

# 4100 WASHINGTON ROAD LAND DEVELOPMENT PLANS

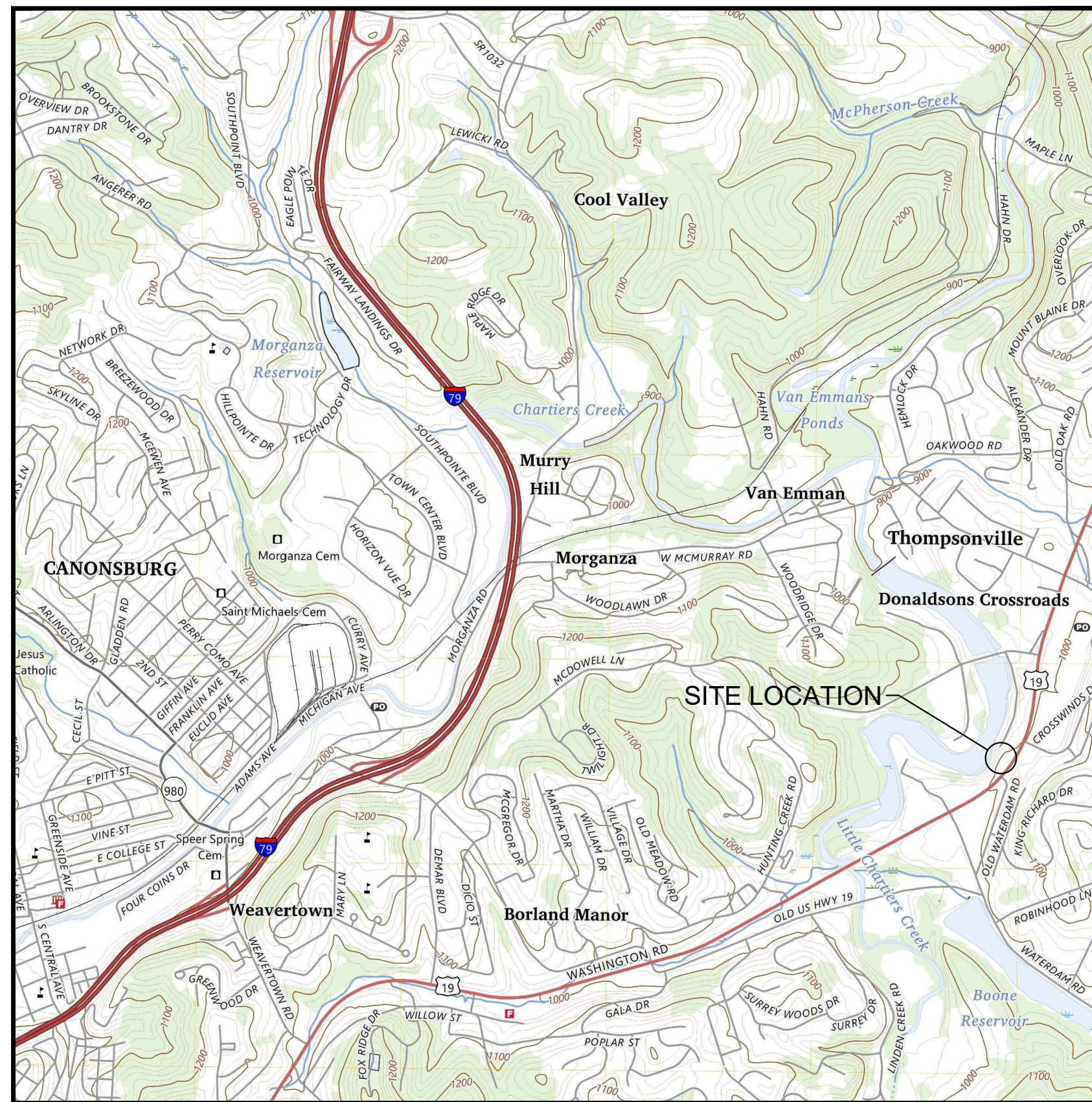
## Project Construction Plans

### SITE LOCATION

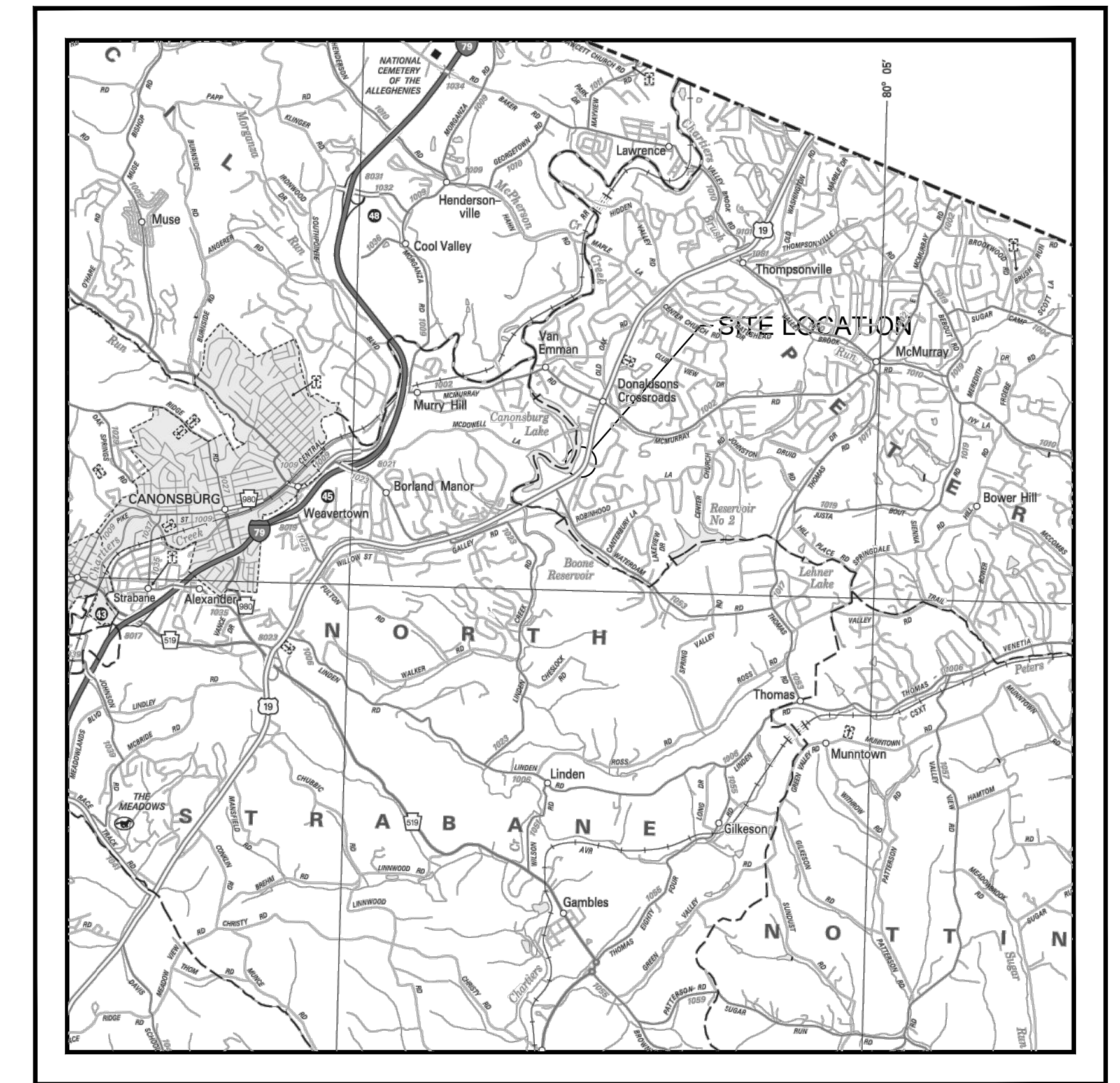
(NAD 83) LAT: 40° 15' 55.79" N; LONG: 80° 07' 48.85" W

Sited In:  
 Township of Peters  
 Washington County, Pennsylvania  
 Prepared For:  
 East Star Realty Holdings, LLC  
 Attn: Mr. Kim Clackson  
 342 Thomas Road  
 McMurray PA 15317

Submitted: November 17, 2025  
 Revised: January 28, 2026



**SITE LOCATION MAP**  
 SCALE: N.T.S.



**SITE LOCATION MAP**  
 U.S.G.S. CANONSBURG 7.5' QUADRANGLE MAPS  
 SCALE: 1"=2,000'

**Drawing Index:**

Sheet Number:	Sheet Title:	Included:
2979C01-C100	Cover Sheet	<input checked="" type="checkbox"/>
2979C01-C101	Existing Conditions	<input checked="" type="checkbox"/>
2979C01-C201	Proposed Site Layout	<input checked="" type="checkbox"/>
2979C01-C202	Site Grading Plan	<input checked="" type="checkbox"/>
2979C01-C203	Standard Construction Details	<input checked="" type="checkbox"/>
2979C01-C204	Lighting and Landscaping Plan	<input checked="" type="checkbox"/>
2979C01-C205	Lighting Details	<input checked="" type="checkbox"/>
2979C01-C206	Vehicle Turning Exhibits	<input checked="" type="checkbox"/>
2979C01-C301	Erosion and Sedimentation Control Plan	<input checked="" type="checkbox"/>
2979C01-C302	Erosion and Sedimentation Control Details	<input checked="" type="checkbox"/>
2979C01-C401	Stormwater Management Plan	<input checked="" type="checkbox"/>
2979C01-C402	Stormwater Management Details	<input checked="" type="checkbox"/>

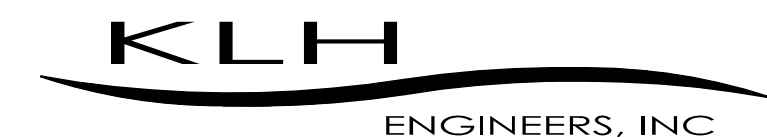
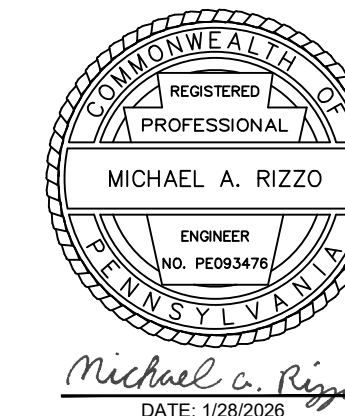
WATERSHED NAME (PA WATER PLAN): OHIO RIVER  
 RECEIVING STREAM (USGS BLUE LINE): LITTLE CHARTIERS CREEK (HQ-WWF)  
 DISTANCE TO NEAREST USGS BLUE LINE STREAM = ± 165 FT  
 NO ANTICIPATED WETLAND IMPACTS

PROPOSED BUILDING USE: FINANCIAL INSTITUTION  
 WITH DRIVE THROUGH AISLES

**Zoning Variances Approved March 21, 2023:**  
 Appeal 1021-2023 East Star

- 440-405.1.F(11.c) - Variance to allow for parking spaces to be located between a new building and Washington Road as part of a proposed redevelopment of 4100 Washington Road.

INSTRUMENT # 200311698  
 PARCEL NO. 540-010-00-00-0022-00  
 4100 WASHINGTON ROAD,  
 CANONSBURG, PA 15317



5173 Campbells Run Road  
 Pittsburgh, PA 15205  
 Phone: 412.494.0510  
 Fax: 412.494.0426  
 info@klhengineers.com

**Pa Designer One Call Contacts:**

**WATER**  
 Pennsylvania American Water  
 300 Galley Road  
 PO box 1290  
 Washington, PA 15317  
 Matt Macek  
 matthew.macek@amwater.com

**ELECTRIC**  
 West Penn Power  
 800 Cabin Hill Dr.  
 Greensburg, PA 15601  
 Robert Painter  
 rpainter@firstenergycorp.com

**MUNICIPAL**  
 Peters Township Public Works  
 750 Bebout Rd.  
 Venetia, PA 15367  
 Joseph Jurwen  
 jhurwen@peterstowship.com

**SANITARY**  
 Peters Township Sanitary Authority  
 111 Bell Drive  
 McMurray, PA 15317  
 Mark Chucuddy  
 mchucuddy@ptsasonline.org

**NATURAL GAS**  
 Columbia Gas of PA, Inc.  
 1600 Dublin Rd.  
 Columbus OH 43215  
 Lisa Collins  
 ldugan@nisource.com

PENNSYLVANIA  
 ONE CALL SYSTEM, INC.

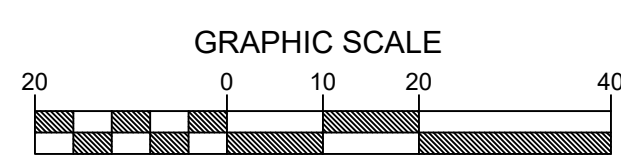
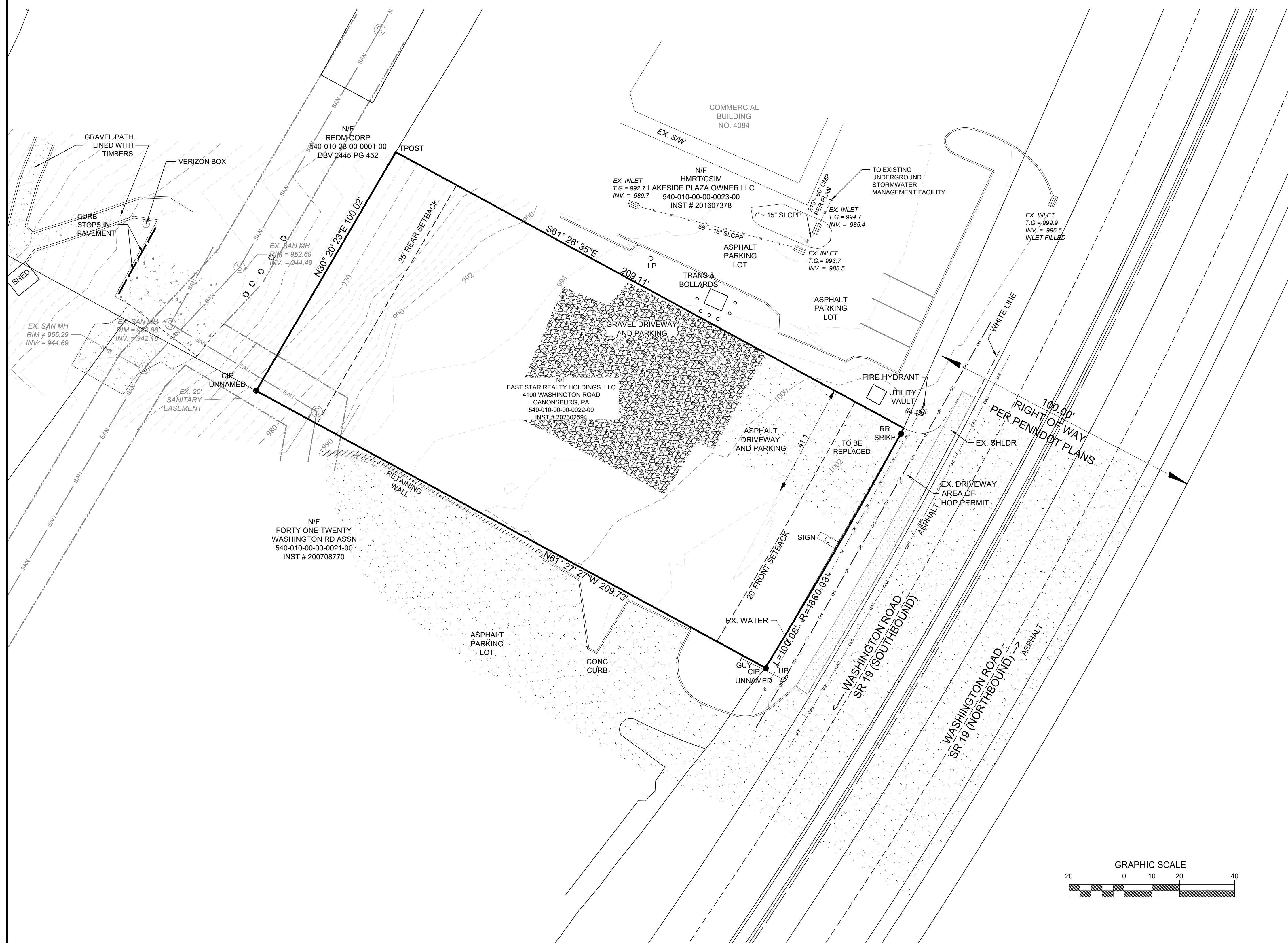


BEFORE YOU DIG ANYWHERE IN  
 PENNSYLVANIA CALL  
 1-800-242-1776

PA ACT 172 (1986) REQUIRES  
 THREE WORKING DAYS NOTICE  
 TO UTILITIES BEFORE YOU  
 EXCAVATE, DRILL, BLAST, OR  
 DEMOLISH.

ONE CALL SERIAL #20193311923

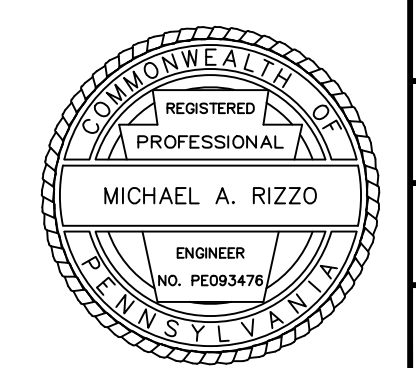
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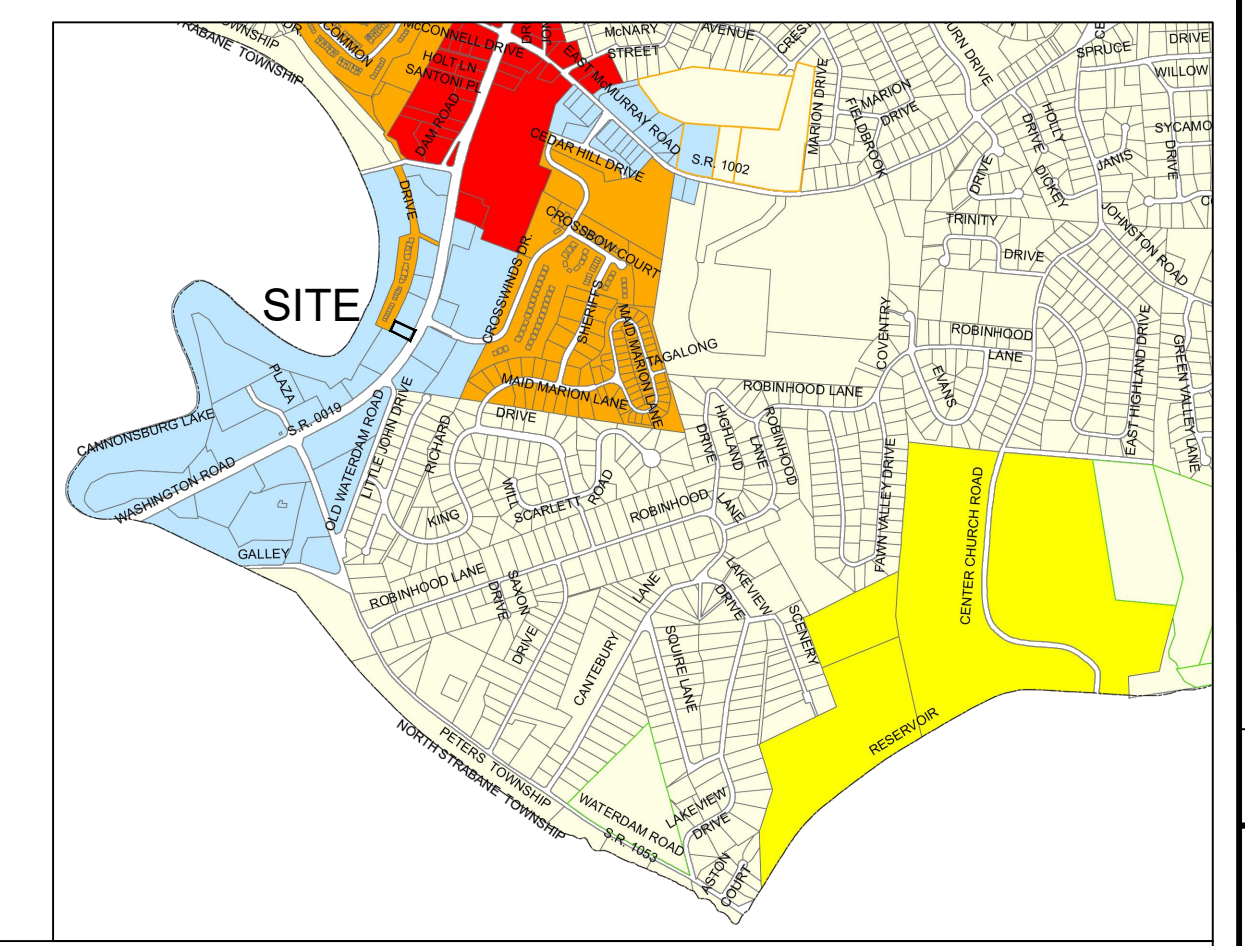
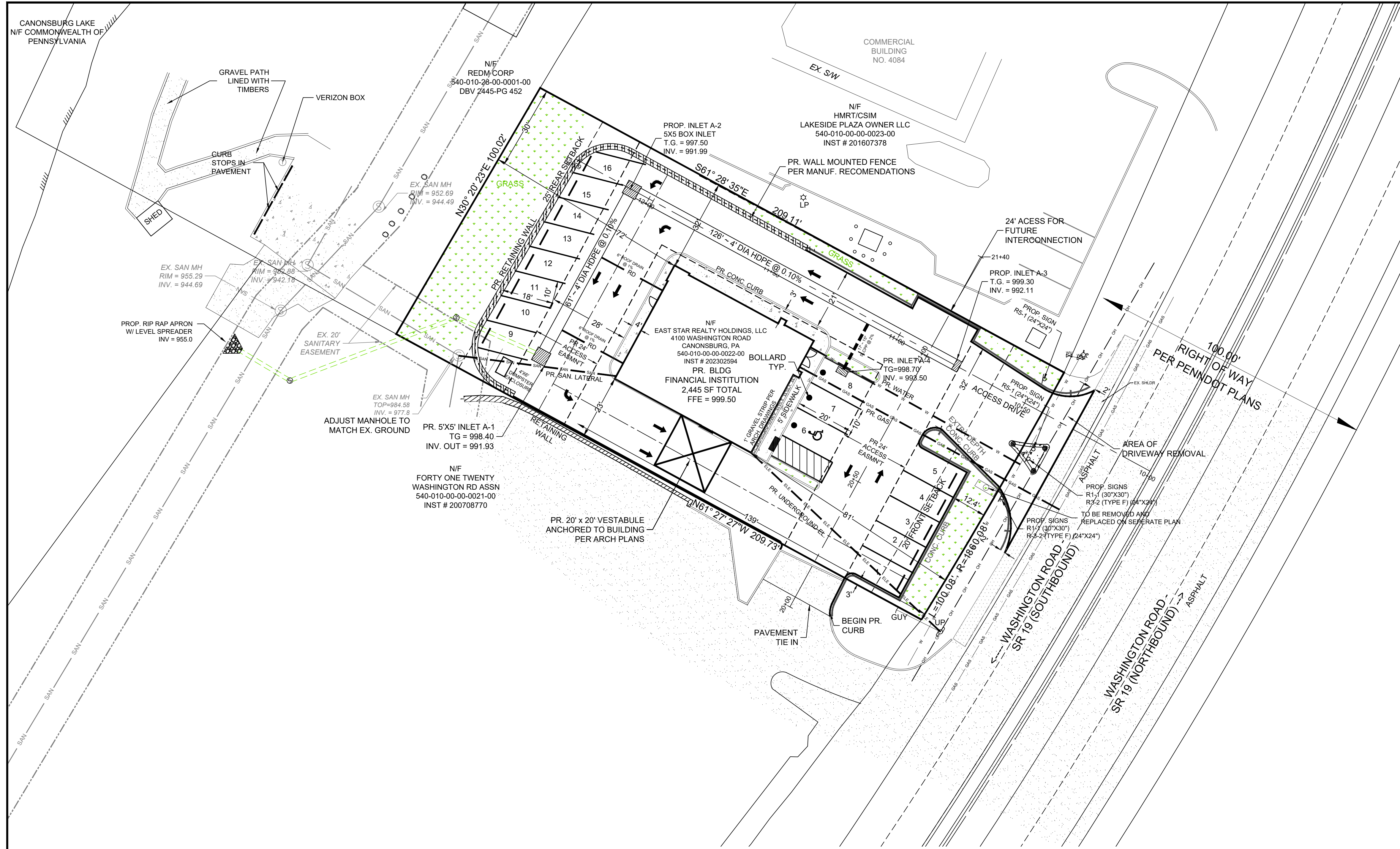
- |  |  |  |                           |
|--|--|--|---------------------------|
|  | EXISTING PROPERTY LINE                 |  | EXISTING GRAVEL           |
|  | EXISTING INDEX CONTOUR                 |  | EXISTING BITUMINOUS       |
|  | EXISTING INTERMEDIATE CONTOUR          |  | EXISTING SANITARY MANHOLE |
|  | EXISTING EDGE OF BITUMINOUS / CONCRETE |  | EXISTING INLET            |
|  | EXISTING BUILDING                      |  | EXISTING UTILITY POLE     |
|  | EXISTING FENCE LINE                    |  | EXISTING GUY WIRE         |
|  | EXISTING STORM SEWER                   |  | EXISTING LIGHT POLE       |
|  | EXISTING SANITARY SEWER                |  | EXISTING TELE BOX         |
|  |  |  | EXISTING HEAD/END WALL    |

**NOTES:**

1. FIELD WORK DATED WEEK OF 08/29/2019
2. NO TITLE REPORT FURNISHED FOR THIS SURVEY
3. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE PA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83(2011).
4. ELEVATIONS ARE REFERENCED TO NAVD 88.



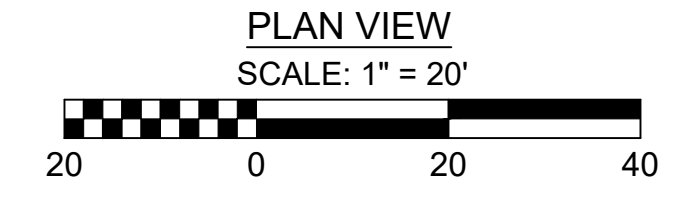
AS SHOWN		Date		Revisions	
11/17/2025		01/26		Revised Per Twp Comments	
Scale:	Drawn By:	Checked By:	Approved By:	5773 Campbell Run Road Pittsburgh, PA 15205 Phone: 412.484.0510 Fax: 412.484.0426 info@klhengineers.com	
Order No.	2979-01		ENGINEERS, INC.		
Drawing No.	C101		K L H ENGINEERS, INC.		
Sheet No.	1 of 11		4100 WASHINGTON ROAD SITE DEVELOPMENT PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC EXISTING CONDITIONS		



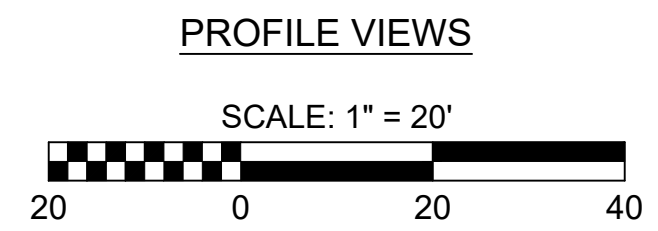
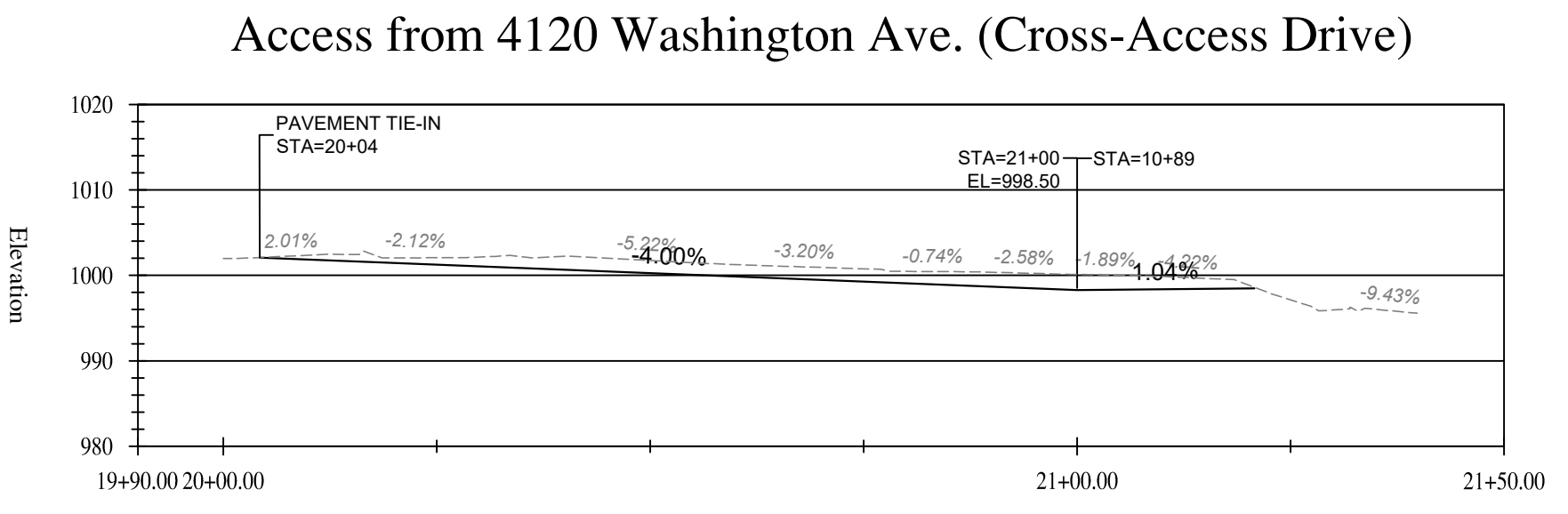
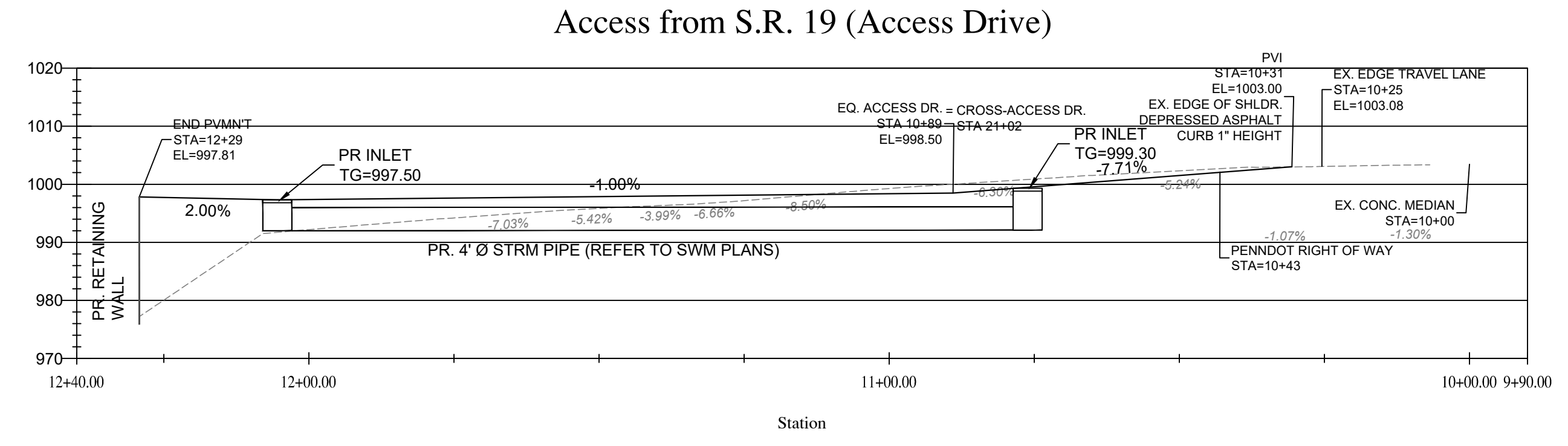
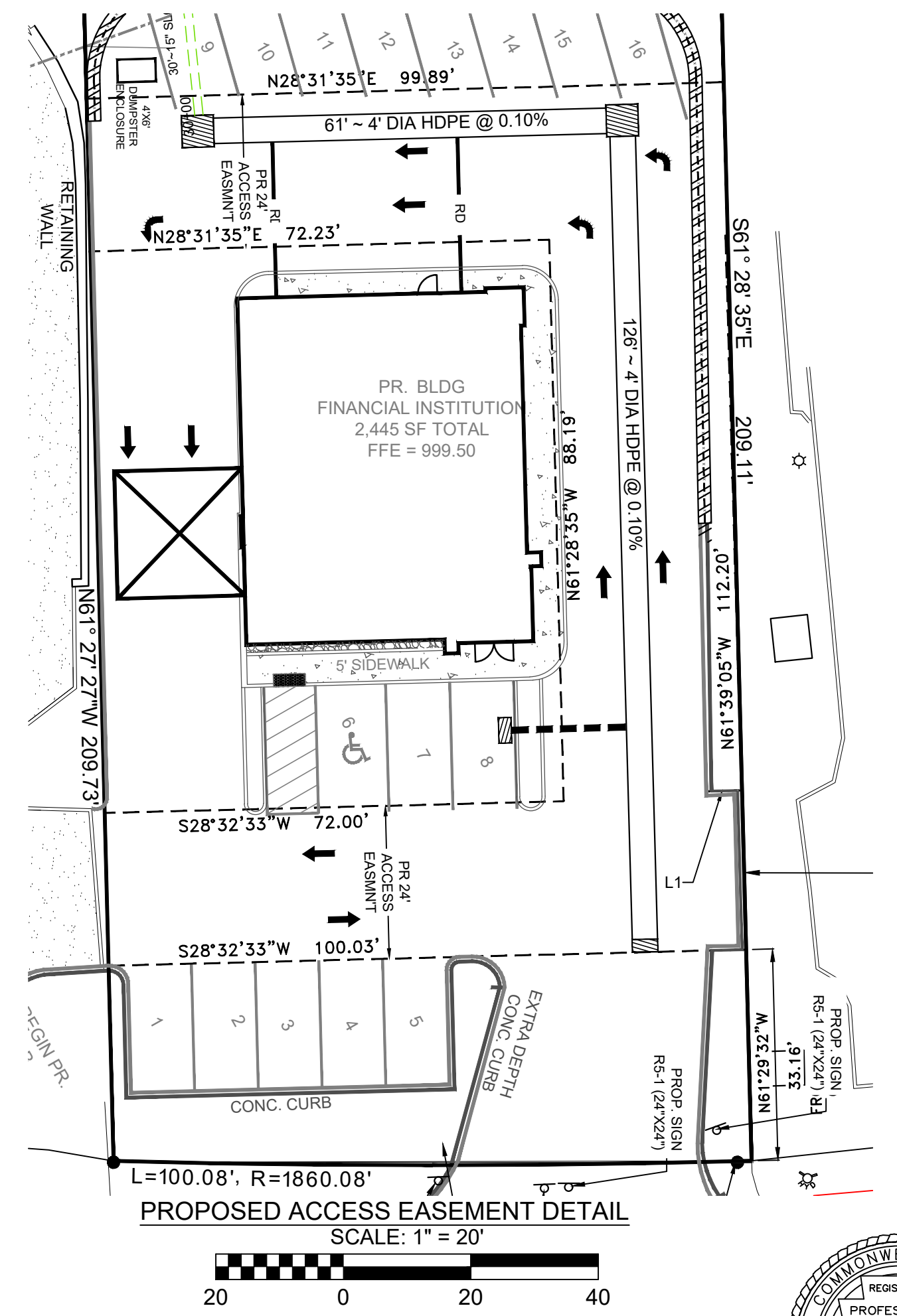
**PETERS TWP. - MA.1 MIXED USE ACTIVITY CENTER DISTRICT**

	REQUIRED	PROPOSED
MINIMUM GROSS LOT	21,760 SQ. FT. 0.50 ACRES	20,987.86 SQ. FT. 0.482 ACRES * EXISTING NON-CONFORMING
MINIMUM LOT FRONTAGE	25 FT.	100.8 FT.
MIN. FRONT YARD SETBACK	20 FT.	85 FT.
MIN. SIDE YARD SETBACK	0 FT.	22'
MIN. REAR YARD SETBACK	25 FT.	69'
MAXIMUM FLOOR AREA RATIO	0.85	0.12 (2,495 SF)
MAXIMUM BUILDING HEIGHT	56' PITCH ROOF 51' FLAT ROOF	LESS THAN 56' PITCH ROOF LESS THAN 51' FLAT ROOF
PARKING (BANK:1:300)	1/300 SF GFA	16 (15+1 ADA)
LOT COVERAGE	N/A	11.89%
IMPERVIOUS COVERAGE	DETERMINED BY STORMWATER MANAGEMENT	81% (17,056 SQ. FT.)
SIDEWALK	5 FT.	5 FT.

BANK: 1 SPACE / 300 SF GFA + 1 PER EMPLOYEE = 2,445 SF / 300 SF = 8.15 = 9 SPACES  
 ASSUME 5 EMPLOYEES ON PEAK SHIFT = 14 SPACES REQUIRED  
 PROPOSED USE FOR BUILDING IS TO BE A FINANCIAL INSTITUTION WITH DRIVE THROUGH PROPERTY IS EXISTING NON-CONFORMING AS TO MINIMUM LOT AREA



- NOTES:**
1. FIELD WORK DATED WEEK OF 08/29/2019
  2. THE BASIS OF BEARINGS FOR THIS SURVEY IS THE PA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83(2011) THE PLAN BEARINGS HAVE BEEN ROTATED 00°27'57\"
  3. ELEVATIONS ARE REFERENCED TO NAVD 88.
  4. EXACT PROPOSED UTILITY TIE-IN TO BE VERIFIED IN FIELD
  5. SEE STORMWATER MANAGEMENT PLAN FOR LOCATION OF PROPOSED STORMWATER EASEMENT.
  6. SEE TITLE SHEET FOR ZONING VARIANCES.
  7. PROPOSED USE OF BUILDING IS TO BE A FINANCIAL INSTITUTION WITH DRIVE THROUGH AISLES.
  8. REFER TO PROJECT SITE NARRATIVE PROVIDED IN SUBMITTAL TO PETERS TOWNSHIP FOR ADDITIONAL SITE INFORMATION.
  9. REFER TO SHEET 4 FOR TYPICAL PARKING STALL DIMENSIONS.



INSTRUMENT # 202302594  
 PARCEL NO. 540-010-00-00-0022-00  
 4100 WASHINGTON ROAD,  
 CANONSBURG, PA 15317

5773 Campbell Run Road  
 Pittsburgh, PA 15205  
 Phone: 412.484.0510  
 Fax: 412.484.0426  
 info@klhiengineers.com

**KLHI ENGINEERS, INC.**

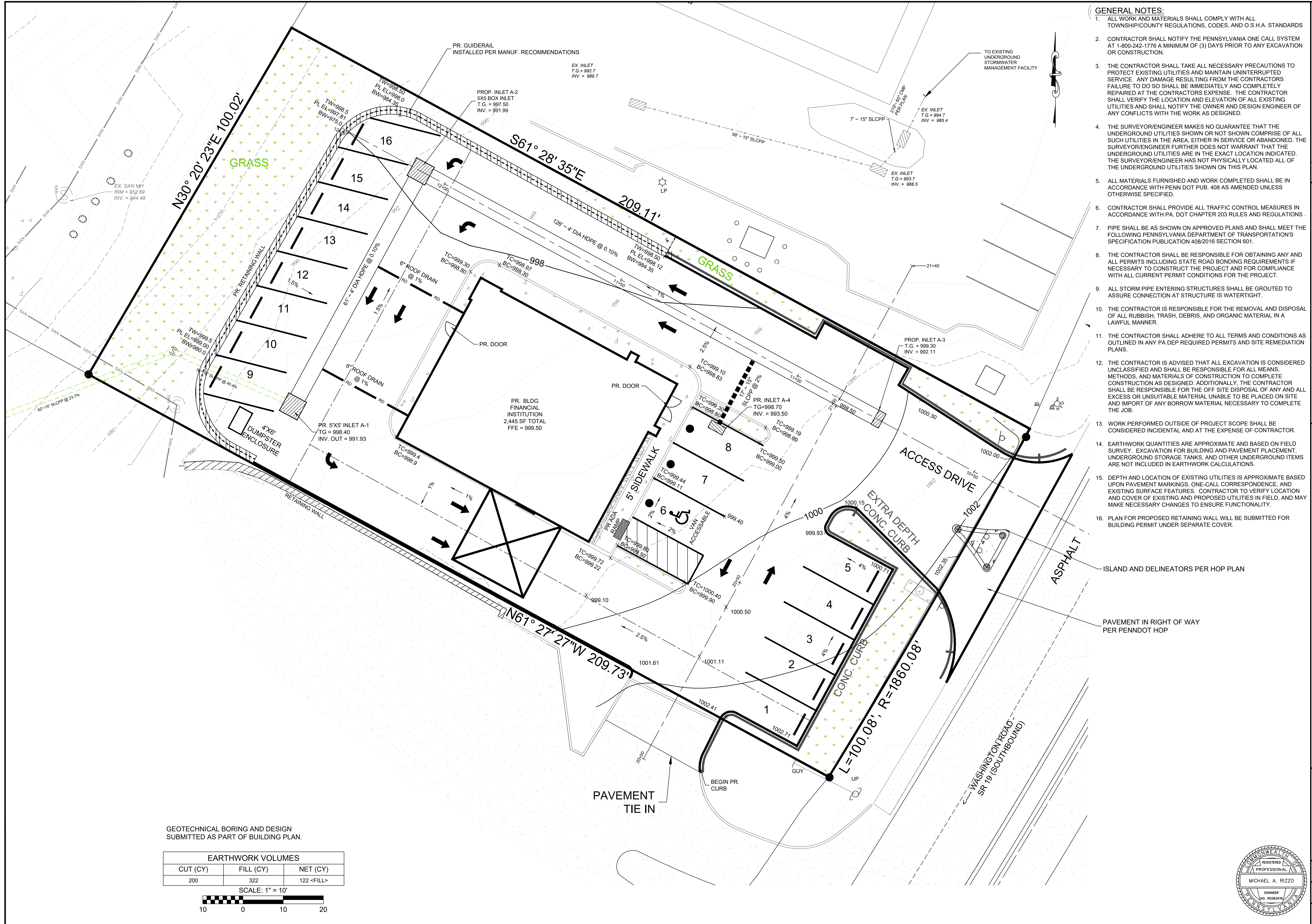
**4100 WASHINGTON ROAD SITE DEVELOPMENT**  
**PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA**  
 PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC

**PROPOSED SITE LAYOUT**

Scale:	AS SHOWN
Date:	11/17/2025
Drawn By:	MAR
Checked By:	MAR
Approved By:	MAR

Order No. 2979-01  
 Drawing No. **C201**  
 Sheet No. **2 of 11**

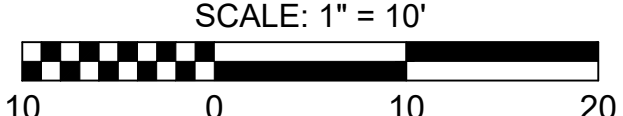




- GENERAL NOTES:**
1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL TOWNSHIP/COUNTY REGULATIONS, CODES, AND O.S.H.A. STANDARDS
  2. CONTRACTOR SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 A MINIMUM OF (3) DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
  3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE RESULTING FROM THE CONTRACTORS FAILURE TO DO SO SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND SHALL NOTIFY THE OWNER AND DESIGN ENGINEER OF ANY CONFLICTS WITH THE WORK AS DESIGNED.
  4. THE SURVEYOR/ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN OR NOT SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR/ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR/ENGINEER HAS NOT PHYSICALLY LOCATED ALL OF THE UNDERGROUND UTILITIES SHOWN ON THIS PLAN.
  5. ALL MATERIALS FURNISHED AND WORK COMPLETED SHALL BE IN ACCORDANCE WITH PENN DOT PUB. 408 AS AMENDED UNLESS OTHERWISE SPECIFIED.
  6. CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH PA. DOT CHAPTER 203 RULES AND REGULATIONS.
  7. PIPE SHALL BE AS SHOWN ON APPROVED PLANS AND SHALL MEET THE FOLLOWING PENNSYLVANIA DEPARTMENT OF TRANSPORTATION'S SPECIFICATION PUBLICATION 408/2016 SECTION 601.
  8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS INCLUDING STATE ROAD BONDING REQUIREMENTS IF NECESSARY TO CONSTRUCT THE PROJECT AND FOR COMPLIANCE WITH ALL CURRENT PERMIT CONDITIONS FOR THE PROJECT.
  9. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
  10. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL RUBBISH, TRASH, DEBRIS, AND ORGANIC MATERIAL IN A LAWFUL MANNER.
  11. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN ANY PA DEP REQUIRED PERMITS AND SITE REMEDIATION PLANS.
  12. THE CONTRACTOR IS ADVISED THAT ALL EXCAVATION IS CONSIDERED UNCLASSIFIED AND SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, AND MATERIALS OF CONSTRUCTION TO COMPLETE CONSTRUCTION AS DESIGNED. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF SITE DISPOSAL OF ANY AND ALL EXCESS OR UNSUITABLE MATERIAL UNABLE TO BE PLACED ON SITE AND IMPORT OF ANY BORROW MATERIAL NECESSARY TO COMPLETE THE JOB.
  13. WORK PERFORMED OUTSIDE OF PROJECT SCOPE SHALL BE CONSIDERED INCIDENTAL AND AT THE EXPENSE OF CONTRACTOR.
  14. EARTHWORK QUANTITIES ARE APPROXIMATE AND BASED ON FIELD SURVEY. EXCAVATION FOR BUILDING AND PAVEMENT PLACEMENT, UNDERGROUND STORAGE TANKS, AND OTHER UNDERGROUND ITEMS ARE NOT INCLUDED IN EARTHWORK CALCULATIONS.
  15. DEPTH AND LOCATION OF EXISTING UTILITIES IS APPROXIMATE BASED UPON PAVEMENT MARKINGS, ONE-CALL CORRESPONDENCE, AND EXISTING SURFACE FEATURES. CONTRACTOR TO VERIFY LOCATION AND COVER OF EXISTING AND PROPOSED UTILITIES IN FIELD, AND MAY MAKE NECESSARY CHANGES TO ENSURE FUNCTIONALITY.
  16. PLAN FOR PROPOSED RETAINING WALL WILL BE SUBMITTED FOR BUILDING PERMIT UNDER SEPARATE COVER.

GEOTECHNICAL BORING AND DESIGN SUBMITTED AS PART OF BUILDING PLAN.

EARTHWORK VOLUMES		
CUT (CY)	FILL (CY)	NET (CY)
200	322	122 <FILL>



**5173 Campbell Run Road  
Pittsburgh, PA 15205  
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info@klhengineers.com**

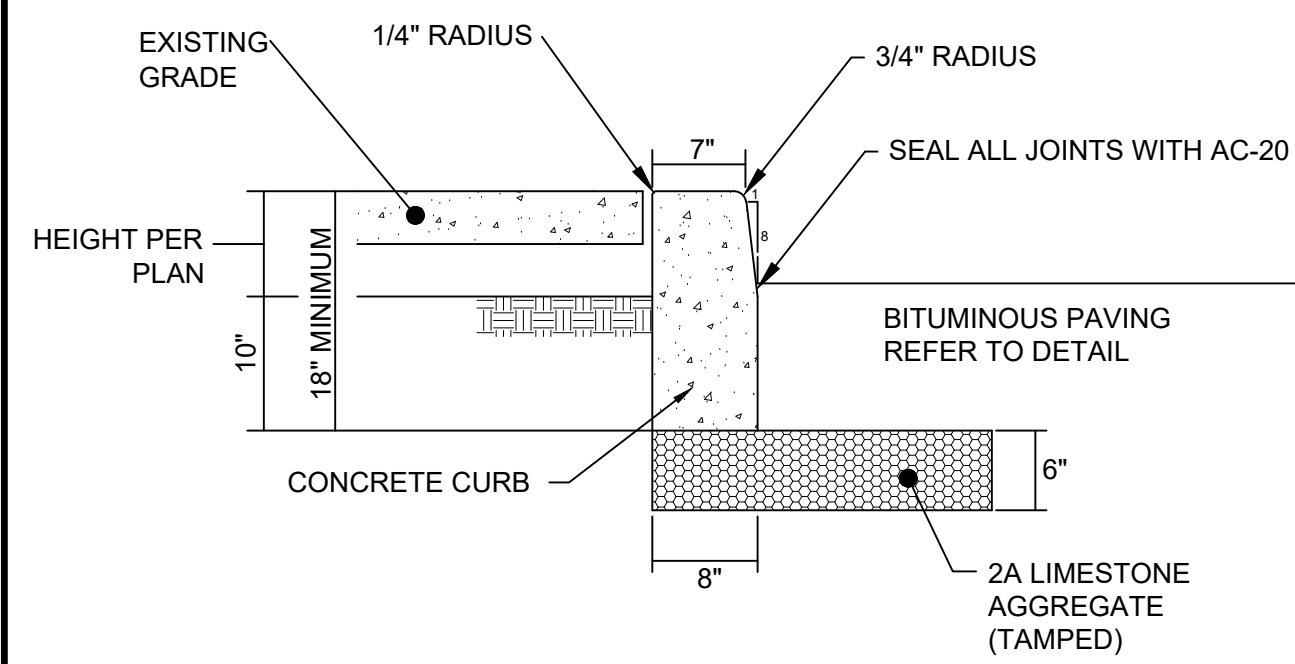
**KLH ENGINEERS, INC.**

**4100 WASHINGTON ROAD SITE DEVELOPMENT  
PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC**

**SITE GRADING PLAN**

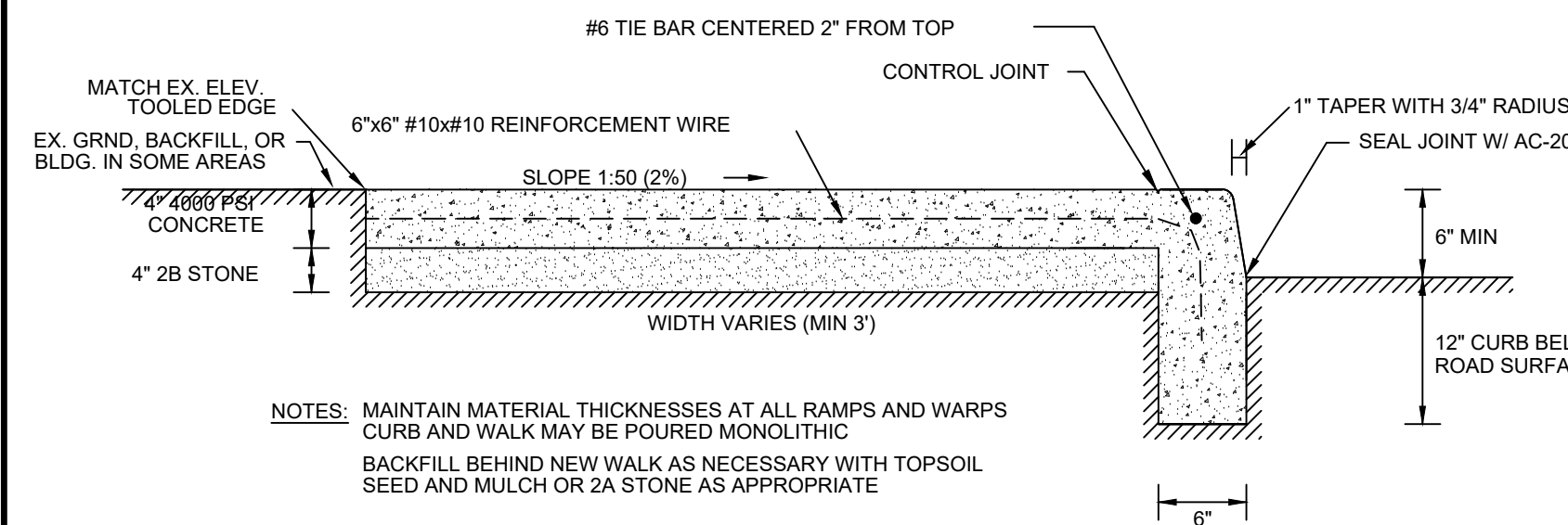
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Order No.	2979-01			
Drawing No.	C202			
Sheet No.	3 of 11			



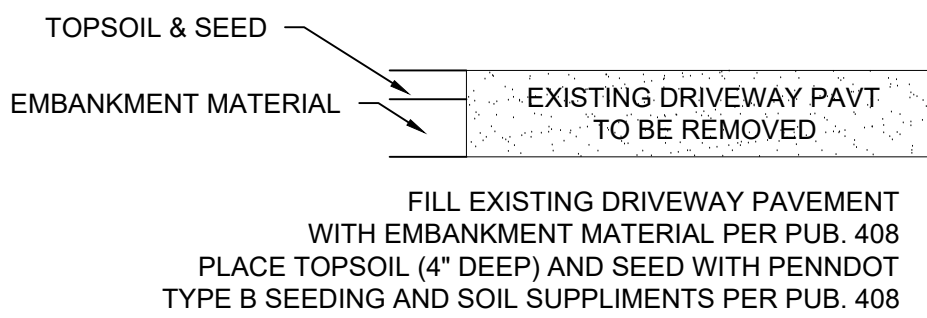


TYPICAL STANDARD CONCRETE CURB DETAIL

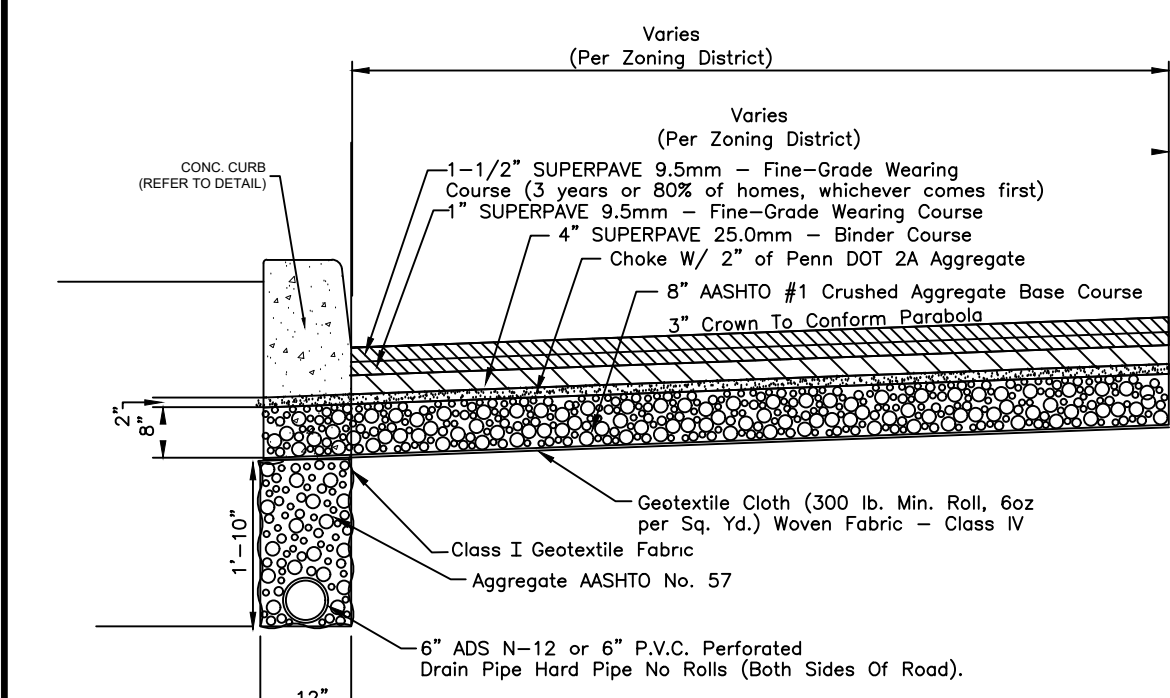
- 3/8" EXPANSION JOINT AT 30.00' MAXIMUM SPACING
- CLASS A CEMENT CONCRETE



STANDARD CONCRETE WALK SECTION WITH CURB

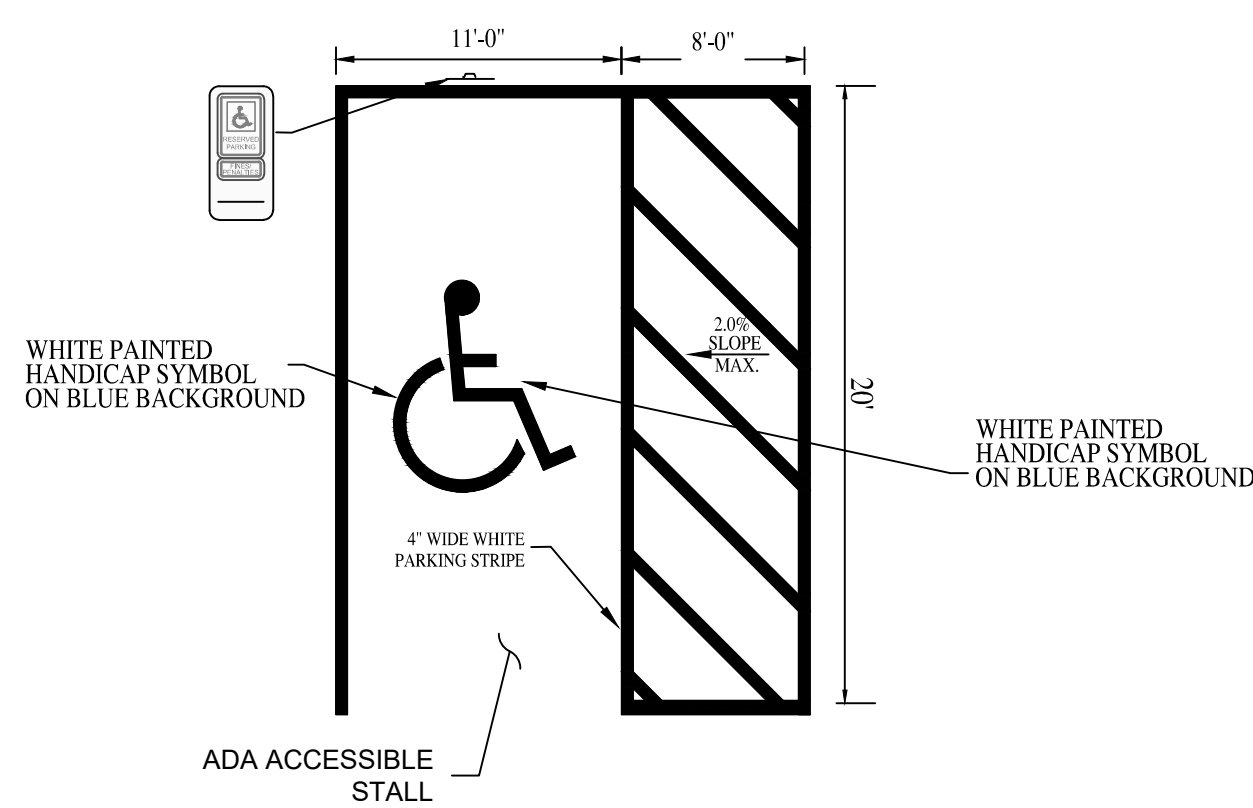


DRIVEWAY REMOVAL DETAIL

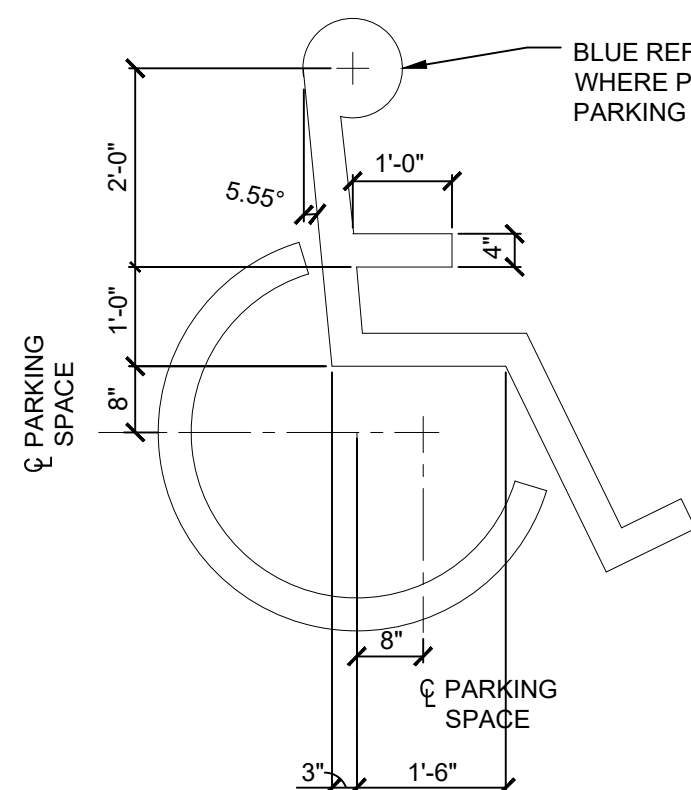
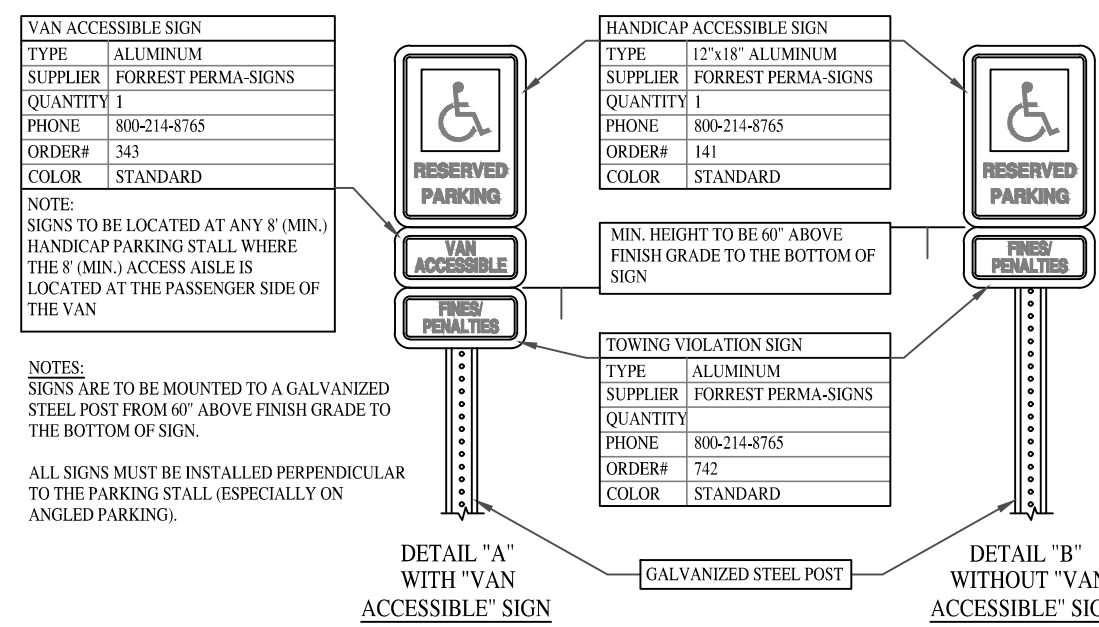


TYPICAL PAVEMENT SECTION

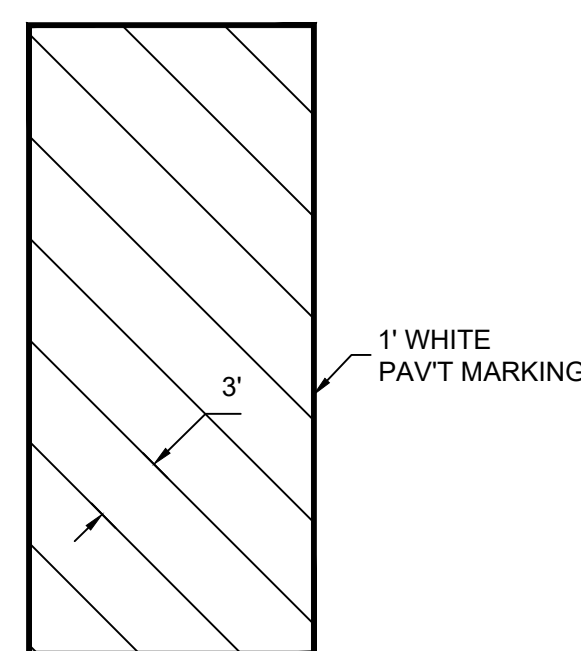
Note: The developer shall place the final layer of 1-1/2" SUPERPAVE 9.5mm - Fine-Grade Wearing Course within 3 years of initial road construction or following construction of 80% of homes, whichever comes first after the initial paving of the cartway.



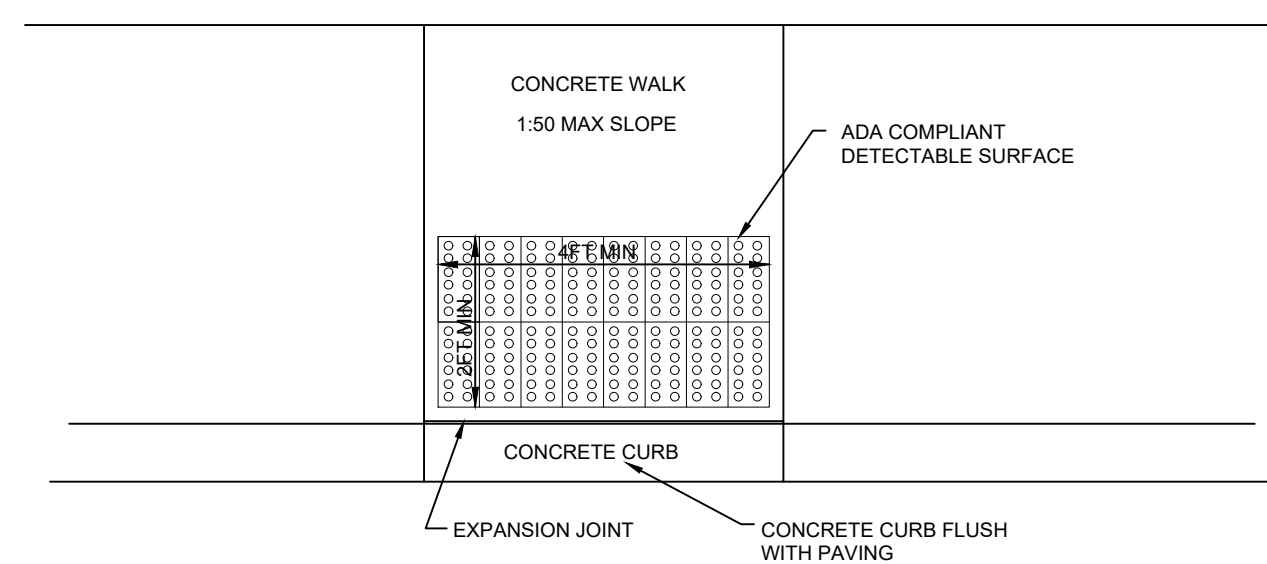
HANDICAP PARKING SPACES



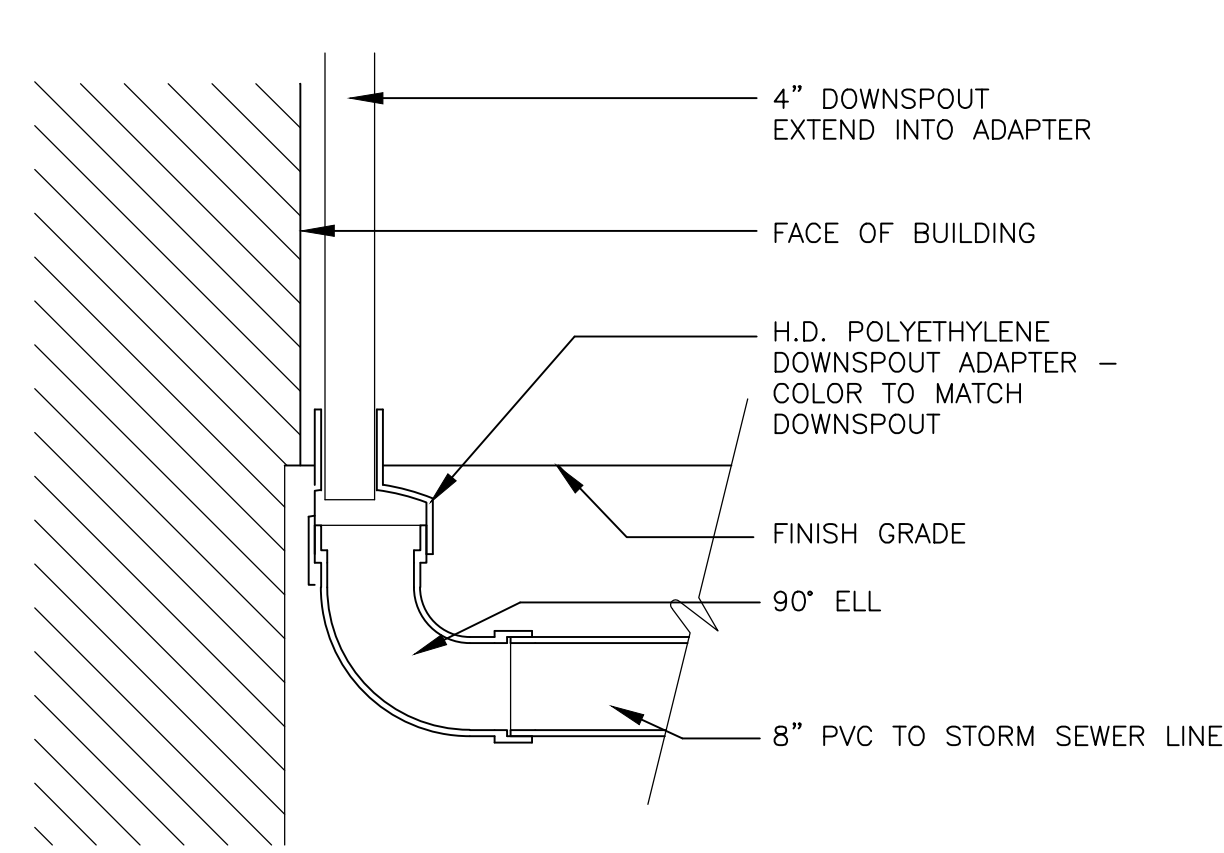
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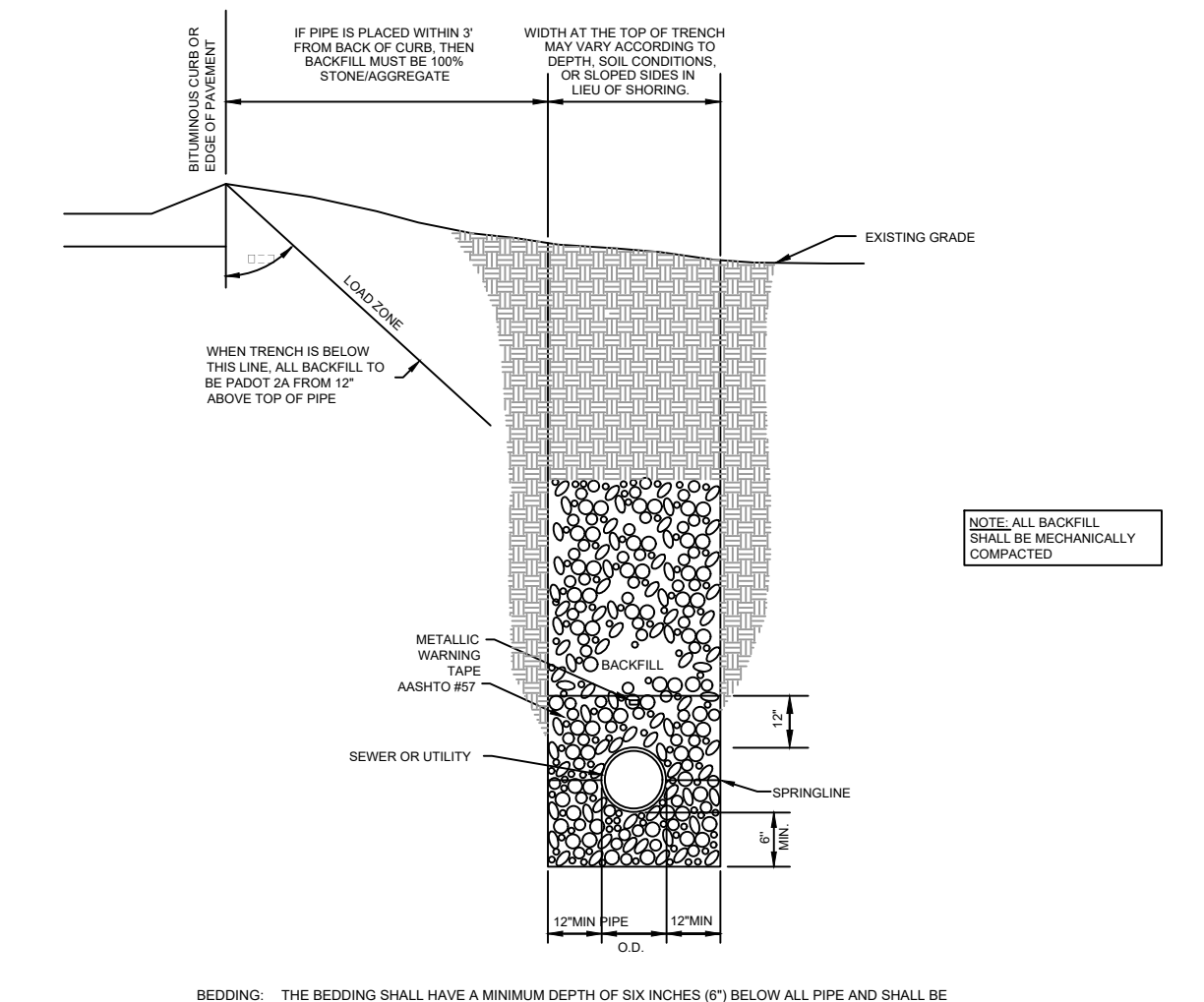
CROSS WALK DETAIL



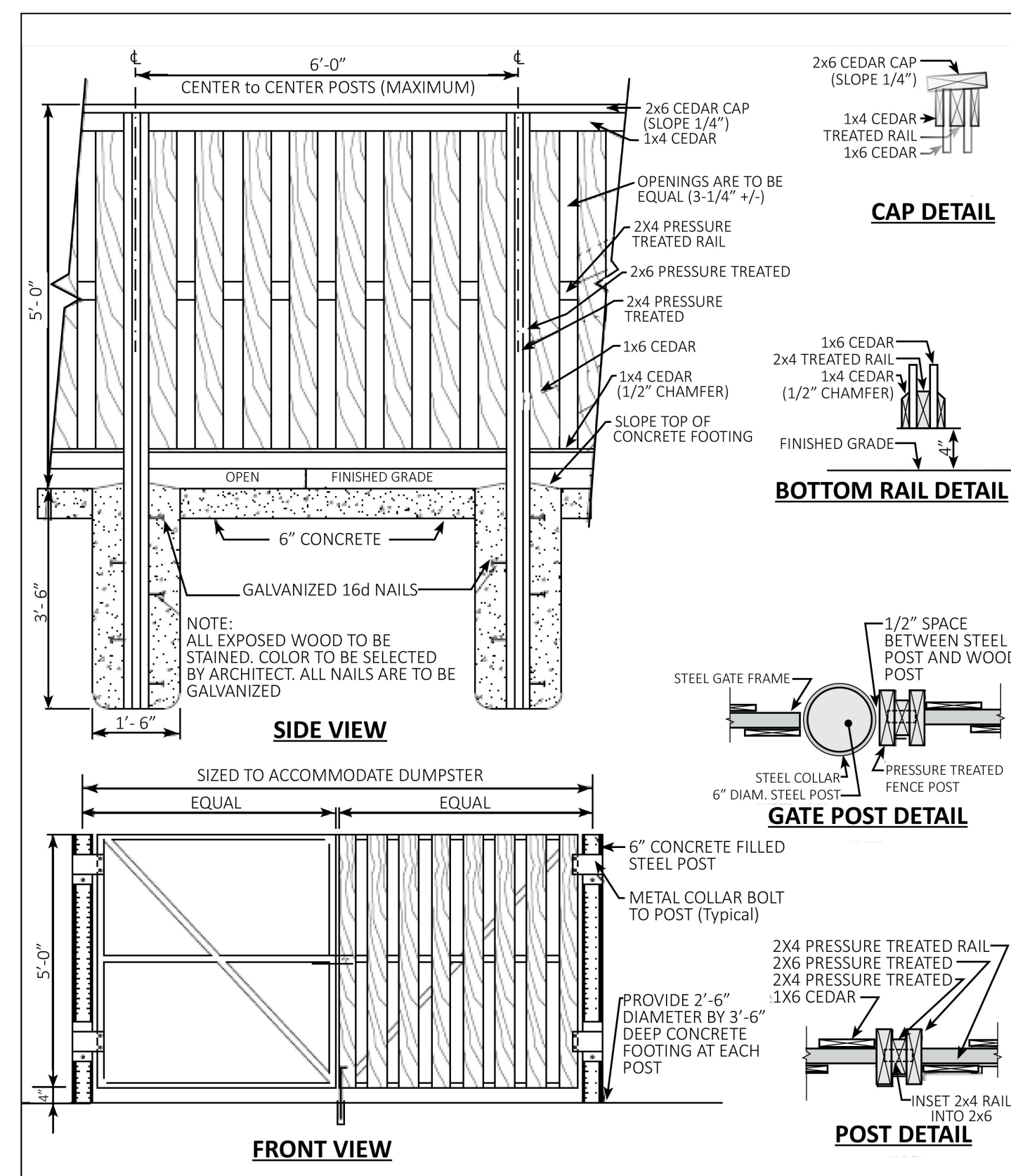
HANDICAPPED RAMP DETAIL



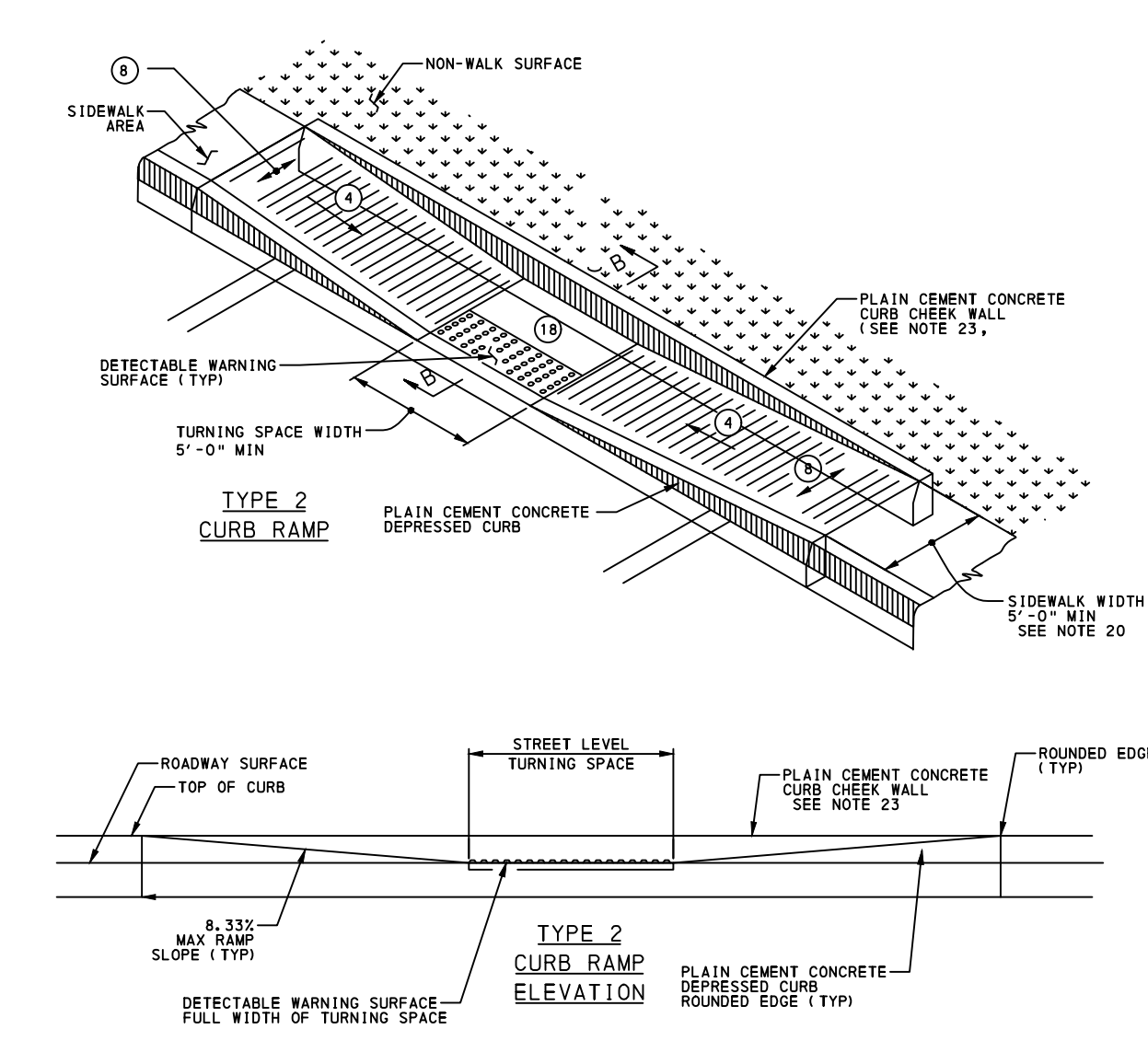
DOWNSPOUT DETAIL



PIPE TRENCHING & BEDDING DETAIL

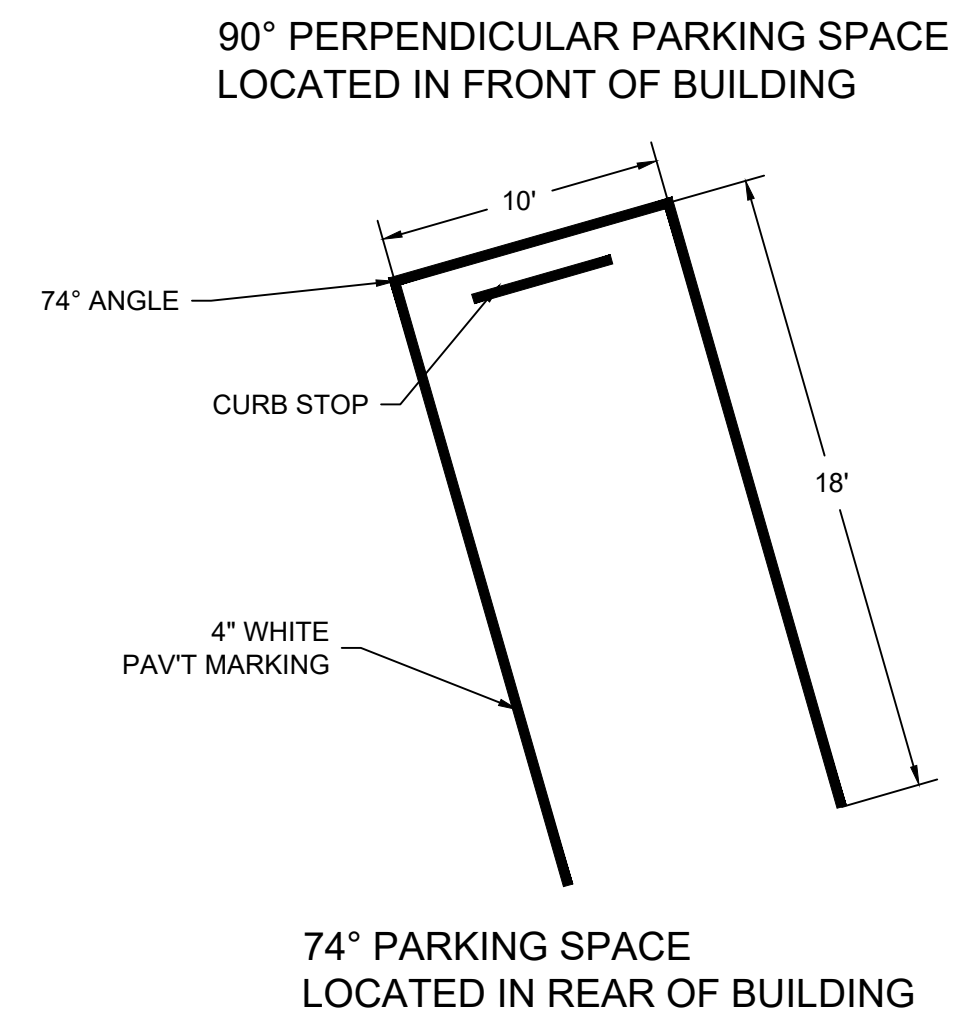
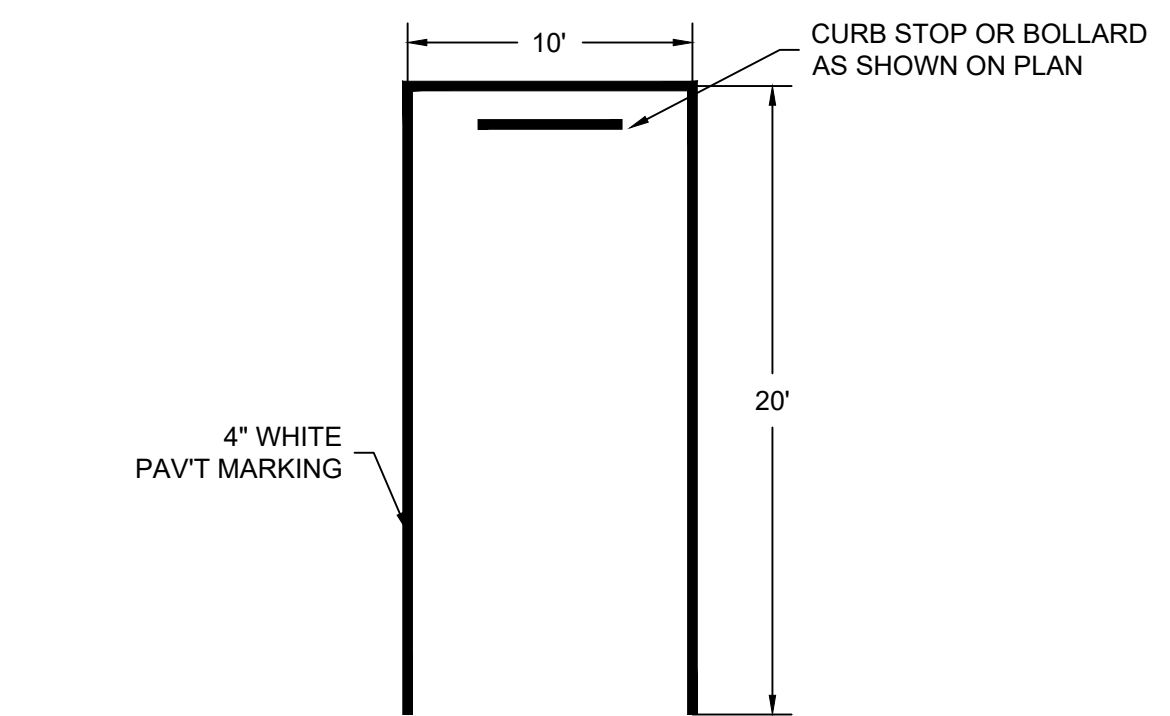
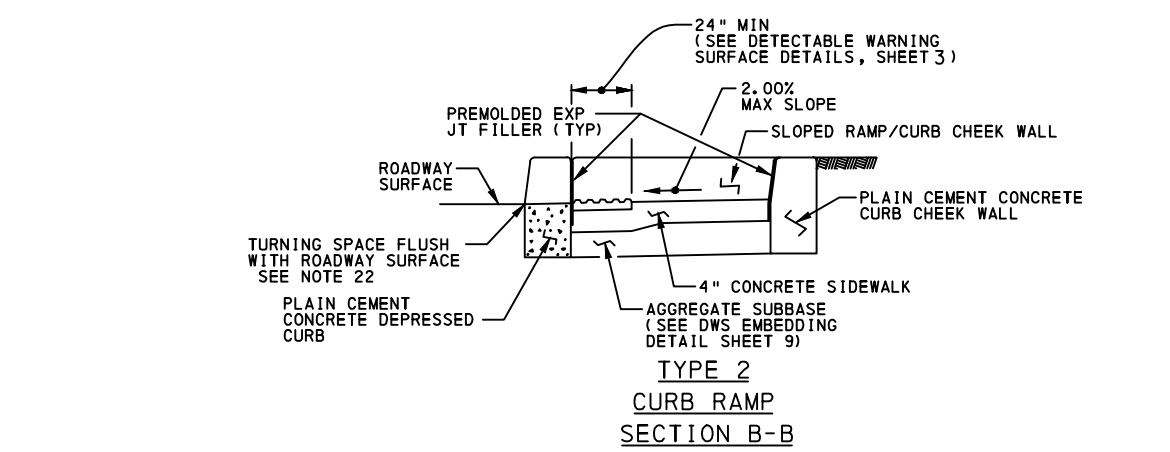


DUMPSTER ENCLOSURE DETAIL



PAVEMENT LINES

- OPTIONAL CONCRETE ROLLED FLARE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF PLAIN CEMENT CONCRETE CURB CHEEK WALL.
- 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1
- SLOPE: ZERO ± 2.00%
- CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.



PAVEMENT LINES

Revisions  
Date  
01/26  
Revised Per Twp Comments

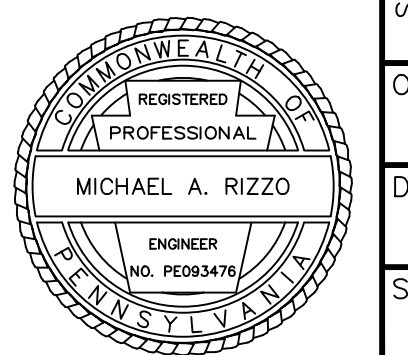
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Pittsburgh, PA 15205  
Phone: 412.484.0510  
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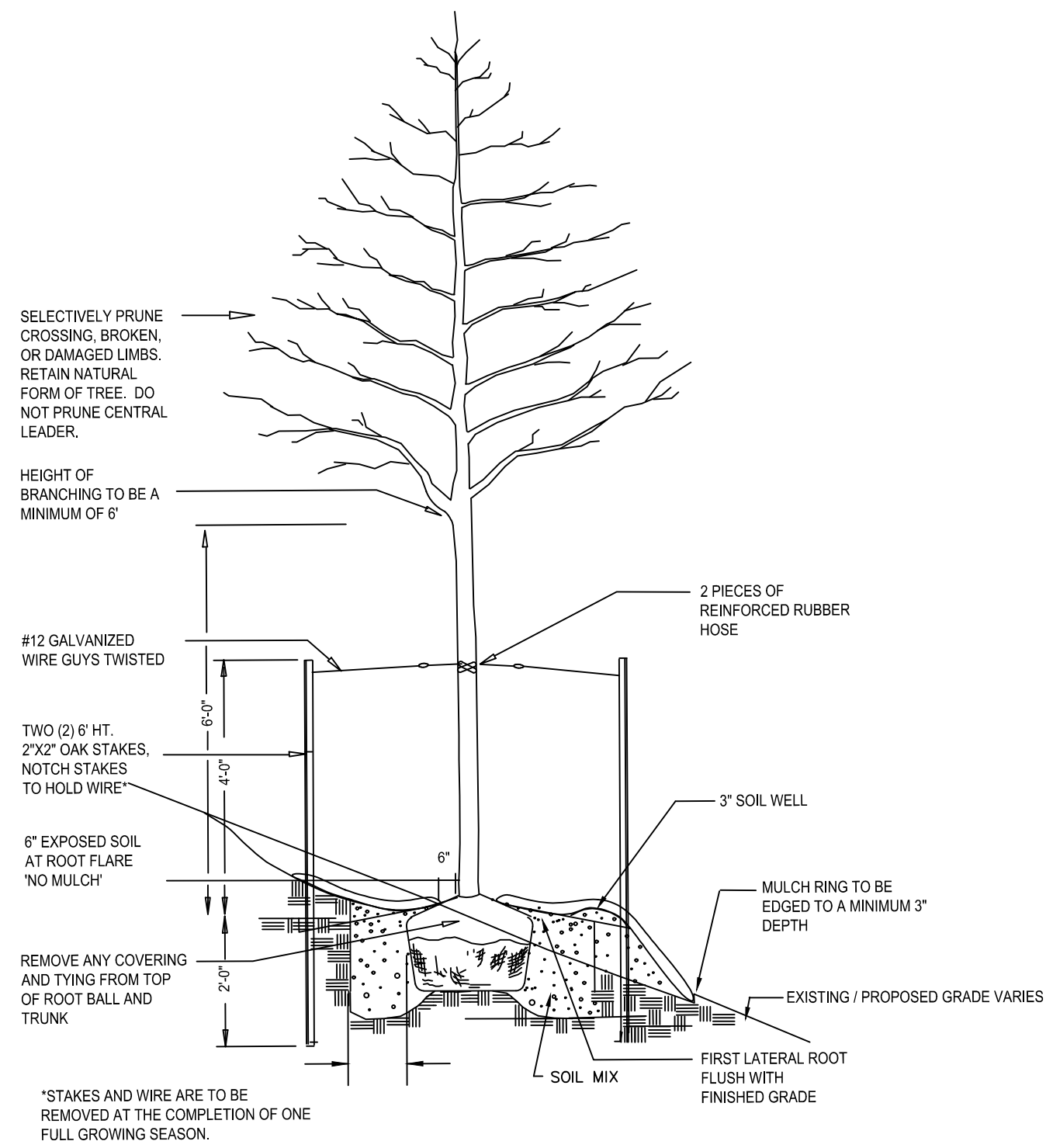
KLH ENGINEERS, INC.

4100 WASHINGTON ROAD SITE DEVELOPMENT  
PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC  
STANDARD CONSTRUCTION DETAILS

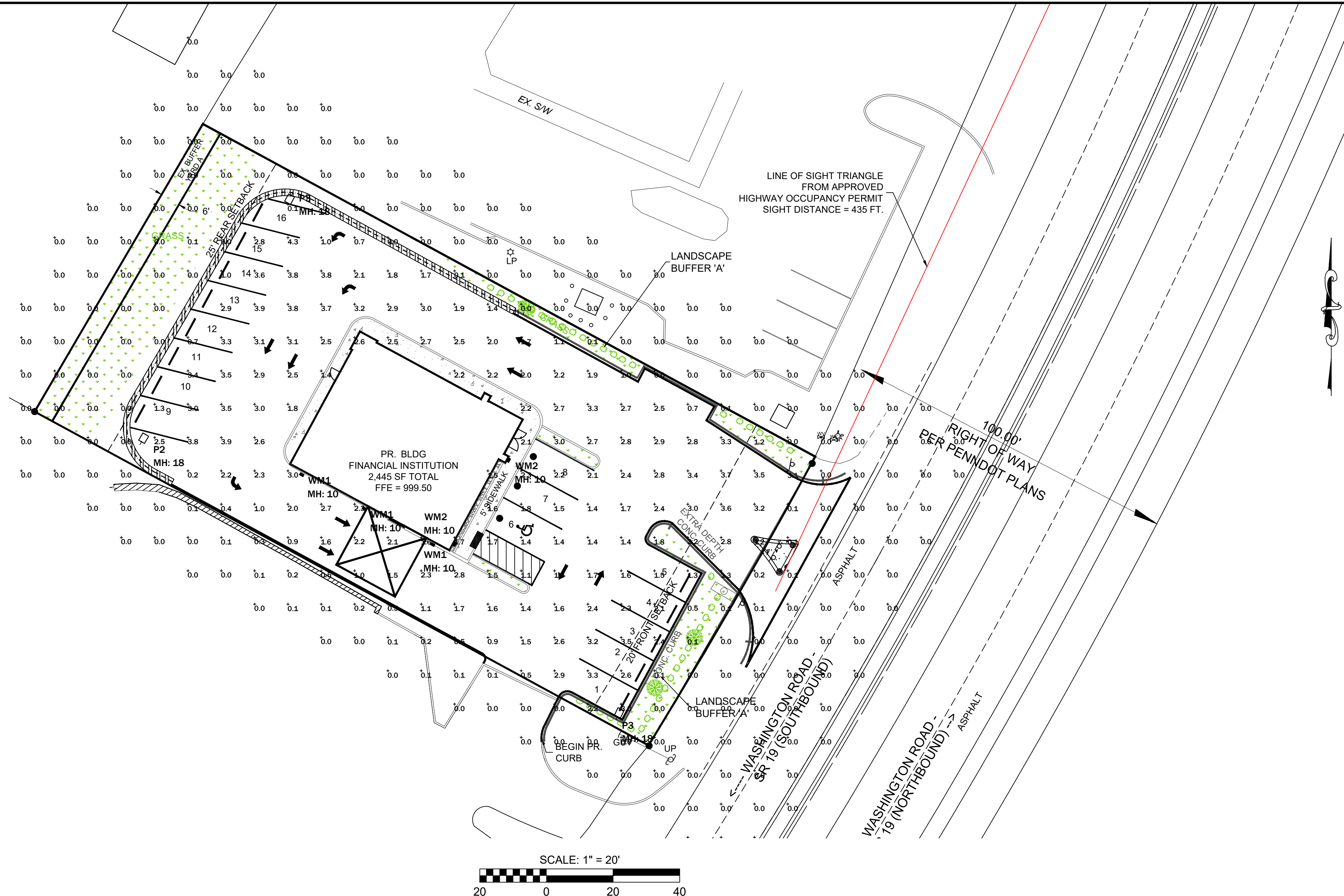
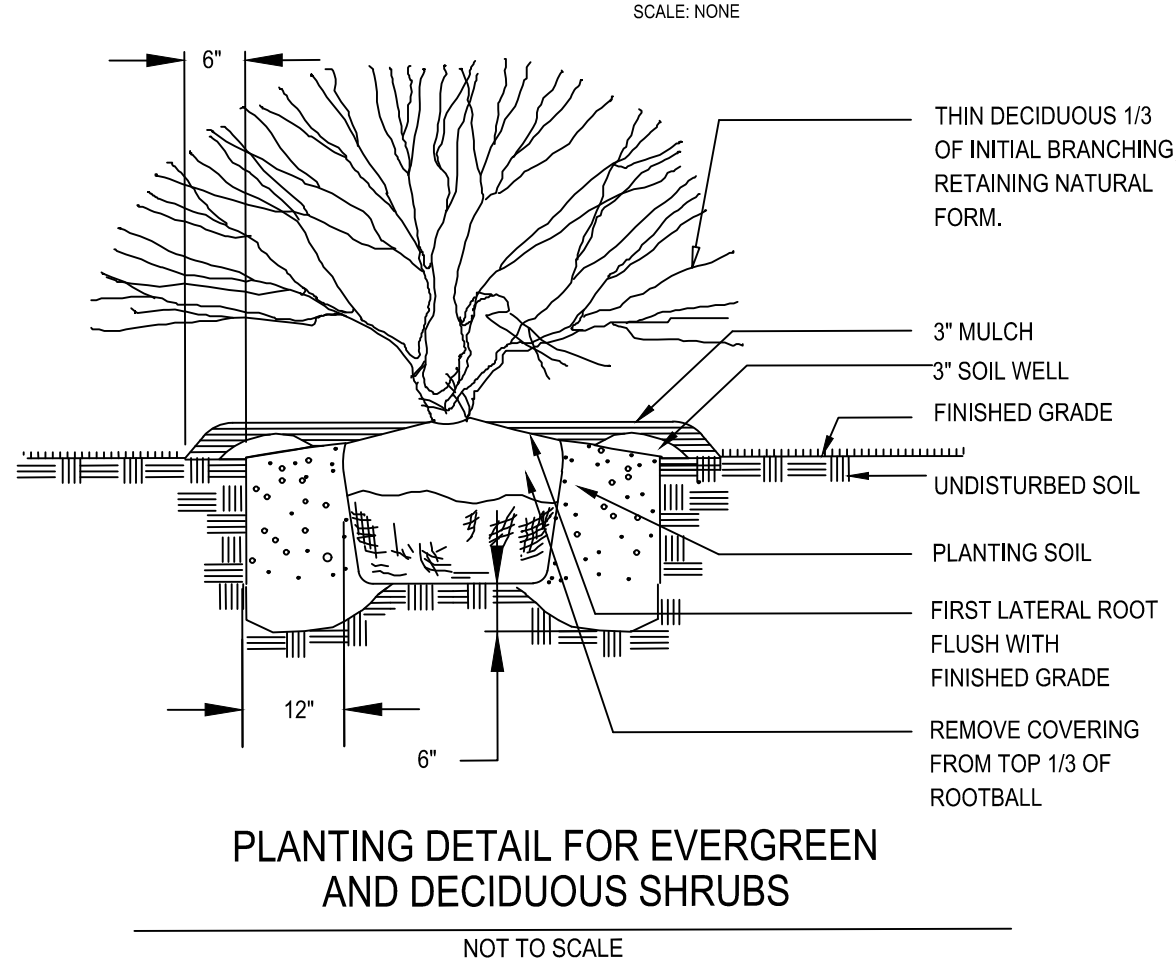
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Date: 11/17/2025  
Drawn By: MAR  
Checked By: MAR  
Approved By: MAR

Order No. 2979-01  
Drawing No. C203  
Sheet No. 4 of 11





SLOPE PLANTING DETAIL FOR DECIDUOUS AND EVERGREEN TREES - 1 - 4" CALIPER

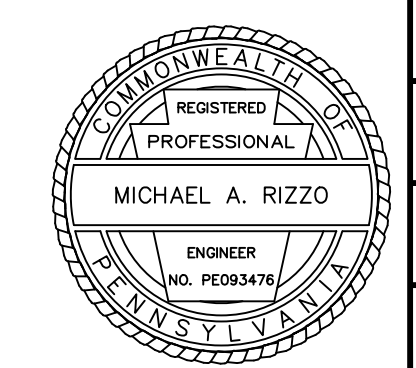


- A. STANDARDS**
1. ALL PLANT MATERIAL, CONSTRUCTION METHODS AND MATERIAL PLACEMENT SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC., THE "LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS."
  2. ALL TREES SHALL BE DELIVERED TO THE SITE BALLED AND BURLAPPED. ALL SHRUBS SHALL BE BALLED AND BURLAPPED OR IN CONTAINERS. ALL HERBACEOUS MATERIAL ARE TO BE CONTAINERIZED DEEP PLUGS.
  3. IT IS RECOMMENDED THAT PLANTING OCCUR WITHIN 24 HOURS OF DELIVERY TO THE SITE. PLANT MATERIALS LEFT UNPLANTED FOR MORE THAN 24 HOURS SHALL BE PROTECTED FROM DIRECT SUN AND WEATHER AND KEPT MOIST. NURSERY STOCK SHOULD NOT BE LEFT UNPLANTED FOR MORE THAN TWO WEEKS.
- B. TIMETABLE FOR PLANTING**
1. ALL PLANTING SHALL BE DONE BETWEEN MARCH 25 AND APRIL 30 FOR SPRING PLANTING, AND BETWEEN OCTOBER 15 AND DECEMBER 1 FOR FALL PLANTING.
- C. PLANTING METHOD:**
1. AFTER MONITORING THE HYDROLOGY WITHIN THE PLANTING AREAS (SEE GENERAL NOTE #1) STAKE OUT THE PLANTING AREA LOCATIONS. AREAS ARE TO BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT.
  2. THE TREES AND SHRUBS SPECIFIED AS FACILITY EDGE PLANTING ARE TO BE LOCATED AS SHOWN ON THE PLANS.
  3. THE DEEP PLUG HERBACEOUS PLANTING SPECIFIED AS THE SHALLOW WATER BENCH / SHORELINE FRINGE IS TO BE PLANTED IN GROUPINGS OF 10 TO 20 EACH OF SIMILAR SPECIES, MASSED INTO RANDOM ORGANIC SHAPED CLUSTERS.
- D. EXCAVATION:**
1. DEPTH AND WIDTH OF EXCAVATION FOR PLANTING OF ALL PLANTS SHALL BE TO TWICE THE DEPTH AND WIDTH OF ROOT BALL OR CONTAINER OF PLANT TO BE INSTALLED, EXCEPT AS NOTED ON DETAILS.
- E. TOPSOIL, PLANTING MIX, AND MULCH:**
1. PLANT MATERIAL SHALL BE PLANTED IN EXISTING SOIL. EXCEPT AS NOTED ON DETAILS.
  2. EXCAVATED SOIL SHALL BE PLACED AROUND THE ROOT MASS AND TAMPED TO FILL ALL VOIDS AND AIR POCKETS.
- F. MAINTENANCE:**
1. AFTER THE PLANTING HAS BEEN APPROVED BY THE ENGINEER AND THE OWNER, THE MAINTENANCE OF WATERING AND WEEDING OF SUCH PLANTS AND PLANTED AREAS SHALL BE PROVIDED BY THE OWNER. SINCE THE PLANTS ARE TO BE GUARANTEED BY THE CONTRACTOR, THE CONTRACTOR SHALL PERIODICALLY CHECK THE MAINTENANCE CONDUCTED BY THE OWNER. IF THE CONTRACTOR IS NOT SATISFIED WITH THE MAINTENANCE OF THE PLANTS, A WRITTEN REPORT IN TRIPPLICATE, STATING APPROPRIATE CHANGES SHALL BE GIVEN IMMEDIATELY TO THE LANDSCAPE ARCHITECT. TWO COPIES WILL BE FORWARDED TO THE OWNER. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING.
  2. MAINTAIN TREES UNTIL FINAL ACCEPTANCE, BUT IN NO CASE, LESS THAN 60 DAYS AFTER FINAL ACCEPTANCE OF PLANTING. MAINTAIN ALL PLANTS BY PRUNING, CULTIVATING AND WEEDING AS REQUIRED FOR HEALTHY GROWTH. RESTORE PLANTING SAUCERS, TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED. RESTORE OR REPLACE DAMAGED WRAPPINGS. SPRAY AS REQUIRED TO KEEP ALL PLANTS FREE OF INSECTS AND DISEASE.
- G. WATERING**
1. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATERING SHALL NOT BE DONE DURING THE HEAT OF THE DAY. CONTRACTOR SHALL PROVIDE A SEPARATE LUMP SUM PRICE IN THE OVERALL LANDSCAPE BID FOR WATERING TO ALL NEW PLANTINGS DURING ONE GROWING SEASON.
- H. SUBSTITUTIONS:**
1. IF A PLANT IS FOUND NOT TO BE SUITABLE OR AVAILABLE, THE CONTRACTOR/OWNER IS TO NOTIFY THE PAEP. THE OWNER WILL THEN SELECT A REASONABLE ALTERNATE. ANY SUBSTITUTIONS MUST ALSO BE APPROVED BY THE PAEP.
- I. PRUNING, CLEANUP, PROTECTION OF EXISTING MATERIALS AND RESTORATION:**
1. THE CONTRACTOR SHALL PRUNE PLANT MATERIAL WITHIN TWO (2) DAYS OF INSTALLATION IN ACCORDANCE WITH THE DETAILS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
  2. DURING COURSE OF PLANTING, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED. LAWN AREAS KEPT CLEAR, AND ALL REASONABLE PRECAUTIONS TAKEN TO AVOID DAMAGE TO ANY EXISTING LAWNS, PAVING, ETC. NOT SCHEDULED FOR REMOVAL. WHEN PLANTING IN AN AREA HAS BEEN COMPLETED, THE AREA SHALL BE CLEANED UP THOROUGHLY. DEBRIS, RUBBISH, SUBSOIL AND WASTE MATERIALS SHALL BE CLEANED UP AND REMOVED FROM THE PROPERTY. EXISTING GRASS AREAS WHICH HAVE BEEN INJURED BY THE WORK SHALL BE REGRADED AND SODDED TO MATCH THE EXISTING LAWN. THE ENTIRE AREA SHALL BE NEAT AND CLEAN TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
- J. FINAL INSPECTION AND GUARANTEE:**
1. AFTER PLANTING IS COMPLETED (INCLUDING MULCHING AND CLEAN-UP), THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING TO REQUEST FINAL INSPECTION OF THE TOTAL PLANTING. THE LANDSCAPE ARCHITECT SHALL MAKE A FINAL INSPECTION VISIT AS SOON AS POSSIBLE. LANDSCAPE ARCHITECT SHALL NOTIFY THE LANDSCAPE CONTRACTOR, IN WRITING, WHEN ALL WORK IS SATISFACTORILY COMPLETE. IF WORK IS NOT SATISFACTORILY COMPLETE, THE LANDSCAPE ARCHITECT WILL NOTIFY THE LANDSCAPE CONTRACTOR, IN WRITING, AS TO THE DEFICIENCIES IN THE WORK AND THE NECESSARY CORRECTIVE MEASURES. THE LANDSCAPE CONTRACTOR WILL BE GIVEN A REASONABLE AMOUNT OF TIME TO CORRECT THE DEFICIENCIES, AND ANOTHER FINAL INSPECTION WILL BE SCHEDULED BY THE LANDSCAPE ARCHITECT.
  2. ALL PLANT MATERIAL AND LAWN AREAS SHALL BE GUARANTEED TO BE IN A VIGOROUS GROWING CONDITION ONE YEAR FROM THE DATE OF FINAL INSPECTION AND ACCEPTANCE. AT THE TERMINATION OF THIS PERIOD, THE CONTRACTOR SHALL HAVE COMPLETED THE PRECEDING MAINTENANCE SCHEDULE. ANY PLANTS INFECTED WITH DISEASE OR INSECTS WILL BE REMOVED OR TREATED. ALL DEAD OR UNACCEPTABLE PLANTS WILL BE REPLACED BY THE SAME PLANTS AND SIZES DESIGNATED ON THE PLANT LIST. THESE PLANTS SHALL BE PLANTED, MULCHED AND GUY AS SPECIFIED HEREIN AND WITHOUT EXTRA COMPENSATION TO THE CONTRACTOR. AT THE COMPLETION OF ALL SUCH WORK AND WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT, THE CONTRACT WILL BE CONSIDERED COMPLETE.

COMMON NAME	GENIUS/SPECIES	SPACING	SIZE
TREES		35' C-C	18' HT
RED MAPLE	ACER RUBRUM		
IMPERIAL HONEYLOCUST	GALDATALA TRICANTHOS INEMIS		
RED OAK	QUERCUS RUBRA		
SHRUBS		3.5' C-C	3' HT
SNOWMOUND SPIREAE	SPIRAEA NIPPONICA "SNOWMOUND"		
CRANBERRY COLONEASTER	COLONASTER APICULATA		

- PLANT KEY**
- 3.5" CALIPER 18" HIGH DECIDUOUS TREE
  - SCREENING SHRUB 3' HIGH

INSTRUMENT # 200311698  
PARCEL NO. 540-010-00-0022-00  
4100 WASHINGTON ROAD,  
CANONSBURG, PA 15317



**4100 WASHINGTON ROAD SITE DEVELOPMENT**  
**PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA**  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC

**LIGHTING AND LANDSCAPE PLAN**

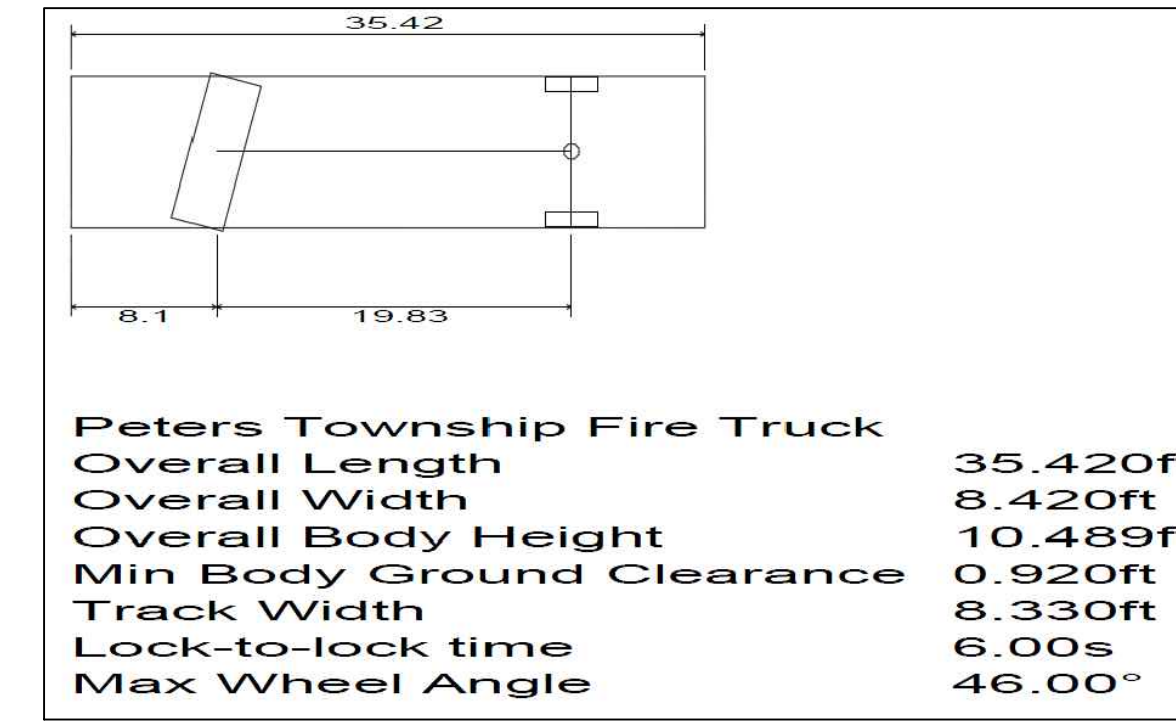
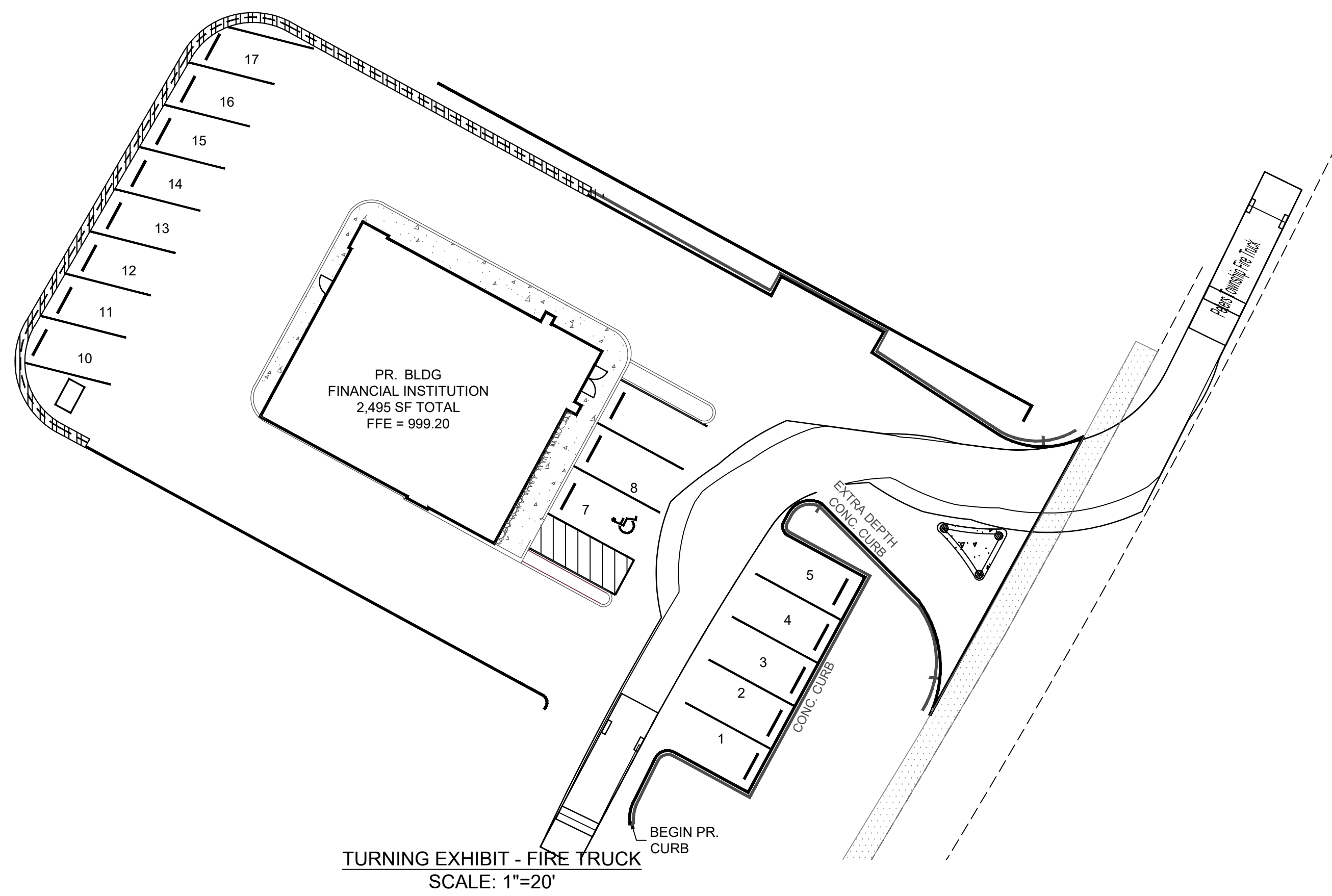
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Order No. 2979-01  
Drawing No. C204  
Sheet No. 5 of 11

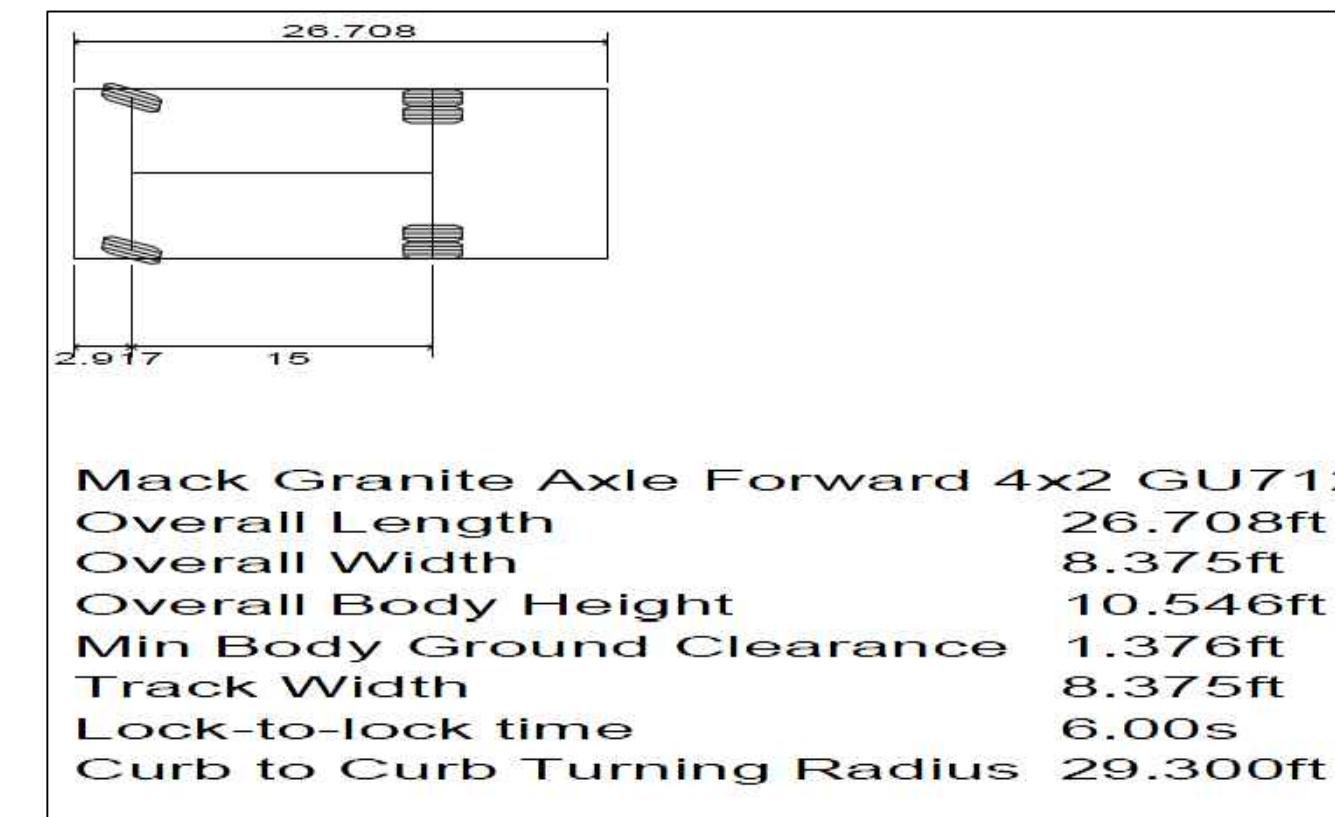
5173 Campbells Run Road  
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**KLHI ENGINEERS, INC.**

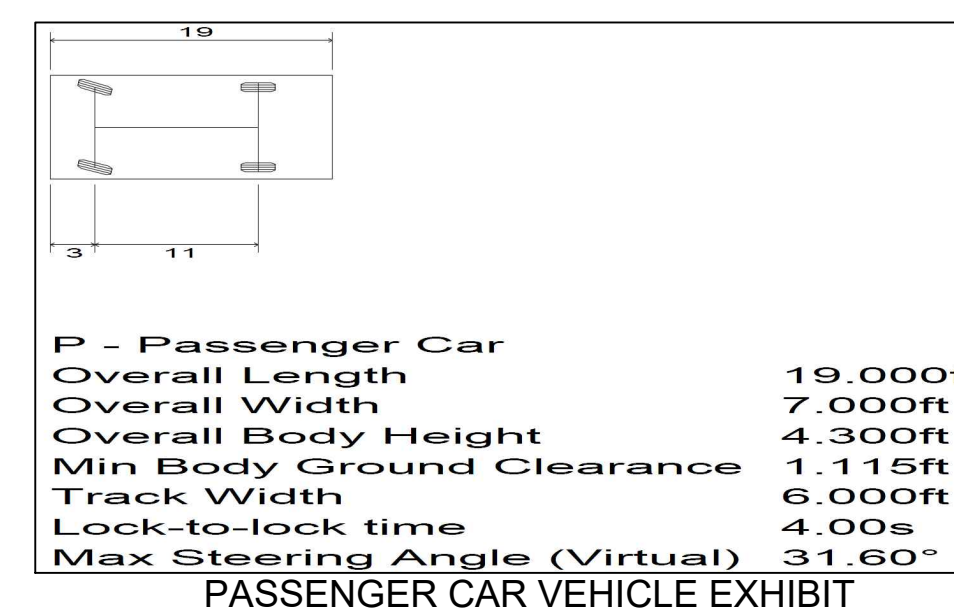
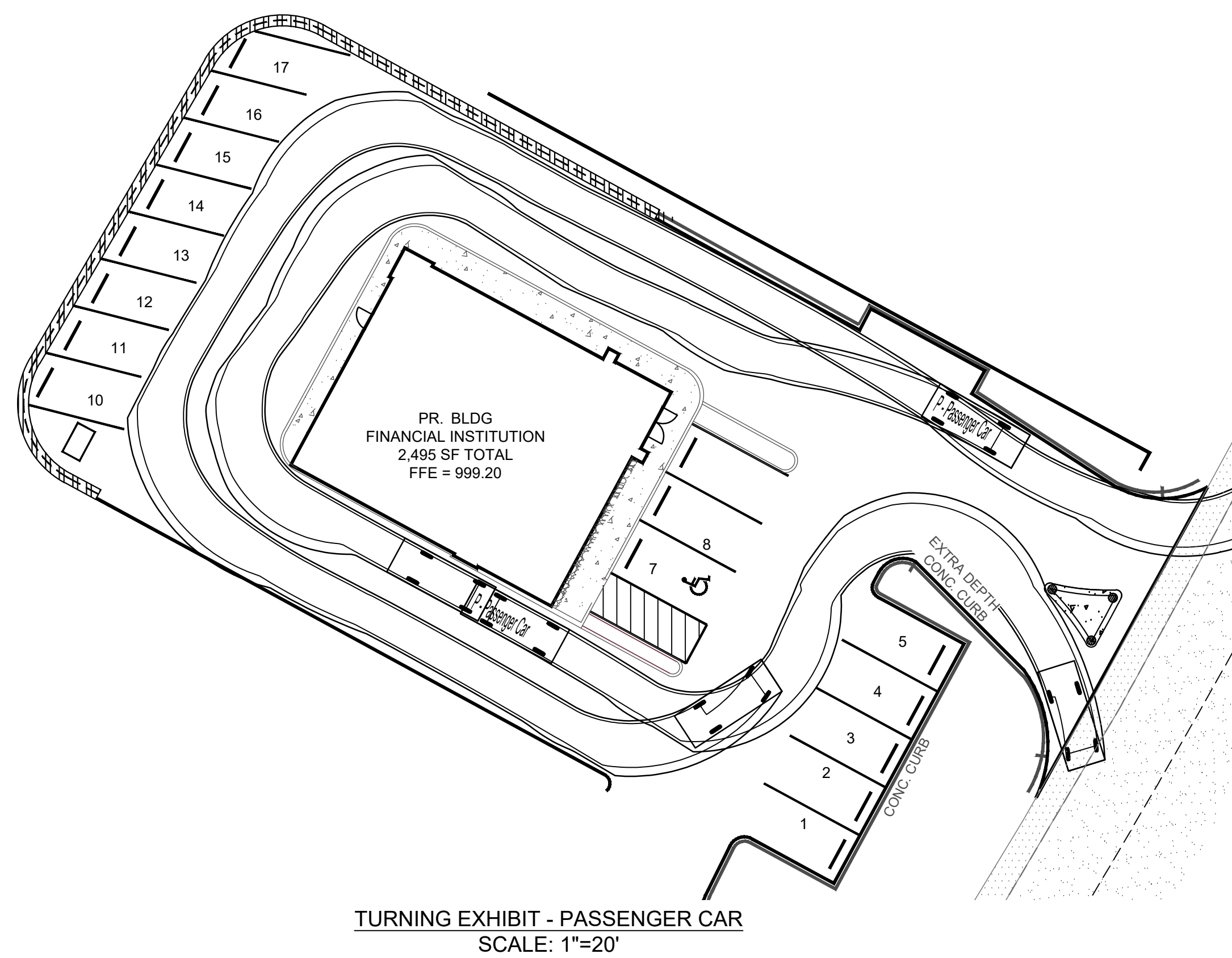




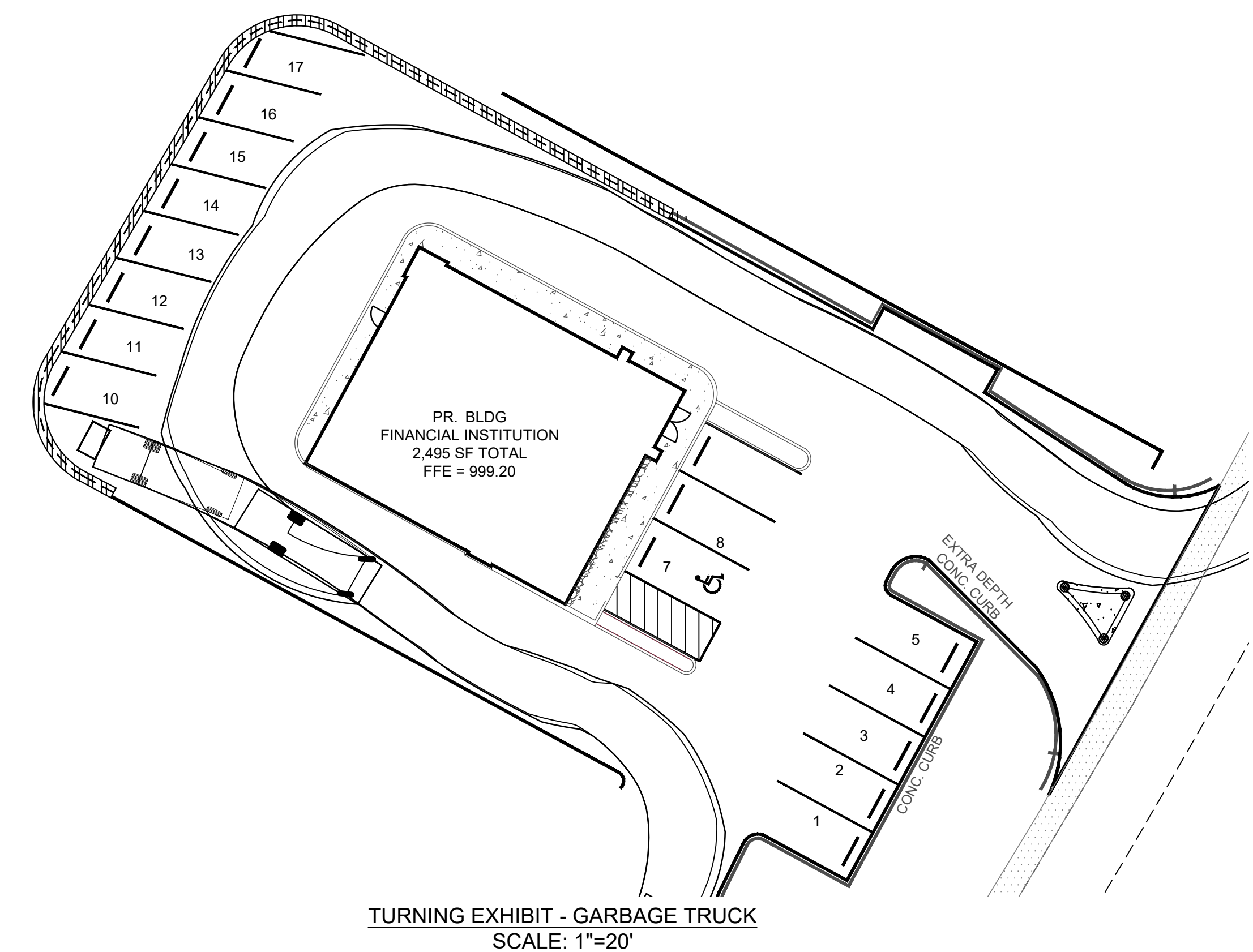
FIRE TRUCK VEHICLE EXHIBIT



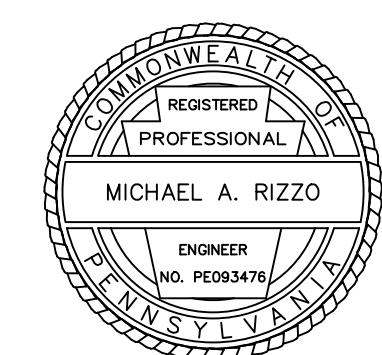
GARBAGE TRUCK VEHICLE EXHIBIT



PASSENGER CAR VEHICLE EXHIBIT



TURNING EXHIBIT - GARBAGE TRUCK  
SCALE: 1"=20'

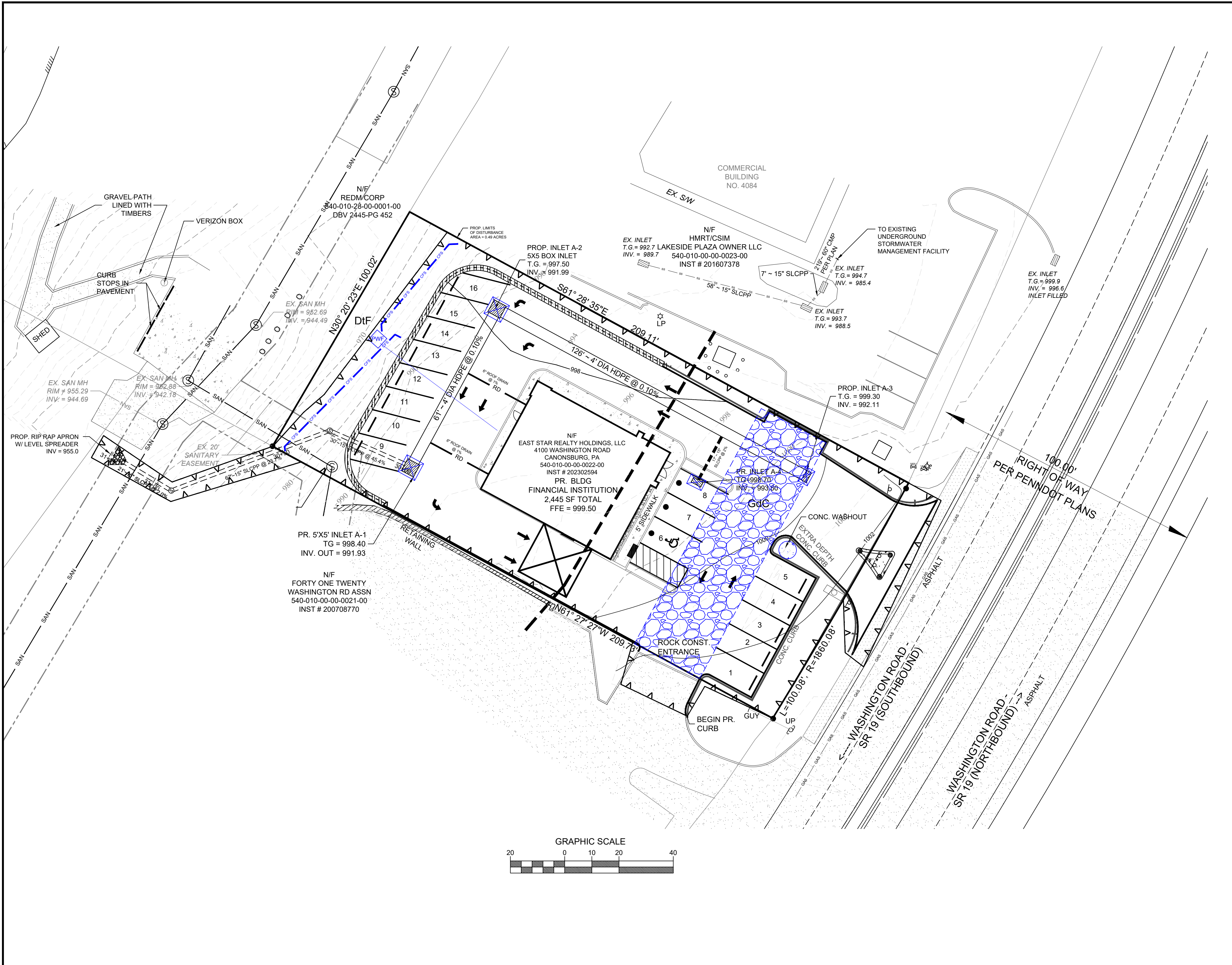


Date	Revisions
01/26	Revised Per Twp Comments

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**KLH ENGINEERS, INC.**

**4100 WASHINGTON ROAD SITE DEVELOPMENT**  
**PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA**  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC

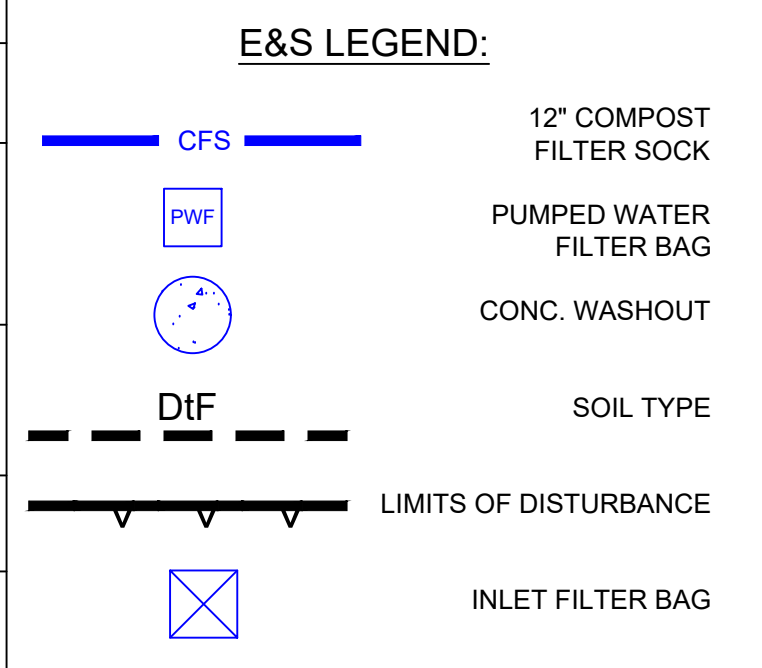


- STANDARD E&S NOTES:**
- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION. THE REVIEWING AGENCY FOR THE E&S PLAN IS THE WASHINGTON COUNTY CONSERVATION DISTRICT.
  - 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, AND A REPRESENTATIVE FROM THE LOCAL 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 WASHINGTON COUNTY CONSERVATION DISTRICT 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 PLAN SPECIFIED BY THE BMP PREPARER FOR THAT STAGE 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 MAP(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 15 FEET SLURRY 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 LOCAL 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 DISCHARGED AT THE SITE. WASTES FOR THIS SITE WILL BE COMPRISED OF CONSTRUCTION MATERIAL AND SOIL EXCAVATION.
  - ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE WASHINGTON COUNTY CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
  - THE CONTRACTOR IS RESPONSIBLE FOR ANY MATERIAL SPILL OR OTHER FOREIGN OR OBJECTIONABLE SUBSTANCE BUT 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 UNDESIRABLE VEGETATION SHALL BE REMOVED PRIOR TO PUMPING.
  - VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM ANY PUBLIC ROADWAY.
  - 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 INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RESPRAYING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
  - 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, SHIPPED, OR OTHERWISE REMOVED FROM THE CONSTRUCTION SITE, 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 OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
  - ALL FILLS SHALL BE COMPACTED AS REQUIRED TO AVOID 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, SOIL, 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. SEEDING 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 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 LOCAL 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 PA DEP SOUTHWEST REGIONAL OFFICE FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
  - AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
  - UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
  - FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LOADED 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 OR 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.
  - ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
  - UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
  - CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER REPLACEMENT OF THE PROTECTIVE LINING.
  - SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
  - SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
  - ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
  - UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
  - EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3:1 V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
  - FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 1' LAYERED LIFTS.

**NOTES:**  
A GEOTECHNICAL ENGINEER WILL BE EMPLOYED DURING ALL CONSTRUCTION TAKING PLACE ON THE EXISTING EMBANKMENT

SOIL PROPERTIES/LIMITATIONS AND RESOLUTIONS			
SOIL NAME	DESCRIPTION	PROPERTIES/LIMITATIONS	PROPOSED RESOLUTION TO SOIL LIMITATIONS
DORMONT-CULLEOKA COMPLEX (DIF)	25 TO 50 PERCENT SLOPES	MODERATELY WELL DRAINED SOIL, VERY LIMITED DUE TO SLOPE, SHRINK-SWELL, AND DEPTH TO HARD BEDROCK	MINIMIZE GRADING, PROVIDE ADEQUATE DRAINAGE
GLENFORD SILT LOAM (GdC)	8 TO 15 PERCENT SLOPES	MODERATELY WELL DRAINED SOIL, VERY LIMITED DUE TO DEPTH TO SATURATED ZONE AND SLOPE	MINIMIZE GRADING, PROVIDE ADEQUATE DRAINAGE

EROSION AND SEDIMENTATION MAINTENANCE SCHEDULE			
BMP	INSPECTION	MAINTENANCE	REPAIR
COMPOST FILTER SOCK	WEEKLY AND AFTER EVERY RUNOFF EVENT.	PERFORM ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, AND REPLACEMENT IMMEDIATELY FOLLOWING INSPECTION. REPLACE BIODEGRADABLE SOCK AFTER 6 MONTHS. PHOTO DEGRADABLE AFTER 12 MONTHS. REMOVE SEDIMENT WHEN ACCUMULATIONS REACH ONE HALF THE ABOVE GROUND HEIGHT OF THE SOCK. DISPOSE OF SEDIMENT IN STOCKPILE BEHIND SOCK, STABILIZING WITH SEED OR OTHER METHODS.	REPLACE DAMAGED SECTIONS WITH ADDITIONAL FILTER SOCK IMMEDIATELY UPON HOURS OF INSPECTION. REPAIR UNDERCUT AN OVERTOPPED SECTIONS IMMEDIATELY WITH ADDITIONAL FILTER SOCK.
CONCRETE WASHOUT	DAILY	REMOVE ACCUMULATED MATERIALS WHEN WASHOUT REACHES 75 PERCENT CAPACITY.	DEACTIVATE AND REPAIR IMMEDIATELY. REPLACE DAMAGED OR LEAKING WASHOUTS.
ROCK CONSTRUCTION ENTRANCE	DAILY	ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.	DAMAGE TO THE ROCK CONSTRUCTION ENTRANCE OR WASHOUT SHALL BE REPAIRED IMMEDIATELY AND PRIOR TO FURTHER USE OF THE ROCK CONSTRUCTION ENTRANCE.
PUMPED WATER FILTER BAG	DAILY. PRIOR TO THE START OF PUMPING, AND PERIODICALLY DURING PUMPING OPERATIONS. INSPECT AT LEAST ONE TIME EVERY TWO HOURS DURING OPERATION.	IF A PROBLEM IS DETECTED, CEASE PUMPING IMMEDIATELY UNTIL THE PROBLEM IS CORRECTED. REPLACE THE FILTER BAG WHEN IT IS HALF FULL OR WHEN THE CONTAINED SILT REDUCES THE FLOW TO APPROX. 50% OF THE RATE OF THE INITIAL DISCHARGE. KEEP A REPLACEMENT FILTER BAG. TAKE TO AN APPROVED DISPOSAL AREA AFTER USE. WHEN REMOVED, RESTORE DISTURBED AREA AND STABILIZE IMMEDIATELY.	REPLACE BAG AT HALF FULL OR WHEN FLOW RATE IS REDUCED OR IF BAG IS DAMAGED.
RIPRAP APRON	DAILY AND AFTER EACH RUNOFF EVENT	DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.	REPLACE DISPLACED RIP-RAP IMMEDIATELY.
INLET FILTER BAG	WEEKLY AND DURING OR IMMEDIATELY FOLLOWING A MEASURABLE RUNOFF EVENT (>=25" RAINFALL)	INSPECT FILTER BAGS FOR SEDIMENT ACCUMULATION AND FOR TORN BAGS	ACCUMULATED MATERIALS SHALL BE REMOVED IMMEDIATELY WHEN THEY REACH 50% CAPACITY OR WHEN FLOW CAPACITY HAS BEEN REDUCED. REPLACE TORN BAGS IMMEDIATELY



\* HYDRIC COMPONENTS OF WET AREAS LOCATED IN DRAINAGEWAYS.

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**KLTH ENGINEERS, INC.**

**4100 WASHINGTON ROAD SITE DEVELOPMENT  
PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC**

**EROSION AND SEDIMENTATION CONTROL PLAN**

AS SHOWN	Scale:
11/17/2025	Date:
MAR	Drawn By:
MAR	Checked By:
MAR	Approved By:

Order No. 2979-01  
Drawing No. C301  
Sheet No. 8 of 11

**6.0 STAGING THE EARTHMOVING ACTIVITIES**

(A sequence of BMP installation and removal in relation to the scheduling of earth disturbance activity, prior to, during and after disturbance activities.)

**6.1** Survey stakeout for the facility including location of silt filter fences

**6.2** Install all Temporary E&S facilities as shown.

**6.3** Topsoil - Strip topsoil in the area for Earthwork and stockpile in indicated areas with filter fabric fence surrounding. When topsoil removal is completed, immediately seed stockpile per temporary seeding specifications.

**6.4** Grading - Grade the areas as shown on the E & S Plan. Each area is to be balanced for cut and fill. Areas where topsoil is to be stockpiled are to be finish graded after remainder of site is graded and topsoil can be distributed. Immediately install erosion blanketing on all disturbed slopes steeper than 4:1, whether specifically indicated on the plan or not. Seed and mulch fill slopes in regular vertical increments of 15-foot immediately upon placement.

**6.5** Install Storm and Sanitary sewers using SEC measures as listed in the utility and sanitary sewer line construction as follows (see also Step 6.9):

- a. Crew works and equipment for trenching, placement of pipe construction and backfilling will be self contained and separate from clearing and grubbing the site restoration and stabilization operations.
- b. Install storm sewers, including underground detention system. Install downstream portions first, beginning with the stone outlet protection, and working upward. Install inlet protection immediately when inlets begin to intercept stormwater from disturbed areas.
- c. Limit daily trench excavation to the length of pipe placement, installation and backfilling that can be completed the same day.
- d. Water which accumulations in the open trench will be completely removed by pumping, to a pumped water filter bag, in accordance with seepage into excavation trench, before pipe placement and/or backfilling begins.

**6.6** Install all utility lines, water, gas, electric, telephone and tv cable. Utilities such as pipelines with joints that allow a manufactured length of pipe to be placed in the trench with the pipe joint assembled made in the trench require an open pipeline trench that is only slightly longer than the length of pipe being installed. The total length of excavated trench open at any one time should not be greater than the total length of pipeline/utility line that can be placed in the trench and back-filled in one working day. No more than 50 lineal feet of open trench should exist when pipeline/utility line installation ceases at the end of the workday. Soil supplements, seed and mulch should be applied within seven days after the pipeline/utility line is installed.

**6.7** Install Paving - Fine grade and pave asphalt areas. The wearing course should not be laid until the construction of the building facility is substantially complete. Backfill curbs and seed per temporary growth, if not established within twenty (20) days, resod immediately.

**6.8** Begin Building Construction.

**6.9** Final Phase - When construction is complete, including building construction, lawns and ground cover is established, gaged by uniform seventy percent (70%) perennial vegetative coverage, remove the temporary Erosion and Sediment Controls as follows: During this removal process, fertilize, seed and mulch disturbed areas per permanent seeding specifications. If vegetative growth is not established within twenty (20) days, resod immediately. All silt fences are to be removed. Seed and mulch any remaining disturbed areas after all of the temporary erosion and sediment controls have been removed. Install any erosion blanketing on steep slopes as required.

**6.10** Note that none of the previously listed erosion control measures can be removed without an inspection of the Washington County Conservation District.

**6.11** Any offsite waste/borrow areas must be approved by the Washington County Conservation District.

**7.0 TEMPORARY CONTROL MEASURES AND FACILITIES**

**7.1 Purpose**

The purpose for these control measures is to prevent sedimentation for leaving the site and damaging adjacent houses and land.

**7.2 Types of Measures and Facilities**

**Filter Fabric Fence** - to filter sheet flow runoff, silt fence barriers will be provided at the base of the disturbed areas to prevent or minimize silt from leaving the altered area. Upon 70% vegetation stabilization of the disturbed area, the silt fence barriers will be removed and this area seeded. Silt fences are to be placed as shown on the plan.

**Pumped Water Filter Bag** - should it be necessary to pump water from the areas of work, it is to be pumped through a filter bag.

**Temporary & Permanent Seeding** - (to prevent or minimize erosion of the disturbed areas when temporary exposure is more than 20 calendar days). Fill slopes are to be seeded and mulched in regular vertical increments to promote early stabilization:

- A. Birdsfoot trefoil (1) 98 / 80 400lb/ac Redtop 92 / 80 5000 lb/ac
- B. Creeping red fescue (2) 95 / 80 400 lb/ac Perennial ryegrass 95 / 85 227 lb/ac
- C. Birdsfoot trefoil 98 / 65 120 lb/ac Tall fescue 98 / 80 227 lb/ac
- D. Birdsfoot trefoil 98 / 80 400 lb/ac Timothy 98 / 80 1230 lb/ac
- E. White clover 95 / 85 400 lb/ac Kentucky bluegrass 85 / 75 2200 lb/ac Timothy 95 / 80 1230 lb/ac
- F. Lathco lathraea 98 / 75 10 lb/ac Tall fescue 98 / 80 227 lb/ac Perennial ryegrass 98 / 85 227 lb/ac

1. Recommended for somewhat poorly and poorly drained soils in partial shade to full sunlight.

2. Recommended for well- drained to moderately well-drained soil in heavy shade.

**Step Slopes** - (areas with a slope of 1' vertical in a distance of 3' or less horizontal are considered steep): Apply lime and fertilizer as specified. Disc the lime and fertilizer uniformly into the soil immediately following spreading, loosening soil to a depth of at least 3 inches. The seed mixture should include (PennDOT 408-804.2(b) Formula C):

Species	Purity/Germ.	Appl. Rate
Birdsfoot Trefoil (45%)	99 / 70	4.0 lb/1000sqy
Annual Ryegrass (55%)	98 / 90	5.0 lb/1000sqy
(Total = 9.0 lb/1000sqy)		

Mulching will be used as an aid in establishing vegetation. Straw or hay mulch will be applied at a rate of 3 tons per acre. Wood cellulose fiber will be applied at a rate of 1500 lbs. per acre.

**Fertilization** - Lime and fertilizer for all of the listed seed mixes shall be applied as required to obtain a uniform erosion resistant perennial vegetative coverage or density of 70% across all disturbed areas. The following rates (per acre) are recommended by the development, but they may underestimate or exceed the amounts actually required for a site:

- a. 6 ton of agricultural lime.
- b. 100 lbs. OF N.
- c. 200 lbs. OF P2 O5
- d. 200 lbs. OF K2 O
- e. E.g. (10-20-20) Fertilizer is to be applied at 1000 lbs / acre

**7.3 Facilities, Details and Design**

All details and design calculations are included in Appendix A.

**8.0 PERMANENT CONTROL**

**8.1** The purpose is to prevent erosion and sediment transport, and to ensure that lots will be seeded upon completion of the building of homes, and lawns will be continually cared for and maintained.

**8.2** Drainage from the site will be intercepted by the storm system and discharged into the existing outfall.

**8.3** Permanent Seeding (to prevent erosion of the project site on a permanent basis):

The altered areas that have been final-grading are to be seeded to establish a permanent ground cover with little or no maintenance. A seed mixture of Bluegrass (88%) and Redtop (12%) or some other species shall be applied at a rate of 40 lbs. per acre, to a prepared ground surface which includes lime and fertilizer at a rate indicated by soils tests.

Mulching will be used as an aid in establishing vegetation. Straw or hay mulch will be applied at a rate of 3 tons per acre. Wood cellulose fiber will be applied at a rate of 1500 lbs. per acre.

Lime and fertilizer for all of the listed seed mixes shall be applied according to the following rates (per acre) for the development:

- a. 6 ton of agricultural lime.
- b. 100 lbs. OF N.
- c. 200 lbs. OF P2 O5
- d. 200 lbs. OF K2 O
- e. E.g. (10-20-20) Fertilizer is to be applied at 1000 lbs / acre

**8.4** Step Slopes - (areas with a slope of 1' vertical in a distance of 3' or less horizontal are considered steep): Apply lime and fertilizer as specified. Disc the lime and fertilizer uniformly into the soil immediately following spreading, loosening soil to a depth of at least 3 inches. The seed mixture should include (PennDOT 408-804.2(b) Formula C):

Species	Purity/Germ.	Appl. Rate
Birdsfoot Trefoil (45%)	99 / 70	4.0 lb/1000sqy
Annual Ryegrass (55%)	98 / 90	5.0 lb/1000sqy
(Total = 9.0 lb/1000sqy)		

Mulching will be used as an aid in establishing vegetation. Straw or hay mulch will be applied at a rate of 3 tons per acre. Wood cellulose fiber will be applied at a rate of 1500 lbs. per acre.

**9.0 MAINTENANCE PROGRAM**

**9.1** All temporary and permanent control measures and facilities will be inspected weekly and after each runoff event. Required repairs will be completed as required. The soil piles will be mixed with the topsoil pile and seeded and mulched. The property owner will be responsible for making the repairs.

The maintenance responsibilities will be the responsibility of the property owner during construction and upon completion.

Silt Fencing must be inspected weekly for sediment overload (cleaning is required when sediment reaches 50% of the fence height above ground), washed out areas, and general condition for functionality. Any repairs will be completed immediately upon discovery in accordance with the manufacturer's recommendations.

The Erosion Blanketing is to be inspected weekly to verify that there are no washed out or deteriorated areas and that the installation remains compliant with the manufacturer's specifications. Should any repairs be required, they are to be completed in accordance with the manufacturer's recommended methods.

Pumped Water 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. A suitable means of accessing the bag with machinery required for disposal purposes must be provided.

Rock Filter Outlets should be inspected for scour, erosion, accumulation of sediment and/or debris, and general condition for functionality. Appropriately sized rock is to be added as necessary or upgrades made if outlet flow conditions require.

Concrete Washout shall be inspected daily. Accumulated sediment shall be removed when the washout reaches 75 percent capacity. Upon discovering damage, defective and repair washout immediately, replace damaged or leaking washouts.

Repairs to any individual facility should be initiated immediately and completed within one to two days of discovery. Should extensive repairs be required to several facilities and BMPs concurrently, such as after a catastrophic rainfall event, these repairs should be initiated immediately and be completed in full within five to seven days of discovery.

(Additional inspections of all BMP's is to occur after each significant rainfall event and maintenance completed as discussed above.)

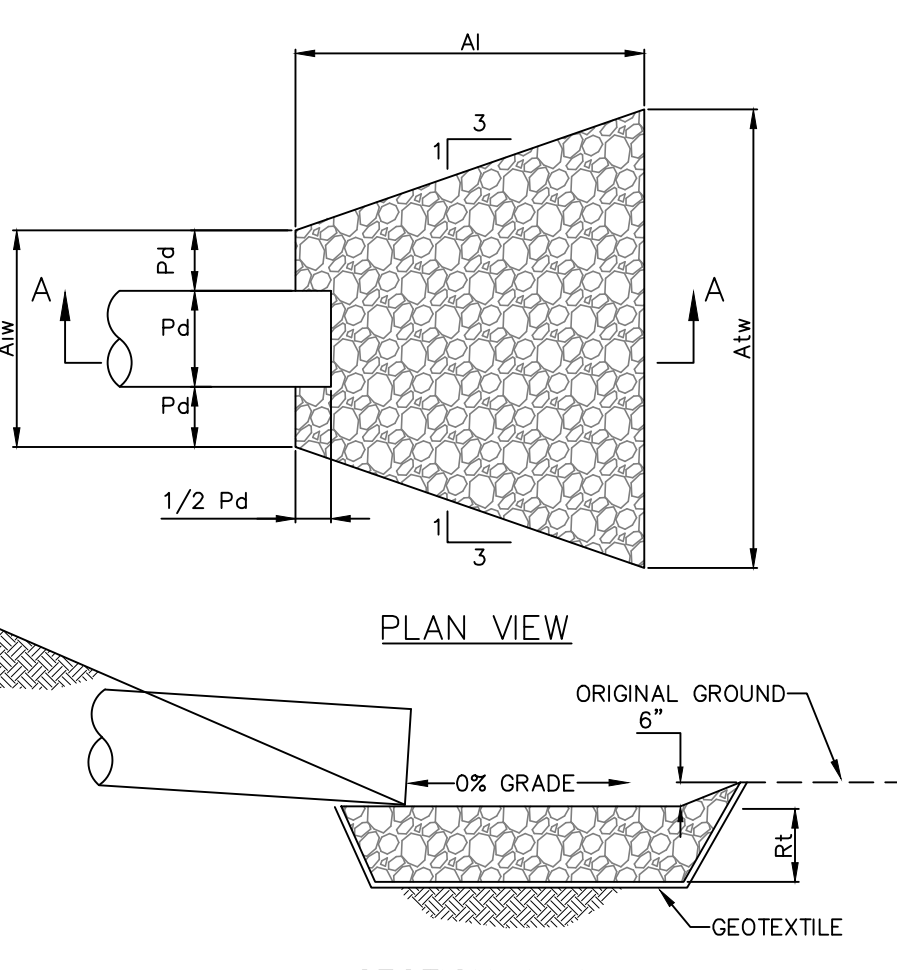
Any debris or material removed from the BMP's that is unsuitable to be disposed of on-site must be disposed of at an approved disposal site or landfill.

**9.2 Maintenance of Permanent Controls**

Once every three months and after any significant rainfall events, all components of the storm drainage system will be inspected for damage.

In particular, drainage pipes and structures should be checked for debris, sediment, and perimeter erosion. The stormwater detention system should be inspected for debris accumulation, outlet structure integrity, and symptoms of erosion or seepage. Any areas that need to be repaired, restored, revegetated, and/or re-graded will be immediately repaired to original condition.

Permanent maintenance will be the responsibility of the property owner.



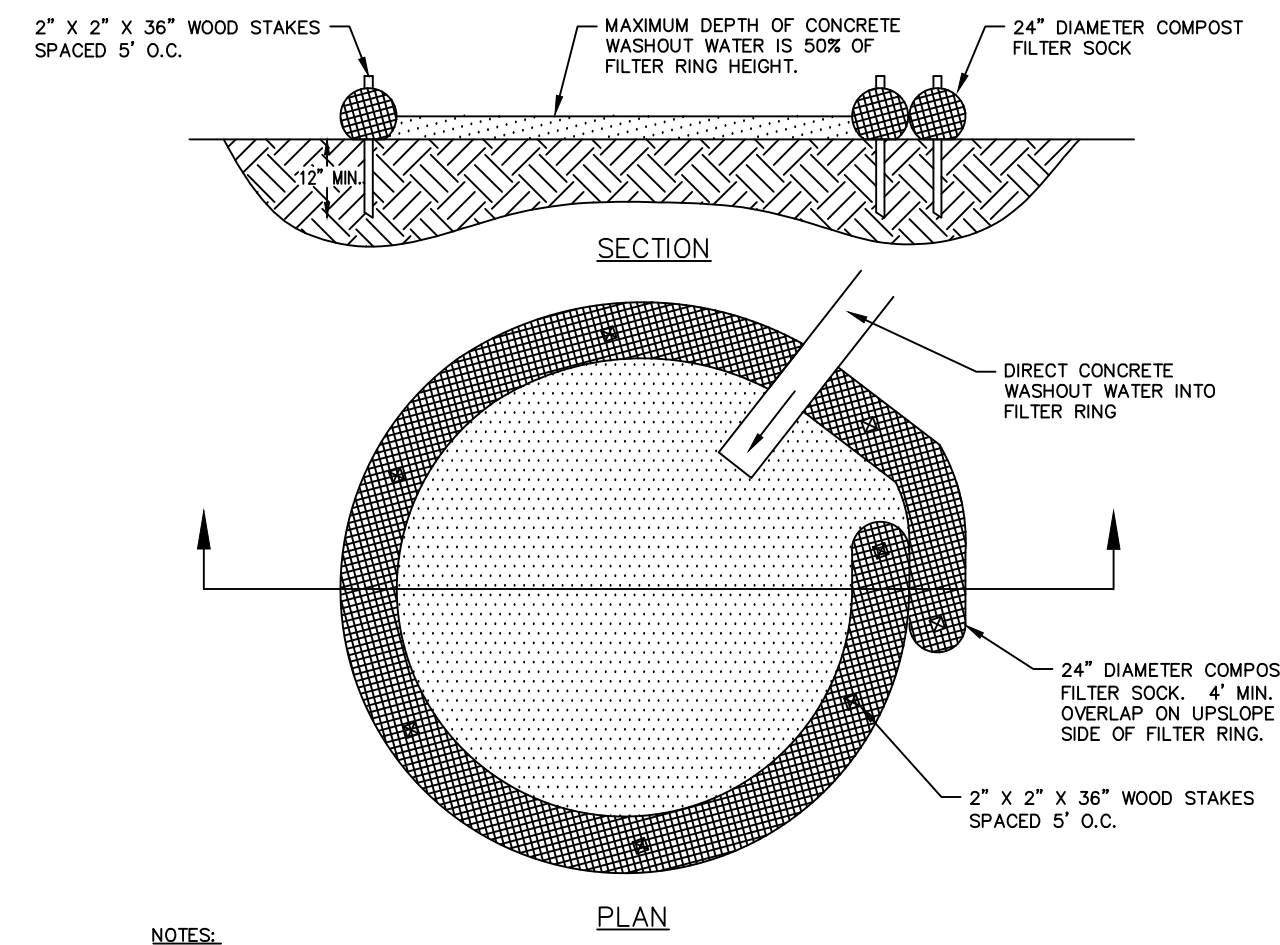
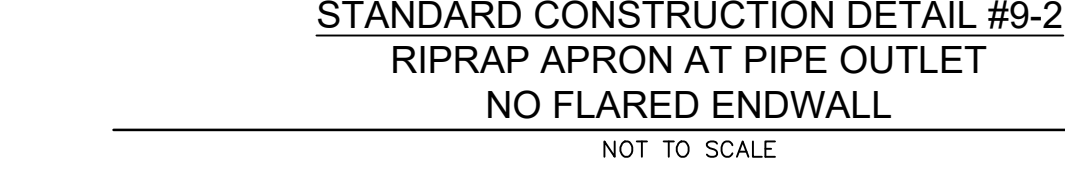
OULET NO.	PIPE DIA (IN)	RIPRAP			APRON	
		SIZE (R-)	THICK, Rf (IN)	LENGTH, Af (FT)	INITIAL WIDTH, AiW (FT)	TERMINAL WIDTH, AtW (FT)
OUTFALL 1	15	4	18	8	3.75	11.75

**NOTES:**  
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

**NOTE: VOIDS IN RIP RAP TO BE FILLED WITH TOPSOIL.**



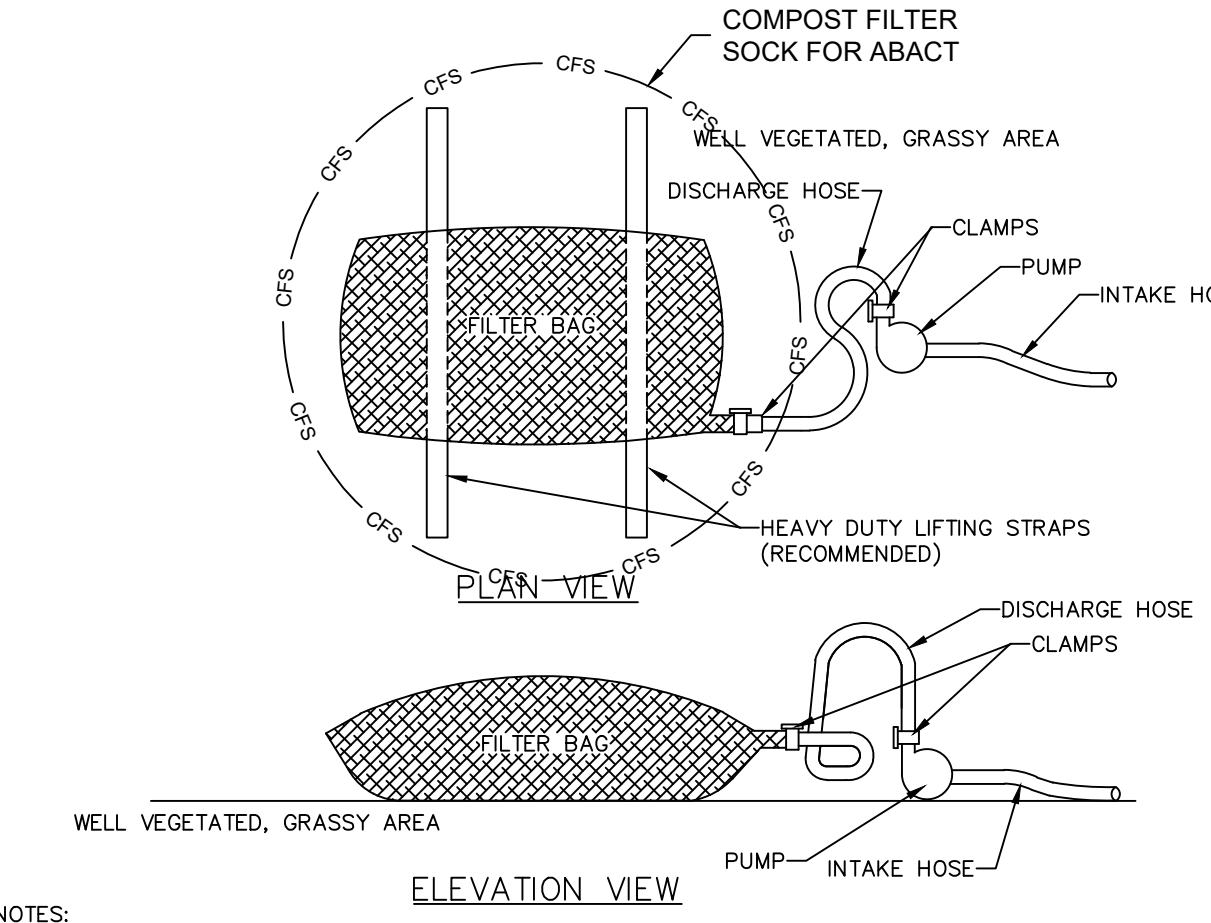
- NOTES:**
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
  - 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
  - WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES OR SURFACE WATERS. THEY SHOULD BE IN A CONVENIENT LOCATION FOR THE TRUCKS, PREFERABLY NEAR THE PLACE WHERE THE CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICULAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS.
  - A SUITABLE IMPERVIOUS GEOMEMBRANE SHOULD BE PLACED AT THE LOCATION OF THE WASHOUT. COMPOST SOCKS SHOULD BE STAKED IN THE MANNER RECOMMENDED BY THE MANUFACTURER AROUND PERIMETER OF THE GEOMEMBRANE SO AS TO FORM A RING WITH THE ENDS OF THE SOCK LOCATED AT THE UPSLOPE CORNER. CARE SHOULD BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS. WHERE NECESSARY, SOCKS MAY BE STACKED AND STAKED SO AS TO FORM A TRIANGULAR CROSS-SECTION.

**MAINTENANCE**  
ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.

ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

**COMPOST SOCK WASHOUT INSTALLATION**

NOT TO SCALE



**ELEVATION VIEW**

**NOTES:**  
LOW VOLUME 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. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%; CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

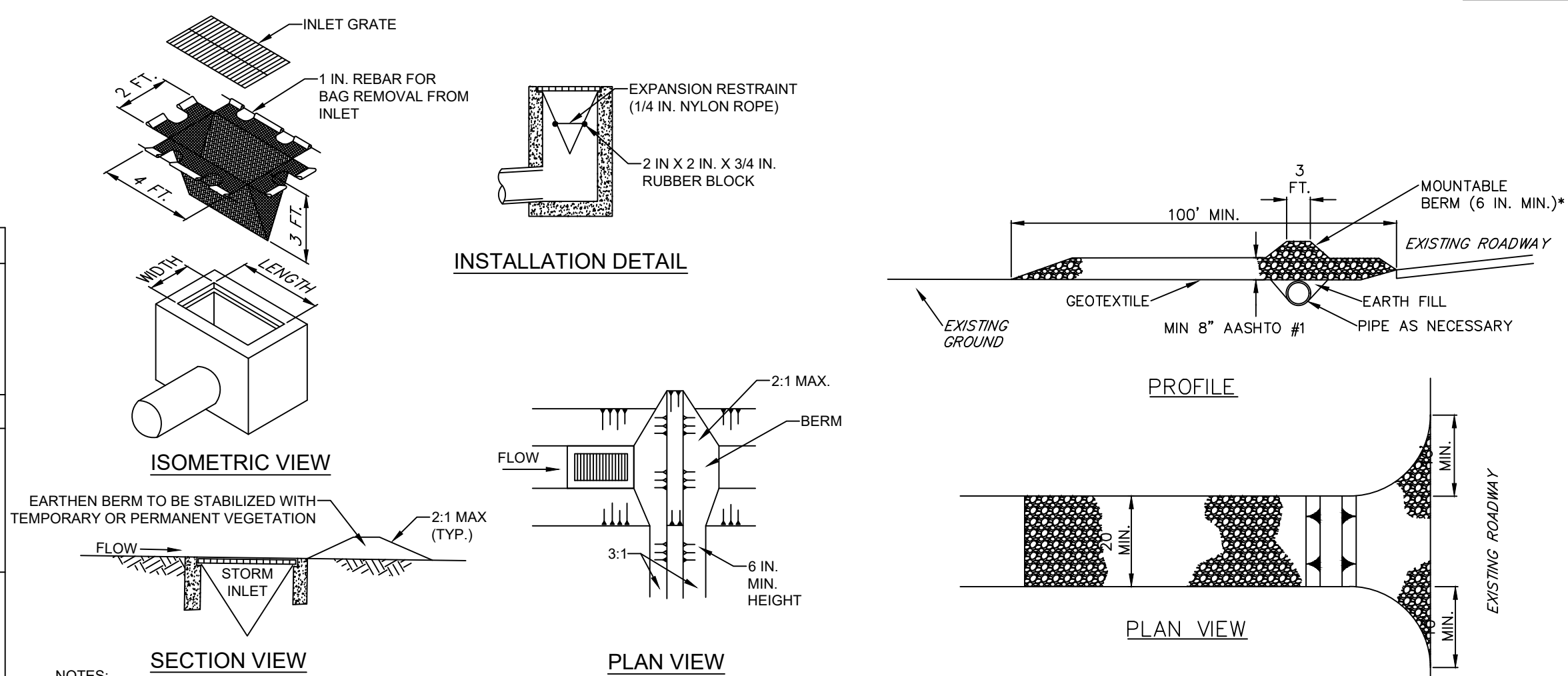
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

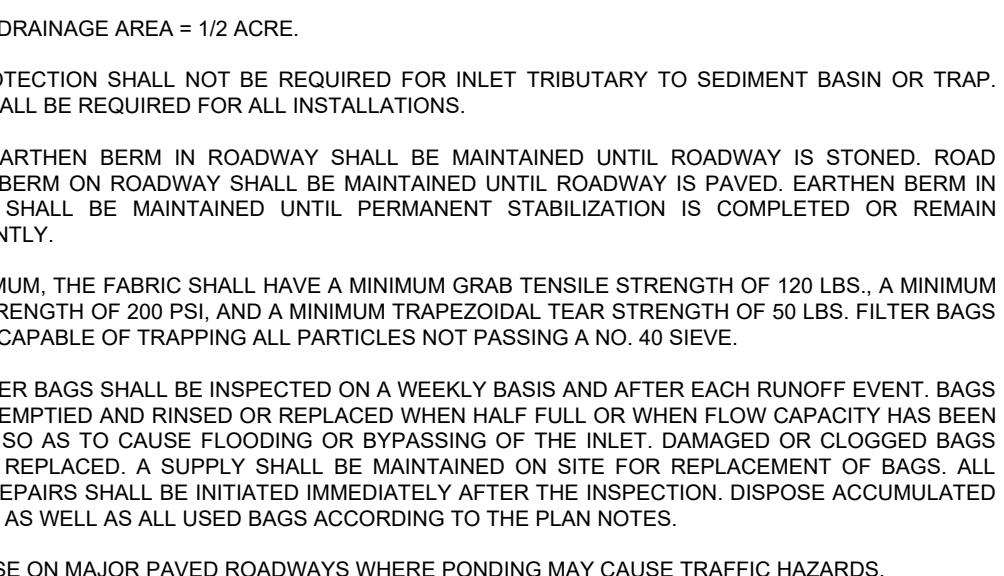
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

**STANDARD CONSTRUCTION DETAIL #3-18 PUMPED WATER FILTER BAG**

NOT TO SCALE

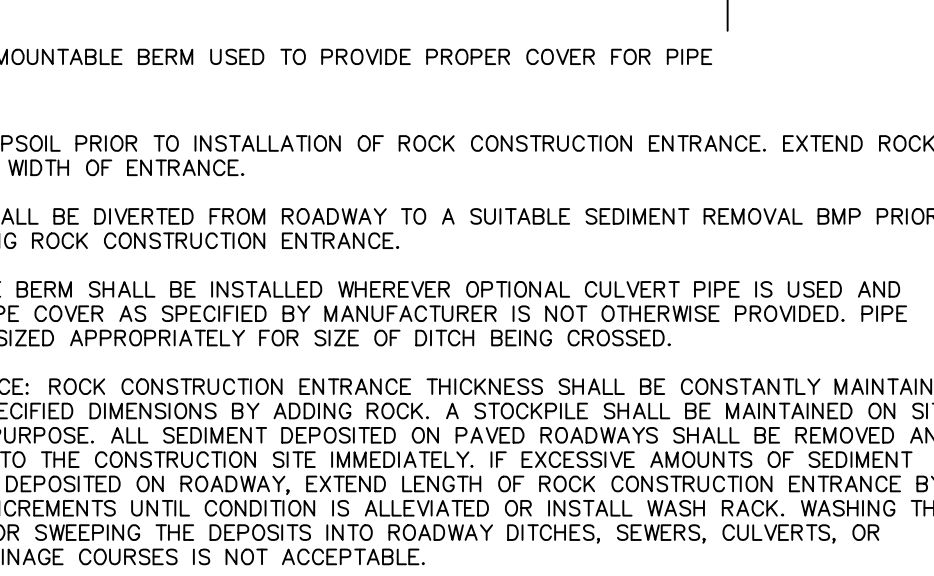


- NOTES:**
- MAXIMUM DRAINAGE AREA = 1/2 ACRE.
  - INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
  - ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE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



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

NOT TO SCALE



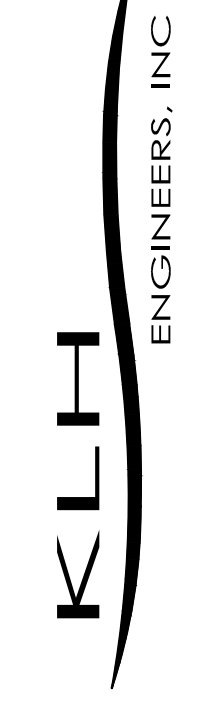
**STANDARD CONSTRUCTION DETAIL #3-1 ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE

NOTE: ROCK CONSTRUCTION ENTRANCE TO BE 100' FOR ABACT

Revisions	Date	By	Comments
01/26			Revised Per Twp Comments

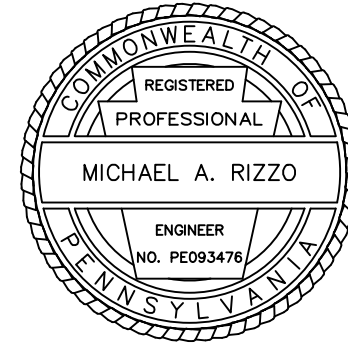
5173 Campbell Run Road  
Pittsburgh, PA 15205  
Phone: 412.484.0510  
Fax: 412.484.0426  
info@kthengineers.com

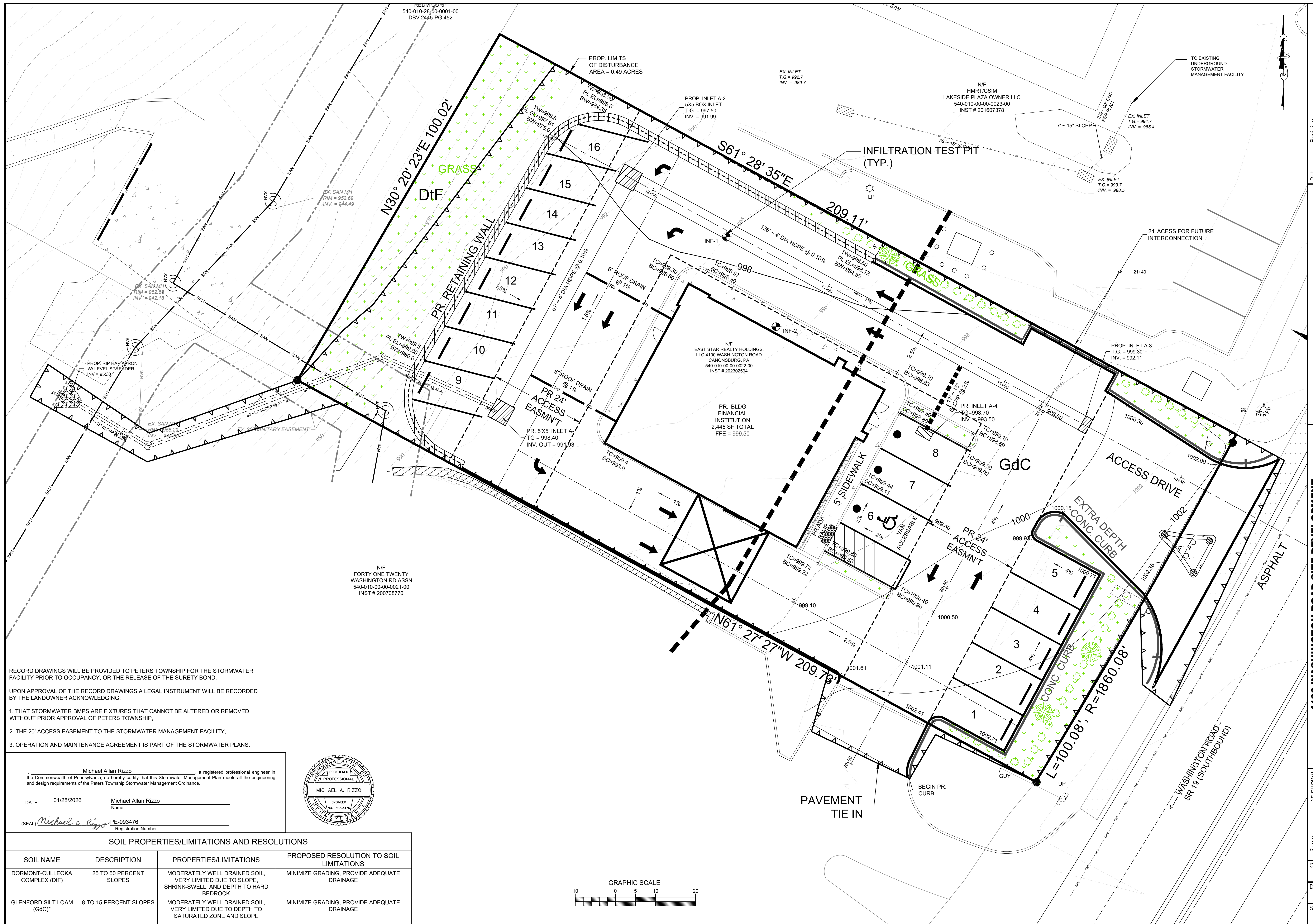


**4100 WASHINGTON ROAD SITE DEVELOPMENT  
PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC  
EROSION AND SEDIMENTATION CONTROL DETAILS**

AS SHOWN	Date:	Drawn By:	Checked By:	Approved By:
6	11/17/2025	MAR	MAR	MAR

Order No. 2979-01  
Drawing No. C302  
Sheet No. 9 of 11





RECORD DRAWINGS WILL BE PROVIDED TO PETERS TOWNSHIP FOR THE STORMWATER FACILITY PRIOR TO OCCUPANCY, OR THE RELEASE OF THE SURETY BOND.

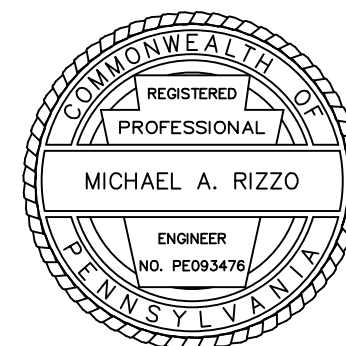
UPON APPROVAL OF THE RECORD DRAWINGS A LEGAL INSTRUMENT WILL BE RECORDED BY THE LANDOWNER ACKNOWLEDGING:

1. THAT STORMWATER BMPs ARE FIXTURES THAT CANNOT BE ALTERED OR REMOVED WITHOUT PRIOR APPROVAL OF PETERS TOWNSHIP.
2. THE 20' ACCESS EASEMENT TO THE STORMWATER MANAGEMENT FACILITY.
3. OPERATION AND MAINTENANCE AGREEMENT IS PART OF THE STORMWATER PLANS.

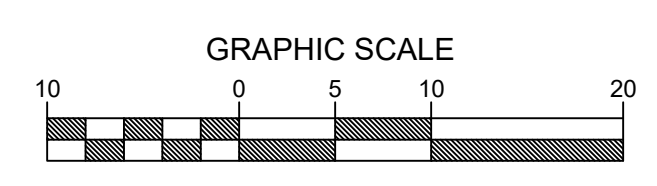
I, Michael Allan Rizzo, a registered professional engineer in the Commonwealth of Pennsylvania, do hereby certify that this Stormwater Management Plan meets all the engineering and design requirements of the Peters Township Stormwater Management Ordinance.

DATE 01/28/2026 Name Michael Allan Rizzo

(SEAL) Michael A. Rizzo PE-093476 Registration Number



SOIL PROPERTIES/LIMITATIONS AND RESOLUTIONS			
SOIL NAME	DESCRIPTION	PROPERTIES/LIMITATIONS	PROPOSED RESOLUTION TO SOIL LIMITATIONS
DORMONT-CULLEOKA COMPLEX (Df)	25 TO 50 PERCENT SLOPES	MODERATELY WELL DRAINED SOIL, VERY LIMITED DUE TO SLOPE, SHRINK-SWELL, AND DEPTH TO HARD BEDROCK	MINIMIZE GRADING, PROVIDE ADEQUATE DRAINAGE
GLENFORD SILT LOAM (Gdc)*	8 TO 15 PERCENT SLOPES	MODERATELY WELL DRAINED SOIL, VERY LIMITED DUE TO DEPTH TO SATURATED ZONE AND SLOPE	MINIMIZE GRADING, PROVIDE ADEQUATE DRAINAGE



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info@klhengineers.com

ENGINEERS, INC.

**4100 WASHINGTON ROAD SITE DEVELOPMENT**  
PETERS TOWNSHIP, WASHINGTON COUNTY, PENNSYLVANIA  
PREPARED FOR: EAST STAR REALTY HOLDINGS, LLC

**STORMWATER MANAGEMENT PLAN**

AS SHOWN	11/17/2025	MAR	MAR	MAR
Scale:	Date:	Drawn By:	Checked By:	Approved By:

Order No. 2979-01  
Drawing No. C401  
Sheet No. 10 of 11

