

5a. Planning Department Report

Community Development Director Craig Beavers announced that the Planning Department has officially renamed itself the Community Development Department to better reflect its comprehensive responsibilities, including land development, sustainability, environmental planning, housing, economic development, code enforcement, and zoning.
Beavers highlighted upcoming regional events, including the LVPC Housing LV Workshop scheduled for Monday, September 14th, from 6:00 PM to 7:30 PM at the LVPC offices following the adoption of the regional Housing Supply and Attainability

Strategy. He reported that the Township is submitting approximately eight priority transportation projects for inclusion in the FutureLV regional transportation plan update, covering corridor studies, intersection improvements, sewer/water infrastructure, and multimodal initiatives. He also reviewed the July 2026 regional development trends, highlighting residential housing diversity across single-family, apartment, townhome, and twin proposals, as well as a significant increase in non-residential industrial submissions driven by proposed regional data center developments.

In response to Commission questions regarding potential data center impacts, Beavers noted that while small-scale "edge" data centers or warehouse conversions are possible within the permitted North End business district, large hyperscale campuses are unlikely due to land constraints.

5b. Commissioners' Reports

Commission Member Thomas Grube provided an overview of a regional meeting regarding the Lafayette College Trail Connection Strategy, which explores multi-municipal walking/biking connections from main campus to Metzger Field along Knox Avenue and Sullivan Trail.

6) PUBLIC COMMENT

There was no public comment.

7) ADJOURNMENT

The meeting was adjourned at 7:57 PM.

Motion: Adjourn, Moved by Commission Member Thomas Grube, Seconded by Angelo Perrucci III. Passed. 5-0.

Commission Members voting Ayes: Jeff Kicska, Thomas Grube, Robin Aydelotte, Anthony Lauro, and Angelo Perrucci III.

Commission Members Absent: Christopher Hess and Richard Wilkins.

Respectfully submitted,
Danielle Goff
Recording Secretary

SALD-2025-13: Preliminary/Final Plan – Chick-fil-A (601 South 25th Street)

INFORMATION

Chick-fil-A requests Preliminary/Final Plan approval for a proposed drive-thru restaurant at 601 South 25th Street.

ATTACHMENTS:

Staff Report
Township Engineer Review
Township Geotechnical Review
Township Landscape and Lighting Review
Township Sanitary Sewer Review
Community Development Department Review
Fire Department Review
Shade Tree Commission Review
LVPC Review
LANTA Review
Land Development Plans
Applicant Aerials and Exhibits

TOWNSHIP OF PALMER

NORTHAMPTON COUNTY, PENNSYLVANIA

3 Weller Place, Palmer Township, PA 18045

Staff Report

To:	Palmer Township Planning Commission
From:	Craig Beavers, AICP, Director of Community Development
Report Date:	October 7, 2026
Meeting Date:	October 13, 2026
Subject:	Chick-fil-A (601 S. 25th Street) Plan Set Dated September 1, 2026 SALD-2025-13 **Preliminary/Final Land Development Review – Third Submission**

PROJECT OVERVIEW

This project is a Major Land Development (Preliminary/Final) in which the Chick-fil-A ("Applicant") proposes the full demolition of the existing 13,000 sq. ft building and the construction of a 5,483 sq. ft. facility with two drive-thru lanes and 65 parking spaces. The property is located in the GC General Commercial zoning district and WPH William Penn Highway overlay district.

PREVIOUS TOWNSHIP CONSIDERATION

1. On February 25, 2003, the Board of Supervisors granted Final Land Development approval for the Palmer Town Center master development
2. On October 7, 2025, the Zoning Hearing Board granted Special Exception approval for a drive-thru facility use for the site and Variance Relief to permit 65 parking spaces and 5 wall signs.
3. On November 11, 2025, the Planning Commission voted to accept the plan and table it for further consideration.

REVIEWING AGENCY COMMENTS

A. **Township Engineer –** The comments of the Township Engineer are contained in Mr. Justin Coyle's review dated October 5, 2026. His comments pertain to SALDO, Zoning, and SWM Ordinance compliance, waivers, and traffic review.

B. **Township Geotechnical Engineer –** The comments from the Township Geotechnical Engineer are contained in Mr. Shawn Casey's review dated October 6, 2026. He has no comments at this time.

C. **Township Sanitary Sewer Engineer –** The comments from the Township Sanitary Sewer Engineer are contained in Ms. Mary B. Peters' review dated October 1, 2026. Her comments pertain to plan details.

D. **Township Landscape and Lighting Consultant –**The comments from the Township Landscape and Lighting Consultant are contained in Mr. Chris Green's review dated October 5, 2026. His comments pertain to compliance charts, parking lot trees, and intersection lighting.

E. **Planning Department** – The comments from the Planning Department are contained in Mr. Craig Beavers' review dated October 7, 2026. His comments pertain to SALDO, Zoning, and SWM Ordinance compliance, plan notations, waivers and deferrals, shade trees, transportation, public works and utilities, and planning document consistency.

F. **Public Works Department –** The Public Works Department has no comments at this time.

G. **Fire Department –** The comments of the Fire Department are contained in Commissioner Stephen Gallagher's review dated October 6, 2026. His comments pertain to new hydrant disapproval and Knox Box installation.

H. **Police Department –** The Police Department has no comments at this time.

I. **Public Services Department –** The Public Services Department has no comments at this time.

J. **Stormwater Department –** The Stormwater Department has no comments at this time.

K. **Parks and Recreation Department –** The Parks and Recreation Department has no comments at this time.

L. **Shade Tree Commission –** The comments of the Shade Tree Commission are contained in their review dated October 2, 2026. They approve of the proposed landscaping plan.

M. **Lehigh Valley Planning Commission (LVPC)** – The comments of the LVPC are contained in Ms. Mary Grace Collins' review dated November 12, 2025. Her comments pertain to site suitability, site access and safety, multimodal infrastructure, and sustainable systems. Act 167 Drainage Plan approval is still outstanding.

N. **Lehigh and Northampton Transportation Authority (LANTA) –** The comments of LANTA are contained in Ms. Molly Wood's review dated April 28, 2026. She has no additional comments at this time.

O. **Northampton County Conservation District (NCCD) –** The comments of the NCCD have not been received at the time of this writing. NCCD approval is still outstanding.

P. **Pennsylvania Department of Environmental Protection –** The comments from the Department of Environmental Protection have not been received at the time of this writing. Act 537 approval is still outstanding.

Q. **Pennsylvania Department of Transportation –** The comments from the Department of Transportation have not been received at the time of this writing. HOP approval is still outstanding.

DEPARTMENT ANALYSIS

Based on an analysis of the submitted material, the Community Development Department ("Department") provides the following general comments:

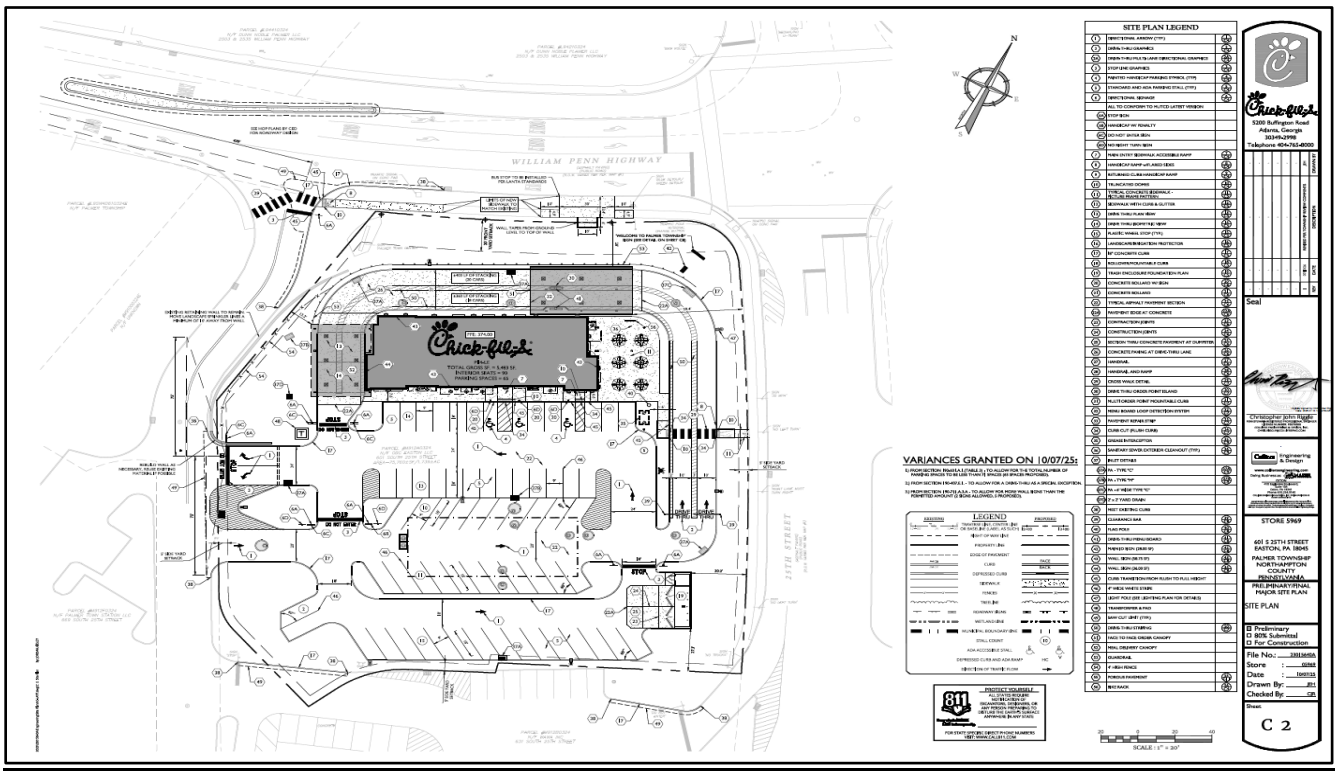
Project Background

This project involves the demolition of the former Rite Aid on the corner of William Penn Highway and South 25th Street and the construction of a new Chick-fil-A restaurant (see Figure 1).

Major components of this project include:

a. Demolition of existing 14,706 square foot pharmacy
b. Construction of 5,483 square foot drive-through restaurant (90 interior seats)
c. Passenger vehicle parking (65 spaces, including 3 ADA)
d. Drive-through with 38-car queueing lanes
e. Reconfigured driveway access along William Penn Highway
f. Bicycle rack
g. LANTA EBS Blue Line Station along William Penn Highway
h. "Welcome to Palmer Township" sign
i. Enhanced landscaping

Figure 1: Site plan for the proposed project.



Zoning and Land Use

The project site is in the lower end of the Township, near the intersection of William Penn Highway and 25th Street.

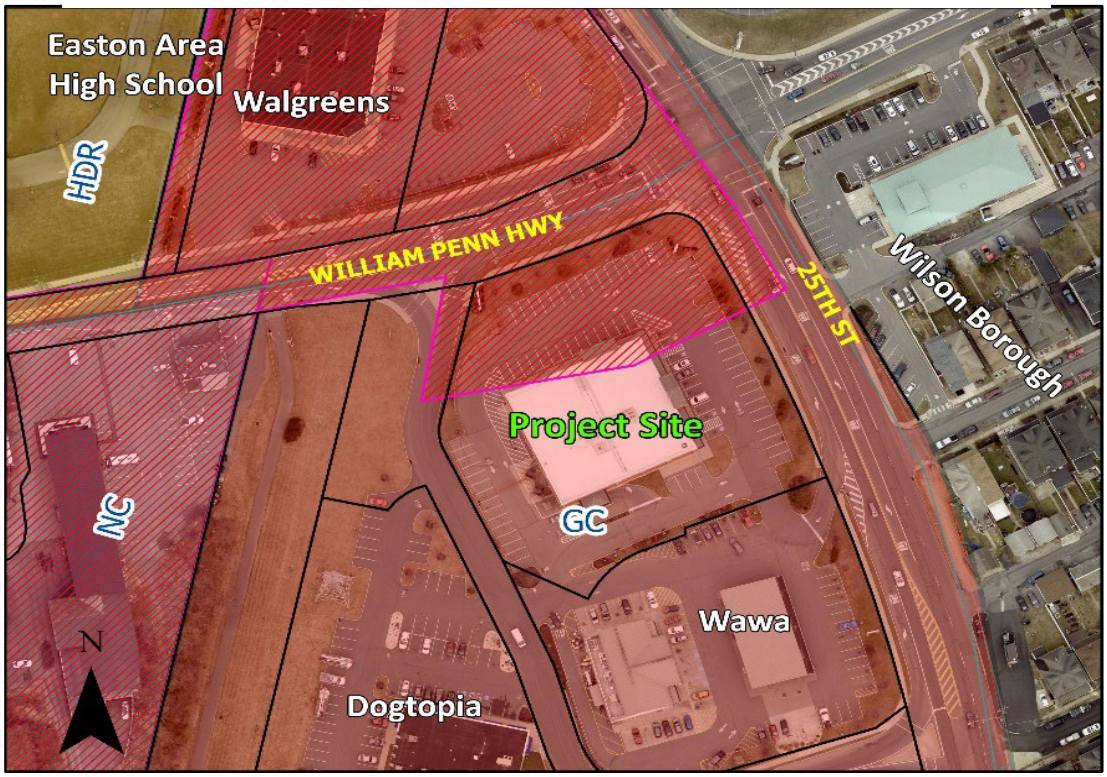
Lands surrounding the site are zoned primarily for general commercial uses. (Figure 2).

The proposed restaurant use is located in both the GC General Commercial zoning district and WPH William Penn Highway overlay district. The proposed use is permitted by right.

The purpose of the GC District is to provide for the orderly, integrated development of those uses necessary to meet the community and regional needs for general goods and services, as well as those of a social, cultural and civic nature; and to exclude uses not compatible with such activities. This district is intended to ensure well-planned and well-designed uses while ensuring adequate circulation, access control, and open space and unified and organized arrangement of buildings, service and parking areas.

The purpose of the WPH Overlay District is to manage growth and development along William Penn Highway and create a safe and visually unified streetscape. The overlay district aims to facilitate the development of a safe and viable corridor that links a variety of uses through streetscape amenities, design standards, and coordinated signage.

Figure 2: Vicinity map showing project site, abutting land uses, zoning and adjacent streets.



Technical Review

In reviewing the proposed project against the Township Ordinances, the Department, Township Staff, and its Professional Consultants have a few comments that require addressing. A comprehensive list can be found in the corresponding review letters. However, the Department believes that these comments are minor in nature, and can be addressed as a condition of approval.

Comprehensive Plan Review

The 2018 Comprehensive Plan, *Tomorrow's Palmer,* is the Township's adopted policy for the future of the community. Tomorrow's Palmer envisions the tract within a Non-Residential Land Use Type, which promotes mixed-use redevelopment as a gateway into the township.

The proposed restaurant is consistent with the following Comprehensive Plan goals:

- A.2: Establish policies that support fiscally marketable redevelopment and re-use of previously developed sites.
- A.3: Support well planned and compatible land uses that are concurrent with infrastructure availability, environmental sensitivities, and surrounding density patterns.
- B.1: Safeguard the community's established, business-friendly atmosphere.
- B.2: Encourage compatibility of established development within the Township and new entrepreneurial efforts.
- C.3: Improve transit ridership convenience and safety between areas of employment, shopping, neighborhoods, and transit stops.
- F.2: Reinforce the significance of the community's multiple civic centers or hubs as destinations for recreation, community gathering, and commerce.
- F.3: Establish a sense of arrival when entering Palmer Township.
- F.5: Align development with accessible infrastructure service.

Active Transportation Plan Review

The goal of the 2025 Active Transportation Plan (ATP) is to identify opportunities to improve the pedestrian, bicycle, and transit network throughout the Township to promote active and healthier lifestyles (pg. 8).

The proposed restaurant will involve modifications adjacent to the site to promote safer access to this site, including installing a LANTA EBS bus-rapid transit stop, installing bicycle racks, and adding a pedestrian connection along 25th Street. While the Department would also recommend installing a pedestrian connection somewhere along William Penn Highway, the project overall complies with the goals of the Active Transportation Plan.

Complete Streets Policy Review

The 2025 Complete Streets Policy aims to promote a complete, interconnected transportation network that serves the needs of all residents and visitors regardless of age, ability, or mode of travel (pg. 1). 2.

The Applicant is commended for the inclusion of a LANTA landing pad and loading area. This promotes LANTA's vision for the future build-out of the EBS Blue Line bus rapid transit service, which will provide high-frequency bus service between Easton and Trexlertown. The Applicant is also commended for the inclusion of a bike rack on the site, which promotes multi-modal access to the site.

MODIFICATIONS, WAIVERS, AND DEFERRALS REQUESTS

1. The Applicant requests the following waivers as a part of this application **(new in bold)**:
    a. *SALDO § 165-36.A(2) – (Separate Preliminary/Final Plan Review). Combined preliminary/final review proposed.*
    b. ***SWMO § 153-305.C(19) – (Pipe Velocity). Pipe flow velocities of less than 2.5 feet per second proposed.***
2. The criteria for granting modifications, waivers, and deferrals from Chapter 165 Subdivision and Land Development are as follows:

    ***§ 165-7.B Modifications and exceptions**. The Planning Commission shall be given an opportunity to make a recommendation on the matter at a legally advertised meeting. The Board of Supervisors may, by written resolution, grant a waiver or modification concerning a specific provision(s) of this ordinance if the applicant proves that the request meets one or more of the following conditions:*

    a. *Will avoid an undue hardship that was not self-created and that results from the peculiar and uncommon characteristics of the property.*
    b. *Will avoid a clearly unreasonable requirement that would not serve any valid public purpose in this situation.*
    c. *Will allow an alternative standard that is clearly proven by the applicant to provide equal or better results.*
    d. *Will allow a layout of improvements that would clearly be more in the public interest than what would occur if the modification would not be granted.*
    e. *Will remove a requirement that is not applicable, especially because of the small size of the proposed project.*
3. The Department does not object to these requests.

DEPARTMENT RECOMMENDATION

The Department recommends that the Planning Commission votes to recommend conditional Preliminary/Final Plan approval to the Board of Supervisors, subject to the following conditions:

1. The Applicant shall enter into a Development Agreement acceptable to the Township Solicitor. Cost estimates for any improvements shall be submitted for Township approval and shall be signed and sealed by the appropriate registered professional. *SALDO §165-46.*
2. The Applicant shall post financial security for all required improvements. *SALDO §165-47.*
3. The Applicant shall enter into a blanket easement for stormwater management facilities operations, inspection, and maintenance. *SALDO §165-59.G(1) and Checklist I.4.*
4. The Applicant shall execute an Operation and Maintenance Agreement of Stormwater Management Facilities approved by the Township Solicitor for the maintenance of the on-site stormwater management facilities. *SMO §158.401.a.S.*
5. The Applicant shall reconcile all open and outstanding invoices for Township engineering and legal services in the developer escrow account, per the Professional Services Agreement, prior to the plan being recorded.
6. The Applicant shall apply for and obtain any applicable Township permits related to the project prior to commencement of any construction on the site.

7. The Applicant shall provide payment for Tapping Fees prior to Building Permit issuance.

8. Prior to project completion, the Applicant shall submit as-built plans in PDF and AutoCAD-compatible formats to be reviewed and approved by the Township Engineer.

9. The dedication of open space, or payment of fees in lieu of, shall be required prior to plan recording. The fee-in-lieu-of open space dedication is set at $5,500 per total lot acre. The Applicant shall provide a fee-in-lieu of open space dedication in the amount of $9,570 based upon 1.74 acres. *SALDO §165-62.*

10. The Applicant shall comply with all conditions of the Zoning Hearing Board special exception and variance relief approval dated October 28, 2025.

11. The Applicant shall comply with the comments of the Township Engineer as set forth in the October 5, 2026 Carroll Engineering review letter, including but not limited to:

    a. Installing a sidewalk connection within the Applicant-owned subject property to the driveway entrance. *ZO § 190-964.E.*

    b. Obtaining approval from the Northampton County Conservation District for both erosion and sediment control plan adequacy and NPDES permit approval. *SWMO § 158-301.R.*

    c. Providing profiles for proposed storm piping.

    d. Revising plans to show the R7-8F, “Reserved Parking Penalties” sign detail.

    e. Providing additional slope information and spot elevations for the ADA parking landing area.

    f. Revising the access driveway crosswalk to provide a direct crossing route for safety.

12. The Applicant shall comply with the comments of the Township Landscape and Lighting Consultant as set forth in the October 5, 2026 Gilmore and Associates review letter, including but not limited to:

    a. Revising the landscape compliance chart to only include paved areas associated with parking for “total paved area.” *ZO § 190-603.H(3).*

    b. Considering an alternative parking lot tree species instead of Bur Oak.

    c. Providing a streetlight at the intersection of William Penn Highway and the access driveway. *SALDO § 165-70.A.*

13. The Applicant shall comply with the comments of the Township Sanitary Sewer Consultant as set forth in the October 1, 2026 Entech Engineering review letter, including but not limited to:

    a. Revising the plans to include details for all referenced construction items.

14. The Applicant shall comply with the comments of the Township Staff, including the Community Development Department, the Fire Department, and the Shade Tree Commission, including but not limited to:

    a. Revising the utility plan in regard to fire hydrant location, to the satisfaction of the Township Fire Commissioner.

    b. Installing a “Welcome to Palmer Township” sign along the property frontage with William Penn Highway and South 25th Street as indicated on the land development plans.

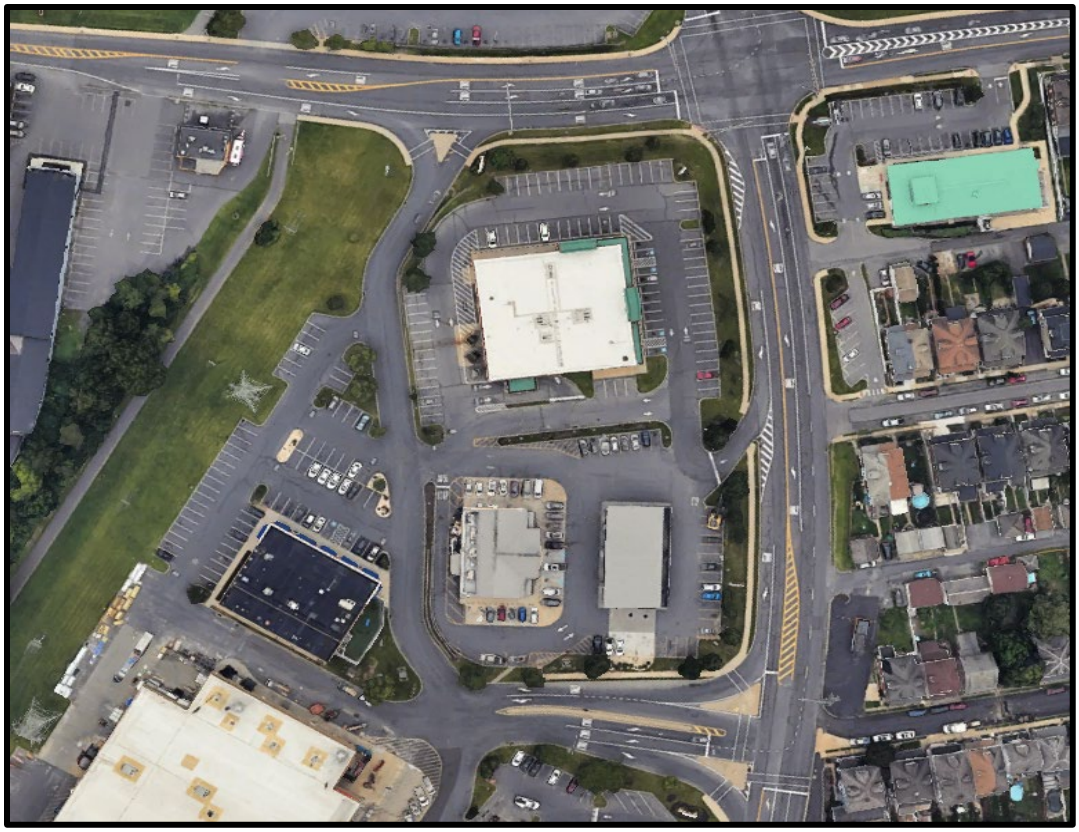
    c. Installing pedestrian-scale, ornamental street lighting along William Penn Highway as indicated on the land development plans.

15. The Applicant shall comply with all comments of the Lehigh and Northampton Transportation Authority as set forth in their October 22, 2025 review letter, including the installation of an ADA loading pad for a bus rapid transit station.

Additionally, the Department recommends that the Planning Commission votes to recommend waivers and modifications from compliance with the following provisions of the Palmer Township Subdivision and Land Development Ordinance and Stormwater Management Ordinances to the extent provided herein:

1. SALDO § 165-36.A(2) – (Separate Preliminary/Final Plan Review). A waiver is recommended to permit combined Preliminary/Final Plan review and approval.
2. SWMO § 153-305.C(19) – (Pipe Velocity) A modification is recommended to permit pipe flow velocities of less than 2.5 feet per second.

Planning Commission deadline date to act on the plan: **None**
Board of Supervisors deadline date to act on the plan: **None**



Location Site

Chick-fil-A

M9 1 2A 0324

GC General Commercial and WPH William Penn Highway Overlay

October 5, 2026 ***SENT VIA EMAIL***

Craig S. Beavers, AICP, Director of Planning
Palmer Township
3 Weller Place
Palmer, PA 18045

Subject: Chick-Fil-A (Store #5969), Land Development Plan – Review #3
601 South 25th Street, Parcel ID #M912A-0324

Dear Mr. Beavers:

Carroll Engineering Corporation (CEC) is in receipt of documents supporting the above-referenced Preliminary Land Development Plan application. Pursuant to your request, we have reviewed the application documents against the Palmer Township Subdivision and Land Development Ordinance (SALDO) Chapter 165 and Zoning Ordinance (ZO) Chapter 190 and Stormwater Management Ordinance (SMO) Chapter 158.

PROJECT DESCRIPTION

The subject property contains a total of 1.74 acres, on one (1) parcel, as shown on the submitted Major Site Plan and Land Development Application. The parcel is located at the southwest corner of William Penn Highway and South 25th Street. Wilson Borough adjoins the property along the opposite side of South 25th Street. The Palmer Township Trail/bikeway adjoins the property along the western boundary line. A Wawa Food Store and gas station adjoin the site to the south. *(refer to the attached aerial photo)*

The existing subject property is presently a vacant pharmacy ("Rite-Aid") building and parking area. The subject property is located in both the GC – General Commercial Zoning District and the WPH- William Penn Highway Overlay Zoning District. The Applicant proposes to construct one (1) Restaurant Building with 5,483 square feet of floor area and two (2) lanes of drive-through service. Site improvements will include internal access drives, a parking lot, pedestrian sidewalks, a stormwater management system, landscaping, lighting, public water supply and sanitary sewer. Proposed access to the property is separate entrance and exit driveways, which connect to a shared parking lot access drive within the Palmer Town Centre shopping plaza. The existing shared access between the former Rite-

Aid parking lot and the Wawa Food Store to the south is proposed to be eliminated as part of this development.

The Applicant has submitted a post-construction stormwater management design plan as required by the Palmer Township Stormwater Management Ordinance, the Lehigh Valley Planning Commission (LVPC) Global Act 167 stormwater management requirements, and the Pennsylvania Department of Environmental Protection's (PADEP) National Pollutant Discharge Elimination System (NPDES) permit.

The cover sheet has been labeled as a "Preliminary/Final Major Site Plan for Chick-Fil-A". We have reviewed this application as Preliminary at this time.

ZONING VARIANCES

On October 7, 2025 and as shown on Plan Sheet C-0 (1 of 21), the Palmer Township Zoning Hearing Board (25-9) granted relief from the following sections of the Zoning Ordinance (ZO):

1. ZO §190.601.A.1.(Table 3) – A zoning variance was granted to allow for the total number of parking spaces to be less than 71 spaces (65 spaces are proposed.)

2. ZO §190.407.E.1. – A zoning variance was granted to allow for a drive-through as a special exception.

3. ZO §190.711.A.3.A. – A zoning variance was granted to allow for more wall signs than the permitted amount. (2 signs allow and 5 are proposed.)

REQUESTED WAIVERS

The Applicant has requested waivers from the following sections of the Palmer Township Subdivision and Land Development Ordinance (SALDO) & Stormwater Management Ordinance (SMO) Chapter 158, via a SALDO Waiver Request Application from Kim Wyatt of Chick-Fil-A, dated October 10, 2025, and a letter from Chris Riggle, P.E. of Colliers Engineering & Design, Inc., dated September 8, 2026:

1. SALDO §158-305.C.10 – A waiver is requested to allow pipe flow velocities of less than 2.5 feet per second. **-CEC does not take exception to this waiver request.**

2. SALDO §165-26 – A waiver is requested to allow for the subdivision/land development to be reviewed as Preliminary/Final. **- CEC does not take exception to this request and has reviewed the plan as Preliminary/Final at this time.**

All requested SALDO waivers shall be included in an updated written waiver request letter, an updated Township waiver request Application, and shall be shown on the Record Plans.

SUBMITTED DOCUMENTS

We have reviewed the following documents and related information submitted regarding the resubmission of this Application:

1. Preliminary/Final Major Site Plans for "Chick-Fil-A", prepared by Christopher Riggle, P.E. of

Colliers Engineering & Design, twenty-three (24) sheets, dated October 7, 2025, last revised September 1, 2026.

2. Traffic Impact Assessment, prepared by Tyler Krause, P.E. of Colliers Engineering & Design, three hundred and ten (310) pages, dated June 17, 2026, no revisions.

3. PCSM Report, prepared by Christopher Riggle, P.E. of Colliers Engineering & Design, 256 pages, dated June 30, 2026, Revised September 4, 2026.

4. Township Engineer Review Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., thirteen (13) pages, dated September 8, 2026.

5. Sanitary Sewer Review Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., one (1) page, dated September 8, 2026.

6. Sewer Capacity Review letter from Scott Kistler of Palmer Township, one (1) page, dated July 29, 2026.

7. Sewage Facilities Planning Exemption Mailer, one (1) page, signed by Robert Williams, Palmer Township Manager, July 29, 2026.

8. Township Planning Department Review Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., nine (9) pages, dated September 8, 2026.

9. Landscape & Exterior Site Lighting Review Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., two (2) pages, dated September 8, 2026.

10. Palmer Township Police Department Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., one (1) page, dated September 8, 2026.

11. Shade Tree Commission Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., two (2) pages, dated September 8, 2026.

12. Township Geotechnical Review Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., one (1) page, dated September 8, 2026.

13. Fire Commissioner Review Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., one (1) page, dated September 8, 2026.

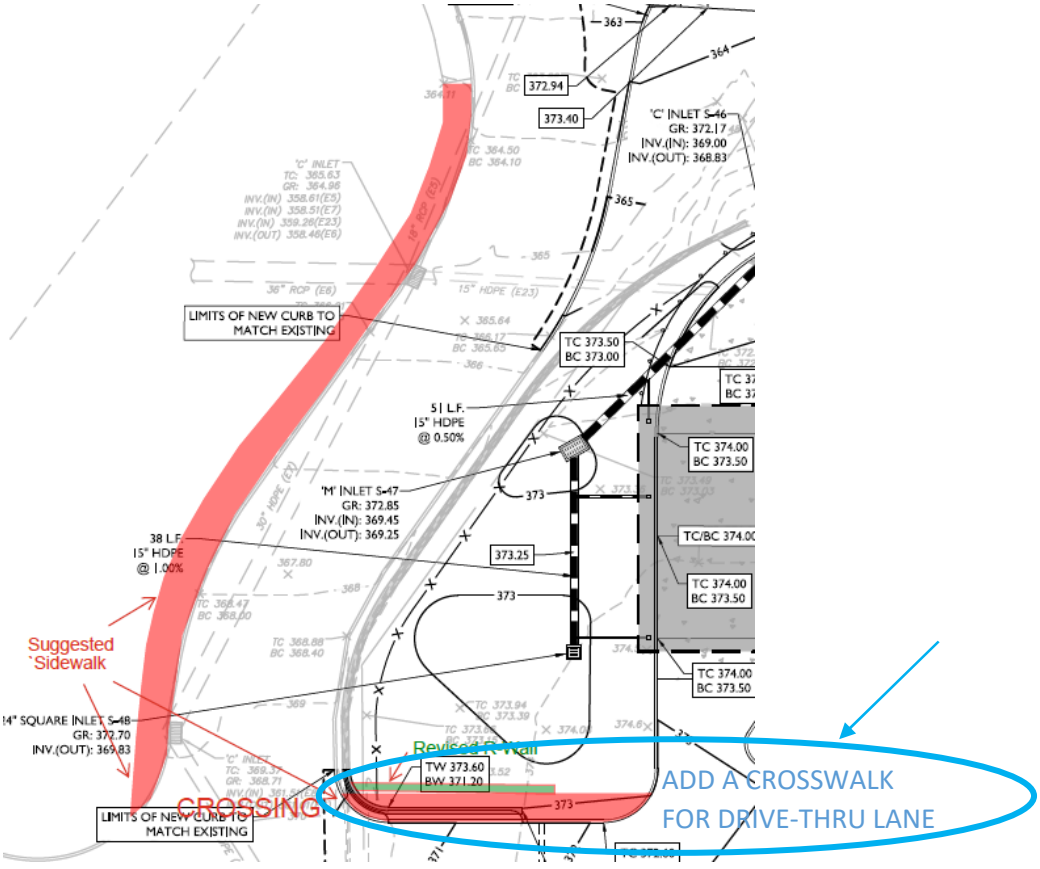
14. Lehigh Valley Planning Commission (LVPC) Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., two (2) pages, dated September 8, 2026.

15. Lehigh & Northampton Transportation Authority (LANTA) Comment Response letter, prepared by Chris Riggle, P.E. of Colliers Engineering & Design, Inc., two (2) pages, dated September 8, 2026.

We offer the following comments to the Commission:

ZONING

1. A pedestrian walkway shall be provided between the existing sidewalk and the entrance of the restaurant. *ZO §190-964.E.* The Applicant proposes a pedestrian sidewalk to connect to the existing sidewalks along South 25th Street. Consideration shall be given to providing for pedestrian access from the William Penn Highway frontage at Palmer Township bikeway crossing, to be discussed with the Planning Commission. *-This comment is still outstanding. Only a walkway from 25th Street is proposed. We highly recommend a walkway be extended from the west side of the William Penn Highway access drive to the restaurant. (See sketch below.)* **-The Applicant has stated that the requested sidewalk is located on an adjacent property not Owned by the Applicant and the sidewalk cannot be installed without consent from the property owner. We highly recommend that the portion of the sidewalk that is located on the subject property, circled below in blue, should be installed as part of this project to provide pedestrian access and to allow for the future installation of a sidewalk. An ADA ramp and modifications to the retaining wall design will be necessary. A painted crosswalk should be added across the drive-thru exit lane.**



2. We defer to the Township Zoning Officer regarding the applicability and official comments related to the Township's Zoning Ordinance. *SALDO §165-32.C.*

PRELIMINARY PLAN REVIEW (SALDO):

1. Except where a preliminary plan is not required, the initial plan filed with the Commission for formal review of a major subdivision or land development shall be considered the official preliminary plan. *SALDO §165-26.C & SALDO §165-26.D.* – A waiver has been requested by the Applicant to allow for the subdivision to be reviewed as Preliminary/Final under *SALDO §165-26.* **-See "Requested Waivers" section above for CEC's recommendation.**

2. A Developer's Agreement will be required for this land development and shall be coordinated with the Township Solicitor. *SALDO §165-46.*

3. A Performance Guarantee will need to be posted prior to the commencement of construction of this project and shall be coordinated with the Township Solicitor. *SALDO §165-47.*

4. A State Highway Occupancy Permit is required for all entrances of access drives and any proposed work within a State roadway. *SALDO §165-67.* If the right-in, right-out driveway is altered at the William Penn Highway connection, a PennDOT HOP permit will be required. Also an ADA-accessible transit landing pad has been proposed as required by LANTA. The permitting requirements for the LANTA bus stop and the revisions to the Wawa entrance slip ramp shall be discussed with PennDOT and correspondence provided to the Township. **See traffic review comments below.**

UTILITIES

1. The sanitary sewer system shall be reviewed by the Township Sanitary Sewer Engineer, as it relates to the proposed commercial use.

PRELIMINARY PLAN FOR MAJOR SUBDIVISION CHECKLIST

1. The plans shall show any proposed sidewalks, with any proposed handicapped access shown as part of any new or reconstructed sidewalks at intersections. *Checklist G.12.* There are no sidewalks which cross the proposed driveway, or that connect the site to other uses within the Palmer Town Centre shopping plaza. Consideration should be given to internal pedestrian circulation. **See Zoning comment #1 above.**

2. The locations of any proposed, or existing stormwater easements shall be shown on the plans. Or the consideration of a Blanket Easement shall be provided. *Checklist I.4. -The Applicant has indicated that a note has been added to sheet C3 granting a blanket easement to the township, however no note has been provided. The Plan should be revised to provide this note.* **-This comment has been addressed.**

3. Supporting Documents required for Sewage Planning/Module, Public Water, and Public Sewer shall be submitted. *Checklist P.2-4.* **-This comment has been addressed.**

4. The area and location of any proposed common open space shall be shown on the land development plans. *SALDO Preliminary Submission Checklist §F.3.* - A waiver from this requirement has been requested from the Applicant. CEC does not recommend granting this waiver. **-The Applicant intends to pay a fee in lieu of the open space requirement.**

STORMWATER MANAGEMENT (SALDO)

1. A system for the ownership and maintenance responsibilities of all temporary and permanent stormwater facilities and erosion and sedimentation control facilities that is satisfactory to the Board of Supervisors shall be established prior to final plan approval in accordance with the requirements of this section. *SALDO §165-63.Q. -This comment remains outstanding. The Plan should be revised to address SALDO §165-63.Q.3. in the operation and maintenance notes on sheet C11.* **- This comment has been addressed.**

Stormwater Management (Chapter 158) Comments:

1. For regulated activities proposing earth disturbances of greater than or equal to 5,000 square feet, submission of an erosion and sediment control plan to the County Conservation District/reviewing authority for adequacy review shall be required. *SMO §158-301.Q.* **-The Applicant has indicated that a submission will be made to the County Conservation District. Proof of submission and subsequent approval should be provided upon receipt.**

2. For regulated activities proposing earth disturbances of greater than or equal to 43,560 square feet, submission of an erosion and sediment control plan to the county conservation district/reviewing authority for NPDES permit approval shall be required. Subsequent evidence of approval shall also be required. *SMO §158-301.R. It is noted on the plans that approximately 1.6 acres of disturbance is proposed.* **-The Applicant has indicated that a submission will be made to the County Conservation District. Proof of submission and subsequent approval should be provided upon receipt.**

3. It is noted that there are numerous pipes which have velocities less than 2.5 feet per second. Please revise. *SMO §158-305.C.10.* **-See "Requested Waivers" section above for CEC's recommendation.**

4. Storm sewers shall have a minimum of two-inch drop between the lowest inlet pipe invert elevation and the outlet pipe invert elevation. *SALDO §158-305.C.13.* Manholes S-10, S-11, and S-16 provide a 0.10 foot drop as shown on the grading plan. The invert drops across all structures shall be investigated and revised as necessary. *-This comment remains outstanding. Justification should be provided for having inverts at equal elevation.* **-This comment has been addressed.**

5. For regulated activities requiring a Major SWM permit, do not increase the post-development total runoff volume for all storms equal to or less than the two-year, twenty-four-hour duration precipitation plus 50%. *SMO §158-306.B.2.a.2. -This comment remains outstanding. The Applicant's Volume Controls section of the PCSM Report states that the PADEP CG-1 requirement is equivalent to the Township's ordinance requirement. However, the two standards are not equivalent. PADEP CG-1 requires that post-development total runoff volume for all storm events up to and including the 2-year, 24-hour storm not exceed pre-development total runoff volume. In contrast, the Township ordinance requires volume control for all storm events with a precipitation depth up to and including the 2-year, 24-hour storm plus 50%.* **-This comment has been addressed.**

6. SWM conservation easements for all physical SWM facilities, conveyance facilities, areas downstream of discharges and spillways, and designated meadows. When present, provisions for permanent access to SWM conservation easements shall also be granted to the municipality via a note as listed in *SMO §158-401a.X.10. SMO §158-401.a.T. A Blanket Easement shall be considered*. -This comment remains outstanding. That Applicant has indicated that a note has been added to sheet C10 granting a blanket easement to the township, however no note has been provided. The Plan should be revised to provide this note. **-This comment has been addressed.**

7. The Applicant should provide applicable plan notes from this section. *SMO §158-401.a.X. -This comment remains outstanding. The Plan should be revised to include SMO §158-401.a.X.14.* **-This comment has been addressed.**

General Stormwater-Related Comments:

1. Profiles for all proposed storm piping should be provided in a subsequent submission. **-This comment remains outstanding.**

2. The Applicant shall clarify the shaded region labeled as A2 on the Survey plan. **-This comment has been addressed.**

3. The Pre-Disturbed release rates present with the PCSM Report do not match the numbers calculated using the methodology provided in the foot notes of the release rate table. Please clarify. **-This comment has been addressed.**

TRAFFIC REVIEW COMMENTS (SALDO)

1. Revise plans to show all signs depicted on the directional signage plan, several signs are not shown on the site plan. Additionally, provide sign identifications for all signs in accordance with PennDOT Publication 236M. -*The directional signage plan on Sheet C4 has been updated to reflect the signs which are proposed on the Site Plan. The signs with an 'X' through them are not proposed.* **This comment remains outstanding. The R7-8F, "Reserved Parking Penalties" sign detail shall be included on the plans.**

2. Provide ADA parking space detail with parking dimensions clearly annotated. -*The Standard and ADA Parking Stall Detail on Sheet C4 was updated to show dimensions on the spaces. The concrete pavement section on Sheet C6 shall be removed, or crossed out, if it is not applicable. The Concrete Pavement Section Detail on Sheet C6 was crossed out to indicate that it will not be used on site. The ADA parking stalls and access aisles shall be dimensioned. Additionally, all dimensions, slopes, and spot elevations necessary to demonstrate ADA compliance shall be provided for all proposed curb ramps throughout the development*. **-This comment remains outstanding. Additional slope information and spot elevations shall be shown for the landing area to demonstrate compliance with ADA requirements.**

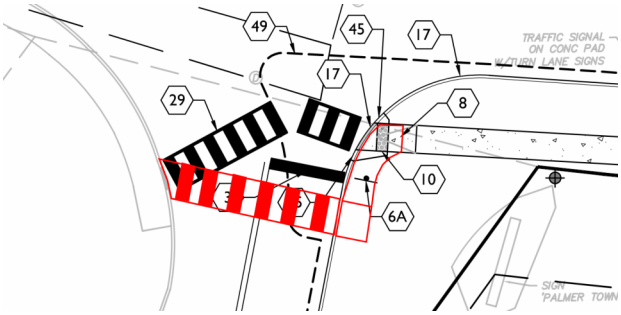
3. The Township asks that the right-in/right-out access on William Penn Highway be closed entirely due to safety concerns. PennDOT has indicated they would support this closure.

   In conjunction with the closure, pedestrian access from William Penn Highway and the Palmer Township Trail crossing shall be considered. A portion of the existing driveway along the bottom

of the retaining wall may remain and be converted to a pedestrian walkway into the Palmer Town Centre shopping plaza. This access shall be discussed with the Planning Commission.

-The current Site Plan shows the access to and from the site as agreed upon. The access point to William Penn Highway has been revised per PennDOT review and comment. The crosswalk at the access drive on William Penn Highway shall be revised to provide a straight crossing.

If the crosswalk cannot be revised as previously suggested, then it is recommended that additional sidewalk along the Chick-Fil-A side of the access drive be installed and the ADA ramp shall be relocated, as depicted below, to improve safety, and provide a more direct route for the shortest crossing.



<u>Traffic Impact Study Review</u>:

1. On Figures 5 and 8 for the Site Driveway and William Penn Highway, include the missing westbound primary trip in the figures. **-This comment has been addressed.**

2. The Synchro analysis for the No-Build condition does not include volumes from other committed developments. Note that the volumes in the No-Build condition Synchro report do not match those shown in Figure 10. **-This comment has been addressed.**

3. For the Intersection 1 Synchro report (S. 25th Street & William Penn Highway/Butler Street), reconfigure the eastbound left and westbound left turn movements to protected only. **-This comment has been addressed.**

4. For the Intersection 1 Synchro report (S. 25th Street & William Penn Highway/Butler Street), input the missing offset value. **-This comment has been addressed.**

5. Note that Intersection 4 (S. 25th Street & Wood Avenue) is semi-actuated coordinated. **-This comment has been addressed.**

6. In Table 8, for the intersection of S. 25th Street and Wood Avenue, the southbound AM peak Build condition intersection delay should be 28.1 seconds. **-This comment has been addressed.**

7. Please provide the Synchro files for review with the next submission. **-This comment has been addressed.**

8. Please update Table 3 per the mark-ups below: **-This comment has been addressed.**

GENERAL COMMENTS

1. A portion of the proposed improvements are to occur on the adjacent property, owned by Wawa. Documentation shall be provided which indicates approval from this adjoiner for the work on their property. A temporary grading or construction easement may be required. **-This comment has been addressed.**

2. Documentation shall be provided from the "Palmer Town Centre" Condo Association which states that the proposed work is allowed and/or approved for construction. **- A letter approving the proposed work from the adjoining property owners shall be provided prior to the issuance of any construction permits.**

3. All engineering documents submitted to the Township and to our office, including but not limited to Estimates of Quantities & Costs, Reports, Plans, Exhibits, and Legal Descriptions must be signed and sealed by the appropriate registered professional who prepared them in accordance with Engineer, Land Surveyor And Geologist Registration Law Act of May 23, 1945, P.L. 913, No. 367 Cl. 63, Section 7.(a).

4. List any deed restrictions and/or covenants on the plan sheet(s) to be recorded.

5. Provide a list of all easements necessary to support the proposed development on the Land Development Plan to be recorded that shows the locations of the areas in question with a corresponding legend. The list shall include identification of the grantor and grantee at the time of plan recording and the type of easement (e.g., sanitary sewer, drainage, etc.). All proposed easements are required to be shown on the Preliminary Land Development Plan set. *-The Applicant has indicated that a Proposed Temporary Construction Easement was added to Sheet C2, however it is not shown on the plans.* **-This comment has been addressed.**

6. We defer to the Township Landscape and Lighting Engineer to review the proposed site lighting and landscaping. *ZO §190-603.H, SALDO §165-32.D(2) and §165-36.E(2).*

7. We defer to the Township Fire Commissioner and EMS regarding the acceptability of emergency access, the requirements for fire protection systems, etc., *SALDO §165-32.C(2)(b) and §165-36.D(2)(c).*

8. We defer to the Township Geo-Technical Engineer to review and approve any infiltration testing as required for the design of the stormwater management system. SALDO *§165-32.C.*

9. The Lehigh Valley Planning Commission should review and comment on the subject land development plan and stormwater management design. *Checklist A.7.*

10. Upon submission of plans for recording, sign and seal/notarize all Statements and Certifications as applicable, *SALDO §165-16.*

FINAL LAND DEVELOPMENT PLAN REVIEW COMMENTS -ADDED OCTOBER 6, 2026

We offer the following comments for the Commission's consideration regarding the Final Land Development Application:

1. The Developer shall provide a statement indicating the approximate date when construction can be expected to begin and be completed. *(Final Checklist C.6.)*

2. All signed agreements or contracts with Utility Companies, Water Companies, or Authorities or Sewage Companies or Authorities for the provision of services to the project are required to be submitted to the Township prior to recording of the final plan and prior to the construction of any buildings. *(Final Checklist D.1.a.)*

3. Before approving any subdivision or land development plan for recording, the Township Supervisors shall require that the Applicant assure the Township, by means of a proper Development Agreement and Performance Guaranty, that the improvements required by this ordinance will be installed in strict accordance with the standards and specifications of this ordinance and the approved development plan. *(SALDO §165-44.A.)*

4. The Township Engineer or other Township designee shall make such inspections of the required improvements at such intervals as may be reasonably necessary to assure compliance with this ordinance. The reasonable costs of such inspection shall be borne by the subdivider or land developer, making use of an escrow account. *(SALDO §165-45.B.)*

5. Subsequent to final plan approval of any land development or subdivision plan by the Board of Supervisors, the developer shall prepare a signed and sealed improvements security estimate. *(SALDO §165-47.B.)*

6. The recorded final plan shall include the required signatures of Township officials and staff. (SALDO §165-53.F.)

CEC recommends the project be granted Conditional Preliminary/Final Approval at this time. Please note that we reserve the right to perform additional review and provide comments on this application pursuant to the submittal of revised compliance plans and documents.

Should you have any questions, please contact me directly at (610) 989-4940 Ext. 317 or email jcoyle@carrollengineering.com.

Very truly yours,

CARROLL ENGINEERING CORPORATION

Justin M. Coyle

Justin M. Coyle, P.E.
Township Engineer
DJW/JMC

Attachments
cc: Robert Williams, Township Manager, Palmer Township
Brenda DeGeralomo, Assistant Township Manager, Palmer Township
Julie Klabunde, Assistant Township Manager, Palmer Township
Justine Caiazzo-Strouse, Administrative Assistant to Planning, Palmer Township
William Oetinger, Esquire, Township Solicitor

Kim Wyatt, Chick-Fil-A, Inc.
Chris Riggle, P.E., Colliers Engineering & Design
Daniel J. Wilusz, P.E., Project Manager, CEC



October 6, 2026 (Revised October 7, 2026)
F110980.00

Palmer Township
3 Weller Place
P.O. Box 3039
Palmer, PA 18043

Attn: Mr. Craig S. Beavers, AICP Candidate, CFM, CZO – Director of Planning (via email)

Re: Geotechnical Review, Final Land Development Plan – Chick-fil-A
601 South 25th Street
Palmer Township, PA

Dear Mr. Beavers:

GAI Construction Monitoring Services, Inc. d/b/a CMT Services Group (CMT) has prepared this letter with respect to our review of documents related to the Chick-Fil-A development. We have provided this review at your request in accordance with our revised "Geotechnical Consulting Services" proposal and agreement dated August 18, 2011. Palmer Township provided the following documents for review:

- "Preliminary / Final Major Site Plan", Sheets 1 through 24 of 24, prepared by Colliers Engineering & Design (Colliers), dated 10/07/25, last revised 09/01/26.
- "PCSM Report", prepared by Colliers, dated June 30, 2026, last revised September 4, 2026.
- "Karst Hazard Evaluation Report", prepared by Colliers, dated July 7, 2026, no revisions.

CMT offers the following comments:

- The comments contained in our previous review letters have been satisfactorily addressed.
- We have no further comments.

CMT has attempted to prepare this letter using the degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical professionals with experience in this geographical area under similar soil conditions. We offer no other warranty, either expressed or implied as to the conclusions and recommendations contained in this letter.

If you have any questions or require additional information, please contact Shawn Casey, P.E. at 610.731.0430, 610.507.5879 (cell), or s.casey@cmtservicesgroup.com.

Sincerely,
CMT Services Group



Shawn Casey, P.E.
Engineering Technical Manager

SC:sc

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

October 5, 2026

File No. 2500614

Craig Beavers, AICP, CFM, CZO, Director of Planning
Palmer Township
3 Weller Place
Palmer, PA 18045

Reference: Chick-fil-A (601 S. 25th Street – Drive Thru Restaurant) – Preliminary/Final Major Site Plan
Landscape and Exterior Site Lighting Review

Dear Craig:

As requested, Gilmore & Associates, Inc. has reviewed the documents listed below with regard to the Preliminary/Final Major Site Plan referenced above:

A. Land Development Plans prepared by Colliers Engineering & Design, dated 10/07/25, most recently revised 09/01/26:

- Sheets L 1, L 2, ES 1, and ES 2

Landscape Review:

Zoning Ordinance §190:

603.H.3 – Any lot that would include more than 30 parking spaces shall be required to provide landscaped areas within the paved area. This required landscaped area shall be equal to a minimum of 5% of the total paved area. It is noted that the compliance chart provided on Sheet L 1 now provides a breakdown of areas, however it appears that the areas may be incorrect. It appears that the "total paved area" includes all paved surfaces, including drive-thru lanes. The area should only include the paved area associated with parking (spaces plus drive aisles), and the required 5% landscaped areas shall be "within" that area (not surrounding or adjacent to). Calculation shall be revised.

General Comment:

1. It is noted that Quercus macrocarpa (Bur Oak) is proposed within parking areas. This tree is known for having large size and quantity acorns, which would be a potential maintenance and safety concern. It is recommended that an alternative tree species be selected.

Exterior Site Lighting Review:

Subdivision and Land Development Ordinance §165:

70.A. – The developer shall be required to provide streetlights when the Board of Supervisors, upon the recommendation of the Planning Commission, deems them necessary to provide safe traffic or pedestrian circulation. There does not appear to be any lighting provided for the pedestrian crosswalk at the intersection of the access drive and William Penn Highway. It is recommended that lighting be provided for pedestrian safety.

If you have any questions regarding the above, please contact this office.

Sincerely,



Christopher E. Green, R.L.A., LEED AP
Senior Landscape Architect
Gilmore & Associates, Inc.

cc: Michael Schwartz, P.E. – Municipal Services Manger – Gilmore & Associates, Inc.
Sean Policelli, P.E., Project Manager – Gilmore & Associates, Inc.
Justine Caiazzo-Strouse – Palmer Township

ENTECH ENGINEERING

October 1, 2026

Entech No. 4660.052

Mr. Craig Beavers
Director of Planning
Palmer Township
3500 Hartley Avenue
Palmer, PA 18045-3780

Sent Via Email: cbeavers@palmertwp.com

Re: Chick-Fil-A Store 5969, 601 South 25th Street, Easton PA
Review Letter No. 3

Dear Mr. Beavers:

As requested, Entech Engineering, Inc. (Entech) has reviewed the plans for the above-referenced project. The plans were dated September 1st, 2026, titled "Preliminary/Final Major Site Plan for Chick Fil A 601 South 25th Street, Easton PA", consisted of 24 sheets, and were prepared by Colliers Engineering. Our review of these plans was for the sanitary sewer system only and did not cover other aspects of the plan. Our comments are as follows:

General Comments:

- Several details shown on the submitted plans reference additional details that are not included within the plan set. Please revise the plans to include the referenced details necessary to clearly define the proposed construction.
    - Sheet C-7: Typical Manhole Detail references "Frame and Cover Detail". Refer to standard detail provided in attachments.
    - Sheet C-9: Detail 36 references "Sanitary Sewer Cleanout in Paved Areas".
    - Sheet C-9: Sanitary Sewer Lateral and Cleanout Detail references "Cleanout Protection Box Detail". Refer to standard detail provided in attachments.
- Please revise the plans to incorporate the following additional details:
    - S-3: Lateral Notes
    - S-14: Cast Iron Cleanout Frame and Cover
    - S-17: Manhole Base Channel Configuration

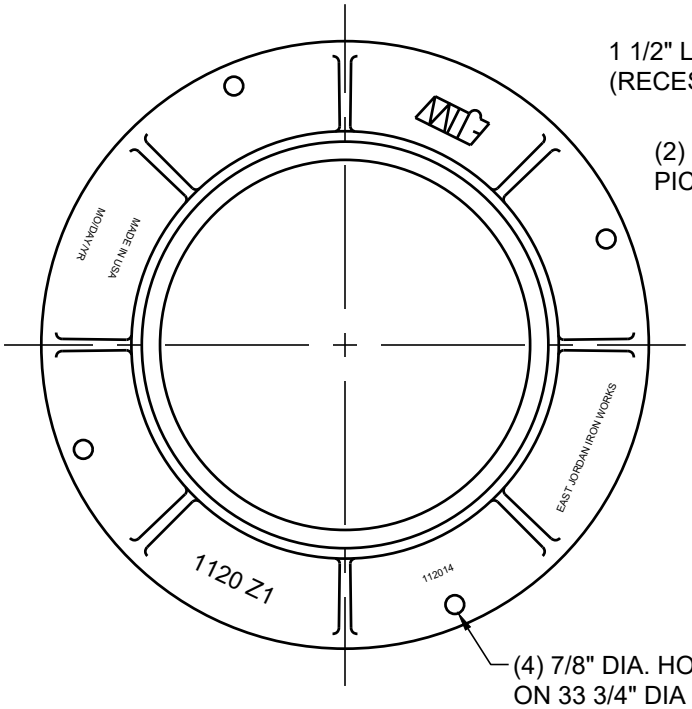
If you have any questions or require additional information, please feel free to give us a call.

Sincerely,

Mary B. Peters, PE
Senior Project Manager

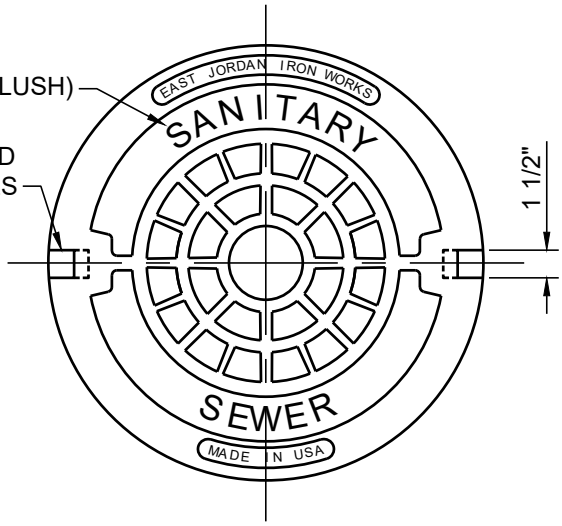
Shaun Whetstone
Engineering Designer

Attachments: Frame and Cover Detail
Cleanout Box Detail
Lateral Notes
Cast Iron Cleanout Frame and Cover
Manhole Base Channel Configuration



(4) 7/8" DIA. HOLES
ON 33 3/4" DIA B.C.

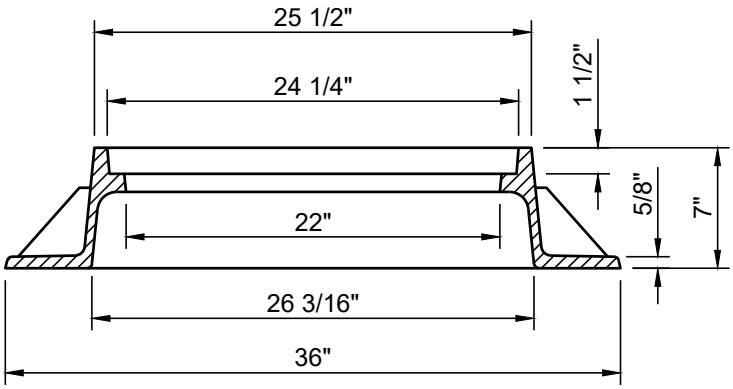
FRAME PLAN



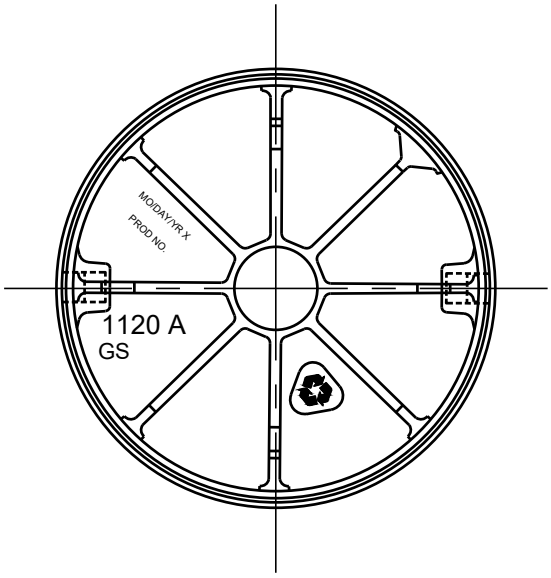
1 1/2" LETTER
(RECESSED FLUSH)

(2) CLOSED
PICKHOLES

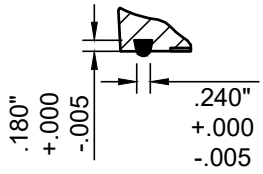
COVER TOP PLAN



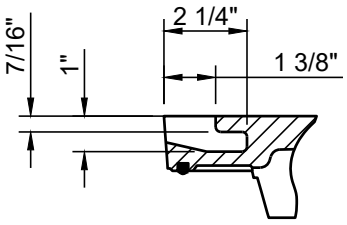
FRAME SECTION



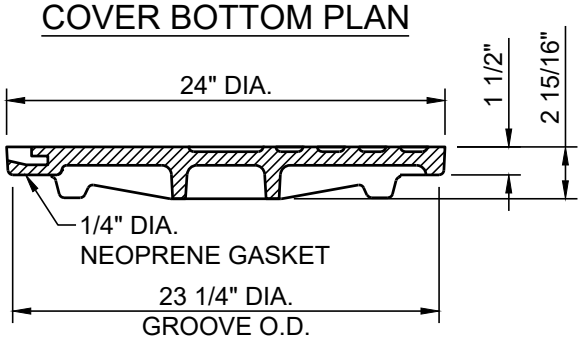
COVER BOTTOM PLAN



GROOVE DETAIL



PICKHOLE DETAIL



COVER SECTION

CAST IRON STANDARD MANHOLE FRAME & COVER

1

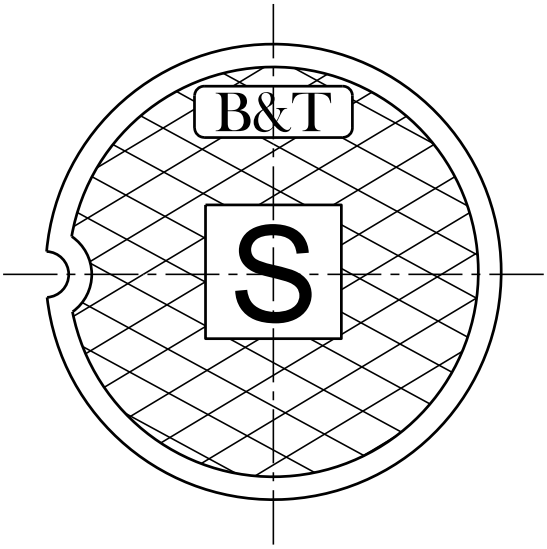
SCALE: NONE

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com

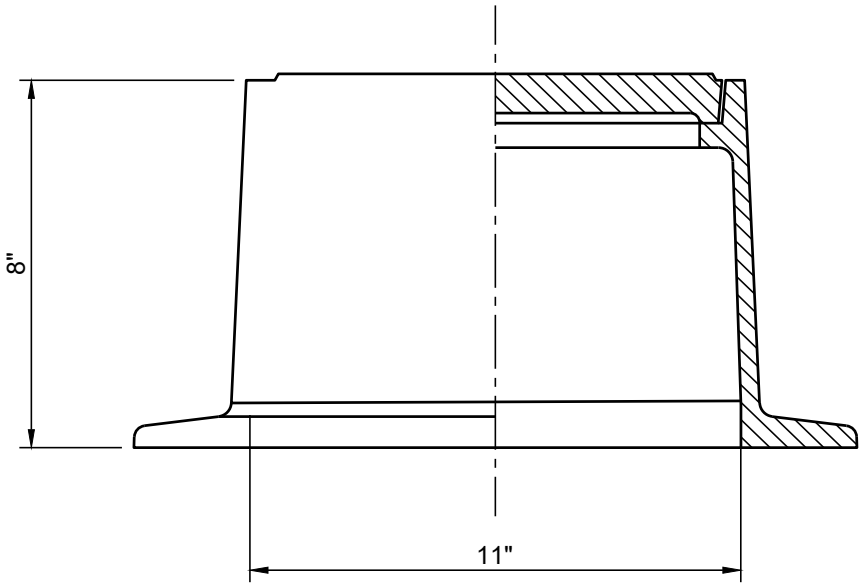
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA, 18045

CAST IRON STANDARD MANHOLE
FRAME & COVER

DATE: MAR 2025	SCALE: AS NOTED
PREPARED BY: EDM	PROJECT NO. 4660.036
CHECKED BY: --	DRAWING NO. S-15
APPROVED BY: --	



PLAN



SECTION

NOTES:

1. CLEAN BOX AS PER BINGHAM & TAYLOR OR EQUAL.
2. STYLE SHOWN IS B&T 1975LS - THIS MODEL HAS AN "S" IN THE COVER FOR SEWER.

X **CLEANOUT BOX**

Scale: NONE

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com

PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA, 18045

CLEANOUT BOX

DATE: MAR 2025	SCALE: AS NOTED
PREPARED BY: EDM	PROJECT NO. 4660.036
CHECKED BY: --	DRAWING NO. S-49
APPROVED BY: --	

LATERAL NOTES:

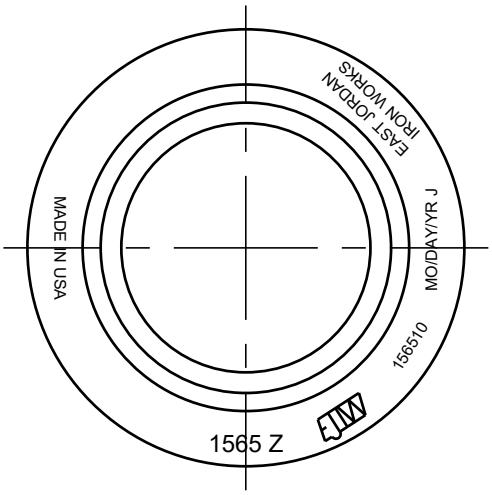
1. ALL MATERIAL USED FOR LATERAL INSTALLATIONS SHALL BE NEW, FREE FROM DEFECTS AND CONFORM TO ALL STANDARDS SET FORTH BY THE TOWNSHIP.

2. ALL LATERALS MUST BE INSPECTED BEFORE BACKFILLING. COMPLETED DRAWINGS SHOWING THE EXACT LOCATION AND DEPTH OF LINE SHALL BE SUBMITTED TO THE TOWNSHIP DURING FINAL INSPECTION OR THE LATERAL WILL NOT BE AUTHORIZED TO USE.

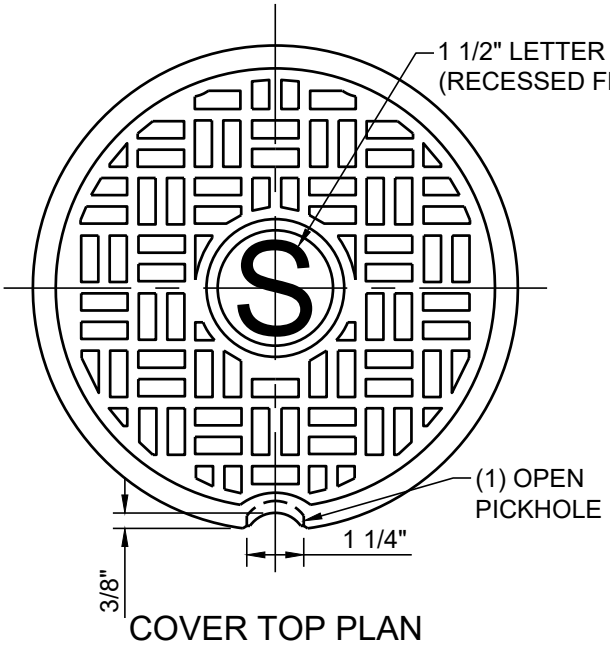
3. ALL FEES MUST BE PAID IN PROPER AMOUNT BEFORE A CONNECTION PERMIT WILL BE ISSUED.

MATERIAL ALLOWED BY TOWNSHIP FOR BUILDING GRAVITY AND LOW PRESSURE SEWERS

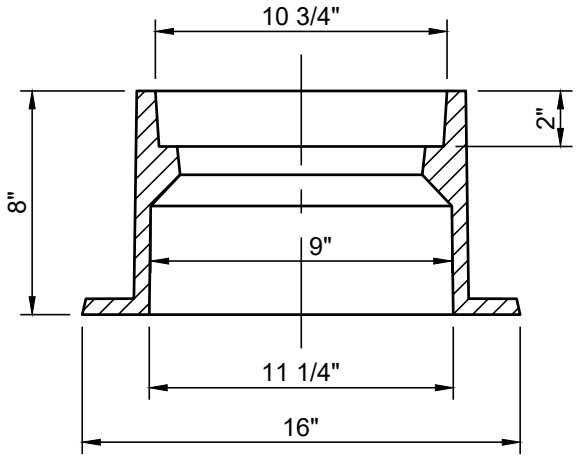
1. GRAVITY BUILDING SEWER: SCH 80 PVC, MINIMUM DIAMETER 4 INCH.
2. GRAVITY SEWER LATERAL: SDR 26 PVC, MINIMUM DIAMETER 6 INCH.
3. GRAVITY SEWER MAIN: SDR 26 PVC, MINIMUM DIAMETER 8 INCH.
4. MINIMUM SLOPE FOR GRAVITY SEWERS AND LATERALS:
   a. 4 INCH BUILDING SEWER: 2% (1/4 INCH PER FOOT).
   b. 6 INCH LATERAL: 1.0% (1/8 INCH PER FOOT).
   c. 8 INCH MAIN: 0.4%.
5. LOW PRESSURE SEWER MAIN: DR 11 HDPE, MINIMUM DIAMETER 1-1/4 INCH.
6. LOW PRESSURE SEWER LATERAL: DR11 HDPE, DIAMETER 1-1/4 INCH UNLESS SPECIAL APPROVAL PROVIDED BY TOWNSHIP.



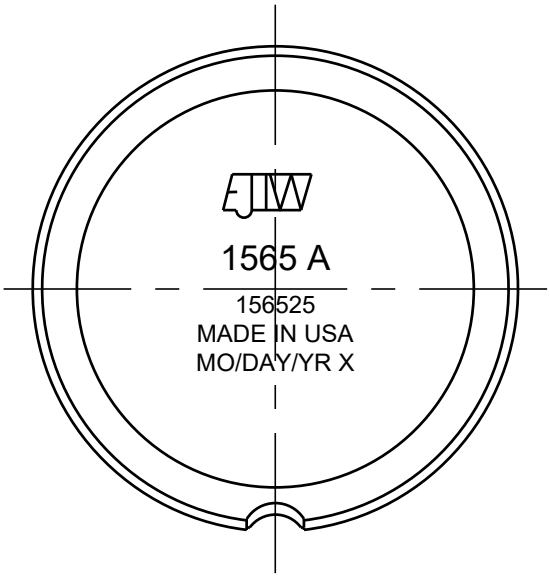
FRAME PLAN



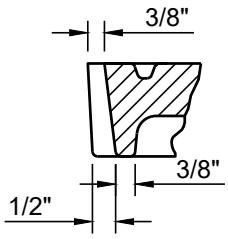
COVER TOP PLAN



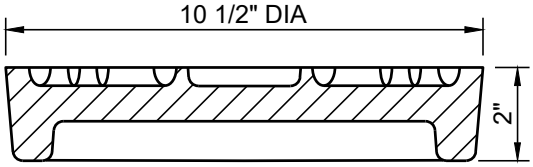
FRAME SECTION



COVER BOTTOM PLAN



PICK HOLE DETAIL



COVER SECTION

1

CAST IRON CLEANOUT FRAME & COVER

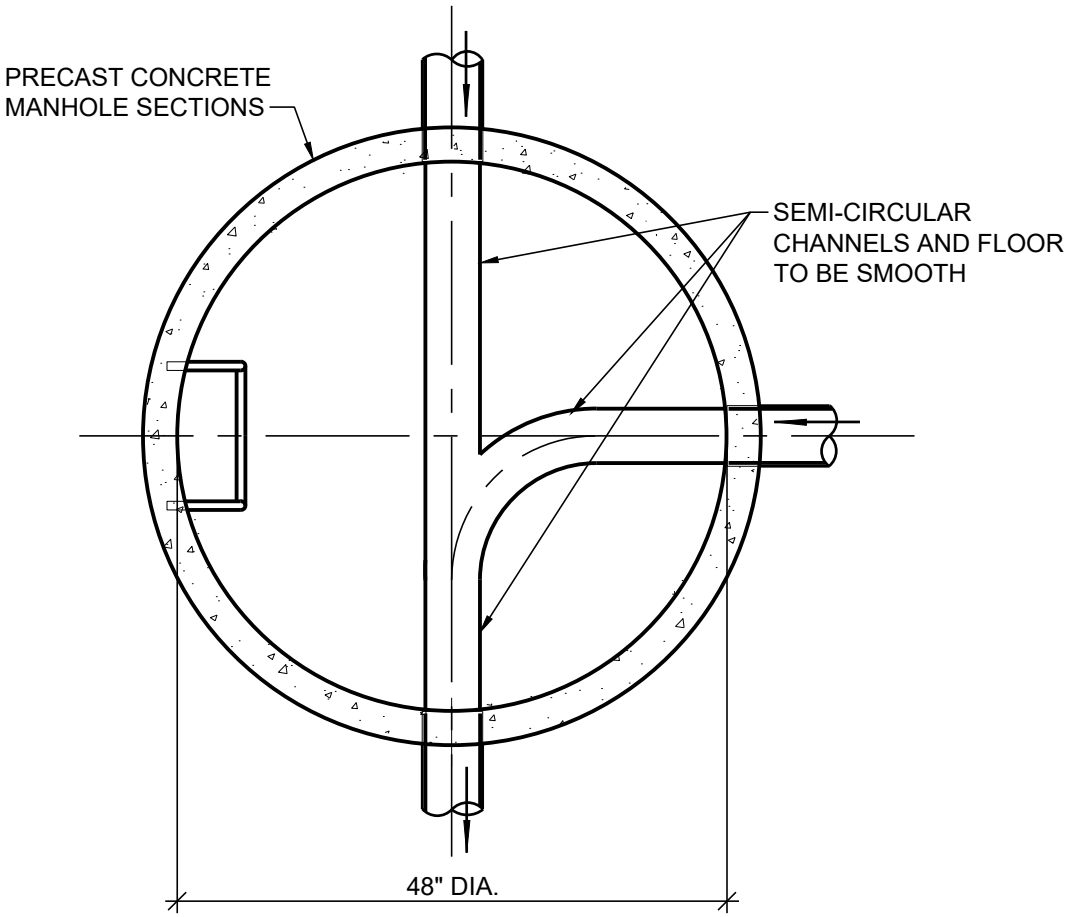
SCALE: NONE

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com

PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA, 18045

CAST IRON CLEANOUT FRAME AND COVER

DATE: MAR 2025	SCALE: AS NOTED
PREPARED BY: EDM	PROJECT NO. 4660.036
CHECKED BY: --	DRAWING NO. S-14
APPROVED BY: --	



NOTE:

1. ALL FLOW CHANNELS SHALL BE PRE-CAST BY MANUFACTURER UNLESS AUTHORIZED BY ENGINEER/TOWNSHIP.

MANHOLE BASE TYPICAL CHANNEL CONFIGURATION

1

SCALE: NONE

TOWNSHIP OF PALMER
NORTHAMPTON COUNTY, PENNSYLVANIA
3 Weller Place, Palmer Township, PA 18045

October 7, 2026

Chick-fil-A Inc.
c/o Kim Wyatt
5200 Buffington Road
Atlanta, GA 30349

(via e-mail only)

Re: SALD-2025-13: Chick-fil-A (601 South 25th Street)
Preliminary/Final Land Development Plan – Third Submission
Plan Dated September 1, 2026

Community Development Department Review

Dear Ms. Wyatt:

On behalf of the Community Development Department ("Department"), I have reviewed the preliminary/final plan titled "Preliminary/Final Major Site Plan for Chick-fil-A" prepared by Colliers Engineering & Design dated October 7, 2025, last revised September 1, 2026. The plan proposes to demolish an existing Rite-Aid facility and construct a fast-food restaurant with a drive through and associated site improvements.

This letter is to report non-engineering-related comments to be addressed, in addition to the review letters of the Township Staff and Consultants. These comments are made with the understanding that all features are accurately displayed on the submitted plans and that they comply with all current laws and regulations. Other comments may be added as additional information becomes available or if the information should change.

Subdivision and Land Development Ordinance

1. The following elements of the Subdivision and Land Development Ordinance shall be considered or addressed by the Applicant:
    a. *SALDO §165-46: Development agreement.*
        i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall enter into a Development Agreement for the project, which shall be drafted by the Township Solicitor after all plan conditions, cost estimates, and form of financial security are approved.
    b. *SALDO §165-47: Performance guaranty.*

i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall provide a form of financial security based off of the approved cost estimate, and the financial security shall be approved by the Township Solicitor prior to acceptance.

c. SALDO §165-52: Recording of final plan.

i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall provide signed copies of the approved plans for recording prior to commencing work. Please refer to the *Procedures for Post-Approval* and *Procedures for Plan Recording* handouts for additional details.

d. SALDO §165-59.G(1): Easements.

i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall provide Easement Agreements to the Township, which must be approved by the Township Solicitor. All easements shall include written legal descriptions, exhibits, and closure calculations, which must be approved by the Township Solicitor. The Township will record the agreements in the Northampton County Recorder of Deed's office.

e. SALDO §165-62: Recreation land, open space and fee requirements.

i. The dedication of open space, or payment of fees in lieu of, shall be required prior to plan recording. If the Applicant wishes to provide a recreation fee, the amount would be $5,500 per total lot acre. Therefore, the fee would be $9,570 (1.74 acres).

Zoning Ordinance

1. An official zoning review will be provided by the Township Zoning Officer at the time of filing for a Zoning and/or Building Permit; the following comments are provided for the applicant's awareness. The Township Zoning Officer shall make all final determinations regarding zoning compliance.
2. All conditions of the Palmer Township Zoning Hearing Board's variance approval shall be complied with, per the decision letter dated October 28, 2025.
3. The proposed restaurant use is located in both the GC General Commercial zoning district and WPH William Penn Highway overlay district. The proposed use is permitted by right.

1. The following elements of the Zoning Ordinance shall be considered or addressed by the Applicant:

a. ZO § 190-111: Zoning permits.

i. The Applicant shall apply for and receive a zoning permit from the Township Zoning Officer prior to commencing work on the site.

b. *ZO § 190-113: Occupancy permits.*

i. The Applicant shall apply for and receive a certificate of occupancy from the Township Zoning Officer and Building Code Official prior to occupying the building.

c. ZO §190-513.L: Signs

i. The Applicant shall ensure all signs, whether or not submitted with the land development plans, will comply with this section, as well as *ZO Article VII: Signs,* at the time of Zoning Permit application.

Stormwater Management Ordinance

1. An official stormwater management review will be provided by the Township Engineer, Township Geotechnical Engineer, and Director of Stormwater and MS4. All stormwater items, including those from the Lehigh Valley Planning Commission, Northampton County Conservation District, and Pennsylvania Department of Environmental Protection, shall be addressed prior to plan recording.
2. The Applicant shall provide an Operations and Maintenance Plan and enter into a Stormwater Management Operations and Maintenance Agreement, which shall be drafted and approved by the Township Solicitor.

Plan Notations

1. Land Development Set – Sheet C-8
    a. The "Welcome Wall Sign" should be changed from "West Easton" to "Palmer Township".

Waiver and Deferral Request

1. The Applicant requests the following modifications and waivers as a part of this application:
    a. SALDO § 165-36.A(2) – (Separate Preliminary/Final Plan Review). Combined preliminary/final review proposed.
    b. SWMO § 153-305.C(19) – (Pipe Velocity). **Pipe flow velocities of less than 2.5 feet per second proposed.**
2. The criteria for granting modifications, waivers, and deferrals from Chapter 165 Subdivision and Land Development are as follows:

    § 165-7.B Modifications and exceptions. The Planning Commission shall be given an opportunity to make a recommendation on the matter at a legally advertised meeting. The Board of Supervisors may, by written resolution, grant a waiver or modification concerning a specific provision(s) of this ordinance if the applicant proves that the request meets one or more of the following conditions:

    a. Will avoid an undue hardship that was not self-created and that results from the peculiar and uncommon characteristics of the property.

b. Will avoid a clearly unreasonable requirement that would not serve any valid public purpose in this situation.

c. Will allow an alternative standard that is clearly proven by the applicant to provide equal or better results.

d. Will allow a layout of improvements that would clearly be more in the public interest than what would occur if the modification would not be granted.

e. Will remove a requirement that is not applicable, especially because of the small size of the proposed project.

3. The Department is not opposed to these requests.

Public Works and Utilities

1. The applicant is to obtain Northampton County Conservation District approval for an Erosion and Sediment Control Plan for this project.
2. The Applicant shall provide payment for Tapping Fees prior to Building Permit issuance.

Outside Agency Approvals

1. The Applicant shall comply with the comments of the Pennsylvania Department of Transportation (PennDOT) regarding site access from William Penn Highway and South 25th Street.
2. The Applicant shall apply for and obtain any applicable Township permits related to the project prior to commencement of any construction on the site.

Palmer Township Comprehensive Plan

1. The 2018 Comprehensive Plan, Tomorrow's Palmer, is the Township's adopted policy for the future of the community. Tomorrow's Palmer envisions the tract within a Non-Residential Land Use Type, which promotes mixed-use redevelopment as a gateway into the township.
2. The project site is zoned GC General Commercial as well as WPH William Penn Highway Overlay.
3. The purpose of the GC District is to provide for the orderly, integrated development of those uses necessary to meet the community and regional needs for general goods and services, as well as those of a social, cultural and civic nature; and to exclude uses not compatible with such activities. This district is intended to ensure well-planned and well-designed uses while ensuring adequate circulation, access control, and open space and unified and organized arrangement of buildings, service and parking areas.
4. The purpose of the WPH Overlay District is to manage growth and development along William Penn Highway and create a safe and visually unified streetscape. The overlay district

aims to facilitate the development of a safe and viable corridor that links a variety of uses through streetscape amenities, design standards, and coordinated signage.

5. The proposed restaurant is consistent with the following Comprehensive Plan goals:

    a. *A.2: Establish policies that support fiscally marketable redevelopment and re-use of previously developed sites*

        1. The proposed restaurant will demolish and redevelop the site formerly home to Rite-Aid, which shuttered all locations earlier this year. This will provide a new business in the Township and redevelop a site that could become blighted if not redeveloped. Therefore, this project complies with this goal.

    b. *A.3: Support well planned and compatible land uses that are concurrent with infrastructure availability, environmental sensitivities, and surrounding density patterns*

        1. The proposed restaurant is on a site with existing infrastructure for water, sanitary sewer, and other utility hook-ups. Therefore, this project complies with this goal.

    c. *B.1: Safeguard the community's established, business-friendly atmosphere.*

        1. The proposed restaurant would result in the creation of a new businesses in Palmer Township. This supports the Township's goal of encouraging business development. Therefore, this project complies with this goal.

    d. *B.2: Encourage compatibility of established development within the Township and new entrepreneurial efforts.*

        1. The proposed restaurant would expand upon the existing office and commercial development occurring within the Palmer Town Center complex, expanding the vibrancy of the nearby business community. Therefore, this project complies with this goal.

    e. *C.3: Improve transit ridership convenience and safety between areas of employment, shopping, neighborhoods, and transit stops*

        1. The proposed restaurant is located along a major corridor within Palmer Township with several key destinations. The area is currently served by LANTA's Enhanced Bus Service Blue Line route, which provides cross-valley connections between Trexlertown and Easton every 30 minutes, with a future goal of having even more frequent rapid transit. The plans show a 30' wide ADA-accessible landing pad at the property frontage, as well as a 10' wide area for a future bus shelter, as requested by LANTA. The Applicant is highly commended for including this within the plans, which will not only greatly benefit potential customers who wish to access the site, but all transit users in the Lehigh Valley. Therefore, this project complies with this goal.

    f. *F.2: Reinforce the significance of the community's multiple civic centers or hubs as destinations for recreation, community gathering, and commerce.*

1. The proposed restaurant would support the existing commercial center at Palmer Town Center, reinforcing this area as an important hub in Palmer Township. Therefore, this project complies with this goal.

g. F.3: Establish a sense of arrival when entering Palmer Township

1. The proposed restaurant is one of the first major parcels one sees when entering Palmer Township heading westbound. The Applicant is proposing a "Welcome to Palmer Sign" as well as enhanced landscaping and lighting, providing an appropriate welcoming entrance to the Township. Therefore, this project would comply with this goal.

h. F.5: Align development with accessible infrastructure service.

1. The proposed restaurant is on a site with existing infrastructure for water, sanitary sewer, and other utility hook-ups. Therefore, this project complies with this goal.

2. The proposed restaurant is not consistent with the following Comprehensive Plan goals:

a. C.1: Identify and address pedestrian safety needs, congestion, traffic flow challenges and safety concerns where they exist

1. The proposed restaurant proposes to construct a sidewalk connection along 25th Street to access the site, which partially supports this goal to improve pedestrian access to the site. However, there is no proposed pedestrian connection from William Penn Highway, where the majority of pedestrian traffic for the site is likely to be, based on proximity to transit, the Palmer Bikeway, Easton Area High School, and other uses along the corridor. In order to comply with this goal, the Applicant is advised to install a pedestrian connection from William Penn Highway to the site.

1. We acknowledge that the Applicant cannot install improvements on an adjacent property not under their ownership, so no off-side sidewalk is being requested. However, we recommend on-site exploration for a potential sidewalk or staircase form WPH to the site if possible.

3. The proposed restaurant is either nonapplicable or negligible to the other goals.

Palmer Township Active Transportation Plan

1. The goal of the 2025 Active Transportation Plan (ATP) is to identify opportunities to improve the pedestrian, bicycle, and transit network throughout the Township to promote active and healthier lifestyles (pg. 8).

2. The proposed restaurant will involve modifications adjacent to the site to promote safer access to this site, including installing a LANTA EBS bus-rapid transit stop, installing bicycle racks, and adding a pedestrian connection along 25th Street. While the Department would also recommend installing a pedestrian connection somewhere along William Penn Highway, the project overall complies with the goals of the Active Transportation Plan.

Palmer Township Municipal Climate Action Plan

1. The 2024 Municipal Climate Action Plan (MCAP) is the Township's roadmap to achieve a sustainable future for the Township (pg. 4).
2. The MCAP encourages projects to incorporate sustainability in all new projects (pg. 5). Therefore, we provide the following comments for consideration for the project:
    a. The Applicant should consider Bird-Friendly Design strategies in the construction of the building. Birds do not perceive glass while in flight, which is either transparent or reflective depending on lighting and glass type. When windows in a building align with one another, birds see habitat on the far side and try to fly through to it, and when the interior of buildings are darker than the outside environment, the glass reflects habitat like open sky, trees, or ledges. In both cases birds often hit windows with fatal force. We recommend the use of glass and other reflective building materials which are experimentally shown to reduce the incidence of bird strikes ("bird-friendly glass"). Numerous options exist for designing and constructing bird-safe buildings, many of which are cost-neutral.
    b. The Applicant should utilize sustainable building materials and energy efficiency measures beyond the building code where possible, such as passive solar design features, advanced lighting controls, high efficiency HVAC equipment, increased insulation, water conservation, and indoor air quality measures. New construction projects provide opportunities to employ energy saving strategies that will lower energy costs and at the same time reduce pollution from traditional energy sources.

Palmer Township Complete Streets Policy

1. The 2025 Complete Streets Policy (Policy) aims to promote a complete, interconnected transportation network that serves the needs of all residents and visitors regardless of age, ability, or mode of travel (pg. 1).
2. As directed by the Policy, the Township shall examine all land developments for recommendations to incorporate Complete Streets design recommendations to ensure "safe, environmentally healthy, economically sound, fair, accessible, and convenient travel along, and across, streets and roadway networks" (pg. 2).
3. We provide the following comments for consideration into the project to meet the goals of the Policy:
    a. The Applicant is commended for the inclusion of a LANTA landing pad and loading area. This promotes LANTA's vision for the future build-out of the EBS Blue Line bus rapid transit service, which will provide high-frequency bus service between Easton and Trexlertown.
    b. The Applicant is commended for the inclusion of a bike rack on the site, which promotes multi-modal access to the site.

Your plan is scheduled to be reviewed by the Planning Commission on Tuesday, October 13, 2026 at 7:00 p.m. in the Public Meeting Room of the Township Municipal Building located at 3 Weller Place, Lower Level, Palmer Township, PA 18045.

If you have any questions, please feel free to reach out.

Sincerely,

Craig Beavers

Craig S. Beavers, AICP
Director of Community Development
Palmer Township, Northampton County

PALMER TOWNSHIP
PLAN REVIEW COMMENT FORM

Project Information

Project Address: 601 South 25th Street

Project Name: Chick-fil-A (SALD-2025-13)

Submission Date: September 8, 2026

Plan Type: Preliminary/Final Land Development - 3rd Submission - Plan Dated 9/1/2026

Zoning District: GC General Commercial & WPH William Penn Highway Overlay

Applicant's Name: Chick-fil-A (c/o Kim Wyatt)

Fire Commissioner / Palmer Municipal Fire Department Comments *(attach additional pages as needed)*

Comments related to fire hydrants or other fire prevention measures:

New hydrant location not approved. Proposed hydrant to be as approved on the July 2026 submission. Proposing the hydrant on S. 25th Street will prevent access by any vehicles in the drive-thru line.

Comments related to emergency access, truck turning or other site considerations:

Approved

Comments related to Township Fire Prevention Ordinance or IFC Regulations:

Knox Box shall be installed and location coordinated with the Fire Commissioner

Other Comments:

All other comments have been addressed.

☐ Check here for: "No comments at this time."

☐ Check here for: "All comments have been addressed at this time."

Signature: Stephen Gallagher Date: 10/6/2026

PALMER TOWNSHIP
PLAN REVIEW COMMENT FORM

Project Information

Project Address: 601 South 25th Street

Project Name: Chick-fil-A (SALD-2025-13)

Submission Date: October 1, 2026

Plan Type: Preliminary/Final Land Development - 3rd Submission - Plan Dated 9/1/2026

Zoning District: GC General Commercial & WPH William Penn Highway Overlay

Applicant's Name: Chick-fil-A (c/o Kim Wyatt)

Shade Tree Commission Comments *(attach additional pages as needed)*

Comments related to location and types of shade trees proposed:

Based on the letter from Mr. Riggle dated 09/08/26, the Shade Tree Commission has no further comments.

Comments related to landscaping plan and natural features:

Comments related to impact of existing trees:

Other Comments:

☐ Check here for: "No comments at this time."

☒ Check here for: "All comments have been addressed at this time."

Signature: _____ Date: 10/02/2026

Lehigh Valley Planning Commission

DR. CHRISTOPHER R. AMATO
Chair

CHRISTINA V. MORGAN
Vice Chair

ARMANDO MORITZ-CHAPELLIQUEN
Treasurer

BECKY A. BRADLEY, AICP
Executive Director

Planning for the Future of Lehigh and Northampton Counties at 615 Waterfront Drive, Suite 201, Allentown, PA 18102 ■ (610) 264-4544 ■ lvpc@lvpc.org ■ www.lvpc.org

November 12, 2025

Craig Beavers, Planning Director
Palmer Township
3 Weller Place
Palmer, PA 18045

Re: Chick-Fil-A 601 South 25th Street
Palmer Township
Northampton County

Dear Mr. Beavers,

The application proposes the demolition of an existing single-story building and the construction of a 5,483-square foot fast food restaurant building with associated 65 parking spaces and dual lane drive-thru lanes, located at 601 S 25th Street (Parcel ID M912A0324).

Site Suitability
The proposal supports a core strategy of *FutureLV*: The Regional Plan to 'encourage reuse and redevelopment within urban areas' (Policy 1.1). According to the General Land Use Plan in *FutureLV: The Regional Plan,* this parcel is in a Development area and has most, or all the factors needed to support growth, such as sewer and transportation infrastructure capacity and contiguity to existing development. These areas can accommodate additional development and are appropriate for a variety of uses, including commercial development.

Site Access and Safety
Entry/exit will be from the internal driveway for the shopping center on the western frontage of the property. The proposal includes appropriate pavement markings and signage to direct vehicle circulation around the site, encouraging a safe and efficient transportation network (of Policy 2.2).

There is a proposed a crosswalk across the drive-thru lanes connecting the sidewalk along S 25th Street to the proposed sidewalk and patio associated with the project, which 'promotes safe and secure community design' (of Policy 5.1).

Multimodal Infrastructure
The LVPC recommends that a bicycle rack be included in the development plans. Including parking for bicycles helps to ensure transportation accessibility for all persons, especially for those who rely on public transportation to complete 'last mile' commutes, which removes barriers to employment (of Policies 4.3 and 5.2).

Recognizing the rapidly expanding need for renewable energy sources and the advancement of autonomous and electric vehicle technologies, the LVPC encourages the addition of electric vehicle charging spaces and charging infrastructure to the project site (of Policies 2.5 and 3.2).

Sustainable Systems
The LVPC encourages the developer to consider opportunities for incorporating sustainable energy systems that reduce overhead operational costs and 'minimize environmental impacts of development' (Policy 3.1), such as geothermal energy systems, solar panels and greywater reuse for irrigation and plumbing.

Municipalities, when considering subdivision/land developments, should reasonably attempt to be consistent with *FutureLV: The Regional Plan*, as required by the Pennsylvania Municipalities Planning Code (MPC) [Article 1§105, Article III§303, §304 & §306(a), Article VI§603(j)]. The LVPC review does not include an in-depth examination of plans relative to subdivision design standards or ordinance requirements since these items are covered in the municipal review.

Sincerely,



Mary Grace Collins
LVPC Community Fellow

cc:
Kim Wyatt, Chick-Fil-A Inc, Applicant;
Chris Riggle, Colliers Engineering & Design, Project Engineer/Surveyor;
Justin Coyle, Township/Borough Engineer;

Craig Beavers

From: Molly Wood <mwood@lantabus-pa.gov>
Sent: Wednesday, October 22, 2025 12:12 PM
To: Craig Beavers
Cc: AJ Knee
Subject: LANTA Comments to Chick-Fil-A at William Penn and 25th_10.22.25

Caution! This message was sent from outside your organization. Report

Craig,

The Lehigh and Northampton Transportation Authority (LANTA) has reviewed the submitted Site Plan for the proposed Chick-fil-A project located at 601 S 25th Street in Palmer Township, and offers the following comments.

LANTA provides fixed-route public transportation in the immediate vicinity of the project site, with an Enhanced Bus Service (EBS) Blue Line route serving eastbound and westbound, respectively, on William Penn Highway at the S 25th Street intersection. The existing eastbound EBS bus stop ID 1411 on William Penn Highway is currently located farside of the S 25th Street intersection in Wilson Borough. LANTA had plans to relocate the eastbound bus stop nearside of the intersection, along the frontage of the project site at the southwest corner of the intersection, to be closer to the adjacent Palmer-Bethlehem Township bike path. This location serves as an ideal opportunity to promote a multimodal mobility hub west of the intersection of William Penn Highway and S 25th Street intersection. There are also concurrent plans for the proposed redevelopment of the Easton Area High School complex, where LANTA plans to also relocate the westbound EBS bus stop in conjunction with the Palmer-Bethlehem Township bike path. In addition, the proposed multimodal mobility hub aligns with the Township's upcoming TASA application for the William Penn Highway Trail Crossing at this location.

LANTA had previously coordinated with Palmer Township and the project engineer Colliers Engineering to review and discuss LANTA's bus stop standards to consider at the relocated eastbound EBS stop along the project site on William Penn Highway. Upon reviewing the submitted Site Plan, LANTA appreciated all efforts to include a 30' concrete pad in conjunction with the existing sidewalk, for a full accessible bus stop landing pad for future EBS transit infrastructure through capital funds. The plan also included a 10x6 concrete pad fronting the sidewalk for a future bus shelter at the eastbound EBS stop. Given the current ridership at this significant intersection and the expected increase in EBS ridership, the proposed bus stop improvements will significantly benefit all transit users and pedestrians in the vicinity.

LANTA recommends follow up with Molly Wood at mwood@lantabus-pa.gov to discuss any additional bus stop location and details.

Thank you,
Molly

Molly S. Wood, AICP
Planner/Land Use Specialist
Lehigh and Northampton Transportation Authority

1060 Lehigh Street, Allentown, PA 18103
PH: 610-439-1376
mwood@lantabus-pa.gov
www.lantabus.com

From: Craig Beavers <CBeavers@palmertwp.com>
Sent: Monday, September 15, 2025 8:45 AM
To: Molly Wood <mwood@lantabus-pa.gov>
Cc: Robert Williams <rwilliams@palmertwp.com>; Brenda DeGerolamo <BDeGerolamo@PalmerTwp.com>; Julie Klabunde <JKlabunde@palmertwp.com>; Justine Caiazzo-Strouse <JCaiazzo-Strouse@palmertwp.com>; woetinger@grimlaw.com; Erik Allgood <eallgood@grimlaw.com>; jcoyle@carrollengineering.com; Dan Wilusz <dwilusz@carrollengineering.com>; AJ Jordan <ajordan@lantabus-pa.gov>
Subject: Request for Review: Sketch Plan - Easton Area High School

Warning! This email has been received from an external domain. Do not click any links or open any attachments unless you are expecting such a message with an attachment from this sender. Original Message:
Good morning Molly,

We respectfully request your review of the Sketch Plan submission for the above-mentioned project. This is the redevelopment of the Easton Area High School, consisting of demolition of the old school, construction of a new school, and new athletic fields and campus improvements.

The plans can be found in the SharePoint folder below:

Easton Area High School (Sketch Plan)

Please provide comments no later than **Tuesday, October 7, 2025.**

If you have any questions, please let us know.

Best,
Craig

Craig Beavers, AICP Candidate, CFM, CZO
Director of Planning
Department of Planning | Palmer Township
3 Weller Place
Palmer Township, PA 18045
610-253-7191 x1122 (office)
610-871-1924 (direct)
CBeavers@palmertwp.com

American Planning Association
Pennsylvania Chapter
Lehigh Valley-Berks Section

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INDEX OF SHEETS

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C 2	SITE PLAN
C 3	GRADING AND DRAINAGE PLAN
C 3A	ADA PLAN
C 4	CONSTRUCTION DETAILS
C 5	CONSTRUCTION DETAILS
C 6	CONSTRUCTION DETAILS
C 7	CONSTRUCTION DETAILS
C 8	CONSTRUCTION DETAILS
C 9	CONSTRUCTION DETAILS
C10	PCSM PLAN
C11	PCSM NOTES AND DETAILS
C12	PCSM DETAILS
C 13	SOIL EROSION PLAN
C 14	SOIL EROSION NOTES AND DETAILS
L 1	LANDSCAPE PLAN
L 2	LANDSCAPE DETAILS
ES 1	LIGHTING PLAN
ES 2	LIGHTING DETAILS
PS 1	UTILITY PLAN
CP	TRUCK CIRCULATION PLAN
CE	CAR STACK EXHIBIT

PLAN PREPARER'S STATEMENT

I, MICHAEL JOSEPH ENNIS, A PROFESSIONAL SURVEYOR OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE PLAN, PREPARED FROM A FIELD SURVEY BY COLLIERS ENGINEERING & DESIGN, CORRECTLY REPRESENTS THE PROJECT BOUNDARY OF THIS SUBDIVISION AND/OR LAND DEVELOPMENT.

DATE

MICHAEL JOSEPH ENNIS
PENNSYLVANIA PROFESSIONAL LAND SURVEYOR
LICENSE NUMBER SU075163

CERTIFICATE OF OWNERSHIP

WE, THE OWNERS OF THE LAND INVOLVING THE ACCOMPANYING PLANS, BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY WE ARE THE SOLE OWNERS OR ARE THE AUTHORIZED OFFICERS OF THE CORPORATION THAT IS THE OWNERS OF THIS PROPERTY IN PEACEFUL POSSESSION OF IT, AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF SAME, AND THAT WE ACKNOWLEDGE AND ENDORSE THE ACCOMPANYING PLANS, AND THAT ALL IMPROVEMENTS IDENTIFIED AS PROPOSED PUBLIC PROPERTY (NOT INCLUDING IMPROVEMENTS LABELED "NOT FOR DEDICATION") ARE PROPOSED FOR DEDICATION TO THE PUBLIC USE, AND THAT WE PROPOSE THE ATTACHED RECORD PLAN FOR RECORDING (AS APPLICABLE), AFTER RECEIVING ALL REQUIRED MUNICIPAL APPROVALS.

OWNER (OR AUTHORIZED CORPORATE OFFICER) SIGNATURE(S) — DATE

SUBSCRIBED TO AND SWORN BEFORE ME:

NOTARY PUBLIC — DATE

MY COMMISSION EXPIRES: _____

REVIEWED BY THE PALMER TOWNSHIP ENGINEER

TOWNSHIP ENGINEER — DATE

REVIEWED THE LEHIGH VALLEY PLANNING COMMISSION

LVPC STAFF PERSON RESPONSIBLE FOR REVIEW — DATE

REVIEWED THE PALMER TOWNSHIP PLANNING COMMISSION

CHAIRPERSON — DATE

SECRETARY — DATE

APPROVED BY THE PALMER TOWNSHIP BOARD OF SUPERVISORS FOR RECORDING

CHAIRPERSON — DATE

SECRETARY — DATE

RECORDED IN THE NORTHAMPTON COUNTY RECORDER OF DEEDS OFFICE IN VOL. NO._____, PAGE NO._____ ON_____, 20____.

OUTSIDE AGENCY APPROVALS

- LEHIGH VALLEY PLANNING COMMISSION APPROVAL (PENDING)
- PENNDOT HOP PERMIT (PENDING)
- NORTHAMPTON COUNTY CONSERVATION DISTRICT APPROVAL (PENDING)
- EASTON SUBURBAN WATER AUTHORITY APPROVAL (PENDING)
- EASTON AREA JOINT SEWER AUTHORITY APPROVAL (PENDING)
- UGI UTILITIES GAS SERVICE APPROVAL (PENDING)
- FIRST ENERGY MET-ED ELECTRIC SERVICE APPROVAL (PENDING)

20231281564/AE/Engineering/Site Plans/C-COVER.dwg|C 0 TITLE SHEET By: TATT-MILLER

PRELIMINARY / FINAL MAJOR SITE PLAN
FOR

Chick-fil-A®

601 SOUTH 25TH STREET, EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

AERIAL MAP

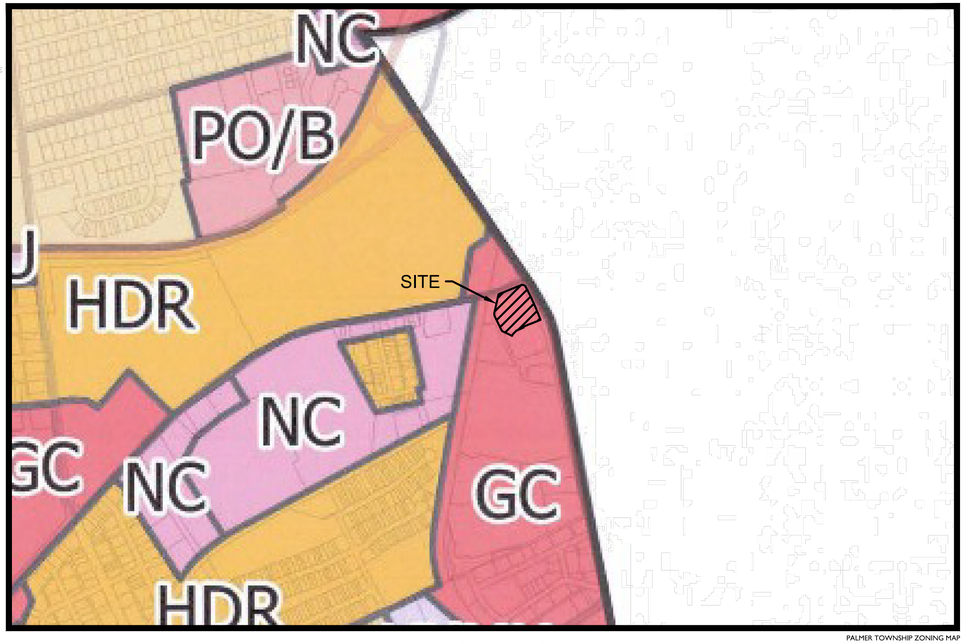


SCALE: 1"=500' (APPROXIMATE) — GOOGLE EARTH

KEY MAP



SCALE: 1"=500' (APPROXIMATE) — GOOGLE MAPS



PALMER TOWNSHIP ZONING MAP

KEY & ZONING MAP

500 0 500 1000

SCALE : 1" = 500'

GENERAL INFORMATION

1. THE SUBJECT PROPERTY IS KNOWN AS PARCEL#M912A0324, PALMER TOWNSHIP, NORTHAMPTON COUNTY, COMMONWEALTH OF PENNSYLVANIA. THE ADDRESS IS 601 SOUTH 25TH STREET EASTON, PA, 18045.
2. THE PROPERTY IS LOCATED IN THE GENERAL COMMERCIAL ZONE DISTRICT AND CONTAINS A TOTAL TRACT AREA OF 75,760 SQ FT SF, 1.74 ACRES.

   OWNER: OCEAN BLOCK CAPITAL
   777 3RD AVENUE, 26TH FLOOR
   NEW YORK, NY 10017
   646-690-9779

   APPLICANT: CHICK-FIL-A
   5200 BUFFINGTON ROAD
   ATLANTA, GA 30349-2298
   404-765-8000
3. THE SUBJECT PROPERTY IS PRESENTLY A DEVELOPED LOT WITH A RITE AID. THE APPLICANT PROPOSES TO CONSTRUCT A CHICK-FIL-A FAST FOOD RESTAURANT WITH A DRIVE-THRU ALONG WITH OTHER ASSOCIATED SITE IMPROVEMENTS.
4. ZONE DATA:
   ZONE: GENERAL COMMERCIAL DISTRICT (GC)
   OVERLAY DISTRICT: WILLIAM PENN HIGHWAY OVERLAY (WPH)
   EXISTING USE: COMMERCIAL RETAIL, PERMITTED
   PROPOSED USE: QUICK SERVE RESTAURANT, PERMITTED/DRIVE-THRU, SPECIAL EXCEPTION

BULK AREA REQUIREMENTS:

* BULK REQUIREMENTS BASED OFF OF WILLIAM PENN HIGHWAY OVERLAY DISTRICT

	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA*	10,000 SF	75,760 SF	75,760 SF
MINIMUM LOT WIDTH	120 FT	166 FT	166 FT
PRINCIPAL BUILDING			
MINIMUM FRONT YARD *	20 FT	94.5 FT	28.0 FT
MINIMUM SIDE YARD *	5 FT	45.7 FT	13.2 FT
MAXIMUM BUILDING HEIGHT *	40 FT	<40 FT	<40 FT
MAXIMUM LOT COVERAGE *	40 %	19.4 %	11.5 %
MAXIMUM IMPERVIOUS COVERAGE *	70 %	80.02 % (60,624 SF) **(E)**	69.37 % (52,551 SF)
PARKING			
PARKING SPACE SIZE	9 FT X 18 FT	9 FT X 18 FT	9 FT X 18 FT
USE: 1 SPACE/2.5 SEATS + 1 SPACE PER EMPLOYEE (114 SEATS / 2.5) + 25 EMPLOYEES = 71 SPACES REQUIRED	71 SPACES	83 SPACES	65 SPACES **(V)**
LOADING: 1 SPACE = 14 FT X 60 FT	1 SPACE	1 SPACE	1 SPACE
ADA:	3 SPACES	4 SPACES	3 SPACES

(E) = EXISTING NON-CONFORMITY
(V) = VARIANCE REQUIRED

5. BOUNDARY SURVEY INFORMATION SHOWN HEREON IS TAKEN FROM A PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY", SHEET 1 OF 1, DATED 06/28/24, PREPARED BY MICHAEL JOSEPH ENNIS, P.L.S. LIC. NO. SU075163 OF PENNSYLVANIA, OF COLLIERS ENGINEERING & DESIGN, INC.
6. THE HORIZONTAL DATUM IS RELATIVE TO THE PENNSYLVANIA NORTH STATE PLANE COORDINATE SYSTEM AND ADJUSTED TO NAD1983. THE VERTICAL DATUM IS RELATIVE TO NAVD 1988.
7. BENCHMARK REFERENCE: #3, ELEVATION: 372.74 FEET NAVD 1988.
8. GEOTECHNICAL INFORMATION AND SOIL TEST PIT LOCATIONS SHOWN HEREON ARE AS PRESENTED IN A REPORT ENTITLED "REPORT OF GEOTECHNICAL EXPLORATION", DATED: 07/03/24, PREPARED BY COLLIERS ENGINEERING & DESIGN, INC.
9. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES, INTERPRETATIONS, CONCLUSIONS OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.
10. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON, IS NOT A SURVEY.
11. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
12. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED, ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR MUNICIPAL ENGINEER.
13. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY, INCLUDING PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING REQUIRED.
14. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL 811 TO REQUEST A UTILITY MARKOUT.

SITE NOTES

1. BUILDING FOOTPRINT DIMENSIONS SHOWN HEREON ARE APPROXIMATE. FINAL BUILDING FOOTPRINT DIMENSIONS FOR EACH BUILDING SHALL BE FURNISHED ON THE INDIVIDUAL ARCHITECTURAL PLANS AT THE TIME OF APPLICATION FOR A BUILDING PERMIT. ALL STRUCTURES SHALL CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS.
2. CURB RAMPS ARE TO BE CONSTRUCTED FLUSH WITH THE FINISHED PAVEMENT SURFACE. ACCESSIBLE CURB RAMPS INSTALLED WITHIN THE PUBLIC RIGHT OF WAY ARE TO HAVE DETECTABLE WARNING SURFACES COMPLIANT WITH FEDERAL ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY.
3. TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. REFUSE AND RECYCLABLES SHALL BE STORED WITHIN OUTSIDE SCREENED TRASH ENCLOSURES AS NOTED ON THE PLANS, AND PICKED UP BY PRIVATE WASTE DISPOSAL HAULER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS IN ACCORDANCE WITH GOVERNING REGULATIONS AND AGENCIES.
6. THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIALS, TREE BRANCHES, STUMPS, OR OTHER DELETERIOUS MATERIALS.
7. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:

   A. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "SPECIFICATIONS PUBLICATION 408", 2020, AS SUPPLEMENTED.
   B. CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
   D. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.

VARIANCES GRANTED ON 10/07/25:

1.) FROM SECTION 190-601.A.1 (TABLE 3) - TO ALLOW FOR THE TOTAL NUMBER OF PARKING SPACES TO BE LESS THAN 71 SPACES (65 SPACES PROPOSED).

2.) FROM SECTION 190-407.E.1. - TO ALLOW FOR A DRIVE-THRU AS A SPECIAL EXCEPTION.

3.) FROM SECTION 190-711.A.3.A - TO ALLOW FOR MORE WALL SIGNS THAN THE PERMITTED AMOUNT (2 SIGNS ALLOWED, 5 PROPOSED).

UTILITY NOTES

1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTIONS, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE OR INEFFECTIVE.
2. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
3. STORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCED CONCRETE PIPE (RCP) WITH "O" RING GASKETS OR INTERNALLY PRELUBRICATED GASKET (TYLOX SUPERSEAL OR EQUIVALENT, ADS N-12 HIGH DENSITY POLYETHYLENE PIPE (HDPEP), AS NOTED ON THE PLAN, OR APPROVED EQUAL. PROPER PIPE COVERAGE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PIPE LENGTHS SHOWN HEREON ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. CONTRACTOR IS RESPONSIBLE TO DETERMINE WHEN SPECIAL OR OVERSIZED DRAINAGE STRUCTURES ARE REQUIRED. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL SPECIAL (OVERSIZED) DRAINAGE STRUCTURES TO THE TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
5. WATER SERVICE TO BE PROVIDED FROM THE EXISTING WATER MAIN LINE ON AN ACCESS ROAD, OWNED AND OPERATED BY THE EASTON SUBURBAN WATER AUTHORITY. PROPOSED WATER MAIN EXTENSIONS AND FIRE HYDRANT LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, ACCORDING TO THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS, AMERICAN WATERWORKS ASSOCIATION STANDARDS. PIPE MATERIALS SHALL BE AS NOTED ON THE PLANS. WATER MAINS SHALL BE INSTALLED TO PROVIDE A MINIMUM 4 FEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSED GRADE.
6. SANITARY SEWER SERVICE SHALL BE PROVIDED BY GRAVITY CONNECTION TO EXISTING SEWER MAIN ON AN ACCESS ROAD, OWNED AN OPERATED BY THE EASTON AREA JOINT SEWER AUTHORITY. PROPOSED SEWER MAIN EXTENSIONS AND MANHOLE LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, ACCORDING TO PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION REGULATIONS. PIPE MATERIALS SHALL BE PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS. EXCEPT WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY OR UTILITY AUTHORITY, SEWER LINES, INCLUDING FORCE MAINS AND LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 3 FEET OF COVER FROM THE TOP OF PIPE TO PROPOSED GRADE.
7. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER AND INDUSTRIAL DISCHARGE LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
8. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (THAT IS DUCTILE IRON PIPE WITH MECHANICAL RESTRAINT JOINTS), WITH WATERTIGHT JOINTS THAT IS A MINIMUM OF 10 FEET FROM THE WATER MAIN. CONTRACTOR SHALL USE TRANSITION COUPLING, POWER SEAL MODEL #3501 OR EQUIVALENT AT DIP/PVC JOINTS.
9. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE OR LOCAL UTILITY COMPANIES REQUIREMENTS.
10. TELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLED UNDERGROUND. CROSSINGS OF PROPOSED PAVEMENTS WILL BE INSTALLED PRIOR TO THE CONSTRUCTION OF PAVEMENT BASE COURSE.

THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THIS SET.

WETLAND NOTES:

1. THERE ARE NO WETLANDS WITHIN THE PROPOSED DEVELOPMENT AREA.

FLOOD HAZARD NOTES:

BY GRAPHICAL PRESENTATION ONLY THIS PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X AS SHOWN ON FLOOD INSURANCE MAPS, COMMUNITY PANEL NO. 42095C0286E WHICH HAS AN EFFECTIVE DATE OF 07/16/14 AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. FIELD SURVEYING WAS NOT PERFORMED TO DETERMINE THIS ZONE.

ADA INSTRUCTIONS TO CONTRACTOR:

1. CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAPPED) ACCESSIBLE COMPONENTS FOR THE SITE/PROJECT. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE LATEST FEDERAL ADA STANDARDS FOR ACCESSIBLE DESIGN, AND CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY MUST COMPLY WITH THE LATEST FEDERAL PROPOSED "ASSESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" (PROWAG).
2. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EGRESS, MUST COMPLY WITH THESE ADA CODE REQUIREMENTS AND ANY SUPPLEMENTAL STATE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

   (NOTE: THIS LIST IS NOT INTENDED TO CAPTURE EVERY APPLICABLE FEDERAL, STATE AND LOCAL RULE AND REGULATION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE LAW, WHETHER OR NOT STATED SPECIFICALLY HEREIN):

   A. PARKING SPACES AND PARKING AISLES - SLOPE MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN ANY DIRECTION.

   B. CURB RAMPS- SLOPES MUST NOT EXCEED 1:12 (8.3%).

   C. LANDINGS

      i. LANDINGS AT CURB RAMPS - MUST BE 4 FT. MIN., X 4 FT. MIN. AND ARE TO BE INCREASED TO 5 FEET WHERE THE LANDING SPACE (TURNING SPACE) IS CONSTRAINED AT THE BACK OF THE SIDEWALK.
      ii. LANDINGS AT RAMPS - MUST BE 5 FT MIN. IN THE DIRECTION OF TRAVEL AND BE PROVIDED AT EACH END OF THE RAMP, MUST PROVIDE POSITIVE DRAINAGE (1 % MIN.), AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN ANY DIRECTION. WHEN LANDING IS ALSO A TURNING SPACE, IT MUST BE A MINIMUM 5 FT X 5 FT.
      iii. LANDINGS AT DOORWAYS - SEE NOTE F BELOW.

   D. PATH OF TRAVEL ALONG ON-SITE ACCESSIBLE ROUTE - MUST PROVIDE A 36 INCH (EXCLUDING THE CURB) OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL. (CAR OVERHANGS MUST NOT REDUCE THIS MINIMUM WIDTH). IN A PUBLIC RIGHT-OF-WAY, THE MINIMUM WIDTH EXCLUDING THE CURB IS 4 FT. THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN CROSS SLOPE.

   E. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), AN ADA RAMP, WITH A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 30 INCHES, MUST BE PROVIDED. THE RAMP MUST HAVE A MINIMUM, CLEAR WIDTH OF 36 INCHES, HAVE ADA HAND RAILS AND LANDINGS (MIN. 5 FT. LONG IN THE DIRECTION OF TRAVEL) ON EACH END THAT ARE SLOPED A MIN. 1 % AND NO MORE THAN 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

   F. EXTERIOR DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA IS GENERALLY 5 FT X 5 FT, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS. (SEE APPLICABLE CODE SECTIONS).
3. IT IS RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE OFFICIAL, INCLUDING WHETHER OR NOT FALL PROTECTION IS REQUIRED.
4. IT IS RECOMMENDED THAT THE CONTRACTOR CHECK THE SLOPE OF FORMWORK FOR COMPLIANCE WITH ADA STANDARDS PRIOR TO POURING CONCRETE

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE079508
COLLIERS ENGINEERING & DESIGN, INC.
CHRIS.RIGGLE@COLLIERSENG.COM

Digitally signed by Christopher Riggle
Date: 2026.09.08 10:29:10 -04'00'

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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

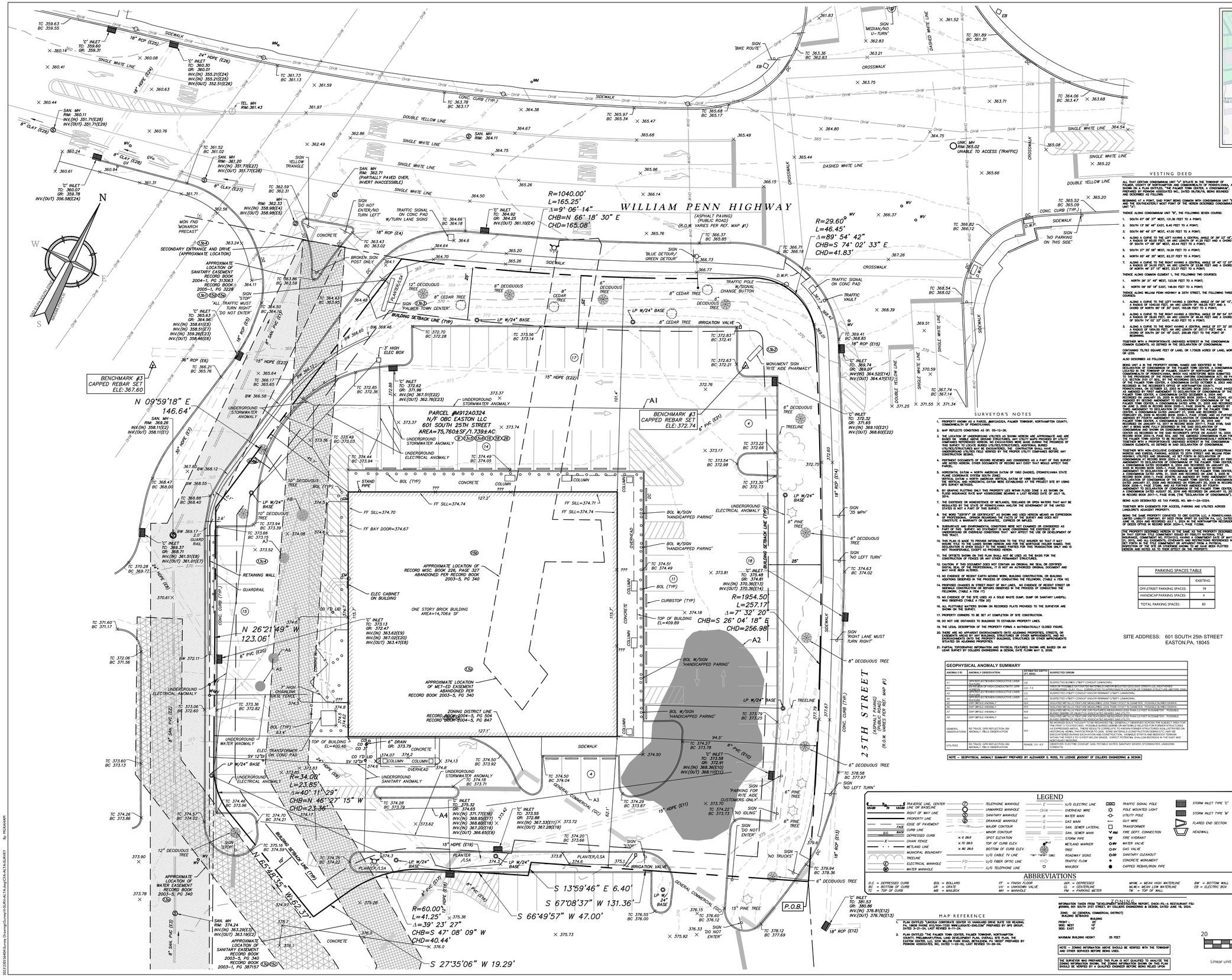
TITLE SHEET

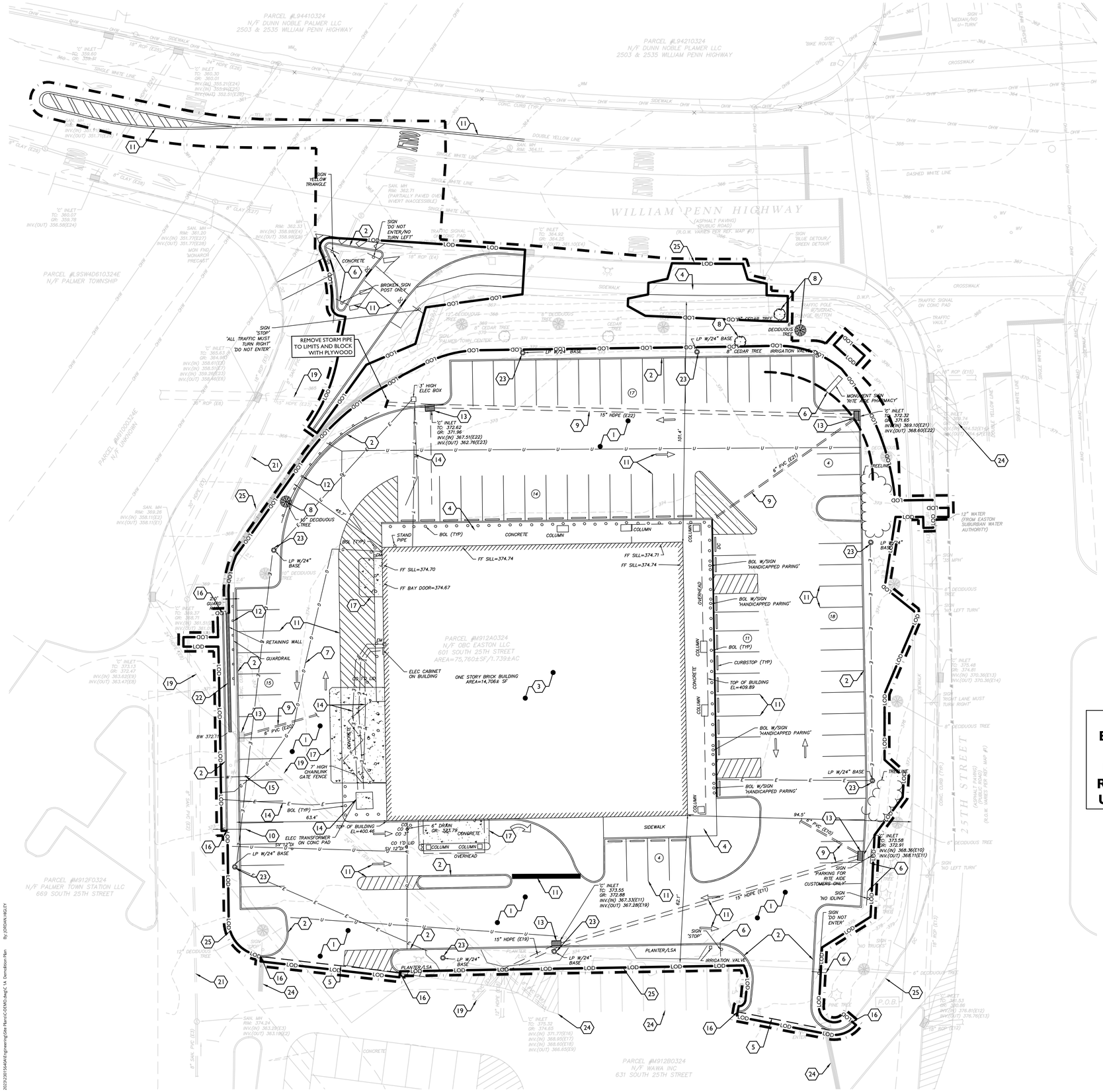
- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet

C 0


WILLIAM PENN HIGHWAY
25TH STREET
R=1040.00'
L=165.25'
Δ=9° 06' 14"
CHB=N 66° 18' 30" E
CHD=165.08'
R=29.60'
L=46.45'
Δ=89° 54' 42"
CHB=S 74° 02' 33" E
CHD=41.83'
R=34.00'
L=23.85'
Δ=40° 11' 29"
CHB=N 46° 27' 15" W
CHD=23.36'
R=1954.50'
L=257.17'
Δ=7° 32' 20"
CHB=S 26° 04' 18" E
CHD=256.98'
R=60.00'
L=41.25'
Δ=39° 23' 27"
CHB=S 47° 08' 09" W
CHD=40.44'
PARCEL #M912A0324
N/F OBC EASTON LLC
601 SOUTH 25TH STREET
AREA=75,760±SF/1.739±AC
BENCHMARK #3
CAPPED REBAR SET
ELE: 372.74
BENCHMARK #3
CAPPED REBAR SET
ELE: 367.60
N 09°59'18" E
146.64'
N 26°21'49" W
123.06'
S 13°59'46" E 6.40'
S 67°08'37" W 131.36'
S 66°49'57" W 47.00'
S 27°35'06" W 19.29'
N 65°28'52" W 12.37'
BUILDING SETBACK LINE (TYP)
SECONDARY ENTRANCE AND DRIVE (APPROXIMATE LOCATION)
APPROXIMATE LOCATION OF SANITARY EASEMENT RECORD BOOK 2004-1, PG 31,063 RECORD BOOK 2003-1, PG 3228
"ALL TRAFFIC MUST TURN RIGHT" "DO NOT ENTER"
"PALMER TOWN CENTER"
SIGN "STOP"
SIGN "DO NOT ENTER/NO TURN LEFT"
SIGN "YELLOW TRIANGLE"
SIGN "BIKE ROUTE"
SIGN "MEDIAN/NO U-TURN"
SIGN "BLUE DETOUR/ GREEN DETOUR"
SIGN "NO PARKING ON THIS SIDE"
SIGN "PARKING FOR RITE AIDE CUSTOMERS ONLY"
SIGN "NO LOITING"
SIGN "DO NOT ENTER"
SIGN "NO TRUCKS"
SIGN "DO NOT ENTER"
SIGN "NO LEFT TURN"
SIGN "RIGHT LANE MUST TURN RIGHT"
SIGN '35 MPH'
MONUMENT SIGN "RITE AIDE PHARMACY"
TRAFFIC SIGNAL ON CONC PAD W/TURN LANE SIGNS
TRAFFIC SIGNAL ON CONC PAD
TRAFFIC POLE W/SIGNAL CHANGE BUTTON
TRAFFIC VAULT
MON FND MONUMENT BOX PRECAST
APPROXIMATE LOCATION OF MET-ED EASEMENT ABANDONED PER RECORD BOOK 2003-5, PG 340
ZONING DISTRICT LINE - RECORD BOOK 2004-5, PG 504 RECORD BOOK 2003-5, PG 847
APPROXIMATE LOCATION OF SANITARY EASEMENT RECORD BOOK 2003-5, PG 340 RECORD BOOK 2003-1, PG 387157
APPROXIMATE LOCATION OF WATER EASEMENT RECORD BOOK 2003-5, PG 340
PARCEL #M912A0324 N/F OBC EASTON LLC 601 SOUTH 25TH STREET AREA=75,760±SF/1.739±AC
(ASPHALT PAVING) (PUBLIC ROAD) (R.O.W. VARIES PER REF. MAP #1)
(R.O.W. VARIES PER REF. MAP #1)
GENERAL COMMERCIAL (GC)
CROSSWALK
SIDEWALK
CONC. CURB (TYP.)
DOUBLE YELLOW LINE
SINGLE WHITE LINE
DASHED WHITE LINE
BUILDING SETBACK LINE (TYP)
CONCRETE
BROKEN SIGN POST ONLY
ONE STORY BRICK BUILDING AREA=14,706± SF
ELEC CABINET ON BUILDING
RETAINING WALL
GUARDRAIL
3' HIGH CHAINLINK FENCE "LOCK"
3' HIGH ELEC BOX
CURBSTOP (TYP)
TOP OF BUILDING EL=409.89
TOP OF BUILDING EL=400.46
ELEC TRANSFORMER ON CONC PAD
STAND PIPE
BOL (TYP)
BOL W/SIGN "HANDICAPPED PARING"
COLUMN
OVERHEAD
UNDERGROUND ELECTRICAL ANOMALY
UNDERGROUND WATER ANOMALY
UNDERGROUND SANITARY ANOMALY
UNDERGROUND STORMWATER ANOMALY
UNDERGROUND STORMWATER ANOMALY
UNDERGROUND ELECTRICAL ANOMALY
UNDERGROUND ELECTRICAL ANOMALY
UNDERGROUND STORMWATER ANOMALY
UNDERGROUND STORMWATER ANOMALY
UNDERGROUND ELECTRICAL



DEMOLITION NOTES

1. THE CONTRACTOR SHALL BE DEEMED TO HAVE VISITED THE SITE AND ACCEPTED THE SITE AS IS.
2. THE CONTRACTOR SHALL CARRY OUT THE WORK OF THIS CONTRACT PLACING THE SAFETY AND PROTECTION OF THE SURROUNDING COMMUNITY AND PROPERTY AT THE HIGHEST PRIORITY. THE CONTRACTOR SHALL IMPLEMENT SPECIFIED MEASURES, AND ANY OTHER MEASURES DEEMED NECESSARY, TO PROTECT ADJACENT AND ON-SITE PROPERTY, BUILDINGS, HOMES, BUSINESSES, FACILITIES AND UTILITIES.
3. THE CONTRACTOR SHALL ENSURE FREE AND SAFE PASSAGE OF PERSONS AROUND THE AREA OF THE DEMOLITION AS DIRECTED BY THE OWNER AND THE TOWNSHIP OFFICIALS. ALL OPERATIONS SHALL BE CONDUCTED SO AS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES, AND INJURY TO PERSONS, BOTH PEDESTRIAN AND WORKERS ALIKE.
4. THE CONSULTANT IS NOT RESPONSIBLE FOR JOB SITE SAFETY AND CANNOT STOP THE DEMOLITION ACTIVITIES.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE SECURITY OF THE PROJECT SITE DURING ALL NON-WORKING HOURS, SEVEN DAYS A WEEK.
6. ALL UTILITY LOCATIONS ARE APPROXIMATE AND ADDITIONAL UTILITIES MAY EXIST. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY THE ACTUAL LOCATION OF ALL UTILITIES IMPACTED BY THIS WORK, AND WHICH MUST BE MAINTAINED OR REMOVED, WHETHER SHOWN OR NOT SHOWN ON THE CONTRACT DRAWINGS.
7. THE CONTRACTOR SHALL COMPLETELY REMOVE ALL UTILITY SERVICE CONNECTIONS AND APPURTENANCES TO THE BUILDING BEING DEMOLISHED UNLESS OTHERWISE NOTED. ALL FOUNDATIONS ARE TO BE COMPLETELY REMOVED.
8. THE CONTRACTOR SHALL BACKFILL ALL VOIDS REMAINING FROM THE REMOVAL OF FOUNDATIONS, UTILITIES AND OTHER SUBSURFACE ELEMENTS WITH STRUCTURAL, COMPACTED FILL MATERIAL IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
9. THE CONTRACTOR SHALL OBTAIN AND MAKE PAYMENT FOR TEMPORARY UTILITIES (WATER, ELECTRIC, TELEPHONE) AND IF FOUND ANY OTHER SERVICES NECESSARY FOR PROPER EXECUTION OF THE DEMOLITION WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE NECESSARY DEMOLITION / GRADING PERMITS.
11. THE CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF OFF-SITE ANY HAZARDOUS MATERIALS ENCOUNTERED DURING THE DEMOLITION. BEFORE ANY OFF-SITE REMOVALS, THE CONTRACTOR HAS TO PROVIDE, IN WRITING, THE PROPOSED DESTINATION OF ALL MATERIALS.
12. DEMOLITION AND BACKFILLING WORK IS TO BE PERFORMED IN DRY WEATHER.
13. THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVAL AND RELOCATIONS WITH EACH RESPECTIVE UTILITY PROVIDER.

LEGEND

- TRAVERSE LINE, CENTER LINE OR BASELINE (12+00 PI 13+00)
- RIGHT OF WAY LINE
- PROPERTY LINE
- EDGE OF PAVEMENT (FACE)
- CURB LINE (D.C. BACK)
- DEPRESSED CURB
- CHAIN FENCE
- WETLAND LINE
- MUNICIPAL BOUNDARY
- TREELINE
- ELECTRICAL MANHOLE
- WATER MANHOLE
- TELEPHONE MANHOLE
- UNMARKED MANHOLE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- MAJOR CONTOUR
- MINOR CONTOUR
- SPOT ELEVATION (× G 29.0)
- TOP OF CURB ELEV. (× TC 29.0)
- BOTTOM OF CURB ELEV. (× BC 29.0)
- U/G CABLE TV LINE (CATV)
- U/G FIBER OPTIC LINE (FO)
- U/G TELEPHONE LINE (T)
- U/G ELECTRIC LINE (E)
- OVERHEAD WIRE (OHW)
- WATER MAIN (W)
- GAS MAIN (G)
- SAN. SEWER LATERAL (S)
- SAN. SEWER MAIN
- STORM PIPE
- WETLAND MARKER (W-1)
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- MAILBOX
- TRAFFIC SIGNAL POLE
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- TRANSFORMER
- FDC FIRE DEPT. CONNECTION
- FIRE HYDRANT
- WV WATER VALVE
- GV GAS VALVE
- CO SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- STORM INLET TYPE 'A'
- STORM INLET TYPE 'B'
- STM. DBL. INLET TYPE 'B'
- STORM INLET TYPE 'E'
- STM. DBL. INLET TYPE 'E'
- FLARED END SECTION
- HEADWALL

ABBREVIATIONS

D.C. = DEPRESSED CURB	FF = FINISH FLOOR	MHWL = MEAN HIGH WATERLINE
BC = BOTTOM OF CURB	UV = UNKNOWN VALVE	MLWL= MEAN LOW WATERLINE
TC = TOP OF CURB	MH = MANHOLE	TW = TOP OF WALL
BOL = BOLLARD	DEP. = DEPRESSED	BW = BOTTOM WALL
GRT = GRATE	CL = CENTERLINE	
MB = MAILBOX	PM = PARKING METER	

DEMOLITION LEGEND

1. REMOVE EXISTING PAVEMENT AS NECESSARY
2. REMOVE EXISTING CURB AS NECESSARY
3. REMOVE EXISTING STRUCTURE
4. REMOVE EXISTING SIDEWALK
5. LIMIT OF PAVEMENT REMOVAL
6. REMOVE EXISTING SIGNS
7. REMOVE EXISTING GAS SERVICE
8. REMOVE EXISTING TREE
9. REMOVE EXISTING STORM PIPE
10. REMOVE EXISTING SANITARY PIPE
11. REMOVE EXISTING STRIPING (TYP.)
12. REMOVE EXISTING FENCE/GUARDRAIL
13. REMOVE EXISTING STORM STRUCTURE
14. REMOVE EXISTING TELEPHONE/ELECTRIC SERVICE
15. REMOVE EXISTING WATER SERVICE
16. LIMIT OF CURB REMOVAL
17. REMOVE EXISTING CONCRETE PAD
18. LIMIT OF SANITARY SEWER PIPE REMOVAL (SEE NOTE #8)
19. EXISTING STORMWATER PIPE TO REMAIN
20. EXISTING WATER MAIN TO REMAIN
21. EXISTING SANITARY SEWER MAIN TO REMAIN
22. REMOVE RETAINING WALL AS NECESSARY
23. REMOVE EXISTING LIGHT POLE
24. EXISTING STRIPING TO REMAIN
25. EXISTING CURB TO REMAIN

ALL FEATURES SHOWN IN BLACK ARE TO BE REMOVED OR RELOCATED AND ALL FEATURES IN GREY ARE TO REMAIN AND BE PROTECTED UNLESS NOTED OTHERWISE

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Commonwealth of Pennsylvania — Engineer — Pennsylvania

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PALMER TOWNSHIP
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PRELIMINARY/FINAL MAJOR SITE PLAN

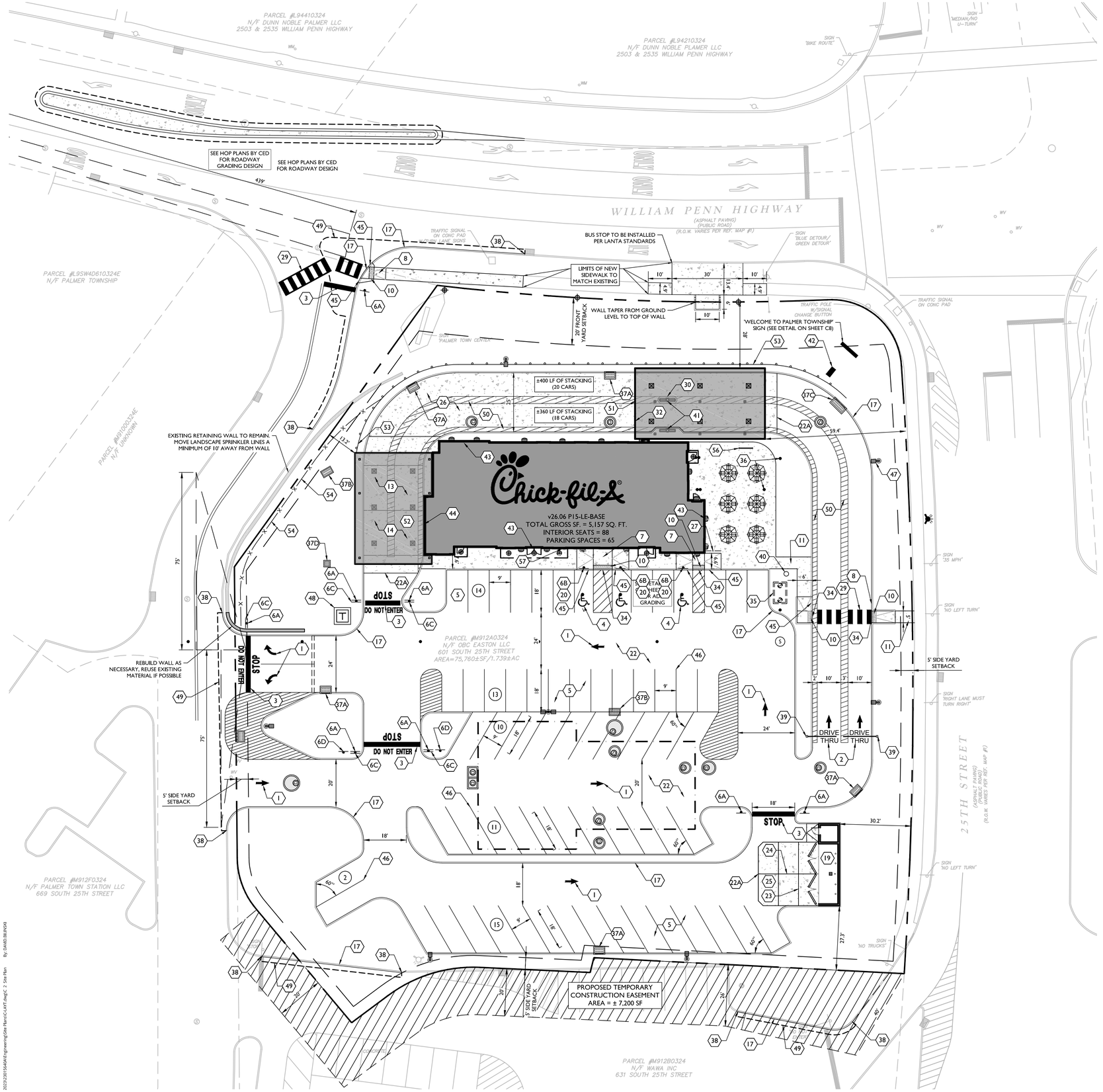
DEMOLITION PLAN

- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
C 1A

2023\23015640A\Engineering\Site Plans\CSE\MD.dwg|C 1A Demolition Plan By:JORDAN.IRGLEY



SITE PLAN LEGEND

1	DIRECTIONAL ARROW (TYP.)	1/C4
2	DRIVE-THRU GRAPHICS	2/C4
2A	DRIVE-THRU MULTI-LANE DIRECTIONAL GRAPHICS	2A/C4
3	STOP LINE GRAPHICS	3/C4
4	PAINTED HANDICAP PARKING SYMBOL (TYP)	4/C4
5	STANDARD AND ADA PARKING STALL (TYP.)	5/C4
6	DIRECTIONAL SIGNAGE	6/C4
	ALL TO CONFORM TO MUTCD LATEST VERSION	
6A	STOP SIGN	
6B	HANDICAP W/ PENALTY	
6C	DO NOT ENTER SIGN	
6D	NO RIGHT TURN SIGN	
7	MAIN ENTRY SIDEWALK ACCESSIBLE RAMP	7/C4
8	HANDICAP RAMP w/FLARED SIDES	8/C4
9	RETURNED CURB HANDICAP RAMP	9/C4
10	TRUNCATED DOMES	10/C4
11	TYPICAL CONCRETE SIDEWALK - PICTURE FRAME PATTERN	11/C4
12	SIDEWALK WITH CURB & GUTTER	12/C4
13	DRIVE THRU PLAN VIEW	13/C4
14	DRIVE THRU ISOMETRIC VIEW	14/C4
15	PLASTIC WHEEL STOP (TYP.)	15/C4
16	LANDSCAPE/IRRIGATION PROTECTOR	16/C4
17	18" CONCRETE CURB	17/C4
18	ROLLOVER/MOUNTABLE CURB	18/C4
19	TRASH ENCLOSURE FOUNDATION PLAN	19/C4
20	CONCRETE BOLLARD W/ SIGN	20/C4
21	CONCRETE BOLLARD	21/C4
22	TYPICAL ASPHALT PAVEMENT SECTION	22/C4
22A	PAVEMENT EDGE AT CONCRETE	22A/C4
23	CONTRACTION JOINTS	23/C4
24	CONSTRUCTION JOINTS	24/C4
25	SECTION THRU CONCRETE PAVEMENT AT DUMPSTER	25/C4
26	CONCRETE PAVING AT DRIVE-THRU LANE	26/C4
27	HANDRAIL	27/C4
28	HANDRAIL AND RAMP	28/C4
29	CROSS WALK DETAIL	29/C4
30	DRIVE THRU ORDER POINT ISLAND	30/C4
31	MULTI ORDER POINT MOUNTABLE CURB	31/C4
32	MENU BOARD LOOP DETECTION SYSTEM	32/C4
33	PAVEMENT REPAIR STRIP	33/C4
34	CURB CUT (FLUSH CURB)	34/C4
35	GREASE INTERCEPTOR	35/C4
36	SANITARY SEWER EXTERIOR CLEANOUT (TYP.)	36/C4
37	INLET DETAILS	
37A	PA - TYPE "C"	37A/C4
37B	PA - TYPE "M"	37B/C4
37C	PA - 6' WIDE TYPE "C"	
37D	2' x 2' YARD DRAIN	
38	MEET EXISTING CURB	
39	CLEARANCE BAR	39/C4
40	FLAG POLE	40/C4
41	DRIVE-THRU MENU BOARD	41/C4
42	MAIN ID SIGN (28.00 SF)	42/C4
43	WALL SIGN (58.75 SF)	43/C4
44	WALL SIGN (36.00 SF)	44/C4
45	CURB TRANSITION FROM FLUSH TO FULL HEIGHT	
46	4" WIDE WHITE STRIPE	
47	LIGHT POLE (SEE LIGHTING PLAN FOR DETAILS)	
48	TRANSFORMER & PAD	
49	SAW CUT LIMIT (TYP.)	
50	DRIVE-THRU STRIPING	50/C4
51	FACE TO FACE ORDER CANOPY	
52	MEAL DELIVERY CANOPY	
53	GUARDRAIL	
54	4' HIGH FENCE	
55	POROUS PAVEMENT	55/C11
56	BIKE RACK	56/C4
57	KNOX BOX	

VARIANCES GRANTED ON 10/07/25:

1.) FROM SECTION 190-601.A.1.(TABLE 3) - TO ALLOW FOR THE TOTAL NUMBER OF PARKING SPACES TO BE LESS THAN 71 SPACES (65 SPACES PROPOSED).

2.) FROM SECTION 190-407.E.I. - TO ALLOW FOR A DRIVE-THRU AS A SPECIAL EXCEPTION.

3.) FROM SECTION 190-711.A.3.A - TO ALLOW FOR MORE WALL SIGNS THAN THE PERMITTED AMOUNT (2 SIGNS ALLOWED, 5 PROPOSED).

LEGEND

EXISTING		PROPOSED
12+00 PI 13+00	TRAVERSE LINE, CENTER LINE OR BASELINE (LABEL AS SUCH)	12+00 13+00
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	STALL COUNT	10
	ADA ACCESSIBLE STALL	HC V
	DEPRESSED CURB AND ADA RAMP	HC
	DIRECTION OF TRAFFIC FLOW	

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1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

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PRELIMINARY/FINAL MAJOR SITE PLAN

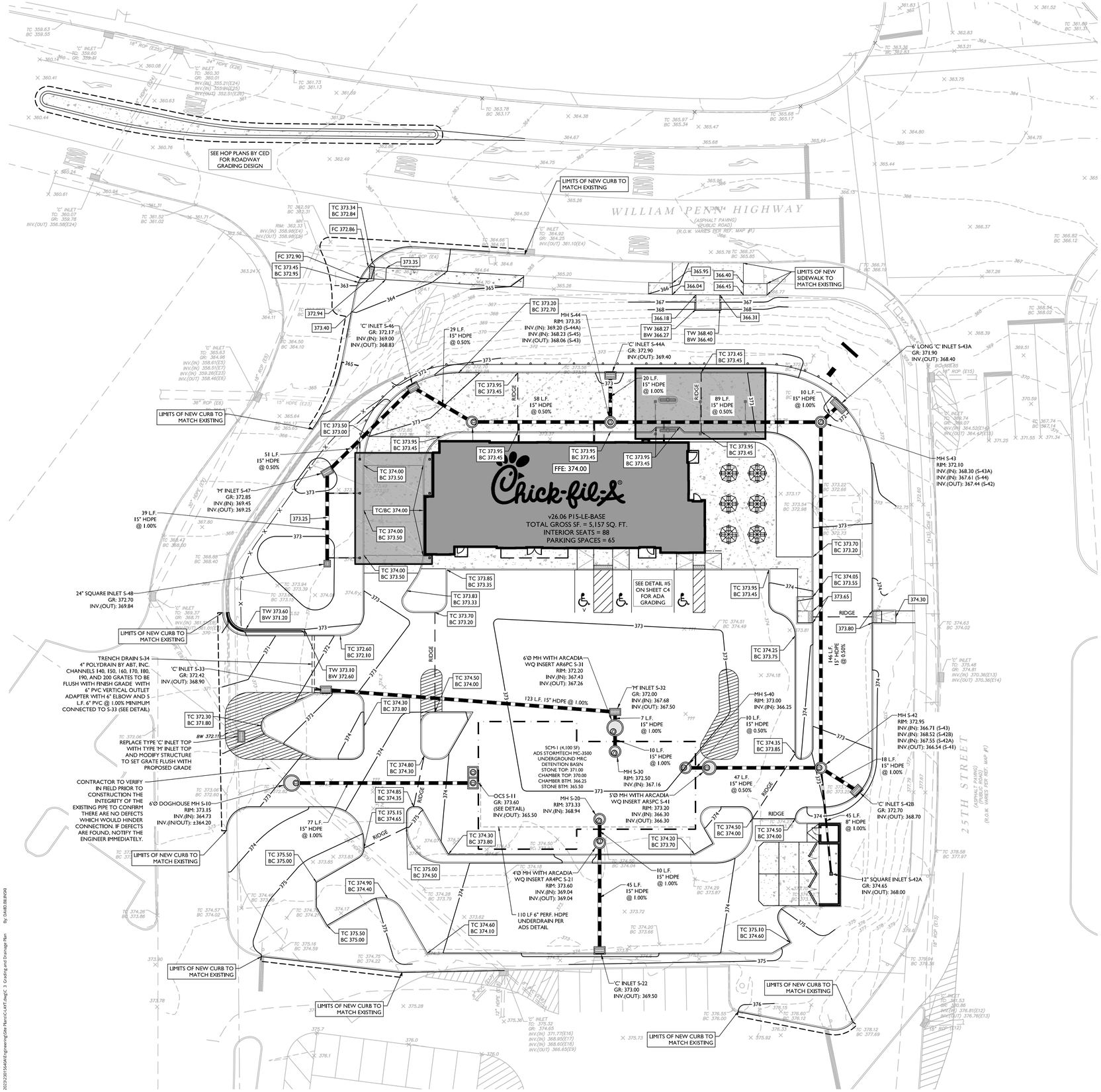
SITE PLAN

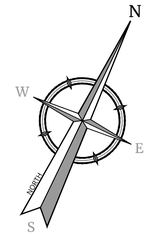
- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
C 2

2023\23015640A\Engineering\Site Plans\C-LAYT.dwg|C 2 Site Plan By: DAVID.BILEWSKI





CHICK-FIL-A WILL PROVIDE TO PALMER TOWNSHIP A BLANKET EASEMENT OVER THE ENTIRE PROPERTY, FOR THE PURPOSES OF ACCESSING AND ADDRRESSING ISSUES WITH THE STORMWATER MANAGEMENT SYSTEM

LEGEND

EXISTING		PROPOSED
124+00 / P1 / 134+00	TRAVERSE LINE, CENTER LINE OR BASELINE (LABEL AS SUCH)	12+00 / 13+00
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	'C' INLET	
	'M' INLET	
P	STORM MANHOLE	D
	SANITARY MANHOLE	
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
74 75	CONTOURS	74 75
	SPOT ELEVATION	
	DIRECTION OF OVERLAND FLOW	
	TOP OF CURB ELEVATION	
	BOTTOM OF CURB ELEVATION	
	TOP OF DEPRESSED CURB ELEVATION	

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PRELIMINARY/FINAL MAJOR SITE PLAN

GRADING AND DRAINAGE PLAN

- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

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Checked By: CJR

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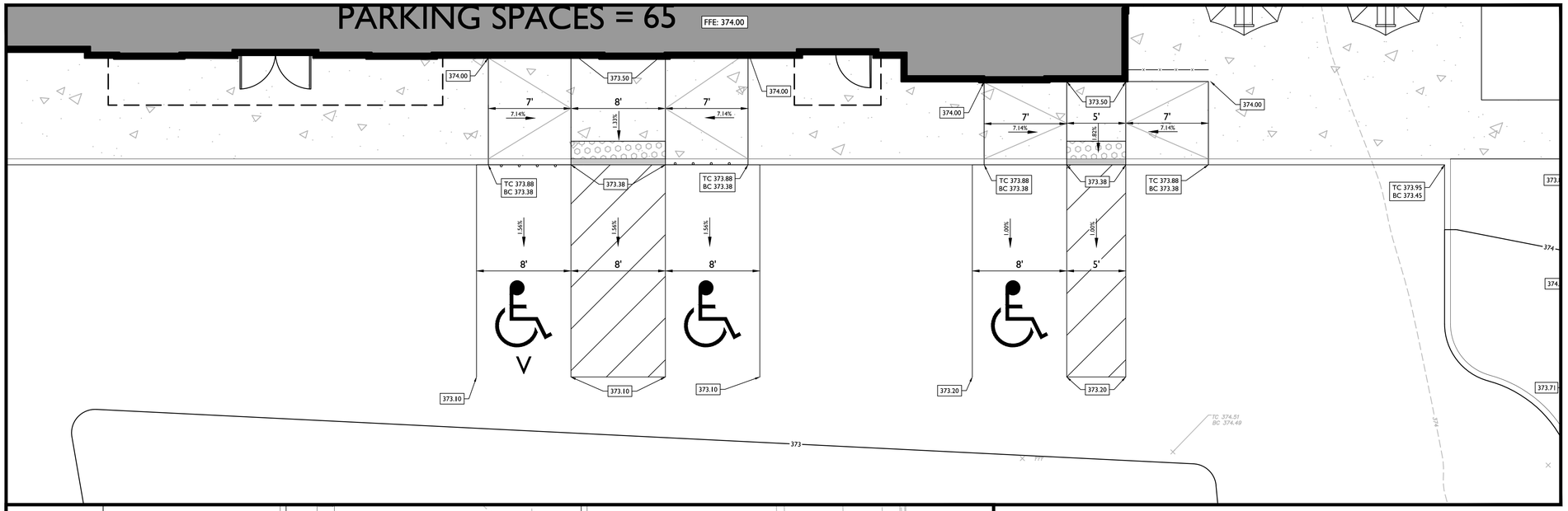
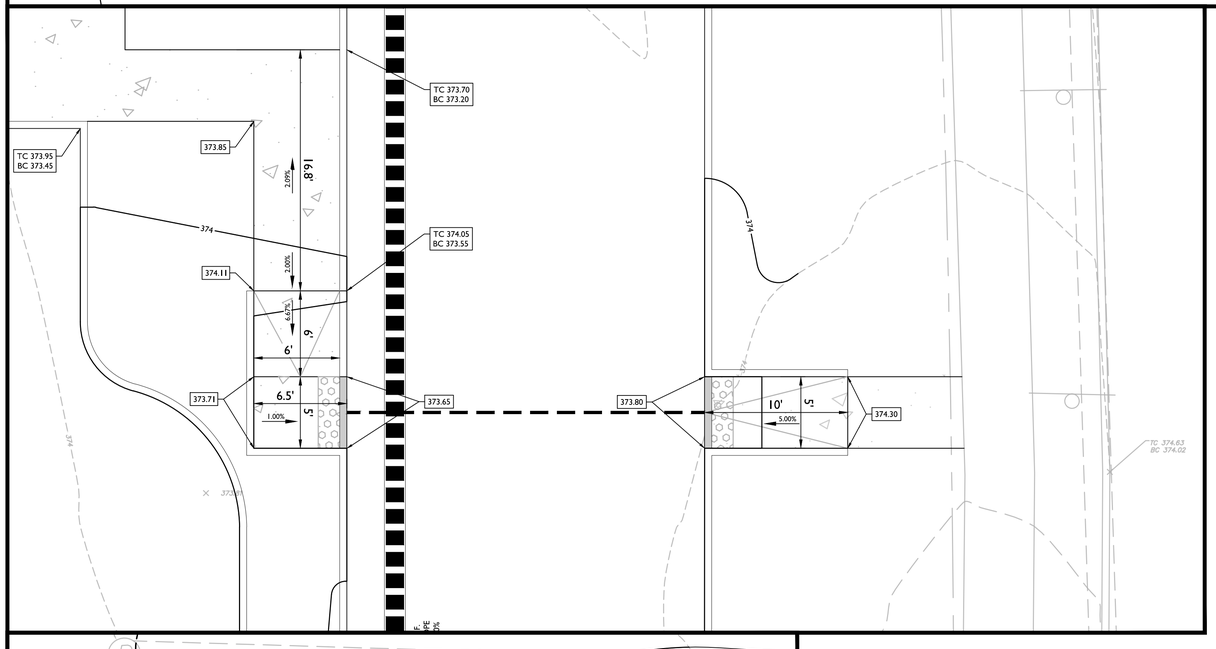
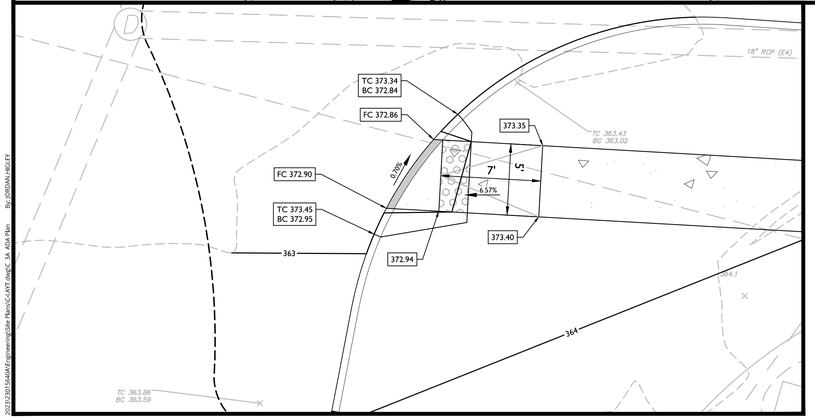
C 3

2023\23015640A\Engineering\Site Plans\CAD\LAYT dwg\C 3 Grading and Drainage Plan By: DAVID.BUKOSKI







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FACE / BACK	CURB	FACE / BACK
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X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
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	'C' INLET	
	'M' INLET	
D	STORM MANHOLE	D
	SANITARY MANHOLE	
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
☼	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

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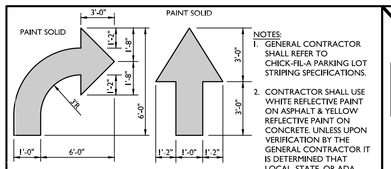
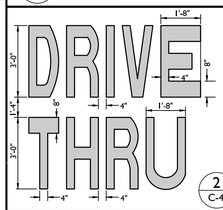
C 3A

2023\23015640A\Engineering\Site Plans\CLAYT.dwg\C 3A ADA Plan By: JORDAN JIGLEY



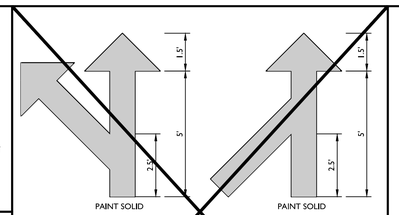
NOTES:
1. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS.
2. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE. UNLESS UPON VERIFICATION BY THE GENERAL CONTRACTOR IT IS DETERMINED THAT LOCAL, STATE, OR ADA CODES DIFFER, IN WHICH CASE THESE CODES SHALL GOVERN.

1 C-4 **DIRECTIONAL ARROW**
NOT TO SCALE



NOTES:
1. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS, SEE DETAIL 5 C-4
2. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE.

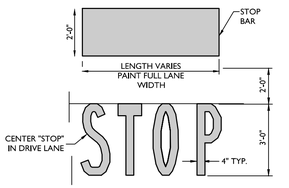
2 C-4 **DRIVE-THRU GRAPHICS**
NOT TO SCALE



MULTI-LANE SPLIT **MULTI-LANE MERGE**

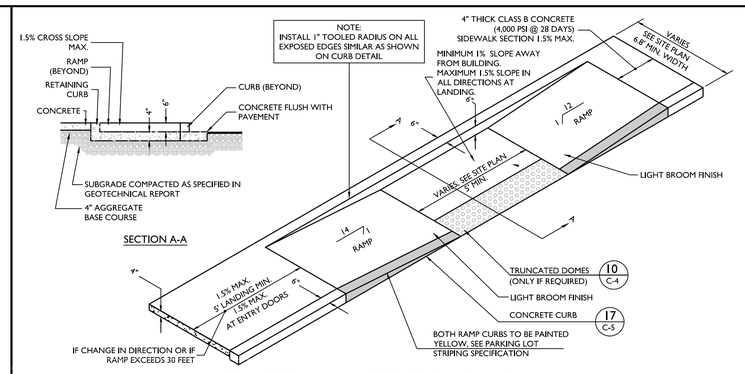
NOTES:
1. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS.
2. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE.

2A C-4 **MULTI-LANE DIRECTIONAL GRAPHICS**
NOT TO SCALE

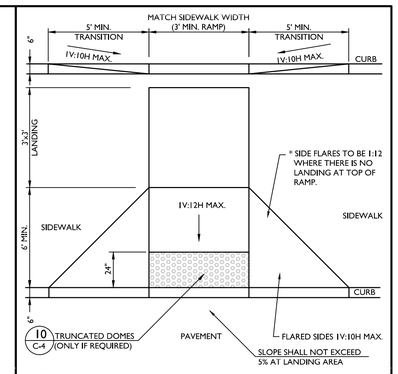


NOTES:
1. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS, SEE DETAIL 5 C-4
2. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE.

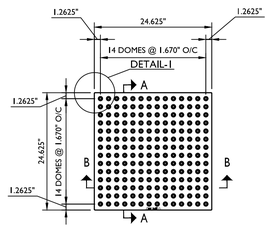
3 C-4 **STOP LINE GRAPHIC**
NOT TO SCALE

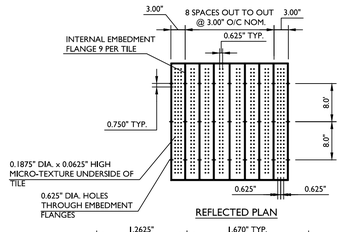


7 C-4 **SIDEWALK ACCESSIBLE RAMP**
NOT TO SCALE



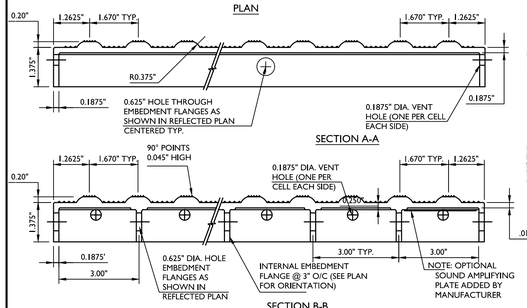
8 C-4 **CURB RAMP w/ FLARED SIDES**
NOT TO SCALE

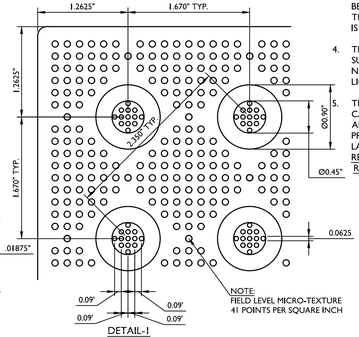




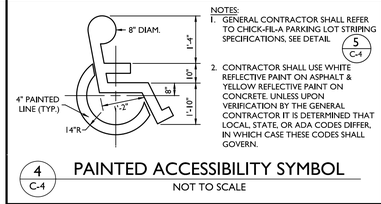
NOTES:

1. CURB RAMP RUNNING SLOPES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 2% OR FLATTER.
2. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING PRODUCTS CONFORMING TO PROWAG R304. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS. CONTRACTOR SHALL CONFIRM LOCAL CODES ARE MET.
3. WHERE A CURB RAMP IS CONSTRUCTED WITHIN AN EXISTING CURB, CURB & GUTTER AND/OR SIDEWALK, THE EXISTING CURB & GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB & GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5'.
4. THE PLAN MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLORS OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK-ON-LIGHT, OR LIGHT-ON-DARK. STANDARD DOME COLOR IS BRICK RED.
5. TRUNCATED DOMES TO BE INSTALLED USING ARMOR TILE CAST IN PLACE DOME TACTILE TILE. PART NUMBER ADA-2424 OR OTHER EQUIVALENT APPROVED MATERIAL. PREFERRED MANUFACTURER ARMOR TILE TACTILE SYSTEMS LANCE MITCHELL(919)622-4615 UNLESS PAVERS ARE REQUIRED, CONTRACTOR TO VERIFY THAT CURB RAMPS MEET LOCAL CODES AND ADA REQUIREMENTS.



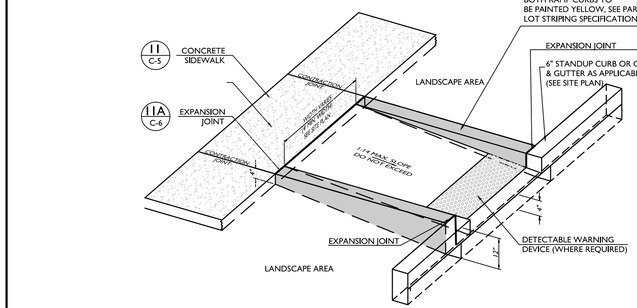


10 C-4 **TRUNCATED DOMES - CAST IN PLACE**
NOT TO SCALE



NOTES:
1. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS, SEE DETAIL 5 C-4
2. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE. UNLESS UPON VERIFICATION BY THE GENERAL CONTRACTOR IT IS DETERMINED THAT LOCAL, STATE, OR ADA CODES DIFFER, IN WHICH CASE THESE CODES SHALL GOVERN.

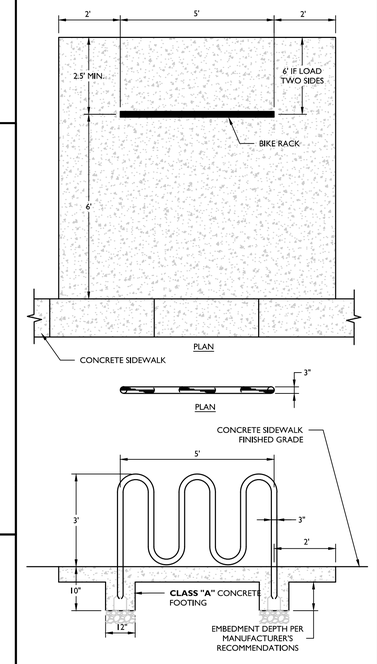
4 C-4 **PAINTED ACCESSIBILITY SYMBOL**
NOT TO SCALE



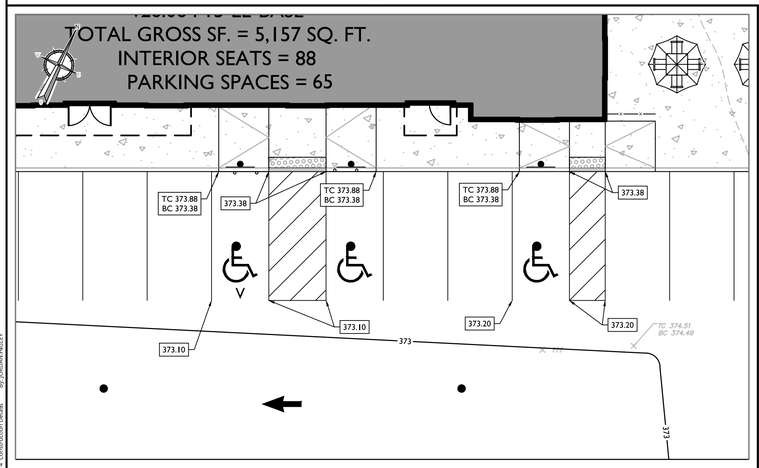
9 C-4 **RETURNED CURB ACCESSIBLE RAMP**
NOT TO SCALE

NOTE:

ORIGINAL CYCLOOPS BICYCLE RACK MODEL NO. 2170-7-C (7 BIKES) EMBEDMENT MOUNTING COLOR SHALL BE BLACK MANUFACTURED BY COLUMBIA CASCADE, 1-800-547-1940 OR APPROVED EQUAL.



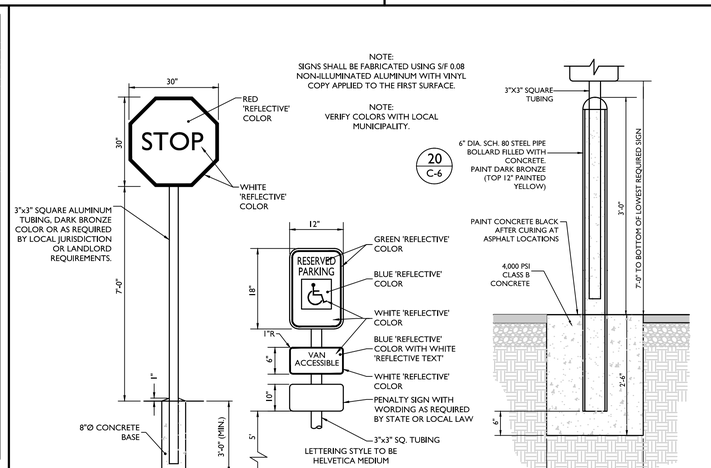
56 C-4 **BICYCLE RACK DETAIL**
NOT TO SCALE MCCM-SITE-FNCE-2400 07/01/19



NOTES
1. ACCESSIBLE PARKING AND AISLES SHALL NOT EXCEED 1.5% IN SLOPE IN ANY DIRECTION. IF ONLY ONE ACCESS AISLE IS INSTALLED, IT IS TO BE A VAN SIZE.
2. PARKING STALL DIMENSIONS SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITY'S AND ADA STANDARDS. SEE SITE PLAN FOR COMPLETE STRIPING LAYOUT.
3. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS, THIS DETAIL.
4. CONTRACTOR SHALL USE 4" WIDE WHITE REFLECTIVE PAINT FOR STRIPING ON ASPHALT PARKING LOTS.
5. CONTRACTOR SHALL USE 4" WIDE YELLOW REFLECTIVE PAINT FOR STRIPING ON CONCRETE PARKING LOTS.
6. ACCESSIBLE PARKING AND ACCESSIBLE AISLE STRIPING COLOR SHALL BE IN ACCORDANCE WITH APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
7. NO WHEEL STOPS TO BE INSTALLED WHEN PARKING IS ADJACENT TO SIDEWALK.
8. ADA SIGNS IN BOLLARDS AND BOLLARDS WILL BE INSTALLED WHEN PARKING IS ADJACENT TO FLUSH CURB OR A RAMP.
9. ALL DIMENSIONS ARE TO CENTER OF STRIPE UNLESS OTHERWISE NOTED.
10. STRIPING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

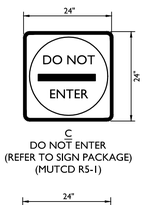
5 C-4 **STANDARD AND ADA PARKING STALL**

SCALE : $1^{"} = 10^{'}$
SELECT LINEAR UNIT OF MEASURE

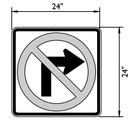


NOTES:
1. SIGNS PROVIDED AND INSTALLED BY CFA SIGNAGE CONTRACTOR
2. THE COLOR OF THE TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD STANDARDS.

6 C-4 **DIRECTIONAL SIGNAGE**
NOT TO SCALE



C
DO NOT ENTER
(REFER TO SIGN PACKAGE)
(MUTCD R5-1)



D
NO RIGHT TURN SIGN
(REFER TO SIGN PACKAGE)
(MUTCD R3-1)

PARKING LOT STRIPING SPECIFICATIONS:

STANDARDS:
1. ALWAYS FOLLOW ALL APPLICABLE GOVERNING AUTHORITY'S STANDARDS.
2. SURFACES SHOULD BE CLEAN, DRY, AND FREE FROM LOOSE OR PEELING PAINT. REMOVE ALL OIL, DUST, GREASE, DIRT, AND OTHER FOREIGN MATERIAL TO ENSURE ADEQUATE ADHESION. DO NOT APPLY WHEN AIR OR SURFACE TEMPERATURES ARE BELOW 40°F.
3. APPLY SHERWIN-WILLIAMS SETFAST PREMIUM ALKYD ZONE MARKING PAINT A300 WHITE OR A303 YELLOW USING EITHER AIRLESS OR CONVENTIONAL LINE STRIPING EQUIPMENT. USE THE FOLLOWING SETTINGS AS A GUIDE-ACTUAL SETTINGS DEPEND ON ATMOSPHERIC CONDITIONS AT THE TIME OF APPLICATION:

AIRLESS

• PRESSURE	1800-2700 PSI
• HOSE	¾"-¢ ID
• TIP	0.015"-0.017"
• FILTER	60 MESH
• REDUCTION	ONLY IF NECESSARY, UP TO 1PT/GAL VM&P NAPTHA R1K3

CONVENTIONAL

• GUN	BLINKS 21 (BLEEDER) OR EQUIVALENT
• FLUID NOZZLE	#68
• AIR NOZZLE	INTERNAL MIX, #709
• ATOMIZATION PRESSURE	45-80 PSI
• FLUID PRESSURE	40-70 PSI
• REDUCTION	ONLY IF NECESSARY, UP TO 1PT/GAL VM&P NAPTHA R1K3

- SHERWIN WILLIAMS, H&C SHARK GRIP SLIP RESISTANT ADDITIVE TO BE MEASURED AND ADDED TO ALL PAINT PER MANUFACTURER'S WRITTEN SPECIFICATIONS. MIX THOROUGHLY PER MANUFACTURER'S RECOMMENDATIONS SO THAT NO CLUMPING IS APPARENT AND UNTIL EVEN DISTRIBUTION IS ACHIEVED. MAINTAIN EVEN DISTRIBUTION OF ADDITIVE IN PAINT THROUGHOUT THE APPLICATION PROCESS.
- MIX PAINT THOROUGHLY BY BOXING, STIRRING, OR POWER AGITATION BEFORE USE. APPLY AT 15 MILS WET TO ACHIEVE A SPREAD RATE OF 400-500 LINEAL FEET OF STANDARD 4" STRIPE PER GALLON. APPLIED AT THIS RATE AT 70 DEGREES F AND 50% RELATIVE HUMIDITY, PAINT WILL DRY WITH NO TRAFFIC PICKUP AFTER 20 MINUTES.
- GENERAL CONTRACTOR TO RE-STRIPE THE LOT 45 DAYS AFTER OPENING.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
1	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
2	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Digitally signed by Christopher John Riggle
Date: 2026.09.08 18:54:16 -04'00'

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE079508
COLLIERS ENGINEERING & DESIGN, INC.
CHRIS.RIGGLE@COLLIERSENG.COM

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www.colliersengineering.com
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COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING

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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

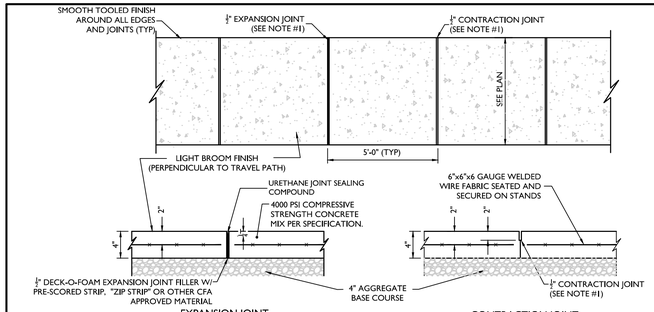
CONSTRUCTION DETAILS

- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
C 4

20230230156404A\Engineering\Site Plans\C07S.dwg\C 4 Construction Details By: JORDAN HIGLEY

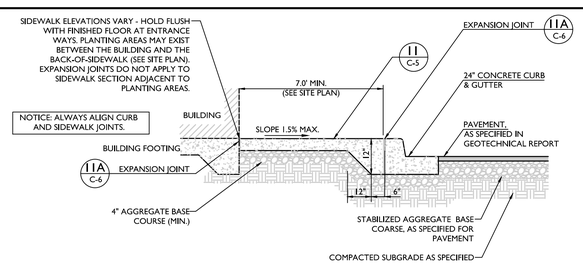


NOTES:

1. JOINTS AT 5'-0" O.C. TOOLED ½" WIDE, 1" DEEP OR MAX. ¼ DEEP WHICHEVER IS GREATER. EXPANSION JOINTS AT 20' MAX. & ALL P.C.s, UNLESS APPROVED OR INDICATED OTHERWISE ON PLAN VIEW JOINT PATTERN.

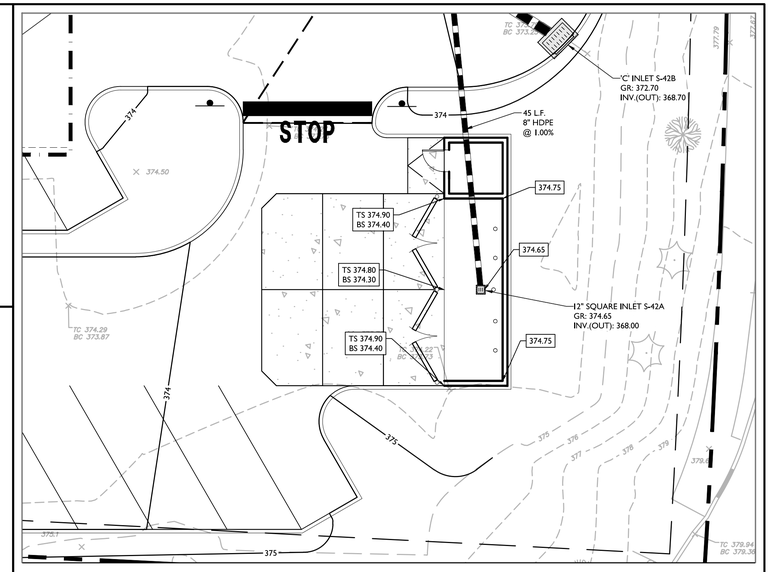
11 C-5 **TYPICAL CONCRETE SIDEWALK**

NOT TO SCALE



12 C-5 **SIDEWALK WITH CURB & GUTTER SECTION**

NOT TO SCALE



NOTES:

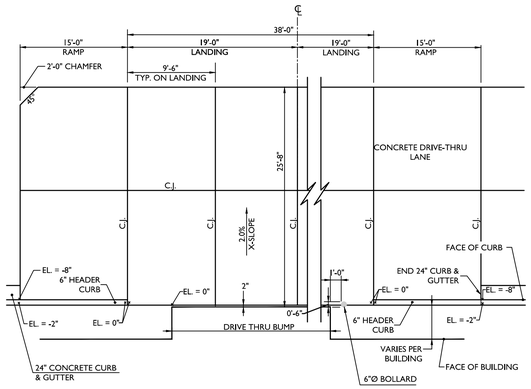
1.) TRASH ENCLOSURE MATERIALS SHALL MATCH MATERIALS OF THE BUILDING.

2.) THE TRASH ENCLOSURE SHOWN HEREON HAS BEEN PROVIDED BY THE ARCHITECT OF RECORD. SHOULD ANY DETAILS OR NOTES DIFFER FROM THIS PLAN TO THE APPROVED ARCHITECTURAL PLAN, THE ARCHITECTURAL PLAN SHALL GOVERN.

10 0 10 20

SCALE : 1" = 10'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

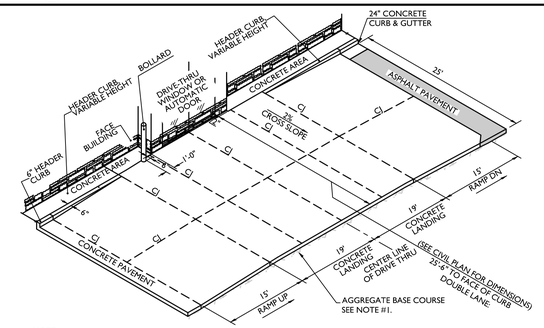


NOTE:

1. ALL ELEVATIONS ON THIS DETAIL ARE RELATIVE TO FFE = 0'.
2. FOR LC FOOTPRINT DECREASE LANDING FROM 38' TO 30'. LANDING SHOULD REMAIN CENTERED ON DRIVE-THRU WINDOW.

13 C-5 **DRIVE-THRU PLAN**

NOT TO SCALE

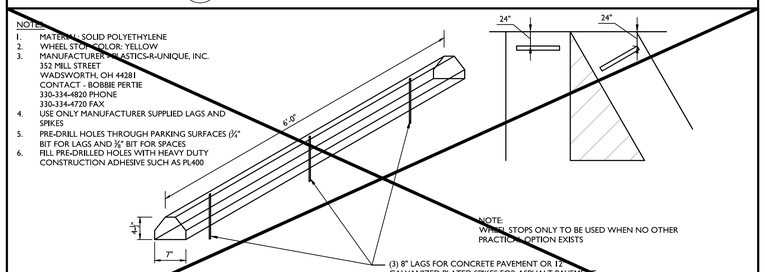


NOTE:

1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.
2. FOR LC FOOTPRINT DECREASE LANDING FROM 38' TO 30'. LANDING SHOULD REMAIN CENTERED ON DRIVE-THRU WINDOW.

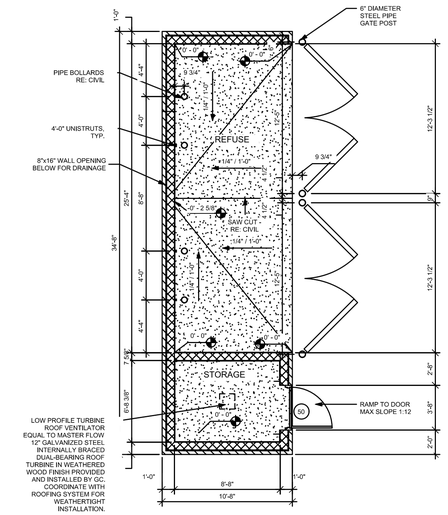
14 C-5 **DRIVE-THRU ISOMETRIC**

NOT TO SCALE



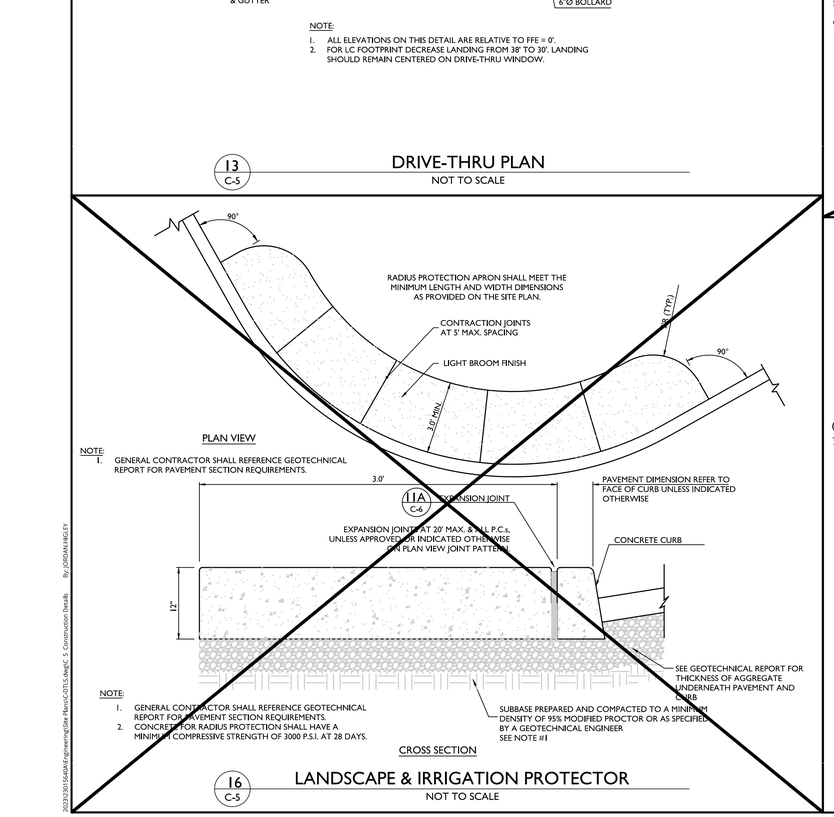
15 C-5 **SOLID PLASTIC WHEEL STOP**

NOT TO SCALE



19 C-5 **TRASH ENCLOSURE DETAIL**

NOT TO SCALE

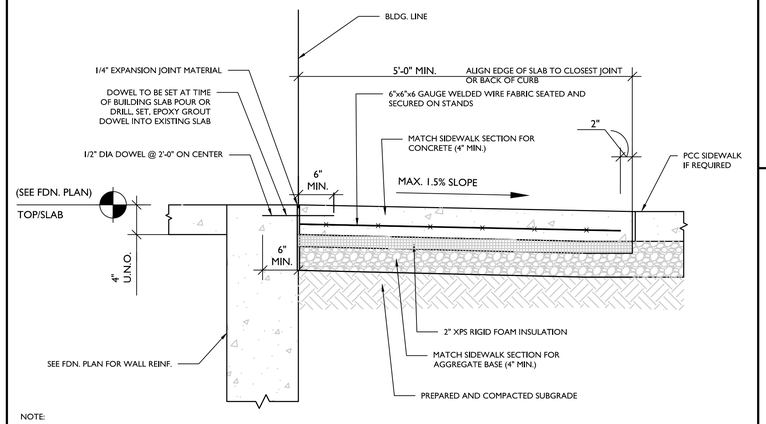


NOTE:

1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.
2. CONCRETE FOR RADIUS PROTECTION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.

16 C-5 **LANDSCAPE & IRRIGATION PROTECTOR**

NOT TO SCALE

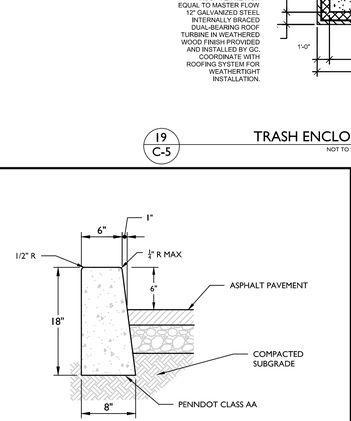


NOTE:

1. CONTRACTOR TO REFER TO STRUCTURAL PLANS FOR ADDITIONAL DETAILS. NOTIFY ENGINEER WITH ANY DISCREPANCIES FROM THIS DETAIL.
2. CONTRACTOR HAS THE OPTION TO DRILL, SET AND EPOXY GROUT DOWEL IF NOT INSTALLED WHEN THE BUILDING SLAB WAS POURED.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR LOCATIONS. DOOR STOOP SHALL EXTEND 12" PAST EACH SIDE OF DOOR MIN. STOOP IS TO BE SEPARATED ON ALL SIDES WITH 1/4" EXPANSION JOINT MATERIAL, TOPPED WITH SEALANT.
4. USE A 10'X5' SLAB MINIMUM AT A DOUBLE DOOR ENTRY.
5. USE A 5'X5' SLAB MINIMUM AT A SINGLE DOOR ENTRY.
6. DOWELS TO BE INSTALLED INTO THE BUILDING FOUNDATION ONLY. THE REMAINING THREE SIDES OF THE SLAB DO NOT GET TIED TO THE SURROUNDING SIDEWALK.

ENTRY DOOR FROST SLAB DETAIL

NOT TO SCALE

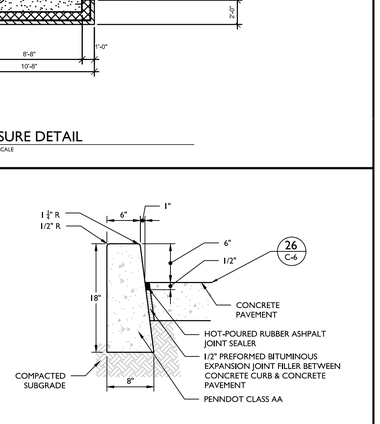


NOTES:

1. PREFORMED BITUMINOUS FIBER TRAVERSE JOINTS, 1/2" THICK AT 20' MAX. INTERVALS ALONG THE CURB.
2. PROVIDE CONTRACTION JOINTS (2" DEEP X ⅛" WIDE) 4'-0" MIN TO 10'-0" MAX INTERVALS.

17 C-5 **18" CONCRETE CURB DETAIL**

NOT TO SCALE



NOTES:

1. DEPTH OF JOINT FILLER STRIP EQUAL TO THE THICKNESS OF THE PAVEMENT LESS 1/2".
2. PREFORMED BITUMINOUS FIBER TRAVERSE JOINTS, 1/2" THICK AT 20' MAX. INTERVALS ALONG THE CURB.
3. PROVIDE CONTRACTION JOINTS (2" DEEP X ⅛" WIDE) 4'-0" MIN TO 10'-0" MAX INTERVALS.

18" CONCRETE CURB ADJACENT TO CONCRETE

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION
1	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS
2	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS
-	-	DRAWN BY: JEH / CHK'D BY: TCM

Seal

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Digitally signed by Christopher John Riggle
Date: 2026.09.08 10:41:36 -04'00'

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EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

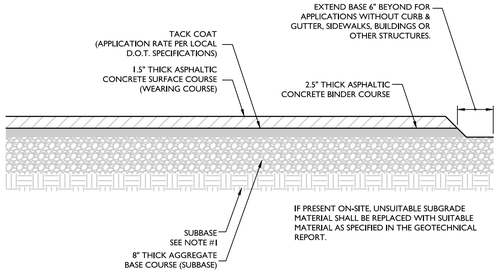
- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet

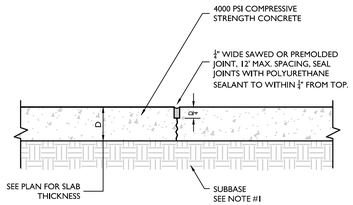
C 5

20231281564\Engineering\Site Plans\CrDiTLS.dwg\C 5 Construction Details By: JORDAN.HIGLEY



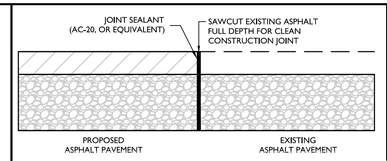
NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE SITE SPECIFIC GEOTECHNICAL REPORT FOR PAVEMENT, AGGREGATE, AND SUBGRADE SECTION REQUIREMENTS.
2. MINIMUM PAVEMENT THICKNESS SHOULD BE 5" GRADED AGGREGATE BASE, 2.5"ASPHALT PAVEMENT BINDER & 1.5" ASPHALT PAVEMENT SURFACE COURSE, AND TACK COAT.

22 / C-6 — TYPICAL ASPHALT PAVEMENT SECTION
NOT TO SCALE

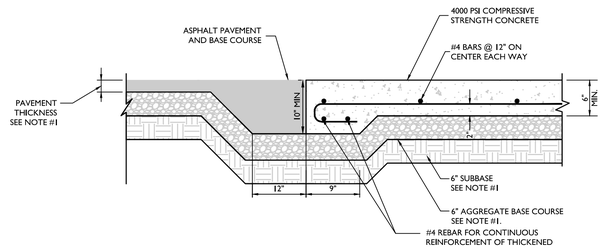


NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.

23 / C-6 — TRANSVERSE AND LONGITUDINAL CONTRACTION JOINT
NOT TO SCALE

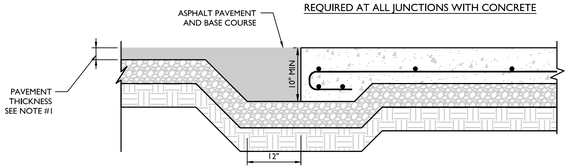


24A / C-6 — BUTT JOINT
NOT TO SCALE



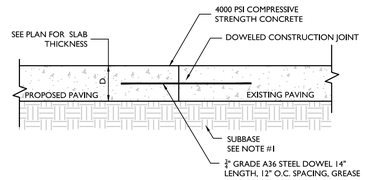
NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.

25 / C-6 — CONCRETE APRON @ TRASH ENCLOSURE
NOT TO SCALE



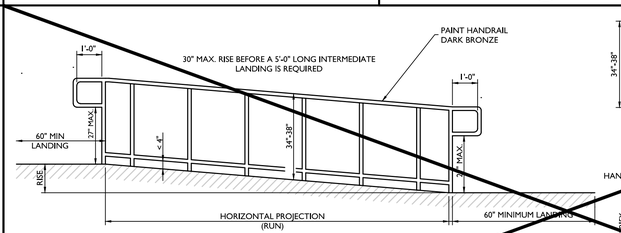
NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.

22A / C-6 — PAVEMENT EDGE AT CONCRETE
NOT TO SCALE



NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.

24 / C-6 — TRANSVERSE AND LONGITUDINAL DOWELED CONSTRUCTION JOINT
NOT TO SCALE



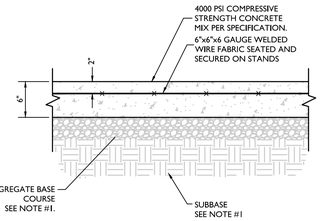
28 / C-6 — TYPICAL ADA RAMP AND HANDRAIL
NOT TO SCALE

RAMPS SECTION 405
- "ANY PART OF AN ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 SHALL BE CONSIDERED A RAMP AND SHALL COMPLY WITH 4.8"
- "THE LEAST POSSIBLE SLOPE SHALL BE USED FOR ANY RAMP."
- "THE MINIMUM CLEAR WIDTH OF A RAMP SHALL BE 36"."
- "MAXIMUM SLOPE FOR A RAMP SHALL BE 1:12. RISE FOR ANY RAMP RUN SHALL 30" MAXIMUM.

LANDINGS SECTION 405.7
- "LEVEL LANDINGS WILL BE PROVIDED AT TOP AND BOTTOM OF EACH RAMP. LANDING LENGTH SHALL BE MIN. 60" AND BE AS WIDE AS RAMP MIN. 36".
- "IF RAMP CHANGES DIRECTION LANDING WILL BE MIN. 60"x60"
- "IF A DOORWAY IS LOCATED AT A LANDING, THEN THE AREA IN FRONT OR THE DOORWAY SHALL COMPLY WITH 404.2.4 AND 404.3.2

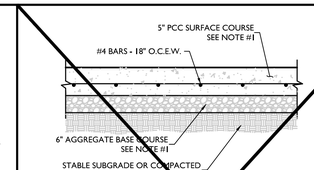
HANDRAILS SECTION 505
- "IF A RAMP HAS A SLOPE GREATER THAN 5% AND A RISE GREATER THAN 6" OR A HORIZONTAL PROJECTION GREATER THAN 72", THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES"
- "HANDRAIL WILL BE CONSTRUCTED OF WELDED STEEL PIPE - GRIND SMOOTH AND PAINT TO MATCH DARK BRONZE.

CROSS SLOPE SECTION 405.3
- "THE CROSS SLOPE OF RAMP SURFACES SHALL BE NO GREATER THAN 1:50.
- "NOWHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50.



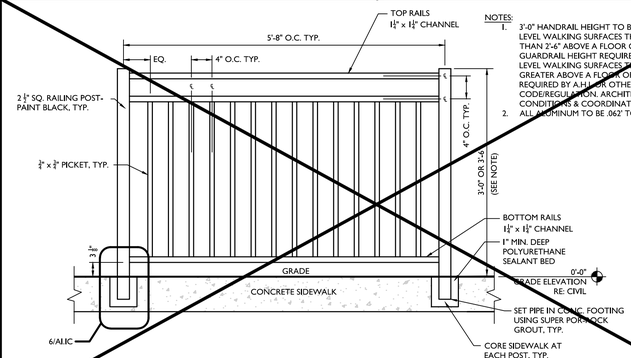
NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.
2. MINIMUM PAVEMENT THICKNESS SHALL BE 6" CONCRETE, 4" AGGREGATE BASE.

26 / C-6 — CONCRETE PAVING AT DRIVE-THRU LANE
NOT TO SCALE



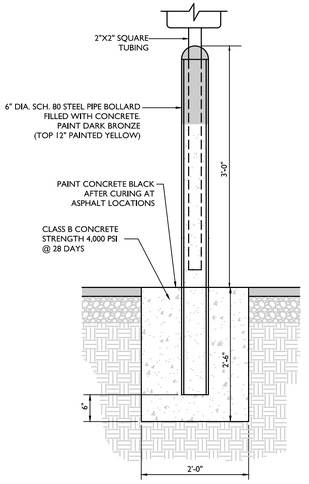
NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.
2. MINIMUM PAVEMENT THICKNESS SHALL BE 5" CONCRETE, 4" AGGREGATE BASE.
3. DESIGN PER GEOTECH REPORT PREPARED BY COLLIERS ENGINEERING, DATED JULY 03, 2024.
4. PAVEMENTS & SUBGRADES INCLUDING MATERIALS & COMPACTION SHALL MEET STANDARDS & SPECIFICATIONS OF THE GOVERNING DEPARTMENT OF TRANSPORTATION.
5. JOINTING & SPACING SHALL BE PER CONCRETE JOINT DETAILS.
6. CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS.

26A / C-6 — CONCRETE PAVEMENT SECTION

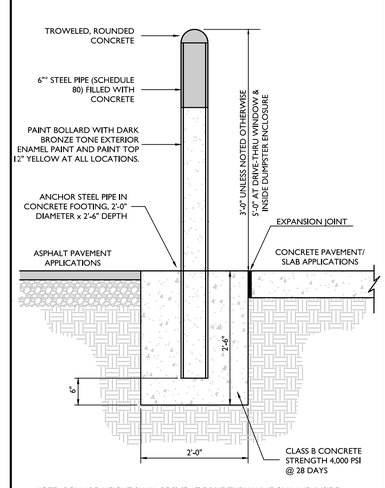


NOTES:
1. 3'-0" HANDRAIL HEIGHT TO BE USED ALONG OPEN SIDED LEVEL WALKING SURFACES THAT ARE LOCATED LESS THAN 2'-6" ABOVE A FLOOR OR GRADE BELOW. 3'-6" GUARDRAIL HEIGHT REQUIRED ALONG OPEN SIDED LEVEL WALKING SURFACES THAT ARE LOCATED 2'-6" OR GREATER ABOVE A FLOOR OR GRADE BELOW OR WHERE REQUIRED BY A.H.J. OR OTHER GOVERNING CODE/REGULATION. ARCHITECT TO VERIFY SITE SPECIFIC CONDITIONS & COORDINATE.
2. ALL ALUMINUM TO BE .062" TOP WALL, .078 SIDE WALL.

27 / C-6 — TYPICAL HANDRAIL
NOT TO SCALE

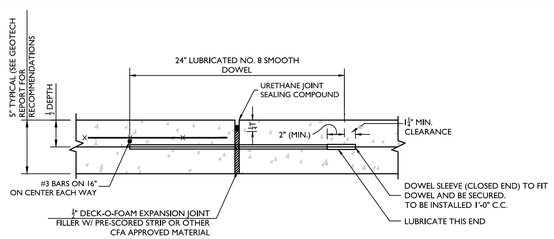


20 / C-6 — CONCRETE BOLLARD W/ SIGN
NOT TO SCALE



NOTE: BOLLARD HEIGHT SHALL BE 5'-0" AT DRIVE-THRU WINDOW AND INSIDE DUMPSTER ENCLOSURE

21 / C-6 — CONCRETE BOLLARD
NOT TO SCALE



NOTES:
1. NO. 5 SMOOTH DOWEL BAR MAY BE USED IN 5 INCH AND 6 INCH PAVEMENT THICKNESS.
2. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
3. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL EQUIPMENT.
4. DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO WET CONCRETE NOT ACCEPTABLE.
5. JOINT SPACING TO BE 24'X24' (EVERY OTHER JOINT)

11A / C-6 — EXPANSION JOINT
NOT TO SCALE

2023\23015640A\Engineering\Site Plans\C-07 LS.dwg/C 6 Construction Details By: TATE MILLER

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Digitally signed by Christopher John Riggle
Date: 2026.09.08 12:21:04 -04'00'
Christopher John Riggle
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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
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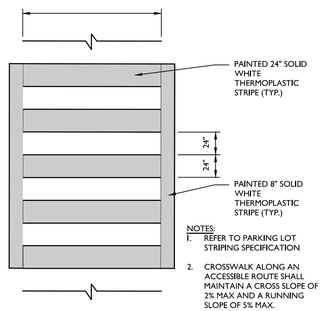
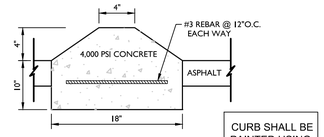
Sheet
C 6



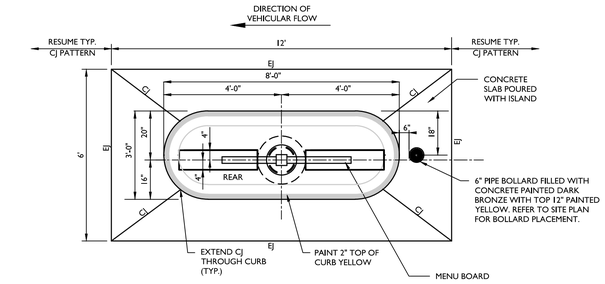
29 C-7 PAINTED CROSS WALK
NOT TO SCALE



CURB SHALL BE PAINTED USING YELLOW TRAFFIC PAINT

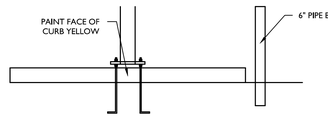
NOTES:
1. PRE-CUT EXPANSION JOINT MATERIAL SHALL BE USED IN ALL EXPANSION JOINTS.
2. DUMMY JOINTS SHALL BE INSTALLED AT 10 ft. INTERVALS, MAXIMUM.
3. INSTALL EXPANSION JOINTS EVERY 40 ft., MAXIMUM, AT ENDS OF RADIUS, AND A MINIMUM OF 5 ft. FROM INLET STRUCTURES.
4. BREAK AS NEEDED TO ENSURE POSITIVE DRAINAGE
5. CONCRETE TO BE 4,000 P.S.I.

31 C-7 MOUNTABLE CURB
NOT TO SCALE



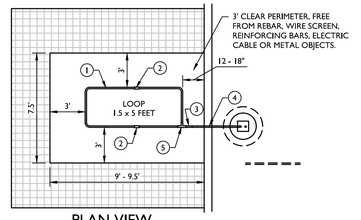
ISLAND CURB PLAN

CJ = CONTRACTION JOINT
EJ = EXPANSION JOINT

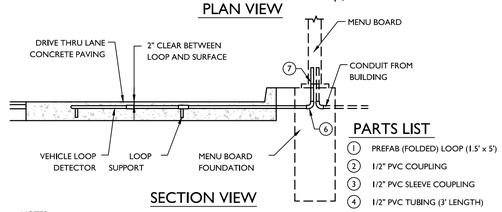


ISLAND CURB ELEVATION

30 C-7 DRIVE-THRU ORDER POINT ISLAND
NOT TO SCALE



PLAN VIEW



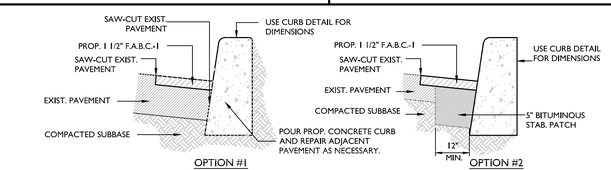
SECTION VIEW

NOTES:
1. LOOP DETECTOR IS PROVIDED BY HME.
2. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.

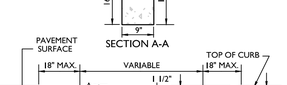
PARTS LIST

1	PREFAB (FOLDED) LOOP (1.5' x 5')
2	1/2" PVC COUPLING
3	1/2" PVC SLEEVE COUPLING
4	1/2" PVC TUBING (3' LENGTH)
5	1/2" PVC CORNER FITTING
6	1/2" PVC 90° ELBOW
7	1/2" PVC TUBING (2' LENGTH)

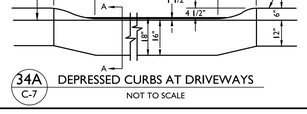
32 C-7 MENU BOARD LOOP DETECTION SYSTEM
NOT TO SCALE



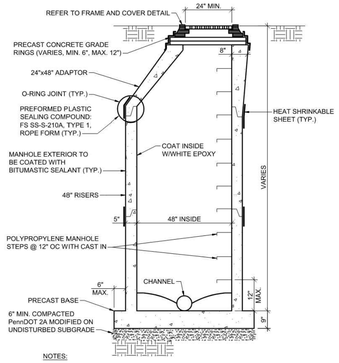
33 C-7 PAVEMENT REPAIR STRIP
NOT TO SCALE



34 C-7 CURB CUT (FLUSH CURB)
NOT TO SCALE

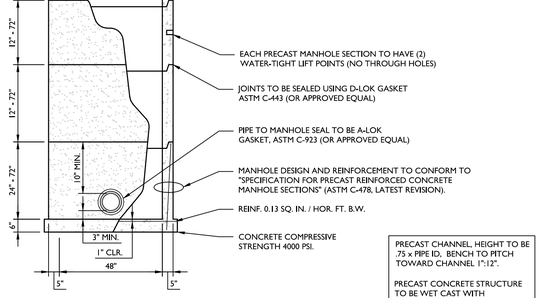


34A C-7 DEPRESSED CURBS AT DRIVEWAYS
NOT TO SCALE



NOTES:
1. ALL PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A CAST-IN-PLACE GASKET. (TYP). (A-LOK OR APPROVED EQUAL)
2. MANHOLES EXCEEDING A DEPTH OF 16 FEET SHALL PROVIDE PRE-CAST LANDING PLATFORM.

1 TYPICAL MANHOLE DETAIL
SCALE: NONE



PRECAST CHANNEL, HEIGHT TO BE .75 x PIPE ID. BENCH TO PITCH TOWARD CHANNEL 1"-12".

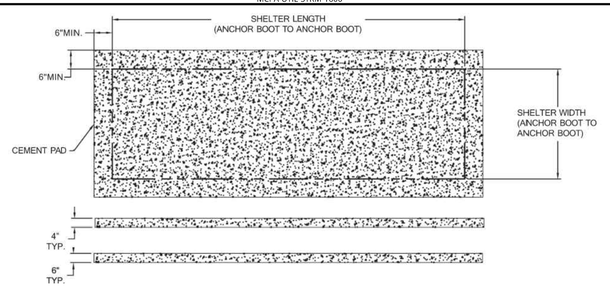
PRECAST CONCRETE STRUCTURE TO BE WET CAST WITH MONOLITHIC BASE SECTION

NOTE:

DOGHOUSE MANHOLE TO BE TYPE B PER PENNDOT STANDARDS RC-39M (LATEST EDITION).

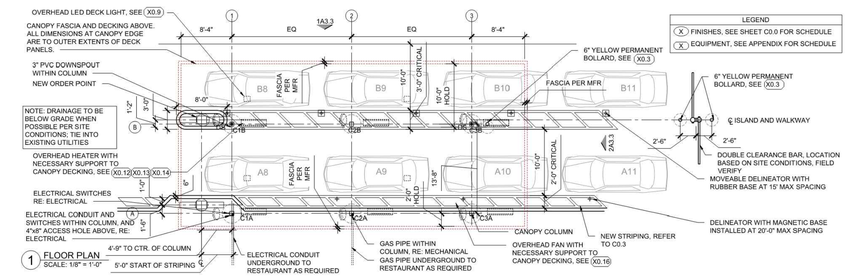
48" DIAMETER STORM MANHOLE DETAIL

NOT TO SCALE MCPA-UTIL-STRM-1600 06/01/19

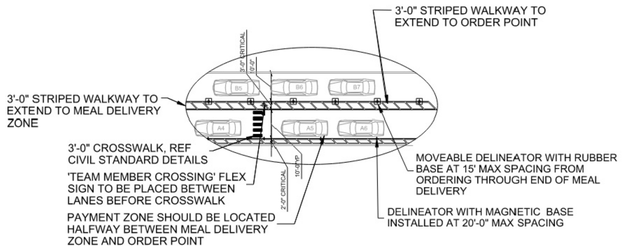


NOTES:
1. THIS IS FOR VISUAL REFERENCE ONLY. BRASCO IS NOT LIABLE FOR CONCRETE INSTALLATION INSTRUCTIONS UNLESS STRUCTURAL CONCRETE CALCULATIONS ARE INCLUDED WITH AN ORDER. CONSULT YOUR LOCAL BUSINESS CODES FOR SPECIFIC CONCRETE PAD REQUIREMENTS.
2. BRASCO RECOMMENDS A MINIMUM 4" THICK, 3,000 PSI CONCRETE PAD FOR AREAS WITH WIND SPEEDS LOWER THAN 110 MPH. FOR AREAS WITH WIND SPEEDS HIGHER THAN 110 MPH, BRASCO RECOMMENDS A MINIMUM 6" THICK, 3,000 PSI CONCRETE PAD. THE CONCRETE PAD SHOULD ALLOW A MINIMUM OF 6" AROUND THE SHELTER'S PERIMETER TO PREVENT DAMAGE WHEN ANCHORING. CONCRETE MAY OR MAY NOT REQUIRE ADDITIONAL REINFORCEMENT.

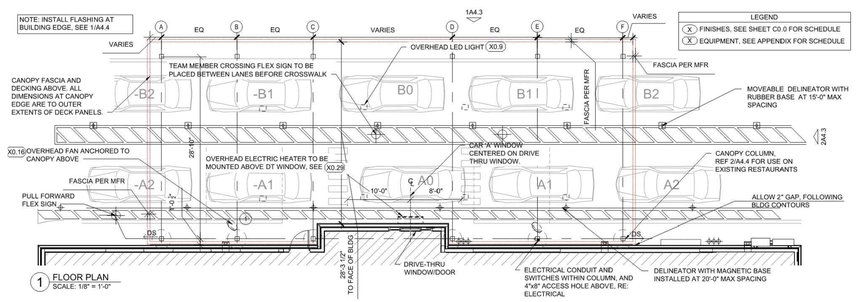
LANTA BUS STOP
NOT TO SCALE



ORDER POINT DIAGRAM
*REFER TO SITE PLAN FOR FINAL DIMENSIONS



PAYMENT ZONE DIAGRAM
*REFER TO SITE PLAN FOR FINAL DIMENSIONS



MEAL DELIVERY ZONE DIAGRAM
*REFER TO SITE PLAN FOR FINAL DIMENSIONS

50 C-7 DRIVE-THRU STRIPING
NOT TO SCALE

ENTECH ENGINEERING 1.800.423.1372 www.entechgroup.com
PALMER TOWNSHIP
3 MELLER PLACE, PALMER, PA, 18045
TYPICAL MANHOLE DETAIL
DESIGNED BY: MJ MATTOS
DRAWN BY: MJM
CHK'D BY: MJM
APPROVED BY: ENGINEER, INC.
DATE: 10/07/25
SCALE: AS NOTED
PROJECT NO.: 4008.838
DRAWING NO.: S-13

2023\23015640A\Engineering\Site Plans\C-07\15.dwg|C 7 Construction Details By: TATT.MILLER

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Seal

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Date: 2026.09.08 15:41:04 -04'00'

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LICENSE NUMBER: PE079508
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COLLIERS ENGINEERING & DESIGN (PA) DOING BUSINESS AS MASER CONSULTING, INC.

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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON COUNTY
PENNSYLVANIA

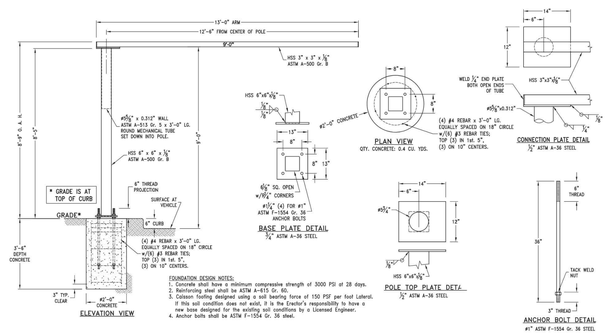
PRELIMINARY/FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

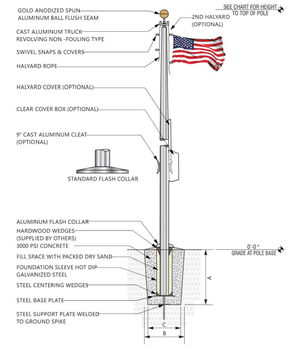
Sheet
C 7



39 C-8

CLEARANCE BAR

NOT TO SCALE



FLAG SIZES

POLE	A	B	MATERIAL
20'	3'0"	5'0"	POLYESTER
25'	4'0"	6'0"	POLYESTER
30'	5'0"	8'0"	POLYESTER
35'	6'0"	10'0"	POLYESTER
40'	8'0"	12'0"	POLYESTER
45'	8'0"	12'0"	POLYESTER
50'	12'0"	18'0"	POLYESTER

FOUNDATION SIZES

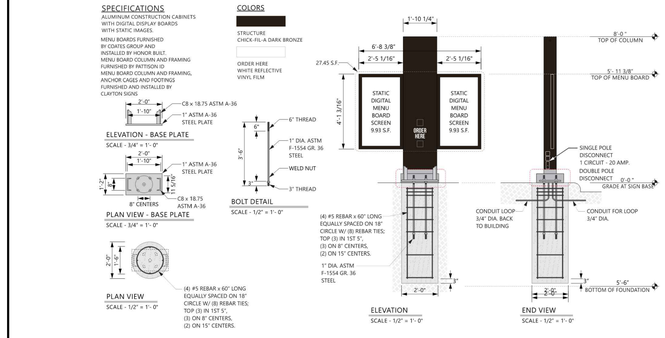
HEIGHT	A	B	C
20'	3'6"	30"	24"
25'	3'6"	30"	24"
30'	3'6"	30"	24"
35'	4'0"	36"	30"
40'	4'6"	42"	36"
45'	5'0"	48"	42"
50'	5'6"	48"	42"

GROUND SLEEVE AND CONCRETE INSTALLED BY THE GENERAL CONTRACTOR
POLE INSTALLED ON PRE-INSTALLED GROUND SLEEVE BY SIGN CONTRACTOR

40 C-8

FLAG POLE

NOT TO SCALE



41 C-8

DRIVE THRU MENU BOARD

NOT TO SCALE

SPECIFICATIONS

SIGN CABINET IS SIGN COMP #2005 EXTRUDED CABINET WITH A SIGN COMP # 2085/2095 BLEED FACE FRAME.
CABINET IS INTERNALLY ILLUMINATED WHITE LED 6500K LIGHTS, SPACED EVENLY. PAINT INTERIOR OF CABINETS MATTE WHITE.
CLOSED SUNDAY PANEL (IF SHOWN)
IS .125" ALUM. ROUTED FACE BACKED ACRYLIC.

READER BOARD CABINET (IF SHOWN)
.125" ALUM. FACE PANEL WITH ROUTED OPENING FOR READER BOARD AND COPY READING "CLOSED SUNDAY"
APERCU SENTENCE CASE BOLD.
HINGED VANDAL COVER FRAME WITH 187" THICK CLEAR POLYCARBONATE FACE WITH INSET .125" #7328 WHITE.
READER FACE WITH ZIP TRACK TO ACCOMMODATE WAGNER ZIP LETTER SET THAT INCLUDES FRANKLIN GOTHIC EXTRA CONDENSED UPPERCASE LETTER SET OF 334 CHARACTERS WITH PUNCTUATION MARKS.

MASONRY WORK BY THE GENERAL CONTRACTOR
FOUNDATION IS FURNISHED BY CLAYTON SIGNS, INC.



3M #3630-53 TRANSLUCENT CARDINAL RED
TENSION FRAME COVER TO BE PAINTED
GENESIS M SINGLE STAGE (G2-SERIES) RED #48247

WHITE BLEED 3M
PANOGRAPHIC III FLEX FACE
W/ .125" #7328 WHITE PLEX

PAINTED MATTHEWS
#74155 DARK BRONZE, SEMI-GLOSS

MASONRY TO MATCH BUILDING

DOUBLE FACED CABINET — WET LOCATION

SEE ENGINEER STAMPED DRAWING FOR FOUNDATION DETAILS

42 C-8

MONUMENT SIGN (DOUBLE SIDED - 26.64 SF)

NOT TO SCALE

SPECIFICATIONS

FLAT CUT-OUT ALUMINUM LETTERS, 1/2" THICK, PIN-MOUNTED TO WALL.

COLORS

MATTHEWS PAINT
EQUUS BRONZE METALLIC
MP20181



FONTS :
APERCU BOLD
CAECILIA COM 85 HEAVY

WELCOME WALL SIGN (26.01 SF)

NOT TO SCALE

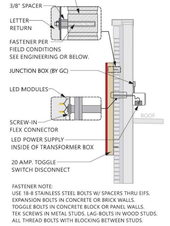
SPECIFICATIONS

CHICK-FIL-A SCRIPT LETTERS
LETTERS ARE LED-ILLUMINATED CHANNEL LETTERS MOUNTED ON ALUMINUM SURFACE OF BUILDING WITH TRANSFORMERS REMOTELY LOCATED BEHIND THE WALL IN UL APPROVED TRANSFORMER BOXES.
FACES ARE 3/16" ACRYLIC.
RETURNS ARE .063 ALUMINUM BACKS ARE .080 ALUMINUM
ALL RETURNS ARE ARC-WELDED TO LETTER BACKS

CHANNEL LETTER FACES
2793 RED ACRYLIC
TRIMCAP RETAINER-
1" RED (EWELITE TRIMCAP

ALUMINUM RETURNS
PAINTED TO MATCH
SHERWIN WILLIAMS
SW6108 LATTE





120 VOLT PRIMARY / 12 VOLT SECONDARY
3 AMPS PER SIGN
PRIMARY WIRING 12 GAUGE WITH 14 GAUGE GROUND
SECONDARY WIRING 18 GAUGE

CHANNEL LETTERS (NON-ILLUMINATED) — WET LOCATION

43 C-8

WALL SIGN (58.75 SF)

NOT TO SCALE

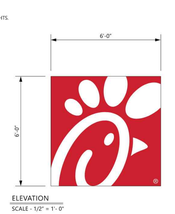
SPECIFICATIONS

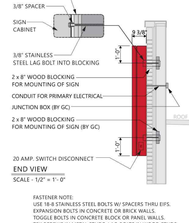
CABINET
ALUMINUM CABINET HAS EXTRUDED ALUMINUM

FACES
FLEX FACES DECORATED WITH TRANSLUCENT VINYL FILM ON SURFACE OF ACRYLIC.
INTERNALLY ILLUMINATED WITH WHITE LED 6500K LIGHTS.
DISCONNECT SWITCH AS REQUIRED PER NEC.

FACES
3M #3630-53 CARDINAL
RED TRANSLUCENT VINYL
CABINET
GENESIS M SINGLE STAGE
(G2-SERIES) RED #48247

3M PANOGRAPHIC III FLEX FACE





FASTENER NOTE:
USE 18-8 STAINLESS STEEL BOLTS W/ SPACERS THRU EIFS.
EXPANSION BOLTS IN CONCRETE OR BRICK WALLS.
TOGGLE BOLTS IN CONCRETE BLOCK OR PANEL WALLS.
TEK SCREWS IN METAL STUDS. LAG-BOLTS IN WOOD STUDS.
ALL THREAD BOLTS WITH BLOCKING BETWEEN STUDS.

CROSS-SECTION
SCALE - 1/2" = 1'- 0"

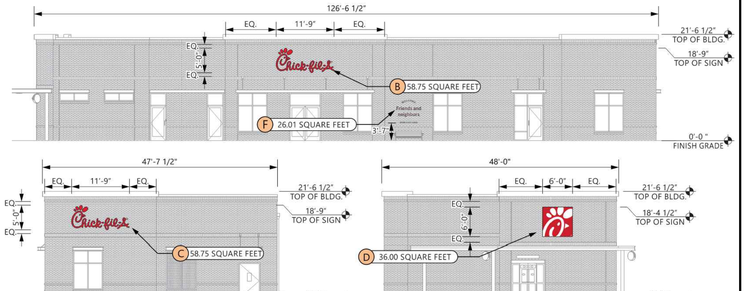
120 VOLT PRIMARY / 12 VOLT SECONDARY
3 AMPS PER SIGN
PRIMARY WIRING 12 GAUGE WITH 14 GAUGE GROUND
SECONDARY WIRING 18 GAUGE

SINGLE FACED CABINET — WET LOCATION

44 C-8

WALL SIGN (36 SF)

NOT TO SCALE

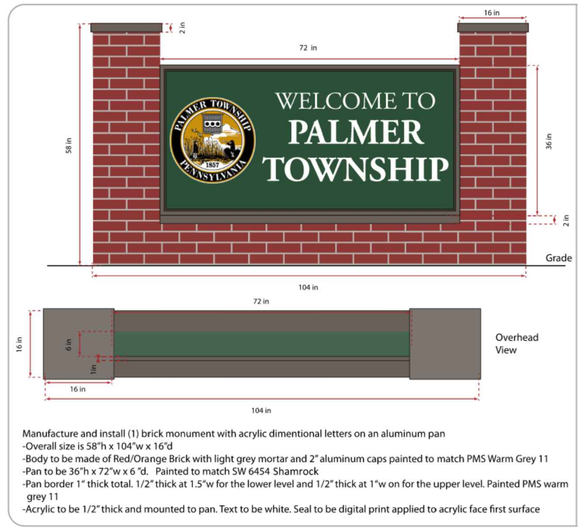


ELEVATIONS
SCALE - 3/32" = 1'- 0"

NOTE:
SIGNAGE DETAILS SHOWN HEREON ARE FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL REFER TO FINAL SIGNAGE DETAILS PROVIDED BY THE SIGNAGE VENDOR.

FACADE ELEVATIONS

NOT TO SCALE



Manufacture and install (1) brick monument with acrylic dimentional letters on an aluminum pan
-Overall size is 58"h x 104"w x 16"d
-Body to be made of Red/Orange Brick with light grey mortar and 2" aluminum caps painted to match PMS Warm Grey 11
-Pan to be 36"h x 72"w x 6 "d. Painted to match SW 6454 Shamrock
-Pan border 1" thick total. 1/2" thick at 1.5"w for the lower level and 1/2" thick at 1"w on for the upper level. Painted PMS warm grey 11
-Acrylic to be 1/2" thick and mounted to pan. Text to be white. Seal to be digital print applied to acrylic face first surface

'WELCOME TO PALMER TOWNSHIP' SIGN

NOT TO SCALE

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE079508
COLLIERS ENGINEERING & DESIGN, INC.
CHRIS.RIGGLE@COLLIERSENG.COM

Digitally signed by Christopher John Riggle
Date: 2026.09.08 10:41:04 -04'00'

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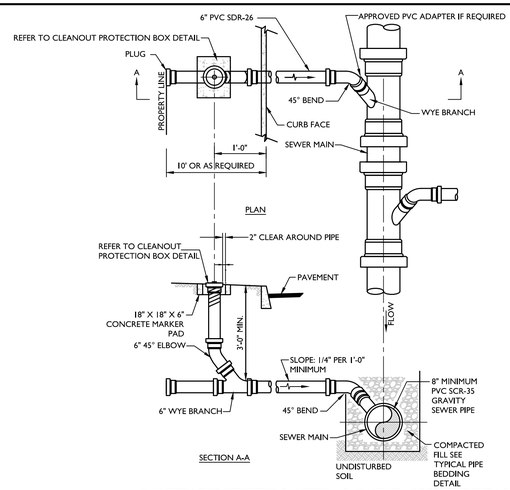
Sheet

C 8

2023\23015640A\Engineering\Site Plans\C-07\15.Sheet\C 8 Construction Details By: TATT.MILLER



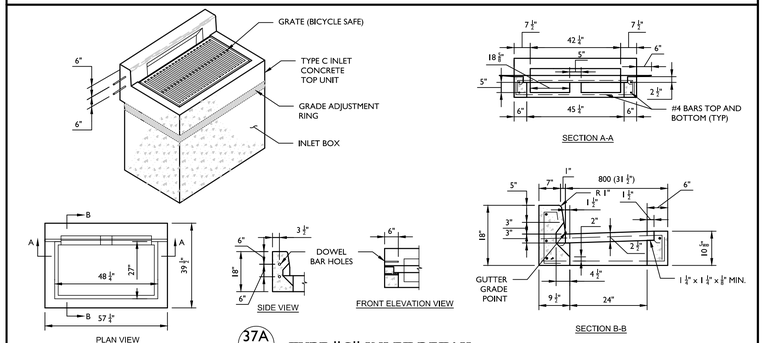
SANITARY SEWER LATERAL & CLEANOUT DETAIL

MINIMUM SIZE OF CONCRETE THRUST BLOCKS																	
d	A	B	C	d	A	B	C	d	A	B	C	A	B	C	d x e	A	B
6"	2' - 0"	8"	1' - 3"	6"	2' - 6"	8"	1' - 3"	6"	1' - 6"	6"	1' - 3"	1' - 6"	8"	1' - 3"	6" x 4"	1' - 6"	1' - 0"
8"	2' - 6"	8"	1' - 6"	8"	3' - 0"	8"	1' - 6"	8"	1' - 6"	8"	1' - 9"	1' - 6"	8"	1' - 9"	8" x 4"	2' - 0"	1' - 0"
10"	3' - 0"	10"	2' - 0"	10"	3' - 6"	10"	2' - 0"	10"	2' - 3"	10"	2' - 0"	1' - 6"	10"	2' - 0"	10" x 6"	2' - 4"	1' - 3"
12"	3' - 6"	10"	2' - 6"	12"	3' - 9"	10"	2' - 9"	12"	2' - 6"	10"	2' - 6"	1' - 6"	10"	2' - 6"	10" x 8"	2' - 6"	1' - 6"
TEES & CROSSES				90° BENDS				45° BENDS				22½° & 11¼° BENDS			REDUCERS		

NOTES:

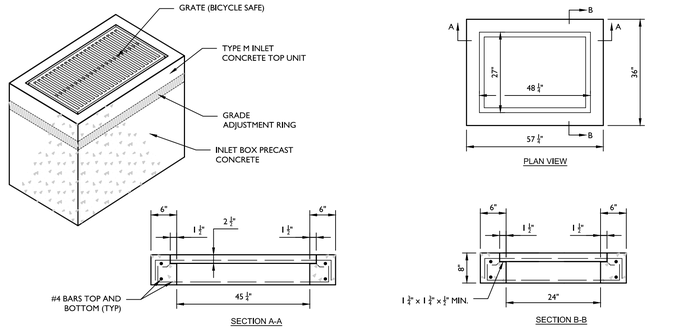
1. ALL HORIZONTAL BENDS SHALL HAVE CONCRETE THRUST BLOCKS WITH MINIMUM BEARING AREAS AGAINST UNDISTURBED SOIL AND NO JOINT SHALL BE COVERED WITH CONCRETE.
2. BEARING AREAS ARE BASED UPON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 0.5 TONS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY THESE AREAS SHALL BE INCREASED ACCORDINGLY.
3. THRUST BLOCKS SHALL BE POURED DIRECTLY AGAINST TRENCH WALLS AND SHALL BE PENNDOT CLASS "A" CONCRETE.
4. DETAILS FOR SUPPORTS AND BRACING FOR VERTICAL BENDS FOR 12" DIAMETER OR LARGER SHALL BE APPROVED BY THE AUTHORITY PRIOR TO CONSTRUCTION.

THRUST BLOCKS DETAIL



TYPE "C" INLET DETAIL

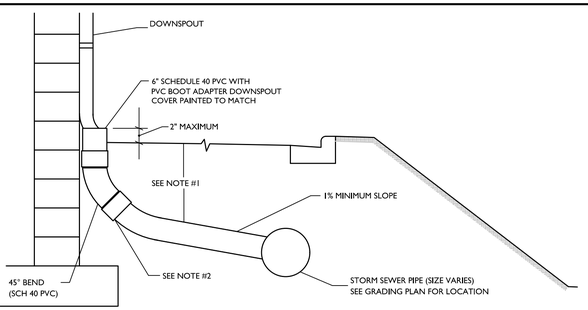
37A / C-9



TYPE "M" INLET DETAIL

37B / C-9

NOT TO SCALE MCPA-UTIL-STRM-1300 05/01/18

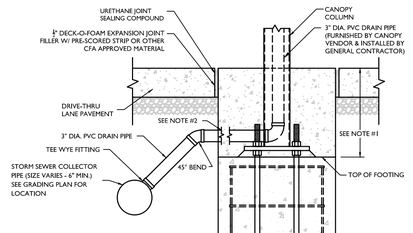


NOTES:

1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.
2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.
3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.
4. 4. IF NECESSARY, ADJUST FOOTING TO ALLOW DOWNSPOUT TO BE INSTALLED TIGHT AGAINST BUILDING

BUILDING DOWNSPOUT CONNECTION DETAIL

NOT TO SCALE

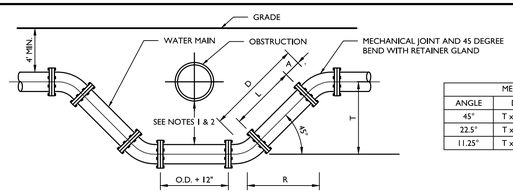


NOTES:

1. CANOPY FOOTING SHALL BE A MINIMUM 2'-0" BELOW DRIVE-THRU LANE PAVEMENT SURFACE. REFER TO CIVIL PLANS FOR EXACT CANOPY FOOTING ELEVATIONS.
2. FLEXIBLE FITTING (NON-SHEAR FERNCO) TO BE UTILIZED BETWEEN PIPE TRANSITIONS AS NECESSARY.
3. CONTRACTOR TO COORDINATE COLUMN DOWNSPOUT ORIENTATION WITH CANOPY VENDOR. ADJUST DOWNSPOUT PIPING AS NECESSARY TO MAKE CONNECTION TO COLLECTOR PIPE.

CANOPY DOWNSPOUT CONNECTION DETAIL

NOT TO SCALE



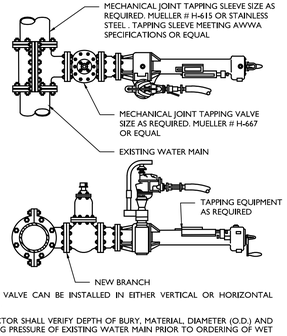
MECHANICAL JOINTS			
ANGLE	D =	R =	L =
45°	T x 1.414	T x 1.000	D-2A
22.5°	T x 2.613	T x 2.414	D-2A
11.25°	T x 5.126	T x 5.027	D-2A

NOTES:

1. WATER MAIN MAY CROSS ABOVE OBSTRUCTION IF 4' MINIMUM COVER IS MAINTAINED ABOVE THE WATER MAIN AND FINISH GRADE.
2. MINIMUM VERTICAL SEPARATION BETWEEN SANITARY OR STORM SEWER TO WATER MAIN SHALL BE 18" IF THE HORIZONTAL SEPARATION IS LESS THAN 10'. BETWEEN WATER MAIN AND OTHER UTILITIES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12".
3. WATER MAIN SHALL BE SIZE AND MATERIAL SPECIFIED ON THE PLAN AND IN ACCORDANCE WITH ESWA SPECIFICATIONS.
4. OFFSETS MAY BE SUBSTITUTED FOR A "T" OF UP TO 24" IF APPROVED BY THE ENGINEER.
5. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS OR OTHER POINTS OF PIPE DIRECTION CHANGE.
6. TIE RODS SHALL BE UTILIZED TO RESTRAIN PIPE JOINTS IF THRUST BLOCK IS NOT USED. DETAILS OF THE TIE ROD ASSEMBLY SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. TIE RODS SHALL BE SUFFICIENT TO RESTRAIN THE THRUST DEVELOPED AT 100 PSI WORKING PRESSURE. MEGALUG RESTRAINT ALSO ACCEPTABLE IN PLACE OF TIE RODS.

WATER CROSSING UNDER UTILITY DETAIL

NOT TO SCALE MCPA-UTIL-WATR-13001 05/01/18

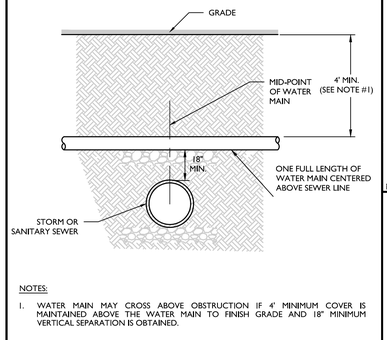


NOTES:

1. WET TAP VALVE CAN BE INSTALLED IN EITHER VERTICAL OR HORIZONTAL POSITION.
2. CONTRACTOR SHALL VERIFY DEPTH OF BURY, MATERIAL, DIAMETER (O.D.) AND OPERATING PRESSURE OF EXISTING WATER MAIN PRIOR TO ORDERING OF WET TAP UNIT.

WET TAP DETAIL

NOT TO SCALE MCPA-UTIL-WATR-1200 05/01/18

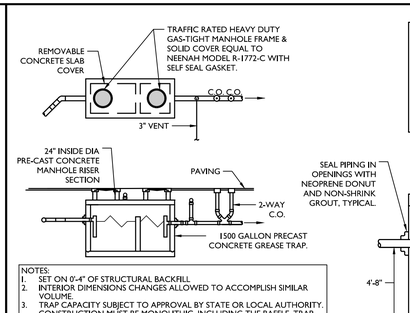


NOTES:

1. WATER MAIN MAY CROSS ABOVE OBSTRUCTION IF 4' MINIMUM COVER IS MAINTAINED ABOVE THE WATER MAIN TO FINISH GRADE AND 18" MINIMUM VERTICAL SEPARATION IS OBTAINED.

WATER CROSSING OVER SEWER DETAIL

NOT TO SCALE MCPA-UTIL-WATR-1301 05/01/18

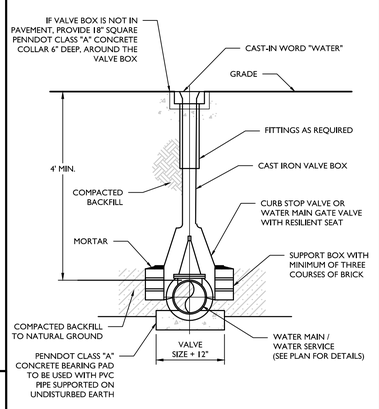


NOTES:
1. SET ON 0'-4" OF STRUCTURAL BACKFILL
2. INTERIOR DIMENSIONS CHANGES ALLOWED TO ACCOMPLISH SIMILAR VOLUME.
3. TRAP CAPACITY SUBJECT TO APPROVAL BY STATE OR LOCAL AUTHORITY. CONSTRUCTION MUST BE MONOLITHIC, INCLUDING THE BAFFLE. TRAP MUST MEET H-20 TRAFFIC LOADING REQUIREMENTS WHEN LOCATED IN A TRAFFIC AREA. SEE CIVIL PLANS FOR TRAP LOCATION.
4. COORDINATION WITH THE PALMER TOWNSHIP CODE DEPARTMENT IS REQUIRED TO ENSURE THE GREASE CONTROL DEVICE IS PROPERLY SIZED, PERMITTED, AND INSTALLED.

NOTE:
CHECK WITH STATE AND LOCAL CODE REGARDING APPROVAL, REQUIREMENTS AND SAMPLING MANHOLE.

35 / C-9 — 1,500 GALLON GREASE INTERCEPTOR

NOT TO SCALE

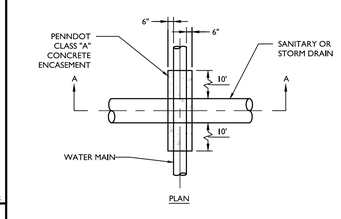


NOTES:

1. VALVE BOX MUST BE INSTALLED IN ACCORDANCE WITH ESWA SPECIFICATIONS.
2. CONTRACTOR MUST SUBMIT SHOP DRAWINGS TO ESWA PRIOR TO CONSTRUCTION FOR REVIEW/APPROVAL.

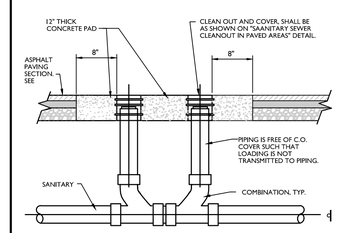
WATER VALVE BOX DETAIL

NOT TO SCALE MCPA-UTIL-WATR-16001 05/01/18



WATER MAIN ENCASEMENT DETAIL

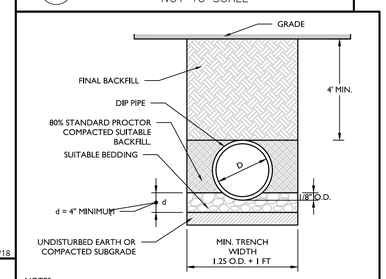
NOT TO SCALE MCPA-UTIL-WATR-1700 05/01/18



NOTES:
1. SEE PLUMBING PLANS FOR GREASE TRAP DETAIL.
2. CLEAN OUT COVERS SHALL BE PROVIDED ON ALL CLEANOUTS REGARDLESS OF LOCATION.
3. CONCRETE COLLAR ALSO REQUIRED FOR SINGLE CLEANOUTS IN PAVEMENT

36 / C-9 — SAN. C.O. OUTSIDE BUILDING

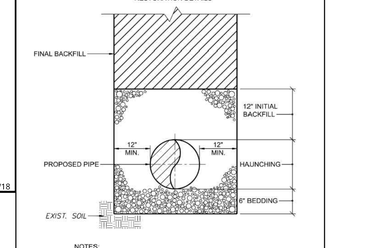
NOT TO SCALE



NOTES:
1. ALL PIPE SYSTEMS AND BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600 AND ESWA SPECIFICATIONS.
2. SUITABLE BACKFILL MATERIAL SHALL BE SAND, GRAVEL, OR 3/4" CRUSHED STONE.

DIP WATER PIPE BEDDING (TYPE 4) DETAIL

NOT TO SCALE MCPA-UTIL-WATR-19001 05/01/18



NOTES:
1. PIPE TO BE ENVELOPED IN, AND INITIAL 12" BACKFILL ON TOP TO BE 1B STONE.
2. BEDDING AND HAUNCHING TO BE 1B STONE (#8 AGGREGATE).
3. FINAL BACKFILL WITHIN PAVED AREAS TO BE 2A LIMESTONE.
4. SELECT BACKFILL MAY BE UTILIZED WITHIN NON-PAVED AREAS.

1 — **TYPICAL** SANITARY SEWER EXCAVATION, **BACKFILL & PIPE EMBEDMENT DETAIL**

SCALE: NONE

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

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PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet

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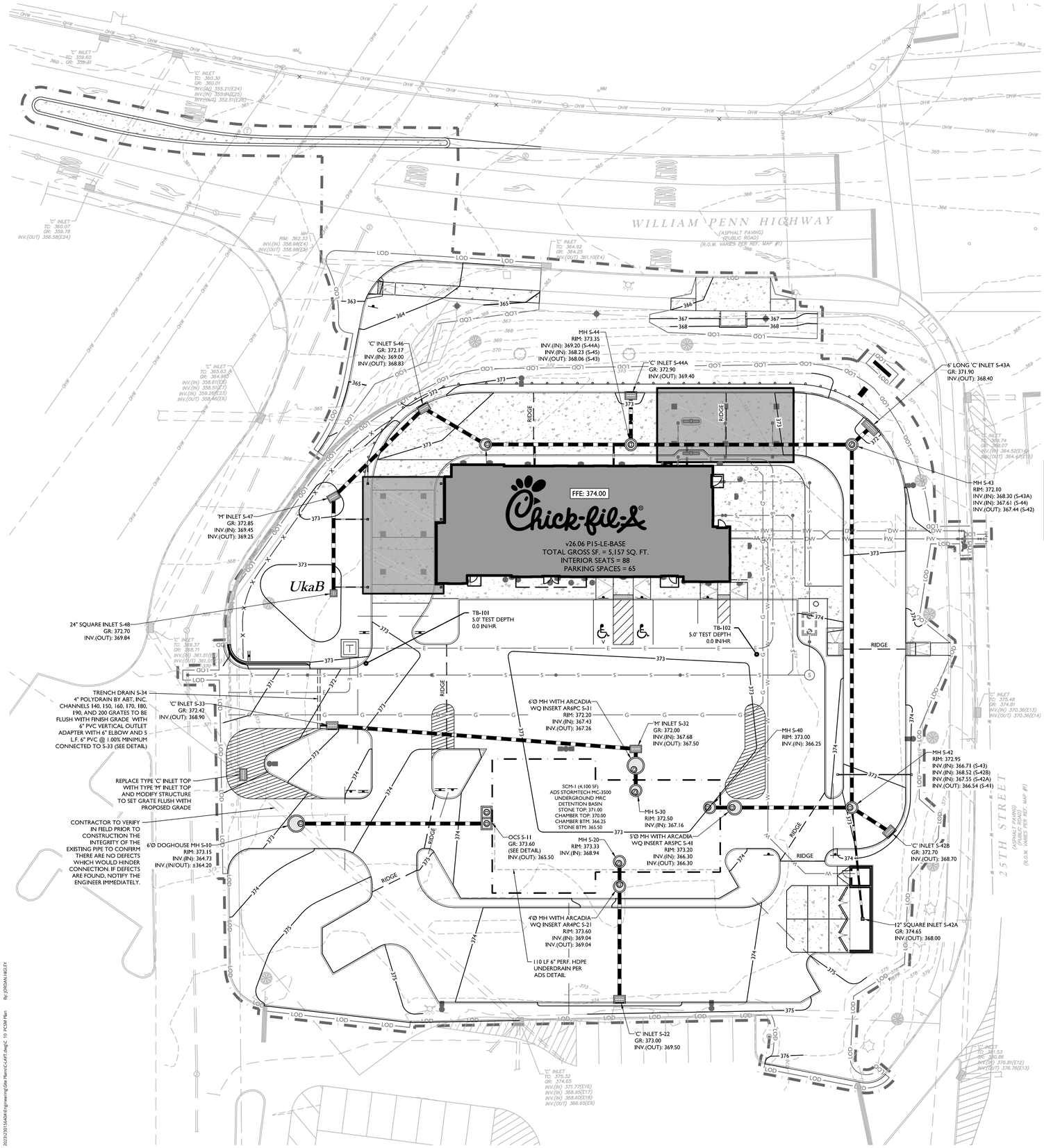
20231523015640A\Engineering\Site Plans\C-07.5.dwg\C 9 Construction Details By: TATE.MILLER



GENERAL NOTES:

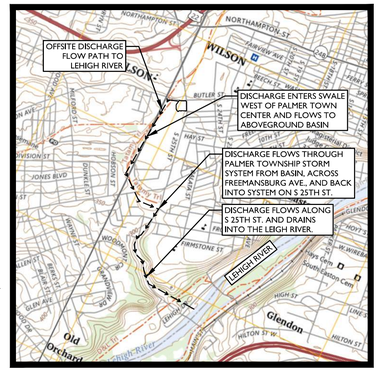
1. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE PENNSYLVANIA ONE CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
2. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
3. ALL REMOVED MATERIAL MUST BE TRANSPORTED TO A SITE WITH AN ACTIVE NPDES PERMIT OR ACTIVE EROSION & SEDIMENTATION CONTROL PLAN.
4. THE LIMIT OF DISTURBANCE AND NPDES BOUNDARIES ARE SHOWN OFFSET FROM OBJECTS AND THICK FOR GRAPHICAL PURPOSES ONLY. I IS THE INTENT OF THE PROJECT SCOPE TO DISTURB WITHIN THE PROPERTY AND LIMITS OF DISTURBANCE SHOWN.

ENVIRONMENTAL NOTE:

THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING & DESIGN HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES, INTERPRETATIONS, CONCLUSIONS, OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE, OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.

PALMER TOWNSHIP MAJOR STORMWATER SITE PLAN NOTES

1. ALL DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE PADEP E&S MANUAL, PADEP BMP MANUAL, PENNDOT PUBLICATION 408, AND PENNDOT PUBLICATION 72M, ALL AS AMENDED AND UPDATED, UNLESS WRITTEN REQUESTS FOR DEVIATION HAVE BEEN REVIEWED AND EXPLICITLY APPROVED BY THE MUNICIPAL ENGINEER.
2. PALMER TOWNSHIP IS NOT RESPONSIBLE FOR THE MAINTENANCE OF ANY AREA NOT DEDICATED TO AND ACCEPTED FOR PUBLIC USE.
3. THE OPERATION AND MAINTENANCE AGREEMENT IS A PART OF THE PLAN. IF THE OWNER FAILS TO ADHERE TO THE TERMS OF THE AGREEMENT, THE MUNICIPALITY MAY PERFORM THE SERVICES REQUIRED AND CHARGE THE OWNER APPROPRIATE FEES.
4. ALL STORMWATER CONVEYANCE FACILITIES SHALL BE CONSTRUCTED WITH WATERTIGHT JOINTS.
5. THE KNOCKING OUT OF INLET OR OTHER STRUCTURE CORNERS IS PROHIBITED.
6. THE LANDOWNER HEREBY GRANTS PERMISSION TO THE MUNICIPALITY, ITS AUTHORIZED AGENTS, AND EMPLOYEES ACCESS TO ANY AND ALL SWM CONSERVATION EASEMENTS AND RIPARIAN BUFFER EASEMENTS ON THE PROPERTY.
7. A COPY OF THE RECORDED AS-BUILT PLAN WILL BE PROVIDED TO THE MUNICIPALITY PRIOR TO OCCUPANCY AND/OR THE RELEASE OF FINANCIAL SECURITY.
8. THE SWM REPORT IS A PART OF THE PLAN.
9. THE APPLICANT, INCLUDING ITS AGENTS, HEIRS, ASSIGNS AND ANYONE ON BEHALF OF WHOM THE APPLICATION IS SUBMITTED, DOES HEREBY INDEMNIFY, DEFEND, AND HOLD HARMLESS PALMER TOWNSHIP AND ITS RESPECTIVE ASSIGNS, OFFICIALS, OFFICERS, EMPLOYEES, AND AGENTS, FROM AND AGAINST ANY AND ALL DEMANDS, CLAIMS, ACTIONS, OR CAUSES OF ACTION, ASSESSMENTS, LOSSES, DAMAGES, LIABILITIES, COSTS, AND EXPENSES, INCLUDING REASONABLE FEES AND EXPENSES OF COUNSEL, OTHER EXPENSES OF INVESTIGATION, HANDLING, AND LITIGATION, AND SETTLEMENT AMOUNTS, TOGETHER WITH INTEREST AND PENALTIES ASSERTED AGAINST, RESULTING TO, IMPOSED UPON, OR INCURRED BY THE APPLICANT AND ANYONE ON BEHALF OF WHOM THE APPLICATION IS SUBMITTED OR RAISED AGAINST THE TOWNSHIP, DIRECTLY OR INDIRECTLY, BY REASON OF, RESULTING FROM, OR ARISING IN CONNECTION WITH ANY RESULT FROM CARBONATE SITE CONDITIONS.



USGS MAP
SCALE: 1" = 2,000'

INFILTRATION TEST SUMMARY TABLE

TEST ID	EXISTING GROUND ELEVATION	PROPOSED GROUND ELEVATION	TEST ELEVATION	BEDROCK ELEVATION	GROUND WATER ELEVATION	MEASURED INFILTRATION RATE	FACTOR OF SAFETY	DESIGN INFILTRATION RATE
TB-101	374.50	451.00	369.50	NE	NE	0.00 IN/HR	2	0.00 IN/HR
TB-102	374.50	372.40	369.50	NE	NE	0.00 IN/HR	2	0.00 IN/HR

APPROXIMATE TEST LOCATIONS HAVE BEEN SHOWN ON THIS PLAN BASED ON THE "REPORT OF STORMWATER INFILTRATION EXPLORATION," DATED DECEMBER 16, 2025 AND THE UPDATED "EXPLORATION LOCATION PLAN" DATED DECEMBER 16, 2025, BOTH PREPARED BY COLLIERS ENGINEERING & DESIGN.

CHICK-FIL-A WILL PROVIDE TO PALMER TOWNSHIP A BLANKET EASEMENT OVER THE ENTIRE PROPERTY, FOR THE PURPOSES OF ACCESSING AND ADDRESSING ISSUES WITH THE STORMWATER MANAGEMENT SYSTEM

LEGEND

EXISTING		PROPOSED
12+00 TL PI 13+00	TRAVERSE LINE, CENTER LINE OR BASELINE (LABEL AS SUCH)	12+00 13+00
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	'C' INLET	
	'M' INLET	
D	STORM MANHOLE	
S	SANITARY MANHOLE	S
	WATER QUALITY STRUCTURE MANHOLE	
	OUTLET CONTROL STRUCTURE	
	STORM PIPE	
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
74 75	CONTOURS	74 75

TOWNSHIP STORMWATER CERTIFICATION

"_____, ON THIS DATE, _____, HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN APPEARS TO MEET ALL DESIGN STANDARDS AND CRITERIA OF THE STORMWATER MANAGEMENT ORDINANCE. STRICT COMPLIANCE WITH THE STORMWATER MANAGEMENT ORDINANCE, HOWEVER, IS THE RESPONSIBILITY OF THE APPLICANT."

MUNICIPAL ENGINEER/DESIGNEE — DATE

APPLICANT/OWNER STORMWATER ACKNOWLEDGEMENT

"_____, ON THIS DATE, _____, ACKNOWLEDGES THAT SWM AND CONVEYANCE FACILITIES ARE PERMANENT FIXTURES AND MAY NOT BE MODIFIED, REMOVED, FILLED, LANDSCAPED, OR OTHERWISE ALTERED WITHOUT WRITTEN APPROVAL OF PALMER TOWNSHIP."

OWNER/APPLICANT — DATE

ENGINEER STORMWATER CERTIFICATION

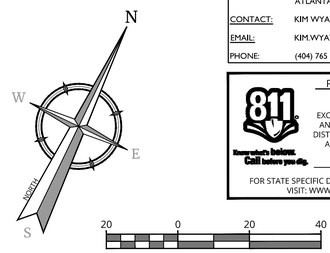
"CHRISTOPHER J. RIGGLE, P.E., ON THIS DATE, _____, CERTIFIES THAT THIS PLAN COMPLIES WITH THE ORDINANCES, PROVISIONS, AND REGULATIONS OF THE MUNICIPALITY AND ANY OTHER APPLICABLE ENTITIES."

ENGINEER SEAL/SIGNATURE — DATE

APPLICANT/OWNER CONTACT INFORMATION:

COMPANY:	CHICK-FIL-A, INC.
ADDRESS:	5200 BUFFINGTON ROAD ATLANTA, GA 30349-2998
CONTACT:	KIM WYATT
EMAIL:	KIM.WYATT@CFACORP.COM
PHONE:	(404) 765 - 8000

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM



20 0 20 40
SCALE : 1" = 20'

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5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Digitally signed by Christopher John Riggle
Date: 2026.09.08 10:51:16 -04'00'

Christopher John Riggle
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PALMER TOWNSHIP
NORTHAMPTON COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

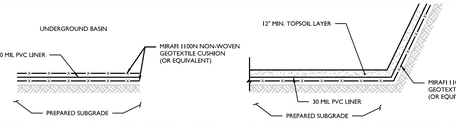
PCSM PLAN

- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
C 10

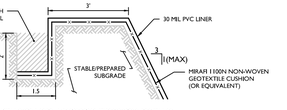
20231281564\Engineering\Site Plans\C-LAYT.dwg[C 10 PCSM Plan By: JORDAN.INGLEY



UNDERGROUND 30 MIL PVC LINER SECTION DETAIL ABOVEGROUND 30 MIL PVC LINER SECTION DETAIL

30 MIL PVC LINER SECTION DETAIL NOTES:

1. BASIN EXCAVATION, SUBGRADE PREPARATION, AND LINER INSTALLATION SHALL BE PERFORMED UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER OR ENGINEER'S REPRESENTATIVE.
2. PRIOR TO BASIN EXCAVATION, THE CONTRACTOR SHALL SUBMIT A NARRATIVE SUMMARIZING THE INSTALLER'S PROJECT EXPERIENCE, KEY PERSONNEL, MATERIAL SPECIFICATION SHEETS, PANEL LAYOUT CONFIGURATION, NON-DESTRUCTIVE TESTING, QUALITY CONTROL PROCEDURES, AND TYPICAL DETAILS (I.E. BATTONING, ETC.). LINER SYSTEM INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED SUBMITTAL.
3. AFTER FINE GRADING, THE EXPOSED SUBGRADE SHALL BE COMPACTED WITH A SMOOTH DRUM ROLLER IN BOTH DIRECTIONS TO PRODUCE A SMOOTH LEVEL BASE FOR THE LINER. SOFT AREAS DELINEATED BY THIS PROCESS SHALL BE CONDITIONED IN PLACE OR REMOVED AND REPLACED WITH LOAD BEARING FILL. IF ROCK IS ENCOUNTERED IN THE BEDDING AREA, THIS ROCK MUST BE EXCAVATED TO A DEPTH OF SIX INCHES BELOW THE LINER AND BACKFILLED WITH A FINE GRAINED SOIL. THIS AREA SHOULD THEN BE COVERED WITH GEOTEXTILE FABRIC, EXTENDING THREE FEET BEYOND THE LIMITS OF THE ROCK OUTCROP BEFORE PLACING THE POND LINER.
4. THE PREPARED SUBGRADE SHALL BE SMOOTH, DRY, STABLE, AND FREE OF COBBLES (OR COARSER ROCK FRAGMENTS). THE SOIL MAY NOT CONTAIN SHARP ANGULAR ROCK OR OTHER DEBRIS WHICH COULD PUNCTURE THE LINER, AND MUST MEET ALL MANUFACTURER'S SPECIFICATIONS FOR A LINER BEDDING. ALL VEGETATION, ROOTS, AND GRASS MUST BE REMOVED AND ANY CRACKS OR VOIDS FILLED.
5. THE NON-WOVEN GEOTEXTILE CUSHION (10 OZ. MIN) AND PVC LINER PANELS SHOULD BE DEPLOYED IN ACCORDANCE WITH THE APPROVED PANEL CONFIGURATION LAYOUT. GEOTEXTILE AND PVC PANELS SHOULD BE ORIENTED PERPENDICULAR TO THE ANCHOR TRENCH. MINIMIZE PVC PANEL JOINTS TO THE EXTENT POSSIBLE. BUTT JOINTS LOCATED ON THE BASIN SLOPE (AND ORIENTED PARRELLEL) TO THE ANCHOR TRENCH ARE NOT PERMITTED.
6. THE LINER INSTALLER SHALL PERFORM NON-DESTRUCTIVE TESTING OF ALL FIELD SEAMS IN ACCORDANCE WITH THE APPROVED LINER SUBMITTAL. AT A MINIMUM, NON-DESTRUCTIVE TESTING SHALL INCLUDE VISUAL OBSERVATION AND AIR LANCE TESTING.
7. TOPSOIL (COVER SOIL) SHALL BE FREE OF GRAVEL OR OTHER DEBRIS WHICH MAY DAMAGE THE PVC LINER. OTHERWISE, INSTALL A NON-WOVEN GEOTEXTILE CUSHION (10 OZ. MIN) OVERTOP OF THE PVC LINER PRIOR TO COVER SOIL PLACEMENT.
8. COVER SOIL SHALL BE PLACED BY OVER-BURDENING THE LINER BY 2 TO 3 FEET, AND SPREADING WITH LOW GROUND PRESSURE EQUIPMENT FROM THE BASIN BOTTOM UP-SLOPE TO MITIGATE OVERSTRESSING.
9. INSTALLATION OF THE LINER MAY ONLY TAKE PLACE WHEN THE AMBIENT TEMPERATURE IS WITHIN THE MANUFACTURER'S RECOMMENDED RANGE. INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED RANGE. INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE NUMBER OF FIELD SEAMS SHALL BE MINIMIZED BY REQUIRING FACTORY FABRICATION OF LARGE PANELS. ANY FIELD SEAMS PERFORMED MUST BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
10. ALL STRUCTURES (I.E., HEADWALLS, PIPES, OUTLET STRUCTURES) WHICH COME IN CONTACT WITH THE LINER MUST HAVE A WATERPROOF SEAL INSTALLED TO PREVENT LEAKS AROUND THE STRUCTURE. THESE SEALS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
11. FOR ABOVEGROUND PONDS/BASINS, THE LINER MUST BE INSTALLED TO A MINIMUM HEIGHT OF THE 100-YEAR FLOODWATER ELEVATION IN THE BASIN.
12. FOR UNDERGROUND BASINS, THE LINER AND GEOTEXTILE CUSHION MUST BE INSTALLED ON TOP, BOTTOM, AND ALL SIDES WITH MINIMUM 12" OVERLAPS.



STANDARD ANCHOR TRENCH DETAIL

ANCHOR TRENCH NOTES:

1. EXCAVATE ANCHOR TRENCH TO THE MINIMUM DIMENSIONS SHOWN. SUITABLE EXCAVATION SPOILS SHALL BE PROTECTED FROM WEATHER EVENTS, WHEN INTENDED FOR ANCHOR TRENCH BACKFILL.
2. NON-WOVEN GEOTEXTILE CUSHION AND PVC LINER SHALL FULLY EXTEND ACROSS THE BASE OF THE ANCHOR TRENCH.
3. ANCHOR TRENCH BACKFILL SHALL CONSIST OF SUITABLE BACKFILL MATERIALS WHICH ARE FREE OF LARGE GRAVEL, COBBLES (OR COARSER) MATERIALS THAT MAY DAMAGE THE LINER.
4. BACKFILL MATERIALS SHALL BE PLACED IN CONTROLLED AND COMPACTED LIFTS.

CONSTRUCTION NOTES:

1. PENETRATIONS SHALL BE WATER-TIGHT SEALED USING STANDARD CONSTRUCTION PRACTICES.
2. PANEL SEAMING WILL BE ACCOMPLISHED BY OVERLAPPING PANELS A MINIMUM OF 6", BOTH SIDES OF THE SEAM WILL BE CLEANED. CLIFTON LA-4123 SOLVENT ADHESIVE WILL BE USED TO SEAL THE OVERLAP WITH A 3" WIDE CONTINUOUS SEAM. ALL BRUSHES USED TO APPLY ADHESIVE MUST BE NATURAL HAIR BRISTLE. WHEN USING A FUSION WELDER A CALIBRATION PROCEDURE SHALL BE PERFORMED AND DOCUMENTED BY THE INSTALLER AT THE START OF EVERY WORK SHIFT AND AT THE OWNER'S REQUEST.
3. THE CONTINUITY OF EVERY SEAM SHALL BE NON-DESTRUCTIVELY TESTED ALONG 100% OF ITS LENGTH. ONLY PREVIOUSLY APPROVED METHODS SHALL BE USED BY THE INSTALLER. NON-DESTRUCTIVE METHODS CONDUCTED BY THE INSTALLER SHALL BE ONE- OR A COMBINATION- OF THE FOLLOWING: VISUAL INSPECTION, AIR LANCE, AIR PRESSURE TESTING (FOR DOUBLE-TRACK SEAMS ONLY), AND/OR VACUUM-BOX (IF APPLICABLE.)

30 MIL POLYPROPYLENE POND LINER SECTION DETAIL

PCSM GENERAL NOTES:

1. FOR THE PURPOSES OF THIS PLAN, "BMP" REFERS TO A PROPOSED PCSM BEST MANAGEMENT PRACTICE.
2. DO NOT STOCKPILE EQUIPMENT, SOIL, OR MACHINERY WITHIN THE AREA OF A BMP.
3. DO NOT COMPACT BMP SOIL BEDS DURING CONSTRUCTION. PROHIBIT ALL HEAVY EQUIPMENT FROM THE FLOOR AREA AND MINIMIZE ALL OTHER TRAFFIC. WHERE POSSIBLE, PERFORM WORK FROM THE PERIMETER OF THE BMP TO AVOID EXCESSIVE SOIL COMPACTION WITHIN THE LEVEL EARTH AREAS OF THE BMP. AFTER PLACEMENT OF THE SOIL AMENDMENT, THE EQUIPMENT MUST BE LIGHTWEIGHT, LOW GROUND PRESSURE, TRACK MOUNTED EQUIPMENT.
4. A COMPLETE AND SITE SPECIFIC CONSTRUCTION SEQUENCE, INCLUDING THE CONSTRUCTION OF ALL BMPS, CAN BE FOUND BELOW FOR THE MRC DETENTION BASIN AND ON THE EROSION AND SEDIMENT POLLUTION CONTROL DETAIL SHEET.
5. AS-BUILT PLANS FOR THE STORMWATER BMPS FOR THE PROJECT MUST BE PROVIDED TO THE NORTHAMPTON COUNTY CONSERVATION DISTRICT WITHIN SIX (6) MONTHS FOLLOWING THE COMPLETION OF THE PROJECT. THE AS-BUILTS MUST BE SIGNED AND SEALED BY A PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER.
6. A NOTICE OF TERMINATION (N.O.T.) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING AN APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE N.O.T., PADEP AND/OR THE LOCAL CONSERVATION DISTRICT WILL PERFORM A FINAL INSPECTION TO ENSURE SITE STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF THE STORMWATER BMPS.
7. THE PERMITTEE MUST PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPS.
8. BEFORE INITIATING ANY REVISIONS TO THE APPROVED PCSM PLANS OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED PCSM PLAN, THE CONTRACTOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE LOCAL COUNTY CONSERVATION DISTRICT AND/OR PADEP.
9. PIPES TO BE ABANDONED MUST BE PERMANENTLY REMOVED FROM SERVICE BY EITHER BEING REMOVED, DISCONNECTED FROM SERVICE AND REMAIN IN PLACE, OR FILLED WITH FLOWABLE BACKFILL, TYPE C AND REMAIN IN PLACE.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THIS SITE.
11. ALL OFF-SITE WASTE OR BORROW AREAS UTILIZED BY THE CONTRACTOR MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT AND/OR PADEP FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
13. IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE NORTHAMPTON COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
14. THE OPERATOR SHALL ASSURE THAT THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
15. EROSION CONTROL MATTING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER, WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.

DEMOLITION NOTES:

1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL STATE AND LOCAL REGULATIONS.
2. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, SIDEWALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
3. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
4. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
5. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS, AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO ENSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, AND DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
6. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD, OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
7. BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION, MARK FOR POSITION ALL UTILITIES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO INSURE THE CONTINUATION OF SERVICE.
8. THE DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL PROCEDURES ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS NECESSARY.
9. EXISTING STORM SEWER PIPES AND STRUCTURES ARE TO REMAIN UNLESS MARKED AS TO BE REMOVED. IF THE CONDITION OF THE STORM SEWER STRUCTURE OR PIPE IS QUESTIONABLE, CONTACT THE OWNER'S REPRESENTATIVE/ENGINEER TO EVALUATE IF A REPLACEMENT IS REQUIRED.

20231201564\04 Engineering\Site Plans\CDP\TS.dwg[C 11 PCSM Notes and Details By: JORDAN.HEGEY

Advanced Drainage Systems, Inc.

SiteAssist® FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR WEBSITE

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75+YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PAIRED (1+WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 5".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%, THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

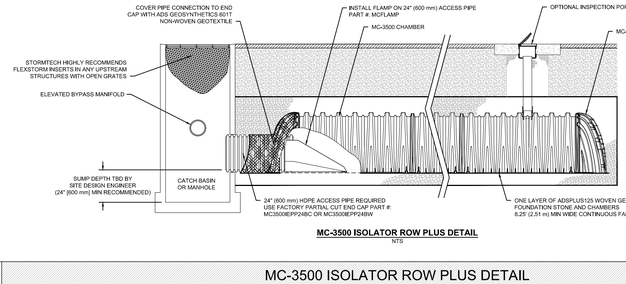
1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONE SHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM • 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE; AASHTO M43 #3, #357, #4, #467, 5, 56, OR 57.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH INSTALLATION GUIDE MC-3500 & MC-4500 CHAMBER".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

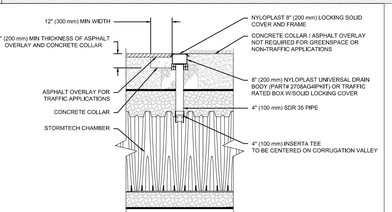
USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

3 MC-3500 ISOLATOR ROW PLUS DETAIL



4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROW PLUS FOR
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

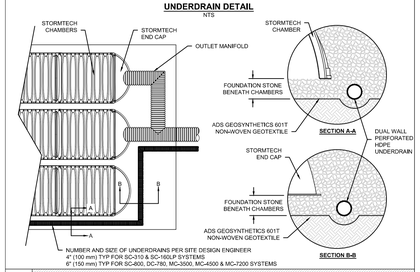
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

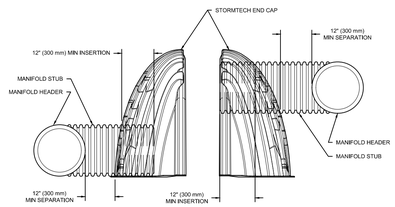
4 4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)

UNDERDRAIN DETAIL
NTS



5 UNDERDRAIN DETAIL

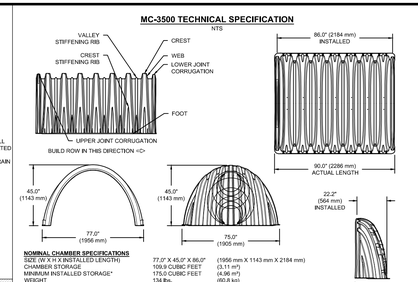
MC-SERIES END CAP INSERTION DETAIL
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

6 MC-SERIES END CAP INSERTION DETAIL

MC-3500 TECHNICAL SPECIFICATION
NTS

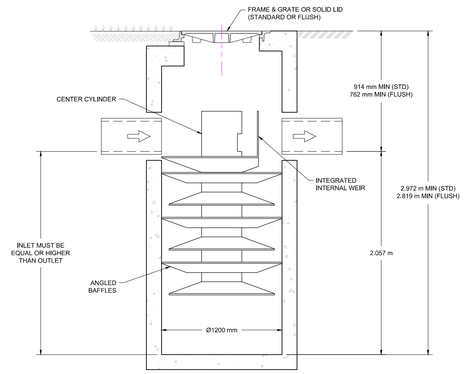


NOMINAL CHAMBER SPECIFICATIONS

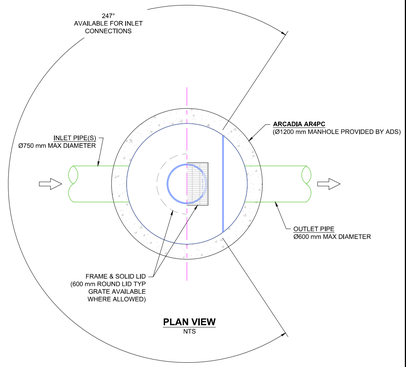
SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0" (1956 mm X 1143 mm X 2184 mm)		
CHAMBER STORAGE	109.9 CUBIC FEET (3.11 m³)		
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET (4.96 m³)		
WEIGHT	134 lbs. (60.8 kg)		

**NOMINAL END CAP SPEC

ARCADIA AR4PC



PROFILE VIEW
NTS



PLAN VIEW
NTS

PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE ARCADIA UNIT SHALL BE DESIGNED TO REMOVE OIL AND GRIT (TSS) PER LOCAL JURISDICTIONAL REQUIREMENTS, AND ACCORDING TO THE PERFORMANCE DEMONSTRATED THROUGH TESTING AT AN ISO-CERTIFIED LABORATORY UNDER THE 2023 CANADIAN PROCEDURE FOR LABORATORY TESTING OF OIL-GRIT SEPARATORS. SIZING OF THE UNIT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ISO 14034 ETV (ENVIRONMENTAL TECHNOLOGY VERIFICATION) STANDARD, AND SUBSEQUENTLY CONFIRMED UNDER THE VERIFIGLOBAL PERFORMANCE VERIFICATION PROTOCOL. REFER TO THE VERIFICATION STATEMENT FOR SPECIFIC PERFORMANCE PARAMETERS.

NOTES:

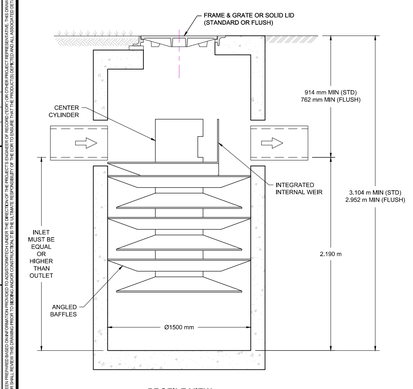
- ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS AND APPLICABLE ADAPTERS.
- CONTRACTOR IS RESPONSIBLE FOR MATERIAL AND LABOUR TO BRING CASTINGS TO FINISHED GRADE.
- CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
- UNIT SHALL CONFORM TO CL-625 LOAD RATINGS.

ARCADIA AR4PC CONCRETE MANHOLE
DATE: 03/27/26 | DRAWN: JLM
DRAWING #: 540-410_C | CHECKED: CJD/AT
DESCRIPTION | DRWG CHKD | DATE

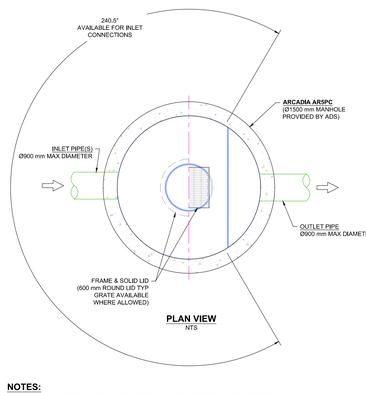
ARCADIA Stormwater Separator
WWW.ADSPIPE.COM

SHEET 1 OF 1

ARCADIA AR5PC



PROFILE VIEW
NTS



PLAN VIEW
NTS

PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE ARCADIA UNIT SHALL BE DESIGNED TO REMOVE OIL AND GRIT (TSS) PER LOCAL JURISDICTIONAL REQUIREMENTS, AND ACCORDING TO THE PERFORMANCE DEMONSTRATED THROUGH TESTING AT AN ISO-CERTIFIED LABORATORY UNDER THE 2023 CANADIAN PROCEDURE FOR LABORATORY TESTING OF OIL-GRIT SEPARATORS. SIZING OF THE UNIT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ISO 14034 ETV (ENVIRONMENTAL TECHNOLOGY VERIFICATION) STANDARD, AND SUBSEQUENTLY CONFIRMED UNDER THE VERIFIGLOBAL PERFORMANCE VERIFICATION PROTOCOL. REFER TO THE VERIFICATION STATEMENT FOR SPECIFIC PERFORMANCE PARAMETERS.

NOTES:

- ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS AND APPLICABLE ADAPTERS.
- CONTRACTOR IS RESPONSIBLE FOR MATERIAL AND LABOUR TO BRING CASTINGS TO FINISHED GRADE.
- CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
- UNIT SHALL CONFORM TO CL-625 LOAD RATINGS.

ARCADIA AR5PC CONCRETE MANHOLE
DATE: 10/27/25 | DRAWN: JLM
DRAWING #: 5XX-410_ | CHECKED: CJD/AT
DESCRIPTION | DRWG CHKD | DATE

ARCADIA Stormwater Separator
WWW.ADSPIPE.COM

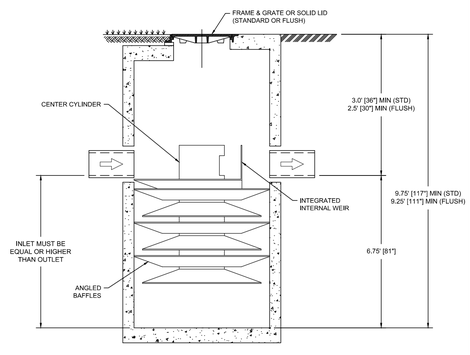
SHEET 1 OF 1

ARCADIA AR6PC

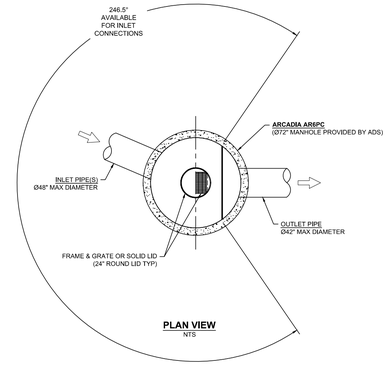
NJDEP (50% REMOVAL)	3.78 CFS

PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE ARCADIA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH D50=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION PER CURRENT NJDEP/NJCAT HDS PROTOCOL.



PROFILE VIEW
NTS



PLAN VIEW
NTS

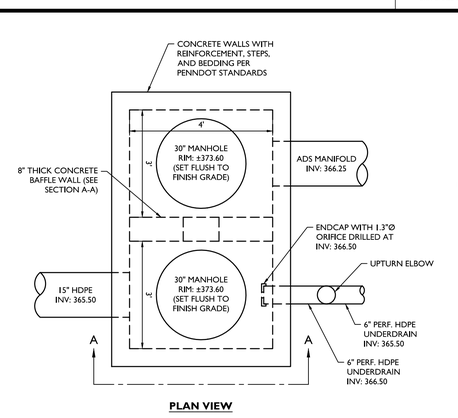
NOTES:

- ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS AND APPLICABLE ADAPTERS.
- CONTRACTOR IS RESPONSIBLE FOR MATERIAL AND LABOR TO BRING CASTINGS TO FINISHED GRADE.
- CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
- UNIT SHALL CONFORM TO HS20-44 LOAD RATINGS.

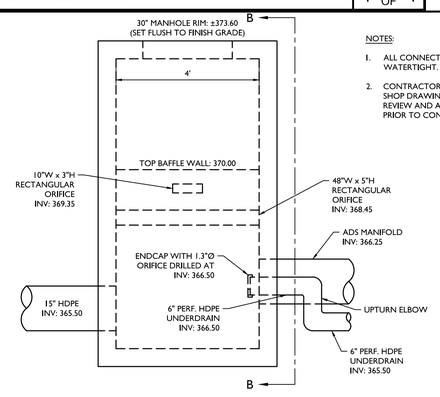
ARCADIA AR6PC CONCRETE MANHOLE
DATE: 04/22/25 | DRAWN: JLM
DRAWING #: 530-410 | CHECKED: CJD/AT
DESCRIPTION | DRWG CHKD | DATE

ARCADIA Stormwater Separator
4640 TRUEMAN BLVD
HILLIARD, OH 43026

SHEET 1 OF 1



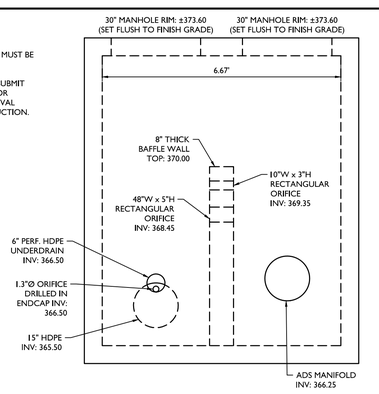
PLAN VIEW



SECTION A-A

NOTES:

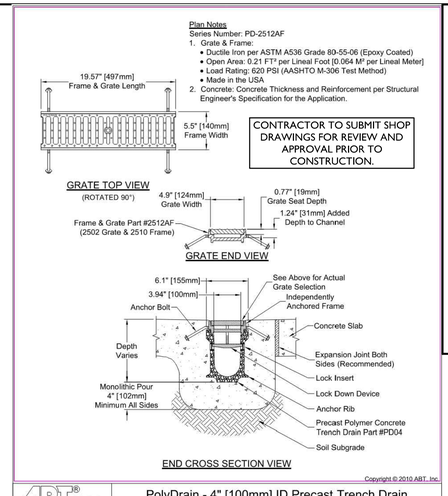
1. ALL CONNECTIONS MUST BE WATERTIGHT.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.



SECTION B-B

UNDERGROUND DETENTION / MRC BASIN OUTLET CONTROL STRUCTURE (S-11) DETAIL

N.T.S.



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ABT, Inc.
P.O. BOX 837, 259 MURDOCK ROAD
TROY, NORTH CAROLINA 27371
(704) 528-9538

PolyDrain - 4" [100mm] ID Precast Trench Drain with Ductile Iron Frame & Grate

SERIES: PD-2512AF | REV: 00

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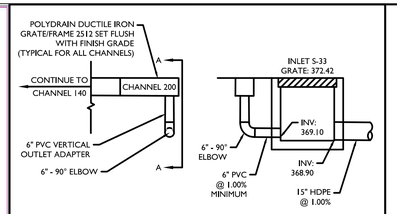


SECTION A-A

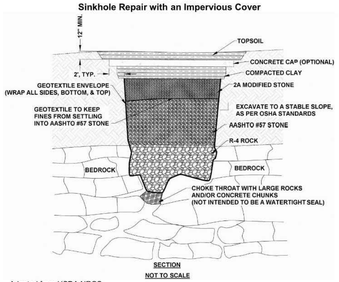
NOTES:

1. TRENCH DRAIN TO BE CONSTRUCTED IN ACCORDANCE WITH ABT, INC. DETAILS/SPECIFICATIONS.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
3. TRENCH DRAIN CAPACITY IS APPROXIMATELY 0.60 CFS.

TRENCH DRAIN S-34 DETAIL

GNRL-DTLS-STND-GRID 06/25/26

FIGURE 17.3
Sinkhole Repair with an Impervious Cover



SECTION
NOT TO SCALE

Adapted from USDA NRCS

Loose material shall be excavated from the sinkhole and expose solution void(s) if possible. Enlarge sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.

Geotextile shall be non-woven with a burst strength between 100 and 200 psi.

Select field stone(s) about 1.5 times larger than solution void(s) to form "bridge." Place rock(s) so no large openings exist along the sides. Stones used for the "bridge" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.

Minimum thickness of R-4 rock is 18." AASHTO #57 stone thickness shall be ¼ to ½ that of the R-4 rock. Minimum thickness of 2A modified crushed stone shall be 9". AASHTO #57 stone and 2A modified crushed stone shall be compacted after each placement.

Compacted clay seal shall be a minimum of 12" thick. Clay shall be placed in 6" to 9" lifts and thoroughly compacted.

Concrete cap, which is optional, shall be a minimum of 8" thick. Use 4,000 psi concrete with 6" X 6" - 6 gauge welded wire fabric, or # 3 rebar on 18" O.C. both ways.

Topsoil shall be a minimum of 12" thick. Grade for positive drainage away from sinkhole area.

NOTE: THE TOWNSHIP GEOTECHNICAL CONSULTANT SHOULD BE NOTIFIED IMMEDIATELY OF ANY SINKHOLES OCCURRING ON-SITE, SO THAT COORDINATION WITH THE PROJECT GEOTECHNICAL CONSULTANT CAN BE PROVIDED

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

Digitally signed by Christopher John Riggle
Date: 2026.09.08 10:31:10 -04'00'

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE075508
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EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL
MAJOR SITE PLAN

PCSM DETAILS

- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
C 12

20232301564\04\Engineering\Site Plans\C-DTLS.dwgC 12 PCSM Details By: JORDAN.HIGLEY

UTILITY INSTALL NOTES:

- CONTRACTOR TO INSTALL UTILITIES PER UTILITY PLAN AND NOTES.
- CONTRACTOR TO LIMIT DAILY SCOPE OF WORK TO THAT WHICH CAN BE TRENCHED AND BACKFILLED IN SAME DAY.

LAND USE HISTORY:

THE SUBJECT PROPERTY HAS BEEN USED AS A RITE-AID PHARMACY FOR THE PAST TWENTY YEARS.

THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL STRUCTURES. IF NECESSARY, ADDITIONAL FACILITIES OR MEASURES SHALL BE INSTALLED WHERE NECESSARY OR WHERE DIRECTED BY EITHER THE TOWNSHIP OR COUNTY CONSERVATION DISTRICT AS CONSTRUCTION PROGRESSES.

SOIL CLASSIFICATION

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETE\STEEL*	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Urbana						X						X				

SOIL USE LIMITATIONS AND RESOLUTIONS:

1. FROST ACTION - LIMIT PAVEMENT LOADING DURING SPRING THAWING.

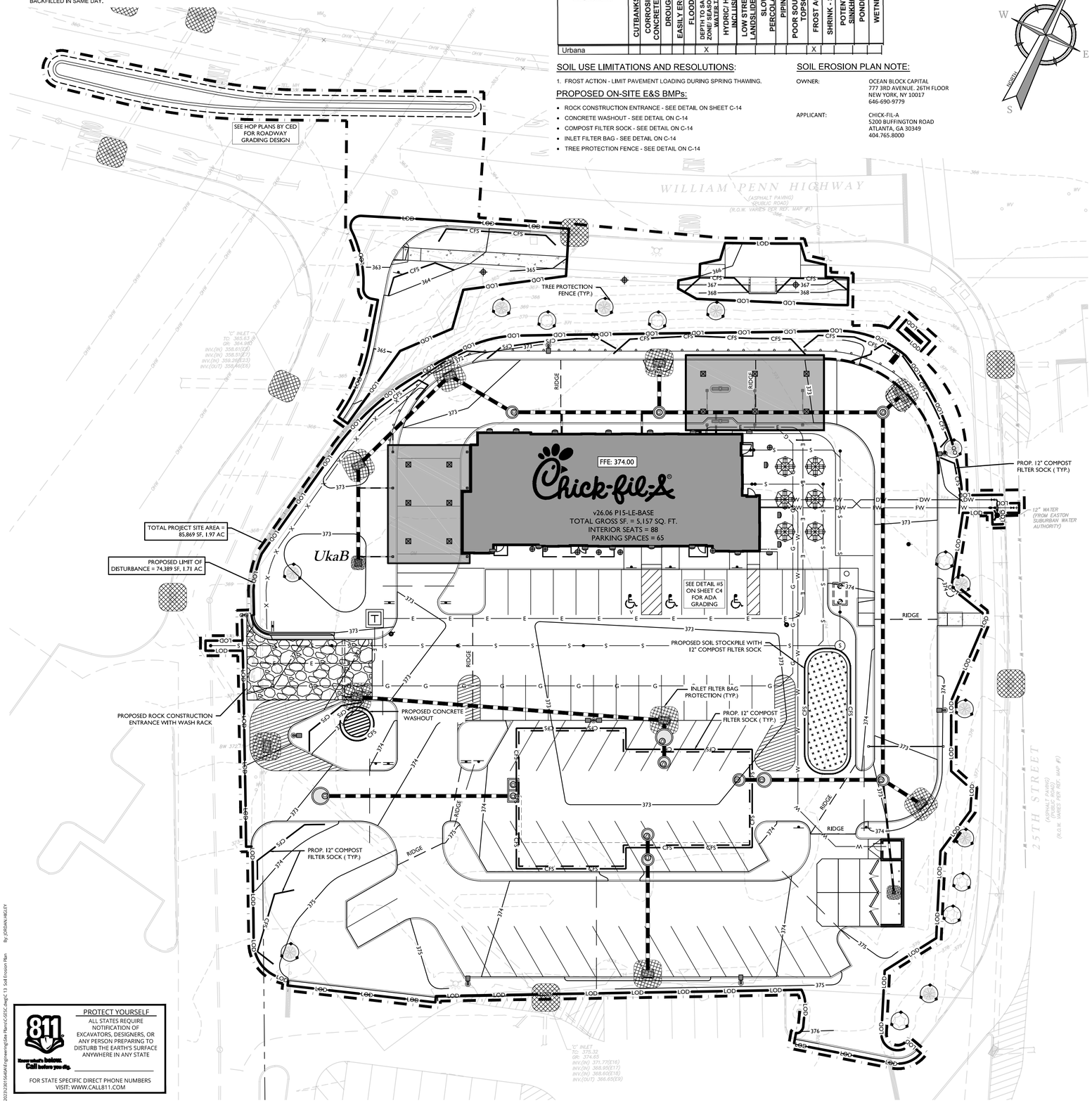
PROPOSED ON-SITE E&S BMPs:

- ROCK CONSTRUCTION ENTRANCE - SEE DETAIL ON SHEET C-14
- CONCRETE WASHOUT - SEE DETAIL ON C-14
- COMPOST FILTER SOCK - SEE DETAIL ON C-14
- INLET FILTER BAG - SEE DETAIL ON C-14
- TREE PROTECTION FENCE - SEE DETAIL ON C-14

SOIL EROSION PLAN NOTE:

OWNER: OCEAN BLOCK CAPITAL
777 3RD AVENUE, 26TH FLOOR
NEW YORK, NY 10017
646-690-9779

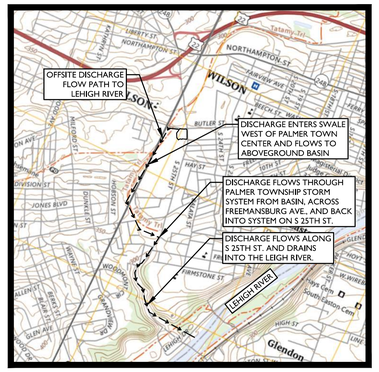
APPLICANT: CHICK-FIL-A
5200 BUFFINGTON ROAD
ATLANTA, GA 30349
404.765.8000





SOIL MAP

SCALE: 1" = 500'
SOURCE: WEB SOIL SURVEY



LOCATION MAP

SCALE: 1" = 2,000'
SOURCE: USGS

NORTHAMPTON COUNTY EROSION/ SEDIMENT CONTROL NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
3. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
11. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD NAMES) . 363-2134-008 / MARCH 31, 2012 / PAGE 395
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES — 6 TO 12 INCHES ON COMPACTED SOILS — PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS, DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
31. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION. 363-2134-008 / MARCH 31, 2012 / PAGE 396
33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

LEGEND

EXISTING		PROPOSED
12+00 P1 13+00	TRAVERSE LINE, CENTER LINE OR BASELINE (LABEL AS SUCH)	12+00 13+00
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	'C' INLET	
	'M' INLET	
D	STORM MANHOLE	D
S	SANITARY MANHOLE	S
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
CATV	CABLE TV CONDUIT	CATV
W	WATER MAIN	W
G	GAS MAIN	G
T	TELEPHONE CONDUIT	T
E	ELECTRIC CONDUIT	E
	SANITARY PIPE	
	STORM PIPE	

SOIL EROSION LEGEND

PROPOSED INLET FILTER BAG PROTECTION	
PROPOSED TEMPORARY TOPSOIL STOCKPILE	
PROPOSED 12" COMPOST FILTER SOCK	CFS
PROPOSED LIMIT OF DISTURBANCE	LOD
PROPOSED ROCK CONSTRUCTION ENTRANCE	
TREE PROTECTION FENCE	

20 0 20 40
SCALE : 1" = 20'

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
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Atlanta, Georgia
30349-2998
Telephone 404-765-8000

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1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

COMMONWEALTH OF PENNSYLVANIA — ENGINEER — CHRISTOPHER JOHN RIGGLE

Digitally signed by Christopher Riggle
Date: 2026.09.08 10:21:04-04'00'

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE079508
COLLIERS ENGINEERING & DESIGN, INC.
CHRIS.RIGGLE@COLLIERSENG.COM

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EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

SOIL EROSION PLAN

- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

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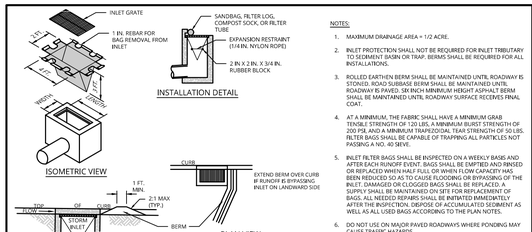
C 13

20230280156A04\Engineering\Site Plans\C-SESC.dwg|C 13 Soil Erosion Plan By: JORDAN HEGLEY

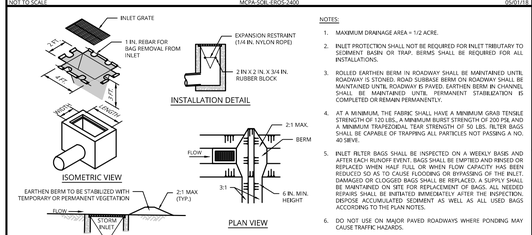


NOTES:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. 5INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
6. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL # 4–15
FILTER BAG INLET PROTECTION – TYPE C INLET

NOT TO SCALE | MCPA-SOIL-EROS-2400 | 05/01/18



NOTES:

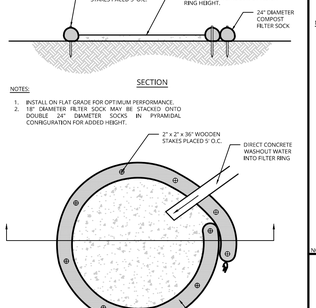
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
6. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL # 4–16
FILTER BAG INLET PROTECTION – TYPE M INLET

NOT TO SCALE | MCPA-SOIL-EROS-2401 | 05/01/18

NOTES:

1. CONCRETE WASHOUTS ARE REQUIRED ON ALL CONSTRUCTION SITES INVOLVING CONCRETE AND STUCCO USE.
2. THE CONTRACTOR SHALL REQUIRE ALL CONCRETE DRIVERS TO UTILIZE THE CONCRETE WASHOUTS ONSITE.
3. WASHOUT FACILITIES SHALL BE LOCATED AT LEAST 50 FEET AWAY FROM STORM SEWER DRAIN INLETS, GUTTERS, OPEN DITCHES, AND WATER COURSES.
4. APPROPRIATE STONE SHOULD COVER PATHS TO CONCRETE WASHOUT.
5. THE NUMBER OF CONCRETE WASH-OUTS DEPENDS ON THE EXPECTED DEMAND FOR STORAGE CAPACITY. LARGE SITES WITH EXTENSIVE CONCRETE WORK SHALL BE PLACED AT MULTIPLE LOCATIONS FOR USE BY CONCRETE TRUCK DRIVERS.
6. CONCRETE WASHOUT AREAS SHALL BE IDENTIFIED BY POSTING SIGNS ONSITE.
7. CONCRETE WASHOUTS ARE TO BE INSPECTED DAILY BY THE CONTRACTOR FOR LEAKS OR TEARS IN PLASTIC LINER.
8. REMOVE AND DISPOSE OF ALL MATERIAL WHEN THE WASHOUT HAS BEEN FILLED TO 75% CAPACITY.
9. PRIOR TO ANY RAINFALL, ALL CONCRETE WASHOUTS ARE TO BE CLEANED OUT OR COVERED.
10. ONCE THE MATERIAL HAS BEEN CLEANED OUT OF THE CONCRETE WASHOUT FACILITY, THE FACILITY MUST BE INSPECTED FOR REPAIR, RECONSTRUCTION OR REPLACEMENT AS IT RUSTS. LINING SHALL BE REMOVED AND REPLACED.
11. PRE-FABRICATED OR ONSITE FABRICATED CONCRETE WASHOUTS MAY BE USED.
12. OPTIONS FOR ONSITE CONCRETE WASHOUTS:
    A. DIG A PIT AND LINE WITH 10 MIL PLASTIC SHEETING.
    B. CREATE AN ABOVE-GROUND STRUCTURE FROM STRAW BALES OR SANDBAGS, WITH 10 MIL PLASTIC LINING.



CONCRETE WASHOUT DETAIL

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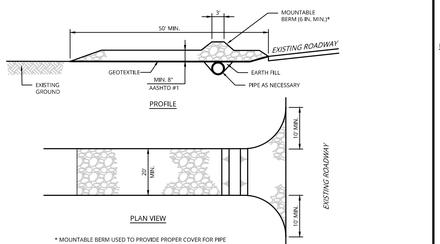
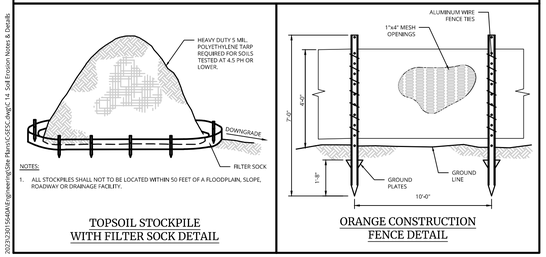


NOTES:

1. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
2. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
3. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
4. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL # 3–1
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

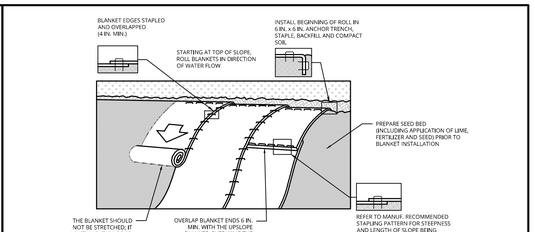


NOTES:

1. ALL STOCKPILES SHALL NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

TOPSOIL STOCKPILE WITH FILTER SOCK DETAIL

ORANGE CONSTRUCTION FENCE DETAIL



NOTES:

1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES BY THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
2. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
4. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
5. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL # 11–1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE | MCPA-SOIL-EROS-4500 | 05/01/18



NOTES:

1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL # 4–1
COMPOST FILTER SOCK

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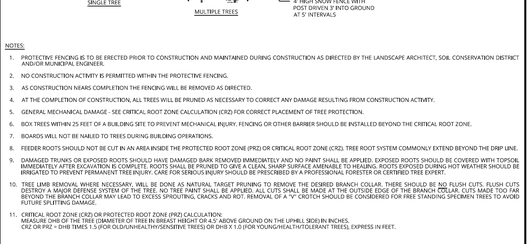

NOTES:

1. PROTECTIVE FENCING IS TO BE ERECTED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION AS DIRECTED BY THE LANDSCAPE ARCHITECT, SOIL CONSERVATION DISTRICT AND/OR MUNICIPAL ENGINEER.
2. NO CONSTRUCTION ACTIVITY IS PERMITTED WITHIN THE PROTECTIVE FENCING.
3. AS CONSTRUCTION NEARS COMPLETION THE FENCING WILL BE REMOVED AS DIRECTED.
4. AT THE COMPLETION OF CONSTRUCTION, ALL TREES WILL BE PRUNED AS NECESSARY TO CORRECT ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITY.
5. GENERAL MECHANICAL DAMAGE - SEE CRITICAL ROOT ZONE CALCULATION (CRZ) FOR CORRECT PLACEMENT OF TREE PROTECTION.
6. BOX TREES WITHIN 25 FEET OF A BUILDING SITE TO PREVENT MECHANICAL INJURY. FENCING OR OTHER BARRIER SHOULD BE INSTALLED BEYOND THE CRITICAL ROOT ZONE.
7. BOARDS WILL NOT BE NAILED TO TREES DURING BUILDING OPERATIONS.
8. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA INSIDE THE PROTECTED ROOT ZONE (PRZ) OR CRITICAL ROOT ZONE (CRZ). TREE ROOT SYSTEM COMMONLY EXTEND BEYOND THE DRIP LINE.
9. DAMAGED TRUNKS OR EXPOSED ROOTS SHOULD HAVE DAMAGED BARK REMOVED IMMEDIATELY AND NO PAINT SHALL BE APPLIED. EXPOSED ROOTS SHOULD BE COVERED WITH TOPSOIL IMMEDIATELY AFTER EXCAVATION IS COMPLETE. ROOTS SHALL BE PRUNED TO GIVE A CLEAN, SHARP SURFACE AMENABLE TO HEALING. ROOTS EXPOSED DURING PREP WEATHER SHOULD BE IRRIGATED TO PREVENT PERMANENT TREE INJURY. CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER OR CERTIFIED TREE EXPERT.
10. TREE LIMB REMOVAL WHERE NECESSARY, WILL BE DONE AS NATURAL TARGET PRUNING TO REMOVE THE DESIRED BRANCH COLLAR. THESE SHOULD BE NO FLUSH CUTS. FLUSH CUTS DESTROY A MAJOR DEFENSE SYSTEM OF THE TREE. NO TREE PAINT SHALL BE APPLIED. ALL CUTS SHALL BE MADE AT THE OUTSIDE EDGE OF THE BRANCH COLLAR. CUTS MADE TOO FAR BEYOND THE BRANCH COLLAR MAY LEAD TO EXCESS SPROUTING, CANCKS AND ROT. REMOVAL OF A "V" CROTCH SHOULD BE CONSIDERED FOR FREE STANDING SPECIMEN TREES TO AVOID FUTURE SPLITTING DAMAGE.
11. CRITICAL ROOT ZONE (CRZ) OR PROTECTED ROOT ZONE (PRZ) CALCULATION:
    MEASURE DHB OF THE TREE (DIAMETER OF TREE IN BREAST HEIGHT OR 4.5' ABOVE GROUND ON THE UPHILL SIDE) IN INCHES.
    CRZ OR PRZ = DHB TIMES 1.5 (FOR OLD/UNHEALTHY/SENSITIVE TREES) OR DHB X 1.0 (FOR YOUNG/HEALTH/TOLERANT TREES), EXPRESS IN FEET.

TEMPORARY TREE PROTECTION DETAIL

NOT TO SCALE | MCPA-SOIL-EROS-2500 | 05/01/18

STANDARD FOR VEGETATIVE COVER

1. SITE PREPARATION
   A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
   B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING
   C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
   D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
2. SEEDBED PREPARATION
   A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE. EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
   B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSABLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)
   C. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION AND OTHER DEBRIS SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
   E. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.
3. SEEDING
   A. TEMPORARY SEEDING SPECIFICATIONS - USE THE MIXTURE LISTED BELOW OR SELECT AN APPROVED MIXTURE FROM THOSE LISTED IN THE PADEP E&S MANUAL TABLE 11.4. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED. SEED SHALL BE APPLIED AS NOTED BELOW WITHIN THE DATES SPECIFIED IN THE STANDARDS:
      1. LAWN AREAS:

MIX#2	TALL FESCUE	60 LBS/ACRE PLS / 76% PLS = 78.9 LBS/ACRE
	PERENNIAL RYE GRASS	15 LBS/ACRE / 81% PLS = 18.6 LBS/ACRE15% PURE LIVE SEED
	OPTIMUM SEEDING DATES:	8/15 - 11/15
	ACCEPTABLE SEEING DATES:	3/1 - 4/30
		5/1 - 8/14 (SEE NOTE BELOW)

      NOTE: SUMMER SEEDING SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED, MIXES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX WEEKS OF GROWING SEASON REMAIN AFTER SEEDING TO ENDURE ESTABLISHMENT BEFORE FREEZING CONDITIONS.

   B. PERMANENT SEEDING SPECIFICATIONS - USE THE MIXTURE LISTED BELOW OR SELECT AN APPROVED MIXTURE FROM THOSE LISTED IN THE PADEP E&S MANUAL TABLE 11.4. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED. SEED SHALL BE APPLIED AS NOTED BELOW WITHIN THE DATES SPECIFIED IN THE STANDARDS:
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		5/1 - 8/14 (SEE NOTE BELOW)

      NOTE: SUMMER SEEDING SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED, MIXES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX WEEKS OF GROWING SEASON REMAIN AFTER SEEDING TO ENDURE ESTABLISHMENT BEFORE FREEZING CONDITIONS.

   C. **CONVENTIONAL SEEDING** IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER, EXCEPT FOR DRILLSON, HYDROSEEDER OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
   D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED
   E. **HYDROSEEDING IS** A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. **MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED**. SHORT- FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING, (ALSO SEE SECTION 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.
4. FERTILIZER
   A. TEMPORARY FERTILIZER TO BE APPLIED AT A RATE OF 10-10-10 AT A RATE OF 500 LBS/ACRE
   B. PERMANENT FERTILIZER TO BE APPLIED AT A RATE OF 10-20-20 AT A RATE OF 1,000 LBS/ACRE OR PER SOIL TEST.
5. LIME
   A. TEMPORARY AGRICULTURAL GRADE LIMESTONE TO BE APPLIED AT A RATE OF 1.0 TON/ACRE.
   B. PERMANENT AGRICULTURAL GRADE LIMESTONE TO BE APPLIED AT A RATE OF 6.0 TONS/ACRE OR PER SOIL TEST.
6. MULCHING

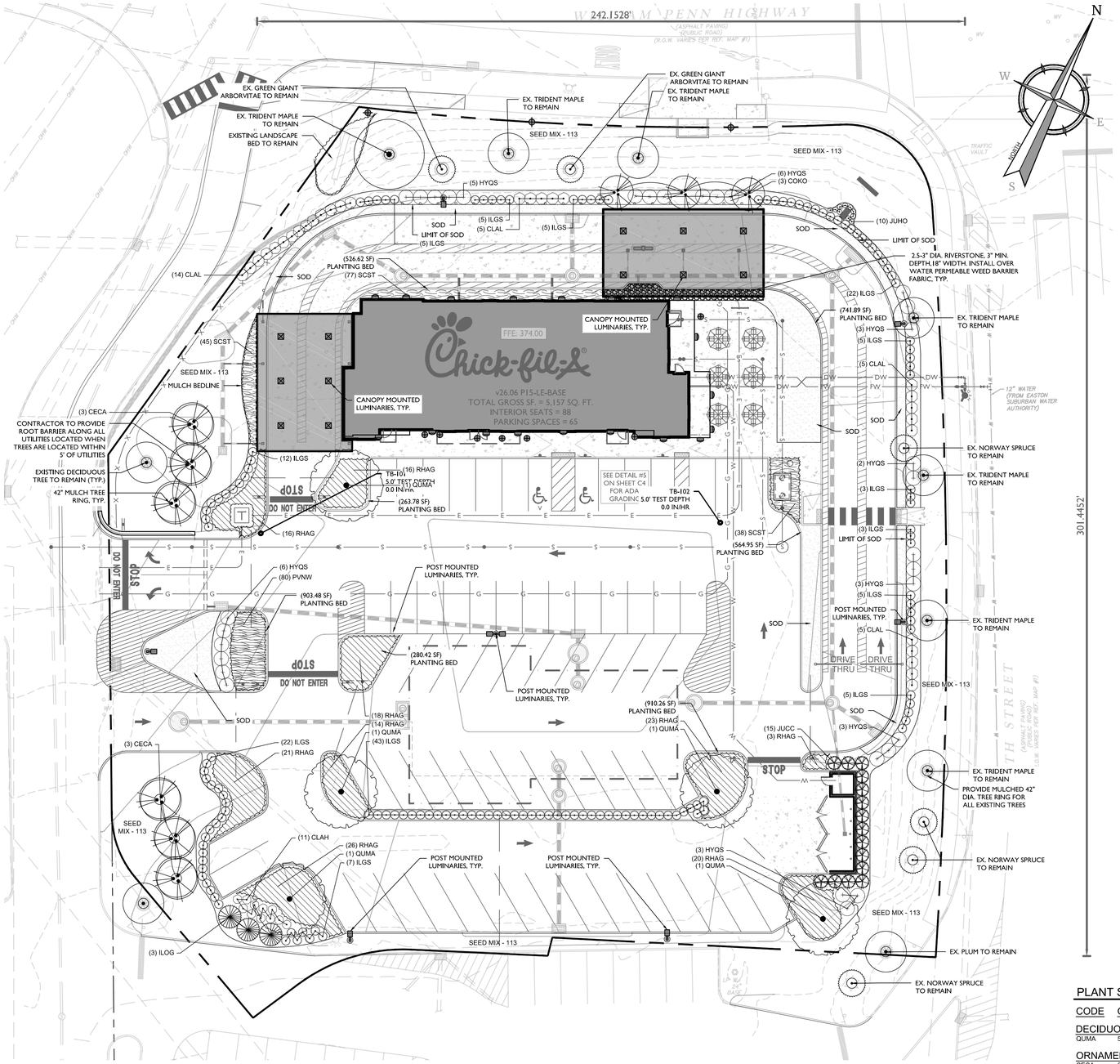
MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT, THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

   A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 3 TONS PER ACRE (130 TO 140 POUNDS PER 1,000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

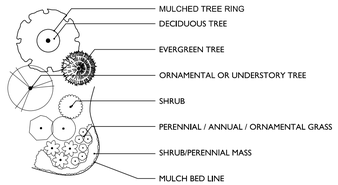
   APPLICATION – SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.

   ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

   1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
   2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED
   3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
   4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.
      a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
      b. USE ONE OF THE FOLLOWING:
         (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANES THAT ARE INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS, USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY MIX PRODUCTS ARE AVAILABLE. SOME OF THESE MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
         (2) SYNTHETIC BINDERS – HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SH



LANDSCAPE LEGEND



NOTES:
1. LANDSCAPE SYMBOLS ON THE PLAN VARY AND MAY DEVIATE FROM THE LANDSCAPE LEGEND SYMBOLS SHOWN ABOVE.

GENERAL NOTES

1. THIS SHEET IS TO BE USED FOR LANDSCAPE PURPOSES ONLY.
2. REFER TO CIVIL SITE PLANS FOR ADDITIONAL GENERAL NOTES.

TREE PRUNING NOTES

1. ALL PRUNING OF EXISTING TREES SHALL BE PERFORMED BY AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST, UTILIZING THE NATURAL TARGET PRUNING METHOD.
2. ALL PRUNING SHALL FOLLOW ISA'S TREE PRUNING GUIDELINES OR THE MOST RECENT ANSI A300 PRUNING STANDARDS, AND ANSI Z133.1 SAFETY STANDARDS.
3. SELECTIVE DIRECTIONAL PRUNING SHALL BE UTILIZED AND TOPPING OR DEADHEADING OF TREES SHALL BE PROHIBITED.
4. ANY TREES LOCATED UNDER OR ADJACENT TO OVERHEAD UTILITY WIRES SHALL BE PRUNED BY AN ISA CERTIFIED ARBORIST WHO MEETS ANSI AND OSHA STANDARDS IN THE SPECIAL TECHNIQUES NEEDED TO WORK SAFELY AROUND ENERGIZED LINES.
5. IT IS RECOMMENDED THAT THE CONTRACTOR CONTACT A UTILITY COMPANY REPRESENTATIVE, PRIOR TO PERFORMING ANY TREE PRUNING WORK NEAR AN OVERHEAD POWER LINE.

LANDSCAPE PLAN NOTES

1. REFER TO SHEET L.2 FOR GENERAL PLANTING NOTES AND LANDSCAPE DETAILS.
2. REFER TO THIS SHEET FOR PLANT SCHEDULES.
3. PLANT LOCATIONS INDICATED ON THE LANDSCAPE PLAN ARE APPROXIMATE; ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO SITE CONDITIONS.
4. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT MATERIAL DISCREPANCIES OCCUR.
5. LAWN AREAS SHALL BE STABILIZED WITH SEED UNLESS OTHERWISE INDICATED ON THE PLAN. REFER TO THE LAWN SEED MIX NOTES ON THE LANDSCAPE DETAILS SHEET AND THE SOIL EROSION AND SEDIMENT CONTROL PLAN FOR APPROVED SEED MIXTURES.
6. SOD SHALL BE A BLEND OF TURFGRASS SPECIES SUITABLE TO THE PROJECT LOCATION AND LOCALLY AVAILABLE.
7. ALL SHADE TREES PLANTED ADJACENT TO PEDESTRIAN WALKWAYS, VEHICLE ACCESSES, OR WITHIN A SIGHT TRIANGLE OR SIGHT EASEMENT SHALL BE BRANCHED A MINIMUM OF 7'-00" ABOVE GRADE AND/OR APPROPRIATELY PRUNED TO BE 7'-00" ABOVE GRADE. ALL SHRUBS WITHIN A SIGHT TRIANGLE OR SIGHT EASEMENT SHALL NOT EXCEED 30" ABOVE THE ELEVATION OF THE ADJACENT CURB AND ARE TO BE APPROPRIATELY PRUNED.
8. CONTRACTOR TO SUPPLY AND INSTALL DEEP ROOT ROOT BARRIER WHEN TREE ROOT BALLS ARE WITH 5' OF UNDERGROUND UTILITIES.

HATCH & SEED MIX KEY



SOD — LAWN MIX - ERNMX 113

LANDSCAPE COMPLIANCE CHART

190-603 DESIGN STANDARDS FOR OFF-STREET PARKING FACILITIES	
H. PARKING LOT LANDSCAPING	COMPLIANCE
I. ALL AREAS NOT SERVING AS PARKING SPACIES, AISLES, ACCESS DRIVES OR PEDESTRIAN WALKWAYS SHALL BE CONVERED WITH AN ALL-SEASON GROUND COVER AND BE MAINTAINED.	COMPLIANT
2. EXCEPT WHERE ENTRANCE AND EXIT DRIVEWAYS CROSS STREET LINES, ALL PARKING AREAS SHALL BE PHYSICALLY SEPARATED FROM ANY PUBLIC STREET BY A RAISED CURB OR LANDSCAPED BERM AND AN AREA NOT LESS THAN 10 FEET IN DEPTH (MEASURED FROM THE RIGHT-OF-WAY LINE) WHICH SHALL BE PERMANENTLY LANDSCAPED AND MAINTAINED.	COMPLIANT
3. ANY LOT THAT WOULD INCLUDE MORE THAN 30 PARKING SPACES SHALL BE REQUIRED TO PROVIDE LANDSCAPED AREAS WITHIN THE PAVED AREA. THIS REQUIRED LANDSCAPED AREA SHALL BE EQUAL TO A MINIMUM OF 5% OF THE TOTAL PAVED AREA.	TOTAL PAVED AREA IS 45,074.51 SF 5% REQUIRED = 2,253.73 SF. PROVIDED 4,191.4 SF
4. ONE DECIDUOUS TREE OF A MINIMUM CALIPER OF THREE INCHES SHALL BE REQUIRED FOR EVERY 15 REQUIRED OFF-STREET PARKING SPACES. THE TREES SHALL BE OF THE SAME SPECIES AS LISTED IN THE TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.	(65) PARKING SPOTS / (15) = (4.3) OR (5) TREES 5 TREES PROVIDED
5. A SUBSTANTIAL PROPORTION OF THE TREES REQUIRED BY THIS SECTION SHOULD BE PLANTED WITHIN THE PARKING LOT WITHIN PROTECTED ISLANDS. THESE PROTECTED ISLANDS SHOULD BE USED TO DIRECT THE FLOW OF TRAFFIC THROUGH THE PARKING LOT IN A SMOOTH AND SAFE MANNER TO PREVENT "CROSS-TAXIING." REQUIRED TREES ARE ALSO ENCOURAGED TO BE PLANTED IN HIGHLY VISIBLE LOCATIONS, ESPECIALLY BETWEEN PARKING AREAS AND MAJOR STREETS.	COMPLIANT
I. SCREENING.	COMPLIANCE
ANY AREA OF SIX OR MORE OFF-STREET PARKING SPACES WHICH IS NOT WITHIN A BUILDING AND ABUTS OR IS ACROSS THE STREET FROM ANY RESIDENTIAL LOT IN AN LDR, MDR, OR HDR DISTRICT OR AN EXISTING PRIMARILY RESIDENTIAL USE SHALL BE PROVIDED WITH A SUITABLE FENCE, WALL OR EVERGREEN PLANTING AT LEAST FOUR FEET IN HEIGHT, DESIGNED TO SCREEN THE PARKED VEHICLES AND HEADLIGHT GLARE FROM SUCH RESIDENTIAL LOT.	COMPLIANT
190-805 LANDSCAPING	COMPLIANCE
A. GROUND COVER AND PLAN REQUIRED. ANY PART OR PORTION OF A LOT WHICH IS NOT USED FOR BUILDINGS, STRUCTURES, LOADING OR PARKING AREAS AND AISLES, SIDEWALKS AND DESIGNATED STORAGE AREAS SHALL BE PROVIDED WITH AN ALL-SEASON, WELL-MAINTAINED VEGETATIVE GROUND COVER AND SHALL BE LANDSCAPED WITH TREES AND SHRUBS IN ACCORDANCE WITH AN OVERALL LANDSCAPE PLAN. THIS LANDSCAPE PLAN SHOULD INCLUDE THE BOTANICAL AND COMMON NAMES OF THE PLANTS TO BE USED, THE SIZES TO BE PLANTED AND THE QUANTITY AND SPACING OF EACH.	COMPLIANT
B. MODIFICATIONS. LANDSCAPING SHALL BE PROVIDED IN HIGHLY VISIBLE AREAS OF THE TOWNSHIP, ESPECIALLY ALONG ARTERIAL ROADS. THE PLANNING COMMISSION MAY ALLOW, WITH CONCURRENCE OF THE BOARD OF SUPERVISORS, THAT THE SPECIFIC LANDSCAPING REQUIREMENTS BE ADJUSTED TO ALLOW APPROXIMATELY THE SAME AMOUNT OF LANDSCAPING TO BE PLACED IN DIFFERENT LOCATIONS OR ARRANGEMENTS OR TO BE OF DIFFERENT SPECIES THAN WOULD OTHERWISE BE REQUIRED, IF THE TOWNSHIP DETERMINES THAT SUCH ALTERNATIVE WOULD BE SUPERIOR IN EFFECT. TO RECEIVE SUCH ADJUSTMENTS, AN APPLICANT SHALL PROVIDE A LANDSCAPING PLAN PREPARED BY A REGISTERED LANDSCAPE ARCHITECT.	COMPLIANT
165 - 73.A(5)	COMPLIANCE
AN AVERAGE OF ONE DECIDUOUS STREET TREES IS REQUIRED FOR EVERY 50 FEET OF DISTANCE ALONG THE STREET RIGHT-OF-WAY LINE FOR ALL LAND DEVELOPMENTS AND MAJOR SUBDIVISIONS AND ALONG ANY STREET OR ANY ACCESS DRIVE SERVING MORE THAN ONE COMMERCIAL, INDUSTRIAL OR INSTITUTIONAL PRINCIPAL USE.	25TH STREET FRONTAGE: 300 LF / 50 LF = (6) TREES REQUIRED (8) EXISTING TREES ARE TO REMAIN WILLIAM PENN HGWY FRONTAGE 242 LF / 50 LF = (5) TREES REQUIRED (5) EXISTING TREES ARE TO REMAIN

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	MAT. HT.	MAT. SPRD.	INSTL. HT.	MIN. CAL.	COND.	REMARKS
DECIDUOUS TREES									
QUMA	5	QUERCUS MACROCARPA	BURR OAK	60' - 80'	60' - 80'	14' - 16'	3" - 3.5" CAL.	B&B	STRAIGHT, SYMMETRICAL, FULL CROWN
ORNAMENTAL TREES									
CECA	6	CERCIS CANADENSIS	EASTERN REDBUD	20' - 30'	25' - 35'	9' - 10'	MULTISTEM	B&B	(3) STEMS, SYMMETRICAL, LOW BRANCHED
COKO	3	CORNUS KOUSA	KOUSA DOGWOOD	15' - 30'	15' - 30'	9' - 10'	MULTISTEM	B&B	(3) STEMS, SYMMETRICAL, LOW BRANCHED
EVERGREEN TREES									
ILOG	3	ILEX OPACA 'GREENLEAF'	GREENLEAF AMERICAN HOLLY	20' - 25'	10' - 15'	7' - 8'	N/A	B&B	STRAIGHT, SYMMETRICAL, DENSE, LOW BRANCHED
JUCC	15	JUNIPERUS CHINENSIS 'HETZII COLUMNARIS'	HETZI COLUMN JUNIPER	10' - 15'	4' - 6'	6' - 7'	N/A	B&B	STRAIGHT, SYMMETRICAL, DENSE, LOW BRANCHED

CODE	QTY	BOTANICAL NAME	COMMON NAME	MAT. HT.	MAT. SPRD.	INSTL. HT.	INSTL. SPRD.	COND.	REMARKS
DECIDUOUS SHRUBS									
CLAL	29	CLETHRA ALNIFOLIA	SUMMERSWEET	3' - 6'	4' - 6'	24" - 30"	24" - 30"	3 GAL.	DENSE, SYMMETRICAL, WELL FURNISHED
CLAH	11	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	'HUMMINGBIRD' SUMMERSWEET	2' - 4'	3' - 5'	15" - 18"	24" - 30"	3 GAL.	DENSE, SYMMETRICAL, WELL FURNISHED
HYQS	31	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	4' - 6'	6' - 8'	2.5' - 3'	2.5' - 3'	5 GAL.	DENSE, SYMMETRICAL, WELL FURNISHED
EVERGREEN SHRUBS									
ILGS	142	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	3' - 4'	3' - 4'	18" - 24"	18" - 24"	3 GAL.	DENSE, SYMMETRICAL, WELL FURNISHED
JUHO	10	JUNIPERUS HORIZONTALIS	CREEPING JUNIPER	0.5' - 1.5'	5' - 8'	6"	15" - 18"	3 GAL.	SYMMETRICAL, WELL FURNISHED, DENSE
GROUND COVERS									
RHAG	157	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	9"	2'	12" - 15"	24" - 30"	3 GAL.	48" O.C., DENSE, WELL FURNISHED, SYMMETRICAL, LOW BRANCHED,
GRASSES									
PVNW	80	PANICUM VIRGATUM 'NORTHWIND'	NORTHWIND SWITCH GRASS	2'	4'	12" - 15"	10" - 12"	#1 CAN	24" O.C., HEAVY, CLUMP, WELL ROOTED
SCST	160	SCHIZACHYRIUM SCOPARIUM 'THE BLUES'	THE BLUES LITTLE BLUESTEM	2'	3'	12" - 15"	12" - 15"	#1 CAN	24" O.C., HEAVY, CLUMP, WELL ROOTED

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

COMMONWEALTH OF PENNSYLVANIA — ENGINEER — PE79508

Digitally signed by Christopher John Riggle
Date: 2026.09.08 18:41:04-04'00'

Christopher John Riggle
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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

LANDSCAPE PLAN

- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet

L 1

2023\23015640A\Engineering\Site Plans\CAD\L1 Landscape Plan By: JORDAN HIGLEY

GENERAL PLANTING NOTES

A. GENERAL

1. THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES MARKOUTS AND COMPLIANCE WITH ALL FEDERAL, STATE, OR LOCAL CODES, LAWFUL ORDERS OR REGULATIONS GOVERNING UPON THIS WORK.

3. OWNER OR HIS/HER REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.

B. PLANT MATERIAL

1. PLANT MATERIAL:

1.1. PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH IN THE "ANSI Z60.1(LATEST ADDITION) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY AMERICANHORT IN REGARD TO QUALITY, SIZE OF PLANTING, SPREAD OF ROOTS, SIZE OF ROOTBALL, AND BRANCHING PATTERN AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.

1.2. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS, AND FREE FROM DEFECTS, INJURY, DISEASE, AND/OR INFESTATION, WITH ROOT BALLS INTACT.

1.3. ALL PLANTS MUST BE HARDY UNDER CLIMATE CONDITIONS THAT EXIST AT THE PROJECT SITE AND GROWN AT NURSERY AT SAME HARDINESS ZONE AS THE PROJECT LOCATION.

1.4. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AT THE NURSERY. THE PLANT MATERIAL SHALL BE PLANTED AT THE SAME LEVEL WHEN PLANTED.

1.5. PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY TO THE SITE. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO PROTECT THE PLANT MATERIAL FROM DAMAGE PRIOR TO INSTALLATION.

1.6. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATION, TO REJECT ANY AND ALL PLANT MATERIAL WHICH IN THEIR OPINION DOES NOT MEET THE REQUIREMENTS OF THESE PLANS.

2. PLANT QUANTITIES: THE LANDSCAPE PLAN SHOULD TAKE PRECEDENCE OVER THE PLANT SCHEDULE IF ANY PLANT DISCREPANCIES OCCUR. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY PLANT QUANTITY DISCREPANCIES PRIOR TO PLACING ORDERS.

3. PLANT SIZE: THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN THE CALIPER, HEIGHT, SIZE OR SPREAD INDICATED IN THE PLANT SCHEDULE.

4. SUBSTITUTIONS: NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSIONS OF THE MUNICIPALITY, LANDSCAPE ARCHITECT, OR OWNER. WRITTEN PROOF OF THE PLANT MATERIAL UNAVAILABILITY MUST BY DOCUMENTED BY THE CONTRACTOR.

5. GUARANTEE: PLANT MATERIAL SHALL BE GUARANTEED FOR **ONE (1) YEAR** AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT IS DEAD, DYING, DEFOLIATING, AND/OR LOST MORE THAN 50% OF ITS NATURAL FORM WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING STUMP, AND REPLACED WITH A SIMILAR SIZE AND SPECIES AT THE EXPENSE OF THE CONTRACTOR WITHIN **ONE YEAR OR ONE GROWING SEASON**. TREE STAKES AND ARBOR TIES SHALL BE REMOVED AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANT MATERIALS, LAWN, AND SEEDING AREAS (INCLUDING, BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, AND REMOVAL OF STAKES) UNTIL FINAL ACCEPTANCE BY THE OWNER.

C. TOPSOIL REQUIREMENTS:

1. TOPSOIL REQUIREMENTS: SEE **PENNDOT SECTION 801** FOR REFERENCE AND SOIL ADDITIVES.

1.1. UNACCEPTABLE TOPSOIL SOURCES: DO NOT OBTAIN TOPSOIL FROM THE FOLLOWING SOURCES: AREAS CONTAINING CHEMICALLY CONTAMINATED SOILS. AREAS FROM WHICH THE ORIGINAL SURFACE HAS BEEN STRIPPED OR COVERED OVER, SUCH AS BORROW PITS, OPEN MINES, DEMOLITION SITES, DUMPS, LANDFILLS. NO TOPSOIL FROM WET EXCAVATION OR ACID PRODUCING SOILS.

1.2. TOPSOIL SHALL BE UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, SODS, LARGE STONE, CEMENT, ASH, SLAG, CONCRETE, TAR, BOARDS, CHIPS, MULCH, OR ANY OTHER UNDESIRABLE MATERIALS. NO TOPSOIL SHALL BE DELIVERED IN A FROZEN OR MUDDY CONDITION.

1.3. TOPSOIL PH REQUIREMENTS ARE AS FOLLOWS: PH < 4.1 TOPSOIL IS UNACCEPTABLE. 4.1 ≤ PH < 5.8 ADD PULVERIZED LIME TO INCREASE THE PH TO 6.5 BEFORE USE. 5.8 ≤ PH < 7.0 TOPSOIL IS ACCEPTABLE. NO REMEDIATION NEEDED. 7.0 ≤ PH < 7.2 DECREASE PH TO AT LEAST 6.8 BEFORE USE. PH ≥ 7.2 TOPSOIL IS UNACCEPTABLE.

1.4. ORGANIC CONTENT. ENSURE THAT TOPSOIL HAS A MINIMUM ORGANIC CONTENT OF 2.75% BY WEIGHT. IF THE ORGANIC CONTENT IS LESS THAN 2.75%, INCREASE THE ORGANIC CONTENT BY ADDING SOIL ADDITIVES AT A RATE NECESSARY TO ATTAIN THE MINIMUM ORGANIC CONTENT. THE ORGANIC CONTENT SHALL NOT EXCEED 8% BY WEIGHT AND SHALL BE SAMPLED IN ACCORDANCE WITH THE ASSOCIATION OF AGRICULTURAL CHEMISTS.

1.5. GRADATION/PARTICLE SIZE. PROVIDE TOPSOIL CONFORMING TO THE PARTICLE SIZE REQUIREMENTS IN TABLE 917.01-2 AND THAT HAS NO MORE THAN 20 PERCENT RETAINED ON A NO. 10 SIEVE WHEN MECHANICALLY GRADED. THE DEPARTMENT WILL DETERMINE THE PARTICLE SIZE DISTRIBUTION FOR THE PORTION OF THE TOPSOIL PASSING THE NO. 10 SIEVE USING HYDROMETER ANALYSIS ACCORDING TO AASHTO T 88. SAND (2.0 MM TO 0.05 MM) 40 - 80% COMPOSITION. SILT (0.05 MM TO 0.005 MM) 0 - 30% COMPOSITION. CLAY (0.005 MM AND SMALLER) 10 - 30% COMPOSITION.

2. PREPARATION OF SUBGRADE:

2.1. HOLLOWS, DEPRESSIONS, AND GULLIES SHALL BE FILLED WITH ACCEPTABLE SANDY LOAM AS OUTLINED ABOVE OR SOIL AS DESCRIBED HEREON: SOIL TO BE ONE PART EACH OF TOPSOIL, MOISTENED PEAT MOSS, AND PARENT MATERIAL.

2.2. LOOSEN SUBSOIL BY SCARIFYING, RIPPING OR TILLING USING DISKS, HARROWS OR OTHER SUITABLE EQUIPMENT TO A DEPTH OF 4"-6" IMMEDIATELY BEFORE PLACING ANY TOPSOIL. REPEAT IN AREAS WHERE SEED OR PLANTINGS ARE PROPOSED AND THERE HAS BEEN COMPACTED SOIL.

3. TESTING AND APPROVAL OF SOILS:

3.1. THE CONTRACTOR SHALL SUBMIT A CERTIFIED REPORT SHOWING THE ANALYSIS OF REPRESENTATIVE SAMPLES OF TOPSOIL TESTING SHALL BE PERFORMED BY **PENN STATE COOPERATIVE RESEARCH & EXTENSION TESTING LABORATORIES** OR EQUIVALENT AS APPROVED BY STATE AND LOCAL REGULATIONS. PRICE BID SHALL INCLUDE ALL INSPECTION AND LABORATORY FEES.

D. PLANTING PROCEDURES

1. PLANTING BEDS:

1.1. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH SOILS AS OUTLINED IN SECTION C PRIOR. BACKFILL SOIL TO BE AT MINIMUM ONE PART EACH OF TOPSOIL, MOISTENED PEAT MOSS, AND PARENT MATERIAL.

1.2. PLANTING BEDS SHALL RECEIVE **FOUR (4) INCHES** OF DOUBLE SHREDDED HARDWOOD MULCH AND TREATED WITH A PRE-EMERGENT HERBICIDE. NO MULCH SHALL COME IN DIRECT CONTACT WITH ROOT FLARE/COLLAR; UNDER NO CIRCUMSTANCES SHALL THE ROOT CROWN BE BURIED.

1.3. MULCH SHALL BE DOUBLE SHREDDED GROUND HARDWOOD BARK MULCH, SHALL BE AGED A MINIMUM OF ONE (1) YEAR FOR PARTIAL DECOMPOSITION, SHALL BE SCREENED TO EXCLUDE PARTICLES LARGER THAN ONE (1) INCH IN DIAMETER, SHALL BE COMPOSED OF BARK AND HAVE A LOW WOOD CONTENT WITH NO HIDDEN WOODS FROM CONSTRUCTION DEBRIS, PALLETS, AND/OR PRESSURE TREATED LUMBER, AND BE FREE OF WEEDS, SEEDS, AND GREEN LEAF MATTER. IT SHALL BE NATURALLY DARK BROWN IN COLOR. NO DIED MULCH WILL BE ACCEPTED.

1.4. SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.

2. PLANT LOCATIONS: THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BEDLINES SHALL BE DETERMINED IN THE FIELD AT THE TIME OF INSTALLATION FOLLOWING THE BASIC INTENT OF THE APPROVED PLANS, UNLESS THERE IS A SPECIFIC DIMENSION OR LOCATION SHOWN.

3. PLANTING DATES: PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICES. PLANTING SEASONS ARE DEFINED AS MARCH 15 THROUGH MAY 15 AND SEPT 15 THROUGH NOV 15. PLANTING IS ACCEPTABLE DURING THE WINTER MONTHS IF WEATHER PERMITS AND THE GROUND IS NOT FROZEN, AND IN THE SUMMER IF SUPPLEMENTAL WATERING IS PROVIDED. SOIL MUST BE FROST FREE, FRIABLE, AND NOT MUDDY AT TIME OF PLANTING.

4. PLANTING METHODS:

4.1. TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. PLANT MATERIAL SHALL BE PROPERLY SECURED, STAKED, AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS.

4.1.1. STAKES SHALL BE EIGHT TO TEN FEET LONG, OF SOUND, DURABLE UNFINISHED LUMBER. CAPABLE OF WITHSTANDING ABOVEGROUND AND UNDERGROUND CONDITIONS DURING THE PERIOD OF GUARANTEE WITH TOP AND BOTTOM DIMENSIONS OF TWO INCHES BY TWO INCHES IN DIAMETER

4.1.2. THREE STAKES SHALL BE EQUALLY SPACED ABOUT THE TREE IN A TRIANGULAR FASHION AND SHALL BE DRIVEN VERTICALLY INTO THE GROUND 2 ½ TO 3 FEET IN A MANNER THAT DOES NOT INJURE THE ROOT BALL.

4.1.3. TREES SHALL BE FASTENED TO EACH STAKE AT A HEIGHT OF FIVE FEET BY MEANS OF ARBOR TIE TREE TIE (½" WIDE RECOMMENDED FOR TREES UP TO 2 ½ INCHES IN CALIPER).

4.2. SET PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT AFTER SETTLEMENT A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANTS IN CENTER OF PIT.

4.3. AT TIME OF INSTALLATION, THE CONTRACTOR SHALL WATER NEWLY INSTALLED PLANT MATERIAL. THE CONTRACTOR SHALL PROVIDE REGULAR WATERING TO ENSURE THE ESTABLISHMENT, GROWTH, AND SURVIVAL OF ALL PLANTS.

4.4. B&B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOTBALL ONLY. PLANTS WITH BROKEN, SPLIT, OR DAMAGED ROOTBALLS SHALL BE REJECTED.

4.5. CORD BINDING OF ALL B&B PLANTS SHALL BE CUT AND REMOVED, ALONG WITH THE BURLAP OF THE UPPER ⅓ OF THE ROOT BALL. ALL WIRE BASKETS ARE TO BE REMOVED PRIOR TO BACKFILLING PLANTING PIT.

E. MAINTENANCE

1. PRUNING:

1.1. EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.

1.2. SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT TO HAVE BRANCHES BELOW 7'-0".

1.3. THE CENTRAL LEADER SHALL NOT BE CUT OR DAMAGED.

2. LAWN AREAS:

2.1. THE LANDSCAPE CONTRACTOR SHALL TEST THE SOIL TO CONFIRM SUITABILITY FOR THE PROPOSED SEED MIX AND SUPPLEMENT AS REQUIRED TO MEET THE REQUIRED PH & NUTRIENT LEVELS.

2.2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEED UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLANS. SEED SHALL BE IN ACCORDANCE WITH THE LAWN SEED MIX NOTES AND THE SOIL EROSION AND SEDIMENT CONTROL DISTRICT'S SEED SPECIFICATIONS AS NOTED ON THE SOIL EROSION AND SEDIMENT CONTROL DETAILS SHEET.

2.3. SOD, IF SPECIFIED, SHALL CONSIST OF A STATE CERTIFIED MIXTURE. ALL DISTURBED AREAS INDICATED AS LAWN OR SOD SHALL BE TOPSOILED, LIMED, AND FERTILIZED & FINE GRADED PRIOR TO LAWN INSTALLATION.

3. EXISTING VEGETATION: EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY. TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING, OR CLEARING. EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE SHALL BE PRUNED AND TRIMMED TO REMOVE ALL DEAD, DAMAGED, OR DISEASED BRANCHES.

4. SITE CLEANUP: PLANTING DEBRIS (WIRE, TWINE, RUBBERHOSE, BACKFILL, ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. THE PROPERTY IS TO BE LEFT IN A NEAT, ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING PRACTICES.

ERNST SEEDS

Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: September 22, 2025

Commercial Conservation Mix - ERNMX-113

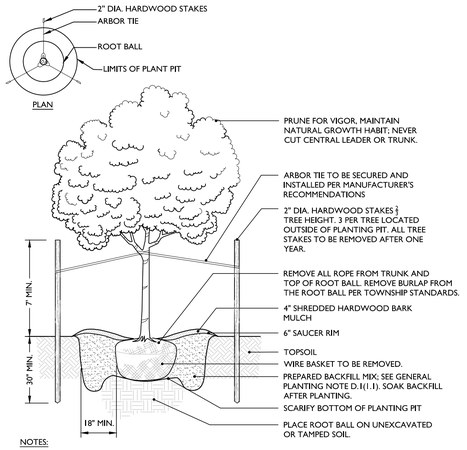
	Botanical Name	Common Name	Price/Lb
25.00 %	*Festuca rubra*	Creeping Red Fescue	3.58
25.00 %	*Lolium multiflorum*	Annual Ryegrass	1.30
25.00 %	*Lolium perenne, 'Black Sparrow'*	Perennial Ryegrass, 'Black Sparrow' (turf type)	3.38
25.00 %	*Lolium perenne, 'Blackcat II'*	Perennial Ryegrass, 'Blackcat II' (turf type)	3.38
100.00 %		**Mix Price/Lb Bulk:**	**$2.91**

Seeding Rate: 75-150 lb per acre, or 3-5 lb per 1,000 sq ft

Grasses & Grass-like Species - Herbaceous Perennial; Lawn & Turfgrass Sites

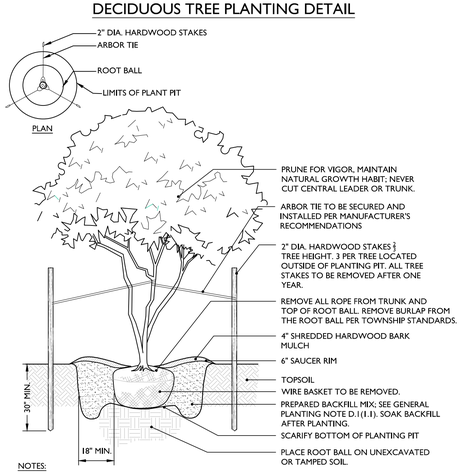
Durable and drought resistant, the ryegrass will stay greener in hot weather. The red fescue will work well in dry to wet shaded areas and a variety of soil conditions. An ideal, inexpensive lawn mix for high-traffic areas. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

LAWN MIX - ERNMX-113



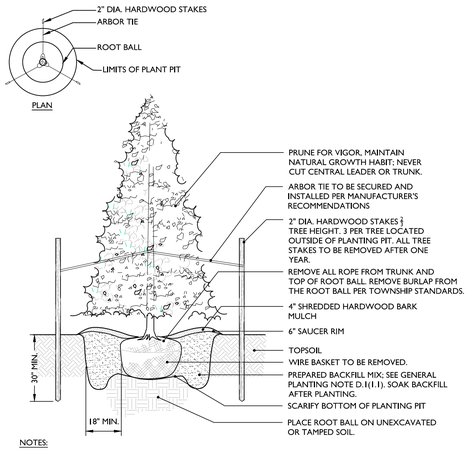
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.
3. WHEN TAGGING TREES AT THE NURSERY MARK THE NORTH SIDE OF THE TREE AND WHEN INSTALLING ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.

DECIDUOUS TREE PLANTING DETAIL



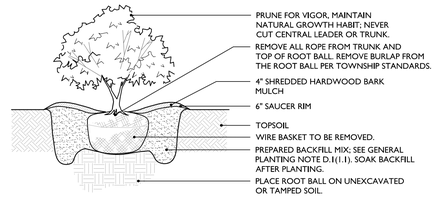
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.
3. WHEN TAGGING TREES AT THE NURSERY MARK THE NORTH SIDE OF THE TREE AND WHEN INSTALLING ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.

MULTI-LEADER TREE PLANTING DETAIL



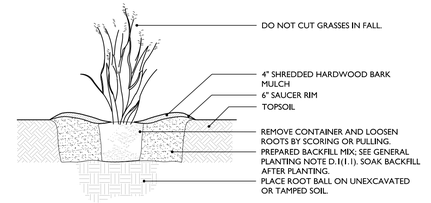
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.
3. WHEN TAGGING TREES AT THE NURSERY MARK THE NORTH SIDE OF THE TREE AND WHEN INSTALLING ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.

EVERGREEN TREE PLANTING DETAIL



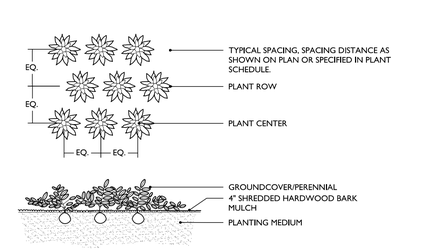
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

SHRUB PLANTING DETAIL



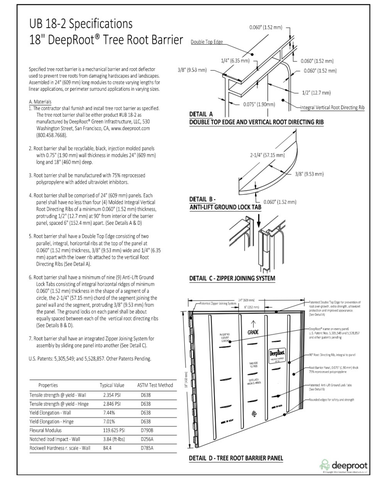
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

ORNAMENTAL GRASS PLANTING DETAIL



NOTES:
1. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

GROUNDCOVER/PERENNIAL PLANTING DETAIL



ROOT BARRIER

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Digitally signed by Christopher John Riggle
Date: 2026.09.08 10:41:04 -04'00'
Christopher John Riggle
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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL
MAJOR SITE PLAN

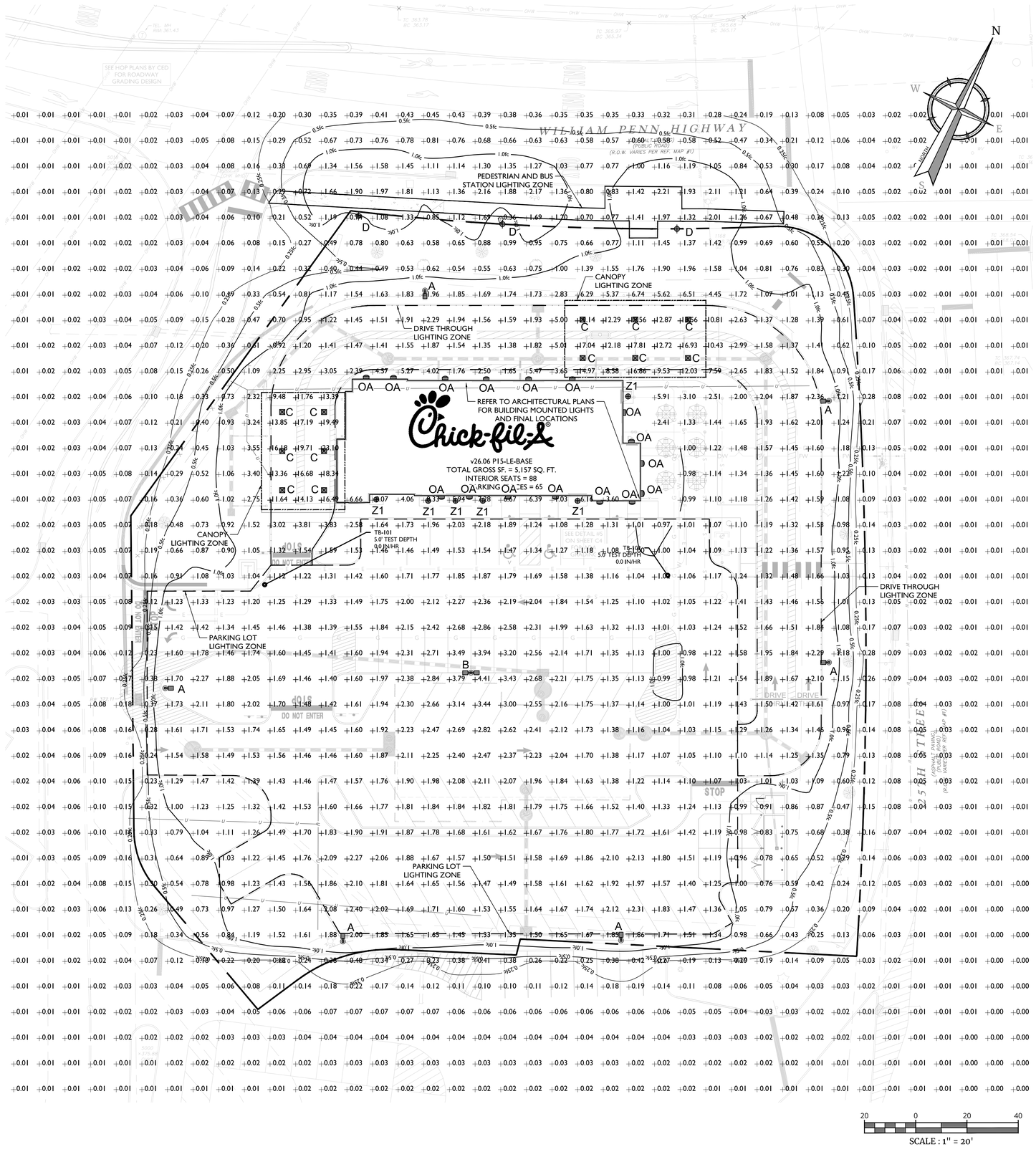
LANDSCAPE DETAILS

- ■ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
L 2

2023\23015640A\Engineering\Site Plans\CLAND.dwg\L 2 Landscape Details By: KATE MILLER



GENERAL NOTES

1. THIS SHEET IS TO BE USED FOR LIGHTING PURPOSES ONLY.
2. REFER TO SHEET 1 FOR GENERAL NOTES.

LIGHTING PLAN NOTES

1. REFER TO SHEET ES2 FOR LIGHTING DETAILS AND ORDERING INFORMATION.
2. LIGHT LEVELS ON PLAN REPRESENT AVERAGE MAINTAINED FOOTCANDLE LEVELS AT FINISHED EXTERIOR GRADE.
3. ALL MOUNTING HEIGHTS ARE MEASURED FROM FINISHED EXTERIOR GRADE TO LIGHT SOURCE.
4. POLE LOCATIONS MAY VARY DUE TO SITE CONDITIONS. CONTRACTOR TO FIELD VERIFY POLE LOCATIONS PRIOR TO INSTALLATION TO ACCOMMODATE UTILITIES, PAVEMENTS, FENCES, ETC.
5. UNDERGROUND CONDUIT LOCATIONS SHALL BE COORDINATED WITH THE PROPOSED TREE LOCATIONS.
6. CONCRETE FOOTING FOR POLE MOUNTED LIGHTS TO BE DESIGNED BY OTHERS. FOOTING DETAIL TO BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.
7. ELECTRICAL WIRING DESIGN FOR SITE LIGHTING TO BE DESIGNED BY OTHERS.
8. ARCHITECTURAL LIGHTING FOR BUILDINGS TO BE DESIGNED BY OTHERS. COORDINATE ALL BUILDING-MOUNTED FIXTURES AND LOCATIONS WITH ARCHITECT AND ARCHITECTURAL ELEVATION DRAWINGS.
9. SITE LIGHTING SUBSTITUTIONS WILL NOT BE PERMITTED UNLESS SUBSTITUTIONS ARE SUBMITTED AND APPROVED.
10. LUMINAIRES TO BE MANUFACTURED BY COOPER LIGHTING SOLUTIONS OR EQUIVALENT AS APPROVED BY (OWNER/ENGINEER/LANDSCAPE ARCHITECT).
11. LUMINAIRES AND POLE FINISHES TO BE DARK BRONZE. PEDESTRIAN DECORATIVE LIGHTING FIXTURE AND POLE FINISH/COLOR TO BE SELECTED BY AND APPROVED BY THE TOWNSHIP.
12. PROPOSED LIGHTS SHALL BE EQUIPPED WITH SENSORS, TIMERS, OR THE MANUFACTURER CONTROL SYSTEM SO THE PROPOSED LIGHTS CAN BE DIMMED OR TURNED OFF AFTER OCCUPATION HOURS. ONLY SPECIFIC LIGHTING FOR SECURITY PURPOSES SHALL REMAIN ON AFTER OCCUPATION HOURS. SECURITY LIGHTING SHALL BE DETERMINED BY THE OWNER AND CONTRACTOR.

LIGHTING LEGEND

- POLE MOUNT LUMINAIRE
- WALL MOUNT LUMINAIRE
- CANOPY LUMINAIRE
- CANOPY LUMINAIRE
- POST TOP LUMINAIRE

0.25 FOOTCANDLE
0.5 FOOTCANDLE
1.0 FOOTCANDLE

LIGHTING ORDINANCE COMPLIANCE CHART

TOWN OF PALMER,PA		
§ 190-513 : LIGHT AND GLARE CONTROL		
A.OVERALL. ALL USES SHALL DIRECT, DEFLECT AND SHIELD LIGHTS AND CONTROL THE INTENSITY OF LIGHTS AND ILLUMINATED SIGNS TO AVOID NUISANCES AND PREVENT GLARE ONTO OTHER PROPERTIES AND STREETS AND TO AVOID DISTRACTIONS TO MOTORISTS. LIGHTS SHALL NOT SHINE DIRECTLY INTO THE NORMAL LINE OF SIGHT OF MOTORISTS. LIGHTS SHALL NOT PRODUCE A STROBE EFFECT.	**COMPLIANT**	ALL THE LIGHTING FIXTURES ARE FULL CUTOFF FIXTURES , DARK SKY COMPLIANT.
C.LUMINAIRE HEIGHT. NO LUMINAIRE, SPOTLIGHT OR OTHER LIGHT SOURCE THAT IS WITHIN 200 FEET OF A LOT LINE OF AN EXISTING DWELLING OR APPROVED RESIDENTIAL LOT OR WITHIN A RESIDENTIAL DISTRICT SHALL BE PLACED AT A HEIGHT EXCEEDING 20 FEET ABOVE THE AVERAGE SURROUNDING GROUND LEVEL. IN OTHER SITUATIONS, A LUMINAIRE OR SPOTLIGHT SHALL NOT BE PLACED MORE THAN 30 FEET ABOVE THE AVERAGE SURROUNDING GROUND LEVEL.	**COMPLIANT**	THE POLE LIGHT FIXTURE IS MOUNTED AT 25.5 FEET, LESS THAN 30'.
E.SHIELDING. ALL LIGHT SOURCES, INCLUDING SIGNS, SHALL BE SHIELDED AROUND THE LIGHT SOURCE AND CAREFULLY DIRECTED AND PLACED TO PREVENT THE LIGHTING FROM CREATING A NUISANCE TO ADJACENT DWELLINGS, AND TO PREVENT THE LIGHTING FROM SHINING INTO THE EYES OF PASSING MOTORISTS.	**COMPLIANT**	ALL THE LIGHTING FIXTURES ARE FULL CUTOFF FIXTURES , DARK SKY COMPLIANT.
H.MAXIMUM SPILLOVER. EXTERIOR LIGHTING FROM ANY USE ONTO A RESIDENTIAL USE SHALL NOT CAUSE A SPILLOVER OF LIGHT ONTO A RESIDENTIAL LOT THAT EXCEEDS 0.1 OF A FOOTCANDLE, MEASURED AT LINE OF SIGHT INSIDE THE RESIDENTIAL LOT LINE, EXCEPT WHERE THAT LIGHTING LEVEL IS ALREADY EXCEEDED BY PREEXISTING CONDITIONS, THE SPILLOVER MAY BE INCREASED BY 0.1 FOOTCANDLE. THIS LIMIT SHALL ALSO APPLY TO SIGN LIGHTING.	**COMPLIANT**	COMPLIANT BASED ON THE REQUIREMENTS. THE VARIANCE REQUEST IS NOT APPLICABLE, AS SECTION 513.H SPECIFICALLY APPLIES TO LIGHT SPILL ONTO RESIDENTIAL PROPERTIES.
I.LIGHTING OF HORIZONTAL SURFACES. FOR THE LIGHTING OF PREDOMINANTLY HORIZONTAL SURFACES SUCH AS PARKING AREAS AND VEHICLE SALES AREAS, LIGHTING FIXTURES SHALL BE AIMED DOWNWARD AND SHALL INCLUDE FULL CUT-OFF MEASURES AS NEEDED TO PROPERLY DIRECT THE LIGHT AND TO MEET THE MAXIMUM SPILLOVER REQUIREMENTS OF SUBSECTION H ABOVE AND TO PREVENT GLARE ONTO STREETS. THE TOWNSHIP MAY REQUIRE THAT LIGHT FIXTURES FOR NONRESIDENTIAL USES BE PLACED ALONG THE STREET AND BE AIMED AWAY FROM THE STREET IN A MANNER THAT ALSO MINIMIZES LIGHT SHINING ONTO RESIDENTIAL LOTS.	**COMPLIANT**	ALL THE LIGHTING FIXTURES ARE FULL CUTOFF FIXTURES , DARK SKY COMPLIANT.
§ 190-603 : DESIGN STANDARDS FOR OFF-STREET PARKING FACILITIES		
F.1.UNLESS RESTRICTED ELSEWHERE, ANY PARKING AREA DESIGNED FOR USE BY SIX OR MORE CARS AFTER DUSK SHALL BE ADEQUATELY ILLUMINATED FOR SECURITY AND PEDESTRIAN SAFETY DURING ALL HOURS OF DARKNESS WHEN THE PARKING AREA IS IN USE. THE MINIMUM ILLUMINATION OF SUCH PARKING SPACES AND AISLES SHALL BE 0.75 FOOTCANDLE, EXCEPT THAT A MINIMUM OF 0.5 FOOTCANDLE IS PERMITTED FOR INDUSTRIAL USES. THE MAXIMUM FOOTCANDLES MEASURED AT ANY LOCATION ALONG THE HORIZONTAL AND PROJECTED VERTICAL LOT LINE SHALL NOT EXCEED 0.1 FOOTCANDLE.	**COMPLIANT**	COMPLIANT BASED ON THE REQUIREMENTS. THE PARKING AREA PROVIDES THE REQUIRED MINIMUM ILLUMINATION OF 0.75 FOOTCANDLE, AND LIGHTING AT THE HORIZONTAL AND PROJECTED VERTICAL LOT LINES DOES NOT EXCEED 0.1 FOOTCANDLE.

OVERALL LIGHTING SCHEDULE

SYMBOL	LABEL	QTY	CATALOG NUMBER	LAMP	LUMENS PER LAMP	WATTAGE	LLF	MOUNT HT	POLE
	A	6	COOPER LIGHTING PRV-PA2A-730-U-T4W-HSS	1	10,262	100	0.95	25' POLE	SSS-22-4-11-AB-N1-BZ
	B	1	COOPER LIGHTING PRV-PA2B-730-U-SWQ	1	23,180	148	0.95	25' POLE	SSS-22-4-11-AB-N1-BZ
	C	12	LSI INDUSTRIES, INC. CRUS-SC-SLW-30	1	5,000	94.1	0.95	10' CANOPY	N/A
	D	3	ARCHITECTURAL AREA LIGHTING	1	7,479	54	0.95	14.5' POLE	DBI-4F12188-BLS
	Z1*	7							N/A
	OA*	18							N/A

* PLEASE REFER TO BUILDING ELECTRICAL PLAN FOR FINAL LOCATIONS & SPECIFICATIONS

OVERALL LIGHTING STATISTICS

AREA DESCRIPTION	SYMBOL	AVERAGE	MAXIMUM	MINIMUM	MAX/MIN	AVG/MIN
OVERALL SITE	+	1.09 FC	23.10 FC	0.0 FC	N/A	N/A
PARKING & DRIVEWAY	- - -	1.68 FC	4.41 FC	0.96 FC	4.59 : 1.0	1.75 : 1.0
DRIVETHRU	— · —	5.27 FC	23.10 FC	1.14 FC	20.26 : 1.0	4.62 : 1.0
CANOPY	—··—	14.69 FC	23.10 FC	7.59 FC	3.04 : 1.0	1.94 : 1.0
SIDEWALK & BUS STATION	———	1.29 FC	2.21 FC	0.48 FC	4.60 : 1.0	2.69 : 1.0

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
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1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

COMMONWEALTH OF PENNSYLVANIA ENGINEER PETRIE PENNSYLVANIA

Digitally signed by Christopher John Riggle
Date: 2026.09.08 16:14:04 -04'00'

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE079508
COLLIERS ENGINEERING & DESIGN, INC.
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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

LIGHTING PLAN

- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet
ES 1

20230215640A\Engineering\Site Plans\C-LIGHT.dwg\ES 1 Lighting Plan By: DAVID.BLANKS

Project | Catalog # | Type
Prepared by | Notes | Date



Lumark
Prevail Discrete LED

Area / Site Luminaire

Product Features

BAA TAA VBU ABC Made in the USA

Product Certifications

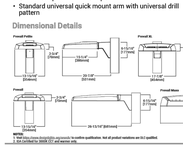
ISO 9001 DLC DLC Premium 5 YEAR KRUSE

IP66

Interactive Menu
- Ordering Information page 2
- Mounting Details page 1,4
- Optical Configurations page 5
- Product Specifications page 5
- Energy and Performance Data page 6
- Control Options page 4

Quick Facts
- Direct-mounted discrete light engine for improved optical uniformity and visual comfort
- Lumen packages range from 4,300 - 68,000 nominal lumens (20W - 550W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 157 lumens per watt
- Standard universal quick mount arm with universal drill pattern

Dimensional Details



Connected Systems
- WaveLinx PRO Wireless
- WaveLinx LITE Wireless

COOPER Lighting Solutions — a Signify business

P10300002EN page 1
March 11, 2026 10:28 AM

Lumark — **Prevail Discrete LED**

Ordering Information

SAMPLE NUMBER: **P6V-XL-P44B-740-U-T4W-BZ**

Product Family *	Light Engine Configuration *	Drive Current *	Case Temperature
P6V-P Prevail P6V **P6V-XL** Prevail P6V XL Size that are IC compliant **P6V-R** Prevail P6V Retro Size that are IC compliant **P6V-PET** Prevail P6V Petite Size that are IC compliant	**P6V-** Prevail, 24-LED Package **P6V-** Prevail, 36-LED Package **P6V-** Prevail, 144-LED Package	350mA, 530mA 700mA, 1000mA 1050mA, 1200mA **350mA-XXL** 350mA **530mA-XXL** 530mA **1050mA-XXL** 1050mA **1200mA-XXL** 1200mA	740K 70 CRI 730K 70 CRI 727K 70 CRI 740K 80 CRI 730K 80 CRI 727K 80 CRI 740K 90 CRI 730K 90 CRI 727K 90 CRI 740K 95 CRI 730K 95 CRI 727K 95 CRI 740K 98 CRI 730K 98 CRI 727K 98 CRI

Voltage	Distribution	Mounting Direction	Finish
120 - 120V 208 - 208V 240 - 240V 277 - 277V 347 - 347V 480 - 480V UNV - 120V-277V HVU - 347V-480V	T1S - Type I Short T2M - Type II Medium T2S - Type II Short T3M - Type III Medium T3S - Type III Short T4W - Type IV Wide T4F - Type IV Forward T5W - Type V Wide T5VW - Type V Very Wide BLC - Backlight Control VLC - Visual Comfort ELO - Extra Low Optic MLO - Medium Low Optic HLO - High Low Optic VHO - Very High Output UHO - Ultra High Output	A B A B	**DDB** Dark Bronze **BLK** Black **NAT** Natural Aluminum **WHT** White **DBL** Black **DNA** Natural Aluminum **DWH** White **BZ** Bronze **BLK** Black **NAT** Natural Aluminum **WHT** White **DDB** Dark Bronze

SEE HOP PLANS BY CED FOR ROADWAY GRADING DESIGN

WILLIAM PENN HIGHWAY
(ASPHALT PAVING)
(PUBLIC ROAD)
(R.O.W. VARIES PER RDT. MAP #1)

25TH STREET
(ASPHALT PAVING)
(PUBLIC ROAD)
(R.O.W. VARIES PER RDT. MAP #1)

FFE: 374.00

v26.06 P15-LE-BASE
TOTAL GROSS SF. = 5,157 SQ. FT.
INTERIOR SEATS = 88
PARKING SPACES = 65

INV OUT: 369.00

40 LF 6" PVC @ 2.65%

33 LF 6" PVC @ 3.45%

64 LF 6" PVC @ 3.45%

52 LF 6" PVC @ 2.65%

250 LF 6" PVC @ 2.89%

16 LF 6" PVC @ 2.65%

1,500 GALLON GREASE INTERCEPTOR
RIM: 374.10
INV IN: 366.56
INV OUT: 366.36

INV: 365.65

SANITARY MANHOLE
RIM: 373.60
INV IN: 365.94
INV OUT: 365.84

SEE DETAIL #5 ON SHEET C4 FOR ADA GRADING

SEE PROPOSED WATER CONNECTION BLOWUP

CONNECT TO EX. 8" SAN. INV: 358.62

SCM-1 (4,100 SF)
ADS STORMTECH MC-3500
UNDERGROUND MRC
DETENTION BASIN
STONE TOP: 371.00
CHAMBER TOP: 370.00
CHAMBER BTM. 366.25
STONE BTM. 365.50

EXISTING FIRE HYDRANT TO BE REUSED

SAN. MH
RIM: 360.11
INV.(IN) 351.71(E28)
INV.(OUT) 351.71(E29)

SAN. MH
RIM: 361.20
INV.(IN) 351.77(E27)
INV.(OUT) 351.77(E28)

SAN. MH
RIM: 360.71
(PARTIALLY PAVED OVER, INVERT INACCESSIBLE)

SAN. MH
RIM: 364.11

TEL. MH
RIM: 361.43

SAN. MH
RIM: 369.26
INV.(IN) 358.11(E2)
INV.(OUT) 358.11(E1)

SAN. MH
RIM: 374.24
INV.(IN) 363.29(E3)
INV.(OUT) 363.19(E2)

TRAFFIC SIGNAL ON CONC PAD W/TURN LANE SIGNS

TRAFFIC POLE W/SIGNAL CHANGE BUTTON

TRAFFIC SIGNAL ON CONC PAD

TRAFFIC VAULT

LP W/ 24" BASE

CONCRETE

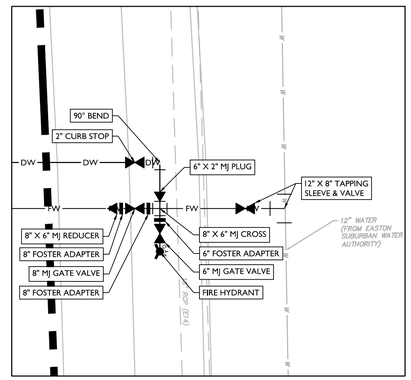
8" CLAY (E28)

8" CLAY (E27)

8" SAN. PVC (E1)

8" SAN. PVC (E2)

8" SAN. PVC (E3)



PROPOSED WATER CONNECTION
SCALE: 1" = 5'

UTILITIES PLAN LEGEND

1	PROPOSED 6" PVC SDR 26 SAN LATERAL @ 2% MIN SLOPE
2	PROPOSED CLEAN-OUT (TYP.)
3	PROPOSED EXTERIOR 1,500 GAL. GREASE TRAP
4	CONNECT TO EXIST SANITARY LINE
5	PROPOSED UNDERGROUND PRIMARY ELECTRIC/ TELEPHONE SERVICE
6	CONNECT TO EXISTING ELEC/TELE SERVICE
7	PROPOSED 2" TYPE K COPPER DOMESTIC LINE
8	PROPOSED 6" DIP FIRE LINE
9	PROPOSED 3/4" CW TO DUMPSTER POST HYDRANT
10	PROPOSED GAS LINE
11	PROPOSED GAS METER
12	CONNECT TO EXISTING GAS LINE
13	PROPOSED 4" SCH 40 PVC CONDUIT
14	PROP. 6" PVC SDR 26 KITCHEN WASTE LINE @ 2% MIN
15	PROP. 6" PVC SDR 26 RESTROOM WASTE LINE@ 2% MIN
16	PROPOSED 8" HDPE @ 1.0 % ROOF DRAIN (TYP.) (16 / C5)
17	PROPOSED 3" VENT LINE
18	PROPOSED TWO-WAY CLEAN-OUT (TYP.)
19	CONNECT TO EXISTING WATER SERVICE
20	PROPOSED TRANSFORMER
21	PROPOSED ELECTRIC PANEL
22	FOUR (4) 4" PVC CONDUITS WITH PULL STRING FOR SECONDARY ELECTRIC SERVICE. TWO (2) 4" PVC CONDUITS WITH PULL STRINGS FOR TELEPHONE SERVICE. ONE (1) 3" PVC CONDUIT WITH PULL STRING FOR CABLE SERVICE.
23	PROPOSED CANOPY GAS LINE
24	PROPOSED CANOPY ELECTRIC LINE
25	LIGHT POLE
26	PROPOSED 4" PVC CANOPY DRAIN @ 1% (TYP.) (26 / C5)
27	PROPOSED 5" STORZ FIRE DEPARTMENT CONNECTION
28	PROPOSED FIRE HYDRANT
29	PROPOSED KNOX BOX

LEGEND

EXISTING		PROPOSED
12+00 PI 13+00	TRAVERSE LINE, CENTER LINE OR BASELINE (LABEL AS SUCH)	12+00 13+00
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	'C' INLET	
	'M' INLET	
(D)	STORM MANHOLE	(D)
(S)	SANITARY MANHOLE	(S)
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
CATV	CABLE TV CONDUIT	CATV
W	WATER MAIN	W
G	GAS MAIN	G
T	TELEPHONE CONDUIT	T
E	ELECTRIC CONDUIT	E
	SANITARY PIPE	S
	STORM PIPE	

GENERAL NOTES:

1. THE PROPOSED DEVELOPMENT WILL BE SERVED BY PUBLIC WATER AND SEWER.
2. COORDINATION WITH THE PALMER TOWNSHIP CODE DEPARTMENT IS REQUIRED TO ENSURE THE GREASE CONTROL DEVICE IS PROPERLY SIZED, PERMITTED, AND INSTALLED.
3. THE WATER SYSTEM MUST BE DESIGNED, INSTALLED, AND TESTED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF EASTON SUBURBAN WATER AUTHORITY.
4. EASTON SUBURBAN WATER AUTHORITY IS RESPONSIBLE FOR THE MAINTENANCE OF THE WATER SERVICE LATERAL FROM THE WATER MAIN TO THE CURB STOP OR SHUT OFF VALVE. THE PROPERTY OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF THE WATER SERVICE LATERAL FROM THE CURB STOP OR SHUT OFF VALVE INTO THE BUILDING.

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

Know what's below. Call before you dig.

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

20 0 20 40
SCALE : 1" = 20'

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5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
2	09/01/26	REVISED PER TOWNSHIP REVIEW COMMENTS	TCM
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH

Seal

Digitally signed by Christopher John Riggle
Date: 2026.09.08 10:41:14 -04'00'

Christopher John Riggle
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE079508
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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL MAJOR SITE PLAN

UTILITY PLAN

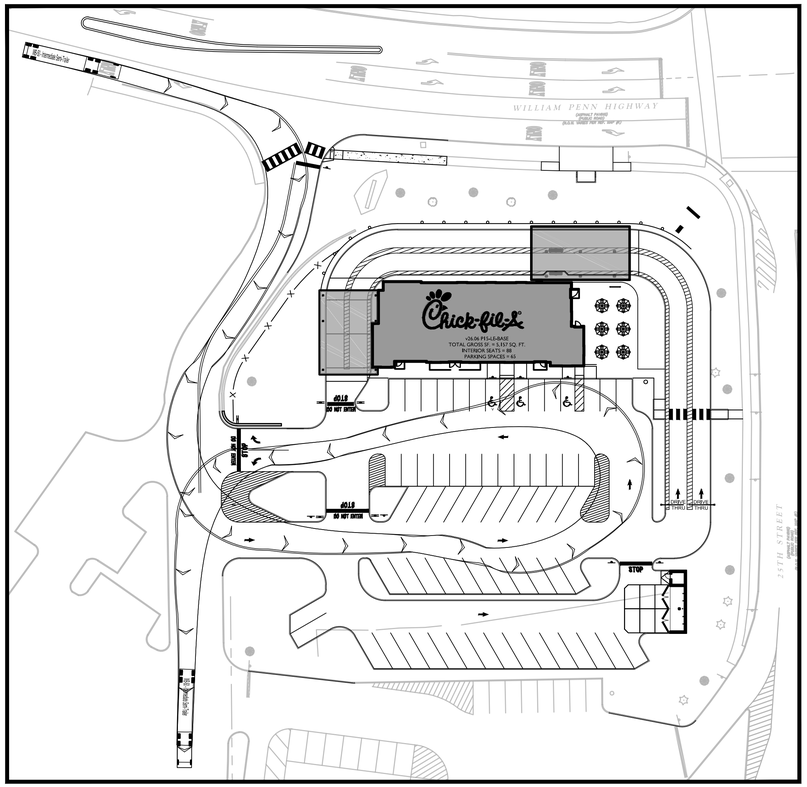
- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

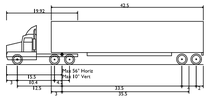
Sheet

PS 1

2023\23015640A\Engineering\Site Files\CiCAIT.dwg\PS 1 Utility Plan By: DAVID.BLIKSLI

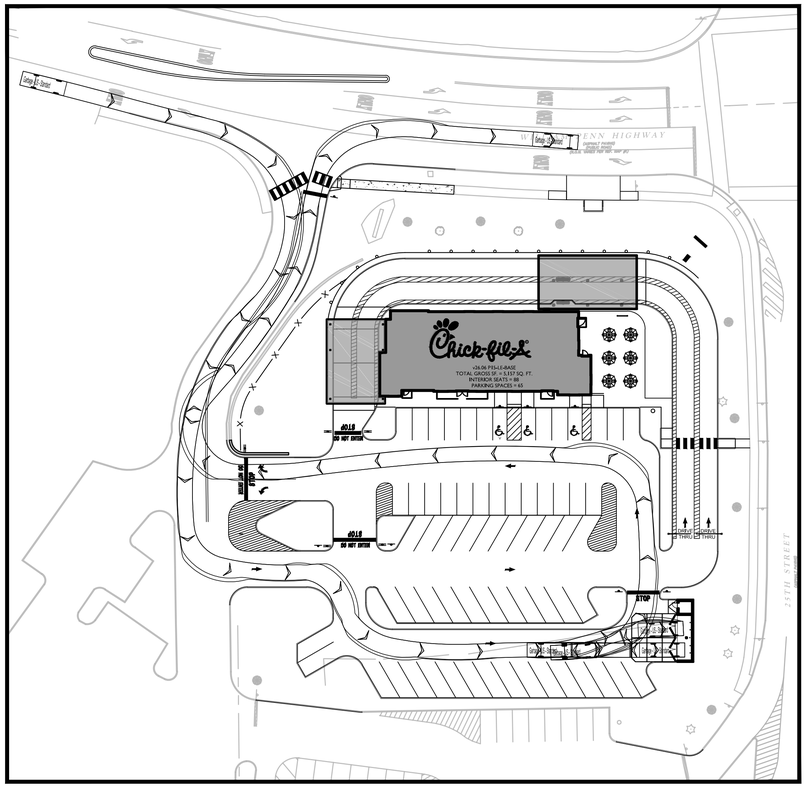


WB-50 DELIVERY TRUCK CIRCULATION

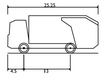


WB-50 - Intermediate Semi-Trailer

Overall Length	55.000ft
Overall Width	8.500ft
Overall Body Height	12.052ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

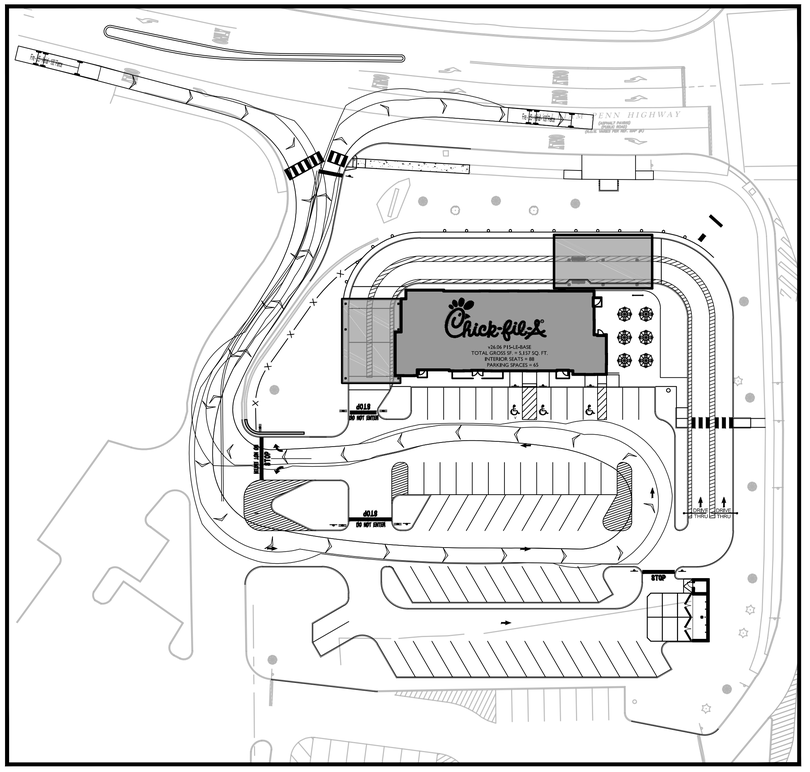


TRASH TRUCK CIRCULATION

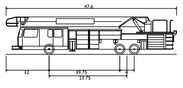


Garbage - US - Standard

Overall Length	25.250ft
Overall Width	8.000ft
Overall Body Height	10.481ft
Min Body Ground Clearance	1.311ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	31.190ft

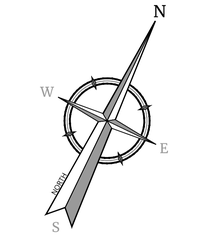


EMERGENCY VEHICLE CIRCULATION



Fire - US - Aerial - 100' Pierce

Overall Length	47.600ft
Overall Width	8.000ft
Overall Body Height	10.432ft
Min Body Ground Clearance	0.862ft
Track Width	8.000ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	36.990ft





SCALE : 1" = 40'

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998
Telephone 404-765-8000

REV	DATE	DESCRIPTION	DRAWN BY
1	07/13/26	REVISED PER TOWNSHIP REVIEW COMMENTS	JEH
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PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL
MAJOR SITE PLAN

TRUCK CIRCULATION

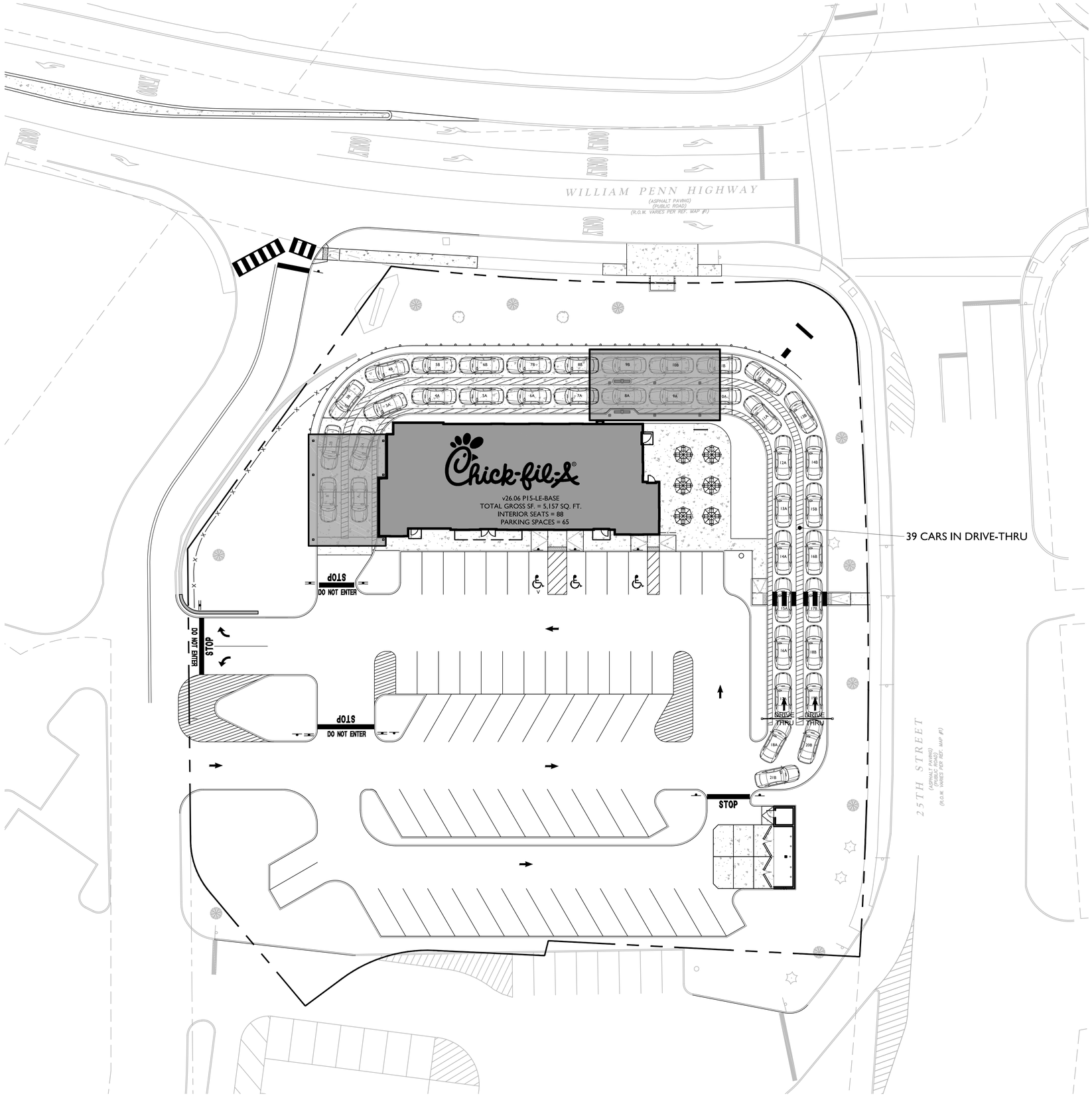
- ■ Preliminary
- □ 80% Submittal
- □ For Construction

File No.: 230156640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet

CP

2023\230156640A\Engineering\Site Plans\CLAYT.dwg\CP Truck Circulation By: TATE.MILLER



20 0 20 40

SCALE : 1" = 20'

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Atlanta, Georgia
30349-2998
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STORE 5969

601 S 25TH STREET
EASTON, PA 18045

PALMER TOWNSHIP
NORTHAMPTON
COUNTY
PENNSYLVANIA

PRELIMINARY/FINAL
MAJOR SITE PLAN

CAR STACK EXHIBIT

- ☒ Preliminary
- ☐ 80% Submittal
- ☐ For Construction

File No.: 23015640A
Store : 05969
Date : 10/07/25
Drawn By: JEH
Checked By: CJR

Sheet

C E

Colliers Engineering & Design

CFA-PALMER TOWNSHIP, PA

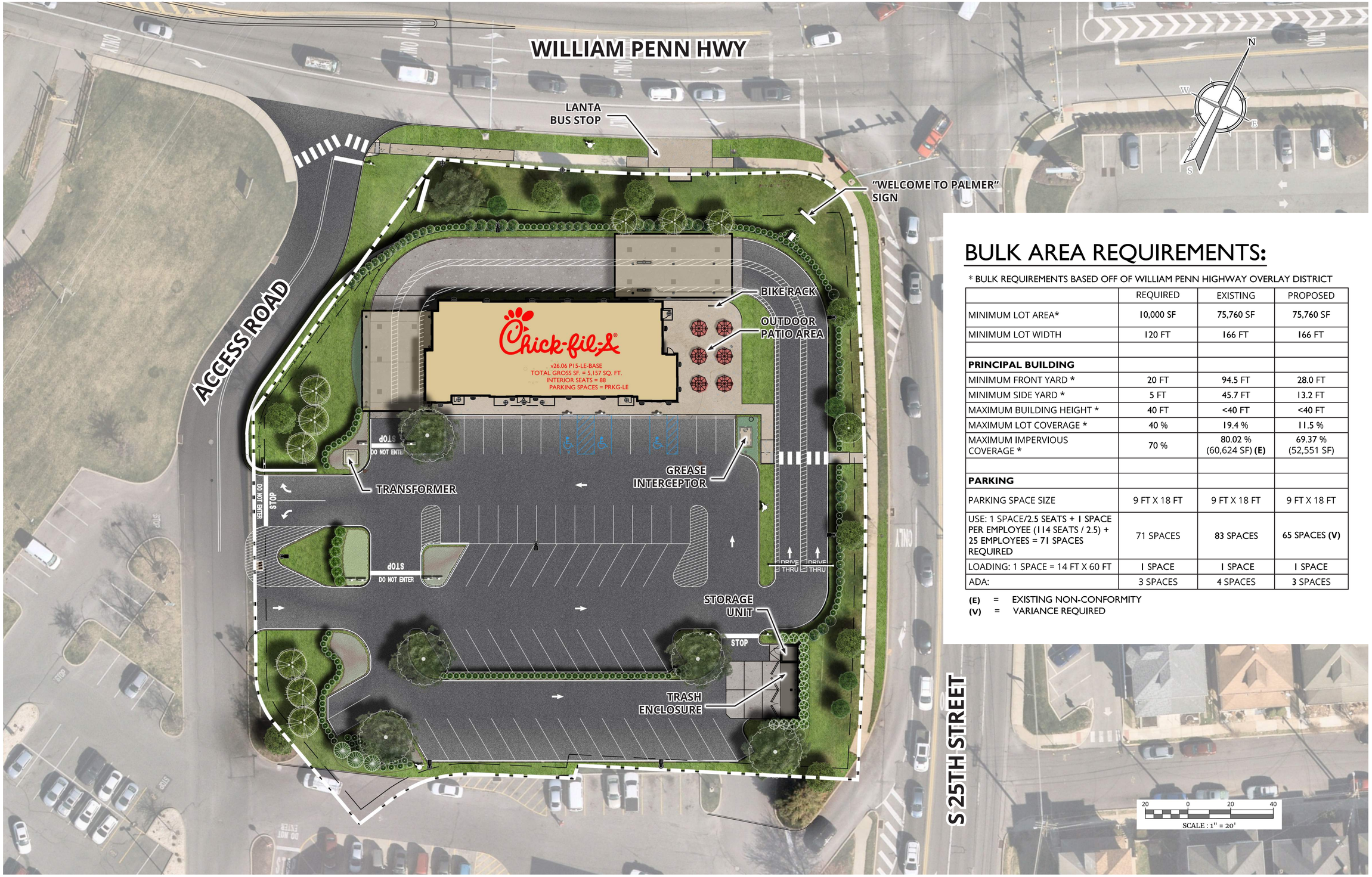


Aerial Imagery shown hereon was sourced with NearMap (captured 03/21/26)

Date: 08/10/26 | Project Number: 23015640A

Colliers Engineering & Design

CFA-PALMER TOWNSHIP, PA



BULK AREA REQUIREMENTS:

* BULK REQUIREMENTS BASED OFF OF WILLIAM PENN HIGHWAY OVERLAY DISTRICT

	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA*	10,000 SF	75,760 SF	75,760 SF
MINIMUM LOT WIDTH	120 FT	166 FT	166 FT
PRINCIPAL BUILDING			
MINIMUM FRONT YARD *	20 FT	94.5 FT	28.0 FT
MINIMUM SIDE YARD *	5 FT	45.7 FT	13.2 FT
MAXIMUM BUILDING HEIGHT *	40 FT	<40 FT	<40 FT
MAXIMUM LOT COVERAGE *	40 %	19.4 %	11.5 %
MAXIMUM IMPERVIOUS COVERAGE *	70 %	80.02 % (60,624 SF) **(E)**	69.37 % (52,551 SF)
PARKING			
PARKING SPACE SIZE	9 FT X 18 FT	9 FT X 18 FT	9 FT X 18 FT
USE: 1 SPACE/2.5 SEATS + 1 SPACE PER EMPLOYEE (114 SEATS / 2.5) + 25 EMPLOYEES = 71 SPACES REQUIRED	71 SPACES	83 SPACES	65 SPACES **(V)**
LOADING: 1 SPACE = 14 FT X 60 FT	1 SPACE	1 SPACE	1 SPACE
ADA:	3 SPACES	4 SPACES	3 SPACES

(E) = EXISTING NON-CONFORMITY
(V) = VARIANCE REQUIRED

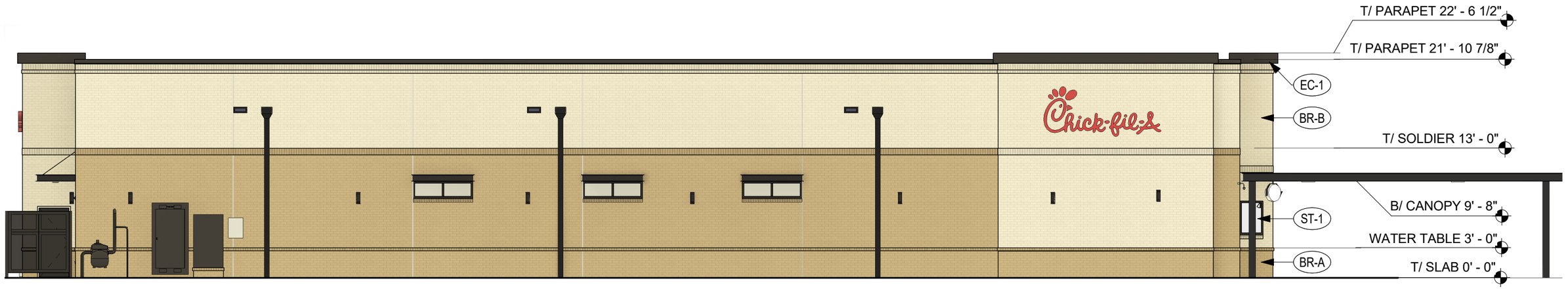
Aerial Imagery shown hereon was sourced with NearMap (captured 03/21/26)

Date: 09/24/26 | Project Number: 23015640A



1 EXTERIOR ELEVATION

1" = 10'-0"



2 EXTERIOR ELEVATION

1" = 10'-0"

THE CHICK-FIL-A DESIGN DEVELOPMENT PACKAGE REPRESENTS A BRAND COMPLIANT DESIGN SOLUTION. SITE ADAPT PROFESSIONALS ARE RESPONSIBLE FOR APPLICATION OF DESIGN AND COMPLIANCE WITH ORDINANCES AND CODES.



1 EXTERIOR ELEVATION
1" = 10'-0"



2 EXTERIOR ELEVATION
1" = 10'-0"

EXTERIOR FINISHES



BR-A
BRICK VENEER
COLOR: DARK BROWN
SIZE: MODULAR



EC-1
PREFINISHED METAL COPING
COLOR: MIDNIGHT BRONZE



BR-B
BRICK VENEER
COLOR: LIGHT BROWN
SIZE: MODULAR



PT-113
EXTERIOR PAINT
COLOR: DARK BRONZE
FINISH: SEMI-GLOSS



ST-1
STOREFRONT
COLOR: DARK BRONZE

EXTERIOR ELEVATIONS

05969, PALMER TWP FSR, 601 S 25th STREET, EASTON, PA 18045

10/13/2025

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10/11/2025 3:44:02 PM

SALD-2026-01: Preliminary/Final Plan – Easton Area High School Phase 2

INFORMATION

Easton Area School District requests Preliminary/Final Plan approval for a proposed new high school at 2601 William Penn Highway.

ATTACHMENTS:

Staff Report
Township Engineer Review
Township Geotechnical Review
Township Sanitary Sewer Review
Township Landscape and Lighting Review
Community Development Department Review
Fire Department Review
Shade Tree Commission Review
LVPC Review
LANTA Review
Land Development Plans
Architectural Renderings

TOWNSHIP OF PALMER

NORTHAMPTON COUNTY, PENNSYLVANIA

3 Weller Place, Palmer Township, PA 18045

Staff Report

To:	Palmer Township Planning Commission
From:	Craig Beavers, AICP, Director of Community Development
Report Date:	October 7, 2026
Meeting Date:	October 13, 2026
Subject:	Easton Area High School Phase 2 (2601 William Penn Highway) Plan Set Dated September 9, 2026 SALD-2026-01 **Preliminary/Final Land Development Review – Third Submission**

PROJECT OVERVIEW

This project is a Major Land Development in which the Easton Area School District ("Applicant") proposes to construct a 3-story, 250,444 sq ft high school. The property is located in the HDR High Density Residential Zoning District and GIO Government/Institutional Overlay District.

REVIEWING AGENCY COMMENTS

A. **Township Engineer –** The comments of the Township Engineer are contained in Mr. Justin Coyle's review dated October 6, 2026. His comments pertain to zoning variances, waiver requests, zoning compliance, SALDO compliance, utility review, checklist review, stormwater management review, traffic review, and general comments.

B. **Township Geotechnical Engineer –** The comments from the Township Geotechnical Engineer are contained in Mr. Shawn Casey's review dated October 6, 2026. He has no comments at this time.

C. **Township Sanitary Sewer Engineer –** The comments from the Township Sanitary Sewer Engineer are contained in Ms. Elizabeth Wagner's review dated October 1, 2026. Her comments pertain to grease traps and calculations.

D. **Township Landscape and Lighting Consultant –**The comments from the Township Landscape and Lighting Consultant are contained in Mr. Chris Green's review dated October 6, 2026. His comments pertain to utility line conflicts.

E. **Planning Department** – The comments from the Planning Department are contained in Mr. Craig Beavers' review dated October 7, 2026. His comments pertain to ordinance compliance, waivers and deferrals, public works and utilities, and planning document consistency.

F. **Public Works Department –** The Public Works Department has no comments at this time.

G. **Fire Department –** The Fire Department has no comments at this time.

H. **Police Department –** The Police Department has no comments at this time.

I. **Codes and Zoning Department –** The Codes and Zoning Department has no comments at this time.

J. **Public Services Department –** The Public Services Department has no comments at this time.

K. **Stormwater Department –** The Stormwater Department has no comments at this time.

L. **Parks and Recreation Department –** The Parks and Recreation Department has no comments at this time.

M. **Shade Tree Commission –** The comments of the Shade Tree Commission are contained in their review dated October 2, 2026. They approve of the proposed landscaping plan.

N. **Lehigh Valley Planning Commission (LVPC)** – The comments of the LVPC are contained in Mr. Jacob Weinberg and Geoffrey Reese's review letter dated May 15, 2026. Their comments pertain to site suitability, transportation, environment, and Act 167 compliance. The Drainage Plan is currently inconsistent with Act 167 requirements.

O. **Lehigh and Northampton Transportation Authority (LANTA) –** The comments of LANTA are contained in Ms. Molly Wood's review dated April 28, 2026. She has no additional comments at this time.

P. **Northampton County Conservation District (NCCD) –** The comments of the NCCD have not been received at the time of this writing.

Q. **Pennsylvania Department of Environmental Protection –** The Department of Environmental Protection has issued NPDES Permit No. PAD 480249 for the Phase 1 site; an application is pending to modify the permit to include the Phase 2 site.

R. **Pennsylvania Department of Transportation –** The comments from the Department of Transportation are contained in HOP Application No. 400944. Their comments pertain to general comments, application items, trip generation, pavement markings, ROW design, ADA compliance, and drainage.

DEPARTMENT ANALYSIS

Based on an analysis of the submitted material, the Community Development Department ("Department") provides the following general comments:

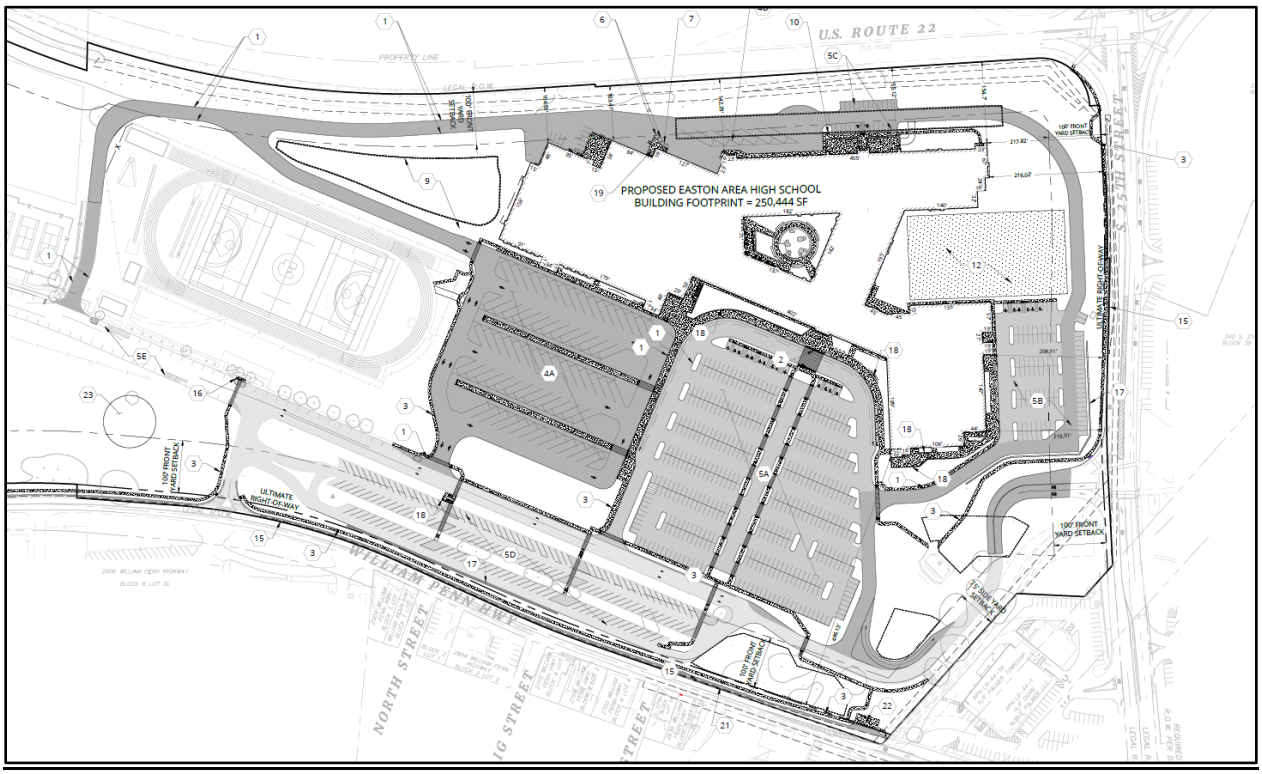
Project Background

This is the second phase of the Easton Area High School redevelopment project. The first phase (previously approved) involves the relocation and improvement of the athletic complex on the western portion of the complex. The second phase (this submission) proposes the construction of a new high school building.

Major components of this project include:

a. A new, 250,444 square foot high school building
b. Passenger vehicle parking (945 spaces)
c. Bus parking (76 spaces)
d. Grass band practice field
e. New bonfire area
f. LANTA EBS Blue Line Station
g. Sidewalks and curbing along William Penn Highway and 25th Street
h. Street trees along William Penn Highway and 25th Street

Figure 1: Site plan for the proposed project.



Zoning and Land Use

The project site is in the lower end of the Township, near the intersection of William Penn Highway and 25th Street.

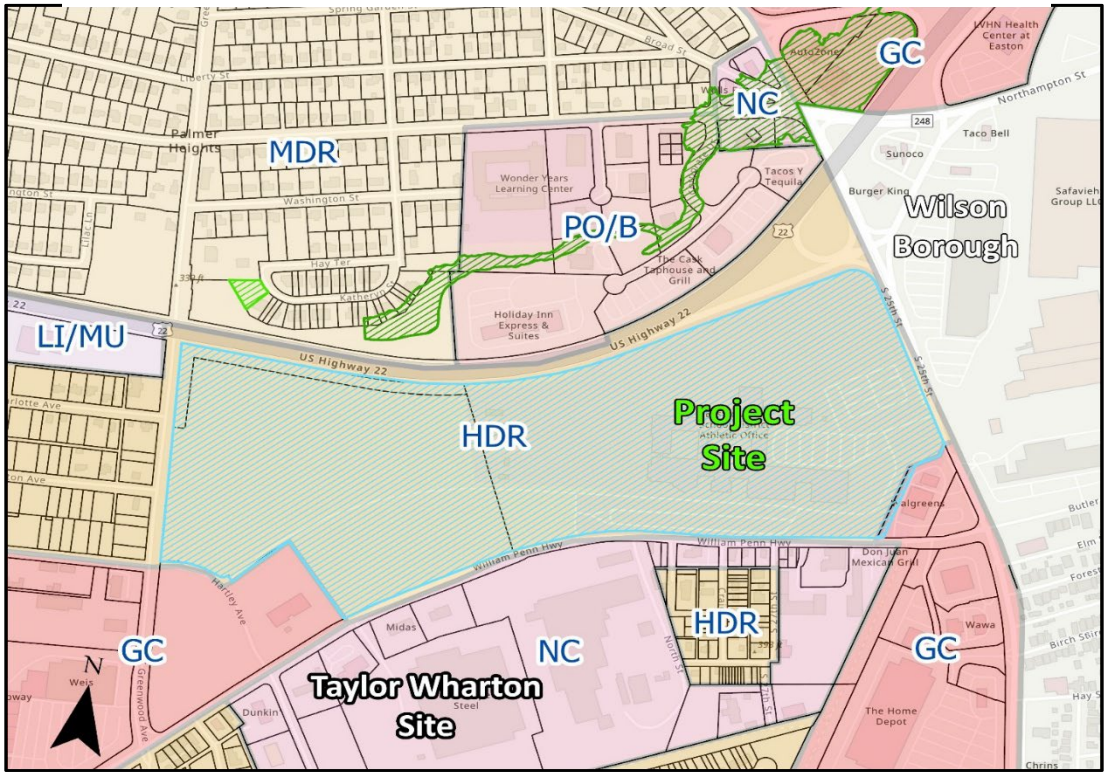
Lands surrounding the site are zoned for various different uses, ranging from medium to high density residential, general commercial, neighborhood commercial, and planned office/business (Figure 2).

The project site is within the existing Easton Area High School campus, where the school has been located since the 1960s.

The project site is zoned HDR High Density Residential but is governed by the GIO Government/Institutional Overlay district.

The purpose of the GIO District is to provide for the needs of regionally oriented institutional uses; to preserve the open character of large areas of the Township which are now dominated by or suited to institutional and quasi-public uses; and to encourage a harmonious pattern of institutional development which can mutually benefit the Township and the institutions themselves.

Figure 2: Vicinity map showing project site, abutting land uses, zoning and adjacent streets.



Technical Review

In reviewing the proposed project against the Township Ordinances, the Department, Township Staff, and its Professional Consultants have a few comments that require addressing. A comprehensive list can be found in the corresponding review letters. However, the Department believes that these comments are minor in nature, and can be addressed as a condition of approval.

Comprehensive Plan Review

The 2018 Comprehensive Plan*, Tomorrow's Palmer,* is the Township's adopted policy for the future of the community. Tomorrow's Palmer highlights the subject property within a Park, Open Space, and School Land Use Type, which hosts recreational and civic spaces with the community.

Tomorrow's Palmer recognizes the importance of "the area's wealth of civic and educational resources" for the high-quality of life in the community (pg. 7).

The proposed high school is consistent with the following Comprehensive Plan goals:

- A.2: Establish policies that support fiscally marketable redevelopment and re-use of previously developed sites
- A.3: Support well planned and compatible land uses that are concurrent with infrastructure availability, environmental sensitivities, and surrounding density patterns
- C.1: Identify and address pedestrian safety needs, congestion, traffic flow challenges and safety concerns where they exist
- C.2: Support integrated, safe bicycle/trail networks to support recreation and connectivity of community assets and neighborhoods
- C.3: Improve transit ridership convenience and safety between areas of employment, shopping, neighborhoods, and transit stops
- D.1: Provide a wide range of active and passive recreation areas and facilities that are well-distributed throughout the Township
- F.2: Reinforce the significance of the community's multiple civic centers or hubs as destinations for recreation, community gathering, and commerce.
- F.3: Establish a sense of arrival when entering Palmer Township
- F.5: Align development with accessible infrastructure service.

Parks, Recreation, and Open Space Plan Review

The 2020 Parks, Recreation and Open Space Plan (PROS) is a comprehensive strategy for imagining the Township's goals for its parks and recreation system (pg. 1). 2. While the overall intent of the plan focuses on Township-owned parks and open spaces, several of the overarching goals of the plan apply to the current project.

The proposed high school is consistent with the following PROS Plan goals:

- Goal 1: Provide recreation opportunities that balance the projection of open space and natural resources with the need for active recreation.
- Goal 5: Extend the legacy of quality parks and recreation services by using innovative, non-traditional partnerships and means to support the delivery of recreation and the protection of the Township's park and open space system.
- Goal 7: Continue to enhance connections and segments of the pedestrian trail network throughout the Township.

Active Transportation Plan Review

The goal of the 2025 Active Transportation Plan (ATP) is to identify opportunities to improve the pedestrian, bicycle, and transit network throughout the Township to promote active and healthier lifestyles (pg. 8).

A key program recommendation of the ATP is the development of a Safe Routes to School Program, encouraging students to walk, bike, and roll to school (pg. 67). Exploring ways to safety connect students to school is a priority for the Township's active transportation programming.

The proposed high school is consistent with the following ATP goals:

- Goal 1: Establish and expand safe and accessible connections to park, recreation, and open space resources and key destinations, both within the Township and regionally.
- Goal 2: Prioritize improvements that will service more vulnerable populations.
- Goal 6: Create lasting partnerships with National, State, County, and Regional agencies and organizations.

MODIFICATIONS, WAIVERS, AND DEFERRALS REQUESTS

1. The Applicant requests the following waivers and modifications as a part of this application:
    a. *SMO § 158-304.L **(Maximum Water Depth in Stormwater Facility).** The Applicant requests a waiver to permit a maximum water depth exceeding six (6) feet within the proposed above-ground basin.*
    b. *SMO § 158-305.C(12) **(Conveyance Facilities Standards and Methodologies)**. The Applicant requests a waiver from the requirement to provide a minimum pipe diameter of fifteen (15) inches for portions of the proposed stormwater conveyance system.*
    c. *SMO § 158-306.A(6) **(Volume and Rate Methodologies).** The Applicant requests a waiver from the requirement to model fifty percent (50%) of the existing impervious area as meadow in good condition under existing conditions.*
    d. *SALDO § 165-36.A(2) **(Submission and Review Procedure)**. The Applicant requests a waiver from submitting a separate preliminary & final land development plan in lieu of a Submission of plans as a combined preliminary/final land development set.*
    e. *SALDO § 165-63.K(2)(C) **(Emergency Spillway Lining).** The Applicant requests a waiver to allow for the spillway to be lined with NAG SC250 turf reinforcement matting in lieu of reinforced concrete.*
    f. *SALDO § 165-63.K(2)(D) **(Emergency Spillway Depth)**. The Applicant respectfully requests a waiver from the requirement that the emergency spillway be located a minimum of two (2) feet below the adjacent berm elevation.*
    g. *SALDO § 165-63.K(3) **(Slope of Detention Basin Embankment).** The Applicant is requesting a waiver to allow three to one (3:1) slopes because elsewhere in the code it allows for 3:1 slopes.*
    h. *SALDO § 165-63.K(10) **(Outlet Control Structure).** The Applicant requests a waiver from the requirement to provide an adjustable outflow regulatory device and associated anti-vortex and/or velocity-retarding measures.*
    i. *SALDO § 165-a-Appendix A Checklist B.8 **(Required Profile Scale)**. The Applicant is requesting a waiver from the requirement in order to utilize a horizontal scale of 40' and a vertical scale of 4'.*

*j. SALDO § 165.63.K(5) **(Slope of Basin Bottom).** The Applicant is requesting a waiver from the requirement to slope the basin bottom.*

*k. SMO § 158.304.K **(Dewatering Time)**. The Applicant requests a waiver from the required drain down time between 24 and 72 hours.*

*l. SMO § 158-401.a.Q(1) **(Plan and Profile on the Same Sheet).** The Applicant is requesting a waiver from the requirement that plans and profiles be shown on the same sheet.*

2. Additionally, the Applicant requests a deferral from the following provision:

    a. *SALDO §165-70 **(Sidewalks)***. A deferral to install a portion of sidewalk between the existing driveway and the adjacent Mattress Firm/Walgreens parcel is requested.

3. The criteria for granting modifications, waivers, and deferrals from Chapter 165 Subdivision and Land Development are as follows:

    ***§ 165-7.B Modifications and exceptions**. The Planning Commission shall be given an opportunity to make a recommendation on the matter at a legally advertised meeting. The Board of Supervisors may, by written resolution, grant a waiver or modification concerning a specific provision(s) of this ordinance if the applicant proves that the request meets one or more of the following conditions:*

    a. Will avoid an undue hardship that was not self-created and that results from the peculiar and uncommon characteristics of the property.

    b. Will avoid a clearly unreasonable requirement that would not serve any valid public purpose in this situation.

    c. Will allow an alternative standard that is clearly proven by the applicant to provide equal or better results.

    d. Will allow a layout of improvements that would clearly be more in the public interest than what would occur if the modification would not be granted.

    e. Will remove a requirement that is not applicable, especially because of the small size of the proposed project.

4. Based on the above criteria, the Department provides the following recommendations:

    *a. SMO § 158-304.L **(Maximum Water Depth in Stormwater Facility).***

        i. No objection, conditioned on design approval from the Township Engineer.

    *b. SMO § 158-305.C(12) **(Conveyance Facilities Standards and Methodologies)**.*

        i. No objection.

    *c. SMO § 158-306.A(6) **(Volume and Rate Methodologies).***

        i. No objection, conditioned upon the final stormwater design modeling 24% of impervious cover as meadow in good condition and revising the PCSM report.

    *d. SALDO § 165-36.A(2) **(Submission and Review Procedure)**.*

        i. No objection.

    *e. SALDO § 165-63.K(2)(C) **(Emergency Spillway Lining).***

        i. No objection.

    *f. SALDO § 165-63.K(2)(D) **(Emergency Spillway Depth)**.*

        i. No objection.

    *g. SALDO § 165-63.K(3) **(Slope of Detention Basin Embankment).***

        i. No objection, conditioned upon steep slope protections during and after construction.

h. SALDO § 165-63.K(10) ***(Outlet Control Structure).***

i. No objection.

i. SALDO § 165-a-Appendix A Checklist B.8 ***(Required Profile Scale)****.*

i. No objection.

j. SALDO § 165.63.K(5) ***(Slope of Basin Bottom).***

i. No objection.

k. SMO § 158.304.K ***(Dewatering Time)****.*

i. No objection.

l. SMO § 158-401.a.Q(1) ***(Plan and Profile on the Same Sheet).***

i. No objection, conditioned upon reference notes on corresponding sheets.

5. Regarding the deferred sidewalk, the Department is not inherently opposed to the request, since it is abutting a retaining wall where no one can currently walk. The deferral shall be explicitly noted in a recorded agreement between the Township and the School District, with a triggering action of adjacent development.

DEPARTMENT RECOMMENDATION

The Department recommends that the Planning Commission votes to recommend conditional preliminary/final plan and lot consolidation approval to the Board of Supervisors, subject to the following conditions:

1. The Applicant shall enter into a Development Agreement acceptable to the Township Solicitor. Cost estimates for any improvements shall be submitted for Township approval and shall be signed and sealed by the appropriate registered professional. *SALDO §165-46.*
2. The Applicant shall enter into a blanket easement for stormwater management facilities operations, inspection, and maintenance. *SALDO §165-59.G(1) and Checklist I.4.*
3. The Applicant shall execute an Operation and Maintenance Agreement of Stormwater Management Facilities approved by the Township Solicitor for the maintenance of the on-site stormwater management facilities. *SMO §158.401.a.S.*
4. The Applicant shall reconcile all open and outstanding invoices for Township engineering and legal services in the developer escrow account, per the Professional Services Agreement, prior to the plan being recorded.
5. The Applicant shall apply for and obtain any applicable Township permits related to the project prior to commencement of any construction on the site.
6. The Applicant shall provide payment for Tapping Fees prior to Building Permit issuance.
7. Prior to project completion, the Applicant shall submit as-built plans in PDF and AutoCAD-compatible formats to be reviewed and approved by the Township Engineer.
8. The Applicant shall comply with all conditions of the Zoning Hearing Board special exception and variance relief approval dated March 25, 2026
9. The Applicant shall comply with the comments of the Township Engineer as set forth in the October 6, 2026 Carroll Engineering review letter, including but not limited to:

a. Obtaining approval from the Northampton County Conservation District for both erosion and sediment control plan adequacy and NPDES permit approval. *SWMO § 158-301.R. and SALDO § 165-76.*

b. Obtaining approval from PennDOT for any necessary Highway Occupancy Permits. *SALDO § 165-67.*

c. Providing additional information to verify ADA compliance for ramps and crossings.

d. Revising pipe sizing calculations to avoid HGL exceeding the grate/rim of structures and limit instances of hydraulic jumps occurring in the pipes. *SALDO § 165-63.B(4)(d).*

e. Revising anti-seep collar calculations within the PCSM report to be consistent with the land development plans. *SALDO §165-63.K(6).*

f. Scheduling an on-site meeting with the Applicant prior to the start of the Maintenance Period to demonstrate the functioning of the spray irrigation system and to verify training of maintenance staff regarding use and system upkeep.

g. Providing dewatering calculations for the dosing beds.

h. Revising the roof drainage plan to clearly identify inlet drainage areas.

i. Revising plan views to clearly show the indicated cleanouts of underground dosing areas.

j. Revising the sign legend and plan annotations for consistency.

k. Providing spot elevations and slope information for all proposed ADA ramps.

l. Revising pavement markings to clearly delineate a single right-turn lane and YIELD sign for Access Drive 4.

m. Submitting a written legal description for the Lot Consolidation.

10. The Applicant shall comply with the comments of the Township Landscape and Lighting Consultant as set forth in the October 6, 2026 Gilmore and Associates review letter, including but not limited to:

    a. Revising the landscape plans to avoid conflicts with underground utilities.

    b. Revising lighting plans to avoid conflicts with underground utilities.

    c. Revising lighting plans to show the location of the pole base as it related to adjacent curbing and pavement.

11. The Applicant shall comply with the comments of the Township Sanitary Sewer Consultant as set forth in the October 1, 2026 Entech Engineering review letter, including but not limited to:

    a. Revising the grease interceptor sizing calculations for consistency.

    b. Revising the sanitary sewer hydraulic model and plan pipe data for consistency.

    c. Revising the sanitary sewer design-flow basis for consistency

    d. Revising the Hydraflow calculation summary to include the depth-to-diameter ratio for each sanitary sewer segment.

    e. Providing the hydraulic model output for all sanitary sewer pipes.

12. The Applicant shall comply with the comments of the Township Staff, including the Community Development Department, the Fire Department, and the Shade Tree Commission.

13. The Applicant shall comply with all comments of the Lehigh and Northampton Transportation Authority as set forth in their April 28, 2026 review letter, including the installation of an ADA loading pad for a bus rapid transit station.

Additionally, the Department recommends that the Planning Commission votes to recommend waivers, modifications, and deferrals from compliance with the following provisions of the Palmer Township Subdivision and Land Development Ordinance and Stormwater Management Ordinance to the extent provided herein.

1. SMO§158-304.J.(2) (Emergency Spillway Lining). We recommend granting a modification to line the emergency spillway with NAG SC250 turf reinforcement matting.
2. SMO § 158.304.K (Dewatering Time). We recommend granting a modification to utilize a dewatering period of 6 day, provided that the basin is constructed with a cutoff trench or keyway as required. Details should be provided for the proposed keyway sizing, geometry, material, placement & compaction, and notation regarding professional geotechnical compaction testing. The SCM No. 3: Evapotranspiration Basin" detail on C-523 should be revised as necessary.
3. SMO § 158-304.L (Maximum Water Depth of 6 Feet). We recommend granting a modification to have a maximum water depth of above 6 feet.
4. SMO § 158-401.a.Q(1) (Plan and Profile on the Same Sheet). We recommend granting a waiver from the requirement that plans and profiles be shown on the same sheet.
5. 158-305.C(12) (Conveyance Facilities Standards and Methodologies). We recommend granting a modification to allow minimum pipe diameters of less than fifteen (15) inches for portions of the proposed stormwater conveyance system.
6. SMO § 158-306.A(6) (Volume and Rate Methodologies). We recommend granting a modification to model 24% of the existing impervious area as meadow in good condition.
7. SALDO § 165-36.A(2) (Separate Preliminary/Final Plan Review). We recommend granting a waiver from this requirement and instead permit combined Preliminary/Final Plan review and approval.
8. SALDO §165-63.K.(2)(c) (Emergency Spillway Lining). We recommend granting a modification to line the emergency spillway with NAG SC250 turf reinforcement matting.
9. SALDO § 165-63.K(2)(D) (Emergency Spillway Depth). We recommend granting a modification to locate the emergency spillway 1.1 feet below the adjacent berm elevation.
10. SALDO § 165-63.K(3) (Slope of Detention Basin). We recommend granting a modification to utilize a three to one slope for the detention basin embankment, provided that the proposed steep slopes are adequately protected from the formation of rills during/after construction through the application of erosion control matting.
11. SALDO § 165-63.K(5) (Slope of Basin Bottom). We recommend granting a waiver from this requirement and instead permit a flat bottom basin.
12. SALDO §165-63.K(10) (Outlet Control Structure). We recommend granting a waiver from this requirement of installing a regulatory device to regulate the amount of outflow.
13. SALDO § 165-a-Appendix A Checklist B.8 (Required Profile Scale). We recommend granting a modification to utilize a horizontal scale of 40' and a vertical scale of 4'.
14. SALDO §165-70 (Sidewalks). We recommend granting a deferral to install a portion of sidewalk between the existing driveway and the adjacent Mattress Firm/Walgreens parcel, providing that deferral shall be explicitly noted in a recorded agreement between the Township and the School District, with a triggering action of adjacent development.

Planning Commission deadline date to act on the plan: **Waived**
Board of Supervisors deadline date to act on the plan: **Waived**



Location Site

Easton Area High School Phase 2

L9-44-2-0324E

GIO Government/Institutional Overlay

October 6, 2026 ***SENT VIA EMAIL***

Craig S. Beavers, AICP, Director of Community Development
Palmer Township
3 Weller Place
Palmer, PA 18045

Subject: Easton Area School District, New High School Land Development Plan – **3rd Review**
Phase 2 & Lot Consolidation Plan, Parcel No. L8-24-1 and L9-44-2

Dear Mr. Beavers:

Carroll Engineering Corporation (CEC) is in receipt of documents supporting the above-referenced Land Development Plan application. Pursuant to your request, we have reviewed the application documents against the Palmer Township Subdivision and Land Development Ordinance (SALDO) Chapter 165 and Zoning Ordinance (ZO) Chapter 190.

PROJECT DESCRIPTION

The subject property is located at South Greenwood Avenue and 2601 William Penn Highway. The project is located on the south side of S.R. 22, from the western side of 25th Street to the eastern side of South Greenwood Avenue and north of William Penn Highway on the grounds of the existing Easton High School property.

The 2nd phase of the development is the subject of this review and focuses on the proposed improvements to the existing Easton Area High School building on the 45.7-acre parcel (Parcel No. L9-44-2) to the east of the Phase 1 sports fields and stormwater improvements. The high school campus and its associated facilities currently span two adjacent parcels. The eastern parcel (Parcel No. L9 44 2 0324E) contains the existing school building, the majority of parking areas and several athletic facilities. The submitted plan includes demolition of the existing high school and associated amenities on the eastern parcel, construction of a new high school building and parking areas, installation of new stormwater best management practices (BMPs) and consolidation of the western parcel, previously improved under Phase 1 into a single, contiguous property.

The Applicant has submitted a post-construction stormwater management design plan as required by the Palmer Township Stormwater Management Ordinance, the Lehigh Valley Planning Commission (LVPC)

Global Act 167 stormwater management requirements, and the Pennsylvania Department of Environmental Protection's (PADEP) National Pollutant Discharge Elimination System (NPDES) permit.

The cover sheet has been labeled as a "EASD - Phase 2 - The New Easton Area High School Preliminary/Final Land Development Plan for Easton Area School District".

SUBMITTED DOCUMENTS

We have reviewed the following documents and related information submitted regarding this application:

1. Application Resubmission Transmittal, prepared by Richard Roseberry, P.E. of Colliers Engineering & Design, Inc. (Colliers), two (2) pages, dated September 9, 2026.

2. Lehigh Valley Planning Commission Review letter, prepared by Jacob Weinburg of LVPC, eight (8) pages, dated May 15, 2026.

3. Incompleteness Letter, NPDES Permit Application #PAD480249 A-1, from Jonathan Fox, Chapter 102 Program Coordinator, Northampton County Conservation District (NCCD), fourteen (14) pages, dated September 3, 2026.

4. Site Lighting Plan Set, prepared by Richard Roseberry, P.E. of Colliers, thirteen (13) sheets, dated August 5, 2025, last revised September 9, 2026.

5. Construction Phase Plans, prepared by CHA Solutions (CHA), five (5) sheets, dated April 2026, no revisions.

6. Erosion and Sediment Pollution Control Plans, prepared by Richard Roseberry, P.E. of Colliers, fifty-nine (59) sheets, dated December 5, 2025, last revised August 13, 2026.

7. Post Construction Stormwater Management Plans, prepared by Richard Roseberry, P.E. of Colliers, twenty-four (24) sheets, dated December 5, 2025, last revised August 13, 2026.

8. Site Plan, Plumbing- Roof Drainage, prepared by Alloy5, two (2) sheets, dated November 18, 2025, no revisions.

9. Exhibit A, Interim Construction Plan, prepared by Colliers, one (1) sheet, dated July 8, 2026, no revisions.

10. EAHS Architectural Renderings, prepared by Alloy5, six (6) drawings, dated July 15, 2026, no revisions.

11. Post-Construction Stormwater Management (PCSM) Report for "EASD Phase 2-New Easton Area High School", prepared by C. Richard Roseberry, P.E., of Colliers, 573 pages, dated April 2026, last revised September 2026.

12. Geophysical Evaluation Report, prepared by Alexander Ross, P.G., of Colliers, sixty-seven (67) pages, dated January 9, 2025, last revised January 12, 2025.

13. Wetlands Delineation Report, prepared by Austin Young, CPSS, PWS of Colliers, thirty-five (35) pages, dated February 2025.

14. Phase 1 Environmental Site Assessment, prepared by Lori Coolidge of Colliers, 2,685 pages, dated April 28, 2026.

15. Phase II Environmental Site Assessment, prepared by Olivia Massaro of Colliers, 572 pages, dated March 31, 2026.

16. System Pressure Loss Calculations, Critical Path, prepared by Colliers, one (1) page, undated.

17. Sanitary Sewer Pipe Calculations, prepared by Colliers, eighteen (18) pages, undated.

18. Spray Irrigation System Specifications, thirty-one (31) pages, dated September 9, 2026.

19. State Environmental Review, Historical Preservation Office, five (5) pages, submitted November 20, 2025, prepared by Tyler Lamperti, P.E. of Colliers

20. Township Planning Director Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, thirteen (13) pages, dated September 9, 2026.

21. Township Engineer Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, forty-two (42) pages, dated September 9, 2026.

22. Township Landscape and Exterior Site Lighting Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, three (3) pages, dated September 9, 2026.

23. Township Sanitary Sewer Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, five (5) pages, dated September 9, 2026.

24. Township Geotechnical Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, two (2) pages, dated September 9, 2026.

25. Township Environmental Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, four (4) pages, dated September 9, 2026.

26. Township Shade Tree Commission Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, two (2) pages, dated September 9, 2026.

27. Township Fire Commissioner Review Comment Response letter, prepared by Richard Roseberry, P.E. of Colliers, one (1) page, dated September 9, 2026.

28. PennDOT Highway Occupancy Permit Application Completeness Review letter, six (6) pages, dated May 19, 2026.

29. Correspondence from PennDOT, regarding 25th Street HOP Application, from Brian Boyer, District 5 Assistant Traffic & Operations Manager, twelve (12) pages, last dated June 24, 2026

30. Palmer Township SALDO Waiver Application, prepared by Richard Roseberry, P.E. of Colliers, on behalf of Ken Case, Easton Area School District, fourteen (14) pages, dated September 9, 2026.

31. Waiver Request Letter, prepared by Richard Roseberry, P.E. of Colliers, seven (7) pages, dated September 9, 2026.

32. Waiver Request Letter, Stormwater Management Ordinance Section 158-306.A.6., prepared by Trevor Lamperti, P.E., of Colliers Engineering & Design, Inc. (Colliers), fourteen (14) pages, dated July 15, 2026, no revisions.

33. Response to Remaining Spray Irrigation Comments, three (3) pages, dated September 9, 2026.

34. Parking Commitment Letter, prepared by Michael DePodwin, of CHA & Tara Piazza, Superintendent of Easton Area School District, three (3) pages, dated September 9, 2026.

35. Preliminary/Final Land Development Plans titled "EAHS Phase 2 – The New Easton Area High School", prepared by C. Richard Roseberry, P.E. of Colliers, consisting of sixty-three (63) sheets, dated April 15, 2026, revised September 9, 2026.

Pursuant to your request, we have reviewed the application documents against the Palmer Township Zoning Ordinance (ZO) Chapter 190, Stormwater Management Ordinance (SMO) Chapter 158, and SALDO Chapter 165. We offer the following comments to the Commission:

ZONING VARIANCES

On March 3, 2026, the Palmer Township Zoning Hearing Board granted the Applicant relief for a building to not exceed 1,000 feet in length where a maximum of 400 feet is permitted necessitating a variance of 600 (*ZO§190-421.D.1*) and the building with a maximum of height of 59.5 feet where 40 feet is the maximum height necessitating a variance of 19.5 feet (*ZO§190-405.F.9.a*).

WAIVERS REQUESTED

The Applicant has requested waivers from the following sections of the Palmer Township Subdivision and Land Development Ordinance (SALDO) & Stormwater Management Ordinance (SMO) Chapter 158, via a Waiver/Deferral Request Letter prepared by Colliers Engineering & Design (Colliers) dated July 15, 2026 and plan notation on Sheet C-002, sheet 2 of 53.

The requested waivers, as listed in the **Waiver/Deferral letter (Dated September 9, 2026**), include the following:

1. SMO§158-304L. – Maximum Water Depth in Stormwater Facility. Maximum water depth in any open SWM facility shall be no greater than six (6) feet when functioning through the primary outlet structure.

   The Applicant requests a waiver to permit a maximum water depth exceeding six (6) feet within the proposed above-ground basin. This additional storage capacity is necessary to meet applicable DEP and municipal stormwater management requirements for mitigating runoff volume. The basin is designed to temporarily impound stormwater during peak events, after which it will be gradually discharged through the outlet control structure in accordance with approved design standards. The requested waiver will enable effective stormwater management while maintaining compliance with regulatory performance objectives.

   CEC does not take exception to this request, provided that the basin is constructed with a cutoff trench or keyway as required. Details should be provided for the proposed keyway sizing, geometry, material, placement & compaction, and notation regarding professional

geotechnical compaction testing. The SCM No. 3: Evapotranspiration Basin" detail on C-523 should be revised as necessary.

2. SMO §158-305C.12 – Conveyance Facilities Standards and Methodologies. Conveyance facilities shall: Have a minimum pipe size of 15 inches in diameter.

   The Applicant requests a waiver from the requirement to provide a minimum pipe diameter of fifteen (15) inches for portions of the proposed stormwater conveyance system. Due to site-specific constraints and limited contributing drainage areas, the use of smaller diameter piping is both appropriate and sufficient to convey the design storm flows. Granting this waiver will allow for a practical and technically justified design that satisfies all applicable stormwater management criteria while addressing site constraints.

   CEC does not take exception to this request and also notes that the requested waiver should be revised to reference the correct section, §158-305C.12.

3. SMO§158-306A.6 – Volume and Rate Methodologies. For regulated activities requiring a major SWM permit due to taking place on sites 1) with greater than or equal to 5,000 square feet of existing impervious area; 2) that are not controlling the runoff from the existing impervious area in a manner consistent with this ordinance; and 3) whose activities do not qualify for the exemptions listed in **§158-302**, 50% of existing impervious area, when present, shall be considered meadow in good condition in the model for existing conditions. This requirement replaces the requirement in § **158-306A.5**.

   The Applicant requests a waiver from the requirement to model fifty percent (50%) of the existing impervious area as meadow in good condition under existing conditions. The subject site contains extensive areas of existing impervious areas. Recharacterizing these areas as meadow would not accurately reflect actual hydrologic conditions and would vastly inflate the required volume and rate of mitigation effort.

   Per the discussion at the May 27, 2026, meeting with the Applicant, Township representatives, and CEC, we acknowledge the hardships presented by the Applicant and do not take exception to this request, provided that approval is granted as a partial waiver stipulating that the final stormwater design model 24% of the existing impervious cover as meadow in good condition, in lieu of the 50% required by §158-306A.6.

4. SALDO§165.36A(2) – Submission and review procedure. A waiver is requested from submitting a separate Preliminary and Final Land Development Plan in lieu of submission of plans as a combined Preliminary/Final Land Development set.

   The Applicant requests a waiver from submitting a separate preliminary & final land development plan in lieu of a Submission of plans as a combined preliminary/final land development set.

   CEC does not take exception to this request and has reviewed the plan as Preliminary/Final at this time.

5. SALDO§165-63K(2)(C) & SMO§158-304J.(2) – Emergency Spillway Lining. Emergency spillways shall be constructed of reinforced concrete, mortared-in-place riprap or concrete rubble. All emergency spillways shall be constructed so that the detention basin berm is protected against

erosion. **SMO§158-304.J.(2) –shall also be included in this waiver request (#5).**

The Applicant requests a waiver to allow for the spillway to be lined with NAG SC250 turf reinforcement matting in lieu of reinforced concrete, mortared in place or concrete rubble spillway. Matting provides adequate erosion control and allows for vegetation growth which enhances the visual landscape to blend better with the surrounding basin vegetation and walking path. Supporting calculations have been provided.

CEC does not take exception to this request.

6. SALDO§165-63K.(2)(d) – Emergency Spillway Depth. The emergency spillway shall be a minimum of two feet below the adjacent berm elevation. The emergency spillway shall convey the one-hundred-year storm at a maximum depth of one foot over the spillway. The downstream slope of the spillway shall, as a minimum, extend to the toe of the berm embankment. The edge of the basin grading shall be within the subject property.

   The Applicant respectfully requests a waiver from the requirement that the emergency spillway be located a minimum of two (2) feet below the adjacent berm elevation. Due to site specific grading constraints, strict compliance with this criterion is not feasible. The proposed design provides an emergency spillway 1.1 feet in total depth. Hydraulic analysis confirms that the spillway will safely convey the design storm while providing 6" of freeboard when the entirety of the 100-year inflow is routed through the emergency spillway. The spillway and adjacent embankment will be appropriately stabilized to prevent erosion and ensure long-term performance. The proposed design satisfies the intent of the regulation by providing a safe and controlled overflow condition. Granting this waiver will not result in adverse impacts to upstream or downstream properties, as the system has been designed to safely manage extreme storm events while maintaining required freeboard and overall basin stability.

   CEC does not take exception to this request.

7. SALDO§165-63K(3) – Slope of Detention Basin Embankment. The maximum inside slope of earthen detention basin embankments shall be four horizontal to one vertical.

   The Applicant is requesting a waiver to allow three to one (3:1) slopes because elsewhere in the code it allows for 3:1 slopes. Due to the nature of this site allowing 3:1 side slopes allows for a more compact footprint and improves the programming of the site, allowing for a better utilization of the land.

   CEC does not take exception to this request, provided that the proposed steep slopes are adequately protected from the formation of rills during/after construction through the application of erosion control matting.

8. SALDO§165-63K(10) – Outlet Control Structure. All outflow structures from storage facilities shall be equipped with a regulatory device that will permit modification to regulate the amount of outflow. Suitable antivortex and/or velocity retarders shall be used.

   The Applicant requests a waiver from the requirement to provide an adjustable outflow regulatory device and associated anti-vortex and/or velocity-retarding measures. Due to site-specific design constraints and project conditions, the proposed stormwater management system utilizes a fixed

outlet structure that has been hydraulically designed to meet all applicable DEP and municipal stormwater management criteria for peak flow control and volume reduction.

CEC does not take exception to this request.

9. SALDO§165-a. Appendix A Checklist B.8 – Required Profile Scale. Required profiles shown at a scale of 1-inch equals 50 feet horizontal and 1-inch equals 5 feet vertical or other scales pre-approved by the Township Engineer or Township Staff.

   The Applicant is requesting a waiver from the requirement in order to utilize a horizontal scale of 40' and a vertical scale of 4'. The Applicant indicates that a larger scale will provide a more detailed and readable representation of the proposed improvements.

   CEC does not take exception to this request as the Applicant has provided an enhanced scale of 1-inch equals 40 feet horizontal and 1-inch equals 4 feet vertical.

10. SALDO§165.63K.(5) – Slope of Basin Bottom. Slope of basin bottom. In order to ensure proper drainage of the detention basin, as minimum grade of 2% shall be maintained for all sheet flow. A minimum grade of 1% shall be maintained for all channel flow, provided that a synthetic low-flow channel of suitable material is provided.

    The Applicant is requesting a waiver from the requirement to slope the basin bottom. The basin design includes a slope to the volume storage elevation. The flat area of the basin is for compliance with the Post-Construction Stormwater Management requirements and is a necessity for our capture and reuse basin.

    CEC does not take exception to this request.

11. SMO§158.304K. – Dewatering Time. All facilities shall drain over a period of time not less than 24 hours and not more than 72 hours from the end of the facility's inflow hydrograph unless, at the sole discretion of the Municipal Engineer, the BMP is specifically designed to function with differing time frames (for example, wet ponds, constructed wetlands, etc.).

    The Applicant requests a waiver from the required drain down time between 24 and 72 hours. Due to the proposed use of spray irrigation, the SCM-1 Dry Extended Basin is designed to dewater over a period of six (6) days.

    CEC does not take exception to this request.

12. SMO §158-401.aQ(1) – Plan and Profile on the Same Sheet. Plans and profiles for the same facilities shall be displayed together on the same sheet.

    The Applicant is requesting a waiver from the requirement that plans and profiles be shown on the same sheet. A note is included on the profile sheets to refer to the plan view sheets.

    CEC does not take exception to this request.

ZONING

1. The land surrounding any permitted use shall be landscaped, except for paved areas such as sidewalks, multi-use paths, bike lanes, accessway and play areas. *ZO §190-421(E)(2).* A Landscaping Plan has be submitted for review and approval. **We defer to the Township's Landscape & Lighting Engineer for review and comment.**

2. For proposals disturbing over an area greater than 5,000 square feet or disturbance of slopes of over 15% shall submit in advance a grading plan to the Township and a soil and erosion and sedimentation control plan to the County Conservation District. The erosion control plan shall be revised as needed until it is found acceptable by the Conservation District. Copies of all data submitted to CCD and related correspondence shall be copied to the Township. Compliance with such approved plan shall be a condition of any Township permit, and a Township permit may be suspended for noncompliance. *ZO §190-507.* **-This comment remains outstanding.**

3. Landscaping shall be in accordance with *ZO §190-805.* A Landscaping Plan has been submitted for review and approval. **We defer to the Township's Landscape & Lighting Engineer for review and comment.**

4. The Zoning Officer shall be consulted for the official Zoning Ordinance requirements and determinations.

SALDO

1. A Developer's Agreement will be required for this land development and shall be coordinated with the Township Solicitor. *SALDO §165-46.*

2. A Performance Guarantee will need to be posted prior to the commencement of construction of this project and shall be coordinated with the Township Solicitor. *SALDO §165-47.* **The developer's engineer shall submit an improvements security estimate to the Township for review by the Township Engineer, as determined by the Township.**

3. A Maintenance Agreement will be required for this land development and shall be coordinated with the Township Solicitor. *SALDO §165-50.*

4. All electric power, telephone, cable television and natural gas distribution lines within new subdivisions and land developments shall be placed underground, except where the Board of Supervisors determines it is not feasible, and in accordance with the current standards of the utility serving the subdivision or development. *SALDO §165-66(A).* **- This comment has been addressed.**

5. A State Highway Occupancy Permit is required for all entrances of access drives onto a State roadway, or for any proposed work within the State right of way. A copy of the development's HOP permit shall be provided to the Township upon receipt. *SALDO §165-67. Submission of a Highway Occupancy Permit (HOP) Application to PennDOT is required for the driveways along both William Penn Highway (SR 2020), and 25th Street (SR 2012). We await comments from the Department. We recommend the Applicant be prepared to discuss the proposed improvements along both State Highways with the Planning Commission and provide exhibits of the improvements.* **-This comment remains outstanding.**

6. The Applicant has submitted a Lighting Plan and Lighting Details. Plans shall be reviewed by the Township's lighting consultant for conformance with *SALDO §165-70.* **We defer to the Township's Landscape & Lighting Engineer for review and comment.**

7. The Applicant shall submit a Plan for the planting of street trees to be reviewed by the Township's landscaping consultant. *SALDO §165-73.* **We defer to the Township's Landscape & Lighting Engineer for review and comment.**

8. Any land development or subdivision that will involve the disturbance of more than 5,000 square feet of earth, or as otherwise provided under state regulations, shall be required to submit to the County Conservation District and the Plans Administrator an erosion and sedimentation control plan that shows how the project will comply with applicable PADEP erosion and sedimentation control regulations. (See Title 25, Chapter 102, as amended.) These DEP regulations are hereby made a part of this ordinance by reference. Any violation of such regulations or any violation of an approved erosion and sedimentation control plan shall also be a violation of this ordinance. *SALDO §165-76.* The Applicant shall submit Soil Erosion Control Plans to the Township and the County for review and approval. **-This comment remains outstanding.**

9. A Geophysical Evaluation Report has been submitted. The Township's Geotechnical Engineer shall review for compliance with *SALDO §165-87.* **We defer to the Township's Geotechnical Engineer for review and comment.**

UTILITIES

1. The sanitary sewer and water systems shall be reviewed by the Township Water and Sanitary Sewer Engineer(s), as it relates to the proposed uses.

PRELIMINARY PLAN FOR MAJOR SUBDIVSION CHECKLIST

1. A copy of receipt from the LVPC for plan provided by Applicant for their review shall be submitted. *Checklist A.7.* A copy of the LVPC review shall be provided upon receipt. **-This comment has been addressed.**

2. The plans shall show all rock outcrops, stone fields and sinkholes. *Checklist D.5.* **We defer to the Township's Geotechnical Engineer for review and comment.**

3. Parking requirements. *Checklist F.8.* The Applicant has included the existing and proposed parking counts in the Parking Requirements Chart on Sheet C-002. *It is our understanding that there will be a time with the proposed school and the existing school will exist simultaneously. Parking counts and areas shall be provided during the construction phase. Please elaborate on student and staff parking and busing during the construction phase. We recommend a plan be provided that shows how the site's parking requirements (921 spaces) are satisfied during this mid-construction phase of the project. -The School District has indicated that they are coordinating the implementation of a parking permit program which will allow parking to staff and senior students only. An interim parking count has been provided on Sheet C002. The required parking count shown in the Interim Parking Requirements Section on Sheet C002 does not reflect the calculation based on only Senior students and Staff, nor does it satisfy the Township's parking requirements for the site.* **-This comment has been addressed and coordinated with the Township Zoning Officer.**

4. Statement of any street improvements proposed to be installed or funded by the Applicant (such as any acceleration/deceleration lanes, traffic signal, street realignment or widening of abutting streets). *Checklist G.10. The Applicant has stated that this information has been included with this submission. Please clarify. See SALDO #5 comment above. Sketch of the roadway improvements shall be provided for discussion.* **-This comment remains outstanding, as abutting streets are PennDOT's jurisdiction, and a PennDOT HOP permit is required.**

5. Any proposed sidewalks with any proposed handicapped access shown as part of any new or reconstructed sidewalks at intersections. Please clarify handicapped access along new crossings *Checklist G.12. The Designer indicates that ramps are being installed at the sidewalk crossing intersections. These ramps and crossings shall be ADA accessible.* **-This comment remains outstanding. See Traffic Review section below.**

6. Evidence that the project will meet the off-street parking requirements of the Zoning Ordinace (including method of calculation). *Checklist J.2. It is our understanding that there will be a time with the proposed school and the existing school will exist simultaneously. Parking counts and areas shall be provided during the construction phase. Please elaborate to student and staff parking during the construction phase. -The required parking count shown in the Interim Parking Requirements Section on Sheet C002 does not reflect the calculation based on only Senior students and Staff. We defer this potential issue to the Township Zoning Officer for review.* **-This comment has been addressed and coordinated with the Township Zoning Officer.**

7. Major types, heights and locations of outdoor lighting. *Checklist J.7.* Lighting Plans have been submitted as a separate set of Plans and shall be reviewed by the Township Lighting Engineer.

8. Landscape Plans. *Checklist K.* Landscape Plans have been submitted as a separate set of Plans and **shall be reviewed by the Township Landscape Engineer**.

9. Erosion and Sedimentation Plan drawings and narrative shall be submitted to the County Conservation District and PaDEP for review and approval. *Checklist L.* **-This comment remains outstanding. An N.P.D.E.S. permit is required for the project.**

10. Erosion and Sedimentation details are required. *Checklist O.8.* **-This comment remains outstanding. An N.P.D.E.S. permit is required for the project.**

STORMWATER MANAGEMENT

The stormwater management features proposed for the 2nd Phase of this development include a new detention basin to the west of the new building, and a new underground detention basin to the north of the new building and a spray irrigation system in the southeast corner of the site. The proposed Phase 2 stormwater basins will discharge to an existing storm sewer under Route 22, and ultimately to the release rate district 128 of the Bushkill Creek Watershed, designated as High Quality / Cold Water Fishery. This release rate district stipulates that only 30% of the pre-development runoff rate is permitted to be released from the site for the 2-year storm, while up to 100% of the pre-development runoff rate is permitted to be released for the 10-, 25-, 50-, and 100-year storms.

SALDO (Chapter 158) Stormwater Comments:

The following comments are based on the regulations provided by the Palmer Township Stormwater Management Ordinance (Chapter 158) as adopted by the Board of Supervisors of the Township of Palmer on November 20, 2023, (Ord. No. 2023-482) as amended.

1. For regulated activities proposing earth disturbances of greater than or equal to 5,000 square feet, submission of an erosion and sediment control plan to the county conservation district/reviewing authority for adequacy review shall be required at the sole discretion of the Municipal Engineer. *§158-301Q. Subsequent evidence of approval should be provided to this office upon receipt.* **-This comment remains outstanding. A copy of the Approved E&S and PCSM plans shall be provided to the Township upon receipt.**

2. For regulated activities proposing earth disturbances of greater than or equal to 43,560 square feet, submission of an erosion and sediment control plan to the county conservation district/reviewing authority for NPDES permit approval shall be required. Subsequent evidence of approval shall also be required. *§158-301R.* **-This comment remains outstanding. A copy of the Approved E&S and PCSM plans shall be provided to the Township upon receipt.**

3. Sequence of construction. No substantial grading shall occur and no building permits shall be issued for any building unless any detention basin, siltation basin, or improved major swale approved to handle the resulting runoff is in place. Any detention basin shall be seeded and stabilized and have an installed outlet structure prior to the construction of any streets or building within that drainage basin. *§158-301X. We are not in receipt of any plans detailing the proposed erosion controls or the construction sequence at this time to verify compliance with the requirements of this section.* -**This comment remains outstanding. A copy of the Approved E&S and PCSM plans shall be provided to the Township upon receipt.**

4. Maximum water depth in any open SWM facility shall be no greater than six feet when functioning through the primary outlet structure. *§158-304L.* **-See waiver request list for discussion on this section.**

5. For regulated activities requiring a major SWM permit, do not increase the post-development total runoff volume for all storms equal to or less than the two-year, twenty-four-hour duration precipitation plus 50%. A calculation demonstrating this requirement is met shall be provided. *§158-306B.2.a.2* **-See waiver request list for discussion on this section.**

6. For areas that are covered by a release rate map from an approved Act 167 stormwater management plan, post-development peak discharge rates shall not exceed the predevelopment peak discharge rates for the five-, ten-, twenty-five-, fifty-, and 100-year storm events as listed within the applicable, approved release rate map. For the one- and two-year storm events, post-development peak discharge rates shall not exceed the predevelopment peak discharge rates as listed within the applicable, approved release-rate map or 30% of the predevelopment peak discharge rate, whichever provides the greater amount of rate reduction. It is noted that the applicant has referenced §306.M of the Bushkill Creek Act 167 Ordinance to assert that the 30% release rate reduction is not required where post-development peak rate and volume do not increase. This interpretation is not consistent with the Township Ordinance requirements. Per this section, the 30% reduction in release rate is required and applies regardless of whether there is no increase in peak rate or volume. The Applicant shall revise the stormwater management design and supporting calculations to demonstrate compliance with the

required 30% release rate reduction. *§158-306C.3. -This comment remains outstanding. The discussion presented in the Peak Rate Control section of the PCSM report conflicts with the calculations presented in Appendix K and the Applicant's response. Please clarify.* **-This comment has been addressed.**

7. Plans and profiles for the same facilities shall be displayed together on the same sheet. *§158-401aQ.1.* **-See waiver request list for discussion on this section.**

SALDO (Chapter 165) Stormwater Comments:

The following comments are based on the regulations provided by the Palmer Township Subdivision and Land Development Ordinance (Chapter 165) as adopted by the Board of Supervisors of the Township of Palmer on April 11, 1994, (Ord. No. 256) as amended.

1. The Applicant should provide a downstream capacity analysis for the flows to S-113 to verify that adequate downstream capacity exists for the flows generated from the proposed development. *§165-63A(9).*

   The analysis should verify that the proposed post-development discharge to S-113 does not increase the frequency, duration, or extent of the identified surcharge condition.

   The right-of-way (both legal and ultimate) should be shown on the plans to help clarify. If it is determined that PennDOT is responsible for this storm sewer, the portion that lies on the subject parcel should be associated with an easement granting PennDOT access to maintain and/or replace the pipe as needed. **-This comment has been addressed. The Land Development plan set shall be coordinated with all revisions with the HOP plan and recommendations of PennDOT.**

2. Pipe sizing calculations should be provided in accordance with this section. *§165-63B(4)(d). -The Applicant has provided pipe sizing calculations with this submission. The design should be revised such that velocities remain within 3-10 feet per second, and gutter spreads remain under one-half the width of a travel lane.* **-It is noted that there are multiple instances of the HGL exceeding the grate/rim of structures (i.e. 1100 Run). The Applicant should also limit the instances of hydraulic jumps occurring in the pipes. Please revise.**

3. All stormwater controls shall be designed to function adequately after the completion of each phase of development. This may require the use of temporary structures, which shall be shown on submitted plans. The phasing of the proposed school construction is unclear at this time and may result in additional impervious surface on the site. The applicant should provide documentation as to the phasing of the construction to verify that stormwater will be managed throughout the duration of the project. Additionally, a timeline should be provided with the phasing plan as it is anticipated that this condition may last for many months. *§165-63D(3).*

   A construction phasing plan was included with the submission materials. However, this plan should be expanded to include a construction sequence, or similarly, the Erosion Control plans, containing the construction sequence, should be provided to provide greater clarity on when each facet of the proposed stormwater management system will be constructed, and how and when the existing systems will tie into these facilities. The construction phasing plan makes mention of a temporary construction entrance, temporary storm re-routes and temporary sanitary lines, but it is unclear when these would

be installed to provide continuous operation of the stormwater controls in order to minimize downstream impacts during construction. **-This comment has been addressed.**

4. Anti-seep collars shall be installed around the principal pipe barrel within the normal saturation zone of the detention basin berms. Anti-seep collars shall not be required on basins designed to have a depth of water of less than three feet. The anti-seep collars and their connections to the pipe barrel shall be watertight. The anti-seep collars shall extend a minimum of two feet beyond the outside of the principal pipe barrel. The maximum spacing between collars shall be 10 times the minimum projection of the collar measured perpendicular to the pipe. *§165-63K(6). -Calculations for the proposed anti-seep collars should be provided to verify the sizing and spacing proposed.* **-The minimum spacing, pipe slope, etc. noted in the anti-seep collar calculations provided in the PCSM report do not agree with those shown on C-523. Please revise.**

5. An O&M agreement should be prepared in accordance with this section. *§165-63Q.* **-The Applicant has indicated that an O&M agreement will be provided prior to construction. This comment remains outstanding. An O&M agreement shall be provided prior to plan recording.**

Spray Irrigation System Design Review:

1. RWA Support Data - Monthly Maintenance - In the Monthly maintenance section, #5 states to Collect monthly flow totals. What is the design intent to quantify flows? The detail sheet of the pump station calls out a flow sensor, but there is no make or model specified on the plans or a cut sheet in the supporting data package. *-The irrigation controller model shall be specified in the plan details.* **- This comment has been addressed.**

2. RWA Support Data - Irrigation Spray System Construction Schedule - #5 Typical Trenching Sequence.

    a. Instructions are to install piping depths prior to final grading, topsoil, and seeding. Details on IRR-3 do not specify typical topsoil finishing depths. Please revise to minimum total depth installation of 48" for year-round operation pipes (mainline pipes to and in dosing areas, winter discharge), and 24" for spray irrigation headers and lateral distribution lines (spray lines from dosing area, and spray header/laterals). *-The plan details shall be revised to show proposed topsoil depths for all trenching.* **-This comment has been addressed.**

3. RWA Stormwater Re-Use Plans - Hydraulics- The proposed pump curve is shown on IRR-2. This calls out a 0' static head. The detail on IRR-4 shows the pump head at an elevation of 302.5'. Discharge elevations for the spray irrigation system are +/- 349' and dosing bed elevation of +/-347'. Please provide clarifications on static pump head calculations. *-The requested system curve with the correct pump curve overlayed should be provided in future submissions.* **-This comment has been addressed.**

4. RWA Stormwater Re-Use Plans - Hydraulics- Please provide clarifications on calculations for friction energy losses. The system pressure loss table on IRR-2 seems to only take the major losses due to pipe runs into consideration. There are multiple elbows, fittings, and valves along the proposed alignment that will provide additional energy losses due to minor losses from these components. Consider utilizing 45-degree elbows in lieu of 90-degree elbows. Please provide clarification on system pressure loss calculations as to why minor losses were not considered. *The plans and calculations provided specify a pump flow of 100 GPM @ 90 PSI, but the back-up data refers to a*

flow of 86 GPM and 45 GPM at the critical EV that controls the system. Documentation, which confirms the hydraulics with the pump selected and conditions proposed, shall be provided.

Please identify the basis for the 86 GPM pump flow used in the pressure-loss calculations. The sprinkler schedule indicates the critical spray zone demand is approximately 44–45 GPM, while the hydraulic calculations use 86 GPM from the pump for all operating scenarios. Please clarify whether 86 GPM represents simultaneous operation, a future expansion allowance, or the maximum demand of another disposal component.

The following note shall be included on the plans: "The Contractor shall confirm all operating conditions (schedules and programs) to comply with the selected pump's operating conditions. The Contractor's confirmation shall be submitted to the Township as a part of the construction submittals process." **-This comment has been addressed.**

5. RWA Stormwater Re-Use Plans - Hydraulics - Please provide an updated pump and system curve (including minor losses) charted on the same graph. This should include all operational instances including Spring/Summer (spray and dosing areas) and Winter (just dosing areas) to confirm pump/VFD set-up is sound. -*This comment remains outstanding.* **-This comment has been addressed.**

6. RWA Stormwater Re-Use Plans - Redundancy- Has consideration been given to utilize a duplex pumping station rather than a simplex in the event of pump failure. This will allow the stand-by pump to operate in the event of a failure. -*At a minimum, the local pump supplier shall be specified in the Operation and Maintenance documents shared with the School District to ensure that replacement parts are readily available.* **-This comment has been addressed.**

7. RWA Stormwater Re-Use Plans - Redundancy- It is suggested to install a back-up generator for the pump station or tie the power service into a back-up generator for the overall site via an automatic transfer switch in the event of power failure or extended power outages. -*The Applicant indicates that the basin's emergency spillway is to be used in the event of a prolonged power failure, if the basin capacity is exceeded. Consideration shall be given to providing an emergency power supply connection point, if a temporary generator were to be utilized, as an alternate emergency solution.* **-This comment has been addressed.**

Note: The spray irrigation Consultant shall contact the Township to set up a meeting to discuss the hydraulic design of the spray system. Township Staff will be available to discuss the remaining concerns regarding the design. **-This comment has been addressed.**

8. **The Township is requesting that an on-site meeting be scheduled during construction, prior to the Start of the Maintenance Period, to demonstrate the functioning of the spray irrigation system, and for verification of the training of on-site maintenance staff regarding the use and maintenance of the system. A note shall be added to the plan to require this meeting.**

General Stormwater Comments:

1. We have noted numerous technical deficiencies with the stormwater management calculations and methodology. We have enumerated these items and reserve further comment on the supporting technical design data until such time that these comments have been addressed. Specifically, 50% of existing impervious has not been modeled as meadow and may significantly alter the stormwater

management design. **- The Applicant has requested a partial waiver to the 50% of existing impervious surface being modeled as meadow. See waiver request list for discussion on this section.**

2. The plans would greatly benefit from additional labeling of existing contours in the area where the proposed grading meets the existing to confirm the tie-in. *-This comment has been partially addressed. The proposed sidewalk contours along the eastern building sidewalk and the northernmost portion of the site have not been adequately labeled on the grading and drainage plan sheet C-124.* **-This comment has been addressed.**

3. There are grading irregularities throughout the plans, for instance, near the storm structure identified as S-411 that should be corrected. *-There are some uncorrected grading irregularities along much of the frontage abutting William Penn Highway on the grading and drainage plan sheets C-121 through C-125.* **-This comment has been addressed.**

4. Areas and storage volumes for the dosing beds should be provided. At this time, it is unclear whether the dosing beds can adequately support the dosing schedule shown on the Irrigation Plans. In addition, a profile of the distribution piping should be provided to confirm that the system will function as intended. *-This comment remains outstanding. Sheet C-524 should be revised to remove note #3 from the Dosing Bed #2 & #3 construction notes. Additionally, the Applicant should provide dewatering calculations for the dosing beds for review.* **-This comment remains outstanding. Spray Irrigation plans and calculations appear to have been omitted from this submission.**

5. Clarification should be given as to whether the dosing beds will still function during the winter months. **-The Applicant has indicated that the dosing beds have been designed with the ability for year-round operation. The dosing beds should continue to function during the winter months. Operating the system throughout the winter is necessary to maintain consistent treatment performance and ensure proper operation of the dosing beds. This comment has been addressed.**

6. Arrows and boundary lines should be added on sheet C-709 for inlet areas, including, but not limited to S-410, S-416, and S-417. *-This comment remains outstanding. Sheet C-709 displays inlet callouts with no arrows and boundary lines and should be revised. The following are examples of inlet areas that should be revised with arrows and boundary lines, S-410, S-416, S-417, S-943, S-951, S-953, S-955, & S-957.* **-This comment remains outstanding. The roof drainage plan should be revised to clearly identify the drainage area to each inlet.**

7. Labels of the inlet areas on sheet C-709 interfere with the boundary lines and should be revised to have clear distinction of the area, including, but not limited to S-601. *-This comment remains outstanding. Inlet area labels remain interfering with boundary lines and should be revised. The following are examples of boundary lines interfering with inlet labels, S-217, S-601, S-603, S-916, S-919, S-920.* **-This comment has been addressed.**

8. Several profile labels on the Storm Sewer Profiles do not correspond to the correct features, including but not limited to finished grade and existing grade. Revise the profiles to ensure all labels clearly and accurately identify the intended features. *-This comment remains outstanding. The following items should be addressed:*
    - *Profile of Storm Sewer S-905 to S-906 finished grade indicator should be revised.*

- *Profile of Storm Sewer S-503 to S-504 and S-506 to S-507 should be revised to have legible labeling*

This comment has been addressed.

9. The profile of Storm Sewer S-928 to S-904 should be revised to indicate the station numbers, including, but not limited to C Inlet (S-929). -*This comment remains outstanding. Several structure labels are missing station numbers and should be revised.* **- This comment has been addressed.**

10. The profile of Storm Sewer S-215 to S-221 should be revised to show the top elevation of WW that is shown on the Plans sheet 21. -*This comment remains outstanding. PH2- Storm Run 2 Structure Table indicates the top elevation for S-221 as 331.21, but the Profile of Storm Sewers S-215 to S-221 does not indicate the top elevation in the callout. Additionally, Profile of Storm Sewer S-301 to S-302 should be revised to indicate the top elevation of WW S-302.* **-This comment has been addressed.**

11. Multiple instances of profile stationing are noted to be illegible. Please revise. -*This comment remains outstanding. Profile of Storm Sewer S-107 to S-113, S-210 to S-212, S-417 to S-421, S-941 to S-967 and S-965 to S-966 should provide spacing between station numbers.* **-This comment has been addressed.**

12. On sheet C-708 the POA 002 DA is 33.62 ac and the POA 002 DA on sheet C-707 is 38.49 ac. Please clarify. - *This comment remains outstanding. The following items should be addressed:*
    a. *C-708 should be revised to have the total POA 002 DA match the total POA 002 DA on page C-707 due to runoff contributing to the drainage area from both disturbed and undisturbed areas.*
    b. *C-708 should be revised to provide a clearer understanding of what areas are classified as "Detained" and "Undetained" areas.*

    This comment has been addressed.

13. Inlet labels should be revised to identify the tops as grates rather than rims. -*This comment remains outstanding. Structures S-202, S-204, S-954, and S-956 should be revised to replace the designation "Rim" with "GR" (Grate).* **-This comment has been addressed.**

14. Additional cover should be provided for pipes P-107 & P-101as they currently have approximately one foot of cover. -*This comment remains outstanding. Additional cover should be provided for pipes P-101, P-107, P-1003, and P-1005 as the cover should be at least 1.5 ft.* **-This comment has been addressed.**

15. The "possible retaining wall" shown along the sidewalk on William Penn Highway should be clarified, and details provided as necessary. -*The foundations for the retaining wall appear to extend into the PennDOT ROW. This shall be addressed in the PennDOT HOP permitting process. William Penn Highway traffic will be impacted during the construction of the wall. This shall be addressed with PennDOT.* **-This comment has been addressed. The Land Development plan set shall be coordinated with all revisions with the HOP plan and recommendations of PennDOT.**

16. A detail should be provided for the proposed RCP sleeve for the storm runs between S-511 and S-512 and between S-513 and S-514, which identifies how the ends will be sealed between the storm

sewer and sleeve and provides details on any blocking or cradles for the pipe in the sleeve. **-This comment has been addressed.**

17. The maintenance of the lawn area between the sidewalk and the proposed retaining wall along the William Penn Highway frontage, most clearly depicted on the grading and drainage plan sheet C-123 and C-125, will be problematic due to the steep slopes and drop-off at the wall. It is recommended that the Landscape Plan(s) be revised to include a ground cover in this general location in lieu of lawn, eliminating the need for regular mowing. **-This comment has been addressed.**

18. The top elevation for S-943 as depicted in the PH2 – Storm Run 9 Structure Table on C-125 is not consistent with adjacent grade elevations. **-This comment has been addressed.**

19. A detail should be provided for the proposed trash track to be used on Storm Structure S-113, as shown on the Type 10 Doghouse Manhole with Mounted Trash Rack – Storm Structure S-113 detail on C-525. This detail should specify size, material, and how it is to be fitted to the top of the structure, with provisions for accessing the interior of the manhole for maintenance activities (i.e. access hatch or removable hardware). This detail should also indicate the size and material of the existing receiving storm sewer. **-This comment has been addressed.**

20. The Post Construction – Outlet Control Structure SCM No. 4 Detail on C-524 should include weep holes in the structure base, allowing the sump to dewater during dry conditions. This should be consistent with all sumped stormwater structures. **-This comment has been addressed.**

21. A portion of the backfill hatch in the Dosing Bed Details on C-523 obscures the surrounding geotextile fabric and should be clarified. **-This comment has been addressed.**

22. A detail should be provided for how the various storm sewer penetrations of the proposed Geomembrane in SCS No. 3 shall be sealed. **-This comment has been addressed.**

23. The Orifice Trash Rack Detail on C-522 should be revised to include additional details on the bar sizing, material, nominal opening size, and how it will be fastened to its host structure. **-This comment has been addressed.**

24. All storm structures should be fitted with flow channels. **-This comment has been addressed.**

25. The area designated for SCM-5 Spray Area 1, Capture and Reuse, exhibits relatively steep grading. The plan should incorporate measures to prevent the applied spray irrigation from concentrating and generating runoff, such as retentive grading, terracing, or a comparable technique. **-The Applicant has acknowledged the recommendations presented with this comment. We defer this issue to the PADEP and NCCD for the applicability of these areas for their intended use of spray irrigation.**

26. There is an existing electrical line shown in conflict with the proposed Underground Dosing Area 3. Please clarify. **-This comment has been addressed.**

27. Storm structure S-220 is located in close proximity to the adjacent ADA ramp and does not provide sufficient length for the required curb transition between the top of the curb inlet and the ramp egress point. Please relocate the structure or revise the ramp layout to accommodate the required curb transition. **-This comment has been addressed.**

28. The Grading and Drainage Plans do not depict how the existing drainage network serving the parking areas along the William Penn Highway frontage will be tied into the proposed stormwater network. As shown, the existing 30-inch RCP (identified as E44) terminates at the downstream manhole with no continuation indicated. The Demolition Plans likewise do not clarify how the existing network will be modified to maintain continuous service.

    In addition, the Existing Conditions Plan depicts a series of downstream inlets and manholes along the western side of the existing building that do not appear on the Grading and Drainage Plans, which suggests they are intended for removal. This network conveys a substantial portion of the site drainage.

    Please revise the plans to clearly depict the proposed modifications to the existing drainage network, including all structures and piping to be removed, reused, or reconstructed, and demonstrate that continuous conveyance will be maintained for the tributary drainage areas. **-This comment has been addressed.**

29. The proposed grading adjacent to the main entrance of the new building does not tie into the proposed retaining wall at that location, closest to storm structure S-510. **-This comment has been addressed.**

30. It is unclear how the existing inlet serving as the terminus for the existing 48-inch CMP (identified as E219) and the existing 36-inch RCP, both conveying flow from S. 25th Street, will be modified to provide continuous conveyance. The line identified as E220 does not appear on the Grading and Drainage Plans, which suggests it is intended for removal. Consequently, no outlet is shown for the existing 36-inch RCP.

    As depicted, this line would need to surcharge and reverse its existing flow direction in order to discharge to proposed storm structure S-101, which is not an acceptable condition. An additional storm structure may be required to accommodate the 36-inch RCP tie-in. Please revise the plans to clarify the proposed modifications to this inlet and demonstrate that positive gravity conveyance will be maintained for both existing lines. **-This comment has been addressed.**

31. The proposed irrigation lines for the spray and underground dosing areas are currently in conflict with several large-diameter trees. It is unclear if these are designated for removal. Please clarify. **-This comment has been addressed.**

32. Underground Dosing Area 3 disturbs a substantial portion of the drip line of the adjacent 22-inch diameter oak. It is unclear if this tree is designated for removal. Please clarify. **-This comment has been addressed.**

33. The locations of the proposed cleanouts of the underground dosing areas should be shown in plan view. Cleanouts in paved areas should be provided with a cleanout protection sleeve as needed. **The cleanouts indicated in the Applicant's response could not be located on the plans. Please revise.**

34. The existing 2.5 x 2.5-feet inlet at the end of the drain line to the west of storm structure S-901 appears to be intended for removal on the Demolition Plan, as it is marked in bold, but the corresponding label D2 in the legend has not been affixed to this structure. If the intent is to remove this structure, the plans should indicate how the drain will be capped and sealed. Please clarify. **-This comment has been addressed.**

35. In general, the Demolition Plans would greatly benefit from additional labeling to clarify exactly what existing storm structures and sewers will be removed and/or modified, providing details on any proposed structure modifications (i.e., rim/grate adjustments) and abandonment techniques. **-This comment has been addressed.**

TRAFFIC

General Traffic Comments

1. Clearly label all horizontal geometry control points, curve radii, and alignment designations for all proposed alignments on the record plan. *SALDO §165-59F. -The alignment centerlines and designations have been added. The horizontal control points, including the PI, PC, and PT, for each proposed alignment shall also be labelled on the record plan.* **-This comment has been addressed.**

2. Provide a horizontal alignment and corresponding profile for the proposed site access connection to the signalized intersection at S. 25th Street. - *The alignment has been extended to the signalized intersection. We recommend that the relatively sharp horizontal curve (70') be evaluated to determine whether the curve radius can be improved for geometric and traffic operations.* **-This comment has been addressed.**

3. Show sign locations on the record plan. **-***This comment remains outstanding. The proposed sign locations are not shown on the record plan. Each proposed sign location shall be shown and clearly identified on Sheets C-111 through C-115. Additionally, provide W11-15 signs with W16-7P supplemental plaques at the pedestrian crossings along Access Drive 7 and revise the sign quantities in the legend accordingly.* **-Revise the sign legend and plan annotations for consistency. The R7-F sign quantities do not match the signs shown on the record plan, and R7-F signs are not shown for the accessible parking spaces along the north side of the building at Access Drive 1. Additionally provide stop signs and stop bars for all approaches to Access Drive 4 and 7.**

4. Provide spot elevations and slope information for all proposed ADA ramps throughout the development. -*This comment remains outstanding. The proposed ADA curb ramps and pedestrian crossings are not in compliance. Compliant slopes, detectable warning surfaces, curb ramps, aprons, or landing areas shall be depicted for all locations. Revise the plans and details accordingly.* **This comment remains outstanding. Several proposed curb ramp locations do not depict the required curb ramp landings and detectable warning surfaces. Revise the ADA curb ramp and crossing details to clearly depict compliant curb ramp landings, curb ramps, detectable warning surfaces, spot elevations, and slopes at all applicable locations.**

   - For ADA Details 4, 5, and 7 at the pedestrian crossings of Access Drive 4, provide detectable warning surfaces where the pedestrian access route crosses the depressed curb and clearly depict compliant curb ramp landings.

   - For ADA Details 17 and 18, provide compliant curb ramp landing areas.

   - For ADA Detail 19, please clarify if the area above the DWS is a ramp or a landing area. If this is the ramp then the slope is very flat, please revise design to ensure water ponding does not occur due to slopes of less than 1%. Please also note the curb ramp landing shall provide adequate area for pedestrian turning movements.

- **For ADA Detail 23, revise the accessible parking sign symbol so that it is oriented toward the designated accessible parking space.**

5. Revise the pedestrian island on William Penn Highway shown on Sheet C-113 to accommodate the revised proposed ADA ramp configuration, including corresponding updates to the crosswalk markings and island ramp. *-This comment remains outstanding. ADA-compliant curb ramps shall be provided at all pedestrian refuge islands where the accessible pedestrian route crosses the island.* **-ADA curb ramps within the HOP remain subject to PennDOT review and approval.**

6. Provide pole mounted sign installation detail. *-The sign mounting height shall be revised as shown in the detail to comply with PennDOT standards. Refer to TC-8702B*. **-This comment has been addressed.**

7. The temporary construction entrance, as depicted on the Construction Phasing Plans, shall be included on the Land Development Plans, and in the construction phasing as part of the Erosion Control Plans. Provide all roadway plan and profile drawings for the temporary construction entrance for site access. The temporary construction entrance will require an HOP permit from PennDOT to access William Penn Highway. **-Approval is pending issuance of the PennDOT HOP for the temporary construction entrance to William Penn Highway.**

8. For the Access Drive 4 profile on Sheet C-205, demonstrate that the grade does not exceed 5% within the initial 20 feet from the edge of cartway at Sta. 12+98.50. *SALDO §165-67.D.* **-This comment has been addressed.**

9. Provide proposed pavement markings for the right turn lane into Access Drive 4, including gore and directional arrow markings. **-The pavement markings shown on Sheet C-115 shall be revised. The current markings appear to indicate two adjacent right turn lanes with two right turn arrow markings. The available lane width does not appear to sufficient to accommodate two right turn lanes. Revise the markings to clearly delineate a single right turn lane and provide a YIELD sign as appropriate.**

GENERAL

1. A written legal description for the Lot Consolidation shall be submitted for review. **-This comment remains outstanding.**

2. All engineering documents submitted to the Township and to our office, including but not limited to Estimates of Quantities & Costs, Reports, Plans, Exhibits, and Legal Descriptions must be signed and sealed by the appropriate registered professional who prepared them in accordance with Engineer, Land Surveyor And Geologist Registration Law Act of May 23, 1945, P.L. 913, No. 367 Cl. 63, Section 7.(a).

3. List any deed restrictions and/or covenants on the plan sheet(s) to be recorded.

4. List all required outside agency permits and approvals on the plans, including, but not limited to:
   a. An intent to serve letter and design approval from Pennsylvania American Water Authority.
   b. An intent to serve letter and design approval from Nazareth Borough Municipal Authority (sanitary sewer).
   c. Lehigh Valley Planning Commission review and approval.

d. Northampton County Conservation District.
e. Applications shall be submitted to the departments and indication of approvals or letters of no-interest be provided.

Copies of all correspondence, including all data submitted to outside agencies regarding required permits and approvals, shall be provided to the Township and our office. If certain entities are not required for this application, then a "Letter of No Interest" must be obtained and submitted for documentation from that required entity. **-This comment remains outstanding.**

5. We defer to the Township Landscape and Lighting Engineer to review the proposed site lighting and landscaping. *ZO §190-603.H, SALDO §165-32.D(2) and §165-36.E(2).*

6. We defer to the Township Fire Commissioner and EMS regarding the acceptability of emergency access, the requirements for fire protection systems, etc., *SALDO §165-32.C(2)(b) and §165-36.D(2)(c).*

7. The Lehigh Valley Planning Commission should review and comment on the subject land development plan. *Checklist A.7.* **-This comment has been addressed.**

8. Upon submission of plans for recording, sign and seal/notarize all Statements and Certifications as applicable, *SALDO §165-16.*

FINAL LAND DEVELOPMENT PLAN REVIEW COMMENTS -ADDED OCTOBER 2026

We offer the following comments for the Commission's consideration regarding the Final Land Development Application:

1. The Developer shall provide a statement indicating the approximate date when construction can be expected to begin and be completed. *(Final Checklist C.6.)*

2. All signed agreements or contracts with Utility Companies, Water Companies, or Authorities or Sewage Companies or Authorities for the provision of services to the project are required to be submitted to the Township prior to recording of the final plan and prior to the construction of any buildings. *(Final Checklist D.1.a.)*

3. Before approving any subdivision or land development plan for recording, the Township Supervisors shall require that the Applicant assure the Township, by means of a proper Development Agreement and Performance Guaranty, that the improvements required by this ordinance will be installed in strict accordance with the standards and specifications of this ordinance and the approved development plan. *(SALDO §165-44.A.)* **Any necessary Agreement shall be coordinated with the Township Solicitor.**

4. The Township Engineer or other Township designee shall make such inspections of the required improvements at such intervals as may be reasonably necessary to assure compliance with this ordinance. The reasonable costs of such inspection shall be borne by the subdivider or land developer, making use of an escrow account. *(SALDO §165-45.B.)*

5. Subsequent to final plan approval of any land development or subdivision plan by the Board of Supervisors, the developer shall prepare a signed and sealed improvements security estimate, as determined by the Township. *(SALDO §165-47.B.)*

6. The recorded final plan shall include the required signatures of Township officials and staff. (SALDO §165-53.F.)

CEC recommends the project be granted Conditional Preliminary/Final Approval at this time. Please note that we reserve the right to perform additional review and provide comments on this application pursuant to the submittal of revised compliance plans and documents.

Should you have any questions, please contact me directly at (610) 989-4940 Ext. 317 or email jcoyle@carrollengineering.com.

Very truly yours,

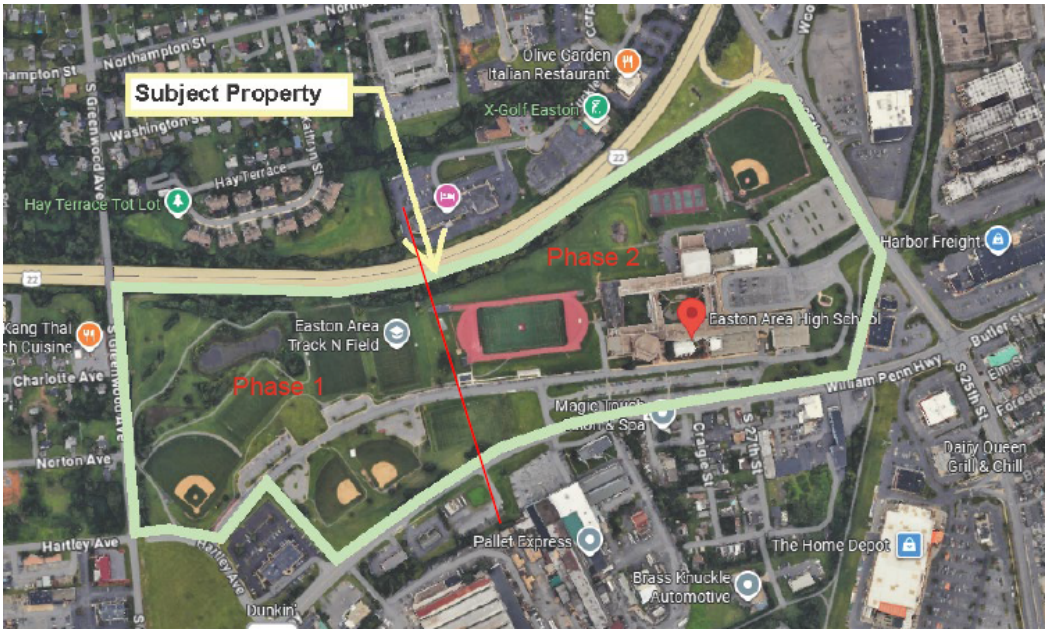
CARROLL ENGINEERING CORPORATION

Justin M. Coyle

Justin M. Coyle, P.E.
Township Engineer
DJW/JMC

cc: Robert Williams, Township Manager, Palmer Township
Julie Klabunde, Assistant Township Manager, Palmer Township
William Oetinger, Esquire, Township Solicitor
C. Richard Roseberry, P.E., Colliers Engineering & Design
Daniel J. Wilusz, P.E., CEC, Project Manager

Aerial Site Location



October 6, 2026
F110980.00

Palmer Township
3 Weller Place
P.O. Box 3039
Palmer, PA 18043

Attn: Mr. Craig S. Beavers, AICP Candidate, CFM, CZO – Director of Planning (via email)

Re: Geotechnical Review, Land Development Plan – Easton High School Phase 2
601 South 25th Street
Palmer Township, PA

Dear Mr. Beavers:

GAI Construction Monitoring Services, Inc. d/b/a CMT Services Group (CMT) has prepared this letter with respect to our review of documents related to the Easton High School Phase 2 Development. We have provided this review at your request in accordance with our revised "Geotechnical Consulting Services" proposal and agreement dated August 18, 2011. Palmer Township provided the following documents for review:

- "Preliminary/Final Land Development Plan", Sheets 1 through 63 of 63, prepared by Colliers Engineering & Design (Colliers), dated 04/15/26, last revised 09/09/26.
- "Erosion & Sediment Pollution Control Plans", Sheets 1 through 59 of 59, prepared by Colliers, dated 12/05/25, last revised 08/13/26.
- "Post-Construction Stormwater Management Plans", Sheets 1 through 24 of 24, prepared by Colliers, dated 12/05/25, last revised 08/13/26.
- "Post Construction Stormwater Management Report", prepared by Colliers, dated April 2026, last revised September 2026.
- "Stormwater Reuse Spray & Dosing Distribution System" plans, Sheets 1 through 3 of 3, prepared by Robb Werley & Associates, LLC (RWA), dated April 15, 2026, last revised 09/09/26.
- "Storm Water Capture Re-Use Distribution System Support Data" report, prepared by RWA, dated 04/15/2026, last revised 09/09/26.
- Geotechnical Review Response Letter, prepared by Colliers, dated September 9, 2026, no revisions.
- Waiver Request Letter, prepared by Colliers, dated September 9, 2026, no revisions.

CMT offers the following comments:

- The comments of our previous review letters have been satisfactorily addressed.
- We have no further comments.

CMT has attempted to prepare this letter using the degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical professionals with experience in this geographical area under similar soil conditions. We offer no other warranty, either expressed or implied as to the conclusions and recommendations contained in this letter.

If you have any questions or require additional information, please contact Shawn Casey, P.E. at 610.731.0430, 610.507.5879 (cell), or s.casey@cmtservicesgroup.com.

Sincerely,
CMT Services Group



Shawn Casey, P.E.
Engineering Technical Manager

SC:sc

October 1, 2026

Entech No. 4660.047

Palmer Township Public Works
Parks and Public Utilities Operations
3 Weller Place
Palmer, PA 18045

Re: Development Plan Review
Easton Area School District
High School Project
2601 William Penn Hwy
Easton, PA 18045
Review Letter No. 4

Dear Public Works Department,

As requested, Entech Engineering, Inc. (Entech) has reviewed the *"EASD – PHASE 2 – THE NEW EASTON AREA HIGH SCHOOL"* Land Development Plans (dated April 15, 2026 and revised September 9, 2026) prepared by Alloy5 and Colliers Engineering & Design, Inc., the September 9, 2026 response letter, and the revised sanitary sewer pipe capacity calculations dated September 8, 2026. Our review was limited to the **sanitary sewer system**.

Entech acknowledges that several comments from Review Letter No. 3 have been satisfactorily addressed. The revised plans consistently identify SS-1 and SS-19 as the permanent metering manholes immediately upstream of the respective connections to the Township system. The sanitary sewer profiles have also been revised to depict the applicable water main crossings, vertical separation, and required protection. In addition, the previously proposed reduction from the campus 8-inch sanitary sewer collection system to a 6-inch sanitary sewer lateral has been eliminated, and the affected sanitary sewer piping is now proposed as 8-inch piping. The following items remain to be addressed:

Page 23 of Land Development Plan - "Overall Utility Plan"

1. Grease interceptor sizing calculations were provided; however, the submitted documents are not consistent. The calculations identify Schier GB-75 and GB-1500 interceptors, while the supporting plumbing plan identifies a Schier GB-1000 at one location, and Land Development Plan Keynote 12 continues to state that the grease interceptor size is "to be determined." Revise the plans and supporting calculations to consistently identify the final proposed grease interceptor sizes and models. Provide confirmation of Palmer Township Codes Department review and approval prior to final sanitary sewer approval.

Sanitary Sewer Capacity Calculations

1. The hydraulic model and plan pipe data remain inconsistent. For example, SP-8A is shown on the plans as 6-inch pipe at 1.00 percent but is modeled as 8-inch pipe at 1.29 percent, and SP-17 is shown on the plans as 6-inch pipe but is modeled

as 8-inch pipe. Review and reconcile the pipe diameters, lengths, slopes, inverts, and structure identifiers throughout the plans and hydraulic model.

2. The design-flow basis remains inconsistent. The response letter continues to refer to a 433-gpm peak building discharge, while the included Water Supply Calculations report a 413-gpm total building demand. The supporting plumbing plan also identifies individual sanitary connection flows of 191, 140, 121, 117, 136, and 50 gpm, which total 755 gpm, without reconciling those connection-specific values to the stated whole-building peak or to the Hydraflow Known Q inputs. In addition, the 117-gpm connection is annotated as 0.216 cfs, while 117 gpm is approximately 0.261 cfs. Revise the calculations and provide a connection-by-connection summary identifying the source fixture calculation, design flow in gpm and cfs, corresponding model node or pipe, and cumulative downstream flow.

3. The Hydraflow calculation summary still does not provide the depth-to-diameter ratio for each sanitary sewer segment as requested in Review Letter No. 3. Revise the summary to provide, for each modeled sanitary sewer segment, the assigned sanitary flow, pipe diameter, slope, full-flow capacity, depth-to-diameter ratio, and velocity.

4. The hydraulic model output contains 30 modeled lines, while the sanitary sewer pipe table identifies 48 proposed pipe segments. Multiple plan pipe segments, including SP-9, SP-9A, SP-9B, SP-9C, and SP-29 through SP-39, are not included in the hydraulic model output. Review Letter No. 3 requested that each proposed sanitary sewer pipe and structure be correlated with the hydraulic model. Include all applicable proposed segments in the model and calculation summary or clearly identify any excluded segments and provide the engineering basis for their exclusion.

If you have any questions or require additional information, please contact us at ewagner@entecheng.com.

Sincerely,

Elizabeth I. Wagner

Elizabeth I. Wagner, E.I.T.
Engineering Designer

via Email

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GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

October 6, 2026

File No. 25-00990

Craig Beavers, AICP, CFM, CZO, Director of Planning
Palmer Township
3 Weller Place
Palmer, PA 18045

Reference: Easton Area High School – Phase II (New High School)
Landscape and Exterior Site Lighting Review

Dear Craig:

As requested, Gilmore & Associates, Inc. has reviewed the documents listed below with regard to the Preliminary/Final Land Development Plans referenced above:

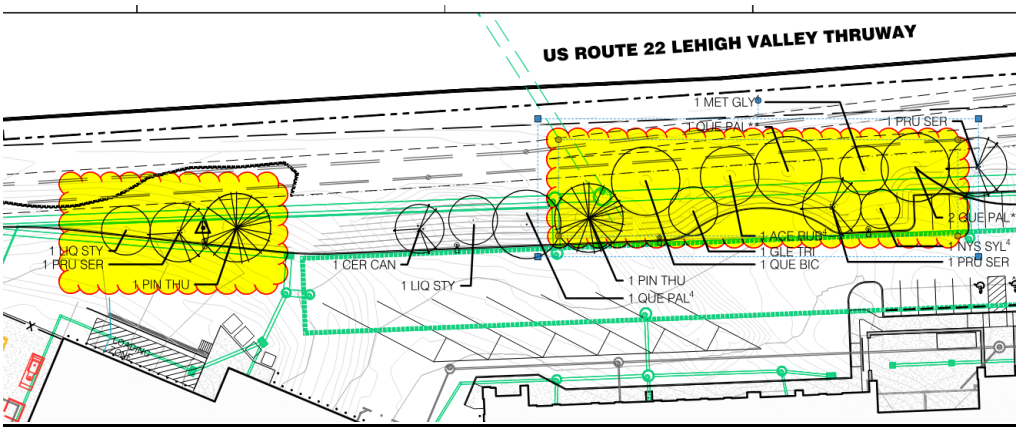
A. Landscape Plans, prepared by Omnes, dated 4/15/2026, last revised 09/09/2026, specifically:
   - L-101 to L-104 (Site Plans)
   - L-201 to L-204 (Materials Plans)
   - L-301 to L-304 (Layout Plans)
   - L-500 (Sections)
   - L-600, L-610, L-611, L-620, L-630, L-631 (Details)
   - L-701 to L-704, L-790 (Soil Plans)
   - L-801 to L-804, L-810 to L-814, L-890, L-891 (Planting Plans)

B. Site Lighting Plans, prepared by Snyder Hoffman Associates, Inc, dated 09/09/2026, with a 60% CD Submission Date of 07/24/2026, specifically:
   - SE101.A-E (Site Lighting Plans)
   - SE102.A-E (Site Photometrics Plans)
   - SE201 (Details- Electrical)

Landscape Review:

General Comments:

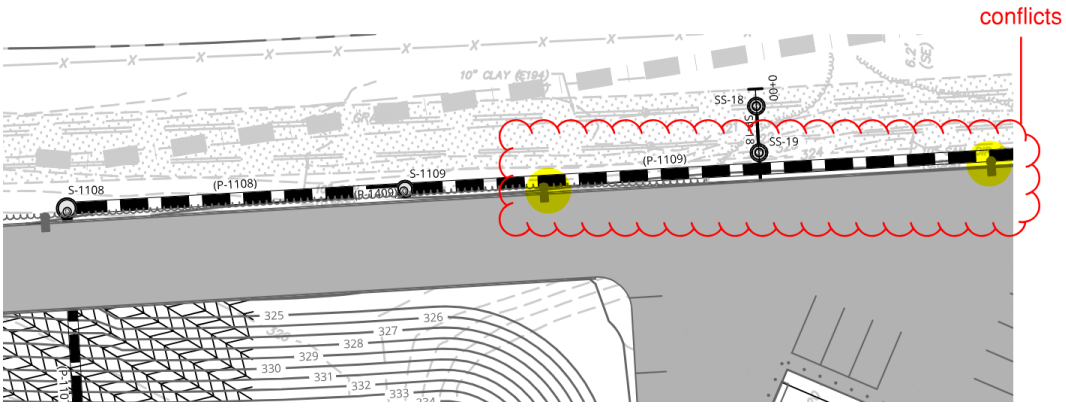
1. There appear to be several instances where proposed large trees with extensive root systems are placed in close proximity to underground utilities. Locations shall be coordinated so that there are no conflicts. Example highlighted below:



Lighting Review:

General Comments:

1. It appears that there may be remaining conflicts between light locations and subsurface utilities. Verify all conflicts have been resolved. Example highlighted below:



2. The Site Pole Base Detail on sheet SE201 does not indicate the location of the pole base as it relates to adjacent curbing or pavement. Land Development Plans appear to depict the light pole bases directly adjacent to proposed curbing. It is recommended that pole bases be set back from curbing to protect from vehicles and snow plowing operations.

Please feel free to reach out if you have any questions. Thank you.

Sincerely,

Christopher E. Green, R.L.A., LEED AP
Senior Landscape Architect
Gilmore & Associates, Inc.

cc: Michael Schwartz, P.E. – Municipal Services Manger – Gilmore & Associates, Inc.
Sean Policelli, P.E., Project Manager – Gilmore & Associates, Inc.
Justine Caiazzo-Strouse – Palmer Township

TOWNSHIP OF PALMER
NORTHAMPTON COUNTY, PENNSYLVANIA
3 Weller Place, Palmer Township, PA 18045

October 7, 2026

Easton Area School District
c/o Ken Case
3005 Northampton Street
Palmer Township, PA 18045

(via e-mail only)

Re: SALD-2026-01: Easton Area High School Phase 2 (2601 William Penn Highway)
Preliminary/Final Land Development Plan – Third Submission
Plan Dated September 9, 2026

Community Development Department Review

Dear Mr. Case:

On behalf of the Community Development Department ("Department"), I have reviewed the preliminary/final plan titled "EAHS – Phase 2 – The New Easton Area High School – Preliminary/Final Land Development Plan for Easton Area School District" prepared by Colliers Engineering & Design and Alloy5 dated April 15, 2026, last revised September 9, 2026. The plan proposes to construct a new high school, grass band practice field, vehicle and bus parking/loading areas, as well as frontage improvements such as sidewalks and street trees.

This letter is to report non-engineering-related comments to be addressed, in addition to the review letters of the Township Staff and Consultants. These comments are made with the understanding that all features are accurately displayed on the submitted plans and that they comply with all current laws and regulations. Other comments may be added as additional information becomes available or if the information should change.

Subdivision and Land Development Ordinance

1. The following elements of the Subdivision and Land Development Ordinance shall be considered or addressed by the Applicant:
    a. *SALDO §165-46: Development agreement.*
        i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall enter into a Development Agreement for the project, which shall be drafted by the Township Solicitor after all plan conditions and cost estimates are approved.

b. SALDO §165-52: Recording of final plan.

i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall provide signed copies of the approved plans for recording prior to commencing work. Please refer to the *Procedures for Post-Approval* and *Procedures for Plan Recording* handouts for additional details.

c. SALDO §165-59.G(1): Easements.

i. Once preliminary/final approval is granted by the Board of Supervisors, the Applicant shall provide Easement Agreements to the Township, which must be approved by the Township Solicitor. All easements shall include written legal descriptions, exhibits, and closure calculations, which must be approved by the Township Solicitor. The Township will record the agreements in the Northampton County Recorder of Deed's office.

ii. An easement for the remaining portion of the Palmer Bikeway not already covered under existing easements shall be provided prior to plan recording.

d. SALDO §165-62: Recreation land, open space and fee requirements.

i. The Township will not require any land dedication nor recreation fees for this project.

Zoning Ordinance

1. An official zoning review will be provided by the Township Zoning Officer at the time of filing for a Zoning and/or Building Permit; the following comments are provided for the applicant's awareness. The Township Zoning Officer shall make all final determinations regarding zoning compliance.
2. The proposed public school use is located in both the HDR High Density Residential zoning district and GIO Government/Institutional overlay district. The proposed use is permitted by right.
3. The following elements of the Zoning Ordinance shall be considered or addressed by the Applicant:

a. ZO § 190-111: Zoning permits.

i. The Applicant shall apply for and receive a zoning permit from the Township Zoning Officer prior to commencing work on the site.

b. *ZO § 190-113: Occupancy permits.*

i. The Applicant shall apply for and receive a certificate of occupancy from the Township Zoning Officer and Building Code Official prior to occupying the building.

Stormwater Management Ordinance

1. An official stormwater management review will be provided by the Township Engineer, Township Geotechnical Engineer, and Director of Stormwater and MS4. All stormwater items, including those from the Lehigh Valley Planning Commission, Northampton County Conservation District, and Pennsylvania Department of Environmental Protection, shall be addressed prior to plan recording.
2. The Applicant shall provide an Operations and Maintenance Plan and enter into a Stormwater Management Operations and Maintenance Agreement, which shall be drafted and approved by the Township Solicitor.

Modification, Waiver, and Deferral Requests

1. The Applicant requests the following modifications and waivers as a part of this application. Newly added requests are in **bold:**
    a. ***SMO § 158-304.K – (Dewatering Time).*** **72-hour dewatering time proposed.**
    b. *SMO § 158-304.L – (Maximum Water Depth of 6 Feet).* Excess of 6 feet proposed.
    c. *SMO §158-305.12 – (Conveyance Facilities).* Waiver from minimum pipe diameter requested.
    d. *SMO §158-306.A(6) – (Volume and Rate Methodologies).* Waiver from 50% meadow condition requested.
    e. ***SMO §158-401.A(O)(1) – (Plan and Profile on Same Sheet).*** **Separate sheets proposed.**
    f. *SALDO Checklist B.8 – (Required Profile Scale).* Combined preliminary/final review proposed.
    g. ***SALDO § 165-36.A(2) – (Separate Preliminary/Final Plan Review).*** **Horizontal scale of 1" = 40' and vertical scale of 1" = 4' proposed.**
    h. *SALDO §165-63.K.(2)(c) – (Emergency Spillway Lining).* Turf lining proposed.
    i. *SALDO §165-63.K.(2)(d) – (Emergency Spillway Depth).* 1.1 foot depth proposed.
    j. *SALDO § 165-63.K(3) – (Slope of Detention Basin).* 3:1 slope proposed
    k. ***SALDO § 165-63.K(5) – (Slope of Basin Bottom).*** **Flat bottom proposed.**
    l. *SALDO §165-63.K(10) – (Outlet Control Structure).* Waiver from regulatory device requested.
2. Additionally, the Applicant requests a deferral from the following provision:
    a. *SALDO §165-70 – (Sidewalks).* A deferral to install a portion of sidewalk between the existing driveway and the adjacent Mattress Firm/Walgreens parcel is requested.
3. The criteria for granting modifications, waivers, and deferrals from Chapter 165 Subdivision and Land Development are as follows:

§ 165-7.B Modifications and exceptions. The Planning Commission shall be given an opportunity to make a recommendation on the matter at a legally advertised meeting. The Board of Supervisors may, by written resolution, grant a waiver or modification concerning a specific provision(s) of this ordinance if the applicant proves that the request meets one or more of the following conditions:

a. Will avoid an undue hardship that was not self-created and that results from the peculiar and uncommon characteristics of the property.

b. Will avoid a clearly unreasonable requirement that would not serve any valid public purpose in this situation.

c. Will allow an alternative standard that is clearly proven by the applicant to provide equal or better results.

d. Will allow a layout of improvements that would clearly be more in the public interest than what would occur if the modification would not be granted.

e. Will remove a requirement that is not applicable, especially because of the small size of the proposed project.

4. While Township Staff defers to the Township Engineer on technical design elements, we agree that if the proposed design elements result in equal or better results, then we are not opposed to the waiver request.
5. Regarding the deferred sidewalk, the Department is not inherently opposed to the request, since it is abutting a retaining wall where no one can currently walk. The deferral shall be explicitly noted in a recorded agreement between the Township and the School District, with a triggering action of adjacent development.

Public Works and Utilities

1. The applicant is to request approval for water availability and sanitary sewer capacity and conveyance from the Easton Area Joint Sewer Authority, Palmer Township Public Works, and Easton Suburban Water Authority. The applicant must address all water and sewer service issues, and obtain all approvals deemed necessary by the above agencies.
2. The applicant is to obtain Northampton County Conservation District approval for an Erosion and Sediment Control Plan for this project.
3. The Applicant shall provide payment for Tapping Fees prior to Building Permit issuance.

Palmer Township Comprehensive Plan

1. The 2018 Comprehensive Plan, Tomorrow's Palmer, is the Township's adopted policy for the future of the community. Tomorrow's Palmer highlights the subject property within a Park, Open Space, and School Land Use Type, which hosts recreational and civic spaces with the community.
2. Tomorrow's Palmer recognizes the importance of "the area's wealth of civic and educational resources" for the high-quality of life in the community (pg. 7).

3. The project site is zoned HDR High Density Residential but is governed by the GIO Government/Institutional Overlay district. The purpose of the GIO District is to provide for the needs of regionally oriented institutional uses; to preserve the open character of large areas of the Township which are now dominated by or suited to institutional and quasi-public uses; and to encourage a harmonious pattern of institutional development which can mutually benefit the Township and the institutions themselves.

4. The proposed high school is consistent with the following Comprehensive Plan goals:

    a. *A.2: Establish policies that support fiscally marketable redevelopment and re-use of previously developed sites*

        1. The proposed high school will greatly benefit the residents within the Easton Area School District by providing a modern educational campus for students, replacing a building constructed in the 1960s. By redeveloping the existing site, the proposed school will improve existing Township civic centers and save other sites from new development. Therefore, this project would comply with this goal.

    b. *A.3: Support well planned and compatible land uses that are concurrent with infrastructure availability, environmental sensitivities, and surrounding density patterns*

        1. The proposed high school is on a site with existing infrastructure for water, sanitary sewer, and other utility hook-ups. Therefore, this project would comply with this goal.

    c. *C.1: Identify and address pedestrian safety needs, congestion, traffic flow challenges and safety concerns where they exist*

        1. The proposed high school would construct sidewalks along the property frontage, completing a sidewalk gap along in one of the densest areas of Palmer Township. Therefore, this project would comply with this goal.

    d. *C.2: Support integrated, safe bicycle/trail networks to support recreation and connectivity of community assets and neighborhoods*

        1. The proposed high school will retain the existing bike path within the property, allowing students to travel by walking or biking. Therefore, this project would comply with this goal.

    e. *C.3: Improve transit ridership convenience and safety between areas of employment, shopping, neighborhoods, and transit stops*

        1. The proposed high school is located along a major corridor within Palmer Township with several key destinations. The area is currently served by LANTA's 216 bus route, providing extended service between the City of Easton and Palmer Township. Additionally, the site is directly served by the 25th Street Station for the EBS Blue Line, a bus-rapid transit service connecting Easton to Trexlertown with 30 minute or better service. The Applicant is proposing frontage improvements for future improvements for

Bus-Rapid Transit deployment. Therefore, this project would comply with this goal.

f. *D.1: Provide a wide range of active and passive recreation areas and facilities that are well- distributed throughout the Township*

    1. The proposed high school will redevelop athletic facilities within the existing campus, retaining this area as a major recreation destination for students and the general public. Therefore, this project would comply with this goal.

g. *F.2: Reinforce the significance of the community's multiple civic centers or hubs as destinations for recreation, community gathering, and commerce.*

    1. The proposed high school will redevelop an existing civic center within Palmer Township, reaffirming the school district's commitment to education, recreation, and community pride. Therefore, this project would comply with this goal.

h. *F.3: Establish a sense of arrival when entering Palmer Township*

    1. The proposed high school is one of the first major parcels one sees when entering Palmer Township heading westbound. A new, improved frontage and public high school will help promote a positive image of Palmer Township, as well as showcasing the excellence of Easton Area School District. Therefore, this project would comply with this goal.

i. *F.5: Align development with accessible infrastructure service.*

    1. The proposed athletic complex is on a site with existing infrastructure for water, sanitary sewer, and other utility hook-ups. Therefore, this project would comply with this goal.

5. The proposed athletic complex is either nonapplicable or negligible to the other goals.

Palmer Township Parks, Recreation, and Open Space Plan

1. The 2020 Parks, Recreation and Open Space Plan (PROS) is a comprehensive strategy for imagining the Township's goals for its parks and recreation system (pg. 1).
2. While the overall intent of the plan focuses on Township-owned parks and open spaces, several of the overarching goals of the plan apply to the current project. The proposed high school is consistent with the following PROS Plan goals:
    a. *Goal 1: Provide recreation opportunities that balance the projection of open space and natural resources with the need for active recreation.*
        i. The proposed high school balances the district's need for high-quality education with its superb excellence in athletics, as well as preserving the natural resources on the campus site. The project proposes to redevelop and rehabilitate existing sports facilities on the campus to improve the high-quality athletic offerings for students. Additionally, the project proposes several new

landscape plantings to further enhance the natural resources on the site. Therefore, this project would comply with this goal.

b. *Goal 5: Extend the legacy of quality parks and recreation services by using innovative, non-traditional partnerships and means to support the delivery of recreation and the protection of the Township's park and open space system.*

    i. The proposed high school, while primarily serving the needs of the students first, is generally open to the public after school hours and when there is not a sporting event or practice on the site. The community widely considers this campus a "de facto" park, utilizing the trail systems and facilities for recreational enjoyment. We encourage the school district to continue this practice and perhaps expand public access through new avenues in the future. Therefore, this project would comply with this goal.

c. *Goal 7: Continue to enhance connections and segments of the pedestrian trail network throughout the Township.*

    i. The Palmer Bikeway, host to the September 11th National Memorial Trail, traverses the project site on the eastern end, serving as a critical trail connection in the region. The proposed project will provide additional connections between the trail and the high school campus, allowing both students to travel to school, and for visitors to access the campus and the Vietnam Veterans Memorial. Therefore, this project would comply with this goal.

Palmer Township Active Transportation Plan

1. The goal of the 2025 Active Transportation Plan (ATP) is to identify opportunities to improve the pedestrian, bicycle, and transit network throughout the Township to promote active and healthier lifestyles (pg. 8).
2. A key program recommendation of the ATP is the development of a Safe Routes to School Program, encouraging students to walk, bike, and roll to school (pg. 67). Exploring ways to safety connect students to school is a priority for the Township's active transportation programming.
3. The proposed high school is consistent with the following ATP goals:

    a. *Goal 1: Establish and expand safe and accessible connections to park, recreation, and open space resources and key destinations, both within the Township and regionally.*

        i. The Palmer Bikeway, host to the September 11th National Memorial Trail, traverses the project site on the eastern end, serving as a critical trail connection in the region. The proposed project will provide additional connections between the trail and the high school campus, providing more connectivity to the site, as well as through the site to nearby bike path connections. Therefore, this project would comply with this goal.

    b. *Goal 2: Prioritize improvements that will service more vulnerable populations.*

i. The proposed project will provide additional connections between the trail and the high school campus, allowing both students to travel to school. As a vulnerable population, students regularly utilize the trail to reach both the school and nearby restaurants and shopping before and after school. This project is an opportunity to evaluate needed safety upgrades to improve student safety when traveling to and from the site. Therefore, this project would comply with this goal.

c. *Goal 6: Create lasting partnerships with National, State, County, and Regional agencies and organizations.*

i. Palmer Township cherishes its continued partnership with the Easton Area School District; members from the district were instrumental in the development of the ATP. The Township hopes to continue its partnership with the district in implementing the plan with encouraging students to safely travel to school by walking and biking. The Township hopes to explore programming to enhance student safety, such as Safe Routes to Schools, which this project would be instrumental in enabling. Therefore, this project would comply with this goal.

Palmer Township Municipal Climate Action Plan

1. The 2024 Municipal Climate Action Plan (MCAP) is the Township's roadmap to achieve a sustainable future for the Township (pg. 4).
2. The MCAP encourages projects to incorporate sustainability in all new projects (pg. 5). Therefore, we provide the following comment for consideration for the project:
    a. The Applicant should continue to consider Bird-Friendly Design strategies in the construction of the building.

Palmer Township Complete Streets Policy

1. The 2025 Complete Streets Policy (Policy) aims to promote a complete, interconnected transportation network that serves the needs of all residents and visitors regardless of age, ability, or mode of travel (pg. 1).
2. As directed by the Policy, the Township shall examine all land developments for recommendations to incorporate Complete Streets design recommendations to ensure "safe, environmentally healthy, economically sound, fair, accessible, and convenient travel along, and across, streets and roadway networks" (pg. 2).
3. We provide the following comments for consideration into the project to meet the goals of the Policy:
    a. The Applicant is commended for the inclusion of a LANTA landing pad and loading area. This promotes LANTA's vision for the future build-out of the EBS Blue Line bus rapid transit service, which will provide high-frequency bus service between Easton and Trexlertown.
    b. The Applicant is commended for the inclusion of sidewalks along all property frontages on the campus. This will ensure safe and accessible connectivity for

students and the general public when traveling to and from the campus, as well as passing through to other key destinations in the Township and beyond.

c. The Applicant shall continue to coordinate with the Township on the development of a School Zone for the project. As a major educational facility in the region, with a high likelihood for vulnerable student populations reaching the site by foot, ensuring that vehicle traffic travels at 15 MPH during school drop-off and pick-up is paramount for safety.

Your plan is scheduled to be reviewed by the Planning Commission on Tuesday, October 13, 2026 at 7:00 p.m. in the Public Meeting Room of the Township Municipal Building located at 3 Weller Place, Lower Level, Palmer Township, PA 18045.

If you have any questions, please feel free to reach out.

Sincerely,

Craig Beavers

Craig S. Beavers, AICP
Director of Community Development
Palmer Township, Northampton County

PALMER TOWNSHIP
PLAN REVIEW COMMENT FORM

Project Information

Project Address: 2601 William Penn Highway

Project Name: Easton Area High School - Phase 2 (SALD-2026-01)

Submission Date: September 9, 2026

Plan Type: Preliminary/Final Land Development - 3rd Submission - Plan Dated 9/9/2026

Zoning District: HDR High Density Residential & GIO Government Institutional Overlay

Applicant's Name: Easton Area School District (c/o Ken Case)

Fire Commissioner / Palmer Municipal Fire Department Comments *(attach additional pages as needed)*

Comments related to fire hydrants or other fire prevention measures:

Comments related to emergency access, truck turning or other site considerations:

Comments related to Township Fire Prevention Ordinance or IFC Regulations:

Other Comments:

☑ Check here for: "No comments at this time."

☐ Check here for: "All comments have been addressed at this time."

Signature: Stephen Gallagher Date: 10/6/2026

PALMER TOWNSHIP
PLAN REVIEW COMMENT FORM

Project Information

Project Address: 2601 William Penn Highway

Project Name: Easton Area High School - Phase 2 (SALD-2026-01)

Submission Date: October 1, 2026

Plan Type: Preliminary/Final Land Development - 3rd Submission - Plan Dated 9/9/2026

Zoning District: HDR High Density Residential & GIO Government Institutional Overlay

Applicant's Name: Easton Area School District (c/o Ken Case)

Shade Tree Commission Comments *(attach additional pages as needed)*

Comments related to location and types of shade trees proposed:

Based on the letter from Mr. Roseberry dated 09/09/26 the Shade Tree Commission has no further comments.

Comments related to landscaping plan and natural features:

Comments related to impact of existing trees:

Other Comments:

☐ Check here for: "No comments at this time."

☒ Check here for: "All comments have been addressed at this time."

Signature: _____ Date: 10/02/2026

Lehigh Valley Planning Commission

CHRISTINA "TORI" MORGAN
Chair

ARMANDO MORITZ-CHAPELLIQUEN
Vice Chair

PHILLIPS ARMSTRONG
Treasurer

BECKY A. BRADLEY, AICP
Executive Director

Planning for the Future of Lehigh and Northampton Counties at 615 Waterfront Drive, Suite 201, Allentown, PA 18102 ■ (610) 264-4544 ■ lvpc@lvpc.org ■ www.lvpc.org

May 15, 2026

Mr. Craig Beavers, Planning Director
Palmer Township
3 Weller Place
Palmer, PA 18045

Re: EASD Phase 2 – New High School (LURS)
Palmer Township
Northampton County

Dear Mr. Beavers,

The application proposes redeveloping the current Easton Areas School District High School at 2601 William Penn Highway (PIN: L9 44 2, L8 24 1). The redevelopment would demolish the existing high school and rebuild a new 250,444 square foot building, along with new parking lots. The site will maintain the two access points existing on the lot from South 25th Street and the William Penn Highway.

This project is considered a land use of regional significance under *FutureLV: The Regional Plan* in the 'Educational Facilities' category. The Lehigh Valley Planning Commission (LVPC) considered the subject application at its Comprehensive Planning Committee and Full Commission meetings, pursuant to the requirements of the Pennsylvania Municipalities Planning Code (MPC). The meetings will be held on:

LVPC Comprehensive Planning Committee Meeting:	**LVPC Full Commission Meeting:**
May 26, 2026, at 12:00 PM (Virtual) https://lvpc.org/lvpc-meetings	May 28, 2026, at 7:00 PM (Virtual) https://lvpc.org/lvpc-meetings

Site Suitability
The proposal supports a core strategy of FutureLV: The Regional Plan to increase density in urban areas using infill development (Density Special Section, page 81). According to the General Land Use in FutureLV: The Regional Plan, this parcel is in a Development area and has most, or all the factors needed to support growth, such as sewer and transportation infrastructure capacity and contiguity to existing uses and achieves 'reuse and redevelopment in urban areas' (of Policy 1.1).

Transportation
The LVPC commends the inclusion of sidewalks along South 25th Street connecting back to the intersection of South 25th and South Wood Ave which *FutureLV: The*

DRAFT

Regional Plan identifies as a Center to ‘improve walkability of post-war centers. (of Policy 5.3).

Palmer Township was recently awarded a Transportation Alternatives Set Aside (TASA) grant to create a safe route to school and trail crossing along the William Penn Highway through the Palmer Bikeway/Two Rivers Trailway. The LVPC recommends the developer coordinate with the township site improvements that could enhance the connection from the trail to the school to ‘promote safe routes to schools and playgrounds’ (of Policy 5.2). Additionally, if the school or trail intends to remain open during portions of construction, the LVPC recommends additional signage to direct traffic safely through the site.

Additionally, the East lot and the North lots, and the three baseball parking lots included in the parking calculations should all consider additional crosswalks to direct pedestrian crossings to ‘implement complete streets and traffic calming measures’ (of Policy 5.1). Additional crosswalks should also be included the intersection of the private road and Hartley Avenue. To further Policy 5.1, the project should consider including sidewalks along the new road in the rear of the building.

The site also borders Route 22, which generates a significant amount of noise and could impact the site and outdoor activities. The LVPC recommends the developer consider sound barriers or additional plantings to reduce the noise and ‘create community spaces that promote physical and mental health’ (of Policy 5.3).

The site has multiple access points that may impact emergency service response times to specific sections of the school or athletic complex. The LVPC recommends designating an emergency access route with appropriate signage and coordinating with local emergency services to ‘enhance planning and emergency response efforts among emergency management personnel’ (of Policy 5.1).

The received submittal also did not include turning plans to ensure it can accommodate large wheelbase vehicles such as emergency vehicles and buses. It is recommended that turning templates be clearly shown within the internal circulation areas of the site plan, to further demonstrate that adequate maneuvering space is available for large vehicles and emergency responders. In addition, consideration should be given to the possibility that a fire or emergency event could occur during business hours, when student, staff, and visiting vehicles may be present on-site and could potentially interfere with access for first responders.

The campus lacks specifically designated bicycle parking areas. The LVPC recommends this be addressed by providing a safe and covered location for students and staff who may wish to use alternative transportation modes. Including bicycle parking supports a safe, healthy, inclusive, and livable community (*FutureLV: The Regional Plan* Goal 5). The addition of bicycle racks also helps to ‘ensure transportation accessibility for all persons,’ integrate ‘mixed transportation into public space design,’

and ‘improve connections between bus stops and pedestrian and bicycle infrastructure’ (of Policy 5.2).

The Lehigh and Northampton Transportation Authority (LANTA) has reviewed the submitted Record Plan for the proposed Easton Area High School – Phase 2 project located at 2601 William Penn Highway in Palmer Township, and offers the following comments:

> LANTA provides fixed-route public transportation in the immediate vicinity of the project site, with an Enhanced Bus Service (EBS) Blue Line route serving William Penn Highway at the intersections of 25th Street to the east and Greenwood Ave to the west, respectively. The existing westbound EBS bus stop at William Penn Highway and S 25th Street is currently located on the east side of the intersection in Wilson Borough. LANTA had plans to relocate the westbound bus stop farside of the intersection to be closer to the Palmer Bethlehem Township bike path, located in between the Walgreens property at the northwest corner of the intersection, and the Easton Area High School project site. This location serves as an ideal opportunity to promote a multimodal mobility hub west of the intersection of William Penn Highway and S 25th Street intersection. In addition, concurrent plans are also proposed for the redevelopment of the southwest parcel of the intersection, where LANTA plans relocate the eastbound EBS bus stop in conjunction with the Palmer Bethlehem Township bike path.
>
> In response to LANTA’s comments to the submitted Sketch Plan dated 9.30.26, LANTA appreciates all efforts to include the recommended 70’ bus pull-off located westbound/farside of bike path trailhead on William Penn Highway, as well as a 45’ x 20’ concrete pad at the curb, in conjunction with the sidewalk, which will serve as a station pad for future EBS transit infrastructure through capital funds. LANTA recommends continued engagement and coordination if the Easton Area High School is interested in providing a bus shelter for their students at the proposed westbound bus stop.
>
> In addition, LANTA appreciates all efforts to complete the sidewalk network along the property frontage on 25th Street, where LANTA has an existing bus stop along the existing sidewalk portion north of the 25th Street intersection with the Palmer Bethlehem Township bike path. The proposed continuation of the sidewalk and crosswalk network into the project site will help complete the proposed comprehensive pedestrian network of the full campus, providing safer pedestrian access to nearby transit stops and surrounding neighborhoods.

LANTA recommends following up with Molly Wood at mwood@lantabus-pa.gov to discuss any additional bus stop details and information.

Environment
The plans received submitted did not include a landscaping plan or lighting plan for review. This redevelopment provides an opportunity to incorporate more sustainable

landscape, stormwater management and lighting design measures across the site to ‘mitigate the effects of climate change’ (of Policy 1.3), and ‘protect the quality and quantity of surface and groundwater’ (of Policy 3.2). Parking lot areas can be designed to provide opportunities for inclusion of tree islands that support canopy tree species and in some cases provide a dual stormwater management benefit.

The proposed stormwater facilities include a large surface detention basin that will manage runoff from a portion of the site and parking lot area, however, it is unclear if this will be designed as a naturalized basin to encourage not only stormwater volume control but provide water quality and habitat benefits. In lieu of detailed landscaping plan, the LVPC recommends the inclusion of native, climate-adaptive landscaping, including shade trees to reduce heat island effect to 'minimize the environmental impacts of development' (of Policies 3.2 & 3.4).

Additionally, the LVPC encourages the applicant to utilize lighting fixtures which are dark sky compliant to minimize potential adverse impacts to the adjacent residential properties related to possible light pollution from the proposed parking lots and sports facilities to ‘promote community spaces that promote physical and mental health’ (of Policy 5.3) and reduce potential wildlife impacts.

The LVPC encourages the developer to consider opportunities for incorporating sustainable energy systems that reduce overhead operational costs and ‘reduce climate change impacts through mitigation and adaptation’ (of Policy 3.4), such as geothermal energy systems, and greywater reuse for irrigation and plumbing. As this is new construction, LVPC encourages the developer to seek LEED certification and incorporate green building features such as green roof and/or solar panel systems and EV charging stations.

The LVPC encourages the developer to consider opportunities for incorporating sustainable energy systems and seek LEED certifications and green infrastructure such as geothermal energy systems or grey water reuse for irrigation and plumbing and green roofs and/or solar panels along with EV charging stations, all of which would ‘reduce climate change impacts through mitigation and adaption’ (of Policy 3.4).

LVPC recommends that the dumpster and compactor areas be more secured, covered and not be located near stormwater inlets to protect the quantity and quality of surface water and groundwater (of Policy 3.2).

The project site is located within the Bushkill Creek watershed. This watershed has a fully implemented Act 167 Stormwater Management Ordinance. Comments related to our review of the project’s stormwater management plan are included as attachment 1.

Wilson Borough, Bethlehem Township, West Easton, Glendon Borough, and Easton are included in this review letter to ‘coordinate land use decisions across municipal boundaries’ (of Policy 1.4).

Municipalities, when considering subdivision/land developments, should reasonably attempt to be consistent with *FutureLV: The Regional Plan*, as required by the Pennsylvania Municipalities Planning Code (MPC) [Article 1§105, Article III§303, §304 & §306(a), Article VI§603(j)]. The LVPC review does not include an in-depth examination of plans relative to subdivision design standards or ordinance requirements since these items are covered in the municipal review.

Sincerely,



Jacob Weinberg
Community and Regional Planner

cc:
Justin Coyle, Township Engineer;
Ken Case, Easton Area School District, Applicant;
Richard Roseberry, Colliers Engineering and Design, Project Engineer;
Jill Garcia, Wilson Borough, Manager;
Samantha Smith, Bethlehem Township, Community Development Director;
Joan Heebner, West Easton Borough, Manager;
Monica Wall, Glendon Borough, Township Engineer;
Dwayne Tillman, Easton City, Director of Planning and Codes;

ATTACHMENT 1

Act 167 Drainage Plan Review

May 15, 2026

Re: EASD Phase 2 – New Easton Area High School
Plans Dated April 15, 2026
Palmer Township
Northampton County

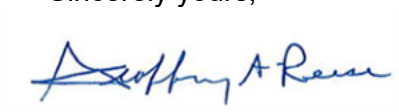
The proposed storm drainage concept presented in the plans dated April 15, 2026 and calculations dated April 2026 have been reviewed for consistency with the *Bushkill Creek Watershed Act 167 Storm Water Management Ordinance, May 1992*. A checklist of the Act 167 review items is attached for your information. As indicated on the checklist, each item of the Drainage Plan has been reviewed for consistency with the Act 167 Ordinance. A brief narrative of the review findings is as follows:

> The proposed development is located within drainage district 128 of the Bushkill Creek Watershed as delineated in the Act 167 Plan. As such, the runoff criteria for the site are a 30% Release Rate for the 2-year storm and a 100% Release Rate for the 10-, 25- and 100-year return period storms. Based on the review of the plans and calculations, the following deficiencies are noted. Spray irrigation plans need to be provided. Winter bypass lines need to be labeled on the plans, and the winter operation details need to be provided to ensure release rates are met year-round. Time of concentration paths for post-development drainage areas 2C and 2D need to be displayed clearer. The offsite east drainage area needs to be checked and revised, contours need to be fully labeled, and the impact of storm sewers on the drainage area needs to be confirmed. The post-development drainage boundary south of stormwater control measure 3 is inconsistent with proposed contours. Proposed contours adjacent to South 25th Street need to be clarified to confirm drainage boundaries. An apparent roof leader on the southern side of the proposed building is inconsistent with the drainage boundary. Clarify how the track storm sewer is connected into the system discharging to stormwater control measure 3. The possible retaining wall should be clarified, and a detail should be provided if needed. The stormwater control measure 3 outfall pipe is inconsistent between the plan details and calculations. The stage-storage calculation for stormwater control measure 4 is inconsistent with the calculations. Documentation needs to be provided to show that stormwater controls are designed to function and meet release rates in the construction phase while both schools are present on the site. Therefore, the Drainage Plan has been found to be inconsistent with the Act 167 requirements.

Note that only those details of the Drainage Plan included on the checklist have been covered by this review. Therefore, notable portions of the Drainage Plan not reviewed include any aspect of the post-construction storm water management plan concerning water quality, the details and design of any proposed water quality BMPs, the Erosion and Sedimentation Control Plan and the details of the runoff collection system (piping). These items are reviewed by the municipal engineer and/or others, as applicable.

Once the outlined issues have been addressed, the revised plans and calculations can be resubmitted through PlanLV Portal, available at https://lvpc.org/planlv-portal. Once your submission has been reviewed for completeness by LVPC staff, you will receive an email with the applicable fees and a secure link to submit payment online. The LVPC fee schedule can be found here: https://lvpc.org/lvpc-fee-schedule. Please call with any questions regarding these comments.

Sincerely yours,



Geoffrey A. Reese, PE
Master Planner and Engineer

Attachment

LVPC ACT 167 REVIEW CHECKLIST

Development Name: EASD Phase 2 – New Easton Area High School
Municipality: Palmer Township
Date: May 15, 2026
Watershed: Bushkill Creek
Reviewer: Peter G. Lantz
Checked by: Geoffrey A. Reese, PE

Ordinance Reference	Item	Consistency w/Ordinance Yes	No	N/A	Comment
301.A-G.	General storm water management requirements	X			
H.	Consideration of volume controls		X		See Attachment 1 for details

302.A,B. Applicable Storm Water Management Provisions

Subarea(s)	128			
Criteria	30%/100% RR			

Criteria Key: RR = release rate; PND = provisional no detention

303.A.	Design consistency with applicable provisions from 302.A. and B		X		See Attachment 1 for details.
B.	Mapping of Storm Water Management District Boundaries	X			
C.	Downstream capacity analysis			X	
D.	Multiple discharge points within a single subarea			X	
E,F.	Multiple discharge points within multiple subareas			X	
G.	Documentation of “no harm” downstream			X	
H.	Regional or subregional detention analysis			X	
I.	Capacity improvements analysis			X	
304.A.	Computation method (rational or soil-cover-complex)	X			Soil-cover-complex method used.
B.	Verification of detention design by routing		X		See Attachment 1 for details.
	Check rational method detention volume vs. TR55			X	
C.	Minimum detention pond freeboard specifications	X			
D.	Soil-cover-complex method design rainfall	X			
E.	Rainfall intensities for rational method			X	
F.	Curve Numbers for soil-cover-complex method	X			
G.	Runoff coefficients for the rational method			X	
H.	Manning equation to calculate watercourse capacity			X	
403.	Drainage Plan Contents		X		See Attachment 1 for details.

Craig Beavers

From: Molly Wood <mwood@lantabus-pa.gov>
Sent: Tuesday, April 28, 2026 3:05 PM
To: Craig Beavers
Cc: AJ Knee
Subject: LANTA Comments for Easton Area High School Phase 2_4.28.26

Caution! This message was sent from outside your organization. Report

Craig,

The Lehigh and Northampton Transportation Authority (LANTA) has reviewed the submitted Record Plan for the proposed Easton Area High School – Phase 2 project located at 2601 William Penn Highway in Palmer Township, and offers the following comments.

LANTA provides fixed-route public transportation in the immediate vicinity of the project site, with an Enhanced Bus Service (EBS) Blue Line route serving William Penn Highway at the intersections of 25th Street to the east and Greenwood Ave to the west, respectively. The existing westbound EBS bus stop at William Penn Highway and S 25th Street is currently located on the east side of the intersection in Wilson Borough. LANTA had plans to relocate the westbound bus stop farside of the intersection to be closer to the Palmer Bethlehem Township bike path, located in between the Walgreens property at the northwest corner of the intersection, and the Easton Area High School project site. This location serves as an ideal opportunity to promote a multimodal mobility hub west of the intersection of William Penn Highway and S 25th Street intersection. In addition, concurrent plans are also proposed for the redevelopment of the southwest parcel of the intersection, where LANTA plans relocate the eastbound EBS bus stop in conjunction with the Palmer Bethlehem Township bike path.

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In addition, LANTA appreciates all efforts to complete the sidewalk network along the property frontage on 25th Street, where LANTA has an existing bus stop along the existing sidewalk portion north of the 25th Street intersection with the Palmer Bethlehem Township bike path. The proposed continuation of the sidewalk and crosswalk network into the project site will help complete the proposed comprehensive pedestrian network of the full campus, providing safer pedestrian access to nearby transit stops and surrounding neighborhoods.

LANTA recommends follow up with Molly Wood at mwood@lantabus-pa.gov to discuss any additional bus stop details and information.

Thank you,
Molly

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
PRELIMINARY / FINAL LAND DEVELOPMENT PLAN
FOR
EASTON AREA SCHOOL DISTRICT
PALMER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

OUTSIDE AGENCY APPROVALS		
AGENCY	PERMIT STATUS	APPROVAL DATE
EASTON SUBURBAN AMERICAN WATER AUTHORITY	PENDING	PENDING
EASTON AREA JOINT SEWER AUTHORITY	PENDING	PENDING
LEHIGH VALLEY PLANNING COMMISSION	PENDING	PENDING
NORTHAMPTON COUNTY CONSERVATION DISTRICT	PENDING	PENDING
PENNDOT	PENDING	PENDING

INDEX OF SHEETS

SHEET NAME	SHEET NUMBER	LAYOUT NAME
COVER SHEET*	1	C-001
CIVIL LEGEND & NOTES*	2	C-002
OVERALL EXISTING CONDITIONS PLAN	3	C-011
EXISTING CONDITIONS PLAN - FACET A	4	C-012
EXISTING CONDITIONS PLAN - FACET B	5	C-013
EXISTING CONDITIONS PLAN - FACET C	6	C-014
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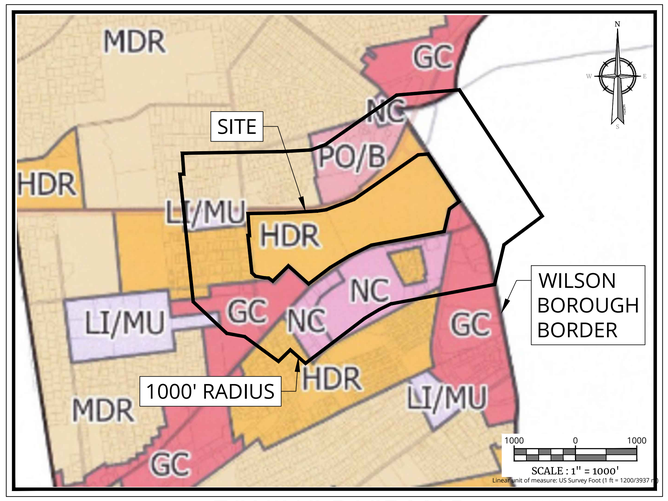
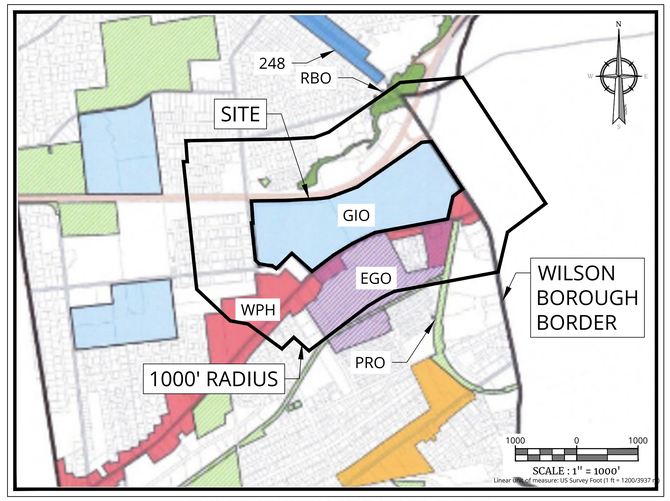
SCHOOL BUS TURNING PLAN	61	C-551
GARBAGE TRUCK TURNING PLAN	62	C-552
FIRE TRUCK TURNING PLAN	63	C-553

*INDICATES PLAN SHEETS TO BE RECORDED



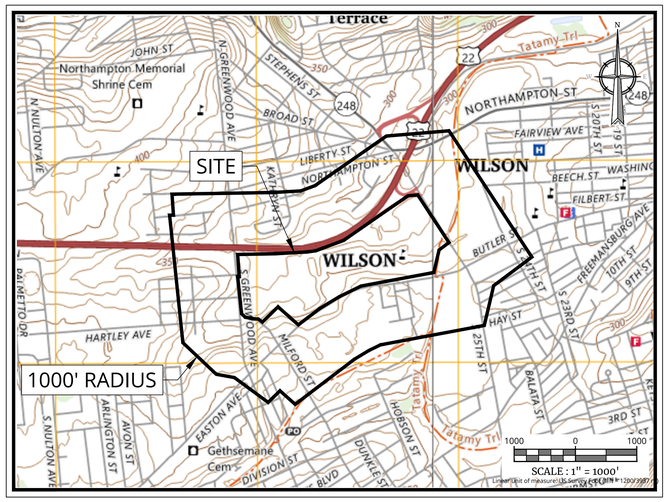
ZONING BASE MAP
SOURCE: TOWNSHIP OF PALMER ZONING BASE MAP (2 JANUARY 2024)

ZONING BASE MAP LEGEND
HDR - HIGH DENSITY RESIDENTIAL
NC - NEIGHBORHOOD COMMERCIAL
GC - GENERAL COMMERCIAL
LI/MU - LIGHT INDUSTRIAL/MIXED USE
PO/B - PLANNED OFFICE/BUSINESS
MDR - MEDIUM DENSITY RESIDENTIAL

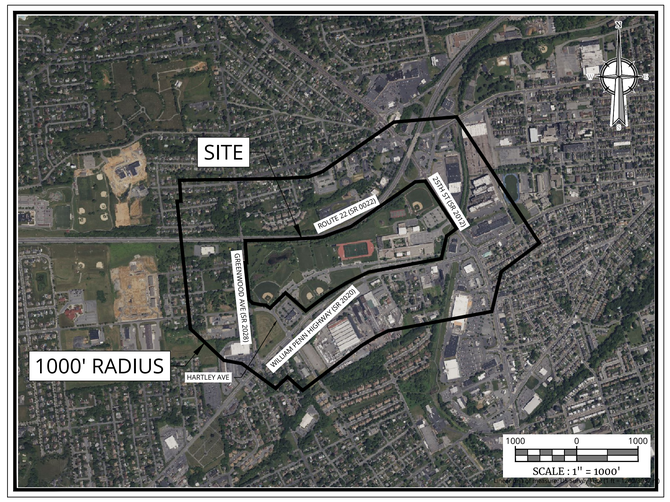


ZONING OVERLAY MAP
SOURCE: TOWNSHIP OF PALMER ZONING OVERLAY MAP, (2 JANUARY 2024)

ZONING OVERLAY MAP LEGEND
GIO - GOVERNMENT/INSTITUTIONAL OVERLAY
WPF - WILLIAM PENN HIGHWAY OVERLAY
EGO - EASTERN GATEWAY OVERLAY
248 - ROUTE 248 OVERLAY
RBO - RIPARIAN BUFFER OVERLAY
PRO - PARKS, RECREATION, AND OPEN SPACE OVERLAY



USGS MAP
SOURCE: USGS NAZARETH, PA (2023) & USGS EASTON, PA, NJ (2023)



AERIAL
SOURCE: BING AERIAL IMAGERY (2025)

SURVEYOR'S STATEMENT
I, _____, A REGISTERED SURVEYOR OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THE PLAN, PREPARED FROM A FIELD SURVEY ON _____, 20___, CORRECTLY REPRESENTS THE PROPERTY BOUNDARY OF THE PROPOSED SUBDIVISION OR LAND DEVELOPMENT.

DATE _____ REGISTERED SURVEYOR'S SIGNATURE _____

PLAN PREPARER'S STATEMENT
_____, ON THIS DATE, _____, CERTIFIES THAT THIS PLAN COMPLIES WITH THE ORDINANCES, PROVISIONS, AND REGULATIONS OF THE MUNICIPALITY AND ANY OTHER APPLICABLE ENTITIES.

SEAL

DATE _____ PLAN PREPARER'S SIGNATURE _____

ABSENCE OF SENSITIVE FEATURES
_____, ON THIS DATE, _____, CERTIFIES THAT THERE ARE NO SENSITIVE NATURAL FEATURES ON THE PROJECT SITE, INCLUDING WATERWAYS, WETLANDS, FLOODPLAINS, SIGNIFICANT KARST FEATURES, AND NATURAL SLOPES OVER 25%.

QUALIFIED PROFESSIONAL _____ DATE _____

OWNER'S STATEMENT
WE, THE OWNERS OF THE LAND INVOLVING THE ACCOMPANYING PLANS, BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY WE ARE THE SOLE OWNERS OR ARE THE AUTHORIZED OFFICERS OF THE CORPORATION THAT IS THE SOLE OWNERS OF THIS PROPERTY IN PEACEFUL POSSESSION OF IT, AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF SAME, AND THAT WE ACKNOWLEDGE AND ENDORSE THE ACCOMPANYING PLANS, AND THAT ALL IMPROVEMENTS IDENTIFIED AS PROPOSED PUBLIC PROPERTY (NOT INCLUDING IMPROVEMENTS LABELED "NOT FOR DEDICATION") ARE PROPOSED FOR DEDICATION TO THE PUBLIC USE, AND THAT WE PROPOSE THE ATTACHED RECORD PLAN FOR RECORDING (AS APPLICABLE), AFTER RECEIVING AL REQUIRED MUNICIPAL APPROVALS.

OWNER'S OR AUTHORIZED CORPORATE OFFICERS' SIGNATURES _____

DATE _____

SUBSCRIBED TO AND SWORN BEFORE ME:

NOTARY PUBLIC _____ DATE _____

MY COMMISSION EXPIRES:

SCM OPERATIONS AND MAINTENANCE AGREEMENT
_____, ON THIS DATE, _____, ACKNOWLEDGES THAT SWM AND CONVEYANCE FACILITIES ARE PERMANENT FIXTURES AND MAY NOT BE MODIFIED, REMOVED, FILLED, LANDSCAPED, OR OTHERWISE ALTERED WITHOUT WRITTEN APPROVAL OF PALMER TOWNSHIP.

OWNER/APPLICANT _____ DATE _____

REVIEWED BY THE TOWNSHIP ENGINEER
TOWNSHIP ENGINEER _____ DATE _____

TOWNSHIP ENGINEER APPROVAL OF STORMWATER MANAGEMENT PLAN
_____, ON THIS DATE, _____, HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN APPEARS TO MEET ALL DESIGN STANDARDS AND CRITERIA OF THE STORMWATER MANAGEMENT ORDINANCE. STRICT COMPLIANCE WITH THE STORMWATER MANAGEMENT ORDINANCE, HOWEVER, IS THE RESPONSIBILITY OF THE APPLICANT.

TOWNSHIP ENGINEER _____ DATE _____

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION
LVPC STAFF PERSON RESPONSIBLE FOR REVIEW _____ DATE _____

REVIEWED BY THE PALMER TOWNSHIP PLANNING COMMISSION
CHAIRPERSON _____ SECRETARY _____ DATE _____

REVIEWED BY THE PALMER TOWNSHIP BOARD OF SUPERVISORS FOR RECORDING
CHAIRPERSON _____ SECRETARY _____ DATE _____

PROOF OF RECORDING
RECORDED IN THE NORTHAMPTON COUNTY RECORDED OF DEEDS OFFICE IN VOL. NO._____ PAGE NO. _____, ON _____, 20___.

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

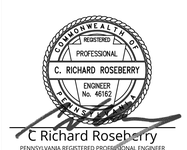
FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

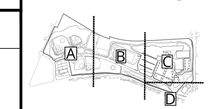
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26



C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:
ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGEE CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
COVER SHEET

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-001

SHEET NUMBER 1 OF 63

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ZONING DATA: INTERIM CONDITION

	REQUIRED - HIGH DENSITY RESIDENTIAL (HDR) DISTRICT	REQUIRED - GOVERNMENT / INSTITUTIONAL OVERLAY (GIO) DISTRICT	PROPOSED
USE	PERMITTED BY RIGHT: SCHOOL, PUBLIC OR PRIVATE		
MIN. LOT AREA	15,000 SF (0.34 ACRES)	217,800 SF (5 ACRES)	NET: 3,327,196 SF (76.38 ACRES) GROSS: 3,373,062 SF (77.43 ACRES)
MIN. LOT WIDTH	60'	-	>60FT
MIN. LOT DEPTH	100'		>100-FT
MAXIMUM BUILDING COVERAGE	30% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS	30% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS	14.37% (478,005 SF / 3,327,196 SF)
MAXIMUM IMPERVIOUS COVERAGE	70%	50%	46.55% (1,548,841 SF / 3,327,196 SF)
MIN. FRONT YARD SETBACK	45-FT FRONTING ARTERIAL STREETS (25TH STREET, & WILLIAM PENN HIGHWAY), 35-FT FRONTING COLLECTOR STREETS (S GREENWOOD AVE)	100-FT	103.41-FT
MIN. SIDE YARD SETBACK	8-FT EITHER SIDE	75-FT	>75-FT
MIN. REAR YARD SETBACK	30-FT FOR PRINCIPAL USE, 5-FT FOR ACCESSORY USE	75-FT	N/A
MAX. BUILDING HEIGHT	40-FT	60-FT	59.5-FT

PARKING REQUIREMENTS: INTERIM CONDITION

VEHICLE PARKING

	REQUIRED - PER THE REDUCED PARKING PERMIT ALLOTMENT	WORST-CASE INTERIM PARKING
SCHOOL, PUBLIC OR PRIVATE	STAFF: 350 SPACES STUDENTS: 205 SPACES	599 SPACES
ADA	501 - 1000 PARKING SPACES = 2 PERCENT OF TOTAL 555 SPACES * .02 = 12 SPACES	12 SPACES
TOTAL	555 SPACES	599 SPACES

BUS PARKING

0 SPACES

TRUCK LOADING

1 SPACE

IMPERVIOUS COVERAGE CALCULATION: INTERIM CONDITION

TYPE	SQ FT	AC
BUILDING	478,005	10.97
PAVEMENT/WALKING PATHS	686,292	15.76
SPORTS FIELD/S'COURTS	384,544	8.83
TOTAL	1,548,841	35.56

THE INTERIM CONDITION REFERS TO THE PHASE DURING WHICH BOTH THE EXISTING SCHOOL AND THE PROPOSED SCHOOL ARE PRESENT AND OPERATING AT THE SAME TIME.

ZONING DATA: FINAL CONDITION

	REQUIRED - HIGH DENSITY RESIDENTIAL (HDR) DISTRICT	REQUIRED - GOVERNMENT / INSTITUTIONAL OVERLAY (GIO) DISTRICT	PROPOSED
USE	PERMITTED BY RIGHT: SCHOOL, PUBLIC OR PRIVATE		
MIN. LOT AREA	15,000 SF (0.34 ACRES)	217,800 SF (5 ACRES)	NET: 3,327,196 SF (76.38 ACRES) GROSS: 3,373,062 SF (77.43 ACRES)
MIN. LOT WIDTH	60'	-	>60FT
MIN. LOT DEPTH	100'		>100-FT
MAXIMUM BUILDING COVERAGE	30% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS	30% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS	8.57% (285,210 SF / 3,327,196 SF)
MAXIMUM IMPERVIOUS COVERAGE	70%	50%	47.56% (1,582,440 SF / 3,327,196 SF)
MIN. FRONT YARD SETBACK	45-FT FRONTING ARTERIAL STREETS (25TH STREET, & WILLIAM PENN HIGHWAY), 35-FT FRONTING COLLECTOR STREETS (S GREENWOOD AVE)	100-FT	103.41-FT
MIN. SIDE YARD SETBACK	8-FT EITHER SIDE	75-FT	>75-FT
MIN. REAR YARD SETBACK	30-FT FOR PRINCIPAL USE, 5-FT FOR ACCESSORY USE	75-FT	N/A
MAX. BUILDING HEIGHT	40-FT	60-FT	59.5-FT

PARKING REQUIREMENTS: FINAL CONDITION

VEHICLE PARKING

	REQUIRED	EXISTING PARKING	PROPOSED PARKING
SCHOOL, PUBLIC OR PRIVATE	1 SPACE PER FACULTY MEMBER AND/OR EMPLOYEE (350 FOR 2024-2025 SCHOOL YEAR) + 1 SPACE PER 4 STUDENTS, AGED 16 OR OLDER (565 FOR 2024-2025 SCHOOL YEAR) 915 SPACES REQUIRED	909 SPACES	918 SPACES
ADA	501 - 1000 PARKING SPACES = 2 PERCENT OF TOTAL 918 SPACES * .02 = 19 SPACES	12 SPACES	27 SPACES
TOTAL		921 SPACES	945 SPACES

BUS PARKING

0 SPACES | 76 SPACES

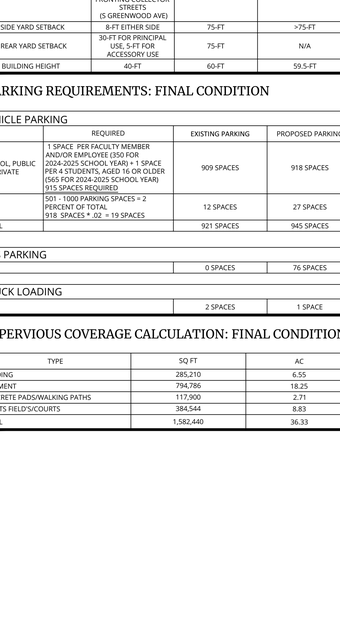
TRUCK LOADING

2 SPACES | 1 SPACE

IMPERVIOUS COVERAGE CALCULATION: FINAL CONDITION

TYPE	SQ FT	AC
BUILDING	285,210	6.55
PAVEMENT	794,786	18.25
CONCRETE PADS/WALKING PATHS	117,900	2.71
SPORTS FIELDS/S'COURTS	384,544	8.83
TOTAL	1,582,440	36.33

LEGEND



ABBREVIATIONS

D.C. = DEPRESSED CURB
BC = BOTTOM OF CURB
TC = TOP OF CURB
BOL = BOLLARD
GRT = GRATE
MB = MAILBOX
FF = FINISH FLOOR
UV = UNKNOWN VALVE
MH = MANHOLE
DEP. = DEPRESSED
CL = CENTERLINE
PM = PARKING METER
MHWL = MEAN HIGH WATERLINE
MLWL= MEAN LOW WATERLINE
TW = TOP OF WALL
BW = BOTTOM WALL

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2026/4/2026 3:45:45 PM C:\Users\rmcgrath\Desktop\Work Folder\Development Plan\Phase 2\01 Land Development\C-GEN-PHS2.dwg C-002 By: JOSHUA WOODS

OWNER/APPLICANT

OWNER: EASTON AREA SCHOOL DISTRICT

ADDRESS: 1801 BUSHKILL DR, UNIT 1
EASTON, PA 18040-8186

CONTACT: KEN CASE, DIRECTOR OF FACILITY OPERATIONS
ADDRESS: 3005 NORTHAMPTON ST.
EASTON, PA 18045
PHONE: 610-923-8948
EMAIL: CASEK@EASTONSD.ORG

SITE DATA

WEST PROPERTY ADDRESS:	GREENWOOD AVE S
EAST PROPERTY ADDRESS:	2601 WILLIAM PENN HWY
WEST PROPERTY AREA:	31.76 AC (1,383,294 SF)
EAST PROPERTY AREA:	45.68 AC (1,989,768 SF)
BOTH WEST & EAST PROPERTIES:	
WATER SUPPLY SERVICE:	EASTON SUBURBAN WATER AUTHORITY (PUBLIC)
SANITARY SUPPLY SERVICE:	PALMER TOWNSHIP (PUBLIC)

PROPERTY TITLE INFORMATION

WEST PROPERTY		EAST PROPERTY	
COUNTY:	NORTHAMPTON COUNTY	COUNTY:	NORTHAMPTON COUNTY
PARCEL ID	L8 / 24/ 1 0324E	PARCEL ID	L9 / 44/ 2 0324E
MAP NO.	L8	MAP NO	L9
BLOCK NO.	24	BLOCK NO.	44
LOT NO.	1	LOT NO.	2
DEED:	BOOK: 19971 PAGE: 060643	DEED:	BOOK: 695 PAGE: 000486

SITE UTILITIES CONTACTS

COMPANY: SEWER: PALMER TOWNSHIP
ADDRESS: 3500 HARTLEY AVENUE
EASTON, PA18045
CONTACT: SCOTT KISTLER
EMAIL: SKISTLER@PALMERTWP.COM
PHONE: 610-253-2995 EXT. 1407

COMPANY: WATER: EASTON SUBURBAN WATER AUTHORITY
ADDRESS: 3700 HARTLEY AVE
PO BOX 3819
EASTON, PA 18043-3819
PHONE: 610-258-7781

COMPANY: LUMEN FORMERLY LEVEL 3
ADDRESS: 1025 ELDORADO BLVD
BROOMFIELD, CO 80021
CONTACT: LUMEN OPERATOR PERSONNEL
EMAIL: RELOCATIONS@LUMEN.COM
PHONE: 877-366-8344 EXT. 3

COMPANY: PENNSYLVANIA ELECTRIC CO
ADDRESS: 21 S MAIN STREET
AKRON, OH 44308
CONTACT: MELLYSSA ADAMS
EMAIL: MADAMS@FIRSTENERGYCORP.COM
PHONE: 330-604-4073

COMPANY: SERVICE ELECTRIC CABLE TV INC
ADDRESS: 2260 AVENUE A
LVIP 1
PHONE: BETHLEHEM, PA 18017
CONTACT: RICH PERICH
EMAIL: RPERICH@SECTV.COM
PHONE: 610-625-8502

COMPANY: ASTOUND BROADBAND POWERED BY RCN
ADDRESS: 5508 NORBATH BLVD
NORTHAMPTON, PA 18067
CONTACT: ERIC BEERS
EMAIL: ERIC.BEERS@ASTOUND.COM
PHONE: 610-972-0597

COMPANY: UGI UTILITIES INC
ADDRESS: 2121 CITY LINE ROAD
BETHLEHEM, PA 18017
CONTACT: TSTEWARD@UGI.COM
EMAIL:

COMPANY: VERIZON BUSINESS FORMERLY MCI
ADDRESS: 7000 WESTON PKWY
CARY, NC 27513
CONTACT: VICTOR WOOD
EMAIL: VICTOR.S.WOOD@VERIZON.COM
PHONE: 919-414-2782

LIMITATIONS OF TOWNSHIP REVIEW

THIS PLAN HAS BEEN REVIEWED BY THE TOWNSHIP STAFF, TOWNSHIP ENGINEER, AND TOWNSHIP SOLICITOR FOR CONSISTENCY WITH MUNICIPAL REGULATIONS AND ORDINANCES RELATED TO LAND USAGE AND DIMENSIONAL REQUIREMENTS OF ZONING. INVESTIGATIONS REGARDING PERIPHERAL LAND AND PLAN ISSUES WHICH ARE NOT REQUIRED AS PART OF A REVIEW PROCESS SUCH AS CLARITY OF TITLE, SUBSURFACE CONDITIONS INCLUDING, BUT NOT LIMITED TO, SOIL AND WATER QUALITY, KARST GEOLOGICAL ACTIVITY, AND HISTORIC AND ARCHAEOLOGICAL ISSUES, OR SUCH OTHER ISSUES (AS APPROPRIATE) THAT MAY AFFECT THE MERCHANTABILITY OF THE LAND, HAVE NOT BEEN EVALUATED BY THE TOWNSHIP. THE TOWNSHIP ENGINEER, OR THE TOWNSHIP SOLICITOR. THE TOWNSHIP, TOWNSHIP ENGINEER, AND TOWNSHIP SOLICITOR MAKE NO REPRESENTATION OR WARRANTY CONCERNING THESE ISSUES, WHICH SHOULD BE ADDRESSED BY QUALIFIED PROFESSIONALS COMMISSIONED BY THE DEVELOPER AND/OR LAND OWNER(S), AS APPROPRIATE, AND WHO ARE ENGAGED IN THE APPROPRIATE FIELD OF PRACTICE.

STORMWATER EASEMENT

A BLANKET EASEMENT IS PROPOSED FOR THE PROPERTY TO THE TOWNSHIP FOR ACCESS TO ALL STORMWATER FACILITIES. THE LANDOWNER HEREBY GRANTS PERMISSION TO THE MUNICIPALITY, ITS AUTHORIZED AGENTS, AND EMPLOYEES ACCESS TO ANY AND ALL SWM CONSERVATION EASEMENTS AND RIPARIAN BUFFER EASEMENTS ON THE PROPERTY.

OPERATIONS AND MAINTENANCE

EASTON AREA HIGH SCHOOL IS RESPONSIBLE FOR THE LONG-TERM OPERATIONS AND MAINTENANCE FOR THE PROPOSED STORMWATER MANAGEMENT FACILITIES.

GEOTECHNICAL NOTE

SIGNIFICANT CONSIDERATIONS INCLUDE THE UNDERLING CARBONATE GEOLOGY AND THE ASSOCIATED ENCOUNTERED SOFT SOILS THAT WILL REQUIRE A PROOFDRILLING AND GROUTING PROGRAM; THE POTENTIAL TO ENCOUNTER ADDITIONAL SOFT SOILS OR VOIDS; THE POTENTIAL FOR DIFFICULT EXCAVATION OF PINNACLED ROCK DURING DEEPER EXCAVATIONS DEPENDING ON THE FINAL DESIGN; MOISTURE SENSITIVE FINE-GRADED SITE SOILS THAT MAY REQUIRE CONDITIONING DEPENDING ON THE TIME OF YEAR OF CONSTRUCTION; AND THE POTENTIAL FOR THE FUTURE DEVELOPMENT OF KARST FEATURES.

ENVIRONMENTAL CONDITIONS

THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING AND DESIGN, INC. HAS PERFORMED WETLANDS STUDY ENTITLED "WETLAND DELINEATION REPORT DATED FEBRUARY 2025 PREPARED BY AUSTIN YOUNG, CPSS, PWS. " AND CONCLUDED NO WETLANDS ARE PRESENT ON SITE. A PHASE 1 STUDY HAS ALSO BEEN COMPLETED ENTITLED "PHASE 1 ENVIRONMENTAL SITE ASSESSMENT DATED APRIL 28, 2025." SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.

GENERAL ADA INSTRUCTIONS TO CONTRACTOR

1. CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAPPED) ACCESSIBLE COMPONENTS FOR THE SITE/PROJECT. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE LATEST FEDERAL ADA STANDARDS FOR ACCESSIBLE DESIGN, AND CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY MUST COMPLY WITH THE LATEST FEDERAL PROPOSED "ASSESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" (PROWAG).
2. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EGRESS, MUST COMPLY WITH THESE ADA CODE REQUIREMENTS AND ANY SUPPLEMENTAL STATE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   A. PARKING SPACES AND PARKING AISLES - SLOPE MUST NOT EXCEED 1:48 (/4" PER FOOT OR NORMALLY 2.0%) IN ANY DIRECTION.
   B. CURB RAMPS- SLOPES MUST NOT EXCEED 1:12 (8.3%).
   C. LANDINGS
      i. LANDINGS AT CURB RAMPS - MUST BE 4 FT, MIN., X 4 FT. MIN. AND ARE TO BE INCREASED TO 5 FEET WHERE THE LANDING SPACE (TURNING SPACE) IS CONSTRAINED AT THE BACK OF THE SIDEWALK.
         a. LANDINGS AT RAMPS - MUST BE 5 FT MIN. IN THE DIRECTION OF TRAVEL AND BE PROVIDED AT EACH END OF THE RAMP. MUST PROVIDE POSITIVE DRAINAGE (1 % MIN.), AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN ANY DIRECTION. WHEN LANDING IS ALSO A TURNING SPACE, IT MUST BE A MINIMUM 5 FT X 5 FT.
      b. LANDINGS AT DOORWAYS - SEE NOTE F BELOW.
   D. PATH OF TRAVEL ALONG ON-SITE ACCESSIBLE ROUTE - MUST PROVIDE A 36 INCH (EXCLUDING THE CURB) OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL, (CAR OVERHANGS MUST NOT REDUCE THIS MINIMUM WIDTH). IN A PUBLIC RIGHT-OF-WAY, THE MINIMUM WIDTH EXCLUDING THE CURB IS 4 FT. THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN CROSS SLOPE.
   E. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), AN ADA RAMP, WITH A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 30 INCHES, MUST BE PROVIDED. THE RAMP MUST HAVE A MINIMUM, CLEAR WIDTH OF 36 INCHES, HAVE ADA HAND RAILS AND LANDINGS (MIN. 5 FT. LONG IN THE DIRECTION OF TRAVEL) ON EACH END THAT ARE SLOPED A MIN. 1 % AND NO MORE THAN 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.
   F. EXTERIOR DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA IS GENERALLY 5 FT X 5 FT, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS. (SEE APPLICABLE CODE SECTIONS).
3. IT IS RECOMMENDED THAT THE CONTRACTOR CHECK THE SLOPE OF FORMWORK FOR COMPLIANCE WITH ADA STANDARDS PRIOR TO POURING CONCRETE

(NOTE: THIS LIST IS NOT INTENDED TO CAPTURE EVERY APPLICABLE FEDERAL, STATE AND LOCAL RULE AND REGULATION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE LAW, WHETHER OR NOT STATED SPECIFICALLY HEREIN).

SALDO WAIVERS REQUESTED

THE FOLLOWING WAIVERS ARE BEING REQUESTED BY THE APPLICANT:

1. **STORMWATER MANAGEMENT § 158-304L MAXIMUM WATER DEPTH IN STORMWATER FACILITY**

   MAXIMUM WATER DEPTH IN ANY OPEN SWM FACILITY SHALL BE NO GREATER THAN SIX FEET WHEN FUNCTIONING THROUGH THE PRIMARY OUTLET STRUCTURE.

   THE APPLICANT RESPECTFULLY REQUESTS A WAIVER TO PERMIT A MAXIMUM WATER DEPTH EXCEEDING SIX (6) FEET WITHIN THE PROPOSED ABOVE-GROUND BASIN. THIS ADDITIONAL STORAGE CAPACITY IS NECESSARY TO MEET APPLICABLE DEP AND MUNICIPAL STORMWATER MANAGEMENT REQUIREMENTS FOR MITIGATING RUNOFF VOLUME.

   THE BASIN IS DESIGNED TO TEMPORARILY IMPOUND STORMWATER DURING PEAK EVENTS, AFTER WHICH IT WILL BE GRADUALLY DISCHARGED THROUGH THE OUTLET CONTROL STRUCTURE IN ACCORDANCE WITH APPROVED DESIGN STANDARDS. THE REQUESTED WAIVER WILL ENABLE EFFECTIVE STORMWATER MANAGEMENT WHILE MAINTAINING COMPLIANCE WITH REGULATORY PERFORMANCE OBJECTIVES.

2. **STORMWATER MANAGEMENT § 158-305C.12 CONVEYANCE FACILITIES STANDARDS AND METHODOLOGIES.**

   CONVEYANCE FACILITIES SHALL: HAVE A MINIMUM PIPE SIZE OF 15 INCHES IN DIAMETER.

   THE APPLICANT RESPECTFULLY REQUESTS A WAIVER FROM THE REQUIREMENT TO PROVIDE A MINIMUM PIPE DIAMETER OF FIFTEEN (15) INCHES FOR PORTIONS OF THE PROPOSED STORMWATER CONVEYANCE SYSTEM. DUE TO SITE-SPECIFIC CONSTRAINTS AND LIMITED CONTRIBUTING DRAINAGE AREAS, THE USE OF SMALLER DIAMETER PIPING IS BOTH APPROPRIATE AND SUFFICIENT TO CONVEY THE DESIGN STORM FLOWS.

   GRANTING THIS WAIVER WILL ALLOW FOR A PRACTICAL AND TECHNICALLY JUSTIFIED DESIGN THAT SATISFIES ALL APPLICABLE STORMWATER MANAGEMENT CRITERIA WHILE ADDRESSING SITE CONSTRAINTS.

3. **STORMWATER MANAGEMENT 5158-306A.6 VOLUME AND RATE METHODOLOGIES**

   FOR REGULATED ACTIVITIES REQUIRING A MAJOR SWM PERMIT DUE TO TAKING PLACE ON SITES 1) WITH GREATER THAN OR EQUAL TO 5,000 SQUARE FEET OF EXISTING IMPERVIOUS AREA; 2) THAT ARE NOT CONTROLLING THE RUNOFF FROM THE EXISTING IMPERVIOUS AREA IN A MANNER CONSISTENT WITH THIS ORDINANCE; AND 3) WHOSE ACTIVITIES DO NOT QUALIFY FOR THE EXEMPTIONS LISTED IN § 158-302, 50% OF EXISTING IMPERVIOUS AREA, WHEN PRESENT, SHALL BE CONSIDERED MEADOW IN GOOD CONDITION IN THE MODEL FOR EXISTING CONDITIONS. THIS REQUIREMENT REPLACES THE REQUIREMENT IN § 158-306A.5 ABOVE.

   THE APPLICANT RESPECTFULLY REQUESTS A WAIVER FROM THE REQUIREMENT TO MODEL FIFTY PERCENT (50%) OF THE EXISTING IMPERVIOUS AREA AS MEADOW IN GOOD CONDITION UNDER EXISTING CONDITIONS. THE SUBJECT SITE CONTAINS EXTENSIVE AREAS OF EXISTING IMPERVIOUS AREAS. RECHARACTERIZING THESE AREAS AS MEADOW WOULD NOT ACCURATELY REFLECT ACTUAL HYDROLOGIC CONDITIONS AND VASTLY INFLATE THE REQUIRED VOLUME AND RATE MITIGATION EFFORT.

4. **SALDO §165-36.A(2). SUBMISSION AND REVIEW PROCEDURE.**

   "A FINAL PLAN SHALL ONLY BE SUBMITTED AFTER A PRELIMINARY PLAN HAS BEEN APPROVED BY THE BOARD OF SUPERVISORS, IF A PRELIMINARY PLAN IS REQUIRED..."

   THE APPLICANT IS REQUESTING A WAIVER FROM SUBMITTING A SEPARATE PRELIMINARY / FINAL LAND DEVELOPMENT PLAN IN LIEU OF SUBMISSION OF PLANS AS A COMBINED PRELIMINARY/FINAL LAND DEVELOPMENT SET IS A COMMON PRACTICE AND THE APPLICANT DOES NOT FEEL THERE IS ADDED VALUE TO HAVING A SEPARATE PRELIMINARY AND FINAL REVIEW GIVEN THE NATURE OF THIS PROJECT. THE REQUIRED ELEMENTS OF BOTH PLANS WILL BE PROVIDED ON THE PRELIMINARY/FINAL LAND DEVELOPMENT SET. ALL REQUIRED INFORMATION PRESENTED IN SALDO §165-33 PRELIMINARY PLAN REQUIREMENTS WILL BE INCLUDED WITH THE PRELIMINARY/FINAL PLAN. THE LEVEL OF DETAIL, DESIGN, AND INFORMATION PROVIDED ON THE PLANS IS SUFFICIENT FOR PRELIMINARY AND FINAL REVIEW AND APPROVAL PROCESS.

5. **STORMWATER MANAGEMENT § 165-63K(2)(C) & 158-304(J2) EMERGENCY SPILLWAY**

   "EMERGENCY SPILLWAYS SHALL BE CONSTRUCTED OF REINFORCED CONCRETE, MORTARED-IN-PLACE RIPRAP OR CONCRETE RUBBLE. ALL EMERGENCY SPILLWAYS SHALL BE CONSTRUCTED SO THAT THE DETENTION BASIN BERM IS PROTECTED AGAINST EROSION."

   THE APPLICANT IS REQUESTING A WAIVER TO ALLOW FOR THE SPILLWAY TO BE LINED WITH NAG SC250 TURF REINFORCEMENT MATTING IN LIEU OF REINFORCED CONCRETE, MORTARED IN PLACE OR CONCRETE RUBBLE SPILLWAY. MATTING PROVIDES ADEQUATE EROSION CONTROL AND ALLOWS FOR VEGETATION GROWTH WHICH ENHANCES THE STABILITY OF THE SURFACE TO BE BETTER WITH THE SURROUNDING BASIN VEGETATION AND WALKING PATH. SUPPORTING CALCULATIONS HAVE BEEN PROVIDED.

6. **STORMWATER MANAGEMENT 5165-63K(2)(D) EMERGENCY SPILLWAY DEPTH**

   "THE EMERGENCY SPILLWAY SHALL BE A MINIMUM OF TWO FEET BELOW THE ADJACENT BERM ELEVATION. THE EMERGENCY SPILLWAY SHALL CONVEY THE ONE-HUNDRED-YEAR STORM AT A MAXIMUM DEPTH OF ONE FOOT OVER THE SPILLWAY. THE DOWNSTREAM SLOPE OF THE SPILLWAY SHALL, AS A MINIMUM, EXTEND TO THE TOE OF THE BERM EMBANKMENT. THE EDGE OF THE BASIN GRADING SHALL BE WITHIN THE SUBJECT PROPERTY."

   THE APPLICANT RESPECTFULLY REQUESTS A WAIVER FROM THE REQUIREMENT THAT THE EMERGENCY SPILLWAY BE LOCATED A MINIMUM OF TWO (2) FEET BELOW THE ADJACENT BERM ELEVATION. DUE TO SITE-SPECIFIC GRADING CONSTRAINTS, STRICT COMPLIANCE WITH THIS CRITERION IS NOT FEASIBLE.

7. **SALDO §165-63K(3) SLOPE OF DETENTION BASIN EMBANKMENT**

   "THE MAXIMUM INSIDE SLOPE OF EARTHEN DETENTION BASIN EMBANKMENTS SHALL BE FOUR HORIZONTAL TO ONE VERTICAL."

   THE APPLICANT IS REQUESTING A WAIVER TO ALLOW THREE TO ONE (3:1) SLOPES BECAUSE ELSEWHERE IN THE CODE IT ALLOWS FOR 3:1 SLOPES, REFER TO §158-304.H.SWM FACILITIES STANDARDS AND METHODOLOGIES. WHICH STATES THAT THE "EMBANKMENT/BERM SIDE SLOPES SHALL BE NO STEEPER THAN 3:1. FURTHERMORE, EXISTING EMBANKMENTS ON SITE CURRENTLY HAVE 3:1 SLOPES. DUE TO THE NATURE OF THIS SITE A 3:1 SLOPE ALLOWS FOR A MORE COMPACT FOOTPRINT AND IMPROVES THE PROGRAMING OF THE SITE, ALLOWING FOR A BETTER UTILIZATION OF THE LAND.

8. **STORMWATER MANAGEMENT § 165-63K(10) OUTLET CONTROL STRUCTURE**

   "ALL OUTFLOW STRUCTURES FROM STORAGE FACILITIES SHALL BE EQUIPPED WITH A REGULATORY DEVICE THAT WILL PERMIT MODIFICATION TO REGULATE THE AMOUNT OF OUTFLOW, SUITABLE ANTIVORTEX AND/OR VELOCITY RETARDERS SHALL BE USED."

   THE APPLICANT RESPECTFULLY REQUESTS A WAIVER FROM THE REQUIREMENT TO PROVIDE AN ADJUSTABLE OUTFLOW REGULATORY DEVICE AND ASSOCIATED ANTI-VORTEX AND/OR VELOCITY-RETARDING MEASURES. DUE TO SITE-SPECIFIC DESIGN CONSTRAINTS AND PROJECT CONDITIONS, THE PROPOSED STORMWATER MANAGEMENT SYSTEM UTILIZES A FIXED OUTLET STRUCTURE THAT HAS BEEN HYDRAULICALLY DESIGNED TO MEET ALL APPLICABLE DEP AND MUNICIPAL STORMWATER MANAGEMENT CRITERIA FOR PEAK FLOW CONTROL AND VOLUME REDUCTION.

9. **SALDO §165a APPENDIX A CHECKLIST B.8 REQUIRED PROFILE SCALE.**

   REQUIRED PROFILES SHOWN AT A SCALE OF 1-INCH EQUALS 50 FEET HORIZONTAL AND 1-INCH EQUALS 5 FEET VERTICAL OR OTHER SCALE PRE APPROVED BY THE TOWNSHIP ENGINEER OR TOWNSHIP STAFF.

   THE APPLICANT RESPECTFULLY REQUESTS A WAIVER FROM THE REQUIREMENT THAT PROFILES BE SHOWN AT A HORIZONTAL SCALE OF 1" = 50' AND A VERTICAL SCALE OF 1" = 5'. THE PROPOSED PLAN SET WILL UTILIZE A HORIZONTAL SCALE OF 1" = 40' AND A VERTICAL SCALE OF 1" = 4'. THIS LARGER SCALE PROVIDES A MORE DETAILED AND READABLE REPRESENTATION OF THE PROPOSED IMPROVEMENTS. THE INCREASED LEVEL OF DETAIL WILL ENHANCE PLAN REVIEW, IMPROVE CONSTRUCTION INTERPRETATION, AND MAINTAIN THE ACCURACY AND COMPLETENESS OF THE INFORMATION PRESENTED. THE PROPOSED SCALE MEETS AND EXCEEDS THE INTENT OF THE ORDINANCE BY PROVIDING GREATER CLARITY WITHOUT ADVERSELY IMPACTING THE PURPOSE OF THE REQUIREMENT.

10. **SALDO §165-63K(5) SLOPE OF BASIN BOTTOM**

    SLOPE OF BASIN BOTTOM. IN ORDER TO ENSURE PROPER DRAINAGE OF THE DETENTION BASIN, A MINIMUM GRADE OF 2% SHALL BE MAINTAINED FOR ALL SHEET FLOW. A MINIMUM GRADE OF 1% SHALL BE MAINTAINED FOR ALL CHANNEL FLOW, PROVIDED THAT A SYNTHETIC LOW-FLOW CHANNEL OF SUITABLE MATERIALS IS PROVIDED.

    THE APPLICANT IS REQUESTING A WAIVER FROM THE REQUIREMENT TO PROVIDE A SLOPED BASIN BOTTOM.

    THE PROPOSED ABOVE GROUND BASIN (SCM-3) IS DESIGNED AS AN EVAPOTRANSPIRATION BASIN INCORPORATING PADEP-COMPLIANT PLUG PLANTINGS WITHIN THE BASIN FLOOR. EVAPOTRANSPIRATION BASINS ARE AN APPROVED PADEP BEST MANAGEMENT PRACTICE (BMP) THAT RELY ON A FLAT BASIN BOTTOM TO PROMOTE UNIFORM WATER DISTRIBUTION AND MAXIMIZE EVAPOTRANSPIRATION THROUGH THE PLANTED VEGETATION (SEE LANDSCAPE PLANS).

    THE PROPOSED UNDERGROUND BASIN (SCM-4) IS A ROTONDO STORMPOD CAPTURE-AND-REUSE SYSTEM. THE FLAT BASIN BOTTOM IS NECESSARY TO SATISFY THE POST-CONSTRUCTION STORMWATER MANAGEMENT (PCSM) REQUIREMENTS BY PROVIDING ADEQUATE STORAGE VOLUME FOR THE SPRAY IRRIGATION DOSING SYSTEM. THE BASIN INCLUDES A SUMPED AREA FROM WHICH CAPTURED STORMWATER IS PUMPED AND DISTRIBUTED TO THE DESIGNATED SPRAY IRRIGATION AREAS. ACCORDINGLY, A SLOPED BASIN BOTTOM WOULD REDUCE THE AVAILABLE STORAGE VOLUME AND ADVERSELY AFFECT THE FUNCTIONALITY OF THE CAPTURE-AND-REUSE SYSTEM.

11. **STORMWATER MANAGEMENT 5158-304K DEWATERING TIME**

    ALL FACILITIES SHALL DRAIN OVER A PERIOD OF TIME NOT LESS THAN 24 HOURS AND NOT MORE THAN 72 HOURS FROM THE END OF THE FACILITY'S INFLOW HYDROGRAPH UNLESS, AT THE SOLE DISCRETION OF THE MUNICIPAL ENGINEER, THE BMP IS SPECIFICALLY DESIGNED TO FUNCTION WITH DIFFERING TIME FRAMES (FOR EXAMPLE, WET PONDS, CONSTRUCTED WETLANDS, ETC.).

    THE APPLICANT REQUESTS A WAIVER FROM THE REQUIRED DEWATERING TIME OF 24 TO 72 HOURS. DUE TO THE PROPOSED USE OF SPRAY IRRIGATION, THE SCM-4 SUBSURFACE DETENTION BASIN IS DESIGNED TO DEWATER OVER A PERIOD OF SIX (6) DAYS.

12. **STORMWATER MANAGEMENT 5158-401.AQ(1) PLAN AND PROFILE ON THE SAME SHEET**

    PLANS AND PROFILES FOR THE SAME FACILITIES SHALL BE DISPLAYED TOGETHER ON THE SAME SHEET.

    THE APPLICANT IS REQUESTING A WAIVER FROM THE REQUIREMENT THAT PLANS AND PROFILES BE SHOWN ON THE SAME SHEET. A NOTE IS INCLUDED ON THE PROFILE SHEETS TO REFER TO THE PLAN VIEW SHEETS.

ZONING VARIANCES GRANTED

**THE FOLLOWING ZONING VARIANCES H



STEEP SLOPES			
RANGE ID	MIN SLOPE	MAX SLOPE	COLOR
1	15.00%	24.99%	
2	25.00%	100.00%	

LEGEND

- TRAVERSE LINE, CENTER LINE OR BASELINE
- RIGHT OF WAY LINE
- PROPERTY LINE
- EDGE OF PAVEMENT
- CURB LINE
- DEPRESSED CURB
- CHAIN FENCE
- WETLAND LINE
- MUNICIPAL BOUNDARY
- TREELINE
- ELECTRICAL MANHOLE
- WATER MANHOLE
- TELEPHONE MANHOLE
- UNMARKED MANHOLE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- MAJOR CONTOUR
- MINOR CONTOUR
- SPOT ELEVATION
- TOP OF CURB ELEV.
- BOTTOM OF CURB ELEV.
- U/G CABLE TV LINE
- U/G FIBER OPTIC LINE
- U/G TELEPHONE LINE
- U/G ELECTRIC LINE
- OVERHEAD WIRE
- WATER MAIN
- GAS MAIN
- SAN. SEWER LATERAL
- SAN. SEWER MAIN
- STORM PIPE
- ELECTRIC FROM REFERENCE
- TELECOM FROM REFERENCE
- GAS FROM REFERENCE
- SANITARY SEWER FROM REFERENCE
- STORM SEWER FROM REFERENCE
- SOIL BOUNDARY
- WATERCOURSE CENTERLINE
- WETLAND MARKER
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- MAILBOX
- TRAFFIC SIGNAL POLE
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- TRANSFORMER
- FIRE DEPT. CONNECTION
- FIRE HYDRANT
- WATER VALVE
- GAS VALVE
- SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- STORM INLET TYPE 'C'
- STORM INLET TYPE 'M'
- FLARED END SECTION
- HEADWALL
- AREA LIGHT
- CONCRETE WALK
- SANITARY SEWER EASEMENT
- BIKE PATH

ABBREVIATIONS

D.C. = DEPRESSED CURB
BC = BOTTOM OF CURB
TC = TOP OF CURB
BOL = BOLLARD
GRT = GRATE
MB = MAILBOX
FF = FINISH FLOOR
UV = UNKNOWN VALVE
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PM = PARKING METER
MHWL = MEAN HIGH WATERLINE
MLWL= MEAN LOW WATERLINE
TW = TOP OF WALL
BW = BOTTOM WALL

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C:\Users\jwood\Documents\Projects\Easton Area School District\EASD - Phase 2 - New High School\Engineering\Plan Sets\Development Plans\Phase 2\01_Land Development\C-011 Overall Existing.dwg, C-011, By: JORDAN.WOOD, 3/24/2026 9:39:14 AM

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOYS ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
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1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

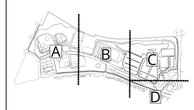
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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610.419.4055

Colliers Engineering & Design
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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
OVERALL EXISTING CONDITIONS PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-011

SHEET NUMBER 3 OF 63



LEGEND

- TRAVERSE LINE, CENTER (12+00 ℄ 13+00)
- LINE OR BASELINE
- RIGHT OF WAY LINE
- PROPERTY LINE
- EDGE OF PAVEMENT (FACE)
- CURB LINE (D.C. / BASE)
- DEPRESSED CURB
- CHAIN FENCE
- WETLAND LINE
- MUNICIPAL BOUNDARY
- TREELINE
- ELECTRICAL MANHOLE
- WATER MANHOLE
- TELEPHONE MANHOLE
- UNMARKED MANHOLE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- 715 MAJOR CONTOUR
- 714 MINOR CONTOUR
- × G 29.0 SPOT ELEVATION
- × TC 29.0 TOP OF CURB ELEV.
- × BC 29.0 BOTTOM OF CURB ELEV.
- CATV U/G CABLE TV LINE
- FO U/G FIBER OPTIC LINE
- T U/G TELEPHONE LINE
- E U/G ELECTRIC LINE
- OHW OVERHEAD WIRE
- W WATER MAIN
- G GAS MAIN
- S SAN. SEWER LATERAL
- SAN. SEWER MAIN
- STORM PIPE
- E* ELECTRIC FROM REFERENCE
- T* TELECOM FROM REFERENCE
- G* GAS FROM REFERENCE
- S* SANITARY SEWER FROM REFERENCE
- D* STORM SEWER FROM REFERENCE
- SOIL BOUNDARY
- WATERCOURSE CENTERLINE
- WETLAND MARKER
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- MAILBOX
- TRAFFIC SIGNAL POLE
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- TRANSFORMER
- FDC FIRE DEPT. CONNECTION
- FIRE HYDRANT
- WATER VALVE
- GAS VALVE
- SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- STORM INLET TYPE "C"
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2024300.24 k:\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-001.PHS.dwg 6:23 pm By:JORDAN.WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

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LANDSCAPE ARCHITECT:

SUBMISSIONS:

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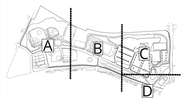
KEY PLAN:



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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

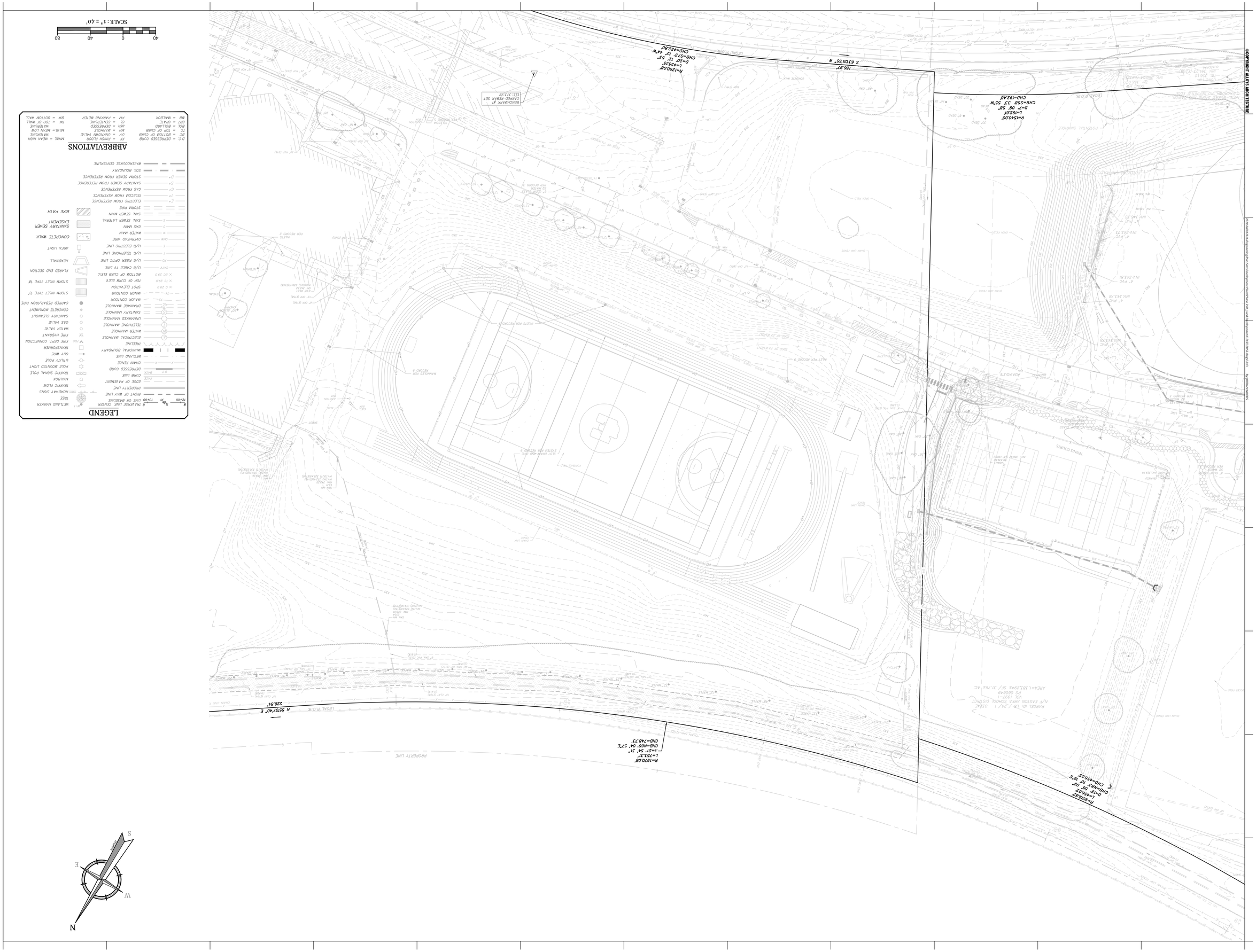
SHEET TITLE:

EXISTING CONDITIONS PLAN - FACET A

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-012

SHEET NUMBER 4 OF 63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186.97'
R=1290.08'
L=455.15'
D=20° 12' 53"
CHB=S73° 12' 44"W
CHD=452.80'
R=1540.00'
L=192.87'
D=7° 09' 58"
CHB=S58° 33' 25"W
CHD=192.48
R=1703.82'
L=492.02'
D=16° 32' 09"
CHB=N82° 16' 06"E
CHD=490.37'
R=1970.00'
L=753.31'
D=21° 54' 31"
CHB=N66° 04' 57"E
CHD=748.73'
N 55°07'40" E
226.54'
PROPERTY LINE
LOCAL TO R.O.W.
PARCEL ID: (B-7 / 24 / 1 0134E
N/F EASTON AREA SCHOOL DISTRICT
VOL 1897-1
PG 00649
AREA=1,383,294± SF/ 31.76± AC
BENCHMARK #1
CARVED BEBAR SET
ELEV. 373.92
SCALE: 1" = 40'
40 0 40 80
LEGEND
TRAVERSE LINE, CENTER
LINE OR BASELINE
PROPERTY LINE
RIGHT OF WAY LINE
EDGE OF PAVEMENT
CURB LINE
DEPRESSED CURB
CHAIN FENCE
METAL LAND LINE
MUNICIPAL BOUNDARY
TREELINE
ELECTRICAL MANHOLE
WATER MANHOLE
TELEPHONE MANHOLE
UNMARKED MANHOLE
SANITARY MANHOLE
DRAINAGE MANHOLE
MAJOR CONTOUR
MINOR CONTOUR
SPOT ELEVATION
TOP OF CURB ELEV.
BOTTOM OF CURB ELEV.
CABLE TV LINE
U/G FIBER OPTIC LINE
U/G TELEPHONE LINE
U/G ELECTRIC LINE
OVERHEAD WIRE
WATER MAIN
GAS MAIN
SAN. SEWER LATERAL
SAN. SEWER MAIN
STORM PIPE
ELECTRIC FROM REFERENCE
TELECOM FROM REFERENCE
GAS FROM REFERENCE
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PM = PARKING METER
FF = FINISH FLOOR
UV = UNKNOWN VALVE
MB = MAILBOX
MH/HL = MEAN HIGH WATERLINE
TW = TOP OF WALL
WL/L = MEAN LOW WATERLINE
BW = BOTTOM WALL
METL.LAND MARKER
ROADWAY SIGNS
TREE
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE060612
C. Richard Rosebery
COLLIERS ENGINEERING & DESIGN, INC.
PROFESSIONAL ENGINEER
C. RICHARD ROSEBERRY
ENGINEER
No. 46162
COMMONWEALTH OF PENNSYLVANIA
KEY PLAN
A
B
C
D
REGISTRATION
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COLLIERS ENGINEERING & DESIGN, INC. GOING BEYOND TO ASSIST CONSULTING
Colliers
Engineering & Design
www.collierseng.com
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN
SHEET TITLE
EXISTING CONDITIONS PLAN - FACET B
DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJ/MJ/MRC
CHECKED BY: CRR
PROJ.NO: 24-0063
CED PROJ NO: 24001261A
C-013
SHEET NUMBER 5 OF 63
PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045
OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045
PROJECT TEAM:
ARCHITECT: ALLOYS ARCHITECTURE
CIVIL: COLLIERS ENGINEERING & DESIGN 1110 AMERICAN PKWY, BLDG 10 STE F-2008 ALLENTOWN, PA 18109
STRUCTURAL: MEP: SNYDER HOFFMAN ASSOCIATES 1005 W LEHIGH STREET BETHLEHEM, PA 18018
ACOUSTICS: FOOD SERVICE: COMSI ASSOCIATES 1489 BALTIMORE PIKE UNIT 109 SPRINGFIELD, PA 19064
RESIDENT ENGINEER: LANDSCAPE ARCHITECT: CHA SOLUTIONS 1 E BROAD STREET STE 310 BETHLEHEM, PA 18018
SUBMISSIONS
NO. ISSUE DESCRIPTION DATE
1 REVISED PER TWP COMMENTS 07/15/26
2 REVISED PER TWP COMMENTS 09/09/26
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2026/03/09 10:50:43 C:\Users\mrogers\Desktop\Projects\Easton Area School District\Civil\Plans\C-013 Existing Conditions Plan - Facet B.dwg

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2025/01/03 9:57:43 AM C:\Users\mwright\Desktop\Projects\Revit Files\EASD - 2026 - Central Campus\EASD - 2026 - Central Campus_R24_mwright.rvt

Plotted: 1/3/2025 9:58:09 AM

SCALE : 1" = 40'

40 0 40 80

LEGEND

- TRAVERSE LINE CENTER
- 12+00 LINE OR BASELINE
- PROPERTY LINE
- RIGHT OF WAY LINE
- CURB LINE
- EDGE OF PAVEMENT
- DEPRESSED CURB
- CHAIN FENCE
- METLAND LINE
- MUNICIPAL BOUNDARY
- TREELINE
- ELECTRICAL MANHOLE
- WATER MANHOLE
- TELEPHONE MANHOLE
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- TELECOM FROM REFERENCE
- STORM SEWER FROM REFERENCE
- SANITARY SEWER FROM REFERENCE
- GAS FROM REFERENCE
- WATER FROM REFERENCE
- SOIL BOUNDARY
- WATER/CONSE CENTERLINE

ABBREVIATIONS

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BOL = BOLLARD	DEP = DEPRESSED	TW = TOP OF WALL
SMH = SANITARY MANHOLE	PM = PARKING METER	MH/WL = MEAN HIGH
MB = MAILBOX		WATERLINE

S 61°30'25" W 128.98'

S 10°49'25" W 386.66'

S 39°56'20" E 199.93'

S 39°56'20" E 201.50'

S 34°56'20" E 131.57'

S 34°56'20" E 4.22'

N 55°07'40" E 844.54'

N 55°07'40" E 226.54'

N 55°07'40" E 226.54'

N 56°03'40" E 19.01'

N 56°04'00" E 5.00'

N 59°54'36" E 5.00'

R=2222.01'
L=170.20'
CHB=S57° 00' 21"E
CHD=170.16'

R=2649.93'
L=41.13'
CHB=S33° 29' 19"E
CHD=41.13'

R=2649.93'
L=119.23'
CHB=S31° 51' 51"E
CHD=119.22'

R=2874.93'
L=37.14'
CHB=S30° 16' 51"E
CHD=37.14'

R=94.01'
L=150.56'
Δ=91° 45' 42"
CHB=S78° 59' 29"E
CHD=134.98'

N 34°56'20" W 201.50'

N 34°56'20" W 4.22'

R=2060.70'
L=319.19'
D=8°52' 37"
CHB=S60° 37' 26"W
CHD=318.86'

U.S. ROUTE 22

BENCHMARK #5004
AERIAL TARGET - CAPPED REBAR SET
ELE.322.76

PARCEL ID: L9 / 44 / 2 / 0124E
N/F EASTON AREA SCHOOL DISTRICT
AREA=1,393,768 SF/ 46.68 AC.

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

SUBMISSIONS:

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
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OWNER:
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PROJECT TEAM:

ARCHITECT: ALLOYS
ARCHITECTURE
1110 AMERICAN PKWY,
BLDG 10 STE 2-2008
ALLENTOWN, PA 18109

CIVIL: COLLIERS ENGINEERING & DESIGN
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

STRUCTURAL: SNYDER HORNANN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

MEP: SNYDER HORNANN ASSOCIATES
1469 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

ACOUSTICS:

FOOD SERVICE: CCHAS ASSOCIATES

LANDSCAPE ARCHITECT: CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

RESIDENT ENGINEER:

SHEET TITLE:
EXISTING CONDITIONS PLAN - FACET C

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

Colliers Engineering & Design
1110 American Parkway
Building 10, Suite F-2008
Allentown, PA 18109
Phone: 610.366.8201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS ARCHITECTURAL ALLOYS

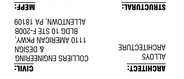
www.collidersengineering.com

LEHIGH VALLEY

ALLOYS
ARCHITECTURE
500 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

REGISTRATION

KEY PLAN:



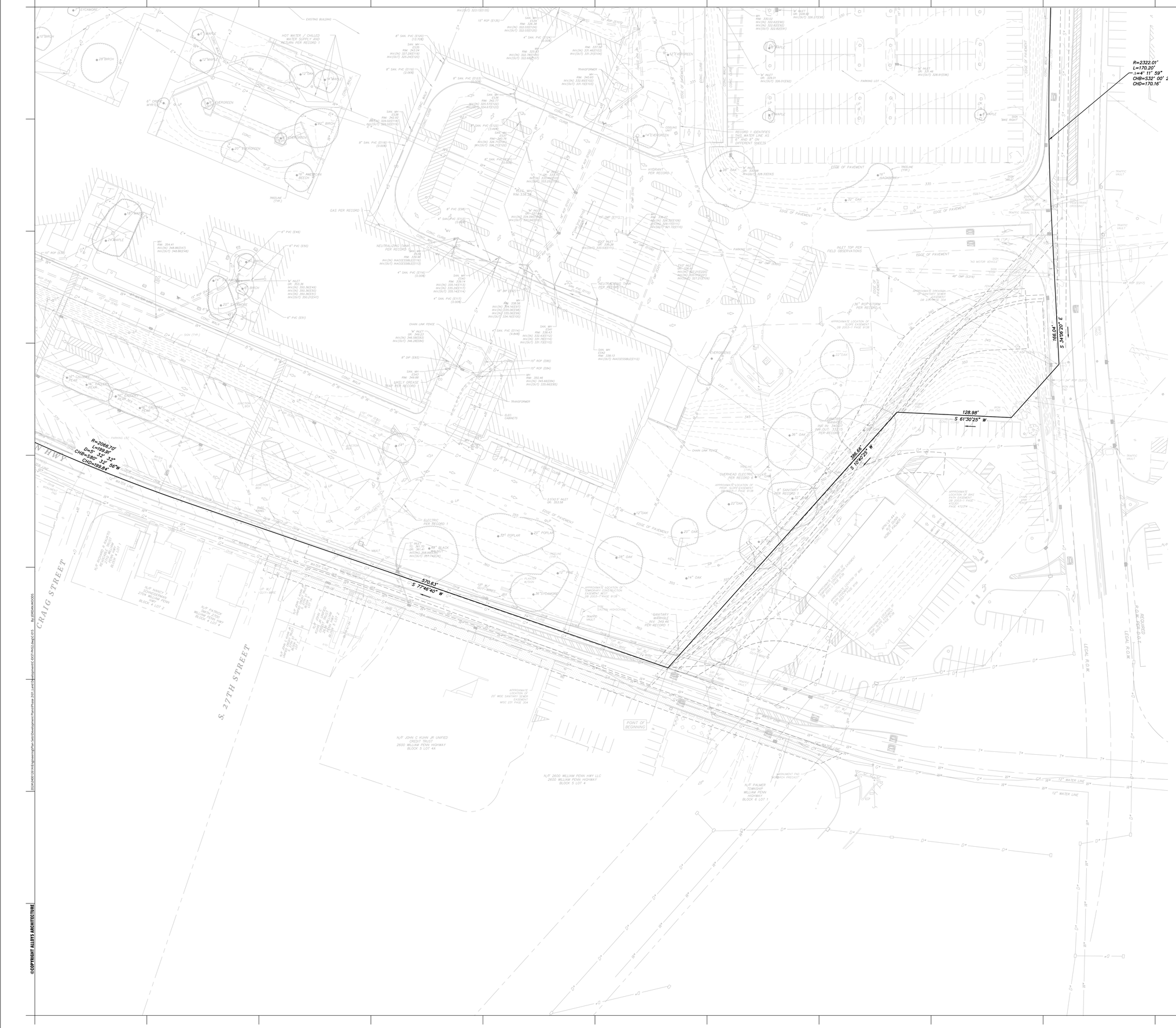


C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER NO. PE046162
COLLIERS ENGINEERING & DESIGN, INC.

C-014

DATE:	01/15/26
SCALE:	AS SHOWN
DRAWN BY:	TL/JJM/MRC
CHECKED BY:	CRR
PROJ.NO:	24-0063
CED PROJ NO:	X0001261A

SHEET NUMBER 6 OF 63



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D:\ALLOY5\2414\Engineering\Plan Sets\Development Plans\Phase 2\01_Land Development\C-001 PHASE 2.dwg | C-015 by JORDAN WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

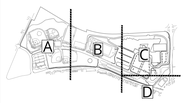
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

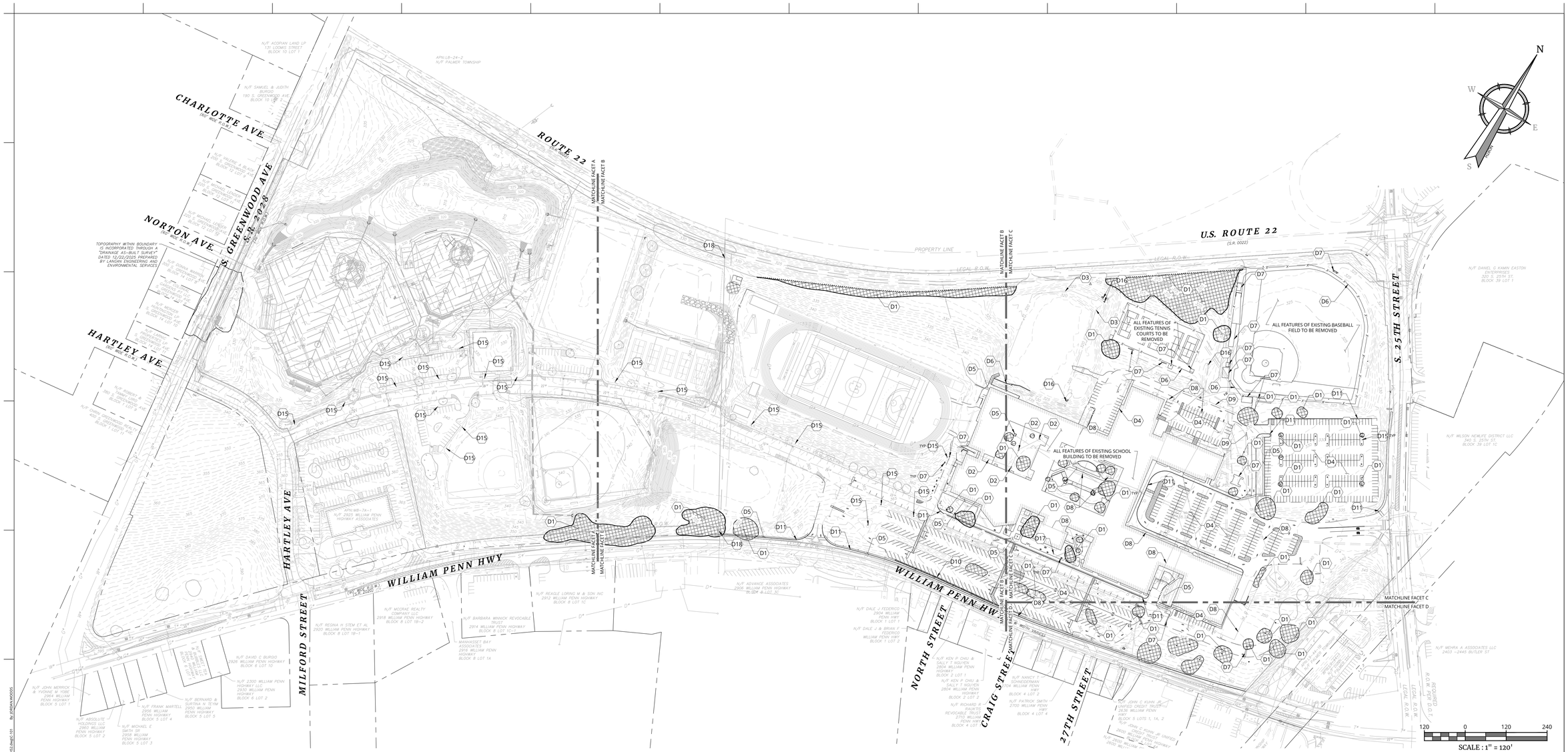
SHEET TITLE:

EXISTING CONDITIONS PLAN - FACET D

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 2400126IA

C-015

SHEET NUMBER 7 OF 63



DEMOLITION LEGEND

- EXISTING LANDSCAPING TO BE REMOVED
- TO BE REMOVED
- TO REMAIN

SITE DEMOLITION SHEET KEYNOTES

D1. CLEAR AND GRUB VEGETATION AND TREES IN THEIR ENTIRETY.
D2. REMOVE STORM STRUCTURE.
D3. REMOVE STORM PIPE.
D4. REMOVE EXISTING BITUMINOUS PAVING.
D5. REMOVE EXISTING CONCRETE.
D6. REMOVE FENCE.
D7. REMOVE EXISTING STRUCTURE.
D8. UTILITY TO BE RELOCATED. CONTRACTOR TO COORDINATE RELOCATION WITH UTILITY PROVIDER.
D9. REMOVE EXISTING GRAVEL PATHWAY.
D10. REMOVE EXISTING WALLS.
D11. REMOVE CONCRETE CURB.
D12. SAWCUT EXISTING BITUMINOUS PAVING.
D13. RELOCATE LIGHTING FIXTURE.
D14. REFER TO PennDOT PLANS FOR WORK IN RIGHT-OF-WAY.
D15. REMOVE LIGHTING FIXTURE.
D16. REMOVE HEADWALL
D17. REMOVE AND SALVAGE FIRE HYDRANT. CONTRACTOR SHALL COORDINATE SALVAGE INSTRUCTIONS WITH UTILITY OWNER.

GENERAL DEMOLITION NOTES

A. REFER TO SHEET C-002 FOR GENERAL CIVIL LEGEND AND NOTES.
B. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL STATE AND LOCAL REGULATIONS.
C. EROSION AND SEDIMENT POLLUTION CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONING PRIOR TO DEMOLITION AND EARTH DISTURBANCE ACTIVITY. REFER TO EROSION AND SEDIMENT POLLUTION CONTROL PLAN AND DETAILS.
D. BEFORE THE COMMENCEMENT OF THE DESIGNATED DEMOLITION, MARK FOR POSITION ALL UTILITIES AND PROTECT ALL ACTIVE LINES. CLEARLY IDENTIFY BEFORE THE COMMENCEMENT OF DEMOLITION SERVICES THE REQUIRED INTERRUPTION OF ACTIVE SYSTEMS THAT MAY AFFECT OTHER PARTIES, AND NOTIFY ALL APPLICABLE UTILITY COMPANIES TO INSURE THE CONTINUATION OF SERVICE.
E. THE INTENT OF THIS PLAN IS TO IDENTIFY IS TO IDENTIFY MAJOR ITEMS FOR REMOVAL, AND MINOR ITEMS MAY OR MAY NOT BE IDENTIFIED. THE CONTRACTOR SHALL REMOVE ANY CONFLICTING ITEMS IN ORDER TO CONSTRUCT THE NEW WORK IN A WORKMANLIKE MANNER. THIS DOES NOT APPLY TO UNDERGROUND UTILITIES NOT DESIGNATED TO BE REMOVED.
F. SAWCUT ALL EDGES WHERE NEW WORK ABUTS EXISTING PAVEMENT TO PROVIDE A CLEAN JOINT.
G. UNDERGROUND ELECTRIC LINES, UTILITY POLES AND OVERHEAD WIRES TO REMAIN, BE RELOCATED, OR BE REMOVED AS DIRECTED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE WITH ELECTRIC COMPANY AND PAY ANY ASSOCIATED FEES.
H. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, SIDEWALKS, OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF OWNER AND ANY APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY APPLICABLE GOVERNMENTAL REGULATIONS.
I. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
J. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
K. COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM THE DEMOLITION OF STRUCTURES AND FOUNDATIONS WITH SOIL MATERIALS CONSISTING OF STONE, GRAVEL AND SAND, FREE FROM DEBRIS, TRASH, FROZEN MATERIALS, ROOTS, AND OTHER ORGANIC MATTER. STONES USED WILL NOT BE LARGER THAN 6 INCHES IN DIMENSION. MATERIAL FROM DEMOLITION MAY NOT BE USED AS FILL. PRIOR TO PLACEMENT OF FILL MATERIALS, UNDERTAKE ALL NECESSARY ACTION IN ORDER TO INSURE THAT AREAS TO BE FILLED ARE FREE OF STANDING WATER, FROST, FROZEN MATERIAL, TRASH, AND DEBRIS. PLACE FILL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH AND COMPACT EACH LAYER AT PLACEMENT TO 95% OPTIMUM DENSITY. GRADE THE SURFACE TO MEET ADJACENT CONTOURS AND TO PROVIDE SURFACE DRAINAGE.
L. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS, RUBBISH, SALVAGEABLE ITEMS, HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD, OR BURNED ON THE SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND AUTHORITIES.
M. NORTHERN LONG-EARED BAT AVOIDANCE MEASURE: THE PROPOSED PROJECT IS LOCATED IN THE VICINITY OF NORTHERN LONG-EARED BAT SPRING STAGING/FALL SWARMING HABITAT. TO ENSURE TAKE IS NOT REASONABLY CERTAIN TO OCCUR, DO NOT CONDUCT TREE REMOVAL FROM MAY 15 TO AUGUST 15. THE U.S. FISH AND WILDLIFE SERVICE DETERMINED TAKE IS NOT REASONABLY CERTAIN TO OCCUR FROM TREE REMOVAL IF ACTIVITIES ARE AVOIDED DURING THE PUP SEASON (I.E., THE RANGE OF TIME WHEN FEMALES ARE CLOSE TO GIVING BIRTH (I.E., TWO WEEKS PRIOR TO BIRTH) AND HAVE NON-VOLANT (I.E., UNABLE TO FLY) YOUNG). FOR MORE INFORMATION, SEE THE INTERIM VOLUNTARY GUIDANCE FOR THE NORTHERN LONG-EARED BAT FROM THE UNITED STATES FISH AND WILDLIFE SERVICE.
N. ANY EXISTING SANITARY SEWER LATERALS THAT WILL BE ABANDONED BECAUSE OF NEW WORK MUST BE PROPERLY CAPPED AND SEALED IN ACCORDANCE WITH PALMER TOWNSHIP SPECIFICATIONS ONCE THE NEW CONNECTION IS INSTALLED AND ACTIVE.
O. UPON RECORDING OF THE LOT CONSOLIDATION PLAN, THE COMMON BOUNDARY BETWEEN THE CONSOLIDATED PARCELS SHALL BE RECOGNIZED AS AN INTERNAL BOUNDARY WITHIN A SINGLE CONSOLIDATED PARCEL. ANY EXISTING LOT PINS OF MONUMENTS ALONG THIS COMMON BOUNDARY SHALL BE REMOVED, AND NO SEPARATE LOT PINS OR MONUMENTS SHALL BE REQUIRED ALONG THIS INTERNAL BOUNDARY.

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PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

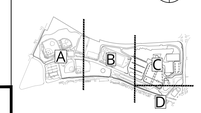
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
OVERALL DEMOLITION PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 2400126IA

C-101



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D:\24-0063\24-0063 Engineering\Plan Sets\Development Plans\Phase 2\01_Land Development\C-102A-DWG.dwg C-102 By: JORDAN MOODIS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

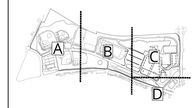
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway,
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING.
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

DEMOLITION PLAN - FACET A

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **2400126IA**

C-102

SHEET NUMBER 9 OF 63

SITE DEMOLITION SHEET KEYNOTES

D1. CLEAR AND GRUB VEGETATION AND TREES IN THEIR ENTIRETY.
D2. REMOVE STORM STRUCTURE.
D3. REMOVE STORM PIPE.
D4. REMOVE EXISTING BITUMINOUS PAVING.
D5. REMOVE EXISTING CONCRETE.
D6. REMOVE FENCE.
D7. REMOVE EXISTING STRUCTURE.
D8. UTILITY TO BE RELOCATED. CONTRACTOR TO COORDINATE RELOCATION WITH UTILITY PROVIDER.
D9. REMOVE EXISTING GRAVEL PATHWAY.
D10. REMOVE EXISTING WALLS.
D11. REMOVE CONCRETE CURB.
D12. SAWCUT EXISTING BITUMINOUS PAVING.
D13. RELOCATE LIGHTING FIXTURE.
D14. REFER TO PennDOT PLANS FOR WORK IN RIGHT-OF-WAY.
D15. REMOVE LIGHTING FIXTURE.
D16. REMOVE HEADWALL
D17. REMOVE AND SALVAGE FIRE HYDRANT. CONTRACTOR SHALL COORDINATE SALVAGE INSTRUCTIONS WITH UTILITY OWNER.

DEMOLITION LEGEND

EXISTING LANDSCAPING TO BE REMOVED
TO BE REMOVED
TO REMAIN

SCALE : 1" = 40'

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

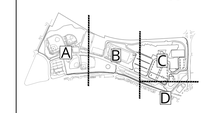
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

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530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

DEMOLITION PLAN - FACET B

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-103

SHEET NUMBER 10 OF 63

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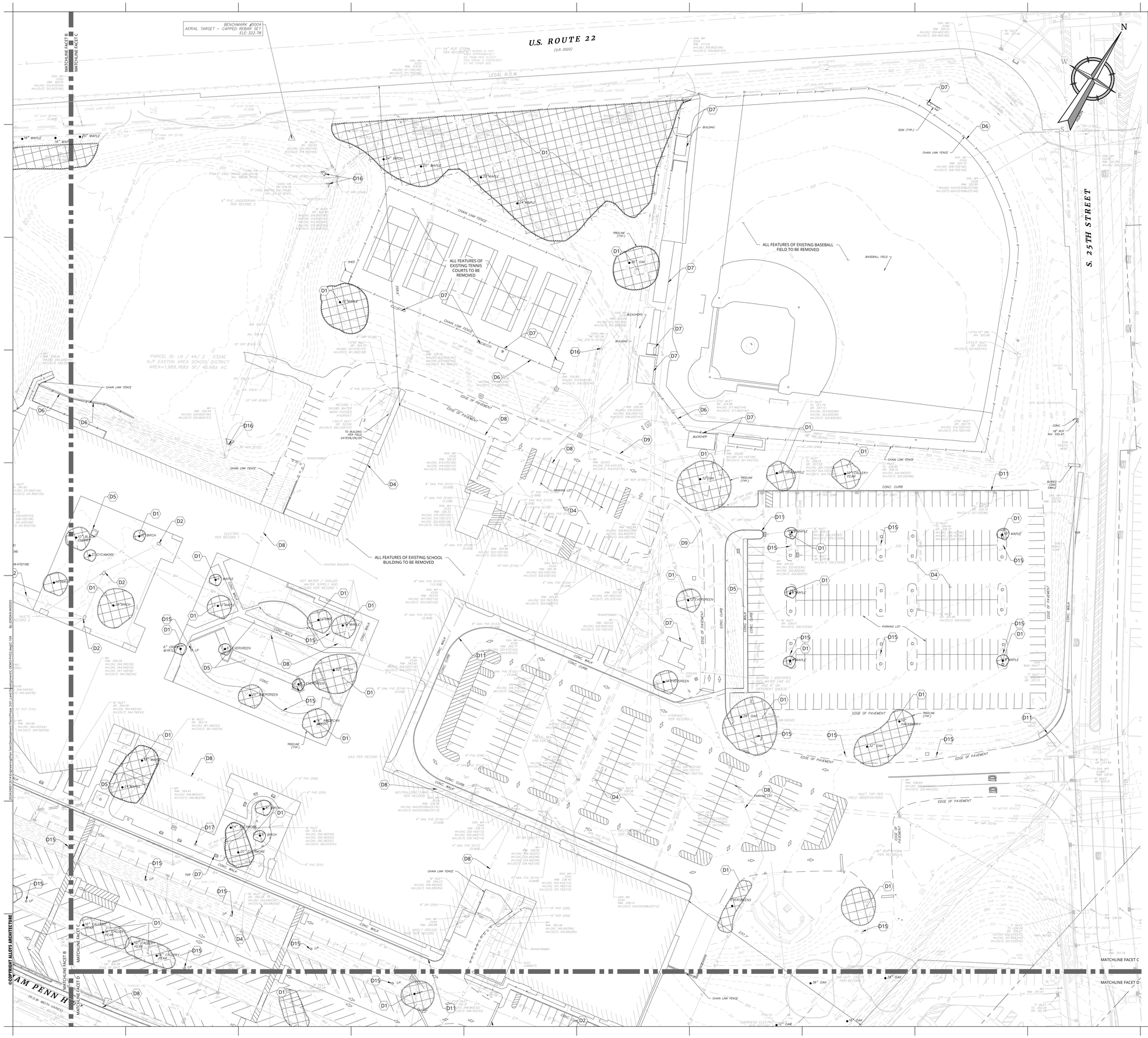
BENCHMARK #5004
AERIAL TARGET – CAPPED REBAR SET
ELE. 322.78
U.S. ROUTE 22
(S.R. 0022)
LEGAL R.O.W.
MATCHLINE FACET B
MATCHLINE FACET C
MATCHLINE FACET D
S. 25TH STREET
PARCEL ID: L9 / 44 / 2 - 0324E
N/F EASTON AREA SCHOOL DISTRICT
AREA=1,989,768± SF / 45.68± AC.
ALL FEATURES OF EXISTING SCHOOL BUILDING TO BE REMOVED
ALL FEATURES OF EXISTING TENNIS COURTS TO BE REMOVED
ALL FEATURES OF EXISTING BASEBALL FIELD TO BE REMOVED
BASEBALL FIELD
BUILDING
SHED
BLEACHERS
BLEACHER
CHAIN LINK FENCE
EDGE OF PAVEMENT
CONC. WALK
CONC. CURB
CONC. CURB
PARKING LOT
HYDRANT - PER RECORD
TREELINE (TYP.)
SIGN (TYP.)
TRANSFORMER
ELEC. PEDESTAL
INLET TOP PER FIELD OBSERVATIONS
GAS PER RECORD
ELECTRIC PER RECORD 1
HOT WATER / CHILLED WATER SUPPLY AND RETURN PER RECORD
6" PVC UNDERDRAIN PER RECORD 3
RECORD 1 SHOWS WATER MAIN PER RECORD
RECORD 1 IDENTIFIES THIS WATER LINE AS ABANDONED IN PLACE
RECORD 1 SHOWS ABANDONED
TO BUILDING PER FIELD DATA'09/25
HVAC EQUIPMENT
CONC. CURB
BURIED CABLE TELEVISION
SIGN "SHOOT 40 MPH"
SIGN "NO MOTOR VEHICLES"
SIGN "ONE WAY"
SIGN "TRAFFIC SIGNAL AHEAD"
SIGN "SPEED LIMIT 35"
SIGN "SPEED LIMIT 25"
SIGN "SPEED LIMIT 15"
SIGN "SPEED LIMIT 10"
SIGN "SPEED LIMIT 5"
SIGN "SPEED LIMIT 45"
SIGN "SPEED LIMIT 40"
SIGN "SPEED LIMIT 30"
SIGN "SPEED LIMIT 20

SITE DEMOLITION SHEET KEYNOTES

D1. CLEAR AND GRUB VEGETATION AND TREES IN THEIR ENTIRETY.
D2. REMOVE STORM STRUCTURE.
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DEMOLITION LEGEND

EXISTING LANDSCAPING TO BE REMOVED

TO BE REMOVED

TO REMAIN

ALL FEATURES OF EXISTING SCHOOL BUILDING TO BE REMOVED

MATCHLINE FACET B

MATCHLINE FACET C

MATCHLINE FACET D

CRAIG STREET

S 27TH STREET

POINT OF BEGINNING

SCALE : 1" = 40'

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PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
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STRUCTURAL:

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1489 BALTIMORE PIKE
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SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

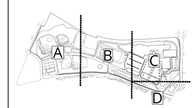
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26



C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

DEMOLITION PLAN - FACET D

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-105

SHEET NUMBER 12 OF 63



ZONING DATA: FINAL CONDITION

	REQUIRED - HIGH DENSITY RESIDENTIAL (HDR) DISTRICT	REQUIRED - GOVERNMENT / INSTITUTIONAL OVERLAY (GIO) DISTRICT	PROPOSED
USE	PERMITTED BY RIGHT: SCHOOL, PUBLIC OR PRIVATE		
MIN. LOT AREA	15,000 SF (0.34 ACRES)	217,800 SF (5 ACRES)	NET: 3,327,196 SF (76.38 ACRES) GROSS: 3,373,062 SF (77.43 ACRES)
MIN. LOT WIDTH	60'	-	>60FT
MIN. LOT DEPTH	100'		>100-FT
MAXIMUM BUILDING COVERAGE	30% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS	30% FOR ALL PRINCIPAL AND ACCESSORY BUILDINGS	8.57% (285,210 SF / 3,327,196 SF)
MAXIMUM IMPERVIOUS COVERAGE	70%	50%	47.56% (1,582,440 SF / 3,327,196 SF)
MIN. FRONT YARD SETBACK	45-FT FRONTING ARTERIAL STREETS (25TH STREET, & WILLIAM PENN HIGHWAY), 35-FT FRONTING COLLECTOR STREETS (S GREENWOOD AVE)	100-FT	103.41-FT
MIN. SIDE YARD SETBACK	8-FT EITHER SIDE	75-FT	>75-FT
MIN. REAR YARD SETBACK	30-FT FOR PRINCIPAL USE, 5-FT FOR ACCESSORY USE	75-FT	N/A
MAX. BUILDING HEIGHT	40-FT	60-FT	59.5-FT

PARKING REQUIREMENTS: FINAL CONDITION

VEHICLE PARKING

	REQUIRED	EXISTING PARKING	PROPOSED PARKING
SCHOOL, PUBLIC OR PRIVATE	1 SPACE PER FACULTY MEMBER AND/OR EMPLOYEE (350 FOR 2024-2025 SCHOOL YEAR) + 1 SPACE PER 4 STUDENTS, AGED 16 OR OLDER (565 FOR 2024-2025 SCHOOL YEAR) 915 SPACES REQUIRED	909 SPACES	918 SPACES
ADA	501 - 1000 PARKING SPACES = 2 PERCENT OF TOTAL 918 SPACES * .02 = 19 SPACES	12 SPACES	27 SPACES
TOTAL		921 SPACES	945 SPACES

BUS PARKING

	0 SPACES	76 SPACES

TRUCK LOADING

	2 SPACES	1 SPACE

IMPERVIOUS COVERAGE CALCULATION: FINAL CONDITION

TYPE	SQ FT	AC
BUILDING	285,210	6.55
PAVEMENT	794,786	18.25
CONCRETE PADS/WALKING PATHS	117,900	2.71
SPORTS FIELD'S/COURTS	384,544	8.83
TOTAL	1,582,440	36.33

SIGN LEGEND

SYMBOL	QUANTITY	DESCRIPTION	SIZE (IN)
R1-1	3	'STOP' (R1-1)	30" X 30"
R7-8	20	ADA 'RESERVED PARKING' (R7-8)	12" X 18"
R7-8P	12	ADA 'VAN ACCESSIBLE' (R7-8P)	12" X 6"
R7-8	20	ADA PENALTY SIGN (R7-8P)	24" X 30"
R8-31	2	'NO PARKING FIRE LANE" (R8-31)	18" X 24"
W11-2	8	PEDESTRIAN CROSSING (W11-2)	30" X 30"
W16-7P	8	PEDESTRIAN ARROW PLAQUE (W16-7P)	24" X 12"

SITE LAYOUT LEGEND

- PROPERTY BOUNDARY LINE
- EASEMENT BOUNDARY
- SETBACK LINE
- RIGHT OF WAY LINE
- EDGE OF PAVEMENT
- CURB (FACE / BACK)
- FLUSH CURB
- FENCES
- ROADWAY SIGNS
- TREELINE
- RETAINING WALL
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- LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- CONCRETE MONUMENT TO BE SET
- BUS PARKING SPACE COUNT (13)
- VEHICLE PARKING SPACE COUNT (13)
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HATCH LEGEND

- BUILDING
- CONCRETE PATH
- EXISTING SANITARY SEWER EASEMENT
- MILL & OVERLAY
- LIGHT DUTY PAVEMENT
- HEAVY DUTY PAVEMENT
- BAND PRACTICE FIELD
- DOSING BED AND SPRAY IRRIGATION AREAS

GENERAL RECORD PLAN NOTES

A. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON IS NOT A SURVEY.
B. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
C. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
D. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
E. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETC. THAT ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS 'TO BE REMOVED'.
F. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
G. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND PALMER TOWNSHIP.
H. REFER TO HIGHWAY OCCUPANCY PERMIT (HOP) PLANS FOR WORK IN RIGHT-OF-WAY.
I. REFER TO EASD - PHASE 1 - INFRASTRUCTURE IMPROVEMENTS AND RELOCATIONS PLAN DATED 11/13/25 FOR PHASE 1 DETAILED DESIGN INFORMATION.

SITE LAYOUT PLAN KEYNOTES

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   D. TEMPORARY CONSTRUCTION EASEMENT DB 2003-1 PAGE 9138
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9. SCM 3 EVAPOTRANSPIRATION BASIN. REFER TO GRADING AND DRAINAGE PLAN ON SHEET C-121 THROUGH C-124. REFER TO DETAIL ON SHEET C-523.
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11. CONCRETE CURB TAPER. REFER TO DETAIL ON SHEET C-512.
12. GRASS BAND PRACTICE FIELD.
13. LIGHTING. REFER TO LIGHTING PLAN AND LIGHTING DETAILS.
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25. 10 FOOT WIDE SPLIT RAIL FENCE GATE
26. SCM 5 CAPTURE AND REUSE. REFER TO DETAIL ON SHEET C-524.

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
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BLDG 10 STE F-200B
ALLENTOWN, PA 18109

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SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
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2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
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LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

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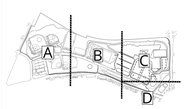

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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

OVERALL RECORD PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-111

SHEET NUMBER 13 OF 63

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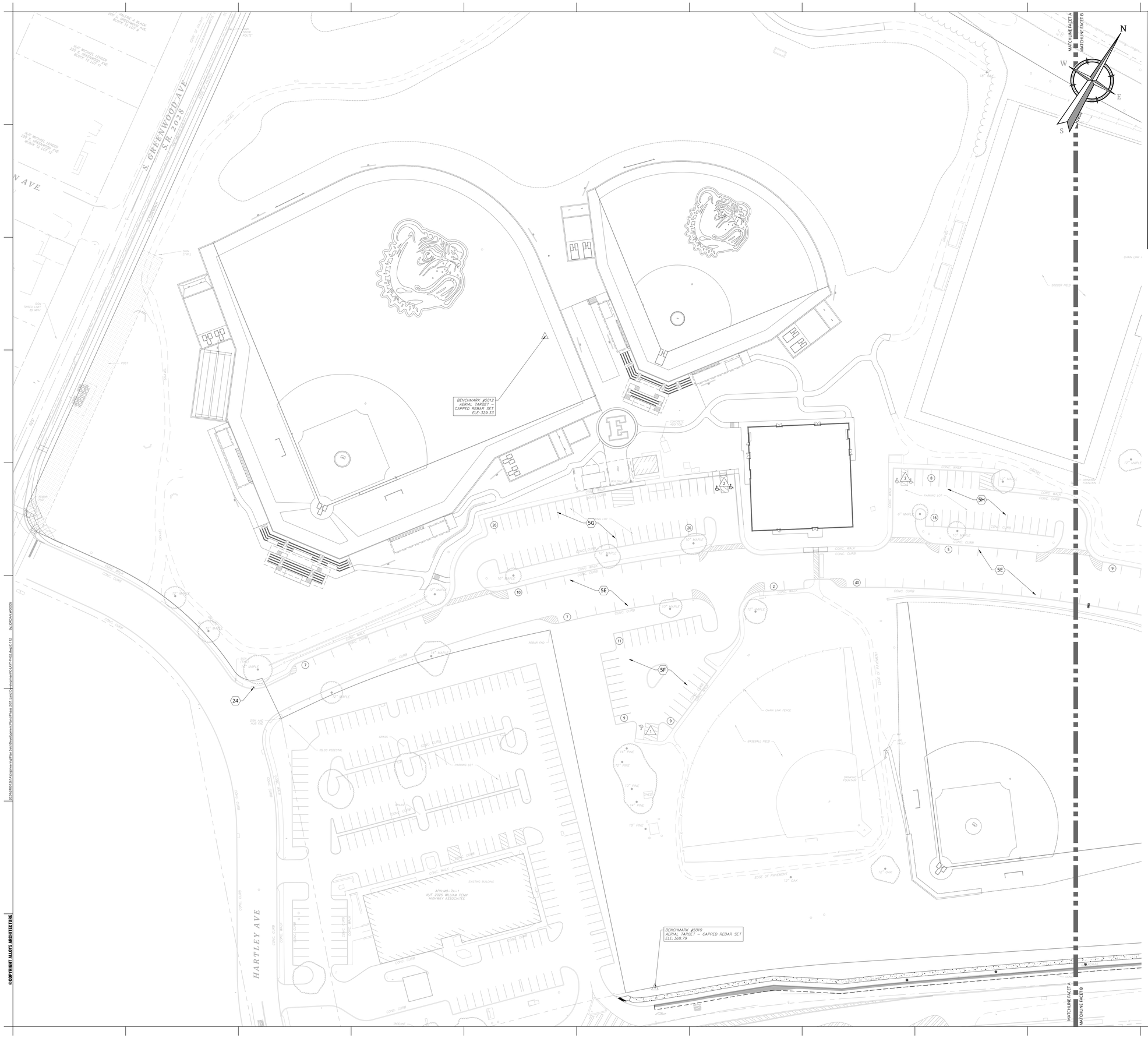
2026/03/26 M:\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\LAYT.PHS.Dwg C-111 By: JORDAN WOODS



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SCALE : 1" = 40'

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2024365.24 k:\Engineering\Plan Sets\Development Plan\Phase 2\01 Land Development\C-LAY1.PHQ, Aug 04 13 by JORDAN WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

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1 E BROAD STREET
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LANDSCAPE ARCHITECT:

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
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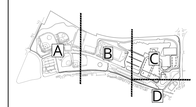

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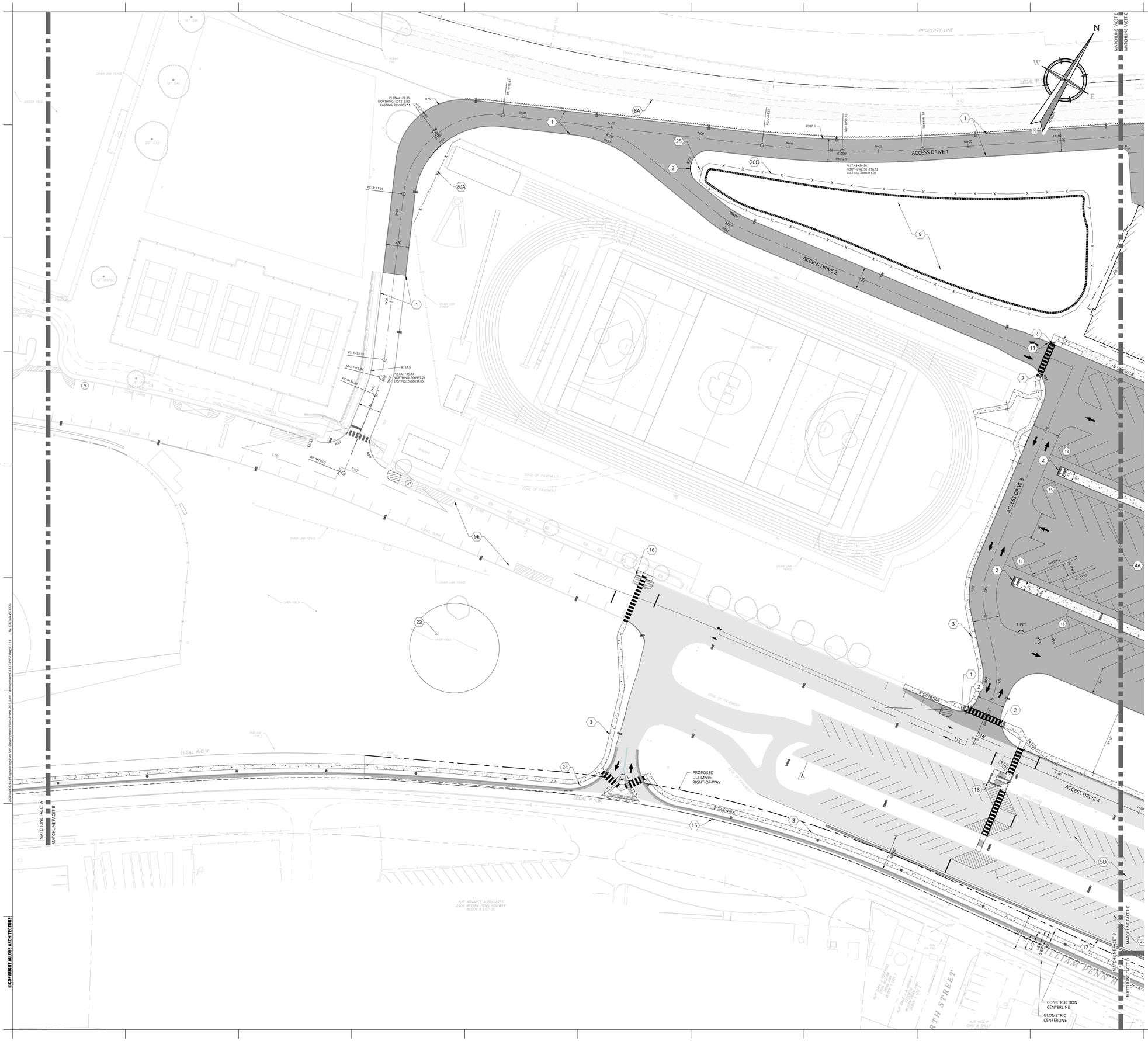
SHEET TITLE:

RECORD PLAN - FACET A

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-112



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40 0 40 80

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PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

A B C D

REGISTRATION:

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530 WEST BROAD ST BETHLEHEM, PA 18018
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Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

RECORD PLAN - FACET B

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-113

SHEET NUMBER 15 OF 63

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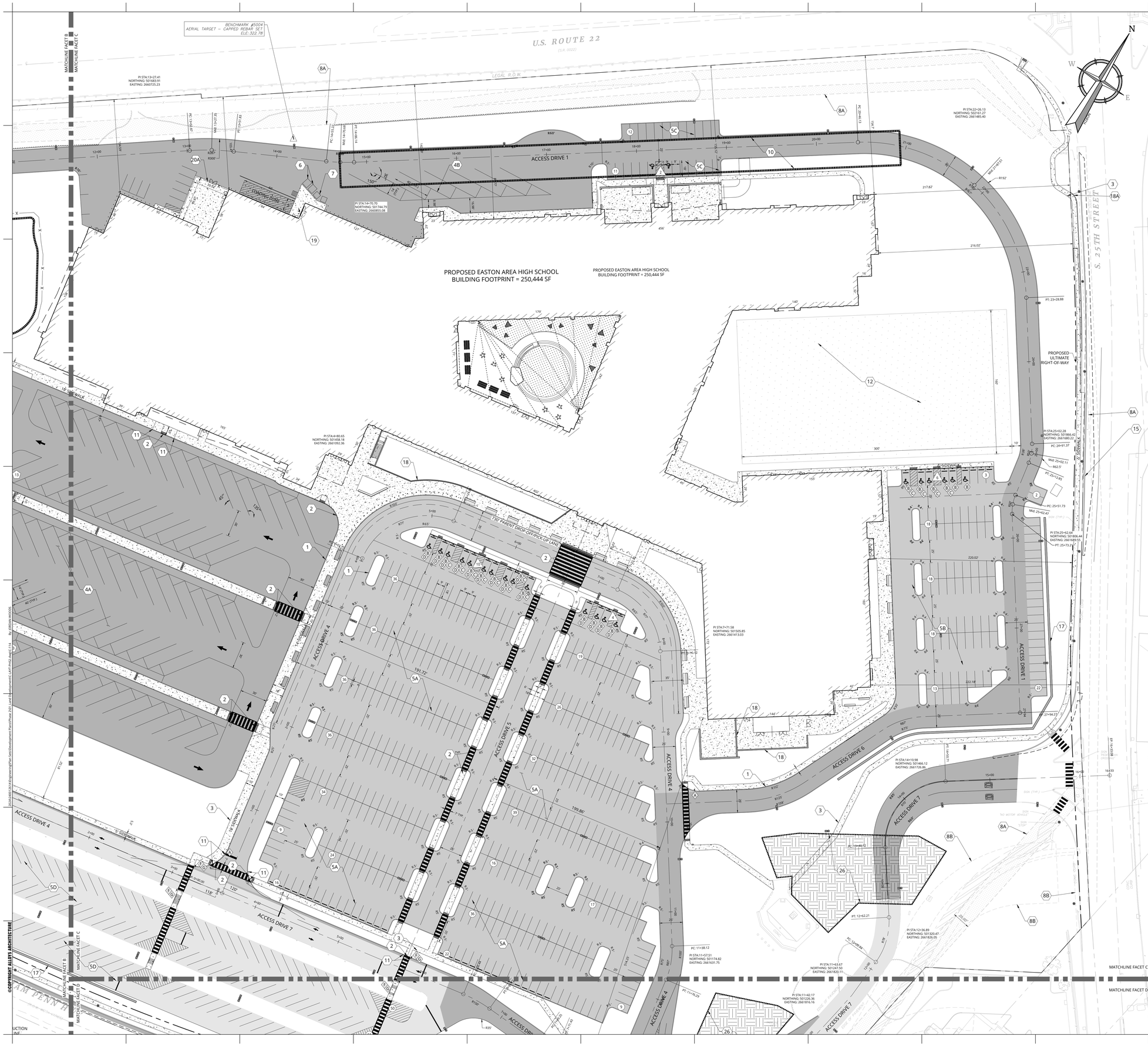

SITE LAYOUT PLAN KEYNOTES

1. CONCRETE CURB. REFER GRADING AND DRAINAGE PLAN.
2. DEPRESSED CONCRETE CURB. REFER TO DETAIL ON SHEET C-511.
3. CONCRETE PATH WIDTH VARIES. REFER TO DETAIL ON SHEET C-511.
4. BUS PARKING - 76 TOTAL SPACES
   A. SOUTH LOT - 70 SPACES
   B. NORTH LOT - 6 SPACES
5. VEHICLE PARKING - 945 TOAL SPACES
   A. MAIN SOUTH LOT - 457 SPACES
   B. EAST LOT -100 SPACES
   C. NORTH LOT - 25 SPACES
   D. EXISTING LOT (MILL AND OVERLAY) - 146 SPACES
   E. STREET PARKING - 104 SPACES
   F. JV BASEBALL PARKING - 30 SPACES
   G. VARSITY BASEBALL PARKING - 54 SPACES
   H. VARSITY SOFTBALL PARKING - 26 SPACES
6. TRASH COMPACTOR
7. DUMPSTER.
8. EXISTING EASEMENTS
   A. SANITARY SEWER EASEMENT DB 231 PAGE 304
   B. SLOPE EASEMENT DB 2003-1 PAGE 9138
   C. PATH EASEMENT DB 2003-1 PAGE 472314
   D. TEMPORARY CONSTRUCTION EASEMENT DB 2003-1 PAGE 9138
   E. BINT PATH EASEMENT DB 2001-1 PAGE 9156
9. SCM 3 EVAPOTRANSPIRATION BASIN. REFER TO GRADING AND DRAINAGE PLAN ON SHEET C-121 THROUGH C-124. REFER TO DETAIL ON SHEET C-523.
10. SCM 4 SUBSURFACE DETENTION BASIN. REFER TO DETAIL ON SHEET C-525.
11. CONCRETE CURB TAPER. REFER TO DETAIL ON SHEET C-512.
12. GRASS BAND PRACTICE FIELD.
13. LIGHTING. REFER TO LIGHTING PLAN AND LIGHTING DETAILS.
14. FLAG POLE.
15. SEE HOP PLANS FOR WORK IN THE RIGHT-OF-WAY.
16. MATCH EXISTING CURB.
17. SEGMENTAL BLOCK RETAINING WALL. DESIGNED BY OTHERS. REFER TO PROTOTYPE DETAIL ON SHEET C-512.
18. CONCRETE RETAINING WALL. DESIGNED BY OTHERS. REFER TO PROTOTYPE DETAIL ON SHEET C-512.

18A. CONCRETE CHEEK WALL.
19. LOADING DOCK.
20A. 6 FOOT HIGH CHAIN LINK FENCE
20B. 4 FOOT HIGH CHAIN LINK FENCE
21. SAWCUT LINE
22. LOADING AREA FOR LANTA BUS
23. NEW BONFIRE AREA
24. STREET IDENTIFICATION SIGNS
25. 10 FOOT WIDE SPLIT RAIL FENCE GATE
26. SCM 5 CAPTURE AND REUSE. REFER TO DETAIL ON SHEET C-524.

SITE LAYOUT LEGEND

- PROPERTY BOUNDARY LINE
- EASEMENT BOUNDARY
- SETBACK LINE
- RIGHT OF WAY LINE
- EDGE OF PAVEMENT
- CURB (FACE / BACK)
- FLUSH CURB
- FENCES (X — X)
- ROADWAY SIGNS
- TREELINE
- RETAINING WALL
- ADA ACCESSIBLE STALL
- LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- CONCRETE MONUMENT TO BE SET
- BUS PARKING SPACE COUNT (13)
- VEHICLE PARKING SPACE COUNT (13)
- ADA PARKING SPACE COUNT (13)

HATCH LEGEND

- BUILDING
- CONCRETE PATH
- EXISTING SANITARY SEWER EASEMENT
- MILL & OVERLAY
- LIGHT DUTY PAVEMENT
- HEAVY DUTY PAVEMENT
- BAND PRACTICE FIELD
- DOSING BED AND SPRAY IRRIGATION AREAS

SIGN LEGEND

SYMBOL	QUANTITY	DESCRIPTION	SIZE (IN)
A	3	'STOP' (R1-1)	30" X 30"
B	20	ADA 'RESERVED PARKING' (R7-8)	12" X 18"
C	12	ADA 'VAN ACCESSIBLE' (R7-8P)	12" X 6"
D	20	ADA PENALTY SIGN (R7-8F)	24" X 30"
E	2	'NO PARKING FIRE LANE" (R8-31)	18" X 24"
F	8	PEDESTRIAN CROSSING (W11-2)	30" X 30"
G	8	PEDESTRIAN ARROW PLAQUE (W16-7P)	24" X 12"

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SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

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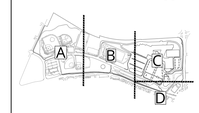
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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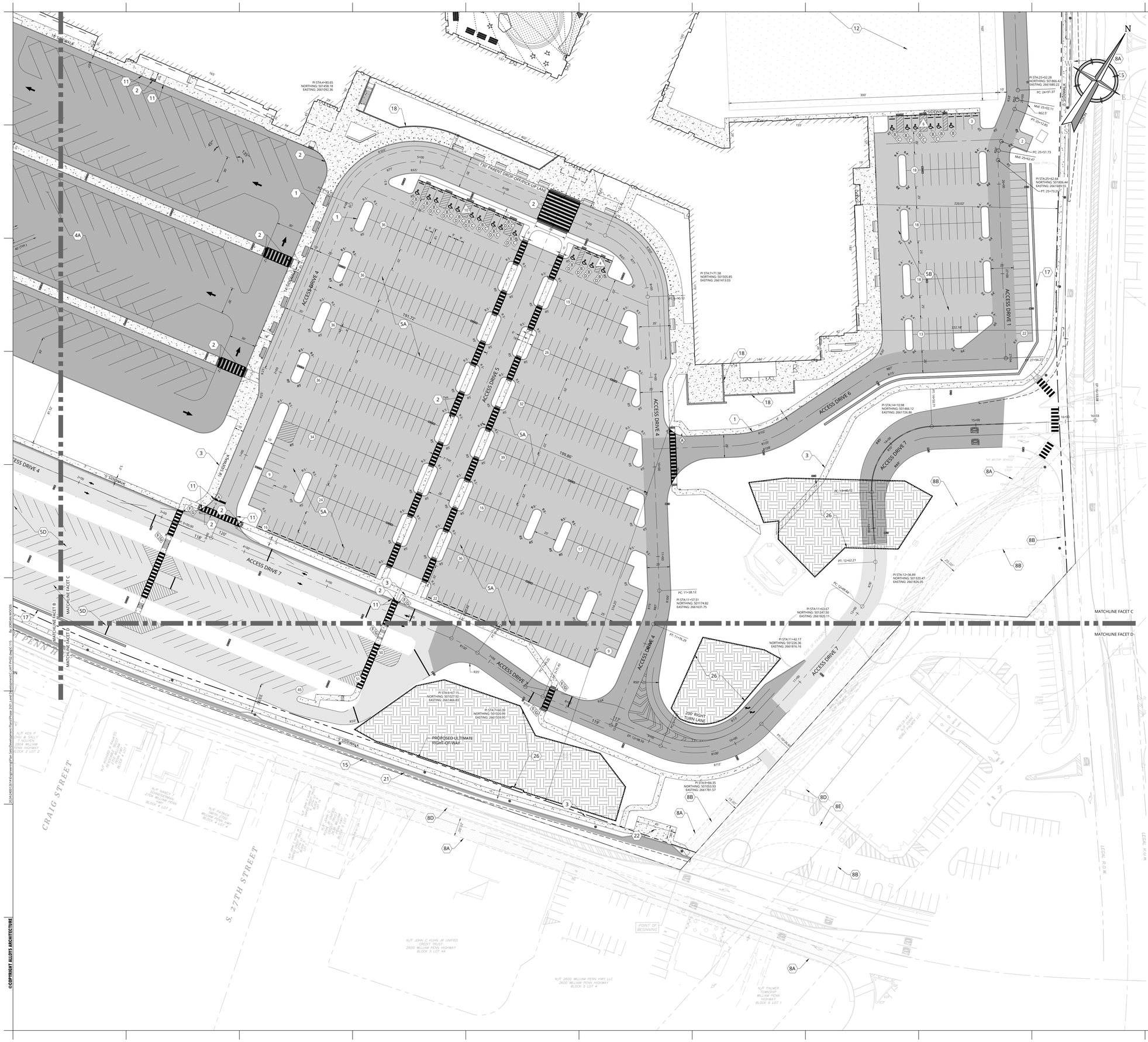
C-114

SHEET NUMBER 16 OF 63


MATCHLINE FACET B
MATCHLINE FACET C
MATCHLINE FACET C
MATCHLINE FACET D
ACCESS DRIVE 1
ACCESS DRIVE 4
ACCESS DRIVE 5
ACCESS DRIVE 6
ACCESS DRIVE 7
ACCESS DRIVE 7
ACCESS DRIVE 4
ACCESS DRIVE 4
200' RIGHT TURN LANE
PROPOSED ULTIMATE RIGHT-OF-WAY
CRAIG STREET
S. 27TH STREET
PENN
PI STA:0+80.65
NORTHING: 501458.18
EASTING: 2661092.36
PI STA:7+71.58
NORTHING: 501505.85
EASTING: 2661413.03
PI STA:14+10.98
NORTHING: 501466.12
EASTING: 2661726.86
PI STA:25+03.28
NORTHING: 501866.41
EASTING: 2661680.22
PI STA:25+62.64
NORTHING: 501806.44
EASTING: 2661689.55
PI STA:4+67.15
NORTHING: 501027.92
EASTING: 2661466.83
PI STA:7+60.99
NORTHING: 501020.99
EASTING: 2661559.95
PI STA:9+84.35
NORTHING: 501053.93
EASTING: 2661781.57
PI STA:11+42.17
NORTHING: 501226.36
EASTING: 2661816.16
PI STA:11+63.67
NORTHING: 501347.50
EASTING: 2661820.11
PI STA:12+36.89
NORTHING: 501320.47
EASTING: 2661826.05
PC: 11+38.12
PI STA:11+57.51
NORTHING: 501174.82
EASTING: 2661631.75
PC: 24+97.37
PC: 25+51.73
PT: 25+12.85
PT: 12+63.21
PC: 12+98.48
PT: 11+76.29
PT: 10+76.50
PT: 16+33.62
PT: 27+94.27
N/F KEN P. CHIU & SALLY Y. NGUYEN 2904 WILLIAM PENN HIGHWAY BLOCK 2 LOT 2
N/F RICHARD P. MARRS 2906 WILLIAM PENN HWY BLOCK 2 LOT 1
N/F HANG LIU 2908 WILLIAM PENN HIGHWAY BLOCK 2 LOT 3
N/F PATRICK SMITH 2910 WILLIAM PENN HWY BLOCK 2 LOT 4
N/F JOHN C. KUHN JR. UNIFIED CREDIT TRUST 2600 WILLIAM PENN HIGHWAY BLOCK 5 LOT 4A
N/F 2600 WILLIAM PENN HWY LLC 2600 WILLIAM PENN HIGHWAY BLOCK 5 LOT 4
N/F PALMER TOWNSHIP WILLIAM PENN HIGHWAY BLOCK 6 LOT 1
POINT OF BEGINNING
10' SIDEWALK
5' SIDEWALK
5' SIDEWALK
10' SIDEWALK
10' SIDEWALK
10



GRADING & DRAINAGE LEGEND

STORM PIPE	
'C' INLET	
'C' INLET - TYPE 4 INLET BOX	
'M' INLET	
'M' INLET - TYPE 4 INLET BOX	
FLARED END SECTION	
STORM MANHOLE	
SANITARY SEWER PIPE	S
SANITARY MANHOLE	
CONTOURS	75 / 74
SPOT ELEVATION	× G 29.0
DIRECTION OF OVERLAND FLOW	
TOP OF CURB ELEVATION	× TC 29.0
BOTTOM OF CURB ELEVATION	× BC 29.0
BOTTOM OF DEPRESSED CURB ELEVATION	× BDC 29.0
TOP OF WALL	× TW 29.0
BOTTOM OF WALL	× BW 29.0
EMERGENCY SPILLWAY SC250 TURF REINFORCEMENT	

MANHOLE	'MH'
PennDOT TYPE C INLET	'C' INLET
PennDOT TYPE M INLET	'M' INLET
YARD INLET	'Y' INLET
NYLOPLAST DRAIN	'N' INLET
CLEAN OUT	'C/O'
WING WALL	'WW'

SOIL LEGEND

SOIL NAME	MAP UNIT SYMBOL	HYDROLOGIC SOIL GROUP
URBAN LAND, 0 TO 8 PERCENT SLOPES	UkaB	B*
URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES	UoB	B
WATER	W	N/A
WASHINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES	WaB	B

*CLASSIFIED AS HYDROLOGIC SOIL GROUP B DUE TO PROXIMITY TO OTHER HYDROLOGIC SOIL GROUP B.

GENERAL GRADING & DRAINAGE NOTES

A. FOR GENERAL SITE/CIVIL NOTES, SEE SHEET C-002.
B. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON IS NOT A SURVEY.
C. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
D. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   a. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "SPECIFICATIONS PUBLICATION 408", 2020; AS SUPPLEMENTED.
   b. CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
   c. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
   d. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
I. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
J. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
K. WALKWAYS SHOULD SLOPE AWAY FROM BUILDINGS AT A MINIMUM PITCH OF 1%.
L. CONTRACTOR TO MAINTAIN A MAXIMUM SLOPE OF 2% IN AREAS OF HANDICAP STALLS AS PER ADA REQUIREMENTS IN ANY DIRECTION.
M. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
N. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND PALMER TOWNSHIP.
O. AT THE COMMENCEMENT OF SITE CONSTRUCTION, THE CONTRACTOR SHOULD FIELD VERIFY THE EXISTING ANTI-SEEP COLLARS WERE CONSTRUCTED WITH THE ORIGINAL BASIN.
P. THESE GRADING NOTES APPLY TO ALL GRADING PLAN SHEETS.
Q. THE DOSING BED LOCATED BENEATH THE PROPOSED PARKING LOT SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION AND MAINTAINED TO PREVENT EXCESSIVE LOADING. NO STOCKPILING OF MATERIALS, STAGING OF EQUIPMENT, OR OPERATION OF HEAVY CONSTRUCTION EQUIPMENT SHALL OCCUR OVER THE DOSING BED. FOLLOWING CONSTRUCTION, NO EXCAVATION OR MODIFICATIONS WITHIN THE DOSING BED AREA SHALL BE PERMITTED WITHOUT APPROVAL FROM THE APPLICABLE PERMITTING AUTHORITY.
R. ALL CURB SHALL BE 7 INCHES IN DEPTH UNLESS OTHERWISE SPECIFIED.
S. ALL STORMWATER STRUCTURES SHALL BE FITTED WITH FLOW CHANNELS.

GRADING & DRAINAGE PLAN KEYNOTES

1. PROPOSED BONFIRE AREA.
2. CONCRETE ANTI-SEEP COLLAR; 7.0' X 7.0' X 0.5' (L X W X D) COLLAR AT 12-FOOT SPACING.
3. REINFORCED CONCRETE PIPE CASING.
4. EXISTING INLET TO BE REPLACED WITH MANHOLE TOP.

HIGHWAY OCCUPANCY PERMIT PLANS NOTE

HIGHWAY OCCUPANCY PERMITS (HOPs) ARE IN THE REVIEW PROCESS OF BEING OBTAINED FROM THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT) PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW." FOR IMPROVEMENTS WITHIN THE STATE RIGHT-OF-WAY OF STATE ROUTE 2020 (WILLIAM PENN HIGHWAY) AND STATE ROUTE 2012 (25TH STREET). ALL WORK WITHIN THE STATE RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY, CURB, SIDEWALK, DRAINAGE, PAVEMENT, AND OTHER RELATED IMPROVEMENTS, SHALL BE CONSTRUCTED ONLY AS AUTHORIZED BY THE APPROVED HIGHWAY OCCUPANCY PERMITS AND IN ACCORDANCE WITH ALL PENNDOT STANDARDS, SPECIFICATIONS, AND PERMIT CONDITIONS. REFER TO THE APPROVED HIGHWAY OCCUPANCY PERMIT PLANS FOR STATE ROUTE 2020 (WILLIAM PENN HIGHWAY) AND STATE ROUTE 2012 (25TH STREET) FOR THE COMPLETE DESIGN AND DETAILS OF ALL PROPOSED IMPROVEMENTS WITHIN THE PENNDOT RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO PROPOSED DRIVEWAY, CURB, SIDEWALK, DRAINAGE, PAVEMENT, SIGNING, PAVEMENT MARKINGS, AND MAINTENANCE AND PROTECTION OF TRAFFIC (MPT).

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EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
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EASTON AREA SCHOOL DISTRICT

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RESIDENT ENGINEER:
CHA SOLUTIONS
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PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
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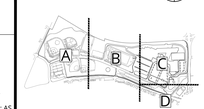

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C-121

SHEET NUMBER 18 OF 63

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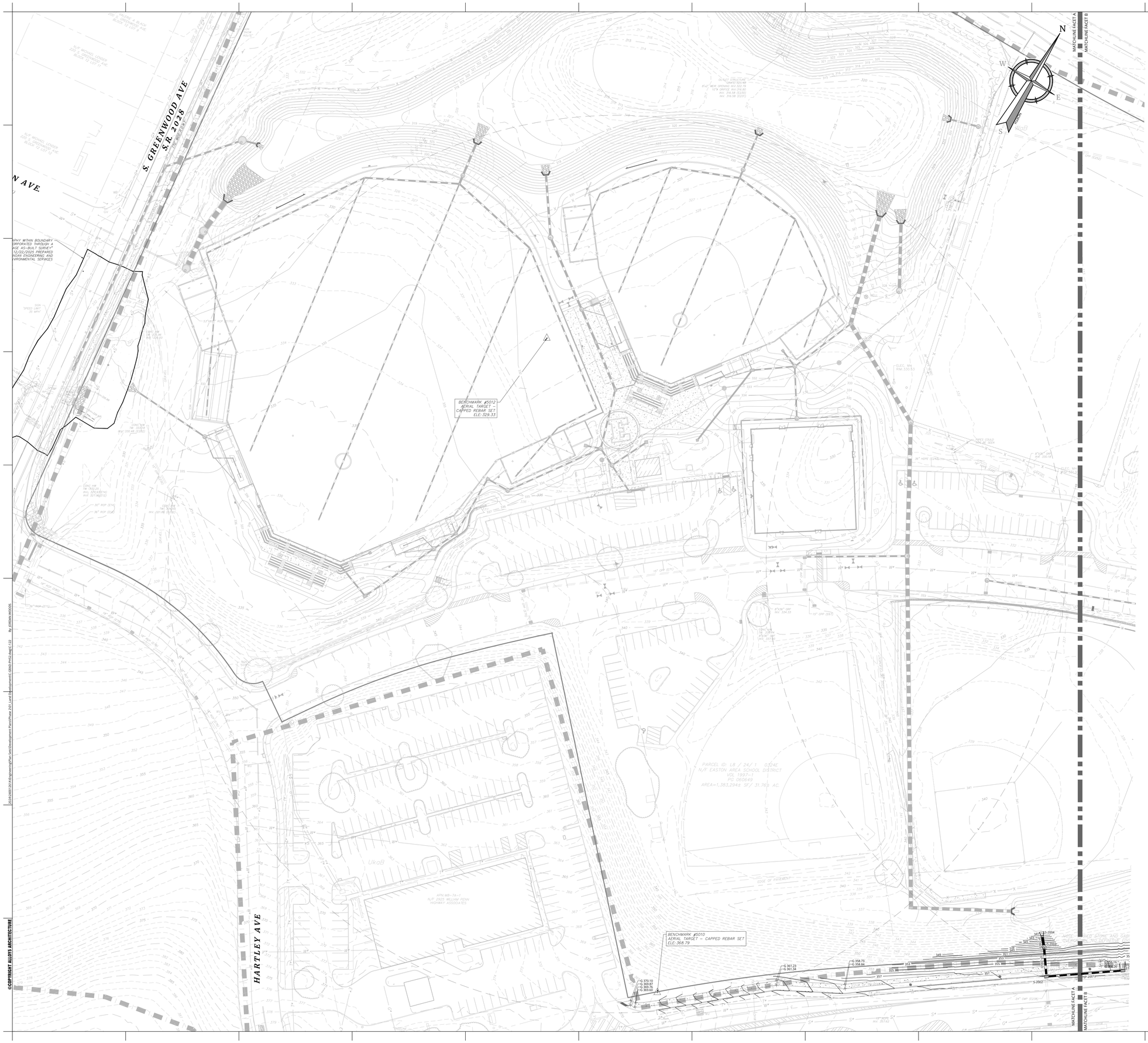
2026\26024\16 Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-GRAD-PH2.dwg, C-121, By: JOSHUA WOOD



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GRADING & DRAINAGE LEGEND

STORM PIPE	
'C' INLET	
'C' INLET - TYPE 4 INLET BOX	
'M' INLET	
'M' INLET - TYPE 4 INLET BOX	
FLARED END SECTION	
STORM MANHOLE	
SANITARY SEWER PIPE	S
SANITARY MANHOLE	
CONTOURS	75 / 74
SPOT ELEVATION	× G 29.0
DIRECTION OF OVERLAND FLOW	
TOP OF CURB ELEVATION	× TC 29.0
BOTTOM OF CURB ELEVATION	× BC 29.0
BOTTOM OF DEPRESSED CURB ELEVATION	× BDC 29.0
TOP OF WALL	× TW 29.0
BOTTOM OF WALL	× BW 29.0
EMERGENCY SPILLWAY SC250 TURF REINFORCEMENT	

MANHOLE	'MH'
PennDOT TYPE C INLET	'C' INLET
PennDOT TYPE M INLET	'M' INLET
YARD INLET	'Y' INLET
NYLOPLAST DRAIN	'N' INLET
CLEAN OUT	'C/O'
WING WALL	'WW'

STORM SEWER RUN 20 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-2001	'C' INLET	354.19		350.69 (P-2001)
S-2002	'C' INLET	355.97	349.84 (P-2001)	345.64 (P-2002)
S-2003	MH	348.27	343.00 (P-2002)	341.38 (P-2003)
S-2004	FES	343.21	340.49 (P-2003)	
S-2005	'C' INLET	355.69		349.23 (P-2005)
S-2006	FES	349.45	347.20 (P-2005)	
S-2007	'C' INLET	361.91		

STORM SEWER RUN 20 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-2001	RCP	18.00"	86'	1.00%
P-2002	RCP	24.00"	33'	8.00%
P-2003	HDPE	30.00"	11'	8.08%
P-2005	RCP	24.00"	33'	6.17%

NOTE: THE STORMWATER STRUCTURES SHOWN ON THIS SHEET AS GRAY HAVE BEEN INSTALLED AND ARE SHOWN ON THE PLANS FOR REFERENCE ONLY.

40 0 40 80
SCALE : 1" = 40'

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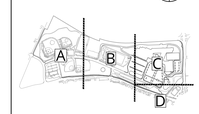

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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
GRADING & DRAINAGE PLAN - FACET A

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-122

SHEET NUMBER 19 OF 63

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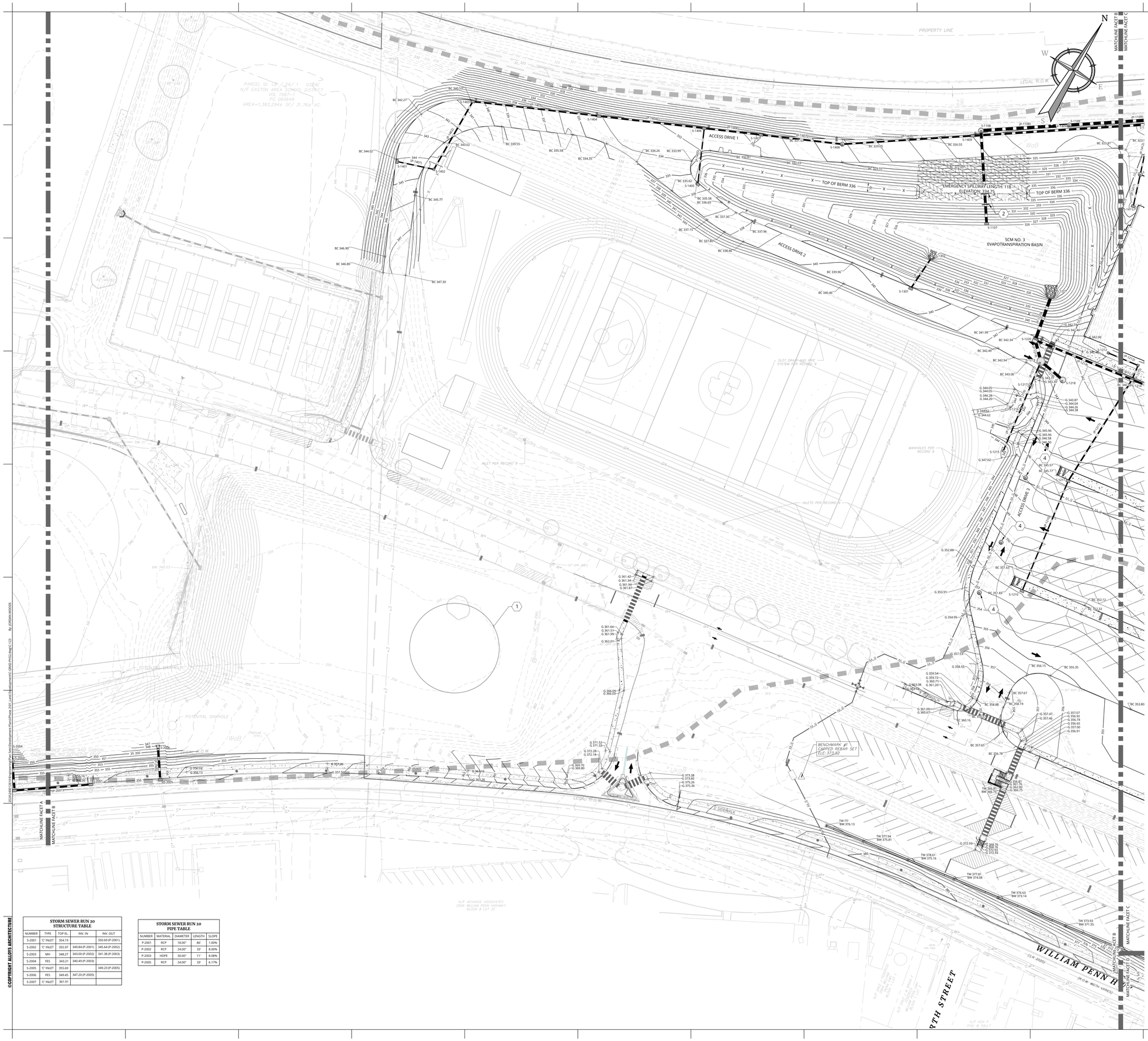
D:\24\0063\24-0063\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-GRAD PHS2.dwg C-122 By: JOSEPH WOODS



GRADING & DRAINAGE PLAN KEYNOTES

1. PROPOSED BONFIRE AREA.
2. CONCRETE ANTI-SEEP COLLAR: 7.0' X 7.0' X 0.5' (L X W X D) COLLAR AT 12-FOOT SPACING.
3. REINFORCED CONCRETE PIPE CASING.
4. EXISTING INLET TO BE REPLACED WITH MANHOLE TOP.

HIGHWAY OCCUPANCY PERMIT PLANS NOTE

HIGHWAY OCCUPANCY PERMITS (HOPs) ARE IN THE REVIEW PROCESS OF BEING OBTAINED FROM THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PENNDOT) PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW," FOR IMPROVEMENTS WITHIN THE STATE RIGHT-OF-WAY OF STATE ROUTE 2020 (WILLIAM PENN HIGHWAY) AND STATE ROUTE 2012 (25TH STREET). ALL WORK WITHIN THE STATE RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY, CURB, SIDEWALK, DRAINAGE, PAVEMENT, AND OTHER RELATED IMPROVEMENTS, SHALL BE CONSTRUCTED ONLY AS AUTHORIZED BY THE APPROVED HIGHWAY OCCUPANCY PERMITS AND IN ACCORDANCE WITH ALL PENNDOT STANDARDS, SPECIFICATIONS, AND PERMIT CONDITIONS. REFER TO THE APPROVED HIGHWAY OCCUPANCY PERMIT PLANS FOR STATE ROUTE 2020 (WILLIAM PENN HIGHWAY) AND STATE ROUTE 2012 (25TH STREET) FOR THE COMPLETE DESIGN AND DETAILS OF ALL PROPOSED IMPROVEMENTS WITHIN THE PENNDOT RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO PROPOSED DRIVEWAY, CURB, SIDEWALK, DRAINAGE, PAVEMENT, SIGNING, PAVEMENT MARKINGS, AND MAINTENANCE AND PROTECTION OF TRAFFIC (MPT).

GRADING & DRAINAGE LEGEND

STORM PIPE	
'C' INLET	C
'C' INLET - TYPE 4 INLET BOX	C4
'M' INLET	M
'M' INLET - TYPE 4 INLET BOX	M4
FLARED END SECTION	
STORM MANHOLE	
SANITARY SEWER PIPE	S
SANITARY MANHOLE	
CONTOURS	75 / 74
SPOT ELEVATION	× G 29.0
DIRECTION OF OVERLAND FLOW	
TOP OF CURB ELEVATION	× TC 29.0
BOTTOM OF CURB ELEVATION	× BC 29.0
BOTTOM OF DEPRESSED CURB ELEVATION	× BDC 29.0
TOP OF WALL	× TW 29.0
BOTTOM OF WALL	× BW 29.0
EMERGENCY SPILLWAY SC250 TURF REINFORCEMENT	
MANHOLE	'MH'
PennDOT TYPE C INLET	'C' INLET
PennDOT TYPE M INLET	'M' INLET
YARD INLET	'Y' INLET
NYLOPLAST DRAIN	'N' INLET
CLEAN OUT	'C/O'
WING WALL	'WW'

STORM SEWER RUN 12 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1202	'Y' INLET	341.76	336.60 (P-1201)	335.62 (P-1202)
S-1204	'Y' INLET	341.76	335.36 (P-1203)	335.26 (P-1204)
S-1205	'C' INLET	349.03		346.03 (P-1205)
S-1206	'C' INLET	345.06	342.06 (P-1205)	341.65 (P-1206)
S-1207	TYPE 4 'C' INLET	340.89	334.75 (P-1204); 337.23 (P-1206)	334.00 (P-1207)
S-1208	TYPE 4 'C' INLET	340.93	333.10 (P-1207)	332.94 (P-1208)
S-1209	TYPE 4 'C' INLET	340.94	332.22 (P-1208); 334.73 (P-1221)	332.06 (P-1209)
S-1210	'C' INLET	351.63		348.90 (P-1210)
S-1211	'C' INLET	345.57	342.83 (P-1210)	342.40 (P-1211)
S-1212	'Y' INLET	341.35		338.22 (P-1212)
S-1213	'Y' INLET	341.35	337.50 (P-1212)	337.33 (P-1213)
S-1214	TYPE 4 'C' INLET	340.79	330.93 (P-1209); 336.76 (P-1211); 337.01 (P-1213)	330.27 (P-1214)
S-1215	'Y' INLET	342.64		340.34 (P-1215)
S-1216	'Y' INLET	342.75	339.82 (P-1215)	339.65 (P-1216)
S-1217	'Y' INLET	342.75	339.38 (P-1216)	338.25 (P-1217)
S-1218	DOGHOUSE MH	342.61		330.00 (P-1218)
S-1219	MH	342.91	336.48 (P-1217); 329.52 (P-1218)	329.02 (P-1219)
S-1220	TYPE 5 'C' INLET	342.53	329.25 (P-1214); 328.59 (P-1219)	328.42 (P-1220)
S-1221	WW	331.21	326.00 (P-1220)	
S-1222	C/O	341.69	335.38 (P-1222)	

STORM SEWER RUN 12 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1201	PVC	6.00"	8'	5.17%
P-1202	HDPE	12.00"	16'	1.59%
P-1204	HDPE	12.00"	53'	0.97%
P-1205	HDPE	12.00"	133'	2.98%
P-1206	HDPE	18.00"	130'	3.39%
P-1207	HDPE	24.00"	90'	1.00%
P-1208	HDPE	24.00"	71'	1.00%
P-1209	HDPE	24.00"	112'	1.00%
P-1210	HDPE	12.00"	133'	4.57%
P-1211	HDPE	15.00"	134'	4.21%
P-1212	HDPE	12.00"	36'	2.00%
P-1213	HDPE	12.00"	17'	1.90%
P-1214	HDPE	24.00"	117'	0.87%
P-1215	HDPE	12.00"	52'	1.00%
P-1216	HDPE	12.00"	27'	1.00%
P-1217	HDPE	12.00"	30'	6.00%
P-1218	HDPE	30.00"	32'	1.50%
P-1219	HDPE	36.00"	24'	1.75%
P-1220	HDPE	36.00"	50'	4.87%
P-1221	PVC	8.00"	10'	2.84%
P-1222	PVC	8.00"	40'	4.02%

STORM SEWER RUN 13 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1301	'C' INLET	339.44		328.98 (P-1301)
S-1302	WW	329.50	327.00 (P-1301)	

STORM SEWER RUN 13 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1301	HDPE	15.00"	40'	5.00%

STORM SEWER RUN 14 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1401	'C' INLET	344.02		341.02 (P-1401)
S-1402	'Y' INLET	343.25	340.25 (P-1401)	337.98 (P-1402)
S-1403	'C' INLET	340.37	335.96 (P-1402)	335.81 (P-1403)
S-1404	'C' INLET	334.52	331.00 (P-1403)	330.83 (P-1404)
S-1405	'C' INLET	335.57		331.57 (P-1405)
S-1406	'C' INLET	332.38	329.38 (P-1404); 329.38 (P-1405)	329.13 (P-1406)
S-1407	'C' INLET	331.79	328.18 (P-1406)	328.01 (P-1407)
S-1408	MH	329.15	323.90 (P-1407)	323.73 (P-1408)
S-1409	'C' INLET	324.88	319.74 (P-1408)	317.17 (P-1409)
S-1410	RL	324.00		319.70 (P-1410)
S-1411	'M' INLET	323.70		319.20 (P-1411)
S-1412	MH	323.53	319.41 (P-1410); 319.15 (P-1411)	318.96 (P-1412)
S-1413	'C' INLET	323.03	315.97 (P-1409); 318.06 (P-1412)	315.87 (P-1413)
S-1414	'C' INLET	322.32	315.36 (P-1413)	314.86 (P-1414)
S-1415	'C' INLET	320.50	313.92 (P-1414)	313.76 (P-1415)
S-1416	RL	323.80		319.10 (P-1416)
S-1417	RL	324.00		319.80 (P-1417)
S-1418	C/O	323.90	319.12 (P-1417)	318.95 (P-1418)
S-1419	'M' INLET	319.92	317.58 (P-1418)	316.91 (P-1419)
S-1420	'M' INLET	320.30	316.43 (P-1416); 316.18 (P-1419)	315.93 (P-1420)
S-1421	MH	320.82	313.64 (P-1415); 314.05 (P-1420)	313.48 (P-1421)
S-1422	MH	321.04	313.40 (P-1421)	

STORM SEWER RUN 14 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1401	HDPE	12.00"	42'	1.82%
P-1402	HDPE	15.00"	87'	2.31%
P-1403	HDPE	15.00"	142'	3.39%
P-1404	HDPE	18.00"	118'	1.23%
P-1405	HDPE	12.00"	63'	3.47%
P-1406	HDPE	18.00"	64'	1.50%
P-1407	HDPE	18.00"	91'	4.50%
P-1408	HDPE	18.00"	140'	2.74%
P-1409	HDPE	24.00"	200'	0.60%
P-1410	PVC	8.00"	29'	1.00%
P-1411	HDPE	12.00"	36'	0.15%
P-1412	HDPE	12.00"	57'	1.57%
P-1413	HDPE	24.00"	102'	0.50%
P-1414	HDPE	30.00"	155'	0.60%
P-1415	HDPE	30.00"	19'	0.60%
P-1416	PVC	12.00"	19'	14.37%
P-1417	PVC	10.00"	68'	1.00%
P-1418	PVC	10.00"	73'	1.88%
P-1419	HDPE	15.00"	39'	1.86%
P-1420	HDPE	18.00"	28'	4.58%
P-1421	HDPE	36.00'	12'	0.60%

STORM SEWER RUN 20 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-2001	'C' INLET	354.19		350.69 (P-2001)
S-2002	'C' INLET	355.97	349.84 (P-2001)	345.64 (P-2002)
S-2003	MH	348.27	343.00 (P-2002)	341.38 (P-2003)
S-2004	FES	343.21	340.49 (P-2003)	
S-2005	'C' INLET	355.69		349.23 (P-2005)
S-2006	FES	349.45	347.20 (P-2005)	
S-2007	'C' INLET	361.91		

STORM SEWER RUN 20 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-2001	RCP	18.00"	86'	1.00%
P-2002	RCP	24.00"	33'	8.00%
P-2003	HDPE	30.00"	11'	8.08%
P-2005	RCP	24.00"	33'	6.17%

SCALE : 1" = 40'

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PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
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STRUCTURAL:

MEPP:
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1005 W LEHIGH STREET
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ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

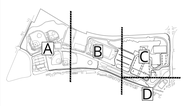
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
GRADING & DRAINAGE PLAN - FACET B

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **240012014**

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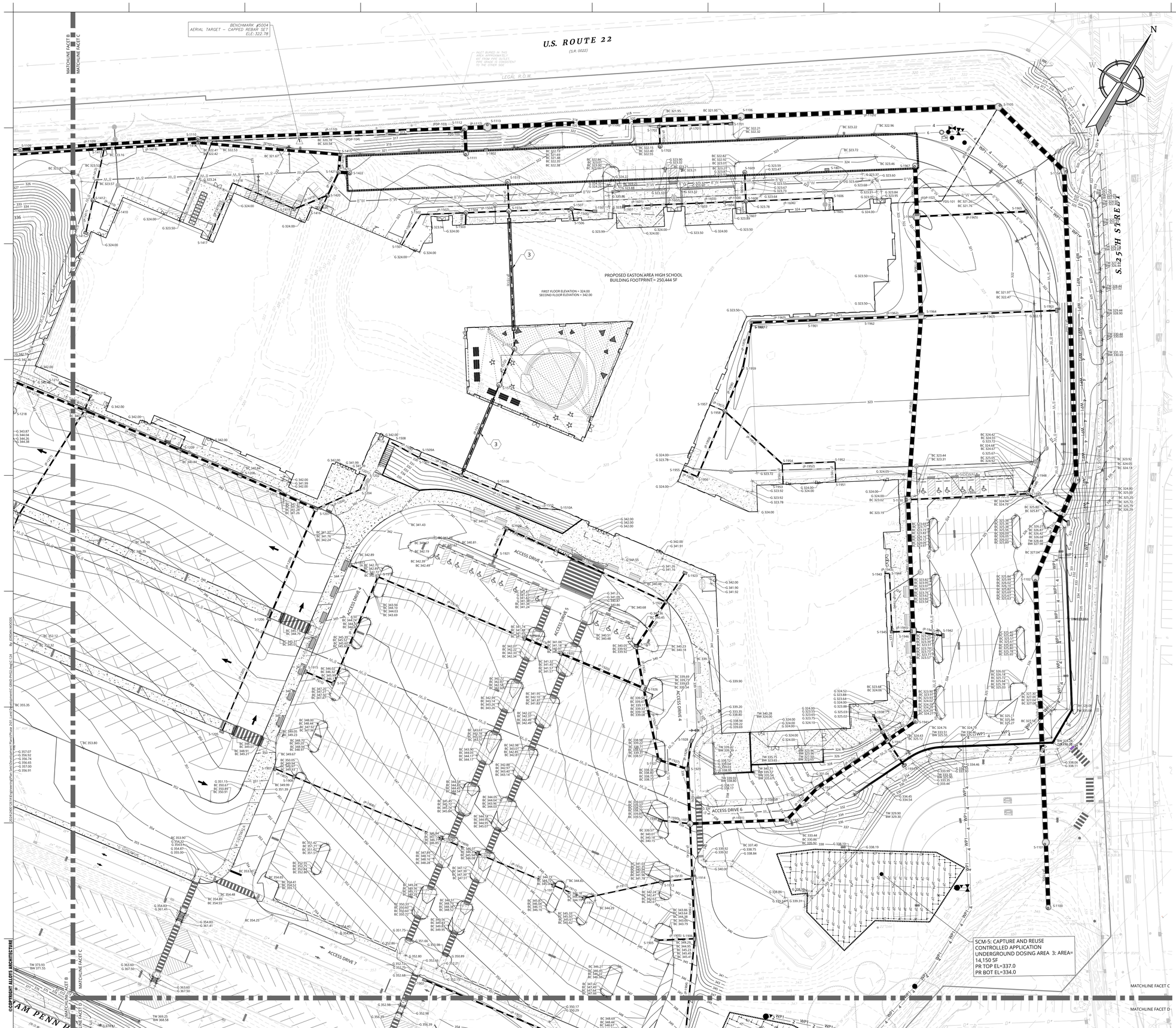
SHEET NUMBER 20 OF 63



GRADING & DRAINAGE PLAN KEYNOTES

1. PROPOSED BONFIRE AREA.
2. CONCRETE ANTI-SEEP COLLAR: 7.0' X 7.0' X 0.5' (L X W X D) COLLAR AT 12-FOOT SPACING.
3. REINFORCED CONCRETE PIPE CASING.
4. EXISTING INLET TO BE REPLACED WITH MANHOLE TOP.

STORM SEWER RUN 11 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1100	TYPE 7 DOGHOUSE MH	343.89		322.50 (P-1100)
S-1101	TYPE 7 MH	338.23	321.70 (P-1100)	321.30 (P-1101)
S-1102	TYPE 7 MH	326.33	318.42 (P-1101)	318.25 (P-1102)
S-1103	TYPE 7 MH	322.05	317.09 (P-1102)	316.92 (P-1103)
S-1104	TYPE 7 MH	322.02	313.55 (P-1103)	313.39 (P-1104)
S-1105	TYPE 7 MH	325.20	312.38 (P-1104) 313.31 (P2P-101)	312.22 (P-1105)
S-1106	TYPE 7 MH	322.27	309.41 (P-1105)	309.24 (P-1106)
S-1107	OCS	332.91		324.32 (P-1107)
S-1108	MH	325.01	319.84 (P-1107)	319.67 (P-1108)
S-1109	MH	323.82	318.19 (P-1108)	318.02 (P-1109)
S-1110	MH	323.22	315.23 (P-1109)	315.06 (P-1110)
S-1111	MH	321.45		308.82 (P-1111)
S-1112	TYPE 6 MH	316.83	308.27 (P-1110) 307.39 (P-1111)	307.23 (P-1112)
S-1113	TYPE 10 MH	313.79	306.50 (P-1106) 307.00 (P-1112)	

STORM SEWER RUN 11 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1100	HDPE	48.00"	71'	1.13%
P-1101	HDPE	54.00"	288'	1.00%
P-1102	HDPE	54.00"	116'	1.00%
P-1103	HDPE	54.00"	337'	1.00%
P-1104	HDPE	54.00"	100'	1.00%
P-1105	HDPE	54.00"	281'	1.00%
P-1106	HDPE	54.00"	277'	0.99%
P-1107	HDPE	30.00"	104'	4.30%
P-1108	HDPE	36.00"	99'	1.50%
P-1109	HDPE	36.00"	194'	1.44%
P-1110	HDPE	36.00"	291'	2.33%
P-1111	HDPE	36.00"	28'	5.09%
P-1112	HDPE	48.00"	24'	0.93%

STORM SEWER RUN 12 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1202	'Y' INLET	341.76	336.60 (P-1201)	335.42 (P-1202)
S-1204	'Y' INLET	341.76	335.36 (P-1202)	335.26 (P-1204)
S-1205	'C' INLET	349.03		346.03 (P-1205)
S-1206	'C' INLET	345.06	342.06 (P-1205)	341.65 (P-1206)
S-1207	TYPE 4 'C' INLET	340.89	334.75 (P-1204) 337.23 (P-1206)	334.00 (P-1207)
S-1208	TYPE 4 'C' INLET	340.93	333.10 (P-1207)	332.94 (P-1208)
S-1209	TYPE 4 'C' INLET	340.94	332.22 (P-1208) 334.73 (P-1221)	332.06 (P-1209)
S-1210	'C' INLET	351.63		348.50 (P-1210)
S-1211	'C' INLET	345.57	342.83 (P-1210)	342.40 (P-1211)
S-1212	'Y' INLET	341.35		338.22 (P-1212)
S-1213	'Y' INLET	341.35	337.50 (P-1212)	337.33 (P-1213)
S-1214	TYPE 4 'C' INLET	340.79	330.93 (P-1209) 336.76 (P-1211) 337.01 (P-1213)	330.27 (P-1214)
S-1215	'Y' INLET	342.84		340.34 (P-1215)
S-1216	'Y' INLET	342.75	339.82 (P-1215)	339.65 (P-1216)
S-1217	'Y' INLET	342.75	339.38 (P-1216)	338.25 (P-1217)
S-1218	DOGHOUSE MH	342.61		330.00 (P-1218)
S-1219	MH	342.91	336.48 (P-1217) 329.52 (P-1218)	329.02 (P-1219)
S-1220	TYPE 5 'C' INLET	342.53	329.25 (P-1214) 328.59 (P-1219)	328.42 (P-1220)
S-1221	WW	331.21	326.00 (P-1220)	
S-1222	C/O	341.69	335.38 (P-1222)	

STORM SEWER RUN 12 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1201	PVC	6.00"	8'	5.17%
P-1202	HDPE	12.00"	16'	1.59%
P-1204	HDPE	12.00"	53'	0.97%
P-1205	HDPE	12.00"	133'	2.98%
P-1206	HDPE	18.00"	130'	3.39%
P-1207	HDPE	24.00"	90'	1.00%
P-1208	HDPE	24.00"	71'	1.00%
P-1209	HDPE	24.00"	112'	1.00%
P-1210	HDPE	12.00"	133'	4.57%
P-1211	HDPE	15.00"	134'	4.21%
P-1212	HDPE	12.00"	36'	2.00%
P-1213	HDPE	12.00"	17'	1.90%
P-1214	HDPE	24.00"	117'	0.87%
P-1215	HDPE	12.00"	52'	1.00%
P-1216	HDPE	12.00"	27'	1.00%
P-1217	HDPE	12.00"	30'	6.00%
P-1218	HDPE	30.00"	32'	1.50%
P-1219	HDPE	36.00"	24'	1.75%
P-1220	HDPE	36.00"	50'	4.87%
P-1221	PVC	8.00"	16'	2.84%
P-1222	PVC	8.00"	40'	4.02%

STORM SEWER RUN 14 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1401	'C' INLET	344.02		341.02 (P-1401)
S-1402	'Y' INLET	343.25	340.25 (P-1401)	337.98 (P-1402)
S-1403	'C' INLET	340.37	335.96 (P-1402)	335.81 (P-1403)
S-1404	'C' INLET	334.52	331.00 (P-1403)	330.83 (P-1404)
S-1405	'C' INLET	335.57		331.57 (P-1405)
S-1406	'C' INLET	332.38	329.38 (P-1404) 329.58 (P-1405)	329.13 (P-1406)
S-1407	'C' INLET	331.79	328.18 (P-1406)	328.01 (P-1407)
S-1408	MH	329.15	323.90 (P-1407)	323.73 (P-1408)
S-1409	'C' INLET	324.88	319.74 (P-1408)	317.17 (P-1409)
S-1410	RL	324.00		319.70 (P-1410)
S-1411	'M' INLET	323.70		319.20 (P-1411)
S-1412	MH	323.53	319.41 (P-1410) 319.15 (P-1411)	318.96 (P-1412)
S-1413	'C' INLET	323.03	315.97 (P-1409) 318.06 (P-1412)	315.87 (P-1413)
S-1414	'C' INLET	322.32	315.36 (P-1413)	314.86 (P-1414)
S-1415	'C' INLET	320.50	313.92 (P-1414)	313.76 (P-1415)
S-1416	RL	323.80		319.10 (P-1416)
S-1417	RL	324.00		319.80 (P-1417)
S-1418	C/O	323.90	319.12 (P-1417)	318.95 (P-1418)
S-1419	'M' INLET	319.92	317.58 (P-1418)	316.91 (P-1419)
S-1420	'M' INLET	320.30	316.43 (P-1416) 316.18 (P-1419)	315.93 (P-1420)
S-1421	MH	320.82	313.64 (P-1415) 314.65 (P-1420)	313.48 (P-1421)
S-1422	MH	321.04	313.40 (P-1421)	

STORM SEWER RUN 14 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1401	HDPE	12.00"	42'	1.82%
P-1402	HDPE	15.00"	87'	2.31%
P-1403	HDPE	15.00"	142'	3.39%
P-1404	HDPE	18.00"	118'	1.23%
P-1405	HDPE	12.00"	63'	3.47%
P-1406	HDPE	18.00"	64'	1.50%
P-1407	HDPE	18.00"	91'	4.50%
P-1408	HDPE	18.00"	140'	2.74%
P-1409	HDPE	24.00"	200'	0.60%
P-1410	PVC	8.00"	29'	1.00%
P-1411	HDPE	12.00"	36'	0.15%
P-1412	HDPE	12.00"	57'	1.57%
P-1413	HDPE	24.00"	102'	0.50%
P-1414	HDPE	30.00"	155'	0.60%
P-1415	HDPE	30.00"	19'	0.60%
P-1416	PVC	12.00"	19'	14.37%
P-1417	PVC	10.00"	68'	1.00%
P-1418	PVC	10.00"	73'	1.88%
P-1419	HDPE	15.00"	39'	1.86%
P-1420	HDPE	18.00"	28'	4.58%
P-1421	HDPE	36.00"	12'	0.60%

STORM SEWER RUN 15 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1501	RL	323.50		315.40 (P-1501)
S-1502	C/O	323.28	318.82 (P-1501)	318.65 (P-1502)
S-1503	RL	324.00		318.40 (P-1503)
S-1504	MH	323.15	317.32 (P-1502) 318.12 (P-1503)	316.19 (P-1504)
S-1505	'C' INLET	323.11		320.11 (P-1505)
S-1506	RL	323.73		319.70 (P-1506)
S-1507	MH	323.24	319.50 (P-1506) 319.08 (P-1505)	318.92 (P-1507)
S-1508	'Y' INLET	329.94		327.44 (P-1508)
S-1509	'Y' INLET	329.44	327.10 (P-1508)	326.68 (P-1509)
S-1510	'Y' INLET	329.44		326.44 (P-1510)
S-1511	'M' INLET	329.44	325.52 (P-1510) 325.52 (P-1509)	321.21 (P-1511)
S-1512	MH	323.09	320.14 (P-1511)	318.54 (P-1512)
S-1513	MH	323.23	318.00 (P-1512)	317.83 (P-1513)
S-1514	MH	323.16	315.26 (P-1513) 315.76 (P-1504) 317.44 (P-1507)	312.21 (P-1514)
S-1515	MH	322.21	312.02 (P-1514)	

STORM SEWER RUN 15 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1501	PVC	10.00"	39'	1.50%
P-1502	PVC	12.00"	49'	2.70%
P-1503	PVC	15.00"	13'	2.21%
P-1504	HDPE	15.00"	47'	0.92%
P-1505	HDPE	12.00"	25'	4.05%
P-1506	PVC	10.00"	13'	1.52%
P-1507	HDPE	12.00"	68'	2.16%
P-1508	HDPE	12.00"	34'	1.00%
P-1509	HDPE	12.00"	50'	2.32%
P-1510	HDPE	12.00"	92'	1.00%
P-1511	HDPE	12.00"	107'	1.00%
P-1512	HDPE	12.00"	43'	1.25%
P-1513	HDPE	12.00"	150'	1.71%
P-1514	HDPE	15.00"	32'	0.60%

STORM SEWER RUN 16 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1601	'Y' INLET	323.49		321.00 (P-1601)
S-1602	'Y' INLET	323.68	320.70 (P-1601)	320.53 (P-1602)
S-1603	'Y' INLET	323.68	320.04 (P-1602)	319.87 (P-1603)
S-1604	'Y' INLET	323.68	319.57 (P-1603)	319.32 (P-1604)
S-1605	RL	323.99		319.00 (P-1605)
S-1606	C/O	323.41	319.04 (P-1605)	318.88 (P-1606)
S-1607	C/O	323.98		319.40 (P-1607)
S-1608	MH	323.80	319.20 (P-1607) 318.62 (P-1604) 317.86 (P-1606)	316.44 (P-1608)
S-1609	MH	323.60	315.50 (P-1608)	

STORM SEWER RUN 16 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1601	HDPE	12.00"	30'	1.00%
P-1602	HDPE	12.00"	49'	1.00%
P-1603	HDPE	12.00"	30'	1.00%
P-1604	HDPE	12.00"	23'	2.99%
P-1605	PVC	10.00"	13'	1.03%
P-1606	HDPE	12.00"	95'	1.07%
P-1607	PVC	8.00"	13'	1.50%
P-1608	HDPE	15.00"	31'	3.00%

STORM SEWER RUN 17 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1701	'C' INLET	321.87		318.87 (P-1701)
S-1702	'C' INLET	321.87	318.09 (P-1701)	316.65 (P-1702)
S-1703	MH	322.41	316.00 (P-1702)	

STORM SEWER RUN 17 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1701	HDPE	15.00"	78'	1.00%
P-1702	HDPE	15.00"	22'	3.00%

STORM SEWER RUN 18 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1801	'M' INLET	322.32		
S-1802	'C' INLET	321.24		

FOUNDATION DRAINS STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
FDS-101	C/O	321.58	315.27 (FDP-102)	315.17 (FDP-101)
FDS-103	C/O	316.54	307.45 (FDP-104)	307.35 (FDP-103)
FDS-104	C/O	323.06	309.40 (FDP-105)	309.30 (FDP-104)

FOUNDATION DRAINS PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
FDP-101	HDPE	6.00"	120'	1.55%
FDP-102	HDPE	6.00"	55'	10.38%
FDP-103	HDPE	6.00"	2'	1.04%
FDP-104	HDPE	6.00"	272'	0.68%
FDP-105	HDPE	6.00"	94'	0.63%

40 0 40 80
SCALE : 1" = 40'

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PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
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RESIDENT ENGINEER:
CHA SOLUTIONS
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STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

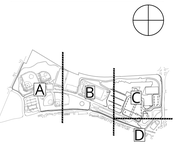
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASON CONSULTING
www.colliersengineering.com

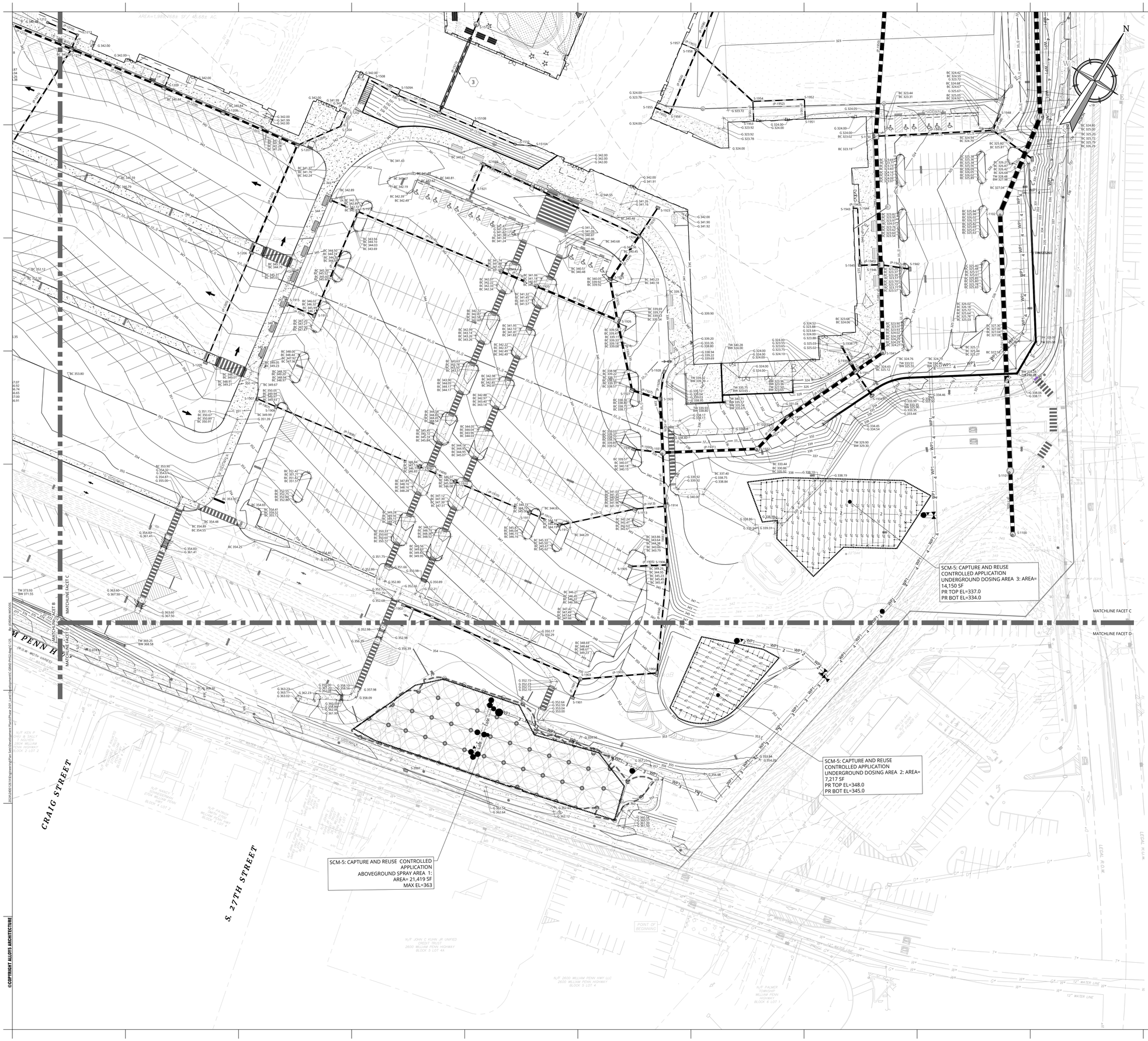
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
GRADING & DRAINAGE PLAN - FACET C

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/AJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-124

SHEET NUMBER 21 OF 63



STORM SEWER RUN 19 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
S-1901	'C' INLET	351.93		348.93 (P-1901)
S-1902	'C' INLET	352.51		349.51 (P-1902)
S-1903	MH	350.84	347.66 (P-1901) 347.66 (P-1902)	347.49 (P-1903)
S-1904	'C' INLET	349.63	346.63 (P-1903)	346.47 (P-1904)
S-1905	'C' INLET	344.21		341.21 (P-1905)
S-1906	'C' INLET	343.59	340.59 (P-1904) 340.59 (P-1905)	338.17 (P-1906)
S-1907	'C' INLET	349.91		346.91 (P-1907)
S-1908	'C' INLET	349.91	346.68 (P-1907)	346.51 (P-1908)
S-1909	'C' INLET	347.13	344.13 (P-1908)	343.96 (P-1909)
S-1910	'C' INLET	346.36	343.36 (P-1909)	343.19 (P-1910)
S-1911	'C' INLET	345.01	342.01 (P-1910)	341.84 (P-1911)
S-1912	'C' INLET	344.44	341.44 (P-1911)	341.27 (P-1912)
S-1913	'C' INLET	341.70	338.70 (P-1912)	338.45 (P-1913)
S-1914	'C' INLET	340.97	335.59 (P-1906) 337.94 (P-1913)	335.42 (P-1914)
S-1915	'C' INLET	346.51		343.51 (P-1915)
S-1916	'C' INLET	346.71	343.19 (P-1915)	343.02 (P-1916)
S-1917	'C' INLET	342.93		339.93 (P-1917)
S-1918	'C' INLET	343.13	339.69 (P-1916) 339.69 (P-1917)	339.52 (P-1918)
S-1919	'C' INLET	341.97	337.79 (P-1918)	337.62 (P-1919)
S-1920	'C' INLET	341.25	337.19 (P-1919)	337.02 (P-1920)
S-1921	'C' INLET	340.29		337.29 (P-1921)
S-1922	'C' INLET	340.09	336.96 (P-1921)	336.79 (P-1922)
S-1923	'M' INLET	341.18		338.18 (P-1923)
S-1924	'C' INLET	339.96	334.88 (P-1922) 336.46 (P-1923)	334.88 (P-1924)
S-1925	'C' INLET	339.96	334.30 (P-1924)	334.13 (P-1925)
S-1926	TYPE 6 'C' INLET	339.54	336.03 (P-1920) 333.66 (P-1925)	333.41 (P-1926)
S-1927	TYPE 4 'C' INLET	338.51	332.91 (P-1926)	332.75 (P-1927)
S-1928	'C' INLET	337.78		334.78 (P-1928)
S-1929	TYPE 4 'C' INLET	337.90	332.66 (P-1927) 333.21 (P-1928)	331.96 (P-1929)
S-1930	'C' INLET	339.41		336.41 (P-1930)
S-1931	MH	338.78	333.05 (P-1914) 331.36 (P-1929) 334.91 (P-1930)	331.36 (P-1931)
S-1932	MH	334.01	327.71 (P-1931)	327.19 (P-1932)
S-1933	TYPE 4 'C' INLET	330.13	324.48 (P-1932)	324.46 (P-1933)
S-1934	'M' INLET	332.90		321.90 (P-1934)
S-1938	'Y' INLET	323.60		320.52 (P-1938)
S-1939	MH	324.87	320.32 (P-1938)	318.82 (P-1939)
S-1940	TYPE 4 'C' INLET	324.80	318.75 (P-1933) 321.13 (P-1934) 318.74 (P-1939)	318.74 (P-1940)
S-1941	MH	324.17	318.37 (P-1940)	317.87 (P-1941)
S-1942	'C' INLET	323.43		319.93 (P-1942)
S-1943	RIL	324.00		319.80 (P-1943)
S-1944	C/O	323.94	319.70 (P-1943)	319.53 (P-1944)
S-1945	'Y' INLET	322.71	318.64 (P-1944)	318.39 (P-1945)
S-1946	TYPE 6 'C' INLET	322.84	317.18 (P-1941) 319.43 (P-1942) 318.17 (P-1945)	316.68 (P-1946)
S-1947	'M' INLET	327.87		324.19 (P-1947)
S-1948	'C' INLET	324.46		321.46 (P-1948)
S-1949	MH	324.85	321.17 (P-1947) 321.17 (P-1948)	321.07 (P-1949)
S-1950	TYPE 6 'C' INLET	323.00	319.16 (P-1949)	315.47 (P-1950)
S-1951	RIL	324.00		319.40 (P-1951)
S-1952	C/O	323.64	319.21 (P-1951)	318.96 (P-1952)
S-1953	RIL	324.00		318.63 (P-1953)
S-1954	'Y' INLET	323.64	318.35 (P-1952) 318.35 (P-1953)	318.10 (P-1954)
S-1955	RIL	323.50		319.40 (P-1955)
S-1956	'Y' INLET	323.82	319.29 (P-1955)	319.05 (P-1956)
S-1957	RIL	324.00		319.70 (P-1957)
S-1958	MH	323.08	316.90 (P-1954) 318.24 (P-1956) 319.52 (P-1957)	318.03 (P-1958)
S-1959	'Y' INLET	321.20	317.01 (P-1958)	316.84 (P-1959)
S-1960	'Y' INLET	321.75	315.83 (P-1959)	315.33 (P-1960)
S-1961	'Y' INLET	321.75	314.87 (P-1960)	314.71 (P-1961)
S-1962	'Y' INLET	321.75	314.25 (P-1961)	314.08 (P-1962)
S-1963	'C' INLET	321.98		318.98 (P-1963)
S-1964	TYPE 6 'M' INLET	321.75	313.24 (P-1950) 313.62 (P-1962) 316.76 (P-1963)	313.07 (P-1964)
S-1965	'C' INLET	320.90		316.90 (P-1965)
S-1966	TYPE 6 'M' INLET	319.72	311.96 (P-1964) 315.11 (P-1965)	311.80 (P-1966)
S-1967	MH	323.29	311.33 (P-1966)	

STORM SEWER RUN 19 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
P-1901	HDPE	12.00"	23'	5.66%
P-1902	HDPE	15.00"	214'	0.86%
P-1903	HDPE	15.00"	86'	1.00%
P-1904	HDPE	15.00"	121'	4.85%
P-1905	HDPE	15.00"	41'	1.49%
P-1906	HDPE	18.00"	66'	3.93%
P-1907	HDPE	12.00"	23'	1.00%
P-1908	HDPE	12.00"	174'	1.37%
P-1909	HDPE	12.00"	43'	1.40%
P-1910	HDPE	12.00"	90'	1.31%
P-1911	HDPE	12.00"	36'	1.12%
P-1912	HDPE	12.00"	86'	2.99%
P-1913	HDPE	12.00"	34'	1.50%
P-1914	HDPE	18.00"	60'	3.96%
P-1915	HDPE	15.00"	33'	1.00%
P-1916	HDPE	15.00"	126'	2.64%
P-1917	HDPE	15.00"	39'	0.75%
P-1918	HDPE	15.00"	174'	1.00%
P-1919	HDPE	24.00"	43'	1.00%
P-1920	HDPE	24.00"	97'	1.02%
P-1921	HDPE	15.00"	33'	1.00%
P-1922	HDPE	15.00"	191'	1.00%
P-1923	HDPE	15.00"	38'	4.53%
P-1924	HDPE	24.00"	59'	0.99%
P-1925	HDPE	24.00"	46'	1.04%
P-1926	HDPE	24.00"	80'	0.62%
P-1927	HDPE	24.00"	33'	0.87%
P-1928	HDPE	15.00"	31'	5.13%
P-1929	HDPE	30.00"	60'	1.00%
P-1930	HDPE	15.00"	33'	4.58%
P-1931	HDPE	30.00"	105'	3.46%
P-1932	HDPE	36.00"	48'	5.60%
P-1933	HDPE	36.00"	92'	6.21%
P-1934	HDPE	18.00"	33'	2.36%
P-1938	HDPE	18.00"	20'	0.98%
P-1939	HDPE	36.00"	11'	0.78%
P-1940	HDPE	36.00"	38'	0.98%
P-1941	HDPE	42.00"	98'	0.70%
P-1942	HDPE	15.00"	33'	1.50%
P-1943	PVC	12.00"	5'	2.03%
P-1944	PVC	12.00"	64'	1.40%
P-1945	HDPE	15.00"	23'	0.95%
P-1946	HDPE	48.00"	144'	0.73%
P-1947	HDPE	15.00"	54'	5.57%
P-1948	HDPE	15.00"	18'	1.66%
P-1949	HDPE	15.00"	131'	1.45%
P-1950	HDPE	48.00"	201'	1.11%
P-1951	PVC	10.00"	22'	0.85%
P-1952	PVC	12.00"	58'	1.07%
P-1953	PVC	10.00"	22'	1.27%
P-1954	HDPE	15.00"	85'	1.41%
P-1955	PVC	15.00"	18'	0.60%
P-1956	HDPE	15.00"	77'	1.00%
P-1957	PVC	7.98"	18'	1.00%
P-1958	HDPE	18.00"	51'	2.00%
P-1959	HDPE	18.00"	50'	2.00%
P-1960	HDPE	24.00"	61'	0.75%
P-1961	HDPE	24.00"	61'	0.75%
P-1962	HDPE	24.00"	62'	0.75%
P-1963	HDPE	15.00"	148'	1.50%
P-1964	HDPE	48.00"	108'	1.03%
P-1965	HDPE	18.00"	119'	1.50%
P-1966	HDPE	48.00"	56'	0.84%

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PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

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CIVIL:
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FOOD SERVICE:
CORSI ASSOCIATES
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UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

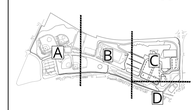
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
GRADING & DRAINAGE PLAN - FACET D

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **240012614**

C-125

SHEET NUMBER 22 OF 63



UTILITIES LEGEND

SAINITARY SEWER PIPE	
SANITARY MANHOLE	
SANITARY CLEANOUT	CO
8" WATER LINE	8"W
6" WATER LINE	6"W
FIRE HYDRANT	
WATER SHUTOFF VALVE	
6" IRRIGATION LINE	6 — 6
4" IRRIGATION LINE	4 — 4
3" IRRIGATION LINE	3 — 3
2" IRRIGATION LINE	2 — 2
2" PERFORATED IRRIG. LINE	2P — 2P
IRRIGATION CONTROL CABLE	WP1
1.5" IRRIGATION LINE	
SPRAY IRRIGATION HEADS	
ELECTRIC CONDUIT	E
TRANSFORMER	
ELECTRICAL DOGHOUSE	E E
TELECOMMUNICATIONS LINE	T
STORM SEWER PIPE	
'C' INLET	
'C' INLET - INLET BOX	
'M' INLET	
'M' INLET - INLET BOX	
FLARED END SECTION	
STORM MANHOLE	
CONTOURS	75 / 74

SITE UTILITIES PLAN KEYNOTES

1. CONNECTION TO EXISTING 12" WATER MAIN. CONTRACTOR SHALL COORDINATE FINAL LOCATION AND CONNECTION WITH EASTON SUBURBAN WATER AUTHORITY.
2. WATER METER AND BACKFLOW PREVENTER. COORDINATE WITH EASTON SUBURBAN WATER AUTHORITY.
3. 8" C-900 PVC WATER MAIN.
4. 6" C-900 PVC PIPE.
5. 4" C-900 PVC PIPE.
6. 4" DOMESTIC WATER CONNECTION.
7. FIRE HYDRANT.
8. 8" X 8" X 8" TEE, IN ACCORDANCE WITH ASA A21.4-03 AND ANSI/AWWA SPECIFICATIONS.
9. 8" X 8" X 6" TEE, IN ACCORDANCE WITH ASA A21.4-03 AND ANSI/AWWA SPECIFICATIONS.
10. WATER VALVE, RESILIENT SEATED, IRON BODY, AND BRONZE MOUNTED, CONFORM WITH AWWA SPECIFICATIONS.
11. 5" STORTZ CONNECTION WITH "FDC" SIGN ABOVE.
12. GREASE INTERCEPTOR. SIZE TO BE DETERMINED. REFER TO PLUMBING DRAWINGS FOR GREASE TRAP DETAILS. GREASE TRAP IS SBUJECT TO TOWNSHIP BUILDING PERMIT REVIEW AND APPROVAL
13. 8" X 8" X 8" X 8" FOUR-WAY CONNECTION WITH VALVES. VALVE OF EXISTING WATER LINE TO BE ABANDONED TO BE CLOSED IN THE FINAL CONDITION.
14. PIPES AND STRUCTURES DENOTED WITH A (T) ARE TEMPORARY - TO BE ABANDONED UPON DEMOLITION OF EXISTING BUILDING.
15. ADJUST EXISTING MANHOLE TO PROPOSED GRADE BY INSTALLING RISER(S) AS REQUIRED. PROVIDE WATERTIGHT FRAME AND COVER.
16. AIR RELEASE STATION. SEE DETAIL ON SHEET C-531.

GENERAL WATER NOTES

A. FIRE HYDRANT AND WATER MAINS TO BE INSTALLED AND UNDER PRESSURE BEFORE ANY COMBUSTIBLE CONSTRUCTION IS STARTED.
B. REFER TO THE PIPE ENVELOPE BEDDING MATERIALS DETAIL ON SHEET C-531. CONCRETE ENCASEMENT OF WATER LINES SHALL BE USED IF A MINIMUM 18 INCH VERTICAL SEPARATION CANNOT BE MAINTAINED BETWEEN THE UTILITY LINE AND THE WATER LINE.
C. WATER SERVICE PROVIDER IS EASTON SUBURBAN WATER AUTHORITY.

SANITARY SEWER NOTES

A. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CUT SHEETS FOR ALL SANITARY SYSTEM CONSTRUCTION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
B. STORM WATER INTERCONNECTIONS WITH THE SANITARY SEWER SYSTEM SHALL NOT BE PERMITTED.
C. THE SITE SHALL BE SERVICED WITH A GRAVITY LINE THAT TIES INTO SEWER PIPES AND STRUCTURES OWNED AND OPERATED BY PALMER TOWNSHIP.
D. A CONSTRUCTION SCHEDULER AND CONTACT LIST MUST BE PROVIDED TO PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
E. THE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED ONE WEEK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
F. A RECONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES OF THE PUBLIC WORKS DEPARTMENT, THE DEVELOPER, AND THE DEVELOPER'S CONTRACTOR.
G. AS-BUILT/RECORD PLANS MUST BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT WITHIN 30 DAYS OF COMPLETION OF WORK.
H. ALL SANITARY SEWER CONNECTIONS MUST COMPLY WITH PALMER TOWNSHIP'S SANITARY SEWER CONSTRUCTION DETAILS AND SPECIFICATIONS.
I. ALL SANITARY SEWER PIPING SHALL BE SDR-26
J. PROPOSED 90-DEGREE BENDS WITHIN MANHOLES ARE NOT RECOMMENDED. SUCH CONFIGURATIONS CAN CREATE EXCESSIVE TURBULENCE, HEADLOSS, AND MAINTENANCE CHALLENGES, INCLUDING INCREASED POTENTIAL FOR DEBRIS ACCUMULATION AND BLOCKAGE. IT IS RECOMMENDED THAT ALIGNMENT THROUGH MANHOLES BE DESIGNED TO MINIMIZE ABRUPT CHANGES IN DIRECTION, WITH DEFLECTION ANGLES REDUCED WHERE FEASIBLE TO PROMOTE SMOOTHER FLOW CONDITIONS.

GENERAL SITE UTILITIES NOTES

A. FOR GENERAL SITE/CIVIL NOTES, SEE SHEET C-002.
B. PIPE LENGTHS ARE MEASURES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED ON THE PLANS.
C. THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND STORM SEWER INSTALLATIONS TO ENSURE NO PIPE CROSSING CONFLICTS AND PROPER TIMING OF ALL INSTALLATIONS. ALL UTILITY CROSSING LOCATIONS MAY NOT BE SPECIFICALLY CALLED OUT WITH A SHEET KEYNOTE. THE CONTRACTOR IS RESPONSIBLE TO THOROUGHLY REVIEW THE PLANS.
D. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION HAS BEEN PROVIDED TO THE BEST ABILITY OF THE ENGINEER, HOWEVER, THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTORS CONCERNING THE LOCATION OF ALL UTILITIES AND STORM SEWERS PRIOR TO BIDDING AND CONSTRUCTION. LOCATIONS OF EXISTING UNDERGROUND UTILITIES AND STORM SEWERS AS SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND MUST BE FIELD VERIFIED BY THE CONTRACTOR.
E. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON IS NOT A SURVEY.
F. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
G. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND CANNOT BE GUARANTEED AS TO ACCURACY OR COMPLETENESS. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES, TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS.
H. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   a. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION "SPECIFICATIONS PUBLICATION 408", 2020; AS SUPPLEMENTED.
   b. CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
   c. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
   d. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
I. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL APPROPRIATE SAFETY DEVICES AND TRAINING TO ALL WORKERS IN ORDER TO MAINTAIN SAFE CONDITIONS ON THE PROJECT SITE.
J. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED CONSTRUCTION PERMITS NECESSARY FOR THE CONSTRUCTION AND COMPLETION OF THE APPROVED IMPROVEMENTS.
K. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF ANY AND ALL EXISTING OBJECTS, STRUCTURES, ETC. THAT ARE IN THE WAY OF PROPOSED CONSTRUCTION, OR INDICATED AS 'TO BE REMOVED'.
L. THE CONTRACTOR SHALL ADJUST ALL UTILITY FRAMES, COVERS, MANHOLES, VALVE BOXES AND OTHER UTILITY FACILITY STRUCTURES TO BE FLUSH WITH FINISH SURFACE GRADE ELEVATIONS.
M. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSE OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OR APPROVALS HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". THE CLIENT OR OWNER AND CONTRACTOR ARE RESPONSIBLE TO ASSURE THAT THE APPROVED PLANS ONLY, ARE USED FOR BIDDING AND CONSTRUCTION.
N. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER AND THE MUNICIPALITY.
O. ALL WATER, AND SANITARY PIPES SHALL HAVE WATER-TIGHT GASKETS.
P. 1.5' OF VERTICAL SEPARATION BETWEEN WATERLINES AND THE FIELD DRAINS SHALL BE MAINTAINED.
Q. ALL ELECTRIC POWER, TELEPHONE, CABLE TELEVISION AND NATURAL GAS DISTRIBUTION LINES WITHIN NEW LAND DEVELOPMENT SHALL BE PLACED UNDERGROUND, EXCEPT WHERE THE BOARD OF SUPERVISORS DETERMINE IT IS NOT FEASIBLE AND IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE UTILITY SERVING THE DEVELOPMENT.
R. THESE UTILITY NOTES APPLY TO ALL UTILITY PLAN SHEETS.

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2024.0001.001A E:\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-GTL-PHS2.dwg C-131 By JORDAN.WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY, BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

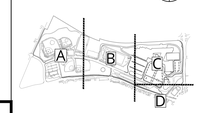
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIER CONSULTING
www.colliersengineering.com

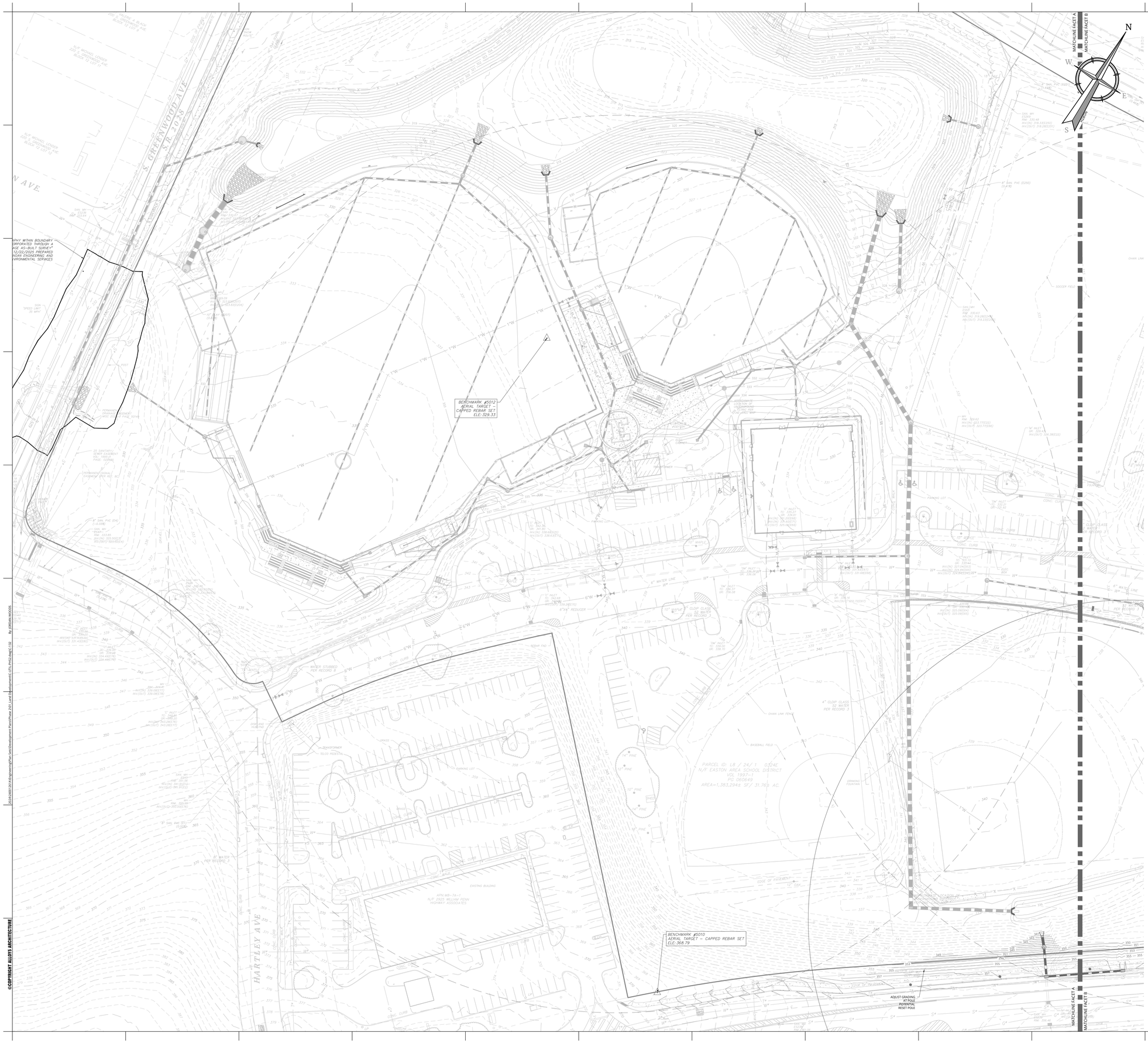
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
OVERALL UTILITY PLAN

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **24001261A**

C-131

SHEET NUMBER 23 OF 63



SITE UTILITIES PLAN KEYNOTES

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UTILITIES LEGEND

- SAINITARY SEWER PIPE
- SANITARY MANHOLE
- SANITARY CLEANOUT (CO)
- 8" WATER LINE (8"W)
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- 6" IRRIGATION LINE (6 6)
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- 3" IRRIGATION LINE (3 3)
- 2" IRRIGATION LINE (2 2)
- 2" PERFORATED IRRIG. LINE (2P 2P)
- IRRIGATION CONTROL CABLE (WP1)
- 1.5" IRRIGATION LINE
- SPRAY IRRIGATION HEADS
- ELECTRIC CONDUIT (E)
- TRANSFORMER
- ELECTRICAL DOGHOUSE (E)
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- STORM SEWER PIPE
- 'C' INLET
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- 'M' INLET
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- FLARED END SECTION
- STORM MANHOLE
- CONTOURS (75 / 74)

NOTE: THE UTILITIES SHOWN ON THIS SHEET HAVE BEEN INSTALLED AS PART OF THE PHASE 1 IMPROVEMENTS AND ARE SHOWN ON THE PLANS FOR REFERENCE ONLY

40 0 40 80

SCALE : 1" = 40'

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2026/04/20 8:54 P:\Engineering\Active Jobs\Development Brazil\Phase 2\01-Land Development\C3D\LDP\C132.dwg C-132 By: JORDAN WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

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RESIDENT ENGINEER:
CHA SOLUTIONS
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LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
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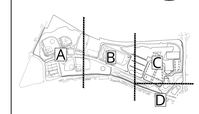

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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

UTILITY PLAN - FACET A

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-132

SHEET NUMBER 24 OF 63

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- 'M' INLET - INLET BOX
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- STORM MANHOLE
- CONTOURS (75 / 74)

SANITARY SEWER PHASE 2 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
C-7	MH	321.90	306.75 (SP-1A)	
S-21	MH	323.71	318.73 (SP-24)	311.59 (SP-25)
S-37A	C/O	342.00		320.03 (SP-37A)
SS-2	MH	324.82	307.75 (SP-10) 308.06 (SP-2)	307.58 (SP-1)
SS-3	MH	321.37	308.62 (SP-3)	308.44 (SP-2)
SS-4	MH	323.09	311.45 (SP-25) 310.75 (SP-4)	310.51 (SP-3)
SS-5	MH	323.68	317.48 (SP-26) 314.75 (SP-5)	314.59 (SP-4)
SS-6	MH	322.91	316.72 (SP-6) 319.00 (SP-27)	316.50 (SP-5)
SS-7	MH	323.06	317.85 (SP-7)	317.60 (SP-6)
SS-8	GREASE TRAP	322.79		
SS-9	C/O	321.17	318.56 (SP-9A)	
SS-10	MH	324.23	310.65 (SP-11A)	310.48 (SP-10)
SS-11	MH	323.72	312.54 (SP-12) 312.72 (SP-16)	312.37 (SP-11)
SS-12	MH	323.35	314.74 (SP-13)	314.30 (SP-12)
SS-13	C/O	323.79	315.56 (SP-28)	315.39 (SP-13)
SS-15 (T)	MH	331.72		
SS-16	MH	323.71	314.33 (SP-17)	314.11 (SP-16)
SS-19	METERING MH	323.20	313.24 (SP-19)	313.15 (SP-18)
SS-20	MH	323.62	314.08 (SP-20) 316.85 (SP-22)	313.74 (SP-19)
SS-21	C/O	323.88	314.82 (SP-21)	314.57 (SP-20)
SS-22	C/O	323.81	318.24 (SP-23)	317.99 (SP-22)
SS-31	GREASE TRAP	341.57	319.99 (SP-31)	319.99 (SP-32)
SS-31A	C/O	341.37		320.03 (SP-31A)
SS-34A	C/O	341.62		339.62 (SP-34A)
SS-38	C/O	341.98	320.00 (SP-37)	
SS-39	C/O	341.99	319.95 (SP-38)	319.95 (SP-39)

SANITARY SEWER PHASE 2 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
SP-1	SDR26	8.00"	33'	1.67%
SP-1A	SDR26	8.00"	18'	1.67%
SP-2	SDR26	8.00"	44'	1.00%
SP-3	SDR26	8.00"	189'	1.00%
SP-4	SDR26	8.00"	164'	2.33%
SP-5	SDR26	8.00"	195'	0.89%
SP-6	SDR26	8.00"	86'	1.02%
SP-7	SDR26	6.00"	33'	1.02%
SP-7A	SDR26	6.00"	8'	2.47%
SP-7B	SDR26	6.00"	1'	6.74%
SP-8	SDR26	6.00"	16'	1.00%
SP-8A	SDR26	6.00"	2'	1.00%
SP-9	SDR26	6.00"	2'	2.26%
SP-9A	SDR26	6.00"	2'	1.62%
SP-9B	SDR26	6.00"	4'	4.00%
SP-9C	SDR26	6.00"	5'	4.00%
SP-10	SDR26	8.00"	305'	0.90%
SP-11	SDR26	8.00"	130'	1.06%
SP-11A	SDR26	8.00"	19'	0.98%
SP-12	SDR26	8.00"	202'	0.87%
SP-13	SDR26	6.00"	41'	1.58%
SP-16	SDR26	8.00"	115'	1.20%
SP-17	SDR26	6.00"	46'	2.13%
SP-18	SDR26	8.00"	14'	1.05%
SP-19	SDR26	8.00"	50'	1.01%
SP-20	SDR26	8.00"	51'	0.90%
SP-21	SDR26	8.00"	10'	1.00%
SP-22	SDR26	6.00"	112'	1.01%
SP-23	SDR26	6.00"	17'	1.00%
SP-24	SDR26	6.00"	7'	1.00%
SP-25	SDR26	6.00"	14'	1.00%
SP-26	SDR26	6.00"	29'	1.00%
SP-27	SDR26	6.00"	20'	1.97%
SP-28	SDR26	6.00"	10'	1.00%
SP-29	SDR26	6.00"	14'	2.86%
SP-30	SDR26	6.00"	1'	4.53%
SP-31	SDR26	6.00"	1'	4.59%
SP-31A	SDR26	6.00"	2'	1.00%
SP-32	SDR26	6.00"	1'	1.66%
SP-33	SDR26	6.00"	1'	1.68%
SP-34	SDR26	6.00"	14'	1.00%
SP-34A	SDR26	6.00"	2'	1.00%
SP-35	SDR26	8.00"	6'	6.88%
SP-36	SDR26	8.00"	1'	5.66%
SP-37	SDR26	8.00"	1'	2.26%
SP-37A	SDR26	6.00"	2'	1.33%
SP-38	SDR26	8.00"	1'	3.81%
SP-39	SDR26	8.00"	3'	2.90%

NOTE: PIPES AND STRUCTURES DENOTED WITH A (T) ARE TEMPORARY PIPES AND STRUCTURES TO BE ABANDONED UPON THE DEMOLITION OF THE EXISTING SCHOOL.

40 0 40 80
SCALE : 1" = 40'

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

A B C D

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway,
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
UTILITY PLAN - FACET B

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-133

SHEET NUMBER 25 OF 63

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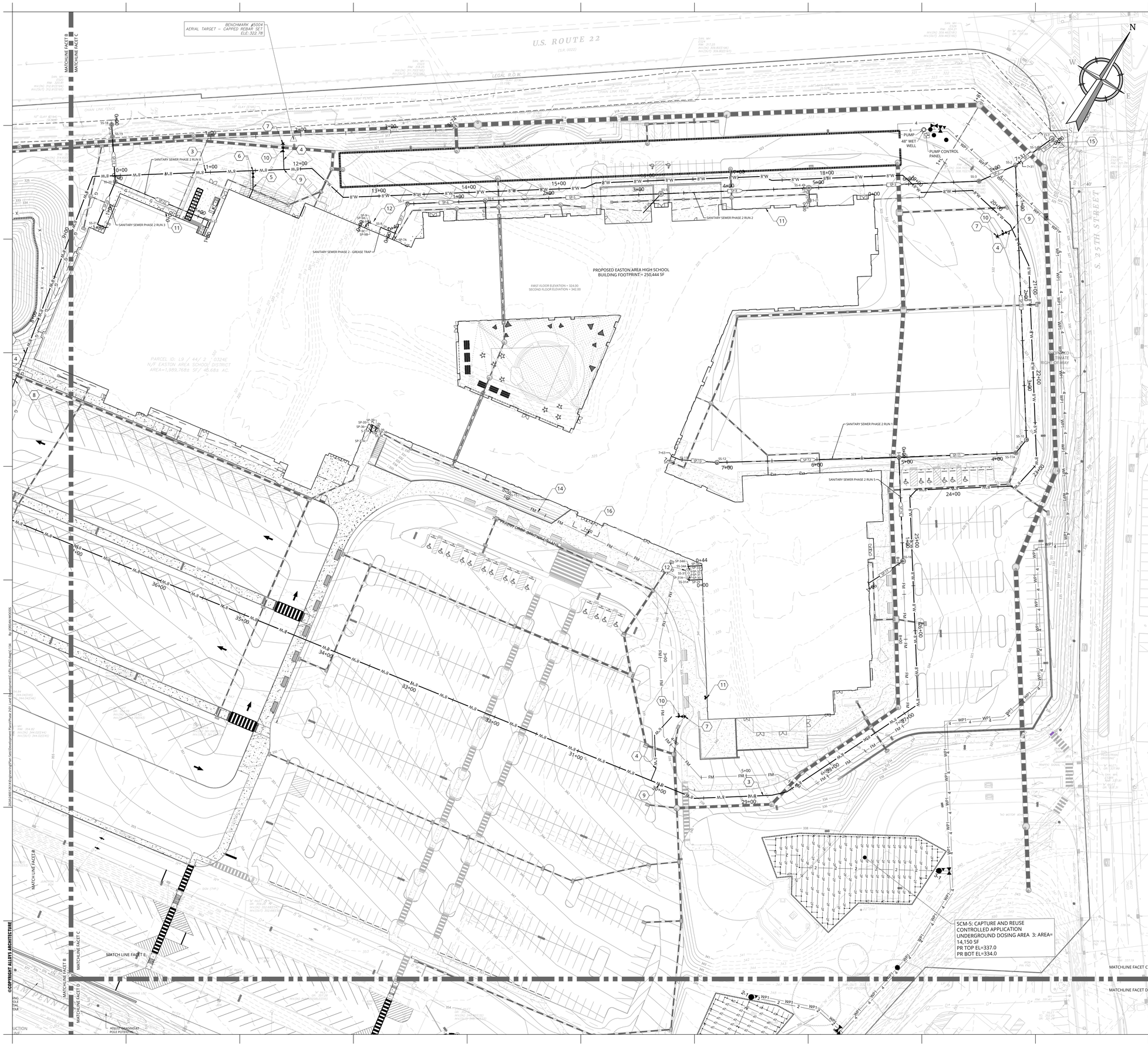

SITE UTILITIES PLAN KEYNOTES

1. CONNECTION TO EXISTING 12" WATER MAIN. CONTRACTOR SHALL COORDINATE FINAL LOCATION AND CONNECTION WITH EASTON SUBURBAN WATER AUTHORITY.
2. WATER METER AND BACKFLOW PREVENTER, COORDINATE WITH EASTON SUBURBAN WATER AUTHORITY.
3. 8" C-900 PVC WATER MAIN.
4. 6" C-900 PVC PIPE.
5. 4" C-900 PVC PIPE.
6. 4" DOMESTIC WATER CONNECTION.
7. FIRE HYDRANT.
8. 8" X 8" X 8" TEE, IN ACCORDANCE WITH ASA A21.4-03 AND ANSI/AWWA SPECIFICATIONS.
9. 8" X 8" X 6" TEE, IN ACCORDANCE WITH ASA A21.4-03 AND ANSI/AWWA SPECIFICATIONS.
10. WATER VALVE, RESILIENT SEATED, IRON BODY, AND BRONZE MOUNTED, CONFORM WITH AWWA SPECIFICATIONS.
11. 5" STORTZ CONNECTION WITH "FDC" SIGN ABOVE.
12. GREASE INTERCEPTOR. SIZE TO BE DETERMINED. REFER TO PLUMBING DRAWINGS FOR GREASE TRAP DETAILS. GREASE TRAP IS SBUJECT TO TOWNSHIP BUILDING PERMIT REVIEW AND APPROVAL.
13. 8" X 8" X 8" X 8" FOUR-WAY CONNECTION WITH VALVES. VALVE OF EXISTING WATER LINE TO BE ABANDONED TO BE CLOSED IN THE FINAL CONDITION.
14. PIPES AND STRUCTURES DENOTED WITH A (T) ARE TEMPORARY - TO BE ABANDONED UPON DEMOLITION OF EXISTING BUILDING.
15. ADJUST EXISTING MANHOLE TO PROPOSED GRADE BY INSTALLING RISER(S) AS REQUIRED. PROVIDE WATERTIGHT FRAME AND COVER.
16. AIR RELEASE STATION. SEE DETAIL ON SHEET C-531.

UTILITIES LEGEND

- SANITARY SEWER PIPE
- SANITARY MANHOLE
- SANITARY CLEANOUT (CO)
- 8" WATER LINE (8"W)
- 6" WATER LINE (6"W)
- FIRE HYDRANT
- WATER SHUTOFF VALVE
- 6" IRRIGATION LINE (6)
- 4" IRRIGATION LINE (4)
- 3" IRRIGATION LINE (3)
- 2" IRRIGATION LINE (2)
- 2" PERFORATED IRRIG. LINE (2P)
- IRRIGATION CONTROL CABLE (WP1)
- 1.5" IRRIGATION LINE
- SPRAY IRRIGATION HEADS
- ELECTRIC CONDUIT (E)
- TRANSFORMER
- ELECTRICAL DOGHOUSE (E)
- TELECOMMUNICATIONS LINE (T)
- STORM SEWER PIPE
- 'C' INLET
- 'C' INLET - INLET BOX
- 'M' INLET
- 'M' INLET - INLET BOX
- FLARED END SECTION
- STORM MANHOLE
- CONTOURS (75 / 74)

SANITARY SEWER PHASE 2 STRUCTURE TABLE

NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT
CI-7	MH	321.90	306.75 (SP-1A)	
S-21	MH	323.71	318.73 (SP-24)	311.59 (SP-25)
S-37A	C/O	342.00		320.03 (SP-37A)
SS-2	MH	324.82	307.75 (SP-10) 308.00 (SP-2)	307.58 (SP-1)
SS-3	MH	321.37	308.62 (SP-3)	308.44 (SP-2)
SS-4	MH	323.09	311.45 (SP-25) 310.75 (SP-4)	310.51 (SP-3)
SS-5	MH	323.68	317.48 (SP-26) 314.75 (SP-5)	314.59 (SP-4)
SS-6	MH	322.91	316.72 (SP-6) 319.00 (SP-27)	316.50 (SP-5)
SS-7	MH	323.06	317.85 (SP-7)	317.60 (SP-6)
SS-8	GREASE TRAP	322.79		
SS-9	C/O	321.17	318.56 (SP-9A)	
SS-10	MH	324.23	310.65 (SP-11A)	310.48 (SP-10)
SS-11	MH	323.72	312.54 (SP-12) 312.72 (SP-16)	312.37 (SP-11)
SS-12	MH	323.35	314.74 (SP-13)	314.30 (SP-12)
SS-13	C/O	323.79	315.56 (SP-28)	315.39 (SP-13)
SS-15 (T)	MH	331.72		
SS-16	MH	323.71	314.33 (SP-17)	314.11 (SP-16)
SS-19	METERING MH	323.20	313.24 (SP-19)	313.15 (SP-18)
SS-20	MH	323.62	314.08 (SP-20) 316.85 (SP-22)	313.74 (SP-19)
SS-21	C/O	323.88	314.82 (SP-21)	314.57 (SP-20)
SS-22	C/O	323.81	318.24 (SP-23)	317.99 (SP-22)
SS-31	GREASE TRAP	341.57	319.99 (SP-31)	319.99 (SP-32)
SS-31A	C/O	341.37		320.03 (SP-31A)
SS-34A	C/O	341.62		339.62 (SP-34A)
SS-38	C/O	341.98	320.00 (SP-37)	
SS-39	C/O	341.99	319.95 (SP-38)	319.95 (SP-39)

SANITARY SEWER PHASE 2 PIPE TABLE

NUMBER	MATERIAL	DIAMETER	LENGTH	SLOPE
SP-1	SDR26	8.00"	32'	1.67%
SP-1A	SDR26	8.00"	18'	1.67%
SP-2	SDR26	8.00"	44'	1.00%
SP-3	SDR26	8.00"	189'	1.00%
SP-4	SDR26	8.00"	164'	2.33%
SP-5	SDR26	8.00"	195'	0.89%
SP-6	SDR26	8.00"	86'	1.02%
SP-7	SDR26	6.00"	33'	1.00%
SP-7A	SDR26	6.00"	8'	2.47%
SP-7B	SDR26	6.00"	1'	6.74%
SP-8	SDR26	6.00"	16'	1.00%
SP-8A	SDR26	6.00"	2'	1.00%
SP-9	SDR26	6.00"	2'	2.25%
SP-9A	SDR26	6.00"	2'	1.62%
SP-9B	SDR26	6.00"	4'	4.00%
SP-9C	SDR26	6.00"	5'	4.00%
SP-10	SDR26	8.00"	305'	0.90%
SP-11	SDR26	8.00"	130'	1.06%
SP-11A	SDR26	8.00"	19'	0.98%
SP-12	SDR26	8.00"	202'	0.87%
SP-13	SDR26	6.00"	41'	1.58%
SP-16	SDR26	8.00"	115'	1.20%
SP-17	SDR26	6.00"	46'	2.13%
SP-18	SDR26	8.00"	14'	1.05%
SP-19	SDR26	8.00"	50'	1.01%
SP-20	SDR26	8.00"	51'	0.96%
SP-21	SDR26	8.00"	10'	1.00%
SP-22	SDR26	6.00"	112'	1.01%
SP-23	SDR26	6.00"	17'	1.00%
SP-24	SDR26	6.00"	7'	1.00%
SP-25	SDR26	6.00"	14'	1.00%
SP-26	SDR26	6.00"	29'	1.00%
SP-27	SDR26	6.00"	20'	1.97%
SP-28	SDR26	6.00"	10'	1.00%
SP-29	SDR26	6.00"	14'	2.86%
SP-30	SDR26	6.00"	1'	4.53%
SP-31	SDR26	6.00"	1'	4.59%
SP-31A	SDR26	6.00"	2'	1.00%
SP-32	SDR26	6.00"	1'	1.66%
SP-33	SDR26	6.00"	1'	1.68%
SP-34	SDR26	6.00"	14'	1.06%
SP-34A	SDR26	6.00"	2'	1.00%
SP-35	SDR26	8.00"	6'	6.88%
SP-36	SDR26	8.00"	1'	5.66%
SP-37	SDR26	8.00"	1'	2.26%
SP-37A	SDR26	6.00"	2'	1.33%
SP-38	SDR26	8.00"	1'	3.81%
SP-39	SDR26	8.00"	3'	2.90%

NOTE: PIPES AND STRUCTURES DENOTED WITH A (T) ARE TEMPORARY PIPES AND STRUCTURES TO BE ABANDONED UPON THE DEMOLITION OF THE EXISTING SCHOOL.

40 0 40 80
SCALE : 1" = 40'

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PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

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CHA SOLUTIONS
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LANDSCAPE ARCHITECT:

SUBMISSIONS:

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LICENSE NUMBER PE046162
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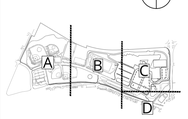
KEY PLAN:



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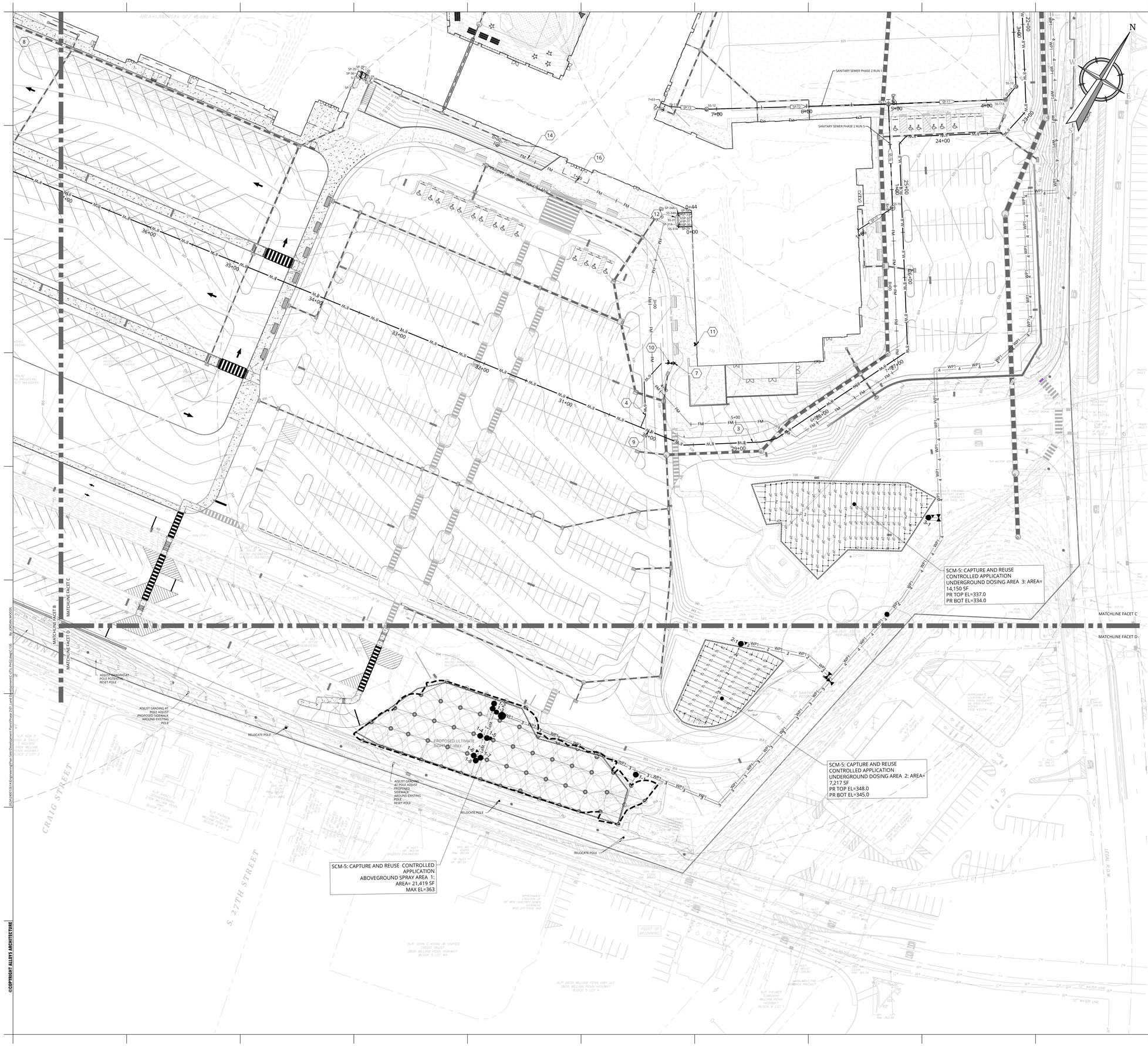
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
UTILITY PLAN - FACET C

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012161A

C-134

SHEET NUMBER 26 OF 63



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- SANITARY CLEANOUT
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SP-8A	SDR26	6.00"	2'	1.00%
SP-9	SDR26	6.00"	2'	2.26%
SP-9A	SDR26	6.00"	2'	1.62%
SP-9B	SDR26	6.00"	4'	4.00%
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SP-24	SDR26	6.00"	7'	1.00%
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SP-26	SDR26	6.00"	29'	1.00%
SP-27	SDR26	6.00"	20'	1.97%
SP-28	SDR26	6.00"	10'	1.00%
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NOTE: PIPES AND STRUCTURES DENOTED WITH A (T) ARE TEMPORARY PIPES AND STRUCTURES TO BE ABANDONED UPON THE DEMOLITION OF THE EXISTING SCHOOL.

SCALE : 1" = 40'

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2601 WILLIAM PENN HWY
EASTON, PA 18045

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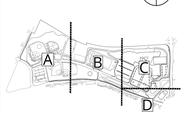

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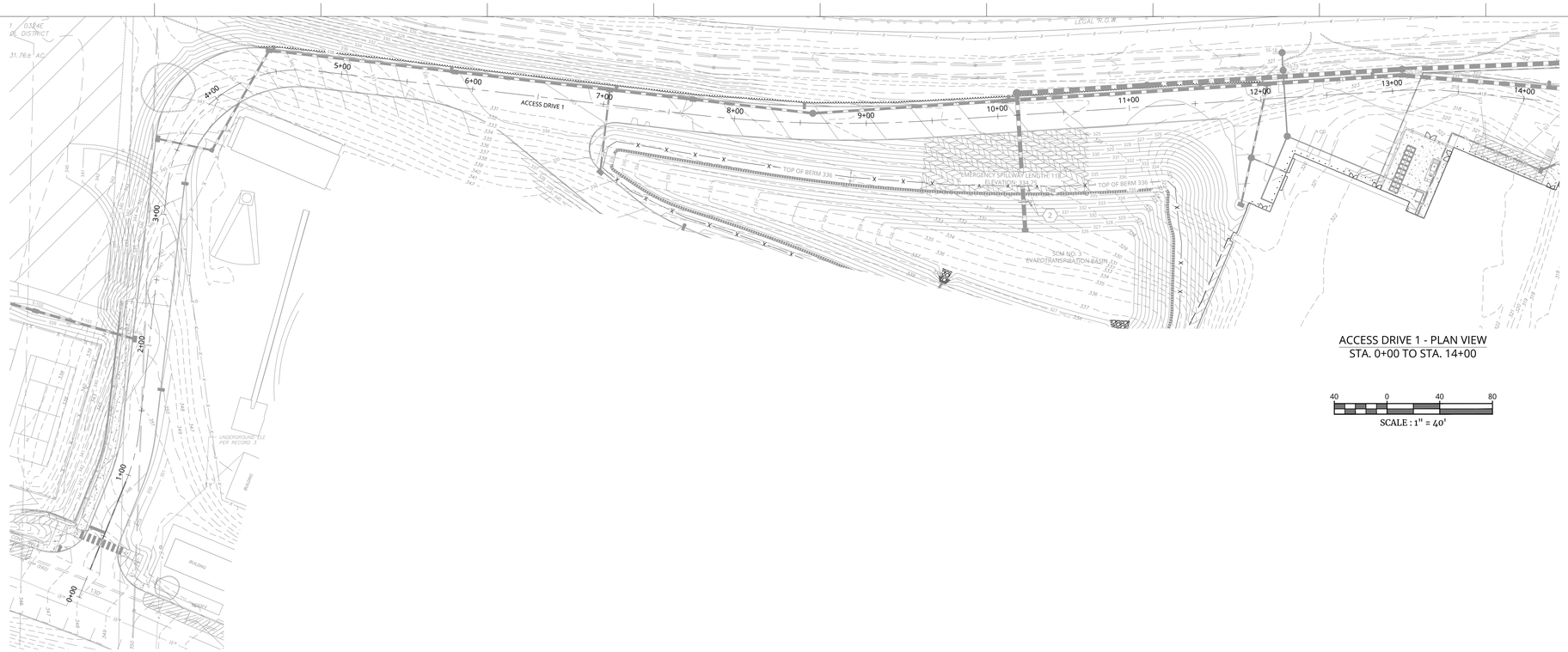
PROJ NO: **24-0063**
CED PROJ NO: **2400126IA**

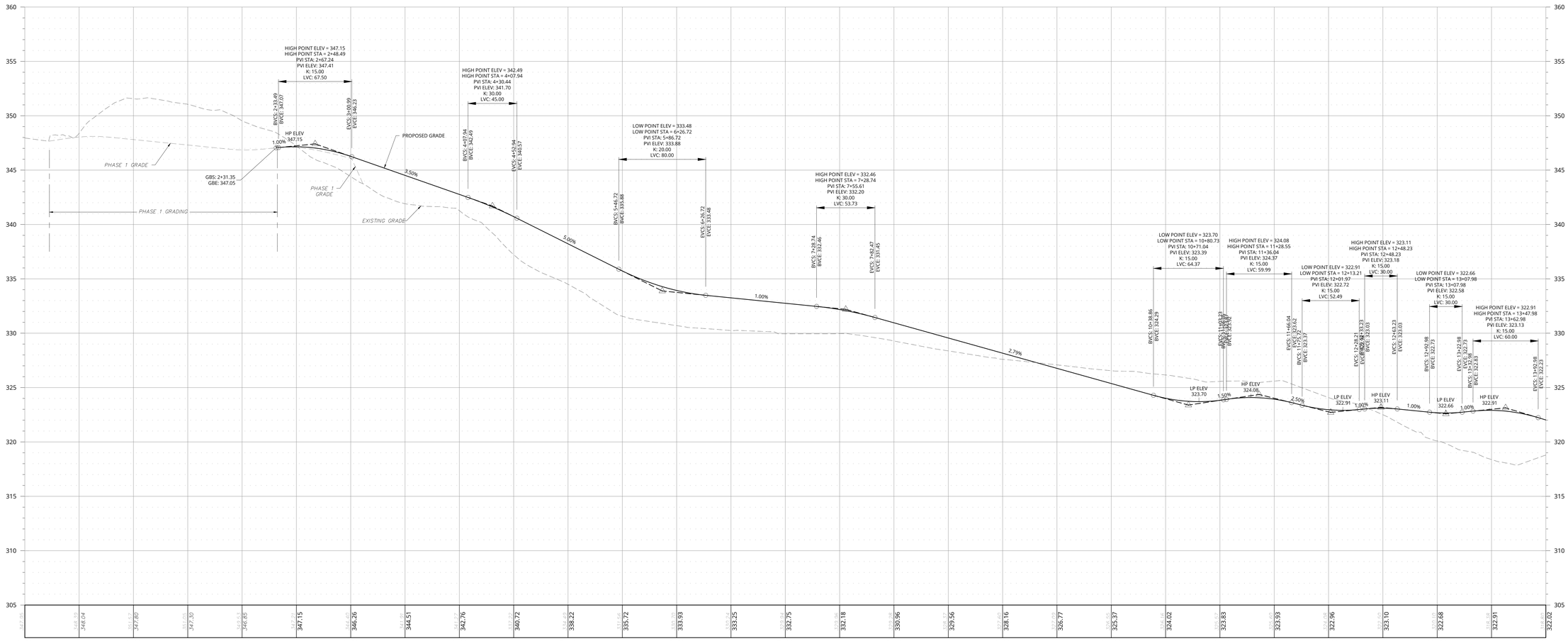
C-135



ACCESS DRIVE 1 - PLAN VIEW
STA. 0+00 TO STA. 14+00

40 0 40 80

SCALE : 1" = 40'



PROFILE OF ACCESS DRIVE 1 - PHASE 2
STA. 0+00 TO STA. 14+00
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

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2024/2601 2024 Engineering\Plan Sets\Development Plan\Phase 2\01 Land Development\C-PROF-PHS2.dwg 9/9/2026 By JORDAN WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

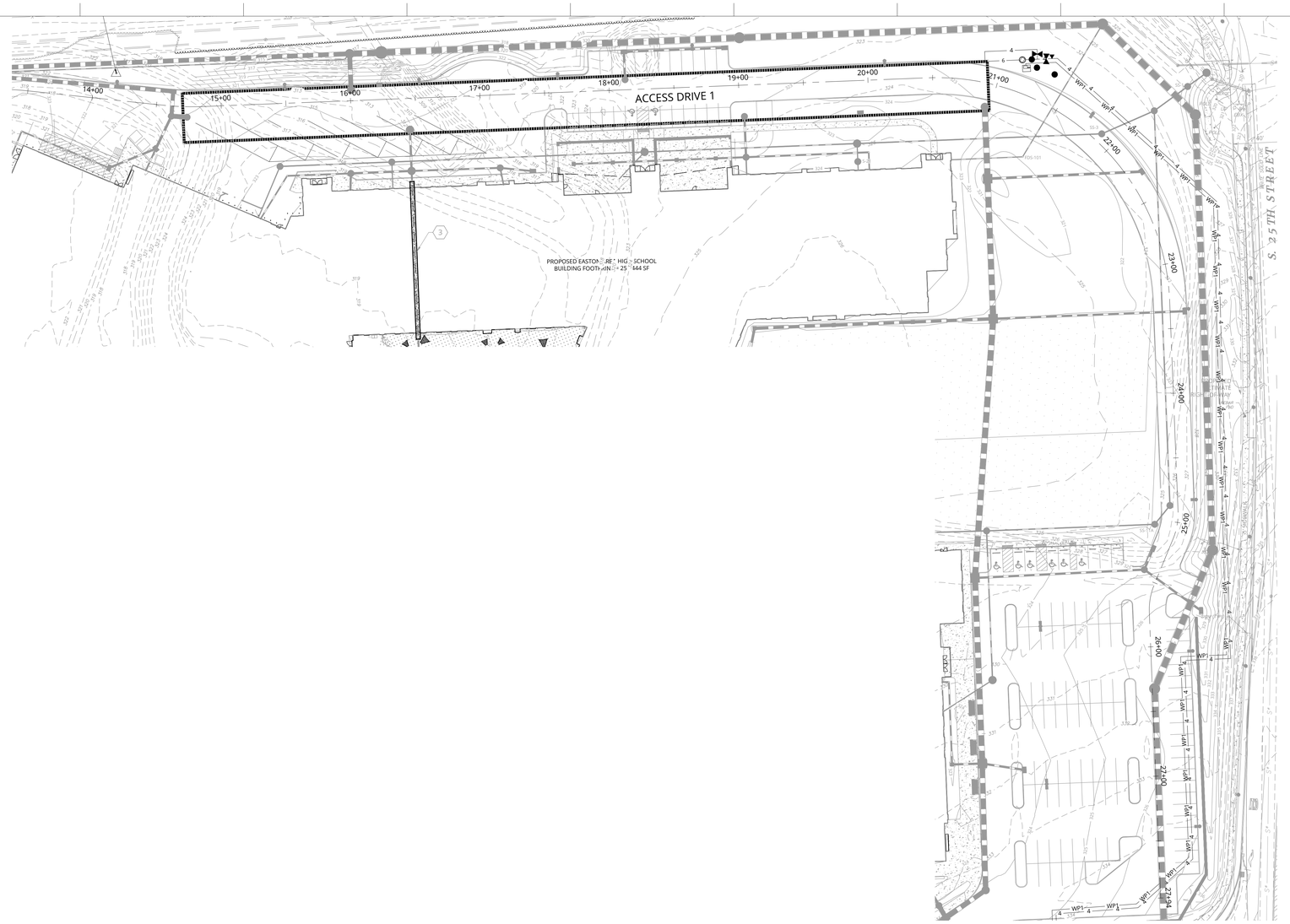
SHEET TITLE:

ACCESS DRIVE 1 STA. 0+00 TO 14+00 PLAN AND PROFILE

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

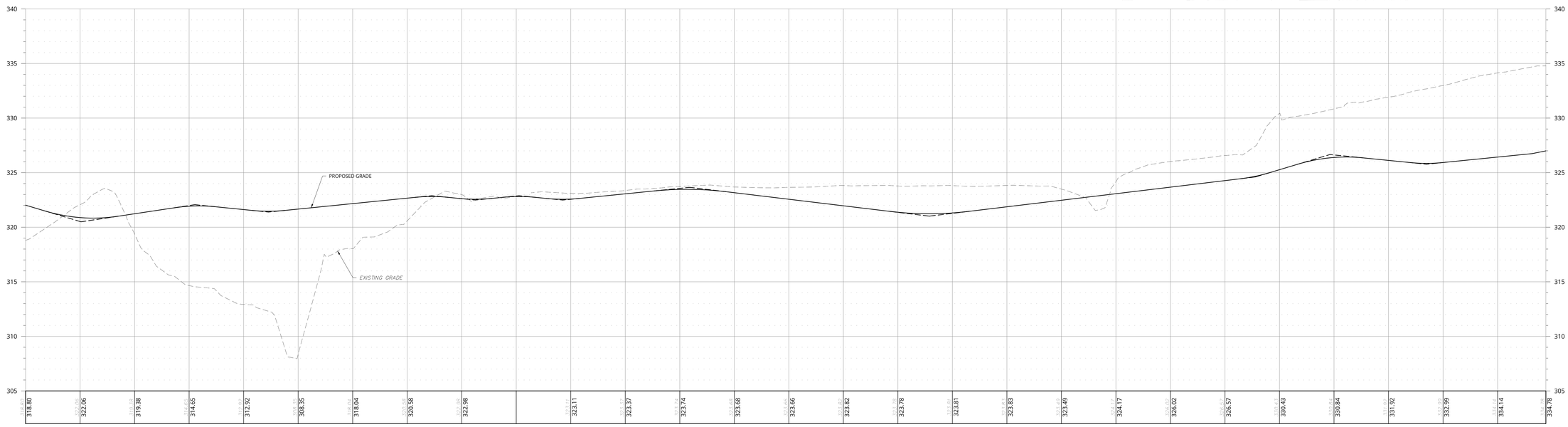
C-201

SHEET NUMBER 28 OF 63



ACCESS DRIVE 1 - PLAN VIEW
STA. 14+00 TO STA. 27+94.27

40 0 40 80
SCALE : 1" = 40'



PROFILE OF ACCESS DRIVE 1 - PHASE 2
STA. 14+00 TO STA. 27+94
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

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PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway,
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

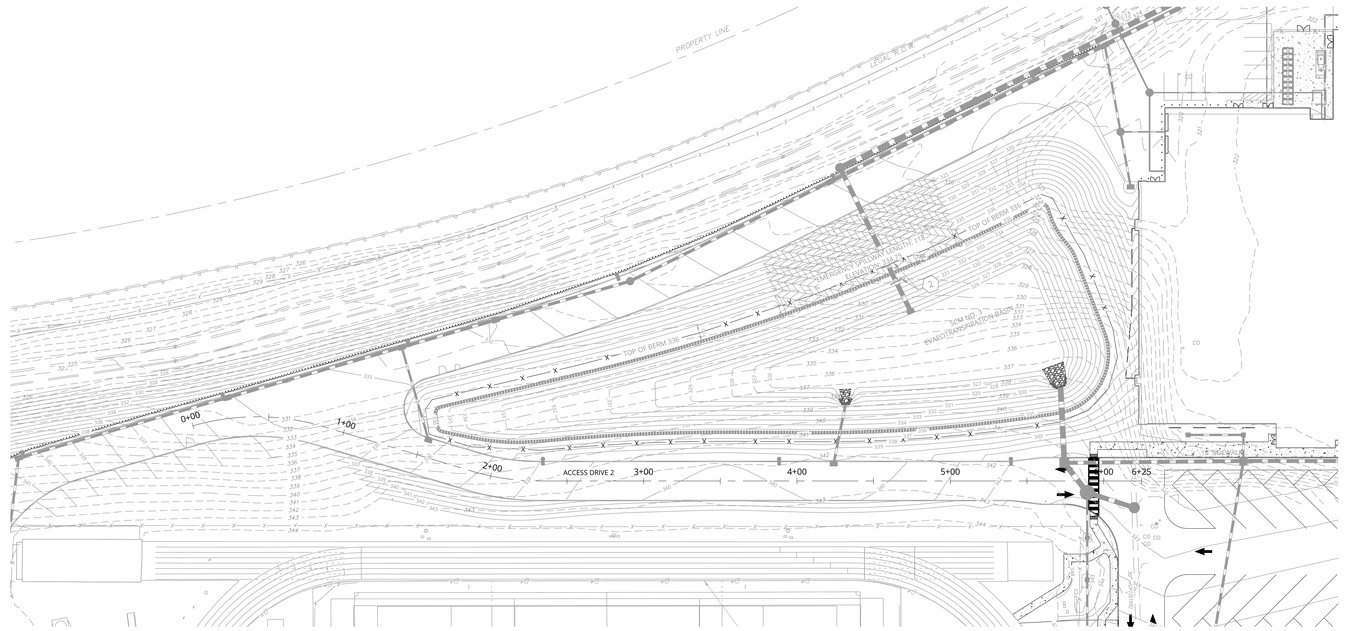
SHEET TITLE:

ACCESS DRIVE 1 STA. 14+00 TO 27+94 PLAN AND PROFILE

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

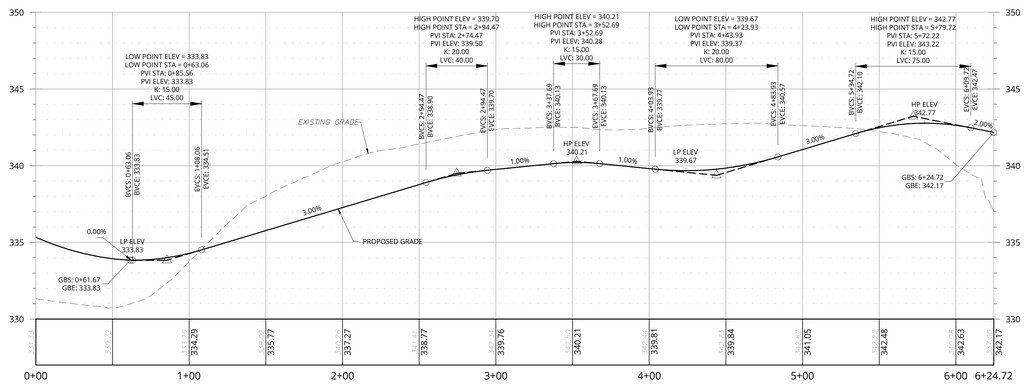
C-202

SHEET NUMBER 29 OF 63



ACCESS DRIVE 2 - PLAN VIEW
STA. 0+00 TO STA. 6+24.72

40 0 40 80
SCALE : 1" = 40'



PROFILE OF ACCESS DRIVE 2
STA. 0+00 TO STA. 6+24.72
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
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Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAJER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

ACCESS DRIVE 2 PLAN AND PROFILE

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-203

SHEET NUMBER 30 OF 63

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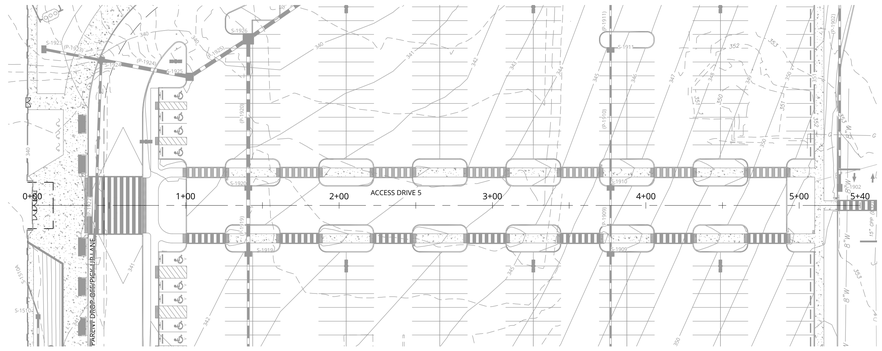
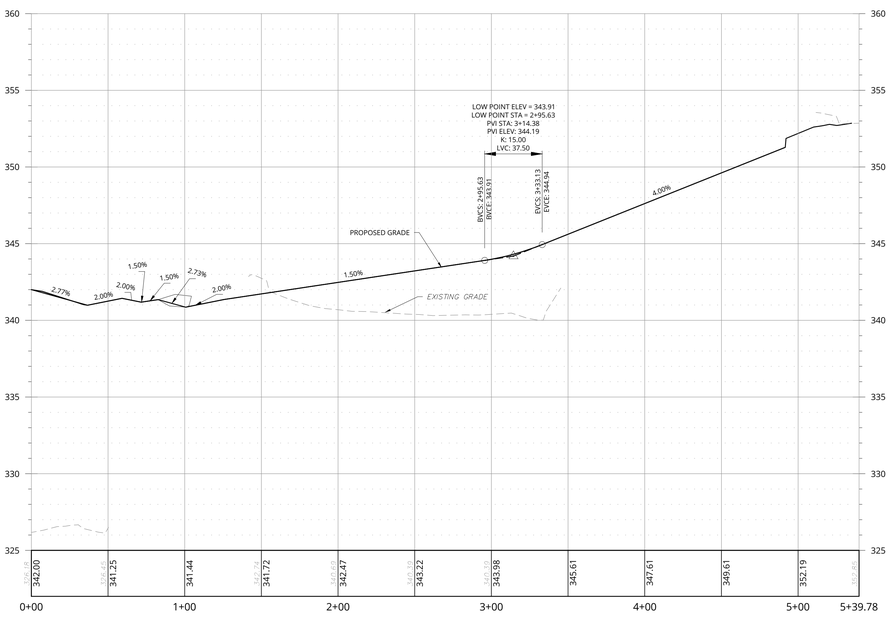
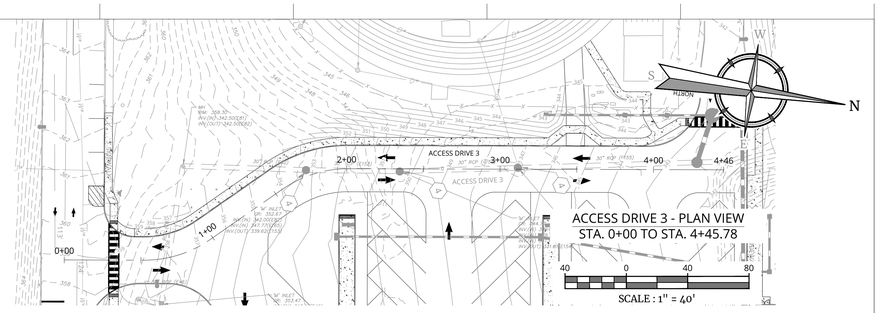


ACCESS DRIVE 5 - PLAN VIEW
STA. 0+00 TO STA. 5+39.78

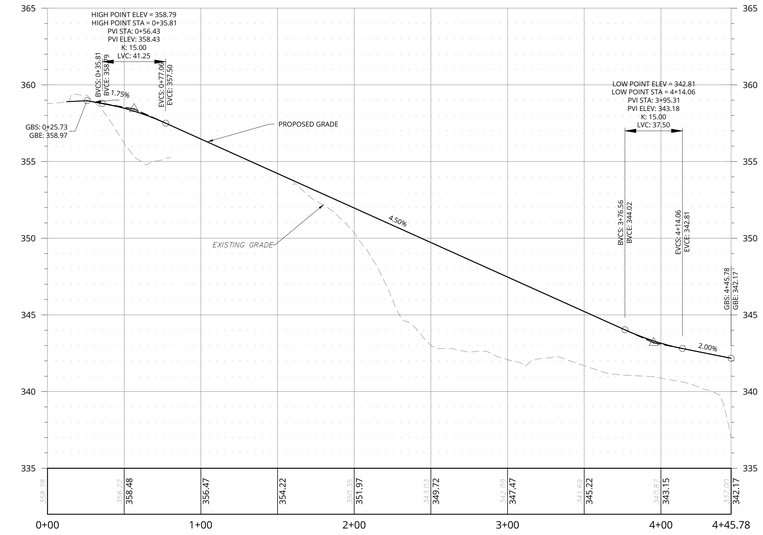
40 0 40 80
SCALE : 1" = 40'



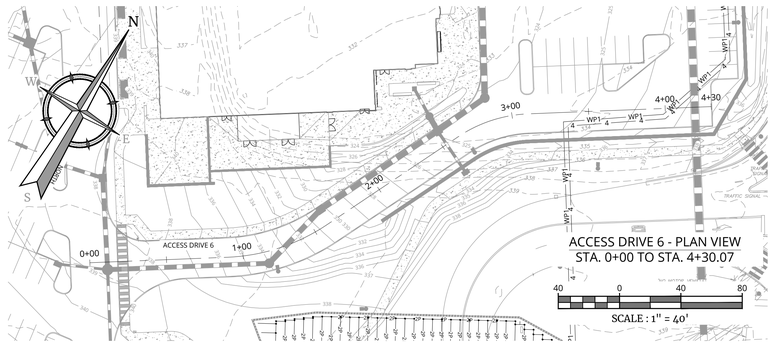
PROFILE OF ACCESS DRIVE 5
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'



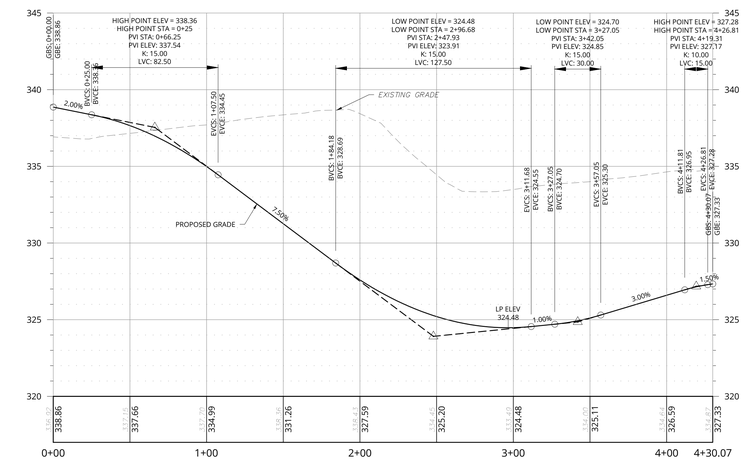
ACCESS DRIVE 3 - PLAN VIEW
STA. 0+00 TO STA. 4+45.78



PROFILE OF ACCESS DRIVE 3
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'



ACCESS DRIVE 6 - PLAN VIEW
STA. 0+00 TO STA. 4+30.07



PROFILE OF ACCESS DRIVE 6
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

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2024\24063\24-0063 Engineering\Plan Set\Development Plans\Phase 2\01 Land Development\C-PROS-PHS2.dwg, C-204 By: JORDAN WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

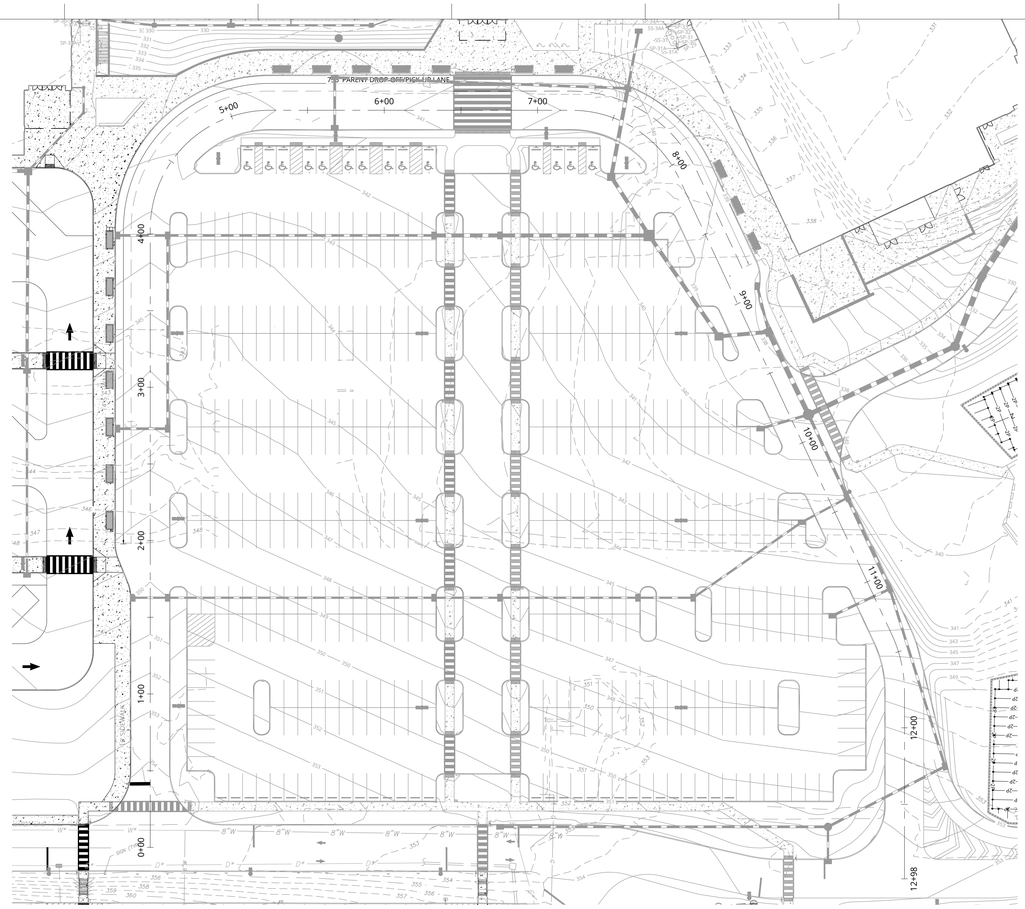
Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIER CONSULTING.
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
ACCESS DRIVE 3, 5, & 6 PLAN AND PROFILE

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

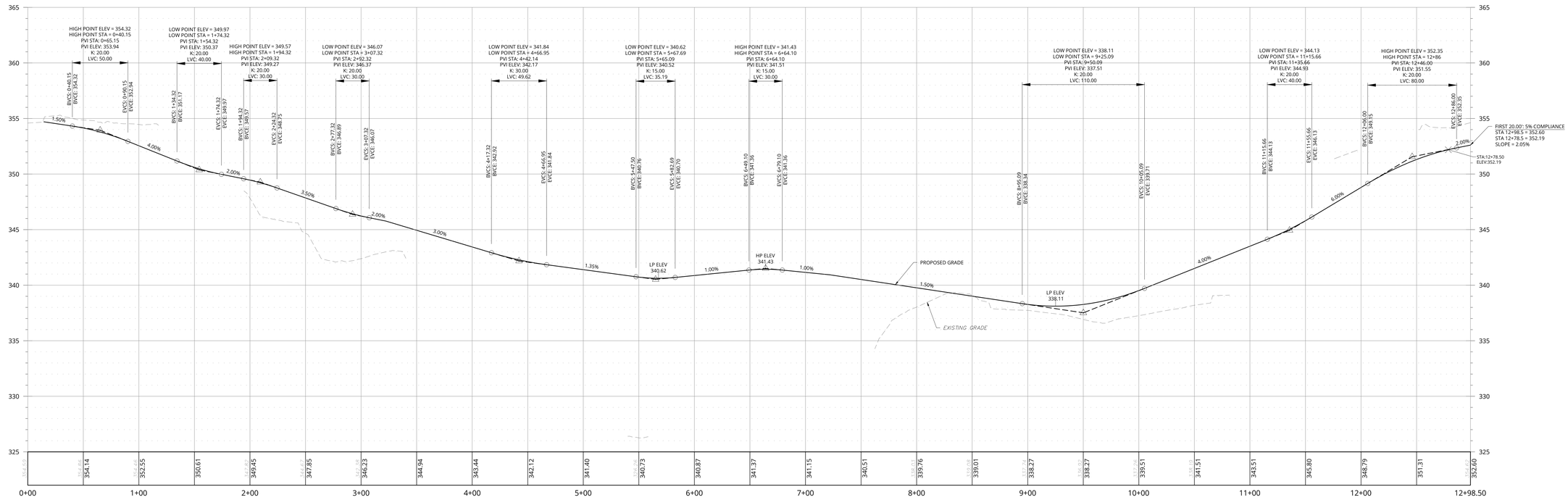
C-204



ACCESS DRIVE 4 - PLAN VIEW
STA. 0+00 TO STA. 12+98.50

40 0 40 80

SCALE : 1" = 40'



PROFILE OF ACCESS DRIVE 4
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

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2024\24001261A\Engineering\Plan Set\Development Plans\Phase 2\01-Land Development\C-205 PHASE 2 Dwg C-205 By: JORDAN WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

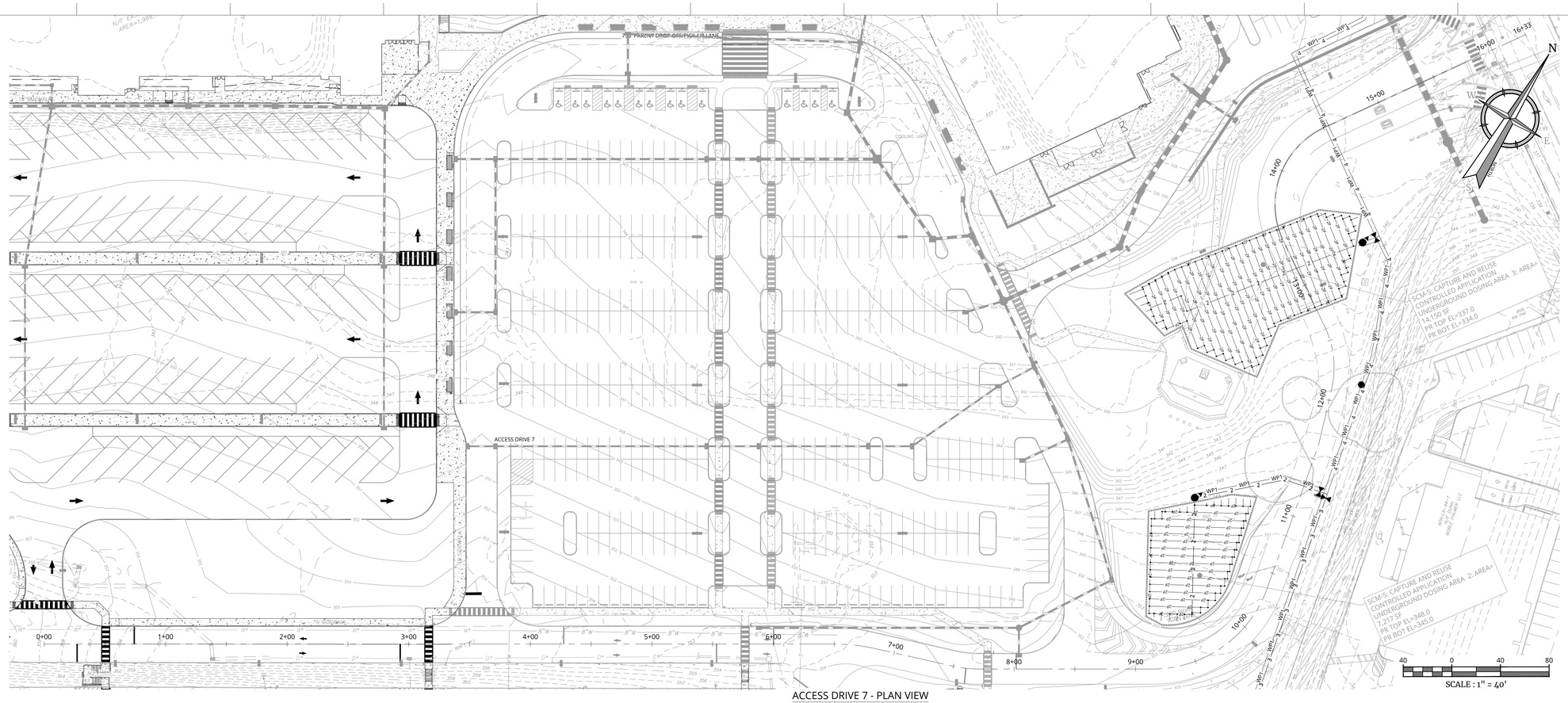
Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAKIN CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

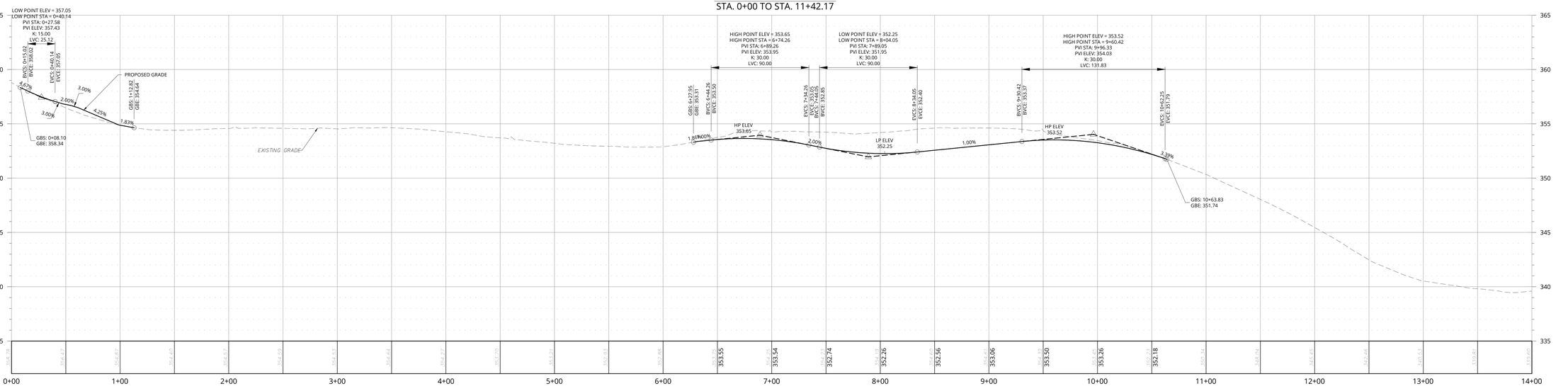
SHEET TITLE:
ACCESS DRIVE 4 PLAN AND PROFILE

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/AJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

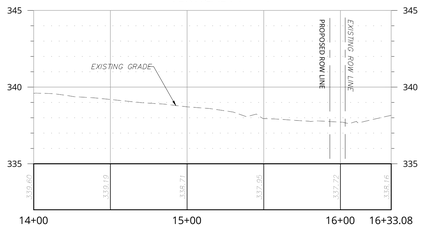
C-205



ACCESS DRIVE 7 - PLAN VIEW
STA. 0+00 TO STA. 11+42.17



PROFILE OF ACCESS DRIVE 7
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'



PROFILE OF ACCESS DRIVE 7
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

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2024/2401261A/Engineering/Plan Set/Development Plan/Phase 2/21_Land Development/C-PROJ-PHS2.dwg C.206 By JORDAN.WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
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Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

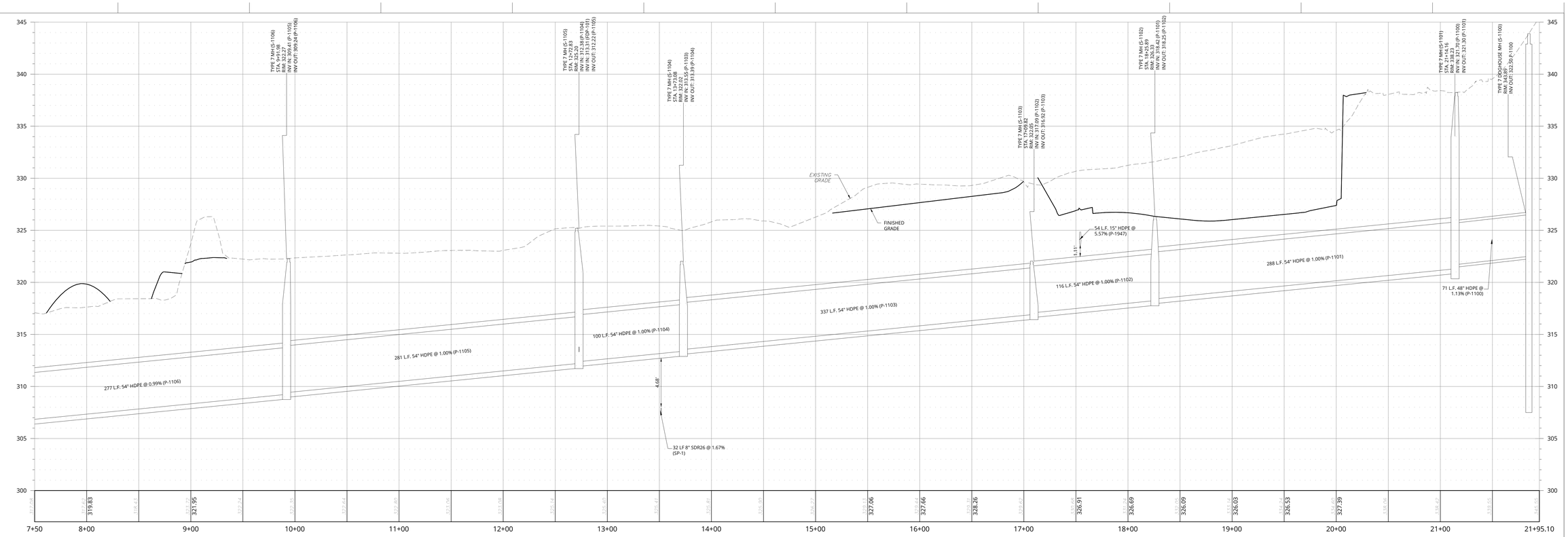
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
ACCESS DRIVE 7 PLAN AND PROFILE

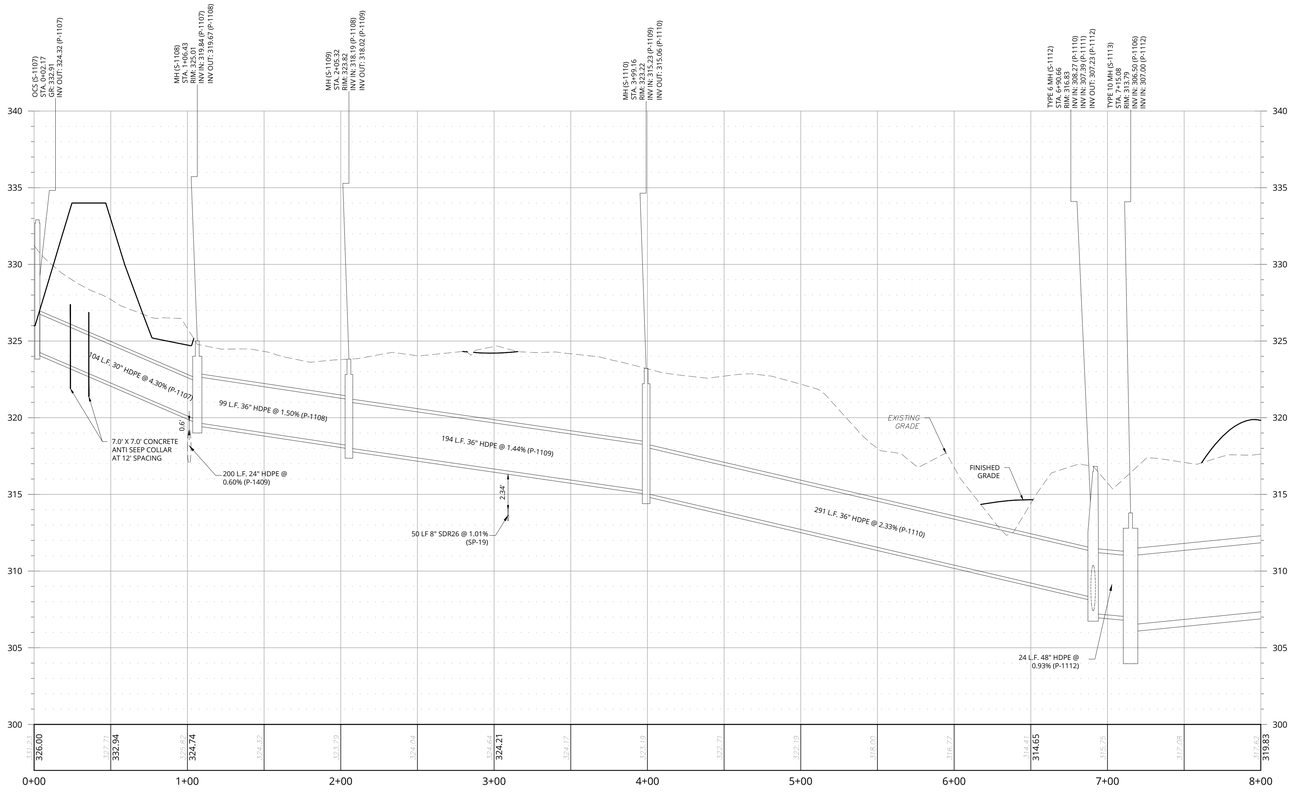
DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **24001261A**

C-206

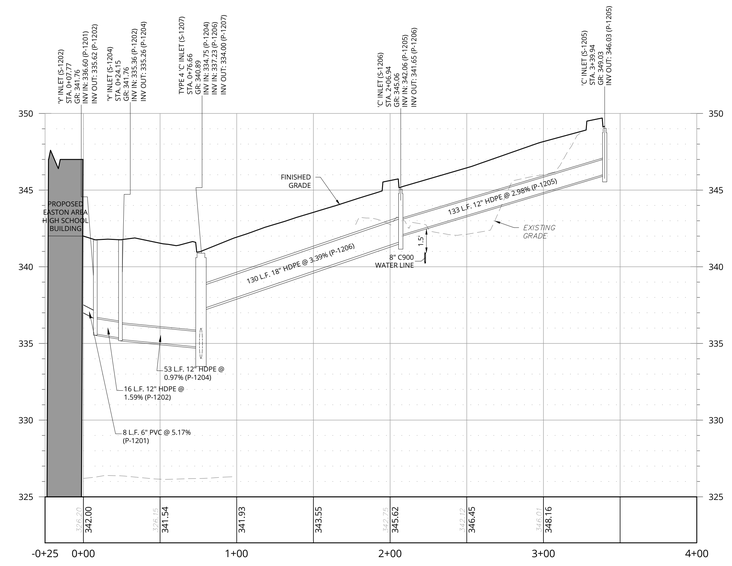
SHEET NUMBER 33 OF 63



PROFILE OF STORM SEWER S-1107 TO S-1100
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1107 TO S-1113
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-123 & C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1202 TO S-1205
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2024/2601/24-016 Engineering/Plan Sets/Development Plans/Phase 2/01 Land Development/LDP02-PHASE2.dwg C-301 By: JOSHUA WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAKER CONSULTING
www.colliersengineering.com

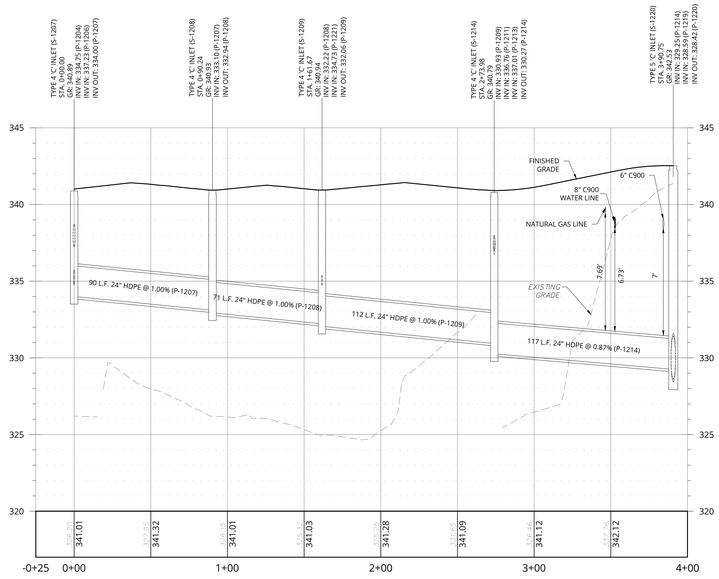
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE PROFILES

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **24001261A**

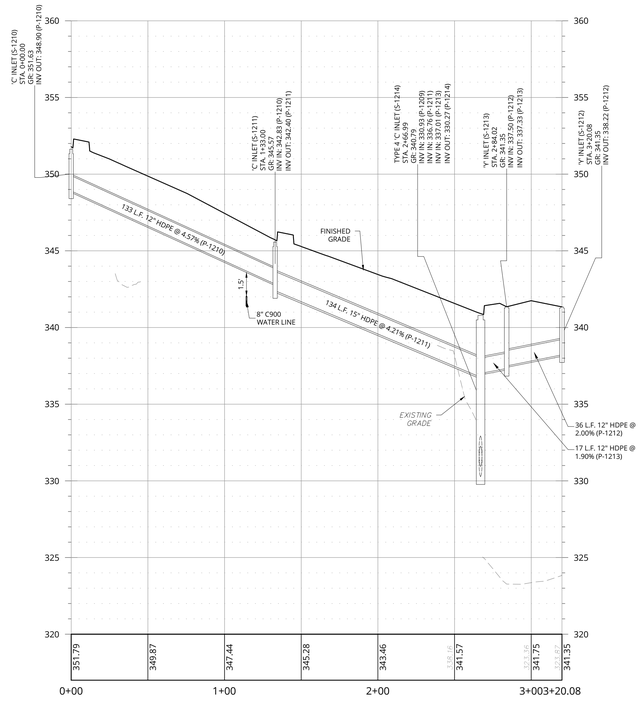
C-301

SHEET NUMBER 34 OF 63



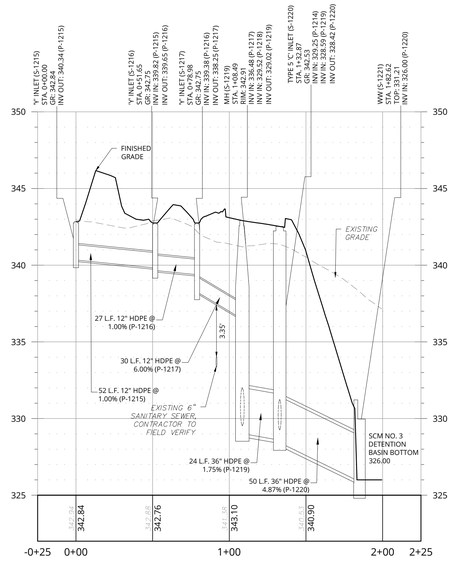
PROFILE OF STORM SEWER S-1207 TO S-1220
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 & C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



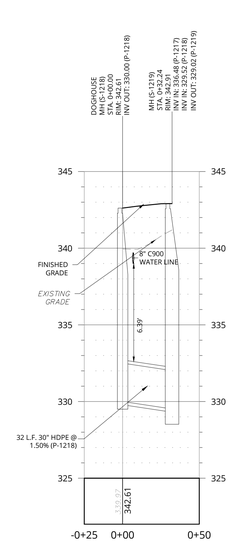
PROFILE OF STORM SEWER S-1210 TO S-1212
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



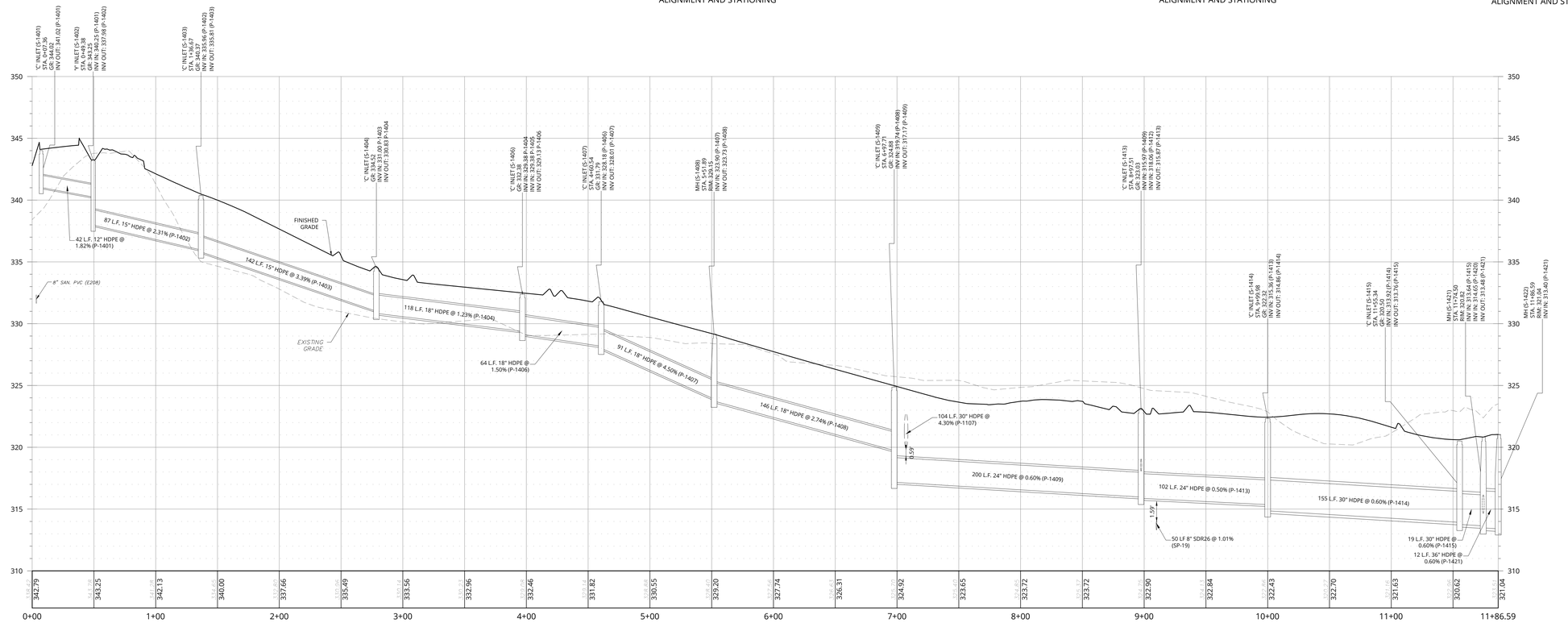
PROFILE OF STORM SEWER S-1215 TO S-1221
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1218 TO S-1219
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1401 TO S-1422
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 & C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2024\24-0063\Engineering\Plan Set\Development Plan\Phase 2\01_Land Development\C-PROF-PHS2.dwg C-302 By JORDAN WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
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BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

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BETHLEHEM, PA 18018

ACOUSTICS:

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1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

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COMMONWEALTH OF PENNSYLVANIA
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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
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DATE: 04/15/26
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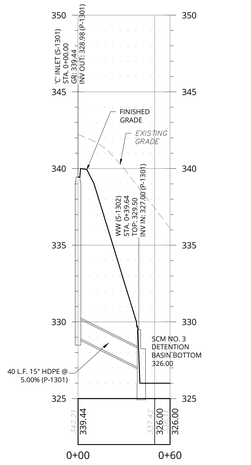
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

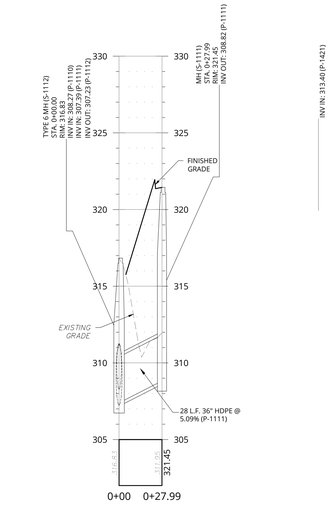
C-302

SHEET NUMBER 35 OF 63



PROFILE OF STORM SEWER S-1301 TO S-1302
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

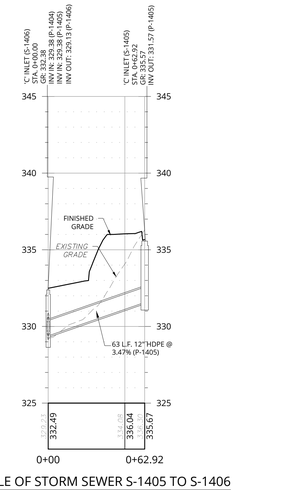
REFER TO SHEET C-123 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1111 TO S-1112
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

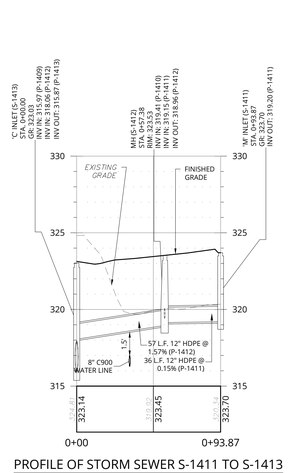
REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

INV IN: 313.40 (P-1421)



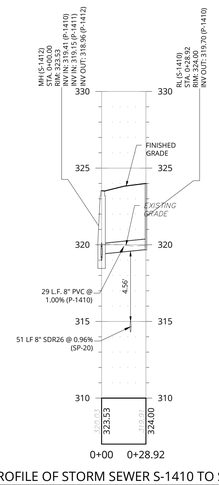
PROFILE OF STORM SEWER S-1405 TO S-1406
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



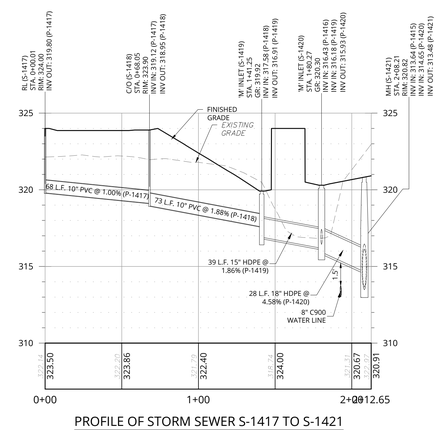
PROFILE OF STORM SEWER S-1411 TO S-1413
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



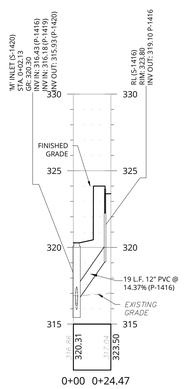
PROFILE OF STORM SEWER S-1410 TO S-1412
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



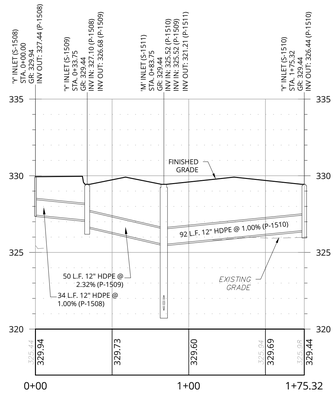
PROFILE OF STORM SEWER S-1417 TO S-1421
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



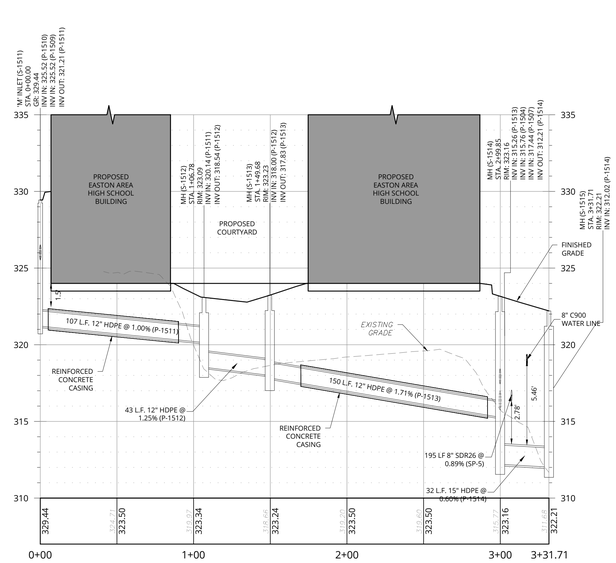
PROFILE OF STORM SEWER S-1416 TO S-1420
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



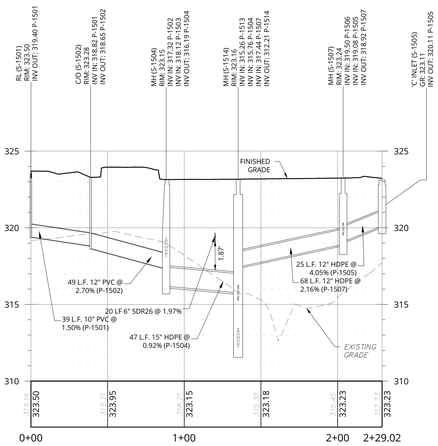
PROFILE OF STORM SEWER S-1508 TO S-1510
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1511 TO S-1515
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1501 TO S-1505
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2026/04/28 14:56 | Engineering\Plan Set\Development Plans\Phase 2\01-Land Development\C-303 PHASE 2 DWG | C-303 | By: JOSHUA WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
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BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
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1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
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KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASON CONSULTING
www.colliersengineering.com

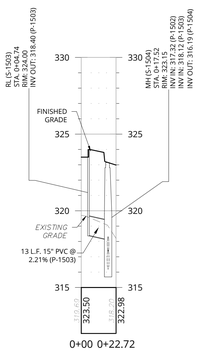
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE PROFILES

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

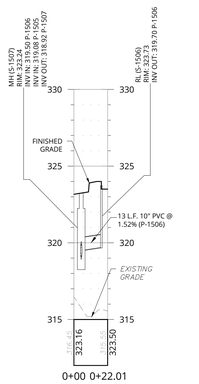
C-303

SHEET NUMBER 36 OF 63



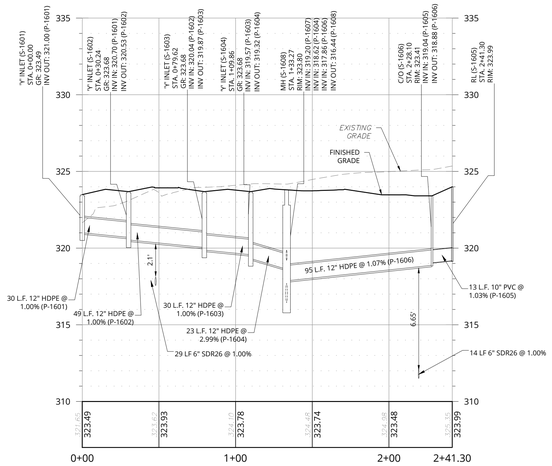
PROFILE OF STORM SEWER S-1503 TO S-1504
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



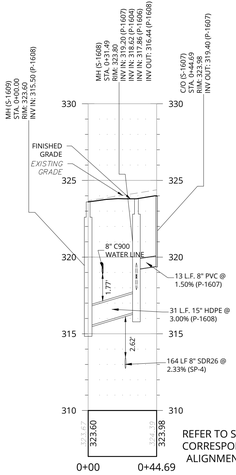
PROFILE OF STORM SEWER S-1506 TO S-1507
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-125 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



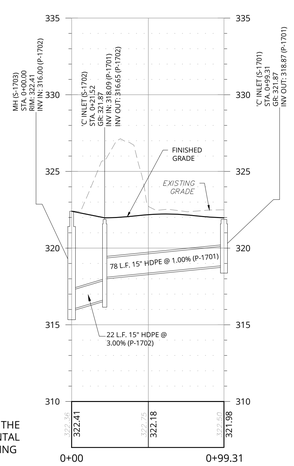
PROFILE OF STORM SEWER S-1601 TO S-1605
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



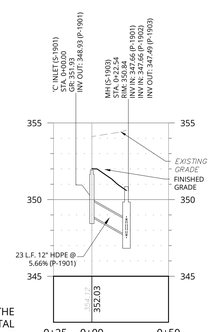
REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

PROFILE OF STORM SEWER S-1607 TO S-1609
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

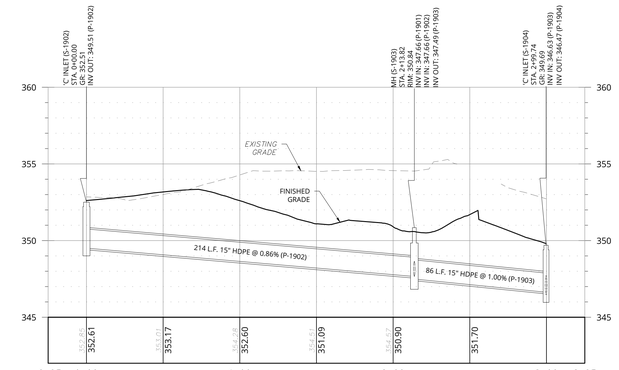


PROFILE OF STORM SEWER S-1701 TO S-1703
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



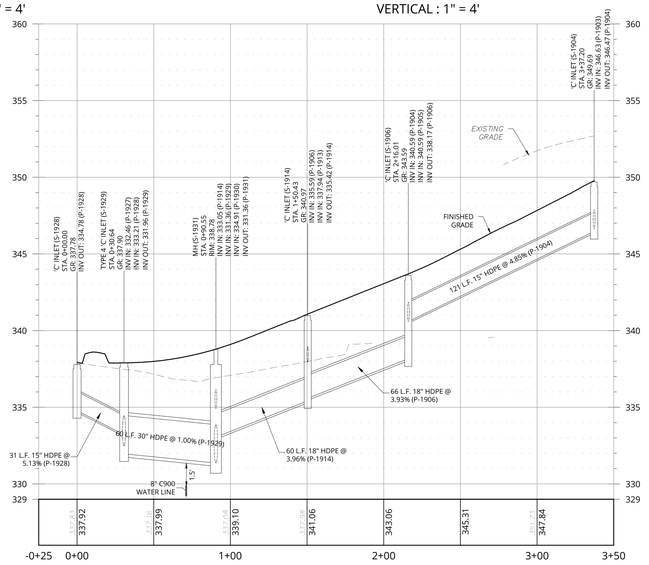
REFER TO SHEET C-125 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1901 TO S-1903
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

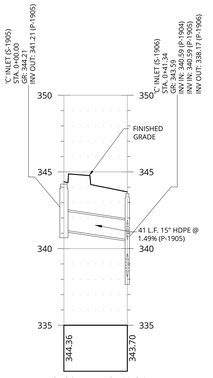
PROFILE OF STORM SEWER S-1902 TO S-1904
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-125 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



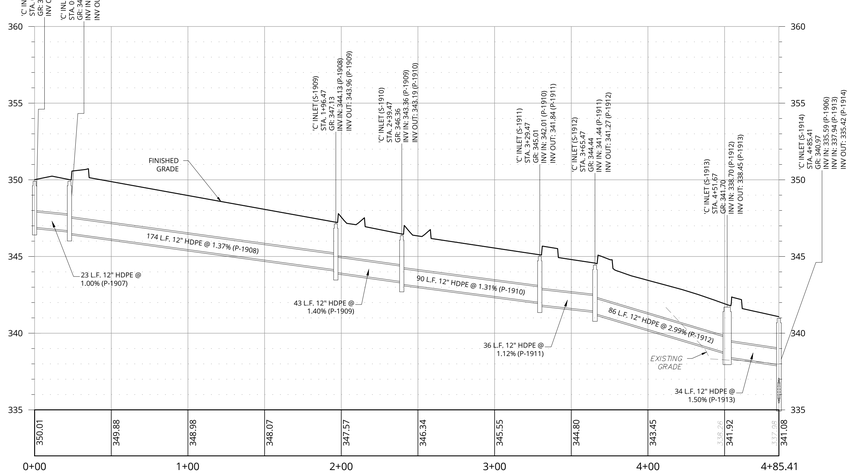
PROFILE OF STORM SEWER S-1904 TO S-1928
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



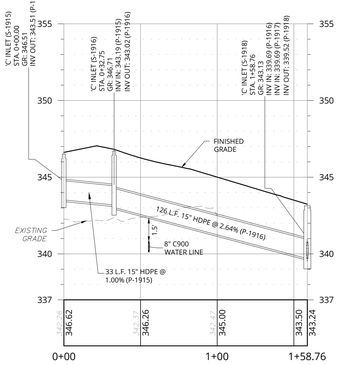
PROFILE OF STORM SEWER S-1905 TO S-1906
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



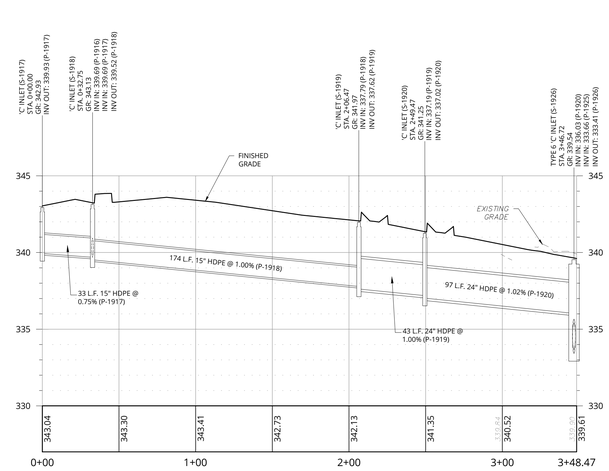
PROFILE OF STORM SEWER S-1907 TO S-1914
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1915 TO S-1918
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1917 TO S-1926
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2024/2601 2814\Engineering\Plan Sets\Development Plan\Phase 2\01 Land Development\ PROFPHSE2.dwg C-304 By: JSRAN, MROOS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

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ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
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1005 W LEHIGH STREET
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ACOUSTICS:

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1489 BALTIMORE PIKE
UNIT 109
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RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

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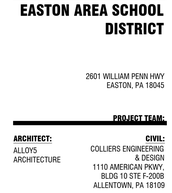
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26



C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4005

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

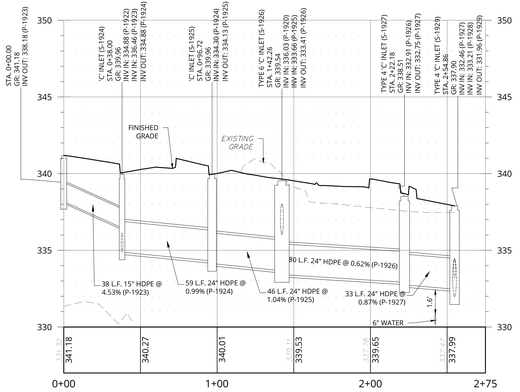
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE PROFILES

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

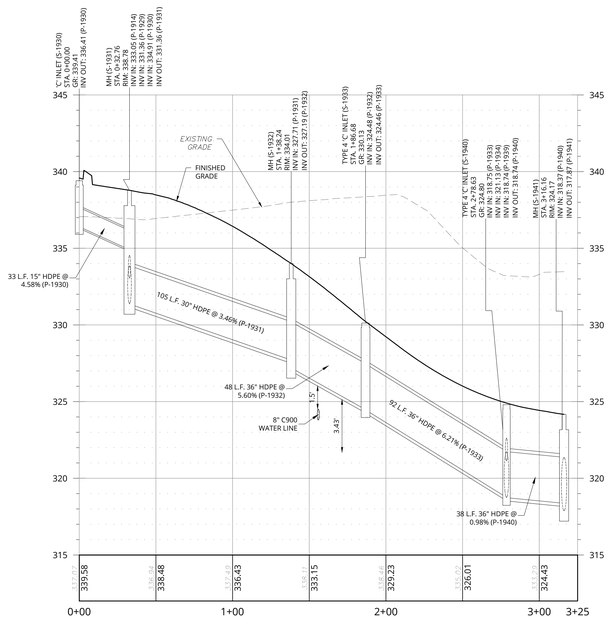
C-304

SHEET NUMBER 37 OF 63



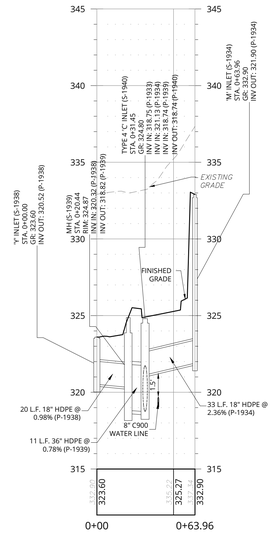
PROFILE OF STORM SEWER S-1923 TO S-1929
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



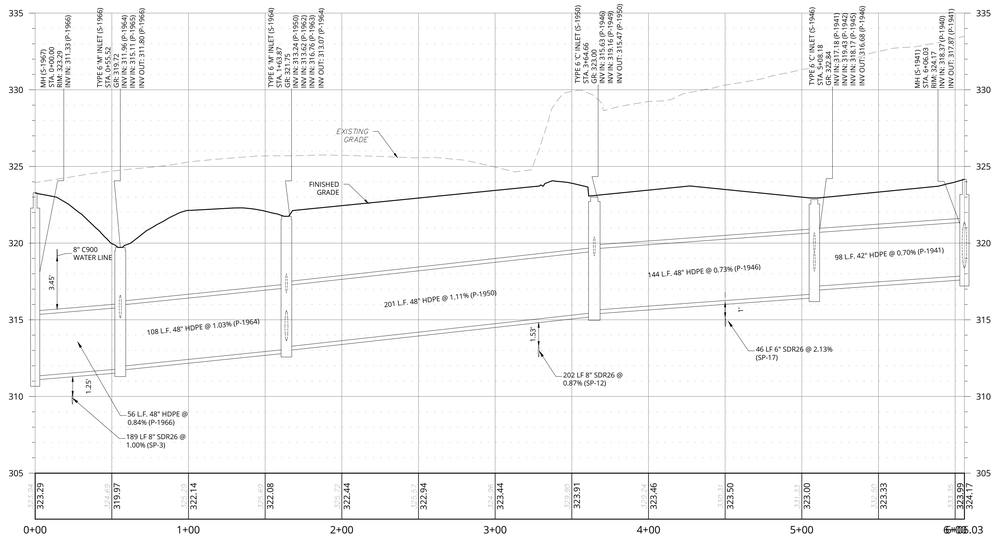
PROFILE OF STORM SEWER S-1930 TO S-1941
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



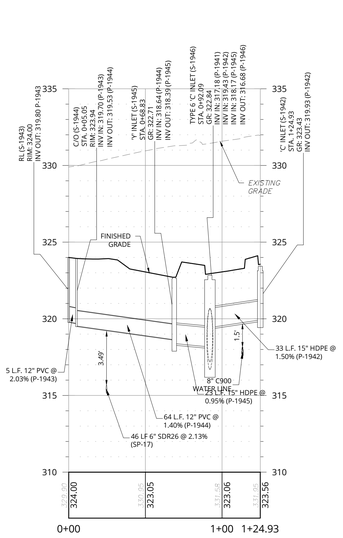
PROFILE OF STORM SEWER S-1934 TO S-1938
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



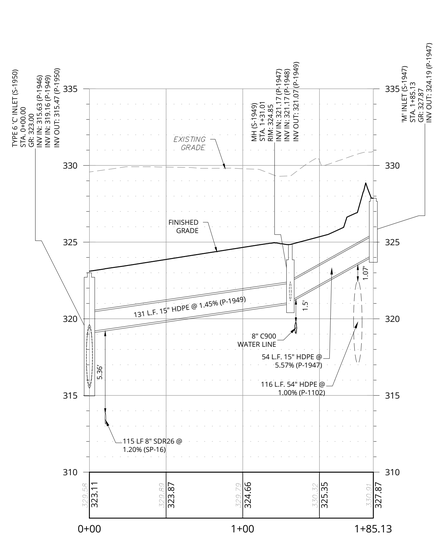
PROFILE OF STORM SEWER S-1941 TO S-1967
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1943 TO S-1942
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-1950 TO S-1947
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2026\260136\16\Engineering\Plan Set\Development Plans\Phase 2\01-Land Development\C-PROFILES.dwg C-305 By: JOSHUA WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEP/F:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:
ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASON CONSULTING
www.colliersengineering.com

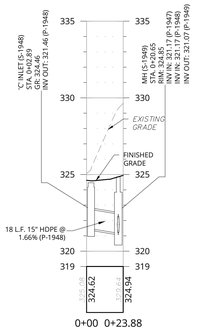
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE PROFILES

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

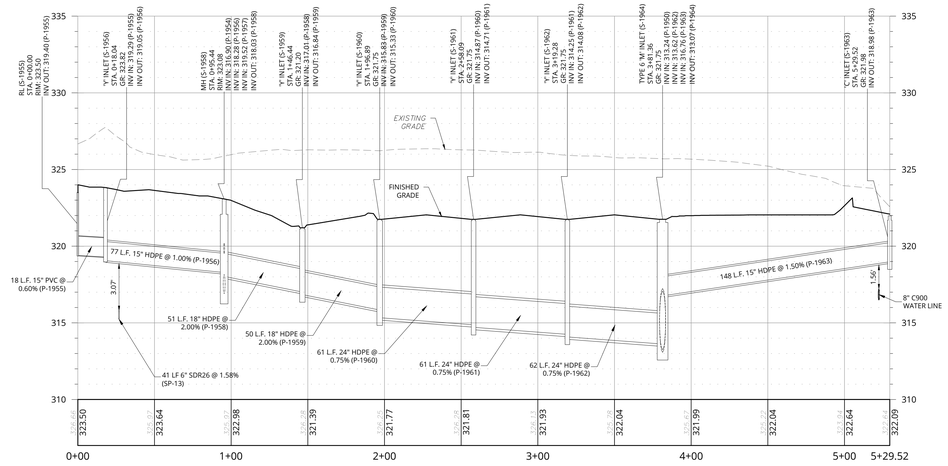
C-305

SHEET NUMBER 38 OF 63



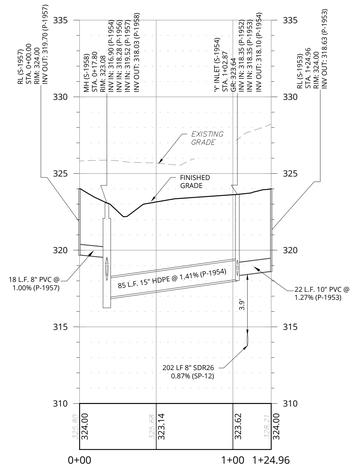
PROFILE OF STORM SEWER S-1948 TO S-1949
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



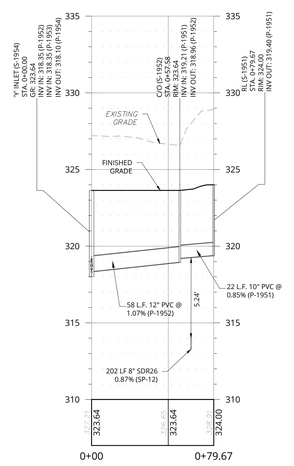
PROFILE OF STORM SEWER S-1955 TO S-1963
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



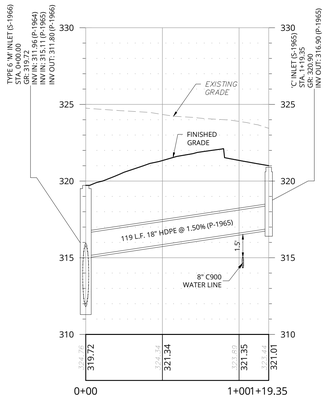
PROFILE OF STORM SEWER S-1953 TO S-1957
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



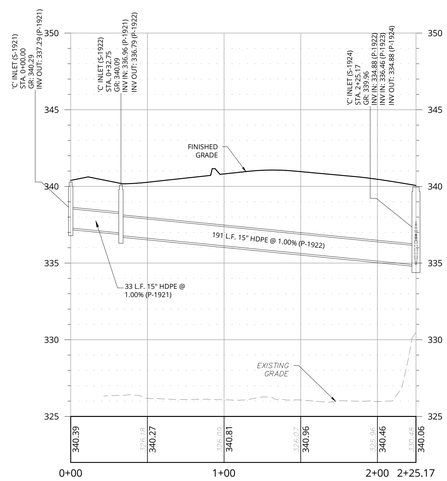
PROFILE OF STORM SEWER S-1951 TO S-1954
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



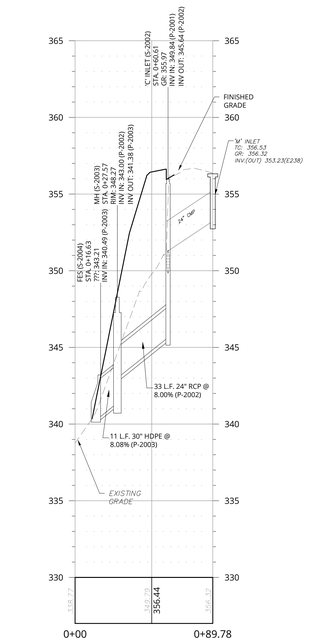
PROFILE OF STORM SEWER S-1965 TO S-1966
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



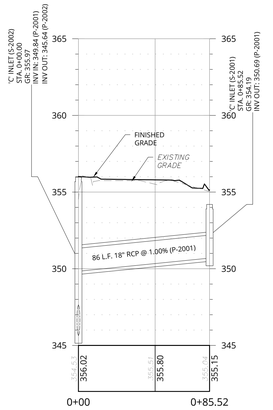
PROFILE OF STORM SEWER S-1921 TO S-1924
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-124 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



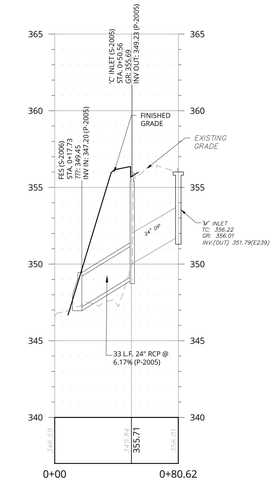
PROFILE OF STORM SEWER S-2002 TO S-2004
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-122 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



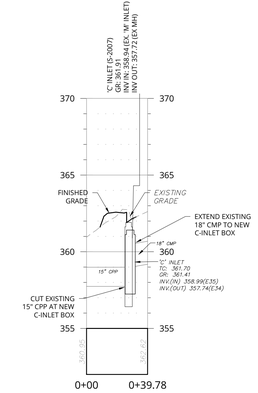
PROFILE OF STORM SEWER S-2001 TO S-2002
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-122 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-2005 TO S-2006
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-123 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF STORM SEWER S-2007
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-125 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2024/24001316/Engineering/Plan Sets/Development Plans/Phase 2/01-Land Development/C-306.dwg, 306, By: JOSHUA WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — C. RICHARD ROSEBERRY — ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

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610.419.4055

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1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAKOR CONSULTING
www.colliersengineering.com

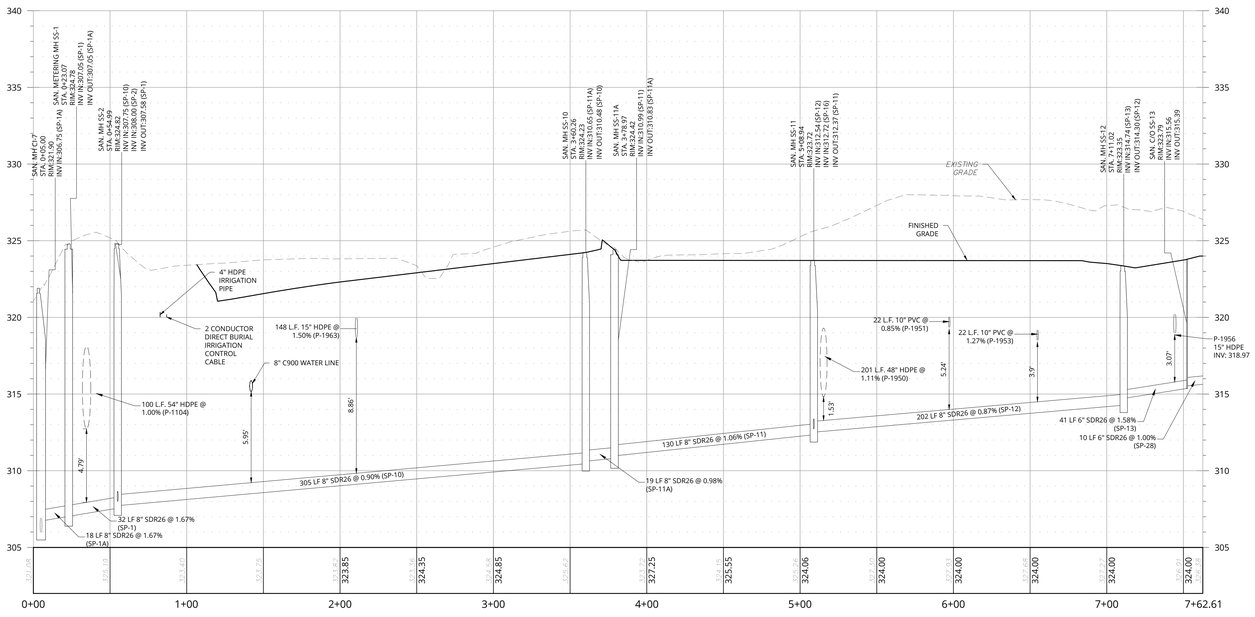
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE PROFILES

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **240012614**

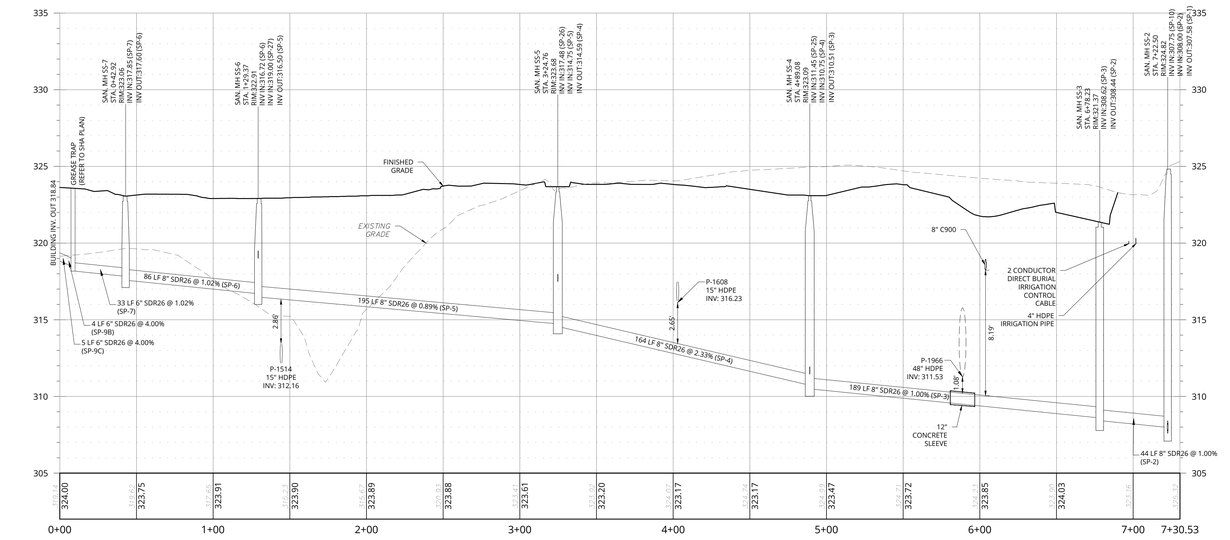
C-306

SHEET NUMBER 39 OF 63



PROFILE OF SANITARY SEWER SS-1 TO SS-15
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF SANITARY SEWER BUILDING TO SS-2
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2026/04/08 08:14:45 | Engineering\Plan Set\Development Plans\Phase 2\01 Land Development\C-PROFILES.dwg | C-401 | By: JOSHUA WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
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610.419.4055

Colliers Engineering & Design
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Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIDEN CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

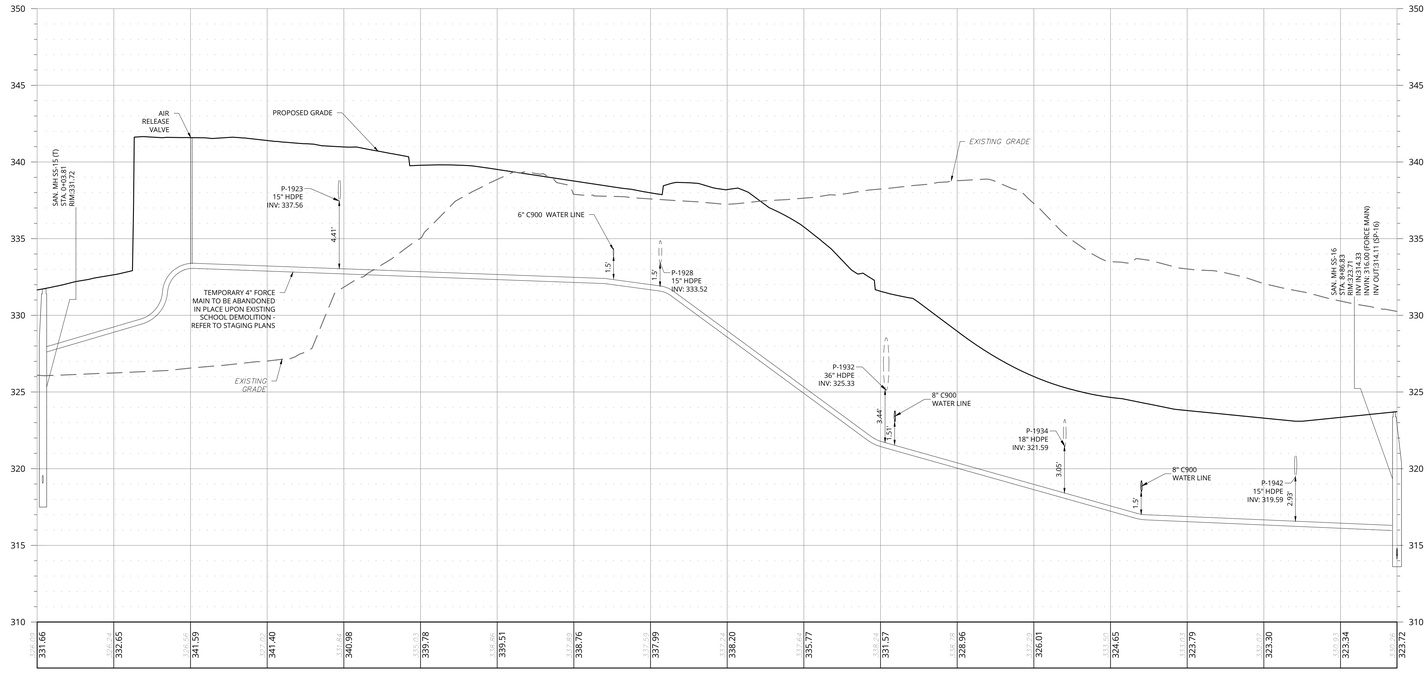
SHEET TITLE:

SITE SANITARY SEWER PROFILES

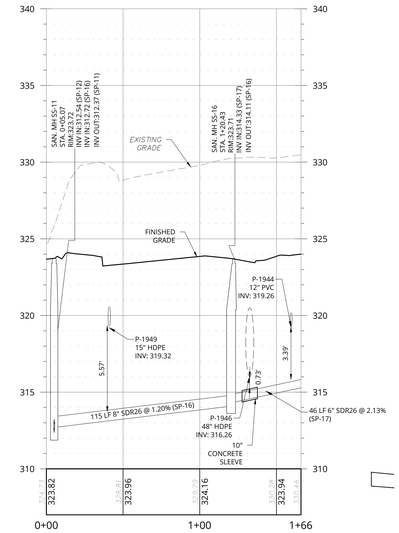
DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **240012614**

C-401

SHEET NUMBER 40 OF 63

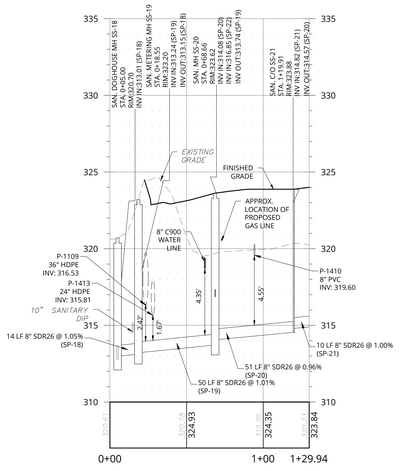


PROFILE OF TEMPORARY SANITARY SEWER SS-15 TO SS-16
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

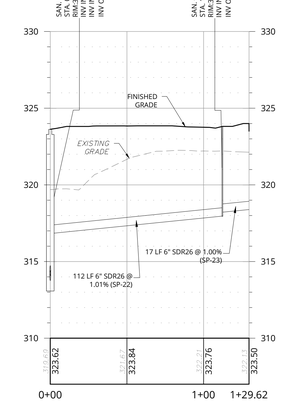


PROFILE OF SANITARY SEWER BUILDING TO SS-11
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

PROFILE OF SANITARY SEWER BUILDING TO SP-8A
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF SANITARY SEWER SS-18 TO SS-20
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF SANITARY SEWER SS-19 TO SS-21
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'
REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2024/2025 SY24 Engineering\For Land Development Plans\Phase 2\02 - Land Development_PROP PHASE 2.dwg C-402 By: JOSEAN WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

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530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

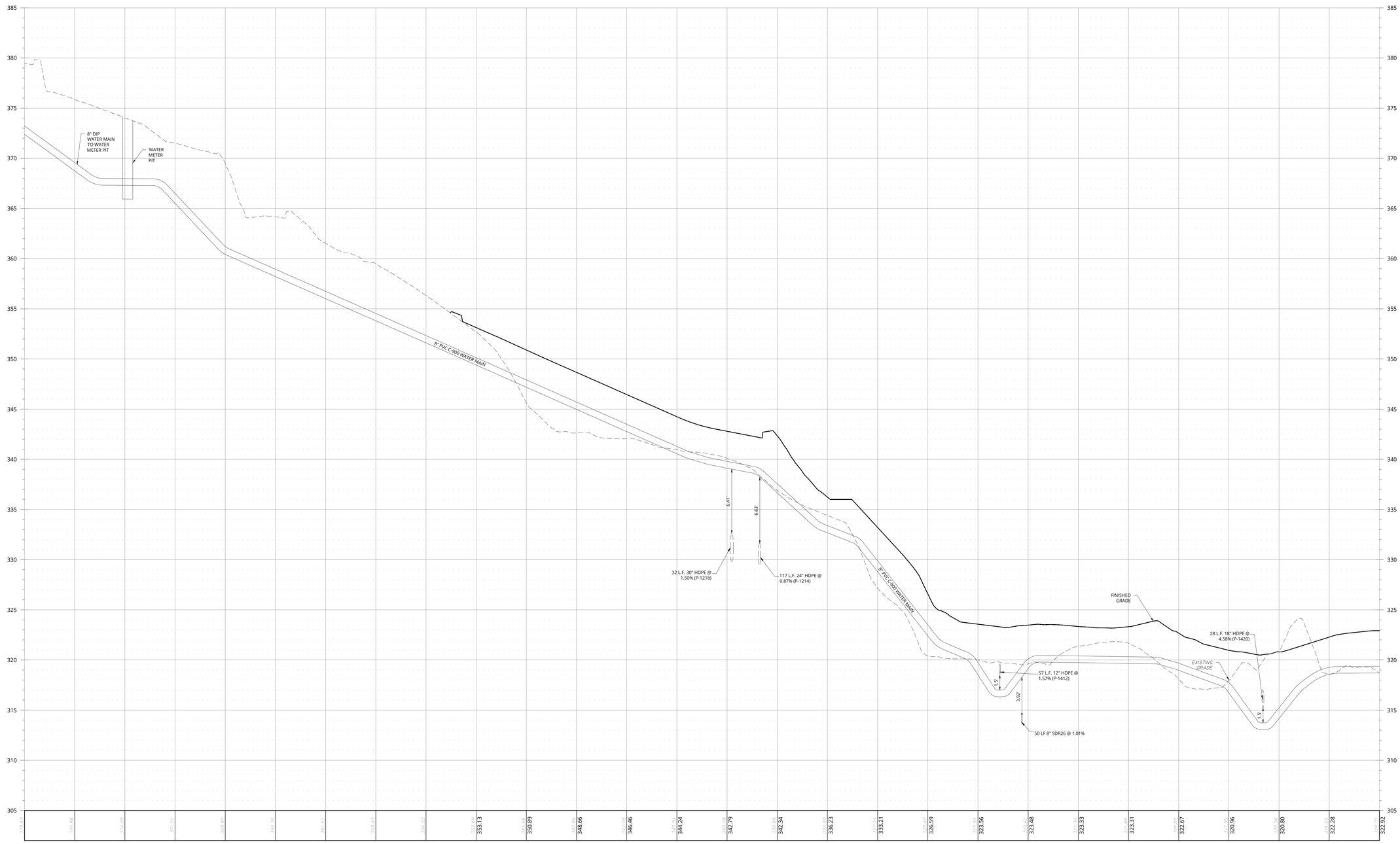
SHEET TITLE:

SITE SANITARY SEWER PROFILES

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **240012618**

C-402

SHEET NUMBER 41 OF 63



PROFILE OF PH2 WATER MAIN
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-133 & C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY, BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

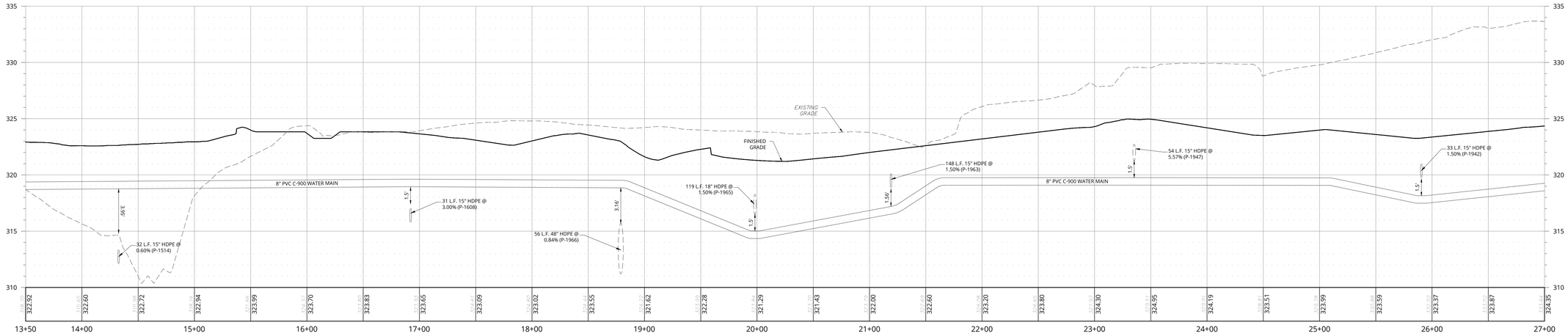
SHEET TITLE:

SITE WATER LINE PROFILES

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

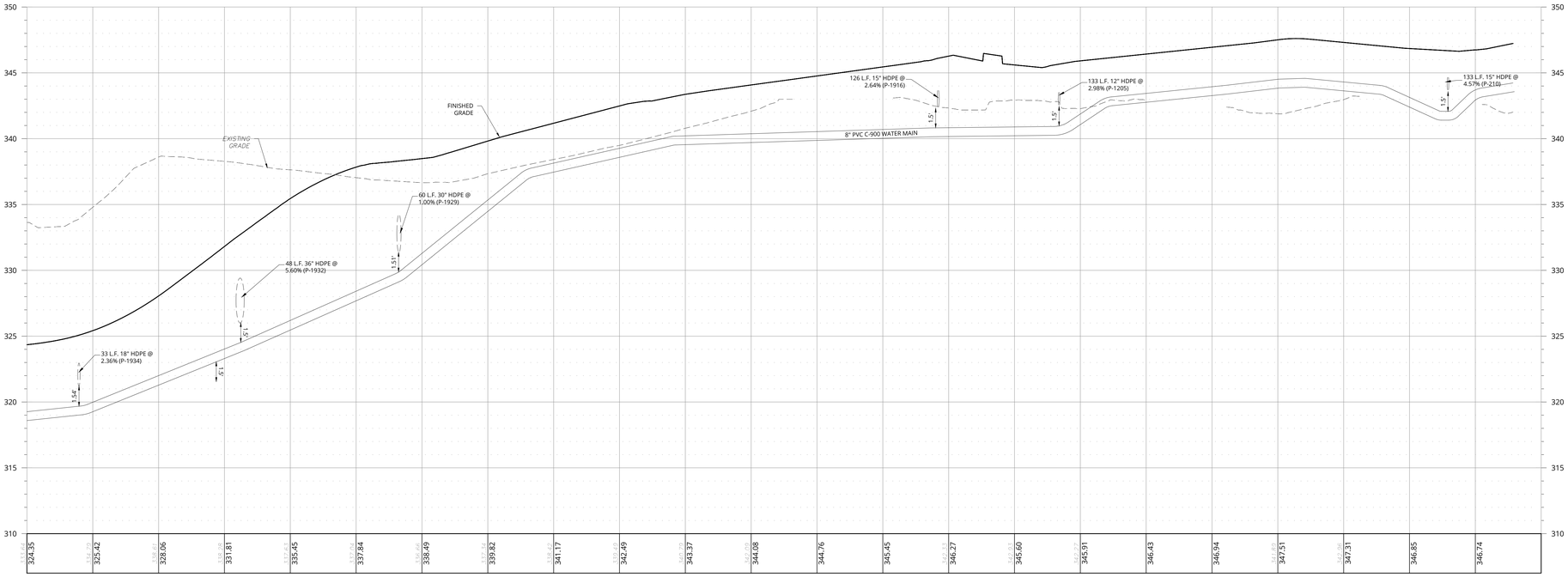
C-410

SHEET NUMBER 42 OF 63



PROFILE OF PH2 WATER MAIN
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

REFER TO SHEET C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING



PROFILE OF PH2 WATER MAIN
HORIZONTAL : 1" = 40'
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REFER TO SHEET C-133 & C-134 FOR THE CORRESPONDING HORIZONTAL ALIGNMENT AND STATIONING

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2024\24001261A\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-PROF-PH2.dwg C-411 By JORDAN WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

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ARCHITECTURE

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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

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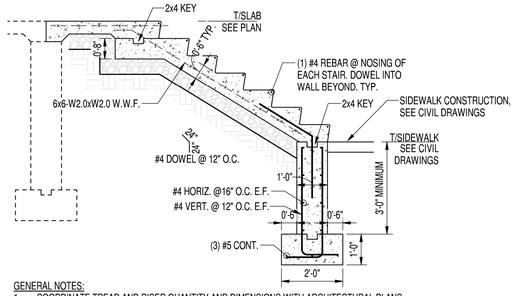
SITE WATER LINE PROFILES

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **24001261A**

C-411

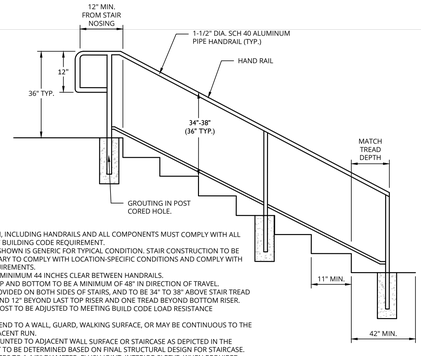
SHEET NUMBER 43 OF 63



GENERAL NOTES:
1. COORDINATE TREAD AND RISER QUANTITY AND DIMENSIONS WITH ARCHITECTURAL PLANS.
2. PROVIDE HAND RAIL PIPE SLEEVE AS REQUIRED, SEE ARCHITECTURAL DRAWINGS FOR LOCATION.

TYPICAL CONCRETE STAIR AT GRADE DETAIL

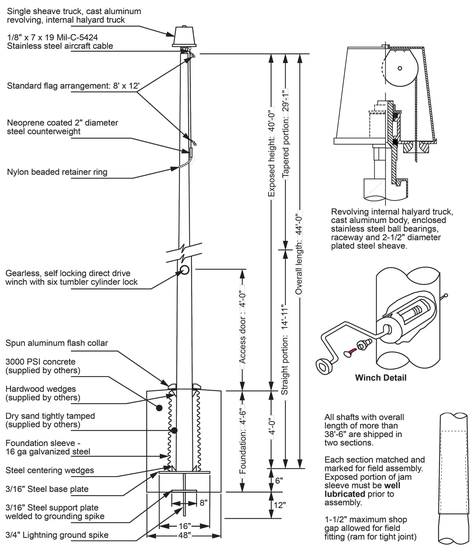
SCALE: N.T.S.



NOTES:
1. STAIR CONSTRUCTION, INCLUDING HANDRAILS AND ALL COMPONENTS MUST COMPLY WITH ALL APPLICABLE CURRENT BUILDING CODE REQUIREMENT.
2. STAIR INFORMATION SHOWN IS GENERIC FOR TYPICAL CONDITION. STAIR CONSTRUCTION TO BE ADJUSTED AS NECESSARY TO COMPLY WITH LOCATION-SPECIFIC CONDITIONS AND COMPLY WITH BUILDING CODE REQUIREMENTS.
3. STAIR WIDTH TO BE A MINIMUM 44 INCHES CLEAR BETWEEN HANDRAILS.
4. STAIR LANDING AT TOP AND BOTTOM TO BE A MINIMUM OF 48" IN DIRECTION OF TRAVEL.
5. HANDRAILS TO BE PROVIDED ON BOTH SIDES OF STAIRS, AND TO BE 34" TO 38" ABOVE STAIR TREAD NOSING AND TO EXTEND 12" BEYOND LAST TOP RISER AND ONE TREAD BEYOND BOTTOM RISER.
6. DISTANCE BETWEEN POST TO BE ADJUSTED TO MEETING BUILD CODE LOAD RESISTANCE REQUIREMENTS.
7. EXTENSIONS MAY EXTEND TO A WALL, GUARD, WALKING SURFACE, OR MAY BE CONTINUOUS TO THE HANDRAIL OF AN ADJACENT RUN.
8. RAILINGS MAY BE MOUNTED TO ADJACENT WALL SURFACE OR STAIRCASE AS DEPICTED IN THE DETAIL. FINAL LAYOUT TO BE DETERMINED BASED ON FINAL STRUCTURAL DESIGN FOR STAIRCASE.
9. ALL HANDRAIL MEMBERS TO 1-1/2" DIAMETER, FLUSH JOINT, INTERIOR SLEEVE, WHEN REQUIRED.
10. RAILINGS TO BE SCHEDULE 40 ALUMINUM OR STEEL (RUST PROTECTED) COLOR TO BE CHOSEN BY OWNER.
11. GUARDS (MINIMUM 42" HIGH) MUST BE PROVIDED WHEN WALKWAY, STAIRWAY AND LANDING ARE LOCATED 30" OR MORE ABOVE ADJACENT GRADE.
12. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL PRIOR TO FABRICATION.
13. CONTRACTOR TO PROCURE AND FOLLOW MANUFACTURERS SPECIFICATIONS.

STAIRCASE RAILING

NOT TO SCALE



Revolving internal halyard truck, cast aluminum body, enclosed stainless steel ball bearings, raceway and 2-1/2" diameter plated steel sheave.

Winch Detail

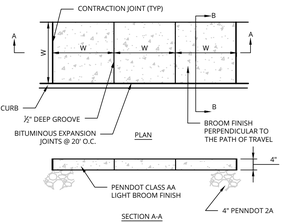
All shafts with overall length of more than 38'-6" are shipped in two sections.

Each section matched and marked for field assembly. Exposed portion of jam sleeve must be **well lubricated** prior to assembly.

1-1/2" maximum shop gap allowed for field fitting (ram for tight joint)

INTERNAL HALYARD FLAGPOLE

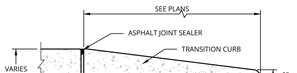
NOT TO SCALE



NOTES:
1. ½" EXPANSION JOINT FILLER INSTALLED BETWEEN THE CURB AND CONCRETE SIDEWALK AT 10' MAXIMUM SPACING, RECESS TO ¼" FROM THE TOP OF SIDEWALK.
2. ½" CONTRACTION JOINTS INSTALLED AT AN INTERVAL 24 TO 30 TIMES THE THICKNESS OF THE SLAB, TO A DEPTH OF ¼ OF THE THICKNESS OF THE SLAB, RECESS TO ¼" FROM THE TOP OF SIDEWALK, FOR THE FULL WIDTH OF THE SIDEWALK. SCORE A ¼" GROOVED JOINT HALF WAY BETWEEN THE CONTRACTION JOINTS.
3. JOINT FILLER SHALL CONFORM TO AASHTO M-33. SURFACE OF CONCRETE SHALL BE BROOM FINISH. ROUND EDGES USING AN EDGING TOOL WITH A ¼" RADIUS.
4. CONCRETE SIDEWALK SHALL BE CONSTRUCTED PER THE LATEST ADA REQUIREMENTS.

CONCRETE SIDEWALK (NEXT TO CURB) SECTION

NOT TO SCALE



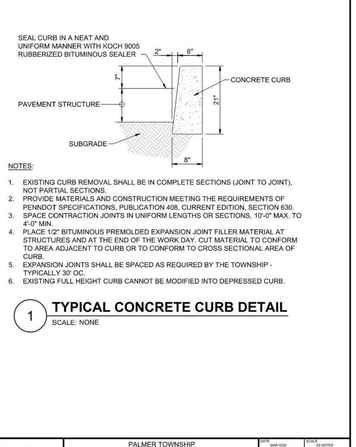
FULL HEIGHT CURB TAPER

NOT TO SCALE



CONCRETE FLUSH CURB

NOT TO SCALE

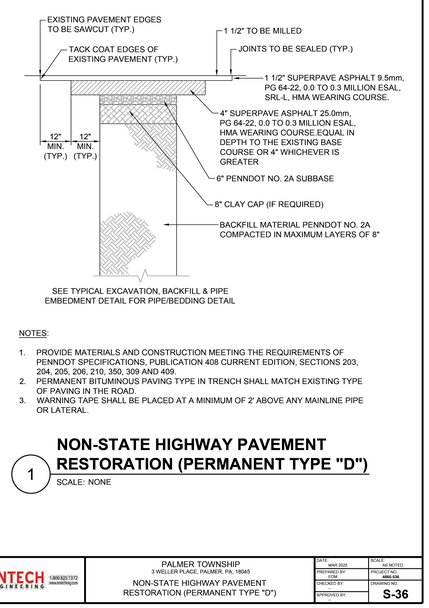


NOTES:
1. EXISTING CURB REMOVAL SHALL BE IN COMPLETE SECTIONS (JOINT TO JOINT), NOT PARTIAL SECTIONS.
2. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PENNDOT SPECIFICATIONS, PUBLICATION 408, CURRENT EDITION, SECTION 630.
3. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS, 10'-0" MAX. TO 4'-0" MIN.
4. PLACE 1/2" BITUMINOUS PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
5. EXPANSION JOINTS SHALL BE SPACED AS REQUIRED BY THE TOWNSHIP - TYPICALLY 30' OC.
6. EXISTING FULL HEIGHT CURB CANNOT BE MODIFIED INTO DEPRESSED CURB.

1 **TYPICAL CONCRETE CURB DETAIL**

SCALE: NONE

ENTECH ENGINEERING 1.800.823.7372 www.entech.com	PALMER TOWNSHIP 3 KELLER PLACE, PALMER, PA. 18045 TYPICAL CONCRETE CURB DETAIL	DATE: MAR 2025	SCALE: AS NOTED
		PREPARED BY: JMP/CW	PROJECT NO: 24-0063
		CHECKED BY: CRR	DRAWING NO: S-41
		APPROVED BY:	



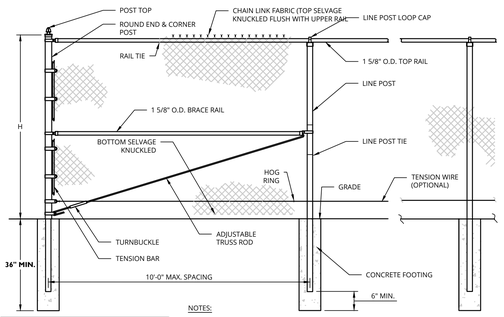
SEE TYPICAL EXCAVATION, BACKFILL & PIPE EMBEDMENT DETAIL FOR PIPE/BEDDING DETAIL

NOTES:
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PENNDOT SPECIFICATIONS, PUBLICATION 408 CURRENT EDITION, SECTIONS 203, 204, 205, 206, 210, 350, 309 AND 409.
2. PERMANENT BITUMINOUS PAVING TYPE IN TRENCH SHALL MATCH EXISTING TYPE OF PAVING IN THE ROAD.
3. WARNING TAPE SHALL BE PLACED AT A MINIMUM OF 2' ABOVE ANY MAINLINE PIPE OR LATERAL.

1 **NON-STATE HIGHWAY PAVEMENT RESTORATION (PERMANENT TYPE "D")**

SCALE: NONE

ENTECH ENGINEERING 1.800.823.7372 www.entech.com	PALMER TOWNSHIP 3 KELLER PLACE, PALMER, PA. 18045 NON-STATE HIGHWAY PAVEMENT RESTORATION (PERMANENT TYPE "D")	DATE: MAR 2025	SCALE: AS NOTED
		PREPARED BY: JMP/CW	PROJECT NO: 24-0063
		CHECKED BY: CRR	DRAWING NO: S-36
		APPROVED BY:	

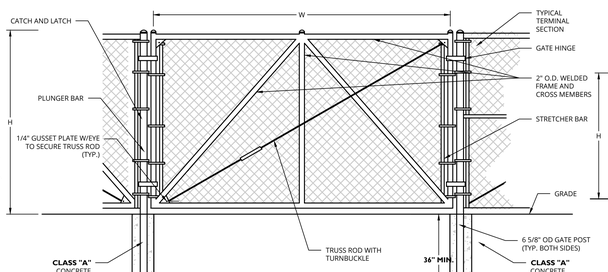


HEIGHT (H)	TERMINAL POST	LINE AND TOP POST
	ASTM F1043 GROUP 1A SCH. 40 PIPE	
4'	3 1/2"	3"
6'	4"	3 1/2"
8'	4 1/2"	4"
12'	CONTRACTOR TO VERIFY WITH FENCE MANUFACTURER	

NOTES:
1. WIRE MESH SHALL BE 2" MESH 9 GAUGE GALVANIZED (ZINC) COATED STEEL CHAIN LINK FABRIC, WITH KNUCKLED SELVAGE (KK) ON BOTH TOP AND BOTTOM.
2. FENCE FRAMEWORK RAIL AND POSTS SHALL BE HOT DIP GALVANIZED STEEL PIPE, 16 GAUGE, CLASS 1 ZINC COATED PER ASTM 1043 GORUP 1A FOR SCHEDULE 40 ROUND PIPE, WITH REGULAR STEEL YIELD STRENGTH OF 30,000 PSI PER ASTM F1083.
3. BAR LENGTH AND POST HEIGHT ABOVE GRADE PER FENCE HEIGHT AND MANUFACTURER'S SPECIFICATIONS, FENCE HEIGHT AS SPECIFIED ON THE PLAN.
4. END AND CORNER POST TOP SHALL BE DOME SHAPE.
5. FOOTING WIDTH TO BE (4) X POST WIDTH, MINIMUM DEPTH **36"**, **CLASS "A"** CONCRETE.
6. IF FENCE IS TO BE BLACK-VINYL COATED, FENCE POSTS AND FRAMING SHALL BE PAINTED BLACK.
7. ALL BALLFIELD FENCING: TOP OF POST FOUNDATION TO BE HELD TO BOTTOM OF TURF FIELD CURB ELEVATION.

GALVANIZED STEEL CHAIN LINK FENCE

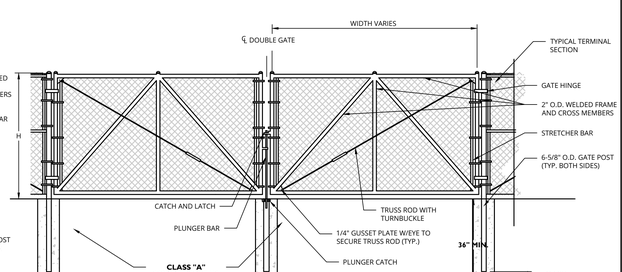
NOT TO SCALE



NOTES:
1. WIRE MESH SHALL BE 2" MESH 9 GAUGEGALVANIZED (ZINC) COATED STEEL CHAIN LINK FABRIC, WITH KNUCKLED SELVAGE (KK) ON BOTH TOP AND BOTTOM.
2. FENCE FRAMEWORK RAIL AND POSTS SHALL BE HOT DIP GALVANIZED STEEL PIPE, 16 GAUGE, CLASS 1 ZINC COATED PER ASTM 1043 GORUP 1A FOR SCHEDULE 40 ROUND PIPE, WITH REGULAR STEEL YIELD STRENGTH OF 30,000 PSI PER ASTM F1083.
3. BAR LENGTH AND POST HEIGHT ABOVE GRADE PER FENCE HEIGHT AND MANUFACTURER'S SPECIFICATIONS. FENCE HEIGHT AS SPECIFIED ON THE PLAN.
4. END AND CORNER POST TOP SHALL BE DOME SHAPE.
5. FOOTING WIDTH TO BE (4) X POST WIDTH, MINIMUM DEPTH **36"**, **CLASS "A"** CONCRETE.
6. MESH TYPE & COLOR TO MATCH FENCE.
7. ALL BALLFIELD FENCING: TOP OF POST FOUNDATION TO BE HELD TO BOTTOM OF TURF FIELD CURB ELEVATION.

CHAIN LINK FENCE SINGLE GATE

NOT TO SCALE



NOTES:
1. WIRE MESH SHALL BE 2" MESH 9 GAUGE GALVANIZED (ZINC) COATED STEEL CHAIN LINK FABRIC, WITH KNUCKLED SELVAGE (KK) ON BOTH TOP AND BOTTOM.
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6. MESH TYPE & COLOR TO MATCH FENCE.
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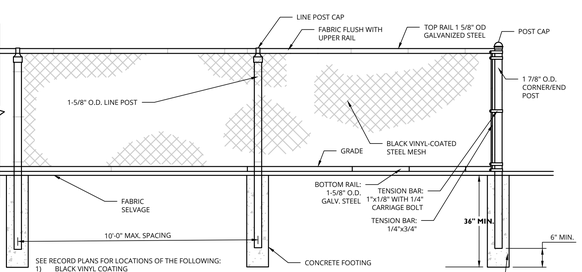
CHAIN LINK FENCE DOUBLE GATE

NOT TO SCALE



SEE RECORD PLANS FOR LOCATIONS OF THE FOLLOWING:
1) BLACK VINYL COATING
2) BLACK SLATS
3) TOPPERS

FENCES TO BE BLACK VINYL COATED ARE DENOTED WITH AN ASTERISK (*) IN THE SHEET KEYNOTES

NOTES:
1. WIRE MESH SHALL BE 1" MESH, 11 GAUGE POWDER COATED STEEL CHAIN LINK FABRIC, WITH KNUCKLED SELVAGE (KK) ON BOTH TOP AND BOTTOM.
2. FENCE FRAMEWORK RAIL AND POST SHALL BE ASTM GROUP 1A, HOT DIP GALVANIZED STEEL PIPE, 16 GAUGE, CLASS 1 ZINC COATED, REGULAR STRENGTH GRADE ASTM 1083, 30,000 PSI YIELD STEEL SCHEDULE 40 ROUND PIPE.
3. BAR LENGTH AND POST HEIGHT ABOVE GRADE PER FENCE HEIGHT AND MANUFACTURER'S SPECIFICATIONS.
4. END AND CORNER POST TOP SHALL BE DOME SHAPE.
5. FOOTING WIDTH TO BE (4)X POST WIDTH, MINIMUM DEPTH **36"**, **CLASS "A"** CONCRETE OR AS PER MANUFACTURER'S RECOMMENDATIONS FOR INSTALLING ABOVE THE RETAINING WALL.
6. IF FENCE IS TO BE BLACK-VINYL COATED, FENCE POSTS AND FRAMING SHALL BE PAINTED BLACK.
7. ALL BALLFIELD FENCING: TOP OF POST FOUNDATION TO BE HELD TO BOTTOM OF TURF FIELD CURB ELEVATION.

3'/4' HIGH CHAIN LINK FENCE

NOT TO SCALE

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SHEET TITLE:

SITE DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 2400126 1A

C-511

SHEET NUMBER 44 OF 63



30" x 30"

COLORS:
LEGEND = WHITE (RETROREFLECTIVE)
BACKGROUND = RED (RETROREFLECTIVE)

R1-1 (STOP) SIGN
NOT TO SCALE



12" x 18"

R8-31 SIGN
NOT TO SCALE



12" x 18"

COLORS:
LEGEND = GREEN (RETROREFLECTIVE)
HANDICAP SYMBOL= BLUE (RETROREFLECTIVE)
BACKGROUND = WHITE (RETROREFLECTIVE)

R7-8 SIGN
NOT TO SCALE



18" x 9"

COLORS:
LEGEND = GREEN (RETROREFLECTIVE)
BACKGROUND = WHITE (RETROREFLECTIVE)

R7-8P SIGN
NOT TO SCALE



12" x 18"

R7-8F SIGN
NOT TO SCALE



30" x 30"

COLORS:
LEGEND = BLACK
BACKGROUND = YELLOW (RETROREFLECTIVE)

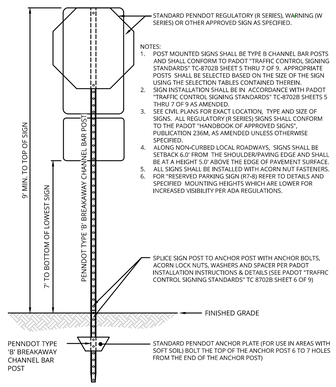
W11-2 SIGN
NOT TO SCALE



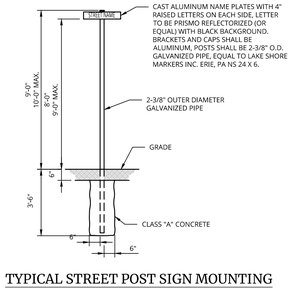
24" x 12"

COLORS:
LEGEND = BLACK
BACKGROUND = YELLOW (RETROREFLECTIVE)

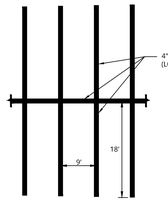
W16-7 SIGN
NOT TO SCALE



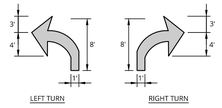
TYPICAL SIGN POST MOUNTING
NOT TO SCALE



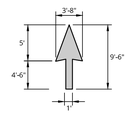
TYPICAL STREET POST SIGN MOUNTING
NOT TO SCALE



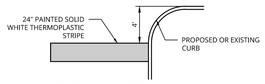
TYPICAL PARKING STALL
NOT TO SCALE



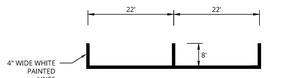
WHITE "LEFT OR RIGHT" PAVEMENT ARROW
NOT TO SCALE



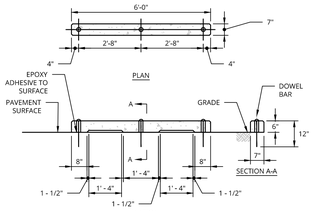
WHITE STRAIGHT PAVEMENT ARROW
NOT TO SCALE



TYPICAL STOP BAR
NOT TO SCALE

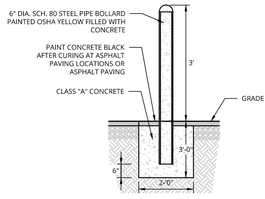


WHITE PARALLEL PARKING STRIPING
NOT TO SCALE

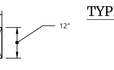


NOTES:
1. CONCRETE SHALL BE PENNDOT CLASS AA.
2. UNIT TO BE PINNED TO SURFACE WITH (3) 5/8" DIA. GALVANIZED STEEL RODS, 12" MINIMUM LENGTH.
3. ALL BEVELS TO BE 1/2". ALL ANGLES TO BE 45°

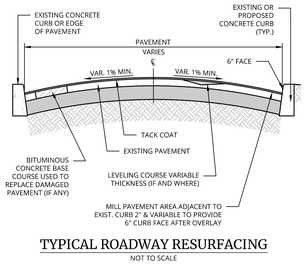
PRECAST CONCRETE BUMPER CURB WHEEL STOP (FOR CARS)
NOT TO SCALE



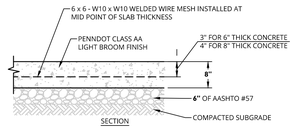
CONCRETE-FILLED STEEL PIPE BOLLARD
NOT TO SCALE

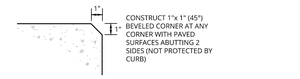


ASPHALT SPEED BUMP
NOT TO SCALE



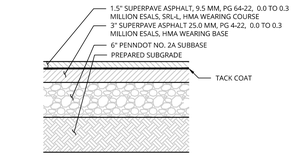
TYPICAL ROADWAY RESURFACING
NOT TO SCALE



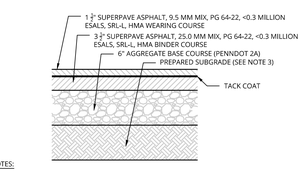


CONCRETE LOADING PAD SECTION
NOTES:
1. PENNDOT APPROVED ASPHALT MIX DESIGN
2. AGGREGATE BASE TO BE PENNDOT TYPE 2A CONFORMING TO PENNDOT PUBLICATIONS 408
3. SUBGRADE TO BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY, AS DETERMINED BY THE MODIFIED PROCTOR TEST, ASTM D 1557, AND SHALL CONSIST OF LOAD-BEARING FILL OR EXISTING STRATUM A MATERIALS CAPABLE OF ACHIEVING A CBR VALUE OF 5. THE MOISTURE CONTENT OF THE MATERIAL SHOULD ALSO BE MAINTAINED WITHIN +/- 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT.

LIGHT-DUTY BITUMINOUS PAVEMENT SECTION
NOT TO SCALE



ASPHALT WALKING PATH PAVEMENT SECTION
NOT TO SCALE



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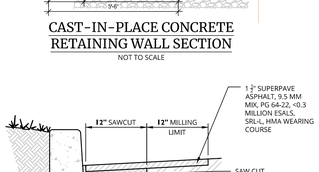
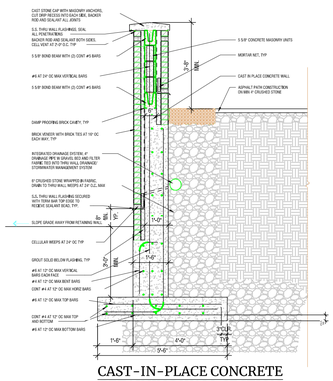
LIGHT-DUTY BITUMINOUS PAVEMENT SECTION
NOT TO SCALE

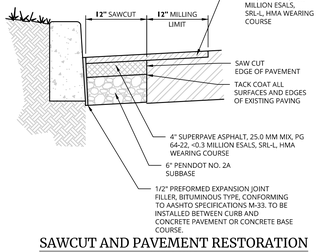


NOTES:
1. THIS DETAIL IS A SCHEMATIC REPRESENTATION FOR MUNICIPAL AND/OR AGENCY APPROVALS AND IS NOT INTENDED TO BE USED FOR CONSTRUCTION.
2. CONTRACTOR TO PROVIDE SITE-SPECIFIC SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS FOR EACH RETAINING WALL PREPARED BY A STATE LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. MODULAR CONCRETE BLOCK WALL TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. A SAFETY BARRIER (FENCING) IS REQUIRED ON ALL WALLS WHERE THE WALL HEIGHT EXCEEDS 30". PLACEMENT AND INSTALLATION METHOD OF THE PROPOSED FENCING TO BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

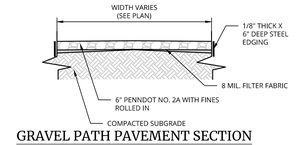
TYPICAL REINFORCED SEGMENTAL BLOCK RETAINING WALL SECTION
(NEAR VERTICAL SETBACK)
NOT TO SCALE



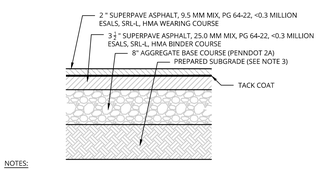
CAST-IN-PLACE CONCRETE RETAINING WALL SECTION
NOT TO SCALE



SAWCUT AND PAVEMENT RESTORATION
NOT TO SCALE



GRAVEL PATH PAVEMENT SECTION
NOT TO SCALE



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HEAVY-DUTY BITUMINOUS PAVEMENT SECTION
NOT TO SCALE

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20250305 [8]\Engineering\Plan Sets\Development Plan\Phase 2\01 Land Development\C-512 LDP.dwg 6/2/25 By JORDAN.MOORE

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOYS
ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

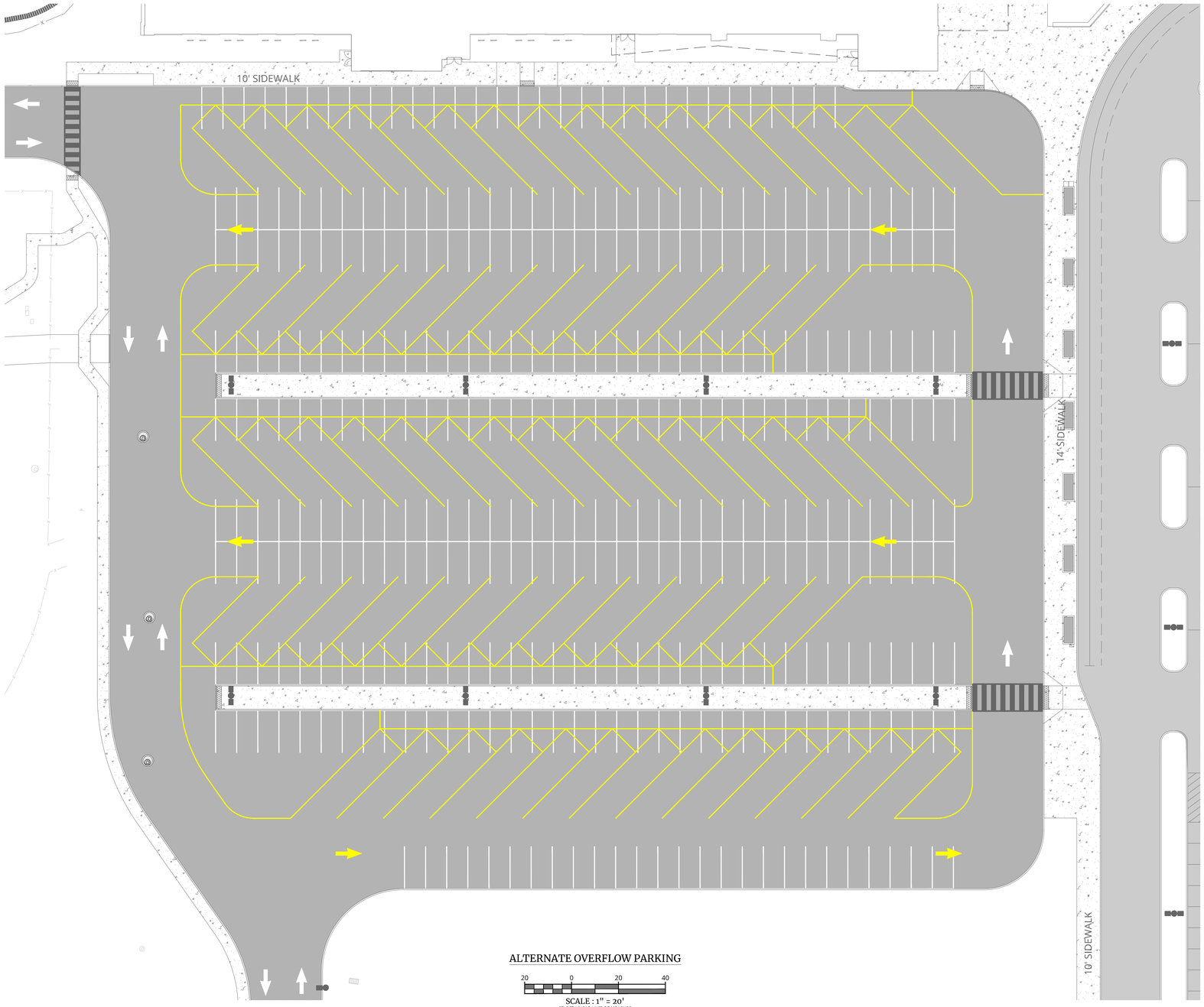
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-512

SHEET NUMBER 45 OF 63



ALTERNATE OVERFLOW PARKING

20 0 20 40

SCALE : 1" = 20'

SELECT LINEAR UNIT OF MEASURE

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPF:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

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COMMONWEALTH OF PENNSYLVANIA
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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

ALTERNATE OVERFLOW PARKING

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-513

SHEET NUMBER 46 OF 63

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ADA GENERAL NOTES

12/01/20

1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694, AND 695.
2. PROVIDE EXPANSION JOINT MATERIAL1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
3. CONSTRUCT CURB RAMPS WITH A MINIMUM 4'-0" X 4'-0" CLEAR SPACE BEYOND THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. SEE SHEET 7 FOR CROSSWALK DETAILS.
4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING SIDE FLARES.
6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
8. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
11. SEE TC-8803 FOR ADDITIONAL PEDESTRIAN PUSHBUTTON DETAILS NOT SHOWN.
12. ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB. SEE "DETECTABLE WARNING SURFACE (DWS) ON CURVED SURFACE" DETAIL FOR INSTALLATIONS ALONG CURVED SURFACES, IF APPLICABLE.
13. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP IN ACCORDANCE WITH LOCAL REQUIREMENTS.
14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESS ROUTE.
15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
17. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE OR BLENDED TRANSITION IS NOT TO EXCEED 5.00%. SEE "CHANGE OF GRADE LIMITATIONS" DETAIL, IF APPLICABLE.
18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
19. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.
20. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
22. CONSTRUCT FLUSH CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING SPACES BEHIND FLUSH CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. AT THE JOINT BETWEEN FLUSH CURB AND ROADWAYS, REMOVE EXCESS JOINT SEALER AND COVER THE SEALED AREA WITH A LIGHT APPLICATION OF DRY SAND.
23. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 OR FLATTER. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN PATH.
24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE FLUSH CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES.
26. A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
27. INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
28. CONSTRUCT FLUSH CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION. TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE; DO NOT EXCEED 3.00% PER 10' CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.
29. DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.
30. CONTRACTOR MUST PREPARE SHOP DRAWINGS OF EACH CURB RAMP FOR SUBMISSION AND APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION. DEVIATIONS FROM THE CURB RAMP DETAILS REQUIRE WRITTEN APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
31. ACCESSIBLE RAMPS:
    - A. ON-SITE RAMP OR CURB RAMPS MUST BE INSTALLED IN CONFORMANCE WITH THE CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE AND MUST ALSO MEET OTHER APPLICABLE LOCAL AND STATE REQUIREMENTS IN EFFECT AT THE DATE OF CONSTRUCTION.
    - B. PUBLIC RIGHT OF WAY ACCESSIBLE OR CURB RAMPS MUST BE INSTALLED PURSUANT WITH THE CURRENT UNITED STATES ACCESS BOARD "ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" (PROWAG).
32. CURB RAMP SLOPE AS CONSTRUCTED IN THE DIRECTION OF TRAVEL CANNOT EXCEED 12H:1V. RAMP SLOPES OF 14H:1V ARE THE PREFERRED SLOPE TO MAINTAIN A LEVEL OF CONSTRUCTION TOLERANCE. MINIMUM CURB RAMP CROSS-SLOPE IS TO BE 0.50%, MAXIMUM CANNOT EXCEED 2.00%.
33. CURB RAMP SIDE FLARE SLOPES ARE TO BE 14H:1V DESIRABLE, 12H:1V MAXIMUM, BUT MAY BE 10H:1V UPON APPROVAL OF THE ENGINEER. WHERE SIDE FLARES ARE NOT REQUIRED, PROVIDE AN 18" CURB TAPER TO THE FLUSH CURB PER THE DETAIL.
34. LANDING AREA AT THE TOP AND BOTTOM OF THE CURB RAMP (AKA, CLEAR OR TURNING SPACE) MUST BE KEPT CLEAR OF OBSTRUCTIONS. THE LANDING AREA IS TO BE 4' X 4' MINIMUM AND MATCH THE WIDTH OF THE CURB RAMP, INCREASED THE DEPTH OF MINIMUM LANDING AREA TO 5 FEET IF CONSTRAINED AT THE BACK OF THE SIDEWALK.
35. THE LANDING AREA MUST HAVE AN ABSOLUTE MINIMUM SLOPE OF 0.5% AND A MAXIMUM SLOPE OF 2%, WHEREAS 1.0% TO 1.5% IS THE DESIRED DESIGN SLOPE IN THE DIRECTION OF TRAVEL AND FOR THE CROSS SLOPE.
36. SIDEWALK CROSS SLOPE MUST BE A MINIMUM OF 1% AND MAXIMUM 2%, WHEREAS 1.5% IS THE DESIRED DESIGN CROSS SLOPE. SIDEWALK BEYOND LANDING AREA MUST HAVE A MINIMUM 1% TO MAXIMUM 5% OF LONGITUDINAL SLOPE IN THE DIRECTION OF TRAVEL, AND A 1% TO 2% MAX. CROSS SLOPE.
37. FLUSH CURB AT CURB RAMP MUST BE MINIMUM 4' WIDE AND FLUSH WITH PAVEMENT. THE SEGMENT OF FLUSH CURB MUST BE MADE WITH CONCRETE CURB REGARDLESS OF THE CURB MATERIAL USED THROUGHOUT THE SITE.
38. GUTTER SLOPE THE ALONG CURB RAMP MUST MAINTAIN POSITIVE DRAINAGE WITH A 1.0 % TO 1.5% GUTTER SLOPE PREFERRED, WHEREAS 0.5% AS THE ABSOLUTE MINIMUM AND 2.0% IS MAXIMUM ALONG THE LENGTH OF THE FLUSH CURB.
39. CROSSWALKS AND PAVEMENT MARKINGS MUST BE INSTALLED AS DENOTED ON SITE PLAN. CURB RAMP MUST BE WHOLLY CONTAINED WITHIN THE CROSSWALK CROSSING.
40. THE RAMP SURFACE MUST HAVE A SLIP RESISTANT, BROOM FINISH PERPENDICULAR TO THE PATH OF TRAVEL.
41. CONCRETE EXPANSION JOINTS MUST HAVE A FIRM SURFACE WITH ¼" BEVELED CONCRETE EDGES. THE JOINT SURFACE SHALL NOT BE MORE THAN ¼" BELOW THE ADJOINING CONCRETE SURFACE.
42. DETECTABLE WARNING SURFACES ARE TO BE PROVIDED AT CURB RAMPS, BLENDED TRANSITION AT PEDESTRIAN STREET CROSSINGS AND PEDESTRIAN REFUGE ISLANDS WHEN THOSE ARE WITHIN THE PUBLIC RIGHT-OF-WAY, AND WHERE AS SHOWN ON THE PLANS.

ADA INSTRUCTIONS TO CONTRACTOR

C-DTLS-XREF-PHS2|MCPA-SITE-HADA-1800 12/01/20

1. CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA (HANDICAPPED) ACCESSIBLE COMPONENTS FOR THE SITE/PROJECT. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE LATEST FEDERAL ADA STANDARDS FOR ACCESSIBLE DESIGN, AND CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY MUST COMPLY WITH THE LATEST FEDERAL PROPOSED "ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" (PROWAG).
2. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EGRESS, MUST COMPLY WITH THESE ADA CODE REQUIREMENTS AND ANY SUPPLEMENTAL STATE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

   (NOTE: THIS LIST IS NOT INTENDED TO CAPTURE EVERY APPLICABLE FEDERAL, STATE AND LOCAL RULE AND REGULATION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE LAW, WHETHER OR NOT STATED SPECIFICALLY HEREIN):

   A. PARKING SPACES AND PARKING AISLES - SLOPE MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN ANY DIRECTION.

   B. CURB RAMPS- SLOPES MUST NOT EXCEED 1:12 (8.3%).

   C. LANDINGS
      - i. LANDINGS AT CURB RAMPS - MUST BE 4 FT. MIN., X 4 FT. MIN. AND ARE TO BE INCREASED TO 5 FEET WHERE THE LANDING SPACE (TURNING SPACE) IS CONSTRAINED AT THE BACK OF THE SIDEWALK.
      - ii. LANDINGS AT RAMPS - MUST BE 5 FT MIN. IN THE DIRECTION OF TRAVEL AND BE PROVIDED AT EACH END OF THE RAMP, MUST PROVIDE POSITIVE DRAINAGE (1 % MIN.), AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN ANY DIRECTION. WHEN LANDING IS ALSO A TURNING SPACE, IT MUST BE A MINIMUM 5 FT X 5 FT.
      - iii. LANDINGS AT DOORWAYS - SEE NOTE F BELOW.

   D. PATH OF TRAVEL ALONG ON-SITE ACCESSIBLE ROUTE - MUST PROVIDE A 36 INCH (EXCLUDING THE CURB OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL, (CAR OVERHANGS MUST NOT REDUCE THIS MINIMUM WIDTH). IN A PUBLIC RIGHT-OF-WAY, THE MINIMUM WIDTH EXCLUDING THE CURB IS 4 FT. THE SLOPE MUST BE NO GREATER THAN 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) IN CROSS SLOPE.

   E. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), AN ADA RAMP, WITH A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 30 INCHES, MUST BE PROVIDED. THE RAMP MUST HAVE A MINIMUM. CLEAR WIDTH OF 36 INCHES, HAVE ADA HAND RAILS AND LANDINGS (MIN. 5 FT. LONG IN THE DIRECTION OF TRAVEL) ON EACH END THAT ARE SLOPED A MIN. 1 % AND NO MORE THAN 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

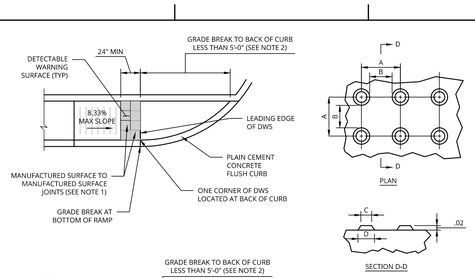
   F. EXTERIOR DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA IS GENERALLY 5 FT X 5 FT, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS. (SEE APPLICABLE CODE SECTIONS).

3. IT IS RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE OFFICIAL, INCLUDING WHETHER OR NOT FALL PROTECTION IS REQUIRED.
4. IT IS RECOMMENDED THAT THE CONTRACTOR CHECK THE SLOPE OF FORMWORK FOR COMPLIANCE WITH ADA STANDARDS PRIOR TO POURING CONCRETE.

DETECTABLE WARNING SURFACE (DWS) NOTES

C-DTLS-XREF-PHS2|MCPA-SITE-HADA-1602 12/01/20

1. THE DETECTABLE WARNING SURFACE IS TO BE MANUFACTURED MATS THAT ARE EMBEDDED AND CAST-IN-PLACE IN THE CONCRETE.
2. IN LIEU OF A CAST IN PLACE DETECTABLE WARNING SURFACE, THE CONTRACTOR MAY UTILIZE A SURFACE APPLIED DETECTABLE WARNING SURFACE WITH PRIOR APPROVAL OF THE UNDERSIGNED ENGINEER AND PRIOR TO POURING OF THE CONCRETE RAMP.
3. THE CONTRACTOR MUST SUBMIT TO THE ENGINEER FOR APPROVAL A SHOP DRAWING OF THE DETECTABLE WARNING SURFACE PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR MUST PROVIDE A MANUFACTURER CERTIFICATION THAT THE DETECTABLE WARNING SURFACE COMPLIES WITH THE CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN AS PUBLISHED BY THE DEPARTMENT OF JUSTICE AND THE ADA STANDARDS AS SUPPORTED BY THE UNITED STATES ACCESS BOARD, AND THE STATE AND/OR LOCAL ADA STANDARDS.
5. COLOR MUST BE AS APPROVED BY THE LOCAL JURISDICTION PRIOR TO INSTALLATION. DETECTABLE WARNING SURFACES MUST CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. ALTERNATIVE COLOR MAY BE USED PROVIDED SUCH COLOR COMPLIES WITH CURRENT ADA STANDARDS.
6. DETECTABLE WARNINGS ARE TO CONSIST OF A SURFACE OF TRUNCATED DOMES.
7. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE MUST HAVE A BASE DIAMETER OF 0.9 INCH (23 mm) MINIMUM AND 1.4 INCHES (36 mm) MAXIMUM, A TOP DIAMETER OF 50 PERCENT OF THE BASE DIAMETER MINIMUM TO 65 PERCENT OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCH (5.1 mm).
8. TRUNCATED DOMES IN DETECTABLE WARNING SURFACE MUST HAVE A CENTER-TO-CENTER SPACING OF 1.6 INCHES (41 mm) MINIMUM AND 2.4 INCHES (61 mm) MAXIMUM, AND A BASE-TO-BASE SPACING OF 0.65 INCH (17 mm) MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.
9. SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. WHERE REQUIRED BY THE MANUFACTURER, THE CONCRETE BORDER MUST NOT EXCEED 2 INCHES (51 mm).
10. DETECTABLE WARNING SURFACES ARE NOT TO BE PLACED ON PAVING OR EXPANSION JOINTS AT CURB RAMPS. THE ROWS OF TRUNCATED DOMES IN DETECTABLE WARNING SURFACES ARE TO BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP RUN AND THE STREET SO PEDESTRIANS WHO USE WHEELCHAIRS CAN "TRACK" BETWEEN THE DOMES.
11. ON PERPENDICULAR CURB RAMPS, DETECTABLE WARNING SURFACES ARE TO BE PLACED AS FOLLOWS:
    - a. WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE IN FRONT OF THE BACK OF CURB, DETECTABLE WARNING SURFACES ARE TO BE PLACED AT THE BACK OF CURB.
    - b. WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS 5.0 FT OR LESS, DETECTABLE WARNING SURFACES ARE TO BE PLACED ON THE RAMP RUN WITHIN ONE DOME SPACING OF THE BOTTOM GRADE BREAK.
    - c. WHERE THE ENDS OF THE BOTTOM GRADE BREAK ARE BEHIND THE BACK OF CURB AND THE DISTANCE FROM EITHER END OF THE BOTTOM GRADE BREAK TO THE BACK OF CURB IS MORE THAN 5.0 FT, DETECTABLE WARNING SURFACES ARE TO BE PLACED ON THE LOWER LANDING AT THE BACK OF CURB.
12. ON PARALLEL CURB RAMPS, DETECTABLE WARNING SURFACES ARE TO BE PLACED ON THE TURNING SPACE AT THE FLUSH TRANSITION BETWEEN THE STREET AND SIDEWALK.
13. ON BLENDED TRANSITIONS, DETECTABLE WARNING SURFACES ARE TO BE PLACED AT THE BACK OF CURB. WHERE RAISED PEDESTRIAN STREET CROSSINGS, DEPRESSED CORNERS OR OTHER LEVEL PEDESTRIAN STREET CROSSINGS ARE PROVIDED, DETECTABLE WARNING SURFACES ARE TO BE PLACED AT THE FLUSH TRANSITION BETWEEN THE STREET AND THE SIDEWALK.

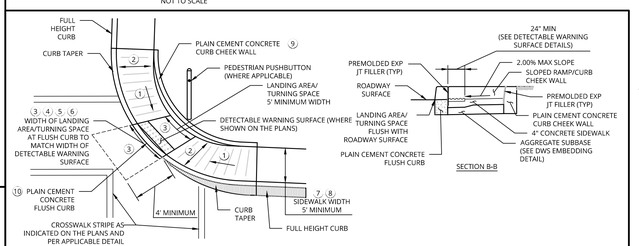


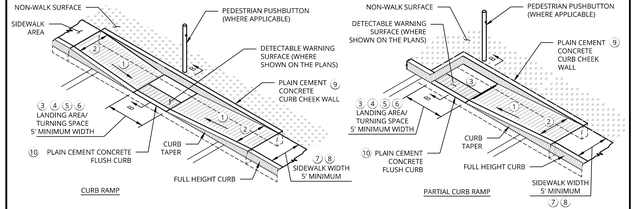
NOTES:

1. PLACE ADJACENT DWS TILES WITH MANUFACTURED SURFACE TO MANUFACTURED SURFACE. CUT TILES ALONG THE PERIMETER ONLY.
2. LOCATE ONE CORNER OF THE DWS AT THE BACK OF THE CURB. NO OTHER POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 5'-0" AWAY FROM THE BACK OF THE CURB.

DETECTABLE WARNING SURFACE (DWS) ON CURVED SURFACE

NOT TO SCALE





NOTES:

1. 8.33% MAX RAMP SLOPE, TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
2. SLOPE: ZERO ± 2.00%
3. CURB RAMPS REQUIRE A 4' x 4' MINIMUM LANDING AREA/TURNING SPACE WITH A MAXIMUM CROSS SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
4. LANDING AREA AT THE TOP AND BOTTOM OF THE CURB RAMP (AKA. CLEAR OR TURNING SPACE) MUST BE KEPT CLEAR OF OBSTRUCTIONS. THE LANDING AREA IS TO BE 4' X 4' MINIMUM AND MATCH THE WIDTH OF THE CURB RAMP, INCREASED THE DEPTH OF MINIMUM LANDING AREA TO 5 FEET IF CONSTRAINED AT THE BACK OF THE SIDEWALK.
5. THE LANDING AREA MUST HAVE AN ABSOLUTE MINIMUM SLOPE OF 0.5% AND A MAXIMUM SLOPE OF 2%, WHEREAS 1.0% TO 1.5% IS THE DESIRED DESIGN SLOPE IN THE DIRECTION OF TRAVEL AND FOR THE CROSS SLOPE.
6. ASSISTANT DISTRICT EXECUTIVE APPROVAL REQUIRED IF TURNING SPACE IS NOT ENTIRELY ON SIDEWALK.
7. SIDEWALK CROSS SLOPE MUST BE A MINIMUM OF 1% AND MAXIMUM 2%, WHEREAS 1.5% IS THE DESIRED DESIGN CROSS SLOPE. SIDEWALK BEYOND LANDING AREA MUST HAVE A MINIMUM 1% TO MAXIMUM 5% OF LONGITUDINAL SLOPE IN THE DIRECTION OF TRAVEL, AND A 1% TO 2% MAX. CROSS SLOPE.
8. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
9. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 OR FLATTER. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN PATH.
10. GUTTER SLOPE THE ALONG CURB RAMP MUST MAINTAIN POSITIVE DRAINAGE WITH A 1.0 % TO 1.5% GUTTER SLOPE PREFERRED, WHEREAS 0.5% AS THE ABSOLUTE MINIMUM AND 2.0% IS MAXIMUM ALONG THE LENGTH OF THE FLUSH CURB.

TYPICAL TYPE 2 CURB RAMP

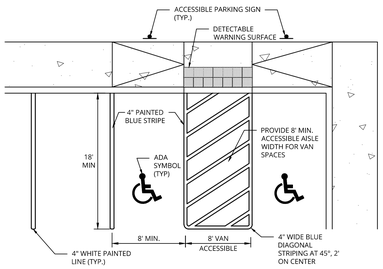
NOT TO SCALE

NOTES:

1. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 OR FLATTER. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN PATH.
2. OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHEEK WALL.
3. 8.33% MAX RAMP SLOPE, TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
4. CURB RAMPS REQUIRE A 4' x 4' MINIMUM LANDING AREA/TURNING SPACE WITH A MAXIMUM CROSS SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS.
5. LANDING AREA AT THE BOTTOM OF THE CURB RAMP (AKA. CLEAR OR TURNING SPACE) MUST BE KEPT CLEAR OF OBSTRUCTIONS. THE LANDING AREA IS TO BE 4' X 4' MINIMUM AND MATCH THE WIDTH OF THE CURB RAMP.
6. THE LANDING AREA MUST HAVE AN ABSOLUTE MINIMUM SLOPE OF 0.5% AND A MAXIMUM SLOPE OF 2%, WHEREAS 1.0% TO 1.5% IS THE DESIRED DESIGN SLOPE IN THE DIRECTION OF TRAVEL AND FOR THE CROSS SLOPE.
7. ASSISTANT DISTRICT EXECUTIVE APPROVAL REQUIRED IF TURNING SPACE IS NOT ENTIRELY ON SIDEWALK.
8. SIDEWALK CROSS SLOPE MUST BE A MINIMUM OF 1% AND MAXIMUM 2%, WHEREAS 1.5% IS THE DESIRED DESIGN CROSS SLOPE. SIDEWALK BEYOND LANDING AREA MUST HAVE A MINIMUM 1% TO MAXIMUM 5% OF LONGITUDINAL SLOPE IN THE DIRECTION OF TRAVEL, AND A 1% TO 2% MAX. CROSS SLOPE.
9. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
10. DETECTABLE WARNING SURFACES ARE TO BE PROVIDED AT CURB RAMPS, BLENDED TRANSITION AT PEDESTRIAN STREET CROSSINGS AND PEDESTRIAN REFUGE ISLANDS WHEN THOSE ARE WITHIN THE PUBLIC RIGHT-OF-WAY, AND WHERE AS SHOWN ON THE PLANS. SEE SEPARATE DETECTABLE WARNING SURFACE DETAILS.
11. IF THE DISTANCE BETWEEN THE GRADE BREAK AND THE BACK OF CURB IS GREATER THAN 5', THE DETECTABLE WARNING SURFACE MUST BE INSTALLED ALONG THE CURVED FLUSH CURB IN ACCORDANCE WITH THE "DETECTABLE WARNING SURFACE (DWS) ON CURVED SURFACE" DETAIL.

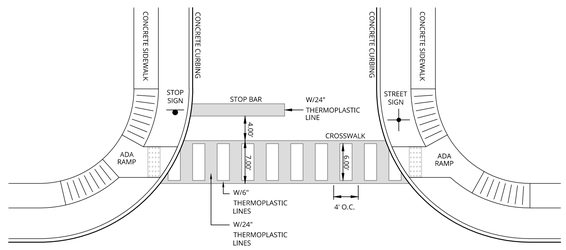
TYPICAL TYPE 1A CURB RAMP

NOT TO SCALE



TYPICAL ACCESSIBLE PARKING STALL

NOT TO SCALE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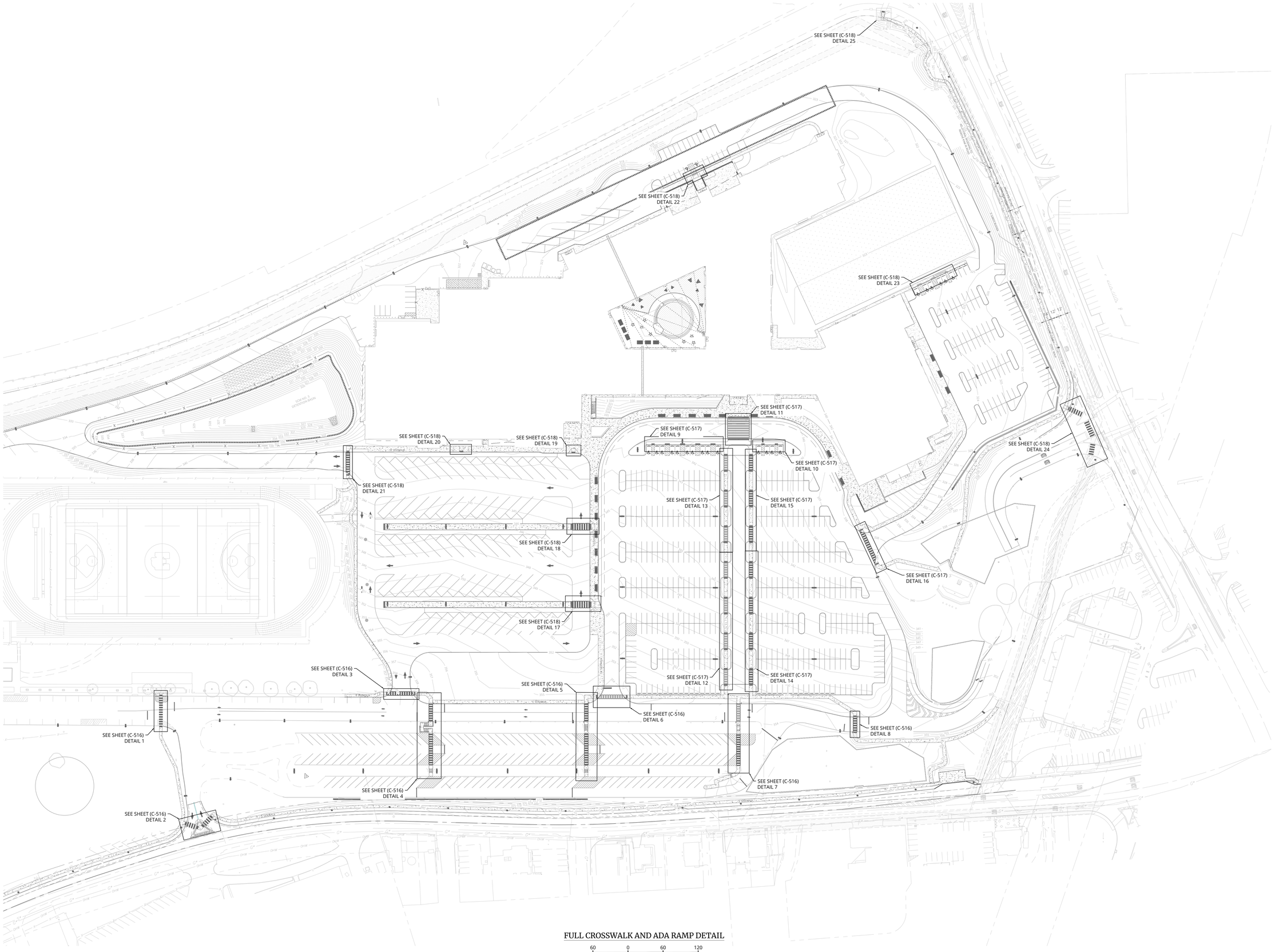

FULL CROSSWALK AND ADA RAMP DETAIL

60 0 60 120

SCALE : 1" = 60'

SELECT LINEAR UNIT OF MEASURE

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2024-1001 2024 Engineering\Plan Set\Development Plan\Phase 2\01 Land Development\C-ZTL-ADA.dwg 6.15 By JORDAN.MYERS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
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STRUCTURAL:

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ACOUSTICS:

FOOD SERVICE:
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RESIDENT ENGINEER:
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STE 310
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LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

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610.419.4055

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Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

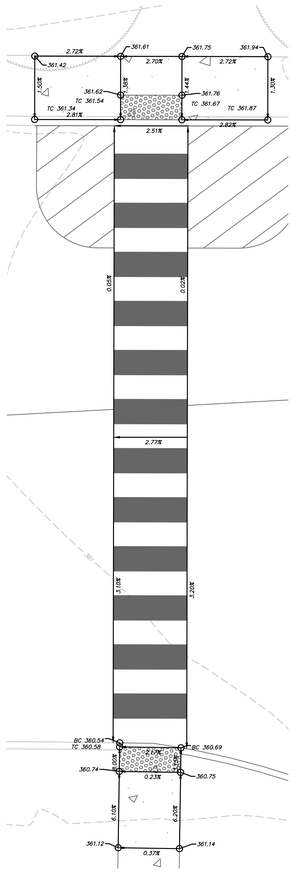
SHEET TITLE:

ADA ACCESSIBILITY DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-515

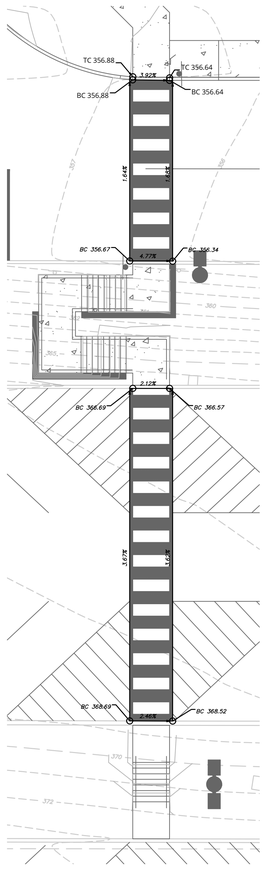
SHEET NUMBER 48 OF 63



CROSSWALK AND ADA RAMPS - DETAIL 1

5 0 5 10

SCALE : 1" = 5'



CROSSWALKS - DETAIL 4

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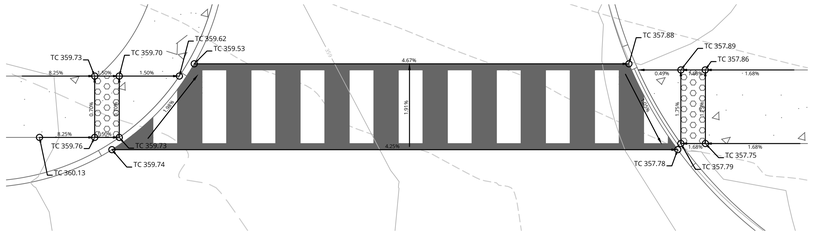
SCALE : 1" = 10'



CROSSWALK AND ADA RAMPS - DETAIL 3

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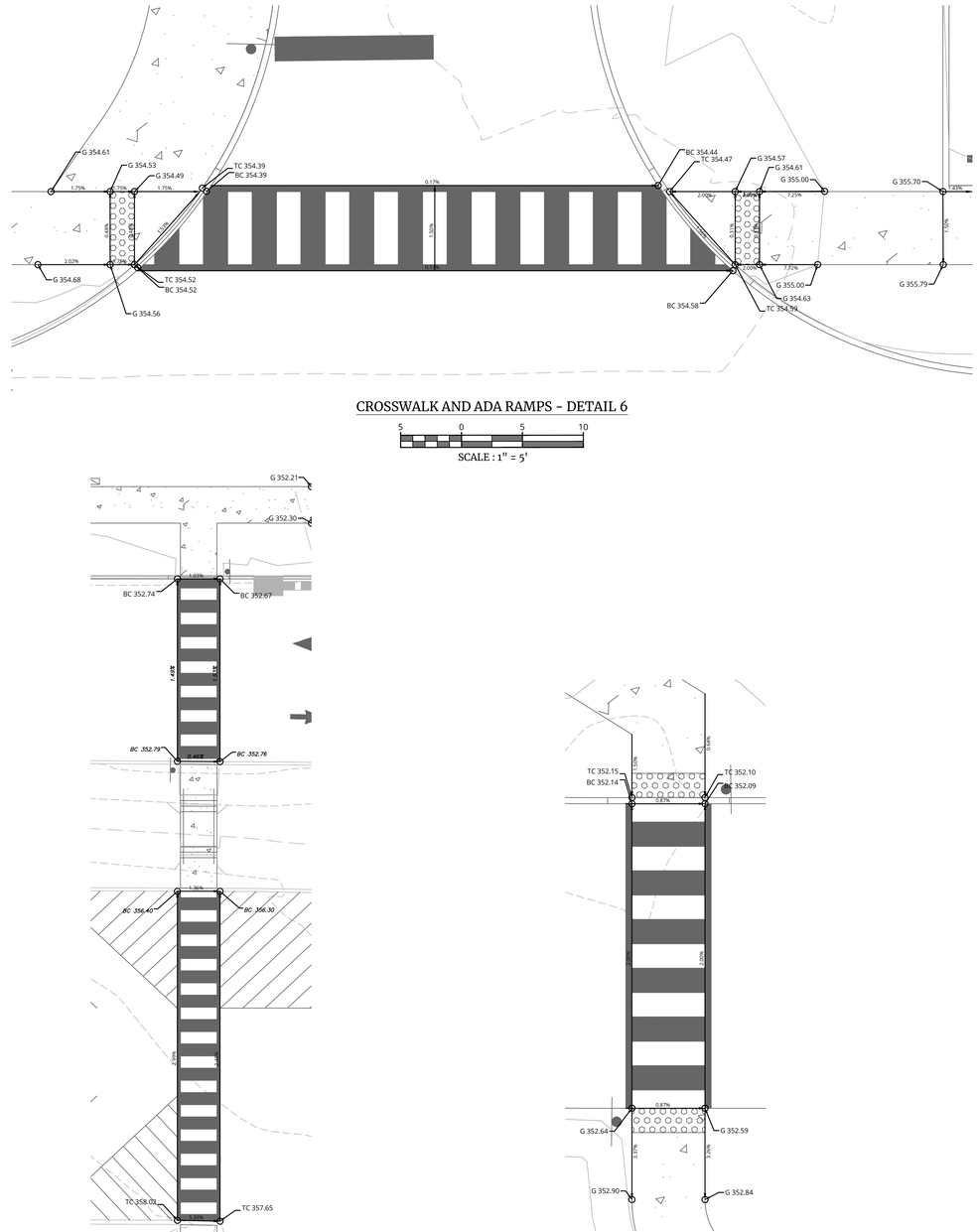
SCALE : 1" = 5'



CROSSWALK AND ADA RAMPS - DETAIL 6

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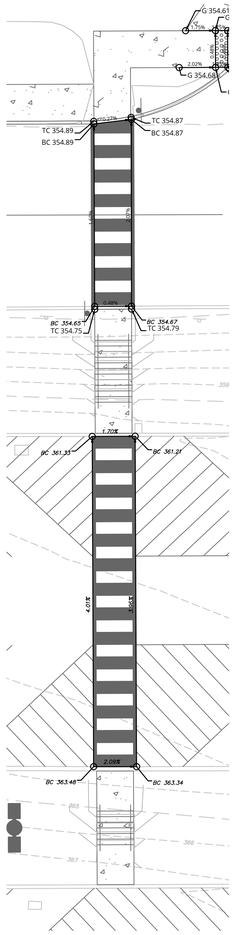
SCALE : 1" = 5'



CROSSWALKS - DETAIL 5

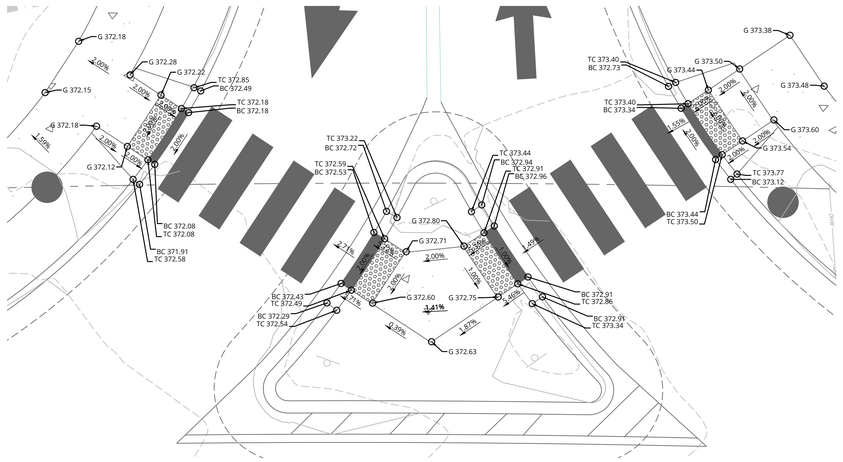
10 0 10 20

SCALE : 1" = 10'

CROSSWALKS - DETAIL 7

10 0 10 20

SCALE : 1" = 10'



CROSSWALKS AND ADA RAMPS - DETAIL 2

5 0 5 10

SCALE : 1" = 5'

CROSSWALK - DETAIL 8

5 0 5 10

SCALE : 1" = 5'

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2024300139 M:\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-DTL-ADA.dwg 6:16 pm By:JORDAN.MYERS

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REGISTERED PROFESSIONAL
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COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGEE CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

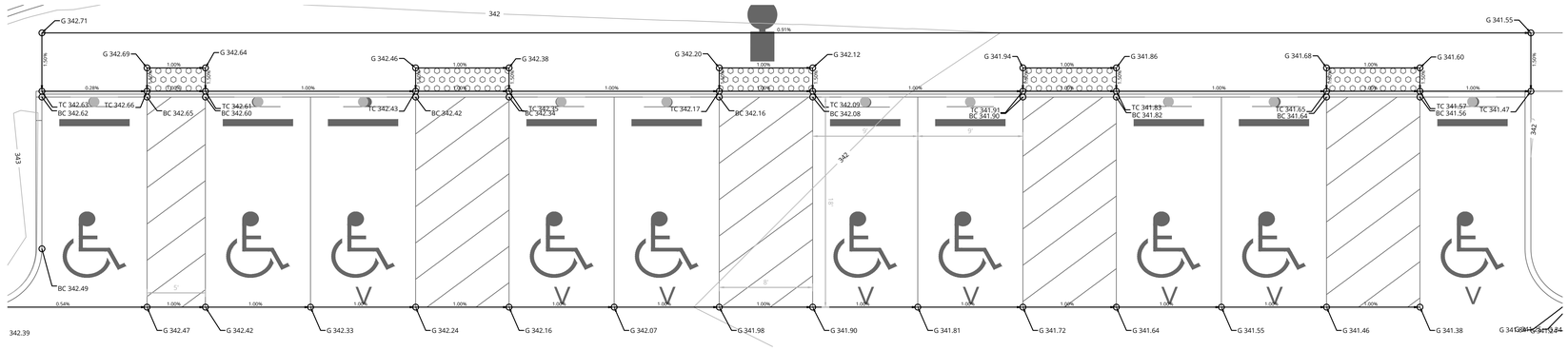
SHEET TITLE:

ADA ACCESSIBILITY DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

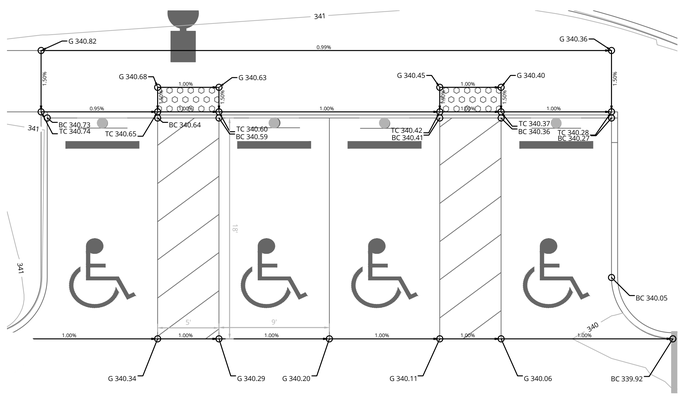
C-516

SHEET NUMBER 49 OF 63



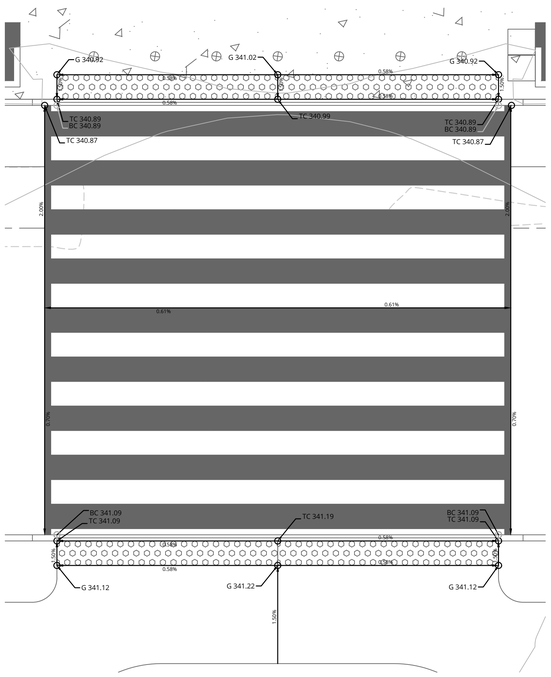
ADA RAMPS - DETAIL 9

SCALE : 1" = 5'



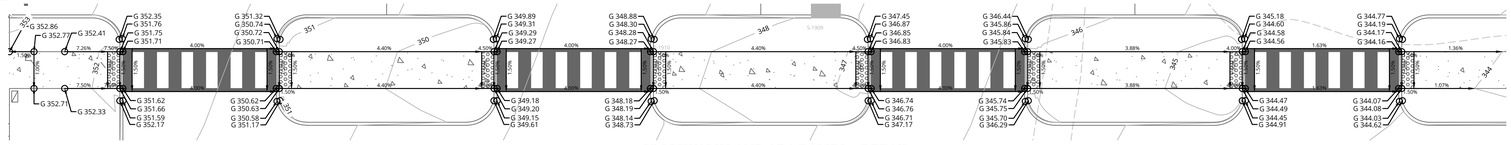
ADA RAMPS - DETAIL 10

SCALE : 1" = 5'



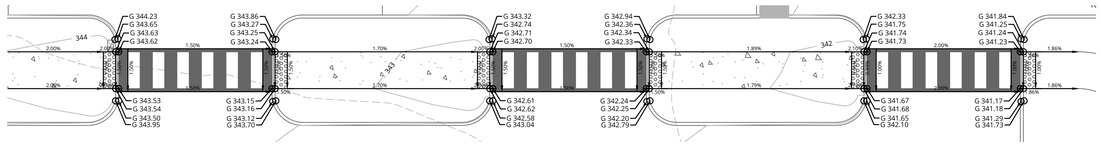
CROSSWALK AND ADA RAMPS - DETAIL 11

SCALE : 1" = 5'



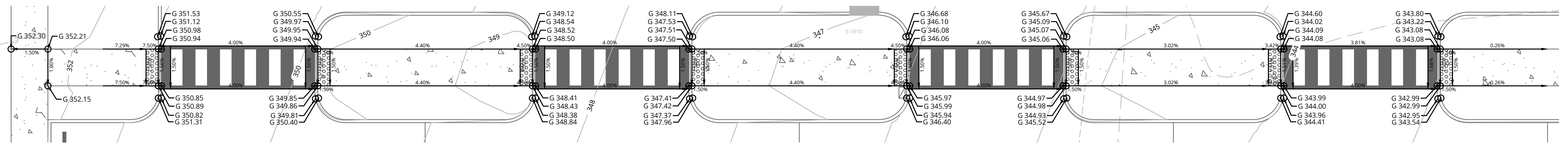
CROSSWALKS AND ADA RAMPS - DETAIL 12

SCALE : 1" = 10'



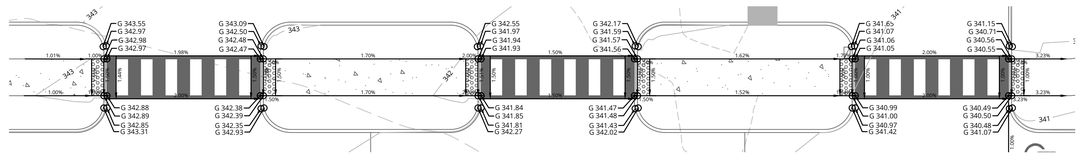
CROSSWALKS AND ADA RAMPS - DETAIL 13

SCALE : 1" = 10'



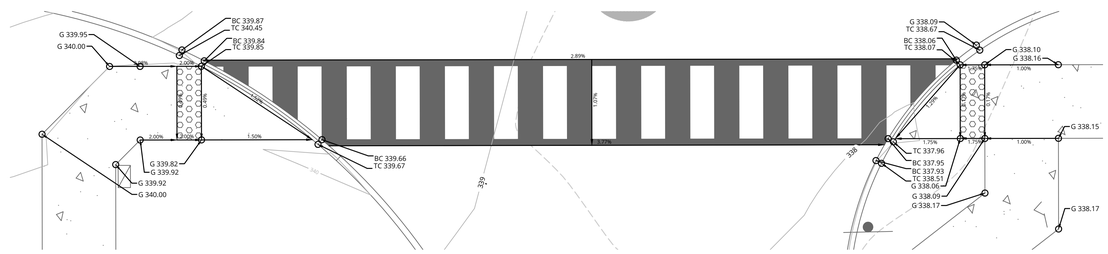
CROSSWALKS AND ADA RAMPS - DETAIL 14

SCALE : 1" = 10'



CROSSWALKS AND ADA RAMPS - DETAIL 15

SCALE : 1" = 10'



CROSSWALK AND ADA RAMPS - DETAIL 16

SCALE : 1" = 5'

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2026\2601.00 EASD Engineering\Plan Set\Development Plan\Phase 2\01 Land Development_CDS-ADA.dwg 4/3/2026 8:51:09 AM By:JORDAN.WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
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Building 10, Suite F-200B
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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

ADA ACCESSIBILITY DETAILS

DATE: 04/15/26
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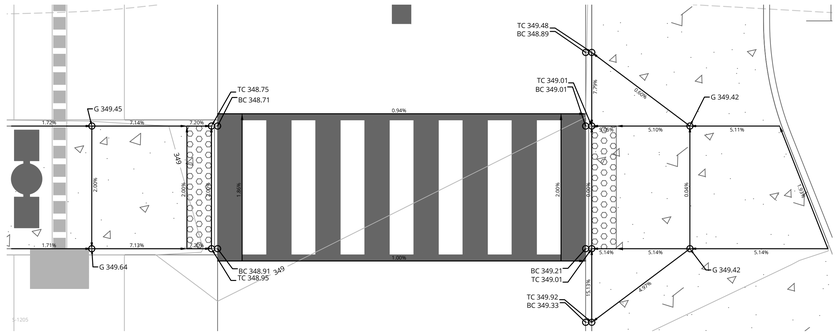
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-517

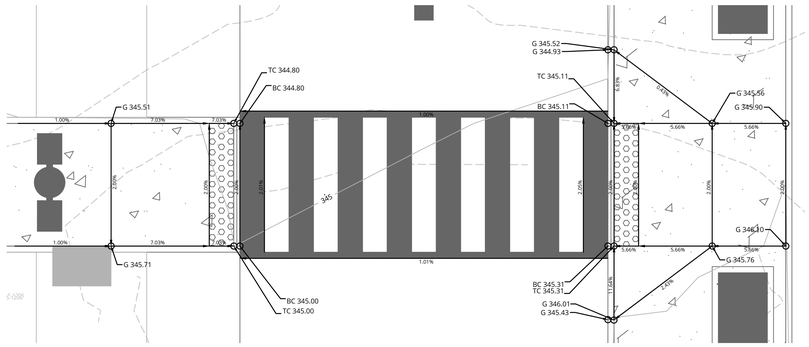
SHEET NUMBER 50 OF 63



CROSSWALK AND ADA RAMPS - DETAIL 17

5 0 5 10

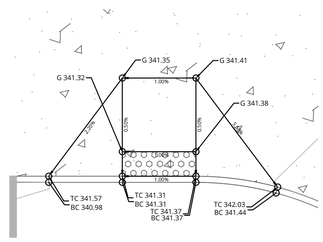
SCALE : 1" = 5'



CROSSWALK AND ADA RAMPS - DETAIL 18

5 0 5 10

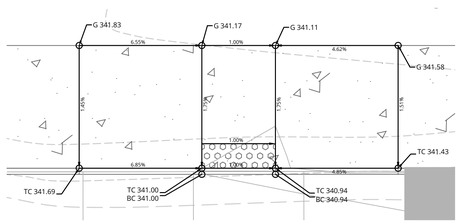
SCALE : 1" = 5'



ADA RAMP- DETAIL 19

5 0 5 10

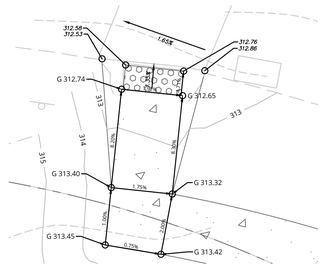
SCALE : 1" = 5'



ADA RAMPS - DETAIL 20

5 0 5 10

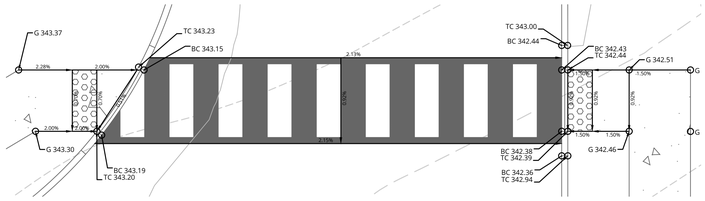
SCALE : 1" = 5'



ADA RAMP- DETAIL 25

5 0 5 10

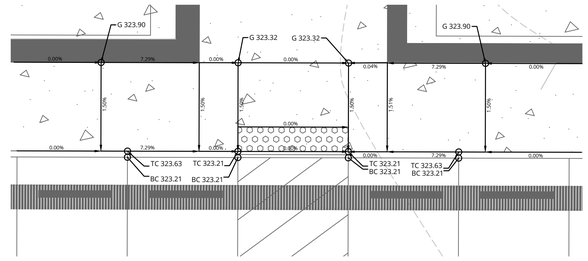
SCALE : 1" = 5'



CROSSWALK AND ADA RAMPS - DETAIL 21

5 0 5 10

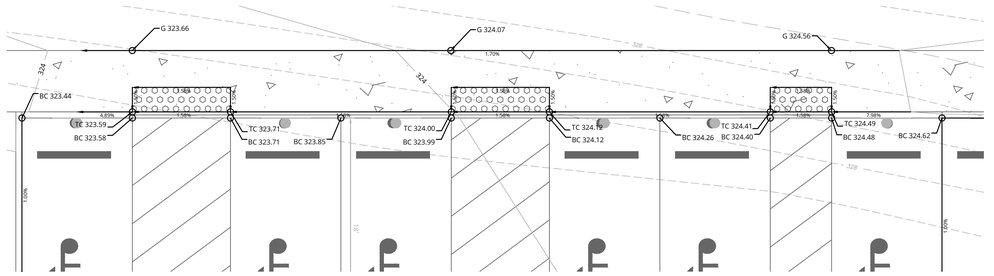
SCALE : 1" = 5'



ADA RAMP - DETAIL 22

5 0 5 10

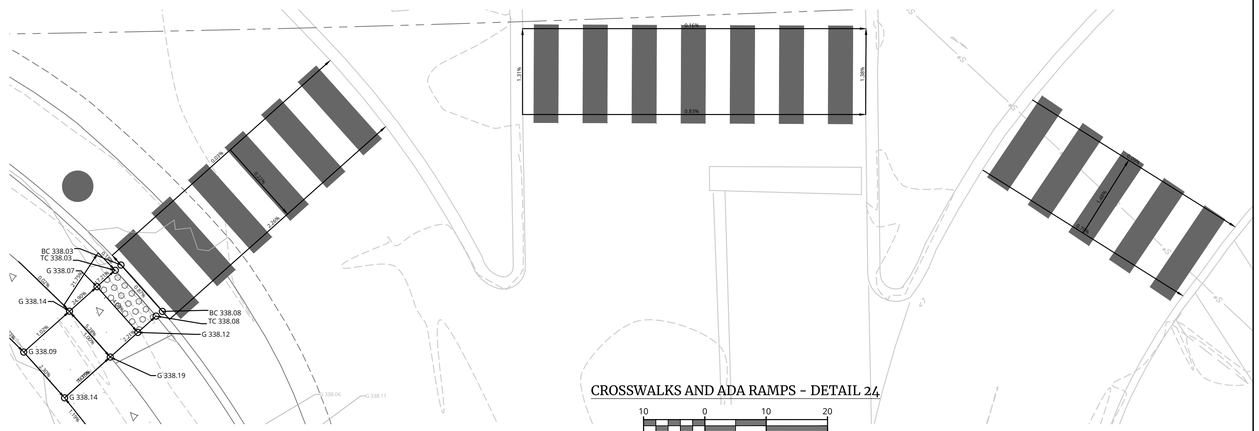
SCALE : 1" = 5'



ADA RAMPS - DETAIL 23

5 0 5 10

SCALE : 1" = 5'



CROSSWALKS AND ADA RAMPS - DETAIL 24

10 0 10 20

SCALE : 1" = 10'

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C:\Users\MRC\Desktop\Plan Sets\Development Plans\Phase 2\2601 William Penn Hwy_Phase2_Central_CFD_v24(4).dwg 4:19 By:MRC\MRC

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

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ALLOYS
ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
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ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
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ENGINEER No. 46162

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610.419.4005

Colliers Engineering & Design
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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

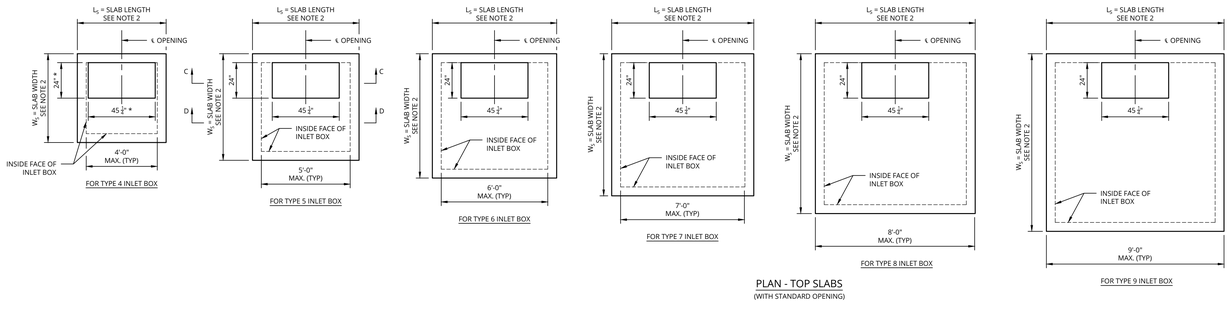
SHEET TITLE:

ADA ACCESSIBILITY DETAILS

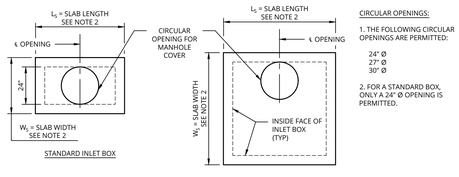
DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012618

C-518

SHEET NUMBER 51 OF 63



PLAN - TOP SLABS
(WITH STANDARD OPENING)



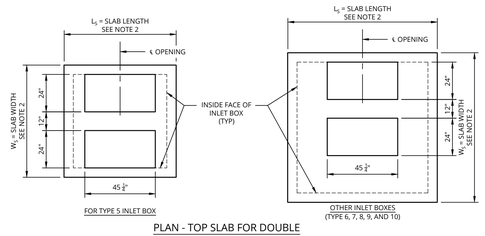
CIRCULAR OPENINGS:

1. THE FOLLOWING CIRCULAR OPENINGS ARE PERMITTED:

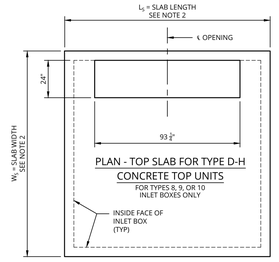
   24" Ø
   27" Ø
   30" Ø

2. FOR A STANDARD BOX, ONLY A 24" Ø OPENING IS PERMITTED.

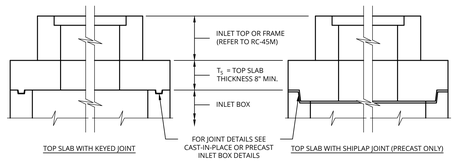
PLAN - TOP SLAB WITH OPTIONAL ROUND OPENING FOR MANHOLE COVER



PLAN - TOP SLAB FOR DOUBLE TYPE M CONCRETE TOP UNIT
NOT APPLICABLE FOR STANDARD OR TYPE 4 INLET BOXES

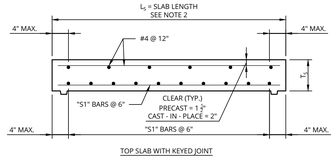


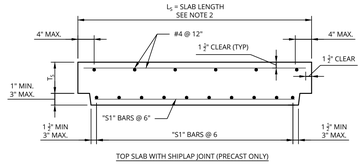
PLAN - TOP SLAB FOR TYPE D-H CONCRETE TOP UNITS
FOR TYPES 8, 9, OR 10 INLET BOXES ONLY



SECTION C-C
(TYPICAL)

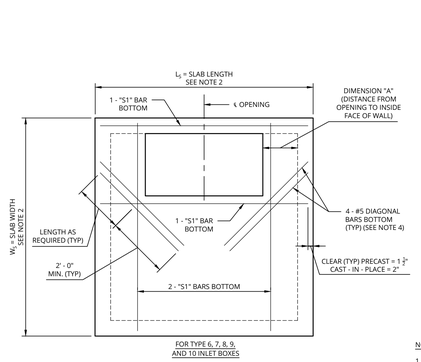
NOTE: GRADE ADJUSTMENT RINGS NOT SHOWN





SECTION D-D
(ADDITIONAL REINFORCEMENT NOT SHOWN)

INLET BOX TOP SLAB
NOT TO SCALE



ADDITIONAL REINFORCING AT RECTANGULAR OPENINGS IN TOP SLAB
(FOR ADDITIONAL INFORMATION SEE SHEET **X**)

TOP SLAB CAST-IN-PLACE CONCRETE

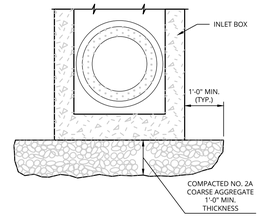
INLET BOX TYPE	T_S (IN.)	S1 (BAR SIZE)
STANDARD	8	#6
TYPE 4	12	#7
TYPE 5	14	#8
TYPE 6	14	#8
TYPE 7	14	#9
TYPE 8	14	#9
TYPE 9	14	#9
TYPE 10	14	#9

TOP SLAB PRECAST CONCRETE

INLET BOX TYPE	T_S (IN.)	S1 (BAR SIZE)
STANDARD	8	#6
TYPE 4	10	#8
TYPE 5	12	#9
TYPE 6	12	#9
TYPE 7	14	#9
TYPE 8	14	#9
TYPE 9	14	#9
TYPE 10	14	#9

NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEET**S X - X**.
2. OUT TO OUT DIMENSIONS OF TOP SLABS TO MATCH SIZE OF INLET BOX.
3. SET EDGE OF OPENING AT INSIDE FACE OF INLET BOX FOR ACCESS, IF POSSIBLE.
4. FOR ADDITIONAL REINFORCEMENT AROUND OPENINGS, SEE SHEET**S X AND X**.
5. FOR JOINT DETAILS, SEE SHEET**S X OR X**.
6. ANY REINFORCEMENT BARS LESS THAN 6" IN LENGTH, DUE TO THE LOCATION OF THE OPENING, ARE NOT REQUIRED.



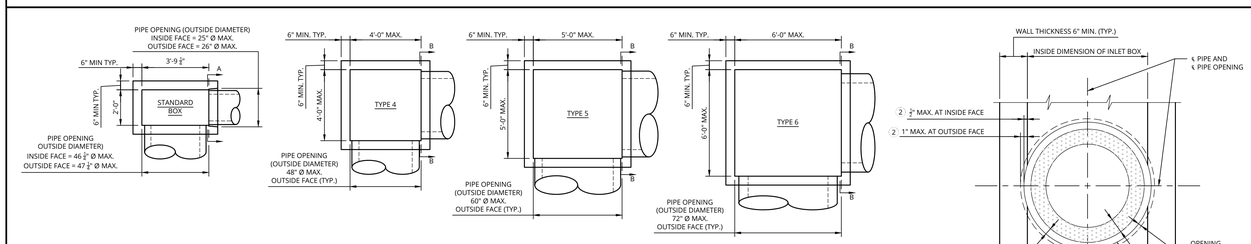
NOTES:

STANDARD INLET BOXES SHOWN, PROVIDE TOP SLABS FOR OTHER INLET BOX TYPES.

PROVIDE GRADE ADJUSTMENT RINGS WHEN REQUIRED.

COST OF NO. 2A COARSE AGGREGATE IS INCIDENTAL TO THE INLET BOX.

TYPICAL INLET BOX SUB-BASE PREPARATION
NOT TO SCALE

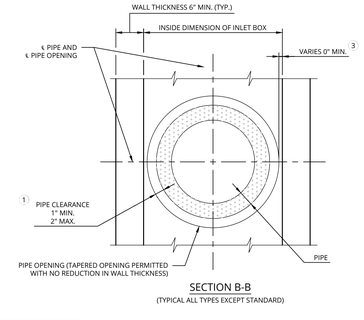


PLAN - INLET BOXES

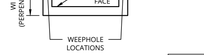
LEGEND:
OUTSIDE FACE - OUTSIDE FACE OF INLET BOX WALL
INSIDE FACE - INSIDE FACE OF INLET BOX WALL

SECTION A-A
(STANDARD INLET BOX ONLY)

LEGEND:
1 OUTSIDE DIAMETER OF PIPE TO PIPE OPENING
2 REDUCTION IN WALL THICKNESS DIMENSION
3 INSIDE FACE OF BOX WALL TO OUTSIDE DIAMETER OF PIPE OPENING



SECTION B-B
(TYPICAL ALL TYPES EXCEPT STANDARD)

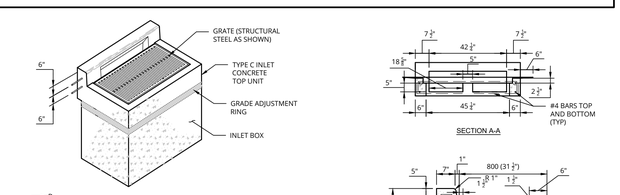


SCHEMATIC - INLET BOX

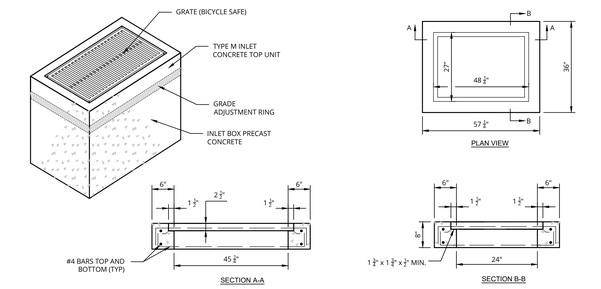
NOTE:
ALL STRUCTURES SHALL BE FITTED WITH FLOW CHANNELS

LEGEND:
1 OUTSIDE DIAMETER OF PIPE TO PIPE OPENING
2 REDUCTION IN WALL THICKNESS DIMENSION
3 INSIDE FACE OF BOX WALL TO OUTSIDE DIAMETER OF PIPE OPENING

INLET BOXES
NOT TO SCALE



TYPE "C" INLET
NOT TO SCALE



TYPE "M" INLET
NOT TO SCALE

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C:\Projects\2024\2024065\Engineering\Plan Sets\Development Plan\Phase 2\01 Land Development\C-521 INLET BOX TOP SLAB.dwg C-521 By: JORDAN WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
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1110 AMERICAN PKWY, BLDG 10 STE F-200B
ALLENTOWN, PA 18109

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1005 W LEHIGH STREET
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PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE DETAILS

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **24001261A**

C-521

SHEET NUMBER 52 OF 63

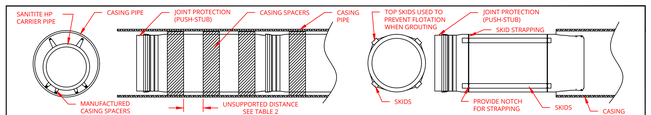

TABLE 1: DIMENSIONS OF HP PIPE PRODUCTS AND CASING PIPE

	NOMINAL INSIDE DIAMETER	MAX OUTSIDE DIAMETER	*NOMINAL CASING SIZE
DUAL WALL	12" (300mm)	14.6" (371mm)	22" (559mm)
	15" (375mm)	17.8" (452mm)	24" (610mm)
	18" (450mm)	21.4" (544mm)	28" (711mm)
	21" (525mm)	24.9" (632mm)	32" (813mm)
	24" (600mm)	28.2" (716mm)	34" (864mm)
	30" (750mm)	35.6" (904mm)	42" (1067mm)
TRIPLE WALL	30" (750mm)	35.7" (907mm)	42" (1067mm)
	36" (900mm)	41.4" (1052mm)	48" (1219mm)
	42" (1050mm)	47.5" (1207mm)	54" (1372mm)
	48" (1200mm)	53.9" (1369mm)	60" (1524mm)
	60" (1500mm)	66.6" (1692mm)	78" (1981mm)

* BASED ON LARGEST MANUFACTURED CASING SPACER RECOMMENDATION. SPECIFIC MANUFACTURERS MAY ALLOW FOR SMALLER CASING PIPE THAN SHOWN IN THE CHART.

TABLE 2: MAXIMUM UNSUPPORTED DISTANCES

PIPE DIAM.	RECOMMENDED MAXIMUM UNSUPPORTED DISTANCE *
12" - 24" (300mm - 600mm)	48" (1200mm)
30" - 60" (750mm - 1500mm)	84" (2100mm)

* VALUES BASED ON THE PIPE GRADE VARYING NO MORE THAN 0.25-IN FROM TRUE GRADE ASSUMING THE PIPE IS FULL FOR THE DURATION OF ITS SERVICE LIFE. (SEE NOTE 2)

TABLE 3: PUSH LENGTHS FOR HP PRODUCTS

NOMINAL INSIDE DIAMETER	PUSH LENGTH *
12" (300mm)	400 ft (121m)
15" (375mm)	400 ft (121m)
18" (450mm)	400 ft (121m)
21" (525mm)	400 ft (121m)
24" (600mm)	400 ft (121m)
30" (750mm)	400 ft (121m)
36" (900mm)	300 ft (91m)
42" (1050mm)	300 ft (91m)
48" (1200mm)	300 ft (91m)
60" (1500mm)	300 ft (91m)

* PUSH LENGTH IS PROVIDED AS GENERAL DESIGN GUIDANCE. CONTACT ADS IF ANTICIPATED LENGTHS EXCEED THE GIVEN VALUES.

NOTES:

1. THE CASING SPACER MANUFACTURER SHOULD BE CONTACTED FOR EXACT SIZING AVAILABILITIES, BUT IN GENERAL, MOLDED PLASTIC SPACERS PROVIDE SHORTER RUNNER HEIGHTS COMPARED TO STAINLESS STEEL CONFIGURATIONS. SOME CASING SPACER MANUFACTURERS ARE: RACI, CASCADE WATERWORKS MANUFACTURING, PIPELINE SEAL & INSULATOR, INC. AND ADVANCE PRODUCTS & SYSTEMS, INC.

2. OTHER METHODS TO SUPPORT THE PIPE INVERT MAY BE USED, INCLUDING THE USE OF SKIDS IN BETWEEN MANUFACTURED CASING SPACERS OR FILLING THE VOID SPACE WITH SOIL OR GROUT MATERIAL, AT THE DISCRETION OF THE DESIGN ENGINEER.

3. TABLE 3 PROVIDES PUSH LENGTH VALUES FOR REFERENCE, HOWEVER SPECIFIC INSTALLATION CONDITIONS, INCLUDING THE CASING PIPE AND SPACER/BLOCKING MATERIALS, WILL IMPACT THE ALLOWABLE PUSH LENGTH. USING MANUFACTURED CASING SPACERS WILL HELP MINIMIZE THE RESISTANCE BETWEEN THE TWO SURFACES AND ALLOW FOR LONGER INSTALLATIONS.

4. REFER TO ADS TECHNICAL NOTE 5.18 FOR MORE INFORMATION REGARDING LINING OF CASINGS WITH SANITITE HP PIPE

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REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D
1	REV: DRAWING NAME OR NUMBER	TJR	01/28/16	

LINING OF CASINGS DETAIL (SANITITE HP)

DRAWING NUMBER: STD-110

ADS
4640 TRUEMAN BLVD
HILLIARD, OHIO 43026
ADVANCED DRAINAGE SYSTEMS, INC.

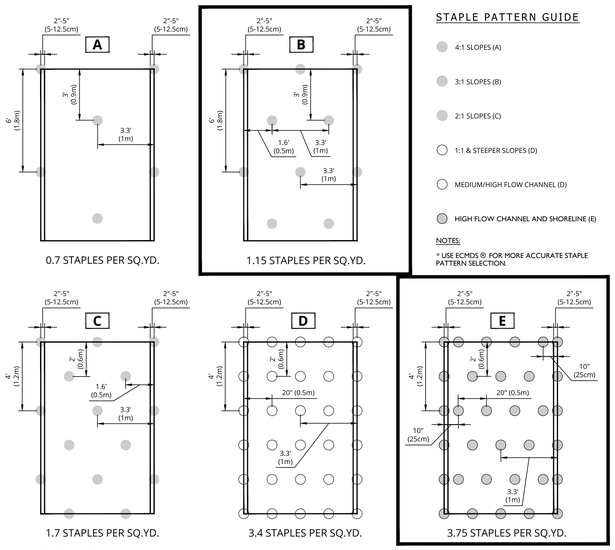
SIZE: B/S | DWG: 150123.15 | DRAWN: | SHEET: NTS | 1 OF 1

STAPLE PATTERN GUIDE

- 4:1 SLOPES (A)
- 3:1 SLOPES (B)
- 2:1 SLOPES (C)
- 1:1 & STEEPER SLOPES (D)
- MEDIUM/HIGH FLOW CHANNEL (D)
- HIGH FLOW CHANNEL AND SHORELINE (E)

NOTES:

* USE ECMDS @ FOR MORE ACCURATE STAPLE PATTERN SELECTION.



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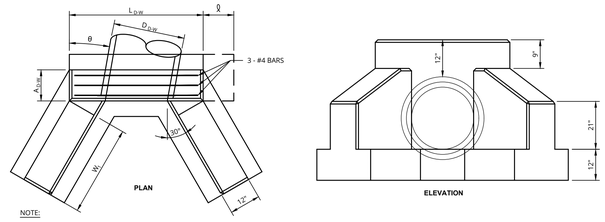
5401 St. Wendel - Cynthiana Rd.
Poseyville, IN 47633
PH: 800-722-2040
www.nagreen.com

STAPLE PATTERN FOR EROSION CONTROL MATTING

NOT TO SCALE



NOTE:

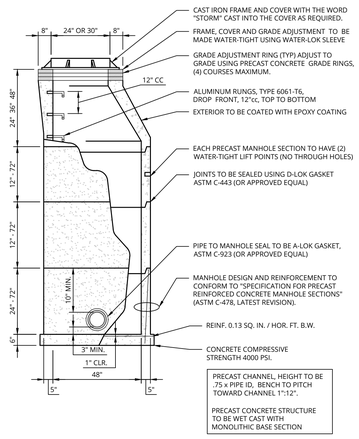
1. PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATIONS AS OUTLINED IN PENNDOT PUBLICATION 408M, SECTION 605 & 714.
2. PROVIDE REINFORCEMENT IN ACCORDANCE WITH PENNDOT PUBLICATION 408M, SECTION 709.
3. USE CLASS A CONCRETE OR BETTER.
4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

2 : 1 EMBANKMENT SLOPES

PIPE DIAMETER	SKEW ∢= 90° TO 60° θ = 30°			SKEW ∢= 55° θ = 35°			SKEW ∢= 50° θ = 40°			SKEW ∢= 45° θ = 45°			SKEW ∢= 40° θ = 50°			SKEW ∢= 30° θ = 60°			SKEW ∢= 20° θ = 70°			SKEW ∢= 10° θ = 80°				
D D-W (IN.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	L D-W (FT.)	θ (FT.)	W 1 (FT.)	W 2 (FT.)	A D-W (IN.)
≤ 36	5.8	0	4.6	6.0	0.33	4.9	6.2	0.5	5.2	6.5	0.67	5.7	7.0	0.75	6.2	8.3	1.33	8.0	11.1	1.75	11.7	19.6	5.0	23.0	4.6	12
42	6.3	0	5.8	6.6	0.33	6.1	6.9	0.5	6.5	7.3	0.67	7.1	7.8	0.75	7.8	9.3	1.33	10.0	12.5	1.75	14.6	22.5	5.0	28.8	5.8	12
48	6.9	0	6.9	7.2	0.33	7.3	7.5	0.5	7.8	8.0	0.67	8.5	8.5	0.75	9.4	10.3	1.33	12.0	14.0	1.75	17.5	25.3	5.0	34.6	6.9	12
54	7.5	0	8.0	7.8	0.33	8.5	8.2	0.5	9.1	8.7	0.67	9.9	9.3	0.75	10.9	11.3	1.33	14.0	15.5	1.75	20.5	28.2	5.0	40.3	8.0	12
60	8.1	0	9.2	8.4	0.33	9.8	8.8	0.5	10.4	9.4	0.67	11.3	10.1	0.75	12.5	12.3	1.33	16.0	16.9	1.75	23.4	31.1	5.0	46.0	9.2	15
72	9.2	0	11.5	9.6	0.33	12.2	10.1	0.5	13.0	10.8	0.67	14.1	11.7	0.75	15.6	14.3	1.33	20.0	19.8	1.75	29.2	36.9	5.0	57.6	11.5	15

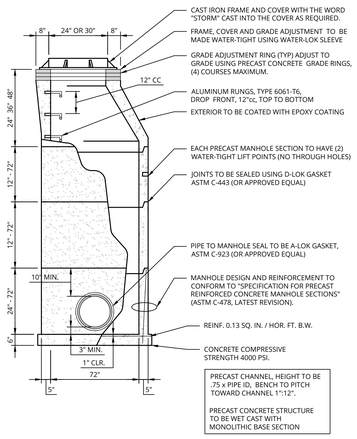
TYPE D-W END WALL

NOT TO SCALE



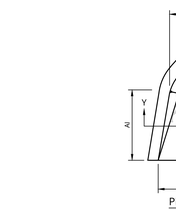
48" DIAMETER STORM MANHOLE DETAIL

NOT TO SCALE



72" DIAMETER STORM MANHOLE DETAIL

NOT TO SCALE



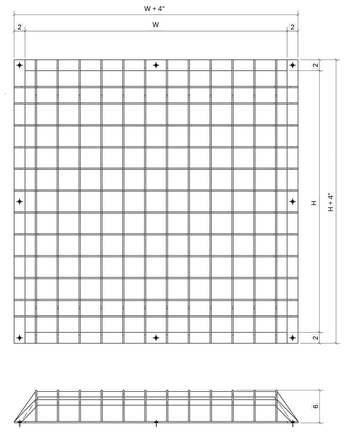
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R_	RIPRAP THICK. Rt (IN)	APRON LENGTH Ai (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
S-209	36	3	9	11.5	9	13.6
S-319	48	5	27	21	12	20.4
S-412	18	3	9	7	4.5	7.3
S-537	24	3	9	9	6	9.6
S-614	24	4	18	20	6	14
S-706	15	3	6.5	8	3.75	11.8
S-803	66	7	45	39	16.5	32.1
S-905	12	3	9	6	3	5.4
S-1003	18	3	9	7	4.5	7.3
S-104	18	3	9	8	4.5	12.5
S-1221	36	4	18.00	14.00	9.00	14.60
S-1302	15	3	9.00	9.00	3.75	7.40

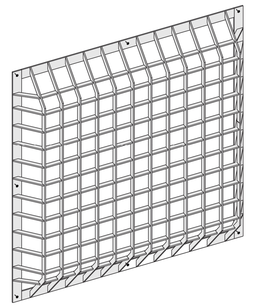
NOTES:

1. ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
2. ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL # 9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE



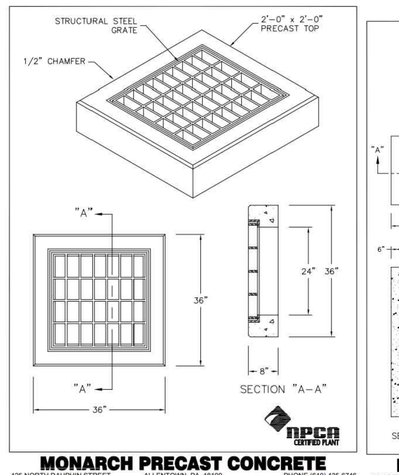


TRASH RACK DIMENSIONS			
TRASH RACK ID	W (FT)	H (FT)	NOMINAL OPENING SIZE (IN)
01	2.50	2.50	4 X 4

NOTE:
TRASH RACK SHALL BE PROVIDED WITH ALUMINUM FINISH AND BOLTED TO THE FRONT OF THE OUTLET STRUCTURE

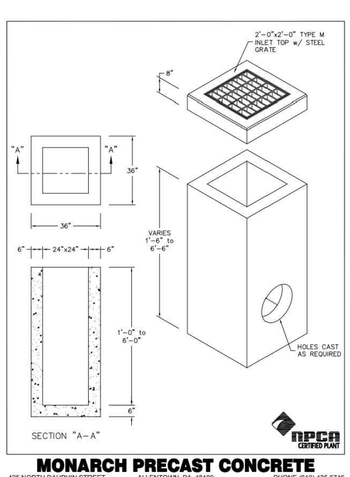
ORIFICE TRASH RACK DETAIL

NOT TO SCALE



MONARCH PRECAST CONCRETE
425 NORTH DAUPHIN STREET ALLENTOWN, PA. 18109 PHONE (610) 435-6746
WWW.MONARCHPRECAST.COM FAX (610) 437-7133

2' x 2' TYPE M INLET TOP w/ GRATE



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24"x24" INLET BOX w/ TYPE M INLET TOP

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C:\Users\JWilson\Documents\Projects\EASD Phase 2\Civil\Construction\C-522-Drainage Details.dwg 5/2/2026 8:34:43 AM By: JWILSON

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEP/FP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26



C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5
ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAIER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-522

SHEET NUMBER 53 OF 63

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet
VMax® SC250® Turf Reinforcement Mat



DESCRIPTION

The composite turf reinforcement mat (CTRM) shall be a machine-produced mat of 70% straw and 30% coconut fiber matrix incorporated into permanent three-dimensional turf reinforcement matting. The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between a heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings, an ultra heavy UV stabilized, dramatically corrugated (crimped) intermediate netting with 0.5 x 0.5 inch (1.27 x 1.27 cm) openings, and covered by an heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings. The middle corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50 inch (3.81cm) centers with UV stabilized polypropylene thread to form permanent three-dimensional turf reinforcement matting. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats.

The SC250 shall meet Type 5A, 5B, and 5C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18

Material Content		
Matrix	70% Straw Fiber	0.35 lb/sq yd (0.19 kg/sm)
	30% Coconut Fiber	0.15 lbs/sq yd (0.08 kg/sm)
Netting	Top and Bottom, UV-Stabilized Polypropylene	5 lb/1000 sq ft (2.44 kg/100 sm)
	Middle, Corrugated UV-Stabilized Polypropylene	24 lb/1000 sf (11.7 kg/100 sm)
Thread	Polypropylene, UV Stable	

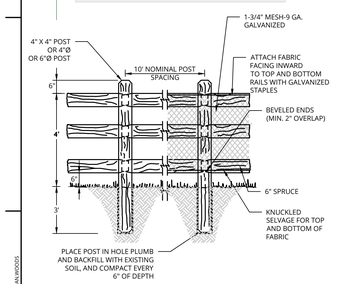
Standard Roll Sizes		
Width	6.5 ft (2.0 m)	8 ft (2.44m)
Length	55.5 ft (16.9 m)	90 ft (27.4 m)
Weight ± 10%	34 lbs (15.42 kg)	70 lbs (31.8 kg)
Area	40 sq yd (33.4 sm)	80 sq. yd. (66.8 sm)

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.62 in. (15.75 mm)
Resiliency	ASTM 6524	95.2%
Density	ASTM D792	0.891 g/cm³
Mass/Unit Area	ASTM 6566	16.13 oz/sy (548 g/sm)
UV Stability	ASTM D4355/ 1000 HR	80%
Porosity	ECTC Guidelines	99%
Stiffness	ASTM D1388	222.65 oz-in.
Light Penetration	ASTM D6567	4.1%
Tensile Strength – MD	ASTM D6818	709 lbs/ft (10.53 kN/m)
Elongation – MD	ASTM D6818	23.9%
Tensile Strength – TD	ASTM D6818	712 lbs/ft (10.56 kN/m)
Elongation – TD	ASTM D6818	36.9%
Biomass Improvement	ASTM D7322	441%

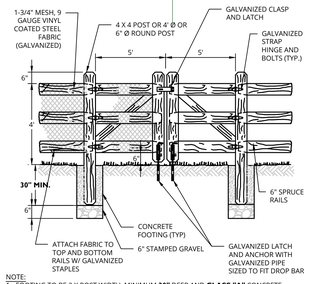
Design Permissible Shear Stress		
	Short Duration	Long Duration
Phase 1: Unvegetated	3.0 psf (144 Pa)	2.5 psf (120 Pa)
Phase 2: Partially Veg.	8.0 psf (383 Pa)	8.0 psf (383 Pa)
Phase 3: Fully Veg.	10.0 psf (480 Pa)	8.0 psf (383 Pa)
Unvegetated Velocity	9.5 fps (2.9 m/s)	
Vegetated Velocity	15 fps (4.6 m/s)	

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.0010	0.0209	0.0507
20-50 ft	0.0081	0.0266	0.0574
≥ 50 ft (15.2 m)	0.0455	0.0555	0.081

Roughness Coefficients – Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.040
0.50 – 2.0 ft	0.040-0.012
≥ 2.0 ft (0.60 m)	0.011

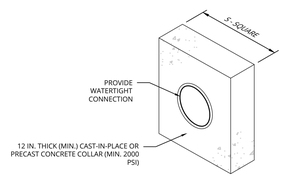


SPLIT RAIL FENCE (3 – RAIL) WITH FABRIC
NOT TO SCALE



NOTE:
1. FOOTING TO BE 2 X POST WIDTH, MINIMUM **30"** DEEP AND **CLASS "A"** CONCRETE.
2. GATE TO BE SELF-CLOSING AND SELF LATCHING.

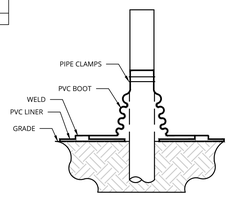
SPLIT RAIL GATE (3 – RAIL)
NOT TO SCALE



BASIN OR TRAP NO.	PIPE SIZE (IN)	S (FT)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)	COLLAR SPACING (FT)
SCM NO. 3	30	7	2	20	12

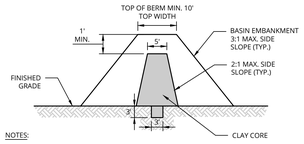
NOTES:
1. ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.
2. COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

STANDARD CONSTRUCTION DETAIL # 7-16
CONCRETE ANTI-SEEP COLLAR FOR PERM. BASINS OR TRAPS
NOT TO SCALE



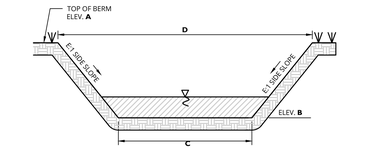
INSTALLATION INSTRUCTIONS:
1. PREPARE THE SUBGRADE AROUND THE AREA OF THE PIPE. THE SUB-GRADEMUST BE SMOOTH, UNIFORM, AND FREE OF ANY PROTRUSIONS.
2. CLEAN THE SURFACE OF THE LINER AROUND THE PENETRATION WHERE THE BOOT WILL BE WELDED IN PLACE. WIPE AWAY ANY DIRT OR DUST PARTICLES. THE SURFACES OF THE LINER, BOOT, AND THE PIPE MUST BE COMPLETELY CLEAN AND DRY.
3. SLIDE THE BOOT SLEEVE ON THE PIPE, MAKING SURE THE BOOT IS ALIGNED AND ALL SURFACES ARE SMOOTH, IT MAY BE NECESSARY TO TRIM THE EXCESS TAPERED PORTION OF THE BOOT SLEEVE.
4. WELD THE BOOT APRON TO THE LINER USING EPI PROVIDED ADHESIVE. APPLY THE ADHESIVE TO THE LINER AND THE BOOT APRON. LET THE ADHESIVE SETUP FOR SEVERAL SECONDS BEFORE PRESSING THE BOOT APRON AND THE LINER TOGETHER USING A ROLLER. MAKE SURE TO SMOOTH OUT ANY BUBBLES OR WRINKLES.
5. SEAL THE BOOT SLEEVE TO THE PIPE USING THE STAINLESS STEEL HOSE CLAMP. THE CLAMP AROUND THE PIPE WILL FORM A WATERTIGHT SEAL TO THE PIPE.

PIPE BOOT
NOT TO SCALE



NOTES:
1. EMBANKMENT CORE TO BE UNIFIED SOIL CLASSIFICATION GROUP CL OR APPROVED EQUAL. COMPACT TO 95% MAXIMUM DENSITY (ASTM D-1557).
2. ON-SITE MATERIAL MAY BE USED TO FORM THE EMBANKMENT CORE IF THE MATERIAL MEETS THE CRITERIA IN NOTE # 1 ABOVE.
3. CLAY CORE SHALL BE PLACE WITHIN THE "FILL" PORTION OF THE DETENTION OR RETENTION BASIN.

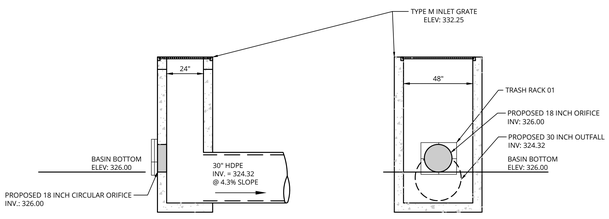
BASIN CLAY CORE DETAIL
NOT TO SCALE



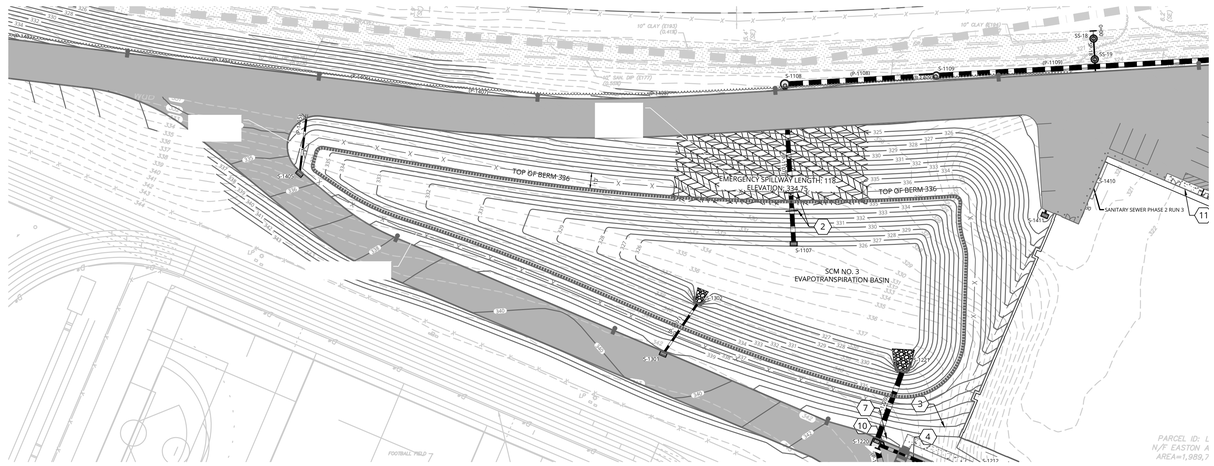
BASIN #	A	B	C	D	E	SPILLWAY REINFORCEMENT
SCM NO. 3	336.00	334.75	118	124	3	SC250

NOTES:
1. 0% SLOPE ACROSS EMERGENCY SPILLWAY.
2. SPILLWAY SURFACE TO BE STABILIZED AS SHOWN ON THE PLANS.

EMERGENCY SPILLWAY
NOT TO SCALE



POST CONSTRUCTION – OUTLET CONTROL STRUCTURE S-107 – SCM NO. 3
NOT TO SCALE

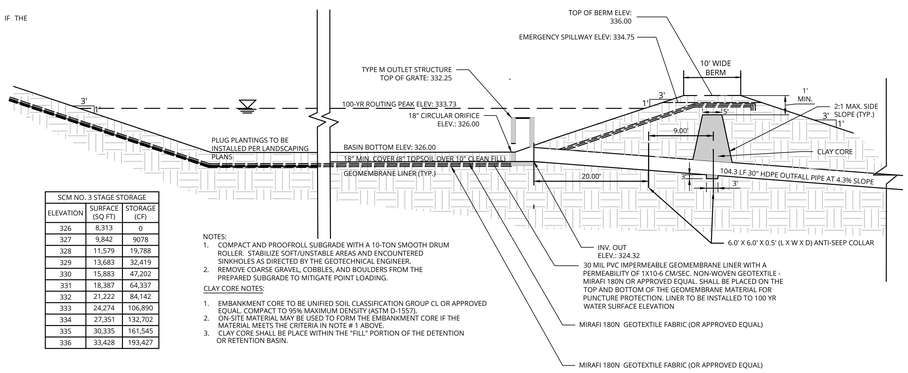


SCM NO. 3 EVAPOTRANSPIRATION BASIN PLAN VIEW

40 0 40 80

SCALE : 1" = 40'
Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

SCM NO. 3 STAGE STORAGE		
ELEVATION	SURFACE (SQ FT)	STORAGE (CF)
326	8,313	0
327	9,842	9078
328	11,579	19,788
329	13,683	32,419
330	15,883	47,202
331	18,387	64,337
332	21,222	84,142
333	24,274	106,890
334	27,351	132,702
335	30,335	161,545
336	33,428	193,427



NOTES:
1. COMPACT AND PROOFROLL SUBGRADE WITH A 10-TON SMOOTH DRUM ROLLER. STABILIZE SOFT/UNSTABLE AREAS AND ENCOUNTERED SINKHOLES AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
2. REMOVE COARSE GRAVEL, COBBLES, AND BOULDERS FROM THE PREPARED SUBGRADE TO MITIGATE POINT LOADING.

CLAY CORE NOTES:
1. EMBANKMENT CORE TO BE UNIFIED SOIL CLASSIFICATION GROUP CL OR APPROVED EQUAL. COMPACT TO 95% MAXIMUM DENSITY (ASTM D-1557).
2. ON-SITE MATERIAL MAY BE USED TO FORM THE EMBANKMENT CORE IF THE MATERIAL MEETS THE CRITERIA IN NOTE # 1 ABOVE.
3. CLAY CORE SHALL BE PLACE WITHIN THE "FILL" PORTION OF THE DETENTION OR RETENTION BASIN.

SCM NO. 3: EVAPOTRANSPIRATION BASIN
NOT TO SCALE

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C:\Users\tlong\AppData\Local\Temp\Bluebeam Revu\Plugins\Temp\Plugin_Data\Bluebeam Revu\Plugins\Temp\Plugin_260_user\Autosaved\C-523.PNG.bak#C-523 By: JORDAN.MOORE

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL
2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT
2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY, BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEP/F:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:
ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway,
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAKER CONSULTING
www.colliersengineering.com

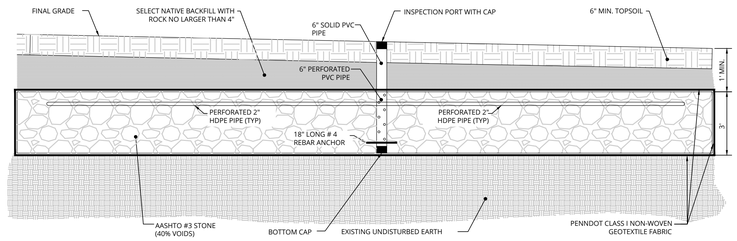
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE DETAILS

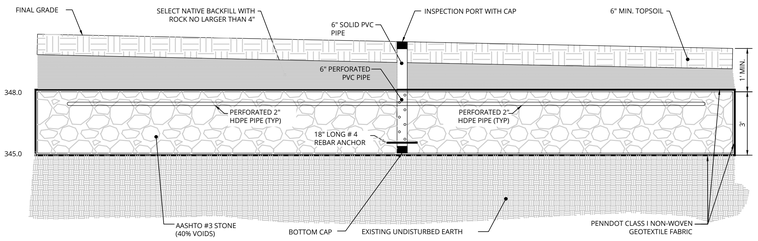
DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **240012614**

C-523

SHEET NUMBER 54 OF 63



DOSING BED 2 DETAIL
NOT TO SCALE



DOSING BED 3 DETAIL
NOT TO SCALE

DOSING BED 2 & 3 CONSTRUCTION NOTES:

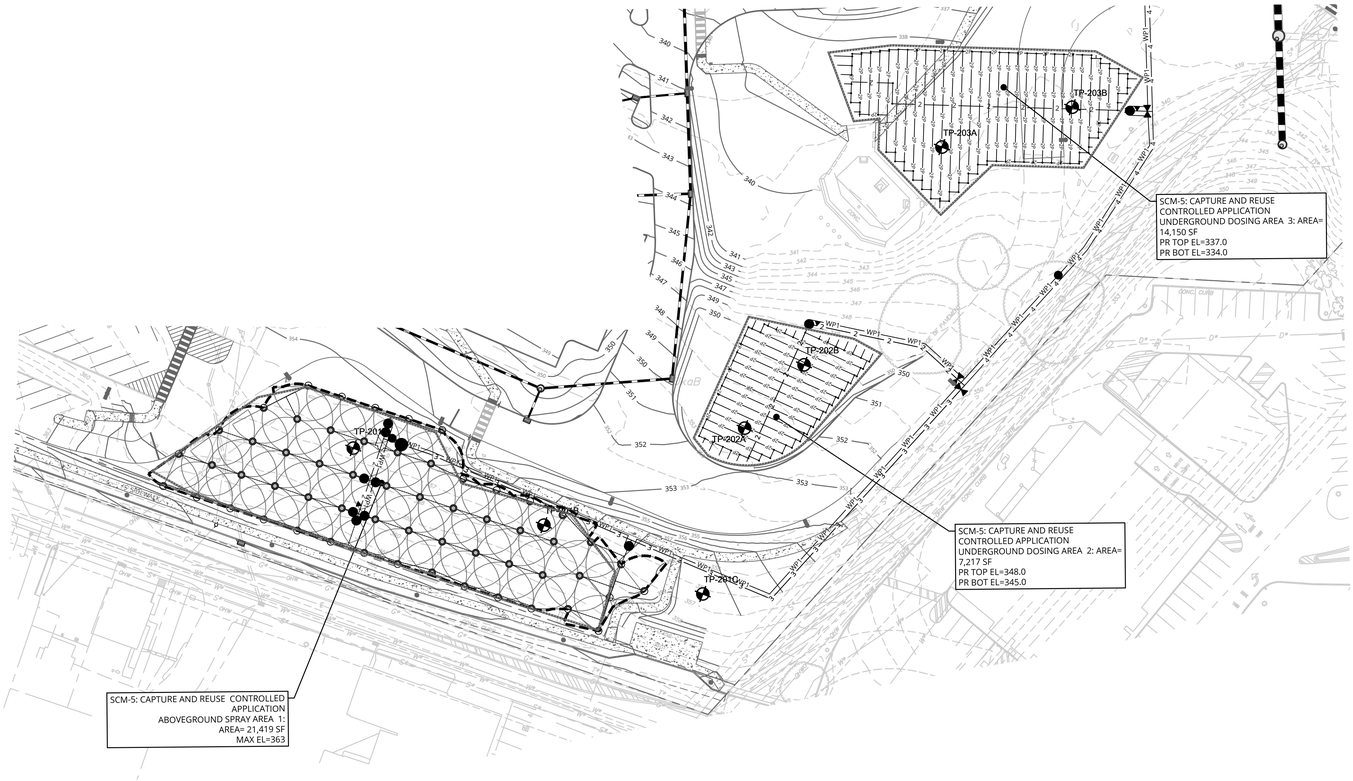
1. THIS FACILITY IS DESIGNED WITH A FLAT BOTTOM (MAY NOT EXCEED 1%).
2. REFER TO IRRIGATION PLAN FOR DISTRIBUTION PIPE ARRANGEMENT IN PLAN VIEW
3. EXISTING SUBGRADE WITHIN THE PROPOSED DOSING BED AREA AT THE PROPOSED BOTTOM ELEVATION SHALL NOT BE COMPACTED AND SHALL BE PROTECTED FROM UNNECESSARY DISTURBANCE. EQUIPMENT ACCESS AND TRAFFIC WITHIN THE AREA SHALL BE MINIMIZED TO HE MAXIMUM EXTENT PRACTICABLE TO PRESERVE THE INFILTRATION CAPACITY OF THE NATIVE SOILS.

DOSING BED
NOT TO SCALE

INFILTRATION TESTING SUMMARY TABLE
IRRIGATION DESIGN

AREA	TEST PIT NO.	INFILTRATION RATE (IN/HR)	GEO. MEAN INFILTRATION RATE (IN/HR)	DESIGN INFILTRATION RATE (IN/HR)
1	TP-201.A.1	0.25	0.16	0.08
	TP-201.B.1	0.13		
	TP-201.C.1	0.13		
2	TP-202.A.2	0.13	0.57	0.29
	TP-202.B.2	2.50		
3	TP-203.A.2	0.25	0.50	0.25
	TP-203.B.2	1.00		

* PER PADEP REQUIREMENTS, DESIGN INFILTRATION RATE IS THE GEOMETRIC MEAN OF THE INFILTRATION TESTS OF A SINGLE TEST PIT, WITH AN APPLIED FACTOR OF SAFETY OF 2. (GEOMETRIC MEAN = $\sqrt[n]{(X_1 * X_2 * ... * X_n)}$)



SCM NO. 5 CAPTURE AND REUSE SYSTEM

40 0 40 80
SCALE : 1" = 40'

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C:\Projects\2024\Engineering\Plan Sets\Development Plans\Phase 2\01 Land Development\C-524 Site Drainage Details.dwg, 3/4/2026 8:39:05 AM, By: JOSHUA WOODS

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOYS ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
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ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
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1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
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No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4005

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway,
Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

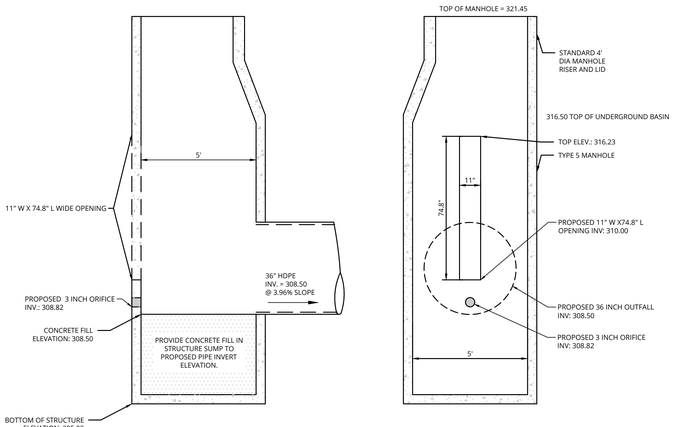
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE DRAINAGE DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

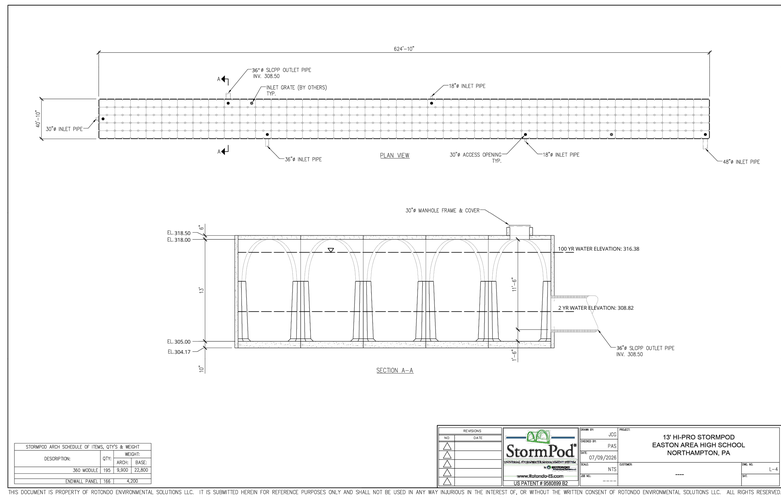
C-524

SHEET NUMBER 55 OF 63

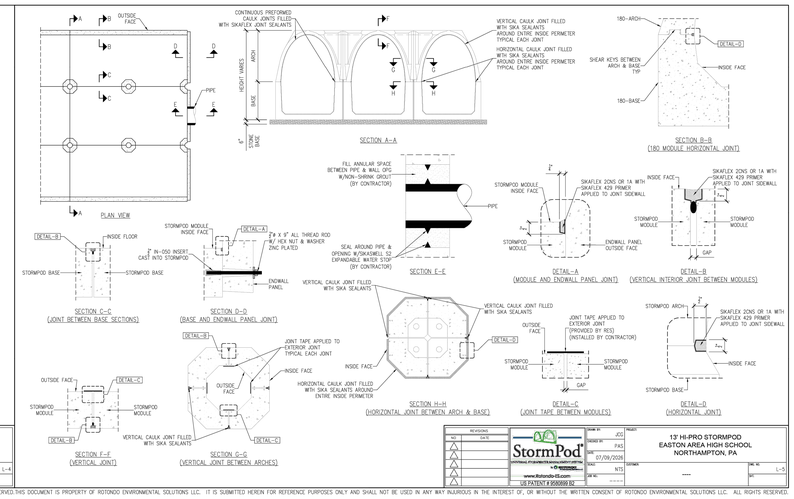


POST CONSTRUCTION - OUTLET CONTROL STRUCTURE SCM NO. 4

NOT TO SCALE



STORMPOD ARCH SCHEDULE OF ITEMS, QTY'S & WEIGHT			
DESCRIPTION	QTY.	WEIGHT	
		ARCH	BASE
360 MODULE	195	8,900	22,800
ENDWALL PANEL	186	4,200	



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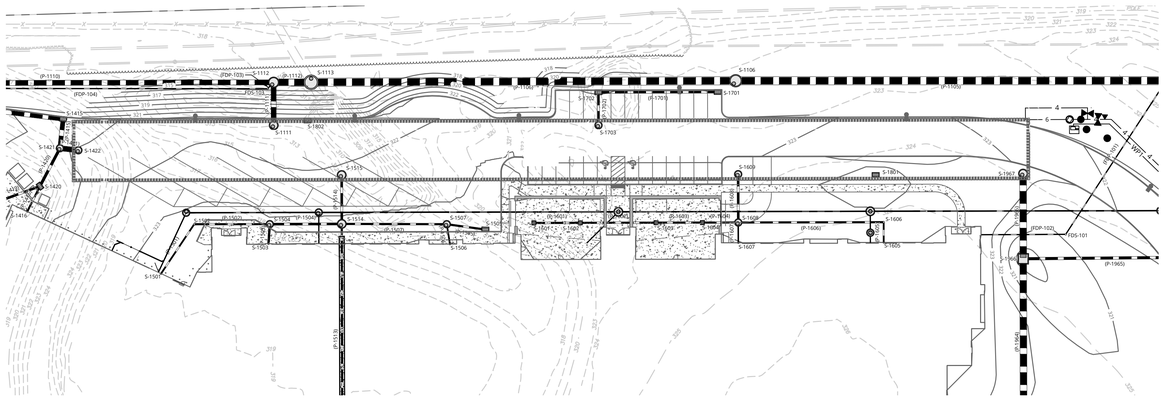
REVISIONS	
NO.	DATE

StormPod — INTERNAL STORMWATER MANAGEMENT SYSTEM — by Rotondo — www.RotondoUS.com — US PATENT # 9506189 B2

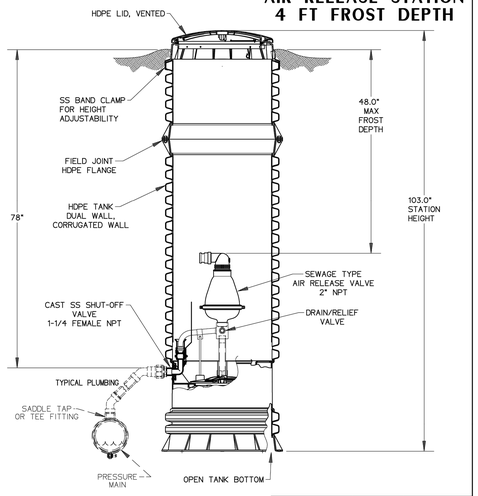
DRAWN BY: JCC | DESIGNED BY: PAS | DATE: 07/09/2026 | SCALE: NTS | DETAILS: ----- | JOB NO.: ----- | SHT.: L-4

13' HI-PRO STORMPOD
EASTON AREA HIGH SCHOOL
NORTHAMPTON, PA

REVISIONS NO. DATE
StormPod — INTERNAL STORMWATER MANAGEMENT SYSTEM — by Rotondo — www.RotondoUS.com — US PATENT # 9506189 B2
DRAWN BY: JCC | DESIGNED BY: PAS | DATE: 07/09/2026 | SCALE: NTS | DETAILS: ----- | JOB NO.: ----- | SHT.: L-5
13' HI-PRO STORMPOD
EASTON AREA HIGH SCHOOL
NORTHAMPTON, PA



AIR RELEASE STATION
4 FT FROST DEPTH



NOTES:

1. ALL ITEMS SHOWN IN DASHED LINES ARE FOR REFERENCE ONLY, AND ARE SUPPLIED BY OTHERS

ORDER NUMBER: NC0078G02

SGS		10/20/10	A	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

eone SEWER SYSTEMS

CUT SHEET, AIR RELEASE STATION FOR 4' FROST DEPTH

NA0183P02

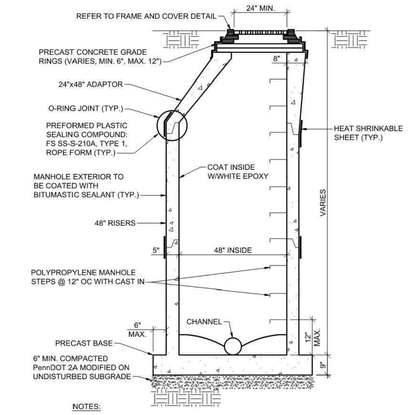
LATERAL NOTES:

1. ALL MATERIAL USED FOR LATERAL INSTALLATIONS SHALL BE NEW, FREE FROM DEFECTS AND CONFORM TO ALL STANDARDS SET FORTH BY THE TOWNSHIP.
2. ALL LATERALS MUST BE INSPECTED BEFORE BACKFILLING. COMPLETED DRAWINGS SHOWING THE EXACT LOCATION AND DEPTH OF LINE SHALL BE SUBMITTED TO THE TOWNSHIP DURING FINAL INSPECTION OR THE LATERAL WILL NOT BE AUTHORIZED TO USE.
3. ALL FEES MUST BE PAID IN PROPER AMOUNT BEFORE A CONNECTION PERMIT WILL BE ISSUED.

MATERIAL ALLOWED BY TOWNSHIP FOR BUILDING GRAVITY AND LOW PRESSURE SEWERS

1. GRAVITY BUILDING SEWER: SCH 80 PVC, MINIMUM DIAMETER 4 INCH.
2. GRAVITY SEWER LATERAL: SDR 26 PVC, MINIMUM DIAMETER 6 INCH.
3. GRAVITY SEWER MAIN: SDR 26 PVC, MINIMUM DIAMETER 8 INCH.
4. MINIMUM SLOPE FOR GRAVITY SEWERS AND LATERALS:
   a. 4 INCH BUILDING SEWER: 2% (1/4 INCH PER FOOT).
   b. 6 INCH LATERAL: 1.0% (1/8 INCH PER FOOT).
   c. 8 INCH MAIN: 0.4%.
5. LOW PRESSURE SEWER MAIN: DR 11 HDPE, MINIMUM DIAMETER 1-1/4 INCH.
6. LOW PRESSURE SEWER LATERAL: DR11 HDPE, DIAMETER 1-1/4 INCH UNLESS SPECIAL APPROVAL PROVIDED BY TOWNSHIP.

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com	PALMER TOWNSHIP 3 WELLER PLACE, PALMER, PA. 18045	DATE: MAR 2025	SCALE: AS NOTED
	LATERAL NOTES	PREPARED BY: EDM	PROJECT NO: 4880.036
		CHECKED BY:	DRAWING NO: S-3
		APPROVED BY:	

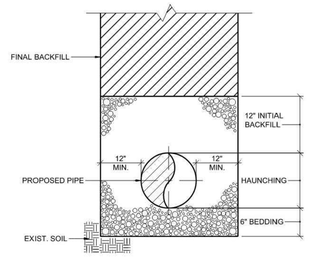


NOTES:

1. ALL PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A CAST-IN-PLACE GASKET. (TYP) (A-LOK OR APPROVED EQUAL)
2. MANHOLES EXCEEDING A DEPTH OF 16 FEET SHALL PROVIDE PRE-CAST LANDING PLATFORM.

1 **TYPICAL SANITARY MANHOLE DETAIL**
SCALE: NONE

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com	PALMER TOWNSHIP 3 WELLER PLACE, PALMER, PA. 18045	DATE: MAR 2025	SCALE: AS NOTED
	TYPICAL MANHOLE DETAIL	PREPARED BY: EDM	PROJECT NO: 4880.036
		CHECKED BY:	DRAWING NO: S-13
		APPROVED BY:	



NOTES:
1. PIPE TO BE ENVELOPED IN, AND INITIAL 12" BACKFILL ON TOP TO BE 1B STONE.
2. BEDDING AND HAUNCHING TO BE 1B STONE (#8 AGGREGATE) AND REMAINING BACKFILL TO BE 2A LIMESTONE.

1 **TYPICAL EXCAVATION, BACKFILL & PIPE EMBEDMENT DETAIL**
SCALE: NONE

NOTE:
TYPICAL EXCAVATION, BACKFILL, & PIPE EMBEDMENT DETAIL SHALL APPLY TO ALL UTILITY PIPES

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com	PALMER TOWNSHIP 3 WELLER PLACE, PALMER, PA. 18045	DATE: MAR 2025	SCALE: AS NOTED
	TYPICAL EXCAVATION, BACKFILL & PIPE EMBEDMENT DETAIL	PREPARED BY: EDM	PROJECT NO: 4880.036
		CHECKED BY:	DRAWING NO: S-4
		APPROVED BY:	

D3600-SERIES
Duplex Grinder Package

Liberty Pumps
A Family and Employee Owned Company

Factory Assembled
2 hp Grinder Pumps
36" Diameter System
2" Discharge

Features

- Integral check valves
- QuickTree® pre-mounted float switch system for pump control and alarm
- 4" Inlet hub with rubber pipe seal
- Factory pre-assembled guide rail system
- Galvanized guide rail piping (stainless optional)
- Factory pre-assembled Schedule 80 PVC discharge piping with ball valves
- Fiberglass basin with anti-flotation collar
- Standard green fiberglass cover, solid (optional black steel, solid)
- All stainless steel supports and brackets pre-mounted
- NEMA 4X junction box for electrical connections, pre-mounted
- Stainless steel chain for pump lift-out

*Other custom basin sizes available, consult factory



Omnivore Grinders | Omnivore X2 2-Stage Grinders

Available with LSG or LSGX-Series

SSPMA Certified Pumps | NSF Certified Pumps | Susquehanna Waterkeeper Trust SWQA MEMBER

innovate. evolve.

D3600-Series

Features

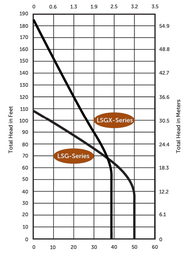
- 2 hp Grinder pumps
- Choose from single-stage LSG or 2-stage LSGX-Series pumps
- Available in a wide range of voltages
- 2" Discharge
- 25' Power cable length for standard systems (35' power cable length for "-C" models)

(See LSG or LSGX-Series literature for complete pump specifications.)

Omnivore Grinders

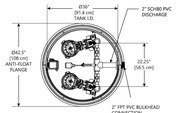
Performance Curves

60 Hz, 3450 RPM

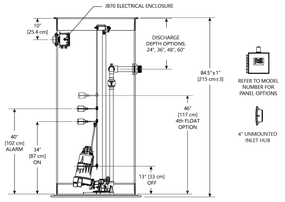


Dimensional Data

Top View (All models)

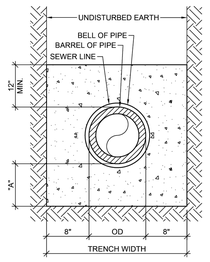


Side View (Model D3884 shown)



Galvanized guide rails standard. For stainless steel rails add "S" to model number. Example: (steel) D3684LSG202-24-S
For steel cover option add "-SC" suffix to model number. Example: (steel) D3684LSG202-24-SC

Standard system shipped with three float configurations. For systems with the four-float option add a "-4F" suffix to the part number. Example: D3684LSG203-24-4F

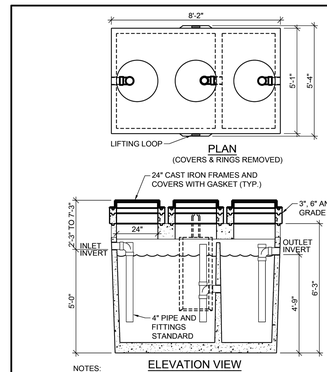


PIPE SIZE	"A"
4" - 16"	6"
18" - 48"	6"
54" - 84"	10"

NOTE:
1. ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT THE END OF 28 DAYS.

1 **CONCRETE ENCASEMENT DETAIL**
SCALE: NONE

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com	PALMER TOWNSHIP 3 WELLER PLACE, PALMER, PA. 18045	DATE: MAR 2025	SCALE: AS NOTED
	CONCRETE ENCASEMENT DETAIL	PREPARED BY: EDM	PROJECT NO: 4880.036
		CHECKED BY:	DRAWING NO: S-6
		APPROVED BY:	



NOTES:

1. DETAIL DEPICTS A 1,000 GALLON OPERATING CAPACITY GREASE INTERCEPTOR. THE ACTUAL TYPE AND CAPACITY MUST BE DETERMINED BY OWNER AND APPROVED BY TOWNSHIP.
2. DESIGN LOAD: H-20 TRAFFIC WITH DRY SOIL CONDITIONS (WATER LEVEL BELOW TANK) AND 1'-6" EARTH COVER.
3. SUITABLE SUB-BASE BEDDED WITH GRANULAR MATERIAL SHALL BE PREPARED TO HANDLE ANTICIPATED LOADS.
4. FOR KITCHEN USE ONLY NOT TO BE USED WITH SEWAGE SYSTEM.
5. INTERCEPTOR TO CONTAIN WATER TIGHT JOINTS.

1 **1000 GALLON GREASE INTERCEPTOR**
SCALE: NONE

ENTECH ENGINEERING 1.800.825.1372 www.entecheng.com	PALMER TOWNSHIP 3 WELLER PLACE, PALMER, PA. 18045	DATE: MAR 2025	SCALE: AS NOTED
	1000 GALLON GREASE INTERCEPTOR	PREPARED BY: EDM	PROJECT NO: 4880.036
		CHECKED BY:	DRAWING NO: S-22
		APPROVED BY:	

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D:\24-0063\24-0063\engineering\Plan Sets\Development Plans\Phase 2\01-sheets\Assembled\C-531-PHASE2.dwg C-531 By: JOSHUA HARDEN

PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOYS ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY, BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL C. RICHARD ROSEBERRY ENGINEER No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:
ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAKOR CONSULTING
www.colliersengineering.com

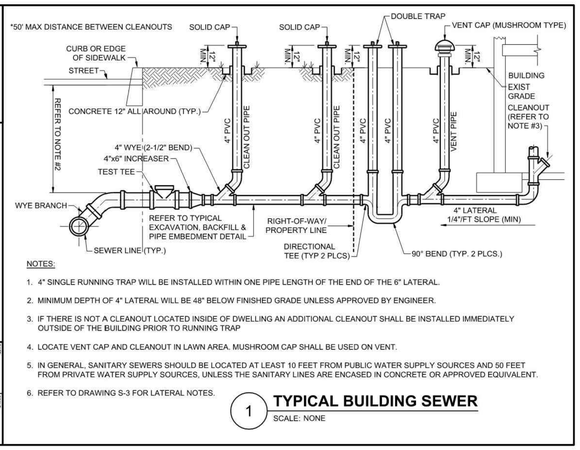
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE SANITARY SEWER DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012614

C-531

SHEET NUMBER 57 OF 63



NOTES:

1. 4" SINGLE RUNNING TRAP WILL BE INSTALLED WITHIN ONE PIPE LENGTH OF THE END OF THE 6" LATERAL.
2. MINIMUM DEPTH OF 4" LATERAL WILL BE 48" BELOW FINISHED GRADE UNLESS APPROVED BY ENGINEER.
3. IF THERE IS NOT A CLEANOUT LOCATED INSIDE OF DWELLING AN ADDITIONAL CLEANOUT SHALL BE INSTALLED IMMEDIATELY OUTSIDE OF THE BUILDING PRIOR TO RUNNING TRAP
4. LOCATE VENT CAP AND CLEANOUT IN LAWN AREA. MUSHROOM CAP SHALL BE USED ON VENT.
5. IN GENERAL, SANITARY SEWERS SHOULD BE LOCATED AT LEAST 10 FEET FROM PUBLIC WATER SUPPLY SOURCES AND 50 FEET FROM PRIVATE WATER SUPPLY SOURCES, UNLESS THE SANITARY LINES ARE ENCASED IN CONCRETE OR APPROVED EQUIVALENT.
6. REFER TO DRAWING S-3 FOR LATERAL NOTES.

1 TYPICAL BUILDING SEWER

SCALE: NONE

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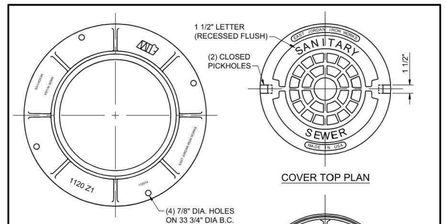
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
TYPICAL BUILDING SEWER

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-1



1 CAST IRON STANDARD MANHOLE FRAME & COVER

SCALE: NONE

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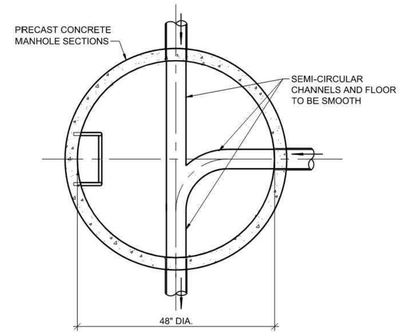
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
CAST IRON STANDARD MANHOLE FRAME & COVER

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-15



NOTE:

1. ALL FLOW CHANNELS SHALL BE PRE-CAST BY MANUFACTURER UNLESS AUTHORIZED BY ENGINEER/TOWNSHIP.

1 MANHOLE BASE TYPICAL CHANNEL CONFIGURATION

SCALE: NONE

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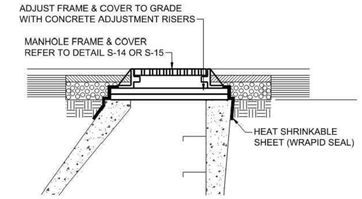
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
MANHOLE BASE TYPICAL CHANNEL CONFIGURATION

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-17



1 MANHOLE FRAME AND COVER ADJUSTMENT DETAIL

SCALE: NONE

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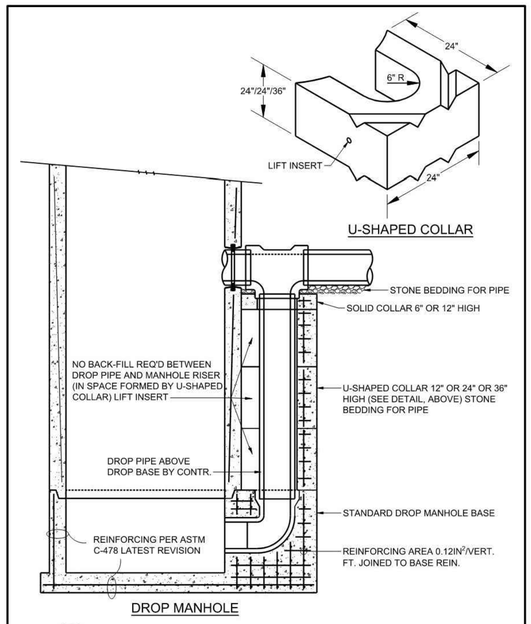
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
MANHOLE FRAME AND COVER ADJUSTMENT DETAIL

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-20



1 TYPICAL OUTSIDE DROP MANHOLE DETAIL

SCALE: NONE

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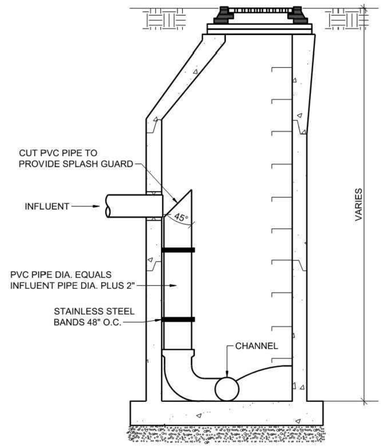
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
TYPICAL OUTSIDE DROP MANHOLE

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-18



NOTE: MAX 12" Ø DROP FOR MANHOLE 48" AND UNDER.

1 TYPICAL INSIDE DROP MANHOLE DETAIL

SCALE: NONE

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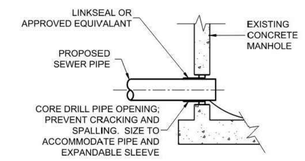
PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
TYPICAL INSIDE DROP MANHOLE DETAIL

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-19



NOTES:

1. PROPOSED SEWER PIPE INVERT ELEVATION SHALL NOT BE BELOW EXISTING SEWER INVERT ELEVATION.
2. PROPOSED SEWER PIPE SHALL BE LOCATED A MINIMUM OF 8" ABOVE OR BELOW EXISTING MANHOLE JOINT.
3. AFTER CONNECTION OF PIPE TO MANHOLE, REMOVE CONCRETE CHANNEL AS REQUIRED AND RECONSTRUCT CHANNEL.
4. KEEP GROUNDWATER, SURFACE WATER AND DEBRIS FROM ENTERING EXISTING FACILITIES.
5. MAINTAIN EXISTING FLOW DURING CONSTRUCTION.
6. DROPS OVER 2 FT WILL REQUIRE AN INSIDE DROP CONNECTION.

1 TYPICAL TIE-IN TO EXISTING MANHOLE DETAIL

SCALE: NONE

ENTECH ENGINEERING | 1.800.825.1372 | www.entecheng.com

PALMER TOWNSHIP
3 WELLER PLACE, PALMER, PA. 18045
TYPICAL TIE-IN TO EXISTING MANHOLE DETAIL

DATE:	MAR 2025
PREPARED BY:	EDM
CHECKED BY:	-
APPROVED BY:	-
SCALE:	AS NOTED
PROJECT NO:	4660.036
DRAWING NO:	S-28

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PROJECT:
EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:
EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY, BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
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1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:
ALLOY5 ARCHITECTURE
530 WEST BROAD ST BETHLEHEM, PA 18018
610.419.4055

Colliers Engineering & Design
LEHIGH VALLEY
1110 American Parkway, Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

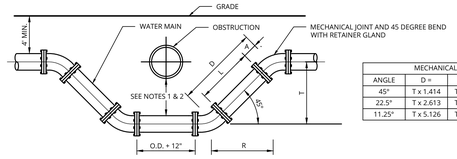
PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:
SITE SANITARY SEWER DETAILS

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-532

SHEET NUMBER 58 OF 63



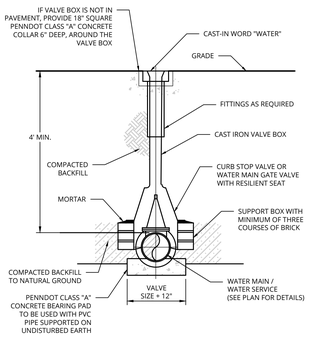
MECHANICAL JOINTS			
ANGLE	D =	R =	L =
45°	T x 1.414	T x 1.000	D-2A
22.5°	T x 2.613	T x 2.414	D-2A
11.25°	T x 5.126	T x 5.027	D-2A

NOTES:

1. WATER MAIN MAY CROSS ABOVE OBSTRUCTION IF 4" MINIMUM COVER IS MAINTAINED ABOVE THE WATER MAIN AND FINISH GRADE.
2. MINIMUM VERTICAL SEPARATION BETWEEN SANITARY OR STORM SEWER TO WATER MAIN SHALL BE 18" IF THE HORIZONTAL SEPARATION IS LESS THAN 10'. BETWEEN WATER MAIN AND OTHER UTILITIES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12".
3. WATER MAIN SHALL BE SIZE AND MATERIAL SPECIFIED ON THE PLAN, WITH MECHANICAL JOINT OR PUSH-ON AND ALL FITTINGS BE CAST IRON MECHANICALLY JOINT.
4. OFFSETS MAY BE SUBSTITUTED FOR A "T" OF UP TO 24" IF APPROVED BY THE ENGINEER.
5. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS OR OTHER POINTS OF PIPE DIRECTION CHANGE.
6. TIE RODS SHALL BE UTILIZED TO RESTRAIN PIPE JOINTS IF THRUST BLOCK IS NOT USED. DETAILS OF THE TIE ROD ASSEMBLY SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. TIE RODS SHALL BE SUFFICIENT TO RESTRAIN THE THRUST DEVELOPED AT 100 PSI WORKING PRESSURE. MEGALUG RESTRAINT ALSO ACCEPTABLE IN PLACE OF TIE RODS.

TYPICAL WATER LINE CROSSING UNDER UTILITY

NOT TO SCALE

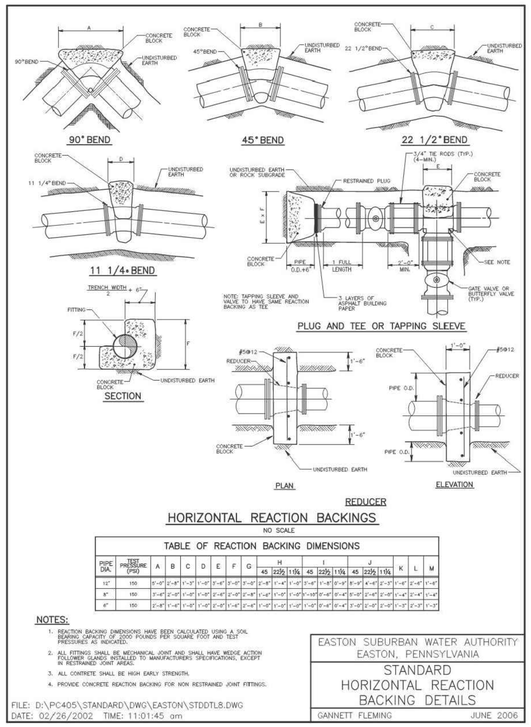


NOTES:

1. VALVE BOX SHOULD HAVE EXTENSION IF WATER MAIN OR SERVICE IS PLACED DEEPER THAN 5 FEET.
2. CURB STOP VALVE BOX SHALL BE MUELLER EXTENSION TYPE WITH ARCH PATTERN BASE, OR APPROVED EQUAL.
3. WATER MAIN VALVE BOX SHALL BE SCREW TYPE ADJUSTABLE MODEL **FIGURE # 4905-23 AS MANUFACTURED BY BINGHAM & TAYLOR OR APPROVED EQUAL**.

WATER VALVE BOX

NOT TO SCALE



HORIZONTAL REACTION BACKINGS

NO SCALE

TABLE OF REACTION BACKING DIMENSIONS

PIPE DIA.	TEST PRESSURE (PSI)	A	B	C	D	E	F	G	H 45	H 22½	H 11¼	I 45	I 22½	I 11¼	J 45	J 22½	J 11¼	K	L	M
12"	150	5'-0"	2'-8"	1'-3"	1'-0"	2'-4"	3'-0"	2'-8"	1'-4"	1'-0"	1'-0"	3'-4"	1'-0"	1'-0"	4'-4"	2'-0"	1'-0"	2'-4"	1'-4"	1'-4"
8"	150	3'-4"	2'-0"	1'-0"	1'-0"	2'-0"	2'-4"	2'-0"	1'-0"	1'-0"	1'-0"	2'-4"	1'-0"	1'-0"	3'-4"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"
6"	150	2'-8"	1'-4"	1'-0"	1'-0"	2'-0"	2'-0"	1'-4"	1'-0"	1'-0"	1'-0"	2'-0"	1'-0"	1'-0"	3'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"

NOTES:

1. REACTION BACKING DIMENSIONS HAVE BEEN CALCULATED, USING A SOIL BEARING CAPACITY OF 2000 POUNDS PER SQUARE FOOT AND TEST PRESSURES AS INDICATED.
2. ALL FITTINGS SHALL BE MECHANICAL JOINT AND SHALL HAVE WEDGE ACTION FOLLOWER GLANDS INSTALLED TO MANUFACTURER'S SPECIFICATIONS, EXCEPT IN RESTRAINED JOINT AREAS.
3. ALL CONTRETE SHALL BE HIGH EARLY STRENGTH.
4. PROVIDE CONCRETE REACTION BACKING FOR NON RESTRAINED JOINT FITTINGS.

EASTON SUBURBAN WATER AUTHORITY
EASTON, PENNSYLVANIA

STANDARD
HORIZONTAL REACTION
BACKING DETAILS

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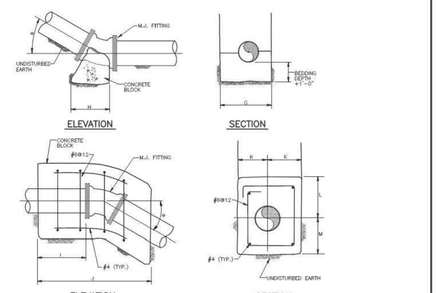
DATE: 02/26/2002 TIME: 11:01:45 am

GANNETT FLEMING JUNE 2006



VERTICAL REACTION BACKINGS

NO SCALE

TABLE OF REACTION BACKING DIMENSIONS

PIPE DIA.	TEST PRESSURE (PSI)	A	B	C	D	E	F	G	H 45	H 22½	H 11¼	I 45	I 22½	I 11¼	J 45	J 22½	J 11¼	K	L	M
12"	150	5'-0"	2'-8"	1'-3"	1'-0"	2'-4"	3'-0"	2'-8"	1'-4"	1'-0"	1'-0"	3'-4"	1'-0"	1'-0"	4'-4"	2'-0"	1'-0"	2'-4"	1'-4"	1'-4"
8"	150	3'-4"	2'-0"	1'-0"	1'-0"	2'-0"	2'-4"	2'-0"	1'-0"	1'-0"	1'-0"	2'-4"	1'-0"	1'-0"	3'-4"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"
6"	150	2'-8"	1'-4"	1'-0"	1'-0"	2'-0"	2'-0"	1'-4"	1'-0"	1'-0"	1'-0"	2'-0"	1'-0"	1'-0"	3'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"

NOTES:

1. REACTION BACKING DIMENSIONS HAVE BEEN CALCULATED, USING A SOIL BEARING CAPACITY OF 2000 POUNDS PER SQUARE FOOT AND TEST PRESSURES AS INDICATED.
2. ALL FITTINGS SHALL BE MECHANICAL JOINT AND SHALL HAVE WEDGE ACTION FOLLOWER GLANDS INSTALLED TO MANUFACTURER'S SPECIFICATIONS, EXCEPT IN RESTRAINED JOINT AREAS.
3. ALL CONTRETE SHALL BE HIGH EARLY STRENGTH.
4. PROVIDE CONCRETE REACTION BACKING FOR NON RESTRAINED JOINT FITTINGS.

EASTON SUBURBAN WATER AUTHORITY
EASTON, PENNSYLVANIA

STANDARD
VERTICAL REACTION
BACKING DETAILS

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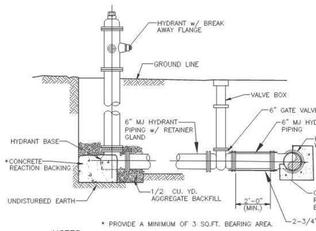
GANNETT FLEMING JUNE 2006



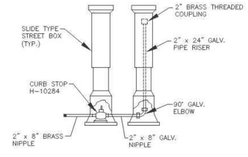
* PROVIDE A MINIMUM OF 3 SQ.FT. BEARING AREA.

NOTES:

1. FIELD-LOCK GASKETS REQUIRED IF PUSH-ON JOINTS ARE USED (USE OF PUSH-ON JOINTS REQUIRES AUTHORITY APPROVAL).
2. IF BENDS USED IN HYDRANT LATERAL TIE RODS ARE REQUIRED.

HYDRANT DETAIL

NO SCALE



2" BLOWOFF DETAIL

NO SCALE

EASTON SUBURBAN WATER AUTHORITY
EASTON, PENNSYLVANIA

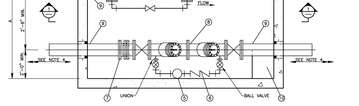
STANDARD
HYDRANT AND
2" BLOWOFF DETAILS

FILE: D:\PC409\STANDARD\EASTON\STDDTL3.DWG
DATE: 06/13/2006 TIME: 9:10:09 am

GANNETT FLEMING JUNE 2006



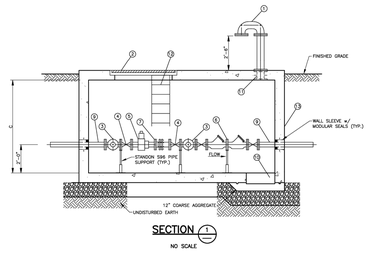
TOP PLAN
NO SCALE



SECTIONAL PLAN
NO SCALE

⚠ CHAMBER SIZE SCHEDULE

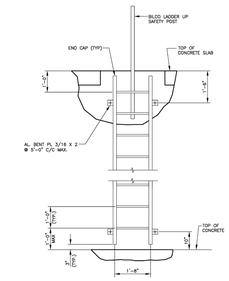
PIPE SIZE DIA./CON.	WIDTH A	LENGTH B	HEIGHT C
10"/8"	8'-0"	18'-0"	8'-6"
10"/8"	8'-0"	16'-0"	8'-6"
10"/8"	8'-0"	14'-0"	8'-6"
10"/4"	8'-0"	13'-0"	8'-6"
10"/3"	8'-0"	13'-0"	8'-6"
8"/8"	7'-0"	18'-0"	8'-6"
8"/6"	7'-0"	16'-0"	8'-6"
8"/4"	7'-0"	13'-0"	8'-6"
8"/3"	7'-0"	12'-0"	8'-6"
8"/0"	7'-0"	10-0"	8'-6"
8"/1 1/2"	7'-0"	10'-0"	8'-6"
6"/3"	7'-0"	10'-0"	8'-6"
6"/1 1/2"	7'-0"	10'-0"	8'-6"
4"/3"	7'-0"	10'-0"	8'-6"
4"/1 1/2"	7'-0"	10'-0"	8'-6"
4"/1"	7'-0"	8'-0"	8'-6"



SECTION (1)
NO SCALE

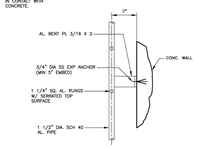
DESCRIPTION OF ITEMS

1. 6" SS VENT WITH SS INSECT SCREEN
2. 66" x 72" ALUMINUM ACCESS HATCH (INSULATED) WITH H-20 LOADING (CENTERED OVER DOMESTIC WATER METER) PAD LOCK UNDER SEALED LID
3. FLANGED DI TEE (HORZ.)
4. GATE VALVE (DI&W)
5. WATER METER (SENSUS SR5 SERIES WITH AMR PACK) TO BE PURCHASED FROM EDNA
6. DOUBLE CHECK VALVE ASSEMBLY (WATTS MODEL 007/709)
7. 1" SPOOL PIECE (FLG x PE) WITH MEGA FLANGE FLANGE ADAPTOR
8. DOUBLE CHECK DETECTOR ASSEMBLY (WATTS MODEL 007M2/709) (SHOWN SEE PIPE SUPPORT UNDER CENTER FLANGE
9. DI PIPE (FLG x PE)
10. 24" x 24" x 6" DEEP SUMP HOLE
11. 6" SS WALL PIPE (FLG x FLG + TAPPED FLG)
12. AL. LADDER WITH LADDER UP SAFTEY POST (SEE DETAIL)
13. PRECAST CONCRETE CHAMBER



ELEVATION

NOTE
APPLY A HEAVY COAT OF BITUMASTIC TO ALL STEEL SURFACES IN CONTACT WITH CONCRETE.



SECTION

ALUMINUM LADDER DETAIL

NO SCALE

GENERAL NOTES:

1. ALL DIMENSIONS ARE MINIMUM INSIDE DIMENSIONS.
2. PROVIDE A SUMP FOR ALL CHAMBERS.
3. ALL WALLS, FLOORS AND TOPS SHALL HAVE A MINIMUM THICKNESS OF 6" AND BE ENGINEERED FOR H-20 WHEEL LOADING.
4. RESTRAINED JOINT PIPE, LENGTH AS REQUIRED FOR 10 PSI WORKING PRESSURE AT THE CHAMBER LOCATION.
5. ALL PIPING LESS THAN 3" IN DIAMETER MAY BE OF A TYPE APPROVED BY EDNA, INCLUDING THE JOINTS.
6. LADDER LOCATION TO BE COORDINATED WITH THE OWNER AND PIPING ARRANGEMENT.

EASTON SUBURBAN WATER AUTHORITY
STANDARD METER CHAMBER

NOT TO SCALE

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PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOYS ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY.
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

MEPP:
SNYDER HOFFMAN ASSOCIATES
1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26



C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:

REGISTRATION:

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610.419.4055

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Building 10, Suite F-200B
Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

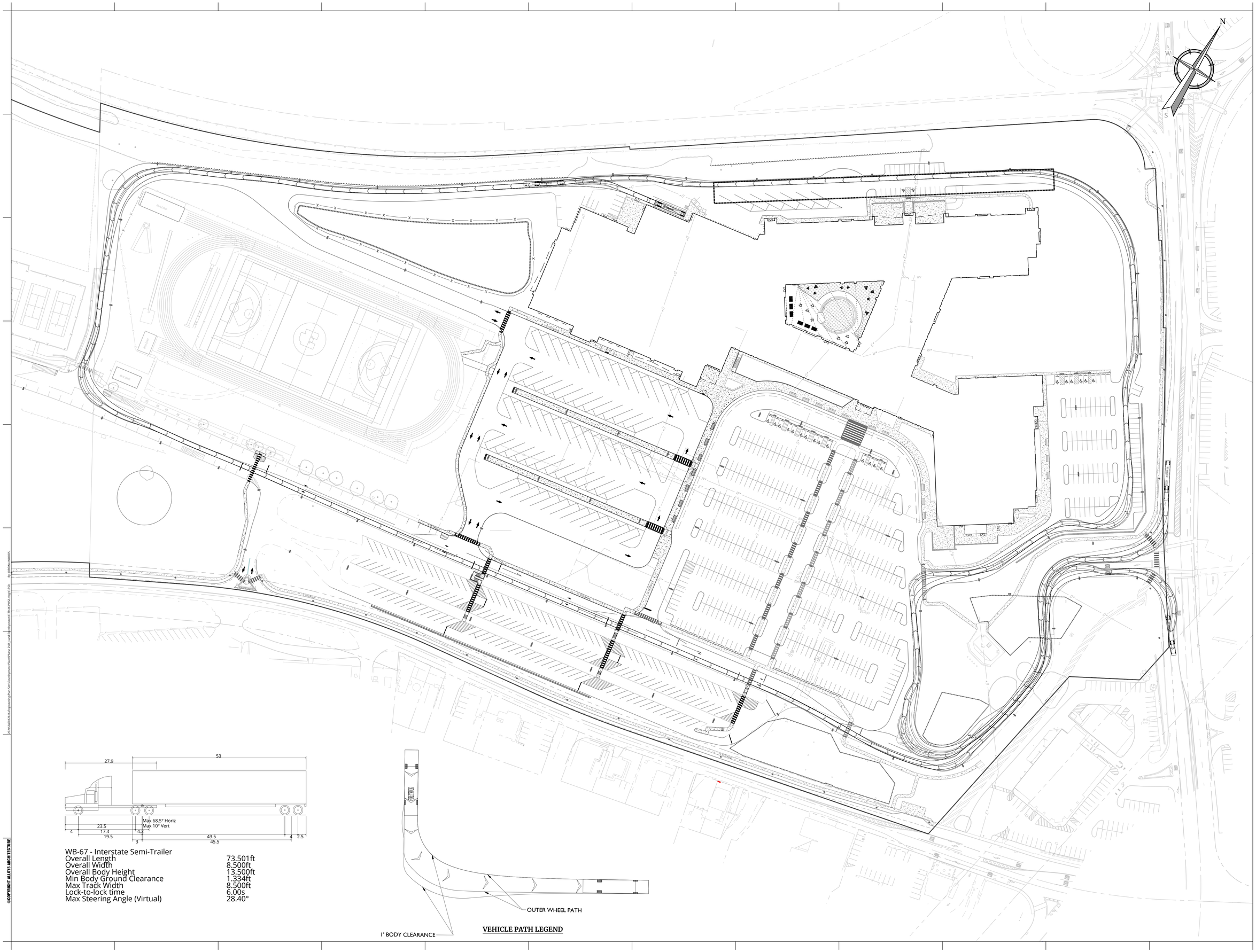
SHEET TITLE:

SITE WATER DETAILS

DATE: **04/15/26**
SCALE: **AS SHOWN**
DRAWN BY: **TL/JJW/MRC**
CHECKED BY: **CRR**
PROJ NO: **24-0063**
CED PROJ NO: **24001261A**

C-541

SHEET NUMBER 59 OF 63



WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

VEHICLE PATH LEGEND

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PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
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ALLENTOWN, PA 18109

STRUCTURAL:

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ACOUSTICS:

FOOD SERVICE:
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SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
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STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

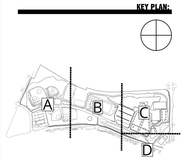
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER: PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



REGISTRATION:

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Colliers Engineering & Design
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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

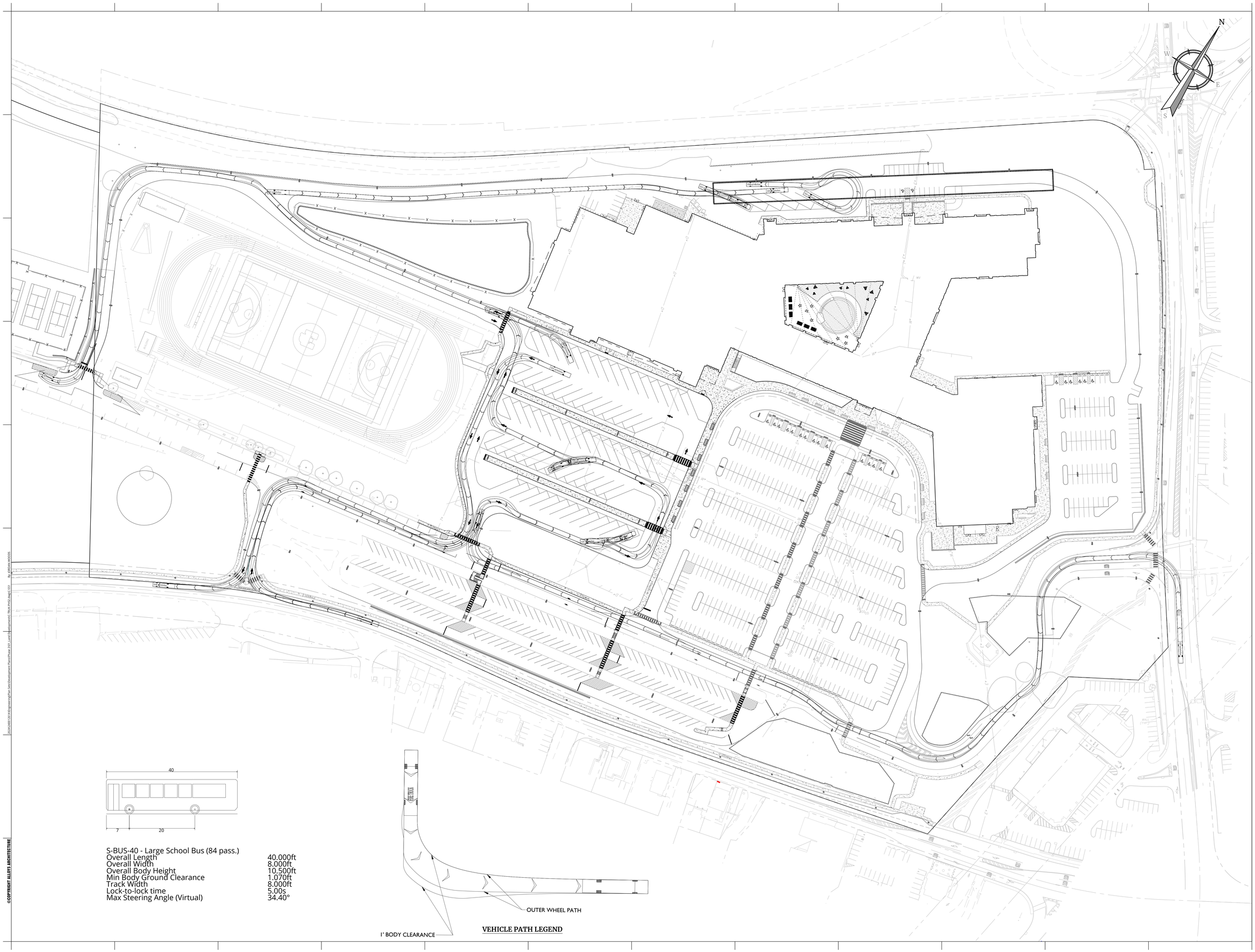
SHEET TITLE:

WB-67 TURNING PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 24001261A

C-550

SHEET NUMBER 60 OF 63



S-BUS-40 - Large School Bus (84 pass.)

Overall Length	40.000ft
Overall Width	8.000ft
Overall Body Height	10.500ft
Min Body Ground Clearance	1.070ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	34.40°

VEHICLE PATH LEGEND

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By: JORDAN WOOD
2026-0003-24-04 Engineering\Plan Sets\Development Plans\Phase 2\01_Land Development\C-700-PHS3.dwg|C-551

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
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BLDG 10 STE F-200B
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STRUCTURAL:

MEPP:
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BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
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RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

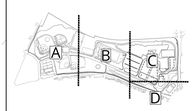
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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Colliers Engineering & Design
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Allentown, PA 18109
Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

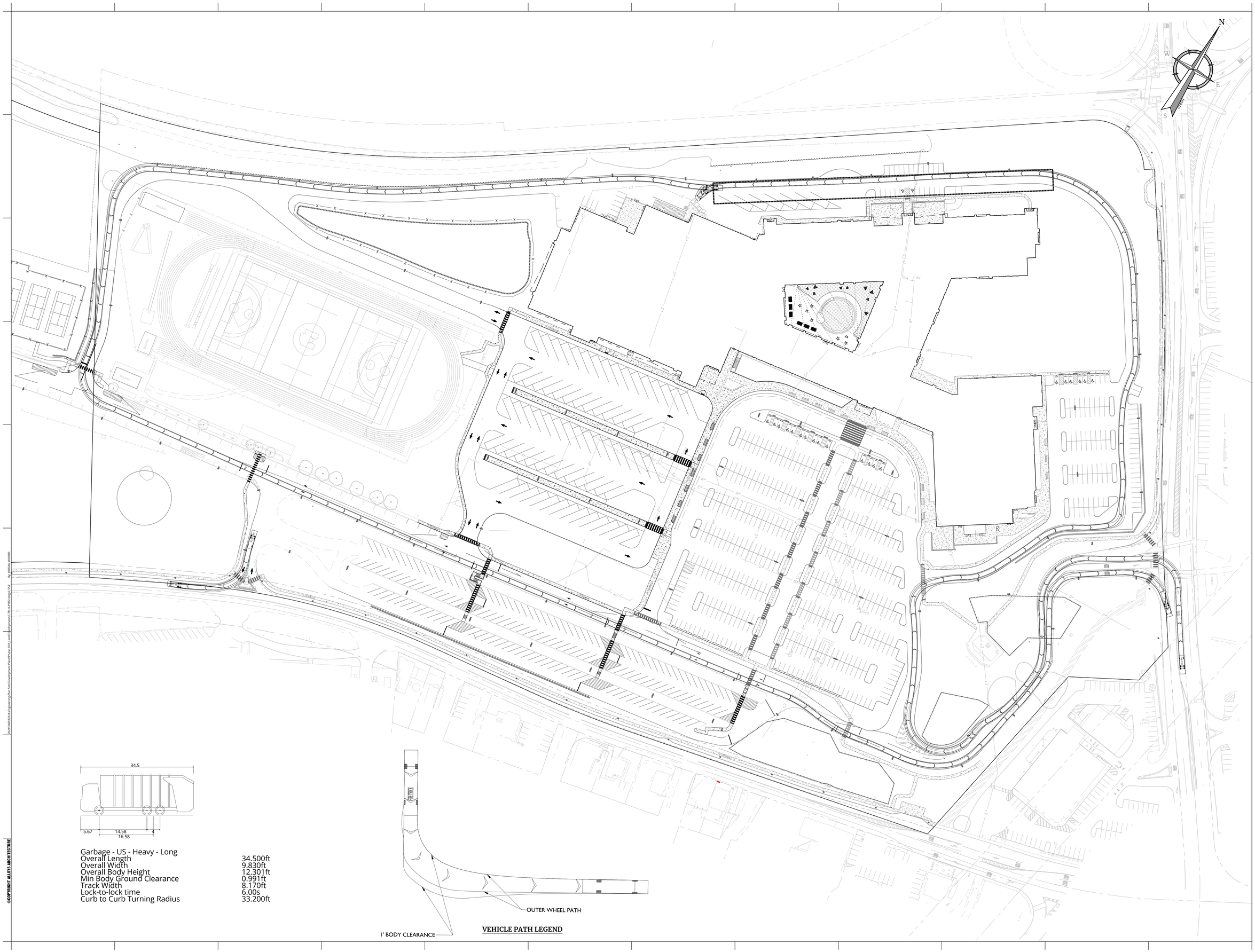
SHEET TITLE:

SCHOOL BUS TURNING PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012618

C-551

SHEET NUMBER 61 OF 63



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2024/2601/24-0063/Engineering/Plan Sets/Development Plans/Phase 2/01_Land Development/C-552A.PMS.dwg/C-552 By: JORDAN WOOD

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
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1110 AMERICAN PKWY.
BLDG 10 STE F-200B
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STRUCTURAL:

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BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
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RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

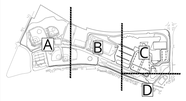
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

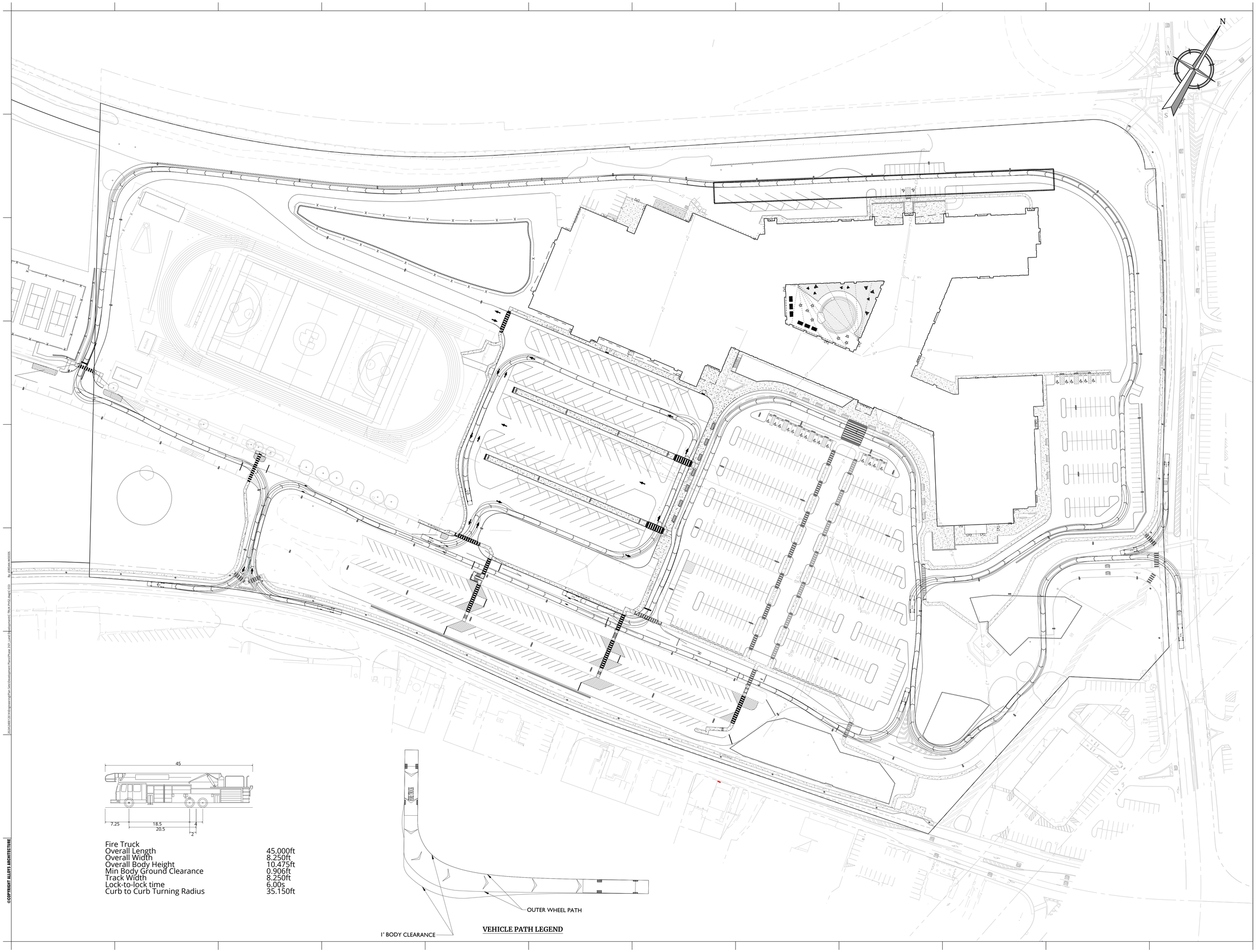
SHEET TITLE:

GARBAGE TRUCK TURNING PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012261A

C-552

SHEET NUMBER 62 OF 63



Fire Truck

Overall Length	45.000ft
Overall Width	8.250ft
Overall Body Height	10.475ft
Min Body Ground Clearance	0.906ft
Track Width	8.250ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	35.150ft

VEHICLE PATH LEGEND

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Plotted: 2026/03/30 10:14 | Engineering\Plan Sets\Development Plans\Phase 2\01 - Land Development\ Status: PHASE 2 | Style: C-53 | By: JORDAN WOODS

PROJECT:

EASD - PHASE 2 - THE NEW EASTON AREA HIGH SCHOOL

2601 WILLIAM PENN HWY
EASTON, PA 18045

OWNER:

EASTON AREA SCHOOL DISTRICT

2601 WILLIAM PENN HWY
EASTON, PA 18045

PROJECT TEAM:

ARCHITECT:
ALLOY5 ARCHITECTURE

CIVIL:
COLLIERS ENGINEERING & DESIGN
1110 AMERICAN PKWY,
BLDG 10 STE F-200B
ALLENTOWN, PA 18109

STRUCTURAL:

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1005 W LEHIGH STREET
BETHLEHEM, PA 18018

ACOUSTICS:

FOOD SERVICE:
CORSI ASSOCIATES
1489 BALTIMORE PIKE
UNIT 109
SPRINGFIELD, PA 19064

RESIDENT ENGINEER:
CHA SOLUTIONS
1 E BROAD STREET
STE 310
BETHLEHEM, PA 18018

LANDSCAPE ARCHITECT:

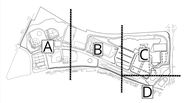
SUBMISSIONS:

NO.	ISSUE DESCRIPTION	DATE
1	REVISED PER TWP COMMENTS	07/15/26
2	REVISED PER TWP COMMENTS	09/09/26

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
C. RICHARD ROSEBERRY
ENGINEER
No. 46162

C Richard Roseberry
PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
LICENSE NUMBER PE046162
COLLIERS ENGINEERING & DESIGN, INC.

KEY PLAN:



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Phone: 610.868.4201
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MAGER CONSULTING
www.colliersengineering.com

PRELIMINARY/FINAL LAND DEVELOPMENT PLAN

SHEET TITLE:

FIRE TRUCK TURNING PLAN

DATE: 04/15/26
SCALE: AS SHOWN
DRAWN BY: TL/JJW/MRC
CHECKED BY: CRR
PROJ NO: 24-0063
CED PROJ NO: 240012618

C-53

SHEET NUMBER 63 OF 63

EASTON AREA SCHOOL DISTRICT

HIGH SCHOOL

PALMER TOWNSHIP - FINAL LAND DEVELOPMENT RENDERINGS
JULY 15, 2026

ALLOY5 CHA



ALLOY5 ARCHITECTURE | CHA | Colliers | sha | Omnes Landscape Architecture, Planning & Art

MAIN ENTRANCE - FACING WM. PENN HWY.



ALLOY5 ARCHITECTURE · CHA · Colliers · sha · Omnes Landscape Architecture, Planning & Art

PERFORMING ARTS WING - 25TH STREET







ALLOY5 ARCHITECTURE | CHA | Colliers | sha | Omnes Landscape Architecture, Planning & Art

ATHLETICS ENTRANCE FACING WM. PENN HWY.

New Subdivision and Land Development Ordinance

INFORMATION

The Township is requesting favorable recommendation of the proposed Subdivision and Land Development Ordinance.

ATTACHMENTS:
Staff Report
Draft SALDO

TOWNSHIP OF PALMER
NORTHAMPTON COUNTY, PENNSYLVANIA
3 Weller Place, Palmer Township, PA 18045

Staff Report

To:	Palmer Township Planning Commission
From:	Craig Beavers, AICP, Director of Community Development
Report Date:	October 7, 2026
Meeting Date:	October 13, 2026
Subject:	Proposed Subdivision and Land Development Ordinance

BACKGROUND INFORMATION

The current Subdivision and Land Development Ordinance (SALDO) for Palmer Township was adopted in 1994. Since its original adoption, many of the elements in the SALDO have grown outdated and do not reflect modern technical standards nor our Comprehensive Plan.

In 2025, the Board of Supervisors authorized the rewrite of the SALDO and awarded the contract to Michael Baker International (MBI). Since September 2025, the Township staff and MBI have coordinated rewriting the SALDO to reflect modern practices, the Township's future growth and needs, and more transparency in the development process. Led by a Steering Committee consisting of representatives from the Board of Supervisors, Planning Commission, Township Engineer, and Township Solicitor, the document was drafted throughout 2026, with input given from all Township departments, board and commissions, and interfacing agencies.

After several rounds of careful review, MBI and the Township have finalized the new SALDO and are requesting favorable Planning Commission recommendation.

ACTION REQUESTED

Motion to recommend approval of the proposed Subdivision and Land Development Ordinance to the Board of Supervisors.

TOWNSHIP OF PALMER
NORTHAMPTON COUNTY, PENNSYLVANIA
ORDINANCE NO. 2026 - _____

AN ORDINANCE OF PALMER TOWNSHIP, NORTHAMPTON COUNTY, PENNSYLVANIA, REPEALING AND REPLACING PART II, CHAPTER 165 OF CODE OF THE TOWNSHIP OF PALMER IN ITS ENTIRETY.

The Board of Supervisors of the Township of Palmer hereby enacts and ordains the following Ordinance amending the Code of the Township of Palmer as follows:

ARTICLE I. AMENDMENT

Part II, Chapter 165, Subdivision and Land Development Ordinance is hereby repealed in its entirety and replaced with the attached Ordinance.

ARTICLE II. SEVERABILITY

If any sentence, clause, section, or part of this Ordinance is for any reason found to be unconstitutional, illegal, or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance. It is hereby declared as the intent of the Board of Supervisors of the Township of Palmer that this Ordinance would have been adopted had such unconstitutional, illegal, or invalid sentence, clause or part thereof not been included herein.

ARTICLE III. REPEALER

All ordinances or parts of ordinances which are inconsistent herewith are hereby repealed, but only to the extent of such conflict.

ARTICLE IV. EFFECTIVE DATE

This Ordinance shall become effective on January 1, 2027.

[remainder of page left intentionally blank]

ENACTED AND ORDAINED BY THE TOWNSHIP OF PALMER, NORTHAMPTON COUNTY, PENNSYLVANIA, THIS ____ DAY OF _____, 2026.

_____
Michael Brett, Chairman

_____
Baron Vanderburg, Vice-Chairman

_____
Joseph Armato

_____
Marcella Cardone

_____
Tung-To Lam

Attest:

_____

Robert Williams
Township Manager

DRAFT – October 5, 2026

Palmer Township Subdivision & Land Development Ordinance (SALDO)

Chapter 165 of the Palmer Township Municipal Code

Enacted:
Effective:

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ARTICLE I – GENERAL PROVISIONS

§ 165-101 Title

These regulations are officially known as "The Subdivision and Land Development Ordinance (SALDO) of Palmer Township." For convenience the regulations are referred to throughout this document as "this Chapter" or "this Ordinance."

§ 165-102 Purpose

This Ordinance is adopted for the following purposes:

A. To promote the public health, safety, and general welfare of Palmer Township by establishing uniform standards for the Subdivision and Development of land, ensuring that growth occurs in an orderly, coordinated, and predictable manner.

B. To guide the layout and design of new Subdivisions and Land Developments to ensure that Streets, utilities, Open Spaces, and other essential features are coordinated with existing and planned facilities, avoiding congestion, Hazards, or inefficient patterns of land use.

C. To encourage and promote flexibility, economy, and ingenuity in the layout and design of Subdivisions and Land Developments.

D. To implement the goals, policies, and recommendations of the Palmer Township Comprehensive Plan, Active Transportation Plan, Complete Streets Policy, and other relevant regional plans, ensuring that Land Development supports long-term community objectives for housing, transportation, economic Development, environmental quality, and infrastructure.

E. To ensure that new Development is served by adequate public infrastructure, including Streets, stormwater systems, sanitary sewer, water supply, parks, and emergency services, and that such facilities are designed and constructed to Township standards.

F. To establish standards for Streets, pedestrian pathways, bicycle facilities, and vehicular access to ensure safe, efficient, and multimodal transportation options that support mobility, connectivity, and Township transportation planning goals.

G. To protect and preserve natural resources, including floodplains, Wetlands, woodlands, Steep Slopes, groundwater recharge areas, and scenic features, and to minimize adverse environmental impacts through responsible land design and sustainable Development practices.

H. To reduce flooding, erosion, Sedimentation, and water quality degradation by requiring the proper management of Stormwater Runoff through best management practices, low-impact design techniques, and compliance with state and federal regulations.

I. To encourage high-quality, well-designed Development that enhances community character, supports cohesive neighborhoods, and contributes positively to the visual and functional quality of Palmer Township.

J. To encourage Subdivision and Land Development in accordance with principles and practices which conserve energy, both during and after construction, and which encourage the use of alternative energy sources by the layout of the Lots and the siting of Buildings.

K. To ensure that public facilities are available and will have sufficient capacity to serve the proposed Subdivision and/or Land Development.

L. To coordinate Development activities within Palmer Township with regional planning efforts to ensure Consistency with broader transportation, housing, and environmental strategies.

§ 165-103 Conformance with Plans

Proposals for Land Development or Subdivision shall be generally consistent with the following plans:

A. *Palmer Township Comprehensive Plan or Any Successive Multi-Municipal Comprehensive Plan.* Especially as to the use of land, intensity of Development, transportation, community facilities, and resource Protection. Residential Development should also be consistent with the housing element of the plan. All proposals should be located in areas designated for Development in the future land use plan element and be serviced by currently available infrastructure or infrastructure that will be developed concurrently with the Development.

B. *Palmer Township Parks, Recreation, and Open Space Plan or Any Successive Multi-Municipal Parks, Recreation, and Open Space Plan.* Especially as to the design and location of recreational facilities, parks, Open Space, and natural resources.

C. *Palmer Township Active Transportation Plan.* Especially as to the design and location of Sidewalks, Shared-Use Paths, bicycle facilities, transit access, and connectivity.

D. *Complete Streets Policy.* Especially as to the design and location of Streets, Sidewalks, Shared-Use Paths, bicycle facilities, transit access, and connectivity.

E. *Public Service Improvement Plans.* Proposals shall be consistent with the location and timing of public service Improvements, such as water and Sewage facilities, in accordance with the applicable infrastructure plans governing those facilities. In addition, the location of public service facilities as outlined in a capital Improvement program should be considered.

F. *Regional Plans.* Proposals shall be generally consistent with the applicable state, regional, and bi-county adopted comprehensive plan and other plans, including but not limited to the FutureLV: The Regional Plan, Walk/RollLV: Active Transportation Plan, and the Lehigh Valley Hazard Mitigation Plan. Where regional facilities are proposed in the plan, such as highways, effort shall be made to preserve needed Right-of-way for future infrastructure projects in the proposed Land Development or Subdivision.

G. *Other Township Plans*. Proposals shall be generally consistent with other Township plans, including but not limited to, the Palmer Township Climate Action Plan, Bushkill Creek Greenway Master Plan, Northern Tier Traffic Study, etc.

§ 165-104 Contents

This Chapter contains regulations which include, but are not limited to the following:

A. Provisions for the filing, processing, review, and approval of all Subdivision and Land Development Plans;

B. Design standards and guidelines for the overall layout, configuration, and placement of Lots, Streets, Open Space, parks, public facilities and other physical Improvements on property to promote orderly Development compatible with the Palmer Township Comprehensive Plan; and

C. Engineering and technical standards, including appropriate financial guarantees, governing the manner by which various Improvements including Streets, bridges, common facilities, water supply and Sewage facilities infrastructure, stormwater management facilities, Walkways, lighting, and other Improvements are properly constructed.

§ 165-105 Authority

This Ordinance is enacted and ordained under the grant of powers by General Assembly of the Commonwealth of Pennsylvania, Act 247, the Pennsylvania Municipalities Planning Code (MPC), July 31, 1968, as amended.

§ 165-106 Jurisdiction

The Board of Supervisors shall, with the recommendation of the Planning Commission, review and act upon as appropriate all Subdivision and Land Development Plans as defined in **Article II, Definitions**, of this Ordinance which are located entirely or in part of the Palmer Township.

A. *Subdivision and Land Development.* No Subdivision or Land Development of any Lot, Tract, or Parcel of land as defined in **Article II, Definitions**, shall be made, and no Street, Alley, sanitary sewer, storm drain, water main, gas, oil or electric line, or other Improvements in connection therewith, shall be laid out, constructed, or dedicated for public use, or travel, or for the common use of occupants of a Building Abutting thereon, except in strict accordance with this Ordinance.

B. *Sale of Lots, Issuance of Building Permits, or Erection of Buildings.* No Lot in a Subdivision or Land Development may be sold, and no permit to erect, alter, or repair any Building upon land in a Subdivision or Land Development will be issued unless and until a Subdivision and/or Land Development Plan has been approved, and where required, recorded, and until the required Improvements in connection therewith have either been constructed or guaranteed for construction in the form of a bond, escrow, or other means approved by Palmer Township under the advice of the Palmer Township Engineer and Solicitor, in accordance with the laws of the Commonwealth of Pennsylvania.
   1) The Applicant shall also guarantee that no Lot will be sold or Building constructed in any floodplain area except in compliance with the floodplain management requirements of this Chapter, **Chapter 190, Zoning**, and the Building Code.

C. *Condominiums.* No provision of this Ordinance shall be construed to prohibit condominium ownership as permitted by the applicable enabling legislation of the Commonwealth of Pennsylvania.

§ 165-107 Applicability; Excluded Land Developments

A. No Subdivision or Land Development of any Lot, Tract or Parcel of land may be made, no Street, sanitary sewer, storm sewer, water main or other Improvements in connection with a Subdivision or Land Development may be laid out, constructed, opened or dedicated for public use or travel, or for the common use of occupants of Buildings Abutting thereon, except in accordance with the provisions of this Ordinance.

B. No Lot in a proposed Subdivision or Land Development may be sold and no final permit to erect any Building upon land in a Subdivision or Land Development may be issued unless and until:
   1) A Final Plan has been approved and recorded; and
   2) Either the Township has been assured by means of a Development Agreement acceptable to the Board of Supervisors that the Improvements will subsequently be installed; or the required Improvements in connection therewith have been entirely completed.

C. The following activities shall be excluded from the Land Development review and approval requirements:
   1) The conversion of an existing single-family detached dwelling or single-family semi-detached dwelling into not more than 3 residential units, unless such units are intended to be a condominium;
   2) The addition of an accessory residential or agricultural Building, including farm Buildings, on a Lot or Lots subordinate to an existing principal Building; or
   3) The addition or conversion of Buildings or rides within the confines of an enterprise which would be considered an amusement park. For purposes of this subclause, an amusement park is defined as a Tract or area used principally as a location for permanent amusement Structures or rides. This exclusion shall not apply to newly acquired Acreage by an amusement park until initial plans for the expanded area have been approved by proper authorities.

§ 165-108 Interpretation and Conflicting Provisions

A. The regulations specified within this Chapter shall be considered minimum regulations and shall be applied uniformly to all individuals and businesses within the jurisdiction of Palmer Township.

B. When this Chapter places a greater restriction than is imposed or required by other provisions of law, or by other rules, regulations, Ordinances, or by private restrictions, covenants, or declarations, the provisions set forth in this Chapter shall prevail, except where otherwise specifically stated herein. Without limitations of the foregoing, in the event of a conflict between or among the provision of this Chapter, and/or any other duly enacted Chapter in the Palmer Township Code of Ordinances, the conflicting provisions shall be read in a manner to avoid conflict and to provide meaning to both provisions.

C. If there is a conflict between or among the provisions of this Chapter, the stricter regulation shall apply. Interpretation of the provisions of this Chapter is guided by the Statutory Construction Act, 1 Pa.C.S. §§1501, et seq.

§ 165-109 Waivers and Modifications

Per Section 512.1, Modifications, of the MPC, the Board of Supervisors may grant a modification to the requirements according to the following:

A. The Board of Supervisors may grant a waiver or modification of the requirements of one or more provisions if the Applicant proves the request meets one or more of the following conditions:
   1) Will avoid an undue hardship that was not self-created and that results from the peculiar and uncommon characteristics of the property.
   2) Will avoid a clearly unreasonable requirement that would not serve any valid public purpose in this situation.
   3) Will allow an alternative standard that is clearly proven by the Applicant to provide equal or better results.
   4) Will allow a layout of Improvements that would clearly be more in the public interest than what would occur if the modification would not be granted.
   5) Will remove a requirement that is not applicable, especially because of the small size of the proposed project.

B. The Community Development Director, in conjunction with the Township Engineer, shall have the authority to grant a waiver or modification based on the criteria in **Subsection A** above for Minor Plans.
   1) Any waiver involving public safety, emergency access, stormwater management, drainage, pedestrian facilities, required recreation land, public improvements, or impacts upon adjoining properties shall require approval by the Board of Supervisors.
   2) Administrative waivers shall be limited to provision expressly identified by resolution of the Board of Supervisors.
   3) Each administrative waiver shall include written findings addressing the applicable criteria in **Subsection A** and shall be reported to the Board of Supervisors at its next public meeting.

C. All requests for a waiver or modification shall be in writing and shall accompany and be a part of the application for Development. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the Ordinance involved and the minimum modification necessary.

D. The request for waiver or modification for Major Plans shall be referred to the Planning Commission for advisory comments.

E. The Board of Supervisors shall keep a written record of all action on all requests for waivers or modifications.

§ 165-110 Deferrals

A. The Board of Supervisors may grant a Deferral, in its sole discretion, when an Applicant demonstrates that:
   1) The Improvement or requirement is premature due to planned or programmed municipal or regional capital Improvements, transportation projects, or infrastructure upgrades identified in official municipal planning documents.
   2) Immediate installation would conflict with or be rendered unnecessary by a future public project or planned land-use transition in the surrounding area.
   3) The Deferral will not create a public safety Hazard, impair traffic operations, or adversely impact stormwater, utilities, emergency response, or adjoining properties.
   4) The Improvement can be adequately guaranteed through posting of financial security agreements and declarations of covenants recorded against the subject property ensuring future installation when conditions warrant.

B. An Applicant requesting a Deferral shall submit:
   1) A written request identifying the specific Ordinance requirement(s) proposed for Deferral and the duration or triggering condition for future installation.
   2) A justification statement citing applicable municipal plans, anticipated Improvements, or Site-specific conditions supporting the request.
   3) A proposed timeline or milestone for when the Deferral will be satisfied, ultimately at the discretion and approval of the Township Supervisors.
   4) Revised plan sheets showing the Improvement as "Deferred," with notes referencing this section and the associated agreement.
   5) Posting of financial security in an amount sufficient to cover the full cost of the deferred Improvement.
   6) The deferral agreement shall establish:
      a. The event that triggers construction of the deferred improvement
      b. An outside date by which the improvement must be completed regardless of whether the triggering event has occurred
      c. Annual review and adjustment of the improvement cost estimate
      d. Replenishment or replacement of financial security when required by the Township
      e. The Township's authority to draw upon the security and complete the improvement following default
      f. A recorded obligation binding the Applicant, property owner, and all successors and assigns.

§ 165-111 Amendments

For the purposes of providing for the public health, safety, and general welfare, the Board of Supervisors, may from time to time amend the provisions imposed by these Subdivision and Land Development regulations in accordance with the procedures established by Section 505, Enactment of Subdivision and Land Development Ordinance Amendment, and Section 506, Publication, Advertisement and Availability of Ordinance, of the MPC. If any provision is in conflict with future amendments to the MPC, the MPC shall govern.

§ 165-112 Administration, Records, and Fees

A. All provisions of this Ordinance shall be administered by Palmer Township or their officially designated representatives. All matters relating to this Ordinance shall be submitted to the Community Development Director, or their designee, who will handle the matter in accordance with current Palmer Township policies, procedures, and guidelines established by the Board of Supervisors.

B. *Records.* Palmer Township shall keep a public record of its correspondence, findings, recommendations, and actions relating to plans filed for review, in accordance with the policies, procedures, and guidelines established by the Board of Supervisors and Planning Commission.

C. *Fees.* No application for preliminary or Final Plan approval shall be filed and processed until the fees and/or escrow deposit, as set forth below, shall have been paid.
   1) The Board of Supervisors shall adopt and amend by resolution a schedule of fees, payable by the Applicant to the Township for the filing of Preliminary and Final Plans.
   2) The Board of Supervisors shall adopt and amend by resolution a schedule of escrow deposits to be paid by the Applicant to the Township at the time of the filing of an application, sufficient to pay all Township expenditures anticipated in the course of its review and disposition of plans.
      a) Escrow accounts for fees to conduct the necessary inspection and review services provided by the Township during the construction of Improvements approved in the Final Plan shall be established as part of the agreement required in **§165-503, Financial Security**.
   3) Costs incurred by the Township in excess of the escrowed amount shall be paid by the Applicant prior to the granting of approvals or permits.
   4) If costs incurred by the Township are less than the escrowed amount, the difference shall be refunded to the Applicant following disposition of the plans.

5) *Disputes*. In the event that the Applicant disputes the amount of any fee, the procedure set forth in Section 503(1) and 510(g) of the MPC shall be followed.

§ 165-113 Violations, Penalties, and Enforcement Remedies

A. The following applies to instances of violations, issuing penalties, and enforcing remedies in accordance with Section 515.3, Enforcement Remedies, of the MPC. If any provision is in conflict with future amendments to the MPC, the MPC shall govern.

1) Any person, partnership or corporation who or which has violated the provisions of any Subdivision or Land Development Ordinance enacted under this act or prior enabling laws shall, upon being found liable therefor in a civil enforcement proceeding commenced by a municipality, pay a judgment of not more than $500 plus all court costs, including reasonable attorney fees incurred by the municipality as a result thereof. No judgment shall commence or be imposed, levied or payable until the date of the determination of a violation by the district justice. If the defendant neither pays nor timely appeals the judgment, the Township may enforce the judgment pursuant to the applicable rules of civil procedure.
2) Each Day that a violation continues shall constitute a separate violation, unless the district justice determining that there has been a violation further determines that there was a good faith basis for the person, partnership or corporation violating the Ordinance to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth Day following the date of the determination of a violation by the district justice and thereafter each Day that a violation continues shall constitute a separate violation.
3) The court of common pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem judgment pending a final adjudication of the violation and judgment.
4) Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the municipality the right to commence any action for enforcement pursuant to this section.

B. Per Section 515.1, Preventative Remedies, of the MPC, Palmer Township may:

1) Institute and maintain appropriate actions by law or in equity to restrain, correct or abate violations, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a Building, Structure or premises. The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.

2) Refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a Subdivision of real property in violation of any Ordinance adopted pursuant to this article. This authority to deny such a permit or approval shall apply to any of the following Applicants:
   a) The owner of record at the time of such violation.
   b) The vendee or lessee of the owner of record at the time of such violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.
   c) The current owner of record who acquired the property subsequent to the time of violation without regard as to whether such current owner had actual or constructive knowledge of the violation.
   d) The vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation. As an additional condition for issuance of a permit or the granting of an approval to any such owner, current owner, vendee or lessee for the Development of any such real property, the municipality may require compliance with the conditions that would have been applicable to the property at the time the Applicant acquired an interest in such real property.

§ 165-114 Severability

Should any section or provision of these regulations be declared by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not affect the validity of the regulations as a whole, or any part thereof other than the part so declared to be unconstitutional or invalid. The Board of Supervisors declares that it would have passed this Ordinance and each section or part thereof irrespective of the fact that any one or more sections or parts thereof are declared invalid.

ARTICLE II - DEFINITIONS

§ 165-201 Language Interpretation

Unless otherwise expressly stated, the following terms shall, for the purpose of these regulations, have the meanings indicated:

A. Words in the singular include the plural and those in the plural include the singular.

B. Words in the present tense include the future tense.

C. The words "person," "Developer," "subdivider," and "owner" include a corporation, unincorporated association, a partnership, or other legal entity, as well as an individual.

D. The word "Building" includes "Structure" and shall be construed as if followed by the phrase "or part thereof."

E. The words "should" and "may" are permissive; the words "shall" and "will" are mandatory and directive.

F. The word "Township" means Palmer Township, Northampton County, Pennsylvania.

G. The term "Board of Supervisors" means the Board of Supervisors of Palmer Township.

H. The term "Planning Commission" means the Planning Commission of Palmer Township.

I. The words “he” or “she” or “they” are to be used interchangeably with the word person.

J. The names of organizations including government agencies shall be construed to include their successors.

K. If a word or term is not defined in this Chapter or in **Chapter 190, Zoning**, as amended, it shall have its plain and ordinary meaning within the context of the section. In such case of a dispute, the word's definition in accordance with the latest publication of the Merriam-Webster dictionary shall apply.

L. The words "such as," "includes," "including" and "specifically" shall provide examples. These examples shall not, by themselves, limit a provision to the examples specifically mentioned if other examples would otherwise comply with the provision.

M. All undefined terms used in this Chapter which are defined in the Pennsylvania Storm Water Management Act of 1978, or the Stormwater Management Ordinance of Palmer Township adopted in 2023, or as amended, shall have the meaning defined in said act or plan. In the event that terms are defined both in this Chapter, and in the act or Stormwater Ordinance, the definitions contained in this Chapter shall prevail over the definitions contained in the act and the Stormwater Ordinance. Other terms or words used herein shall be interpreted or defined as follows in §165-202, Definitions of Terms.

§ 165-202 Definitions of Terms

Words and Terms That Start with A

ABUT - Areas of contiguous Lots that share a common Lot line, except not including Lots entirely separated by a Street or a perennial waterway. See also the definition of "Adjacent."

ACCESS DRIVE OR ACCESSWAY - A privately owned, constructed and maintained vehicular access roadway accessing more than one dwelling unit or more than one commercial, institutional or industrial principal use. See also "Driveway."

ACCESSORY STRUCTURE - A Structure, such as a private garage, storage shed, gazebo, greenhouse, signs, Fences, Driveways, parking pads, patios, carports, pergolas, or swimming pools, and retaining walls, serving a purpose customarily incidental to the use of the principal Building and located on the same Lot as the principal Building.

ACRE – 43,560 square feet.

ACTIVE TRANSPORTATION PLAN -The Palmer Township Active Transportation Plan or Any Successive Multi-Municipal Active Transportation Plan adopted by the Board of Supervisors.

ADJACENT - Includes contiguous Lots that share a common Lot line or that are separated only by a Street or waterway.

ALLEY - A Right-of-way providing secondary access to the side or rear on one or more Lots which has a maximum Right-of-way width of 20 feet.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A300 – Written and revised by the ANSI Accredited Standards Committee (ASC), A300, Tree Care Standards, provides standard practices and specification writing guidelines for arborists, urban foresters, horticulturalists, landscape architects, and contractors.

APPLICANT – A Landowner or Developer who has filed an application for a Subdivision or Land Development, including his heirs, successors and assigns.

Words and Terms That Start with B

BEDROCK - Natural rock layer, hard or soft, in place at ground surface or beneath unconsolidated surface deposits.

BLOCK - Property bounded on one side by a Street and on the other 3 sides by a Street, railroad Right-of-way, public park, waterway, Township line, Tract of land held in separate ownership or any combination thereof.

BOARD OF SUPERVISORS - The Board of Supervisors of Palmer Township.

BUFFER YARD - A strip of land that separates one use from another use or feature and is not occupied by any Building, parking, outdoor storage or any use other than Open Space or approved pedestrian pathways. A "Buffer Yard" may be a part of the minimum Setback distance, but land within an existing or future Street Right-of-way shall not be used to meet a "Buffer Yard" requirement.

BUILDING – Any Structure having a permanent roof and intended for the shelter, work area, housing or enclosure of persons, animals, vehicles, equipment or materials and that has a total area under roof of greater than 50 cubic feet. "Building" is interpreted as including "or part thereof." See the separate definition of "Structure." Any Structure involving a permanent roof (such as a covered porch or a carport) that is attached to a principal Building shall be considered to be part of that principal Building.

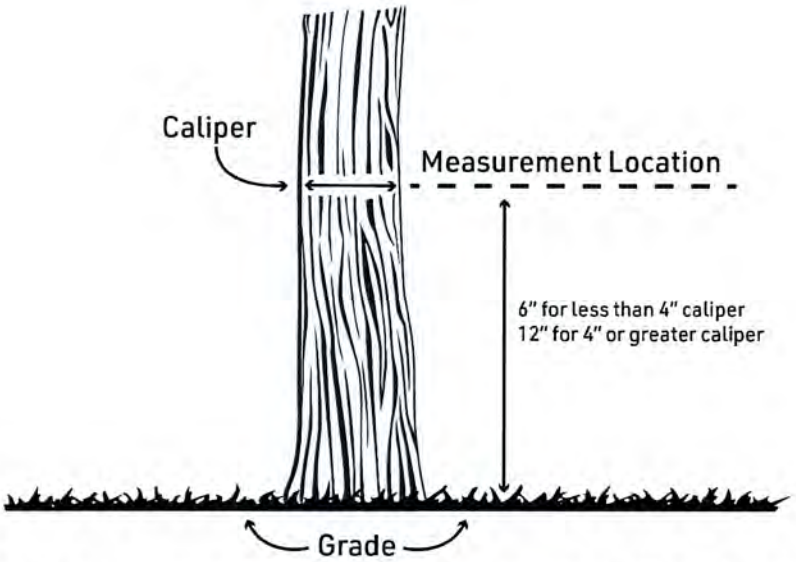
BUILDING, ACCESSORY AGRICULTURAL – Any Structure serving a purpose customarily incidental to the use of the principal Building and located on the same Lot as the principal Building which is used for an Agricultural Use.

BUILDING, ACCESSORY RESIDENTIAL - A Structure that is clearly accessory, customary and incidental to a principal residential use on a Lot, including the following uses and uses that are very similar in nature: garage (household), carport, tennis court, garage sale, basketball backboard, household swimming pool, volleyball court, gazebo, storage shed, greenhouse, children's playhouse, and children's play equipment.

BUILDING PERMIT - A permit issued by the Building **Code Official** pursuant to the provisions of the Palmer Township Building Code for the construction, erection or alteration of a Structure or Building.

Words and Terms That Start with C

CALIPER - The diameter of a tree trunk, measured in inches, 6 inches above ground level for trees up to 4 inches in diameter and 12 inches above ground level for trees over 4 inches in diameter.



CARTWAY - The paved portion of a Street designed for vehicular traffic and on-Street parking but not including the shoulder of the Street.

CHANNEL - The bed and banks of a Watercourse, which confine and convey the normal flow of the water, either continuously or intermittently.

COMMUNITY DEVELOPMENT DIRECTOR – The Director of Community Development for Palmer Township, or the Director's authorized designee, responsible for the administration and enforcement of this Chapter.

COMPREHENSIVE PLAN – The Palmer Township Comprehensive Plan or any successive multi-municipal comprehensive plan adopted by the Board of Supervisors.

CONSISTENCY – In agreement or correspondence between matters being compared which denotes a reasonable rational, similar, connection or relationship.

CRIBBING - A gravity retaining Structure used for soil stabilization and erosion control, consisting of interlocking units or boxes constructed of precast concrete or timber forming a crib-like framework. The framework is filled with granular material, such as gravel, soil, or rock, to provide mass and enhance the stability of the Structure. Also known as a crib wall.

Words and Terms That Start with D

DAY - A calendar Day, unless otherwise expressly stated.

DEFERRAL - A temporary delay in the required installation or fulfillment of a specific Improvement, condition, or Ordinance requirement, with the understanding that the requirement will still be completed at a later, defined point.

DEVELOPER - Any Landowner, agent of such Landowner, or tenant with the permission of such Landowner, who makes or causes to be made a Subdivision of land or a Land Development.

DEVELOPMENT - Any man-made change to improved or unimproved real estate, including but not limited to Buildings or other Structures, the placement of Mobile Homes, Streets and other paving, utilities, mining, dredging, Filling, Grading, Excavation drilling operations and the Subdivision of land.

DEVELOPMENT AGREEMENT - An agreement, in a form and manner acceptable to the Township, requiring a Developer to install the Improvements required by this ordinance and any Improvements or amenities which appear on the Development Plan in accordance with the requirements of this ordinance.

DEVELOPMENT OF REGIONAL SIGNIFICANCE AND IMPACT - Any Land Development that, because of its character, magnitude, or location will have substantial effect upon the health, safety, or welfare of citizens in more than one municipality.

DEVELOPMENT PLAN - The provisions for Development, a Plat of Subdivision, all covenants relating to use, location and bulk of Buildings and other Structures, intensity of use or density of Development, Streets, ways and parking facilities, Recreation Areas, and public facilities.

DIAMETER AT BREAST HEIGHT (DBH) – The diameter of a tree trunk measured outside the bark at a height of 4.5 feet above the ground, measured on the uphill side of the tree

DRIPLINE (TREE) – The soil surface area delineated by the branch spread of a single plant or group of trees.

DRIVEWAY - A privately owned, constructed and maintained vehicular access from a Street or Access Drive to only one dwelling unit, commercial unit, institutional or industrial principal use. See also "Access Drive or Accessway."

Words and Terms That Start with E

EASEMENT - A grant by the property owner to the public, a corporation, a person or group of persons or another Tract of land of a use of land for specified purposes.

ENVIRONMENTALLY SENSITIVE AREAS - An area on a Development Site with one or more of the following characteristics:

A. Any area of archeological significance as defined by the Pennsylvania Archaeological Site Survey;
B. Any Building, Structure, object, district, place, Site or area significant in the history, architecture, maritime heritage, archaeology or culture of the Commonwealth of Pennsylvania as defined by the Pennsylvania Historical and Museum Commission;
C. Habitats of endangered species or threatened species as designated by applicable Laws, including Environmental Laws;
D. Any Floodplain or other Special Flood Hazard Area as defined by FEMA;
E. Soils determined by the United States Department of Agriculture defined as being highly erodible and/or having a high water table
F. Prime Woodlands defined as all trees greater than 4 inches in Diameter at Breast Height (DBH) which are located within any Steep Slope area, designated Floodplain, Floodway, flood-fringe, Streams, or other Woodlands;
G. Steep Slopes in excess of 15%; and
H. Wetlands and surface waters as defined by Title 25 Chapter 93 of the PA Code including surface waters of exceptional ecological significance and exceptional recreational significance.

EXCAVATION- Any act by which earth, sand, gravel, rock or any other similar material is cut into, dug, quarried, uncovered, removed, displaced, relocated, or bulldozed and shall include the conditions resulting therefrom.

EXCESSIVE SLOPE - Defined as one of the following: those slopes as identified on the USDA-SCS (now NRCS) soil group map as Steep Slopes of 25% or more as shown on Gateway Engineers, Inc., drawing No. 48669-S or those slopes identified on a topographic survey prepared by a land surveyor registered in the Commonwealth of Pennsylvania as any area over a 100 foot horizontal distance, the slope exceeds 25% from the top to bottom of the break in Grade. Said break in Grade must be at least a change in Grade of 5% before consideration. All areas over 25% must be outlined on the topographic plan.

Words and Terms That Start with F

FENCE – A man-made barrier placed or arranged as a line of demarcation, an enclosure or a visual barrier that is constructed of wood, chain-link metal, vinyl or aluminum and/or plastic inserts. Man-made barriers constructed principally of masonry, concrete, cinder block or other materials shall be considered a wall. The terms "Fence" and "wall" do not include hedges, trees or shrubs. The term "wall" does not include engineered retaining walls, which are permitted uses as needed in all districts.

FILL - Any act by which earth, sand, gravel, rock or any other material is deposited, placed, pushed, dumped, piled, transported, or moved to a new location and shall include the condition resulting therefrom.

FOOTCANDLE - A measure of light falling on a surface. One Footcandle is equal to one lumen per square foot — that is, the amount of light generated by a point source having a luminous intensity of one candle shining on a one square foot surface with a uniform distribution. Footcandle measurements shall be made with a photometric light meter and with a specified horizontal orientation.

Words and Terms That Start with G

GREEN INFRASTRUCTURE - Systems and practices that use or mimic natural processes to infiltrate, evapotranspire, or reuse stormwater on the Site where it is generated.

GRADE – The elevation of finished ground or paving.

GRADING – Any stripping, cutting, Filling, stockpiling or any combination thereof and shall include the land in its cut or Filled condition.

Words and Terms That Start with H

HAZARD - A danger or potential danger to life, limb, or health, or an adverse effect or potential adverse effect to the safety, use, or stability of property, waterways, public ways, Structures, utilities, and storm sewers, including Stream pollution.

Words and Terms That Start with I

IMPERVIOUS SURFACE – Area covered by roofs, concrete, asphalt or other man-made cover which has a coefficient of runoff of 0.7 or higher. The Township Engineer shall decide any dispute over whether an area is "impervious."

IMPROVEMENT(S) - The infrastructure amenities associated with a Subdivision or Land Development as may be required by this Ordinance, including, but not limited to, Streets, Walkways, curbs, storm sewers and stormwater management facilities, Street and parking Lot lights, recreational facilities, Open Space Improvements, buffer or screening plantings, landscaping, etc.

INTERSECTION - The point of intersecting legal rights-of-way of 2 Streets.

Words and Terms That Start with J

Reserved

Words and Terms That Start with K

Reserved

Words and Terms That Start with L

LAND DEVELOPMENT - Any of the following activities:

1) The Improvement of one Lot or 2 or more contiguous Lots, Tracts or Parcels of land for any purpose involving:
   a) A group of 2 or more residential or nonresidential Buildings, whether proposed initially or cumulatively, or a single nonresidential Building on a Lot or Lots regardless of the number of occupants or tenure; or
   b) The division or allocation of land or space, whether initially or cumulatively, between or among 2 or more existing or prospective occupants by means of, or for the purpose of Streets, common areas, leaseholds, condominiums, Building groups or other features.
2) A Subdivision of land.

LANDOWNER - The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the Landowner, or other person having a proprietary interest in land.

LANTA – The Lehigh and Northampton Transportation Authority.

LVPC – The bi-county Planning Commission, the Lehigh Valley Planning Commission, or its successor entity.

LOT - A separate Parcel of land that is recorded or that will be recorded after Township final Subdivision approval in the office of the County Recorder of Deeds. A Parcel under common ownership that is completely separated into 2 parts by a public Street shall be considered to be one Tract but 2 "Lots."

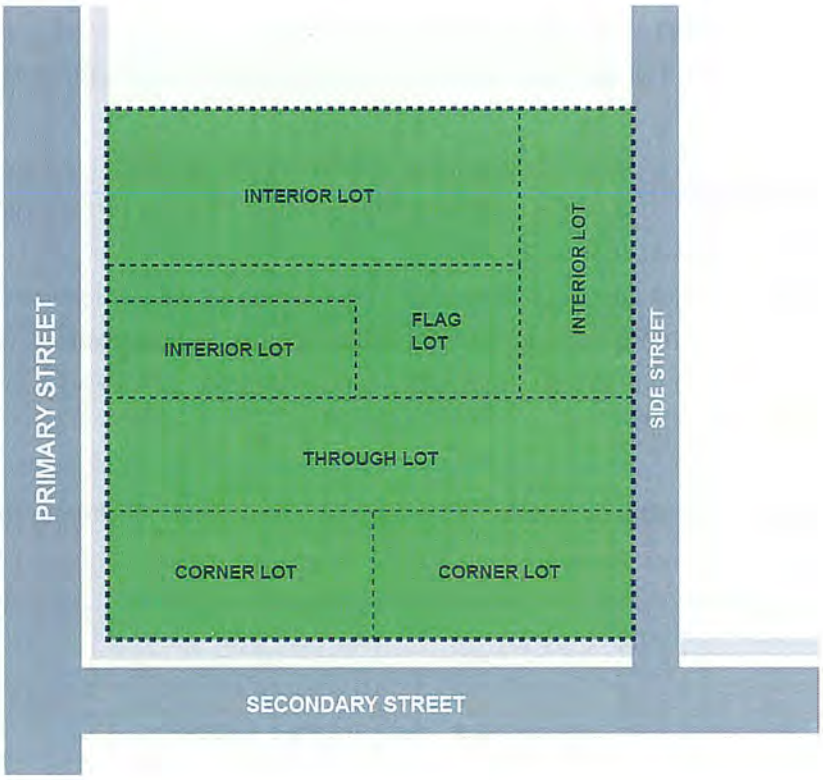
A. **CORNER LOT** - A Lot Abutting on 2 or more intersecting Streets which has an interior angle of less than 135° at the Intersection of Right-of-way lines of 2 Streets. A Lot Abutting upon a curved Street or Streets shall be considered a "Corner Lot" if the tangent to the curve at the points beginning within the Lot or at the points of Intersection of the side Lot lines with the Street lines intersect at an angle of less than 135°.

B. **INTERIOR LOT** - A Lot other than a Corner Lot.

C. **FLAG LOT** - A Lot that has any portion of its front Setback Abutting the Rear or Side Yard of an Adjacent Lot rather than a public Street Right-of-way and where access to the public Street Right-of-way would typically be by a narrow, private Street Right-of-way or Driveway.

D. **REVERSE FRONTAGE LOT** - A Lot that Abuts 2 approximately parallel Streets but only has access onto one Street.

E. **THROUGH LOT** - A Lot that Abuts 2 approximately parallel Streets.



Words and Terms That Start with M

MAILED NOTICE - Notice given by a municipality by first class mail of the time and place of a Public Hearing and the particular nature of the matter to be considered at the Hearing.

MAINTENANCE AGREEMENT - An agreement, in a form and manner acceptable to the **Township**, requiring the Developer of Improvements which have been dedicated to make any repairs or reconstructions and to maintain such Improvements for a certain period.

MAJOR PLANS – Projects that are not classified as a Minor Plan.

MINOR PLANS – Lot line adjustments and Minor Subdivisions as regulated and defined in § 165-403-A-1.

MOBILE HOME - A type of single-family detached dwelling that meets all of the following requirements: is transportable; is designed for permanent occupancy; is contained in a single piece or 2 substantial pieces designed to be joined into one integral unit capable of again being separated for repeated towing; which arrives at a Site complete and ready for occupancy except for minor and incidental unpacking and assembly operations; is constructed so that it may be used with or without a permanent foundation; is not a recreation vehicle; and includes a minimum of 300 square feet of interior floor space. The terms "Mobile Home" and "manufactured home" have the same meaning.

MOBILE HOME LOT - A Parcel of land in a Mobile Home Park, improved with the necessary utility connections and other appurtenances necessary for the erections thereon of a single Mobile Home.

MOBILE HOME PARK - A Parcel of land under single ownership which has been planned and improved for the placement of 2 or more Mobile Homes for non-transient residential use. The homes may be individually owned. The Development of Mobile Homes that is subdivided into individual Lots shall be regulated in the same manner as a Subdivision of Site-built homes.

MUNICIPALITIES PLANNING CODE (MPC) – The Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968, as amended. Also called the State Planning Code.

Words and Terms That Start with N

Reserved

Words and Terms That Start with O

OPEN SPACE - The area of a Lot unoccupied by principal or Accessory Structures, Streets, Driveways, or parking areas; but includes areas occupied by Walkways, patios, porches without roofs, playgrounds, outdoor recreation or play apparatus, gardens or trees.

Words and Terms That Start with P

PA DEP – The Pennsylvania Department of Environmental Protection.

PARCEL - A Tract, Lot or area of land.

PLANNING COMMISSION - The Planning Commission of Palmer Township.

PLAT - The map or plan of a Subdivision or Land Development, whether preliminary or final.

PRESERVATION OR PROTECTION - When used in connection with natural and historic resources, shall include means to conserve and safeguard these resources from wasteful or destructive use, but shall not be interpreted to authorize the unreasonable restriction of forestry, mining or other lawful uses of natural resources.

PUBLIC HEARING – A formal meeting held pursuant to Public Notice by the governing body or planning agency, intended to inform and obtain public comment, prior to taking action in accordance with this act.

PUBLIC INFRASTRUCTURE SERVICES - Services that are provided to areas with densities of one or more units to the Acre, which may include sanitary sewers and facilities for the collection and treatment of Sewage, water lines and facilities for the pumping and treating of water, parks and Open Space, Streets and Sidewalks, public transportation and other services that may be appropriated within a growth area, but shall exclude fire protection and emergency medical services and any other service required to protect the health and safety of residents.

PUBLIC MEETING - A forum held pursuant to notice under 65 Pa. C.S. CH. 7 (Relating to open meetings).

PUBLIC NOTICE – A notice published once each week for 2 successive weeks in a newspaper of general circulation in the municipality. Such notice shall state the time and place of the Hearing and the particular nature of the matter to be considered at the Hearing. The first publication shall not be more than 30 Days and the second publication shall not be less than 7 Days from the date of the Hearing.

Words and Terms That Start with Q

Reserved

Words and Terms That Start with R

RECREATION AREA – A Parcel or Parcels of land within a Tract that meets all of the following standards when the land is being used to meet the Township requirement of **§165-303**:

A. Is designed, intended and suitable for non-commercial, active, or passive recreation, including Shared-Use Paths, by the general public, or another Open Space use that is specifically approved by the Township.
B. Is covered by a system that ensures perpetual maintenance, unless the land is intended to be publicly owned,
C. Will be deeded to the Township and/or preserved by a deed restriction or conservation Easement to permanently prevent uses of land other than "Recreation Area"
D. Does not use any of the following areas to meet minimum recreation land requirements.
    1) Existing Street rights-of-way;
    2) Vehicle Streets or Driveways providing access to other Lots;
    3) Land beneath Building(s) or land within 20 feet of a Building (other than accessory Buildings and pools clearly intended for noncommercial recreation)
    4) Off-Street parking (other than that clearly intended for noncommercial recreation);
    5) Area(s) needed to meet a requirement for an individual Building Lot except for a community recreation Building;
    6) Land intended to be open to the public that does not have provisions for entry with a 15-foot minimum width by pedestrians from a Street open to the public or from recreation land that has access to such a Street;
    7) Land that includes a stormwater detention basin.
    8) Portions of land that have a width of less than 50 feet,
    9) Areas that are under water during normal weather conditions; or
    10) Areas that are under or within 50 feet from electric transmission lines or towers that are designed for a capacity of 35 kilovolts or greater.

REGISTERED PROFESSIONAL ENGINEER - A person licensed to practice as a professional engineer in the Commonwealth of Pennsylvania.

REGISTERED PROFESSIONAL GEOLOGIST - A person licensed to practice as a professional geologist in the Commonwealth of Pennsylvania.

RIGHT-OF-WAY - Land reserved for the public or others for use as a Street or other purpose. Unless otherwise stated, "Right-of-way" shall mean the existing Street Right-of-way line.

Words and Terms That Start with S

SEDIMENTATION - The deposition of solid material, both mineral and organic, that was in suspension and that has been transported from its Site of origin by any means of erosion.

SETBACK - The line within a Lot defining the required minimum distance between any Structure to be erected or use to be developed and the Adjacent future Street Right-of-way or exterior Lot line (when the property is not Abutted by a Right-of-way). Such line shall be measured at right angles from and parallel to Lot lines. A "Yard" consists of the land area created by such Setback line extended on a plane parallel to the ground extending the full width of the Lot (in the case of front Setback lines and rear Setback lines) or the full front-rear length of the Lot minus the extent of the front and rear Setback lines (in the case of side Setback lines).

SEWAGE - Domestic wastewater from residences or Buildings, consisting of liquid waste that undergoes primary treatment in a septic tank and subsequent natural treatment through soil percolation or other permitted systems, and as defined by **Chapter 147, Sewer Use**.

SEWAGE ENFORCEMENT OFFICER - An official of the local agency or professional consultant of Palmer Township who reviews permit applications and Sewage facilities planning modules and issues permits as authorized by the act and conducts the investigations and inspections that are necessary to implement the act and regulations thereunder.

SEWAGE DISPOSAL SYSTEM, ON-LOT - A privately located Sewage treatment and disposal system on an individual Lot, typically including a septic tank and a soil absorption area or spray field, where Sewage is treated and dispersed naturally through the soil.

SHARED LANE ARROW (SHARROW) - A pavement marking symbol used to indicate a travel lane that is shared by bicyclists and motor vehicles.

SHARED-USE PATH – Paved, off-road facilities designed for travel by a variety of non-motorized users, including bicyclists, pedestrians, and other users. Shared-Use Paths are 1) intended for multi-use, 2) have an asphalt surface, 3) are located in either an 'independent corridor' or public Right-of-way, 4) have a transportation focus and a recreational use, and 5) designed for bicycles, pedestrians, and authorized vehicles.

SIDEWALK - A pedestrian Accessway which is Adjacent to a Street or Access Drive and conforms to the regulations of this Chapter.

SIGHT DISTANCE - An area required to be kept free of visual obstruction.

SITE - A Lot, Tract, or Parcel of land, or a series of Lots, Tracts, or Parcels of land which are adjoining, where Grading work is continuous and performed at the same time.

SOILS ENGINEER - A person registered by the Commonwealth of Pennsylvania as a professional engineer and who has training and experience in the branch of Soils Engineering.

SOIL SURVEY – U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS).

STREAM - A natural or man-made Watercourse with a defined bed and banks, through which water flows continuously or intermittently.

STEEP SLOPE - Land having a natural gradient of 15% or greater.

STORMWATER MANAGEMENT PLAN - The plan for managing Stormwater Runoff from a specific Development Site.

STREET - Includes Street, avenue, boulevard, road, highway, freeway, parkway, lane, Alley, viaduct and any other ways used or intended to be used by vehicular traffic or pedestrians whether public or private.

STREET CLASSIFICATION - The functional classification of Streets into the following types, as shown on the Official Street Classification Map for existing Streets and as determined by the Township Engineer for future Streets. As a general guide for designating proposed new Streets, a Local Street is intended to average less than 500 trips per Day, a Collector Street is intended to average 501 to 3,000 trips per Day, and an Arterial Street is intended to average more than 3,000 trips per Day.

A. **EXPRESSWAY OR MAJOR ARTERIAL STREET** – Designed for large volumes and high-speed traffic with access limited to Grade separated Intersections.
B. **MINOR ARTERIAL STREET** - Designed to carry a high volume of fast or moderate-speed traffic from collector and Local Streets to Major Arterial Streets.
C. **COLLECTOR STREET** - Designed to carry a moderate volume of traffic to intercept local (residential) Streets, to provide routes to Minor Arterial Streets and to community facilities and to provide access to the Abutting properties. Major Collector Streets typically carry more traffic than Minor Collector Streets.

D. **LOCAL STREET** - Designed to provide access to the Abutting properties, to serve local traffic movement and as a route to Collector Streets.
E. **CUL-DE-SAC STREET** - A Local Street intersecting another Street at one end and terminating in a vehicular turnaround at the other.

STREET, PRIVATE - Private Streets are those not offered for dedication or duly accepted by the Board of Supervisors as a public Street.

STREET TREE – Any tree located within the Right-of-way of any public Street or Adjacent thereto in a planting Easement or that part of any tree, shrub, or other woody plant which extends within the Right-of-way of any public Street.

STRUCTURE - Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land.

SUBDIVISION - The division or redivision of a Lot, Tract or Parcel of land by any means into 2 or more Lots, Tracts, Parcels or other divisions of land including changes in existing Lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or Building or Lot Development: Provided, however, that the Subdivision by lease of land for agricultural purposes into Parcels of more than 10 Acres, not involving any new Street or Easement of access or any residential dwelling, shall be exempted.

SUBDIVISION, MAJOR – The division of land into more than two Lots, Tracts, or Parcels of land.

SUBDIVISION, MINOR - The division of land into no more than two Lots, Tracts or Parcels of land, fronting on an existing Street, not involving any new Street, public Improvements, or utility extension.

Words and Terms That Start with T

TOWNSHIP - The Township of Palmer, Northampton County, Pennsylvania. Unless otherwise stated, this shall mean the Board of Supervisors and its authorized agents.

TOWNSHIP ENGINEER – The Township Engineer or their authorized representative.

TOWNSHIP ENVIRONMENTAL CONSULTANT – The Township Environmental Consultant or their authorized representative.

TOWNSHIP GEOTECHNICAL ENGINEER – The Township Geotechnical Engineer or their authorized representative.

TOWNSHIP LANDSCAPE AND LIGHTING CONSULTANT – The Township Landscape and Lighting Consultant or their authorized representative.

TRACT - One or more Abutting or Adjacent Lots proposed to be subdivided or developed following an overall coordinated plan.

TRAIL - An off-road corridor or path, generally located within Open Space, a greenway, or an Easement, designed for recreational use by pedestrians, bicyclists, and other non-motorized users. Trails may be improved or unimproved. A Trail is distinct from a Sidewalk or Shared-Use Path and is not intended to function as part of the public Street system. Trails are 1) designed for recreation experience 2) generally include a Trailhead, 3) do not connect elements and spaces on a Site, 4) have limited to no transportation function, and 5) the pedestrian route is primarily for recreation.

Words and Terms That Start with U

USE, AGRICULTURAL - An enterprise that is actively engaged in agriculture, including the commercial production and preparation for market of crops, livestock and livestock products and in the production, harvesting and preparation for market or use of agricultural, agronomic, horticultural, silvicultural and aquacultural crops and commodities. The term includes an enterprise that implements changes in production practices and procedures or types of crops, livestock, livestock products, or commodities produced consistent with practices and procedures that are normally engaged in by farmers or are consistent with technological Development within the agricultural industry.

Words and Terms That Start with V

VERGE - Portion of the Street Right-of-way between the curb or edge of Cartway and the Sidewalk or Shared-Use Path, intended for landscaping, utilities, Street Trees, signage, and related public Improvements.

Words and Terms That Start with W

WALKWAY - A strip of land, including a Right-of-way dedicated to public use, in order to facilitate pedestrian access through or into a Block.

WATERCOURSE - Any natural or artificial waterway, Stream, river, creek, ditch, Channel, millrace, canal, gully, ravine or wash in which water flows in a definite direction or course, either continuously or intermittently, and which has a definite Channel and bed. This term shall include any area Adjacent thereto subject to inundation by reason of overflow of floodwaters.

WETLAND - An area of land and/or water meeting one or more definitions of a "Wetland" under federal and/or Pennsylvania law and/or regulations.

Words and Terms That Start with X

Reserved

Words and Terms That Start with Y

YARD - An area not covered by Buildings and that is on the same Lot as the subject Structure or use.

A. **FRONT YARD** - An area required to be open to the sky and not covered by Buildings between the front Lot line (which usually is the future Street right- of-way line) and a line drawn parallel to such front Lot line at a distance specified by the applicable section of this Ordinance.
B. **REAR YARD** - An area required to be open to the sky and not covered by Buildings between the rear Lot line and a line drawn parallel to such rear Lot line at a distance specified by the applicable section of this Ordinance.
C. **SIDE YARD** - An area required to be open to the sky and not covered by Buildings between each side Lot line and a line drawn parallel to each side Lot line at a distance specified by the applicable section of this Ordinance.

Words and Terms That Start with Z

Reserved

ARTICLE III - DESIGN AND IMPROVEMENT STANDARDS

§ 165-301 General Standards

A. *Evaluating Plans*. The design standards and Improvements required in this Article shall be the minimum requirements applied by the Community Development Director, Township Engineer, Planning Commission, and the Board of Supervisors in evaluating plans for any proposed Subdivision or Land Development.

B. *Additional Improvements*. Additional Improvements may be required in specific cases where, in the determination of the Board of Supervisors, they are clearly necessary to protect the public health and safety.

C. *Waivers and Modifications*. See **§165-109, Waivers and Modifications**, of this Chapter.

D. *Standard Construction Specification*. In addition to standards set forth in this Article, the Township Standard Construction Specification apply to any required Improvement in the Township, regardless of whether the Improvement is or is not publicly dedicated.
   1) These standards shall be provided to the Developer, contractor, or party constructing said Improvement(s) prior to commencement of construction.
   2) These standards shall be modified from time to time by a resolution passed by the Palmer Township Board of Supervisors.

E. *Design and Improvement Standards for Existing Lots and Developments*.
   1) Any Parcel, Lot, Tract, or Land Development that is lawfully existing as of the effective date of this Chapter shall be required to comply with the applicable design and Improvement standards of this Chapter when the Parcel or Development is:
      a) Redeveloped, reconstructed, or expanded; or
      b) Subject to review or approval under any portion of this Chapter.
   2) *Triggering Actions*
      a) Compliance with required Improvements may be triggered by the following actions, when such actions constitute a Land Development or otherwise require approval under this Chapter:
         (i) Submission of a Subdivision plan, Land Development Plan, or any amendment thereto;
         (ii) Any Building expansion, Site reconfiguration, or change that requires Land Development approval;
         (iii) Any discretionary approval under this Chapter, including waivers, modifications, or

alternative compliance requests; or

(iv) Any other application that necessitates review under the provisions of this Chapter.

F. *Flood Resiliency.*

1) All Development must comply with **§190-506, Floodplain Management.**
2) All Development within or Adjacent to flood hazard areas shall incorporate resilient design measures, including:
   a) Freeboard above Base Flood Elevations consistent with FEMA and PA DEP guidance;
   b) Avoidance of critical infrastructure placement in flood-prone areas;
   c) Consideration of increased precipitation intensity and storm frequency;
   d) Limitation of Fill within floodplains.

§ 165-302 Site Organization

A. *Purpose*. Proposed Land Developments and Subdivisions shall be designed to address the opportunities and limitations present on a Site and its Adjacent surroundings.

1) Projects shall use Site opportunities to enhance the overall quality of the Development and lessen potential negative impacts upon a Site and the surrounding community.
2) The physical and social needs of the users of the Site should be evaluated and incorporated into the final Subdivision layout or Site design.
3) The impacts of the proposed Development on the natural environment and surrounding land uses shall be given a high priority and made an integral part of the overall design for the Land Development or Subdivision.

B. *Site Improvement Layout.* Buildings shall be placed in consideration with the Site's topography, existing vegetation, and surrounding land uses, considering energy conservation, solar access, and pertinent natural features.

C. *Existing Environmentally Sensitive Areas.* Existing Environmentally Sensitive Areas should be recognized and integrated into the Site layout. These areas shall be considered strong design determinants and be incorporated into the overall Site plan to strengthen the unique quality of the land.

D. *Open Space and Scenic Views.* The placement of Open Space and Preservation of scenic views should be a fundamental design decision. Open Space should provide for a variety of benefits including recreation, natural resource Protection, scenic views and vistas, and buffers for Site elements and land uses, as agreed upon by the Township Engineer.

E. *Circulation.* Movement within a Site and access to the Site should be designed for the safety and convenience of various types of users. Cross access between properties and joint access are heavily encouraged to improve circulation and improve access safety. Cross access between properties and joint access shall be provided where required by **§165-306-I, Joint and Cross Access Driveways,** or where necessary to ensure safe and efficient internal circulation, as determined by the Township Engineer.

F. *Relationship to Surrounding Uses.* The proposed design should complement surrounding uses through Building Setbacks, buffers, and separation of uses. Potential negative impacts upon surrounding land uses including noise, light, and loss of privacy should be mitigated.

G. *Sustainable Development.* To advance the goals of the Township's Climate Action Plan, the Development of a site shall use construction methods and Building materials that reduce energy, water, and fuel consumption needs of the property, while also considering opportunities to utilize renewable energy sources, and conserve and reuse water resources. For Applications considered Major Plans under this chapter, the Applicant shall provide a cost statement providing performance measures, including a ten-year cost evaluation of the energy performance of the systems the Applicant proposes to employ, as well as a ten-year cost evaluation of alternative methods to utilize on-Site renewable energy sources, and conserve and reuse water resources.

§ 165-303 Recreation Areas

In order to meet the recreational needs of future inhabitants of Developments and Subdivisions in the Township, Recreation Areas shall be dedicated for the use of the residents by a permanent means acceptable to the Township.

A. *Purposes*. The purposes of these regulations shall be to:
   1) Provide adequate Open Spaces, recreational lands and recreational facilities primarily to serve new inhabitants of new Developments, for both active and passive recreation.
   2) Recognize and work to carry out the Palmer Township Park, Recreation and Open Space Plan.
   3) Recognize the rationale for these Recreation Areas and fee-in-lieu-of-land requirements, as described in the Palmer Township Park, Recreation and Open Space Plan.

B. *Applicability*. Subdivision and Land Development applications submitted and/or approved prior to this section becoming effective shall be bound by the previous language of this section.

1) This new section shall apply to any Subdivision or Land Development for which a Preliminary Plan or a combined Preliminary/Final Plan is submitted after the effective date of this amendment.
2) Except that this section shall not apply to:
   a) Submittals that the Planning Commission determines only involve clearly minor adjustments or corrections to a Preliminary Plan that was duly submitted and actively under consideration or approved prior to the effective date of this amendment.
   b) Planned residential Development (PRD) only to the extent of active recreational facilities being provided by the Developer in said PRD.
      (i) In such an event, for all such facilities so provided, credit for the value thereof is to be given against the recreational fee schedule set forth in this Chapter. If no such facilities are provided by the Developer in said PRD, then the provisions of this Chapter are fully applicable to a PRD.
   c) Any plan that only involves changes that do not increase the number of Lots.

C. *Recreation Area Dedication Requirements.*
   1) Residential and mixed-use Developments shall provide Recreation Area dedication in accordance with the following formula. The formula is based on providing 10 Acres of parks space per 1,000 residents per National Recreation and Parks Association guidance and based on desire to adopt a per capita park/Acreage standard in the 2020 Township Parks, Recreation, and Open Space Plan.
      a) Step 1: Determine average household size within Palmer Township according to the most recent U.S. Census American Community Survey.
      b) Step 2:
      [Number of proposed dwelling units] x [Average household size within Palmer Township according to most recent U.S. Census or American Community Survey] = [Number of new residents].
      c) Step 3:
      .01 x [Number of proposed residents] = [Required number of Acres to be dedicated]
   2) Non-residential Developments shall provide Recreation Area dedication based on the following formula: 250 square feet per employee, or a minimum of 5,000 square feet, whichever is greater.

D. *Fee-in-Lieu.* As an alternative to providing required Recreation Areas pursuant to **Subsection C** above, the Township may, in its sole discretion, elect to receive a fee in lieu of the set aside of such Recreation Area from the Applicant.
   1) The fee-in-lieu shall be made at a rate as set from time to time by resolution of the Township Board of Supervisors.

a) A notation stating that such fees are required shall be stated on the final record plan.

2) In accordance with Section 503(11) of the Municipalities Planning Code, all fees received in lieu of land dedication may be used solely for acquiring, operating or maintaining park or recreational facilities reasonably accessible to the subject Land Development or Subdivision.

3) *Criteria for Acceptance.* The Township may, at its sole discretion, accept a fee in lieu of land dedication when the land proposed for dedication meets one or more of the following criteria, or when the Township determines that acceptance of a fee in lieu better serves the public interest.
   a) Is not of suitable size, shape, or location for recreational use.
   b) Cannot be reasonably improved for active or passive recreation.
   c) Would result in fragmented or isolated parkland.
   d) Would not advance the Township's park system or Trail network.

4) *Timing of Payment.* The fee in lieu must be provided to the Township by the Applicant before recording the Final Plan.

E. *Recreational Area Standards.* In designing Recreation Areas within Subdivision and Land Development Plans, the Applicant shall comply with the following criteria and standards for Recreation Areas:

1) Consistent with the Palmer Township Comprehensive Plan, Parks, Recreation, and Open Space Plan, or any other adopted Township Plan.
2) Suitable for active or passive recreational uses to the extent deemed necessary by the Board without interfering with Adjacent dwelling units, parking, Driveways, and Streets.
3) The minimum required area shall be composed of not more than 10% Environmentally Sensitive Areas unless the Environmentally Sensitive Area is being used as a Shared-Use Path.
4) Comprised of areas which do not include net out lands, buffer strips and zones, seepage beds and drain fields (primary and backup), utility and maintenance Easements, stormwater management basins and facilities, Right-of-way, or Building Setback areas.
5) Comprised of areas not less than 50 feet in width, and not less than 15,000 square feet in contiguous areas, except when part of a Trail system or pathway network.
6) Relatively compact, placed to serve all parts of the Development, and interconnected with Recreation Areas on Abutting Parcels whenever applicable, including provision for pedestrian pathways to general public use to create linked pathway system within the Township.
7) Provided with sufficient perimeter parking where necessary, and with safe and convenient access by adjoining Street frontage or other rights of way or Easements capable of accommodating pedestrian, bicycle, and maintenance and vehicular traffic and containing access Improvements.

8) Undivided by public or private Streets, except where necessary for proper traffic circulation, and then only upon recommendation of the Township Engineer and Planning Commission.
9) Free of all Structures, except those of historic or architectural importance and those directly related to outdoor recreational use.
10) Suitably landscaped either by retaining existing natural ground cover and wooded areas and according to a landscaping plan for enhancing Open Space and Recreation Areas through plantings which are consistent with the purposes of minimizing maintenance costs.
11) No Shared-Use Path shall be designed with the intent of accommodating motorized vehicles.
12) Shared-Use Paths, and their Easements, shall be dedicated to the Township, donated to a private conservation organization, or placed under the care of a community association to assure continuing maintenance of the Easement.
    a) Alternately, a Shared-Use Path may be maintained by the Abutting property owner, but only upon the request of the said property owner and with the approval of the Township.
13) The land shall not be used as Stormwater Management Facilities or Stormwater Basins
14) A management plan describing the maintenance and upkeep of Recreation Areas designated in compliance with this Chapter and any other applicable regulations shall be submitted to the Board prior to final approval of the proposed Subdivision and Land Development Plan.
15) Whenever possible, the area set aside shall be along the outer boundaries of the Tract to allow for connections to future Open Space on Adjacent land.

§ 165-304 Lots

A. *Lot Size and Width*. Lot dimensions and areas shall not be less than specified by provisions of **Chapter 190, Zoning**.
    1) Lots shall further conform to the following requirement designed to abate health Hazards:
        a) Where both or either water supply and sanitary Sewage disposal are provided by individual on-Lot facilities, the Township may require that the Applicant provide a Registered Professional Engineer, Township Sewage Enforcement Officer (SEO), or a qualified Soil Scientist to make such tests as are necessary to determine the adequacy of the proposed Lot size and existing Grade and soil conditions.
            (i) In all such cases, a certificate from a Registered Professional Engineer or qualified sanitarian that the proposed facilities are adequate shall be the prerequisite to final approval of the plan.

(ii) Any individual or on-Lot facility sanitary Sewage facility shall require approval from the Sewage Enforcement Officer, PA DEP, or any other applicable outside agency.

2) Lot depth shall not exceed 3 times the Lot width.

B. *Lot Lines.* Lot lines shall be drawn parallel, concentric, at right angles, or radial to the Street Right-of-way line except where there exists permanent, natural or man-made features that make such arrangement impractical as determined by the Township Engineer.

C. *Lot Frontage.* Lots shall front on a public Street, existing or proposed.

D. *Reverse Frontage Lots.* Reverse Frontage Lots are prohibited except where employed to prevent vehicular access to Arterial and Collector Streets.

1) When Reverse Frontage Lots are used, an additional 25 feet shall be added to the minimum Rear Yard Setback Abutting a Major Collector Street or Street of a higher classification, to provide a landscaped buffer area in the Rear Yard in accordance with the requirements of this Chapter.

E. *Flag Lots.*

1) *Purpose.* To permit reasonable Subdivision of land which is physically constrained by an unusual configuration of the Tract or limited Street frontage, and which could not be subdivided in a desirable manner using conventional Streets and Lot geometry.
   a) To preserve farmland, woodland, scenic views, historic Sites, or other environmental amenities by locating Buildings away from Streets.
   b) To avoid access to a Major Collector Street or a Street of a higher classification.
   c) To avoid Building an unnecessary Street.
2) Flag Lots shall only be allowed when the Township determines the following:
   a) The access would allow safe Driveway locations for Flag Lots.
   b) The use of Flag Lots will result in saving trees, avoiding Steep Slopes, and preserving Floodplain, Wetlands, or other Environmentally Sensitive Areas if present.
   c) Flag Lots would promote shared Driveways reducing access along public roadways.
   d) Flag Lots comply with all other provisions of this Chapter.
3) *Parts of a Flag Lot.* Flag Lots shall be comprised of 2 parts, the access strip and the body of the Lot, in compliance with the following standards.
   a) The access strip shall be a minimum of 25 feet wide for its entire length unless the body of the Flag Lot is likely to undergo further Subdivision in the future.
      (i) If a Flag Lot is capable of Subdivision in the future and is not deed restricted

against further Subdivision, the access strip must be at least 50 feet wide and be able to contain a Street capable of meeting all applicable public Street and Intersection standards contained in this Chapter.

(ii) When an access strip is intended to accommodate a future public or private Street, the plan shall clearly depict the ultimate Street layout, include a note reserving the access strip for such purpose, and prohibit Structures or Improvements that would preclude future Street construction.

(iii) When an access strip is designed for a future Street, a note shall be placed on the plan reserving the access strip for a future Street; however, dedication is not required.

b) The access strip shall be a fee-simple part of the Flag Lot and shall not be a separate Parcel or Easement.

(i) This portion of the Lot shall not be used for any purpose other than the location of an Access Driveway.

(ii) Vehicle parking, Sewage Disposal Systems, and the Development of any Structures shall be specifically prohibited in the access strip.

c) The body of a Flag Lot shall comply with all the minimum dimensional requirements of the zoning district in which it is located.

(i) The area of the access strip shall not be counted toward the minimum Lot area requirement.

d) The Front Yard of the Flag Lot shall be parallel to the frontage Street.

(i) In the event the access strip is proposed for a future Street, a second Front Yard for the purpose of establishing Setbacks shall be measured from the potential access Street.

4) *Design Standards of Flag Lots*

a) The maximum length of an access strip shall be equal to the depth of one Lot which complies with the minimum Lot width and area requirements of the district in which it is located.

b) The access strip shall be located relative to the body of the Flag Lot, surrounding Lot configurations, and natural features of the land, and it shall intersect the public Street at a safe, visible location.

c) Turns greater than 120° degrees or with a radius less than 150 feet and vertical Grades in excess of 10% are prohibited in access strips.

(i) It may be necessary to widen the access strip at such sharp turns and Steep Slopes to accommodate Grading, drainage, tree Preservation, or emergency vehicles, as determined by the Township Engineer.

(ii) Access strips that may become future Streets shall be configured to accommodate horizontal curves required for Streets.

d) *Joint Driveways.*

(i) No more than 2 access strips may Abut each other.

(ii) Each pair of access strips must share a common access point and Driveway from the edge of pavement to a distance of at least 50 feet beyond the ultimate Right-of-way line of the Street, from which point either one common Driveway or 2 individual Driveways may continue.

(iii) The shared portion shall be a minimum of 12 feet wide. Shared portions of Driveways may be wider where access is taken from Major Collector Streets or Streets of a higher classification.

(iv) Where a joint Driveway is provided, a shared access Easement shall be created and recorded.

e) Access points to Flag Lots, whether single or paired, shall be separated by at least 300 feet as measured along the right of way. Separation distance shall be measured from the center point of the nearest access strips unless specific Driveway access points have been clearly established.

f) No more than one "tier" of Flag Lots shall be permitted on a Tract. In other words, a Flag Lot may not be located behind another Flag Lots.

g) Flag Lots are not permitted at the bulb or turn-around of a Cul-de-sac.

h) Flag Lots are not permitted to gain access from a single access Street.

i) The access strip must serve as the primary access point for the Lot unless a common drive or access is gained through an Easement at a safer and less environmentally damaging location.

F. *Interior Lots.*

1) Interior Lots shall have an access strip, with a minimum width for its entire depth of 50 feet for each Lot proposed if a deed restriction prohibits the Lot from further Subdivision.

2) No more than 2 new contiguous Interior Lots shall be formed.

3) No more than 2 Lots stacked behind each other shall be created along a new or existing Street.

G. *Double-frontage Lots.*

1) Double-Frontage Lots shall not be created, except as needed to avoid direct vehicular access onto a Minor Arterial Street, or a Collector Street intended to carry high volumes of through traffic, by individual Driveways.

H. *Residual Lands.* If residual land (other than rights-of-way) exists after subdividing, they shall be incorporated into existing or proposed Lots.

I. *Lot numbers.* For the purpose of Development, each Subdivision may have an overall system of Lot numbers, the number one being assigned to a Lot in the first section to be developed. (Such system of Lot numbers shall not be confused with the regular house or Building numbering system based on a Township-wide plan.)

J. *Building numbers.* House or Building numbers shall be assigned by the Township based on an overall Street plan. Numbers will be assigned in such a way as to allow for vacant Parcels and future Development.

§ 165-305 Blocks

A. The length, width, and shape of Blocks shall be determined with due regard to:
   1) Provisions of adequate Sites for the type of Building proposed.
   2) Topography.
   3) Requirements for safe and convenient vehicular and pedestrian circulation.

B. Except as otherwise regulated by this Chapter, Blocks shall have a maximum length of 1,500 feet and a minimum length of 250 feet for residential Blocks and 400 feet for non-residential Blocks.
   1) In design of Blocks longer than 1,000 feet, special consideration shall be given to fire protection and emergency access requirements, as reviewed by the Fire Commissioner and Township Engineer.

C. Blocks shall be of sufficient width to permit 2 tiers of Lots except where access is limited by virtue of an adjoining Arterial Street or by virtue of topographic limitations.

§ 165-306 Streets

A. *Streets.* New Streets and additions to existing Streets shall:
   1) Be designed in accordance with the standards provided for in this Chapter.
      a) The Township reserves the right to accept or refuse the dedication of any new Street.
   2) Be generally consistent with the Transportation Element of the Township's Comprehensive Plan, Active Transportation Plan, Complete Street Policy, and county or state highway plans, and be designed to conform with the existing Street system.
   3) Provide access between Abutting Tracts of land for immediate or future use to the satisfaction of the Township Engineer.
   4) Conform to existing topography to assure reasonable Grades, alignment and drainage, access to Lots, limits on the depth of public infrastructure, and minimization of Grading and removal of vegetation to the satisfaction of the Township Engineer.

5) Be designed to continue existing Streets at equal or greater Cartway width, as determined to be appropriate by the Township Engineer; however, additional Right-of-way shall be provided to meet current standards.
6) Include curbs and Sidewalks installed along all existing and proposed public and private Streets and common parking areas.
7) Have shoulders that are Graded to the full width of the Right-of-way and provision made for slopes beyond the Right-of-way.
8) Avoid imposing on an Abutting property an increased Setback requirement under the provisions of **Chapter 190, Zoning**.
9) Be identified by a Street sign setting forth the name of the Street.

B. *Private Streets.*
1) All private Streets shall be designed and constructed in conformance with all design and engineering regulations of the Township that apply to public Streets, unless otherwise provided herein.
2) Whenever dedication of a Street is not accepted by the Township, the Applicant shall submit, and record with the plan, a covenant addressing the ownership, access rights, and maintenance responsibilities for the Street.
3) All private Streets shall be appropriately signed as such.

C. *Access to Proposed Subdivisions and Land Developments*. All proposed Subdivisions and Land Developments shall have adequate and safe access to the public Street system.
1) *Street Continuations.* Where deemed appropriate by the Township Engineer, stub Streets shall be extended to the boundary of the Tract being subdivided or developed to eventually provide for proper circulation of traffic within the Township and Abutting municipalities.
a) When a stub Street exists on an Adjacent or Abutting Lot, that stub Street shall be extended into the proposed Development.
2) *Intersections.* The center lines of Streets shall intersect at right angles unless existing conditions dictate otherwise.
a) In such case, the Intersection shall be nearly at right angles as possible but not less than 75° at Intersections.
3) *Minimum Intersection Offsets.* Intersections of more than 2 Streets at 1 point shall be avoided.
a) Where Streets intersect other Streets, the intersecting Street shall be aligned with any Street intersecting on the other side or be offset by the minimum distance stated in this subsection.

b) This minimum offset and the minimum distance between center lines of parallel or approximately parallel Streets intersecting a cross Street from opposite directions shall be:
   (i) 150 feet along a Local Street.
   (ii) 400 feet along a Collector Street.
   (iii) 1,000 feet along a Minor Arterial Street.
   (iv) The distances of this subsection shall be measured between the Intersections of the center lines of the legal rights-of-way of the Streets.

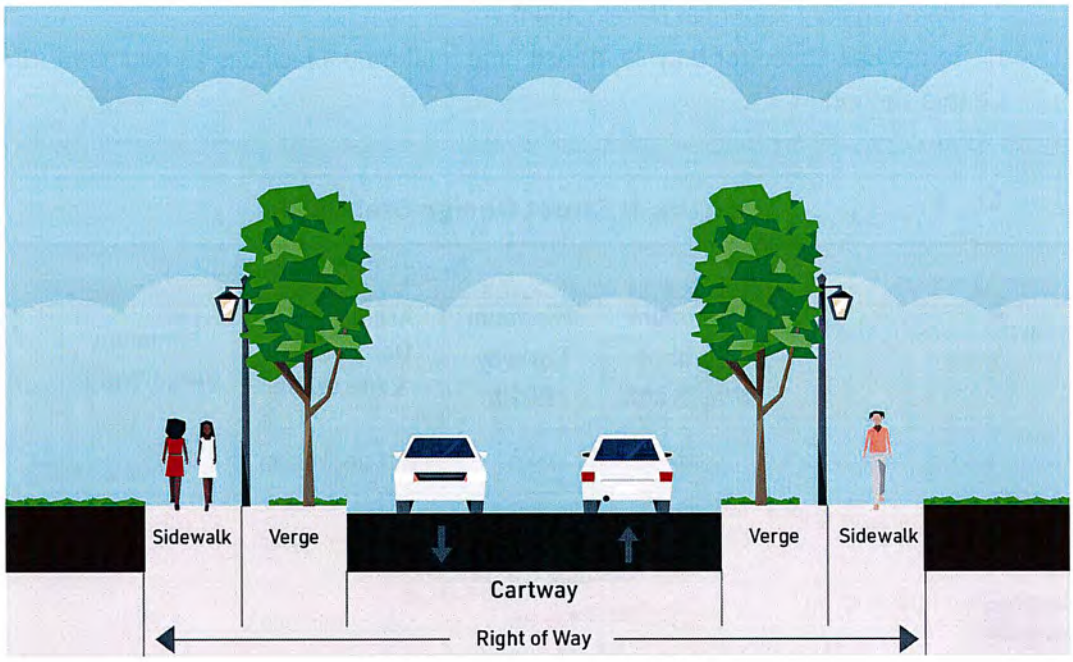
D. *Street Design Standards.*
1) New Streets and roadway construction in Palmer Township shall abide by the standards provided for in **Figure 1: Street Design Standards**.
2) *Street Widths.* Minimum Street Right-of-way and Cartway (roadway) widths shall be as follows:
   a) *Local Streets*.
      (i) *Minimum Right-of-way, Cartway, Verge, and Pedestrian Amenities Widths.* See **Figure 1: Street Design Standards.**
   b) When parking is restricted, Manual of Uniform Traffic Control Devices (MUTCD)-compliant signage shall be installed. Curb markings shall be considered supplemental to posted signage and consistent with PennDOT and MUTCD guidance.
   c) *Collector Street.*
      (i) *Minimum Right-of-way, Cartway, Acceleration/Deceleration Lane, Verge, and Pedestrian Amenities Widths.* See **Figure 1: Street Design Standards.**
      (ii) No parking is permitted on Collector Streets.
         (a) Manual of Uniform Traffic Control Devices (MUTCD)-compliant signage shall be installed. Curb markings shall be considered supplemental to posted signage and consistent with PennDOT and MUTCD guidance.
   d) *Minor Arterial Street.*
      (i) *Minimum Right-of-way, Cartway, Acceleration/Deceleration Lane, Verge, and Pedestrian Amenities Widths.* See **Figure 1: Street Design Standards.**
      (ii) No parking is permitted on Minor Arterial Streets.
         (a) Manual of Uniform Traffic Control Devices (MUTCD)-compliant signage shall be installed. Curb markings shall be considered supplemental to posted signage and consistent with PennDOT and MUTCD guidance.
3) Additional Right-of-way and Cartway widths may be required by the Board of Supervisors for the following purposes:
   a) To promote public safety and convenience.

b) To provide parking space and loading zones in commercial districts and in areas of high-density residential Development.
c) To provide space for bicycle, transit, and multimodal facilities as outlined further in this section.

Figure 1: Street Design Standards

Roadway Classification	Design Standards (in feet)				
	Minimum Right-of Way Width	Minimum Cartway Width	Acceleration/ Deceleration Lane Width	Minimum Verge Width	Pedestrian Amenities
Local	50	26	Not applicable	5	5-foot Sidewalk
With on-Street parking on 1 side	55	32	Not applicable	5	5-foot Sidewalk
With on-Street parking on both sides	60	36	Not applicable	5	5-foot Sidewalk
Collector	70	32	12	5	5-foot Sidewalk
Minor Arterial	80	36	12	8	8-foot Sidewalk or Shared-Use Path

Figure 2: Illustrative Depiction of Right-of-Way



For Illustrative Purposes Only

Figure 3: Sight Distance and Turning Radii

Roadway Classification	Design Standards (in feet unless otherwise shown)					
	Minimum Sight Distance	Minimum Tangent Between Reverse Curves	Minimum Center-Line Radii for Horizontal Curves	Maximum Grade	Minimum Radius of Arc at Intersection of Cartway Edge or Curbline	Minimum Radius of Arc at Intersection of Right-of-way
Local	200	100	150	10%	25	15
Collector	300	100	300	8%	35	25
Minor Arterial	475	200	400	6%	40	30

E. *Single-Access Streets*

1) Any Street which is served by only one Intersection with a through Street shall be considered a single-access Street, regardless of the Street's configuration within the proposed Subdivision or Land Development.
   a) No dead-end Streets are permitted to be created.
      (i) This prohibition applies only to Streets classified as single-access loop Streets and shall not prohibit Cul-de-sac Streets permitted under **subsection F**.
      (ii) Single-access Streets shall be classified as single-access loop Streets and shall not include Cul-de-sacs.
      (iii) Single-access Street Intersections with through Streets:
         (a) Single access Streets shall be established beginning at a 3-way Intersection perpendicular to a through Street.
         (b) 4-way Intersections may be created using 2 permanent single access Streets intersecting directly opposite one another along a through Street, when the through Street is a Local Street.
   b) The minimum Right-of-way and paving widths for single-access shall include a 50-foot Right-of-way and a 24-foot paved Cartway.
   c) *Single-Access Loop Streets*.
      (i) Shall not exceed 2,000 feet in length, measured from the Intersection with the through Street, along the entire centerline around to its Intersection with itself.

F. *Cul-de-sac Streets.*

1) Cul-de-sac Streets shall be permitted with a maximum length of 1,000 feet and a minimum length of 250 feet and must be provided with a turnaround with a minimum Cartway radius of 40 feet to the outside curb, except that such radius may be 35 feet if permitted by PennDOT at such time to qualify for liquid fuels reimbursement.
2) The maximum radius of a Cul-de-sac shall be 60 feet.
   a) Such maximum and minimum length shall be measured from the intersecting Street's Right-of-way line and the center of the Cul-de-sac bulb.
   b) The same width between the edge of the Cartway and the edge of the Right-of-way shall be maintained around the Cul-de-sac as is required along the main stem of the Street.
   c) The circular paving of the Cul-de-sac shall be connected to the approach paving by an arc having a radius of not less than 25 feet.
   d) The Board of Supervisors, upon the recommendation of the Planning Commission, may permit acceptable alternative turnaround designs, including turnarounds of acceptable radii incorporated into a parking court or a landscaped island (with an acceptable system for maintenance) within a Cul-de-sac.
   e) No Street shall dead-end without an approved turnaround at the end of the Street.

(i) Temporary stub Streets shall be required to include at least a temporary Cul-de-sac, if the stub would be longer than 150 feet or serve more than 3 dwellings or Lots.

3) Where a cul-de-sac is proposed, the Township may require a pedestrian and/or bicycle connection at the terminus of the cul-de-sac to provide access to Adjacent neighborhoods, parks, Trails, schools, or other pedestrian or bicycle facilities. Such connection shall be provided by a public access Easement and improved with a Sidewalk or Shared-Use Path, unless waived by the Township due to documented environmental, topographic, or safety constraints.

4) Cul-de-sac Streets shall identify a location for snow storage and snow removal operations, to the satisfaction of the Palmer Township Public Works Department and shall not reduce required Sight Distance or impair pedestrian facilities.

G. *Driveway Access*

1) *Access.* A state highway occupancy permit is required for all entrances of Access Drives or Driveways onto a state road.

2) *Grades.* Grades of Access Drives or Driveways shall comply with PA Title 67 and PennDOT Design Manual 2, as amended.

3) *Location.* Except for Streets and Driveways that are aligned to intersect directly across from each other, the minimum distance between an Access Drive or Driveway to a Street Intersection on the same side or opposite side of a Street shall be as noted in **Figure 4: Driveway Access Location**.

Figure 4: Driveway Access Location

Type of Use	Distance Between Center Lines of Access Drive or Driveway and Nearest Intersecting Street by Type of Intersecting Street (Feet)		
	Local	Collector	Minor Arterial
Single Family Detached	75	100	150
Other Residential	50	75	150
Nonresidential	100	200	300

H. *Interior Circulation and Traffic Control*

1) Driveways that provide parking spaces should be so designed as to discourage through traffic. If parking spaces are indicated by lines with angles other than 90°, then traffic lanes may be restricted to one-way, permitting head-in or diagonal parking.
2) Driveways for areas provided for loading and unloading of delivery trucks and other vehicles, and for the servicing of shops by refuse collection, fuel, deliveries, and other service vehicles, shall be separate from Driveway used by the general public.
3) For commercial and office uses under the same ownership and consolidated for the purposes of Development or phased Developments comprised of more than one Building Site, the Township shall require that the Development be served by an internal Street that is separated from the main roadway.
   a) All access to out-Parcels shall be internalized using the internal roadway.
      (i) The Driveways for outparcels shall be designed to allow safe and efficient ingress and egress movements from the internal Street.

I. *Joint and Cross Access Driveways.*

1) The Township may require Adjacent commercial properties to share a joint Driveway to achieve the following Driveway spacing standards:
   a) Arterial Street: 300 feet
   b) Collector: 200 feet
   c) Local 100 feet
2) The Township, at its sole discretion, shall require Adjacent commercial properties to provide a cross-Access Driveway to allow circulation between Adjacent commercial properties. The following shall apply to cross Access Driveways:
   a) The Driveway shall have a design speed of 10 miles per hour and have sufficient width to accommodate 2-way traffic, including the largest vehicle expected to frequently access the properties.
   b) A circulation plan shall be required that may include coordinated or shared parking.
   c) Features shall be included in the Site design to make it visually obvious that Abutting properties shall be tied in to include cross access.
   d) If the joint access/cross Access Driveway cannot be connected to the Adjacent property at the time of Land Development, the joint or cross Access Driveway shall be shown on Subdivision and Land Development Plan as to be installed once the adjoining property develops and at that time, the property owner shall be responsible for constructing their portion of the joint or cross Access Driveway.
   e) The location and feasibility of the cross-Access Driveway shall be at the sole discretion of the Township Engineer.
3) The property owners along a joint or cross Access Driveway shall:

a) At the time of Land Development approval, record an Easement with the deed allowing the joint Access Driveway or the cross-Access Driveway to and from the Adjacent commercial property to be served by the cross-Access Driveway.
b) At the time of Land Development approval, record an agreement with the Township so that future access rights along the joint Access Driveway or the cross-Access Driveway shall be granted at the discretion of the municipality and the design shall be approved by the Township Engineer.
c) Prior to construction of a joint access or cross-Access Driveway, both property owners shall record a joint agreement with their respective deed defining the maintenance responsibilities of each of the property owners located along the Driveway.

§ 165-307 Streetscapes

A. *Street, Sidewalk, and Shared-Use Path Lighting.*
1) *Streetlighting.*
a) Street lighting levels shall be demonstrated by a photometric plan showing average and minimum Footcandle levels.
b) *On Arterial and Collector Streets.*
(i) All new Arterial and Collector Streets, and new Land Developments along existing Arterial and Collector Streets, shall provide Street lighting, using Street lights as approved by the Township, at an average rate of .2 Footcandles along the length of the Street Cartway determined to be appropriate by the Township.
c) *On Local Streets.*
(i) The Developer of each Lot in a new residential Subdivision and Land Developments along William Penn Highway, Freemansburg Avenue, 25th Street, Nazareth Road, and Van Buren Road shall install at least 1 decorative lamp spaced a maximum of 150 feet apart along the entire property frontage that complies with the following criteria:
(a) The lamp shall be located within the Street Right-of-way, Verge, or within an Easement along the Street frontage.
(b) The lamp shall be electric with a setting that automatically illuminates the light from dusk until dawn.
(c) The lamp shall have a light output of a minimum of 5,000 lumens of light and a maximum output of 6,000 lumens of light.
(d) Lighting type, spacing, mounting height, and photometric design shall comply with Township Standard Construction Specification and shall be subject to approval by the Township Engineer.

(e) Ownership and maintenance responsibilities shall be established by recorded agreement between the Developer and the Township.

2) *Street Intersection Lighting.*

a) Street Intersection lighting shall be required for all new Subdivisions and Land Developments that create new public or private Streets or modify existing Street Intersections.

b) The requirements of this section shall apply to:

(i) New Street Intersections.

(ii) Realignment or reconstruction of existing Intersections.

(iii) Intersections serving commercial, industrial, mixed use, or multifamily Development.

c) Street Intersection lighting shall be designed to provide a level of illumination as determined by the Township of:

(i) The Intersection area.

(ii) Crosswalks, Sidewalks, Shared-Use Paths, or other pedestrian crossings.

(iii) Traffic control devices.

d) Street Intersection lighting fixtures shall:

(i) Utilize shielded and downward facing fixtures.

(ii) Be an LED or other energy-efficient technology as approved by the Township.

(iii) Provide uniform illumination that is appropriate to the Street Classification and surrounding land uses, as determined by the Township Engineer.

(iv) Be located as to not obstruct Sight Distance or traffic control devices or interfere with pedestrian or vehicular traffic.

(a) Placement shall be coordinated with utilities, Sidewalks, Verges, or all other Streetscape requirements.

e) Street Intersection lighting shall be consistent with all other Township and utility provider requirements.

3) *Sidewalk and Shared-Use Path Lighting.*

a) *On Arterial and Collector Streets.* All new Collector and Arterial Streets, and new Land Developments along existing Collector and Arterial Streets, shall provide pedestrian lighting, as approved by the Township, along all portions of the Street that Abut or contain a Sidewalk or Shared-Use Path.

b) *On Local Streets.* All new Local Streets, and new Land Developments along existing Local Streets, shall provide pedestrian lighting, as approved by the Township, along all portions of the Street that Abut or contain a Sidewalk or Shared-Use Path.

B. *Sidewalks and Verges.*

1) Sidewalks, and other pedestrian amenities, shall be installed along all existing and proposed public and private Streets, common Driveways, and common parking areas according to the following standards:
   a) Sidewalks shall be provided along all existing and proposed public and private Streets according to the dimensions in **Figure 1: Street Design Standards**, based on the functional classification of the Street.
   b) Any Sidewalk not described in **Figure 1: Street Design Standards** shall be a minimum of 6 feet wide.
   c) All Sidewalks shall be constructed in accordance with Township Design Standards as well as the following:
      (i) The Grade and paving of the Sidewalk shall be continuous across Driveways, except in certain cases where heavy traffic volume dictates special treatment.
      (ii) The Grade and alignment of all Sidewalks shall be in accordance with the US Public Right-of-way Accessibility Guidelines (2% max cross slope, 5% max longitudinal slope).
      (iii) Where proposed Sidewalks meet existing Sidewalks which have a different width, a tapered transition shall be constructed in compliance with PennDOT Roadway Construction Details.
2) *Verge Standards.* In addition to the required Sidewalk, a Verge shall be provided along all existing and proposed public and private Streets according to the dimensions in **Figure 1: Street Design Standards**, based on the functional classification of the Street.
   a) The Verge shall be provided between the curb line, or edge of the Cartway, and the Sidewalk.
   b) Verges shall be maintained by the Adjacent property owner as a landscape strip between the Sidewalk and the curb. If landscaping is impractical at the Site, porous pavers, brick pavers or similar surface may be used at the discretion of the Township.
   c) Alternating landscape and hardscape is encouraged, especially if on-Street parking is present Adjacent to the Verge, in order to provide pedestrian access between the Sidewalks and the on-Street parking.
   d) Verges should include the use of trees, as listed in the **Approved Tree Species List**, and native perennials in landscaping to soften the buffer between the Sidewalk or the Shared-Use Path and the Adjacent Street.
   e) Verges can also be used for stormwater management features such as rain gardens, provided a Maintenance Agreement is signed between the property owner and the Township.
   f) Verges shall contain Street furniture including but not limited to the following at the discretion of the Township:
      (i) Street lights,
      (ii) ADA loading pads,

(iii) Trash receptacles,
(iv) Seating,
(v) Bike racks,
(vi) Mailboxes, or
(vii) Similar installations.

g) No obstacle in the Verge may reduce the required Sidewalk width for use by pedestrians.

h) *Minimum Clearances.* Street furniture, utilities, trees, Fences, walls, and other objects placed within the Verge shall maintain a minimum clear pedestrian through-zone equal to the required Sidewalk width. Objects shall be located to maintain ADA access and shall be placed to avoid creating fixed-object Hazards. Minimum offsets from the back of curb and from the Sidewalk edge shall comply with Township Standard Construction Specification.

3) *Shared-Use Path Option.* When a Sidewalk is required, the Applicant shall have the opportunity to install a Shared-Use Path in lieu of a Sidewalk when the Shared-Use Path provides equal or greater multi-modal benefits including, but not limited to:

a) Accommodation of multiple user types, including pedestrians, bicyclists, and other non-motorized users;

b) Improved connectivity by linking to existing or planned Shared-Use Paths, parks, schools, transit stops, commercial centers, or Adjacent Developments;

c) Enhanced safety and comfort through increased separation from vehicular traffic, reduced Driveway and roadway crossing conflicts, or alignment away from high-speed or high-volume roadways;

d) Greater network continuity, where the Shared-Use Path Fills a gap in the Township's active transportation network or advances a planned corridor identified in Township or regional plans; and/or

e) Future adaptability, where the Shared-Use Path is designed and located to accommodate anticipated increases in multimodal use over time.

§ 165-308 Shared-Use Paths

A. Shared-Use Paths shall have adequate access for use by all residents and occupants of the Development and the public. The Shared-Use Path shall be subject to a permanent public access Easement or Right-of-way acceptable to the Township to ensure continuity and prevent future restriction of access.

B. *Easements.* The Township shall require, as a condition of Final Plan approval, public Easements, or rights-of-way for the use of Shared-Use Paths in the following situations:

1) When a Subdivision or Land Development lies Adjacent to a park, school, commercial/business district, other Subdivision, or other pedestrian destination,
2) When a Shared-Use Path is shown in the Township's adopted plans or Official Map,
3) Where the Right-of-way continues an existing Shared-Use Path,
4) Where the Right-of-way will connect with an existing Right-of-way on an adjoining property, or;
5) Where the Right-of-way will extend to another Street or Alley, or to the boundary line of a property capable of further Subdivision and there is no convenient alternate access route.
6) Unless otherwise provided, the width of the Easement or Right-of-way in which the Shared-Use Path is located shall be a minimum of 2 feet beyond the width of the Shared-Use Path on each side. The language of the Easement shall be to the satisfaction of the Township.

C. *Applicability.* When a Subdivision or Land Development includes or Abuts an existing or a proposed Shared-Use Path, the Applicant shall make provision for the continued use of the Shared-Use Path subject to alterations of the course of the Shared-Use Path within the boundaries of the Development under the following conditions:
1) Such Shared-Use Path may, at the option of the Developer, be located Adjacent to existing or proposed Lot lines or in such a manner as to minimize any obstruction to the Development.
2) Existing rights-of-way may be relocated reasonably if a connection with a Right-of-way on an adjoining property is maintained.
3) The proposed alteration will not diminish the Shared-Use Path design and function.
4) Where an existing Shared-Use Path runs coincidentally with the paved Street intended for use by motorized vehicles, landscaping and other physical Structures shall be used to increase the separation between the Shared-Use Path and the Street.

D. *Shared-Use Path Widths*.
1) Shared-Use Paths shall be a minimum of 10 feet wide with an additional cleared area of 2 feet on either side and shall have a paved surface constructed in accordance with Township Standard Construction Specification, unless an alternative surface is approved by the Township Engineer based on anticipated use, maintenance, and accessibility.
   a) Should the Shared-Use Path connect with an existing Shared-Use Path that is wider than 10 feet, the new portion of the Shared-Use Path width must align with the existing connection.
2) For phased Developments, a Development timeline shall be provided as part of the Final Plan submission, subject to the approval of the Community Development Director, describing when the Shared-Use Path will be provided relative to other Site Improvements and occupancy of the Site.

3) When Shared-Use Paths are intended for public use, they shall be protected by a permanent access Easement or Right-of-way on the properties on which they are located.
4) Shared-Use Paths shall be designed to restrict access to motor vehicles with the exception of approved micro-mobility devices, emergency vehicles, and maintenance vehicles.

§ 165-309 Bicycle Amenities

A. *Bicycle Amenities.* Bicycle amenities shall be required when identified in an adopted Township or regional plan, when a Site fronts on a designated bicycle corridor, or when required to mitigate impacts identified in a Traffic Impact Study, as determined by the Township.

B. *General Standards*. All bicycle amenities shall comply with the following general standards:
1) Bicycle lanes and Sharrows shall be designed and dimensioned to comply with all applicable PennDOT, FHWA Manual on Uniform Traffic Control Devices, and AASHTO Guide for Development of Bicycle Facilities standards.
2) Bicycle amenities shall be marked with pavement markings, reflectors, and signage in accordance with all applicable PennDOT, FHWA Manual on Uniform Traffic Control Devices, and AASHTO Guide for Development of Bicycle Facilities standards.
3) Where the roadway narrows, signage and pavement markings shall be added to warn drivers and cyclists to help them avoid bicycle-automobile conflicts.

C. *Bicycle Parking.* Bicycle parking shall be required for all new Subdivisions and Land Developments.
1) *Types of Bicycle Parking.*
a) Short-term Bicycle Parking. Short-term bicycle parking is generally intended to serve the needs of cyclists who park their bicycles for fewer than 2-hour time periods, including customers, clients, messengers, and other short-term visitors.
b) Long-term Bicycle Parking. Long-term bicycle parking is generally intended to serve the needs of cyclists who park their bicycles for more than 2-hour periods, including employees, residents, and commuters.
2) *Spaces Required*
a) Short-term and long-term bicycle parking spaces must be provided per

b) **Figure 5: Bicycle Parking** Requirements.

Figure 5: Bicycle Parking Requirements

Use/Building Type	Minimum Number of Bicycle Parking Spaces
Residential Uses	
0–4 Dwelling Units	None
5+ Dwelling Units	1 per 5 dwelling units
Commercial Uses	
All Commercial Uses	1 per 5,000 sf
Manufacturing and Industrial Uses	
All Manufacturing & Industrial Uses (based on employees)	0–5: None 6–20: 2 spaces Over 20: 1 per 10 employees
Civic and Institutional Uses	
School	1 per classroom
All Other Civic and Institutional uses	1 per 5,000 sf

3) *Location and Design.*
   a) *General.* All required bicycle parking spaces must:
      (i) Consist of bike racks or lockers that are anchored so that they cannot be easily removed;
      (ii) Be of solid construction, resistant to rust, corrosion, hammers, and saws;
      (iii) Allow both the bicycle frame and at least one wheel to be locked with the bicycle in an upright position using a standard U-lock;
      (iv) Be designed and installed so as not to cause damage to the frame, wheels, or components;
      (v) Be accessible without interference from or moving adjacent bicycles and not result in a parked bicycle obstructing a required Walkway; and
      (vi) Have minimum dimensions of 2 feet in width by 6 feet in length, with a minimum overhead vertical clearance of 7 feet
   b) *Short-Term Bicycle Parking Spaces.* Short-term bicycle parking spaces must be at least as conveniently located as the most convenient non-disabled motor vehicle parking provided for the subject use. If no motor vehicle parking is provided, short-term bicycle parking spaces must be located within 50 feet of a Building entrance. Short-term bicycle parking must be located on the subject Lot, unless the Township approves a proposal to allow private bicycle parking facilities to be located in the Right-of-way.
   c) *Long-Term Bicycle Parking and Storage Spaces.* Long-term bicycle parking spaces must:
      (i) Be located with direct access by the bicycle rider, with no more than 50% of the required spaces requiring the use of stairs or elevators;

(ii) May not be located in dwelling units or on dwelling unit balconies;
(iii) Must protect the entire bicycle, its components and accessories against theft and inclement weather, including wind-driven rain and snow.
(iv) Must be designed to allow bicycles to be securely locked to a bicycle rack in:
(a) A bike storage room that is accessible only to authorized users and has at least 2 electrical outlets;
(b) A bicycle locker with a separate access door for each bike; or
(c) An attended bike storage room.

§ 165-310 Emergency Access

A. *Emergency Access Review.* Emergency access for all new roads, Streets, Shared-Use Paths, paths, or Driveway access to commercial or residential uses shall be reviewed by the Township Fire Commissioner subject to compliance with Chapter 5 and Appendix B, C, and D of the current version of the adopted International Fire Code, as amended by Township Ordinance 2022-473, Chapter 81 Fire Prevention, Article I Fire Prevention Code.

B. *Emergency Access.* All Subdivisions or Land Developments containing more than 20 dwelling units or nonresidential Buildings containing 20,000 or more square feet of gross floor area shall provide at least 2 separate and distinct means of access to the Subdivision or Land Development.
1) Access may be provided by connecting a proposed Street or Streets at 2 different points to an existing Street or Streets such that a vehicle has access to any and all proposed Lots from either of the connection points.
2) Where Site constraints make 2 fully improved access points impracticable, the Township may permit one primary access and one secondary emergency-only access, subject to approval by the Fire Commissioner and Township Engineer.
3) Access for a Land Development may be provided by 2 or more Driveways into the Land Development.
a) Such Driveways shall be separated by a distance that complies with all the requirements of this Chapter.

§ 165-311 Crossings

A. *Crosswalks*. Crosswalks shall be provided at all Intersections where a Sidewalk or Shared-Use Path crosses a roadway and shall be clearly delineated in accordance with PennDOT standards.

1) *Width.* Crosswalk width shall be the greater of the width of the connecting Sidewalk or Shared-Use Path plus 2 feet, or 6 feet.
2) *Enhanced Treatments.* Crosswalks shall include enhanced signage, markings, materials, or a combination thereof at Shared-Use Path crossings, within school zones or designated school crossing areas, along Collector or Arterial Streets, and within 100 feet of a transit stop, as determined by the Township.
3) In no case shall a crosswalk be less than 6 feet wide per PennDOT Publication 111.
4) Crosswalks and their transition to Adjacent Sidewalks or Shared-Use Paths shall be designed to facilitate access and use by persons that are physically disabled, in compliance with the Americans with Disabilities Act (ADA) and United States Public Right-of-way Accessibility Guidelines (PROWAG).
5) Crosswalk patterns, materials, and colors shall be consistent with applicable Township and PennDOT standards.
6) Pedestrian signalization shall be provided at Intersections where traffic signals exist. All new and replaced pedestrian signal heads shall contain a pedestrian change interval countdown timer and provide Accessible Pedestrian Signals, designed according to the PennDOT Traffic Signal Design Handbook.
7) Where a crosswalk is located on at a Shared-Use Path crossing, within school zones or school crossing areas, along a Minor Arterial Street, in the vicinity of transit stop, or in a location with a demonstrated history of crashes, as determined by the Township Engineer, the Township may require one or more of the following measures as described in the Pennsylvania Traffic Calming Handbook:
   a) High-visibility or decorative crosswalks.
      (i) High-visibility crosswalks shall comply with PennDOT Publication 111 standards for Type C – Perpendicular crosswalks, as amended.
      (ii) Decorative crosswalks shall comply with PennDOT Publication 111 standards, as amended, for decorative crosswalks as well as the following standards:
         (a) All decorative crosswalks shall be consistent with the Township Construction Specification.
         (b) Final details for any decorative crosswalk proposed in any Township Right-of-way shall be subject to the approval of the Township.
      (iii) Curb extensions, bulb-outs, or raised medians.
      (iv) Raised speed table crosswalks.

(v) Other pedestrian safety methods deemed to be appropriate by the Township Engineer.

B. *Curb Ramps.* Curb ramps shall be compliant with curb ramp construction details in PennDOT Publication 72M, RC-67M. The detectable warning surface material and color shall be reviewed by the Township.

§ 165-312 Transit

A. *Bus Stop and Shelters Design Standards.*

1) The Applicant shall notify and coordinate with LANTA and the Township to determine if a bus stop is appropriate when the proposed Subdivision or Land Development meets any one of the following criteria:
   a) Located along an existing or planned fixed route public transit service.
   b) Has a character, magnitude, or location that will have substantial effect upon the health, safety, or welfare of citizens in more than one municipality and could be considered a Development of Regional Significance and Impact, such as regional shopping centers, industrial or commercial parks, warehouses, residential Developments, regional entertainment or recreation centers, hospitals or medical care facilities, and educational institutions.
   c) The proposed Land Development that meets any one of the following characteristics, which are consistent with Transportation Impact Study warrants included in PennDOT's Transportation Impact Study Guidelines:
      (i) Site is expected to generate 3,000 or more average daily trips or 1,500 vehicles per Day.
      (ii) During any one-hour time period of any Day of the week, the Development is expected to generate 100 or more vehicle trips entering the Development or 100 or more vehicle trips exiting the Development.
      (iii) For existing Sites being redeveloped, the Site is expected to generate 100 or more additional trips entering or exiting the Development during any one-hour time period of any Day of the week.
      (iv) In the opinion of the Community Development Director, the Development or redevelopment is expected to have a significant impact on the transportation system, even if the above warrants are not met.
   d) The location and design of a bus stop shall be reviewed and approved by LANTA. LANTA shall provide written documentation certifying that a location is an existing or potential future bus stop. Bus stop or shelter infrastructure shall be installed if requested by both LANTA and the Township.

e) The location and design of a bus stop, including conformance with other Chapters of the Township code and construction standards, shall be reviewed and approved by the Township.

f) On-Street parking and loading zones shall be prohibited or limited at the bus stop to avoid obstructing the curbside in the area of the bus stop and provide sufficient space for the bus to pull to the ADA loading pad, curb ramp, and/curb.

g) In curbside locations, a minimum of 60' of clear zone is required, with at least 10' ahead of the ADA loading pad and at least 50' behind the ADA loading pad in the direction of travel.

2) Bus stop infrastructure for fixed route bus stops shall be designed and constructed in accordance with ADA requirements.

3) *ADA Loading Pads*. An accessible loading pad shall be provided Adjacent to the curb or roadway edge where the front doors of a fixed route bus service open to receive and discharge passengers at a designated bus stop. A second loading pad located at the rear door of the bus may be required.

a) All ADA loading pads shall be provided at curb-height to accommodate bus wheelchair lifts and/or ramps. A Street-level ADA loading pad may be provided as an alternative with approval from the Township and LANTA.

b) All ADA loading pads shall be connected via an ADA accessible route to Adjacent pedestrian infrastructure, such as a Sidewalk or Shared-Use Path.

c) ADA loading pads may be integrated with the Sidewalk or other pedestrian infrastructure.

d) A stand-alone ADA loading pad with an ADA accessible route to the nearest roadway or public Right-of-way may be provided as an alternative with approval from the Township and LANTA.

e) A minimum clear area of the ADA pad for boarding and alighting, which is 5 feet measured parallel to the roadway and 8 feet measured perpendicular to the roadway, shall be provided and shall not be obstructed by utility poles, fire hydrants, Street furniture, overhangs, trees, shrubs, and similar obstacles.

f) Parallel to the roadway, the slope of the loading pad shall be the same as the roadway, to the maximum extent practicable. Perpendicular to the roadway, the slope of the loading pad shall not be steeper than 2%.

g) *Minimum construction standards*. The ADA loading pad shall have a firm, stable, and slip resistant surface, preferably concrete built consistent with the minimum construction standards for Sidewalks.

4) *Bus Shelters*.

a) A bus shelter shall be required at a bus stop if requested by both LANTA and the Township.

b) All aspects of the bus shelter shall comply with ADA requirements, including but not limited to access points, clearance and circulation within the shelter, and seating. Any benches or seating may not obstruct the required 30 inches by 48 inches clear floor space in the shelter.
c) The bus shelter shall be integrated with the ADA loading pad or connected to the ADA loading pad via an ADA accessible route.
d) A bus shelter includes a roof or canopy and may be enclosed on up to 3 sides with partial enclosure of a fourth side permitted for protection against wind or other weather elements. A bus shelter maybe integrated with the Structure of an Adjacent Building or externally attached.
e) For security and safety purposes, the side and rear panels of the shelter shall be constructed of a clear, shatter resistant material.
f) Bus stop passenger information signs may be provided within or on a bus shelter and shall be considered exempt from municipal sign requirements.
g) Any lighting for a bus shelter shall be installed in such a manner to provide adequate visibility during darkness for patrons of the transportation system. The lighting shall be installed in such a way so that the source of light shall be shielded from all Abutting residential properties and traffic along the roadway where the shelters are located. The lighting shall not conflict with any traffic control devices.
h) Bus shelters shall be installed and maintained according to the manufacturer's design specifications.
i) Bus shelters may be donated to LANTA for maintenance and operation purposes if agreed upon by both LANTA and the Applicant.
j) *Location.*
    (i) The shelter should be located near the front end of the bus stop zone so as to minimize the distance to access and board the bus.
    (ii) Concrete bus stopping/loading pad within the Cartway shall be required at the discretion of the Township Engineer.
    (iii) The shelter shall not obstruct the required minimum clear area of the ADA loading pad for boarding and alighting.
    (iv) The shelter shall be within 50 feet of the ADA loading pad.
    (v) The location of a bus shelter shall not interfere with horizontal clearance for access and maintenance, including pedestrian traffic along a Sidewalk or curb ramps. A minimum clearance of 5 feet shall be maintained around the shelter.
    (vi) The shelter, including roof or panels, shall be located a minimum of 5 feet from the curb or roadway edge.
    (vii) The location of the bus shelter shall conform to clear sight triangles and other minimum Sight Distance requirements for Driveways and Intersections. The shelter shall provide a clear view of the roadway and approaching bus.

(viii) *Dimensions.*

(a) The minimum clear floor area of 30 inches by 48 inches shall be provided within the perimeter of the shelter.

(b) A minimum 36-inch-wide accessible route must be provided from the shelter to the accessible boarding and alighting area(s).

(ix) *Foundation.*

(a) The bus shelter shall be anchored and attached to a concrete foundation with a slope that is not greater than 1:50.

(b) Specifications for the bus shelter and foundation shall be consistent with the manufacturer's specifications (if applicable) and approved by LANTA and the Township.

5) *Bus Stop Street Furniture.*

a) Bus stop Street furniture may include, but is not limited to, bus passenger benches, leaning rails, waste receptacles, and bicycle racks.

b) Bus stop Street furniture shall not obstruct the required minimum clear area of the ADA loading pad for boarding.

c) The location of bus stop Street furniture shall not interfere with horizontal clearance for access and maintenance, including pedestrian traffic along a Sidewalk.

d) The location of Street furniture shall conform to clear sight triangles and other minimum Sight Distance requirements for Driveways and Intersections.

e) Furniture shall be anchored securely to prevent unauthorized movement and shall be able to be relocated or replaced by those authorized to maintain the furniture.

f) *Bus Stop Passenger Benches.*

(i) Benches shall be ADA compliant in terms of dimensions and construction.

(ii) Benches shall be placed facing the roadway and outside of boarding and alighting areas and pedestrian routes.

(iii) Benches shall be installed on a firm, stable, and slip resistant surface.

(iv) Benches shall be located a minimum of 4 feet from the curb or roadway edge.

6) *Bus Stop Signs.* Bus stop signs, including bus stop location signs and bus stop passenger information signs, installed and maintained by the transit agency shall be permitted within the public Right-of-way and on private property and shall be considered a governmental sign.

7) *Bus Stop Passenger Information Signs.*

a) Bus stop information signs shall not obstruct pedestrian access routes or the required minimum clear area of the ADA loading pad for boarding and alighting.

b) Bus stop information signs shall be either mounted on the same post or pole as the bus stop signs or shall be integrated with the bus shelters.

8) *Bus Stop Maintenance.*

a) A Maintenance Agreement shall be signed by the Developer and LANTA to maintain and clean bus stops and keep all on-Site garbage cans cleaned, regularly cleared, and maintained.

§ 165-313 General Landscape Design Standards

A. *Buffer Yards.* See **§190-804, Special Lot and Yard Requirements, Sight Distance, and Buffer Yards.** All Buffer Yards as required by the Township through **§190-804** of **Chapter 190, Zoning**, shall be installed and maintained with the requirements of the Zoning Ordinance.

B. All planting shall conform with the **Good Landscaping Practices** document on file with the Township and ANSI A300 standards, and be subject to approval by the Township Lighting and Landscape Consultant and Shade Tree Commission.

§ 165-314 Street Trees

A. *General Requirements*

1) Within any new or revised Subdivision, or as part of any new or revised Land Development, Street Trees shall be planted along both sides of all Streets where existing Street Trees or natural wooded areas do not exist.
2) The proposed types and location of all Street Trees shall be shown on Subdivision and Land Development Plans and shall be subject to approval of the Township Shade Tree Commission.
    a) The Street Trees shall be located within the Right-of-way or within a landscape Easement.
        (i) When determining a Street Tree species, mature size must be considered, allowing for the right tree to be planted in the right space
            (a) When in a planting strip near a Sidewalk or where overhead utilities are present, mature height should not be greater than 35 feet.
            (b) When planting in an area where there are no Sidewalks, overhead utilities, or other substantial considerations, mature height must exceed 30 feet.
        (ii) If utilities, other conflicts, or PennDOT preferences do not allow Street Trees within the Right-of-way, Street Trees may be located outside of the Right-of-way within a landscape Easement and shall be approved by the Township.
3) If a Street is curbed, the trunk of Street Trees required under this section shall be set back a minimum of 2 feet from the curbline.
    a) Per §165-307, Streetscapes, Street Trees shall be within a Verge that meets the requirements of the Township's Streetscape standards.
4) If a Street is not curbed, then the trunk of the Street Tree shall be planted at least 3 feet from the edge of the Cartway and the shoulder of a Street.

5) Street Trees shall not be planted within 4 feet of a sewer lateral or water service.
6) Street Trees shall not be planted on Lot lines.
7) The Street Trees required under this section shall be in addition to any trees required under other Township regulations, including the requirements of **§190-603-H, Parking Lot landscaping**, in **Chapter 190, Zoning**,

B. *Street Tree Design.*
1) Where a row of trees exists, the Subdivision or Land Development shall be planned in a manner which will preserve it.
2) The minimum size shall be of a 2-inch Caliper per the measurement standards of the most recent edition of American Standard for Nursery Stock (ANSI Z60.2) and ANSI A300 Tree Care Standards.
3) An average of 1 Street Tree shall be installed for every 30 feet of Right-of-way, or as approved by the Township Lighting and Landscape Consultant and Shade Tree Commission in case of conflict with existing overhead or underground utilities. Spacing shall be evaluated by the Township Lighting and Landscape Consultant and Shade Tree Commission based on the tree species selected.
4) Standards in **Figure 6: Street Tree Variety Standards** apply.
5) Trees shall be planted in a repeating sequence of at least 3 different approved species (A, B, C), with the exception of when 2 or fewer trees are required, unless otherwise approved by the Township Lighting and Landscape Consultant and Shade Tree Commission.

Figure 6: Street Tree Variety Standards

Number of Required Trees	Variety	
	Minimum Number of Species	Maximum Percent of any 1 Species
1-2	1	100
3-9	3	60
10 to 24	6	50
25 to 44	9	40
45 to 99	12	30
100 or more	15	20

C. *Street Tree Standards.*

1) The permitted species of Street Trees are included in the **Approved Tree Species List.**
2) *Quality of Trees.* Trees to be planted shall be of symmetrical growth, with a clear single leader, free of insect pests and disease and durable under the maintenance contemplated.
3) *Planting and Maintenance.*
   a) Trees permitted shall be of symmetrical growth, free of insect pests and disease and durable under the maintenance contemplated.
   b) Trees which have died or have become diseased or pest-ridden within 18 months from the time of planting shall be replaced by the Developer.

§ 165-315 Preservation and Protection of Existing Vegetation

A. *Tree Preservation.*

1) The provisions of this section shall not apply to the following land use activities.
   a) Tree nurseries, Christmas tree farms, or commercial orchards.
   b) Forestry, commercial, which is regulated as a distinct land use.
   c) Cutting of trees on a Lot of less than 2 Acres that has a primarily residential use, after a certificate of occupancy has been granted.
   d) Cutting of trees of less than 3 inches in Diameter at Breast Height, except for those required by this Chapter.

B. *Tree Removal.*

1) The burden of proof shall be upon the Applicant to show that tree cutting or removal will be held to a reasonable minimum. Except as exempted within this section, trees with a Diameter at Breast Height of 6 inches or greater may only be cut down, killed, or effectively destroyed if such trees meet one or more of the following standards:
   a) In addition to other provisions of this section, a maximum of 5 trees with a Diameter at Breast Height of 6 inches or more on a Lot may be cut down in a 1-year period.
   b) The thinning of woods is specifically permitted, provided that selective cutting is used instead of clear-cutting, and provided that a maximum of 15% of trees 6 inches or more in Diameter at Breast Height in a Lot are cut down, and provided that the tree cutting is clearly intended to promote the healthy Development of the remaining trees.
   c) Trees may be cut down if the Applicant proves that it is necessary to allow reasonable Development of the Lot as part of an approved Development Plan or Building Permit (after considering reasonable alternatives, such as adjusting the location of a Building, Street or Driveway). For example, trees may be cut down where necessary in the following situations:

(i) The trees would be located within 10 feet of an existing or proposed uncurbed vehicle Cartway or stormwater detention basin or paved area or Streetlight or fire hydrant.

(ii) The trees would be located within 3 feet of an existing or proposed vehicular Cartway, parking area, vehicle shoulder, utility corridor, Sidewalk or Driveway.

(iii) The trees would be located within 25 feet of a proposed on-Site Sewage system or the structural walls of the new or expanded Structure.

(iv) The trees would be located within the area of proposed use that needs to be kept open, such as the fairway of a golf course.

(v) The locations of the trees would be affected by unavoidable significant Grade changes.

(vi) The trees would be an unresolvable Hazard to a public utility.

d) Existing trees may be removed when such trees constitute a Hazard to required Sight Distance or obstruct the visibility or effective operation of an official traffic control device, or as determined by the Township Lighting and Landscape Consultant.

e) Trees may be cut down if they are dead or are diseased or pest-infected beyond the point of recovery, as determined by the Township Lighting and Landscape Consultant.

f) Tree removal includes removal of the entire tree, including the grinding of the stump.

C. *Protection of Trees During Construction.*

1) Trees protected by this section shall not be intentionally or accidentally injured or destroyed, during any construction including root compaction by equipment and materials, mechanical damage or change in Grade level.

2) Tree Protection installation must be approved by the Township Lighting and Landscape Consultant prior to the start of any clearing, Grading, or other earth disturbance and monitored periodically. The tree Protection fencing shall be maintained by the Applicant while in place. It shall be removed after all earth moving and construction activities that may impact tree roots are completed, including contractor worker parking.

3) A tree Protection area shall be designated on Development Plans. This area to be protected shall include the outer limits of land areas (the Dripline) under the branches of trees.

4) *Fencing*. The tree Protection areas shall be separated from all construction, storage and vehicle areas by a substantial temporary Fence with a minimum 4-foot height.

a) Such Fence may include snow fencing or orange construction fencing.

b) The Fence shall be kept in good repair.

c) Such Fence shall be removed only after completion of the work.

5) The following shall not occur within the defined tree Protection area:

a) *Paving, other than Sidewalks*. Sidewalks shall be placed outside of the Dripline of a tree.
b) Storage of Building materials, equipment, debris or Fill.
c) Movement of motorized vehicles or equipment.
d) Grade changes or unnecessary compaction of soil.

6) If vehicles need to cross through areas of trees, a defined, Fenced path shall be established.
   a) The tree Protection area should be noted with prominent signs, such as "Tree Protection Area - Please Keep Out."
   b) Such Fences and signs shall be removed upon completion of the work.
7) The cutting of root systems of trees to be protected shall be minimized.
   a) When activity must occur under the Dripline of a tree to be protected, tunneling is recommended instead of trenching.
   b) Limbs should be trimmed or tied back if likely to be damaged during construction.
8) A concrete washout area shall not be located within or near to the tree Protection area.
9) Buildings and other features of a Development shall be laid out to maximize the Preservation of healthy mature trees. Building and paving areas should be designed so that trees are located within islands of sufficient size to accommodate the future growth of the tree species.
10) *Replacement of trees.*
   a) If tree(s) that were required by the Township to be protected and preserved are killed, removed or otherwise destroyed, then the Township shall require the property owner, Applicant, or Developer to replace such tree(s) with approved species of trees.
      (i) Trees shall be replaced on a per-diameter inch basis. For example, if a 10-inch Diameter-at-Breast-Height (DBH) tree is removed, 10 inches of new trees must be planted.
      (ii) Each replacement tree must be at least 2" in Caliper.
      (iii) These replacement trees shall be in addition to any trees required by other provisions of this Chapter.
      (iv) This replacement provision shall not limit the Township's ability to also seek fines or other enforcement actions and remedies under this Chapter or **Chapter 190, Zoning**.
   b) A fee-in-lieu may be accepted should the tree replacement be better suited for another location based on the discretion of the Township.
11) If the Township Shade Tree Commission should ever become inactive, then any responsibilities stated for such Commission in **Chapter 190, Zoning**, or this Chapter shall be assumed by the Planning Commission.

D. *Vegetation and Revegetation*. In addition to the erosion and Sedimentation controls required for the Protection of the land during construction, the following standards shall also apply:
   1) Vegetation shall be removed only when necessary, such as for the construction of Building, for the Filling of areas, and for the Development of roadways.
   2) Every effort shall be made to conserve topsoil which is removed during construction for later use on areas requiring vegetation or landscaping, e.g., cut and Fill slopes.
   3) Vegetation sufficient to stabilize the soil shall be established on all disturbed areas as each stage of Grading is completed.
   4) Either the Grading plan or a separate landscaping plan shall specify the revegetation and slope stabilization of all disturbed ground.
   5) All disturbed soil surfaces shall be stabilized or covered prior to the first Day of November.
      a) If the planned Impervious Surfaces (e.g., Streets, Driveways, parking Lots, etc.) cannot be established prior to November 1, a temporary treatment adequate to prevent erosion shall be installed on those surfaces.
   6) The property owner, Applicant, or Developer shall be fully responsible for any destruction of native vegetation proposed for retention.
      a) They shall carry the responsibility both of their own employees and for all subcontractors from the first Day of Grading until release by the Township.
      b) The Developer shall be responsible for replacing such destroyed vegetation.
      c) The use of qualified personnel experienced and knowledgeable in the practice of revegetation shall be required.

§ 165-316 Natural Features Preservation

A. In addition to the requirements of **Article V, Environmental Preservation**, of **Chapter 190, Zoning**, the following standards shall apply.

B. *Wetland Protection.*
   1) The presence of hydric soils may indicate the presence of Wetlands.
      a) When hydric soils are indicated or encountered on a Site, a Wetlands study should be conducted in accordance with the standards of the Federal Corps of Engineers Wetlands Delineation Manual (1987) to the satisfaction of the Township Environmental Consultant
      b) Should no such study be done, the location of soils on Site that are rated as hydric soils through Township, County, or State records, shall be assumed to be Wetlands for the purpose of this Chapter and shall be noted so on any associated plans.
   2) Wetlands as defined by the U.S. Army Corps of Engineers and the Commonwealth of Pennsylvania in accordance with Section 404 of the Federal Clean Water Act of the 1977

and the Pennsylvania Clean Streams Act shall be preserved in all Subdivisions and Land Developments.

a) Any necessary permits to work within any identified Wetlands shall be obtained at the earliest opportunity to determine the extent and location within the proposed Subdivision and/or Land Development.

3) Where Wetlands are associated with high-quality (HQ) or exceptional value (EV) waters, Steep Slopes, or Floodplains, the Township may require buffers of up to 100 feet.

a) Disturbance within Wetland buffers shall be prohibited except for:

(i) Regulated crossings

(ii) Utility installations where no alternative exists

(iii) Buffer restoration or enhancement may be required where degraded conditions exist. No removal of vegetation, except the selective removal of dead trees and/or other noxious vegetation within the Wetland buffer shall take place without the specific permission of the Township.

b) Required Building Setbacks as described in **Chapter 190, Zoning**, shall be measured from the edge of the Wetland buffer.

C. *Riparian Buffers and Corridor Management.*

1) See **§158-303, Riparian Buffers, of Chapter 158, Stormwater Management**. Riparian buffers and their associated Easements shall be established and maintained within the requirements of **Chapter 158.**

2) Unless otherwise required within **Chapter 158**, a 100-foot buffer (50 feet from each bank of the water body) shall be maintained along all intermittent or perennial water courses and ponds. This buffer area shall be known as the Riparian Corridor and the following standards shall apply.

§ 165-317 Erosion and Sediment Control

A. *General Standards.*

1) All erosion and sediment control measures, plans, and activities regulated by this Chapter shall comply with the requirements of 25 Pa. Code Chapter 102, as amended, and applicable PA DEP regulations and guidance, unless expressly stated otherwise herein.

2) Any Land Development or Subdivision that will involve the disturbance of more than 5,000 square feet of earth, or as otherwise provided under state regulations, shall be required to submit to the County Conservation District and the Community Development Director an Erosion and Sediment Control Plan that shows how the project will comply with applicable regulations of this section and 25 Pa. Code Chapter 102, as amended.

a) These PA DEP regulations are hereby made a part of this Chapter by reference.

(i) Any violation of such regulations or any violation of an approved erosion and Sedimentation control plan shall also be a violation of this Chapter.

b) The Township Engineer shall determine whether an earth-disturbance plan involving less than one acre shall be referred to the County Conservation District for review based on the nature and degree of potential risk, including proximity to a watercourse, wetland, floodplain, steep slope, karst feature, known drainage problem, environmentally sensitive area, contaminated property, or other Site-specific condition.

3) The PA DEP Erosion and Sediment Pollution Control Manual (March 2012), as included in Chapter 102, or its successor publications, shall be used as a resource in soil Protection planning and in the review of such plans.

4) The Township, in consideration of any Preliminary Plan for a Subdivision or Land Development, shall condition its approval upon the execution of measures designed to prevent accelerated soil erosion and resulting Sedimentation, as required by PADEP.

a) All applicable regulations and permit requirements of PA DEP as stipulated in its Erosion and Sediment Pollution Control Manual (March 2012), as included in Chapter 102, or its successor publications, shall be followed for all earth-moving activities.

5) The Landowner, Developer, and builder shall all be responsible for carrying out the requirements of the erosion and Sedimentation control plan during all earth-moving activities.

6) All areas of the Subdivision shall be stabilized by seeding or planting.

a) Slopes steeper than 15% shall be further protected by erosion control matting, which shall be adequately secured.

7) All construction activities proposing to disturb 1 Acre or more with point source discharge to surface waters of the Commonwealth, or projects disturbing 1 Acre or more of land must be authorized by a National Pollutant Discharge Elimination System (NPDES) permit.

8) No Subdivision or Land Development shall be approved unless:

a) There has been a plan approved by the Township that provides for minimizing erosion and Sedimentation, and an Improvement bond or other acceptable securities are deposited with the Township in the form of an escrow guarantee which will ensure the installation and completion of the required Improvements; or

b) There has been a determination of the Township that a plan for minimizing erosion and Sedimentation is not necessary.

B. *Performance Principles.*

1) Any appropriate action which minimizes erosion and Sedimentation as described in the Pennsylvania Erosion and Sediment Pollution Control Program Manual can be included in any erosion and Sedimentation control plan submitted to the Township.

a) Alternative methods should be discussed with the Township Engineer prior to the preparation of an erosion and sediment control plan.

2) No unfiltered stormwater coming from an area which has been disturbed shall be permitted to be discharged onto any Adjacent Tract, Parcel of land, or body of water.

C. *Responsibility.*

1) Whenever Sedimentation is caused by stripping vegetation, regrading, or other Development activity, it shall be the responsibility of the Applicant, Developer, or property owner, to remove it from all adjoining surfaces, draining systems, and Watercourses and to repair any damage at their expense as quickly as possible.

2) It is the responsibility of the property owner, Applicant, or Developer doing any act on or across a Stream, water-course, or swale or upon the floodplain to maintain, as nearly as possible, in its present state the Stream, Watercourse, swale, floodplain, or Right-of-way during the activity and then return it to its original or equal condition after such activity is completed.

a) Adjacent to the Watercourse, dominant vegetation shall be composed of a variety of native riparian tree and shrub species and appropriate planting necessary for Streambank stabilization.

3) Disturbed areas shall be re-vegetated with riparian corridor plants in accordance with best practice standards.

a) Areas that cannot be re-vegetated shall be restored using management practices accepted by experts qualified in riparian corridor management.

D. *Erosion and Sedimentation Controls for Grading*.

1) All Grading shall be done in conformity with the requirements of the PA DEP.

a) Reports and plans required to be submitted to this agency shall also be submitted to the Township even when the area involved is less than 25 Acres.

2) All slopes exceeding 3:1 shall be sown approved anti-erosion vegetation per the PA DEP Erosion and Sediment Pollution Control Program Manual (Technical Guidance Number 386-2134-001).

3) Adequate provisions shall be made to prevent surface water from damaging the cut face of Excavations and/or the sloping surface of Fills.

a) Interception and diversion facilities for stormwater and surface water runoff, both above and below the cut area during and after construction, shall be included in the design.

4) Fill shall be placed and compacted so as to minimize sliding or erosion.

5) Care shall be taken to prevent Sedimentation from entering natural Watercourses for existing Channels, and suitable Protection shall be provided for periods of possible flooding.

6) Approved anti-erosion devices shall be installed where directed to achieve this requirement.

E. *Construction Phasing.*
1) Earth disturbance shall be phased to minimize the extent of disturbed areas at any one time.
2) Unstabilized disturbed areas shall not exceed limits established in PA DEP Chapter 102 without justification and approval.

§ 165-318 Grading and Retaining Walls

In addition to the requirements found in **§ 190-507, Erosion Control and Grading** of the Zoning Ordinance, the following standards and requirements shall apply to all Grading activities within the Township.

A. *Purpose.* The purpose of this section shall be to:
1) Ensure that Grading enhances rather than detracts from or ignores the natural topography, resources, and amenities of the land and that Development shall be planned to fit the topography, soils, geology, hydrology, and other conditions existing on the proposed Site and oriented to the Site so that Grading and other Site preparation is kept to an absolute minimum
2) To provide minimum standards to safeguard persons and property;
3) To protect and to promote the public welfare by preventing excess erosion, Hazardous rock and soil slippage, sediment production, and other soil and water management problems;
4) To conserve the natural contours of the land in the Township by regulating and controlling the design, construction, quality of materials, use, location and maintenance of Grading, Excavation and Fill;
5) And to conserve existing trees and vegetation and preserve Excessive Slopes.

B. *Public Protection.*
1) *Dust control*. During Grading operations, necessary measures for dust control will be exercised.
2) *Cleanup*. All soil washed or carried onto public Streets during Grading operations shall be cleaned up each Day.
a) Temporary Driveway or Street surfaces shall be provided as soon as possible.
b) The owner of property being Graded shall be responsible to protect and clean up lower properties of silt and debris which have washed down onto the lower properties as a result of the Grading work on the higher property.

3) *Fencing*. At the top of all cut or Fill slopes which are to be steeper than 2 horizontal to 1 vertical, and 8 or more feet in total height, a Fence not less than 4 feet in height, and of a design meeting the approval of the Township Engineer shall be erected prior to the commencement of Grading operations. The maximum Fence height shall comply with **§190-818, Fences, Walls, Hedges,** of **Chapter 190, Zoning.**
4) *Hazardous conditions*. Whenever the Township Engineer determines that any existing Excavation, embankment, or Fill has become a Hazard as defined in this section, the owner of the property upon which the Excavation, embankment, or Fill is located, or other person or agent in control of said property, upon receipt of notice from the Township Engineer shall, within 24 hours or other reasonable period specified therein, repair, reconstruct, or remove such Excavation, embankment, or Fill so as to eliminate the Hazard.
   a) If, after such notification, the property owner, or his agent, has not made the necessary repairs, within the time specified, then Township employees or hired personnel may make the required repairs and the cost thereof shall be borne by the property owner.
      (i) Said costs to be collected in the manner provided by law, including the imposition of a lien against the property.
5) *Workdays*. None of the work or activity covered by a Grading permit shall be conducted on a Sunday or legal holiday without the approval of the Township. Hours of work shall be compliant with **§55-59, Hours of Work,** of **Chapter 55, Code Enforcement.**
6) *Diversion of water*. Grading shall not be done in such a way as to divert water onto the property of another Landowner, except into a natural Watercourse, without the written consent of that Landowner and in accordance with the approved plan for managing Stormwater Runoff on the Site.

C. *Environmental Protection.*
1) *Watercourse Crossings*. Grading equipment shall not be allowed to cross Watercourses.
   a) Provision shall be made for the installation of culverts or bridges for such crossings.
2) *Conservation of Natural features*. In order to prevent the denuding of the landscape, large trees and other natural features constituting important physical, aesthetic, and economic assets to existing or impending Development work shall be preserved.
3) *Excessive Slopes*. Excessive Slopes of 25% or more may not be Graded in order to minimize erosion and storm runoff to protect watersheds, to discourage erosion of soils by maintaining adequate foliage cover on Excessive Slopes; and to promote the perpetuation of Open Space on hillsides.
4) *Erosion and Sedimentation Controls for Grading*. See §165.317-D.

D. *Maintenance*.

1) The owner of any property upon which an Excavation or Fill has been made shall maintain in good condition and repair the Excavation Fill constructed and also all retaining walls, Cribbing, drainage Structures, Fences, ground cover, and any other protective devices as may be a part of the permit requirements.
2) If, at any time subsequent to the completion of the Grading work, the cut face or Fill slope shall evidence signs of deterioration, erosion, or other evidence which might be detrimental to the properties above and below the Graded Site, the Township may direct the property owner to take necessary remedial steps in accordance with sound engineering practice to restore the Grading to a safe condition, and to do so in a reasonable period of time.

E. *Specific Standards for Excavation.*
1) Recommended maximum slope steepness of a cut shall be 3 horizontal to 1 vertical for minimizing erosion.
   a) This maximum limitation is most desirable as it can be maintained as lawn area. However, a government review agency, Registered Professional Engineer, or Professional Geologist may recognize the types of soil on the Site to be Graded from the Soil Survey or a more detailed professional field analysis.
   b) Maximum slopes can then be determined as follows:
      (i) Slopes of less than 25% which have landslide-prone or unstable soils shall have cut slopes not steeper than 3 horizontal to 1 vertical unless a Soils Engineer's report recommends up to a maximum of a 2 horizontal to 1 vertical slope.
      (ii) Slopes of less than 25% which are not landslide prone or unstable, or have a low probability of being landslide prone shall have a slope not steeper than 2 horizontal to 1 vertical, unless a satisfactory Soils Engineer's report (including core borings) is submitted to the Township Engineer with the Grading plan, indicating that up to a 1:1 slope is structurally sound and erosion resistant.
         (a) In such case, a maximum of a 1:1 slope 20 feet in height may be permitted only in the commercial or industrial zoning districts, providing it is deemed aesthetically acceptable to the Township.
   c) Cut slopes which are steeper than 2:1 may also be allowed under a Grading permit through the utilization of retaining walls, with the approval of the Township.
      (i) The Developer must show that the slope-wall combination is absolutely necessary to develop the property.

F. *Specific Standards for Fill.*
1) *Gradients*.
   a) Fill not steeper than 3 horizontal to 1 vertical is desirable and is to be utilized whenever possible.

b) No Fill shall be made which creates a slope steeper than 2 horizontal to 1 vertical.
c) The Township may impose conditions requiring that a Fill be constructed with an exposed surface flatter than 2 horizontal to 1 vertical, if, under the particular circumstances involved, such flatter surface is necessary to stability and for the safety of persons and property.
d) If deemed necessary by the Township, a written report can be required from a Soils Engineer, certifying that he has inspected the Site and that the proposed Fill will not endanger any property or result in personal Hazard or property damage.
e) Filled slopes which are steeper than those specified above may be allowed under a Grading permit through the utilization of retaining walls, with the approval of the Township. The Developer must show that the slope-wall combination is necessary to develop the property. Requirements for retaining walls are in this Chapter.

2) Whenever a Fill is to be made of materials other than clean soil or earth, the Grading permit shall be subject to the following additional limitations and requirements:
a) No man-made material may be used as Fill except as approved by the Township Engineer.
b) The Fill shall be completed within a reasonable length of time as determined by the Township Engineer and so specified on the Grading permit.
c) Clean soil or earth shall be placed over the top and exposed surfaces of the Fill to a depth of 2 feet minimum to effectively conceal all materials used in the Fill other than clean soil or earth. If the Filling operation is intermittent, the Township Engineer may require that the top and exposed surfaces of the Fill be so covered at the completion of each such interruption.
d) No Grading permit shall be issued for the Filling of materials other than clean soil or earth until a financial security is provided as required in **§165-503, Financial Security**, of this Chapter.

3) No Fill of any kind shall be placed over trees, stumps, vegetation, topsoil, or other materials to prevent slippage and/or the attracting of rodents.
4) All Fill shall be compacted to provide stability of Fill material and to prevent undesirable settlement or slippage.
a) Fill shall be compacted using methods and equipment in accordance with County Conservation District standards and applicable PennDOT, UCC, and industry structural design standards.
b) Fill shall be constructed under the supervision of a qualified Soils Engineer who shall certify, in writing, as to the adequacy of the compaction and he shall submit results of the compaction tests to the Township.
5) The top or bottom edge of slopes shall, generally, be set back 3 feet from Adjacent property lines in order to permit the normal rounding of the edge without encroaching on

the Abutting property.

G. *Specific standards for retaining walls.*

1) When the topography and natural condition of the property is such that a ground slope of 2 horizontal to 1 vertical is not feasible, the Township may consider the submission of a Grading plan showing a retaining wall and ground slope combination that would be aesthetically acceptable.
2) Retaining walls must not interfere with sewer laterals or water service.
3) Criteria for the acceptance of such a combination shall as a minimum provide:
   a) That the retaining wall(s) not exceed a height of 6 feet. Any retaining walls over 4 feet exposed shall be preliminarily designed and detailed on the Plans. Retaining wall Plan(s) shall be signed and sealed by a Professional Engineer.
   b) That if the plan incorporates terracing, that the gradient of the slope between retaining walls not exceed 2 horizontal to 1 vertical and that the diagonal distance between walls be at least equal to the height of the retaining wall.
   c) Where a stable natural rock ledge is existing as established by a written statement from a Soils Engineer, a similar design of rock ledge and ground slope combination may be considered by the Township Engineer and the Planning Commission.
4) When a retaining wall is constructed to satisfy a requirement of this Chapter, a wall detail must be submitted reflecting sound engineering practices bearing the seal of a Registered Professional Engineer, architect or surveyor.
   a) A permit is required unless the wall detail is shown on a Site plan or similar construction plan which has been reviewed by the Township.
5) The backfilling of retaining walls and the insertion of subterranean drainage facilities shall be done strictly in accordance with the provisions of this Chapter and the applicable Township specifications, if any.
6) In general, where a wall is replacing an exposed slope, the vertical face of the wall shall be set back a minimum of 3 feet from the adjoining property.
   a) An exception to this requirement may be applied for and granted by the Township if it can be satisfactorily demonstrated that such an exception is necessary to permit normal use of the property, i.e., for a sideline Driveway, or other reasonable considerations.
   b) The requirement of this subsection may also be set aside when the proposed retaining wall is a joint venture between Adjacent property owners, and appropriate documents so stating are filed with the application for the permit.
7) The estimated construction costs shall be included in the improvements estimate as required in **§165-503, Financial Security**.

§ 165-319 Green Infrastructure, Stormwater Management, and Drainage

A. All Subdivisions and Land Developments shall comply with the requirements of **Chapter 158, Stormwater Management**. Stormwater management Site plans shall be designed, submitted, reviewed, and approved in accordance with the standards, criteria, and procedures set forth in **Chapter 158**.

B. *Site Drainage Plans.*

1) *General Requirements.* A Site drainage plan shall be prepared which illustrates the following information:
   a) Mapping of the watershed area or areas including existing and proposed Development is located.
   b) Calculations of runoff before and after Development for all points of runoff concentration.
   c) Complete drainage systems for the Development. All existing drainage features which are to be incorporated in the design shall be so identified. If the Development is to occur in stages, a general drainage plan for the entire Development shall be presented with the first stage and appropriate Development stages for the drainage system shall be indicated.
2) The existing points of natural drainage discharge onto Adjacent property shall not be altered without the written approval of the affected Landowners.
3) No stormwater runoff or natural drainage shall be so diverted as to overload existing drainage systems, or create flooding or the need for additional drainage Structures on other private properties or public lands, without approved provisions being made by the Developer for properly handling such conditions.
4) Storm drainage facilities shall be designed to convey through the Development the peak runoff that will ultimately occur from the watershed. The calculation of this runoff shall take into account the potential land use and Development including runoff controls in effect in a tributary area.
5) Where a Development is traversed by a Watercourse, there shall be provided a drainage Easement conforming substantially with the line of such Watercourse, and of such width as will be adequate to provide for unimpeded flow of storm runoff based on calculations made in conformance with standards promulgated in this chapter and to provide a freeboard allowance of 1/2 foot above the design surface water level. The terms of the Easement shall prohibit Excavation, the placing of Fill or Structures, and any alterations which may adversely affect the flow of stormwater within any portion of the Easement. Also, periodic cutting of vegetation and maintenance in all portions of the Easement shall be required.

6) Drainage facilities that are located on state highway rights-of-way shall be approved by PennDOT and a letter indicating such approval shall be provided to the Community Development Director and Township Engineer.
7) Where it is deemed necessary in the opinion of the Township Engineer to prevent increased runoff from a property to be developed, on-Site stormwater control measures shall be provided. The design of such facilities shall be attached to the plan and submitted to the Township Engineer for review and approval. Such facilities shall be owned, operated, and maintained by the owner.
8) When it can be shown to the satisfaction of the Township Engineer that, due to topographic conditions, natural drainage swales on the Site cannot adequately provide for drainage, open Channels may be constructed conforming substantially to the line and Grade of such natural drainage swales. Capacities of open Channels shall be calculated using the Manning equation or other acceptable engineering equation as approved by the Township Engineer.
9) Storm drainage facilities and appurtenances shall be so designed and provided as to minimize erosion in Watercourse Channels and at all points of discharge.
10) Inlets shall be spaced to collect design flows from the catchment areas allowing 10% maximum bypass. In no instance shall inlet spacing be greater than 400 feet.

C. *Green Infrastructure.*
1) The purpose of this section is to encourage the incorporation of Green Infrastructure practices, many of which are considered BMPs for stormwater management, riparian restoration, and climate adaptation, into new Land Development and redevelopment projects in the Township to:
   a) Improve stormwater quality and reduce pollutant loading to local waterways;
   b) Reduce the volume and rate of Stormwater Runoff entering the municipal stormwater system;
   c) Encourage natural hydrologic functions through infiltration, evapotranspiration, and reuse;
   d) Enhance Site aesthetics and environmental performance;
   e) Enhance biodiversity, heat island mitigation, and long-term resilience.
2) It is the intent of this section to supplement, not replace, the Township's stormwater management requirements found in **Chapter 158**.
3) The provisions of this section shall apply to:
   a) All Subdivision and Land Development applications, including redevelopment, excluding single family detached residential dwellings on individual Lots or across solely single-family home Subdivisions.

1. Single family detached dwellings may incorporate Green Infrastructure practices; however, they are not subject to the provisions or incentives of this section unless otherwise authorized by Township policy.

4) Applicants are required, if deemed feasible, to incorporate Green Infrastructure practices into Site design wherever Site conditions allow.
5) Green Infrastructure should be considered during:
   a) Preliminary Site layout and Grading design;
   b) Stormwater management system selection;
   c) Landscaping, parking, and Streetscape design.
   d) The Township encourages Green Infrastructure practices that are appropriately scaled, maintainable, and integrated into the overall Site design rather than treated as add-on features.
6) For regulated activities involving one acre or more of earth disturbance, the Applicant shall manage the first one inch of runoff from proposed impervious surfaces through infiltration, evapotranspiration, or reuse, unless the Applicant demonstrates to the satisfaction of the Township Engineer and Township Geotechnical Engineer that the requirement is technically infeasible or would create an unacceptable risk. Limiting conditions may include karst geology, high groundwater, contaminated soils, low-permeability soils, or other documented Site constraints.
   a) Nothing in this section shall require or encourage infiltration where infiltration is prohibited or determined to be unsafe under §165-322, Chapter 158, an approved geotechnical investigation, or the written recommendation of the Township Engineer or Township Geotechnical Engineer.
7) The following practices may be considered Green Infrastructure for the purposes of this section, where designed and constructed in accordance with accepted engineering and design standards and approved by the Township Engineer. This list is not intended to be exhaustive, and the Township may approve other functionally equivalent practices.
   a) Bioretention facilities and rain gardens;
   b) Bioswales and vegetated conveyance systems;
   c) Infiltration basins, trenches, and underground infiltration systems;
   d) Permeable or porous pavement systems;
   e) Green roofs;
   f) Tree canopy expansion, soil restoration, and amended planting areas designed to manage stormwater;
   g) Rainwater harvesting and reuse systems;
   h) Constructed Wetlands or other nature-based stormwater practices.
   i) This list is not intended to be exhaustive, and the Township may approve other functionally equivalent practices.

8) Applicants that incorporate Green Infrastructure practices as part of an approved Land Development or redevelopment Plan may be eligible for a credit or reduction to their municipal stormwater utility fee.
   a) Eligibility for a stormwater fee credit:
      1. Shall be determined separately from SALDO approval;
      2. Shall be subject to the requirements, calculation methods, and approval process established by the Township in effect at the time of application;
      3. Shall be contingent upon proper installation, operation, and long-term maintenance of the approved Green Infrastructure practices.
   b) Approval of a Subdivision or Land Development Plan that includes Green Infrastructure does not guarantee a stormwater fee credit, and no credit shall be granted unless formally approved by the Township under the applicable stormwater fee program.
9) Any Green Infrastructure installed as part of a Land Development or redevelopment project shall be:
   a) Maintained in good working order;
   b) Included in the project's operation and maintenance plan, if applicable.
10) Maintenance responsibilities for all Green Infrastructure shall remain with the property owner, Developer, or Homeowners' Association unless otherwise approved by the Township.

D. *Bridges and Culverts.*
   1) Bridges and culverts shall be designed and constructed with industry best practices in mind and in accordance with applicable PennDOT standards.
      a) The Applicant shall be responsible for obtaining any necessary permits for a new bridge or culvert.
   2) The minimum diameter of any cross-drainage or culvert pipe shall be 15 inches.
   3) Open culvert pipe ends must be fitted with concrete end walls or prefabricated end sections.
   4) All bridges and culverts shall be subject to approval by the Township Engineer.

E. *Curbing*
   1) Curbing shall be installed along all existing and proposed public and private Streets, common commercial Driveways, and common parking areas, and shall be constructed in accordance with the **Township's Standard Construction Specification**.
   2) Rolled curbs are not permitted.

F. *Drainage of Streets.*

1) To provide for adequate drainage, the minimum Grade of any Street gutter across an Intersection shall be not less than 2.0%, unless inlets connected to storm drain lines are provided to collect gutter flow on the upstream sides of the Intersection.
2) Parallel- and cross-drainage facilities shall be properly located, designed, and installed to maintain proper drainage of the completed Streets.
3) Proper design and construction in accordance with those requirements may require the use of curb and gutter or paved drainage swales to prevent erosion.
4) Drainage facilities shall be designed in accordance with requirements of this section.
5) The minimum diameter of any cross-drainage or culvert pipe shall be 15 inches.
6) Open pipe ends must be fitted with concrete end walls or wing walls or prefabricated end sections and with protective safety gratings.
7) No open pipes shall be allowed to end within the Township Street Right-of-way, except in cases where new Driveways must cross existing deep roadside swales Adjacent to existing Township Streets.
   a) In the case of these exemptions to the standard, the pipe shall be located as far off the edge of pavement as possible (at least 20 feet from the Street center line).
8) Energy dissipators shall be placed at the outlets of all pipes where flow velocities exceed maximum permitted Channel velocities, to the standards in PennDOT Publication 584 Drainage Manual.
9) Bridges and culverts shall be designed to support expected loads in accordance with applicable federal and/or state standards, to accommodate expected stormwater flows and to be constructed to adequate width in accordance with PennDOT standards.
10) Consideration shall be given for subgrade drainage of those soils subject to frost heave.
    a) The design of the roadbed in such locations may require parallel drainage facilities and/or underdrains to properly stabilize the subgrade.
11) The Board of Supervisors may require that such drainage facilities be provided. The design of such subgrade drainage facilities shall be subject to the review and approval of the Township.

G. *Post-Construction Stormwater Management (PCSM).*
   1) All BMPs shall be subject to long-term operation and maintenance requirements.
      a) An Operation and Maintenance (O&M) Plan shall be prepared and recorded;
      b) The responsible party shall be identified;
      c) Annual inspection and reporting may be required;
      d) Enforcement provisions shall be included in recorded agreements.
   2) Failure to maintain BMPs shall constitute a violation of this Chapter.

§ 165-320 Utilities

A. *Placement*. All utility lines, including but not limited to electric, communications, cable, broadband, and natural gas, within new Subdivisions and Land Developments shall be placed underground, except where the Board of Supervisors determines it is not feasible, and in accordance with the current standards of the utility serving the Subdivision or Development.
   1) Any natural gas distribution lines shall be placed underground.
   2) Final utility placement is subject to Township Engineer approval when conflicts arise with other required Improvements.

B. *Extending Utilities.* In extending lines to new Subdivisions and/or Land Developments within the Township, each cable operator shall accept from the Developer only those Easements which provide nonexclusive rights to operate a cable system within such Subdivision and/or Land Development.
   1) No such Easement shall prevent any other cable operator authorized to operate within the Township, then or in the future, from using such Easement to extend other and further lines to such Subdivision and/or Land Development.
   2) In each new Subdivision and each new Land Development, the Developer shall, upon notifying public utilities of the opportunity to serve such Subdivision or Land Development, also notify all cable operators licensed to operate a cable system in the Township of the opportunity to install cable facilities to serve the Subdivision or Land Development.
   3) Each owner of a separate Tract of land of record in such Subdivision or Land Development and all persons within the Township shall have the right to freely choose any cable operator permitted in the Township to serve such person with such cable operator's cable system.

C. *Changes Required by Public Improvements*. The cable operator shall, upon reasonable notice and at its reasonable expense, temporarily disconnect, relocate or remove from the Street or other public place any of its property when required by the Township by reason of traffic conditions, public safety, Street vacation, Street construction, installation of sewers, drains, water pipes, or any other type of Structure or Improvements by public agencies.

D. *Requests for Removal or Change.* The cable operator shall, on the request of any person holding a Building moving permit, temporarily raise or lower its wires to permit the moving of said Building.
   1) The expense of such temporary removal, raising or lowering of wires shall be paid by the person requesting the same, and the cable operator shall have the authority to require such payment in advance.

2) The cable operator shall be given not less than 15 Days' advance written notice of any move contemplated to arrange for temporary wire changes.

§ 165-321 Mobile Home Park Standards

A. *Applicability*

1) The requirements in this Article shall apply to a Mobile Home Park which is on a Tract held in single ownership and provides Mobile Home spaces on a lease or rental basis.
2) A Mobile Home Park proposed to be developed for sale of Lots shall be designed in accordance with all of the requirements for single-family dwelling residential Development
3) Every proposed Mobile Home Park shall be submitted, reviewed, approved, and recorded as either a Land Development or Major Subdivision.
4) Definitions. The terms "Mobile Home" and "Manufactured Home" have the same meaning.

B. *Exemptions*

1) The business of Mobile Home sales, except for accessory sales of Mobile Homes to be located within the Mobile Home Park.
2) The storage or garaging of Mobile Homes not being used for living or sleeping purposes within a Building or Structure.
3) A single Mobile Home used as a residence on a Lot with no other dwellings.
4) A Mobile Home located on the Site of a construction project, survey project or other similar work project and used solely as a field office in connection with such project, provided that such Mobile Home is removed from said Site within 30 Days after the completion of such project.

C. *General Provisions*

1) Each Mobile Home Park shall have access to a paved public Street.
2) A Mobile Home Park shall have a gross area of at least 5 contiguous Acres of land under the unified control of an owner/operator or a property owners association.
3) Mobile Home Parks shall not be located in any area subject to any Hazard or nuisance, such as excessive noise, vibration, smoke, toxic matter, radiation, heat, odor or glare; nor shall they be located on any soils classified by the U.S.D.A. Natural Resource Conservation Service as having a seasonal high water table within 24 inches of the surface or on any slope of 15% or greater.
4) All exposed ground surfaces shall be protected with a vegetative growth that is capable of preventing soil erosion and the emanation of dust during dry weather.

D. *Recreation Areas*

1) In all parks designed to accommodate 10 or more Mobile Homes there shall be one or more Recreation Areas, that are easily accessible to all park residents.
   a) The size of such Recreation Areas shall be not less than 10% of the total area of the Mobile Home Park.
   b) Recreation Areas shall be located so as to be free of traffic Hazards and should be centrally located and easily accessible by each Mobile Home Lot.

E. *Setbacks, Buffers, and Screening.*

1) All Mobile Homes shall be located at least 75 feet from the Right-of-way line of any public Street or highway, and at least 50 feet from any other park property boundary lines.
2) There shall be a minimum distance of 20 feet between an individual Mobile Home and the adjoining pavement of a park Street, common parking area or other common areas and Structures.
3) All Mobile Home communities shall be required to provide screening within a 20-foot buffer, such as fencing or natural growth, along the property boundary line separating the park from Adjacent uses.
   a) Buffer Yards shall meet the requirements of **§190-804.D** of the Zoning Ordinance.
4) Accessory Structures, including tool sheds, trash receptacles, patios, porches, garages and bike racks, may be erected within required Setback and buffer areas, provided that a fire lane of at least 10 feet in width is maintained, clear of all obstacles, on each side of each Mobile Home Lot.
   a) No Structures of any kind may be erected within 10 feet of the Mobile Home Lot line.

F. *Design Standards*

1) Mobile Homes shall be separated from each other, and from other Buildings and Structures, by at least 30 feet.
2) An enclosure of similar design and material to the Mobile Home itself shall be erected around the entire base of each Mobile Home.
   a) Enclosures shall be placed prior to occupying the Mobile Home.
3) *Common Walk System*. All parks containing 10 or more Mobile Homes shall be provided with safe, convenient, all-weather surfaced pedestrian Walkways between individual Mobile Homes, the community Streets, and all community facilities provided for park residents.
4) *Individual Walks*. All Mobile Home stands shall be connected to common walks, to paved Streets, or to paved Driveways or parking spaces connecting to a paved Street. Such individual walks shall have a minimum width of 2 feet.

G. *Access, Streets, and Parking*

1) There shall generally be at least 2 points of ingress and/or egress in each Mobile Home Park but no more than 2 accesses to a Mobile Home Park from any 1 public Right-of-way (emergency accesses excepted).
2) All Driveways to individual Mobile Home units along a public Right-of-way shall front on an interior access Street.
   a) Accesses to an individual Mobile Home Lot shall be separated by at least 150 feet where they intersect with a public Street.
3) All Streets within the Mobile Home Park shall be private and be maintained as part of the Mobile Home Park.
   a) All construction of Streets that serve a minimum of 20 Mobile Homes shall conform to the requirements for public Streets contained in this Chapter.
      (i) All construction of Access Drives and Driveways shall meet the requirements of this Chapter.
      (ii) Streets that serve a minimum of 20 Mobile Homes shall provide Street Trees in accordance with the requirements of this Chapter.
      (iii) Every Mobile Home Lot shall be provided with a minimum of 2 paved off-Street parking spaces.
         (a) In addition, 1 parking space shall be provided for each 2 Mobile Homes to serve as off-Street parking space for visitors and shall be installed in common and convenient locations.
         (b) An appropriate area shall be set aside for the parking of recreational vehicles of residents.

H. *Mobile Home Lots*

1) Every Mobile Home Lot shall be Graded to provide a level, stable and well-drained stand for the Mobile Home.
2) The area of a Mobile Home Lot shall be improved to provide a permanent foundation for the placement and tie down of the Mobile Home, thereby securing the Structure against uplift, sliding, rotation and overturning. Mobile Homes shall not be considered placed on a permanent foundation unless wheels have been removed and the home is resting on concrete piers to the frost level, a foundation of poured concrete, Block construction or a concrete slab.
3) A Mobile Home Lot shall not heave, shift or settle unevenly under the weight of the Mobile Home, due to frost action, inadequate drainage, vibration or other forces acting on the superstructure.
4) A Mobile Home Lot shall be provided with anchors and tie downs, such as cast-in-place concrete "deadmen", eyelets embedded in concrete foundations or runways, screw augers, arrowhead anchors, or other devices securing the stability of the Mobile Home.

5) Anchors and tie downs shall be placed at least at each corner of a Mobile Home Lot and each shall be able to sustain a minimum tensile strength of 2,800 pounds.

I. *Utilities*

1) Every Mobile Home space in the Mobile Home Park shall be provided with connections to an adequate supply of potable water and to a centralized Sewage Disposal System which conforms to the standards required in this Chapter.
2) An adequate off-Site supply of water shall be provided for Mobile Homes, service Buildings, and other accessory facilities, as required by this Chapter.
   a) The water supply shall be capable of supplying a minimum of 400 gallons per Day per Mobile Home, and the water distribution system shall be designed and maintained so as to provide a pressure of not less than 35 pounds per square inch under normal operating conditions, at service Buildings and other locations requiring potable water supply.
3) There must also be an adequate reserve supply of water at adequate pressure to meet firefighting needs as estimated by the Fire Commissioner.
   a) Any other applicable requirements of the Pennsylvania Department of Environmental Protection with respect to water supply shall also be met.
   b) Fire hydrants may be required at the discretion of the Township.
4) All Mobile Home Parks shall have an underground electrical/telephone distribution system which shall be installed and maintained in accordance with the local electric power company's specification regulating such systems.
   a) All connections from the meter box to the Trailer shall be installed by a qualified electrician and each Trailer shall have its own meter box.
5) *Liquefied Petroleum Gas (LPG) Systems*. Liquefied petroleum gas systems, when provided for a Mobile Home Park, shall be provided with safety devices to relieve excessive pressures with discharges terminating at a safe location.
   a) Systems shall have at least 1 accessible means for shutting-off gas located outside each Mobile Home, and which shall be maintained in effective operating condition.
   b) All LPG piping outside of each Mobile Home shall be well supported and protected against mechanical injury.
   c) Undiluted liquefied petroleum gas shall not be conveyed through piping equipment and systems in Mobile Homes.
   d) Vessels of more than 12 and less than 60 U.S. gallons gross capacity shall be secured to prevent accidental overturning.
   e) No LPG vessel shall be stored or located inside or beneath any storage cabinet, carport, Mobile Home or any other Structure.
6) *Fuel Oil Supply Systems*. All fuel oil supply systems, when provided in Mobile Home Parks, shall be installed and maintained in conformity with the following regulations:

a) All piping from outside fuel storage tanks or cylinders to Mobile Homes shall be securely fastened in place.
b) All fuel oil supply systems shall have shutoff valves located within 5 inches of storage tanks.
c) All fuel storage tanks or cylinders shall be securely placed and shall not be located closer than 5 feet from any Mobile Home Parking area or exit.
d) Storage tanks located in areas subject to traffic shall be protected against physical damage.

J. *Application to Existing Communities*
1) Extensions or enlargements of existing Mobile Home Parks by addition of land areas or increase in the number of available Lots shall fully comply with the provisions of this section, except to the extent which they would be modified by restrictive covenants approved by the Township for an existing contiguous portion of the park.
2) No new or replacement Mobile Home in an existing park shall be erected any closer than 20 feet to another home, Site, Structure, or property line; and on one side of the home there shall be maintained a completely open, unobstructed Yard of 10 feet in width for a fire lane.
a) No decks, parking areas, service Buildings, or other Structures shall be erected in said Yard.
b) All replacement Mobile Homes shall comply with the skirting and anchoring requirements applying to Mobile Homes in new parks.

§ 165-322 Karst Geology

A. *Purpose.* Palmer Township's topography may be defined as a karst topography due to the presence of carbonate rock that generally consists of dolomite and limestone. The limestone and dolomite are divided into formations. The carbonate formations present in Palmer Township consist of Epler, Rickenbach, Allentown, Jacksonburg, and Leithsville Formations. These formations are susceptible to the Development of solution cavities and sinkhole Development. Therefore, anyone considering developing property within the Township should be aware of the potential geological Hazards. The regulations contained herein are intended to minimize the risk of sinkhole occurrence in areas of new Development and on lands Adjacent to these Developments.

B. *Governance.* The regulations established by this section shall apply to all Land Development or Subdivision applications pertaining to commercial and industrial/office Structures, apartment complexes, and multiple single-family home Developments with 3 or more Lots.

C. *Exemptions.* All single-family homes and the alteration of single-family homes to include detached Structures such as garages, barns and swimming pools shall be exempt from the regulations established in this article.

D. *Specific Regulations*

1) All of the following specific requirements shall apply to Land Developments and/or Subdivisions covered by this article:
   a) No Buildings, Structures or stormwater management basin shall be placed in or over the following features if unremediated in accordance with the terms of this Chapter: sinkholes, closed depressions, lineaments, or faults.
   b) Building Structures and stormwater management basins shall be located no closer than 100 feet from the rim of unremediated sinkholes, and no closer than 50 feet from lineaments, faults, or closed depressions.
   c) Outflow from a stormwater management basin and/or post-Development stormwater flows shall not be directed to any of the following carbonate features: sinkholes, closed depressions, lineaments, or caverns.
   d) Lagoons containing substances defined as toxic and/or Hazardous by the Pennsylvania Department of Environmental Protection are not permitted.
   e) Storage and handling areas for Hazardous materials must have impermeable surfaces designed to contain materials stored/handled and from which they shall be directed to a predetermined collection point.
   f) The land application of Hazardous materials is not permitted.
   g) The underground storage of any Hazardous materials, except gasoline and diesel fuel, shall be prohibited.
   h) Groundwater monitoring devices approved by the Township are required for all facilities handling Hazardous materials.
2) The Township Board of Supervisors shall not entertain requests for waivers from the requirements listed above until a Carbonate assessment report, as required by the Chapter, has been supplied to the Planning Commission and the Township Engineer for their review and comment.

E. *Carbonate Assessment Report.*

1) All Land Developments and/or Subdivisions covered by this article shall be evaluated by a licensed Registered Professional Engineer with expertise in geotechnical engineering or a licensed Professional Geologist; each of said experts being licensed in their field of expertise by the Commonwealth of Pennsylvania.
   a) A list of the engineer's/geologist's qualifications shall be submitted to the Township prior to the commencement of the Site's evaluation.

b) The Township reserves the right to reject any report that in its opinion was authored by an individual or firm which does not possess the background to properly assess the Site conditions as they relate to this Chapter.

c) Further, the Carbonate assessment report submitted to the Township must be signed by the licensed Registered Professional Engineer with expertise in geotechnical engineering and/or a licensed Professional Geologist.

2) The format and content of the carbonate assessment report shall include, but not be limited to, the following:

a) *Statement of purpose.* This section shall indicate those specific Carbonate standards being addressed in the report and whether the Applicant is attempting to demonstrate compliance or justify noncompliance with those specific Carbonate standards.

b) *Description of existing conditions.* This section shall present a description of existing characteristics of the property with respect to geology, topography, ground and surface water hydrology, soils, vegetation, and existing Improvements and uses of property.

c) A map, at a scale no smaller than one inch = 100 feet and a contour interval of 2 feet, indicating the location of the property and all proposed Improvements.

d) The Developer/Applicant shall submit information for the affected properties, indicating the presence of any of the following carbonate features: depressions, fissures, lineaments, faults, ghost lakes, Bedrock outcrops, sinkholes, seasonal high-water levels, soil mottling, springs, surface drainage entering the ground, disappearing lakes or Streams and caverns.

e) A recommended plan for the repair or remediation of surface or subsurface features that may impact the proposed Development as well as the Adjacent improved or unimproved properties.

f) The information requested above shall be based upon previously published data and field surveys which may include test borings, Excavation of test pits, air-track probes, and geophysical methods.

3) In addition to the Carbonate assessment report, the Developer shall also be required to provide the following information:

a) A plan indicating the existing and proposed drainage conditions, locations of all proposed private and public Sewage Disposal Systems, and the location of existing private and public water supplies on adjoining properties that are locatable (within 1,000 feet of Applicant property).

b) Type, location and phasing of proposed Site disturbance and construction, as well as proposed future ownership, utilization and maintenance of the property and the proposed Improvements.

c) Proposed measures to control potential adverse environmental impacts on groundwater quality and stormwater management resulting from the Development and utilization of the property.

d) Plans describing the design and construction of the proposed stormwater management facilities proposed for the project. A description of the minimum requirements are outlined below.

F. *Minimization of Disturbance.*

1) Karst features shall be preserved in their natural state and protected from Grading, Filling, Excavation, or alteration.
2) A karst Protection area shall be established around each identified feature, the size of which shall be determined based on Site conditions and professional recommendation, subject to review and approval by the Township Engineer.
3) No Buildings, Streets, utilities, stormwater facilities, stockpiling of materials, or vehicle access shall be permitted within designated karst Protection areas.
4) Exceptions may only be granted where the Applicant demonstrates that no feasible alternative exists and where protective measures are approved by the Township Engineer.
5) Long-term management measures, including restrictions on future disturbance and maintenance activities, shall be noted on the recorded plan and included in applicable deed restrictions or Easements.

G. *Karst Swale Protection*

1) Karst swales shall be preserved and incorporated into Site design as undisturbed natural features.
2) Karst swales shall be located within designated conservation Easements or permanent undisturbed Open Space areas.
3) Karst swales shall not be modified, regraded, piped, or used as stormwater management basins, infiltration facilities, or engineered conveyance Channels.
4) Concentration of off-Site or on-Site Stormwater Runoff into karst swales shall be prohibited.
5) A vegetated buffer shall be maintained along karst swales, consisting of native grasses, shrubs, or other low-impact vegetation.
6) Clearing, mowing (except for limited maintenance), vehicular traffic, or placement of Structures within the swale or buffer area shall be prohibited.
7) Conservation Easements protecting karst swales shall be clearly shown on plans and recorded with the deed to ensure permanent Protection and long-term viability.

H. *Stormwater Management.*

1) All submissions for proposed Developments must include a Stormwater Management Plan prepared in accordance with adopted regulations and which limits surface water runoff and the intrusion of concentrated flow of surface water into the subsurface.
   a) Facilities that are required as part of the Stormwater Management Plan include the collection of all runoff from commercial, office and industrial Building roofs into storm drains by watertight gasketed joint conduits or adequately lined drainage swales and the collection of surface water flow on pavements into drop inlets connected to a watertight gasketed joint stormwater conduit or adequate lined drainage swales.
   b) The stormwater conduit must be discharged into lined detention basins.
2) Approved stormwater conduits include HDPE, PVC, concrete, steel and cast-iron pipe all with watertight rubber gaskets at each joint.
   a) The use of corrugated metal pipe is not permitted.
   b) Construction of the piping system must follow all other applicable Ordinances. Where rock is encountered at or above the planned conduit design Grade, the rock shall be undercut and over-excavated a minimum of one foot and backfilled with a compacted fine-grained soil.
3) All detention basins in areas of sinkhole-prone soil shall be lined.
   a) The liner used in a detention basin may consist of a clay liner, a composite synthetic and soil liner or a synthetic liner.
   b) The type of liner required shall depend on the condition of the detention basin bottom and the probability of sinkhole occurrence resulting from the construction of the detention basin.
   c) The use of low-flow Channel may also be required, depending on the duration and frequency of stormwater discharge into the detention basin.
   d) Subsurface detention systems must be in leakproof tanks or piping which follows the same standards of this section.
   e) The Township's Geotechnical Engineer shall make the final determination as to what is an acceptable form of liner for the proposed detention basins.
4) *Infiltration Restrictions.*
   a) Stormwater infiltration practices shall not be permitted within designated karst Protection areas unless supported by a geotechnical investigation demonstrating no increased risk of subsidence or groundwater contamination.
   b) All such designs shall be subject to review and approval by the Township Engineer and Geotechnical Consultant.
5) Additional items that must be included in the Stormwater Management Plan include details with regard to the sealing of all pavement curbs and gutters, manholes and drop

inlets.

I. *Sinkhole Occurrence and Remediation.*
   1) Any sinkhole forming during or after construction shall be reported to the Township within 24 hours.
   2) Repair methods shall be designed by a Registered Professional Engineer and may include reverse-Graded backfill, engineered support systems, or other methods approved by the Township Engineer.
   3) Permanent stabilization shall include low-permeability caps and positive drainage away from the feature.

J. *Conflict*
   1) In the case of conflict between this section and any other Township standard or requirement, the more restrictive provisions shall apply.

§ 165-323 Municipal Separate Storm Sewer System (MS4) Compliance

A. All regulated activities shall comply with the requirements of the Township's Municipal Separate Storm Sewer System (MS4) permit issued by the Pennsylvania Department of Environmental Protection (PA DEP), as amended.

B. Applicants shall demonstrate that proposed stormwater management systems:
   1) Meet applicable pollutant reduction requirements;
   2) Implement post-construction stormwater management (PCSM) practices consistent with the PA DEP Stormwater Best Management Practices Manual (2006, as amended);
   3) Achieve water quality treatment, peak rate control, and volume reduction requirements consistent with current regulatory standards.

C. Compliance with MS4 requirements shall be demonstrated as part of the Stormwater Management Plan submission.

ARTICLE IV - PLAN SUBMITTAL REQUIREMENTS AND PROCEDURES

§ 165-401 General Procedures

A. No plan of any Subdivision or Land Development shall be approved by the Board of Supervisors or their designee except in accordance with the procedures outlined in these regulations.

B. No Subdivision or Land Development shall be submitted to the Township for review except by the Landowner of such land or their specifically authorized agent. The application shall include proof of ownership or authorization. Such documentation may include a copy of the recorded deed, a fully executed agreement of sale, an option agreement, or a notarized letter from the Landowner designating the agent.

C. The provisions of this article establish minimum submittal requirements for various applications under this Chapter.

§ 165-402 Preapplication Meeting

A. Before submitting a formal application for any type of project, the Applicant is strongly encouraged to have an informal meeting with the Township Community Development Director, and other Township staff or consultants as deemed necessary by the Community Development Director, to introduce the proposed project to the Township.
   1) During this meeting, Township staff will provide guidance and assist the Developer in understanding Township regulations and determining the application's feasibility, suitability, and timing.
   2) A rough sketch of the Development proposal should be produced for discussion purposes only but will not be binding.
   3) The intent of this meeting is for the Applicant to obtain information and guidance from the Township before entering into any commitments or incurring substantial expenses with regard to the Site and the plan preparation.

B. *Relationship to Formal Review Process*. A preapplication meeting submission shall not be deemed the beginning of the time-period for review as prescribed by the Municipalities Planning Code. The preapplication conferences are intended to be advisory only and shall not bind the Township to approve any application for Development.

§ 165-403 Types of Plans

A. *Types of Plans.*

1) *Minor Plan.*

a) *Lot Line Adjustment.*

(i) A proposal for the adjustment of a common Lot line between 2 Abutting, existing, legally approved, and recorded Lots.

(ii) The land area of each Lot may be different after adjustment, but the gross Lot area of the 2 Lots will be unchanged.

(iii) No alteration will occur to the perimeter boundary lines of the 2 Lots.

(iv) Neither Lot shall violate the applicable dimensional requirements of **Chapter 190, Zoning**, as a result of the Lot line adjustment, unless a preexisting legal nonconformity exists on the Lot(s). In the case of a preexisting legal nonconformity, the Lot line adjustment shall not exacerbate the preexisting nonconformity.

b) *Minor Subdivisions.*

(i) A Subdivision plan where 2 or fewer Lots are proposed to be subdivided from a Tract of land or where land is being transferred to be combined with an existing Lot or Lots, creating one additional residential Building Lot, each of which will comply with the dimensional requirements of the applicable zoning district(s) in which the existing Lot is located.

(ii) The existing Lot has sufficient frontage on an existing, improved public Street to satisfy the applicable Township requirements for Lot frontage and access to a public Street for both proposed Lots.

(iii) The Subdivision will not require new Street construction, Street Improvements, or the extension of existing public utility lines.

(iv) The proposal will not involve significant stormwater and/or erosion control issues, as determined by the Township Engineer.

(v) From the same parent Tract in any 5-year period, the Minor Subdivision approval process shall not be used to create a total of more than two new Lots. If any additional new Lot(s) are proposed within such five-year period, then such additional Lots shall be required to meet the submittal and approval requirements for a Major Plan.

2) *Major Plans.* Projects that are not classified as a Minor Plan, including Land Developments and Major Subdivisions. These projects shall be reviewed according to a 2-step preliminary/final process, unless they meet the criteria for a combined Preliminary/Final Plan submission as noted in **Subsection B.3** below. After a Preapplication meeting is held and the Township determines that a project has met the definition of a Major Plan, a completed application submitted to the Township will be reviewed and approved according

to the Preliminary Plan process before moving on to Final Plan process review and approval.

B. *Types of Plan Submissions.* All applications for Subdivision and/or Land Development shall be classified as Sketch Plans, Preliminary Plans, Final Plans, or Preliminary/Final Plans.
   1) *Sketch Plans.* Applicants are encouraged to submit a pre-application Sketch Plan in accordance with the requirements of **§165-404, Sketch Plans**. A Sketch Plan may be filed in cases where only a portion of the property is currently proposed for Subdivision or Land Development to show how the immediate proposal can fit logically into an overall plan for the entire Site.
   2) *Preliminary Plans.* A Preliminary Plan is required to be filed for all proposals for Major Subdivision and/or Land Development in accordance with the requirements of **§165-405, Preliminary Plans**.
   3) *Preliminary/Final Plans.* Preliminary and Final Plans may be submitted concurrently for all proposals for Subdivision and/or Land Development that meet the criteria determined by the Township.
   4) *Final Plans.* A Final Plan is required to be filed for all proposals for Subdivision and/or Land Development in accordance with the requirements of **§165-407, Final Plans.**.

§ 165-404 Sketch Plans

A. *Purposes*. The purposes served by a sketch plan are as follows:
   1) To inform the Township of an Applicant's intent to subdivide and/or develop a property and graphically show the concepts and extent of the proposal.
   2) To allow the Township to provide non-legally binding advice and guidance to an Applicant so that:
      a) Overall layout and circulation issues can be resolved prior to preparation of Preliminary Plans.
      b) The Preliminary Plan approval process may then be able to proceed more efficiently.
   3) To show how a Tract of land may be further subdivided or developed in cases where only a portion of a property is currently under an active proposal.
   4) To offer the Applicant an opportunity to informally discuss their plans for the proposed Subdivision or Land Development with the Township Planning Commission.
   5) Sketch Plans shall have no legal standing with regard to the formal plan approval process mandated by the MPC but are recommended and will be considered as a tool for discussion and guidance regarding future Development issues.

B. *Sketch Plan Submission Requirements.*
   1) Sketch plans and all required supplementary data shall be submitted to the Township by the submission deadline posted on the Township website.
   2) Sketch plans for Major Plans shall also be submitted to the LVPC for review and comment.
   3) *Sketch Plan Submission Components.*
      a) Electronic submission of a completed application form.
      b) Electronic submission and 5 hard copy submissions all required plan information as detailed in **Plan Submission Checklist** unless the Community Development Director deems such information unnecessary for the specific project.
      c) The required application fee.
      d) The required Professional Services escrow and Professional Services Agreement.

C. *Sketch Plan Filing and Distribution.*
   1) The Community Development Director shall have 5 Days from plan submission to determine if the submission is complete. In the event a plan submission is determined to be incomplete, all submission documents will be returned to the Applicant.
   2) The Community Development Director shall distribute the complete application among the various Township departments and Township boards and commissions for review and comment pertaining to matters within the jurisdiction of such department as necessary.

D. *Sketch Plan Review Procedure.*
   1) The Township Planning Commission will consider a Sketch Plan submission at its next regular meeting provided that the submission is received by the Community Development Director by the submission deadline posted on the Township website.
   2) The Planning Commission shall review the sketch plan and provide advisory comments intended to assist the Applicant in the preparation of a preliminary or Final Plan. Aspects of the Sketch Plan that can be specifically evaluated include but are not limited to:
      a) The location of all areas proposed for disturbance (Streets, foundations, Yards, utilities, septic disposal systems, stormwater management areas etc.) with respect to notable features of natural or cultural significance as identified on the Applicant's plan.
      b) The potential for Street connections with existing Streets, other proposed Streets, or potential Developments on adjoining Parcels.
      c) The location of proposed access points along the existing Street network.
      d) The general location and extent of Open Space, preserved land, and Shared-Use Path system.
      e) The location and extent and configuration of Buildings, parking Lots, and common areas in multifamily and commercial Developments.
      f) The proposed Building density and Impervious coverage.

g) The compatibility of the proposal with respect to the objectives and policy recommendations of the Comprehensive Plan and other pertinent Township plans and studies.
h) Consistency with **Chapter 190, Zoning**.

3) In the event that an Applicant and/or his representatives are not in attendance at the meeting, the sketch plan review shall be conducted at the next scheduled Township Planning Commission meeting.

§ 165-405 Preliminary Plans

The procedure contained in this Section shall regulate the submission requirements, filing and distribution, and review procedures of Preliminary Plans for Subdivision and Land Development.

A. *Preliminary Plan Submission Requirements.*

1) Preliminary Plans and all required supplementary data shall be submitted to the Township by the submission deadline posted on the Township website.
2) *Submission Components.*
   a) Electronic submission of a completed application form.
   b) Electronic submission and 5 hard copy submissions all required plan information as detailed in **Plan Submission Checklist** unless the Community Development Director deems such information unnecessary for the specific project.
   c) Electronic submission of GIS Shapefiles of proposed Buildings and Lots.
   d) Proof of submission to the LVPC.
   e) Proof of submission to:
      (i) Utility companies, including the water and sewerage supplier, if applicable.
      (ii) PennDOT, if any proposed access onto a state road is required.
      (iii) County Conservation District, if any earth disturbance is proposed.
      (iv) U.S. Army Corps of Engineers, if the Site includes hydric soils, Wetlands, and/or regulated waterways.
      (v) PA DEP, if the Site includes hydric soils, floodplains, or Wetlands.
         (a) Where Wetlands, Streams, floodways, or other waters of the Commonwealth are present, the Applicant shall obtain all required water obstruction and encroachment permits in accordance with 25 Pa. Code Chapter 105 and Section 404 of the Clean Water Act. Proof of application and/or approval shall be submitted prior to final plan approval.
      (vi) Any other agency as required by state or federal law.
   f) The required application fee.
   g) The required Professional Services escrow and Professional Services Agreement.

B. *Preliminary Plan Filing and Distribution.*

1) *Applicant Filing and Distribution.* The Applicant is responsible for submitting their plans to outside agencies (see **Subsection A.2.d and A.2.e** above) and submitting comments received from those agencies to the Township.
2) The Community Development Director, or their designee, shall have 7 Days from plan submission to determine if the submission is complete. In the event a plan submission is determined to be incomplete, all submission documents will be returned to the Applicant.
3) The Community Development Director shall distribute the complete application among the various Township departments and Township boards and commissions for review and comment pertaining to matters within the jurisdiction of such department as necessary.
4) The Community Development Director, or their designee, shall provide a copy of application to Adjacent municipalities if the proposed Subdivision or Land Development is within 300 feet of their municipal boundary or would clearly have a regional impact upon another municipality as determined by Township staff.
5) The Community Development Director may forward the application to school districts and other official bodies as deemed necessary.

C. *Preliminary Plan Review Procedures*.

1) *Review Comments.* Comments from all reviewing bodies, including Township staff, Advisory Boards, and Adjacent municipalities and other bodies (as applicable) must be received by the Community Development Director no later than 7 Days prior to the Planning Commission meeting when it will be reviewed. The Community Development Director shall compile all comments and share with the Planning Commission.
2) *Planning Commission Review.*
   a) The Preliminary Plan shall be placed on the agenda of the Planning Commission for review based on the submission deadline on the Township website.
   b) The Planning Commission shall review the Preliminary Plan submission in a Public Meeting to determine conformance to the standards contained in this Chapter. The Planning Commission shall also review all comments received by Township staff, Advisory Boards, and other review bodies.
   c) Planning Commission Recommendation. The Planning Commission shall recommend, in writing, to the Board of Supervisors approval, conditional approval, or disapproval of the Preliminary Plan, along with the documented findings upon which the recommendation is based.
3) *Board of Supervisors Review.*
   a) Within 90 Days following the date of the regular meeting of the Planning Commission next following the date of the application, the Board of Supervisors shall, in accordance with the provisions of relevant Ordinances and considering the recommendations of the Planning Commission, take action by approving or

disapproving the Preliminary Plan. This time period may be extended upon the receipt of a written request for an extension of time from the Applicant.

b) The Board of Supervisors shall document the findings upon which that action is based and communicate them in a written decision letter to the Applicant within 15 Days from the date that the decision has been made.

c) *Approval.* If approved without conditions, then the Applicant shall then submit a paper copy of the approved plan, with all applicable signatures from private parties, for Township seal and signature.

d) *Approval with Conditions.* The Board of Supervisors may attach reasonable conditions to a Subdivision or Land Development approval to ensure the carrying out of the Comprehensive Plan, this Ordinance, other Township Ordinances and state laws and regulations.

(i) The Applicant shall be provided with the written decision letter outlining all conditions of approval imposed by the Board of Supervisors. Per Section 503(9) of the MPC, the failure to appeal the written decision letter within 30 Days shall be considered an acceptance of all of the conditions of the Board's approval.

e) *Disapproval.* When a Final Plan submission is disapproved, the decision shall specify defects found in the submission, shall describe requirements which have not been met and shall cite the provisions of the statute or Ordinance relied upon in each case.

D. *Public Notice.* When a Preliminary Plan application is to be reviewed by the Planning Commission, the Applicant must provide the following notice:

1) *Posted Notice.* Notice of the date and time of the meeting shall be posted by the Applicant on each Street frontage of the property involved for at least 14 consecutive Days immediately prior to and including the Day of the Planning Commission meeting. Such notice, based on the **Posted Public Notice Template** shall be clearly visible to the public.

a) Posted Notices shall be promptly removed after the date of the Township Planning Commission meeting.

b) *Proof of posted Public Notice.* The Applicant must provide photographic evidence of the posted Public Notice 14 Days prior to the Planning Commission meeting.

2) *Mailed Notice.*

a) Following confirmation of a complete application by the Community Development Director, the Applicant shall mail the notification contained in the **Mailed Public Notice Template**, to all property owners located within 300 feet of the property line of the Subdivision and/or Land Development. The original notice must be signed by the Community Development Director prior to copies being mailed to Landowners.

b) Notifications shall be mailed no later than 21 Days before the date of the Planning Commission meeting at which the Subdivision and/or Land Development is to be considered for the first time.

c) *Proof of Mailed Notice.* The Applicant must furnish the Township with a copy of the list of all property owners to whom notifications should be mailed prior or simultaneously with submission. Proof of mailing should be provided by supplying copies of the postmarked certified mail receipts. Proof of Public Notice is required a minimum of 3 Days prior to the Planning Commission at which the Subdivision/Land Development is to be considered.

E. *Effective Period of Approval.* Per Section 508(4) of the MPC, approval will be effective for a period of 5 years from the date of plan approval unless extended in writing by the Board of Supervisors.

1) No subsequent change or amendment to this Chapter or **Chapter 190, Zoning**, or other governing Ordinance or plan shall be applied to affect adversely the right of the Applicant to commence and to complete any aspect of the approved Development in accordance with the terms of approval within that 5-year period.

§ 165-406 Preliminary/Final Plans

A. An application for a combined Preliminary/Final Plan may be made at the election of the Applicant, the Township, or in the case of a Minor Plan.

B. In the case of a combined Preliminary/Final Plan for a Major Plan, the application must be submitted and reviewed pursuant to the requirements of **§165-405, Preliminary Plans**, and **§165-407, Final Plans**.

C. In the case of a combined Preliminary/Final Plan for a Minor Plan, the application must be submitted and reviewed pursuant to the requirements of **§165-408, Minor Plans**.

§ 165-407 Final Plans

The procedure contained in this Section shall regulate the submission requirements, filing and distribution, and review procedures of Final Plans for Subdivision and Land Development.

A. The Final Plan submission must be made within 5 years of the date of the Preliminary Plan approval, unless the Board of Supervisors grants an extension, in response to a written request which is submitted within 5 years of the date of the Preliminary Plan approval. If this time period is exceeded, the Preliminary Plan approval shall be considered void and a new Preliminary Plan submission will be required.

A. All Final Plans for Subdivisions and/or Land Developments shall consist of two parts, the Improvement Construction Plan and the Record Plan, and shall comply with the requirements of this Section. All required Improvements, E&S controls, and stormwater features shall be shown and highlighted in the Improvement construction plan and shall be colorized with a legend.
   1) The colorized plan shall be signed and sealed by the responsible design professional.
   2) Information shown on the Final Plans shall reflect the approved Preliminary Plans and all conditions of Preliminary Plan approval.

B. *Final Plan Submission Requirements.*
   1) Final Plans and all required supplementary data shall be submitted to the Township by the submission deadline posted on the Township website.
   2) *Submission Components.*
      a) Electronic submission of a completed application form.
      b) Electronic submission and 5 hard copy submissions all required plan information as detailed in the **Plan Submission Checklist** unless the Community Development Director deems such information unnecessary for the specific project.
      c) Electronic submission of GIS Shapefiles of proposed Buildings and Lots.
      d) Proof of submission to the LVPC.
      e) Proof of submission to:
         (i) Utility companies, including the water and sewerage supplier, if applicable.
         (ii) PennDOT, if any proposed access onto a state road is required.
         (iii) County Conservation District, if any earth disturbance is proposed.
         (iv) U.S. Army Corps of Engineers, if the Site includes hydric soils, Wetlands, and/or regulated waterways.
         (v) PA DEP, if the Site includes hydric soils, floodplains, or Wetlands.
            (a) Where Wetlands, Streams, floodways, or other waters of the Commonwealth are present, the Applicant shall obtain all required water obstruction and encroachment permits in accordance with 25 Pa. Code Chapter 105 and Section 404 of the Clean Water Act. Proof of application and/or approval shall be submitted prior to final plan approval.
         (vi) Any other agency as required by state or federal law.
      f) The required application fee.
      g) The required Professional Services escrow and Professional Services Agreement.

C. *Final Plan Filing and Distribution.*

1) *Applicant Filing and Distribution.* The Applicant is responsible for submitting their plans to outside agencies (see **Subsection A.2.d and A.2.e** above) and submitting comments received from those agencies to the Township.
2) The Community Development Director shall have 7 Days from plan submission to determine if the submission is complete and if it substantially departs from the approved Preliminary Plan
   a) In the event a plan submission is determined to be incomplete, all submission documents will be returned to the Applicant.
3) The Community Development Director shall distribute the complete application among the various Township departments and Township boards and commissions for review and comment pertaining to matters within the jurisdiction of such department as necessary.
4) The Community Development Director shall provide a copy of application to Adjacent municipalities if the proposed Subdivision or Land Development is within 300 feet of their municipal boundary or would clearly have a regional impact upon another municipality as determined by Township staff.
5) The Community Development Director may forward the application to school districts and other official bodies as deemed necessary.

D. *Final Plan Review Procedures.*

1) *Review Comments.* Comments from all reviewing bodies, including Township staff, Advisory Boards, and Adjacent municipalities and other bodies (as applicable) must be received by the Community Development Director no later than 7 Days prior to the Planning Commission meeting when it will be reviewed. The Community Development Director shall compile all comments and share with the Planning Commission.
2) *Planning Commission Review.*
   a) The Final Plan shall be placed on the agenda of the Planning Commission for review within 30 Days of the submission deadline on the Township website.
   b) The Planning Commission shall review the Final Plan submission in a Public Meeting to determine conformance to the standards contained in this Chapter. The Planning Commission shall also review all comments received by Township staff, Advisory Boards, and other review bodies.
   c) *Planning Commission Recommendation.* The Planning Commission shall recommend, in writing, to the Board of Supervisors approval, conditional approval, or disapproval of the Final Plan, along with the documented findings upon which the recommendation is based.
3) *Board of Supervisors Review.*
   a) Within 90 Days following the date of the regular meeting of the Planning Commission next following the date of the application, the Board of Supervisors shall, in

accordance with the provisions of relevant Ordinances and considering the recommendations of the Planning Commission, take action by approving or disapproving the Final Plan. This time period may be extended upon the receipt of a written request for an extension of time from the Applicant.

b) The Board of Supervisors shall document the findings upon which that action is based and communicate them in a written decision letter to the Applicant within 15 Days from the date that the decision has been made.

c) *Approval.* If approved without conditions, then the Applicant shall then submit a paper copy of the approved plan, with all applicable signatures from private parties, for Township seal and signature.

d) *Approval with Conditions.* The Board of Supervisors may attach reasonable conditions to a Subdivision or Land Development approval to ensure the carrying out of the Comprehensive Plan, this Ordinance, other Township Ordinances and state laws and regulations.

(i) The Applicant shall be provided with a written decision letter outlining all conditions of approval imposed by the Board of Supervisors. Per Section 503(9) of the MPC, the failure to appeal the written decision letter within 30 Days shall be considered an acceptance of all of the conditions of the Board's approval.

e) *Disapproval.* When a Final Plan submission is disapproved, the decision shall specify defects found in the submission, shall describe requirements which have not been met and shall cite the provisions of the statute or Ordinance relied upon in each case.

F. *Effective Period of Approval.* Per Section 508(4) of the MPC, approval will be effective for a period of 5 years from the date of plan approval unless extended in writing by the Board of Supervisors.

1) No subsequent change or amendment to this Chapter or **Chapter 190, Zoning**, or other governing Ordinance or plan shall be applied to affect adversely the right of the Applicant to commence and to complete any aspect of the approved Development in accordance with the terms of approval within that 5-year period.

G. *Dedications.*

1) The approval of the Final Plan by the Board of Supervisors shall not by itself constitute an acceptance of the dedication of any Street or other proposed public way, space, or area.

2) Any such acceptance of dedication shall only occur after formal action of the Township at such time.

3) As part of a Development Agreement, if the Board of Supervisors elects to accept lands offered for dedication, the submission shall be accompanied by duly executed instruments of conveyance to the Township. Such instruments shall state that the title thereof is free and unencumbered.

H. *Development in Phases.*

1) If requested by the Applicant, the Board of Supervisors may permit the undertaking of the required Improvements and the preparation of the Final Plan to be completed in a series of sections or stages, each covering a portion of the proposed Subdivision or Land Development as shown on the Final Plan. Each section in any residential Subdivision or Land Development, except for the last section, shall contain a minimum of 25% of the total number of dwelling units as depicted on the Final Plan for said Subdivision/Land Development previously approved by the Board of Supervisors. Further, the Applicant must submit a staging plan for said phased Development to be approved by the Township at the time of Final Plan approval.
2) If Final Plans are to be filed in sections or stages, each section or stage shall provide sufficient access, utilities and amenities to allow the Development to properly function if future stages are not built.
3) The boundaries of phases and the timing of related Improvements shall be subject to the approval of the Board of Supervisors.

§ 165-408 Minor Plans

A. Minor Plans may be filed and processed only for Lot Line Adjustments, Simple Conveyances, Minor Subdivisions, or Minor Land Developments per **§165-403, Types of Plans**, in accordance with the standards and requirements in this Section.

B. *Minor Plan Submission Requirements.*

1) All Minor Plans shall be submitted as a joint Preliminary/Final Plan and comply with the submission requirements of **§165-406, Preliminary/Final Plans**.
2) A Minor Plan that changes a property boundary or requires recording must include a recordable plan.
3) A Minor Plan that creates or adjusts a Lot line, conveys land, creates a new Lot, establishes an Easement, or otherwise requires recording shall include a Record Plan.
4) An Improvement Construction Plan shall be required when the Minor Plan includes construction or modification of an improvement requiring Township review, inspection, financial security, or an as-built submission.

C. *Minor Plan Filing and Distribution.*

1) The Community Development Director shall have 5 Days from plan submission to determine if the submission is complete. In the event a plan submission is determined to be incomplete, all submission documents will be returned to the Applicant.
2) The Community Development Director shall distribute the complete application among the various Township departments and Township boards and commissions for review and comment pertaining to matters within the jurisdiction of such department as necessary.

D. *Minor Plan Review Procedure.*

1) Minor Plans are reviewed administratively by the Community Development Director, Township Engineer, and Township staff.
   a) The Community Development Director may elevate a Minor Plan to Planning Commission and Board of Supervisors review where the Community Development Director determines that the proposal warrants review beyond the administrative level. In such cases, the application shall be processed in accordance with the procedures for Preliminary Plans.
2) The Community Development Director shall issue approval or disapproval within 90 Days after complete submission of the plan to the Township. If the 90-Day time period is exceeded without a decision by the Community Development Director, the plan shall be deemed approved unless the Applicant and Community Development Director agree upon a different time period in which to make a decision on the Minor Plan.
3) Any such decisions and findings upon which they were based shall be documented and transmitted to the Planning Commission and Board of Supervisors at their next regularly scheduled meeting.
4) Minor Plans that requiring Recording shall comply with **§165-410, Recording**.

§ 165-409 Resubmissions, Revisions, and Alternative or Multiple Plans

A. *Alternative or multiple plans.* Only one plan concerning any area of land shall be actively before the Township for review at any one moment in time.

B. *Resubdivisions.* A proposed resubdivision of a Final Plan approved by the Board of Supervisors shall be considered as a new Subdivision and shall come under the jurisdiction of this Chapter as such.

C. *Plan revisions.* The Township may consider changes to plans that are submitted as Preliminary, Final Plans, or Preliminary/Final Plans, if they are resubmitted in the following manner:

1) Submission Components.
   a) Electronic submission of a completed resubmission application form and submission requirements.
   b) Electronic submission and 5 hard copy submissions all required plan information as detailed in the Plan Submission Checklist.
   c) Additional review fees as may be required by the Township.

d) All plans or other supporting studies or materials being replaced by the resubmission shall be officially withdrawn from the filed application by the Applicant and will no longer be considered by the Township.
e) To allow adequate time for review of revisions, revised plan submissions shall result in the commencement of a new 90-Day review time period.

2) The resubmission shall constitute a new plan and be filed, distributed, and reviewed according to this Chapter, with the exception of:
a) If the Planning Commission determines that a revision of an approved plan is only to correct erroneous data or minor omissions, it shall not be considered a new plan but may instead be reapproved by the Board of Supervisors at a legally advertised meeting.

§ 165-410 Recording

A. The approval of a Final Plan by the Township is conditioned upon the Developer entering into a Development Agreement and providing Financial Security. Upon completion of said conditions by the Developer, the appropriate certifications and signatures must be affixed.

B. A recorded plan from the endorsed original ink tracing of the Development must be filed with the Northampton County Recorder of Deeds for all Subdivisions, Land Developments, and other Site plans as may be required by the Community Development Director.

C. Prior to recording, the Applicant shall present the approved plan to the LVPC for its stamp and seal.

D. Prior to recording, the Applicant shall present the approved plan to the Northampton County Geographic Information Systems (GIS) Division for approval of Uniform Parcel Identifiers and Street addresses.

E. The Recorder of Deeds shall not accept any plan for recording unless it contains the official approval of Board of Supervisors, or in the case of Minor Plans, the Community Development Director, and certification of review by the LVPC and the Northampton County GIS Division.

F. A reproducible mylar (or equivalent material) drawn to scale approved by the Township Engineer of a size approved by the Recorder of Deeds Office and the Final Plan, containing deed, book, volume and page numbers or docket ID number and signature of the County Recorder of Deeds must be returned to the Community Development Director.

G. The approved Final Plan must be made part of the Development Agreement. No Building Permit may be issued until the Development Agreement has been approved and signed by the Developer and appropriate Township officials.

§ 165-411 Special Studies

The following special studies or reports to be developed by qualified professionals may be required to support and justify Subdivision and Land Development proposals as required by this Chapter and **Chapter 190, Zoning**

A. *Traffic Impact Study.* As required per **§190-813, Traffic Impact Study**, in **Chapter 190, Zoning**.

B. *Stormwater Management Plans.* As required per **Chapter 158, Stormwater Management.**

C. *Carbonate Assessment Report.* As required per **§165-322-E, Carbonate Assessment Report**.

D. *Environmental Site Assessment.*

1) A Phase I Environmental Site Assessment (ESA) shall be required only when one or more of the following screening criteria are met.
   a) *Historic Industrial or Hazardous Commercial Use*. Any past or present use involving industrial activity, hazardous materials, fueling, auto repair, dry cleaning, waste handling, rail operations, mining, or similar uses.
   b) *Tanks, Spills, or Environmental Violations*. Presence or documented history of underground/aboveground storage tanks, petroleum releases, chemical spills, hazardous incidents, or regulatory violations.
   c) *Fill or Disturbed Land of Unknown Origin*. Evidence of imported fill, buried debris, ash, dumping, or significant ground disturbance not associated with normal agriculture.
   d) *Environmental Database Flags*. Listing of the parcel or adjacent parcels in federal or state environmental databases (e.g., UST/LUST, RCRA, CERCLA, Brownfield, hazardous waste, spill records).
2) The Township may require or waive a Phase I ESA when credible evidence indicates environmental risk or lack thereof, even if the above criteria are not explicitly met.
3) The Phase I Environmental Site Assessment (ESA) prepared by a qualified environmental professional and in accordance with the ASTM Standard E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
   a) Where the Phase I ESA identifies contaminated soils or environmental concerns, the Township may require additional study, including but not limited to a Phase II assessment, to the satisfaction of the Township Environmental Consultant.

4) The Applicant shall demonstrate compliance with the Pennsylvania Land Recycling and Environmental Remediation Standards Act (Act 2), including:
   a) Submission of a Phase II Environmental Site Assessment where warranted;
   b) Development of a Soil and Groundwater Management Plan;
   c) Documentation of disposal, reuse, or remediation of impacted materials;
   d) Worker health and safety protocols for handling contaminated materials.

E. *Impact Analysis.* An Impact Analysis shall be required for a Major Plan when the Community Development Director, following consultation with the Township Engineer and other applicable Township professionals, determines that one or more components of the analysis are reasonably necessary to evaluate a probable impact of the proposed Development.
   1) The required scope shall be provided to the Applicant in writing and shall identify each component required and the basis that requirement will to confirm that the scoping procedure and all thresholds comply with the MPC and are sufficiently objective for administration.
   2) *Purpose.* The purpose of the Impact Analysis is to ensure that Major Subdivision and Land Development applications are evaluated in a comprehensive, consistent, and objective manner with respect to their potential impacts on public infrastructure, services, environmental resources, and community character. This analysis is intended to assist the Township in understanding the full range of impacts associated with a proposed Development.
   3) *Requirements.* Required information for an Impact Analysis shall include:
      a) Off-Street parking requirements.
      b) Density/floor-area ratio.
      c) Maximum Building height.
      d) Geotechnical/stormwater runoff analysis (associated with Impervious Surface).
      e) Traffic (average daily trips and peak hour demand for both weekday and weekends based on conceptual Site Development Plan).
      f) Fiscal impact analysis projecting tax rate changes associated with the Township, the county and the school district.
      g) Student impact analysis projecting potential increase to school district population because of proposed Land Development.
      h) Estimated infrastructure (sanitary sewer and potable water) demands (gallons per Day).
      i) Estimated impacts to safety services (Police Department services, fire department services) based on proposed infrastructure (roadways) expansion.
      j) A summary of anticipated impacts on adjoining Lots, including, but not limited to, noise, vibration, night-time lighting, service area locations and visibility, hours of operation.

k) Depending upon the location of Lot access, infrastructure service/demands and impacts identified on adjoining Lots, the Board of Supervisors may require a Landowner and/or Developer to prepare other potential related studies.

l) Within the impact analysis, the application shall identify impacts that need mitigation.

F. *Threatened and Endangered Species Study.* All Major Plans shall include a current Pennsylvania Natural Diversity Inventory (PNDI) search receipt. Where potential impacts are identified, the Applicant shall:

1) Coordinate with applicable state and federal agencies.

2) Obtain clearance prior to final plan approval.

ARTICLE V – IMPROVEMENT CONSTRUCTION REQUIREMENTS AND PROCEDURES

§ 165-501 Applicability

Before the Final Plan is signed and made ready for recording, all Applicants are required to complete to the satisfaction of the Township or ensure the completion of all required public Improvements in the manner set forth in this Article.

§ 165-502 Completion or Guarantee of Improvements

A. The Applicant shall comply with the required Improvements construction requirements in the following ways:
   1) Complete all Improvements required by the Township for Final Plan Approval, in compliance with the requirements of this Chapter, and certify to that effect; or
   2) Provide proper financial security in a manner acceptable to the Township to ensure the completion of all Improvements, as required by this Article, in compliance with the MPC.

B. The work completed or guaranteed shall be in strict accordance with the conditionally approved plans and the requirements of this Chapter.

§ 165-503 Financial Security

A. In lieu of the completion of Improvements required for Final Plan approval, financial security, in an amount required, shall be guaranteed to the Township in compliance with Section 509 of the MPC. Such financial security shall assure the complete installation of all the required Improvements to be completed on or before the date fixed in the conditional plan approval and/or Development Agreement for completion of such Improvements.

B. The amount of such security to be posted for the completion of required Improvements shall be equal to 110% of the cost of completion. Annually, the Township may adjust the amount of the required financial security by comparing the actual cost of Improvements which have been completed and the estimated cost for the completion of the remaining Improvements as of the expiration of the 90th Day after the original scheduled date for completion or a rescheduled completion date.

C. Determination of the cost of the completion of Improvements used for setting the amount of financial security shall be based upon an estimate of the cost of completion of required Improvements submitted by the Applicant or Developer and prepared by a Registered Professional Engineer and certified to be fair and reasonable. The estimate of cost of completion shall be accompanied by a colored plan indicating the proposed Improvements that security will be provided for. The Township under recommendation of the Township

Engineer may refuse to accept the estimate for good reasons provided to the Applicant. If the Applicant or Developer and the Township are unable to agree upon an estimate, then the estimate shall be recalculated and recertified by another Registered Professional Engineer which is mutually chosen by the Township and the Applicant. The estimate certified by the third engineer shall be presumed to be fair and reasonable and shall be the final estimate.

D. When requested by the Applicant in order to facilitate financing, the Board of Supervisors shall furnish the Applicant with a signed copy of a written decision letter indicating approval of the Final Plan contingent upon the Applicant obtaining a satisfactory financial security. Final Plans will not be signed or recorded until the Development Agreement is executed. The resolution of contingent approval shall expire and be deemed to be revoked if the Development Agreement is not executed within 90 Days, unless a written extension is granted by the Board of Supervisors.

E. The Township, at its option, may accept financial security in the form of cash escrow placed with the municipality, irrevocable letter of credit, escrow account, or surety bond with a bonding company or chartered lending institution chosen by the party posting financial security provided said institution or company is authorized to conduct such business in the Commonwealth of Pennsylvania.

§ 165-504 Release of Financial Security

The Board of Supervisors may release all or part of the posted financial security as completion of Improvements proceeds, in compliance with the applicable requirements of the MPC.

A. *Partial Release of Security.* As the work of the installation of the required public Improvements proceeds, the party posting the financial security may request the Township to release or authorize the release, from time to time, such portions of the financial security necessary for the payment of the contractor or contractors performing the work. Any such request shall be submitted in writing and addressed to the municipality. Upon receipt of the request for release of a portion of the Improvement security, the municipality shall within 45 Days allow the Township Engineer to certify, in writing, that such portion of the public Improvements has been completed in accordance with the approved plan at which time the Township shall authorize the release to the Applicant or his designee by the bond company or lending institution of an amount of funds that the Township Engineer determines fairly represents the value of the work completed. If the municipality fails to act upon a request for release of security within 45 Days, the Township shall be deemed to have approved the full release of security as requested.

B. *Incomplete Improvements.* If the required Improvements are not completely installed within the period fixed or extended by the Board of Supervisors, the Board of Supervisors may, in its sole discretion, take one or more of the following actions:
   1) Declare the financial security in default and require that all Improvements be installed regardless of the extent of the Building Development at the time the agreement is declared in default;
   2) Suspend Final Plan approval until the Development Improvements are completed and record a document to that effect for the purpose of Public Notice;
   3) Obtain funds under the security and complete Improvements;
   4) Exercise any available rights established in the Development Agreement;
   5) Exercise any other available rights under the Pennsylvania Municipalities Planning Code.

C. *Post-Completion Security.* The Applicant shall be responsible for maintenance of all Improvements for a period of 18 months after final acceptance and certification of project completion.

D. *Landscaping Security.* The Applicant shall be responsible for the full replacement of all dead or diseased trees or shrubs for 18 months after final acceptance and certification of project completion. Final inspection of landscaping shall be performed while trees are fully leafed out– typically May 1 through November 1.

§ 165-505 Inspection of Work and Materials

A. *Notice.* The Township Engineer shall be notified 48 hours in advance of the commencement of any construction or installation operation, to schedule an inspection by the Township. Construction and installation operations shall also be subject to inspection by the Township during the progress of the work. The Applicant, Developer, or builder shall pay the reasonable and necessary expenses for inspections in accordance with the fee schedule established by resolution of the Board of Supervisors.

B. *Improvement Specifications.* All required Street Improvements should be constructed in accordance with the applicable provisions of the PADOT, Form 408, current edition, including the latest revisions and other applicable regulations. All other required Improvements shall be constructed in accordance with approved specifications found in this Chapter. If the appropriate standards are not provided in this Chapter, the following procedures shall be used.
   1) *Specifications*. The specifications will be furnished to the Applicant by the Township. If any of the specifications are unavailable at the Township office, the Township Engineer shall provide the applicable specifications.

2) *Sample of Materials.* During or after construction of any required Improvement, if the Township requires a sample of materials, said sample shall be furnished by the appropriate contractor, in a form specified by the Township Engineer.

C. *Delivery Slips.* Copies of all delivery slips for materials used in the construction of any storm sewers, sanitary sewers, Streets, curbs, Sidewalks, or any other facility within a Township Right-of-way or Easement or in areas proposed for future dedication to the Township shall be supplied to the Township.

§ 165-506 Off-Site Improvements

A. Certain Improvements beyond the geographical boundaries of a Site to be subdivided and/or developed, including but not limited to Street Improvements, may be requested by the Township, in accordance with Article V-A, Municipal Capital Improvement, of the MPC, where it can clearly be demonstrated that such Improvements have been made necessary solely through the additional burden imposed by the Subdivision and/or Development of the Site.

B. The Developer may also be requested to cover certain costs which must be incurred by the Township or other governmental jurisdiction in order to make these Improvements feasible. The legal and financial arrangements to cover costs of the off-Site Improvements shall be the same as those prescribed in **§165-503, Financial Security**.

§ 165-507 Conditions of Acceptance

A. *Conditions.* The Township shall have no obligation to accept dedication of any Street or other Improvement. The Township may consider acceptance of dedication, subject to approval by the Board of Supervisors, when:
   1) The required Improvements, utility mains and laterals, and monuments, shown on the approved plan or plans have been constructed to meet all requirements, and are free of defects or deterioration.
   2) It is established to the satisfaction of the Board of Supervisors that there is a need for the dedication of Improvements. A need for dedication may be established where acceptance of the Improvement is necessary to implement an adopted capital Improvement plan or to ensure long-term coordinated maintenance of public facilities.

B. *Acceptance.* The Township shall have no responsibility with respect to any Street or other Improvement, notwithstanding the use of the same by the public, unless the Street or other Improvement is accepted by the Township through the passage of a resolution adopted by the Board of Supervisors.

C. *Offer of Dedication*

1) The Applicant shall submit a written offer of dedication to the Township for the Streets or other Improvements, including the following:
   a) A Deed of Dedication covering the Improvements.
   b) A copy of a title insurance policy in an amount equal to the cost of any dedicated Improvements establishing Applicant's clear title to the property. The title insurance policy shall be current to within 30 Days of acceptance of dedication of any land or Improvements.
2) The items required above shall be submitted to the Township Engineer and Solicitor for their review and recommendations.
3) The Board of Supervisors may accept dedication of the Streets or other Improvements by passing a resolution to that effect.

§ 165-508 Guarantee of Completed Improvements

When the Board of Supervisors accepts dedication of required Improvements following their completion or certifies project completion, the Board of Supervisors may require posting of financial security by the Applicant to secure the structural integrity and functioning of these Improvements in accordance with the design and specifications as depicted on the approved Final Plan.

A. Said financial security shall be of the same type as otherwise required by **§165-503, Financial Security**.

B. The amount of financial security shall be 15% of the actual cost of installation of the Improvements.

C. The term of the guarantee shall be 18 months from the date of acceptance of dedication or certification of project completion.

§ 165-509 Private Maintenance of Improvements

Where the maintenance of Improvements is to be the responsibility of individual Lot owners, a homeowners' association or similar entity, or an organization capable of carrying out maintenance responsibilities, the Board of Supervisors shall require that maintenance responsibilities be set forth in perpetual covenants or deed restrictions binding on the Landowners' successors in interest, and may further require that an initial maintenance fund be established in a reasonable manner.

§ 165-510 Required Contracts, Easements, and Agreements

Before the Board of Supervisors shall cause its approval to be endorsed upon the Final Plans of any Subdivision or Land Development (except in the case of Minor Subdivisions wherein the Community Development Director approves), and as a requirement for the approval thereof, the owners shall enter into a Development Agreement with the Township in the manner and form set forth by the Township Solicitor which shall include but not be limited to the following:

A. To construct or cause to be constructed or installed, at the owners' expense, all Streets, curbs, Sidewalks, fire hydrants, Street lights, stormwater facilities, water and sewer facilities, Street signs, monuments, capped sewers, parks, landscaping, line painting, and other Improvements shown on the Final Plan when required to do so by the Board of Supervisors in accordance with the standards and specifications of the Township.

B. To maintain at the owners' expense all Streets, curbs, Sidewalks, stormwater facilities, water and sewer facilities, Street signs, parks, monuments, fire hydrants, Street lights, capped sewers, line painting, landscaping, and other Improvements, until the same are accepted or condemned by the Township for public use, and for a period of 18 months thereafter to repair and reconstruct the same or any part of one of them when such repair or reconstruction shall be specified by the Board of Supervisors as necessary by reason of faulty construction, workmanship, or materials, or the structural integrity or functionality of the Improvements is not satisfactory as determined by the Township Engineer.

C. To pay all costs, charges, or rates, of the utility furnishing electric service for the lighting of the Streets on or Abutting said Subdivision, from the lights installed by the owner, until such time as the Streets shown on the Subdivision plans shall be accepted as public Streets of the Township by resolution, and to indemnify and hold harmless the Township from and against all suits, actions, claims, and demands for electric service to the Streets shown on said plans, or any part thereof, to the time that said Streets shall be accepted as public Streets of the Township in the manner hereinabove set forth.

D. Pay the inspection fees required by the Township.

E. To obtain the Easements and releases required when any Street, drainage facility or other Improvement wherein a Subdivision Abuts or traverses land of persons other than the person holding legal title to the lands of the Subdivision at his own cost, and obtain from the owner of the lands so Abutted or traversed full releases from all damages which may change in Grade, construction, or other-wise, of the Street, drainage facility or other Improvements and

such releases shall insure to the benefit not only of the owner of the Subdivision but to the Township as well.

F. To promptly remove or cause to be removed snow from the Streets as may be required for safe traverse of the Streets prior to dedication.

G. To promptly reimburse to the Township reasonable Solicitor's and Engineers' fees.

H. Such other provision(s) as deemed necessary or desired by the Board of Supervisors.

§ 165-511 As-Built Survey and Plan

Originals and one set of prints of as-built plans, including Lot-by-Lot as-built plans, along with a digital copy of the as-built plans in PDF and AutoCAD format must be submitted for approval for any projects with public Improvements. The as-built plans must contain the following information:

A. *General.* Plan name, owner/Developer name and address, graphic scale, north arrow.

B. *Certification.* Signature and seal of plan preparer, a note stating that "All storm sewer construction was located within a dedicated Right-of-way or in an Easement for that purpose and the information shown on this plan was obtained from a survey conducted in the field."

C. *Property information.* Lot lines, Street Rights-of-way, all Easements with ties to property lines.

D. *Roadway.* Width and Cul-de-sac radius.

E. All Subdivision monuments with state plane coordinates.

F. *Storm sewers.* Show all Structures with top and invert elevations, indicate any drop connections, indicate pipe diameter, material, slope, segment length, service tap locations stationed from the nearest downstream manhole.

G. *Stormwater management/detention.* Show all detention facilities with as-built topography at an interval appropriate for the stormwater facility. Surveyed spot elevations shall be required at all critical features. Detail the as-built outlet Structure, calculate and show the storage volume below the emergency spillway, show all permanent swales, ditches, and rock aprons.

H. All utility line locations with approximate distance from back of curb.

I. A closed-circuit television inspection of the storm sewer system in accordance with Professional Assessment Certification Program (PACP) guidelines.
   1) All inspections shall use the current PACP coding standard and defect catalog in effect at the time of the assessment.
   2) Deliverables shall include PACP-compliant digital video files, observation logs, defect codes, and GIS-readable asset data exported in National Association of Sewer Service Companies (NASSCO)-approved formats.
   3) Submissions will be accepted only when all observations, codes, and metadata conform to PACP requirements and pass validation using NASSCO's standard quality-control tools.

J. A receipt for all charges and fees required to be paid to the Township.

ATTEST:

I do hereby certify that the foregoing is a true and correct copy of Palmer Township's Subdivision and Land Development Ordinance, which will be considered for adoption by the Palmer Township Board of Supervisors on December 7, 2026.

Date: October 7, 2026

Craig S. Beavers, AICP

Director of Community Development

Palmer Township, Northampton County

Community Development Department Report

INFORMATION

Commissioners' Reports

INFORMATION