

TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801
Telephone: 814-238-4651 • Fax: 814-954-7642
www.twp.ferguson.pa.us

FERGUSON TOWNSHIP PLANNING COMMISSION REGULAR MEETING AGENDA

Monday, June 14, 2021

6:00 PM

Zoom Meeting

<https://us02web.zoom.us/j/83268113138>

Meeting ID: 832 6811 3138

- I. Call To Order
- II. Citizen Input
- III. Approval of Regular Meeting Minutes
 - A. May 24, 2021
- IV. Unfinished Business
 - A. Land Development Plans - West College Avenue Student Housing Final Land Development Plan

Narrative:

This land development plan proposes a 6-story multi-family residential apartment building with commercial/retail space on the first floor. The building will consist of two subsurface floors of underground parking, with the ground floor containing commercial/retail space and 5 floors of multi-family residential apartments. There will be 96 residential units with 268 beds and 5,976 square feet of non-residential spaces proposed. The ground floor area is 29,571 square feet with 28,483 in Ferguson Township and 1,088 square feet in the Borough of State College.

The plan proposes 165 parking spaces, 151 of which will be located in the parking structure. The remaining will be located in the rear of the building on the ground level. A variance was granted on February 25, 2020 to allow parking on first floor of the building. A private street agreement was drafted and agreed upon to ensure proper development and maintenance of Calder Alley between Buckhout Street and Butz Street. The West College Avenue Student Housing Preliminary Plan was approved by the Board of Supervisors on April 5, 2021

Planning Commission is asked to review and comment on the Final Land Development Plan. Staff recommends the Planning Commission recommend to the Board of Supervisors to approve the West College Avenue Student Housing Final Land Development Plan.

Recommended Motion: The Planning Commission recommend to the Board of Supervisors approval of the West College Avenue Student Housing Final Land Development Plan, pending outstanding comments.

- V. New Business
- VI. Official Reports and Correspondences
 - A. Board of Supervisors
 - B. CRPC Report
 - C. Land Development Plans
 - D. Staff Updates
- VII. Adjournment

**FERGUSON TOWNSHIP PLANNING COMMISSION
REGULAR MEETING MINUTES
MONDAY, MAY 24, 2021
6:00 PM**

ATTENDANCE

The Planning Commission held its second meeting of the month on Monday, May 24, 2021, as a virtual meeting. In attendance:

Commission:

Jeremie Thompson – Chair
Jerry Binney – Vice Chair
Rob Crassweller - Secretary
Shannon Holliday
Bill Keough
Dr. Ellen Taricani
Lewis Steinberg - Alternate
Qian Zhang - Alternate

Staff:

Jenna Wargo, Planning & Zoning Director
Kristina Aneckstein, Community Planner
Jeff Ressler, Zoning Administrator

Others in attendance: Rhonda Demchak, Recording Secretary; Steve Seltzer, Project Coordinator, BTJM Orchard View LLC., Craig LeCrone, President, LeCrone Properties

I. CALL TO ORDER

Mr. Thompson called the Ferguson Township Planning Commission's regular meeting to order on Monday, May 24, 2021 at 6:00 p.m. Mr. Thompson noted that the Planning Commission meeting had been advertised in accordance to the PA Sunshine Act as a virtual meeting via Zoom. There was also an audio conference bridge that was accessible by dialing the Ferguson Township's main line at 814-238-4651 and then dialing extension 3799. Persons attending the meeting as members of the public and wanted to participate were asked to enter their name, municipality, and topic by utilizing the Q&A bubble at the bottom of the screen. C-NET is recording as well.

Ms. Wargo took roll call and the Planning Commission had a quorum.

II. APPROVAL OF REGULAR MEETING MINUTES MAY 10, 2021

Mr. Keough noted that his motion for the Centre Animal Conditional Use Application was incorrect and asked the Recording Secretary to review the language via the C-Net recording.

Mr. Binney moved that the Planning Commission **approve** the minutes of May 10, 2021. Mr. Keough seconded the motion. The motion passed unanimously.

III. CITIZEN INPUT

None.

IV. LAND DEVELOPMENT PLANS

A. BTJM Orchard View LLC Conditional Use Application

Ms. Aneckstein presented the application and noted that it is included in the agenda is a Conditional Use Application from BTJM Orchard View LLC located at 179 Apple View Drive (24-004-,067G,0000-), submitted to the Planning and Zoning Department on May

6, 2021. The property is located in the Single-Family Residential (R1) Zoning District and a Model Home is a Principal Use by Conditional Use in this district on lots with a minimum lot size of 10,000SQFT. 179 Apple View Drive is approximately 0.460 acres (20,037 SQFT). Upon review by Township Staff, the proposed Model Home is meeting the conditional use criterion provided in §27-502.24. Therefore, approval of the conditional use permit is being recommended. Staff is also recommending placing the following conditions on the permit:

- Approval of a model home sales office shall be before a two-year period. Upon the expiration of the two-year period, the model home sales office shall be terminated, and the structure shall be converted to a residential home. Extensions may be granted by the Zoning Officer in one-year increments and up to a maximum of three additional years or until 90-percent of the development is sold, whichever is less.
- The model home sales office is to be used only for transactions involving the sale, rental, or lease of lots or structures within the subdivision or tract in which the model home sales office is located.
- Flags, pennants, or other on-site advertising shall be regulated in accordance with the Township's Sign Ordinance. The use of signs shall require a separate exhibit accompanied by the appropriate fees and application for review and approval by the Sign Officer prior to installation.

A Conditional Use Hearing has been scheduled for the Board of Supervisor's Meeting on June 7, 2021.

Mr. Thompson reminded the Commission that they are only discussing the Conditional Use Application for the parcel of land.

Mr. Crassweller questioned the 90% rule and asked if it is for the sale of the lots or houses. Also, inquired about the garage and if it will be utilized as an office or an actual garage to park two cars. Mr. Steve Seltzer, Project Coordinator, BTJM Orchard View LLC, stated that they do not sell lots, but sell houses. With regards to parking, Mr. Seltzer noted that they don't anticipate a problem with parking and indicated that there will be one employee in the model home at a time.

Ms. Aneckstein stated that since the plan was approved, she has received a lot of calls about availability. Ms. Aneckstein noted that they will be under contract to build and will not be able to hold onto the lots.

Mr. Keough inquired about the two-year expiration date and when did the two-years first start. Ms. Wargo indicated that it would be when occupancy is issued. Mr. Ressler concurred, and the expiration date will start when the occupancy is issued. Mr. Keough asked if there has been any thought on utilizing solar energy. Mr. Seltzer stated that solar will be permitted and will have a solar package available for homeowners to purchase.

Mr. Crassweller moved that the Planning Commission **recommend** to the Board of Supervisors approval of the Conditional Use Application for BTJM Orchard View LLC to operate as a Model Home at 179 Apple View Drive with the conditions outlined in Township Staff's Exhibit #1 as included in the agenda packet. Ms. Holliday seconded the motion.

Mr. Keough suggested adding to the motion the language about the expiration date and

the lots.

Mr. Crassweller modified the motion that the Planning Commission **recommend** to the Board of Supervisors approval of the Conditional Use Application for BTJM Orchard View LLC to operate as a Model Home at 179 Apple View Drive with the conditions outlined in Township Staff's Exhibit #1, also include that once occupancy is issued the expiration date starts and that lots are not permitted to be held. The motion passed unanimously.

V. COMMUNITY PLANNING

A. Zoning Ordinance Amendment Request

Ms. Aneckstein presented the request and noted that on April 30, 2021, Craig W LeCrone submitted an Application for a Proposed Ordinance Amendment. The proposed change is to §27-205-.13, General Commercial Zoning District to allow Self-Service Storage Facilities as a permitted use. The applicant states that Self-storage facilities are a commercial-oriented use and would fit in the General Commercial zone. Ms. Aneckstein noted that there has not been a plan submitted yet.

Dr. Taricani noted that the Township needs more self-storage units.

Mr. Thompson stated that it would be more aesthetically pleasing in another district and is not sure he would support the request. Mr. Keough also shared the same concern as Mr. Thompson and would be interested in learning more of the vision from the developer.

Mr. LeCrone noted that he plans on single story buildings with landscaping.

Mr. Keough inquired about landscaping requirements within the commercial area. Mr. Ressler stated that there are Corridor Overlay District Requirements. Mr. Keough would like to see developers get more creative with regards to lot appeal.

Mr. Thompson clarified his stance and noted that he trusts that the design would be good, but he is concerned with the placement.

Mr. Keough questioned the staff if 10,000 square feet is an adequate amount. Ms. Wargo noted that there was a typo and it should be 20,000 square feet as the minimum.

Mr. Binney moved that the Planning Commission **recommend** to the Board of Supervisors approval of the Application for a Proposed Ordinance Amendment to §27-205.13 to allow Self-Storage Facilities as a Permitted Use within Area and Bulk Category 4. Dr. Taricani seconded the motion. The motion passed 5-1 with Mr. Thompson opposing.

VI. OFFICIAL REPORTS AND CORRESPONDENCES

A. Board of Supervisors

Ms. Wargo noted that report is included in the agenda for the May 17, 2021 meeting. The Centre Animal Hospital Conditional Use was presented. The Board reviewed the Self-Service Storage Facilities request.

With regards to hours, Mr. Keough asked what the final outcome was from the Board

of Supervisors with the animal hospital. Ms. Wargo stated that the Board agreed and approved that the hospital would not be run as a 24/7 facility.

B. CRPC Report

Dr. Taricani reported that they did not have a meeting.

C. Land Development Plans

Ms. Aneckstein reported that they are reviewing the second submission of the Final West College Student Housing Plan. They are also reviewing a recent submission for cemetery and place of assembly structure on West College Avenue.

D. Staff Updates

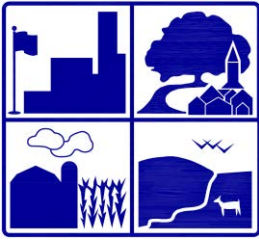
Ms. Wargo noted there was nothing new to report.

VII. Adjournment

Mr. Binney made a motion to adjourn the May 24, 2021 Planning Commission meeting at 7:48 p.m. Mr. Keough seconded the motion. The motion passed unanimously.

Respectfully Submitted,

Rob Crassweller, Secretary
For the Planning Commission



TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801
Telephone: 814-238-4651 • Fax: 814-238-3454
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TO: Planning Commission

FROM: Kristina Aneckstein, Community Planner

DATE: June 9, 2021

SUBJECT: West College Avenue Student Housing Final Land Development Plan

The land development plan proposes a 6-story multi-family residential apartment building with commercial/retail space on the first floor. The applicant is utilizing height incentives found in §27-304.3.B.(2) and has provided additional parking in the parking structure to share for use by others. The applicant is eligible for an additional 20 feet to be added to the permitted maximum height (55 feet).

The building will consist of two subsurface floors of underground parking, one floor containing commercial/Retail space and 5 floors of multi-family residential apartments. There are 96 residential units with 268 beds and 5,976 square feet of non-residential spaces proposed. The ground floor area is 29,571 square feet with 28,483 in Ferguson Township and 1,088 square feet in the Borough of State College.

The plan calls for 165 parking spaces, 151 of which will be located in the parking structure. A variance was granted on February 25, 2020 to allow parking on first floor of the building. A modification from §22-504.2.A.2 – Lot frontage and Access was approved when the developer signed a private streets agreement to maintain Calder Way between Buckhout Street and Butz Street.

Pedestrian improvements are proposed at the intersection of West College Avenue and Buckhout Street as a condition of approval of the Traffic Impact Study. The Preliminary Plan was approved at the regular meeting of the Board of Supervisors on April 5, 2021.

Staff recommends the Planning Commission make a recommendation to the Board of Supervisors to approve the West College Avenue Student Housing Final Land Development Plan pending outstanding comments attached below.

Staff Recommendation: The Planning Commission make a recommendation to the Board of Supervisors to approve the West College Avenue Student Housing Final LDP, dated December 18, 2020 and last revised on June 4, 2021.

TO: Kristina Aneckstein, Community Planner

From Jeffrey Ressler, Zoning Administrator

DATE: June 11, 2021

SUBJECT: West College Student Housing Final Land Development Plan Review 2nd Review.

-
1. The face area of signs as regulated by the Signs Regulations must be included on the plan. [Chapter 19, Part 1] (Chapter 22, Section 401.1.A.1.m) The sign size must be adjusted. **Comment Not Addressed.**
 2. Proposed street address and address for each unit, for the tenant spaces must be included on the plan. (Chapter 22, Section 401.A.3.q) **Comment Remains. Addresses for Commercial Units will be assigned at Permit Application.**
 3. The lot consolidation plan must be recorded prior to approval of the Final Land Development Plan. **Comment Remains**
 4. A time extension must be submitted with any revised plan. (Chapter 22, Section 303) **Comment Remains.**
 5. A digital copy of the plan in accordance with Township requirements must be provided to the Township prior to final plan signature. (Chapter 22, Section 307.1) **Comment Remains.**
 6. Surety must be posted for all public improvements. (Chapter 22, Section 304) **Comment Remains.**
 7. The plan must be signed, all fees paid to the Township, and the plan recorded within the plan deadline. **Comment Remains.**
 8. The seal of the professional licensed engineer or registered landscape architect must be affixed to the plan. (Chapter 22, Section 401.1.C.1.k) **Comment Remains.**



Centre Region Council of Governments
OFFICE OF ADMINISTRATION
REGIONAL REFUSE AND RECYCLING PROGRAM

2643 Gateway Drive, Suite 3 • State College, PA 16801
Phone: (814) 234-7198 • Fax: (814) 231-3083 • Email: smato@crcog.net

May 26, 2021

Kristina Aneckstein, Community Planner
Township of Ferguson
3147 Research Drive
State College, PA 16801

RE: West College Student Housing Final Land Development Plan

Dear Ms. Aneckstein,

I have reviewed the West College Student Housing Land Development Plan. The general construction note (Sheet 5: Notes) specifies the following:

All "Refuse and Recycling" collection bins/dumpsters/compactors will be typically located inside the building's refuse and recycling area. On refuse/recycling collection days, all collection bins/dumpsters/compactors will be moved outside the building to the loading space and then returned to the building after collection.

The truck access provides appropriate space and turning needs for refuse and recycling trucks.

The building floor plans identify specific and adequate locations for trash containers/compactors and for recycling carts and cardboard dumpsters.

I appreciate the opportunity to review the plans to ensure proper refuse and recycling containers, locations, access and sizes. The Centre Region COG Office of Administration is the designated agent for the Townships of Benner, College, Ferguson, Harris and Patton for the Centre Region Refuse and Recycling Program. If you have any questions, please let me know.

Sincerely,

Shelly G. Mato
Refuse and Recycling Administrator, Centre Region Council of Governments




TOWNSHIP OF FERGUSON

3147 Research Drive • State College, Pennsylvania 16801

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www.twp.ferguson.pa.us

TO: Kristina Aneckstein, Community Planner

FROM: Ron Seybert, Township Engineer 

DATE: May 20, 2021

SUBJECT: Aspen West College Student Housing Final Land Development Plan
Second Review (ES – 409)

I have completed my second review of the following documents that were submitted electronically on May 18, 2021:

- 'West College Student Housing Final Land Development Plan' consisting of twenty-five sheets as prepared by PennTerra Engineering, dated December 18, 2020, and last revised May 18, 2021
- 'Aspen West College Surety Checklist' prepared by PennTerra Engineering, dated April 20, 2021 Revised May 18, 2021

Below are my comments related to the Final Land Development Plan:

1. *The Township Stormwater Engineer needs to review and approve the stormwater management site plan prior to approval of the final land development plan. Once NTM's comments are addressed, I will prepare the DSAME Agreement for signature by the applicant. **Pending.***
2. *This final plan submission includes Sheets PC1 through PC6 that are similar to the stormwater management site plan drawing set. These sheets need to be removed from the final land development plan set. Project References Note 11.e on Sheet 5 needs to be revised to properly reference the correct last revised stormwater management site plan as well as its recording information. **Pending recording of SWMSP.***
3. *All signature blocks on Sheet 5 that are related to stormwater management need to be removed since they are a part of the stormwater management site plan. **Not resolved. Two signature blocks are still on Sheet 5.***
4. *A new private street agreement is needed for the new accesses to Calder Way as well as the easement for improvements outside of the right of way. The private street agreement is currently in review. **Pending.***
5. *The sidewalk easement agreement needs to be provided for recording with the final plan. Once the lot consolidation plan and new deed is recorded, the remaining information needs to be completed on the agreement, signed by the owner, and submitted for Township signature. **Pending.***
6. *The existing conditions plan reflects the lot consolidation plan which has yet to be recorded. The plan needs to be recorded prior to this plan being approved. All ownership data needs to be revised after the lot consolidation plan recording. **Pending.***
7. *State College Borough has advised that they have not accepted the recommendations of the TIS with regard to improvements at the intersection of West College Avenue and*

Buckhout Street. This intersection is in the Borough and they will be coordinating with the developer and PennDOT regarding their concerns. The resolution of that discussion needs to be reflected in an amended TIS as well as the final land development plan for any improvements. Pending.

8. **Surety needs to be posted for all public improvements. The surety checklist has been reviewed and revised to correct a minor error in tabulation (see attached). This approved checklist is subject to no plan revisions that alter public improvements. Comment resolution pending submission of an approved form of surety and corresponding agreement to Summer Brown for review.**

A revised plan needs to be provided addressing all the above comments. If you or the applicant have any questions on these comments, please contact me.

Attachment: Aspen West College surety checklist 5-20-21 (Excel)

Copy: Scott Brown, NTM
John Sepp, Penn Terra
Jenna Wargo, Planning Director
Greg Garth, SC Borough
Andy Arnold, GDF for SC Borough
Joe Guley, SSE
Doug Hill, Wooster
Summer Brown

May 25, 2021

Mr. Ronald A. Seybert Jr., P.E.
Township Engineer
Ferguson Township
3147 Research Drive
State College, PA 16801

TRANSMITTAL VIA E-MAIL ONLY

RE: Transportation Impact Study Review
Aspen Heights Partners Development West College Avenue
Ferguson Township, Centre County, PA

Dear Mr. Seybert:

Stahl Sheaffer Engineering (Stahl Sheaffer) has coordinated with the Pennsylvania Department of Transportation (PennDOT) Engineering District 2-0 and the Borough of State College regarding the pedestrian improvements proposed in the subject traffic impact study (TIS) at the intersection of West College Avenue (SR 0026) and Buckhout Street. As part of the coordination, the following submissions were reviewed:

- Revised Executive Summary for the proposed Aspen Heights Partners Development West College Avenue, prepared by David E. Wooster and Associates, Inc. and received via email on Tuesday, April 20, 2021.
- Signing and Pavement Marking Conceptual Plan, prepared by David E. Wooster and Associates, Inc., dated March 23, 2021, and received via email on Wednesday, March 24, 2021.
- Pedestrian crosswalk improvement options summarized in an email from David E. Wooster and Associates, Inc., dated Tuesday, March 23, 2021.

Based on this coordination, both PennDOT Engineering District 2-0 and the Borough of State College concur on the proposed improvements outlined in the Revised Executive Summary. Per the Revised Executive Summary, the following improvements are to be implemented as part of the proposed Aspen Height Partners West College Avenue Development:

West College Avenue (SR 0026) and Buckhout Street:

- Upgrade Pedestrian Ramps for the southern crossing at the intersection of W. College Avenue (SR 0026) and Buckhout Street (SR 0026) to bring them into compliance with the Americans with Disabilities Act (ADA) where technically feasible. This includes the ramps on the southwest and southeast corners of the intersection, as well as the ramp junctions within the median channelizing the Eastbound Right Turn movement.
- Install Pedestrian Crossing signage for the crosswalk crossing the Eastbound Right Turn lane. The following signage is recommended:
 - Pedestrian Sign (Sign W11-2) with “Ahead” plaque (Sign W19-9P) – installed on Eastbound College Avenue ahead of the intersection (recommended distance would be 150-200’, or as otherwise directed by PennDOT).
 - Pedestrian Sign (Sign W11-2) with Diagonal Downward Pointing Arrow Plaque (Sign W16-7P) – installed along the right side of the roadway at the crosswalk itself.
- Install Type C (Piano Key) Crosswalk Markings for the following crossings at College Avenue (SR 0026) and Buckhout Street:
 - From Southwest corner to Southeast corner of the intersection. This includes the crossing of the channelized EB Right Turn lane and the crossing of the southbound lane heading towards Beaver Avenue.
 - From Southeast corner to Northeast corner of the intersection – i.e. the Westbound College Avenue lanes.
- Install Yield pavement markings 20-50 feet ahead of the crosswalk on the channelized right turn from College Avenue to Buckhout Street.
- Install a Yield Here to Pedestrian Sign (R1-5L) on the right side of College Avenue where the Yield markings in the previous bullet point are located.

Calder Way and Proposed Eastern and Western Site Driveways:

- Construct the Eastern and Western Site Driveways to Calder Way as shown on the site plan. Two-way stop control is recommended for the Western Site Driveway, with the Southbound site driveway approaches controlled by stop signs and no traffic control on the eastbound and westbound Calder Way approaches. The Eastern Site Driveway is ingress only, so no traffic controls are required.
- Restrict truck delivery times to occur during off-peak times (7:00 PM to 7:00 AM) only.
- Install the following signage to control truck traffic on Calder Way:

- No Right Turn (R3-1) with supplemental Truck & Bus Plaque (R2-101) – *to be installed on Buckhout Street at Calder Way to prohibit trucks from entering Calder Way from Buckhout Street.*
- No Truck (R5-2) – *to be installed on Calder Way, east of the last private driveway on Calder Way to prohibit trucks from exiting Calder Way at Buckhout Street.*
- No Truck (R5-2) with Except Local Deliveries plaque (R5-2-3) – *to be installed at the end of Calder way facing Butz Street to prohibit “pass-through” trucks from traveling on Calder Way.*

Based on Stahl Sheaffer’s review of all documents and correspondence, and based on coordination with PennDOT Engineering District 2-0 and the Borough of State college, we recommend approval of the proposed Aspen Height Partners West College Avenue Development traffic impact study based on the following conditions:

- A final TIS is issued to Ferguson Township and the Borough of State College for their records. If a signage and pavement marking conceptual plan for the intersection of West College Avenue (SR 0026) and Buckhout Street is to be included with the TIS, it is recommended that the plan include all proposed signage as outlined in the executive summary and detailed above.
- All outstanding comments provided by PennDOT Engineering District 2-0 have been addressed. If additional revisions to the TIS are required by on PennDOT’s review, copies of all TIS correspondence and results should be provided Ferguson Township and the Borough of State College for their review and approval.

If you have any questions, feel free to call or e-mail jguley@stahlsheaffer.com.

Respectfully Submitted,



Joseph A. Guley, P.E.
Project Manager, Stahl Sheaffer Engineering

cc: (all via e-mail only)
Douglas A. Hill, P.E., David E. Wooster and Associates, Inc.
John Sepp, P.E., PennTerra Engineering, Inc.
Ed LeClear, AICP, State College Borough
Gregory J. Garthe, AICP, State College Borough
W. Andrew Arnold, P.E., Gwin, Dobson & Foreman, Inc.
Nicholas Ninosky, PennDOT Engineering District 2-0
James J. Roman, P.E., PennDOT Engineering District 2-0
20-310/Project File

June 2, 2021

Via Email

Township of Ferguson
3147 Research Drive
State College, Pennsylvania 16801

Attn: Ms. Kristina Aneckstein, Township Community Planner
Mr Ronald Seybert, Township Engineer

**RE: Aspen West College Student Housing
Final Land Development Plan Lighting and Stormwater Review**

Dear Kristina and Ron,

We have completed our initial review of West College Student Housing Final Land Development Plan. The applicant's Design Professional, PennTerra Engineering, Inc., submitted the following information electronically that serves as the basis of our review:

1. West College Avenue Student Housing – Final Land Development Plan, dated December 18, 2020, last revised May 18, 2021.
2. Comment response letter dated May 18th, 2021 from PennTerra, Engineering, Inc.

NTM has reviewed these plans for consistency with the West College Student Housing Stormwater Management Site Plan and for compliance with the Lighting Ordinance in Chapter 4 of Township Code. Our continuing comments are provided in bold face text below. All previously addressed comments have been deleted.

2021 06 02 Response: All lighting comments addressed.

Chapter 26 – Stormwater Management

1. On Sheet 5, under Project Notes Item 5, Project References, update the final revision date for all documents as applicable.

2021 06 02 Response: Comment addressed.

2. Update Project Note 12 on Sheet 5 to include information from Stormwater Management Site Plan Drawing Sheet 2 Project Note 13.

2021 06 02 Response: Comment addressed.

3. All outstanding comments on the Post Construction Stormwater Management Site Plan must be addressed.

2021 06 02 Response: Comment remains. See June 2, 2021 Stormwater Management Site Plan comment letter.

If you have any questions or require additional information, please feel free to contact me at 814-862-9191.

Sincerely,
NTM Engineering, Inc.

A handwritten signature in blue ink, appearing to read 'SAB', with a horizontal line extending to the right.

Scott A. Brown, PE, D.WRE
Senior Project Manager

cc: Mr. Gregory Garth, Borough of State College Senior Planner

2021 06 02 West College Student Housing Final LD Plan r2

June 2, 2021

Via Email

Township of Ferguson
3147 Research Drive
State College, Pennsylvania 16801

Attn: Mr Ronald Seybert, Township Engineer

**RE: Aspen West College Student Housing
Stormwater Management Site Plan**

Dear Ron,

We have completed our 11th stormwater management review for the West College Student Housing Plan. The applicant's Design Professional, PennTerra Engineering, Inc., submitted the following information electronically that serves as the basis of our review:

1. West College Student Housing – Stormwater Management Site Plan, dated February 19, 2021 last revised May 18, 2021.
2. West College Ave. Student Housing - Post Construction Stormwater Management Plan Report Dated April 30, 2021 with revisions through May 18, 2021.
3. Comment response letter dated May 18th, 2021 from PennTerra, Engineering, Inc.

NTM has reviewed these plans for compliance with Township stormwater management ordinances. Our continuing comments are provided in bold face text below. All previously addressed comments have been deleted.

Chapter 26 – Stormwater Management

59. Provide reference to and clearly identify the architectural plumbing plans and highlighted plumbing plans as part of the Stormwater Management Site Plan narrative in the Internal Roof Drain Analysis Section of the report and in the Table of Contents.

2021 06 02 Comment: Comment partially addressed. Add the Plumbing Drawings and highlighted plumbing plans to the Stormwater Management Site Plan Narrative as additional Appendices.

60. The Final Copy of the Stormwater Management Site Plan Narrative must be sealed and signed by a qualified professional.

2021 06 02 Comment: Comment addressed.

61. A final copy of the Stormwater Management Agreement for both Ferguson Township (§26 Section 704) and the Borough of State College (Stormwater Management Ordinance Section 232) must be executed prior to final approval of the Stormwater Management Site Plan.

2021 06 02 Comment: Applicant's response acknowledged. Comment remains.

62. Page number all Appendices and reference the page numbers in the Appendix TOC. It would also be helpful for future submissions of the Stormwater Narrative to be book marked.

If you have any questions or require additional information, please feel free to contact me at 814-862-9191.

Sincerely,
NTM Engineering, Inc.



Scott A. Brown, PE, D.WRE
Senior Project Manager

cc: Ms. Kristina Aneckstein, Community Planner, Ferguson Township
Mr. Gregory Garth, Borough of State College Senior Planner

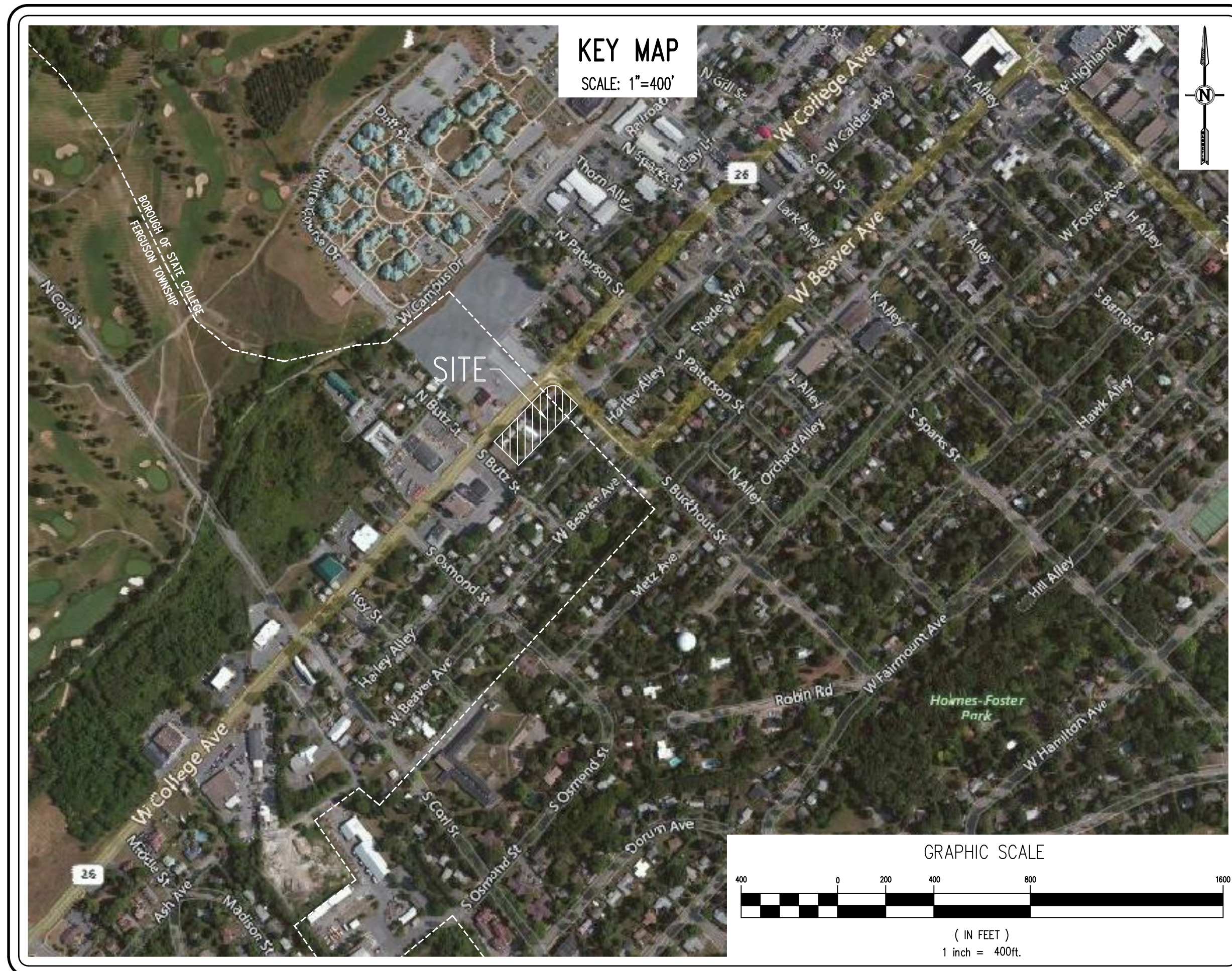
2021 06 02 West College Student Housing r11

WEST COLLEGE STUDENT HOUSING

FINAL LAND DEVELOPMENT PLAN

BOROUGH OF STATE COLLEGE * FERGUSON TOWNSHIP
CENTRE COUNTY * PENNSYLVANIA

DECEMBER 18, 2020
LAST REVISED: JUNE 4, 2021



PennTerra
ENGINEERING, INC.

CENTRAL PENNSYLVANIA REGION OFFICE:
3075 ENTERPRISE DRIVE
SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
Fax: 814-237-2308

LANCASTER REGION OFFICE:
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(SERIAL NUMBER: 20200352497)
(SERIAL NUMBER: 20200352498)

SANITARY SEWER TREATMENT
UNIVERSITY AREA JOINT AUTHORITY
1576 SPRING VALLEY ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-9662

SANITARY SEWER COLLECTION & CONVEYANCE
UNIVERSITY AREA JOINT AUTHORITY
1576 SPRING VALLEY ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-9662

SANITARY SEWER COLLECTION & CONVEYANCE
STATE COLLEGE BOROUGH SEWER AUTHORITY
243 SOUTH ALLEN STREET
STATE COLLEGE, PA 16801
PHONE: (814) 234-1335

PUBLIC WATER
STATE COLLEGE BOROUGH WATER AUTHORITY
1201 WEST BRANCH ROAD
STATE COLLEGE, PA 16801
PHONE: (814) 238-6766

NATURAL GAS
COLUMBIA GAS OF PENNSYLVANIA
2550 CAROLEAN INDUSTRIAL DRIVE
STATE COLLEGE, PA 16801
PHONE: (814) 238-6775

ELECTRIC
WEST PENN POWER COMPANY
2800 EAST COLLEGE AVENUE
STATE COLLEGE, PA 16801
PHONE: (814) 237-5721

TELEPHONE
VERIZON
224 SOUTH ALLEN STREET
STATE COLLEGE, PA 16801
PHONE: (814) 231-6511

CABLE TELEVISION
COMCAST
250 REESE ROAD
STATE COLLEGE, PA 16801
PHONE: (800) 992-3515

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PENNSYLVANIA 1 CALL 1-800-242-1776
NON-MEMBERS MUST BE CONTACTED DIRECTLY

PENN STATE UNIVERSITY
MAIN CAMPUS

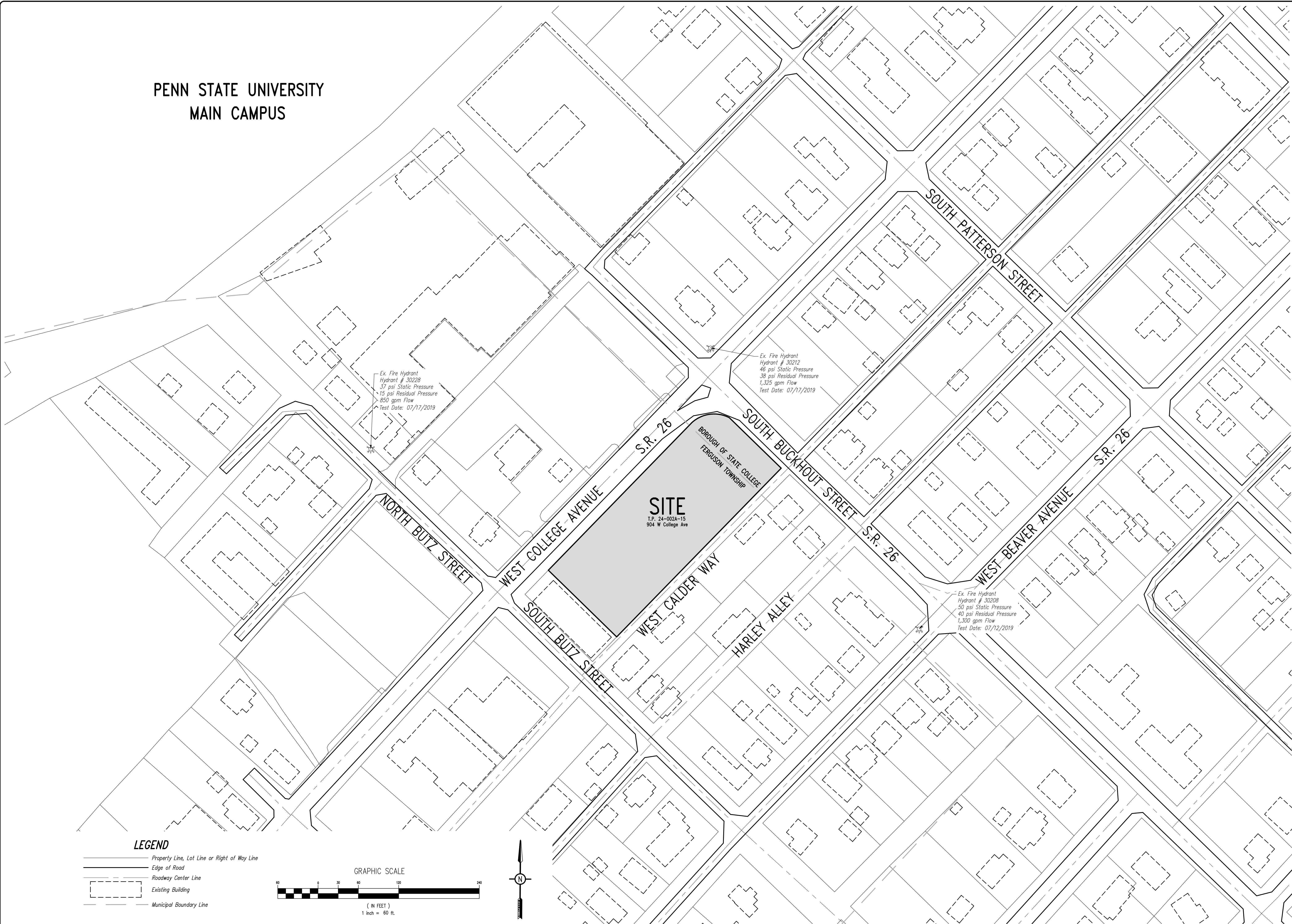


CENTRAL PENNSYLVANIA REGION OFFICE:
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SUITE 100
STATE COLLEGE, PA 16801
PH: 814-231-8285
Fax: 814-237-2308

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3904 B ABEL DRIVE
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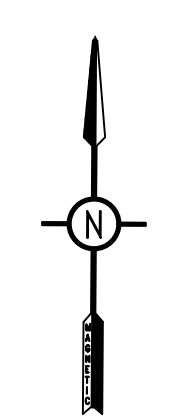
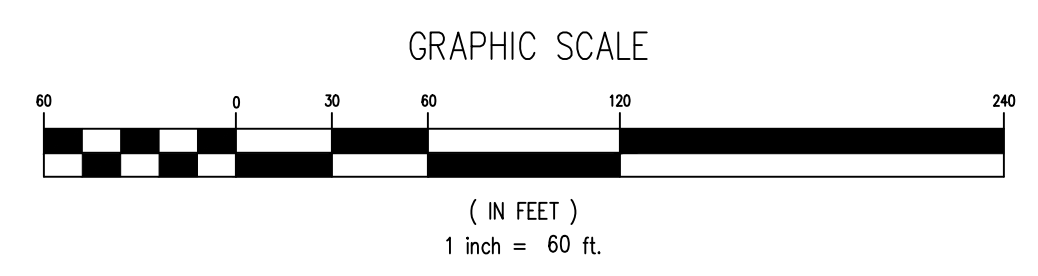
Ex. Fire Hydrant
Hydrant # 30228
37 psi Static Pressure
15 psi Residual Pressure
850 gpm Flow
Test Date: 07/17/2019

Ex. Fire Hydrant
Hydrant # 30212
46 psi Static Pressure
38 psi Residual Pressure
1,325 gpm Flow
Test Date: 07/17/2019

Ex. Fire Hydrant
Hydrant # 30208
50 psi Static Pressure
40 psi Residual Pressure
1,300 gpm Flow
Test Date: 07/12/2019

SITE
T.P. 24-002A-15
904 W College Ave

- LEGEND**
- Property Line, Lot Line or Right of Way Line
 - Edge of Road
 - Roadway Center Line
 - Existing Building
 - Municipal Boundary Line



Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ck.	
Book	542, Pg 42
File	19052-FINAL-LD-MAP
Layout	KEY MAP

05/04/21	REVISED PER FERGIUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	REVISED PER FERGIUSON TOWNSHIP COMMENTS
05/19/21	REVISED PER FERGIUSON TOWNSHIP COMMENTS
04/30/21	FIRST SUBMISSION TO FERGIUSON TOWNSHIP
04/27/21	REVISED PER BOROUGH COMMENTS
04/14/21	ADDENDUM #
Date	Description
	REVISIONS

WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERGIUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

KEY MAP

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=60'
SHEET NO.	2

P:\ddp\2019\19052\Design\p\final plans\Combined Borough & Ferguson\19052-FINAL-LD-MAP.dwg 6/4/2021 2:21:51 PM 1:1

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Municipal Boundary
- Zoning Boundary
- Property Corner Found
- Property Corner To Be Set
- Project Benchmark

SOILS LEGEND

Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

DEMOLITION & CLEARING NOTES:

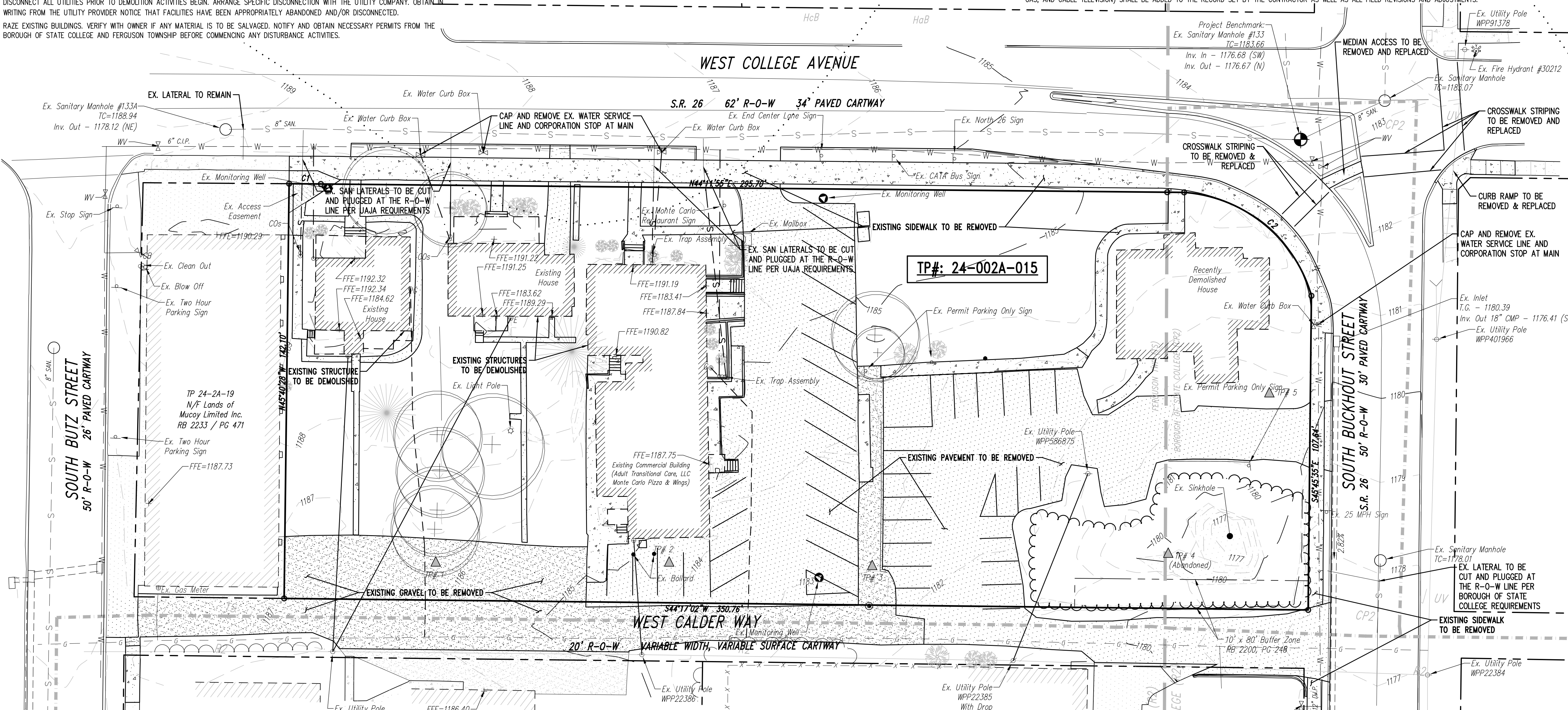
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FOR THE PURPOSES OF THE SITE DEMOLITION ACTIVITIES, CONSIDER THE DEMOLITION AREA TO BE 2' OUTSIDE OF THE FACE-OF-CURB AT WEST COLLEGE AVENUE SO THAT THE CURB CAN BE REPLACED AS SHOWN, 2' OUTSIDE OF THE FACE-OF-CURB AT SOUTH BUCKHOUT STREET SO THAT THE CURB CAN BE REPLACED AS SHOWN, 2' OUTSIDE OF THE EDGE OF PAVEMENT/GRAVEL ALONG WEST CALDER WAY SO THAT THE PAVEMENT/GRAVEL CAN BE MILLED/REMOVED AS SHOWN, AND ALONG THE WESTERN PROPERTY LINE SO THAT DEMOLITION ACTIVITIES CAN BE PERFORMED AS SHOWN. ALL STREET SIGNAGE TO BE REMOVED WITH CARE AND SET ASIDE TO BE REINSTALLED AT PROPOSED LOCATIONS AS SHOWN.

1. INSTALL CONSTRUCTION FENCE AROUND THE ENTIRE PERIMETER OF THE SITE.
2. PLACE "CONSTRUCTION AREA" SIGNS AROUND THE PERIMETER OF THE SITE ALONG EACH ROADWAY.
3. PLACE "SIDEWALK CLOSED" SIGNS AT ALL SIDEWALKS AROUND THE PERIMETER OF THE SITE.
4. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE PENNDOT STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL. CONTRACTOR SHALL CONTACT FERGUSON TOWNSHIP/BOROUGH OF STATE COLLEGE FOR CONSTRUCTION ON PUBLIC STREETS.
5. INSTALL INITIAL EROSION & SEDIMENTATION CONTROLS (SILT SOX AND CONSTRUCTION ENTRANCE OFF OF WEST CALDER WAY). REFER TO THE EROSION & SEDIMENTATION CONTROL PLAN, NARRATIVES & DETAILS.
6. CONTRACTOR SHALL VERIFY THE LOCATION OF MANHOLES, INLETS, VALVES, ETC. CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AS DEEMED NECESSARY WITHIN THE LIMITS OF CONSTRUCTION TO DETERMINE THE EXACT LOCATION AND DEPTH AS REQUIRED. ALL EXISTING UTILITIES SHALL BE RETAINED UNLESS MARKED OTHERWISE, AND APPURTENANCES SHALL BE ADJUSTED TO FINAL GRADE. DAMAGE TO EXISTING CONDITIONS AND UTILITIES SHALL BE REPAIRED AS REQUIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
7. ALL EXISTING UTILITIES NOT TO BE REMOVED OR ABANDONED ARE TO REMAIN OPERATIONAL AT ALL TIMES. APPROPRIATE EXISTING UTILITIES SHALL REMAIN IN SERVICE UNTIL REPLACEMENT/RELOCATED UTILITIES ARE OPERATIONAL.
8. DISCONNECT ALL UTILITIES PRIOR TO DEMOLITION ACTIVITIES BEGIN. ARRANGE SPECIFIC DISCONNECTION WITH THE UTILITY COMPANY. OBTAIN WRITING FROM THE UTILITY PROVIDER NOTICE THAT FACILITIES HAVE BEEN APPROPRIATELY ABANDONED AND/OR DISCONNECTED.
9. RAZE EXISTING BUILDINGS. VERIFY WITH OWNER IF ANY MATERIAL IS TO BE SALVAGED. NOTIFY AND OBTAIN NECESSARY PERMITS FROM THE BOROUGH OF STATE COLLEGE AND FERGUSON TOWNSHIP BEFORE COMMENCING ANY DISTURBANCE ACTIVITIES.

10. VERIFY IF PA DEP AIR QUALITY DEPARTMENT REQUIRES ANY TESTING BEFORE DEMOLITION ACTIVITIES COMMENCING. OBTAIN IN WRITING THIS PROOF. SUPPLY TO THE OWNER.
 BUILDING DEMOLITION MINIMUM REQUIREMENTS:
 DEMOLITION CONTRACTOR SHALL PROVIDE PENNSYLVANIA CERTIFICATION LICENSES AND NAMES OF PERSONNEL THAT WILL PERFORM WORK AND SHALL PROVIDE A LIST OF THE WASTE DISPOSAL SITES AND DEP PERMIT NUMBERS WHERE ACMS WILL BE TAKEN AND DISPOSED OF.
 DEP FORM 2700-FM-A00021 - ASBESTOS ABATEMENT AND DEMOLITION/RENOVATION NOTIFICATION FORM FOR PROCESSING AND SUBMISSION TO THE PA DEP AIR QUALITY COMPLIANCE PROGRAM AT LEAST TWO WEEKS PRIOR TO START OF DEMOLITION ACTIVITIES. PROOF OF MAIL RECEIPT (ORIGINAL) MUST BE PROVIDED TO OWNER.
 PROVIDE A DEMOLITION SURVEY, ACCORDING TO 29CFR 1926.850(A), FOR RECORD OF THE OWNER.
 PROVIDE IN ACCORDANCE WITH CONTRACT DOCUMENTS:
11. PERFORM DEMOLITION WORK IN ACCORDANCE WITH 29 CFR 1926, WITH PARTICULAR ATTENTION TO REQUIREMENTS SET FORTH IN SUBPART T, "DEMOLITION".
12. PERFORM WORK IN SAFE AND SYSTEMATIC MANNER.
13. DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO EXTENT REQUIRED, AND AS INDICATED IN CONTRACT DOCUMENTS.
14. WEAR PROPER PERSONAL PROTECTIVE EQUIPMENT AT ALL TIMES.
15. USE WATER AS NECESSARY TO LAY DUST WHEN CHIPPING, CORING, OR SAWING CONCRETE, MASONRY OR SIMILAR MATERIALS.
16. COMPLETELY BACKFILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM UTILITY REMOVAL AND OTHER DEMOLITION WORK.
 IF ITEMS ARE DETERMINED TO BE HAZARDOUS, REFER TO DEP FORM 2700-FM-A00021 - ASBESTOS ABATEMENT AND DEMOLITION/RENOVATION NOTIFICATION FORM, FOR DISPOSAL OF HAZARDOUS WASTES (ACMS).

17. ALL FILL MATERIAL BROUGHT ON TO THE SITE BY THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE D.E.P. REGULATIONS REGARDING CLEAN FILL.
18. REMOVE TREES, ROOTS COMPLETE AND ALL VEGETATION WITHIN THE LIMITS OF THE DEVELOPMENT SITE. ALL STREET TREE REMOVAL MUST BE COORDINATED WITH STATE COLLEGE BOROUGH PUBLIC WORKS DEPARTMENT, FERGUSON TOWNSHIP, AND THEIR RESPECTIVE ARBORISTS.
19. REMOVE ALL FACILITIES, BUILDINGS AND COMPONENTS LOCATED WITHIN THE DEMOLITION AREA; INCLUDING BUT NOT LIMITED TO:
 - BUILDINGS - PAVEMENT - CURBS - CONCRETE - VEGETATION - INLETS
 - UNDERGROUND UTILITIES INCLUDING BUT NOT LIMITED TO WATER, SANITARY SEWAGE, GAS, STORMWATER, ETC.
 - UTILITY LATERALS TO CURB STOPS, VALVES OR SIMILAR.
 - SELECT OVERHEAD UTILITY POLES. REFER TO THE DEMO PLAN FOR OVERHEAD UTILITY POLES TO BE REMOVED.
20. IN ALL CASES, THE DEMOLITION CONTRACTOR SHALL NEATLY SAW CUT AND REMOVE/DISCONNECT EXISTING IMPROVEMENTS, IF DEMOLITION WORK IS TO BE PERFORMED IN THE RIGHT-OF-WAY OF THE BOROUGH AND/OR FERGUSON TOWNSHIP AND/OR THE COMMONWEALTH OF PENNSYLVANIA; THEN IN ALL CASES NOTIFY THE APPROPRIATE PARTY AND FOLLOW THEIR RULES AND PROCEDURES FOR DEMOLITION ACTIVITIES. THIS IS SOLELY THE RESPONSIBILITY OF THE DEMOLITION CONTRACTOR.
21. RE-ESTABLISH THE EROSION & SEDIMENTATION CONTROLS, BEGIN SITE DEVELOPMENT CONSTRUCTION WORK.
22. ALL AREAS DISTURBED DURING CONSTRUCTION, NOT DESIGNATED TO RECEIVE PAVING OR MULCH SHALL BE FINE GRADED, TOPSOILED, AND SEEDED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS, OR INSTRUCTED BY THE OWNER.
23. CONTRACTOR SHALL REPAIR OR REPLACE ALL CURB, PAVEMENT, UTILITIES, SIDEWALKS, LANDSCAPING, ETC. WITHIN THE SITE DAMAGED DURING CONSTRUCTION THAT ARE NOT INDICATED TO BE REMOVED.
24. CONTRACTOR SHALL MAINTAIN ONE SET OF CONTRACT DOCUMENTS ON SITE TO BE UTILIZED FOR RECORD DOCUMENTS. FIELD RECORDS OF THE DEPTH AND LOCATIONS OF ALL UNDERGROUND SERVICE UTILITIES (WATER, SANITARY SEWER, STORM DRAINS, PRIMARY AND SECONDARY ELECTRIC, GAS, AND CABLE TELEVISION) SHALL BE ADDED TO THE RECORD SET BY THE CONTRACTOR AS WELL AS ALL FIELD REVISIONS AND ADJUSTMENTS.



PROJECT NOTES:

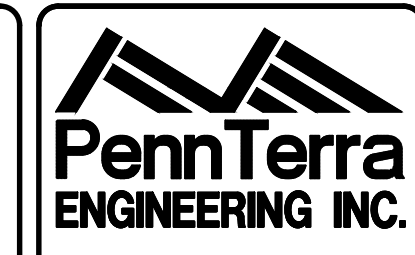
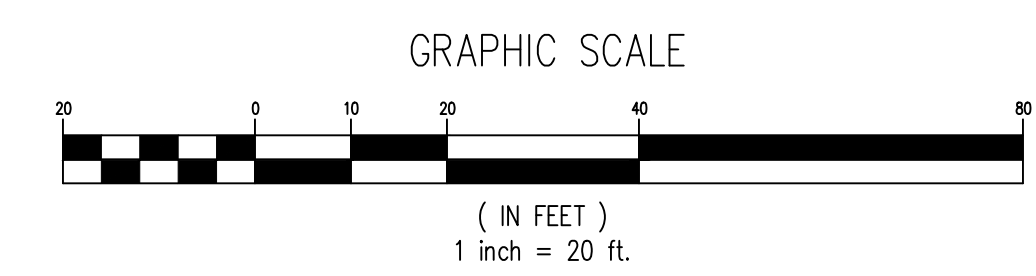
1. **Property Owner Information:**
 Scott L. & Glenda C. Youcum
 PO Box 57
 Badsburg, PA 16827
1. **Developer Information:**
 Aspen Heights Partners
 8008 Corporate Center Drive, Suite 100
 Charlotte, NC 28226
2. **General Site Information:**
 - a. Tax Parcel No.: 24-002A-015
 - b. Site Address: 914 West College Ave, State College, PA 16801
 - c. Municipality: Fergusson Township, Borough of State College
 - d. Zoning: Terraced Streetscape (TS) District - Fergusson Township, Planned Commercial (CP-2) District - Borough of State College
 - e. Deed Information: Record Book _____ Page _____
 - f. Existing Site/Lot Size: 49,489 S.F. (1.136 Acres)
3. **Natural Site Features & Survey Information:**
 - a. Soil limits and descriptions have been taken from the Natural Resources Conservation Service Web Soil Survey dated June 2020.
 - b. There are no portions of this property located within a Zone 'A' 100-year Flood Plain according to the Federal Emergency Management Agency (FEMA) Map Number 42027C0636F for the Borough of State College, effective date May 4, 2009.
 - c. There are no wetlands on the property according to the National Wetlands Inventory (U.S. Fish & Wildlife Service) for State College, PA, last updated June 2020.
 - d. Horizontal Datum is Pennsylvania North Zone State Plane Coordinates, North American Vertical Datum of 1983 (PA NAD83) U.S. Feet
 - e. Elevation Datum is the North American Vertical Datum of 1988 (NAVD 88)
 - f. The Project Benchmark is the top of casting of the sanitary sewer manhole in the median island at the intersection of West College Avenue and South Buckhout Street, as shown on the plan. Elevation = 1183.66'
4. **Act 287 Information:**
 Serial No. 20200352498 (Borough of State College)
 Serial No. 20200352497 (Fergusson Township)
 All utility locations should be verified prior to any construction, utility information and locations should be considered approximate. Contractor shall notify PA One Call prior to any excavation.
 - a. **Electric:** West Penn Power Company, 2800 E. College Ave, State College, PA 16801 - Phone: (800) 686-0021
 - b. **Telephone:** Verizon, Facility Management Center, 224 S. Allen Street, State College, PA 16801 - Phone: (814) 231-6511
 - c. **TV Cable:** Comcast, 60 Decibel Road, State College, PA 16801 - Phone: (888) 266-2278
 - d. **Gas:** Columbia Gas of Pennsylvania, 2550 Carolean Drive, State College, PA 16801 - Phone: (814) 238-6775
 - e. **Sanitary Sewer Treatment:** University Area Joint Authority (UAJA), 1576 Spring Valley Road, State College, PA 16801 - Phone: (814) 238-5361
 - f. **Sanitary Sewer Collection & Conveyance:** State College Borough Sewer Authority, 243 S. Allen Street, State College, PA 16801 - Phone: (814) 234-7135; University Area Joint Authority (UAJA), 1576 Spring Valley Road, State College, PA 16801 - Phone: (814) 238-5361
 - g. **Water:** State College Borough Water Authority (SCBWA), 1201 West Branch Road, State College, PA 16801 - Phone: (814) 238-6766
5. **Project References:**
 "Final Plan Lot Consolidation Of Tax Parcels 24-002A-015 & 24-002A-016 & 24-002A-017 & 24-002A-018 & 36-010-006", prepared by PennTerra Engineering, Inc., and dated August 14, 2020.

FIRE FLOW INFORMATION:

- Fire Hydrant #30228
 Location: North Butz Street @ Grass Alley
 Flow Information:
 Test Date: 07/17/2019
 Pressure: Static: 37 psi
 Residual: 15 psi
 Flow: 850 gpm
- Fire Hydrant #30212
 Location: West College Avenue @ North Buckhout Street
 Flow Information:
 Test Date: 07/17/2019
 Pressure: Static: 46 psi
 Residual: 38 psi
 Flow: 1,325 gpm
- Fire Hydrant #30208
 Location: West Beaver Ave @ South Buckhout Street
 Flow Information:
 Test Date: 07/12/2019
 Pressure: Static: 50 psi
 Residual: 40 psi
 Flow: 1,300 gpm

EXISTING CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD DIRECTION	CHORD	DELTA
C1	10.87'	11428.19'	5.44'	N 44° 10' 17" E	10.87'	0° 03' 16"
C2	59.79'	49.17'	34.22'	N 82° 42' 59" E	56.17'	69° 40' 23"

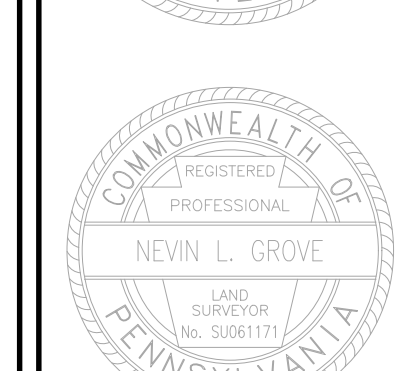
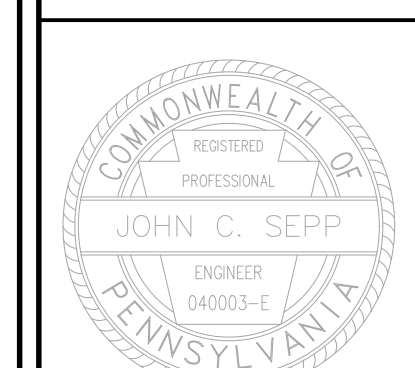


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Proj. Manager	JCS
Surveyor	BRK
Perimeter Cl.	
Book	542 Pg. 42
Acad	19052-FINAL-1D-EX
Layout	EX

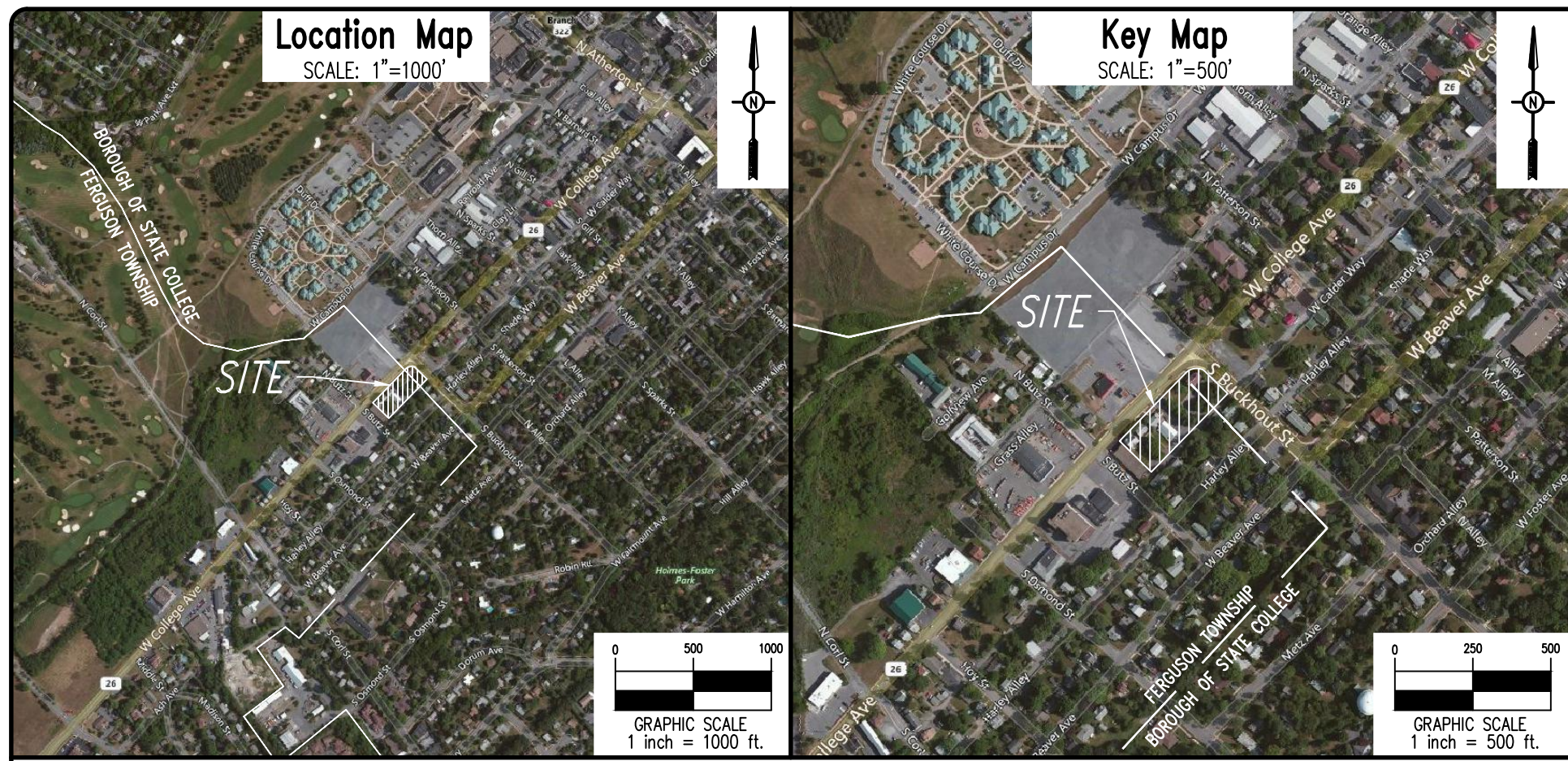
03/14/21	REVISED FOR FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	REVISED FOR FERGUSON TOWNSHIP COMMENTS
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04/27/21	REVISED FOR BOROUGH COMMENTS
04/17/21	ADDENDUM #1
Date	Description
	REVISIONS

WEST COLLEGE STUDENT HOUSING
 BOROUGH OF STATE COLLEGE
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT NO.
19052
 DATE
DECEMBER 18, 2020
 SCALE SHEET NO.
1"=20' 3



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- - - Adjoining Property Line
- - - Building Setback Line
- - - Easement Line
- - - Municipal Boundary
- - - Zoning Boundary
- Property Corner Found
- Property Corner To Be Set
- ⊙ Project Benchmark

SOILS LEGEND

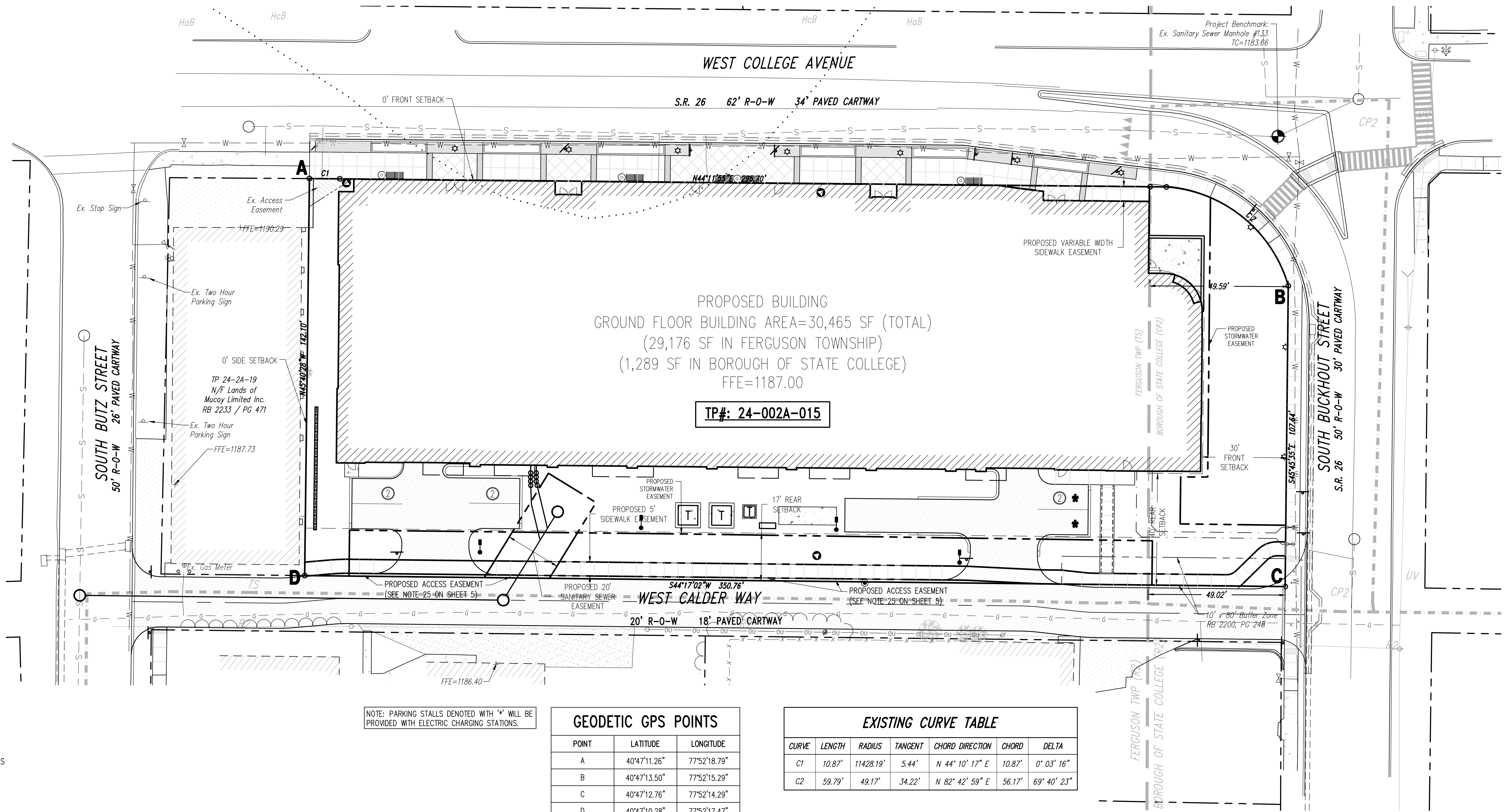
Soil cover on the site consists of:
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EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
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- Existing Water Service Lateral
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- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Monitoring Well
- Existing Sign
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- Proposed Building
- Proposed Curbing & Edge of Pavement
- Proposed Concrete Sidewalk
- Proposed Concrete Areas
- Proposed Full-Depth Bituminous Pavement Areas
- Proposed Overlay Bituminous Pavement Areas
- Proposed Light Fixture (Decorative)
- Proposed Light Pole (Single Fixture)
- Proposed Traffic Flow Arrows (Not Painted)
- Proposed Parking Stall Count
- Proposed Sign w/ Label
- Proposed Depressed Curb w/ Curb Transition
- Proposed Handicapped Ramp
- Proposed Retaining Wall
- Proposed Retaining Wall Fence
- Proposed 6" Steel Bollard Filled w/ Concrete



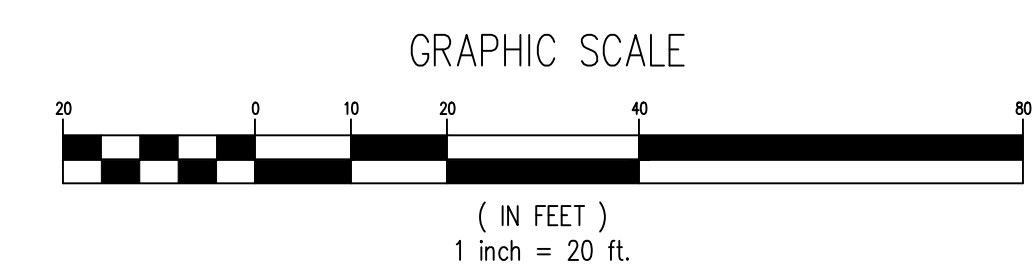
NOTE: PARKING STALLS DENOTED WITH "*" WILL BE PROVIDED WITH ELECTRIC CHARGING STATIONS.

GEODETIC GPS POINTS

POINT	LATITUDE	LONGITUDE
A	40°47'11.26"	77°52'18.79"
B	40°47'13.50"	77°52'15.29"
C	40°47'12.76"	77°52'14.29"
D	40°47'10.28"	77°52'17.47"

EXISTING CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD DIRECTION	CHORD	DELTA
C1	10.87'	11428.19'	5.44'	N 44° 10' 17" E	10.87'	0° 03' 16"
C2	59.79'	49.17'	34.22'	N 82° 42' 59" E	56.17'	69° 40' 23"



PennTerra ENGINEERING INC.
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Designer: EAH
 Draftsman: EAH
 Proj. Manager: JCS
 Surveyor: BRK
 Perimeter Ok.
 Book: 542, Pg: 42
 Acad: 19052-FINAL-LD-RP
 Layout: RP

03/24/21 EAH REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
 05/21/21 EAH REVISED PER FERGUSON TOWNSHIP COMMENTS
 05/28/21 EAH REVISED PER FERGUSON TOWNSHIP COMMENTS
 04/30/21 EAH FIRST SUBMISSION TO FERGUSON TOWNSHIP
 04/27/21 EAH REVISED PER BOROUGH COMMENTS
 04/14/21 ADD/DRAW #
 Date Description
 REVISIONS

WEST COLLEGE STUDENT HOUSING
 BOROUGH OF STATE COLLEGE
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

RECORD PLAN

PROJECT NO.
19052

DATE
DECEMBER 18, 2020

SCALE SHEET NO.
1"=20' 4

Owners Certification Tax Parcel 24-002A-015

Commonwealth of Pennsylvania
County of Centre

On this _____ day of _____, 20____, _____, personally appeared before me and certified that they were the owners of the properties shown on this plan and acknowledge the same to be their act and plan and designs, the same to be recorded as such, according to the law.

witness my hand and seal, this date _____

Notary Public Commission Expires _____

Township Engineer Certification

I, _____, have reviewed and hereby certify that the plan meets all engineering design standards and criteria of the Ferguson Township Code of Ordinances.

Township Planning Commission
Ferguson Township Planning Commission Approved

Chairman _____ Date _____

Secretary _____ Date _____

Township Supervisors
Ferguson Township Supervisors Approved

Chairman _____

Secretary _____

Fire Chief Certification

I have reviewed and hereby certify that the location of Fire Lanes and Fire Hydrants shown on this plan are adequate.

Fire Chief

Professional Land Surveyor Certification

I, Nevin L. Grove, a Professional Land Surveyor in the Commonwealth of Pennsylvania, do hereby certify that this plan correctly represents the tracts of lands as shown.

Signature

Design Engineer Certification

I, _____, hereby certify that this land development meets all design requirements of the Subdivision and Land Development Ordinance, Zoning Ordinance and all other applicable Chapters of Ferguson Township Code.

Design Engineer's Certification

I, _____, hereby certify that this Land Development Plan meets all design requirements of the Subdivision/Land Development Ordinance and the Zoning Ordinance of the Borough of State College.

Borough Arborist Approval

Approved on this the _____ Day of _____, 20____

By _____
State College Borough Arborist

Agreement of Owner

As Owner of this property, I agree to provide and maintain all Landscaping as indicated on this plan.

Owner's Signature _____ Date _____

Municipal Approval

Approved on this the _____ day of _____, 20____

By _____
For the State College Borough Planning Department

Recorder's Stamp Here

PROJECT NOTES:

1. **Property Owner Information:** Scott L. & Glenda C. Youcum PO Box 57 Boalsburg, PA 16827
Developer Information: Aspen Heights Partners 8008 Corporate Center Drive Charlotte, NC 28226

2. **General Site Information:**
a. Tax Parcel No.: 24-002A-015
b. Site Address: 914 West College Ave State College, PA 16801
c. Municipality: Borough of State College Ferguson Township
d. Zoning: Planned Commercial (CP-2) District (Borough of State College) Terraced Streetscape (TS) District (Ferguson Township)
e. Deed Information: Record Book _____, Page _____
f. Existing Site/Lot Size: 49,489 S.F. (1.136 Acres)

3. **Zoning Information (General):**
a. Existing Site Uses: Multi-Family Residential Apartments, Restaurant & Commercial
b. Proposed Site Use: Multi-Family Residential Apartment Building with Commercial/Retail Space on the First Floor
c. Building Area Information: Residential (TS District, Ferguson Township): 145,880 SF Commercial (TS District, Ferguson Township): 7,488 SF Professional Office (CP-2, Borough of State College): 1,188 SF

4. **Zoning Information (Ferguson Township):** (Note: All Zoning Information below pertains to the Ferguson Township portion of the project only)
a. Front Yard Setback: 12' From the back edge of the curb on College Avenue
b. Side Yard Setbacks: 0'-Side yard adjacent to lot that Fronts on West College Avenue
c. Rear Yard Setbacks: 17'-Abutting an Alley which coincides with a district boundary
d. Maximum Building Height: 55' (Additional height up to 75' for lots of at least one acre may be obtained through the use of incentives. See §27-703.3 for more information.)
e. Proposed Building Height: 74.8'
f. Proposed Building Coverage: 61.56% (30,465 S.F.)
g. Maximum Impervious Coverage: 75.00% (37,117 S.F.)
h. Existing Impervious Coverage: 50.76% (25,119 S.F.)
i. Proposed Impervious Coverage: 74.64% (36,940 S.F.)
j. A Variance was granted by the Ferguson Township Zoning Hearing Board on February 25, 2020 allowing parking on the first floor of the building.

5. **Zoning Information (Borough of State College):**
a. Front Yard Setback: 30'
b. Side Yard Setbacks: 10'-Residential Uses 0'-Commercial Uses not abutting Residential Districts 40'-Commercial Uses abutting Residential Districts
c. Rear Yard Setbacks: 20'-Not abutting Residential Districts 40'-Abutting Residential Districts
d. Building Height: Allowed: 35' (Not To Exceed Three Stories) Proposed: 30.08' (Portion of building within Borough of State College) Measured from the height of the face of curb at the center of the building. Elevation=1186.25
e. Site Open Space: Required: 30% (14,847 S.F.) Proposed: Vegetated Area = 25.36% (12,551 S.F.) Hardscape Area = 4.99% (2,472 S.F.) Total = 30.36% (15,023 S.F.)
The Open Space requirements and calculations above are only applicable to the portion of the property within the Borough of State College.

6. **Unit and Bed Calculations:**

Unit Type	Number of Units	Number of Beds
2 Bedroom (B1)	9	18
2 Bedroom (B1 Type A)	1	2
2 Bedroom (B2)	10	20
2 Bedroom (B3)	20	60
3 Bedroom (C1)	55	165
3 Bedroom (C1 Type A)	1	3
Totals:	96	268 (All Within Ferguson Township)

7. **Automobile Parking Calculations:**
Required Parking (Ferguson Township): Residential (TS District): Residential parking within the TS District shall be provided at the rate of 1.5 spaces for each unit that is two bedrooms or larger. 96 Units * 1.5 Spaces = 144 Spaces Required
Non-Residential (TS District): Parking for non-residential uses within the TS District shall be provided at the rate of 1/500 square feet. 7,488 SF * 1 Space per 500 SF = 15 Spaces Required
Required Parking (Borough of State College): Professional Office: 1 Space per 300 square feet of gross floor area 1,188 SF * 1 Space per 300 SF = 4 Spaces Required
Total Required Parking: Ferguson Township Total: 159 Spaces Borough of State College Total: 4 Spaces Total Parking Required: 163 Spaces
Total Parking Provided: 165 Spaces (159 In the Parking Structure and 6 Exterior)

8. **Bicycle Parking Calculations:**
Short-Term: 268 Beds * 0.05 Spaces per Bedroom = 13.4
14 Short-Term Bicycle Parking Spaces Required
Long-Term: There are no Long-Term Bicycle Parking Spaces required for this project since multi-family dwelling units with private garages are proposed. See §22-502C.A.1.

9. **Natural Site Features & Survey Information:**
a. Soil limits and descriptions have been taken from the Natural Resources Conservation Service Web Soil Survey dated June 2020.
b. There are no portions of this property located within a Zone 'A' 100-year Flood Plain according to the Federal Emergency Management Agency (FEMA) Map Number 42027C0636F for the Borough of State College, effective date May 4, 2009.
c. There are no wetlands on the property according to the National Wetlands Inventory (U.S. Fish & Wildlife Service) for State College, PA, last updated June 2020.
d. Horizontal Datum is Pennsylvania North Zone State Plane Coordinates, North American Vertical Datum of 1983 (PA NAD83) U.S. Feet
e. Elevation Datum is the North American Vertical Datum of 1988 (NAVD 88)
f. The Project Benchmark is the top of casting of the sanitary sewer manhole in the median island at the intersection of West College Avenue and South Buckhout Street, as shown on the plan. Elevation = 1183.66'.
g. Field monumentation of the Municipal Boundary Line could not be located. Plans of Record, field survey data, and PennDOT mapping was used to determine the location as shown on the plan.

10. **Act 287 Information:**
Serial No. 20200352498 (Borough of State College)
Serial No. 20200352497 (Ferguson Township)
All utility locations should be verified prior to any construction, utility information and locations should be considered approximate. Contractor shall notify PA One Call prior to any excavation.
a. **Electric:** West Penn Power Company, 2800 E. College Ave, State College, PA 16801 - Phone: (800) 686-0021
b. **Telephone:** Verizon, Facility Management Center, 224 S. Allen Street, State College, PA 16801 - Phone: (814) 231-6511
c. **TV Cable:** Comcast, 250 Reese Road, State College, PA 16801 - Phone: (888) 266-2278
d. **Gas:** Columbia Gas of Pennsylvania, 2550 Carolean Drive, State College, PA 16801 - Phone: (814) 238-6775
e. **Sanitary Sewer Treatment:** University Area Joint Authority (UAJA), 1576 Spring Valley Road, State College, PA 16801 - Phone: (814) 238-5361
f. **Sanitary Sewer Collection & Conveyance:** State College Borough Sewer Authority, 243 S. Allen Street, State College, PA 16801 - Phone: (814) 234-7135 University Area Joint Authority (UAJA), 1576 Spring Valley Road, State College, PA 16801 - Phone: (814) 238-5361
g. **Water:** State College Borough Water Authority (SCBWA), 1201 West Branch Road, State College, PA 16801 - Phone: (814) 238-6766

11. **Project References:**
a. "Final Plan Lot Consolidation of Tax Parcels 24-002A-015 & 24-002A-016 & 24-002A-017 & 24-002A-018 & 36-010-006", prepared by PennTerra Engineering, Inc. and dated February 19, 2021.
b. "Post Construction Stormwater Management Plan Narrative", prepared by PennTerra Engineering, Inc., last revised June 4, 2021.
c. "Erosion & Sedimentation Control Plan Narrative", prepared by PennTerra Engineering, Inc., last revised April 28, 2021.
d. "Traffic Impact Study For The Proposed Aspen Heights Partners Development", prepared by David E. Wooster & Associates, inc., dated August 19, 2020, and last revised May 28, 2021.
e. "West College Student Housing Stormwater Management Site Plan", prepared by PennTerra Engineering, Inc., dated February 19, 2021, last revised _____ and recorded at the Centre County Recorder of Deeds Office in RB _____, PG _____.
f. "West College Student Housing Preliminary Land Development Plan", prepared by PennTerra Engineering, Inc., dated August 14, 2020, last revised April 28, 2021.

12. As-built drawings/documentation of the stormwater management facilities must be prepared in accordance with Chapter 26 §26-402D.4 and submitted to Ferguson Township at the completion of construction as a prerequisite of issuance of Occupancy Permit. An as-built drawing of the entrance and exit areas must be completed to confirm drainage performance. This as-built must include detailed spot elevations as well as a hydraulic analysis demonstrating the as-built flow lines have carrying capacity for the 100-year storm event without bypassing to West Calder Way. As-built drawings/documentation of the stormwater management facilities must also be submitted to the Borough of State College in accordance with §14-224.h of the Stormwater Management Ordinance.

13. Face area and height for all signs shall conform to the Ferguson Township Sign Ordinance and will be included with the Final Plan.

14. **Plan Purpose:**
The purpose of this plan is to construct a one story mixed-use building within the Planned Commercial District (CP-2) in the Borough of State College, and a six story mixed-use building within the Terraced Streetscape District (TS) in Ferguson Township. The building will consist of two subsurface floors of underground parking, one floor containing commercial space, and five floors of multi-family residential apartments located in Ferguson Township. Refer to the Architectural Plans prepared by BSB Design, Inc. for additional building information.

15. **Additional Planning Information:**
a. The proposed building will be fully sprinklered with automatic wet-pipe & dry-pipe sprinkler systems. Standpipes with fire hose valves will be provided in the stairs. An internal fire pump will support the sprinkler and standpipe systems. All fire protection systems in the building will be designed and installed in accordance with NFPA 13, NFPA 14, NFPA 20, and local building and fire codes. An integral Siamese Fire Department Connection will also be provided as coordinated between the Developer, Architect, and the Centre Regional Council of Governments Regional Fire Protection Program Fire Director.
b. Highway Occupancy Permits are required from the Pennsylvania Department of Transportation for all construction activities located within the state Right-Of-Way along West College Avenue and South Buckhout Street.
c. All "Refuse and Recycling" collection bins/dumpsters/compactors will be typically located inside of the building's refuse and recycling area. On refuse/recycling collection days, all collection bins/dumpsters/compactors will be moved outside of the building to the loading space, and then returned to the building after collection.

16. This Record Plan conforms with the plan receiving final approval by the Ferguson Township Board of Supervisors on _____. All improvements are or will be installed in accordance with such Plan in a manner and time so specified therein.

17. The date of application for a Zoning Permit is August 17, 2020.

18. Pre-construction meetings are required prior to starting work to discuss stormwater and public improvements. Please contact both the Ferguson Township Municipal Engineer and State College Borough Engineer to schedule the meeting.

19. A Township Pave Cut Permit must be obtained for the sewer connection at Butz Street prior to issuing a Zoning Permit for this development.

20. Calder Way between Butz Street and South Buckhout Street shall be maintained, cleared of snow and ice, and remain passable at all times by the developer and/or owner of the project. Failure of the owner and/or developer to maintain the alley in a passable condition at all times shall be sufficient reason for the Township to enter the street in an emergency to maintain, to clear snow and ice, and to make the alley passable, and to bill the responsible parties for the cost of said work. If the parties fail to pay said charges, the Township may collect the charges through a municipal lien plus interest, costs and attorney fees. Forced maintenance by the Township under this section shall not be construed as the Township's acceptance, or potential acceptance of the alley.

21. A Fee-in-Lieu of Parkland will be offered for the 96 Residential Units in this project based on the following Ferguson Township Fee Schedule.
96 Units X 2.54 persons per unit X \$1,225.00 per person = \$298,704 Fee-In-Lieu of Parkland

22. The project will provide full-time on-site management.

23. An as-built drawing of the sinkhole repair shall be submitted to Ferguson township as part of the stormwater as-built drawings.

24. A Sidewalk Easement Agreement has been recorded in RB _____, PG _____ for the concrete sidewalk located along West Calder Way and a section of sidewalk located along West College Ave (SR0026).

25. On April 5, 2021, the Ferguson Township Board of Supervisors granted a Modification/Waiver from the Subdivision and Land Development Ordinance §22-504.2.A.2-Lot Frontage and Access on the condition that the developer submit a Private Street Agreement, with the Township as a party, that will include pre-construction, post-construction, maintenance and indemnity for the length of Calder Way between South Buckhout Street and South Butz Street to be reviewed and approved by the Township Staff and the Township Solicitor.

DESIGNER: _____ EAH

DRAFTSMAN: _____ EAH

PROJ/MANAGER: _____ JCS

SURVEYOR: _____ BRK

Perimeter Ok _____

Book _____ 542, Pg _____ 42

Acad _____ 19052-FINAL-1D-SIG

Layout _____ SIG-NOTES

03/04/21 EAH REVISED PER FERUGSON TOWNSHIP & BOROUGH COMMENTS

05/21/21 EAH REVISED PER FERUGSON TOWNSHIP COMMENTS

05/18/21 EAH REVISED PER FERUGSON TOWNSHIP COMMENTS

04/30/21 EAH FIRST SUBMISSION TO FERUGSON TOWNSHIP

04/27/21 EAH REVISED PER BOROUGH COMMENTS

04/14/21 EAH ADDENDUM # _____

Date _____ Description _____

REVISIONS

WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

SIGNATURE & NOTES PAGE

PROJECT NO. 19052

DATE DECEMBER 18, 2020

SCALE N.T.S. SHEET NO. 5

PennTerra ENGINEERING INC.
CENTRAL PENNSYLVANIA REGION OFFICE: 3075 ENTERPRISE DRIVE SUITE 100 STATE COLLEGE, PA 16801 PH: 814-231-8285 FAX: 814-237-2308

LANCASTER REGION OFFICE: 3904 B ABEL DRIVE COLUMBIA, PA 17512 PH: 717-522-5031 FAX: 717-522-5046

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JOHN G. SEPP

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER NEVIN L. GROVE

SURVEY FEATURES LEGEND

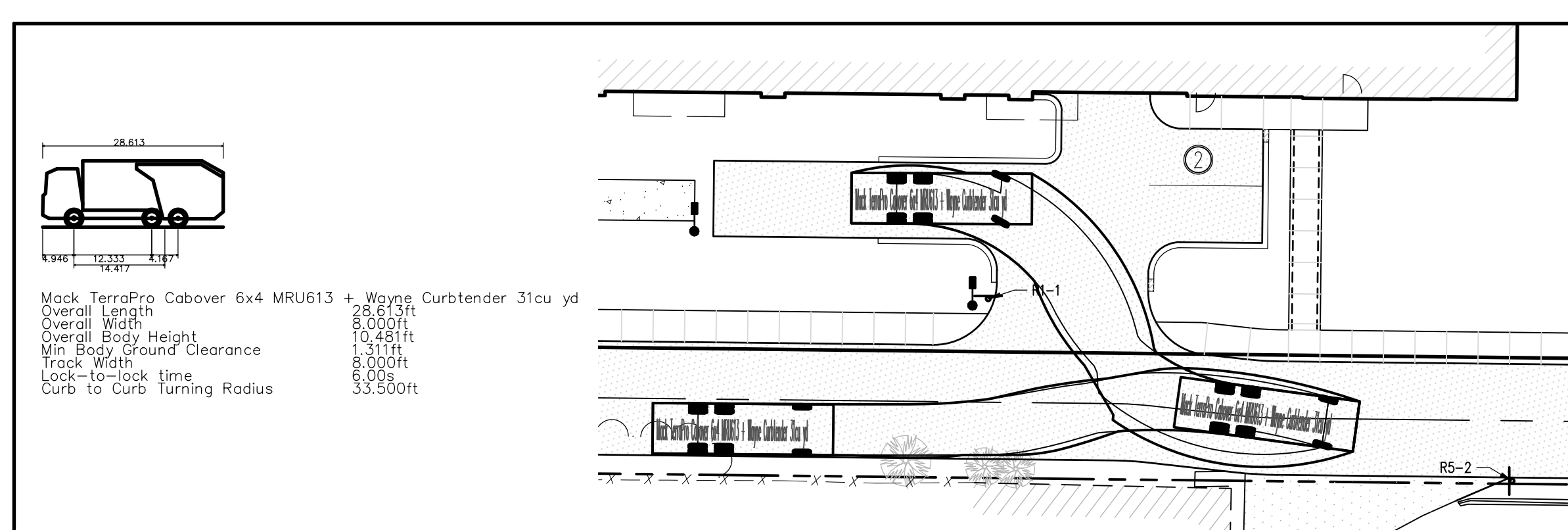
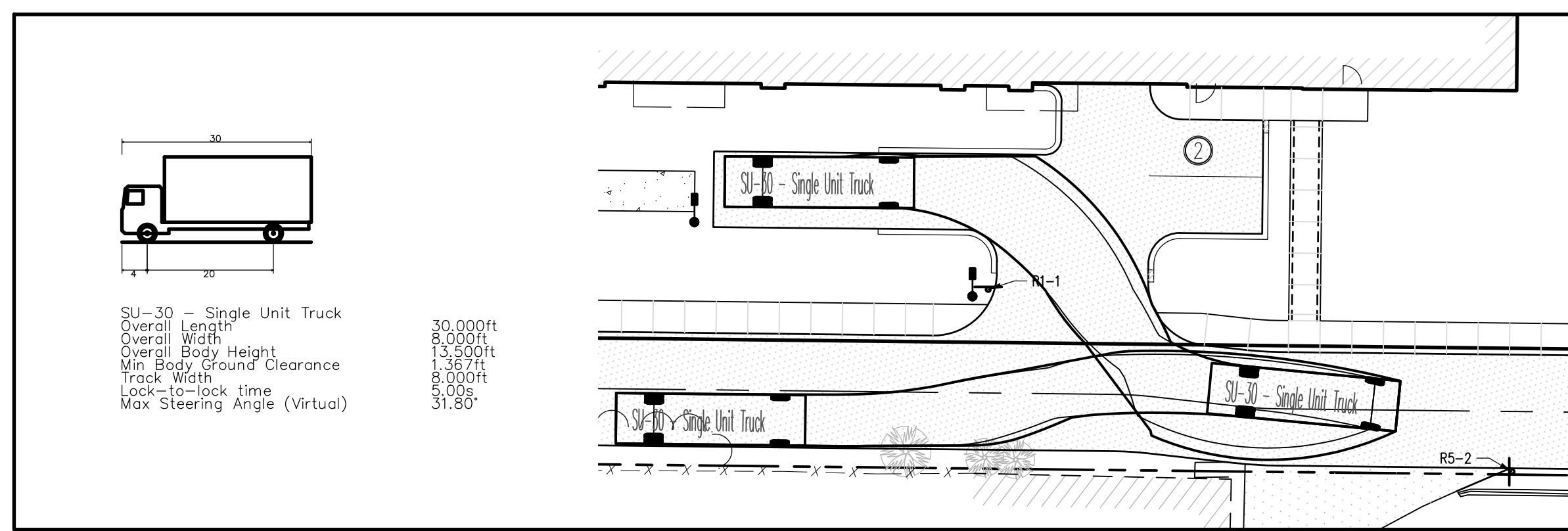
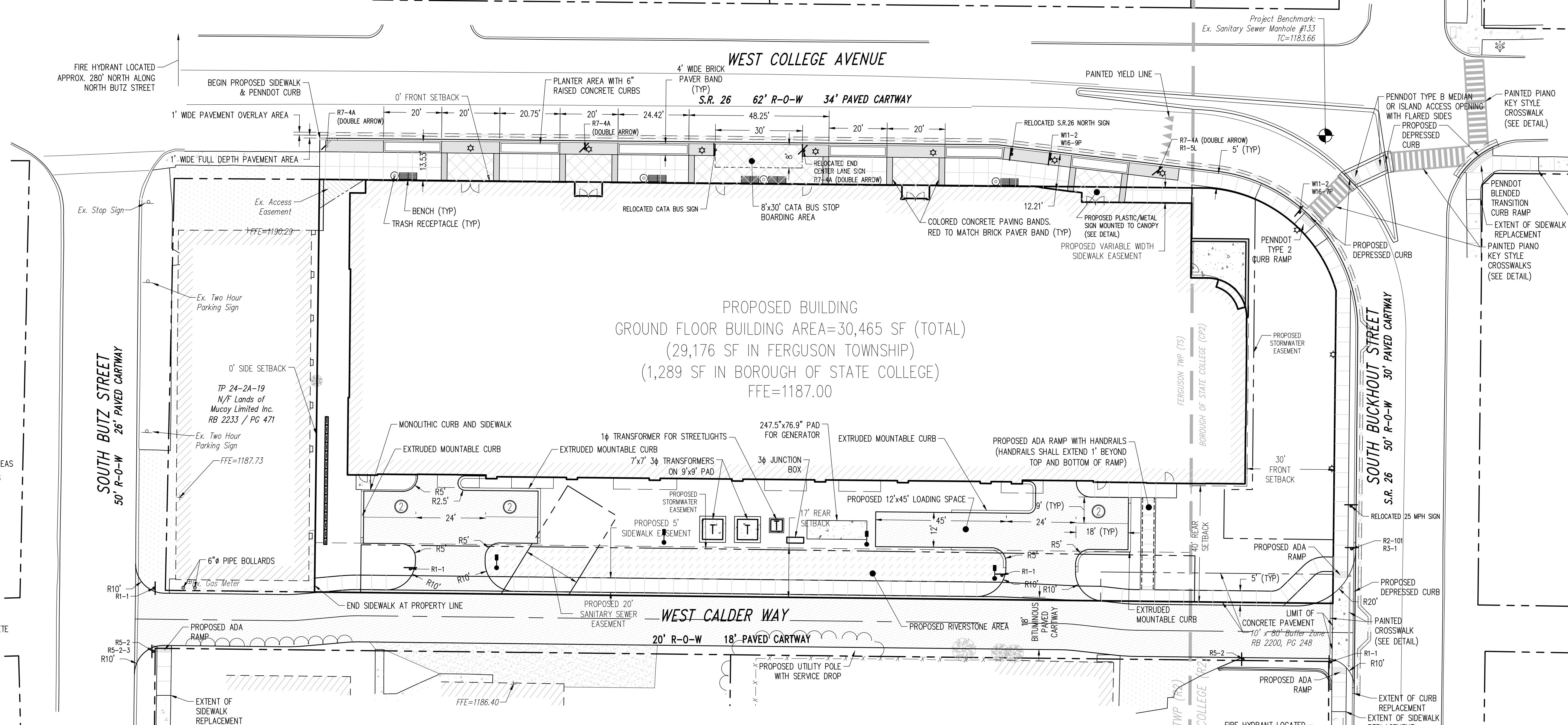
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- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

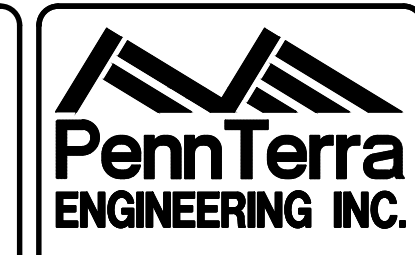
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- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Sign
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED PARKING STALL COUNT
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED RIVERSTONE AREAS
- PROPOSED 6" STEEL BOLLARD FILLED W/ CONCRETE



All "Refuse and Recycling" collection bins/dumpsters/compactors will be typically located inside of the building's refuse and recycling area. On refuse/recycling collection days, all collection bins/dumpsters/compactors will be moved outside of the building to the loading space, and then returned to the building after collection.

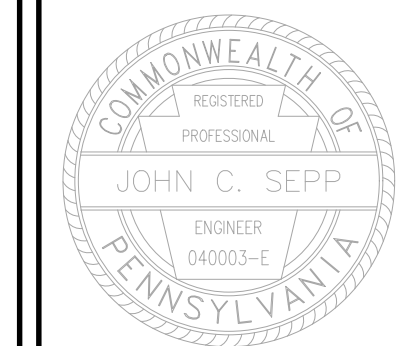


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Designer	EAH
Draftsman	EAH
Proj/Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg 42
Acad	19052-FINAL-LD-GEO
Layout	GEO

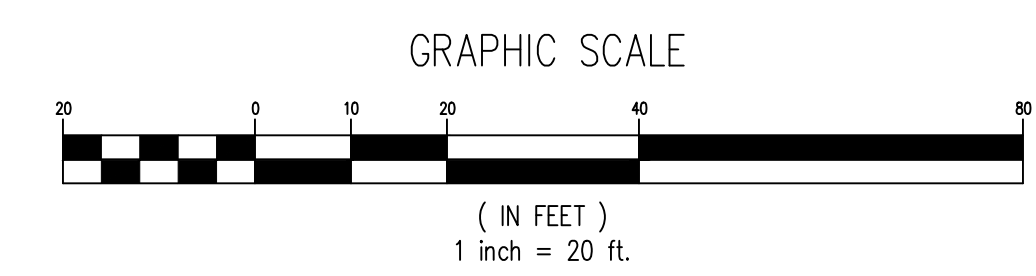
06/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/18/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #1
Date	Description	REVISIONS

WEST COLLEGE STUDENT HOUSING
BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

GEOMETRY PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	6



GRADING NOTES

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA, THE CURRENT REQUIREMENTS OF THE FERUGSON TOWNSHIP, THE CURRENT REQUIREMENTS OF THE BOROUGH OF STATE COLLEGE, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVII, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
3. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL 1-800-242-1776. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
4. MAXIMUM SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) EXCEPT WHERE SPECIFICALLY NOTED.
5. ALL AREAS NOT PAVED SHALL BE TOPSOILED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.
7. THE MAXIMUM SLOPE FOR ALL ON-SITE SIDEWALKS SHALL BE 4.90% WITH A MAXIMUM CROSS SLOPE OF 2.00% AND CURB RAMPS SHALL HAVE A MAXIMUM SLOPE OF 8.30%.
8. CONTOURS SHOWN ON THIS PLAN ARE GENERATED FROM A FIELD SURVEY BY PENNTERRA ENGINEERING, INC. THE PROJECT BENCHMARK IS THE TOP OF CASTING OF THE SANITARY SEWER MANHOLE IN THE MEDIAN ISLAND AT THE INTERSECTION OF WEST COLLEGE AVENUE AND SOUTH BUCKHOUT STREET, AS SHOWN ON THE PLAN. ELEVATION = 1183.66'.

SURVEY FEATURES LEGEND

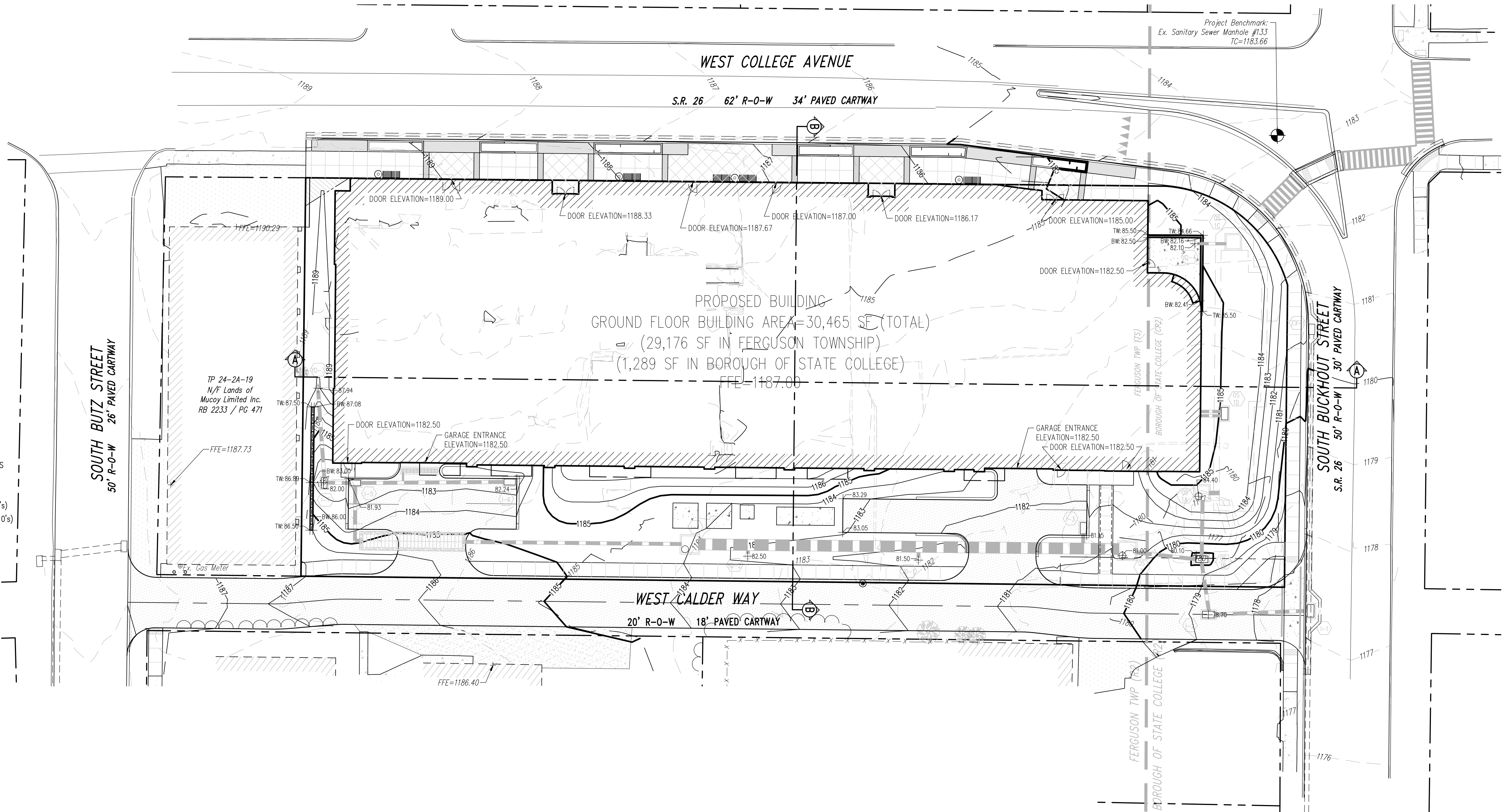
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- - - - - Adjoining Property Line
- - - - - Building Setback Line
- - - - - Easement Line
- ⊕ Project Benchmark
- - - - - Municipal Boundary

EXISTING FEATURES LEGEND

- ▭ EXISTING BUILDING
- Existing Building
- Existing Curbing & Edge of Pavement
- ▭ Existing Concrete Areas
- ▭ Existing Bituminous Areas
- ▭ Existing Gravel Areas
- Existing Retaining Wall
- x - x - x - Existing Fence / Type
- - - - - Existing Contours w/ Elevation (1's & 2's)
- - - - - Existing Contours w/ Elevation (5's & 10's)
- - - - - Existing Storm Sewer Line w/ Inlet
- Existing Tree Row
- 25% Slopes Or Greater
- ⊗ Existing Deciduous Tree
- ⊙ Existing Evergreen Tree
- ⊕ Existing Shrub

PROPOSED FEATURES LEGEND

- ▭ PROPOSED BUILDING
- ▭ PROPOSED CURBING & EDGE OF PAVEMENT
- ▭ PROPOSED CONCRETE SIDEWALK
- ▭ PROPOSED CONCRETE AREAS
- ▭ PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- ▭ PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- ▭ PROPOSED RETAINING WALL
- - - - - PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- - - - - PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- + 69.87 PROPOSED SPOT ELEVATION
- 2.0% PROPOSED GRADE SLOPE
- - - - - PROPOSED STORM SEWER W/ TYPE C INLET
- - - - - PROPOSED STORM SEWER ROOF DRAIN
- - - - - PROPOSED STORM SEWER TRENCH DRAIN
- ▭ PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- ▭ PROPOSED HANDICAPPED RAMP
- x - x - x - PROPOSED RETAINING WALL FENCE
- - - - - PROPOSED 6" STEEL POLYMER FENCE W/ CONCRETE

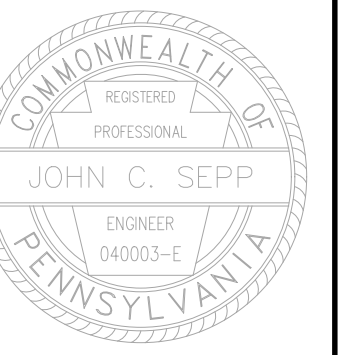


PennTerra ENGINEERING INC.
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 SUITE 100
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 PH: 814-231-8285
 Fax: 814-237-2308

LANCASTER REGION OFFICE:
 3904 B ABEL DRIVE
 COLUMBIA, PA 17512
 PH: 717-522-5031
 Fax: 717-522-5046

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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542 Pg 42
Acad	19052-FINAL-LB-GP
Layout	GP

04/14/21	EAH	REVISED PER FERUGSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERUGSON TOWNSHIP COMMENTS
05/19/21	EAH	REVISED PER FERUGSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERUGSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #1
Date	Description	REVISIONS

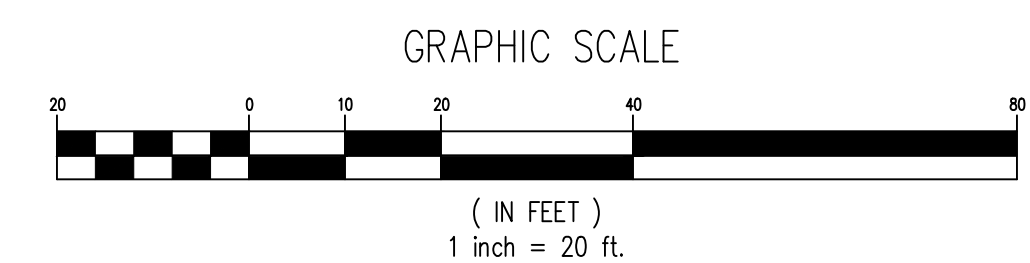
WEST COLLEGE STUDENT HOUSING

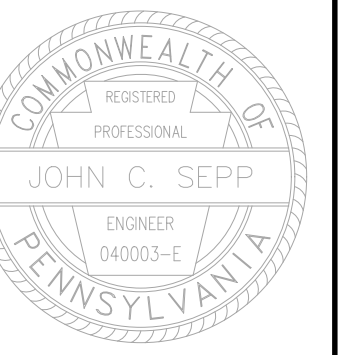
BOROUGH OF STATE COLLEGE
 FERUGSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

GRADING PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	7





Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FINAL-10-SPEN2
Layout	GP-EN2

05/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/28/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #1
Date		Description
		REVISIONS

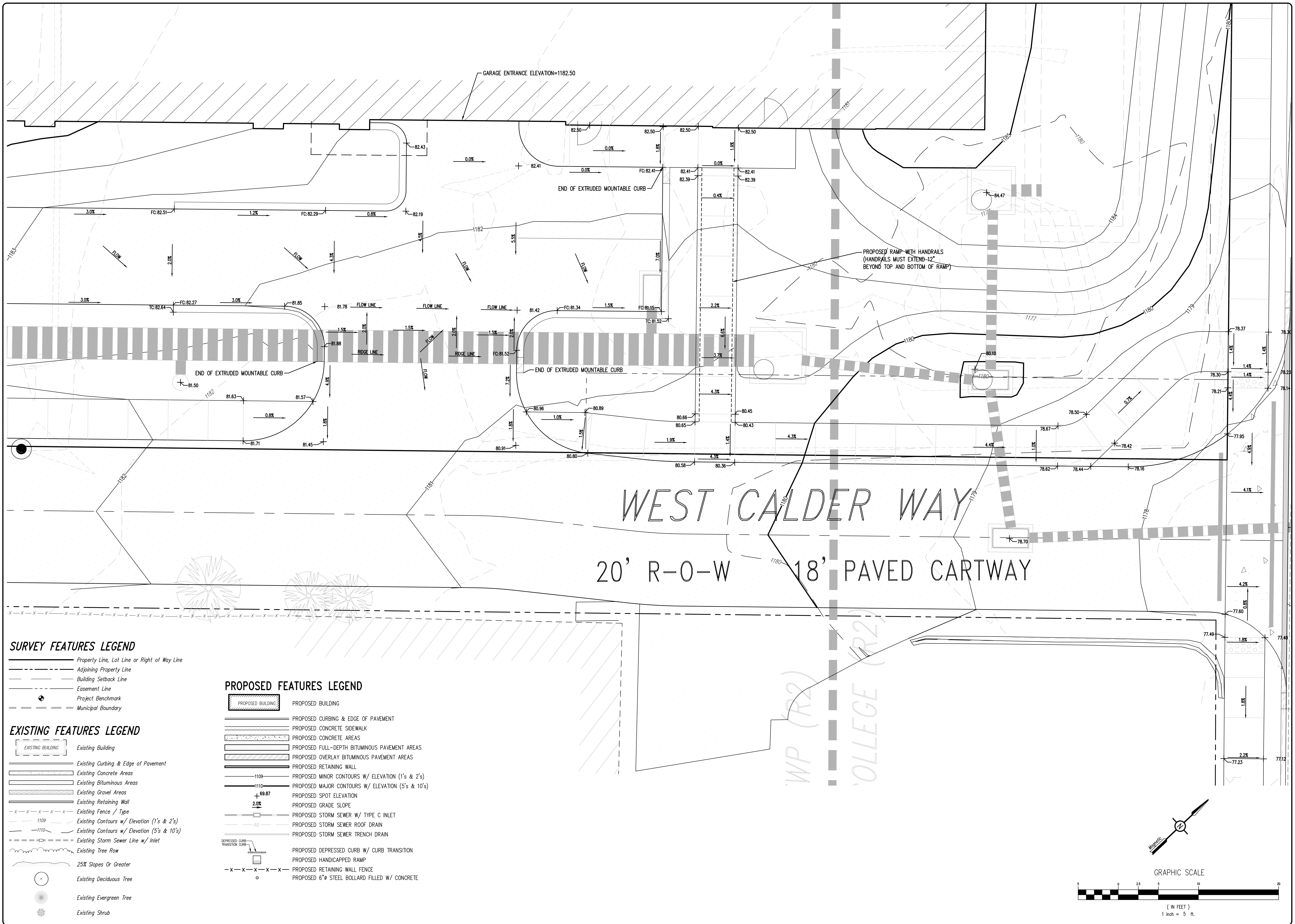
WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=5'
SHEET NO.	9



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED SPOT ELEVATION
- PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL FENCE
- PROPOSED 6"Ø STEEL BOLLARD FILLED W/ CONCRETE

SURVEY FEATURES LEGEND

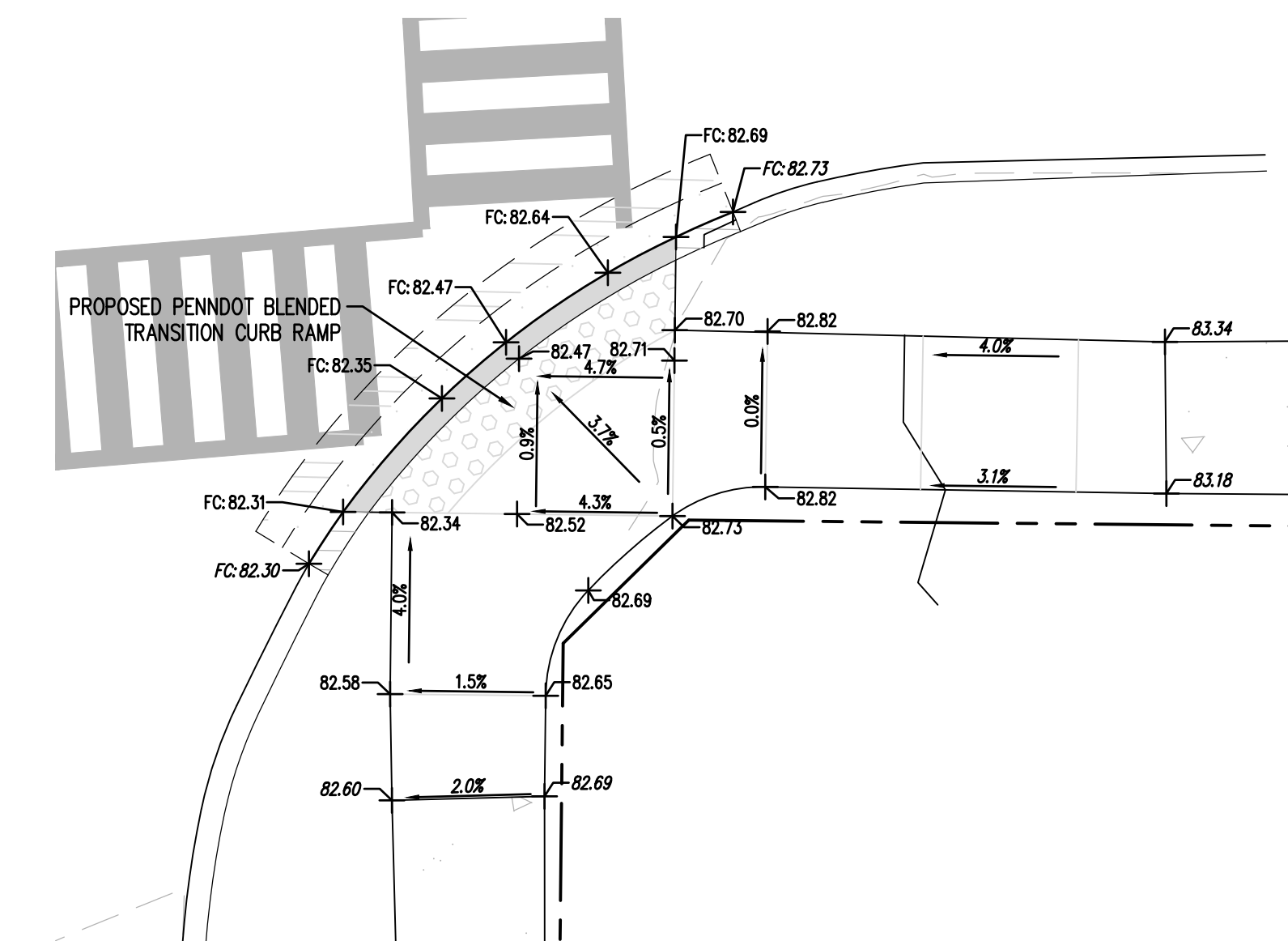
- Property Line, Lot Line or Right of Way Line
- - - Adjoining Property Line
- - - Building Setback Line
- - - Easement Line
- ⊕ Project Benchmark
- - - Municipal Boundary

EXISTING FEATURES LEGEND

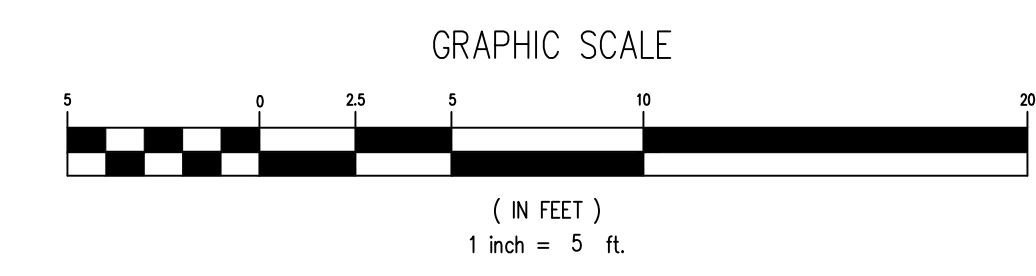
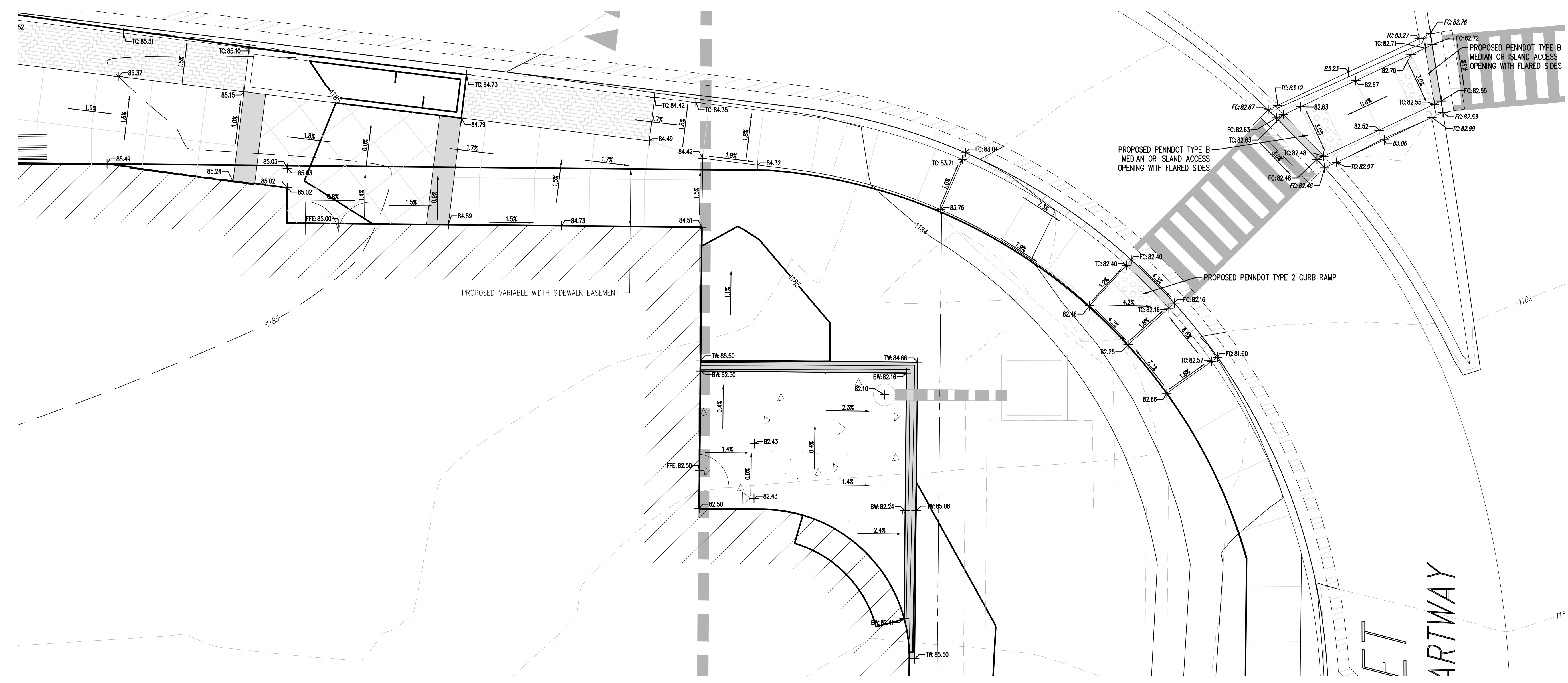
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
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PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED SPOT ELEVATION
- PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL FENCE
- PROPOSED 6"Ø STEEL BOLLARD FILLED W/ CONCRETE



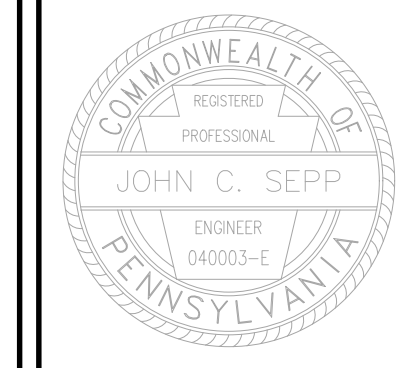
WEST COLLEGE AVENUE / SOUTH BUCKHOUT STREET
CURB RAMP ENLARGEMENT
SCALE: 1" = 5'



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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg 42
Acad	19052-FINAL-10-GPEN3
Layout	CP-EN3

03/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/18/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
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04/14/21	EAH	ADDENDUM #1
Date	Description	REVISIONS

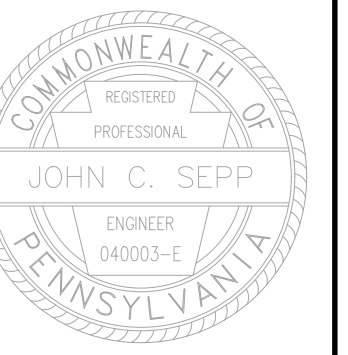
WEST COLLEGE STUDENT HOUSING
BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=5'
SHEET NO.	10

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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FINAL-1D-GPEN4
Layout	GP-EN4

08/04/21	REVISED PER FERGIUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	REVISED PER FERGIUSON TOWNSHIP COMMENTS
05/18/21	REVISED PER FERGIUSON TOWNSHIP COMMENTS
04/30/21	FIRST SUBMISSION TO FERGIUSON TOWNSHIP
04/27/21	REVISED PER BOROUGH COMMENTS
04/14/21	ADDENDUM #
Date	DESCRIPTIONS

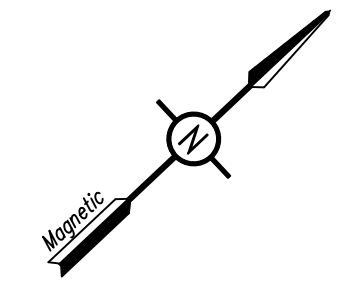
WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERGIUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

GRADING PLAN - ENLARGEMENT

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=5'
SHEET NO.	11



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- - - Adjoining Property Line
- - - Building Setback Line
- - - Easement Line
- ⊕ Project Benchmark
- - - Municipal Boundary

EXISTING FEATURES LEGEND

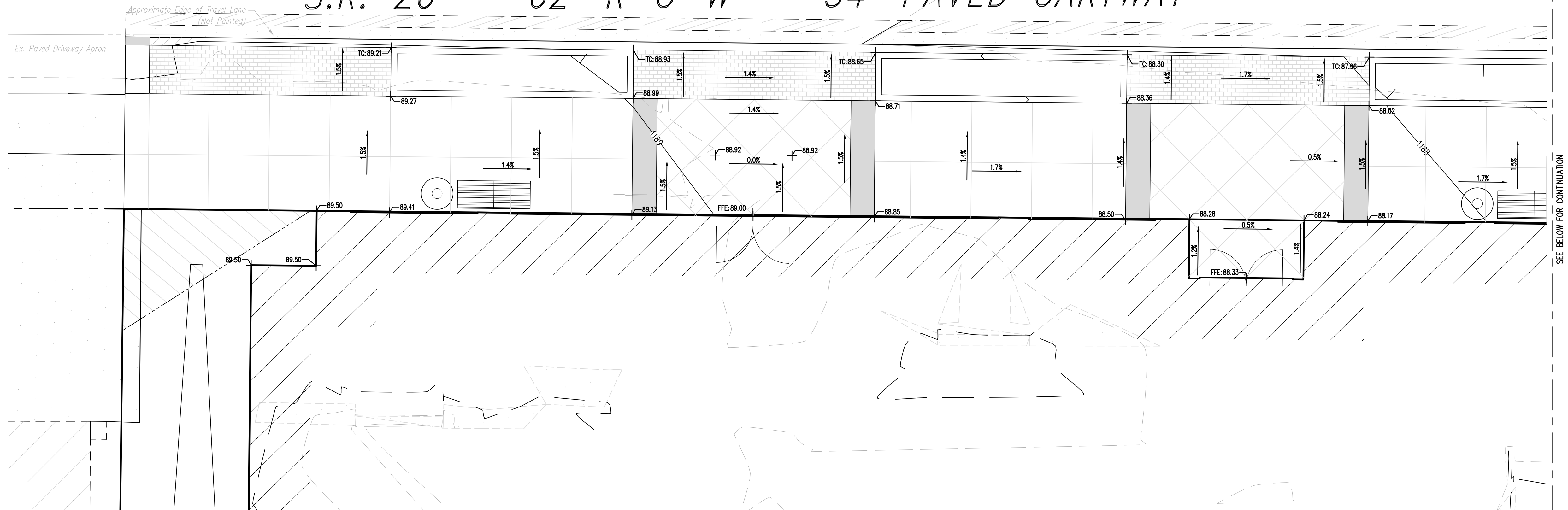
- EXISTING BUILDING Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- x - x - x - x - Existing Fence / Type
- 1109 Existing Contours w/ Elevation (1's & 2's)
- 1110 Existing Contours w/ Elevation (5's & 10's)
- Existing Storm Sewer Line w/ Inlet
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED RETAINING WALL
- 1109 PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- 1110 PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED SPOT ELEVATION
- PROPOSED GRADE SLOPE
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL FENCE
- PROPOSED 6" STEEL BOLLARD FILLED W/ CONCRETE

WEST COLLEGE AVENUE

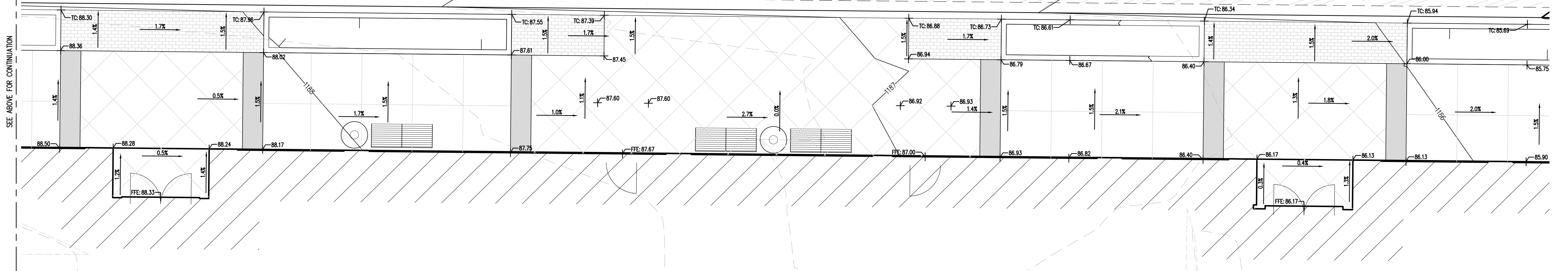
S.R. 26 62' R-O-W 34' PAVED CARTWAY



SEE BELOW FOR CONTINUATION

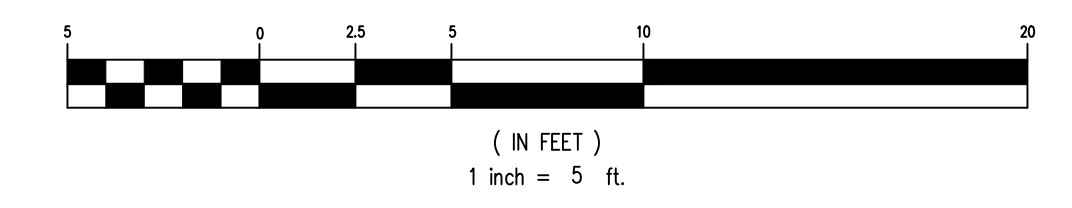
WEST COLLEGE AVENUE

S.R. 26 62' R-O-W 34' PAVED CARTWAY



SEE ABOVE FOR CONTINUATION

GRAPHIC SCALE



UTILITY NOTES

- ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY PENNTERRA ENGINEERING INC., THE CURRENT REQUIREMENTS OF THE FERGUSON TOWNSHIP, THE APPLICABLE SECTIONS OF THE PENNDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
- THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVI, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
- BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PA ONE CALL AT 1-800-242-1776. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTION.
- ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY OR REGULATORY AUTHORITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.
- ALL SANITARY SEWER & WATER LINES SHALL HAVE 4' MINIMUM COVERAGE.
- ALL WATER SERVICE LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE STATE COLLEGE BOROUGH WATER AUTHORITY'S STANDARDS AND SPECIFICATIONS FOR PRIVATE SERVICE LATERALS.
- ALL SANITARY SEWER MAINS & SERVICE LATERALS SHALL BE IN ACCORDANCE WITH THE UNIVERSITY AREA JOINT AUTHORITY'S STANDARDS AND SPECIFICATIONS.
- ALL ROOF DRAIN LINES LEAVING THE BUILDING SHALL BE CONNECTED TO AN FG-DS10 FLOGARD DOWNSPOUT FILTER. THESE FILTERS MUST BE INSTALLED ON A VERTICAL RISER PIPE WITHIN THE BUILDING, AND MUST BE ACCESSIBLE FOR MAINTENANCE. COORDINATE EXACT INSTALLATION LOCATIONS WITH THE ARCHITECT & MEP CONSULTANT. SEE SHEET PC4 FOR MORE INFORMATION.

SURVEY FEATURES LEGEND

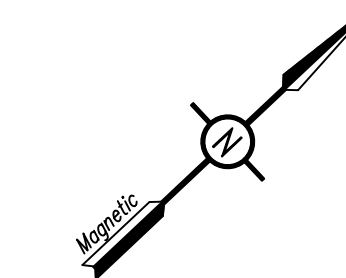
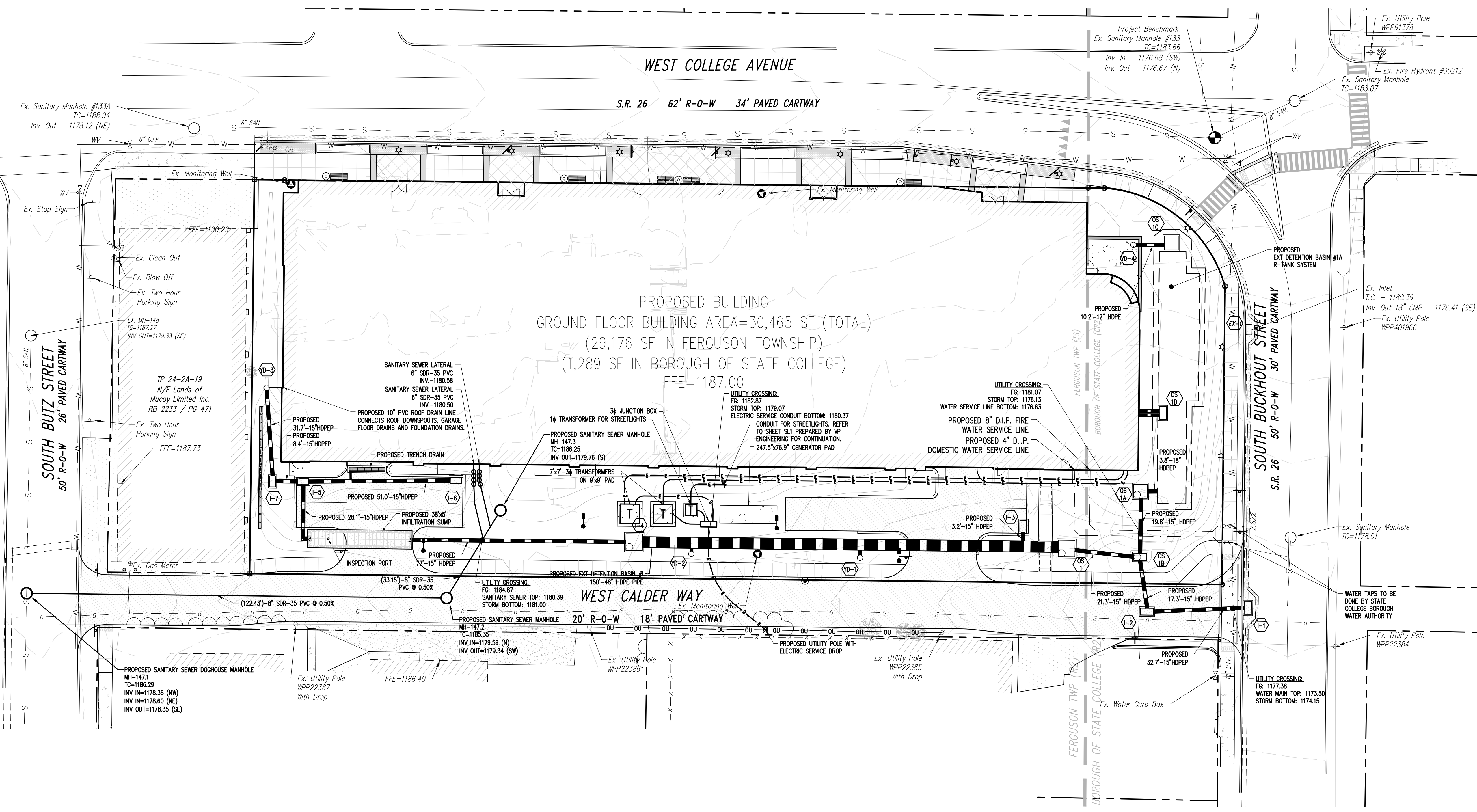
- Property Line, Lot Line or Right of Way Line
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- Municipal Boundary

EXISTING FEATURES LEGEND

- EXISTING BUILDING
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED SIGN
- PROPOSED RETAINING WALL FENCE

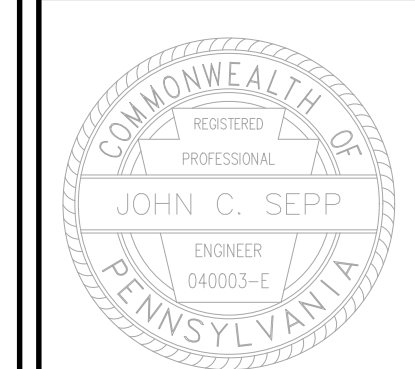


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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Clk.	
Book	542 Pg 42
Acad	19052-FINAL-LD-UP
Layout	UP

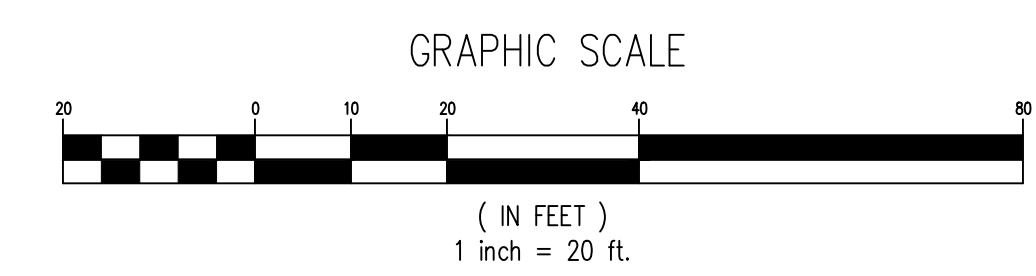
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05/04/21	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS	
05/21/21	REVISED PER FERGUSON TOWNSHIP COMMENTS	
05/19/21	REVISED PER FERGUSON TOWNSHIP COMMENTS	
04/30/21	FIRST SUBMISSION TO FERGUSON TOWNSHIP	
04/27/21	REVISED PER BOROUGH COMMENTS	
04/14/21	ADDENDUM #	
04/14/21	DATE	

WEST COLLEGE STUDENT HOUSING
 BOROUGH OF STATE COLLEGE
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

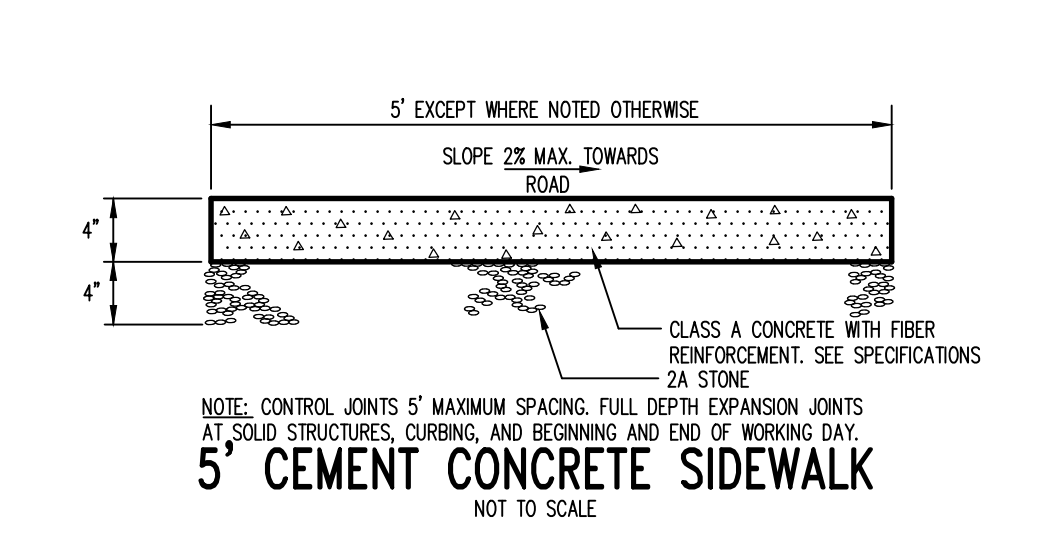
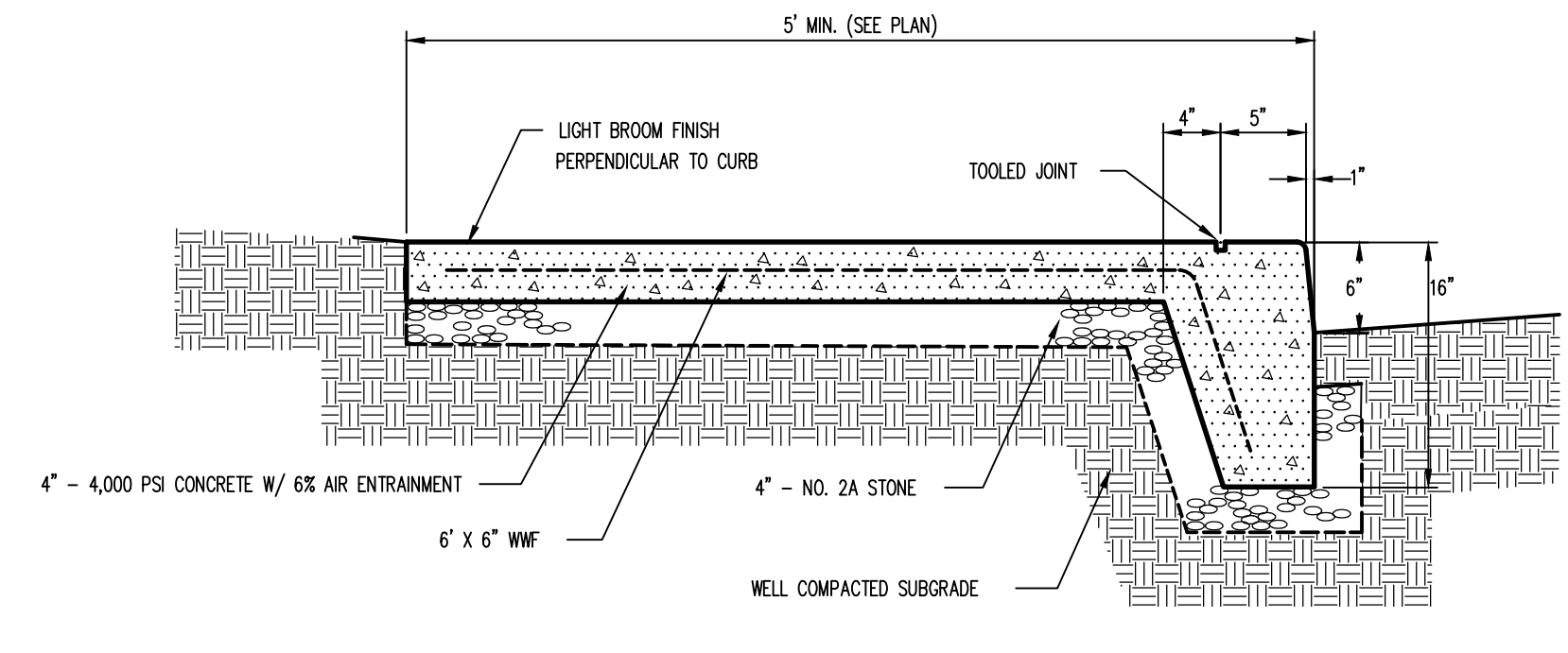
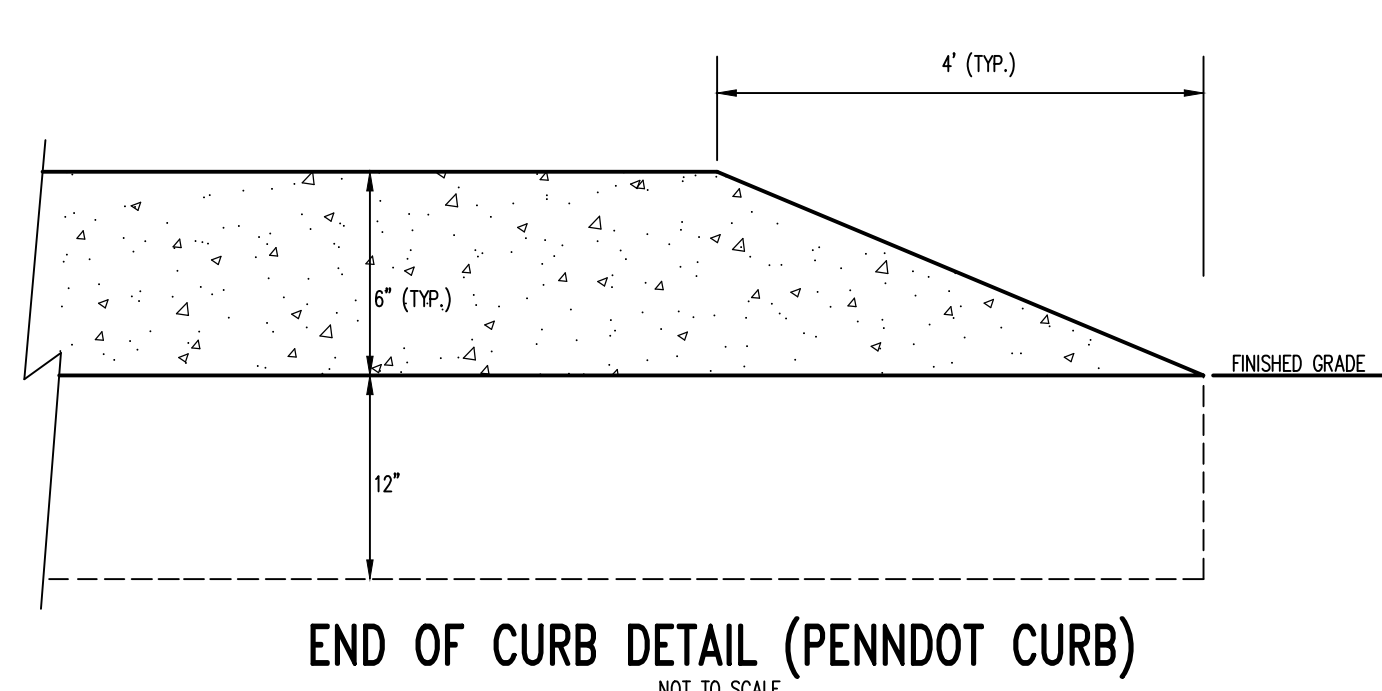
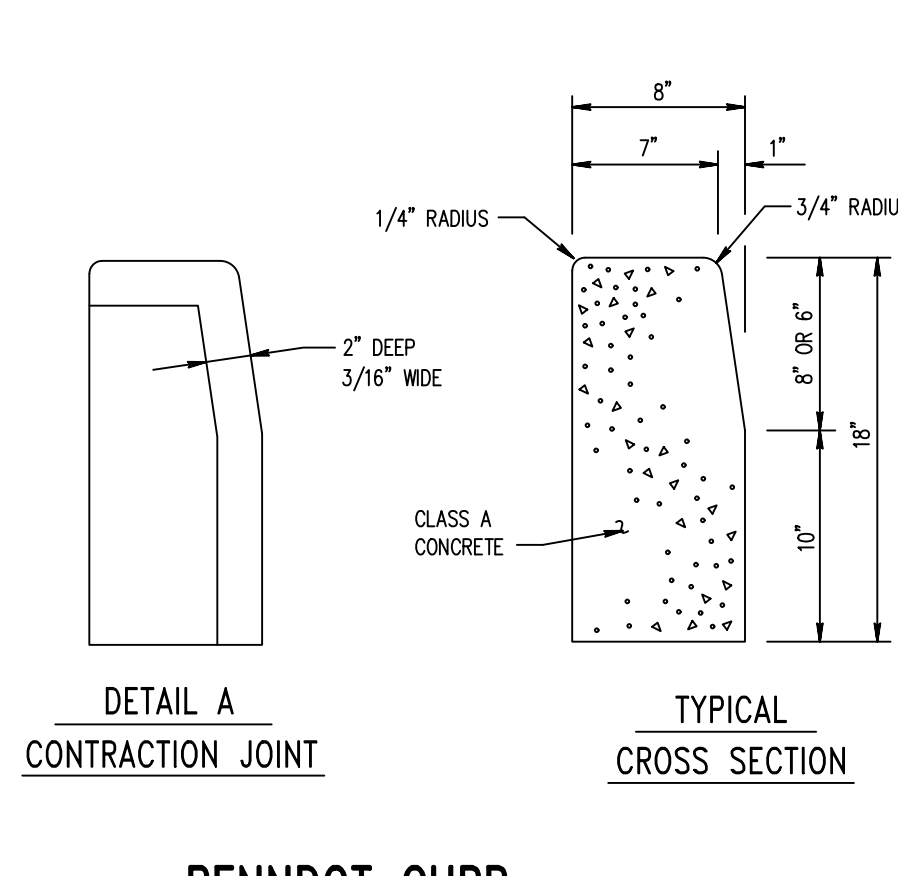
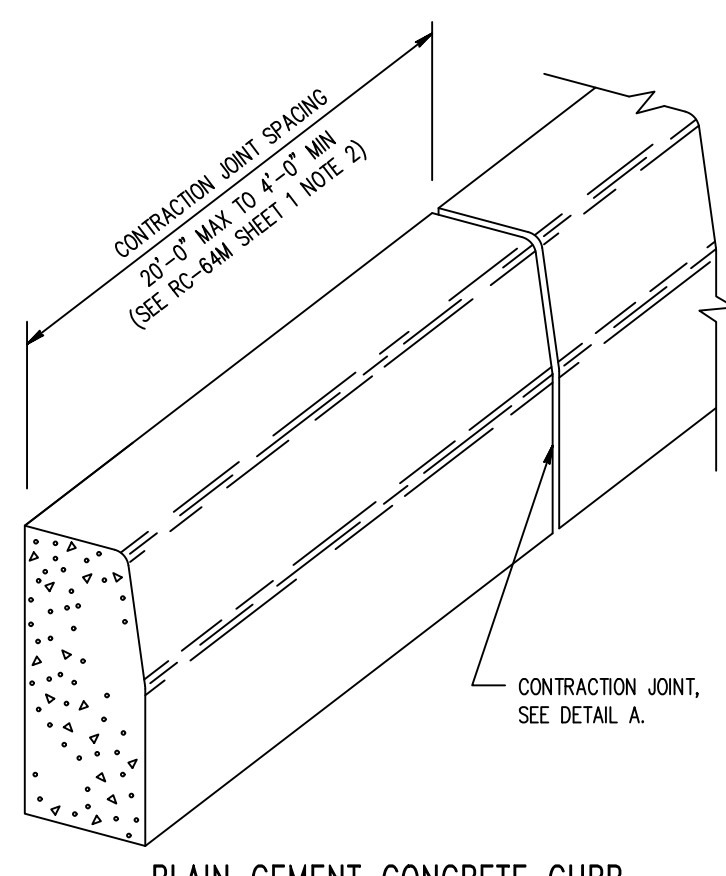
FINAL LAND DEVELOPMENT PLAN

UTILITY PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	12



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RC-67M SHEET 1 NOTES

- PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694 AND 695.
- PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
- SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
- MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
- 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.
- FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE.
- 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.
- THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
- 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.
- A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
- INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
- DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.

PENNDOT CURB

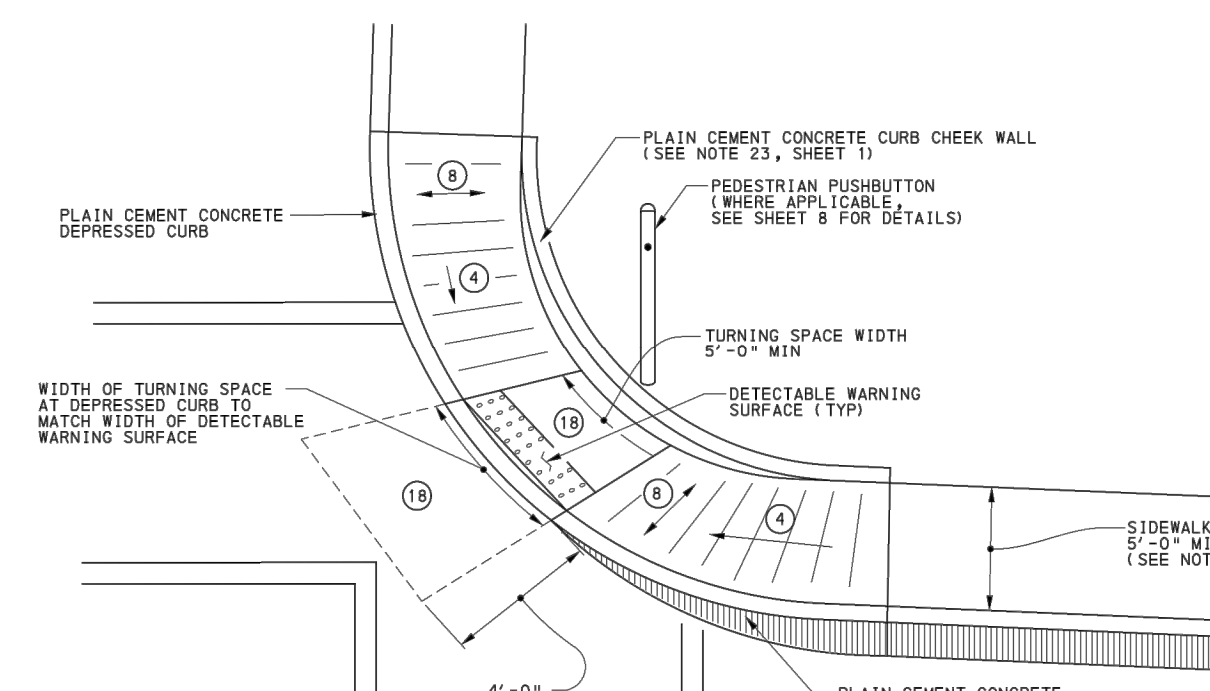
NOT TO SCALE

RC-64M SHEET 1 NOTES

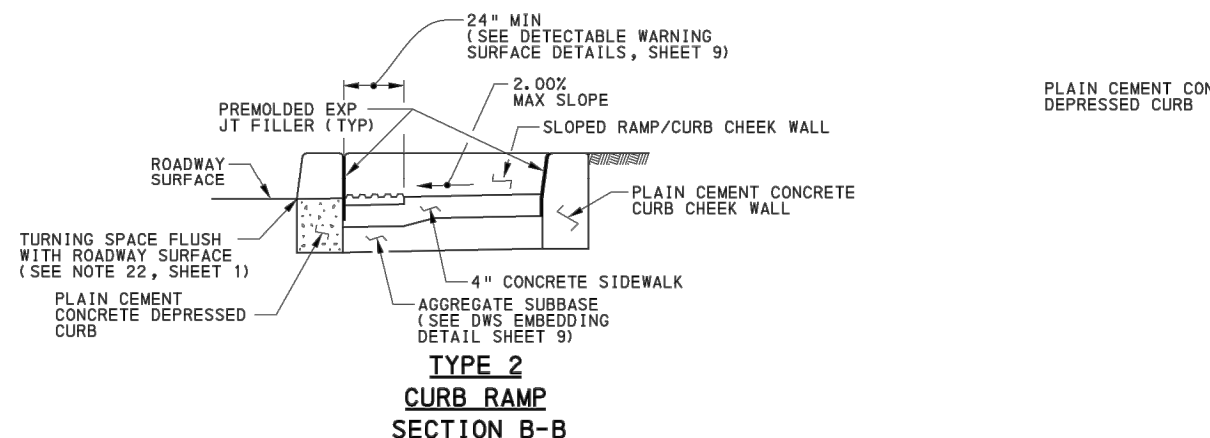
- PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE CUTTER AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB CUTTER.
- SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
- PLACE 3/4" THICK PREMOLED 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.
- WHERE CURBS ARE INSTALLED ADJACENT TO PARKING LANES A 6" HIGH CURB CAN BE UTILIZED WITH APPROVAL FROM THE LOCAL MUNICIPALITY.

CONTRACTOR NOTES:

- PER RC-64M SHEET 1 NOTE #5, WHERE CURBS ARE INSTALLED ADJACENT TO PARKING LANES A 6" HIGH CURB CAN BE UTILIZED WITH APPROVAL FROM LOCAL MUNICIPALITY
- PER RC-67M SHEET 1 NOTE #6, CONTRACTOR TO MODIFY TYPICAL CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
- CONTRACTOR TO MATCH ALL EXISTING CURBS HEIGHTS ALONG WEST COLLEGE AVENUE.

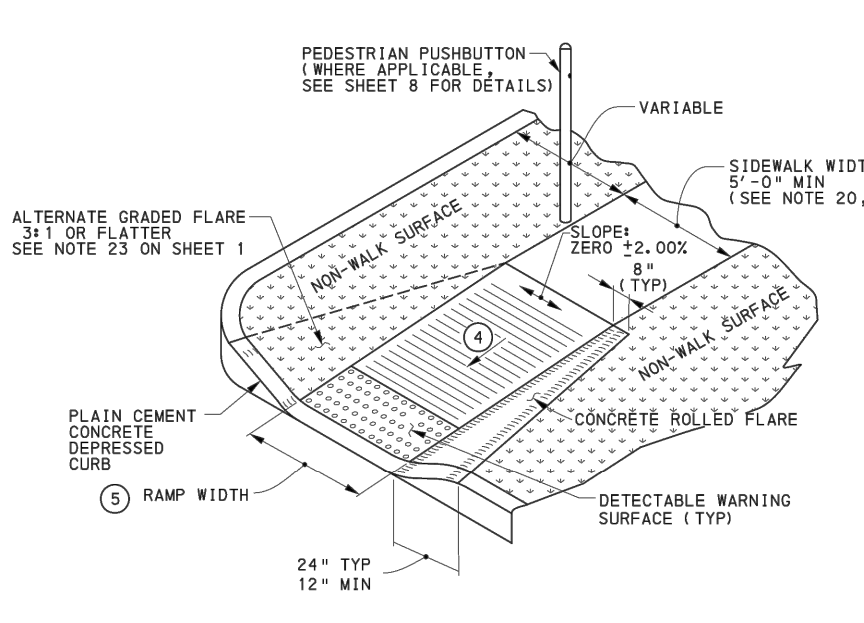


ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK



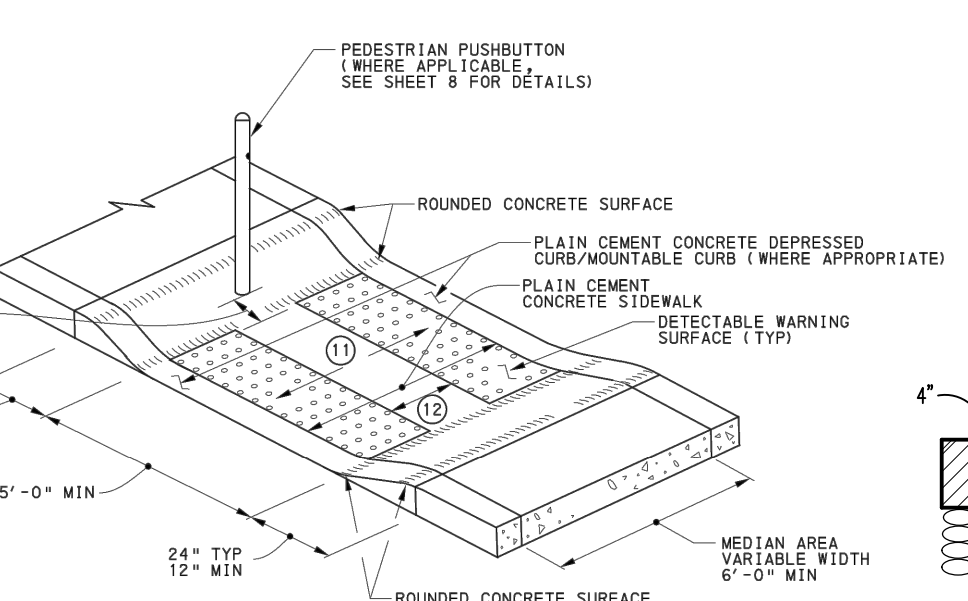
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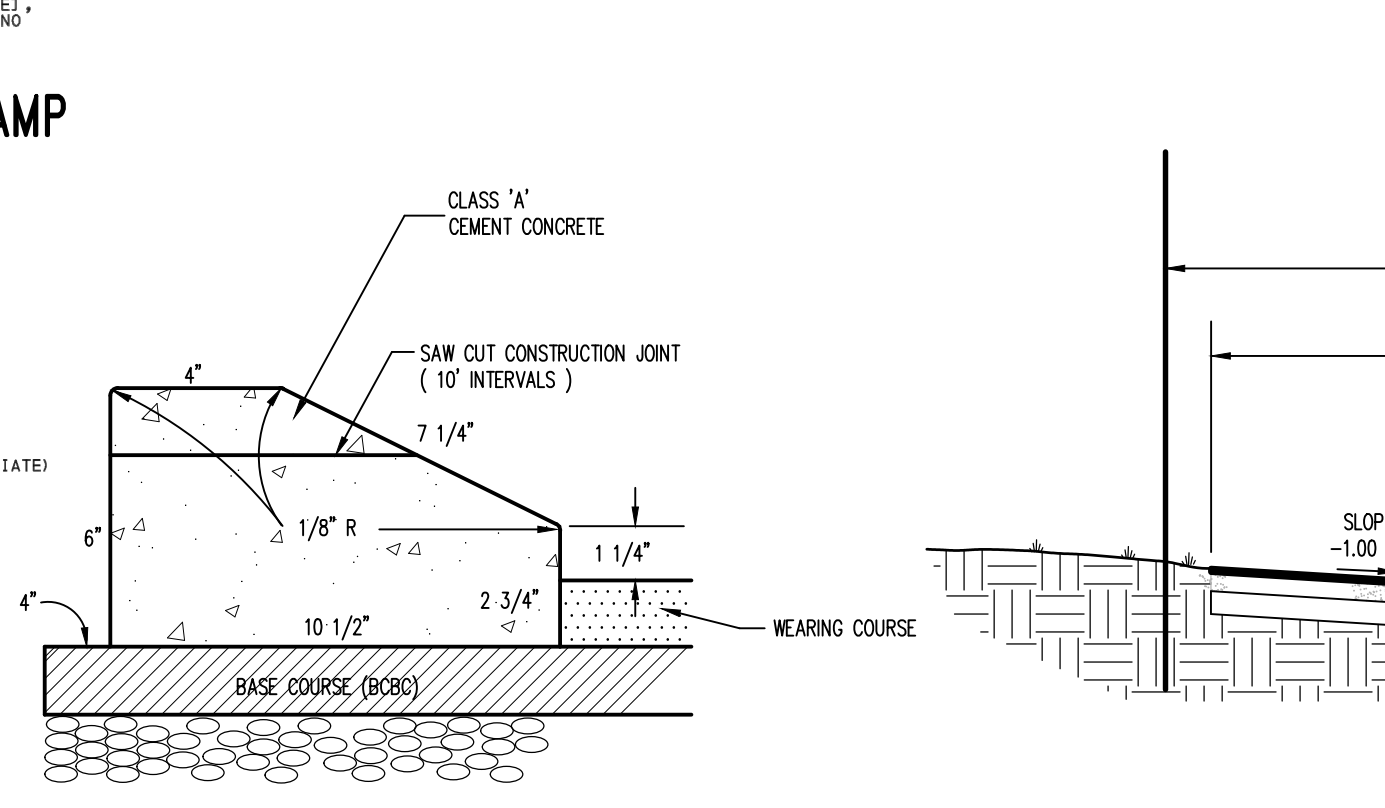
PENNDOT BLENDED TRANSITION CURB RAMP

NOT TO SCALE



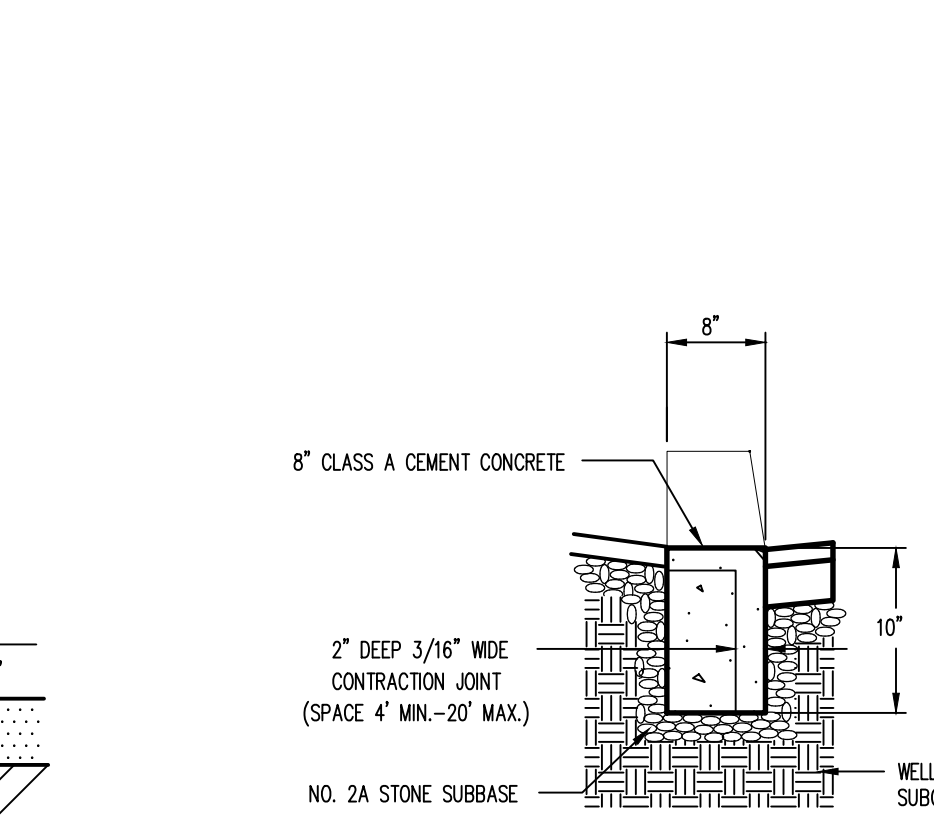
EXTRUDED CONCRETE CURB W/CONC. WALK DETAIL

NOT TO SCALE



WEST COLLEGE AVENUE PAVEMENT SECTION
WITHIN PENNDOT R-O-W

NOT TO SCALE

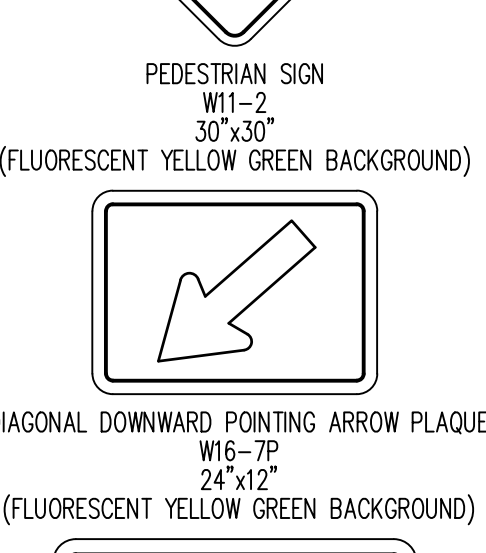
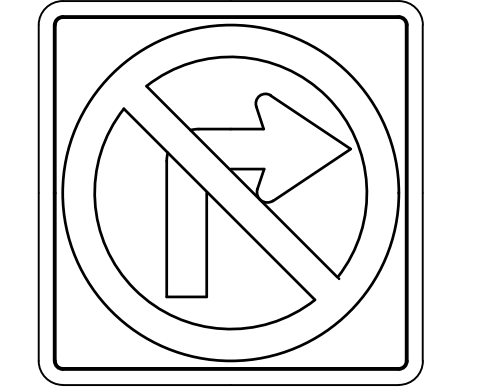
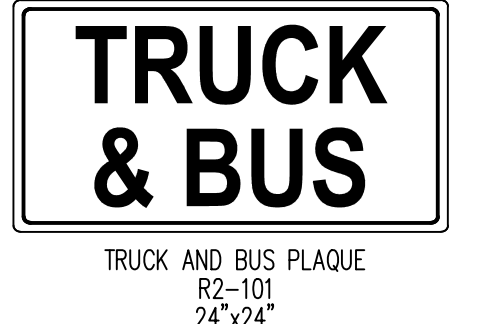
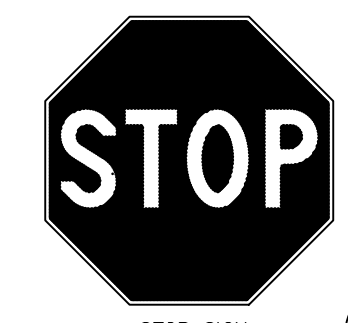
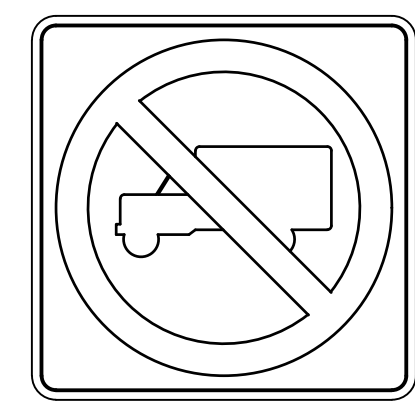


CROSS SECTION: 20' R-O-W W/ 18' CARTWAY
WEST CALDER WAY

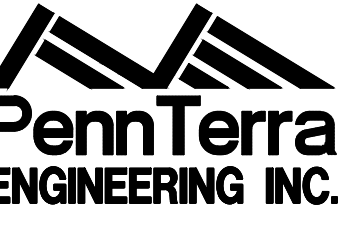
NOT TO SCALE

EXTRUDED CONCRETE CURB DETAIL

NOT TO SCALE



SIGN DETAILS
NOT TO SCALE

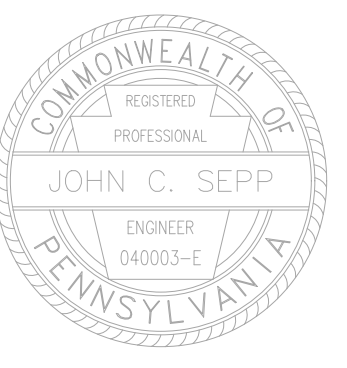


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Draftsman	E.A.H.
Proj/Manager	J.C.S.
Surveyor	B.R.K.
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FINAL-10-011
Layout	D.T.I.

03/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/19/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/17/21	EAH	ADDENDUM #1
Date	Description	REVISIONS

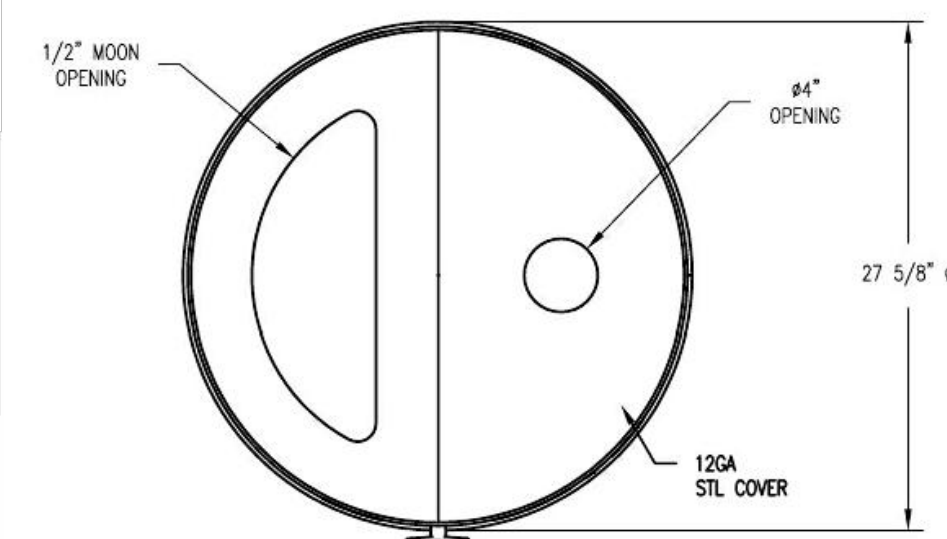
**WEST COLLEGE
STUDENT
HOUSING**

BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

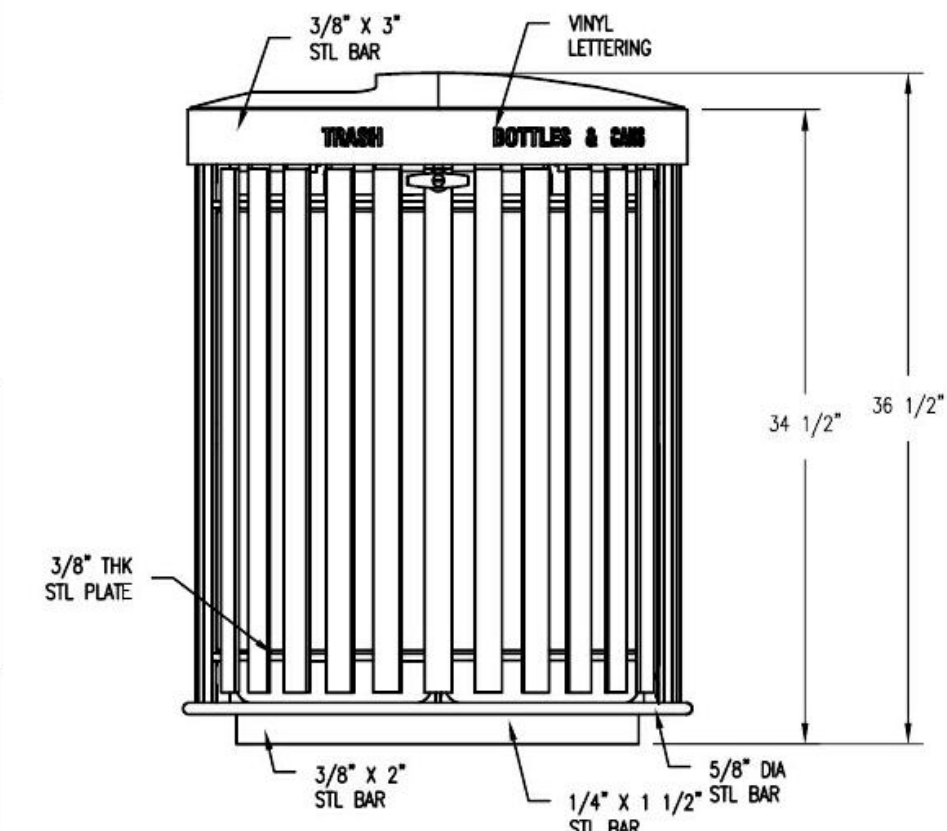
FINAL LAND
DEVELOPMENT PLAN

GENERAL
CONSTRUCTION
DETAILS

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	N.T.S.
SHEET NO.	13



LETTERING LAYOUT
TRASH (20 GAL)
BOTTLES & CANS (20 GAL)



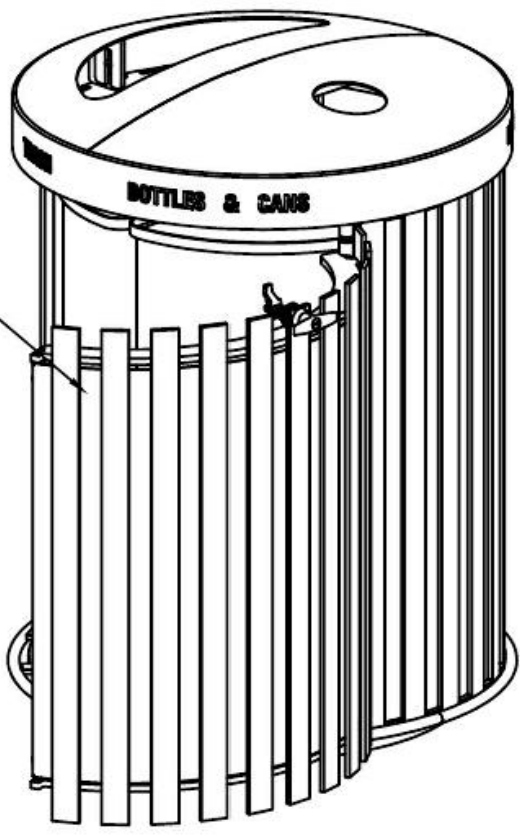
COVER NUMBERS
0-434-EC-13 (1/2 MOON OPENING)
0-434-EC-10 (4" OPENING)

NOTES

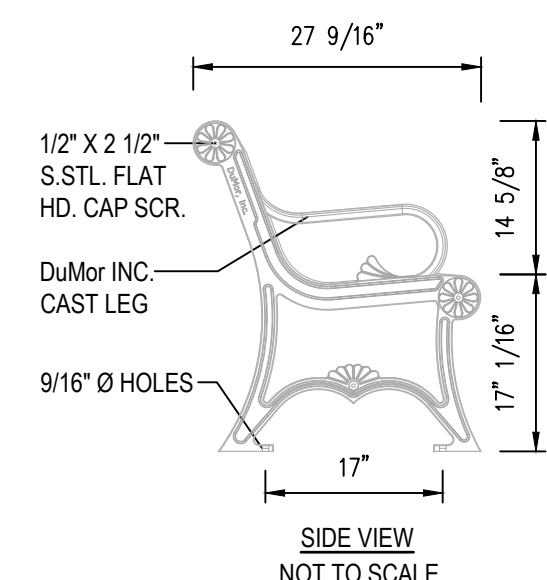
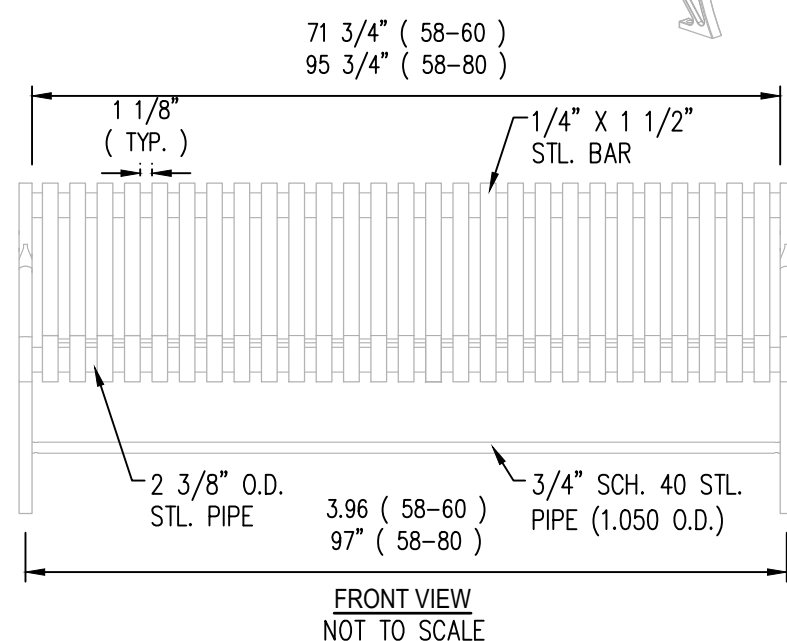
- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED (QTY 3).
- 3.) RECYCLING UNIT HINGE FOR REMOVAL OF LINERS.
- 4.) COLOR: BLACK

DUMOR INC. TRASH/RECYCLING RECEPTACLE

MODEL 436-40SH
NOT TO SCALE



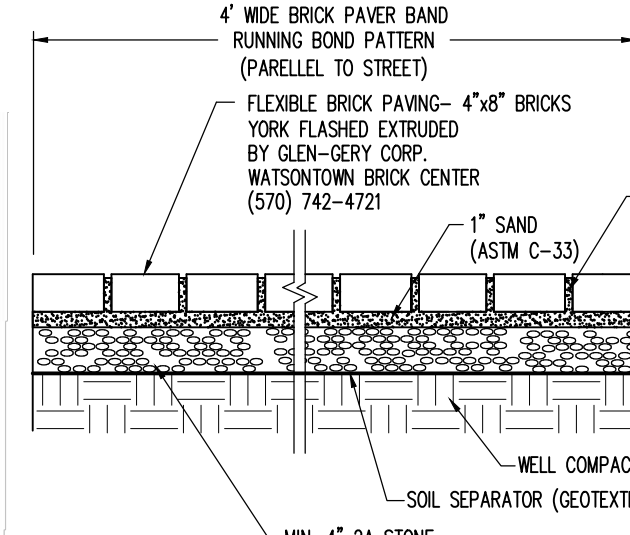
ISOMETRIC VIEW
NOT TO SCALE



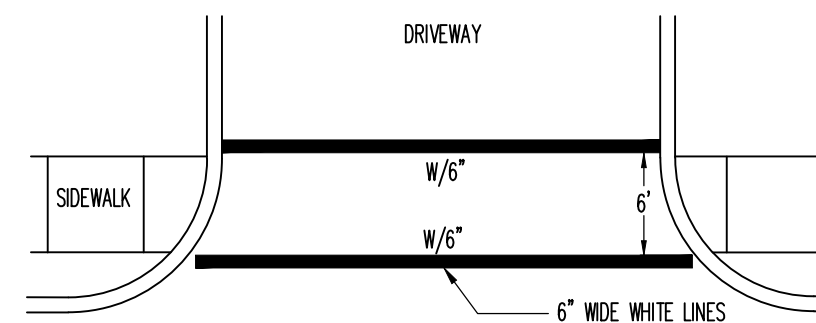
- FRONT VIEW NOT TO SCALE
- SIDE VIEW NOT TO SCALE
- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DIMENSIONS.
 3. ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
 4. 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
 5. CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANEL (37 TOTAL SPACES).
 6. CONTRACTOR'S NOTE: FOR PRODUCT AND PURCHASING INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 017-302.
 7. COLOR: BLACK

DUMOR INC. 58 SERIES STEEL BENCH

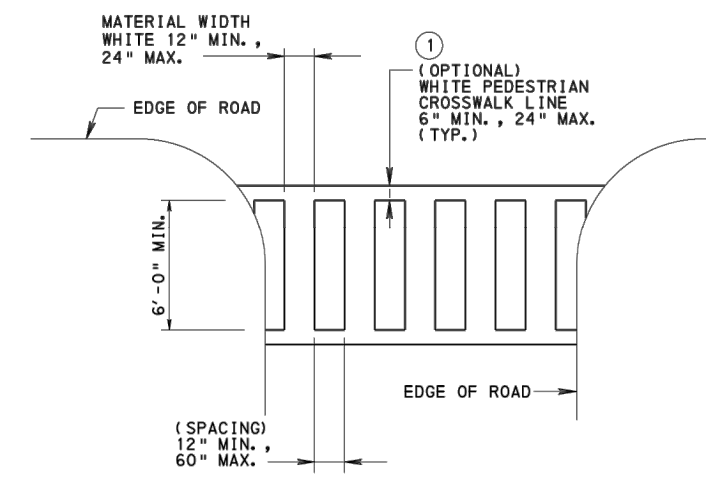
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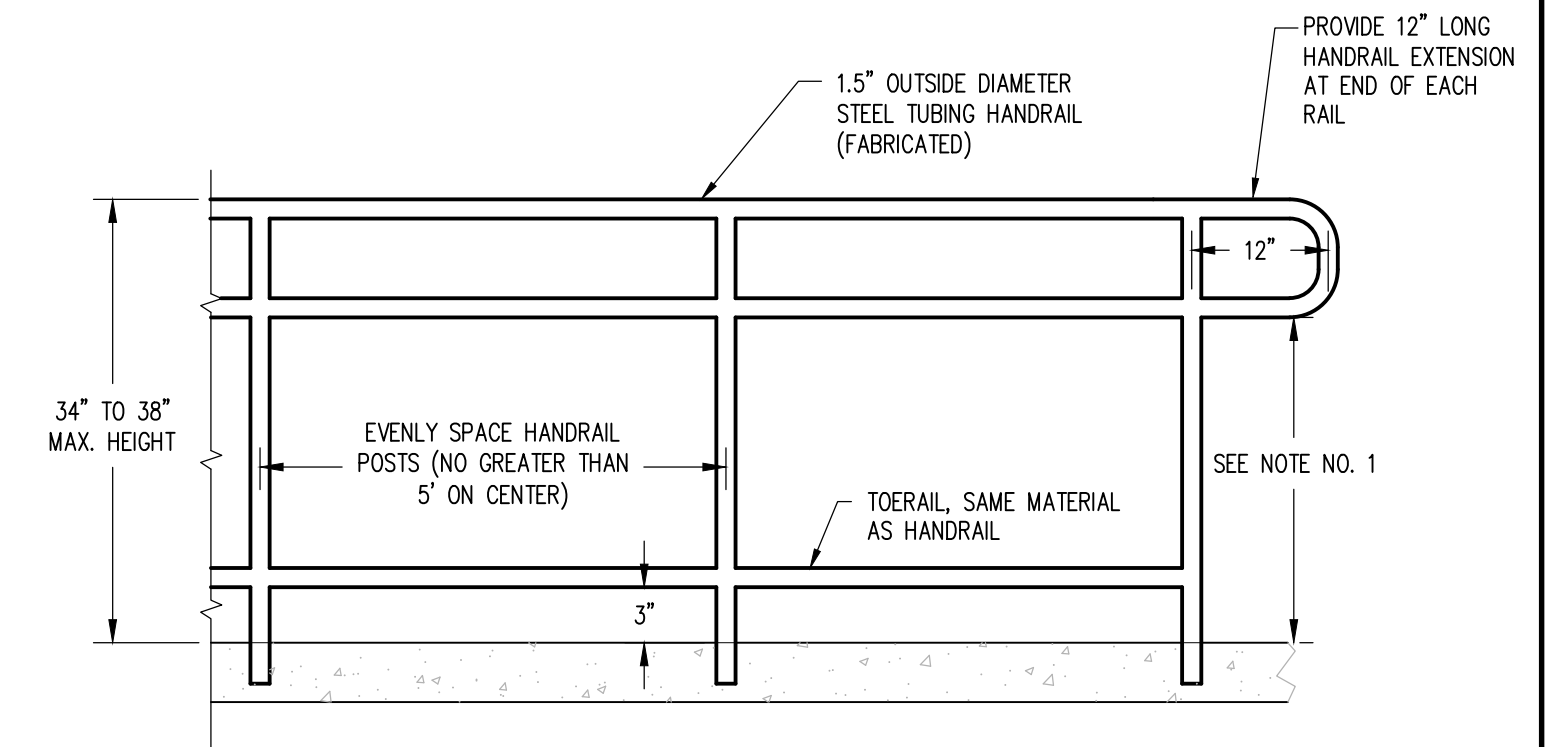
TYPICAL SECTION
BRICK PAVER ACCENT BAND
NOT TO SCALE



CROSSWALK DETAIL
NOT TO SCALE

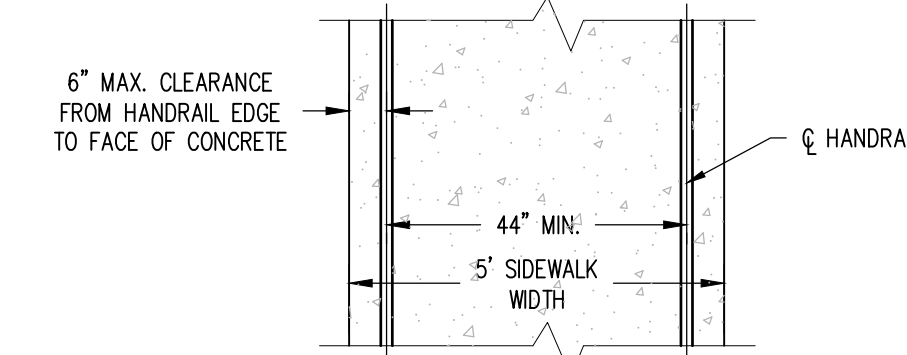


TYPE C - PERPENDICULAR
CROSSWALK DETAIL (SEE PENNDOT PUB 111)
NOT TO SCALE

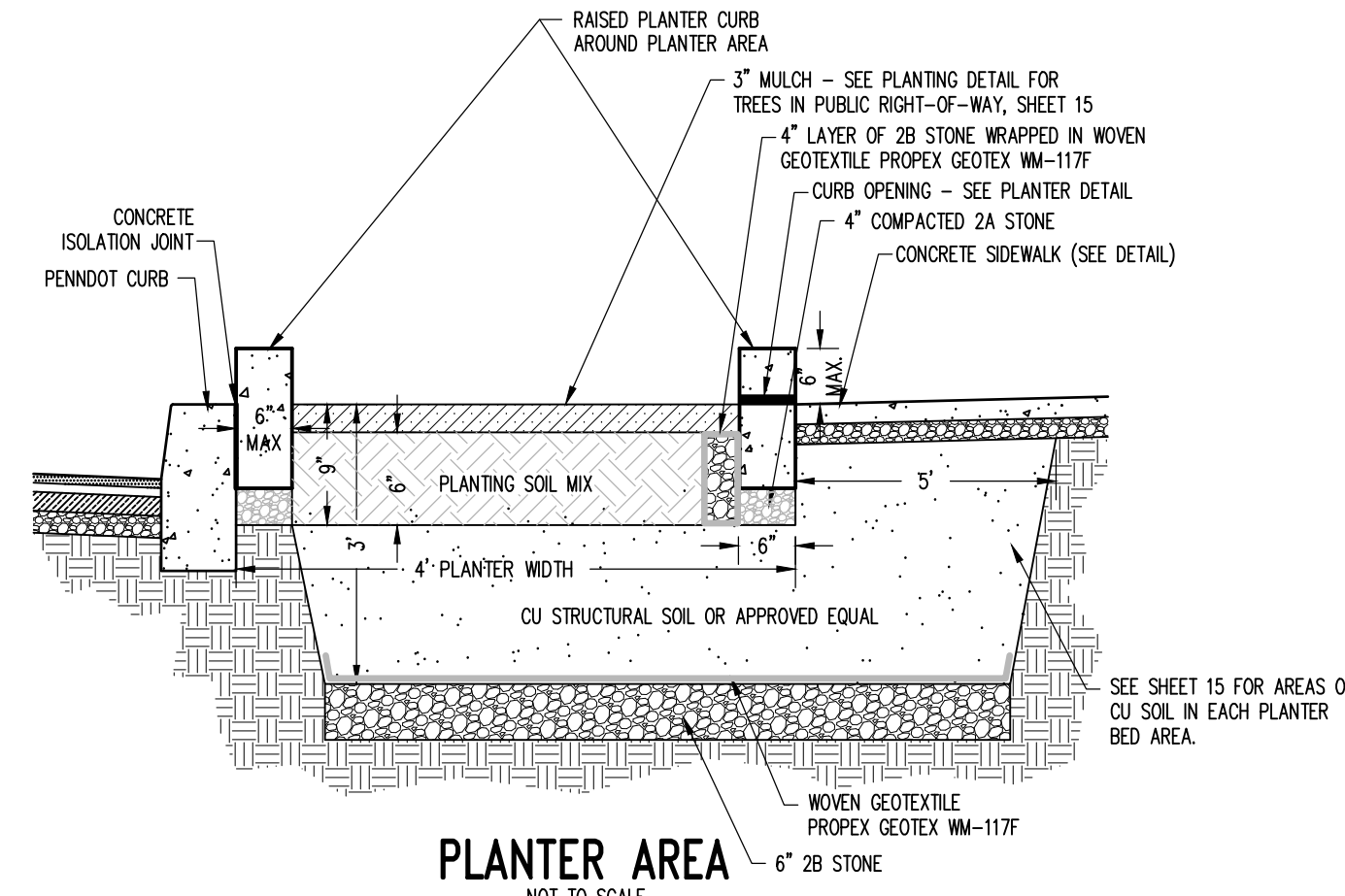


RAMP HANDRAIL DETAIL
NOT TO SCALE

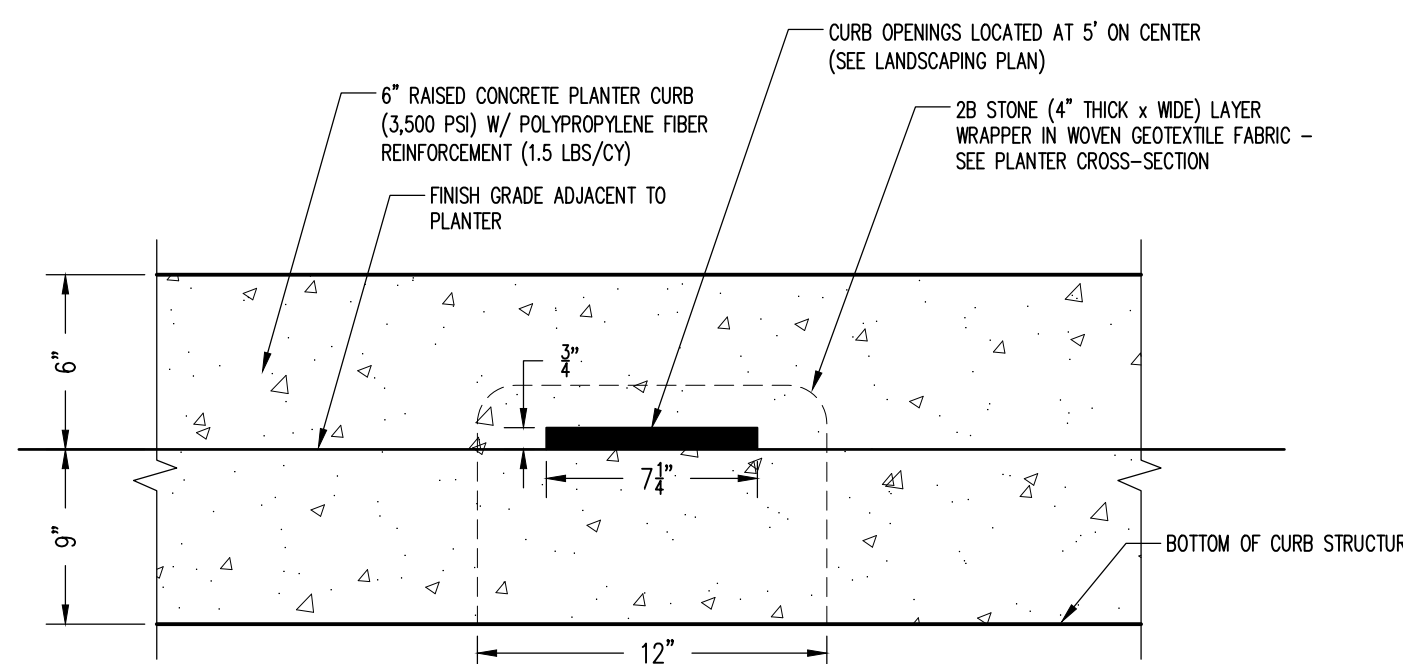
NOTES: ALL HANDRAILS, HANDRAIL TERMINATIONS, & HORIZONTAL/VERTICAL CLEARANCES SHALL COMPLY WITH THE PROVISIONS OF THE GOVERNING EDITIONS OF THE INTERNATIONAL BUILDING CODE AND WITH ICC/ANSI 117.1 CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING HANDRAIL COMPLIANT WITH THE GOVERNING CODES. CORE DRILL OR SURFACE MOUNT ANCHORING METHODS ARE ACCEPTABLE. SEE DIVISION 9 SPECIFICATIONS FINISHES FOR PAINTING REQUIREMENTS.



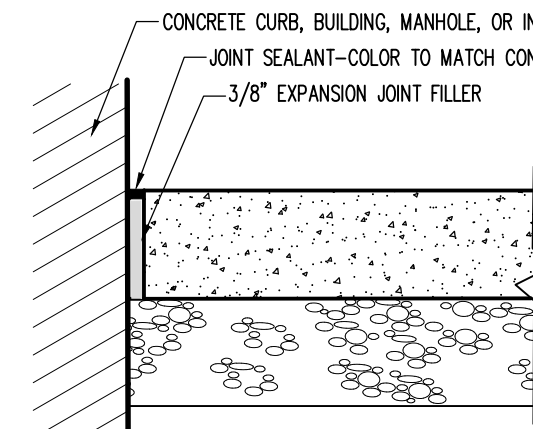
PLAN VIEW - RAMP HANDRAIL DETAIL
NOT TO SCALE



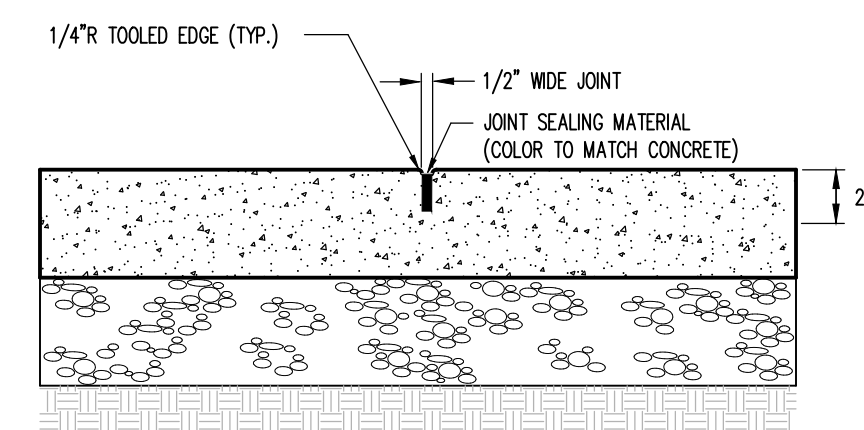
PLANTER AREA
NOT TO SCALE



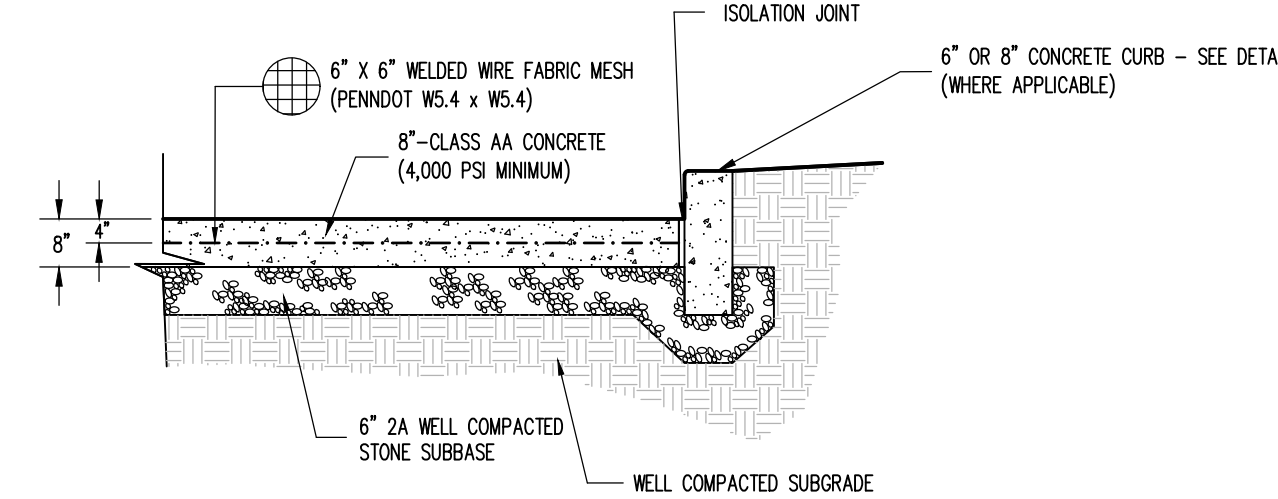
PLANTER CURB ELEVATION DETAIL
NOT TO SCALE



CONCRETE ISOLATION JOINT
NOT TO SCALE

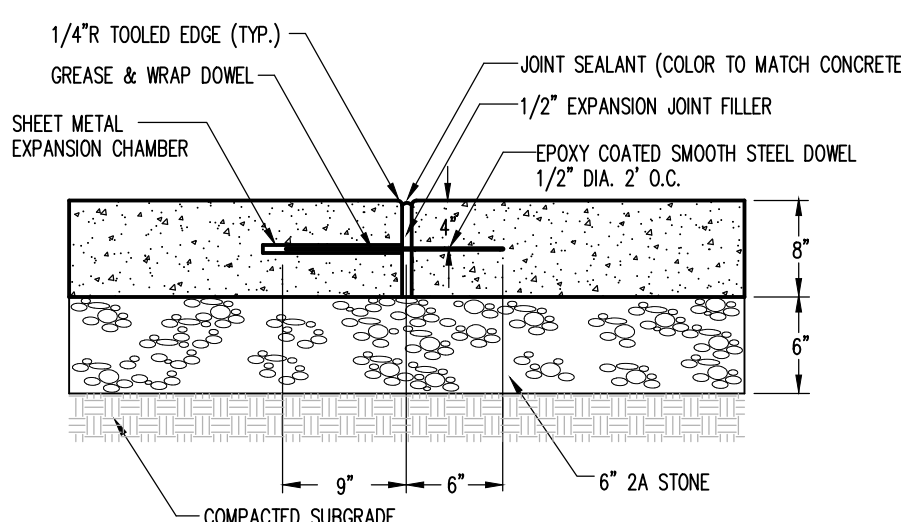


CONCRETE CONTROL JOINT
NOT TO SCALE

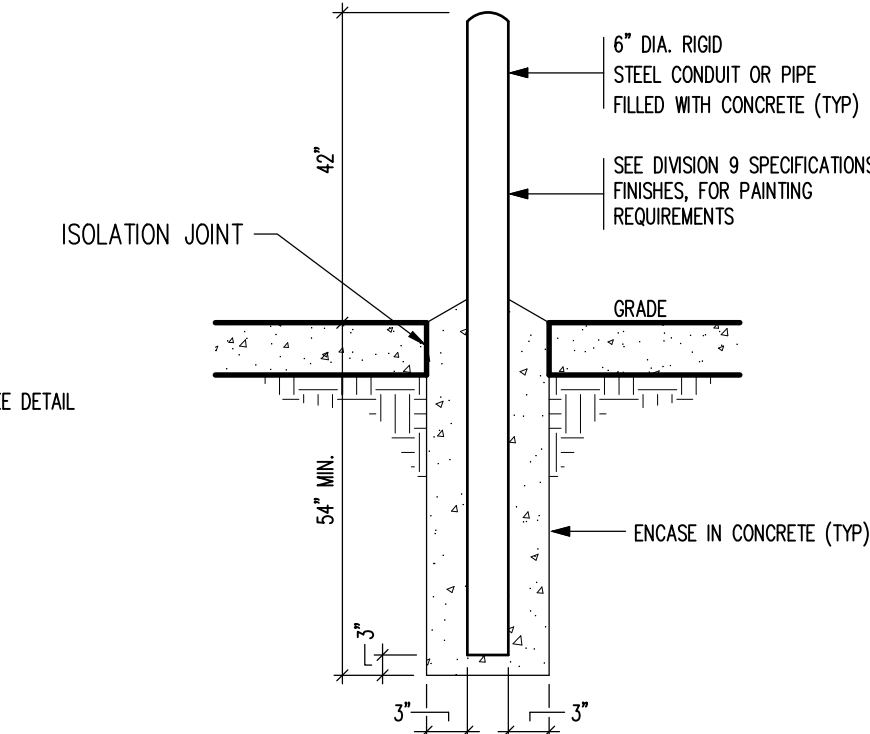


CONCRETE PAVEMENT SECTION
NOT TO SCALE

NOTE: DESIGN OF CONCRETE PAVEMENT BASED UPON ACI 330R-8, TRAFFIC CATEGORY D AND DESIGN PROCEDURE 84 ACPA (AMERICAN CONCRETE PAVEMENT ASSOCIATION) STANDARDS.

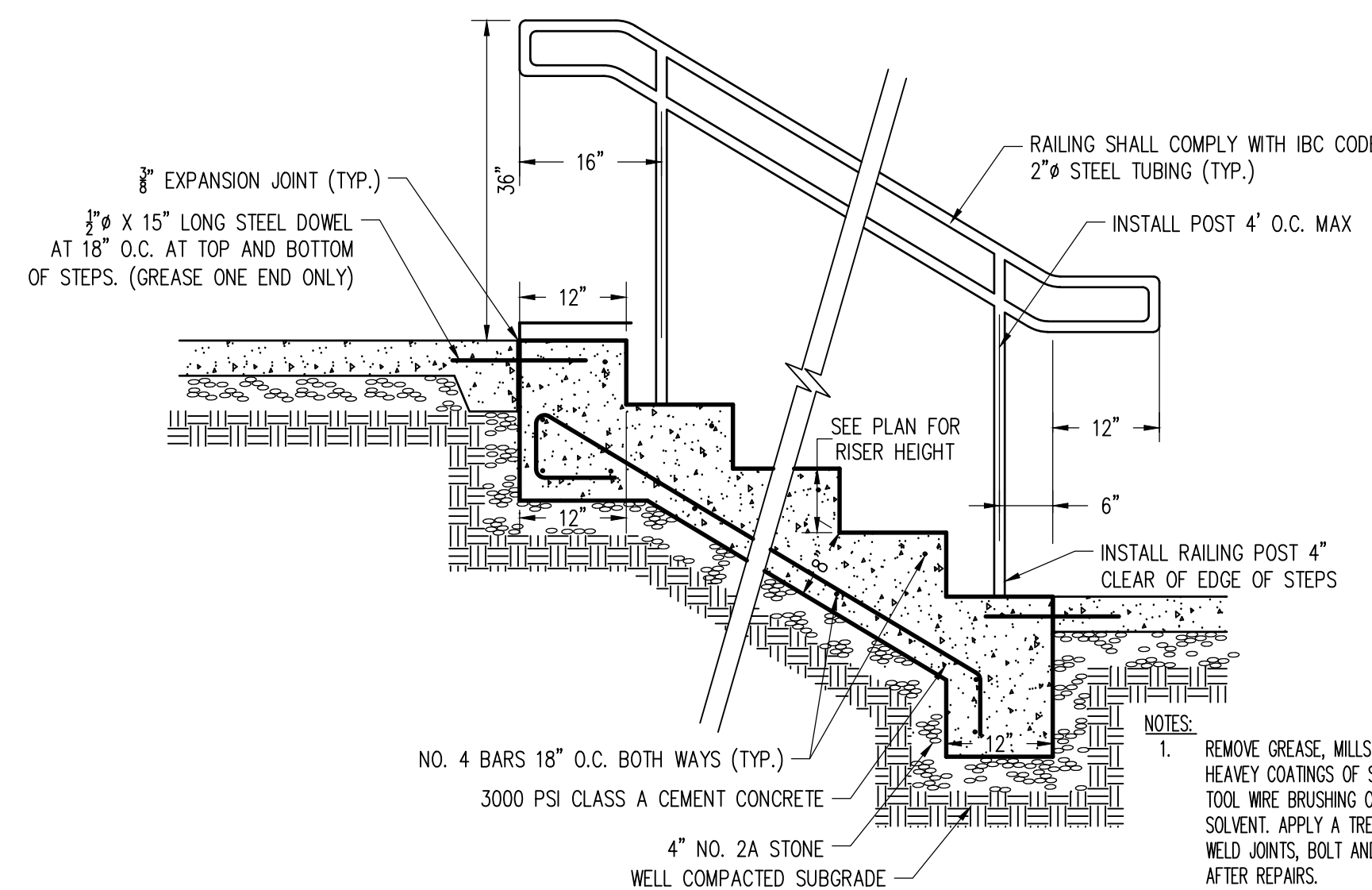


CONCRETE EXPANSION JOINT DETAIL
NOT TO SCALE



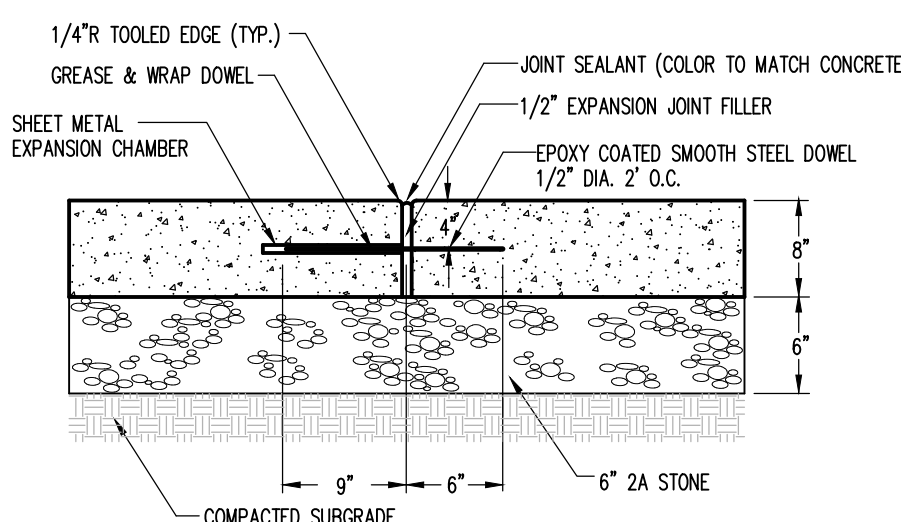
6" DIAMETER STEEL BOLLARD DETAIL
NOT TO SCALE

- NOTES:
1. USE 6" RIGID GALVANIZED STEEL CONDUIT, CUT TO 8" AND FILL WITH CONCRETE.
 2. ENCASE BOLLARDS OR BOLLARD SLEEVES IN 3" OF CONCRETE AS SHOWN.
 3. THE TWO (2) BOLLARDS IN FRONT OF THE TRANSFORMERS ARE TO BE REMOVABLE.

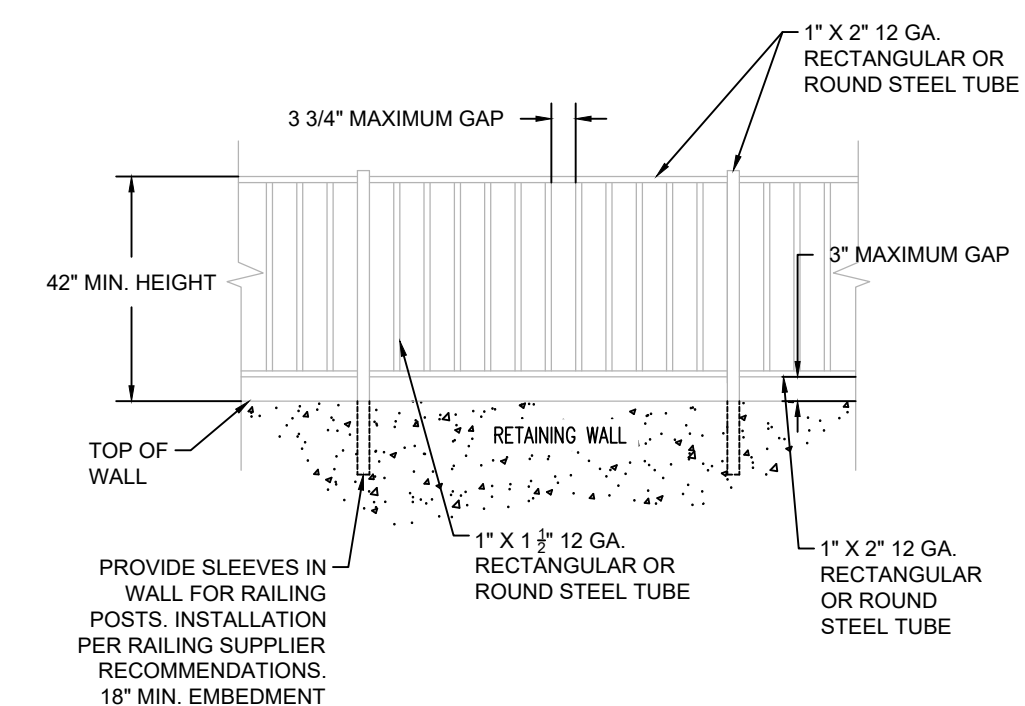


CONCRETE STAIRWAYS W/ CHEEKWALL DETAIL
NOT TO SCALE

- NOTES:
1. REMOVE GREASE, MILLSALE, WELD SPLATTER, DIRT AND RUST. WHERE HEAVY COATINGS OF SCALE ARE EVIDENT, REMOVE BY HAND, POWER TOOL WIRE BRUSHING OR SANDBLASTING. CLEAN BY WASHING WITH SOLVENT. APPLY A TREATMENT OF PHOSPHORIC ACID SOLUTION, ENSURING WELD JOINTS, BOLT AND NUTS ARE SIMILARLY CLEANED. SPOT PRIME PAINT AFTER REPAIRS.
 2. ONE COAT OF ALKYL PRIMER AND TWO COATS OF ALKYL ENAMEL, SEMI-GLOSS, COLOR TO BE SELECTED BY ARCHITECT.
 3. ALL HANDRAILS, HANDRAIL TERMINATIONS, AND HORIZONTAL AND VERTICAL CLEARANCES SHALL COMPLY WITH THE PROVISIONS OF THE GOVERNING EDITIONS OF THE INTERNATIONAL BUILDING CODE, AND WITH ICC/ANSI 117.1 CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING HANDRAIL COMPLIANT WITH THE GOVERNING CODES.
 4. CORE DRILL OR SURFACE MOUNT ANCHORING METHODS ARE ACCEPTABLE. SUBJECT TO NOTE #4 ABOVE.
 5. CMU CHECKWALLS OR FOOTERS MAY BE USED IN PLACE OF CEMENT CONCRETE CHECKWALLS AT THE OWNER'S DISCRETION. REGARDLESS OF STRUCTURAL REINFORCEMENT TO THAT WHICH IS SHOWN ABOVE.



CONCRETE EXPANSION JOINT DETAIL
NOT TO SCALE



ELEVATION VIEW
RETAINING WALL FENCE DETAIL
NOT TO SCALE

- NOTES:
1. SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED FOR APPROVAL SHOWING MATERIALS, COLOR, AND DIMENSION OF HEIGHT.
 2. CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.
 3. SLEEVES SHALL BE SCHEDULE 40 PVC AND HAVE AN INSIDE DIAMETER 2 INCHES LARGER THAN THE POST OUTSIDE DIAMETER. IF RAILING IS TO BE INSTALLED IN EXISTING SIDEWALK, HOLES SHALL BE CORE DRILLED 2 INCHES LARGER THAN THE OUTSIDE DIAMETER OF THE POST, AND NO LESS THAN 6" FROM THE EDGE OF CONCRETE.

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Surveyor	BRK
Perimeter Ok.	
Book	542 Pg 42
Acad	19952-FINAL-LD-DT2
Layout	DT2

03/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/18/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #
Date	Description	REVISIONS

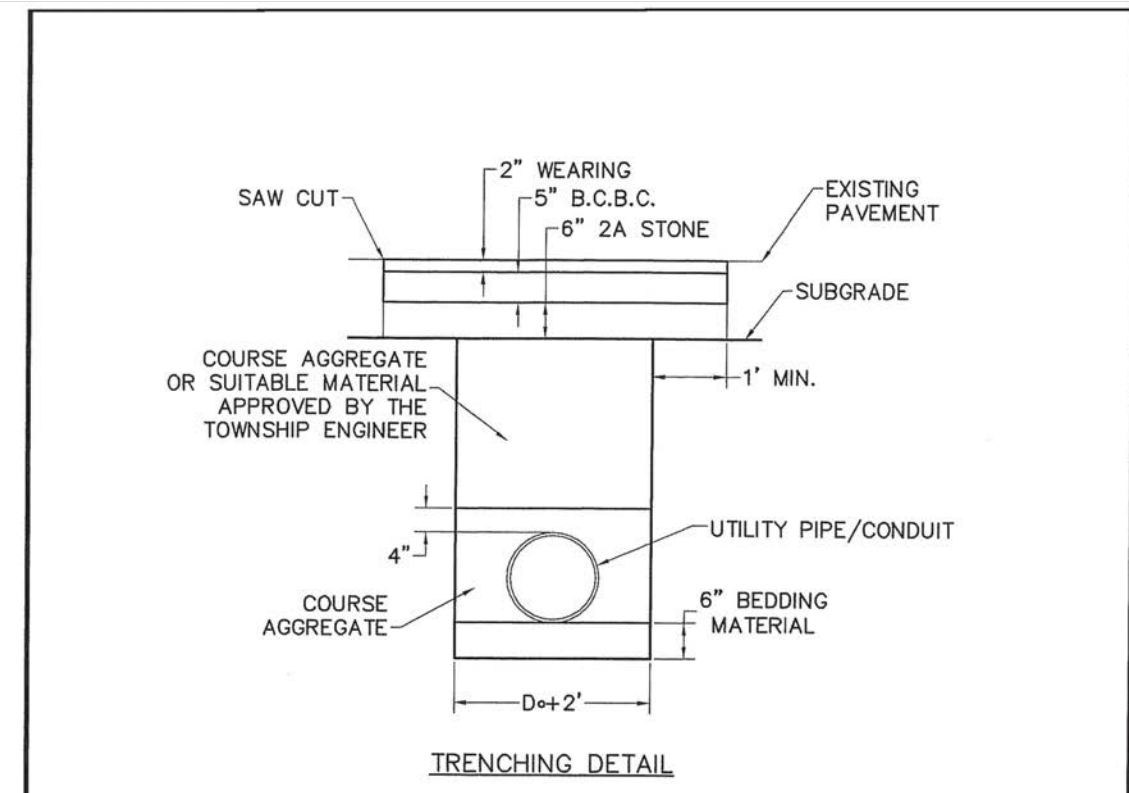
WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

GENERAL CONSTRUCTION DETAILS

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	N.T.S.
SHEET NO.	14

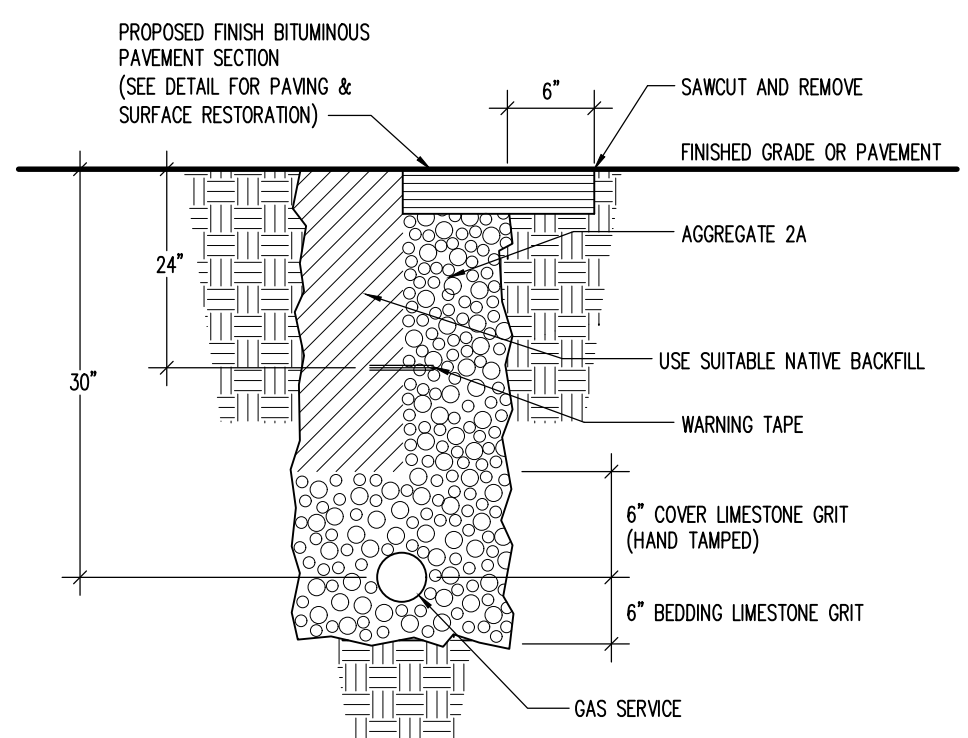


- CONSTRUCTION PROCEDURE:**
- EXCAVATE THE TRENCH TO THE WIDTH OF THE OUTSIDE DIAMETER OF THE PIPE (D) PLUS 2 FEET AND CREATE AN APPROPRIATE BEDDING 6 INCHES DEEP.
 - PLACE 2B COARSE AGGREGATE MATERIAL (IN 8" LIFTS)
 - ALL MATERIAL TO BE COMPACTED TO 100% OF THE DRY WEIGHT DENSITY.
 - AT UNPAVED AREAS SUITABLE MATERIAL MAY BE UTILIZED THE ENTIRE DEPTH OF TRENCH (LESS 6" TOPSOIL). PLACEMENT AND COMPACTION TO BE AS NOTED FOR PAVED AREAS.
 - SEAL EDGES OF PAVEMENT REPAIR WITH AC-20 OR APPROVED SEALANT

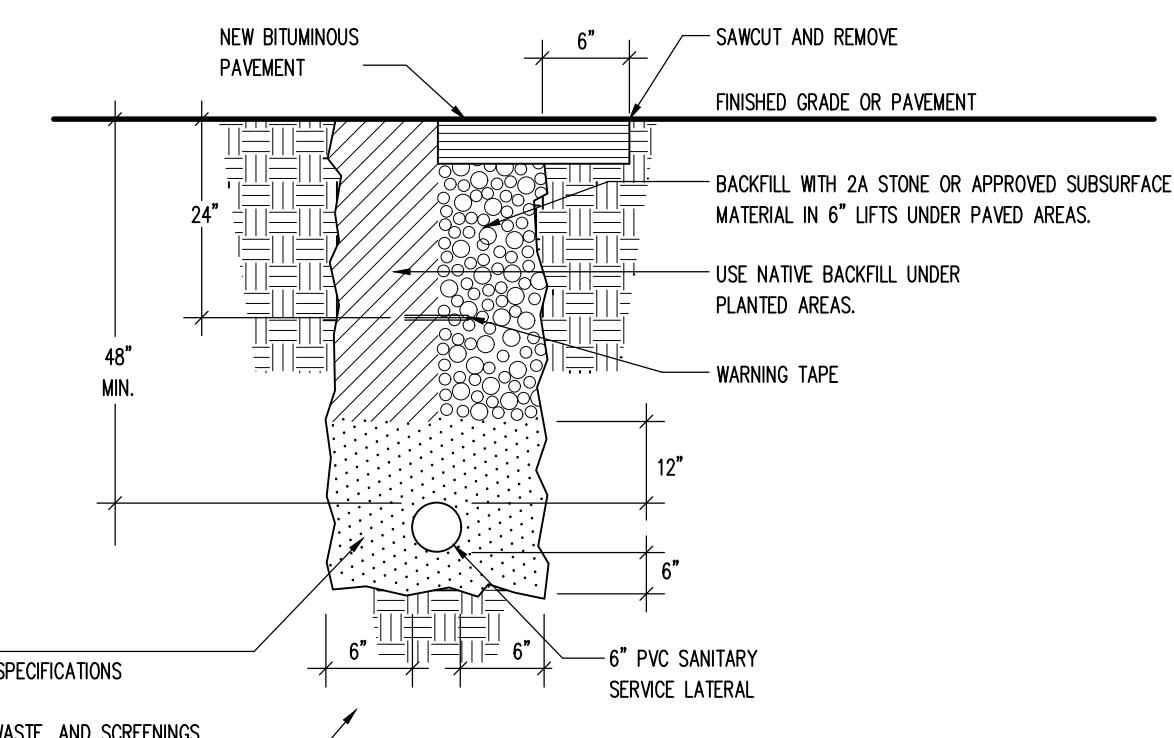
REV. DATE	DESCRIPTION	BY	SCALE
4		REVISIONS BY: <i>BSS</i> DATE: <i>2/26/20</i>	SCALE: N.T.S.
3		DRAWING BY: <i>CSJ</i> DATE: <i>2/26/20</i>	SCALE: B.C.S.D.
2		CHECKED BY: <i>CSJ</i> DATE: <i>2/26/20</i>	SCALE: 1" = 1'
1			

TOWNSHIP OF FERGUSON
DEPARTMENT OF PUBLIC WORKS / ENGINEERING
2147 Research Drive, State College, Pennsylvania 16801
Telephone: 814-231-6411 Fax: 814-231-3444
FEBRUARY 20, 2020

STANDARD TRENCH DETAIL
FERGUSON TOWNSHIP STANDARDS DRAWINGS

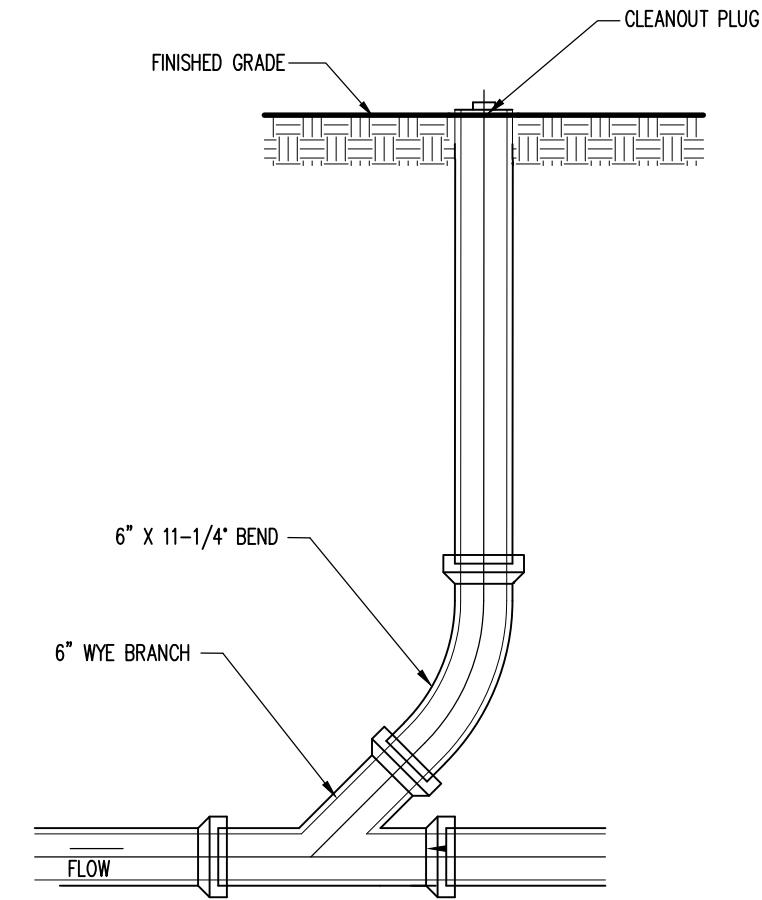


NATURAL GAS SERVICE TRENCH DETAIL
NOT TO SCALE

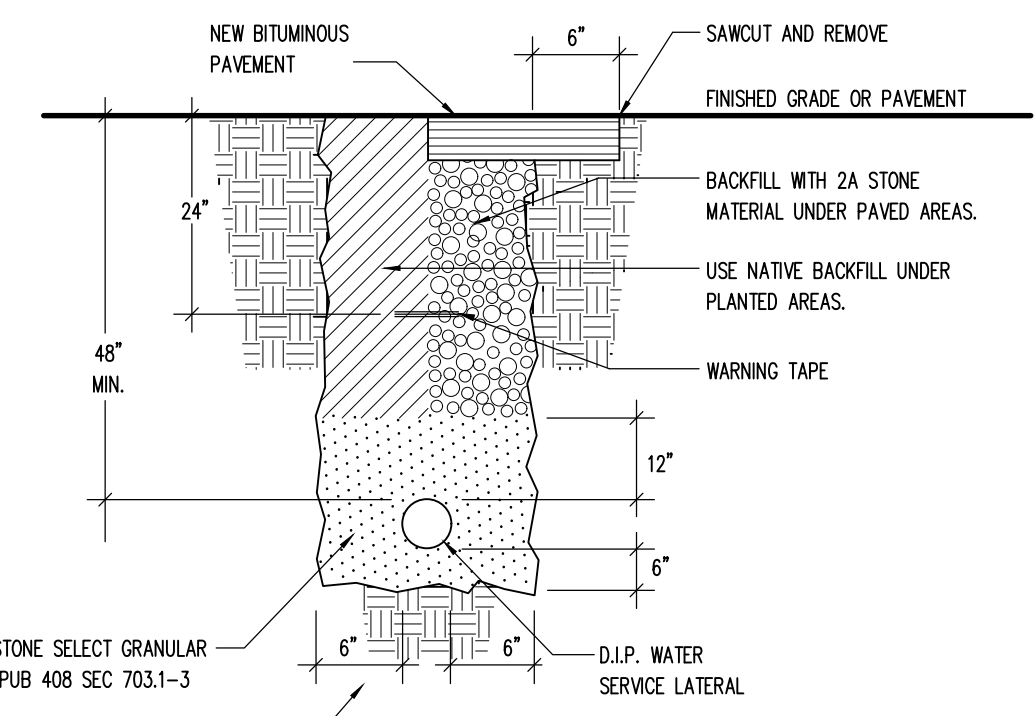


SANITARY LATERAL TRENCH DETAIL
NOT TO SCALE

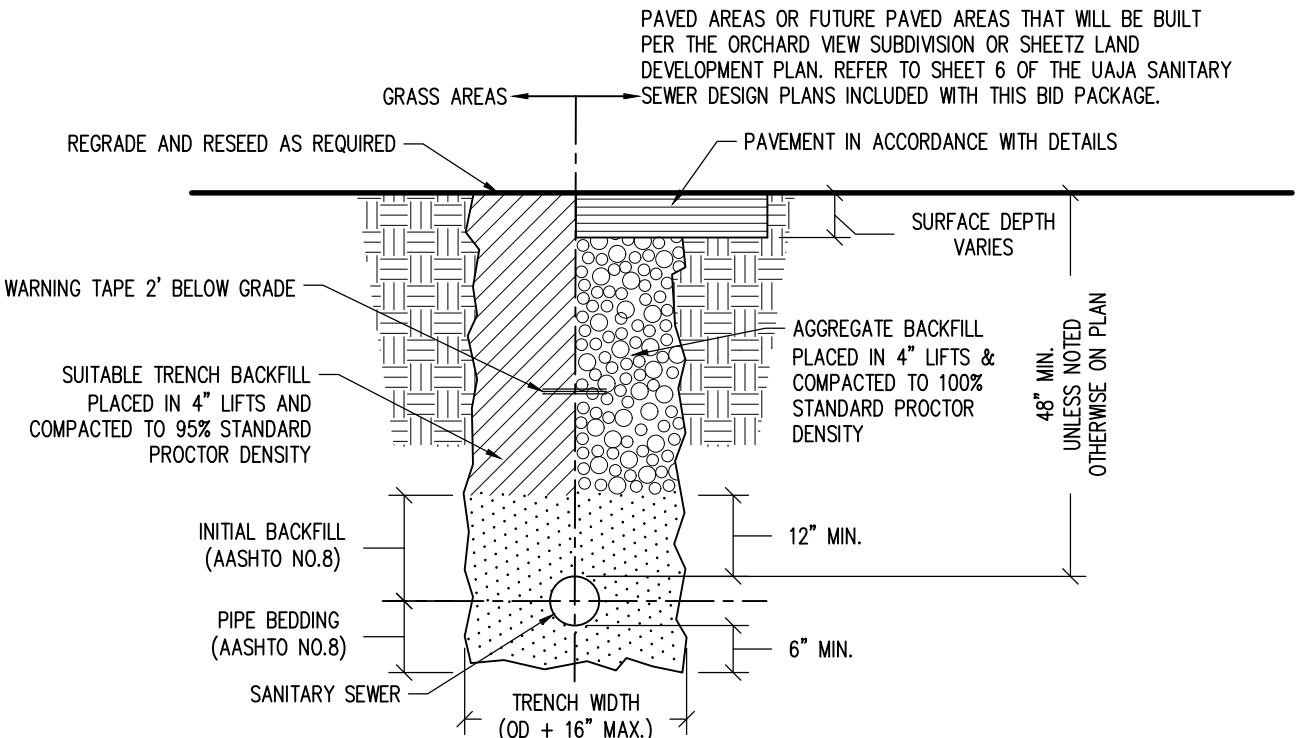
BEDDING MATERIALS:
TYPE I: GRANULAR MATERIALS MEETING THE SPECIFICATIONS OF PDOT PUB 408, SECTION 703.3
TYPE II: MATERIAL SUCH AS SAND, QUARRY WASTE, AND SCREENINGS ALL WITH NO GRADATIONS LARGER THAN ONE (1) INCH.



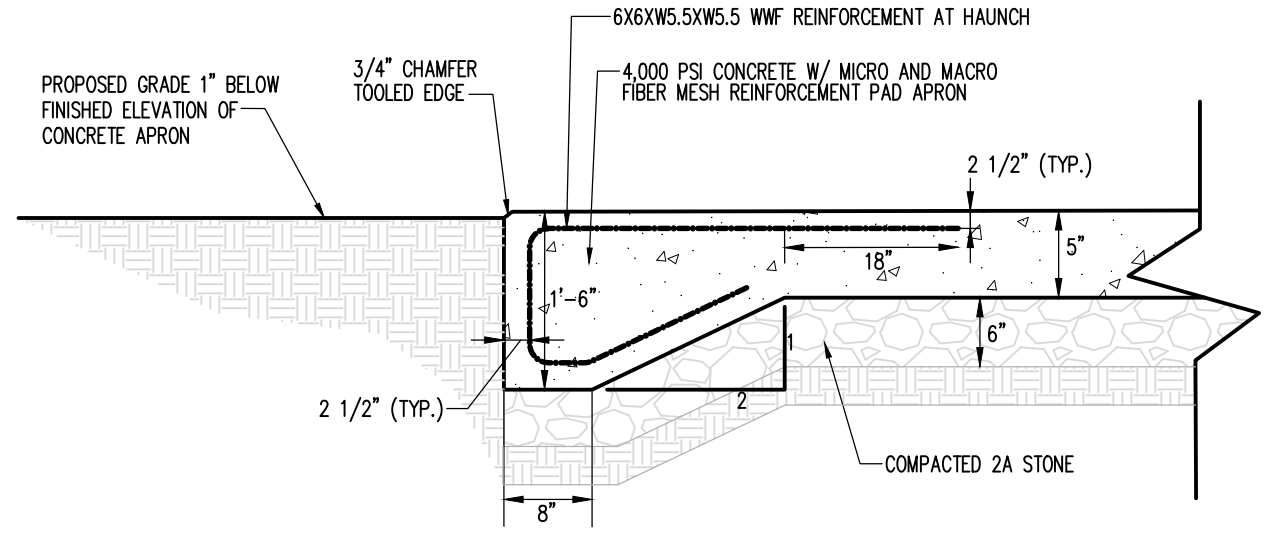
6" SANITARY SEWER CLEAN-OUT DETAIL (LAWN AREAS)
NOT TO SCALE



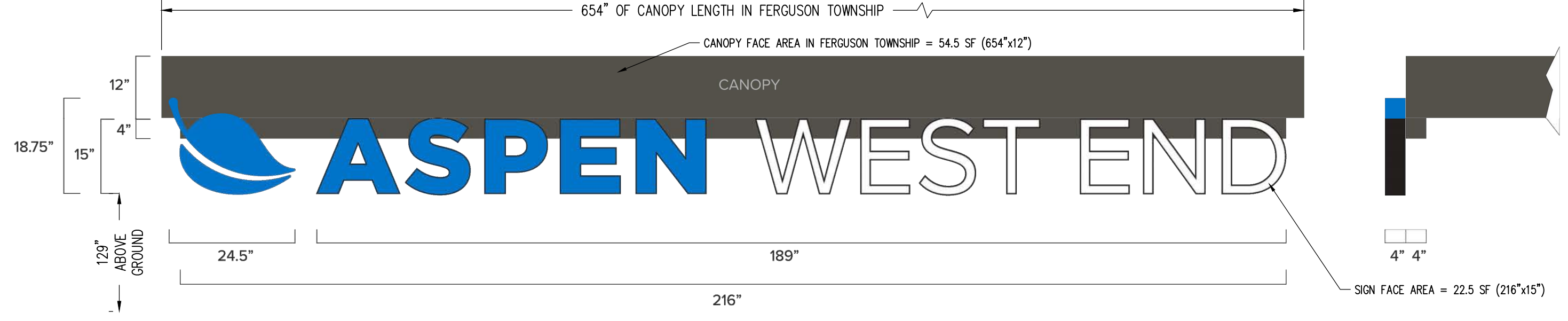
WATER LATERAL TRENCH DETAIL
NOT TO SCALE



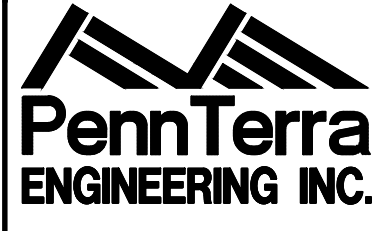
SANITARY SEWER MAIN TRENCH DETAIL
NOT TO SCALE



GENERATOR PAD DETAIL
NOT TO SCALE



BUILDING SIGN DETAIL
NOT TO SCALE



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Draftsman: EAH
Proj/Manager: JCS
Surveyor: BRK
Perimeter Ok: _____
Book: 542, Pg. 42
Acad: 19052-FINAL-10-013
Layout: DT3

DATE	DESCRIPTION
05/04/21	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/18/21	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	FIRST SUBMISSION TO FERGUSON TOWNSHIP
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04/14/21	ADDENDUM #
Date	Description

WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

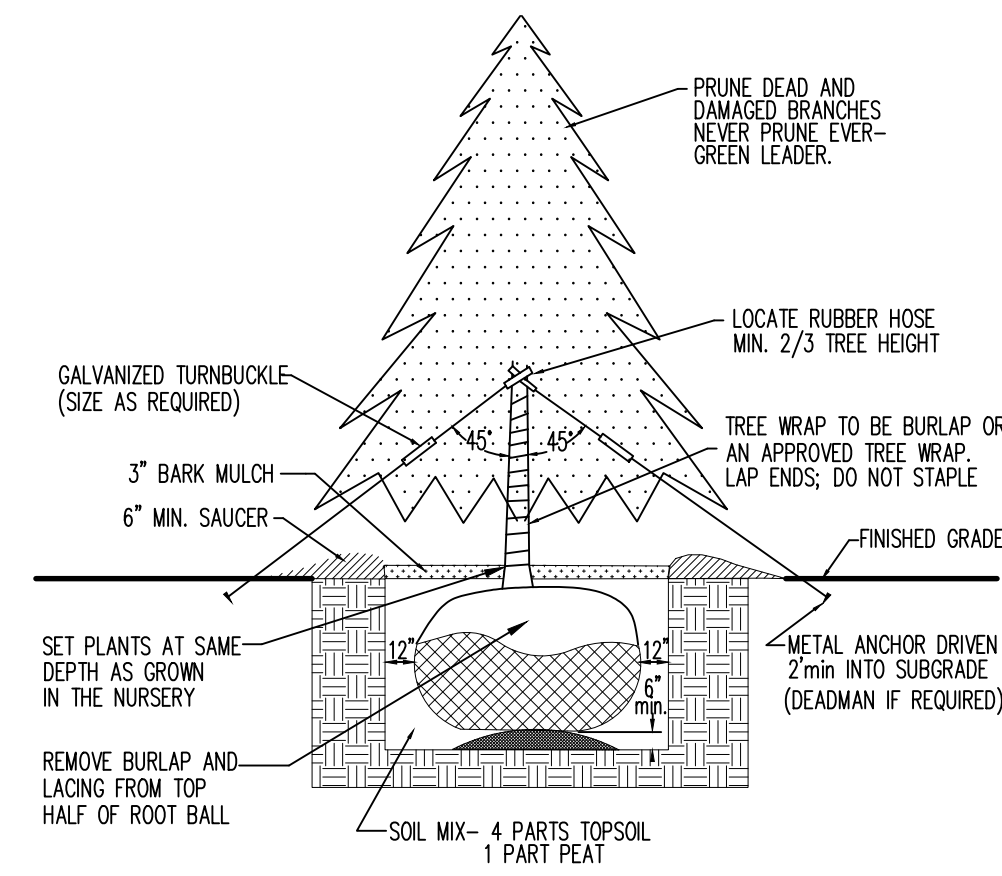
FINAL LAND DEVELOPMENT PLAN

GENERAL CONSTRUCTION DETAILS

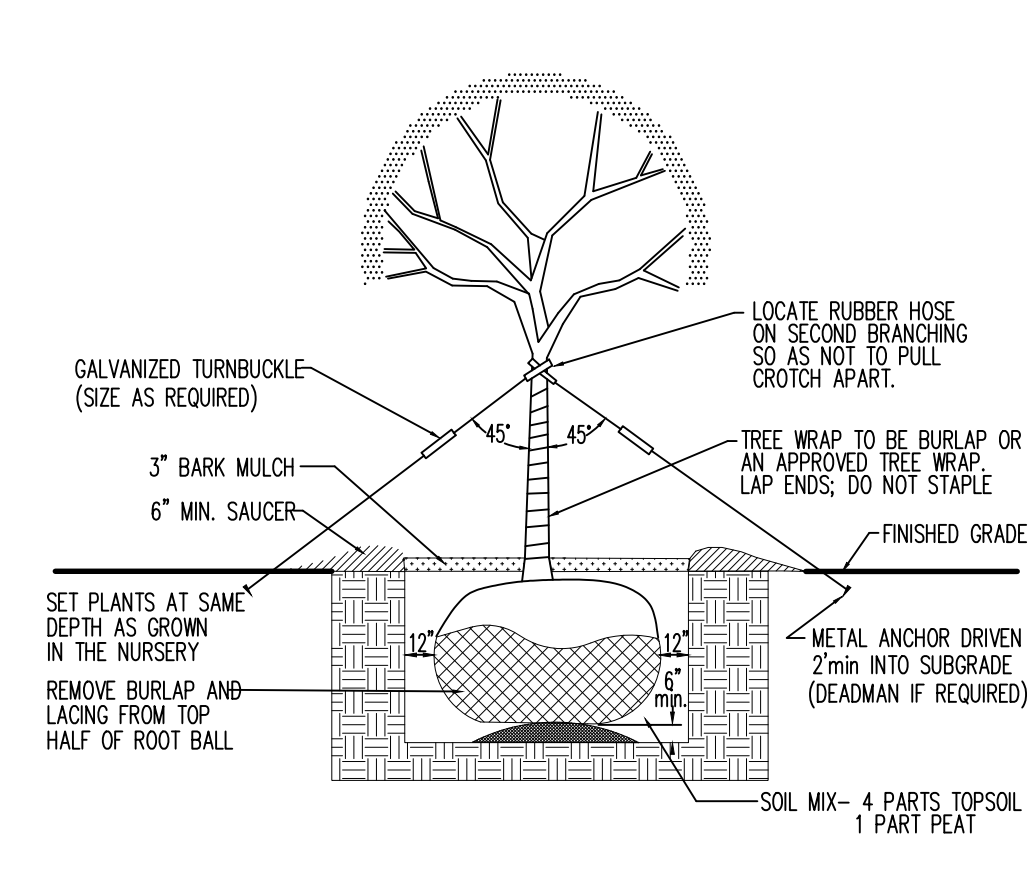
PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	N.T.S.
SHEET NO.	15

PLANTING SCHEDULE							
SYMBOL	KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE	HEIGHT	SPREAD
CANOPY TREES							
	HB	6	Hackberry (1 in Borough of State College)	Celtis occidentalis	2.5" Cal.	50'	50'
	RT	8	Hardy Rubber Tree (1 in Borough of State College)	Eucommia ulmoides	2.5" Cal.	50'	30'
	LP	2	London Plane (2 in Borough of State College)	Platanus hispanica	2.5" Cal.	60'	50'
SHRUBS							
	VPT	50	Shasta Doublefile Viburnum (14 in Borough of State College)	Vinurnum plicatum tomentosum 'Shasta'	24"-36"	8'	10'
	AGH	36	Girard's Hot Shot Azalea (0 in Borough of State College)	Azalea 'Girard Hot Shot'	18"-24"	2'	3'
	IV	76	Henry's Garnet Virginia Sweetspire (16 in Borough of State College)	Itaea Virginica 'Henry's Garnet'	18"-24"	4'	5'
	VON	101	Dwarf European Cranberrybush (15 in Borough of State College)	Viburnum opulus 'Nanum'	12"-18"	2'	3'
GRASSES & PERENNIALS							
	PLB	78	Little Bunny Dwarf Fountain Grass (0 in Borough of State College)	Pennisetum alopecuroides 'Little Bunny'	#1 cont.	---	---
	AJR	210	Ajuga bugleweed (0 in Borough of State College)	Ajuga reptans	2" pots	---	---

- NOTES:**
- ALL TREES AND SHRUBS SHALL BE PLANTED IN ACCORDANCE WITH THE "GUIDE TO ARBOR WORK IN FERUGSON TOWNSHIP".
 - 3" OF CU STRUCTURAL SOIL SHALL BE INSTALLED IN THE STREETSIDE PLANTERS. REFER TO DETAIL ON SHEET 8.
 - TREES ARE TO BE MULCHED INDIVIDUALLY IN A 4" DIAMETER CIRCLE.
 - THE MULCH IS TO BE DOUBLE SHREDDED HARDWOOD BARK MULCH, WELL AGED AND DARK IN COLOR. APPLY THE MULCH 4" THICK.
 - PLANT MATERIAL SUBSTITUTIONS MAY ONLY BE PERMITTED AT THE APPROVAL OF THE OWNER, TOWNSHIP AND ENGINEER OR LANDSCAPE ARCHITECT.
 - ANY PLANTINGS WHICH DO NOT SURVIVE FOR A PERIOD OF ONE YEAR FROM THE DATE OF PLANTING ARE TO BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
 - ALL NEW PLANT MATERIAL IS TO BE KEPT WATERED BY THE LANDSCAPE CONTRACTOR WHEN WORKING ON SITE UNTIL COMPLETION OF THE LANDSCAPE OR SEASON'S END (THEN RESUME NEXT SEASON UNTIL PROJECT IS COMPLETED). THE OWNER WILL BE RESPONSIBLE FOR WATERING THEREAFTER.
 - ALL DISTURBED AREAS NOT BEING PLANTED IN TREES OR SHRUBS ARE TO BE FINE GRADED AND SEEDED WITH A HARDY PERENNIAL GRASS SEED MIXTURE AND MULCHED WITH STRAW.
 - ALL CALIPER MEASUREMENTS FOR LANDSCAPING SHALL BE MEASURED AT 6" ABOVE THE ROOT BALL.



- NOTES:**
- IN PAVED AREAS- STONE SAUCER IN A SQUARE
 - IN GRASS AREAS- MULCH SAUCER IN A CIRCLE
 - AFTER PLANTING- THE SAUCER SHOULD BE FLOODED WITH WATER TWICE IN THE FIRST 24 HRS.
 - BARK MULCH MUST NOT COVER THE ROOT CROWN OF THE TREE
- TYPICAL EVERGREEN TREE PLANTING DETAIL**
NOT TO SCALE



- NOTES:**
- IN PAVED AREAS- STONE SAUCER IN A SQUARE
 - IN GRASS AREAS- MULCH SAUCER IN A CIRCLE
 - AFTER PLANTING- THE SAUCER SHOULD BE FLOODED WITH WATER TWICE IN THE FIRST 24 HRS.
 - BARK MULCH MUST NOT COVER THE ROOT CROWN OF THE TREE
- TYPICAL DECIDUOUS TREE PLANTING DETAIL**
NOT TO SCALE

PROPOSED LANDSCAPE BUFFER REQUIREMENTS:

BUFFERYARD ONE - A LANDSCAPE BUFFER IS REQUIRED ALONG THE SOUTHERN PROPERTY LINE BETWEEN THE PROPOSED BUILDING AND WEST CALDER WAY. PER THE TERRACED STREETSCAPE (TS) DISTRICT SECTION OF THE ZONING ORDINANCE (§27-304.C.4.C), THIS BUFFER IS REQUIRED TO BE 12' WIDE. THE CALCULATION REQUIREMENTS FOR THIS LANDSCAPE BUFFER ARE AS FOLLOWS: 1 CANOPY OR EVERGREEN TREE; 15 SHRUBS PER 35 LF OF THE LOT LINE (301.74'). THE CALCULATIONS FOR THE LANDSCAPE BUFFER ARE AS FOLLOWS:

CANOPY/EVERGREEN TREES 301.74/35 x 1 = 8.62 OR 9 CANOPY/EVERGREEN TREES REQUIRED; 2 RED HACKBERRY AND 4 HARDY RUBBER TREE ARE PROVIDED. (*6 TOTAL PROVIDED)

SHRUBS 301.74/35 x 15 = 129.32 OR 129 SHRUBS REQUIRED; 36 SHASTA DOUBLEFILE VIBURNUM, 60 HENRY'S GARNET VIRGINIA SWEETSPIRE, AND 48 DWARF EUROPEAN CRANBERRY BUSH ARE PROVIDED. (*144 TOTAL PROVIDED)

NOTE: BOTH MALE AND FEMALE PLANTS MUST BE SPACED APPROPRIATELY FOR THE SPECIES TO FRUIT/FLOWER. *DUE TO UNDERGROUND UTILITIES, 15 SHRUBS ARE BEING PROVIDED IN PLACE OF 3 EVERGREEN TREES AS ALLOWED BY §27-707.7.F.(3). THESE SHRUBS ARE INCLUDED IN THE SHRUB QUANTITIES ABOVE.

SURVEY FEATURES LEGEND

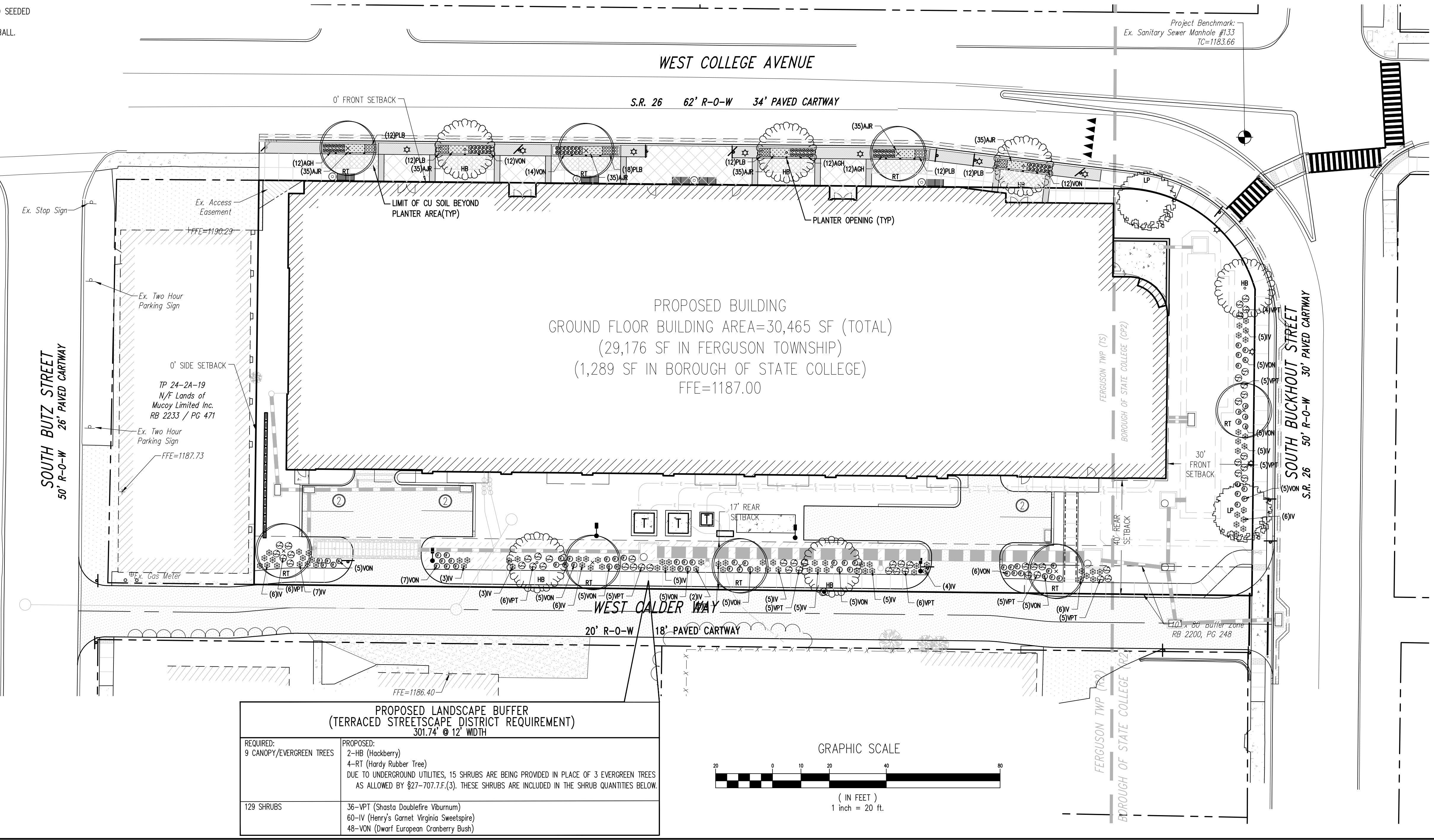
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

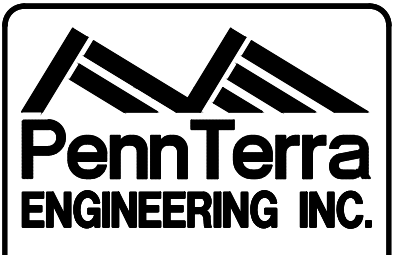
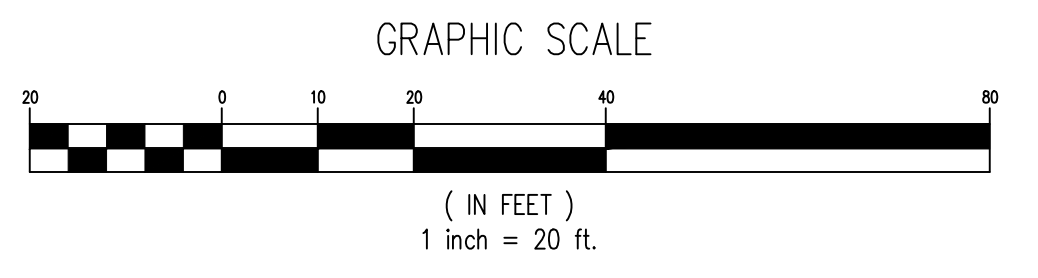
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Sign
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED PARKING STALL COUNT
- PROPOSED SIGN W/ LABEL
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED RETAINING WALL FENCE
- PROPOSED RIVERSTONE AREAS
- PROPOSED 6" STEEL BOLLARD FILLED W/ CONCRETE



PROPOSED LANDSCAPE BUFFER (TERRACED STREETSCAPE DISTRICT REQUIREMENT) 301.74' @ 12' WIDTH	
REQUIRED: 9 CANOPY/EVERGREEN TREES	PROPOSED: 2-HB (Hackberry) 4-RT (Hardy Rubber Tree) DUE TO UNDERGROUND UTILITIES, 15 SHRUBS ARE BEING PROVIDED IN PLACE OF 3 EVERGREEN TREES AS ALLOWED BY §27-707.7.F.(3). THESE SHRUBS ARE INCLUDED IN THE SHRUB QUANTITIES BELOW.
129 SHRUBS	36-VPT (Shasta Doublefile Viburnum) 60-IV (Henry's Garnet Virginia Sweetspire) 48-VON (Dwarf European Cranberry Bush)



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Designer	EAH
Draftsman	EAH
Proj/Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542 Pg 42
Acad	19052-FINAL-LD-LSP
Layout	LSP

05/14/21	REVISED PER FERUGSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	REVISED PER FERUGSON TOWNSHIP COMMENTS
05/18/21	REVISED PER FERUGSON TOWNSHIP COMMENTS
04/30/21	FIRST SUBMISSION TO FERUGSON TOWNSHIP
04/27/21	REVISED PER BOROUGH COMMENTS
04/14/21	ADDENDUM #
Date	Description
	REVISIONS

WEST COLLEGE STUDENT HOUSING
BOROUGH OF STATE COLLEGE
FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

LANDSCAPING PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	16

SURVEY FEATURES LEGEND

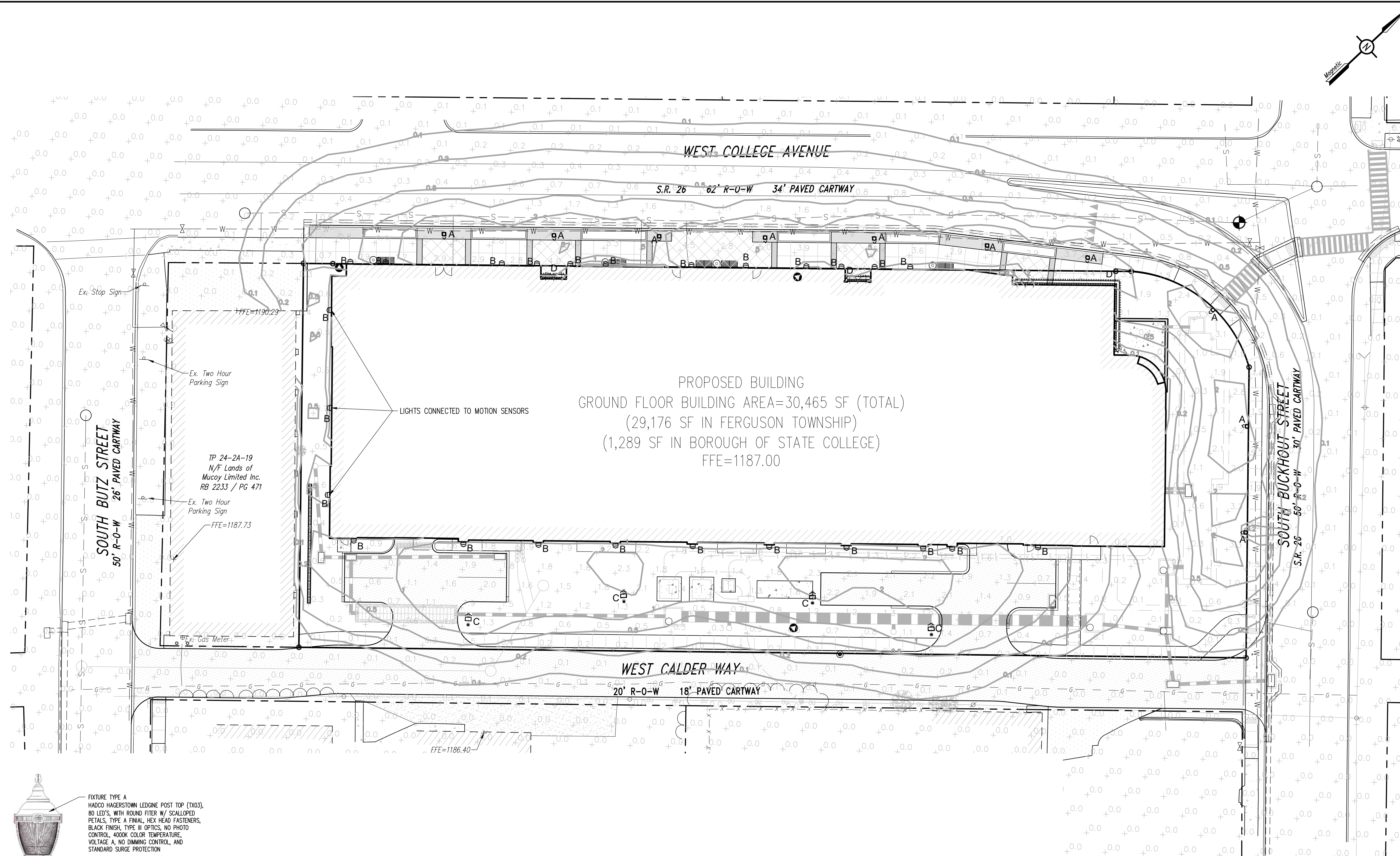
- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

EXISTING FEATURES LEGEND

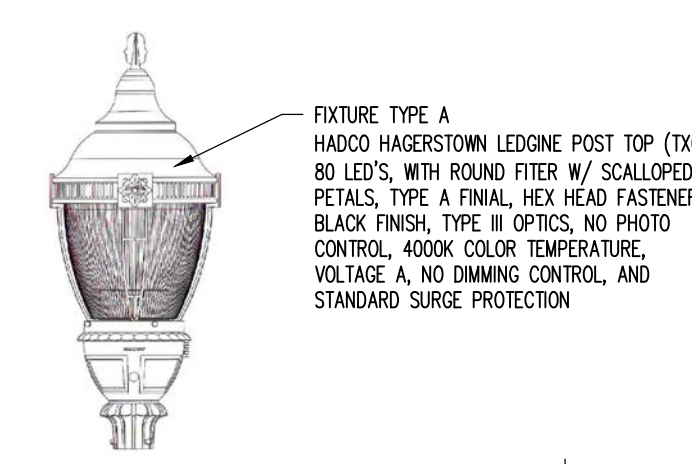
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Tree Row
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

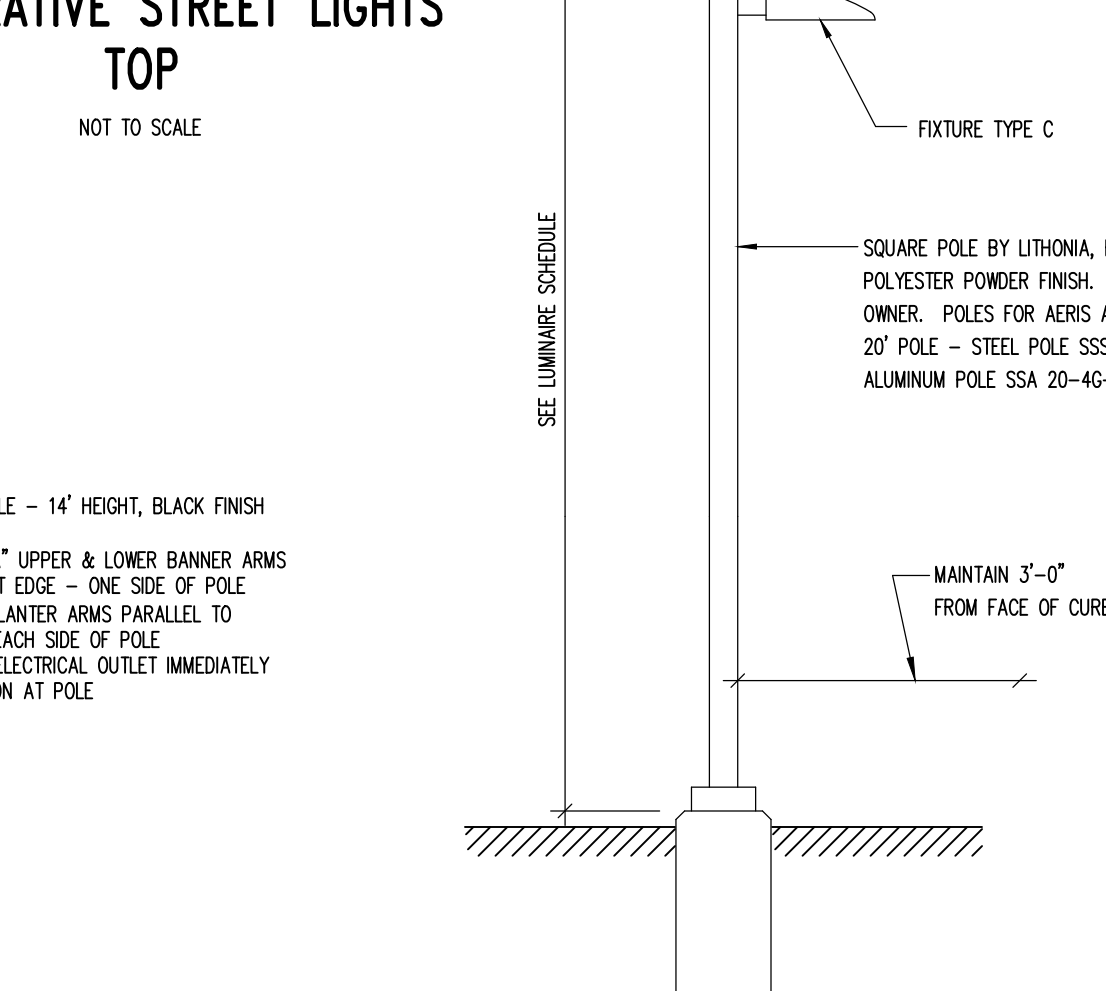
- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED SIGN
- PROPOSED RETAINING WALL FENCE



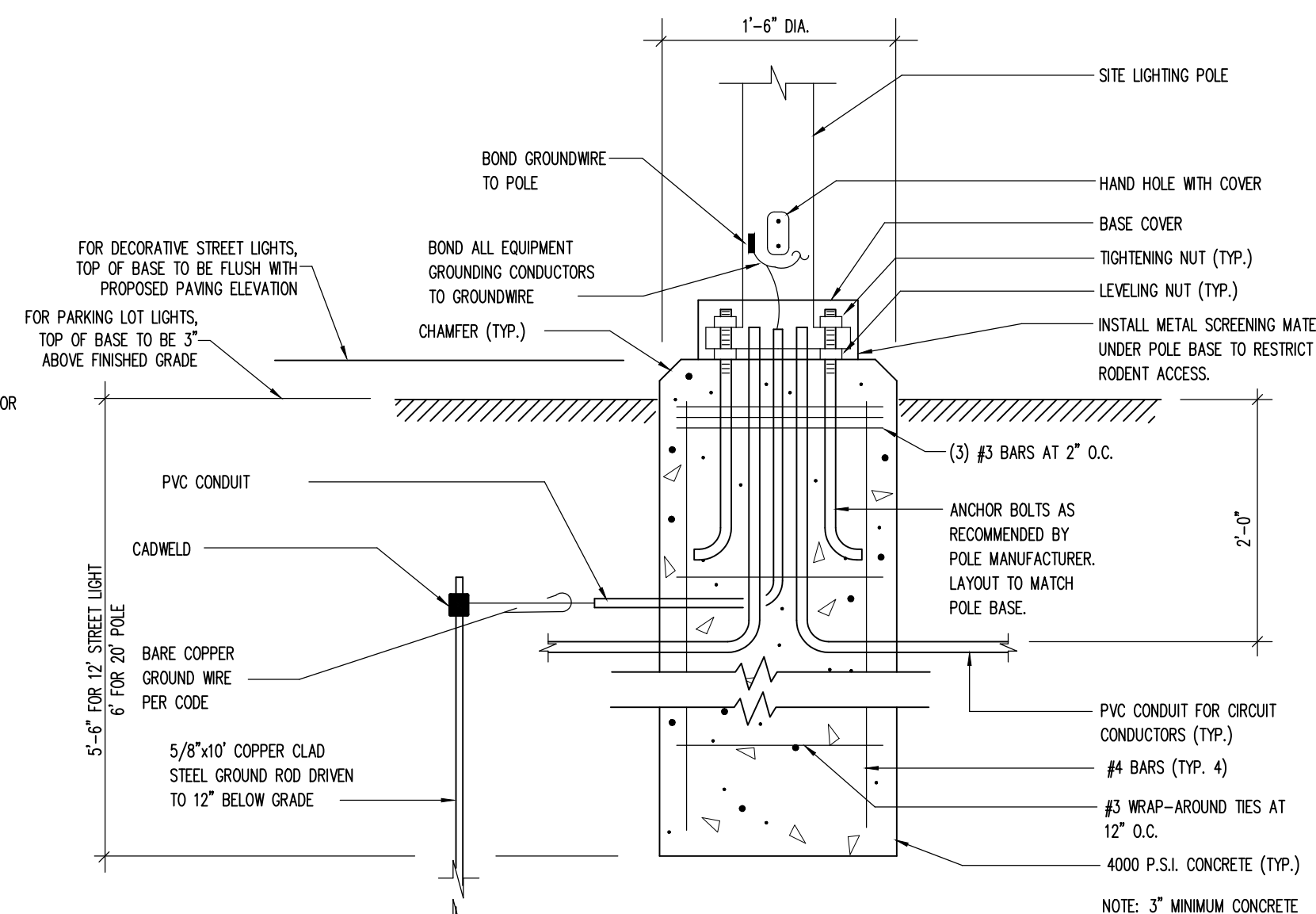
PROPOSED BUILDING
 GROUND FLOOR BUILDING AREA=30,465 SF (TOTAL)
 (29,176 SF IN FERGUSON TOWNSHIP)
 (1,289 SF IN BOROUGH OF STATE COLLEGE)
 FFE=1187.00



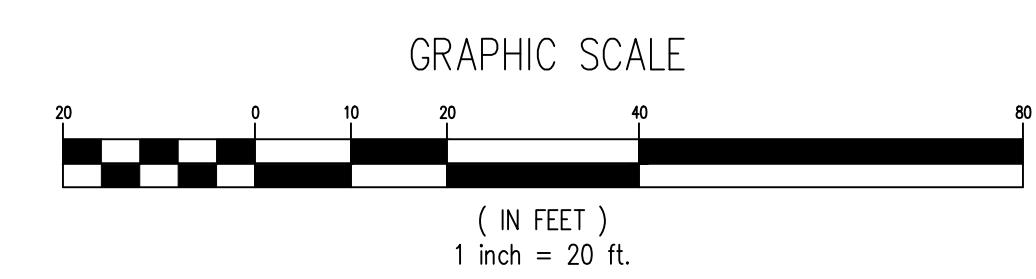
DECORATIVE STREET LIGHTS TOP
 NOT TO SCALE



PARKING LOT LIGHTS
 NOT TO SCALE



SITE PARKING LOT LIGHTING POLE BASE DETAIL
 NOT TO SCALE



Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Lumens per Lamp	LLF	Wattage
[Symbol]	A	10	PHILIPS-HADCO LIGHTING	TX0332B1A13N1NNS	TX0332B1A13N1NNS - 32 LED, LUXEON R BOARD, TYPE III OPTICS, VERTICAL RIBBED GLOBE MOUNTING HEIGHT: 14'	32 LED BOARD	2979	1	35.8
[Symbol]	B	25	RAB LIGHTING, INC.	M6LED1818	CYLINDRICAL METAL LOWER HOUSING, CAST METAL TOP, CAST FINNED METAL HEAT SINK WITH WHITE PAINTED INTERIOR, MOLDED SPECULAR FINISHED PLASTIC REFLECTOR, FROSTED PLASTIC LENS	FIFTEEN LIGHT EMITTING DIODES (LEDS)	126	1	17.4
[Symbol]	C	4	LITHONIA LIGHTING	D5XO LED P1 40K T4M MVOLT HS	D5XO LED P1 40K T4M MVOLT WITH HOUSESIDE SHIELD	LED	3579	1	38
[Symbol]	D	3 SECTIONS	MOLECTRON	mLine LUM-E TM-70-9/ N3-922/935 AG L129	OUTDOOR MODULAR LED STRIP LIGHT SYSTEM, ALUMINUM HOUSING, WATERPROOF, UV RESISTANT.		62	1	1.2

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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Clk.	
Book	542, Pg. 42
Acad	19052-FINAL-LD-LT
Layout	LT

03/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/26/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/28/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #1
Date	Description	REVISIONS

WEST COLLEGE STUDENT HOUSING
 BOROUGH OF STATE COLLEGE
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

LIGHTING PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	17

P:\ddp\19052\19052-Design\19052-FINAL-LD-LT.dwg, 6/4/2021 2:26:15 PM, 1:1

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

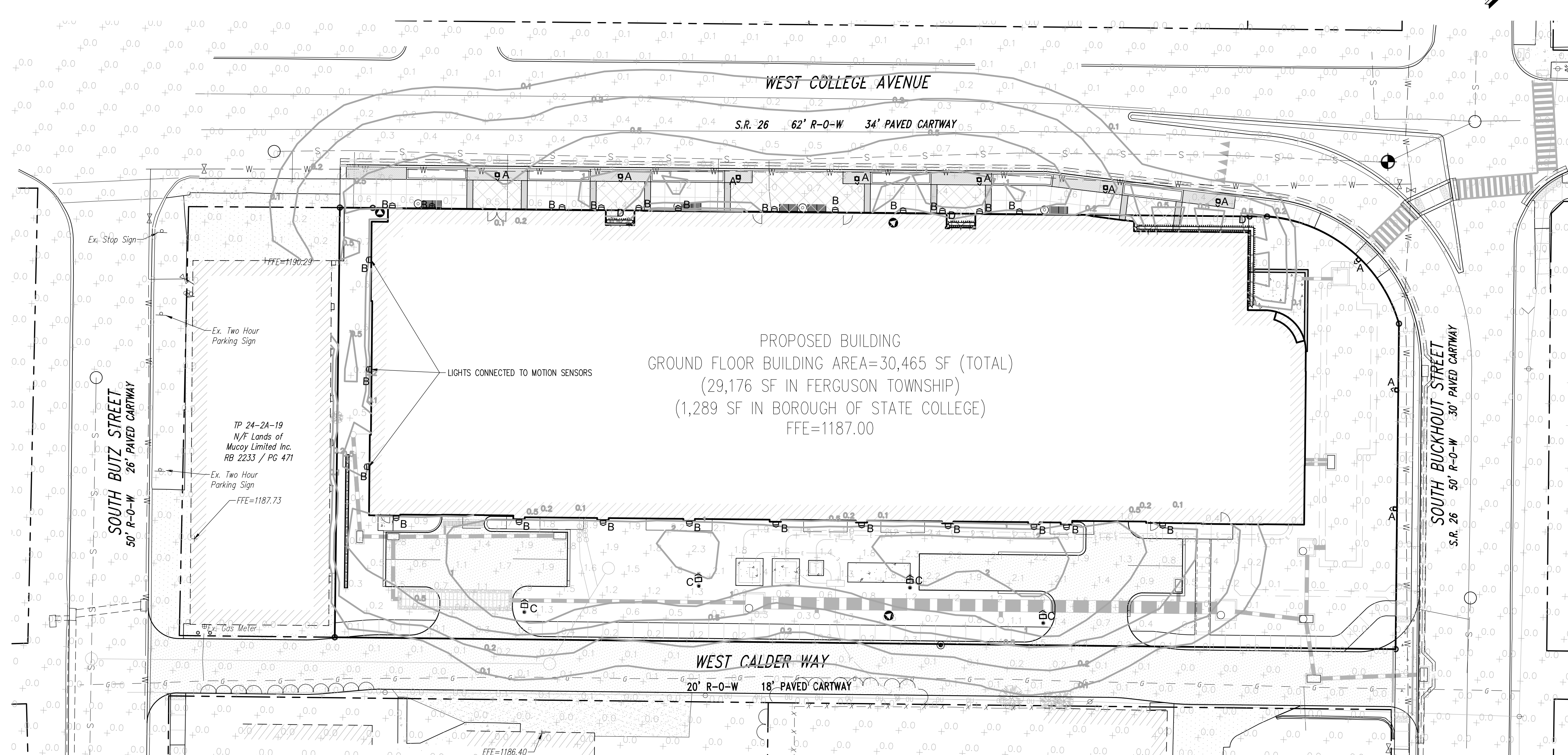
EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
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- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
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- Existing Fire Hydrant
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- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
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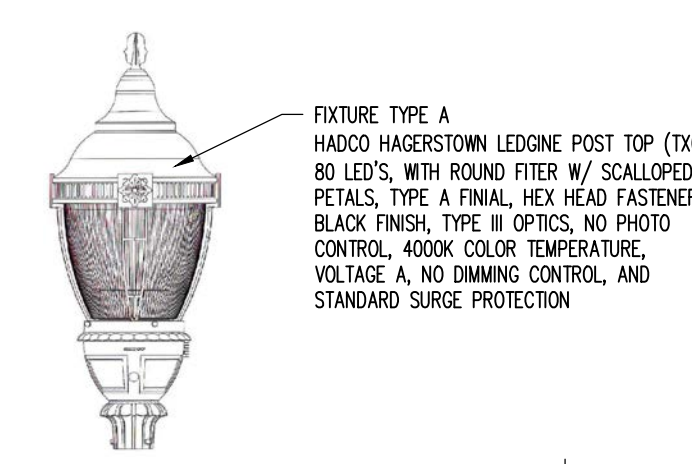
PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
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- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE
- PROPOSED LIGHT FIXTURE (DECORATIVE)
- PROPOSED LIGHT POLE (SINGLE FIXTURE)
- PROPOSED SIGN
- PROPOSED RETAINING WALL FENCE

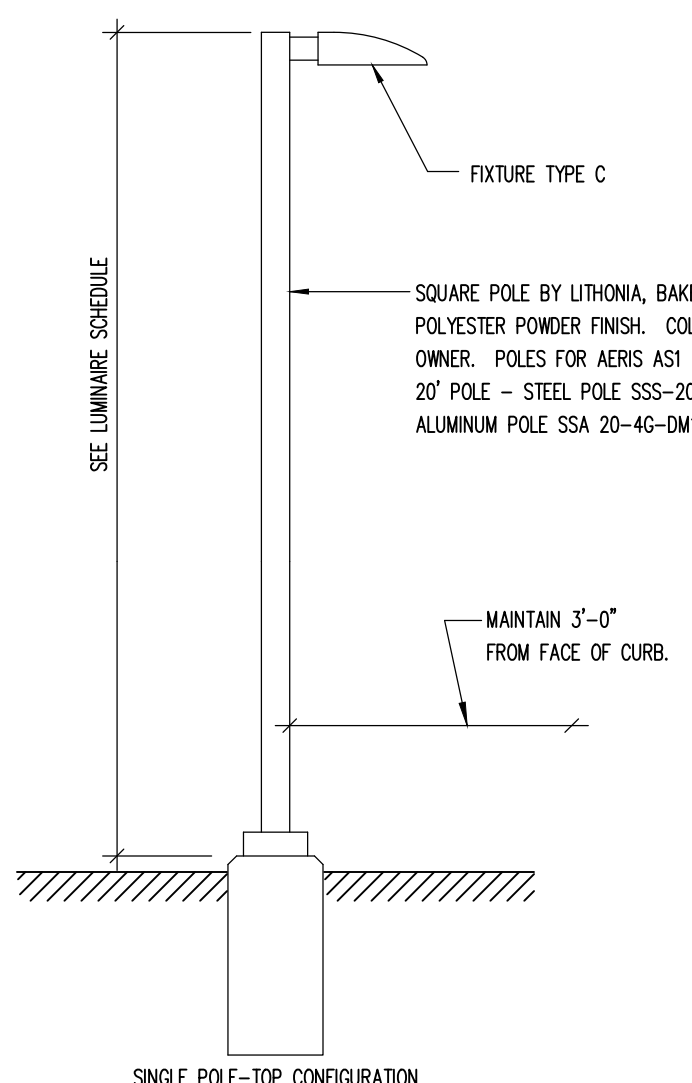
NOTE: THE PURPOSE OF THIS PLAN IS TO SHOW THE PHOTOMETRIC ANALYSIS EXCLUDING THE STREETLIGHTS IN ORDER TO BETTER ILLUSTRATE THE EFFECTS THAT THE SITE LIGHTS HAVE ON TRESPASS OVER PROPERTY LINES.



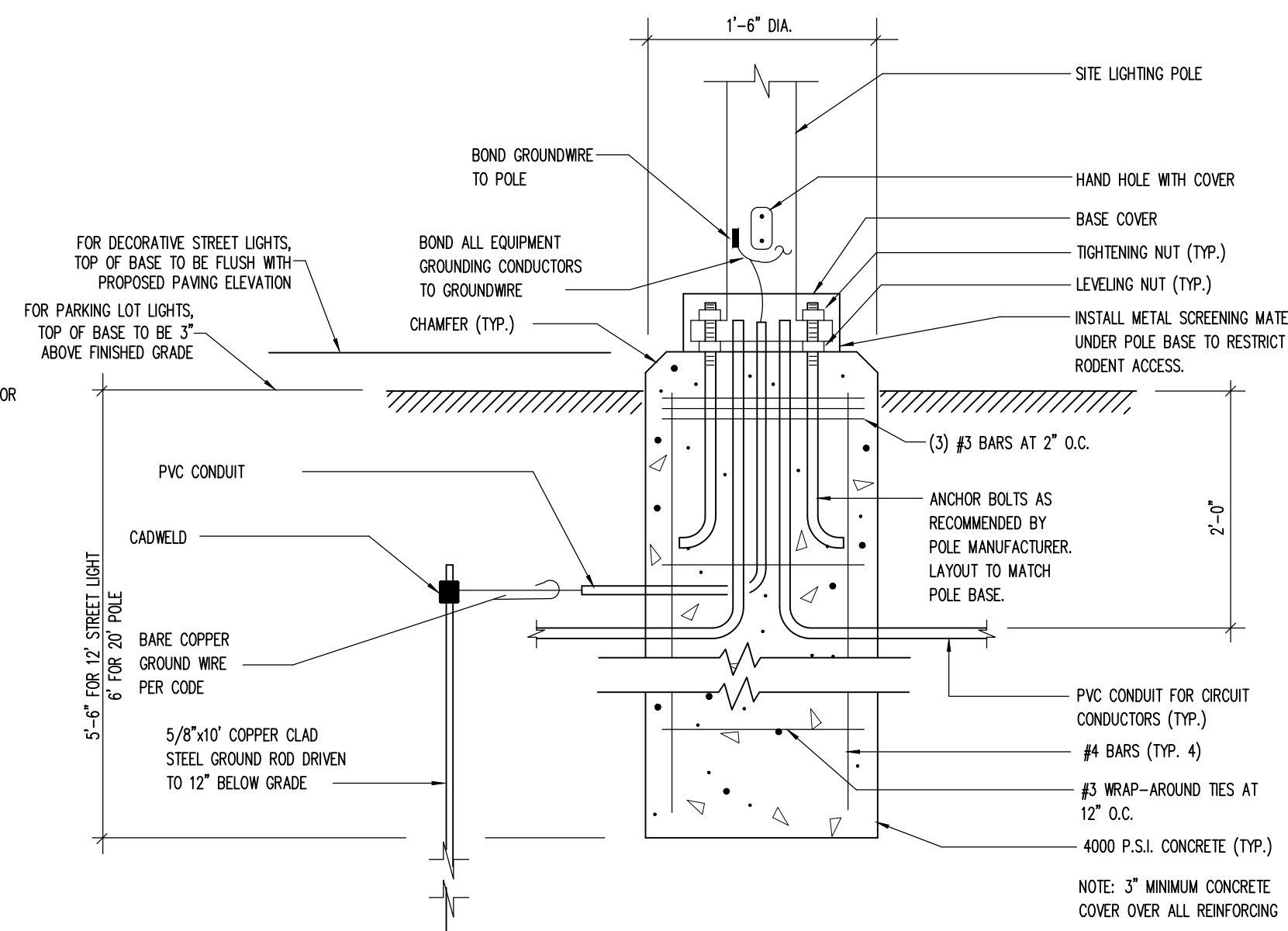
PROPOSED BUILDING
GROUND FLOOR BUILDING AREA=30,465 SF (TOTAL)
(29,176 SF IN FERGUSON TOWNSHIP)
(1,289 SF IN BOROUGH OF STATE COLLEGE)
FFE=1187.00



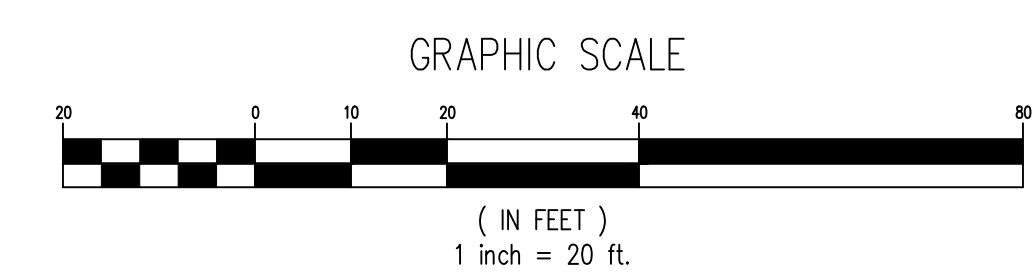
DECORATIVE STREET LIGHTS TOP
NOT TO SCALE



PARKING LOT LIGHTS
NOT TO SCALE



SITE PARKING LOT LIGHTING POLE BASE DETAIL
NOT TO SCALE



Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Lumens per Lamp	LLF	Wattage
[Symbol A]	A	10	PHILIPS-HADCO LIGHTING	TX0332BA1A3NWNNS	TX0332BA1A3NWNNS - 32 LED, LUXEON R BOARD, TYPE III OPTICS, VERTICAL RIBBED GLOBE MOUNTING HEIGHT: 14'	32 LED BOARD	2979	1	35.8
[Symbol B]	B	25	RAB LIGHTING, INC.	M6LED1818	CYLINDRICAL METAL LOWER HOUSING, CAST METAL TOP, CAST FINNED METAL HEAT SINK WITH WHITE PAINTED INTERIOR, MOLDED SPECULAR FINISHED PLASTIC REFLECTOR, FROSTED PLASTIC LENS	FIFTEEN LIGHT EMITTING DIODES (LEDS).	126	1	17.4
[Symbol C]	C	4	LITHONIA LIGHTING	DSXO LED P1 40K T4M MVOLT HS	DSXO LED P1 40K T4M MVOLT WITH HOUSESIDE SHIELD	LED	3579	1	38
[Symbol D]	D	3 SECTIONS	MOLETRON	mLine LUM-E TM-70-9/NS-922/935 AG L125	OUTDOOR MODULAR LED STRIP LIGHT SYSTEM, ALUMINUM HOUSING, WATERPROOF, UV RESISTANT.		62	1	1.2

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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FINAL-LD-L12
Layout	LT

03/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/26/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/20/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/22/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #1
Date	Description	REVISIONS

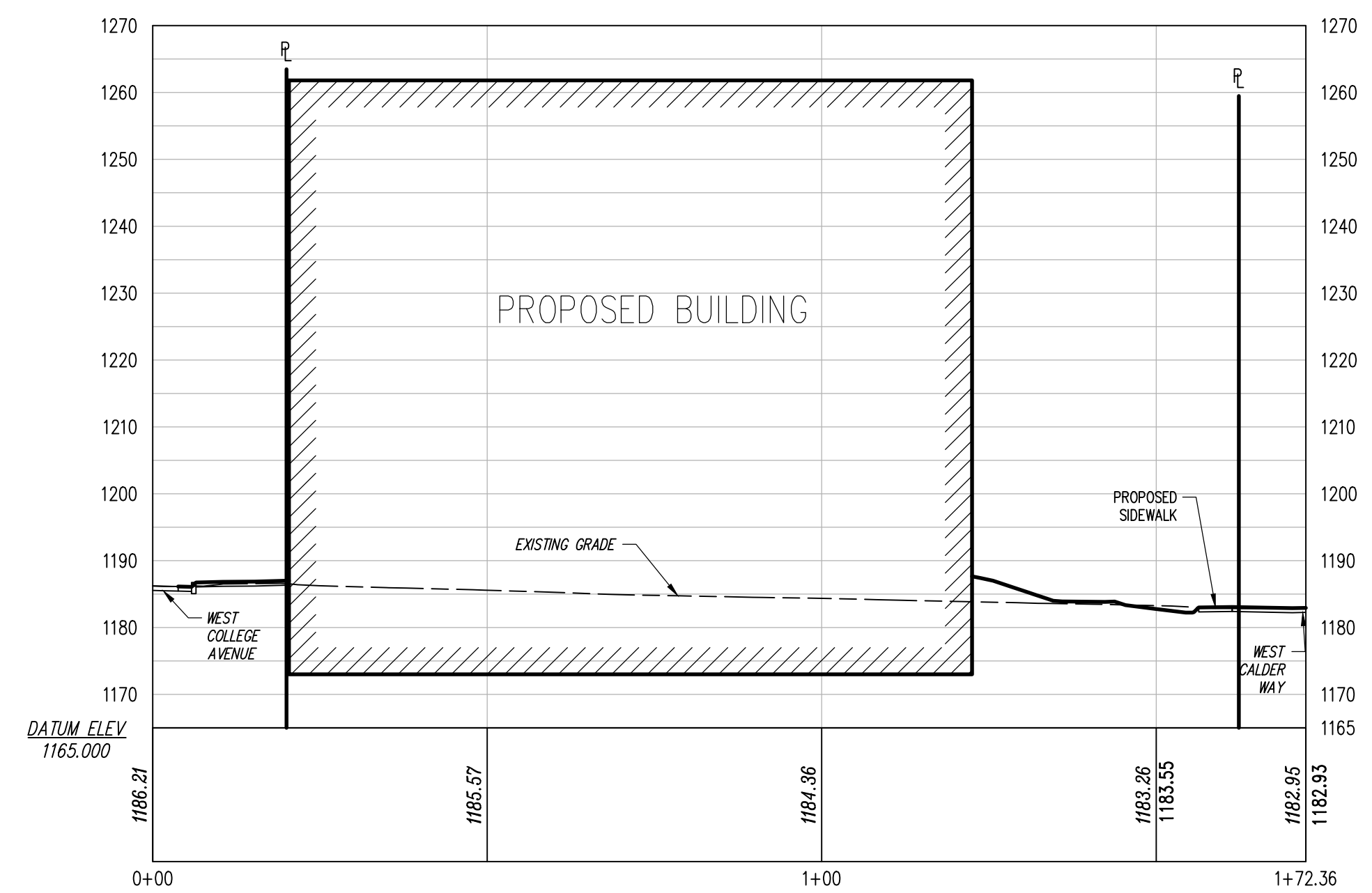
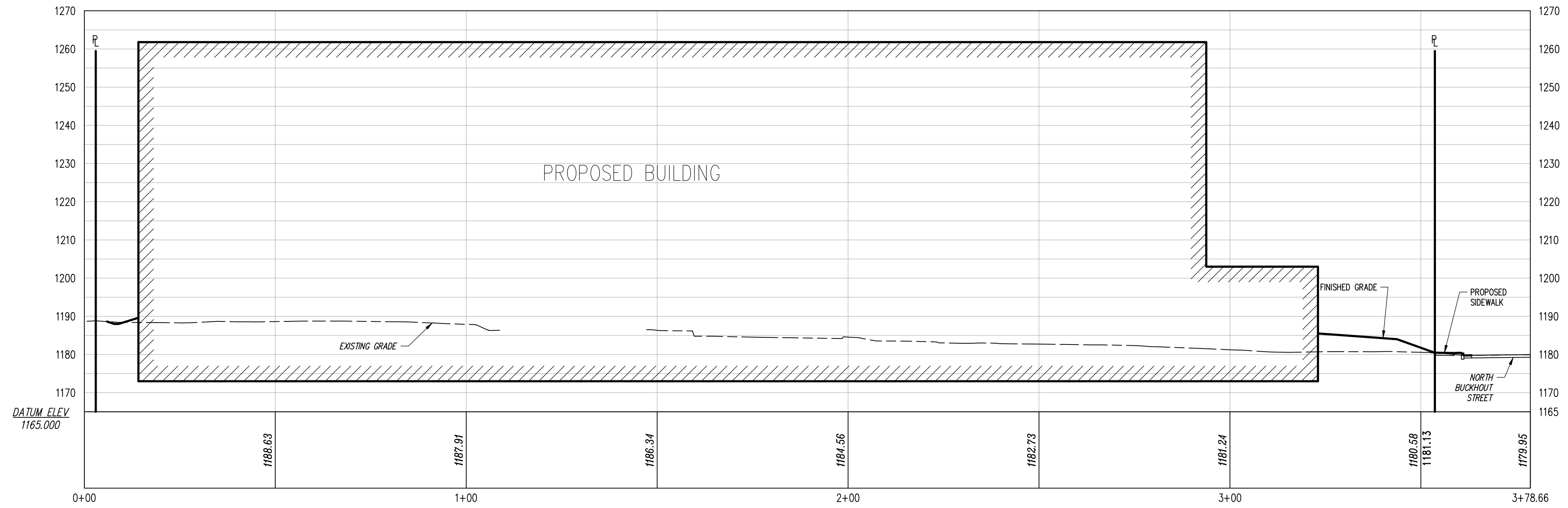
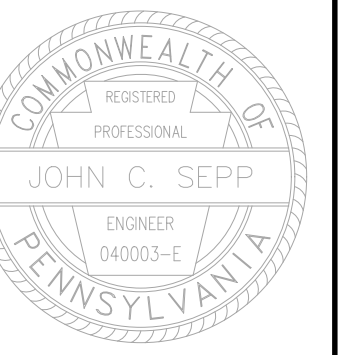
WEST COLLEGE STUDENT HOUSING
BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

LIGHTING PLAN (EXCLUDING STREETLIGHTS)

PROJECT NO.
19052
DATE
DECEMBER 18, 2020
SCALE
1"=20'
SHEET NO.
17A

P:\delpro\2019\19052\Design\p\del\final\19052-FINAL-LD-L12.dwg, 04/20/21 2:28:31 PM, 1:1



Designer	EAH
Draftsman	EAH
Proj Manager	JCS
Surveyor	BRK
Perimeter Ok	
Book	542 Pg 42
Acad	19052-FINAL-LD-SEC
Layout	SEC

05/04/21	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	REVISED PER FERGUSON TOWNSHIP COMMENTS
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04/14/21	ADDENDUM #1
Date	Description
	REVISIONS

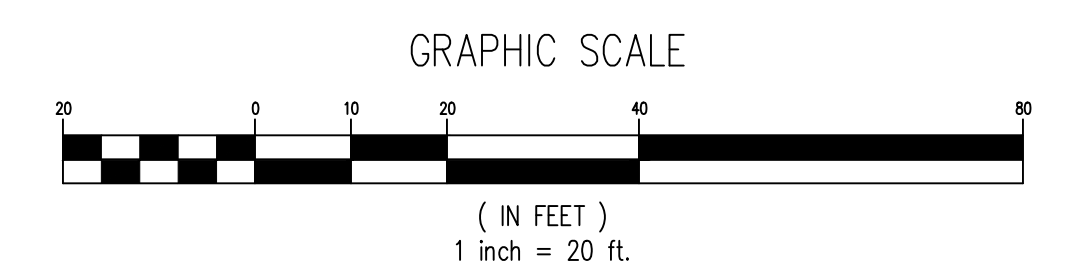
WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERGUSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

SITE CROSS SECTIONS

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	18



SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

SOILS LEGEND

Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- EXISTING BUILDING
- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
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- Existing Storm Sewer Line w/ Inlet
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- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

EROSION & SEDIMENTATION CONTROL LEGEND

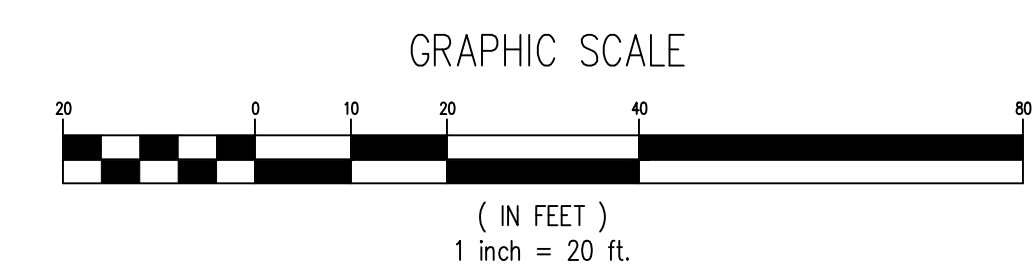
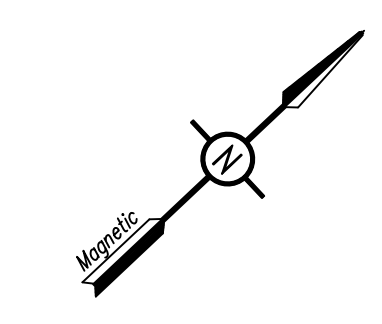
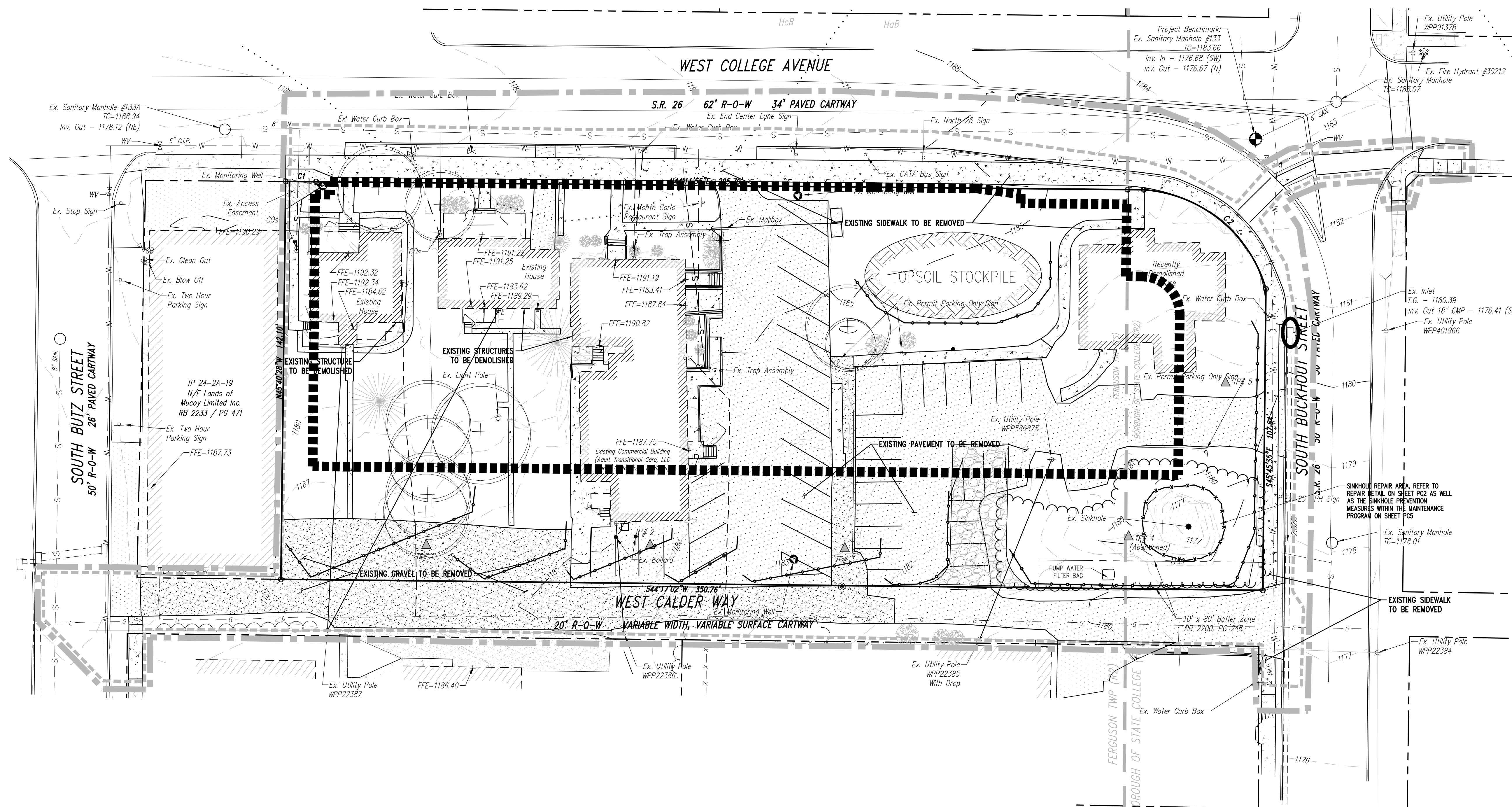
- NPDES BOUNDARY LINE
- LIMIT OF DISTURBANCE
- 12" SILT SOCK
- 18" SILT SOCK
- CONSTRUCTION ENTRANCE
- INLET PROTECTION (BAG TYPE)
- TOPSOIL STOCKPILE
- TOPSOIL STOCKPILE
- UNDERGROUND PARKING EXCAVATION BOUNDARY

NPDES PERMIT NOTICE OF TERMINATION NOTE:
 UPON CONTRACTOR BEING AWARDED THE SITE WORK CONTRACT, THE CONTRACTOR IS RESPONSIBLE AND SHALL PROCESS FORMS W/ THE CENTRE COUNTY CONSERVATION DISTRICT TO BECOME A CO-PERMITTEE ON THE NPDES PERMIT AND SHALL REMAIN AS A CO-PERMITTEE UNTIL THE CONTRACTOR FILES THE NOTICE OF TERMINATION. THE NOTICE OF TERMINATION REQUIRES CERTIFICATION OF THE STORMWATER FACILITIES MENTIONED ON THE POST CONSTRUCTION STORMWATER PLAN.

CRITICAL STAGES OF CONSTRUCTION
 THE SITE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER TO ENSURE THAT A REGISTERED PROFESSIONAL SHALL BE ONSITE FOR THE CONSTRUCTION OF THE FOLLOWING FACILITIES:

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- EXCAVATION AND INSTALLATION OF THE UNDERGROUND INFILTRATION SUMP.
- EXCAVATION AND INSTALLATION OF THE UNDERGROUND EXTENDED DETENTION BASIN 1 AND 1A.
- PLACEMENT OF SOIL AMENDMENTS.
- FINAL SITE GRADING.

CONSTRUCTION GRADING NOTE:
 DURING ALL PHASES OF CONSTRUCTION, SITE RUNOFF SHALL BE KEPT IN A SHEET FLOW CONDITION TO BE TREATED BY THE EROSION CONTROL SILT SOCK. IF AT ANY MOMENT, THE SILT SOCK IS BEING BYPASSED OR IF IT ACTS AS A DIVERSION WITHOUT BEING TREATED, STEPS SHALL BE TAKEN TO HAVE RUNOFF TREATED BY EACH INDIVIDUAL SILT SOCK SECTION.



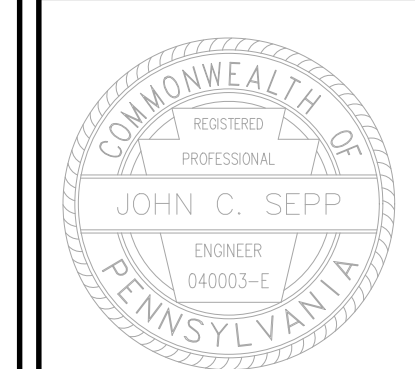
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Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ck.	
Book	542 Pg 42
Acad	19052-FINAL-LD-ESI
Layout	ESI

03/04/21	EAH	REVISED FOR FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
05/19/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
04/30/21	EAH	FIRST SUBMISSION TO FERGUSON TOWNSHIP
04/27/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #1
EAH		DATE
		DESCRIPTION
		REVISIONS

SINKHOLE REPAIR AREA REFER TO REPAIR DETAIL ON SHEET PC2 AS WELL AS THE SINKHOLE PREVENTION MEASURES WITHIN THE MAINTENANCE PROGRAM ON SHEET PCS

EXISTING SIDEWALK TO BE REMOVED

WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	ES1

SURVEY FEATURES LEGEND

- Property Line, Lot Line or Right of Way Line
- Adjoining Property Line
- Building Setback Line
- Easement Line
- Project Benchmark
- Municipal Boundary

SOILS LEGEND

Soil cover on the site consists of:
 HaB - Hagerstown Silt Loam, 3%-8% Slopes
 HcB - Hagerstown Silty Loam, 3%-8% Slopes

EXISTING FEATURES LEGEND

- Existing Building
- Existing Curbing & Edge of Pavement
- Existing Concrete Areas
- Existing Bituminous Areas
- Existing Gravel Areas
- Existing Retaining Wall
- Existing Fence / Type
- Existing Contours w/ Elevation (1's & 2's)
- Existing Contours w/ Elevation (5's & 10's)
- Existing Sanitary Sewer w/ Manhole
- Existing Sanitary Sewer Lateral w/ Clean Out
- Existing Water Line w/ Valve
- Existing Water Service Lateral
- Existing Storm Sewer Line w/ Inlet
- Existing Gas Line
- Existing Overhead Utility Line w/ Pole
- Existing Fire Hydrant
- Existing Manhole
- Existing Utility Pole
- Existing Guy Wire
- Existing Storm Sewer Inlet Type-M
- Existing Storm Sewer Inlet Type-C
- Existing Utility Meter
- Existing Light Pole/Standard
- Existing Flood Light
- Existing Monitoring Well
- Existing Sign
- Existing Mail Box
- Existing Soil Limit Boundary
- Existing Soil Type
- Existing Tree Row
- 25% Slopes Or Greater
- Existing Deciduous Tree
- Existing Evergreen Tree
- Existing Shrub

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- PROPOSED CURBING & EDGE OF PAVEMENT
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE AREAS
- PROPOSED FULL-DEPTH BITUMINOUS PAVEMENT AREAS
- PROPOSED OVERLAY BITUMINOUS PAVEMENT AREAS
- PROPOSED STORM SEWER INLET - TYPE M
- PROPOSED STORM SEWER INLET - TYPE C
- PROPOSED DEPRESSED CURB W/ CURB TRANSITION
- PROPOSED HANDICAPPED RAMP
- PROPOSED RETAINING WALL
- PROPOSED MINOR CONTOURS W/ ELEVATION (1's & 2's)
- PROPOSED MAJOR CONTOURS W/ ELEVATION (5's & 10's)
- PROPOSED 8" SANITARY SEWER W/ MANHOLE
- PROPOSED SANITARY SEWER LATERAL W/ CLEAN OUT
- PROPOSED WATER SERVICE LATERAL W/ CURB BOX
- PROPOSED STORM SEWER W/ TYPE C INLET
- PROPOSED STORM SEWER ROOF DRAIN
- PROPOSED STORM SEWER TRENCH DRAIN
- PROPOSED GAS LINE

EROSION & SEDIMENTATION CONTROL LEGEND

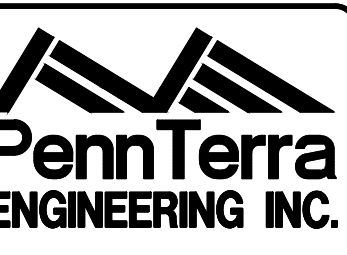
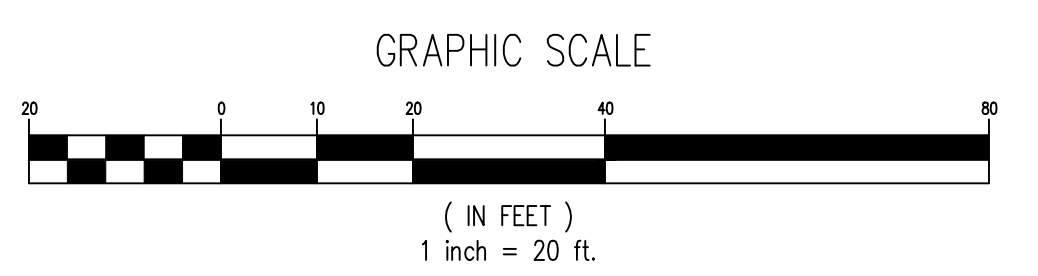
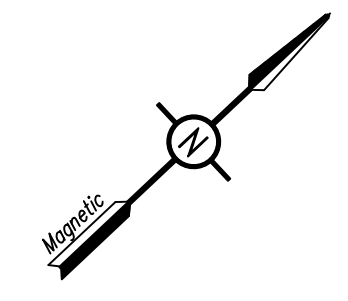
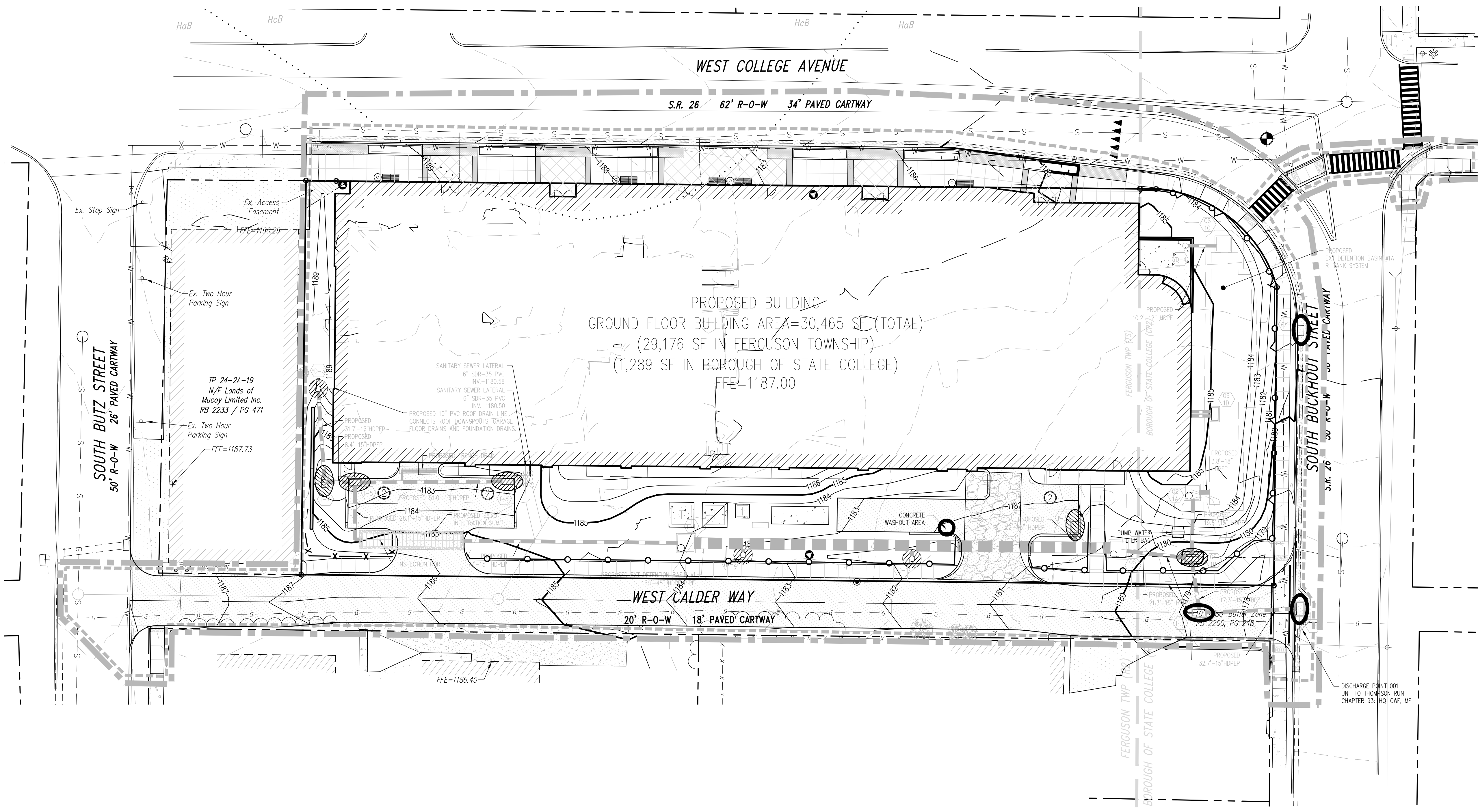
- NPDES BOUNDARY LINE
- LIMIT OF DISTURBANCE
- 18" SILT SOCK
- 24" SILT SOCK
- CONSTRUCTION ENTRANCE
- INLET PROTECTION (STONE TYPE)
- YARD DRAIN PROTECTION
- INLET PROTECTION (BAG TYPE)
- CONCRETE WASHOUT AREA
- PUMP WATER FILTER BAG

NPDES PERMIT NOTICE OF TERMINATION NOTE:
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5. FINAL SITE GRADING.

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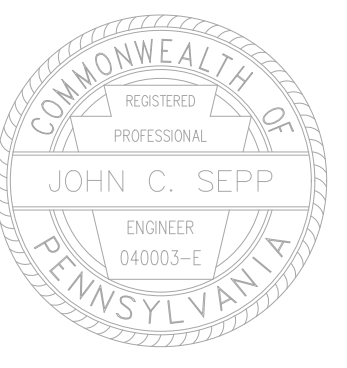


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Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542, Pg. 42
Acad	19052-FINAL-10-ES2
Layout	ES2

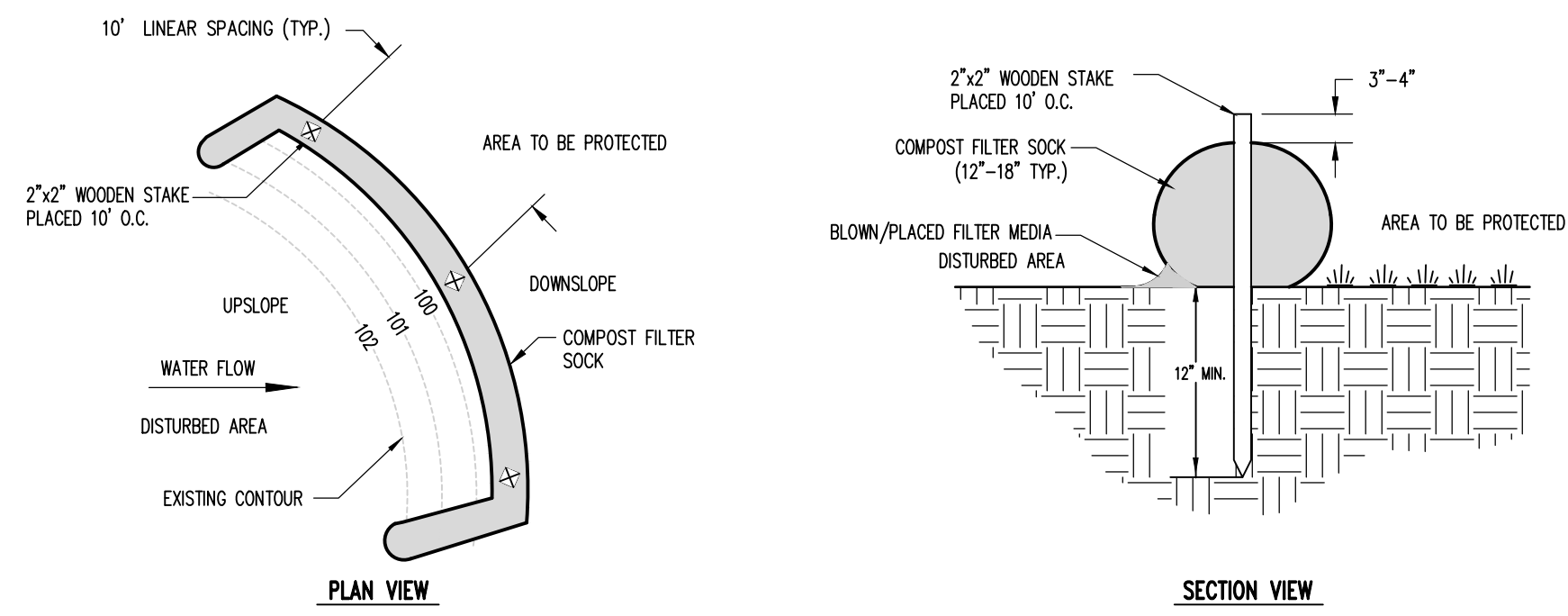
03/04/21	EAH	REVISED PER FERGUSON TOWNSHIP & BOROUGH COMMENTS
05/21/21	EAH	REVISED PER FERGUSON TOWNSHIP COMMENTS
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04/22/21	EAH	REVISED PER BOROUGH COMMENTS
04/14/21	EAH	ADDENDUM #
Date	Description	REVISIONS

WEST COLLEGE STUDENT HOUSING
 BOROUGH OF STATE COLLEGE
 FERGUSON TOWNSHIP
 CENTRE COUNTY
 PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL PLAN

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	1"=20'
SHEET NO.	ES2



- Sock fabric shall meet standards of Table 4.1. Compost shall meet the standards of Table 4.2.
- Silt sock compost/soil/rock/seed fill to meet application requirements.
- Silt socks depicted are for use on minimal slopes. Greater slopes may require larger silt socks per the Engineer.
- Compost material to be dispersed on site, as determined by Engineer.
- Traffic shall not be permitted to cross filter socks.
- Accumulated sediment shall be removed when it reaches half the aboveground height of the sock and disposed in the manner described elsewhere in the plan.
- 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.
- Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's recommendations.
- 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.

TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Two-Ply Systems

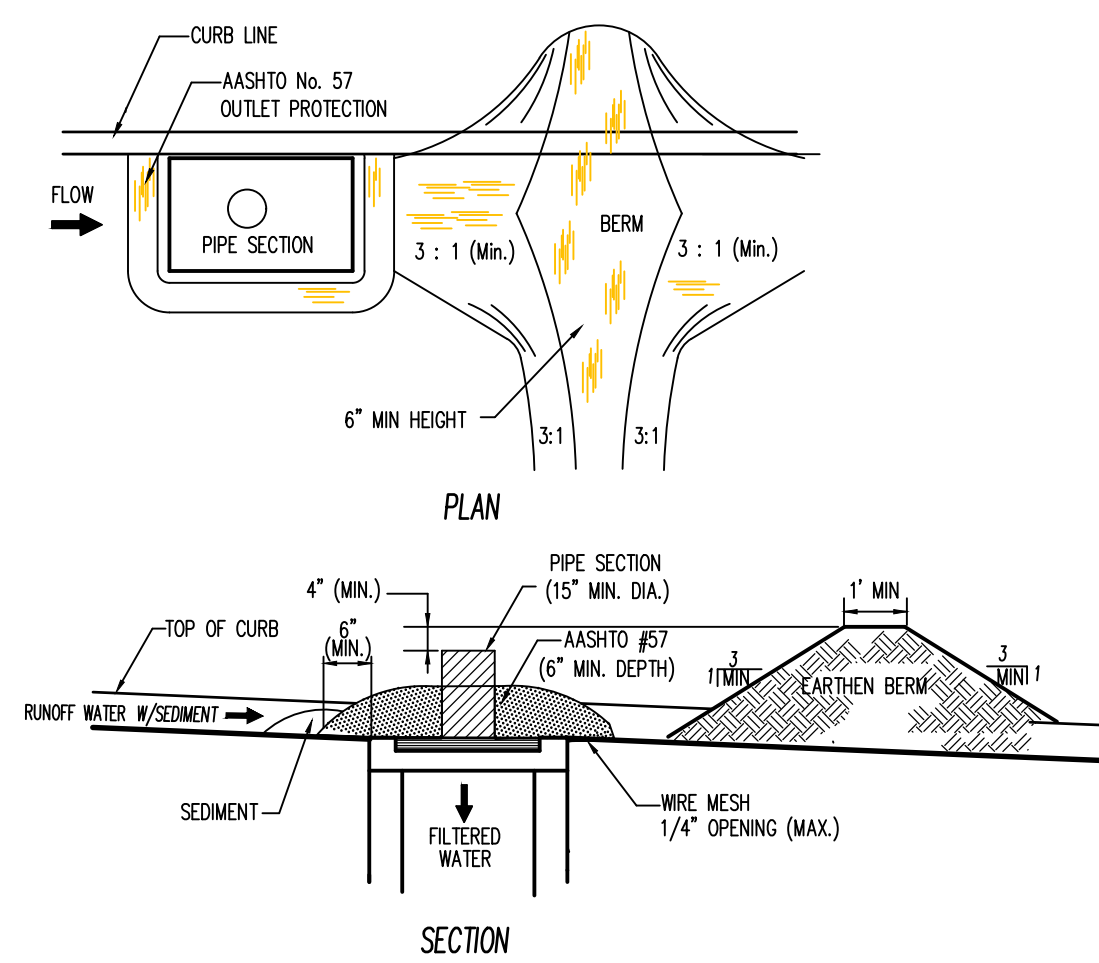
Inner Containment Netting	HDPE biaxial net
	Continuously wound
Outer Filtration Mesh	Fusion-welded junctures
	3/4"x3/4" Max. aperture size
Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch)	
3/16" Max. aperture size	

Sock fabrics composed of burlap may be used on projects lasting 6 months or less.

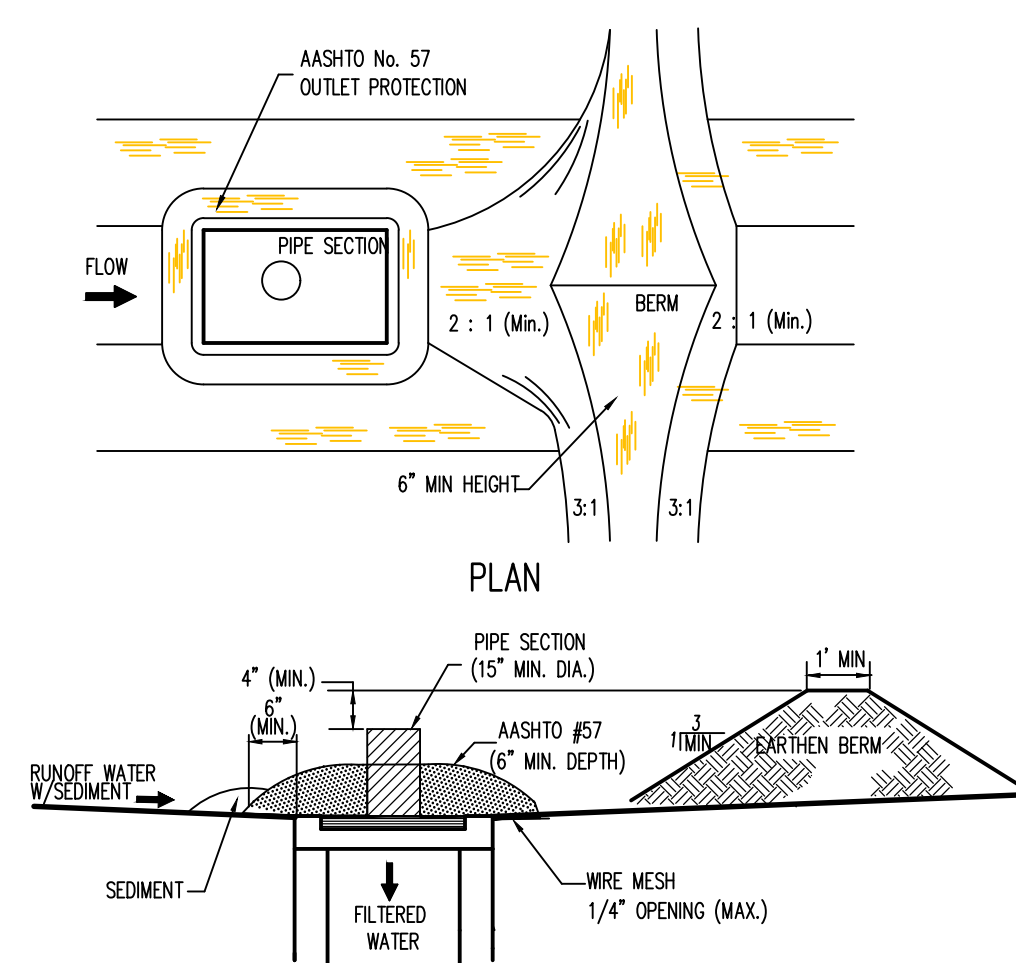
TABLE 4.2
Compost Standards

Organic Matter Content	25%-100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5-8.5
Moisture Content	30%-60%
Particle Size	30%-50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

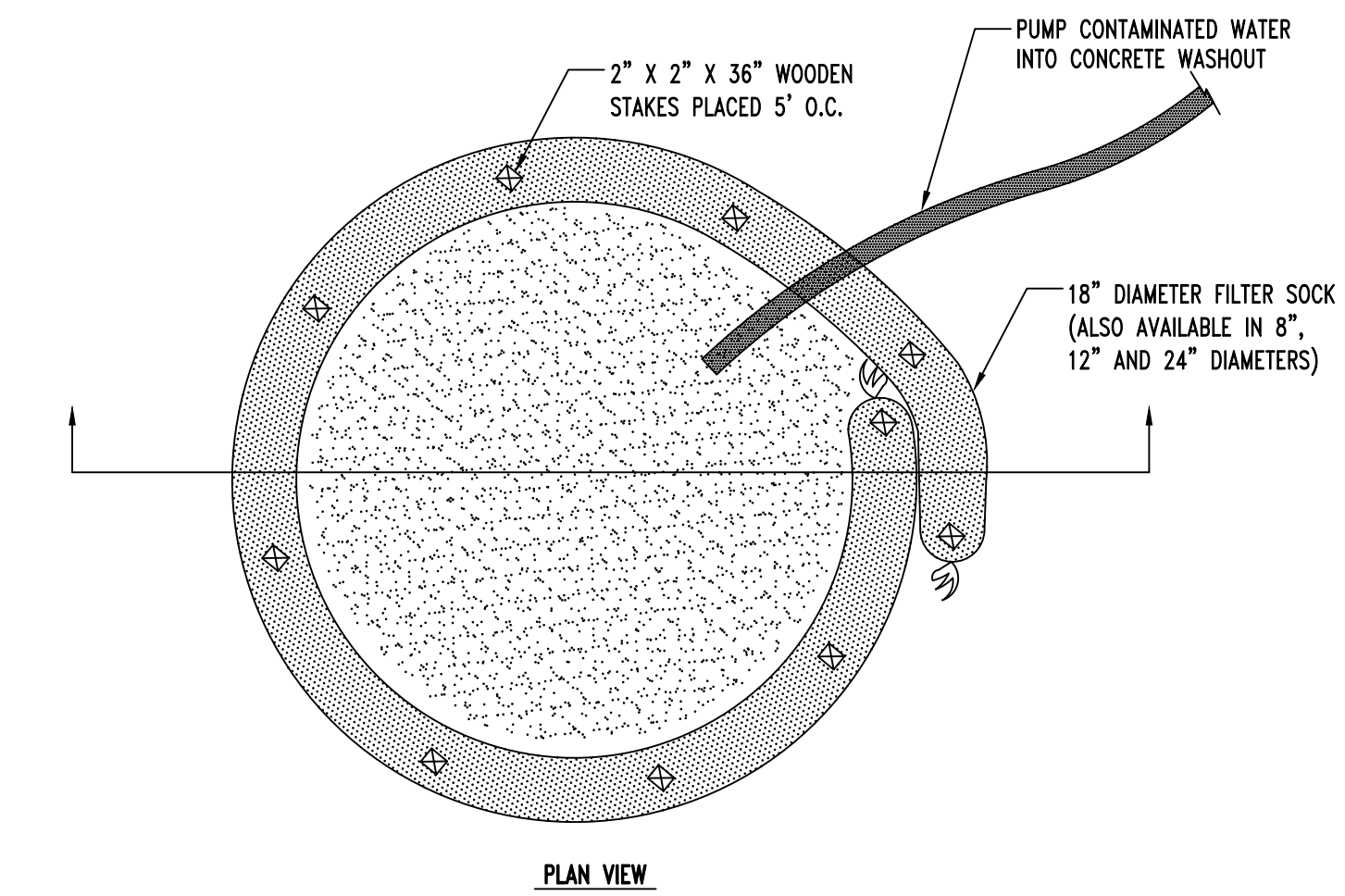
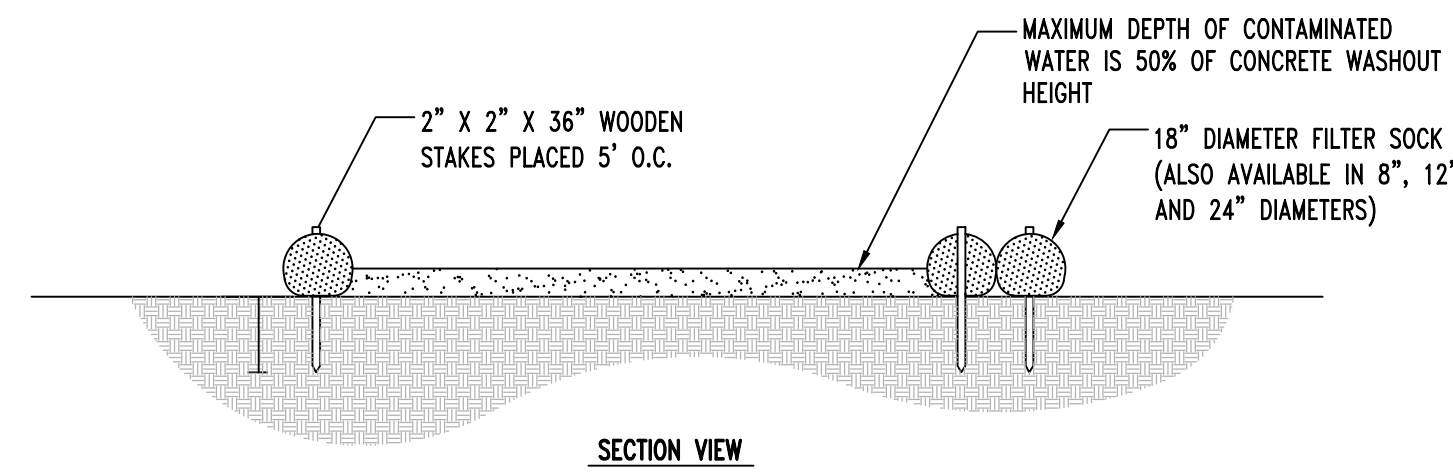
COMPOST FILTER SOCK DETAIL
NOT TO SCALE



DROP INLET FILTER W/ EARTHEN BERM (TYPE C)
NOT TO SCALE

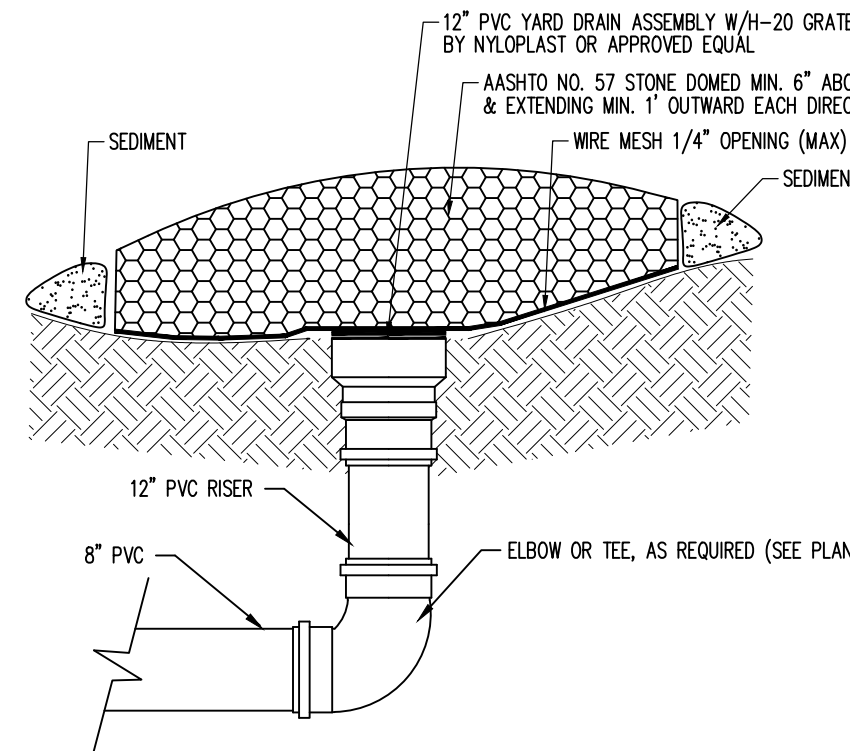


DROP INLET FILTER W/ EARTHEN BERM (TYPE M)
NOT TO SCALE

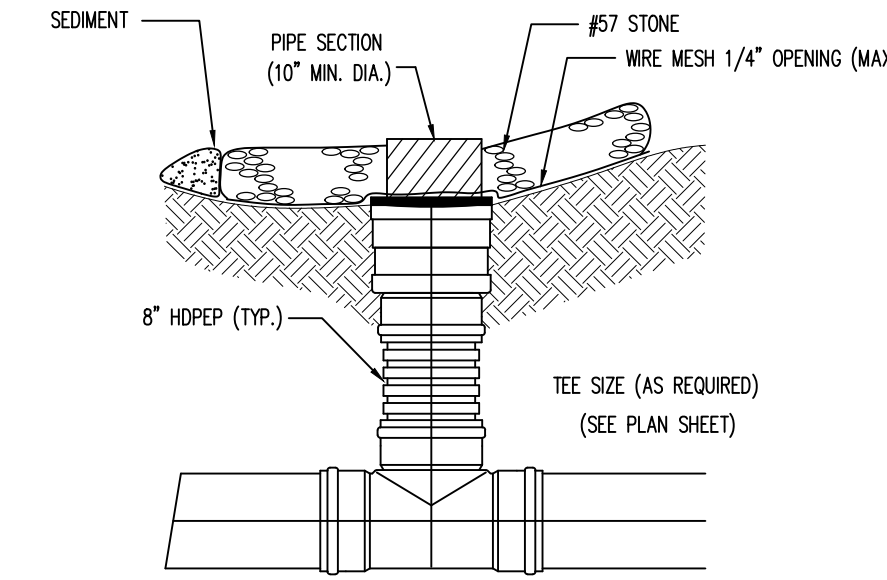


- NOTES:
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
 - CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY.
 - CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
 - A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE FILTER SOCKS.

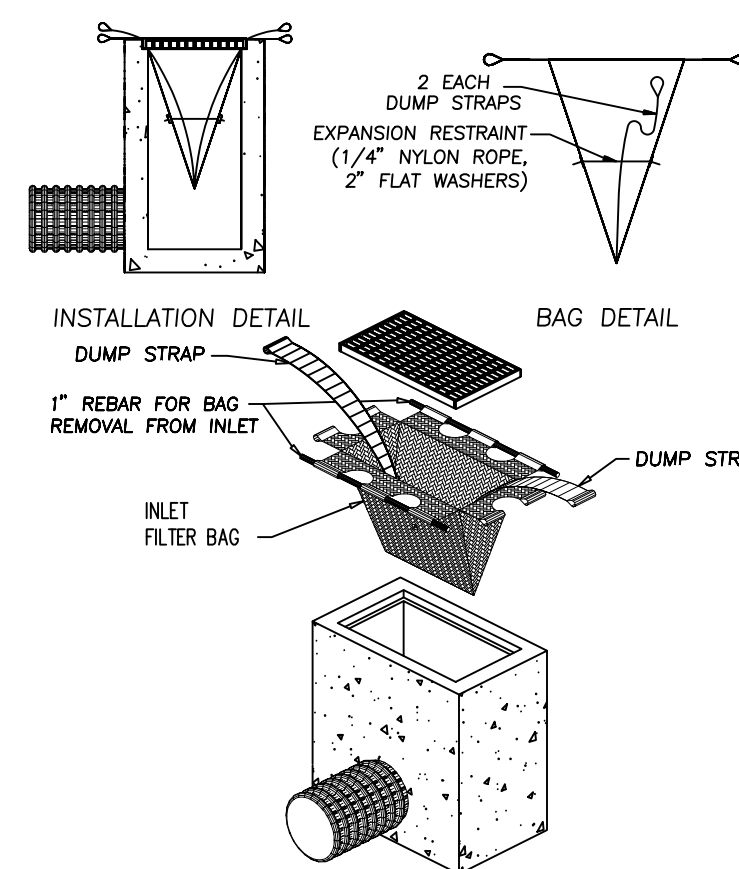
CONCRETE WASHOUT AREA
NOT TO SCALE



YARD DRAIN INLET PROTECTION
NOT TO SCALE

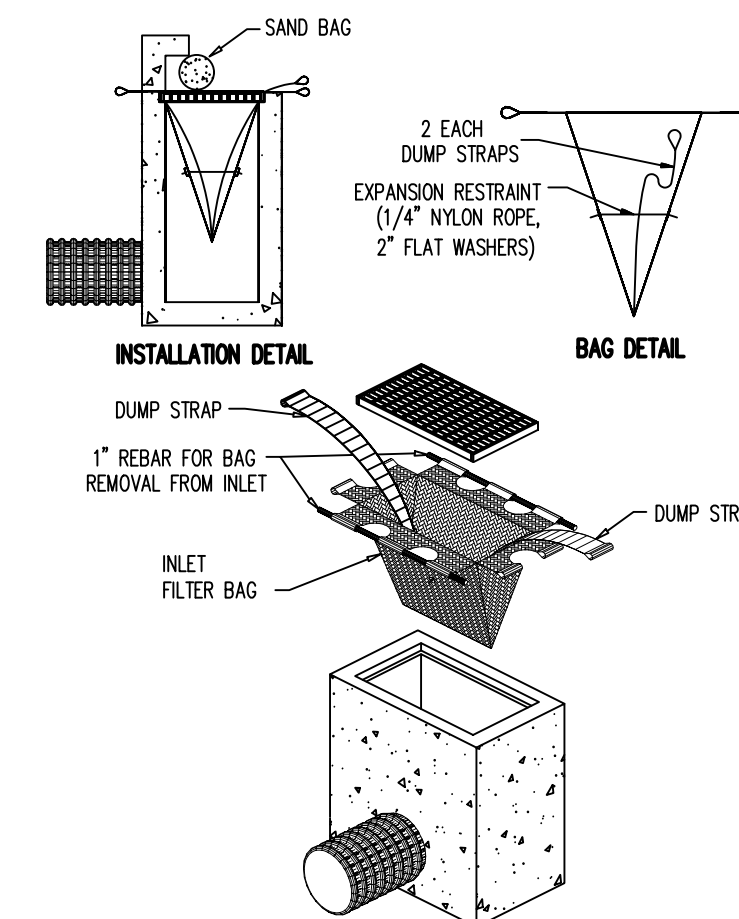


15" INLINE DRAIN INLET PROTECTION
NOT TO SCALE



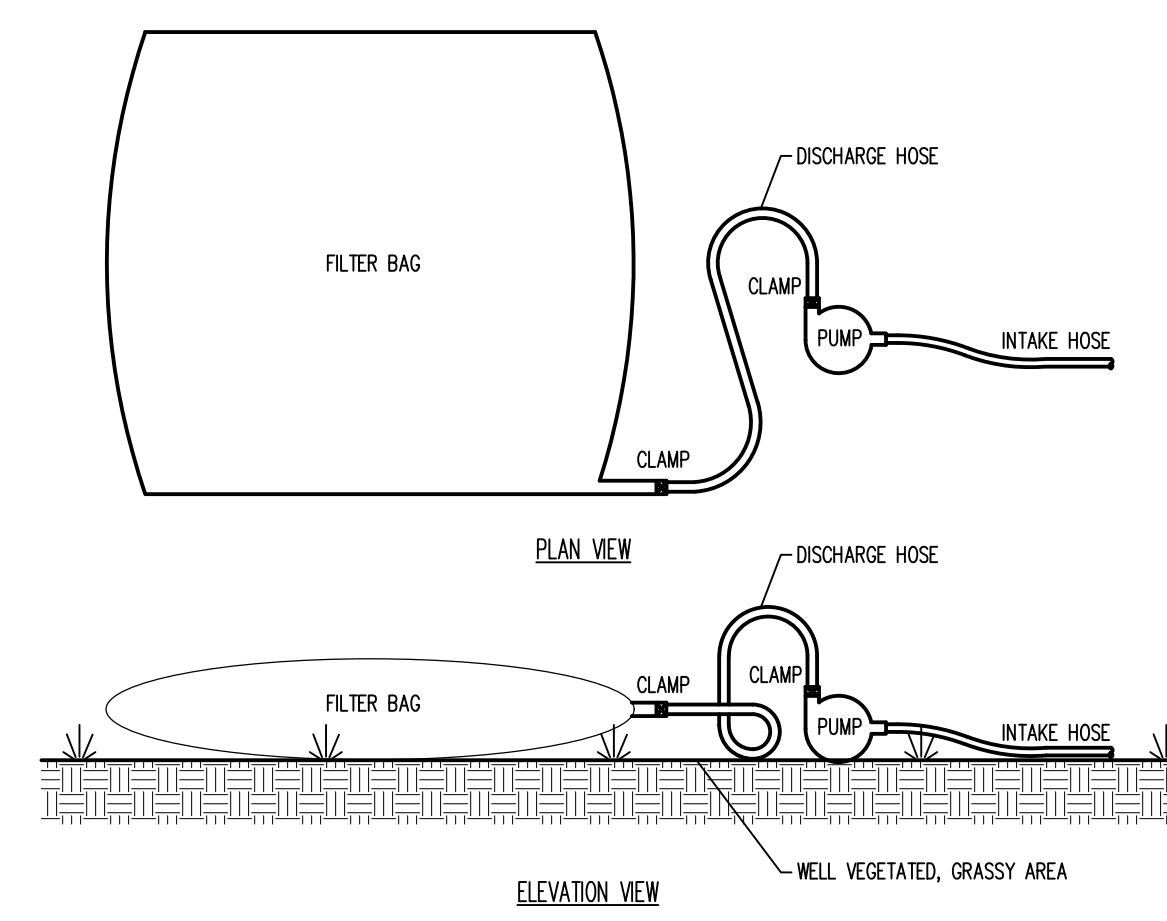
INLET FILTER BAG (TYPE M)
NOT TO SCALE

- INLET FILTER BAG NOTES:
- INLET FILTER BAG SHOULD TRAP PARTICLES LARGER THAN 150 MICRONS.
 - WHEREVER FILTER BAGS ARE USED THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
 - INLET FILTER BAGS SHOULD BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
 - INLET FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED WHEN BAG IS 1/2 FULL.
 - DAMAGED FILTER BAGS SHOULD BE REPLACED.
 - NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.



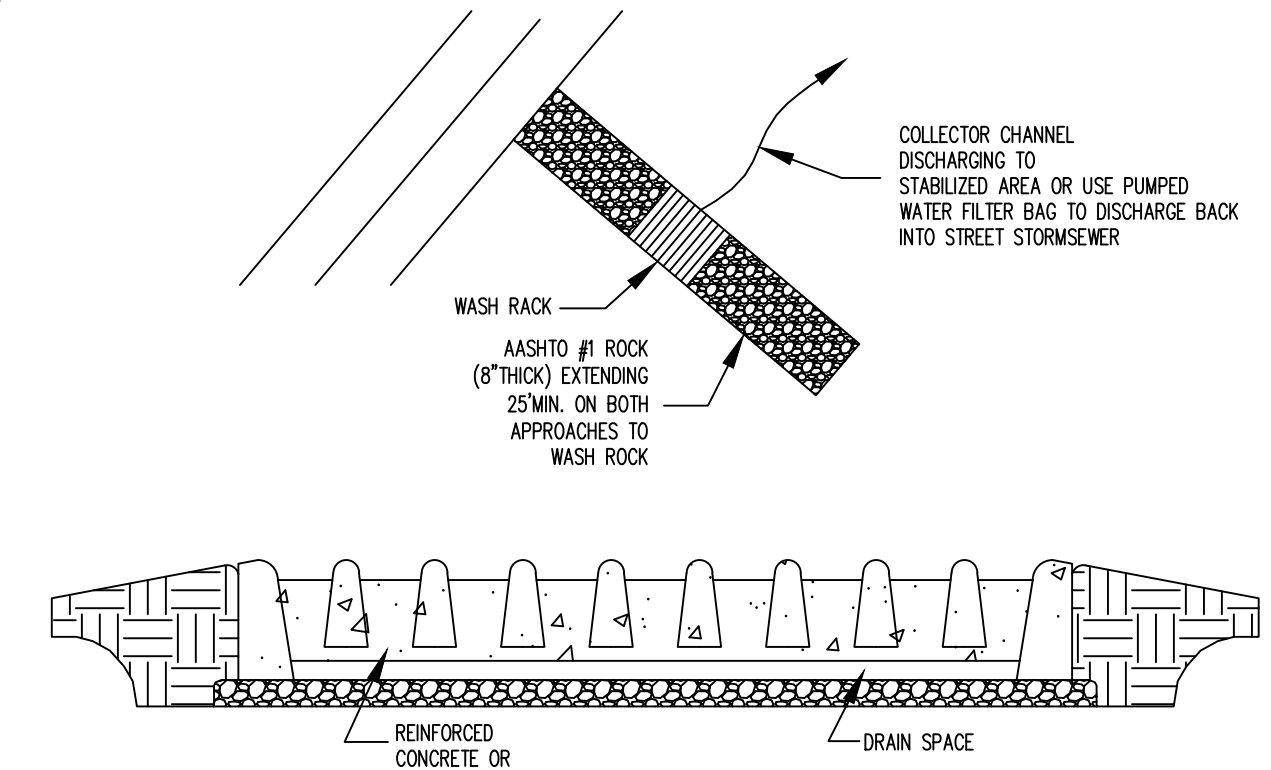
INLET FILTER BAG (TYPE C)
NOT TO SCALE

- INLET FILTER BAG NOTES:
- INLET FILTER BAG SHOULD TRAP PARTICLES LARGER THAN 150 MICRONS.
 - WHEREVER FILTER BAGS ARE USED THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
 - INLET FILTER BAGS SHOULD BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
 - INLET FILTER BAGS SHOULD BE CLEANED AND/OR REPLACED WHEN BAG IS 1/2 FULL.
 - DAMAGED FILTER BAGS SHOULD BE REPLACED.
 - NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION.



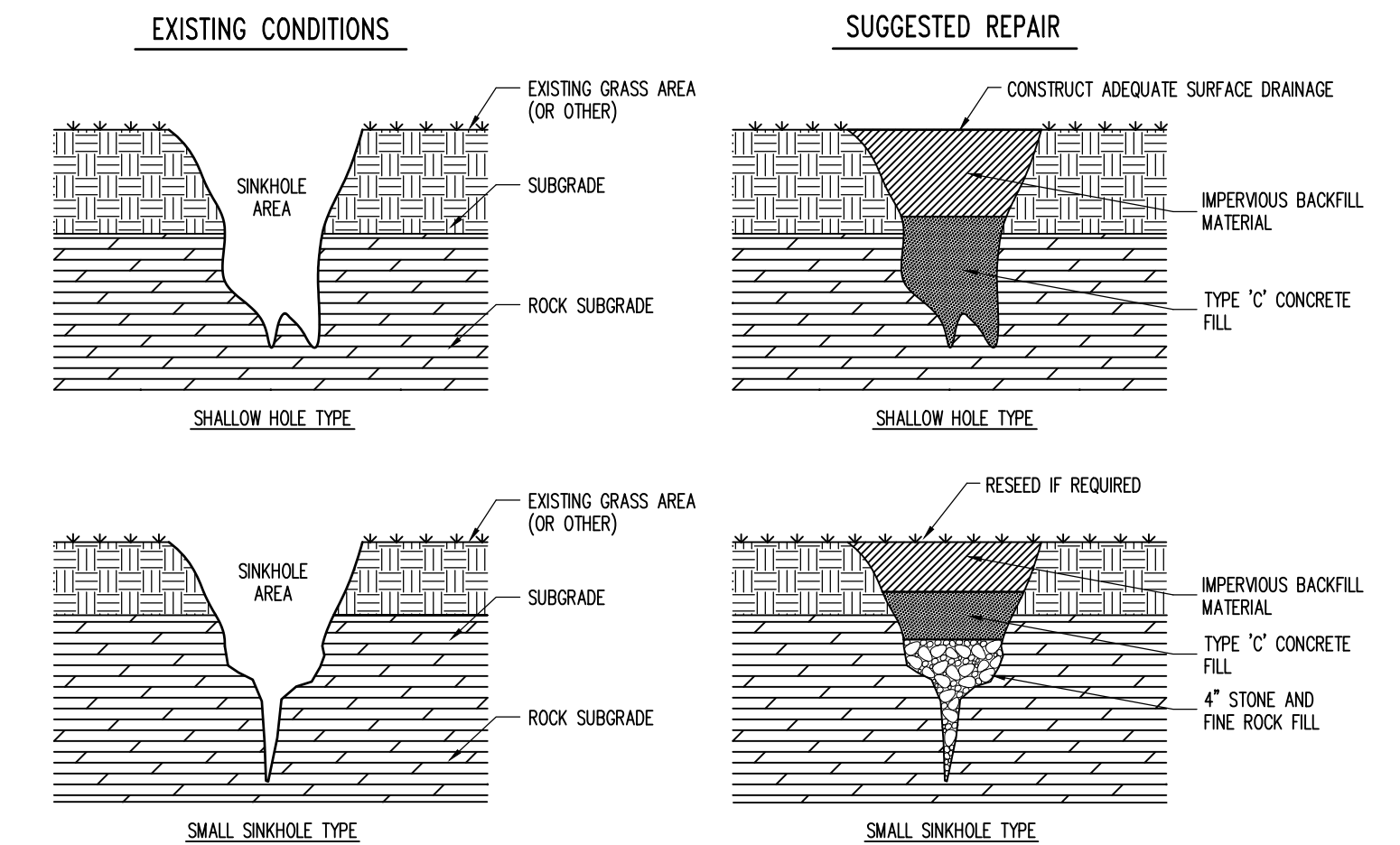
PUMPED WATER FILTER BAG DETAIL
NOT TO SCALE

- FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
- A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
- BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
- THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER, AND SECURELY CLAMPED.
- THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.



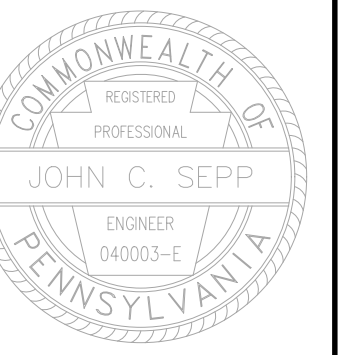
ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
NOT TO SCALE

- NOTES:
- WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
 - WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
 - A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.



- NOTE:
- THESE DETAILS REPRESENT TYPICAL SINKHOLE SHAPES AND REPAIR TECHNIQUES. SINKHOLES VARY IN SIZE AND TYPE.
 - THEREFORE, THE OWNER'S GEOTECHNICAL ENGINEER SHALL BE CONTACTED PRIOR TO FIELD REPAIR OF ANY SINKHOLE.
 - (NOT INCLUDED IN UTILITY/EARTHWORK BASE BID)

SINKHOLE REPAIR
NOT TO SCALE



Designer	EAH
Draftsman	EAH
Proj. Manager	JCS
Surveyor	BRK
Perimeter Ok.	
Book	542 Pg. 42
Acad	19052-FINAL-10-ES3
Layout	ES-DET

05/04/21	EAH	REVISED PER FERGOSON TOWNSHIP & BOROUGH COMMENTS
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BOROUGH OF STATE COLLEGE
FERGOSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL DETAILS

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	N.T.S.
SHEET NO.	ES3

Standard Erosion and Sedimentation Control Plan Notes

- 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 Centre County Conservation District) must be available at the project site at all times. The Centre County Conservation District shall be notified of any changes to the approved plan prior to implementation of those changes. The Centre County Conservation District may require a written submittal of those changes for review and approval at its discretion.
- 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 Centre County Conservation District to an on-site preconstruction meeting.
- 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.
- 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 Centre County Conservation District or by the Department prior to implementation.
- Areas to be filled are to be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots and other objectionable material.
- 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 or phase have been installed and are functioning as described in this E&S plan.
- 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.
- 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.
- 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 Centre County Conservation District and/or the regional office of the Department.
- 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 discharge at the site.
- All off-site waste and borrow areas must have an E&S plan approved by the Centre County Conservation District or the Department fully implemented prior to being activated.
- 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 by qualifying as clean fill due to analytical testing.
- All pumping of water from any work area shall be done according to the procedure described in this plan, over undisturbed vegetated areas.
- 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, re mulching 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.
- 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.
- 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.
- All sediment removed from BMPs shall be disposed of in the manner described on the plan drawings.
- 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 outcrops shall have a minimum of 2 inches of topsoil.
- 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.
- All earthen fills shall be placed in compacted layers not to exceed 9 inches in thickness.
- 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.
- Frozen materials or soft, mucky, or highly compressible materials shall not be incorporated into fills.
- Fill shall not be placed on saturated or frozen surfaces.
- Seeps or springs encountered during construction shall be handled in accordance with the standard and specification for subsurface drain or other approved method.
- 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.
- 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.
- 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.
- 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 Centre County Conservation District or the Department.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Centre County Conservation District for an inspection prior to removal of the E&S BMPs.
- After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed. Areas disturbed during removal of the BMPs shall be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal are to be done only during the germinating season.
- Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operator shall contact the Centre County Conservation District to schedule a final inspection.
- 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.
- Concrete wash water shall be handled in the manner described on the plan drawings. In no case shall it be allowed to enter any surface waters or groundwater systems.

General Construction Notes:

- All permanent and temporary seeding shall be done within 72 hours of the completion of disturbances for all areas requiring vegetative cover.
 - In order to avoid compaction of the proposed underground infiltration basin bottom, special procedures shall be implemented for equipment operations within the bottom of the underground infiltration basin. The final excavation shall be completed utilizing equipment located outside the infiltration basin bottom (if excavation cannot fully be completed from outside the bottom, refer to the typical underground infiltration basin bottom excavation detail).
 - Prior to exiting the site, all construction vehicles must drive over the construction entrance.
 - Silt Socks must be placed and maintained down slope of all topsoil stockpiles. Topsoil stockpiles must also be seeded with the temporary seeding mixture.
 - All utility installation shall be done at a rate of which all trenching excavated shall be backfilled within the same day. All utility installation shall begin at the very downslope and proceed upslope.
 - The removal of temporary Erosion and Sedimentation Controls shall be coordinated with the Centre County Conservation District and the site Civil Engineer. Prior to removal of these controls the Centre County Conservation District and the sites Civil Engineer shall be notified.
- ### Demolition/Excavation and Initial Construction Staging of Earthmoving Activities Construction Sequence
- *Refer to Erosion and Sedimentation Control Plan Sheet ES1 for the following Construction Sequence**
- All earth disturbance activities shall proceed in accordance with the following staging of earthmoving activities. Each stage shall be completed before a subsequent stage is initiated.
- Install the rock construction entrance off of West Calder Way, as shown on the Erosion and Sedimentation Control Plan (E&SCP).
 - Install all site silt sock as shown on the E&SCP (Sheet ES1). Silt sock that is shown in the areas where existing pavement/concrete exists, must have a 3' wide section of pavement/concrete removed to install the proposed silt sock. Silt sock must not be placed on the surface of pavement/concrete.
 - Install filter bag style inlet protection on existing inlets as shown on the E&SCP.
 - Repair the closed depression/sinkhole by contacting a registered professional to oversee construction and design a permanent fix as the area is excavated. The design shall incorporate limiting potential surface and subsurface runoff from entering this area.
 - Once the closed depression/sinkhole repair is complete, the silt sock surrounding the exterior perimeter of the repaired closed depression/sinkhole shall be removed.
 - Demolish existing pavement, concrete, vegetation and all other features as proposed to be demolished. Haul away all material in accordance with the "Responsibilities for Fill Materials" section shown below. Do not remove existing curbing along West College Avenue, South Buckhout Street, or West Calder Way at this time.
 - Strip the topsoil from the proposed site and stockpile the topsoil on the topsoil stockpile as shown on the E&SCP, after installing silt sock on the downslope end of the topsoil stockpile. Seed the topsoil stockpile with the temporary seeding mixture.
 - Construct proposed storm sewer system from OS-1B to I-1 (Refer to sheet ES2 for location/construction of the storm sewer run OS-1B to I-1). Sump inlet OS-1B 12" to capture runoff in the interim stage of construction prior to any basins being complete. During construction of the building, use this location to discharge runoff from "Pump Water Filter Bags". Also if building surface are complete prior to construction and connection to the underground stormwater detention systems, provide methods to direct stormwater to this inlet location. Install filter bag style inlet protection on newly installed inlets I-1 and I-2, and stone type inlet protection on inlet OS-1B.
 - The topsoil stockpile must be removed at this time. Since all proposed lawn areas have proposed amended soils to be installed, the topsoil stockpile will not be needed. Amended soils will be hauled to the site at the proposed installation time from outside areas.
 - Excavation for the underground parking areas of the building can begin at this time. Haul away all material in accordance with the "Responsibilities for Fill Materials" section shown below. Any water that enters and must be removed from the underground excavation portion of the proposed building must be pumped with a pumped water filter bag and be discharged to previously installed inlet OS-1B.
 - Once excavation of the underground portion of this building is complete. Building Construction may begin.
 - Continue with the construction of the proposed building until the first floor elevation (Elevation 1187.00) is reached.

Final Construction Staging of Earthmoving Activities Construction Sequence

*Refer to Erosion and Sedimentation Control Plan Sheet ES2 for the following Construction Sequence

- Proceed with construction activities in the southwestern site area between West College Avenue and the proposed building footprint. Construction activities in this area must not proceed past the Ferguson Township and State College Borough municipal boundary to the northeast as shown on the E&SCP. Grading procedures must occur with subgrade elevations reached. Subgrade elevations must be stabilized with stone. Install curbing/sidewalks and planter beds up to the municipal boundary on the southwest side.
- Remove existing silt sock and replace silt sock as shown on the E&SCP in the area outside of the building footprint between the construction entrance and the municipal boundary at the corner of West College Avenue and South Buckhout Street. Grading operations may begin. Begin installing all utilities including storm sewer, sanitary sewer and water line installation, working from the very downslope of each line and proceeding upslope. The amount of utility installation shall coincide with the amount of trenching that can be excavated and backfilled daily. Install stone type inlet/yard drain protection on all inlets/yard drains, as shown on the E&SCP. Extended Detention Basin #1A can be installed at this time. Extended Detention Basin #1 can be installed up to the northeast side of the construction entrance.
- Continue with site grading until subgrade elevations are reached in this location. Subgrade elevations in the previous areas are final elevations less amended soil installation. Sidewalk/Pavement areas shall be stabilized with stone.
- Remove existing silt sock and replace silt sock as shown on the E&SCP in the area outside of the building footprint in the area from the southwest side of the construction entrance along West Calder Way towards the southwest and southwest property boundary. Grading operations may begin. Begin installing all utilities including storm sewer, sanitary sewer and water line installation, working from the very downslope of each line and proceeding upslope. The amount of utility installation shall coincide with the amount of trenching that can be excavated and backfilled daily. Install stone type inlet/yard drain protection on all inlets/yard drains, as shown on the E&SCP. Finish installing Extended Detention Basin #1 and fully install the proposed infiltration sump at this time.
- Continue with site grading until subgrade elevations are reached in this location. Subgrade elevations in the previous areas are final elevations less amended soil installation. Sidewalk/Pavement areas shall be stabilized with stone.
- Continue with building construction.
- Once building construction is complete, install all site sidewalk/planter beds, curbing and install pavement base course. Rock Construction entrance may be removed.
- Install amended soils and seed with the permanent seeding mixture.
- Install pavement wearing course.
- Once permanent stabilization has been achieved, all temporary erosion and sediment controls may be removed (see General Construction Note 6). These controls include, inlet/yard drain protection, and silt socks. Stabilize any areas disturbed by the removal of these controls immediately with the permanent seeding mixture. Remove all sediment that may have entered the inlets onsite. Stabilize all other disturbed areas with amended soils and the permanent seeding mixture. Install the Grate Inlet Skimmer Boxes and Flood Downspout Filters.

Temporary Control Measures

Temporary control measures will be implemented to ensure that erosion is minimized and that sediment is retained during construction. The rock construction entrance will be provided at the site entrance to prevent tracking of sediment from the site. Silt sock will be placed at the locations shown on the Erosion and Sedimentation Control Plan to provide proper filtration of the site runoff. The topsoil stockpile is provided for a convenient place to stock onsite topsoil. Inlet/yard drain protection will be used to prevent sedimentation of the storm sewer systems. Erosion control lining will be used to help stabilize all proposed vegetated areas.

Temporary seeding on all disturbed areas shall be done immediately after grading is finished and shall consist of the following:

Item	Rate
1. Agricultural grade limestone	1 ton / acre
2. Fertilizer 10-10-10	500 lbs. / acre
3. Annual ryegrass	40 lbs. / acre
4. Mulch (straw)	3 tons / acre

Permanent Control Measures

Permanent control measures include the stormwater underground infiltration basin, storm sewer pipes, Grate Inlet Skimmer Boxes, Water Quality Sump and seeding / landscaping. Seeding specifications are for graded or cleared areas where permanent vegetative cover is needed.

Soil Enhancements: It is recommended that site specific soil testing be performed. Lieu of soil test recommendations, use the following schedule:

- Acceptable – Apply 6 tons per acre Dolomitic Limestone (240 lbs/ 1000 s.t.) and 1000 lbs/acre 10-20-20 fertilizer (25 lbs/ 1000 s.t.) before seeding. Harrow or disc into upper three inches of soil.
- Topsoil Placement – Topsoil shall be placed at a minimum 4" in depth over disturbed vegetated areas.

Permanent Seeding shall consist of the following:

Item	Rate
1. Seed Mixture Consisting of <ul style="list-style-type: none">50% Poo pratensis (Kentucky Bluegrass)30% Festuca rubra (Creeping Red Fescue)20% Lolium perenne L. (Perennial Rye)	102 lbs./acre
2. *Mulch (straw)	3 tons / acre

*Mulching: Apply mulch immediately after seeding and anchor properly with an anchoring tool or following one of the methods listed below.

- Tracking: The process of cutting mulch into the soil via equipment that runs on tracks, is employed primarily on slopes 3:1 or steeper.
- Mulch Nettings: Staple lightweight biodegradable paper, plastic or cotton netting over the mulch according to the manufacturer's recommendations.
- Synthetic Binders: Synthetic binders such as acrylic DLR (AGRI-TAC), DCA-70, Petrosol or Terrastack may be used at rates recommended by the manufacturer to anchor mulch material.
- Wood Cellulose Fiber: The fiber binder shall be applied at a net dry weight of 750 lb/acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs of wood cellulose fiber per 100 gallons.
- Peg & 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 surface by stretching twine between pegs in a criss-cross within a square pattern. Secure twine around each peg with two or more turns.

Maintenance Program

During construction, the contractor will be responsible for maintenance and repair of all erosion and sedimentation control facilities. These facilities should be inspected daily and after every runoff event greater than 0.25". Any erosion control disturbed during construction, installation of utilities or found to be inadequate upon inspection shall be repaired or replaced within 24 hours after the disturbance or the discrepancy is discovered. The maintenance of the erosion control facilities will include the following:

During inspection of these facilities, written documentation for each inspection for all BMP repair, replacement, and/or maintenance activities shall be completed using the DEP Form 3800-FM-BOW0271d (A copy of this form is located in the Appendix of this report). Inspection reports should be kept onsite at all times.

Construction Entrance:

- The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any measure used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately. Sediment removed from the structure shall be spread over an existing stockpile with controls already in place and be seeded with the temporary seeding mixture.

Silt Socks:

- The Contractor shall maintain the socks in a functional condition at all times and it shall be routinely inspected.
- Where the sock requires repair, it will be routinely repaired.
- The contractor shall remove sediment collected at the base of the sock when they reach 1/2 of the exposed height of the sock, or as directed by the Engineer. Alternatively, rather than create a soil disturbing activity, the engineer may call for additional sock to be added at areas of high sedimentation, placed immediately on top of the existing sediment laden sock. The sock will be dispersed on site when no longer required, as determined by the Engineer.

Topsoil Stockpile:

- The topsoil stockpile shall be seeded with the temporary seeding mixture to ensure proper stabilization. Any additional topsoil spread at these locations shall also be seeded with the temporary seeding mixture.

Permanent Seeding:

- If the vegetative cover is not established uniformly by the third mowing, the contractor shall reapply topsoil if necessary and seed and mulch as needed to provide adequate cover.

Inlet Protection (Bag Type):

- Inlet filter bags should be inspected on a weekly basis and after each runoff event. Needed repairs should be initiated immediately after the inspection.
- Filter bags should be cleaned and/or replaced when the bag is 1/2 full. Damaged bags should be replaced.

Inlet/Yard Drain Protection (Stone Type):

- Sediment shall be removed from the structure and spread over an existing stockpile with controls already in place and be seeded with the temporary seeding mixture.
- The structure should be checked regularly to ensure its soundness. If the stone filter has been disturbed and cannot perform its proper protective function, additional stone should be installed to provide adequate filtration.

Recycling and Disposal of Materials

The operator shall remove from the site, recycle, or dispose of all building materials and wastes in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1et seq., 271.1 et seq. and 287.1 et seq. The contractor shall not illegally bury, dump, or discharge any building material or wastes.

Wastes generated during the construction of this project shall be recycled if at all possible. Any materials that cannot be recycled or reused shall be disposed of at a Pennsylvania Department of Environmental Protection approved landfill. If soil and/or rock disposal areas are required, erosion and sedimentation controls shall be implemented at these areas. Any excess soil waste may only be disposed of at an approved E&S/NPDES permitted site.

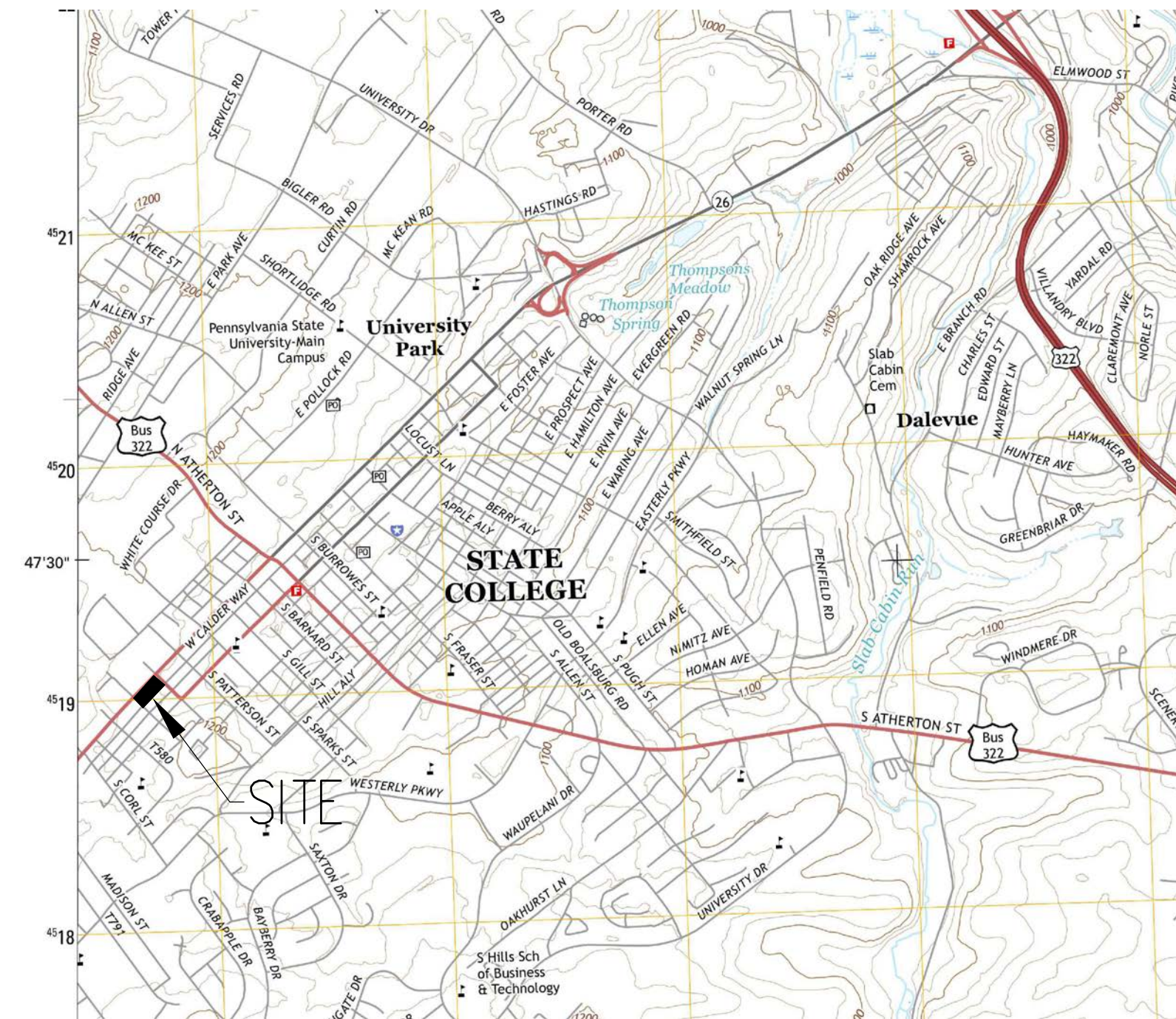
Responsibilities for Fill Materials

The contractor is responsible to use environmental due diligence to ensure any fill material required to be imported to or exported from the site qualifies as Clean Fill.

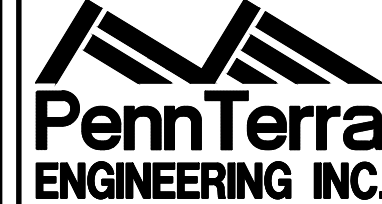
Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)

Environmental due diligence: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".

Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste management or 271 Municipal Waste Management, whichever is applicable.



LOCATION MAP
SCALE (1" = 2000')

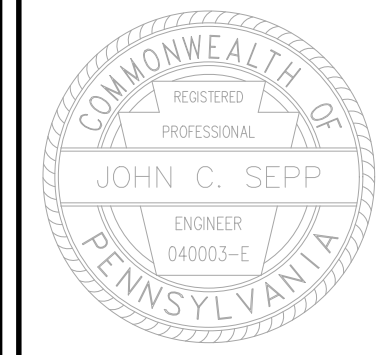


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Date	Description
	REVISIONS

WEST COLLEGE STUDENT HOUSING

BOROUGH OF STATE COLLEGE
FERUGSON TOWNSHIP
CENTRE COUNTY
PENNSYLVANIA

FINAL LAND DEVELOPMENT PLAN

EROSION & SEDIMENTATION CONTROL NARRATIVE

PROJECT NO.	19052
DATE	DECEMBER 18, 2020
SCALE	SHEET NO.
N.T.S.	ES4

