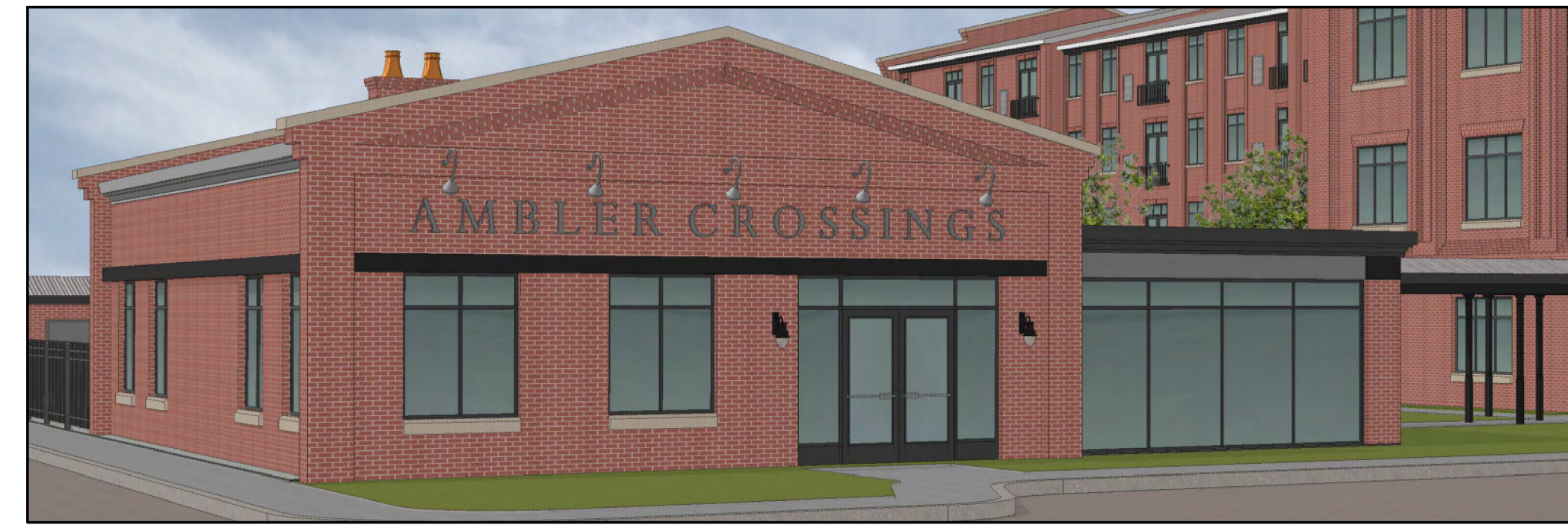


AMBLER CROSSING CLUBHOUSE

MAPLE AND BUTLER AVENUES, AMBLER, PA 19002

PREPARED FOR:

SUMMIT REALTY ADVISORS, LLC
201 S. MAPLE AVENUE, SUITE 100
AMBLER, PA 19002



kramer
marks

building information

156 s. betlehem pike ambler, pa 19002
p.215.654.7722 f.215.654.5353
www.kramermarks.com

DESIGN TEAM:

CIVIL ENGINEERS

LANGAN
ONE WEST BROAD STREET, SUITE 200
BETHLEHEM, PA 18018
Tel: 610.984.8500

STRUCTURAL ENGINEERS

ELTON & THOMPSON
2615 JENKINTOWN ROAD
GLENSIDE, PA 19038
Tel: 215.576.6460

MPE ENGINEERS

BSEG, LLC
4949 LIBERTY LANE, SUITE 115
ALLENTOWN, PA 18106
Tel: 610.351.8225

code abstract

APPLICABLE CODES:

2009 INTERNATIONAL BUILDING CODE
2009 NATIONAL ELECTRICAL CODE
2009 INTERNATIONAL PLUMBING CODE
2009 INTERNATIONAL ENERGY CONSERVATION CODE
2009 INTERNATIONAL FIRE GAS CODE
2009 INTERNATIONAL FIRE CODE
ICCMANS 117.1-2003
LIFE SAFETY CODE - NFPA 101, 2003
NATIONAL FIRE ALARM CODE - NFPA 72, 2002

BUILDING DATA:

(IBC 1002.1)
1ST FLOOR GROSS AREA:
2ND FLOOR GROSS AREA:

TOTAL BUILDING AREA:

(IBC 1002.1)

USE GROUPS:

A-3 - ASSEMBLY (IBC 303.1)

CONSTRUCTION TYPE:

TYPE: 5B

FRONTAGE INCREASES:

(IBC 506.2)

AUTOMATIC SPRINKLER SYSTEM INCREASES:

(IBC 506.3) & (IBC 504.2)

ALLOWABLE AREA MODIFICATIONS:

(IBC 506.1)

COMPLIES

FIRE RESISTANCE RATING REQUIREMENTS:

PER TABLE 601 (IBC) - CONSTRUCTION TYPE 5B:

STRUCTURAL FRAMING - 0 H
BEARING WALLS
EXT. WALLS - 0 H
INT. WALL - 0 H
NON-BEARING WALL
EXT. WALLS - 0 H
INT. WALL - 0 H
FLOOR CONSTRUCTION - 0 H
ROOF CONSTRUCTION - 0 H

FIRE RATING REQUIREMENTS:

ELEVATOR SHAFT ENCLOSURE
ELEVATOR MACHINE ROOM
EXIT ACCESS CORRIDOR
EXIT ENCLOSURE

FIRE PROTECTION SYSTEM:

ALL BUILDINGS SHALL BE EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 903.3.1.1 (IBC)

MEANS OF EGRESS/OCCUPANCY:

250' MAX. EGRESS TRAVEL DISTANCE
2 EXITS REQUIRED PER STORY
MAX. OF 50 OCCUPANTS FOR SPACES WITH ONE EXIT

MIN. WIDTH OF STAIRWAYS: N/A

AREA OF REFUGE: N/A

MIN. WIDTH OF CORRIDORS: 44"

MIN. WIDTH OF EGRESS DOORS: 36"

SEPARATION OF REQUIRED EXITS:

EXIT ACCESS TRAVEL DISTANCE: 75'

COMMON PATH OF TRAVEL DISTANCE: 75'

DEAD END CORRIDORS

schedule of drawings

ARCHITECTURAL DRAWINGS:

SHEET	SHEET NAME	REVISION #				
		1	2	3	4	5
CS-1	COVER SHEET					
GS-101	AERIAL PLAN					
GS-102	EXISTING FEATURES PLAN					
CS-101	SITE PLAN (RECORD PLAN)					
CS-501	CONSTRUCTION DETAILS					
CS-502	CONSTRUCTION DETAILS					
CS-503	CONSTRUCTION DETAILS					
CS-401	FIRE TRUCK TURN PLAN					
CS-701	GREEN SPACE PLAN					
CG-101	GRADING PLAN					
CG-201	DRAINAGE PLAN					
CG-501	GRADING DETAILS					
CG-502	GRADING DETAILS					
CG-503	GRADING DETAILS					
PCSM-101	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN					
PCSM-102	POST CONSTRUCTION STORMWATER BMP WATERSHED MAP					
PCSM-501	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS					
CU-101	UTILITY PLAN					
CU-501	UTILITY DETAILS					
CU-502	UTILITY DETAILS					
CU-401	DRAINAGE & UTILITY PROFILES					
CU-402	DRAINAGE & UTILITY PROFILES					
LP-101	LANDSCAPE PLAN					
LP-501	LANDSCAPE NOTES AND DETAILS					
LL-101	SITE LIGHTING PLAN					
LL-401	SITE LIGHTING NOTES AND DETAILS					

CIVIL DRAWINGS

SHEET	SHEET NAME	REVISION #				
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LP-501	LANDSCAPE NOTES AND DETAILS					
LL-101	SITE LIGHTING PLAN					
LL-401	SITE LIGHTING NOTES AND DETAILS					

STRUCTURAL DRAWINGS

SHEET	SHEET NAME	REVISION #				
		1	2	3	4	5
S0	STRUCTURAL NOTES					
S1	FOUNDATION PLANS, SECTION DETAILS & SCHEDULES					

MEP DRAWINGS

SHEET	SHEET NAME	REVISION #				
		1	2	3	4	5
M1.1	MECHANICAL DRAWING					
E1.1	ELECTRICAL DRAWING					
P1.1	PLUMBING DRAWING					

location map

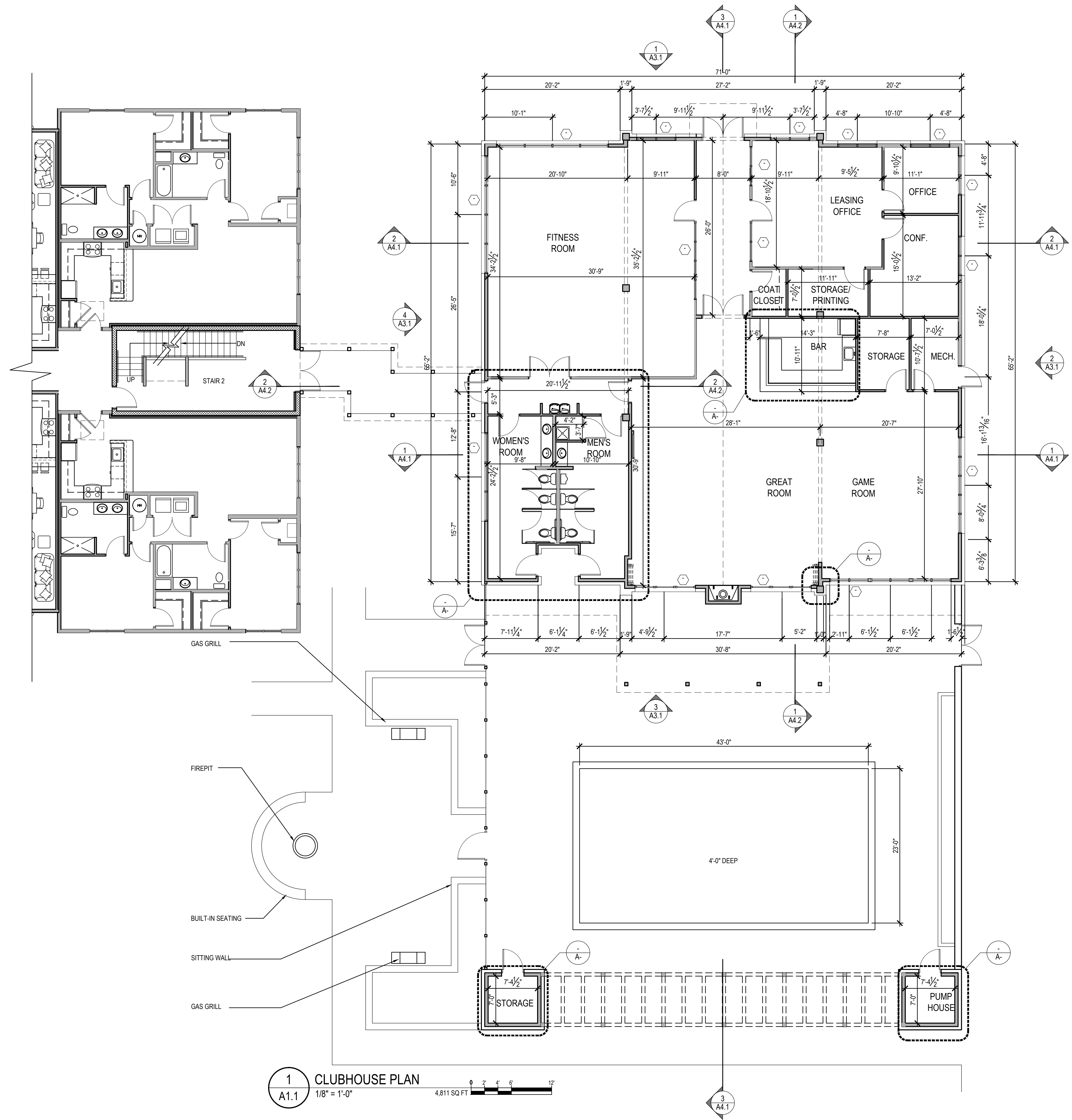


SIGNATURES

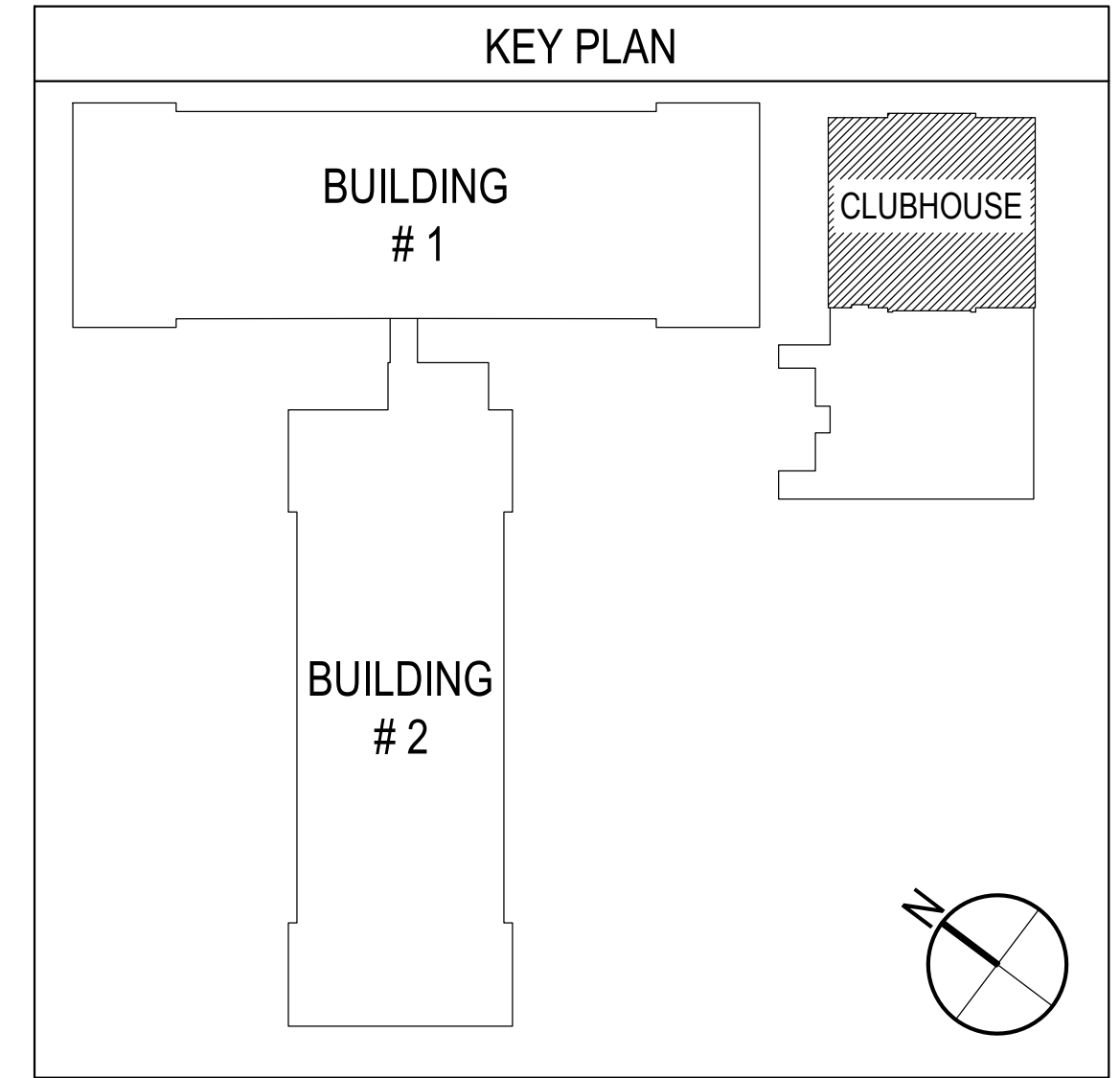
summit realty advisors, llc _____ date _____
kramer + marks architects _____ date _____
_____ date _____

FOOTING & FOUNDATION PRELIMINARY BID SET

date: 01-Sept. 2015 / job no. 1120



1 CLUBHOUSE PLAN
 A1.1 1/8" = 1'-0" 4,811 SQ FT



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**FOOTING
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**AMBLER CROSSINGS
 CLUBHOUSE**
 MAPLE STREET AND BUTLER AVENUE
 AMBLER - PA 19002

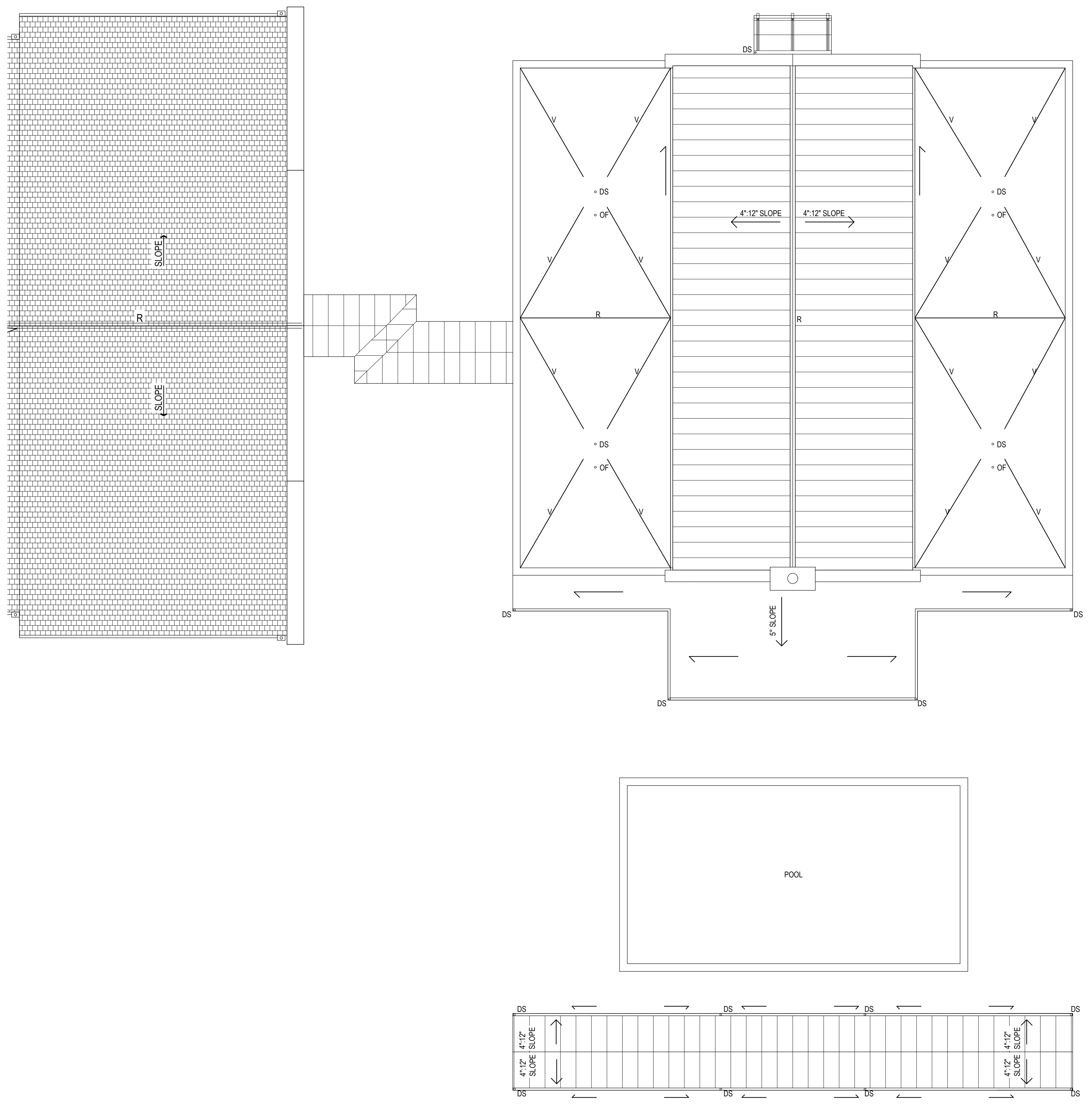
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 AMBLER, PA 19002

JOB #	DRAWN	P.I.C.	ISSUE DATE
	xxx	GEN	9/22/2013
REVISIONS			

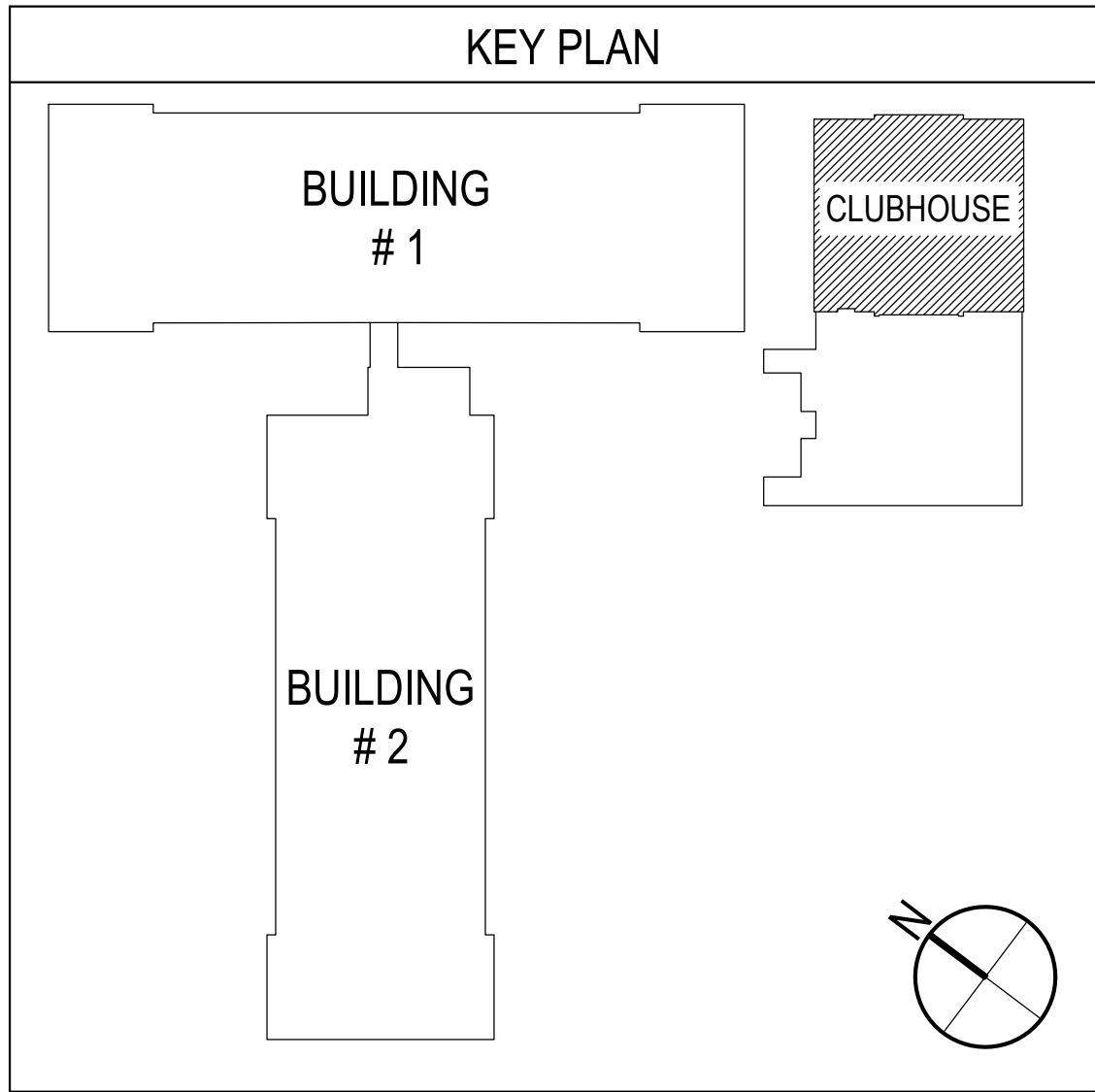
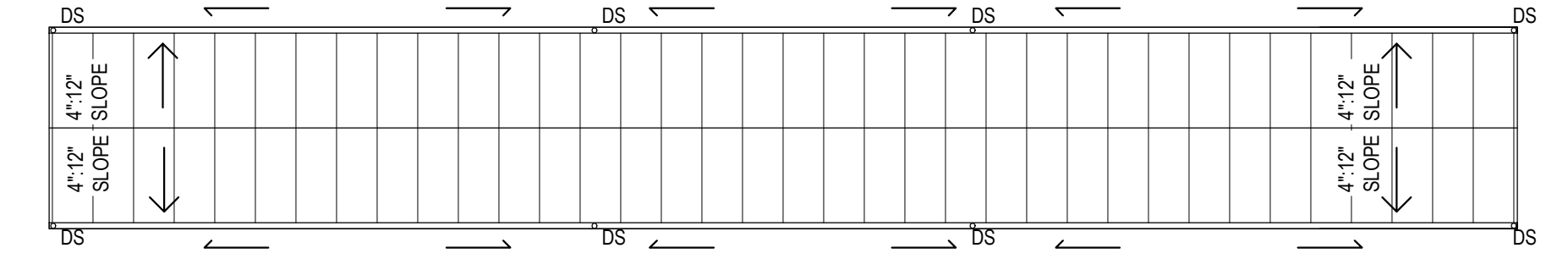
**CLUBHOUSE
 FLOOR PLAN**

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Sheet Name: 9/24/2013 12:11:41 PM



1 CLUBHOUSE ROOF PLAN
A2.1 1/8" = 1'-0"



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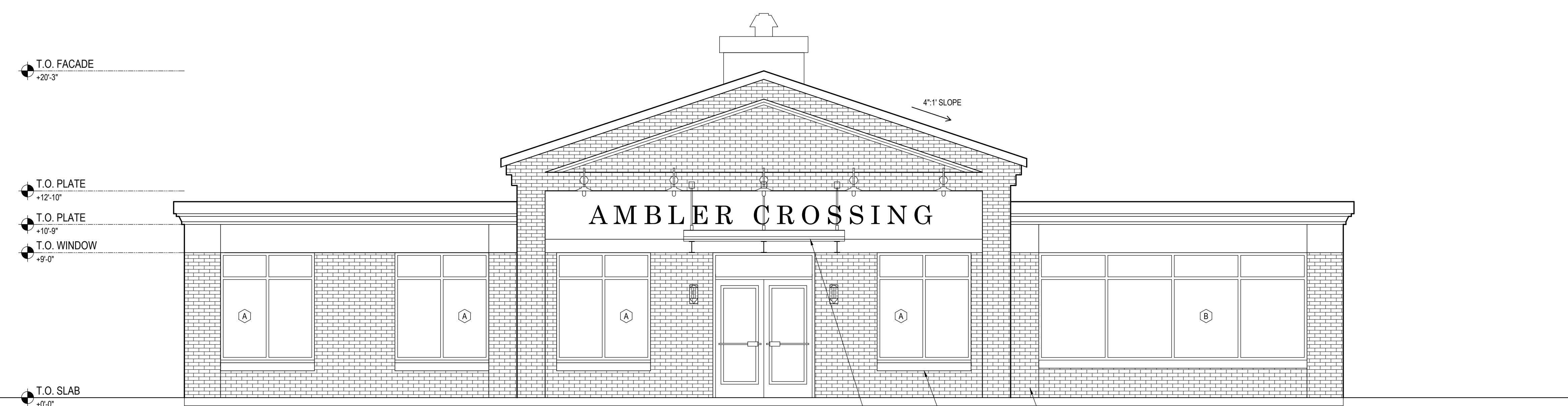
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1120	MAR-AD	GEN	9/23/2013
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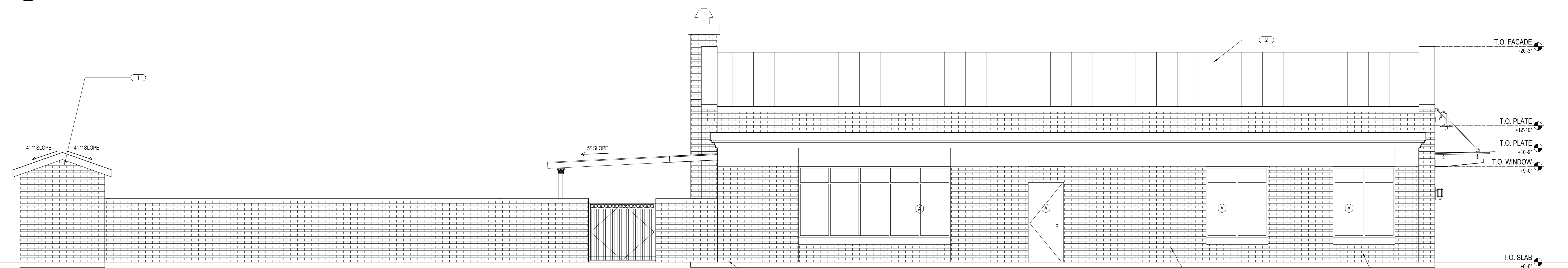
CLUBHOUSE ROOF PLAN

A2.1

11/24/2013 12:12:28 PM
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1
 NORTH EAST FACADE
 A3.1
 1/4" = 1'-0"



2
 SOUTH EAST FACADE
 A3.1
 1/4" = 1'-0"



4
 NORTH WEST FACADE
 A3.1
 1/4" = 1'-0"

EXTERIOR FINISH SCHEDULE	
1	BRICK
2	STANDING BEAM ROOF
3	CAST STONE SILL
4	6" ALUMINUM BLACK FENCE
5	EXTERIOR TRIM
6	GLASS & STEEL CANOPY

* COLOR TO BE SELECTED BY ARCH.
 * REFER TO A7.0 SERIES FOR WINDOW, STOREFRONT, AND DOOR DTLS.
 * METAL LOUVER DIMENSIONS TO BE COORDINATED W/ MESH.

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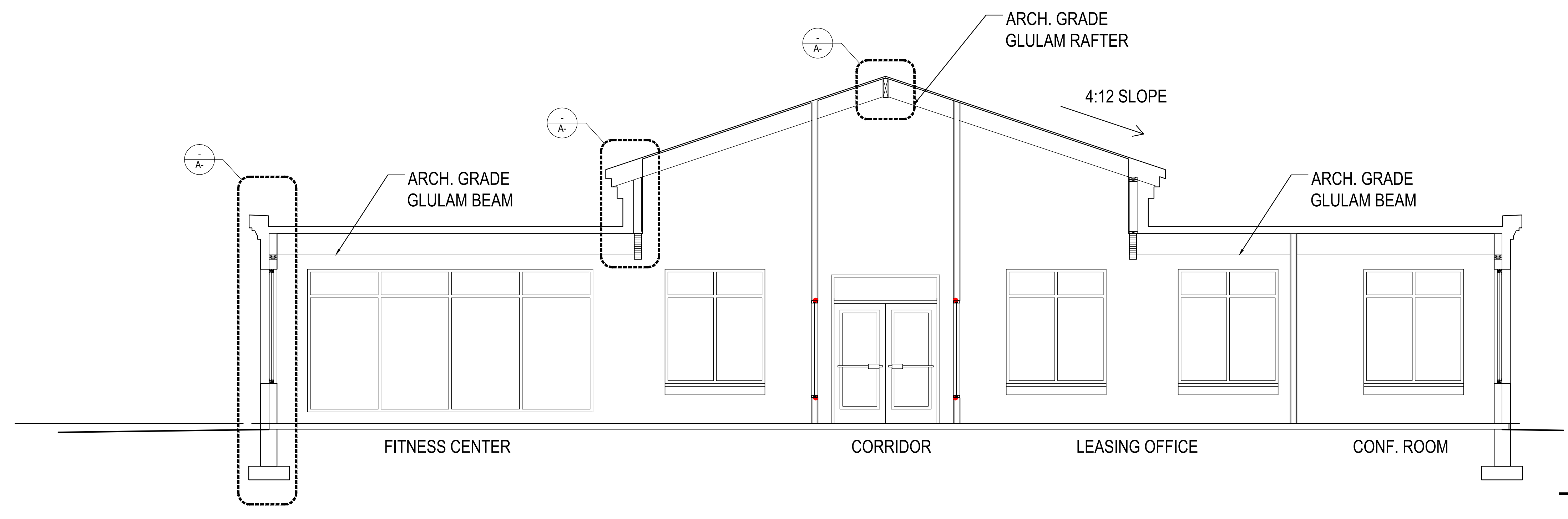
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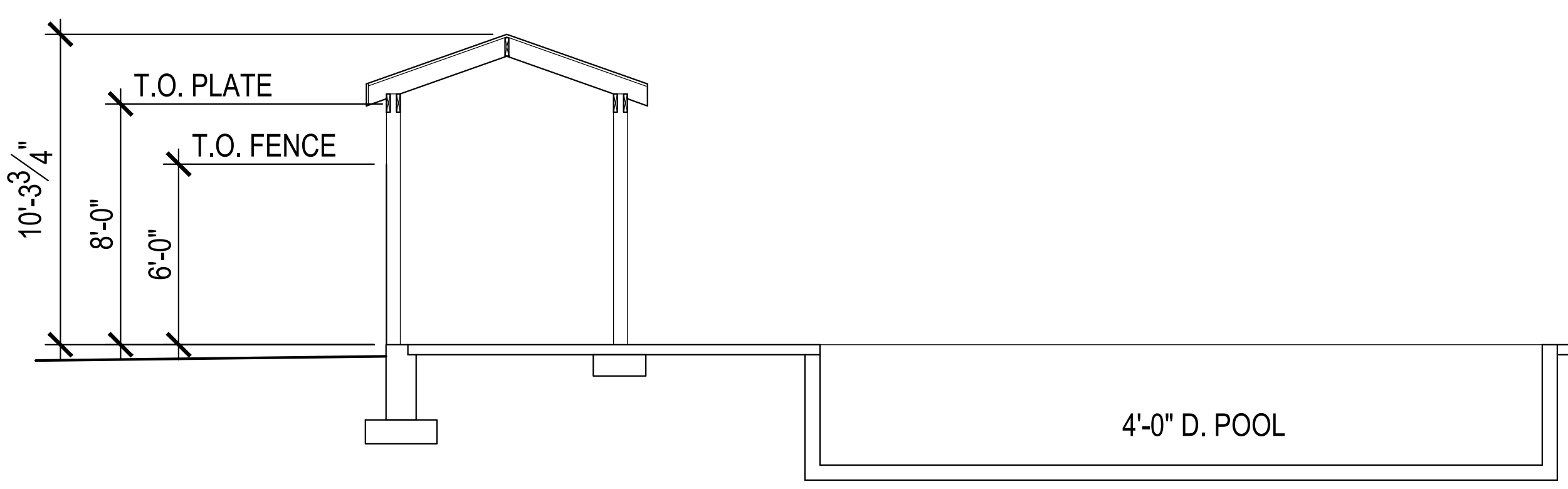
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REVISIONS			

**CLUBHOUSE
 ELEVATIONS**

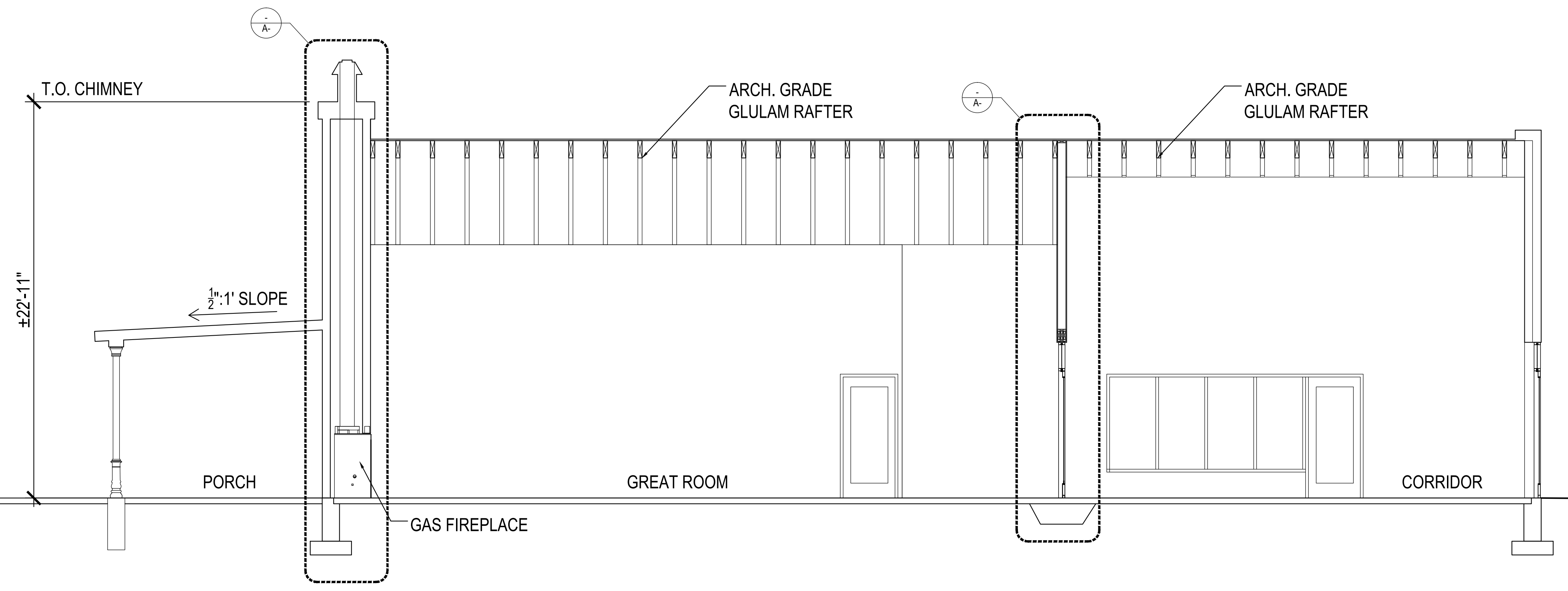
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3 CROSS SECTION - NORTH
 A4.1 1/4" = 1'-0"



2 CROSS SECTION - WEST
 A4.1 1/4" = 1'-0"



1 CROSS SECTION - SOUTH
 A4.1 1/4" = 1'-0"

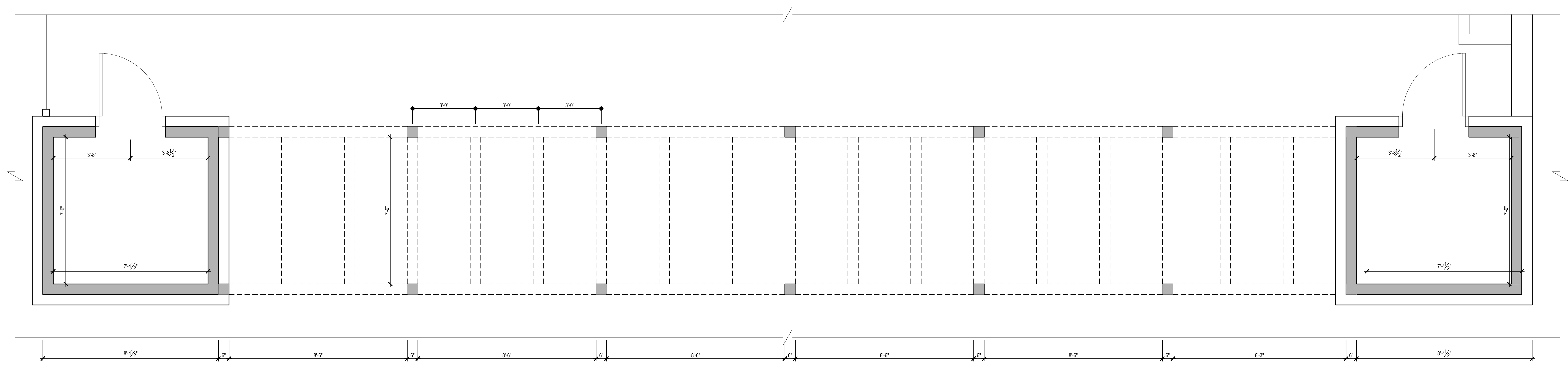
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CLUBHOUSE SECTIONS



1 ENLARGED STORAGE AND PUMP ROOM PLAN
 A7.3 1/2" = 1'-0"

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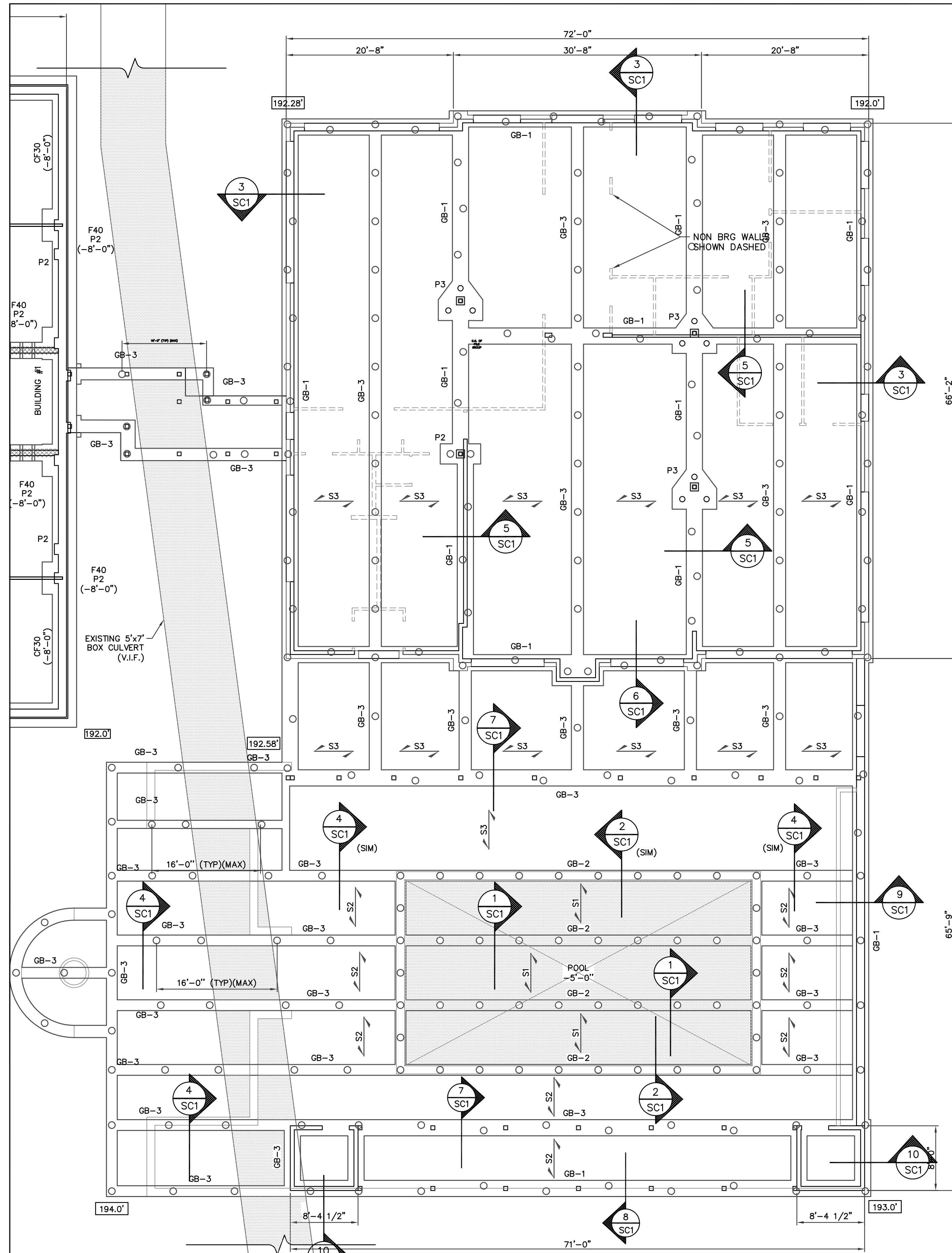
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	AM	GEN	9/22/2013
REVISIONS			

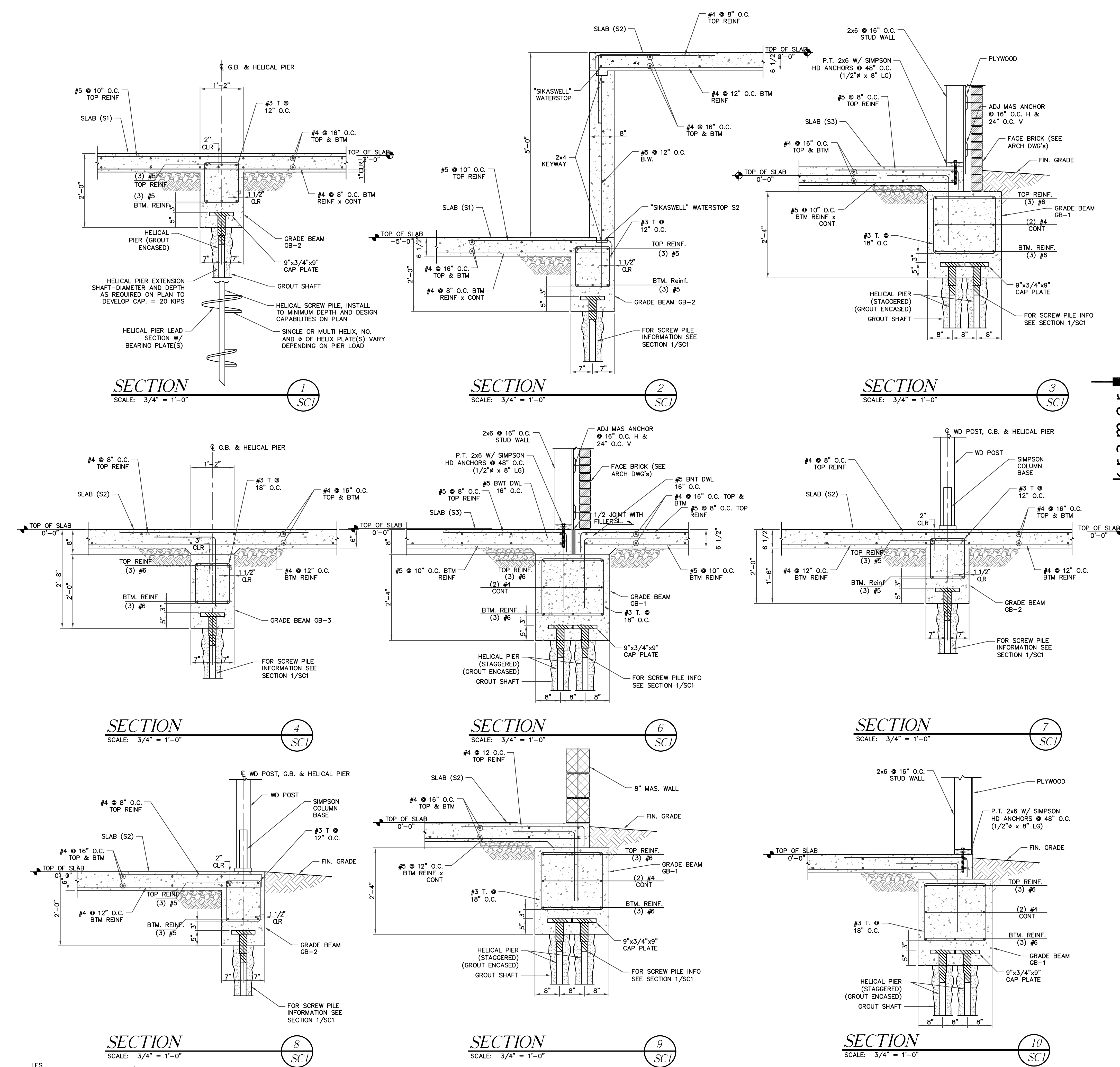
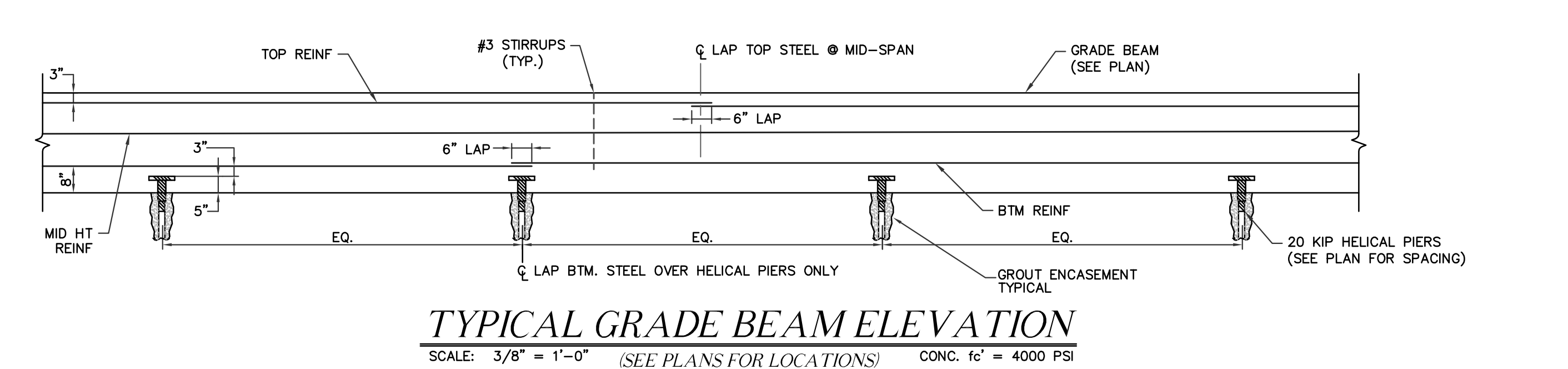
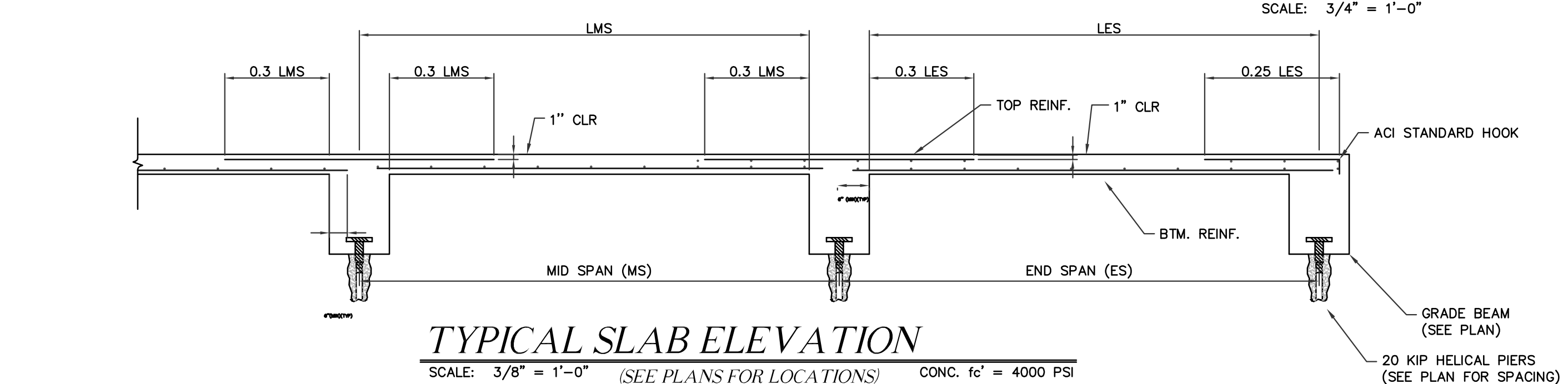
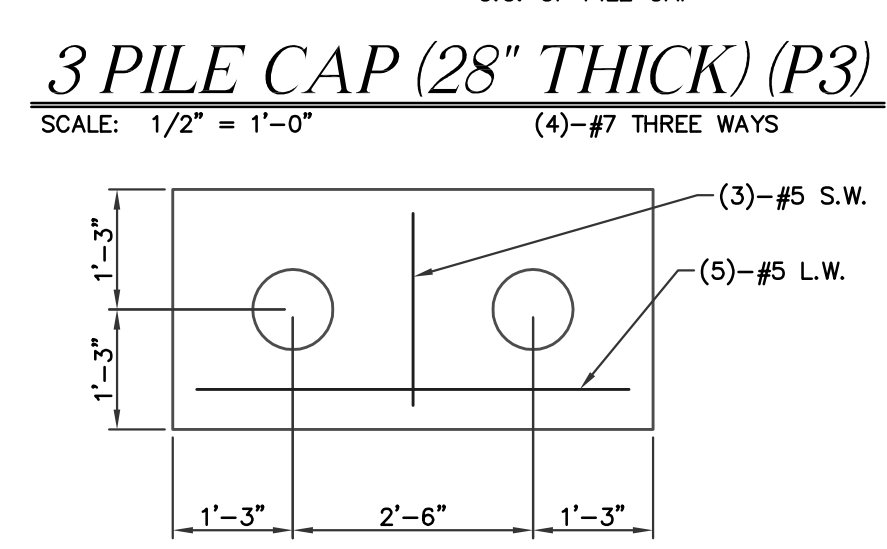
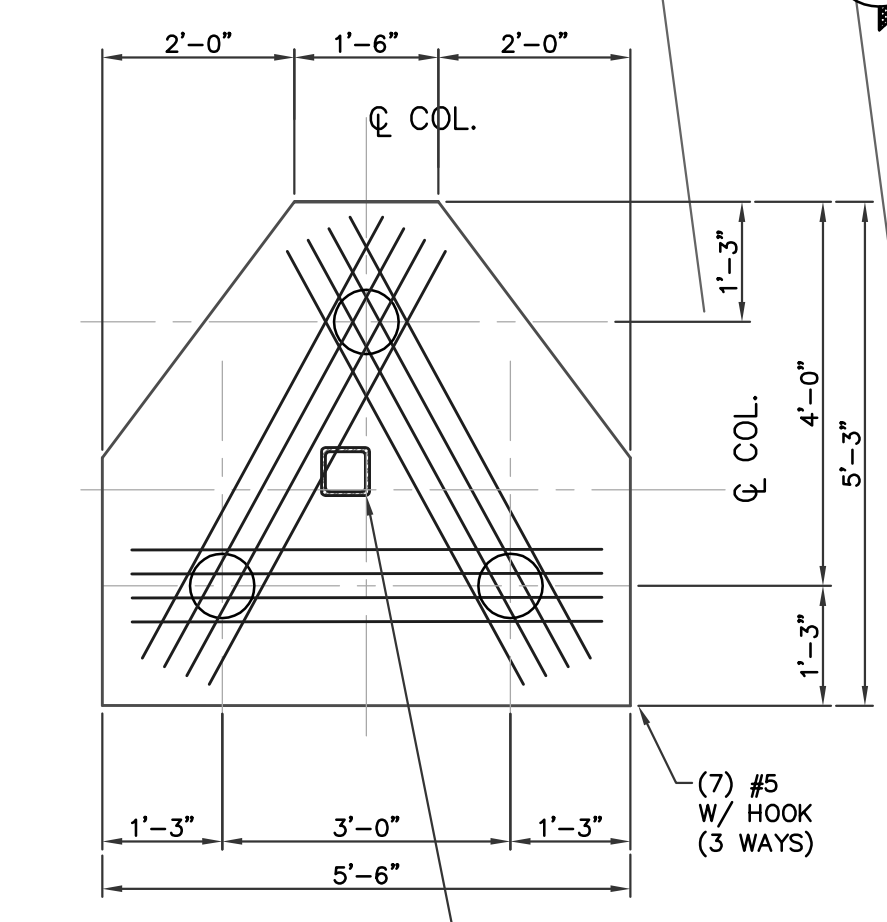
ENLARGED POOL
 BUILDING PLAN

A7.3



FOUNDATION PLAN (BUILDING #3)
SCALE: 1/8" = 1'-0"

- NOTES:
1. FINISH FLOOR ELEVATIONS = -0'-0" (REF 192.50').
 2. GC TO COORDINATE FOUNDATIONS W/ ALL RECOMMENDATIONS OUTLINED IN THE SOILS REPORT BY EARTH ENGINEERING INC.
 3. GC TO COORDINATE ALL UNDER SLAB UTILITIES AND EXISTING BOX CULVERT.
 4. () DENOTES FIN. GRADES, COORDINATE W/ CIVIL DWGS.
 5. CONCRETE FC' 4000 PSI



GRADE BEAM SCHEDULE

MARK	SIZE	REINF.	TIES
GB-1	2'-0" x CONT. x 2'-4" D.	(3) #6 T & B	#3 @ 18" OC
GB-2	1'-2" x CONT. x 2'-0" D.	(3) #5 T & B	#3 @ 12" OC
GB-3	1'-2" x CONT. x 2'-0" D.	(3) #6 T & B	#3 @ 12" OC

SLAB SCHEDULE

MARK	SIZE	THICKNESS	T-S
S1	#5 @ 10" OC TOP REINF.	6 1/2"	#4 @ 16" OC
S2	#4 @ 8" OC TOP REINF.	6 1/2"	#4 @ 16" OC
S3	#5 @ 8" OC TOP REINF.	7 1/2"	#4 @ 16" OC

NOT FOR CONSTRUCTION
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THIS DRAWING MUST BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS

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CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE PROCEEDING WITH ANY WORK AND SHALL BE RESPONSIBLE FOR SAME.
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ELTON & THOMPSON, P.C.
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2815 JENKINTOWN ROAD, GLENDALE, PA 19038
Telephone: 215.576.6460 Fax: 215.576.6847
E-MAIL: DESIGN@ETENR.COM

WILLIAM D. ELTON, PROFESSIONAL ENGINEER
PA LICENSE NUMBER 8164-E
FRANK C. THOMPSON, PROFESSIONAL ENGINEER
PA LICENSE NUMBER PE-050366-E

kramer marks

ARCHITECTURE: interior design planning
SEC. C: Bethsharon Patis, Architect, PA 10003
P: 215.654.7722 | 215.654.5533 | www.kramermarks.com

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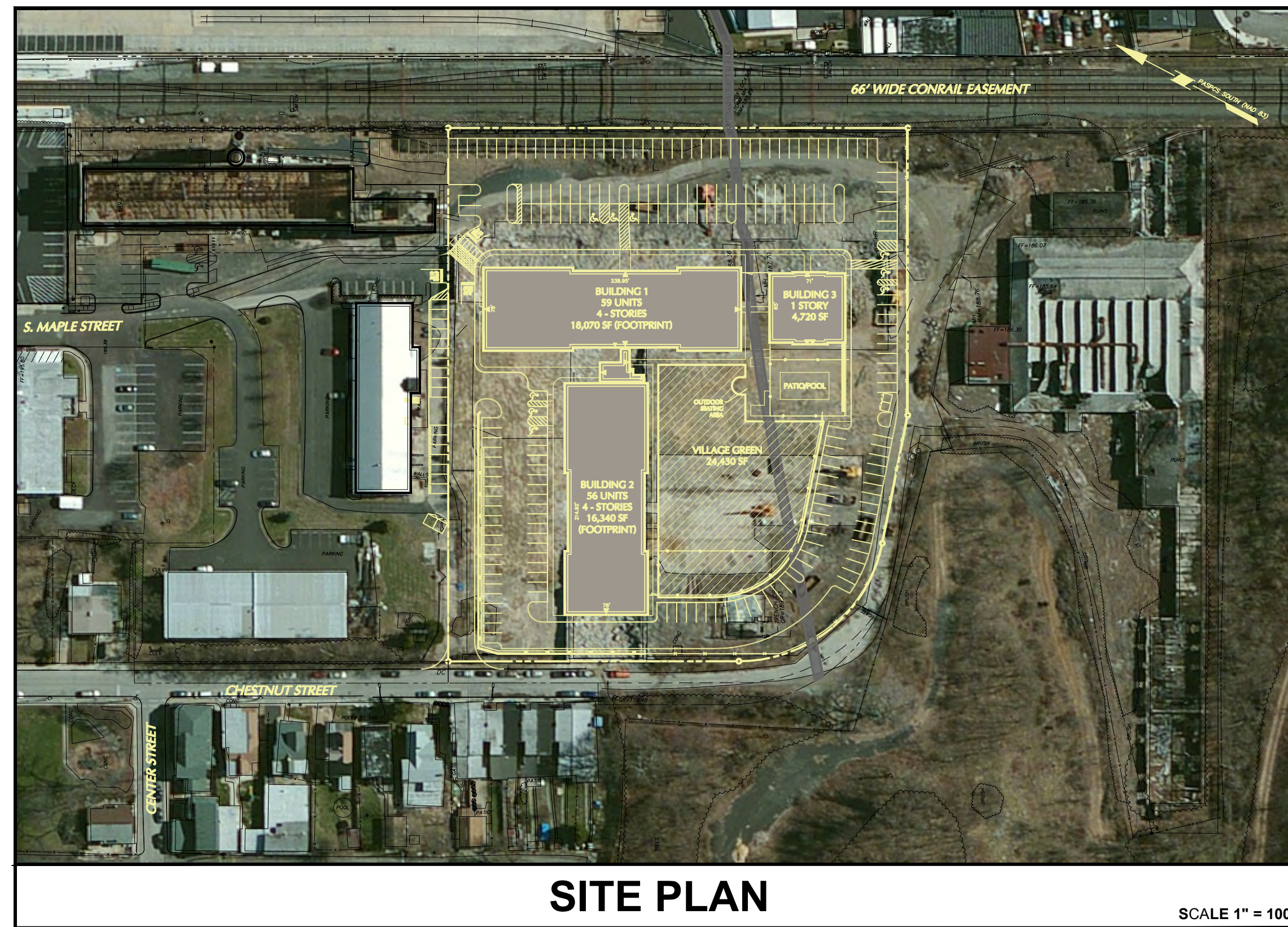
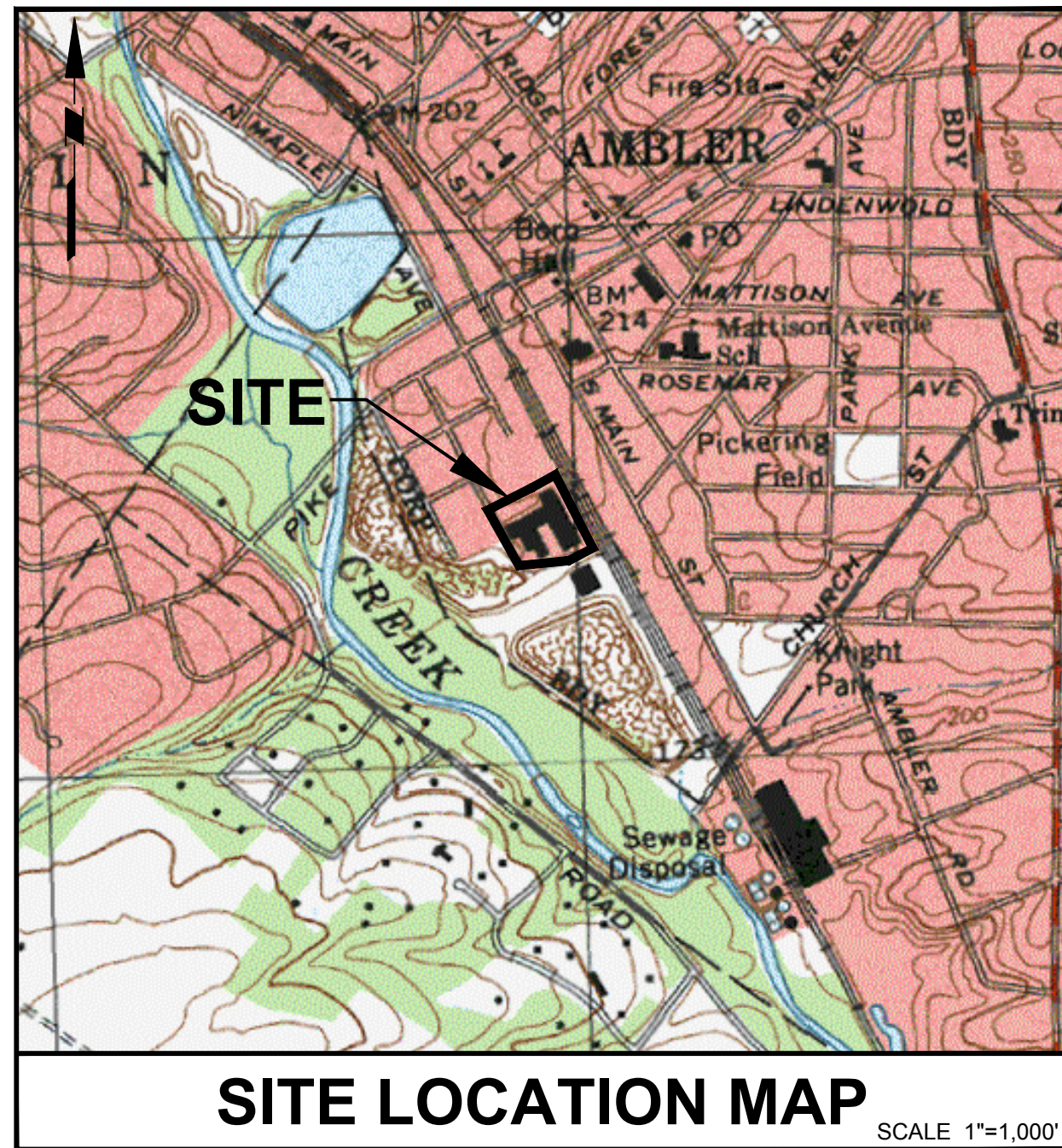
JOB #	DATE	ISSUE

FOUNDATION PLAN, SECTIONS & DETAILS

AMBLER CROSSINGS

BOROUGH OF AMBLER, MONTGOMERY COUNTY, PENNSYLVANIA

CONDITIONAL USE & PRELIMINARY / FINAL LAND DEVELOPMENT PLANS



REFERENCE: WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE. SOURCE OF AERIAL IMAGERY IS MICROSOFT FROM 2011. CREDITS: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA, USGS, AEX, GETMAPPING, AEROGRIID, IGN, IGP, AND THE GIS USER COMMUNITY

DRAWING LIST				
Page No.	Drawing No.	Drawing Title	Scale	Date Revised
1	GI-100	COVER SHEET	AS SHOWN	10/3/2013
2	GI-101	AERIAL MAP	1"=50'	10/3/2013
3	GI-102	EXISTING FEATURES PLAN	1"=80'	10/3/2013
4	CS-101	SITE PLAN (RECORD PLAN)	1"=30'	10/3/2013
5	CS-501	CONSTRUCTION DETAILS	N.T.S.	10/3/2013
6	CS-502	CONSTRUCTION DETAILS	N.T.S.	10/3/2013
7	CS-503	CONSTRUCTION DETAILS	N.T.S.	10/3/2013
8	CS-601	FIRE TRUCK TURN PLAN	N.T.S.	10/3/2013
9	CS-701	GREEN SPACE PLAN	1"=30'	10/3/2013
10	CG-101	GRADING PLAN	1"=30'	10/3/2013
11	CG-201	DRAINAGE PLAN	1"=30'	10/3/2013
12	CG-501	DRAINAGE DETAILS	N.T.S.	10/3/2013
13	CG-502	DRAINAGE DETAILS	N.T.S.	10/3/2013
14	CG-503	DRAINAGE DETAILS	N.T.S.	10/3/2013
15	PCSM-101	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN	1"=30'	10/3/2013
16	PCSM-501	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS	N.T.S.	10/3/2013
17	CU-101	UTILITY PLAN	1"=30'	10/3/2013
18	CU-501	UTILITY DETAILS	N.T.S.	10/3/2013
19	CU-502	UTILITY DETAILS	N.T.S.	10/3/2013
20	CU-601	DRAINAGE AND UTILITY PROFILES	AS SHOWN	10/3/2013
21	CU-602	DRAINAGE AND UTILITY PROFILES	AS SHOWN	10/3/2013
22	LP-101	LANDSCAPE PLAN	1"=30'	10/3/2013
23	LP-501	LANDSCAPE NOTES AND DETAILS	N.T.S.	10/3/2013
24	LT-101	SITE LIGHTING PLAN	1"=30'	10/3/2013
25	LT-501	SITE LIGHTING NOTES AND DETAILS	N.T.S.	10/3/2013

SUPPLEMENTAL DRAWING: MAP OF BOUNDARY AND TOPOGRAPHIC SURVEY, DRAWING No. 1.01, BY LANGAN ENGINEERING

CONTACTS

SEWER COLLECTION ENGINEER Gilmore & Associates Inc. 331 Butler Avenue New Britain, PA 18901 215-345-4330	BOROUGH ENGINEER Gilmore & Associates Jim Dougherty 350 Butler Ave New Britain, PA 18901 215-345-4330
SEWER TREATMENT ENGINEER Environmental Engineering & Management Associates, Inc. P.O. Box 232 Kulpsville, PA 19443 215-368-3375	BOROUGH HALL 122 East Butler Avenue Ambler, PA 19002 215-646-1000
ELECTRIC AND GAS PECCO Customer Service Center 2301 Market Street P.O. Box 8699 Philadelphia, PA 19101 Customer service inquiries call: 1-800-494-4000 Gas or electric emergency call: 1-800-841-4141	SEWER AND WATER SERVICE Borough of Ambler 122 East Butler Avenue Ambler, PA 19002-4476 215-628-9457 215-628-0142 Fax

APPLICANT / EQUITABLE OWNER:

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
 201 S. MAPLE AVENUE, SUITE 100
 AMBLER, PA 19002
 P: (484)532-7830

RECORD OWNER:
 MAPLE AVE PARK PARTNERS, LLP
 110 SPRUCE ROAD
 AMBLER, PA 19002
 P: (484)532-7830

ENGINEER & SURVEYOR

LANGAN
 Phone: 610.984.8500 Fax: 610.984.8501
 One West Broad Street
 Suite 200
 Bethlehem, PA 18018
www.langan.com

GENERAL SITE NOTES:

- These plans represent the overall sitework improvements required for project construction. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor shall be solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor shall be responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
- The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner makes no guarantee in regard to the accuracy of any available information which was obtained during investigations. The Contractor shall make a thorough site inspection in order to field check existing site conditions, correlate conditions with the drawings and resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall make additional topographic surveys he deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or claims against the contract duration, or any other claims against the Owner or Owner's Engineer.
- The Contractor shall, when they deem necessary, provide written Requests for Information (RFIs) to the Owner and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and Engineer and shall allow for a minimum of two work days or additional reasonable time for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
- Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to construction. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to construction.
- There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
- Construction activities are planned to start in the Spring of 2014 with final stabilization occurring in the Fall of 2015. Construction activities will commence once all applicable permits and approvals have been obtained.

ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION. TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

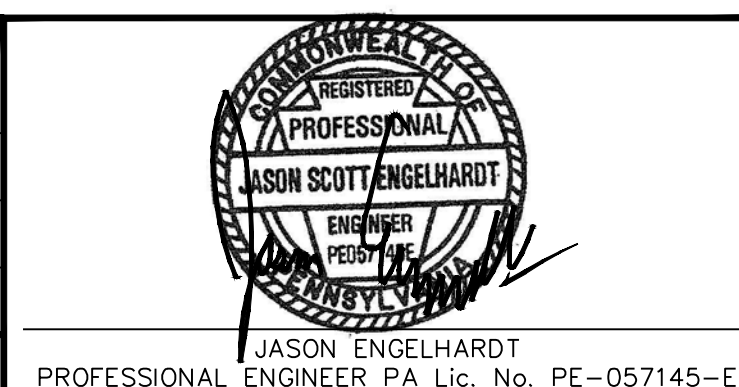
CALL BEFORE YOU DIG IT!
 PENNSYLVANIA LAW REQUIRES
 (1) WORKING DAYS NOTICE FOR
 CONSTRUCTION PHASE AND
 (10) WORKING DAYS IN DESIGN STAGE
 - STOP & CALL -

Pennsylvania One Call System, Inc.
 1-800-242-1776



SERIAL NUMBER 2935617

Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.
Date	Description	No.
REVISIONS		



Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
COVER SHEET

Project No.	240025501	Drawing No.	
Date	4-9-13		
Scale	AS SHOWN		GI-100
Drawn By	JDM		
		Sheet 1 of 25	

SUBMISSION DATE: 2013-10-03

PROJECT No. 240025501

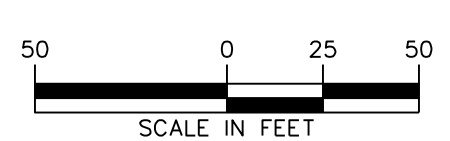
2013-10-03



APPLICANT / EQUITABLE OWNER:
 AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
 201 S. MAPLE AVENUE, SUITE 100
 AMBLER, PA 19002
 P: (484)532-7830

RECORD OWNER:
 MAPLE AVE PARK PARTNERS, LLP
 110 SPRUCE ROAD
 AMBLER, PA 19002
 P: (484)532-7830

REFERENCE: WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE. SOURCE OF AERIAL IMAGERY IS MICROSOFT FROM 2011. CREDITS: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA, USGS, AEX, GETMAPPING, AERGRID, IGN, IGP, AND THE GIS USER COMMUNITY



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.
REVISIONS		

JASON ENGELHARDT
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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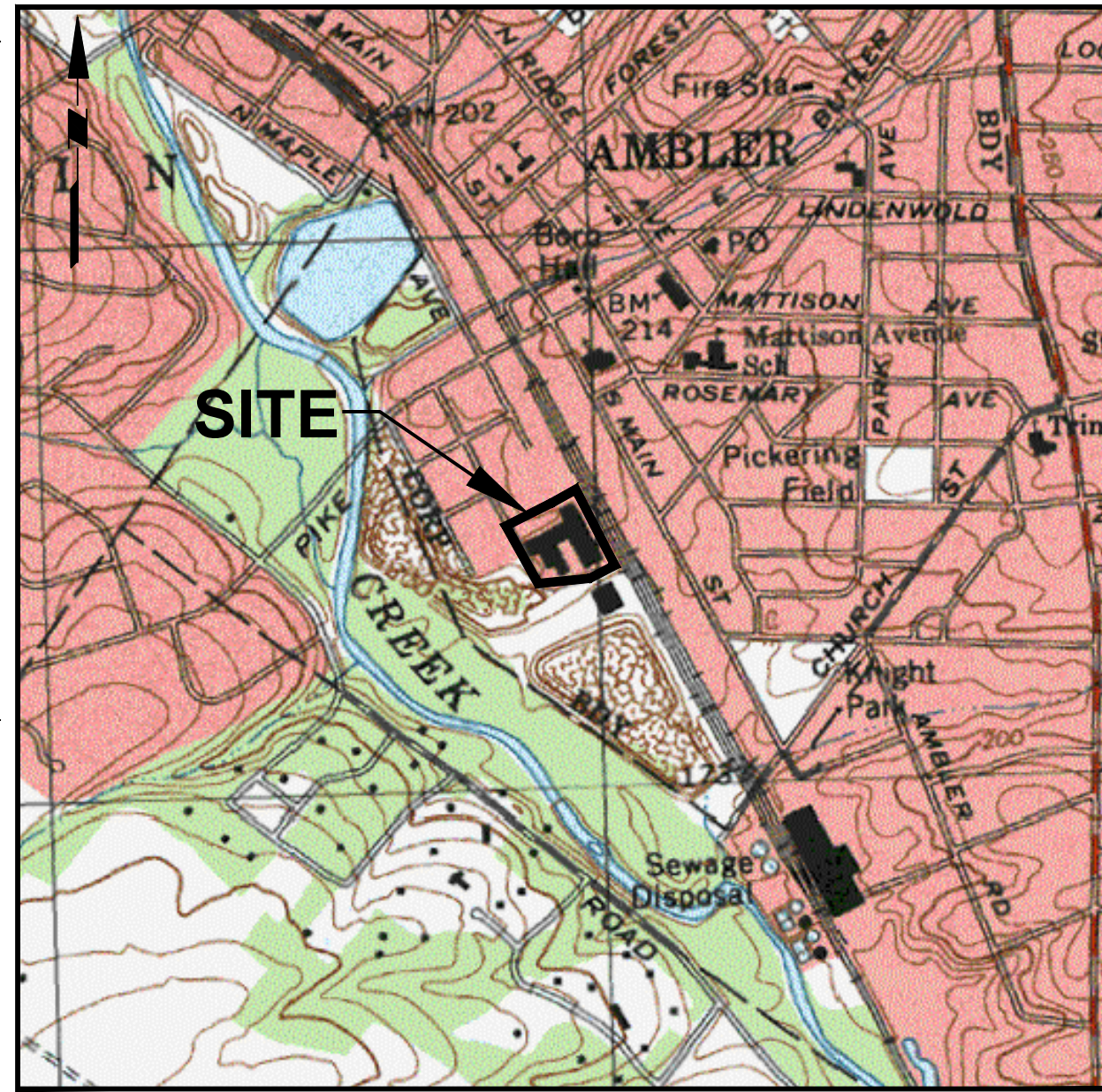
NEW JERSEY NEW YORK VIRGINIA CALIFORNIA
 PENNSYLVANIA CONNECTICUT FLORIDA
 ABU DHABI ATHENS DOHA
 DUBAI ISTANBUL

Langan Engineering, Environmental, Planning and Architecture, D.P.C.
 Langan Engineering and Construction Services, Inc.
 Langan International LLC
 Collectively known as Langan

Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
AERIAL MAP

Project No.	240025501	Drawing No.	GI-101
Date	4-9-13		
Scale	1"=50'		
Drawn By	JDM		
			Sheet 2 of 25



SITE LOCATION MAP SCALE 1"=1,000'

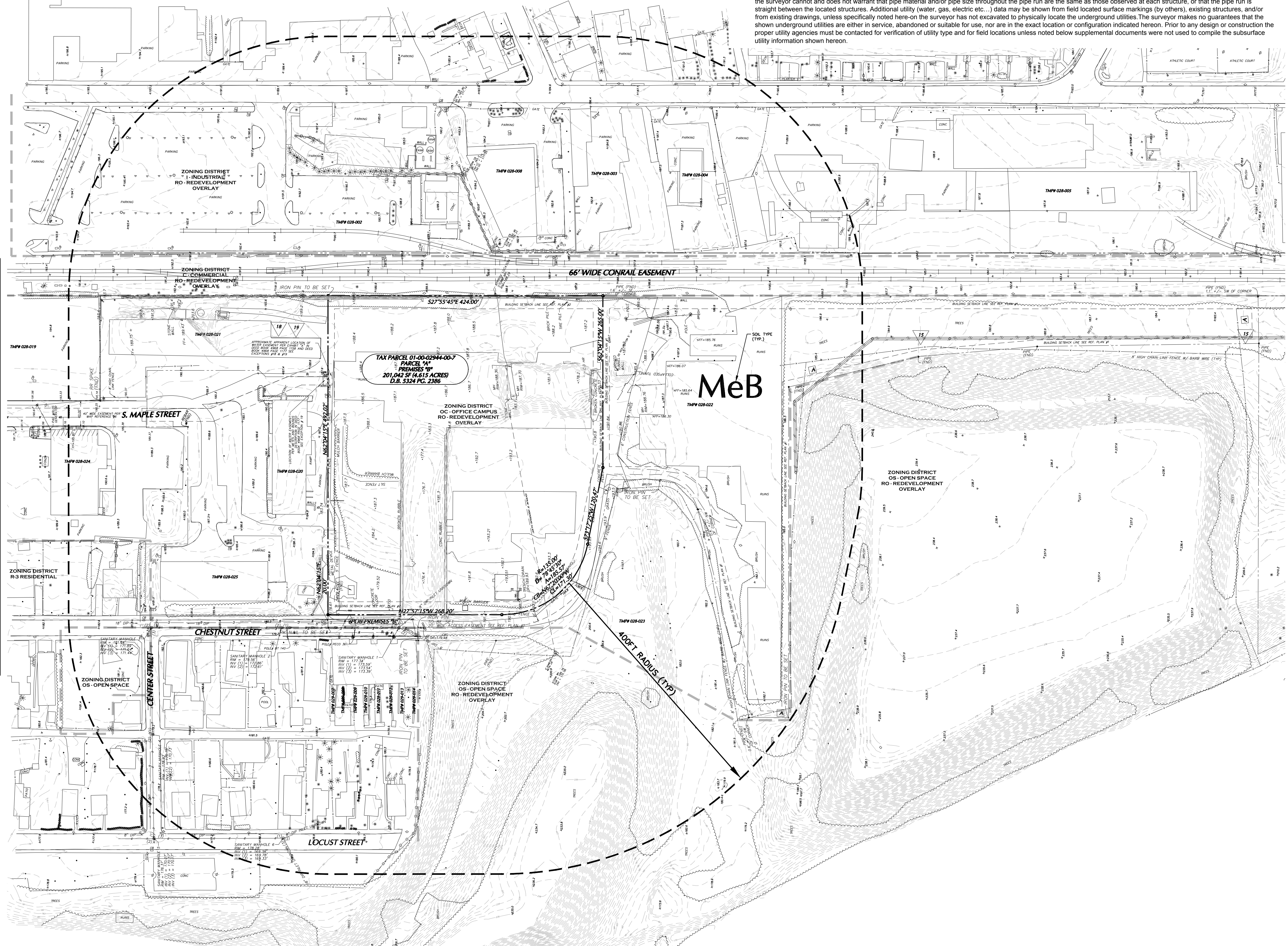
AMBLER BOILER HOUSE SOIL TYPE DESCRIPTIONS AND LIMITATIONS					
Map Symbol	Soil	Hydrogeological Soil Group	Depth to Seasonally High Water Table (ft)	Depth to Bedrock (ft)	Soil Limitations
MeB	Man made, Shale and Sandstone Materials, Sloping	C	variable	variable	Variate Conditions, Possible Seasonal High water table

Notes: 1. For areas where seasonal high water table is a limitation, ponded water shall be pumped through a "fiber bag" or to the sediment basin/trap.

- GENERAL NOTES:**
- This property is subject to all easements and restrictions as shown herein.
 - Location of above ground utilities as shown.
 - No certification is made by the undersigned as to the actual underground position of any utilities or to the completeness and / or accuracy of utility information provided by others.
 - Boundary and topographic information shown hereon based on the plan entitled Map of Boundary and Topographic Survey, performed by Langan Engineering and Environmental Services, dated March 2012. Vertical reference datum based on NAVD 88, derived by GPS methods. Horizontal reference datum based on PASPCS South Zone (NAD 83) derived by GPS methods.
 - It is imperative that the utility companies are notified prior to any excavation and / or construction. Call 1-800-242-1776 to order utility mark outs.
 - Pennsylvania ONECALL Serial No. 2935617.
 - Onsite soils are MeB - (Manmade shale and sandstone materials, sloping). Depth to seasonally high water table, depth to bedrock and texture vary. (Source - Montgomery County Soil Survey)
 - Zoning District boundaries were taken from the Amber Borough Zoning District Map, Montgomery County, Pennsylvania, Dated May 2008.
 - Unless specifically noted hereon, storm and sanitary sewer information (including pipe invert, pipe material, and pipe size) was observed and measured at field located structures (manholes/catch basins, etc.). Conditions can vary from those encountered at the times when and locations where data is obtained. Despite meeting the required standard of care the surveyor cannot and does not warrant that pipe material and/or pipe size throughout the pipe run are the same as those observed at each structure, or that the pipe run is straight between the located structures. Additional utility (water, gas, electric, etc.) data may be shown from field located surface markings (by others), existing structures, and/or from existing drawings, unless specifically noted hereon the surveyor has not excavated to physically locate the underground utilities. The surveyor makes no guarantees that the shown underground utilities are either in service, abandoned or suitable for use, nor are in the exact location or configuration indicated hereon. Prior to any design or construction the proper utility agencies must be contacted for verification of utility type and for field locations unless noted below supplemental documents were not used to compile the subsurface utility information shown hereon.

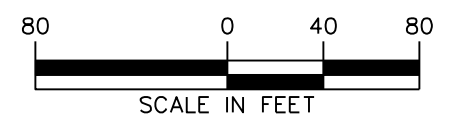
ADJOINING PROPERTY OWNERS					
TMP NUMBER	OWNER	DEED-PAGE NUMBER	TMP NUMBER	OWNER	DEED-PAGE NUMBER
028 001	MAPLE AVENUE PARK PARTNERS LLP 110 SPRUCE ROAD AMBLER, PA 19002	4904-02060	028 025	JEFFERSON JOHN, JSTEPHENS-JEFFERSON SALLY PO BOX 370 AMBLER PA 19002 OFFICE CAMPUS	5778-917
028 002	SEPTA RR DIV 152 S MAIN STREET AMBLER, PA 19002-4718 COMMERCIAL	0576-00106	029 007	BILLMAN ROBERT A 214 S CHESTNUT STREET AMBLER, PA 19002-5509 RESIDENTIAL	4865-00134
028 003	GOLDKAMP DONALD & MICHAEL & MACK FRANK 186 S MAIN STREET AMBLER, PA 19002-4718 RESIDENTIAL	4794-00736	029 008	DUKERT DONALD A, JR & ANNE L 216 S CHESTNUT STREET AMBLER, PA 19002-5509 RESIDENTIAL	5041-01058
028 004	MELOGRANA F, DAVIDO & NANCY 188 S MAIN STREET AMBLER, PA 19002-4718 RESIDENTIAL	5253-01862	029 009	CLOSS DIANE N 218 S CHESTNUT STREET AMBLER, PA 19002-5509 RESIDENTIAL	5288-00654
028 008	D, AMAN PROPERTIES INC. 180 S MAIN STREET AMBLER, PA 19002-4718 COMMERCIAL	5320-01085	029 010	FORTE JOSEPH 220 S CHESTNUT ST AMBLER, PA 19002-5509 RESIDENTIAL	4983-01110
028 019	AMBLER STATION ASSOCIATES 100 W MILLER AVE AMBLER PA 19002 OFFICE CAMPUS	5719-01475	029 011	COLELLI DOMENICO & ANGELINA 222 S CHESTNUT STREET RESIDENTIAL	3212-00060
028 020	MAPLE WAY PARTNERS LP 224 S MAPLE WAY AMBLER PA 19002 OFFICE CAMPUS	5856-00952	029 012	WASNIEWSKI CHESTER S. & ROSE C. 224 S CHESTNUT STREET RESIDENTIAL	3295-00631
028 021	AMBLER BM DEV PARTNERS LP 610 W GERMANTOWN PIKE #100 PLYMOUTH MEETING PA 19462 OFFICE CAMPUS	4904-02060	029 013	DUGAS ALLISON M. & JASON 226 S CHESTNUT STREET AMBLER, PA 19002-5509 RESIDENTIAL	5339-02088
028 022	AMERICAN MARKETING ASSOC INC 57 OLD POST RD #3RD GREENWICH CT 06830 OFFICE CAMPUS	5002-879	029 014	DUGAS DONALD D, DONNA 228 S CHESTNUT STREET AMBLER, PA 19002-5509 RESIDENTIAL	4944-017321
028 023	NICOLET IND INC, ELAINE MASTERS CHESTNUT STREET AMBLER, PA 19002-5509 INDUSTRIAL		028 024	BAST ROBERT L & BEATRICE W 110 SPRUCE RD AMBLER PA 19002 OFFICE CAMPUS	5027-01781

LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
CLUMP LINE	EXISTING CONTOUR
EXISTING EDGE OF PAVEMENT LINE	PROPOSED CONTOUR
PROPOSED BUILDING LINE	EXISTING SPOT ELEVATION
PROPERTY LINE	PROPOSED SPOT ELEVATION
LOT LINE	TOP OF WALL ELEVATION
IRON PIN TO BE SET	BOTTOM OF WALL ELEVATION (AT GROUND SURFACE)
CONCRETE MON. TO BE SET	
MUDDLE FENCE	
WROUGHT IRON FENCE	
RETAINING WALL	
PROPOSED QUADRAL	
GRADING/ACCESS EASEMENT	
UTILITY EASEMENT	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
EXISTING GAS MAIN	EXISTING GAS VALVE
EXISTING WATER MAIN	EXISTING CATCH BASIN
EXISTING OVERHEAD ELECTRIC	EXISTING WATER VALVE
PROPOSED STORM SEWER	EXISTING MANHOLE
PROPOSED SANITARY SEWER	EXISTING ELECTRIC POLE
PROPOSED WATER MAIN	PROPOSED WATER VALVE
PROPOSED ELECTRIC	PROPOSED HYDRANT



APPLICANT / EQUITABLE OWNER:
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 P: (484)532-7830

RECORD OWNER:
 MAPLE AVE PARK PARTNERS, LLP
 110 SPRUCE ROAD
 AMBLER, PA 19002
 P: (484)532-7830



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.
	REVISIONS	

JASON SCOTT ENGELHARDT
 REGISTERED PROFESSIONAL ENGINEER
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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 ABU DHABI ATHENS DOHA
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 Langan Engineering, Environmental, Surveying and Landbased Architecture, P.C.
 Langan International LLC
 Collectively known as Langan

Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No.	240025501	Drawing No.	GI-102
Date	4-9-13	Scale	1"=80'
Drawn By	JDM	Sheet	3 of 25

- RECORD PLAN NOTES & COVENANTS:**
- Boundary and topographic information shown hereon based on the plan entitled Map of Boundary and Topographic Survey, performed by Langan Engineering and Environmental Services, dated March 2012. Vertical reference datum based on NAVD 83, derived by GPS methods. Horizontal reference datum based on PASPCS South Zone (NAD 83) derived by GPS methods.
 - All proposed work is subject to township, FEMA, DEP and County Soil Conservation approvals.
 - All roads and storm sewers shall remain private and maintained by the property owner.
 - Monuments and pins to be set per Borough Requirements.
 - Traffic signs shall be in accordance with the "PennDot Guidelines for Local Roadways."
 - All underground utilities shall be designed and installed according to design standards listed in the Borough of Ambler Subdivision and Land Development Ordinance (BA SALDO).
 - A blanket stormwater easement over the entire property for inspection and maintenance of stormwater features is offered for dedication to the Borough of Ambler.
 - Sign type, size and detail to be submitted with zoning application following plan approval.
 - This property is subject to all easements and restrictions as shown herein.
 - This plan is not valid unless embossed with the seal of the undersigned professional (s).
 - Location of above ground utilities as shown. No certification is made by the undersigned as to the actual underground position of any utilities or to the completeness and / or accuracy of utility information provided by others.
 - It is required that the utility companies are notified prior to any excavation and / or construction. Call 1-800-242-1776 to order utility mark outs.
 - Subject Property will be served by public water and sanitary sewer.
 - The stormwater facilities (as shown on this plan) are a basic and perpetual plan of the storm drainage system of the Ambler Borough, and as such are to be protected and preserved in accordance with the approved final plan by the owner(s) on whose lands the structure(s) is(are) located. The Borough of Ambler and its agents reserve the right and privilege to enter upon such lands from time to time for the purpose of inspection of said structures in order to determine that the structural and design integrity are being maintained by the owner(s).
 - Subject Property's proposed use will not require regular delivery or shipping of goods, merchandise or equipment by semi-trailer truck.
 - All proposed utility services shall be placed underground.
 - Proposed open space areas shall be owned and maintained by the property owner per agreement with Borough. Open space land may not be separately sold, nor shall such land be further developed or subdivided.
 - A Knox box (key box) should be provided for all proposed buildings including the Recreation building. Location and specifications shall be coordinated with the Ambler Fire Department at the time of building permit application.
 - Bicycle racks will be located in the basements of Buildings #1 and #2.
 - Benches and trash receptacles will be placed in the pool area and the village green following construction after it is determined were residents congregate.
 - Curb sections shall be 10 feet in length except where shorter sections are required, but no section may be shorter than four feet. All curb shall be poured separate of the sidewalk. All curb, when poured, shall have an expansion joint between the curb and sidewalk.

- WAIVERS REQUESTED**
- §22-308.A - Plan Processing Procedures - The Applicant is requesting a waiver from the requirement to file preliminary and final plans separately, and is requesting that the preliminary and final plans be accepted and reviewed concurrently.
 - §22B-100.2.2.A - Planting Islands - A waiver is requested from the requirement to provide one landscaped island for every 10 parking spaces.
 - §22B-100.3 - Street Trees - The Applicant is requesting a waiver from the street tree planting requirement to permit the required street trees to be planted elsewhere onsite.

AMBLER BOROUGH ZONING DATA TABLE		
ZONING DISTRICT: REDEVELOPMENT OVERLAY DISTRICT - (TOD) TRANSPORTATION ORIENTED DEVELOPMENT		
ITEM	TAX MAP PARCEL: 01-00-02844-00-7	TOD (PROPOSED)
Zoning District:	TOD (REQUIRED)	TOD (PROPOSED)
Proposed Use:	MULTI-FAMILY RESIDENTIAL	MULTI-FAMILY RESIDENTIAL
Min. Lot Area:	8 AC.	4.815 AC. **
Max. Lot Area:	12 AC.	4.815 AC.
Lot Dimensions:		
Min. Lot Width:	100 FT	424 FT
Min. Lot Frontage on Active Passenger Rail:	1250 FT ²	424 FT **
Max Density:	35 DU/AC (162 DU.)	25 DU/AC (115 Total Units)
Building Setbacks / Coverage:		
Min. Front Yard Setback:	8 FT	42 FT
Min. Side Yard Setback:	20 FT ¹	32 FT
Min. Rear Yard Setback:	20 FT ¹	128 FT
Building Spacing: ²		
Corner to corner:	30 FT ³	N/A
Face to face:	40 FT	40 FT
Planting Buffer:	10 FT ³	10 FT
Max. Building Coverage:	50% of Lot Area	19.5%
Max. Impervious Coverage:	80% of Lot Area	72.9%
Max. Building Height:	65 FT +	< 65 FT
Max. Building Length:	250 FT +	323 FT **
Parking:		
Ratio:	1.5 Space/DU (173 Spaces)	216 *
Handicap Ratio:	1 HC Space / 25 Spaces (9 Spaces)	9

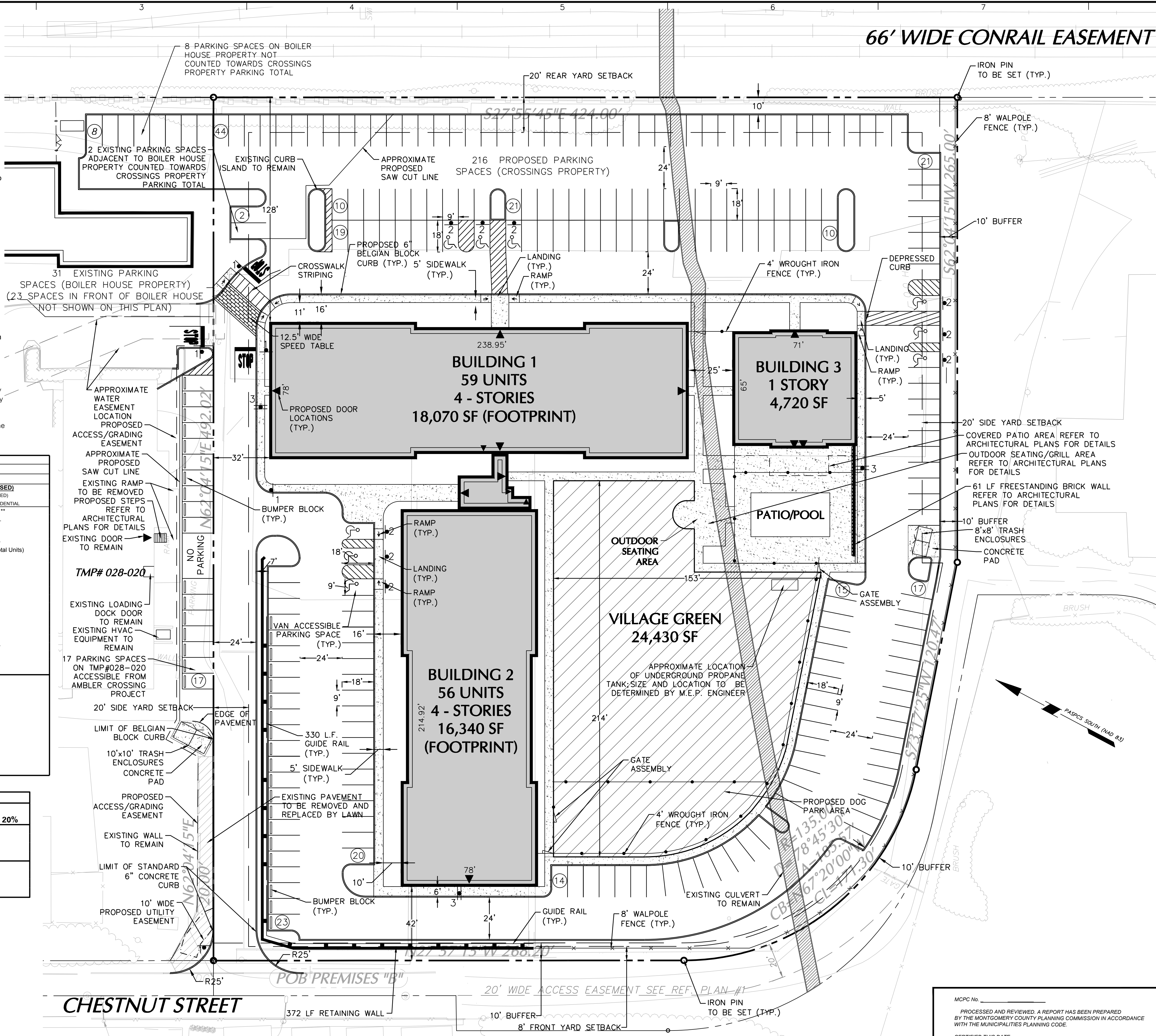
- NOTES:**
- ** Ordinance amendment proposed.
 - Side and Rear Yards adjacent to a railroad right-of-way may be reduced by 50%.
 - Corner to corner spacing shall be deemed controlling unless the angle of any face of one building to the angle of any face of any immediately adjoining building shall be less than 20 degrees.
 - All TOD Developments shall provide a permanent landscaped planting area of at least 10 feet (10') in depth along all property lines adjacent to existing residential uses.
 - The maximum length of any building used exclusively for multi-family residential use (excluding mixed-use buildings), shall be 250 feet.
 - Parking for residential units shall be provided at a rate of 1.5 spaces per unit over the entire residential portion of the TOD.
 - Minimum Lot Area can be reduced to 4 acres if the tract has frontage on public street of at least 750 feet.
 - Minimum Lot Frontage along active rail can be reduced to 750 feet if the tract has frontage on public street of at least 750 feet.
 - There are 216 parking spaces proposed on Ambler Crossings and 173 parking spaces are required. There are also 17 additional parking spaces proposed on TMP# 028-020 that are accessed by the Crossings project. 45 of the parking spaces on Ambler Crossings are shared with the Ambler Boiler House project.

OPEN SPACE CALCULATIONS			
LOCATION	AREA (S.F.)	AREA (AC.)	REQUIRED 20%
VILLAGE GREEN/PLAZA (1)	25,227	0.58	
RECREATION AREA (2)	14,646	0.34	
GREEN SPACE (3)	27,615	0.63	
TOTAL OPEN SPACE PROVIDED	67,488	1.55	34%

- A PORTION OF THE OPEN SPACE MUST CONTAIN A VILLAGE GREEN OR PLAZA. VILLAGE GREENS/PLAZAS MUST BE AT LEAST 20,000 SQUARE FEET AND HAVE AN AVERAGE WIDTH OF AT LEAST 100 FEET.
- RECREATION AREA INCLUDES COMMUNITY CENTER WITHIN THE LIMITS OF THE PROPOSED CURB LINE.
- GREEN SPACE AREA WAS CALCULATED USING ALL REMAINING PVIOUS AREAS EXCLUDING THE VILLAGE GREEN AREA.

SIGN LEGEND	
1	STOP
2	ACCESSIBLE PARKING
3	NO PARKING

LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
CURB LINE	EXISTING CONTOUR
EXISTING EDGE OF PAVEMENT LINE	PROPOSED CONTOUR
PROPOSED BUILDING LINE	EXISTING SPOT ELEVATION
PROPERTY LINE	PROPOSED SPOT ELEVATION
LOT LINE	TOP OF WALL ELEVATION
IRON PIN TO BE SET	BOTTOM OF WALL ELEVATION (AT 0.00)
CONCRETE MON. TO BE SET	
WALPOLE FENCE	
WROUGHT IRON FENCE	
RETAINING WALL	
PROPOSED GUIDELINE	
GRADING/ACCESS EASEMENT	
UTILITY EASEMENT	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
EXISTING GAS MAIN	EXISTING GAS VALVE
WATER MAIN	EXISTING CATCH BASIN
OVERHEAD ELECTRIC	EXISTING WATER VALVE
PROPOSED STORM SEWER	EXISTING MANHOLE
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PROPOSED WATER MAIN	PROPOSED WATER VALVE
PROPOSED ELECTRIC	PROPOSED HYDRANT
PROPOSED GAS	



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Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

JASON SCOTT ENGELHARDT
 REGISTERED PROFESSIONAL ENGINEER
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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 T: 610.984.8500 F: 610.984.8501 www.langan.com

AMBLER CROSSINGS
 AMBLER BOROUGH MONTGOMERY COUNTY PENNSYLVANIA

SITE PLAN (RECORD PLAN)

Project No.	240025501	Drawing No.	CS-101
Date	4-9-13	Scale	1" = 30'
Drawn By	JKM	Sheet	4 of 25

I HEREBY CERTIFY TO THE BOROUGH OF AMBLER THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF, THE SURVEY SHOWN ON THIS PLAN PERFORMED ON _____ (DATE) IS IN ACCORDANCE WITH THE "MINIMUM STANDARDS OF THE PROFESSIONAL LAND SURVEYORS MANUAL OF PRACTICE IN THE COMMONWEALTH OF PENNSYLVANIA", AS ADOPTED BY THE PENNSYLVANIA SOCIETY OF LAND SURVEYORS, BASED ON THE RECORDS PROVIDED BY THE TITLE REPORT # _____ ISSUED BY _____ ON _____

SHAUN HIGGINS
 PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-051088-E
 DATE _____
 SIGNATURE _____

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA, THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS HAS BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE AND IS TRUE AND CORRECT.

JASON ENGELHARDT
 PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E
 DATE _____
 SIGNATURE _____

OWNERS CERTIFICATION

I HAVE LAID OUT UPON MY LAND SITUATE IN THE BOROUGH OF AMBLER, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____ DAY OF _____ 20____

PRINTED NAME _____ SIGNATURE _____
 COMMONWEALTH OF PENNSYLVANIA
 COUNTY OF MONTGOMERY
 ON THE _____ DAY OF _____ 20____ BEFORE ME, THE
 SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,
 PERSONALLY APPEARED _____ WHO ACKNOWLEDGED
 HIMSELF TO BE THE
 A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED
 TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND
 PROPERTY SHOWN THEREON, SITUATE IN THE BOROUGH OF AMBLER, COUNTY
 OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS
 PLAN BE RECORDED ACCORDING TO LAW.
 WITNESS MY HAND AND SEAL, THE DAY AND YEAR FOREGOING.

NOTARY PUBLIC _____
 MY COMMISSION EXPIRES _____

APPROVED THIS _____ DAY OF _____ 20____ BY THE
 BOROUGH COUNCIL OF THE BOROUGH OF AMBLER, MONTGOMERY COUNTY, PA.

ATTEST: _____ SIGNATURE, PRESIDENT _____
 _____ DATE SIGNED _____

ATTEST: _____ SIGNATURE, SECRETARY _____
 _____ DATE SIGNED _____

SEAL: _____ DATE SIGNED _____
 (BOROUGH NOTARY SEAL)

REVIEWED THIS _____ DAY OF _____ 20____ BY THE
 PLANNING COMMISSION OF THE BOROUGH OF AMBLER, MONTGOMERY COUNTY, PA.

ATTEST: _____ SIGNATURE _____ DATE SIGNED _____

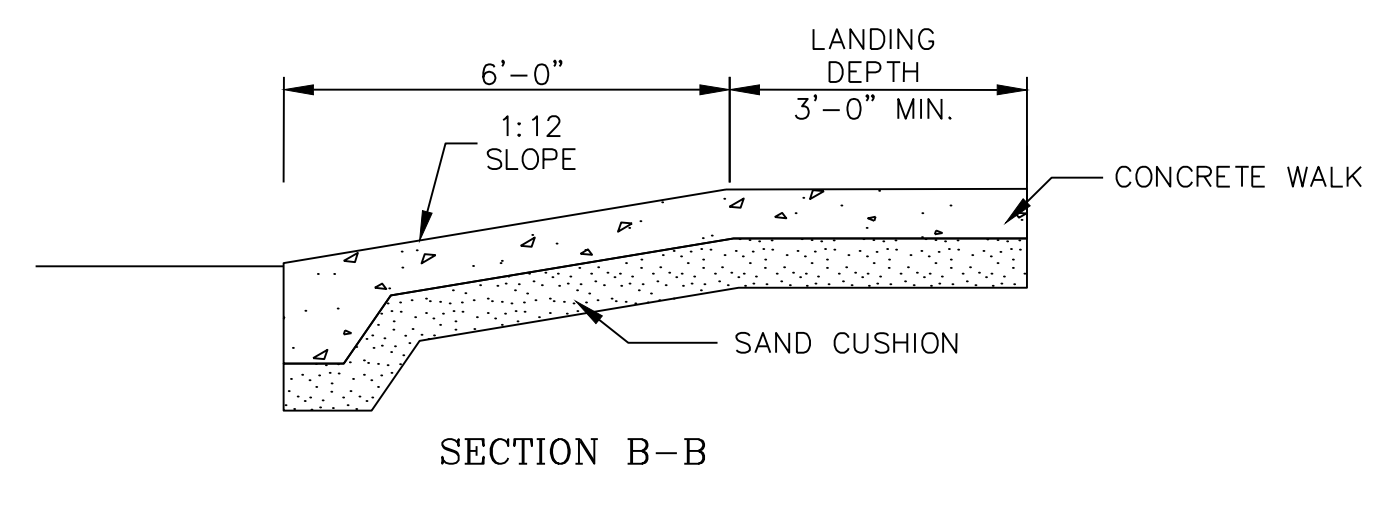
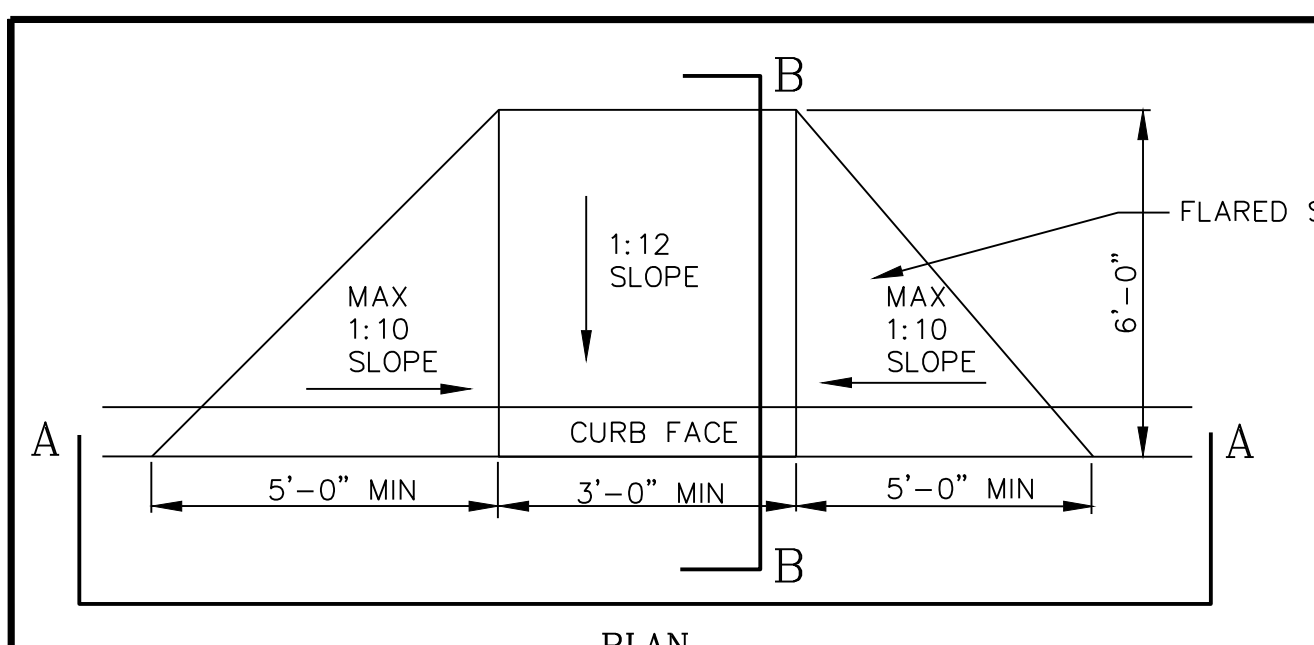
REVIEWED BY THE BOROUGH ENGINEER OF THE BOROUGH OF AMBLER,
 MONTGOMERY COUNTY, PA.

MCPC No. _____
 PROCESSED AND REVIEWED, A REPORT HAS BEEN PREPARED
 BY THE MONTGOMERY COUNTY PLANNING COMMISSION IN ACCORDANCE
 WITH THE MUNICIPALITIES PLANNING CODE.
 CERTIFIED THIS DATE _____
 MONTGOMERY COUNTY PLANNING COMMISSION FOR THE DIRECTOR

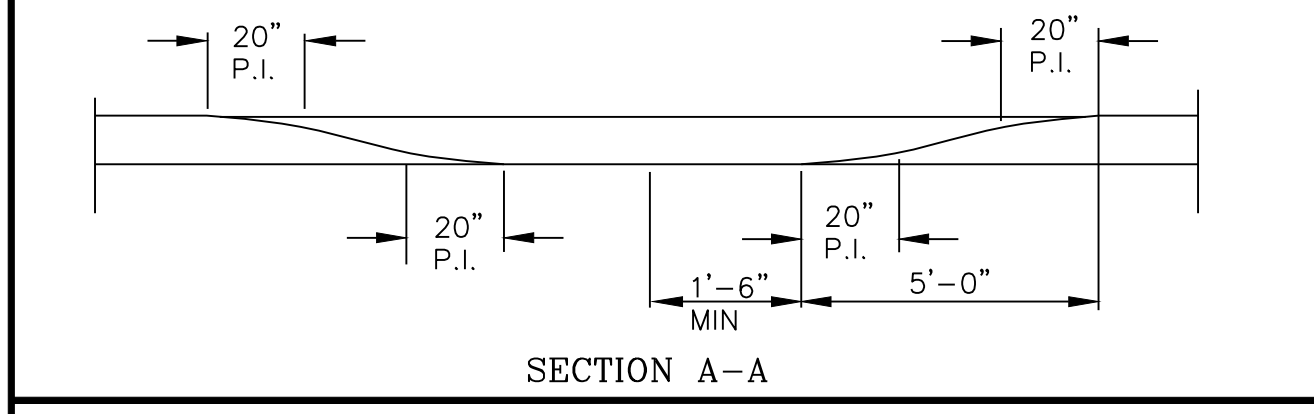
BOROUGH ENGINEER: _____ SIGNATURE _____ DATE SIGNED _____

RECORDED IN THE MONTGOMERY COUNTY COURT HOUSE THIS _____ DAY
 OF _____ 20____ IN PLAN BOOK _____ PAGE _____

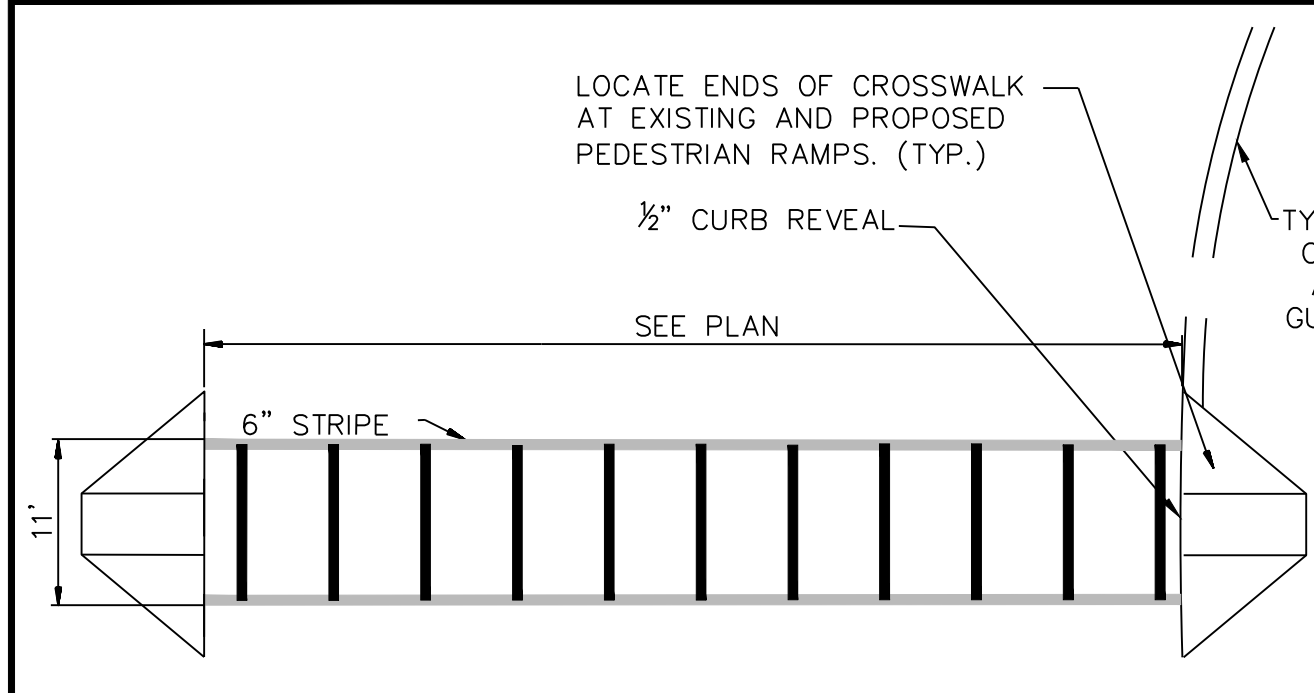
SUBMISSION DATE: 2013-03-03 PROJECT No. 240025501



- NOTES:
- CONTRACTOR SHALL REFER TO LATEST ADA ACCESSIBILITY GUIDELINES TO ENSURE THAT DETAILS ARE CURRENT AT THE TIME OF CONSTRUCTION, AND SHALL NOTIFY ENGINEER PRIOR TO START OF CONSTRUCTION IF DISCREPANCIES ARE FOUND.
 - CONTRACTOR SHALL VERIFY IF ADDITIONAL REQUIREMENTS OR ACCESSIBILITY REGULATIONS ARE USED BY THE LOCAL MUNICIPALITY BUILDING DEPARTMENT OR CONSTRUCTION DEPARTMENT. IF THOSE REGULATIONS DIFFER FROM ADA, CONTRACTOR SHALL NOTIFY DESIGN ENGINEER PRIOR TO CONSTRUCTION.
 - IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, OR WHERE IT IS NOT PROTECTED BY HANDRAILS OR GUARDRAILS, IT SHALL HAVE FLARED SIDES.
 - LANDINGS ARE REQUIRED AT THE TOP OF THE CURB RAMP WITH MINIMUM 3 FOOT CLEAR LENGTH. IN ALTERATIONS, WHERE THERE IS NO LANDING AT THE TOP OF CURB RAMP, THE FLARES SHALL BE PROVIDED AND NOT BE STEEPER THAN 1:12. THE WIDTH OF THE FLARED SIDE SHALL BE EXTENDED AS NECESSARY TO REACH THE DESIRED CURB REVEAL HEIGHT.
 - ALL RAMP TO HAVE A SLIP RESISTANT SURFACE AND BROOM FINISH IN ACCORDANCE WITH ADA REQUIREMENTS.
 - IF DETECTABLE WARNINGS ARE PROPOSED, SEE ADA DETECTABLE WARNING SURFACE DETAIL FOR MORE INFORMATION.
 - TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
 - CURB RAMPS AND FLARES SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES, PARKING SPACES, OR PARKING ACCESS AISLES. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING FLARES.

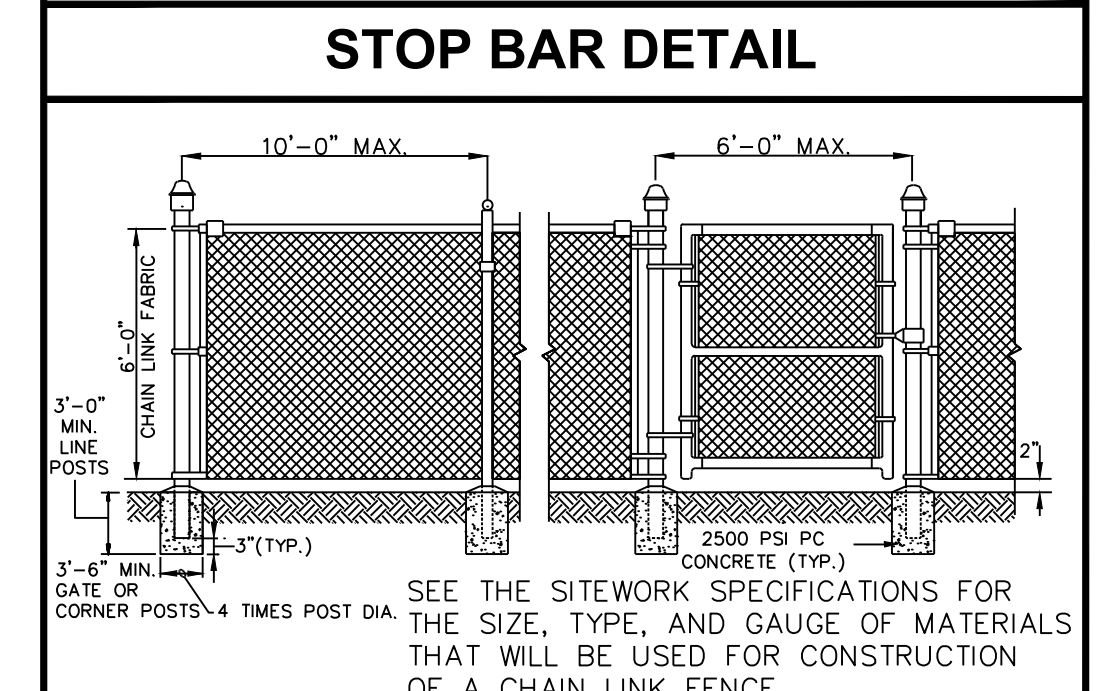
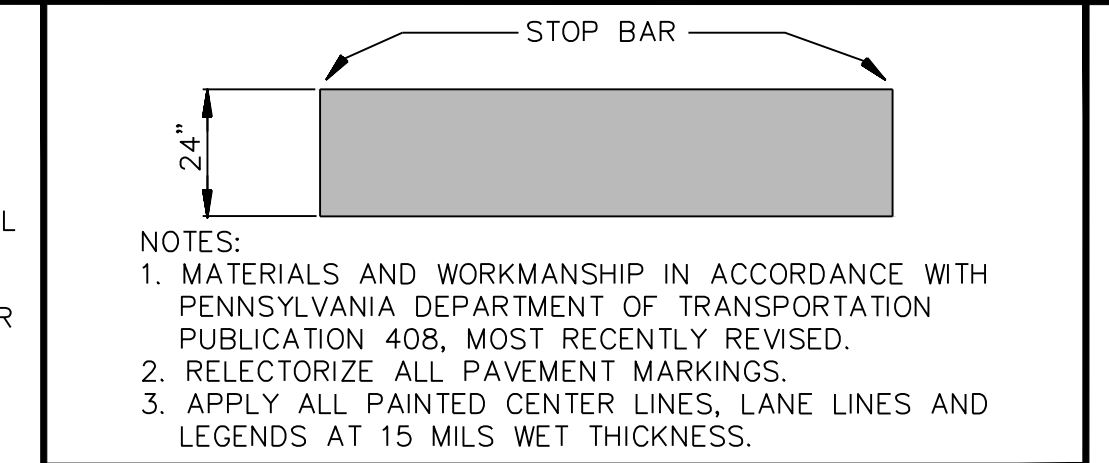


CURB RAMP

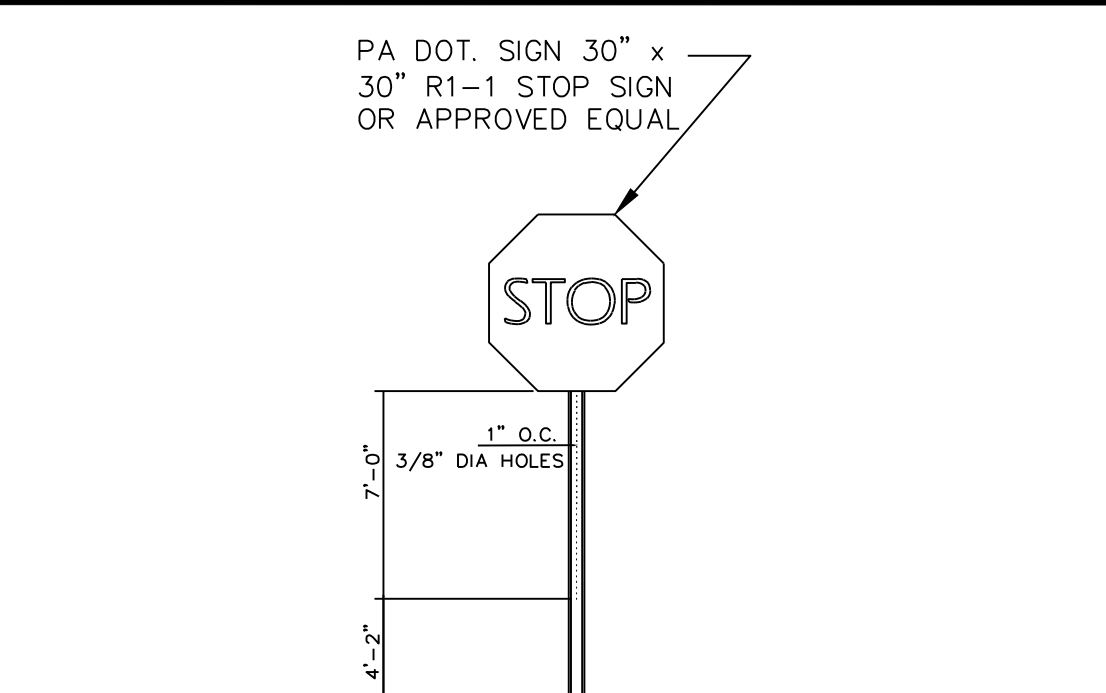


- NOTES:
- MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, MOST RECENTLY REVISED.
 - RELECTORIZE ALL PAVEMENT MARKINGS.
 - APPLY ALL PAINTED CENTER LINES, LANE LINES AND LEGENDS AT 15 MILS WET THICKNESS.
 - CROSSWALK MARKING GEOMETRY AND PAINT SPECIFICATIONS TO COMPLY WITH ALL PADOT REQUIREMENTS AS WELL AS PUB. 408, MOST RECENTLY REVISED.

CROSSWALK MARKING

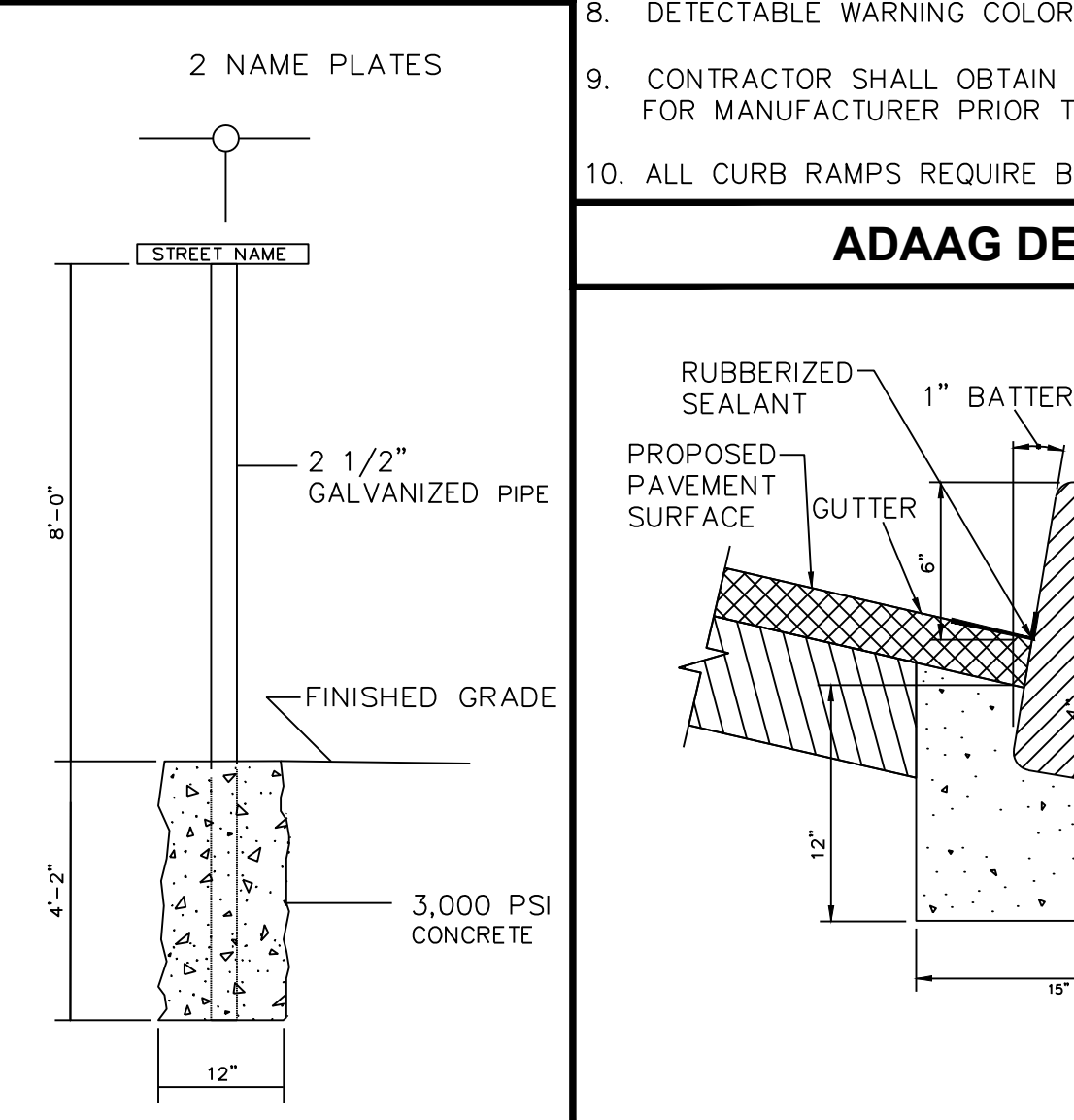


CHAIN LINK FENCE WITH GATE



- NOTES:
- ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS
 - FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"
 - ALL POSTS SHALL BE EMBEDDED 4"-2" MINIMUM BELOW GRADE. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED.
 - AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATION A123-78 (OR LATEST REVISED).
 - POSTS MAY BE STEEL, ALUMINUM, OR TWO-PIECE U-POST.
 - SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
 - BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
 - ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS. SIGN POST MOUNTING SHALL BE IN ACCORDANCE WITH PADOT STANDARD
 - DRAWING NUMBER TO-8702B, "POST-MOUNTED SIGNS, TYPE B," MOST RECENT REVISION. SIGN POST LOCATION SHALL BE IN ACCORDANCE FIG. 2A-2 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. MINIMUM 4 FT FROM SIDEWALK, AND MINIMUM 2 FT FROM MARKED OR UNMARKED CROSSWALK.

STOP SIGN



STREET SIGN



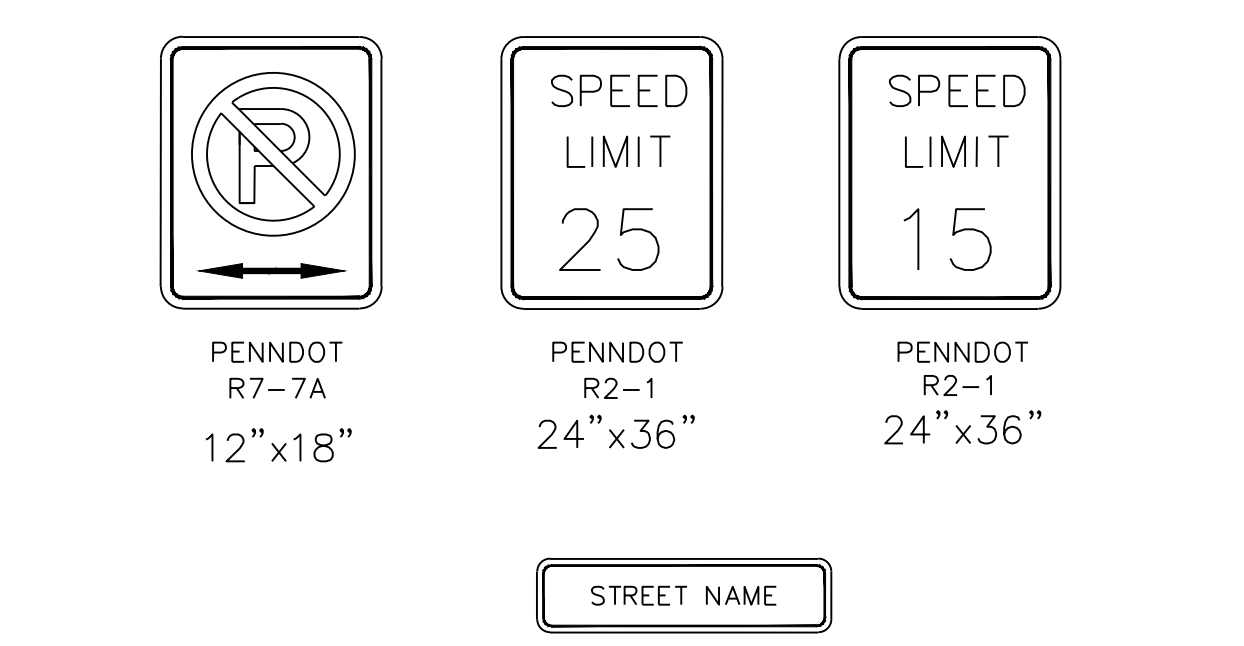
ADAAG DETECTABLE WARNING SURFACE

- NOTES:
- SEE CONCRETE INSTALLATION NOTES ON SHEET CS-501.
 - THIS CURB TO BE USED FOR ALL ON-SITE CURB.
 - ON TRANSITIONS FROM AND TO PROPOSED CURB, USE ONE LARGE BLOCK SLOPED TO CUT AND TO FIT.
 - CURB IMMEDIATELY ADJACENT TO INLET CASTING MUST HAVE PREFORMED EXPANSION MATERIAL.
 - CEMENT JOINTS TO BE 1/2" WIDE. CEMENT JOINT MATERIAL TO BE APPROVED BY BOROUGH ENGINEER PRIOR TO INSTALLATION.
 - CURB PC'S AND PT'S REINFORCED WITH TWO 24" LONG #4 BARS.
 - ON TRANSITIONS TO PROPOSED 18" CONCRETE CURB, TWO 24" LONG #4 BARS ARE TO BE USED.

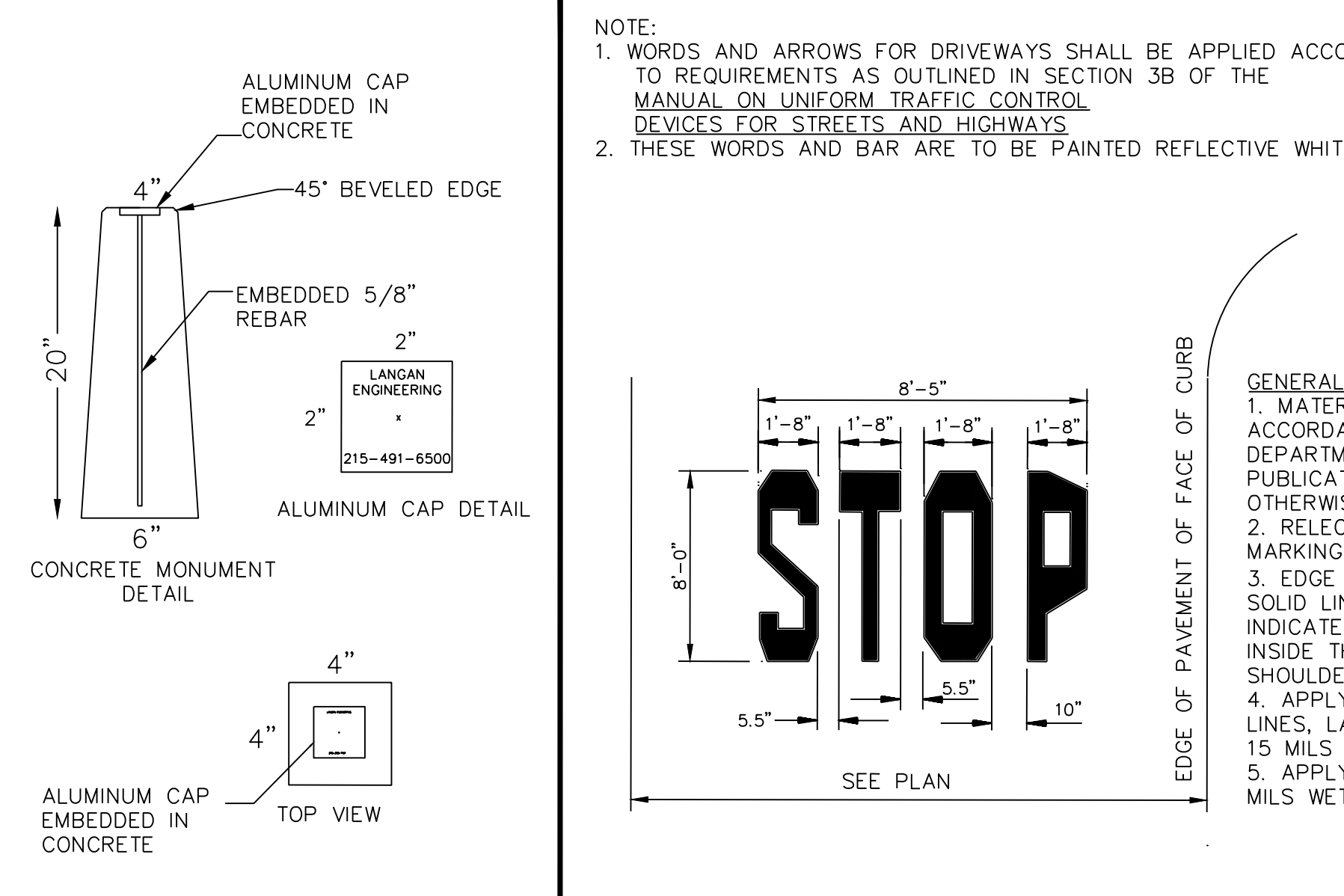
BELGIAN BLOCK CURB

- CONCRETE INSTALLATION NOTES:
- ALL CURBS, GUTTERS AND SIDEWALKS AS WELL AS ALL DRIVEWAYS OVER SIDEWALKS SHALL BE CONSTRUCTED OF CONCRETE. SAID CONCRETE SHALL HAVE A LOW SLUMP WITH A MAXIMUM SLUMP OF FOUR (4) INCHES, A COMPRESSIVE STRENGTH OF FOUR THOUSAND (4,000) POUNDS PER SQUARE INCH (PSI) IN TWENTY EIGHT (28) DAYS, A LOW WATER-CEMENT RATIO OF FORTY-FIVE HUNDREDTH (0.45 OR LESS, ENTRAINED AIR OF FIVE (5) TO EIGHT (8) PERCENT TOTAL AIR CONTENT AND A MINIMUM CEMENTITIOUS MATERIALS CONTENT OF FIVE HUNDRED SIXTY FOUR (564) POUNDS PER CUBIC YARD (lb/cu.yd.) OF CONCRETE.
 - CERTIFICATION FOR THE CONCRETE MIX SHALL BE FURNISHED SEVEN (7) CALENDAR DAYS PRIOR TO THE START OF ANY CONCRETE CONSTRUCTION ACTIVITIES.
 - PROPER FINISHING PRACTICES SHALL BE USED. NO FINISHING OPERATION SHALL BE PERFORMED WHILE THERE IS EXCESS MOISTURE OR BLEEDING WATER ON THE CONCRETE SURFACE. NO SUBSEQUENT FINISHING OPERATION AFTER BULL FLOATING SHALL BE DONE UNTIL THE CONCRETE WILL SUSTAIN FOOT PRESSURE WITH ONLY ABOUT ONE-QUARTER (1/4) INCH INDENTATION. THE FINAL FINISHING OPERATION SHALL BE TO MAKE A LIGHT BROOM FINISH.
 - THE FINISHED CONCRETE SHALL BE CURED FOR AT LEAST SEVEN (7) DAYS AFTER PLACEMENT. AS SOON AS THE CONCRETE IS HARD IT SHALL BE CURED BY ONE OR COMBINATION OF:
 - MOISTEN THE CONCRETE AND COVER IT WITH WATERPROOF PAPER OR POLYETHYLENE FILM WEIGHTED DOWN AROUND THE EDGES TO PREVENT EVAPORATION.
 - THE CONCRETE SHALL BE KEPT CONTINUOUSLY WET WITH A SPRINKLER.
 - THE CONCRETE SHALL BE COVERED WITH BURLAP THAT IS KEPT MOIST BY OCCASIONALLY SPRAYING WITH WATER.
 - LIQUID MEMBRANE-FORMING CURING COMPOUNDS SHALL BE SPRAYED ONTO THE CONCRETE SURFACE PRIOR TO TEMPERATURES BELOW FORTY (40) DEGREES FAHR. THE CURING COMPOUND SHALL BE A TYPE THAT LEAVES NO PERMANENT DISCOLORATION ON THE SURFACE AND DOES NOT INTERFERE WITH THE APPLICATION OF ANY SUBSEQUENT SURFACE TREATMENT.
 - THE CONCRETE SHALL AIR DRY FOR AT LEAST THIRTY DAYS PRIOR TO APPLICATION OF DEICER CHEMICALS. IF TIME DOES NOT PERMIT THIS AIR DRYING, THE CONCRETE SURFACE SHALL BE SEALED WITH AN APPROVED BREATHABLE SURFACE TREATMENT.

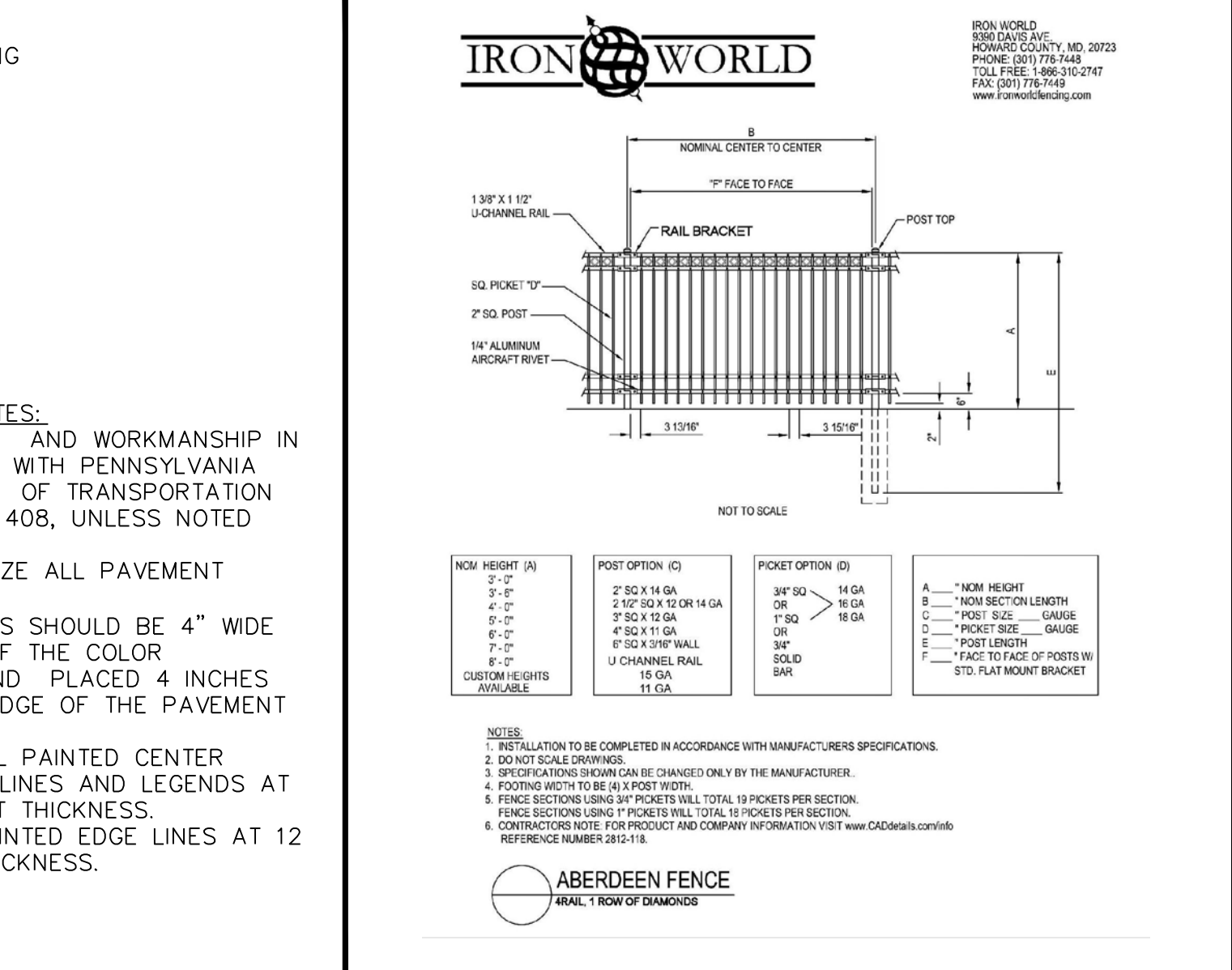
CONCRETE NOTES



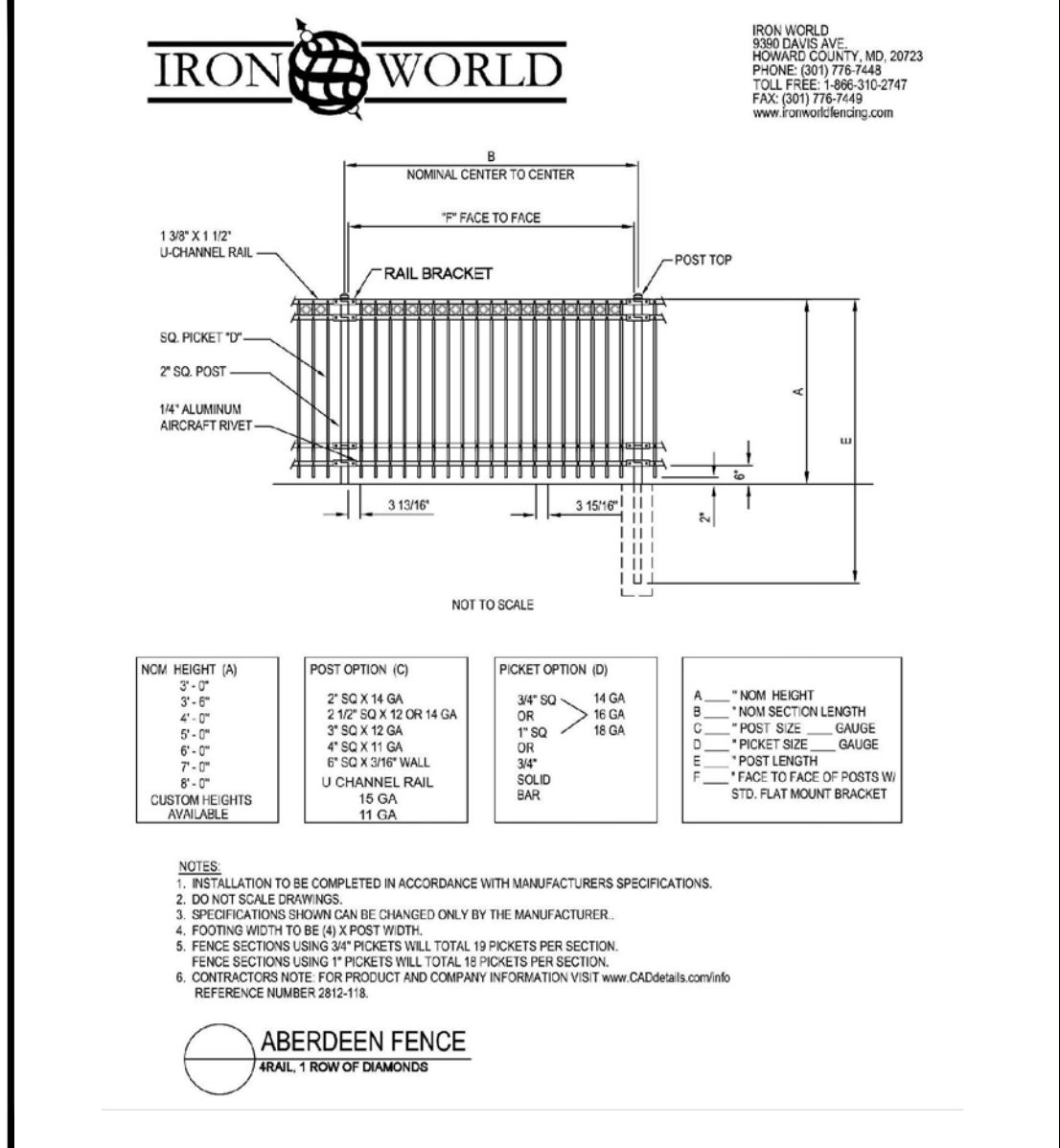
SIGN DETAILS



CONCRETE MONUMENT



STOP LEGEND DETAIL

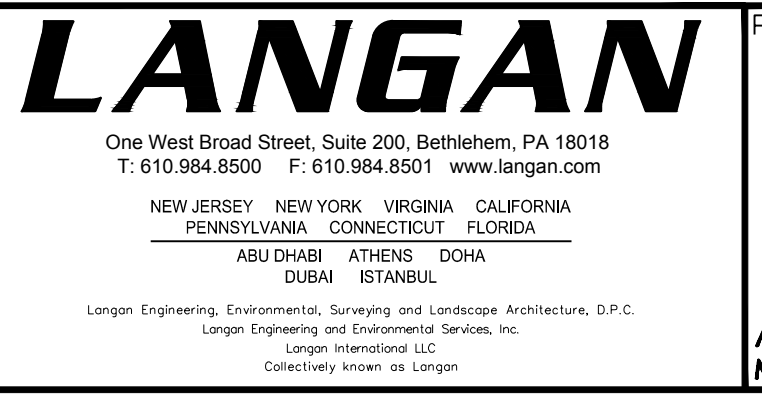
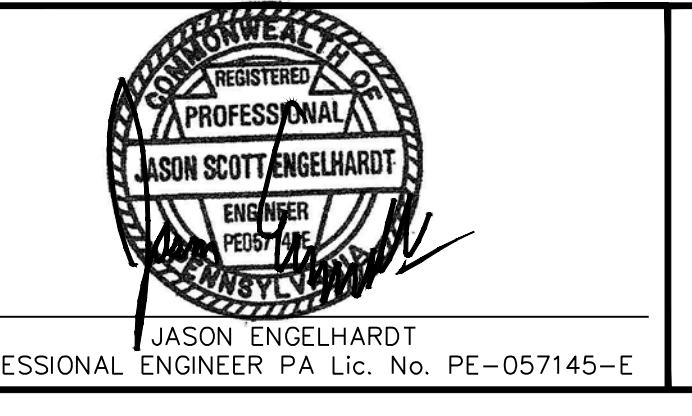


WROUGHT IRON FENCE

APPLICANT / EQUITABLE OWNER:
 AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
 201 S. MAPLE AVENUE, SUITE 100
 AMBLER, PA 19002
 P: (484)532-7830

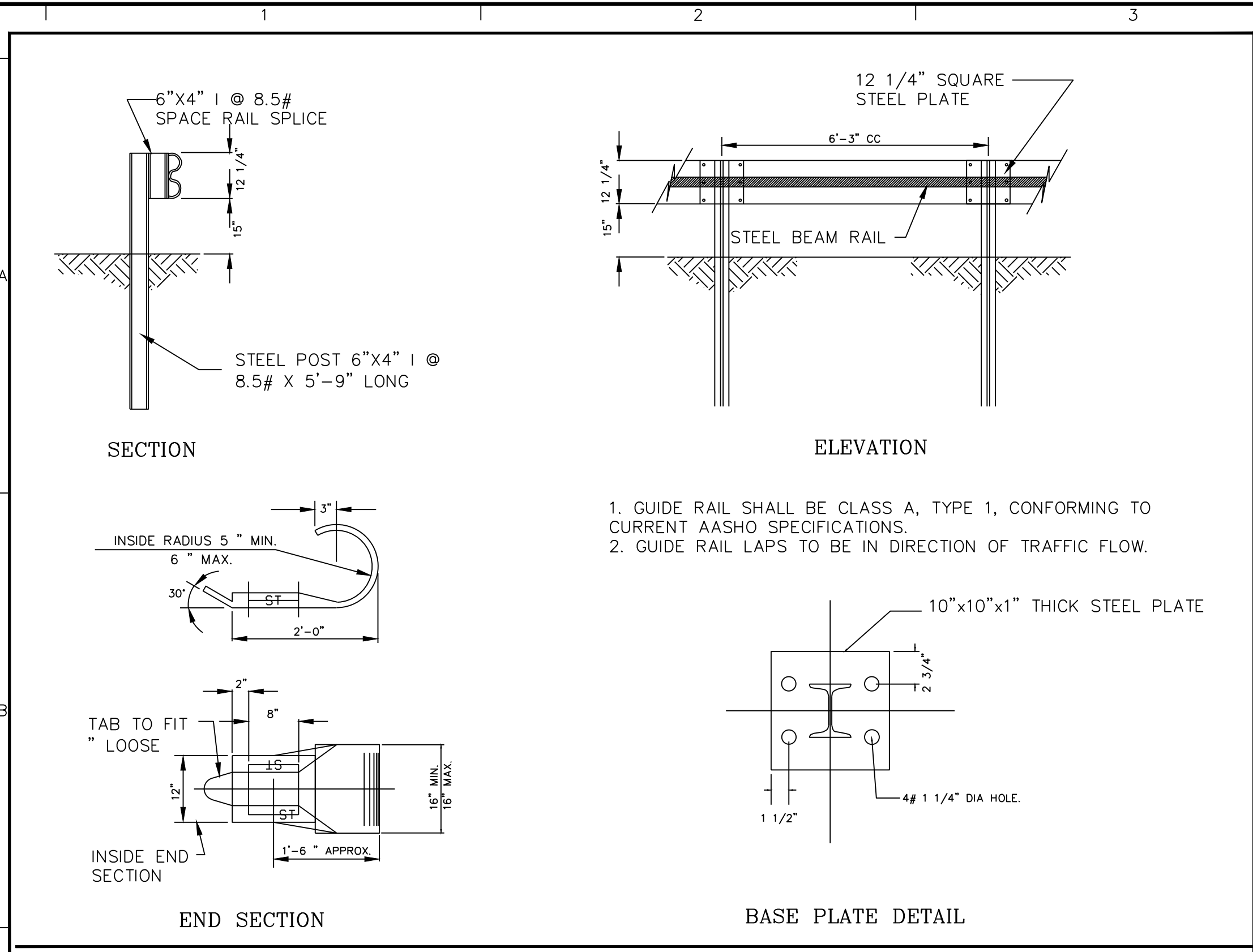
RECORD OWNER:
 MAPLE AVE PARK PARTNERS, LLP
 110 SPRUCE ROAD
 AMBLER, PA 19002
 P: (484)532-7830

Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.
	REVISIONS	

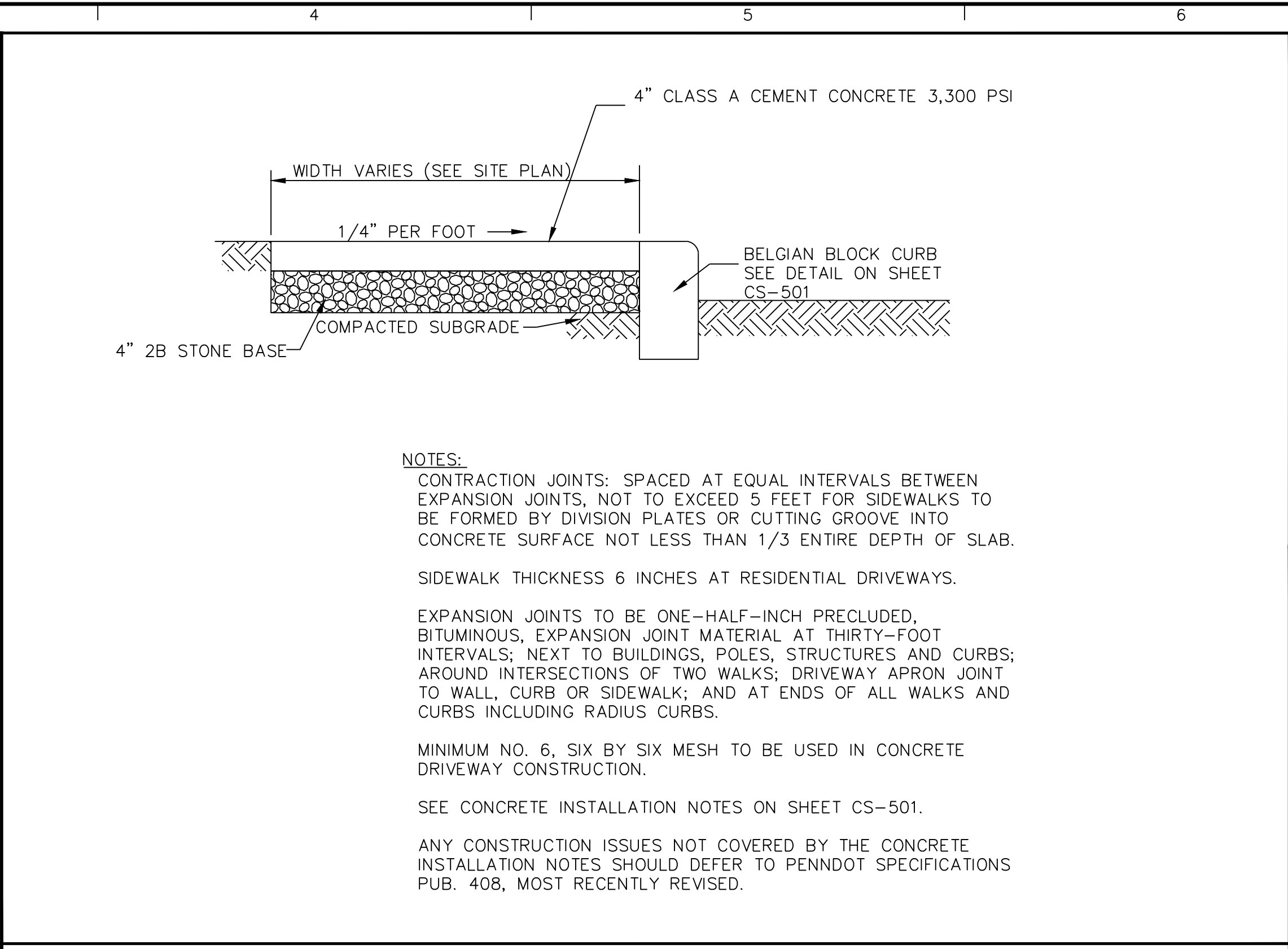


Project
AMBLER CROSSINGS
 AMBLER BOROUG
 MONTGOMERY COUNTY
 PENNSYLVANIA

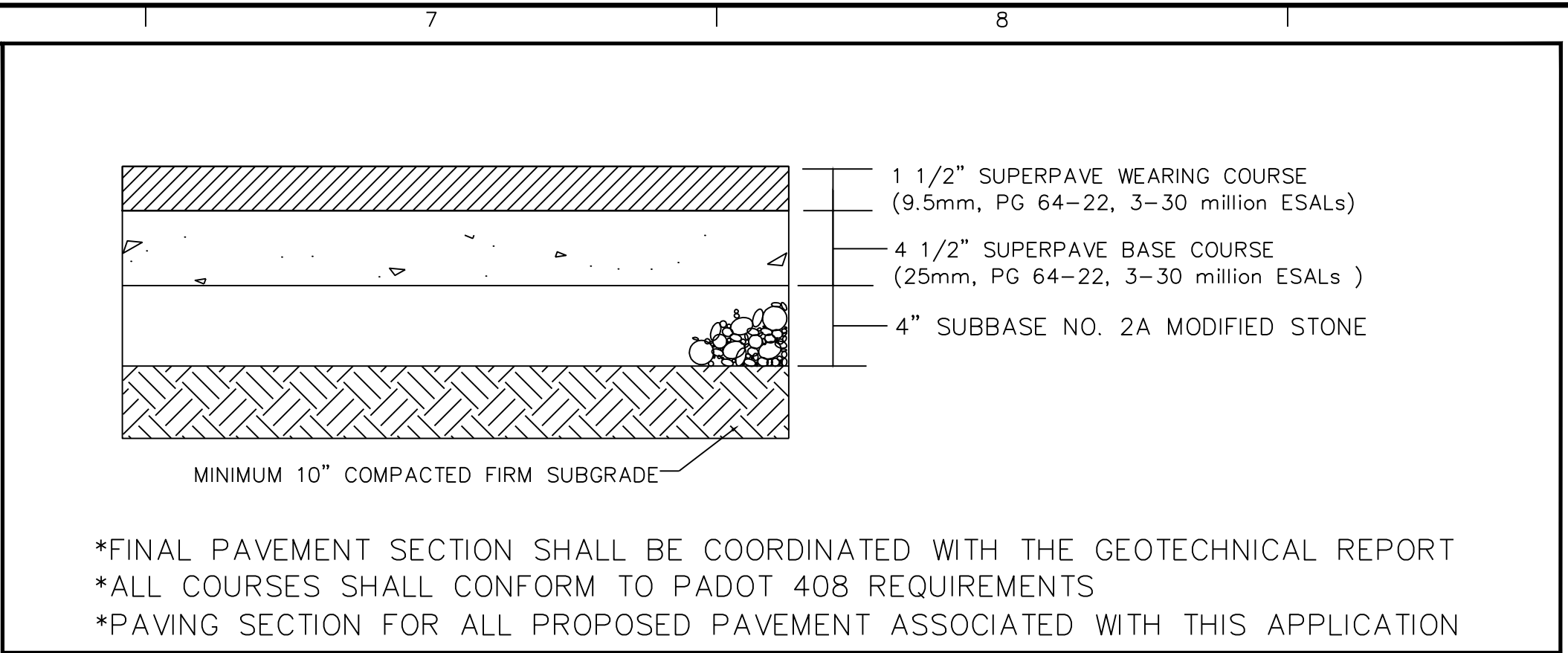
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CONSTRUCTION DETAILS	240025501	CS-501
	Date	Sheet 5 of 25
	Scale	
	Drawn By	



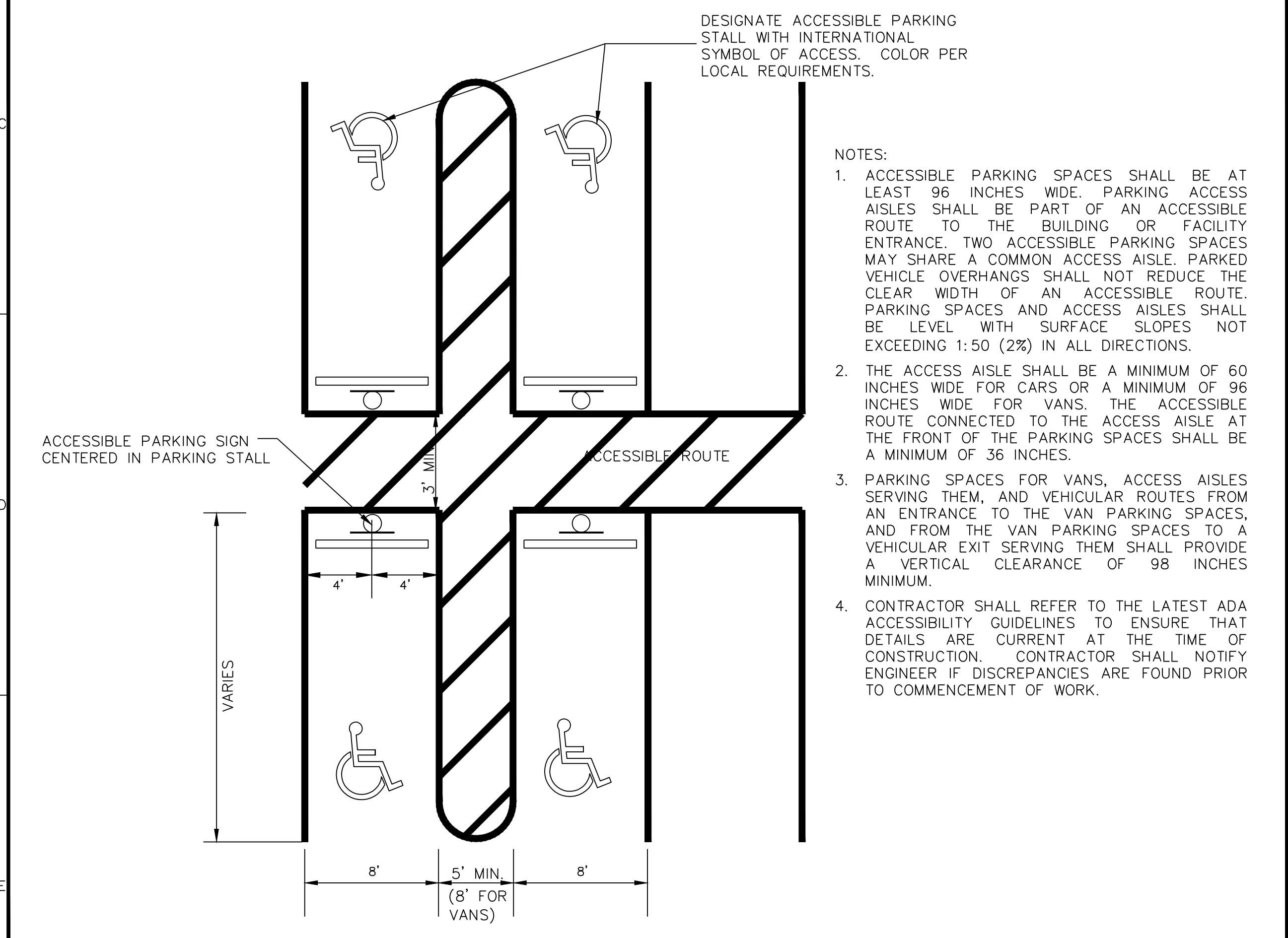
STEEL GUIDE RAIL



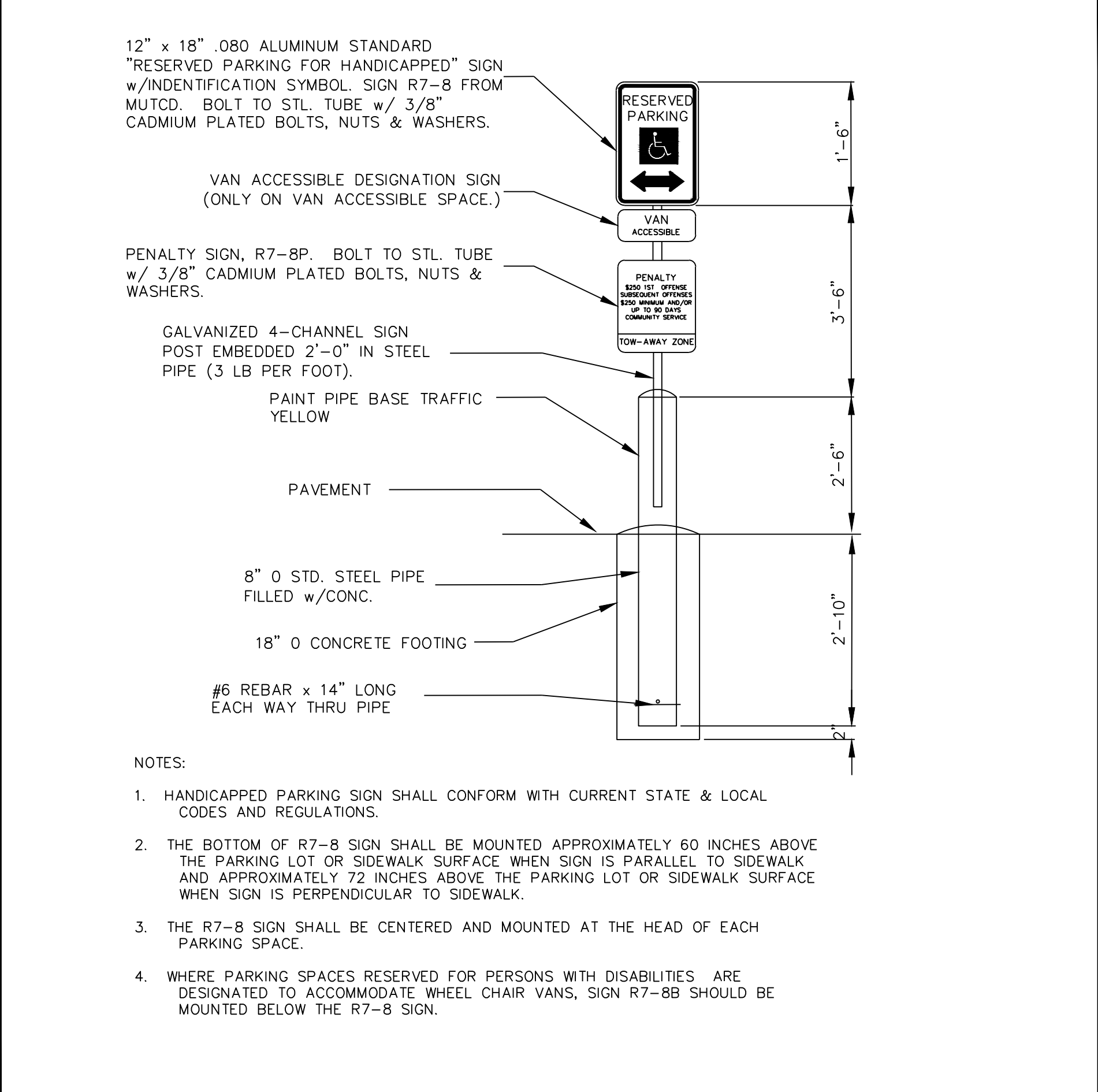
SIDEWALK DETAIL



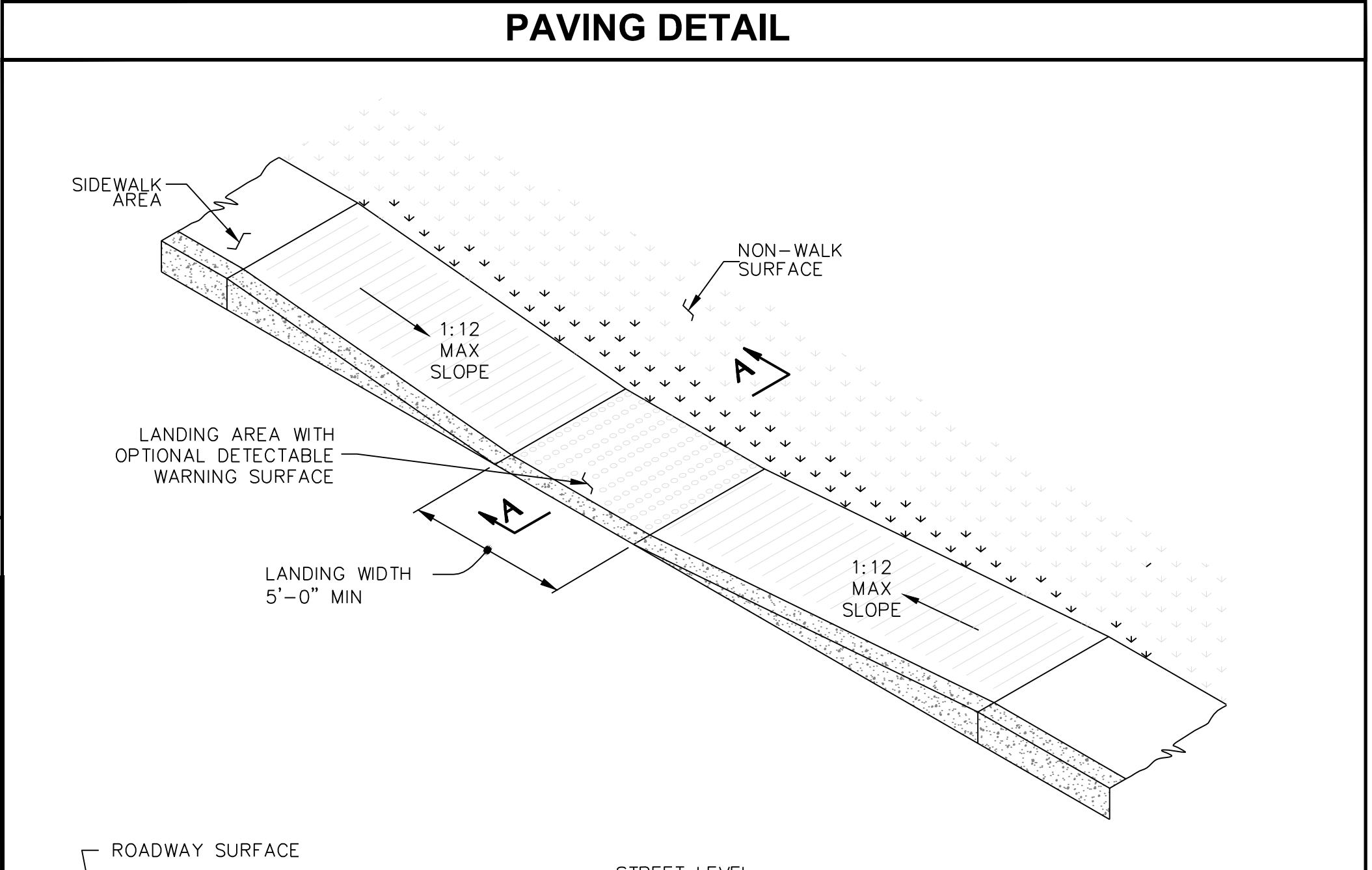
PAVING DETAIL



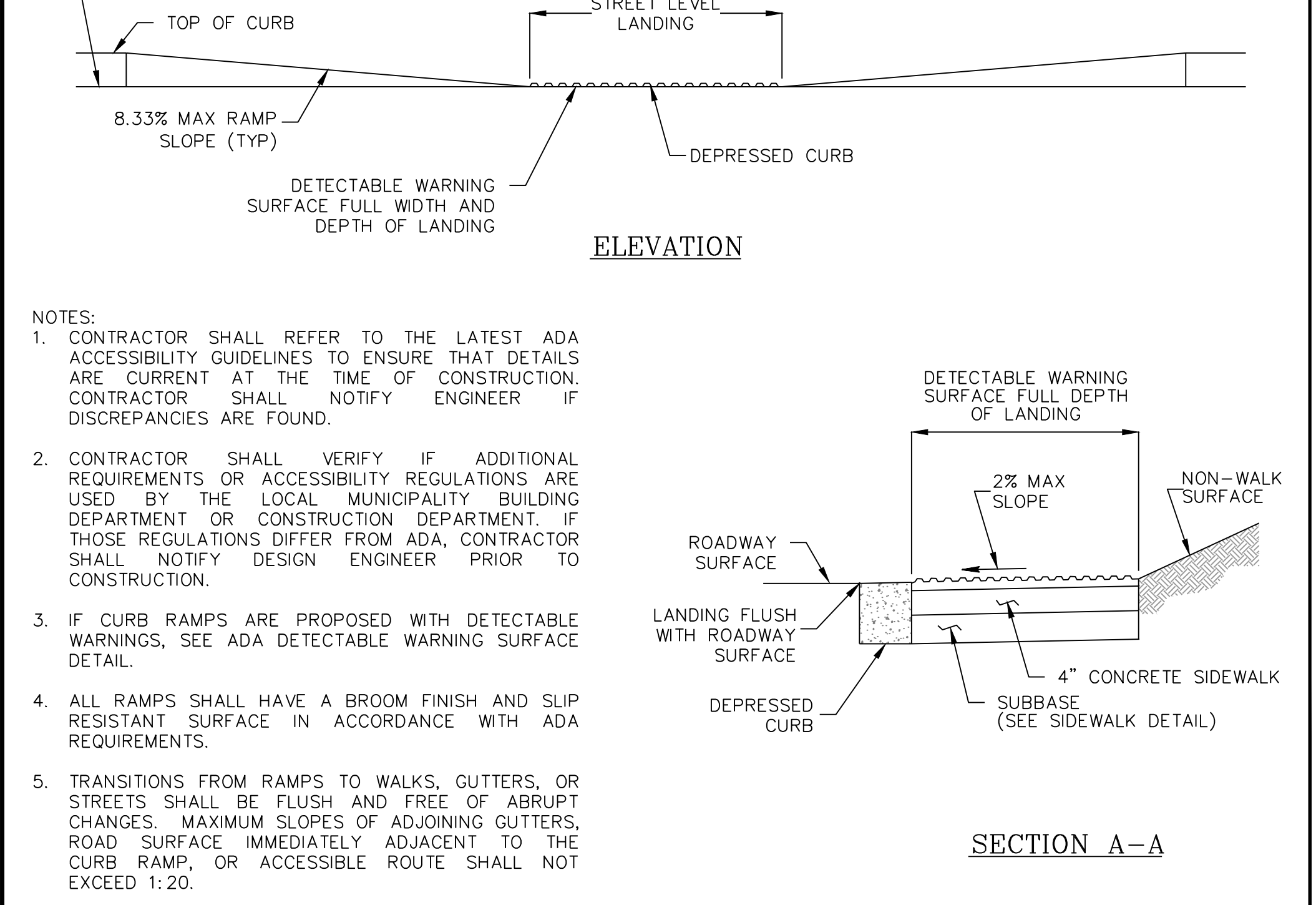
ACCESSIBLE PARKING STALL



ADA ACCESSIBLE PARKING SIGN



ELEVATION



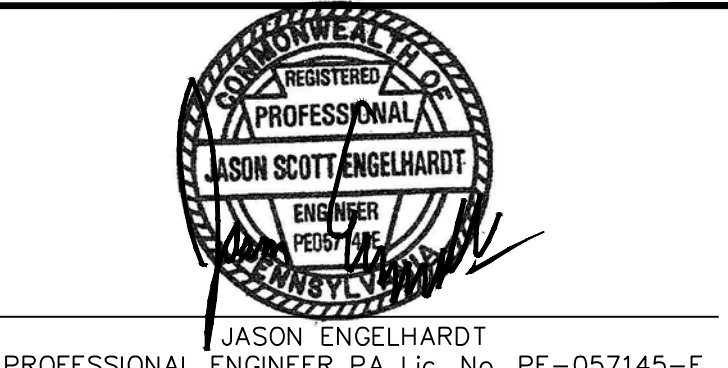
CURB RAMP

APPLICANT / EQUITABLE OWNER:
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
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P: (484)532-7830

Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

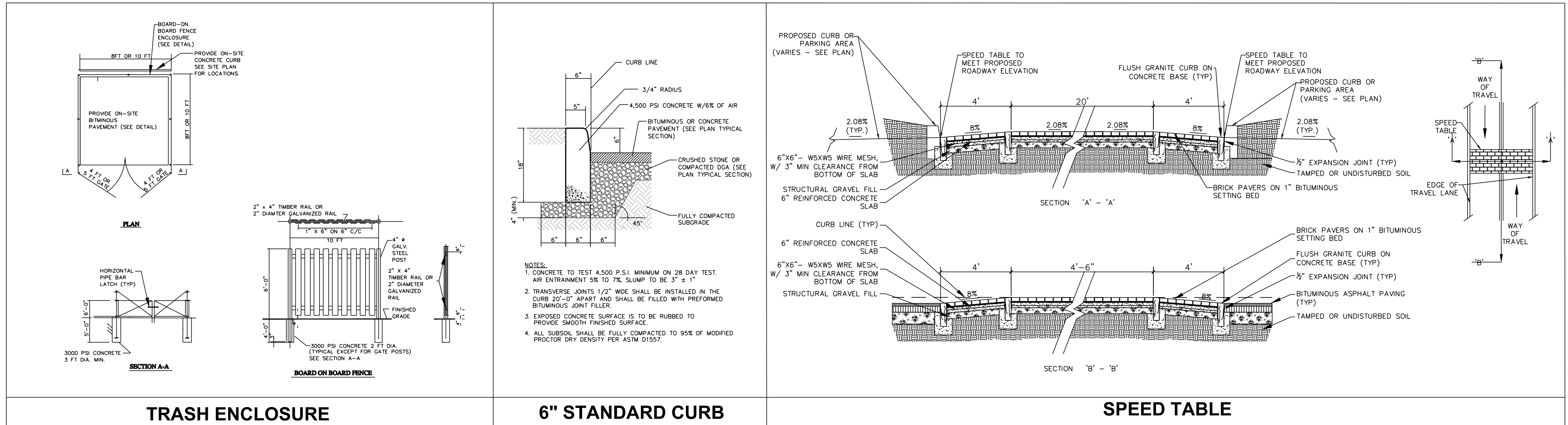
REVISIONS



Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
CONSTRUCTION DETAILS

Project No.	240025501	Drawing No.	CS-502
Date	4-9-13		
Scale	N.T.S.		
Drawn By	KG		
			Sheet 6 of 25



TRASH ENCLOSURE

6" STANDARD CURB

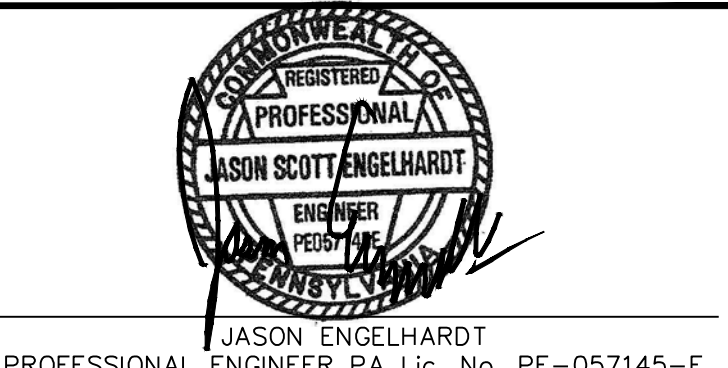
SPEED TABLE

APPLICANT / EQUITABLE OWNER:
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Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

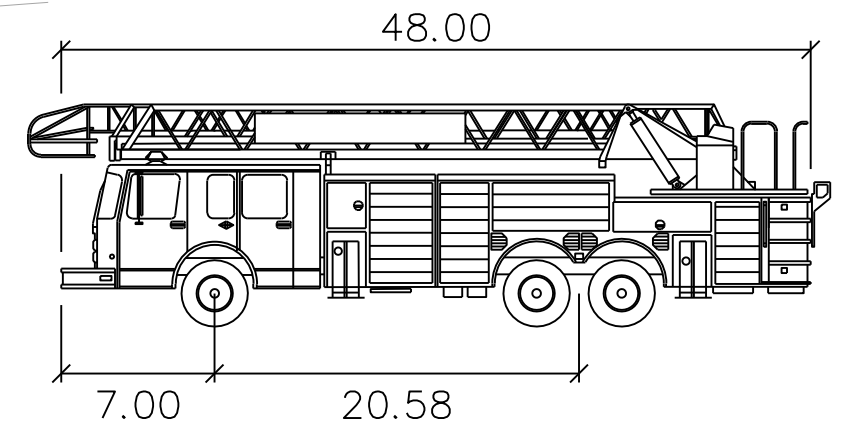


Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
**CONSTRUCTION
 DETAILS**

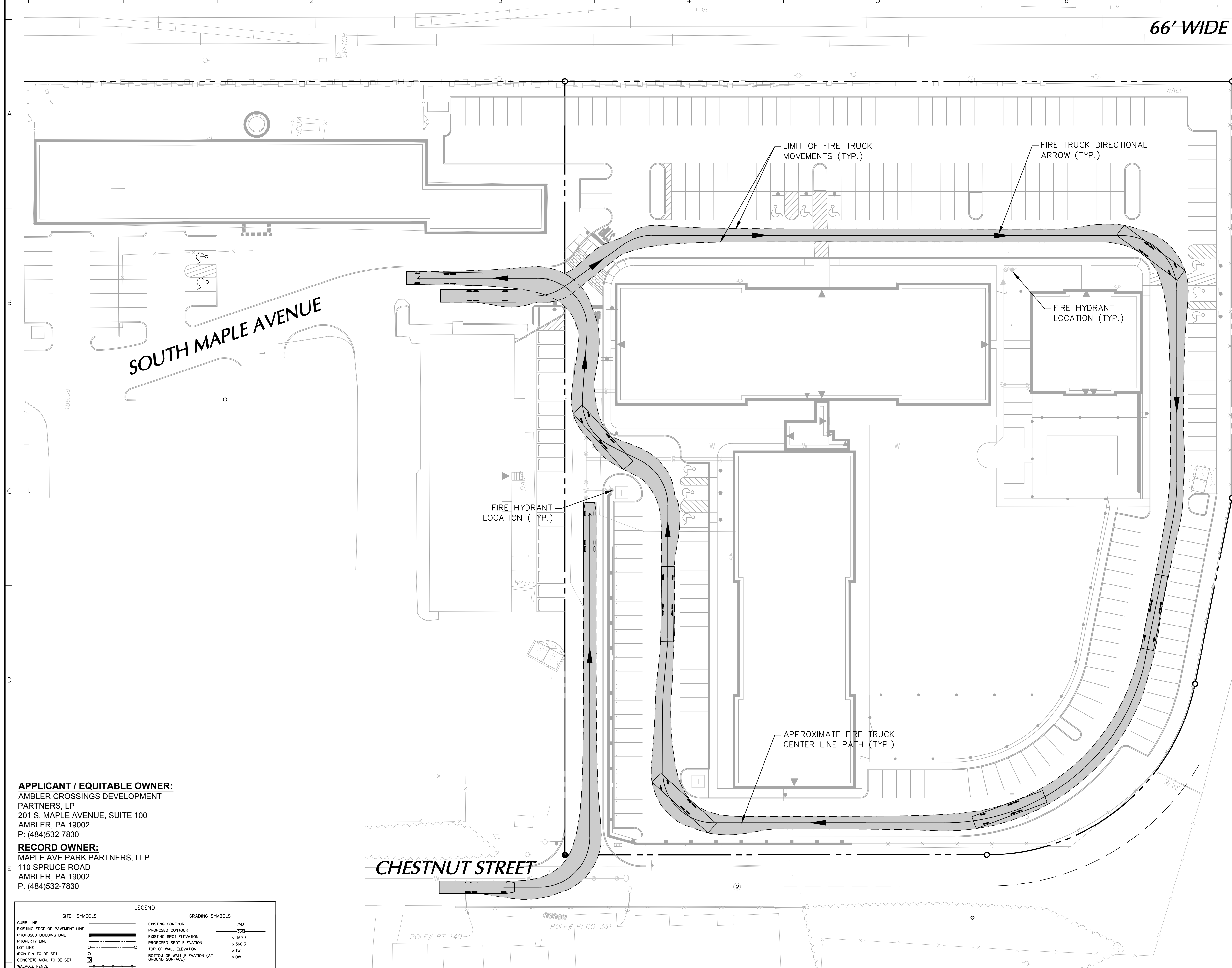
Project No.	240025501	Drawing No.	CS-503
Date	4-9-13		
Scale	N.T.S.		
Drawn By	KG		
			Sheet 7 of 25

66' WIDE CONRAIL EASEMENT



Fire Truck		feet
Width	:	8.00
Track	:	6.85
Lock to Lock Time	:	6.0
Steering Angle	:	40.0

TRUCK TURN MOVEMENTS DESIGNED USING AUTOTURN 8 FOR AUTOCAD CIVIL3D 2013.



APPLICANT / EQUITABLE OWNER:
 AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
 201 S. MAPLE AVENUE, SUITE 100
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LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
CURB LINE	EXISTING CONTOUR
EXISTING EDGE OF PAVEMENT LINE	PROPOSED CONTOUR
PROPOSED BUILDING LINE	EXISTING SPOT ELEVATION
PROPERTY LINE	PROPOSED SPOT ELEVATION
LOT LINE	TOP OF WALL ELEVATION
IRON PIN TO BE SET	BOTTOM OF WALL ELEVATION (AT GRADING SURFACE)
CONCRETE MON. TO BE SET	
WALPOLE FENCE	
WOODPOST IRON FENCE	
RETAINING WALL	
PROPOSED GUIDERAIL	
GRADING/ACCESS EASEMENT	
UTILITY EASEMENT	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
EXISTING GAS MAIN	EXISTING GAS VALVE
EXISTING WATER MAIN	EXISTING CATCH BASIN
OVERHEAD ELECTRIC	EXISTING WATER VALVE
PROPOSED STORM SEWER	EXISTING MANHOLE
PROPOSED SANITARY SEWER	EXISTING ELECTRIC POLE
PROPOSED WATER MAIN	PROPOSED WATER VALVE
PROPOSED ELECTRIC	PROPOSED HYDRANT
PROPOSED GAS	



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

JASON ENGELHARDT
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Langan Engineering, Environmental, Surveying and Landscaped Architecture, O.P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan International LLC
 Langan Mexico S. de RL de CV

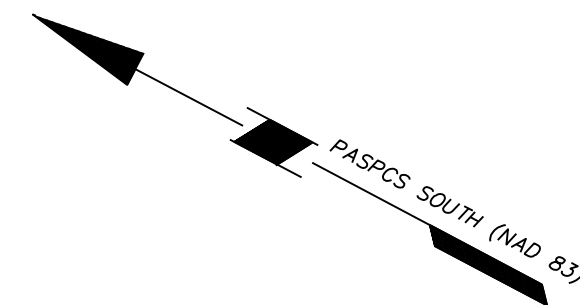
Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
FIRE TRUCK TURN PLAN

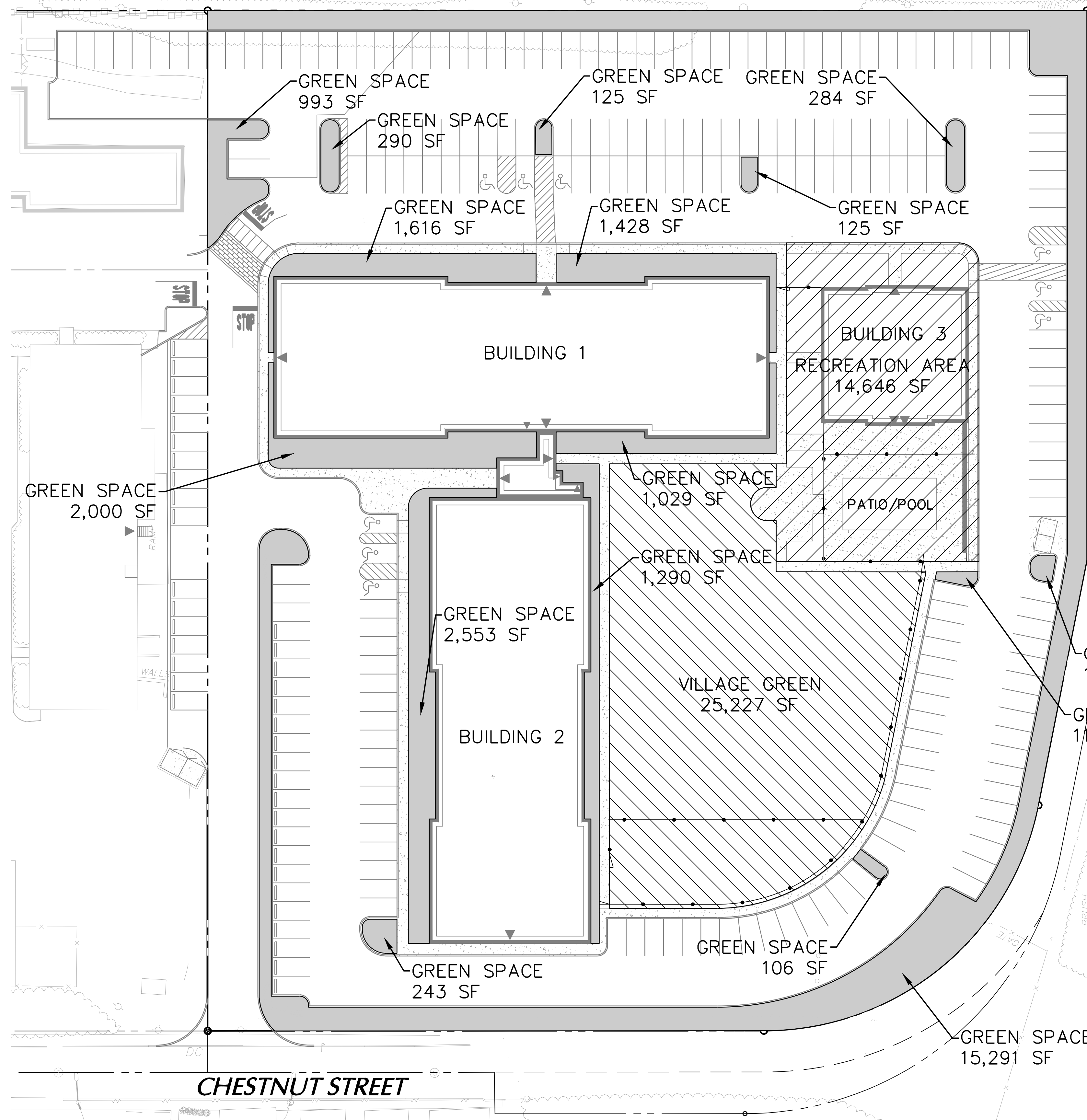
Project No.	240025501	Drawing No.	CS-601
Date	4-9-13	Scale	1" = 30'
Drawn By	JDM	Sheet	8 of 25

SUBMISSION DATE: 2013-10-03
 PROJECT No. 240025501
 LANEAN

66' WIDE CONRAIL EASEMENT



A
B
C
D
E



LEGEND	
VILLAGE GREEN	
RECREATION AREA	
OPEN SPACE	

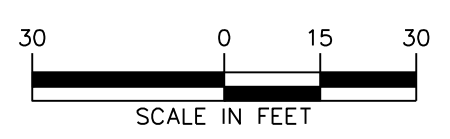
OPEN SPACE CALCULATIONS			
LOCATION	AREA (S.F.)	AREA (AC.)	REQUIRED 20%
VILLAGE GREEN/PLAZA (1)	25,227	0.58	
RECREATION AREA (2)	14,646	0.34	
GREEN SPACE (3)	27,615	0.63	
TOTAL OPEN SPACE PROVIDED	67,488	1.55	34%

(1) A PORTION OF THE OPEN SPACE MUST CONTAIN A VILLAGE GREEN OR PLAZA, VILLAGE GREENS/PLAZAS MUST BE AT LEAST 20,000 SQUARE FEET AND HAVE AN AVERAGE WIDTH OF AT LEAST 100 FEET.
 (2) RECREATION AREA INCLUDES COMMUNITY CENTER WITHIN THE LIMITS OF THE PROPOSED CURB LINE.
 (3) GREEN SPACE AREA WAS CALCULATED USING ALL REMAINING PERVIOUS AREAS EXCLUDING THE VILLAGE GREEN AREA.

LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
CURB LINE	EXISTING CONTOUR
EXISTING EDGE OF PAVEMENT LINE	PROPOSED CONTOUR
PROPOSED BUILDING LINE	EXISTING SPOT ELEVATION
PROPERTY LINE	PROPOSED SPOT ELEVATION
LOT LINE	TOP OF WALL ELEVATION
IRON PIN TO BE SET	BOTTOM OF WALL ELEVATION (AT GRADING SURFACE)
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GRADING/ACCESS EASEMENT	
UTILITY EASEMENT	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
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WATER MAIN	EXISTING CATCH BASIN
OVERHEAD ELECTRIC	EXISTING WATER VALVE
PROPOSED STORM SEWER	EXISTING MANHOLE
PROPOSED SANITARY SEWER	EXISTING ELECTRIC POLE
PROPOSED WATER MAIN	PROPOSED WATER VALVE
PROPOSED ELECTRIC	PROPOSED HYDRANT
PROPOSED GAS	

APPLICANT / EQUITABLE OWNER:
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RECORD OWNER:
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Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

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Langan Engineering, Environmental, Surveying and Landscape Architecture, P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan International LLC
 Collectively known as Langan

Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
GREEN SPACE PLAN

Project No.	240025501	Drawing No.	
Date	4-9-13		
Scale	1" = 30'		CS-701
Drawn By	JDM		
			Sheet 9 of 25

SUBMISSION DATE: 2013-10-03 PROJECT No. 240025501

66' WIDE CONRAIL EASEMENT

EXISTING BOILER HOUSE
36,400 SF
(USABLE BUSINESS AREA)

BUILDING 1
59 UNITS
4 - STORIES
18,070 SF (FOOTPRINT)
FF=±192'

BUILDING 3
1 STORY
4,720 SF
FF=±192.50'

BUILDING 2
56 UNITS
4 - STORIES
16,340 SF (FOOTPRINT)
FF=±192'

VILLAGE GREEN
24,430 SF

PATIO/POOL

OUTDOOR SEATING AREA

C GRADING AND DRAINAGE PLAN NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- PVC = POLYVINYLCHLORIDE PIPE
HDPE = HIGH DENSITY POLYETHYLENE PIPE
RCP = REINFORCED CONCRETE PIPE
- STORM DRAINAGE PIPING TO UTILIZE WATER TIGHT JOINTS.
- COMPACTION CRITERIA FOR FILL PLACEMENT IN THE FOLLOWING AREAS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM PERCENTAGE OF MAXIMUM MODIFIED PROCTOR DRY DENSITY AS DETERMINED BY ASTM D-1557 USED ON REPRESENTATIVE SOIL SAMPLES, UNLESS MORE STRINGENT CRITERIA GIVEN ELSEWHERE:

FILL AREA	PERCENT OF MAXIMUM MODIFIED PROCTOR DRY DENSITY
BUILDING FOOTPRINT	90%
PAVEMENT AND ROADWAYS	95%
SIDEWALKS	95%
LANDSCAPE AREAS	90%
TRENCH BACKFILL	SAME AS SURROUNDING AREA
- PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
- REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THEN BEST SUBGRADE MATERIAL ON SITE. SURFACE OF SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
- ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4,000 PSI.
- THE CONTRACTOR SHALL REVIEW THE STORM DRAINAGE CONNECTIONS TO THE INLETS, MANHOLES, ETC. AND PROVIDE THE APPROPRIATE BOX SIZE, MANHOLES SIZE, ETC. AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
- CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE OWNER FOR ALL CATCH BASINS, MANHOLES, AND OTHER STORM AND SANITARY STRUCTURES.
- WALL ELEVATIONS SHOWN ON THIS PLAN ARE GIVEN AS SURFACE GRADES AT TOP AND BOTTOM OF WALL AND MAY NOT REPRESENT THE EXACT ELEVATION OF STRUCTURAL RETAINING WALL COMPONENTS (ABOVE AND BELOW GRADE) TO BE CONSTRUCTED.
- AMBLER BOROUGH SHALL HAVE THE RIGHT TO ENTER PRIVATE PROPERTY TO INSPECT AND REPAIR, IF NECESSARY, ANY STORMWATER MANAGEMENT FACILITY.
- ALL STORMWATER MANAGEMENT FACILITIES ARE A PERMANENT PART OF THE DEVELOPMENT AND SHALL NOT BE REMOVED, ALTERED OR MODIFIED WITHOUT PRIOR APPROVAL FROM THE BOROUGH OF AMBLER.
- ALL PUBLIC INLETS SHOULD HAVE INLET MARKERS. THE DESIGN OF THE INLET MARKERS SHALL BE APPROVED BY THE CITY ENGINEER.
- THE MAINTENANCE OF STORM WATER FACILITIES SHALL BE THE OWNER'S RESPONSIBILITY. THE OWNER'S DEED, AND THE DEED TO ANY SUBSEQUENT OWNER, SHALL NOTE THAT THE OWNER SHALL ACCEPT THE MAINTENANCE RESPONSIBILITIES. AMBLER BOROUGH SHALL BE PERMITTED TO INSPECT THE STORM WATER FACILITIES ON AT LEAST AN ANNUAL SCHEDULE TO ENSURE THAT ANY NECESSARY CORRECTIVE WORK IS PERFORMED IN A TIMELY MANNER. THE DRAINAGE EASEMENT PROVIDES FOR THE FLOW OF STORM WATER ACROSS LOTS, AND MAY NOT BE ALTERED WITHOUT THE WRITTEN PERMISSION OF THE BOROUGH ENGINEER. NO OBSTRUCTIONS SUCH AS PLANTING BERMS OR FENCES MAY BE INSTALLED IN THE DRAINAGE EASEMENTS AREAS WITHOUT SUFFICIENT PROVISION FOR THE PASSAGE OF STORM WATER, AND ANY SUCH PROPOSED PROVISION SHALL BE APPROVED IN WRITING BY THE BOROUGH ENGINEER.
- INSTALL SNOOT OIL/DEBRIS SEPARATOR ON CATCH BASIN CB-1, CB-2, CB-5, AND CB-6 WITH 4.5' SUMP. SEE DETAIL ON SHEET PSCM-501.

SITE SYMBOLS		GRADING SYMBOLS	
CURB LINE	---	EXISTING CONTOUR	---
EXISTING EDGE OF PAVEMENT LINE	---	PROPOSED CONTOUR	---
PROPOSED BUILDING LINE	---	EXISTING SPOT ELEVATION	× 260.7
PROPERTY LINE	---	PROPOSED SPOT ELEVATION	× 260.3
LOT LINE	---	TOP OF WALL ELEVATION	× TW
IRON PIN TO BE SET	○	BOTTOM OF WALL ELEVATION (AT GRADE ONLY)	× BW
CONCRETE MON. TO BE SET	○		
WALPOLE FENCE	---		
WOODSLOT HIGH FENCE	---		
RETAINING WALL	---		
PROPOSED GUIDELINE	---		
GRADING/ACCESS EASEMENT	---		
UTILITY EASEMENT	---		
UTILITY SYMBOLS			
EXISTING STORM SEWER	---	EXISTING SANITARY SEWER MANHOLE	⊙
EXISTING SANITARY SEWER	---	EXISTING FIRE HYDRANT	⊙
EXISTING GAS MAIN	---	EXISTING GAS VALVE	⊙
WATER MAIN	---	EXISTING CATCH BASIN	⊙
OVERHEAD ELECTRIC	---	EXISTING WATER VALVE	⊙
PROPOSED STORM SEWER	---	EXISTING MANHOLE	⊙
PROPOSED SANITARY SEWER	---	EXISTING ELECTRIC POLE	⊙
PROPOSED WATER MAIN	---	PROPOSED WATER VALVE	⊙
PROPOSED ELECTRIC	---	PROPOSED HYDRANT	⊙
PROPOSED GAS	---		

PAVEMENT LEGEND	
PAVEMENT TO BE REMOVED	---

CHESTNUT STREET



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

JASON SCOTT ENGELHARDT
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Langan Engineering, Environmental, Surveying and Landscape Architecture, P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY

Drawing Title
GRADING PLAN

Project No.	240025501	Drawing No.	
Date	4-9-13	Scale	1"=30'
Drawn By	JKM		
			Sheet 10 of 25

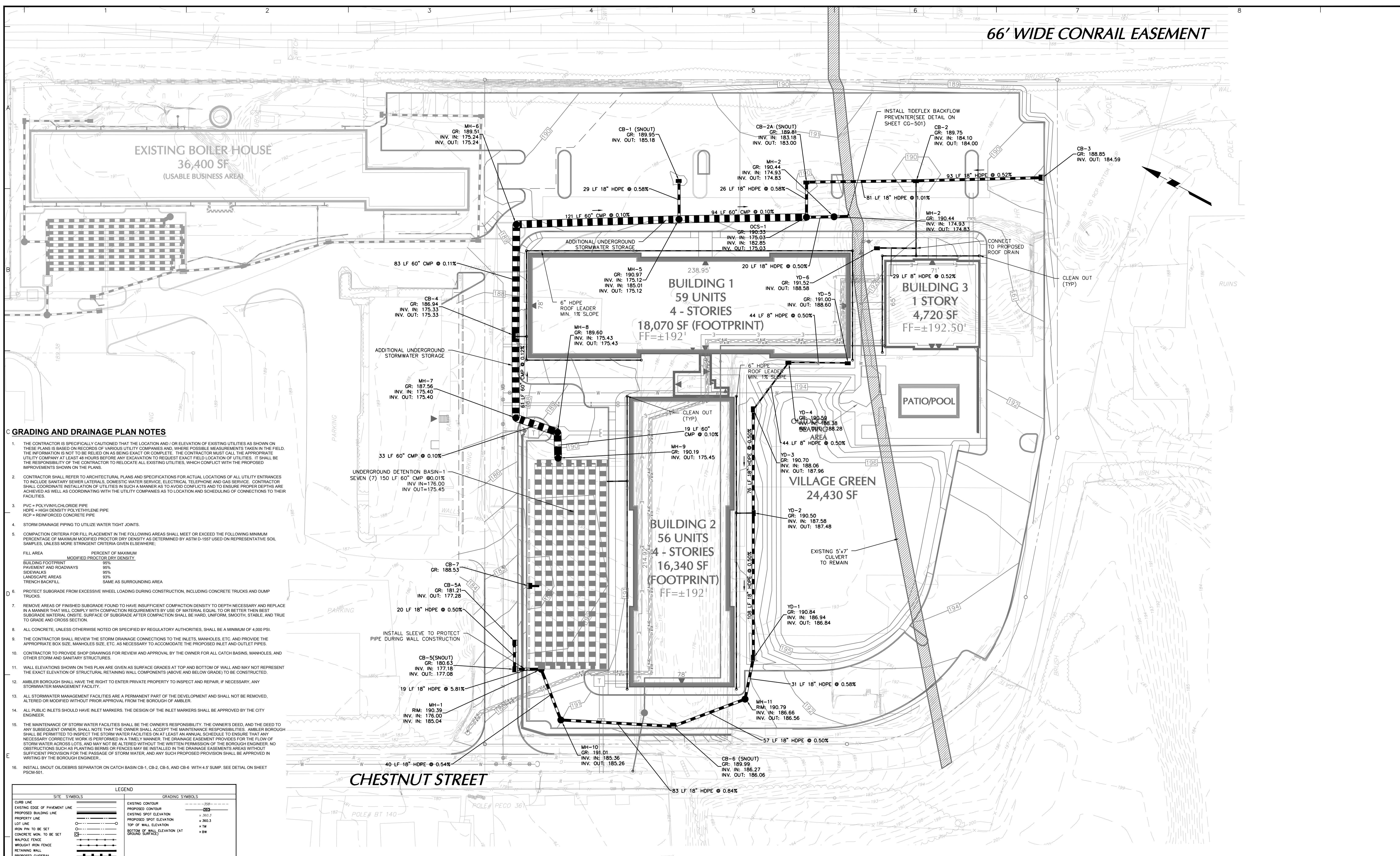
SUBMISSION DATE: 2013-10-03 PROJECT No. 240025501

66' WIDE CONRAIL EASEMENT

PROJECT No. 240025501

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SUBMISSION DATE: 2013-10-03

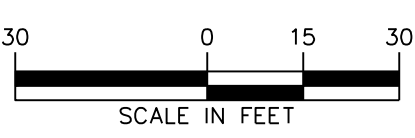


C GRADING AND DRAINAGE PLAN NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES, WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- PVC = POLYVINYLCHLORIDE PIPE
HDPE = HIGH DENSITY POLYETHYLENE PIPE
RCP = REINFORCED CONCRETE PIPE
- STORM DRAINAGE PIPING TO UTILIZE WATER TIGHT JOINTS.
- COMPACTION CRITERIA FOR FILL PLACEMENT IN THE FOLLOWING AREAS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM PERCENTAGE OF MAXIMUM MODIFIED PROCTOR DRY DENSITY AS DETERMINED BY ASTM D-1557 USED ON REPRESENTATIVE SOIL SAMPLES, UNLESS MORE STRINGENT CRITERIA GIVEN ELSEWHERE:

FILL AREA	PERCENT OF MAXIMUM MODIFIED PROCTOR DRY DENSITY
BUILDING FOOTPRINT	95%
PAVEMENT AND ROADWAYS	95%
SIDEWALKS	95%
LANDSCAPE AREAS	95%
TRENCH BACKFILL	SAME AS SURROUNDING AREA
- PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADINGS DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
- REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THEN BEST SUBGRADE MATERIAL ON SITE. SURFACE OF SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
- ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4000 PSI.
- THE CONTRACTOR SHALL REVIEW THE STORM DRAINAGE CONNECTIONS TO THE INLETS, MANHOLES, ETC. AND PROVIDE THE APPROPRIATE BOX SIZE, MANHOLES SIZE, ETC. AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
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- INSTALL SNOOT OIL/DIESEL SEPARATOR ON CATCH BASIN CB-1, CB-2, CB-5, AND CB-6 WITH 4.5' SUMP. SEE DETAIL ON SHEET PSCM-501.

SITE SYMBOLS		GRADING SYMBOLS	
CURB LINE	---	EXISTING CONTOUR	--- 550 ---
EXISTING EDGE OF PAVEMENT LINE	---	PROPOSED CONTOUR	--- 550 ---
PROPOSED BUILDING LINE	---	EXISTING SPOT ELEVATION	x 260.7
PROPERTY LINE	---	PROPOSED SPOT ELEVATION	x 260.3
LOT LINE	---	TOP OF WALL ELEVATION	x TW
IRON PIN TO BE SET	○	BOTTOM OF WALL ELEVATION (AT GRADING SURFACE)	x BW
CONCRETE MON. TO BE SET	○		
WALPOLE FENCE	---		
WOODPOST IRON FENCE	---		
RETAINING WALL	---		
PROPOSED GUIDELINE	---		
GRADING/ACCESS EASEMENT	---		
UTILITY EASEMENT	---		
UTILITY SYMBOLS			
EXISTING STORM SEWER	---	EXISTING SANITARY SEWER MANHOLE	○
EXISTING SANITARY SEWER	---	EXISTING FIRE HYDRANT	○
EXISTING GAS MAIN	---	EXISTING GAS VALVE	○
WATER MAIN	---	EXISTING CATCH BASIN	○
OVERHEAD ELECTRIC	---	EXISTING WATER VALVE	○
PROPOSED STORM SEWER	---	EXISTING MANHOLE	○
PROPOSED SANITARY SEWER	---	EXISTING ELECTRIC POLE	○
PROPOSED WATER MAIN	---	PROPOSED WATER VALVE	○
PROPOSED ELECTRIC	---	PROPOSED HYDRANT	○
PROPOSED GAS	---		



REVISIONS	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

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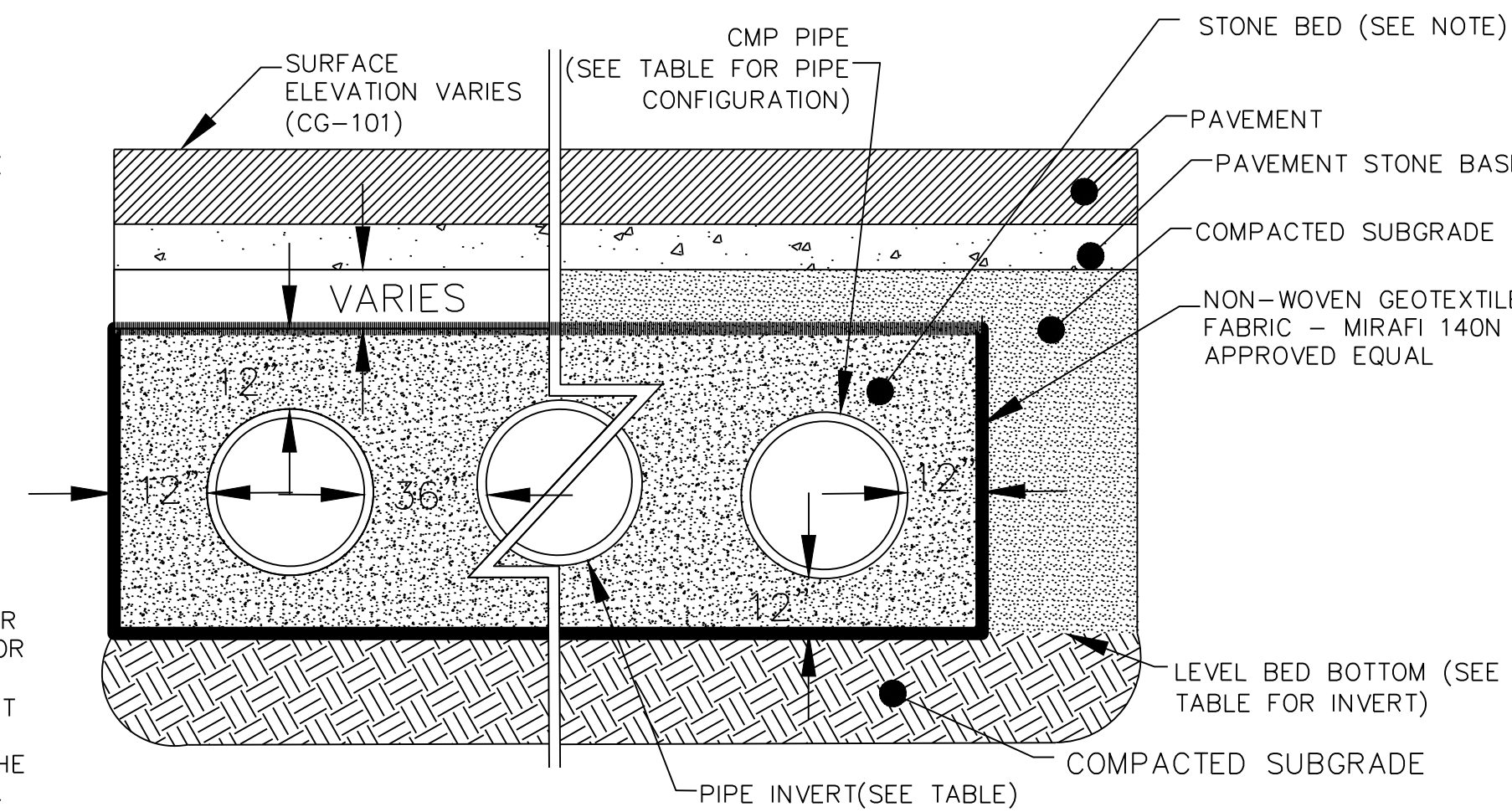
Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
DRAINAGE PLAN

Project No.	240025501	Drawing No.	CG-201
Date	5-10-13	Scale	1" = 30'
Drawn By	JKM	Sheet	11 of 25

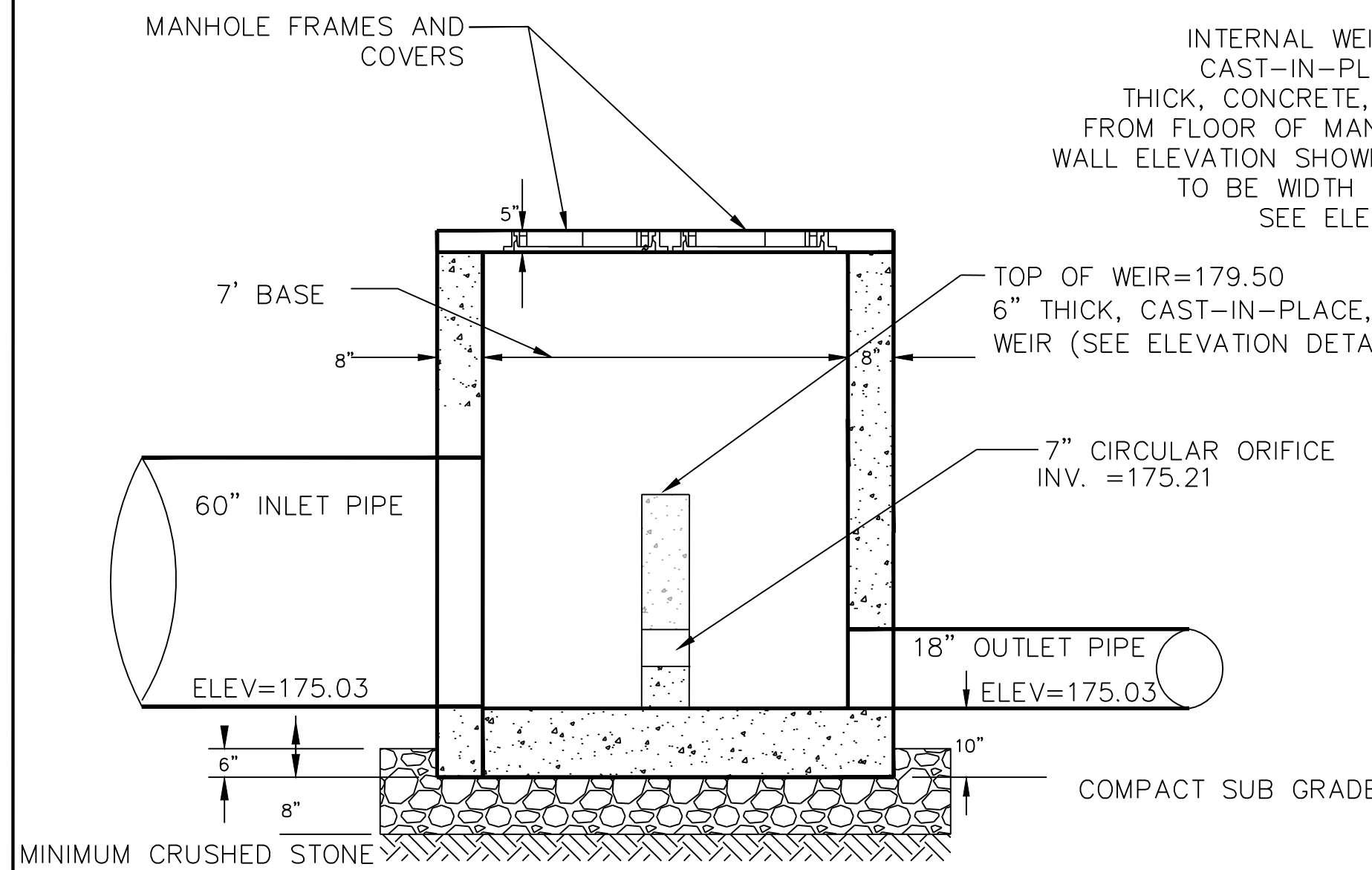
NOTES:

- 1) STORMWATER MANAGEMENT STONE BED SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO SIZE NUMBER 3 PER AASHTO SPECIFICATIONS, PART 1, 19TH ED., 1998, OR LATER AND SHALL HAVE VOIDS 40% AS MEASURED BY ASTM-C29.
- 2) SEE DRAWING CG-201 FOR PIPE LAYOUT, CONNECTIONS AND INSPECTION PORTS.
- 3) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STORMWATER SYSTEM TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO ORDERING/ CONSTRUCTION. THIS SUBMITTAL MUST INCLUDE THE WITHDRAWAL STRUCTURES AND CONNECTION TO THE UNDERGROUND STORMWATER SYSTEM.

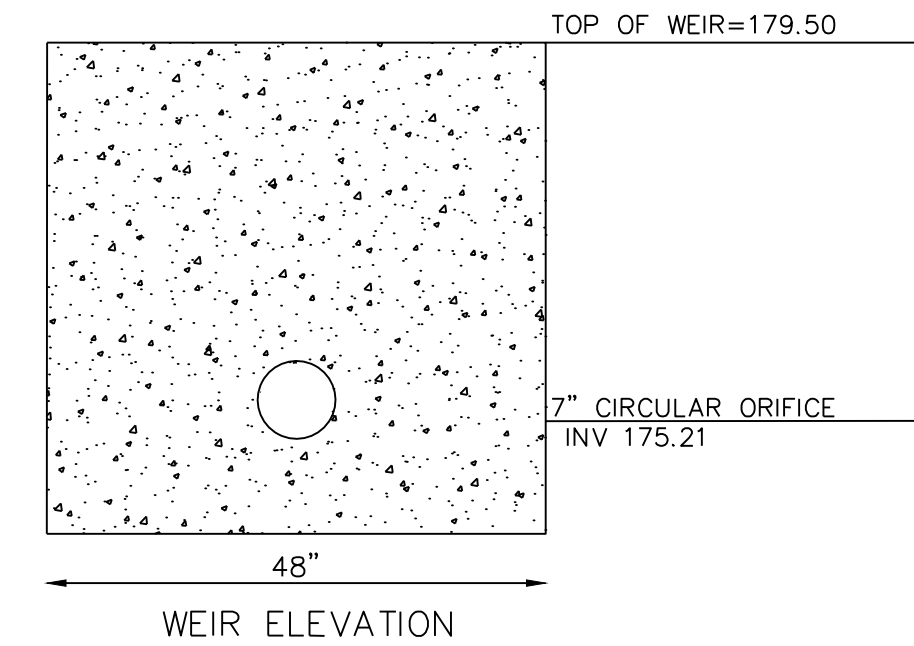


UNDERGROUND DETENTION BASIN	STONE BED INVERT	PIPE INVERT	NUMBER, LENGTH, AND DIA. OF PIPE ROWS
UNDERGROUND DETENTION BASIN #1	INV=175.00	INV=176.00	7' - 150 LF 60-INCH CMP PIPES

SUBSURFACE DETENTION BASIN



- NOTES:**
1. OUTLET CONTROL STRUCTURE SHALL BE MADE OF REINFORCED PRECAST CONCRETE.
 2. CONTRACTOR SHALL PROVIDE SUBMITTAL OF SHOP DRAWINGS PRIOR TO CONSTRUCTION.



SUBSURFACE DETENTION BASIN OUTLET CONTROL STRUCTURE

Tideflex Technologies Technical Data

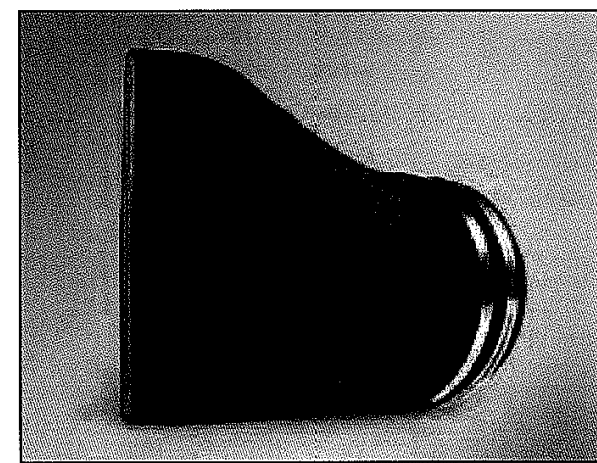
Series TF-1—Tideflex® Check Valve

Features & Benefits

- Ideal for manhole installations
- Lightweight, all-elastomer design
- Seals around entrapped solids
- Cost-effective, maintenance-free design

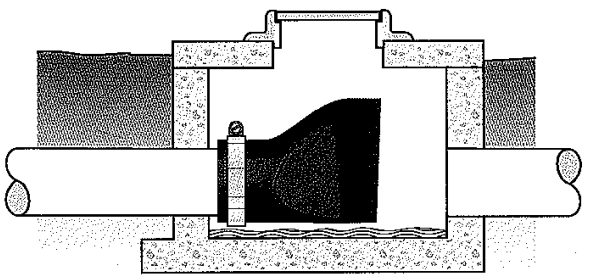
Materials of Construction

- Elastomers available in Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM, and Viton®



We are pleased to announce the introduction of the revolutionary TF-1 Check Valve. It functions and operates under the same simple principle of operation as the original TF-2 Tideflex®.

This design is ideal for existing manhole installations where the invert of the pipe is close to the floor of the vault. There are many check valves in interceptors, manholes, and vaults. These vaults are designed so that there would be a maximum gravity head; thus, the invert pipe is as close to the base as possible. The TF-1 allows installations in such applications.

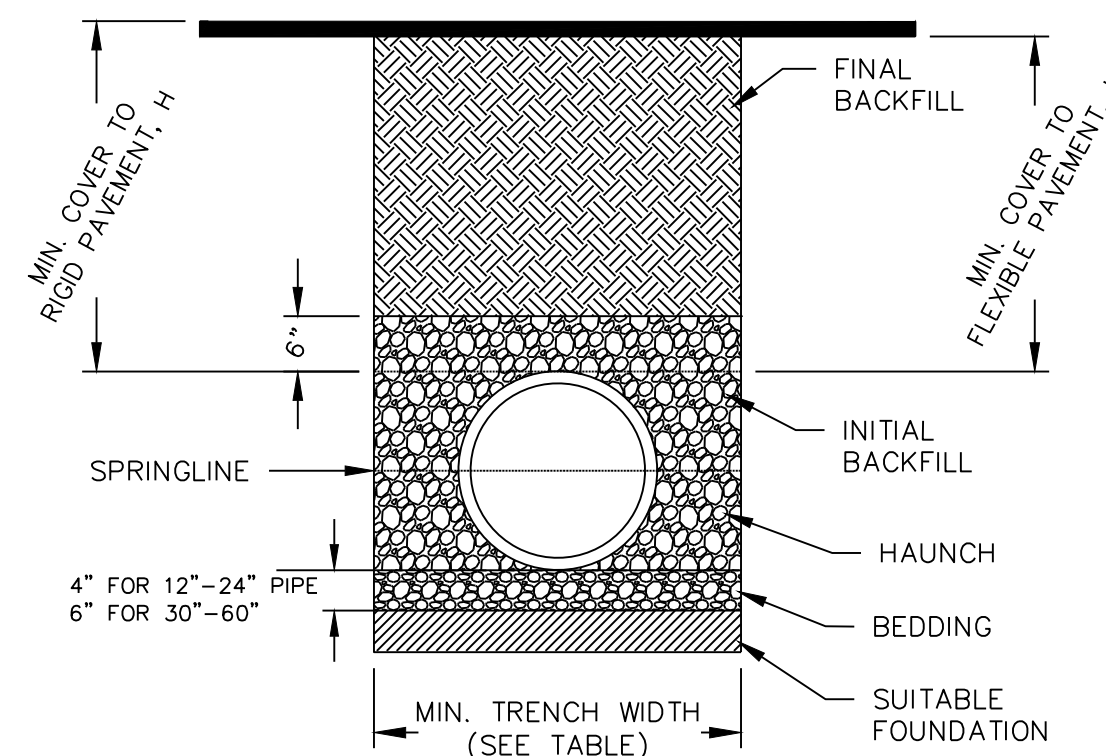


The Tideflex® Technologies Series TF-1 Tideflex® Check Valve is designed for applications in manholes, where the bottom of the manhole is close to the invert of the pipe. The TF-1 configuration allows the valve to be properly installed without manhole modification, ensuring positive backflow prevention and a lifetime of maintenance-free performance.

The TF-1 slip-on connection is based on the O.D. of the mating pipe. For in-between sizes, consult factory.

Pipe O.D.	Tideflex® TF-1 Cut Slip-On Length A	TF-1 Flange ANSI Flange Size	TF-1 Flange Length L	Maximum Height H
6"	2"	6"	12"	15-1/4"
8"	3"	8"	15-1/4"	18-3/8"
10"	4"	10"	18-3/8"	21"
12"	5"	12"	21"	23-3/8"
14"	6"	14"	24"	26-3/8"
16"	7"	16"	27"	29-3/8"
18"	8"	18"	30"	32-3/8"
20"	9"	20"	33"	35-3/8"
24"	11"	24"	39"	41-3/8"
30"	14"	30"	48"	50-3/8"
36"	17"	36"	57"	59-3/8"
42"	20"	42"	66"	68-3/8"
48"	23"	48"	75"	77-3/8"
54"	26"	54"	84"	86-3/8"
60"	29"	60"	93"	95-3/8"

FLAP VALVE DETAIL



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST ADDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 8" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

HDPE PIPE DETAIL

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

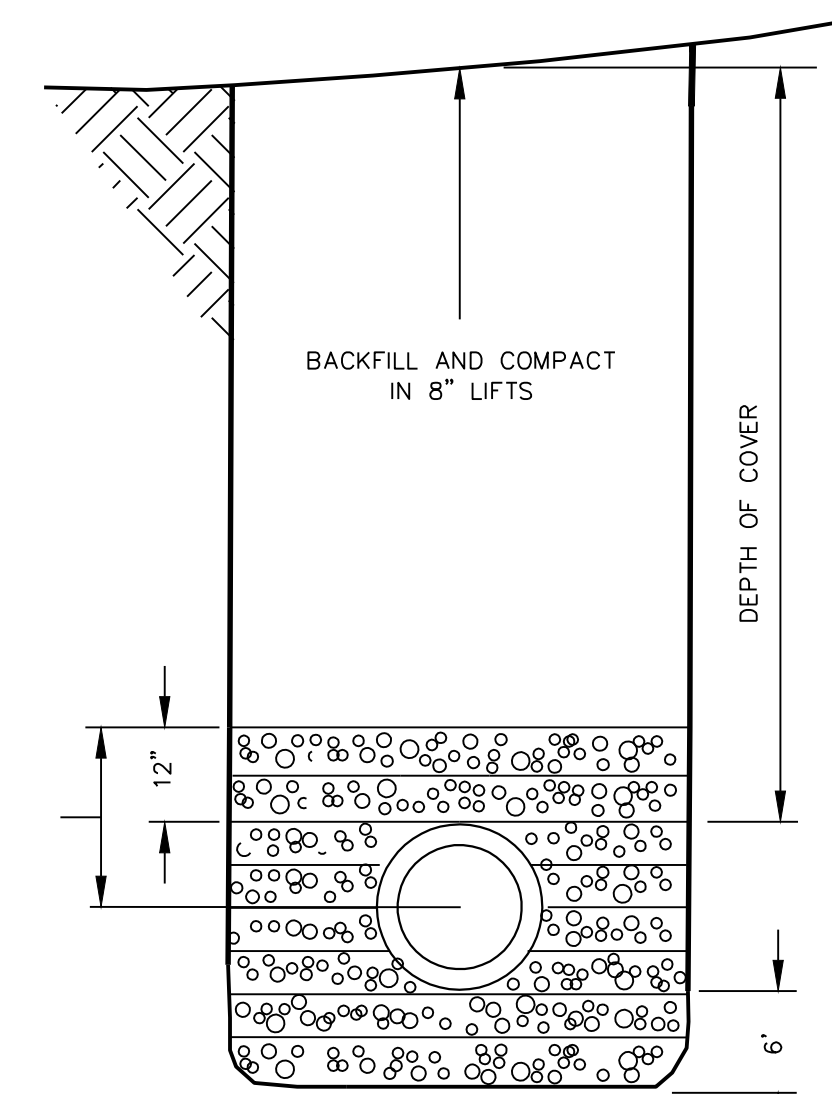
PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80**
UP TO 24"	24"
30"-36"	36"
42"-60"	48"

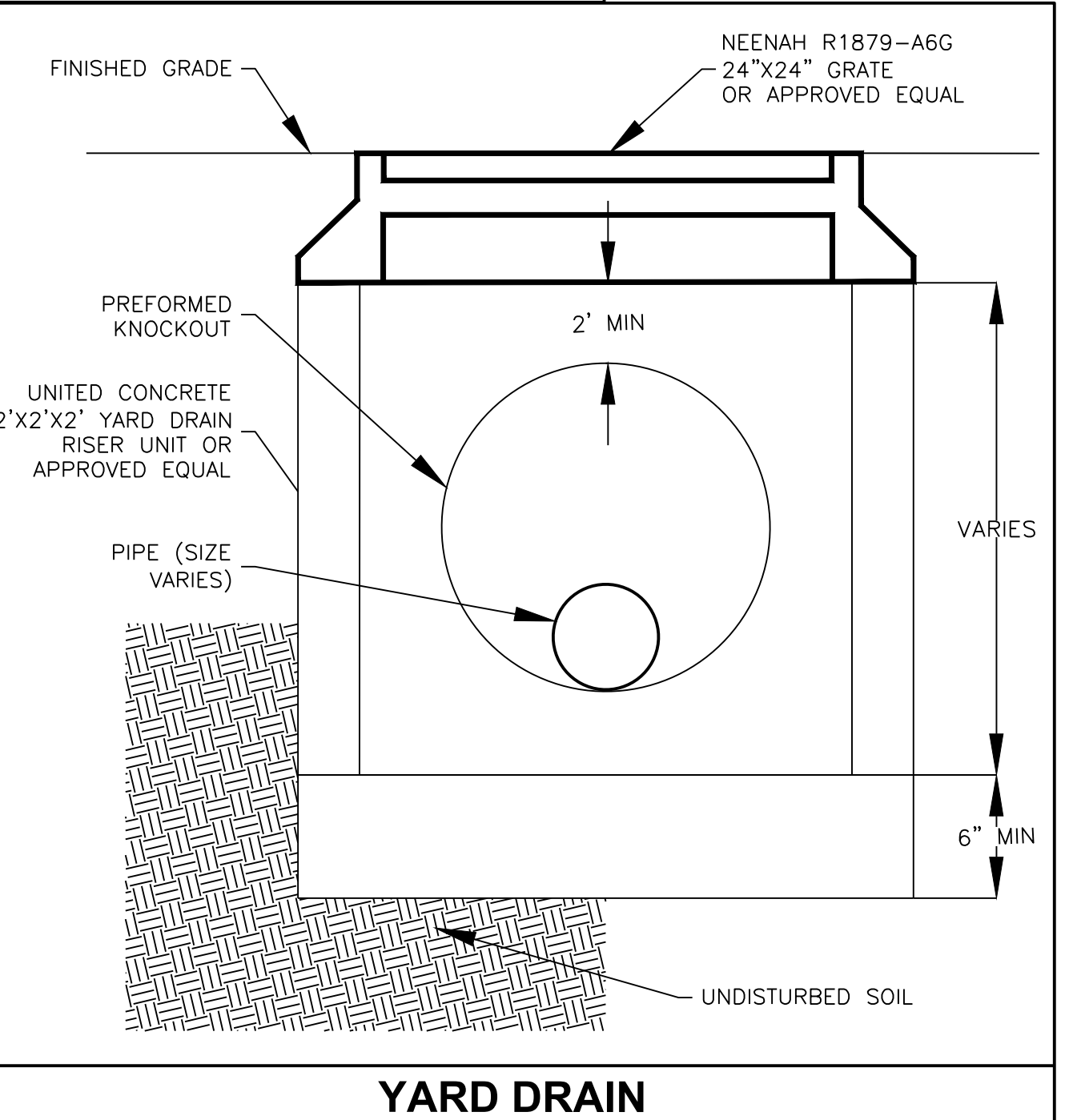
** COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE
 *** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.



NOTES:

1. HAND PLACED BACKFILL TAMPED & COMPACTED IN 6 INCH LAYERS TO 1' ABOVE TOP OF PIPE. BACKFILL TO BE GRANULAR MATERIAL W/LESS THEN 5% FINES. REMAINDER OF FILL TO BE PLACED AND COMPACTED IN 8" LIFTS AS PER SITE SPECIFICATIONS.
2. ALL STORM SEWER PIPE SHALL BE LAID IN CLASS B FINE AGGREGATE BEDDING AS PER SECTION 703.1 OF PENNDOT PUB. 408, IN SHAPED SUBGRADE, AS SPECIFIED IN PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION RC-30.
3. NOT MORE THAN ONE HUNDRED (100') OF TRENCH SHALL BE EXCAVATED IN ADVANCE OF PIPE OR UTILITY INSTALLATION AND BACKFILLING. ALL TRENCHES ARE TO BE CLOSED AT THE END OF EACH WORK DAY.
4. ANY EXISTING SITE SOILS WITHIN THE ALIGNMENT OF THE PROPOSED UTILITY CORRIDORS WILL BE EXCAVATED TO APPROXIMATELY TWO (2) FEET BELOW THE ANTICIPATED DEPTH OF THE DEEPEST UTILITY LINE. THE WIDTH OF THE EXCAVATION WILL BE APPROXIMATELY TWO (2) FEET BEYOND THE ANTICIPATED WIDTH REQUIRED TO CONTAIN ALL UTILITIES ANTICIPATED TO BE INSTALLED IN EACH CORRIDOR. EXCAVATED SOILS WILL BE RELOCATED TO DESIGNATED FILL AREAS OF THE SITE USING PROCEDURES DESCRIBED IN SECTION 5.0. THE WALLS AND BOTTOM OF THE UTILITY EXCAVATION WILL THEN BE LINED WITH A GEOTEXTILE FILTER FABRIC AND THE EXCAVATION WILL BE FILLED WITH IMPORTED CLEAN FILL.

STORM TRENCH



YARD DRAIN

APPLICANT / EQUITABLE OWNER:

AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
 201 S. MAPLE AVENUE, SUITE 100
 AMBLER, PA 19002
 P: (484)532-7830

RECORD OWNER:
 MAPLE AVE PARK PARTNERS, LLP
 110 SPRUCE ROAD
 AMBLER, PA 19002
 P: (484)532-7830

Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

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 Collectively known as Langan

Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
DRAINAGE DETAILS

Project No. 240025501
 Date 4-9-13
 Scale N.T.S.
 Drawn By JKM
 Drawing No. **CG-501**
 Sheet 12 of 25

NOTES

- CONSTRUCT IN ACCORDANCE WITH PUBLICATION 408, SECTION 605 AND SECTION 714, AND AS MODIFIED HEREIN.
- MINIMUM CONCRETE CLASS: CAST-IN-PLACE CLASS AA PRECAST CLASS AA
- MINIMUM LEVEL REQUIREMENT IN ACCORDANCE WITH PUBLICATION 408, SECTION 709 (FOR PRECAST) MINIMUM YIELD STRENGTH OF 400 MPa (60,000 PSI)
- CLEAR COVER FOR STEEL: WALLS: CAST-IN PLACE PRECAST: 2" TOP BARS 2" BOTTOM BARS 2" SIDE COVER 2" TOP BARS 2" BOTTOM BARS 2" SIDE COVER
- SLABS: CAST-IN PLACE TOP & BOTTOM BARS 2" PRECAST TOP & BOTTOM BARS 2"

THIS SHEET DEPICTS THE VARIOUS COMPONENTS REQUIRED FOR COMPLETE INLET ASSEMBLIES FOR INDIVIDUAL COMPONENTS AND FOR THE COMPLETE ASSEMBLY.

SHEET 2 OF 10 FOR CONCRETE TOP UNITS
SHEET 3 OF 10 FOR GRATES AND GRADE ADJUSTMENT RINGS
SHEET 4 OF 10 FOR STANDARD INLET BOXES (CAST-IN-PLACE)
SHEET 5 OF 10 FOR STANDARD INLET BOXES (PRECAST)
SHEET 6 OF 10 FOR MODIFIED INLET BOXES (CAST-IN-PLACE AND PRECAST)
SHEET 7 OF 10 FOR TYPE C INLET

EACH TYPE OF INLET IS SUITED FOR A PARTICULAR SITUATION AS FOLLOWS:

- TYPE C INLET IS DESIGNED FOR INSTALLATION WITH NON-MOUNTABLE CURBS.
- TYPE S INLET IS DESIGNED FOR INSTALLATION IN A SHOULDER AREA WITH MOUNTABLE CURBS.
- TYPE M INLET IS DESIGNED FOR INSTALLATION IN A SHOULDER AREA WITH MOUNTABLE CURBS.
- TYPE S INLET IS DESIGNED FOR INSTALLATION IN SHOULDER AREAS.

4. THE SELECTION OF COMPONENTS TO ACHIEVE A SPECIFIED INLET ASSEMBLY IS THE CONTRACTOR'S RESPONSIBILITY.

5. USE PRECAST CONCRETE OR STEEL GRADE ADJUSTMENT RINGS WHEN REQUIRED. (REQUIREMENT FOR PRECAST)

6. FOR WALL REINFORCEMENT, BOTH DIRECTIONS, USE 10" 2# W/ EACH WAY; EACH FACE 6" MAX SPACING.

7. FOR FINISH REINFORCEMENT, TOP AND BOTTOM, USE #4 BARS AT 12" CENTERS EACH WAY OR 12" 2# W/ 6" MAX SPACING.

8. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

9. PROVIDE WEEP HOLES ON INLET BOXES WHEN REQUIRED.

10. PIPES MAY BE CONNECTED TO DRAINAGE STRUCTURES (PRECAST OR CAST-IN-PLACE) WITH MORTAR OR WATERPROOF ROBERT FLEXIBLE CONNECTORS.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN**

**INLETS
INLET ASSEMBLIES**

RECOMMENDED APR. 15, 2004 SHEET 1 OF 10
DIRECTOR, BUREAU OF DESIGN SHEET ENGINEER RC-34M

NOTES

- THIS SHEET DEPICTS THE SHAPE AND DIMENSIONS REQUIRED FOR UNIFORMITY AND COMPATIBILITY. PERMIT ONLY TOP UNITS SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15. FOR DEVIATIONS OR MODIFICATIONS OF THE STANDARDS SUBMIT SHOP DRAWINGS FOR APPROVAL.
- CAST-IN-PLACE TOP UNITS MAY BE MONOLITHIC WITH THE INLET BOX.
- PROVIDE ANCHORS EMBEDDED IN THE CONCRETE AS A BEARING AREA FOR THE GRADE FOR ALL TOP UNITS WHICH SEAT THE GRADE DIRECTLY WITHIN THE UNIT.
- PLACE A TYPE M INLET ADJACENT TO THE BACK EDGE OF THE CURB, FLUSH WITH THE PARALLEL SURFACE. WHEN REQUIRED WITHIN A CONCRETE MOUNTABLE CURB SECTION.
- DOWEL TYPE C INLET TOP UNITS WITH 2-#25 x 2-#8 x 1'-0" DOWEL BARS AND PLACE PRECAST EXPANSION JOINT FILLER 1/2" WIDE WHEN CONNECTING TO ADJACENT CURB SECTIONS.
- THE PLACEMENT OF THE TYPE S INLET RELATIVE TO THE OUTER INVERT IS DEPENDENT ON THE RATE OF BACK SLOPE. FOR BACK SLOPES GREATER THAN 0.1, LOCATE THE INLET TO THE BACK SLOPE. LOCATE THE INTERSECTION OF THE BACK SLOPE LINE INTERSECTS THE EDGE OF THE INLET GRADE.
- TAPERS MAY BE PROVIDED ON INSIDE VERTICAL FACES OF PRECAST INLET TOPS TO FACILITATE FORM STRIPPING. TAPERS WILL RESULT IN INTERNAL BOTTOM DIMENSIONS THAT VARY TO A MAXIMUM OF 1".

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN**

**INLETS
CONCRETE TOP UNITS
CAST-IN-PLACE AND PRECAST**

RECOMMENDED APR. 15, 2004 SHEET 2 OF 10
DIRECTOR, BUREAU OF DESIGN SHEET ENGINEER RC-34M

NOTES

- CONSTRUCT IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 605 AND SECTION 714.
- PROVIDE INLETS WITH A MAXIMUM HEIGHT TO BE THE GRADE ELEVATION. WHEN THE REQUIRED HEIGHT EXCEEDS THE MAXIMUM SHOWN, SPECIAL DETAILS AND DESIGN FOR THE INLET WALLS AND BASE. COMBINED INLETS SHALL EXCEED A MAXIMUM HEIGHT OF 24".
- WHEN A SOLUTION CAN NOT BE SATISFIED BY THE MODIFIED INLET BOXES SHOWN, PROVIDE SPECIAL DETAILS AND DESIGN.
- FOR ORIENTATION OF THE TYPE C INLET TOP WITH MODIFIED TYPE I INLET BOXES, THE INLET INSTALLATION DETAILS ARE SHOWN BELOW. SHOW ANY VARIATION ON THE CONSTRUCTION DRAWING BY SPECIAL DETAILS.
- PROVIDE A MINIMUM HEIGHT OF 30" MEASURED FROM THE TOP SURFACE OF THE TOP UNIT TO THE INLET BOX. WHEN THE TOP UNIT AND EITHER A MODIFIED TYPE I OR A MODIFIED TYPE II INLET BOX ARE CONSTRUCTED MONOLITHICALLY.
- FOR THAT PORTION OF THE INLET ASSEMBLY WHERE THE DEPTH MEASURED FROM GRADE EXCEEDS THE MINIMUM HEIGHT SHOWN, PROVIDE SPECIAL DETAILS.
- PERMIT ONLY PRECAST MODIFIED INLET BOXES SUPPLIED BY A MANUFACTURER LISTED IN BULLETIN 15.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN**

**INLETS
MODIFIED INLET BOXES
(CAST-IN-PLACE AND PRECAST)**

RECOMMENDED APR. 15, 2004 SHEET 3 OF 10
DIRECTOR, BUREAU OF DESIGN SHEET ENGINEER RC-34M

LEGEND

ADDITIONAL CONCRETE TO SHAPE THE BOTTOM

NOTES

- CONSTRUCT INLET BOXES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 605.
- PROVIDE INLET BOXES WITH 24" x 45" STANDARD OPENINGS TO ACCOMMODATE THE STANDARD TOP COMPONENTS.
- FOR CAST-IN-PLACE OR PRECAST CONSTRUCTION, PROVIDE INLET WALLS 6" THICK, UNLESS OTHERWISE INDICATED.
- INLETS THAT EXCEED THE MAXIMUM HEIGHT SHOWN SHALL REQUIRE SPECIAL DETAILS AND DESIGN FOR THE INLET WALLS AND BASE. CONSTRUCT INLETS THAT EXCEED 15' IN HEIGHT WITH STEPS SIMILAR TO MANHOLES. SEE RC-39M.
- LOCATE PIPE OR PIPES, AS INDICATED, WITH THE INLET BOTTOM SHAPED TO CHANNEL THE FLOW TOWARD THE OUTLET PIPE. WHEN PROJECT CONDITIONS REQUIRE PIPES TO BE LOCATED WITHIN 4" FROM THE TOP OF THE INLET BOX, PROVIDE AN ADDITIONAL #3 REINFORCEMENT BAR LOCATED 12" FROM THE TOP OF THE INLET BASE. FULLY DEVELOP ALL REINFORCED CONCRETE PIPES TO FULL. THE PIPE BLOCKOUT SHALL BE FORMED TIGHT WITH THE INLET BASE. LIMIT PIPE BLOCKOUT OF WALL TO 1".
- PLACE #4 REINFORCEMENT BARS, MINIMUM 12" LONG, SPACED AT 12" C TO C, AS DOWELS BETWEEN THE INLET BASE AND WALLS WHEN THE CONCRETE, WALLS AND INLET BASE ARE NOT CONSTRUCTED MONOLITHICALLY. THE DOWELS MAY BE ELIMINATED IF AN ALTERNATE JOINT IS CONSTRUCTED AS SHOWN IN DETAILS A & B.
- FOR CAST-IN-PLACE CONSTRUCTION, WHEN THE BASE IS CONSTRUCTED MONOLITHICALLY WITH THE INLET BOX, PROVIDE 3" MINIMUM FROM THE BOTTOM OF THE PIPE TO THE BOTTOM OF THE INLET BOX. USE A MODIFIED INLET BOX. SEE SHEET 9.
- FOR INLETS OTHER THAN AS SHOWN ON THE STANDARDS, PROVIDE REINFORCEMENT BASED ON PNE 93 AND P-92 LOADING AND IN ACCORDANCE WITH PUBLICATION 408.
- CONSTRUCTION JOINTS AND KEYS MAY BE CONSTRUCTED UPWARDS OR DOWNWARDS. CLEAN SURFACES AND KEYS THOROUGHLY BEFORE PLACING.
- FOR SUBBASE, SEE NOTE 6 ON SHEET 8.
- WHEN NECESSARY, THE BLOCKOUT MAY REMOVE UP TO 1" OF EACH WALL AT 3:00/9:00 LOCATIONS FOR RCP PIPE CONNECTIONS.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN**

**INLETS
STANDARD INLET BOXES
(CAST-IN-PLACE)**

RECOMMENDED APR. 15, 2004 SHEET 4 OF 10
DIRECTOR, BUREAU OF DESIGN SHEET ENGINEER RC-34M

NOTE: THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE MOST CURRENT APPLICABLE ROADWAY CONSTRUCTION DETAILS FROM PENNDOT PUBLICATION 72M.

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REVISIONS	Date	Description	No.
10-3-13	BOROUGH COMMENTS		2.
6-21-13	BOROUGH COMMENTS		1.

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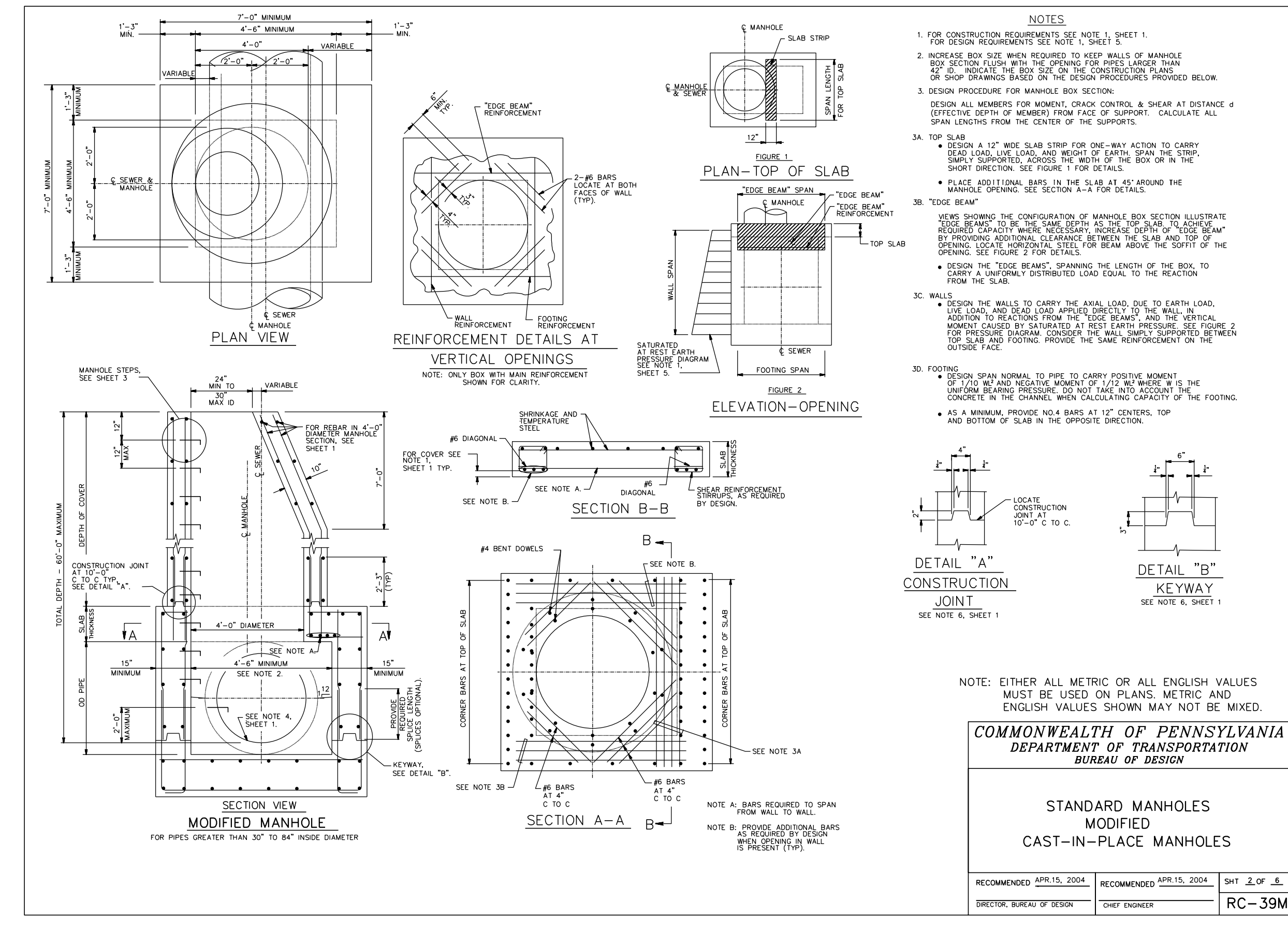
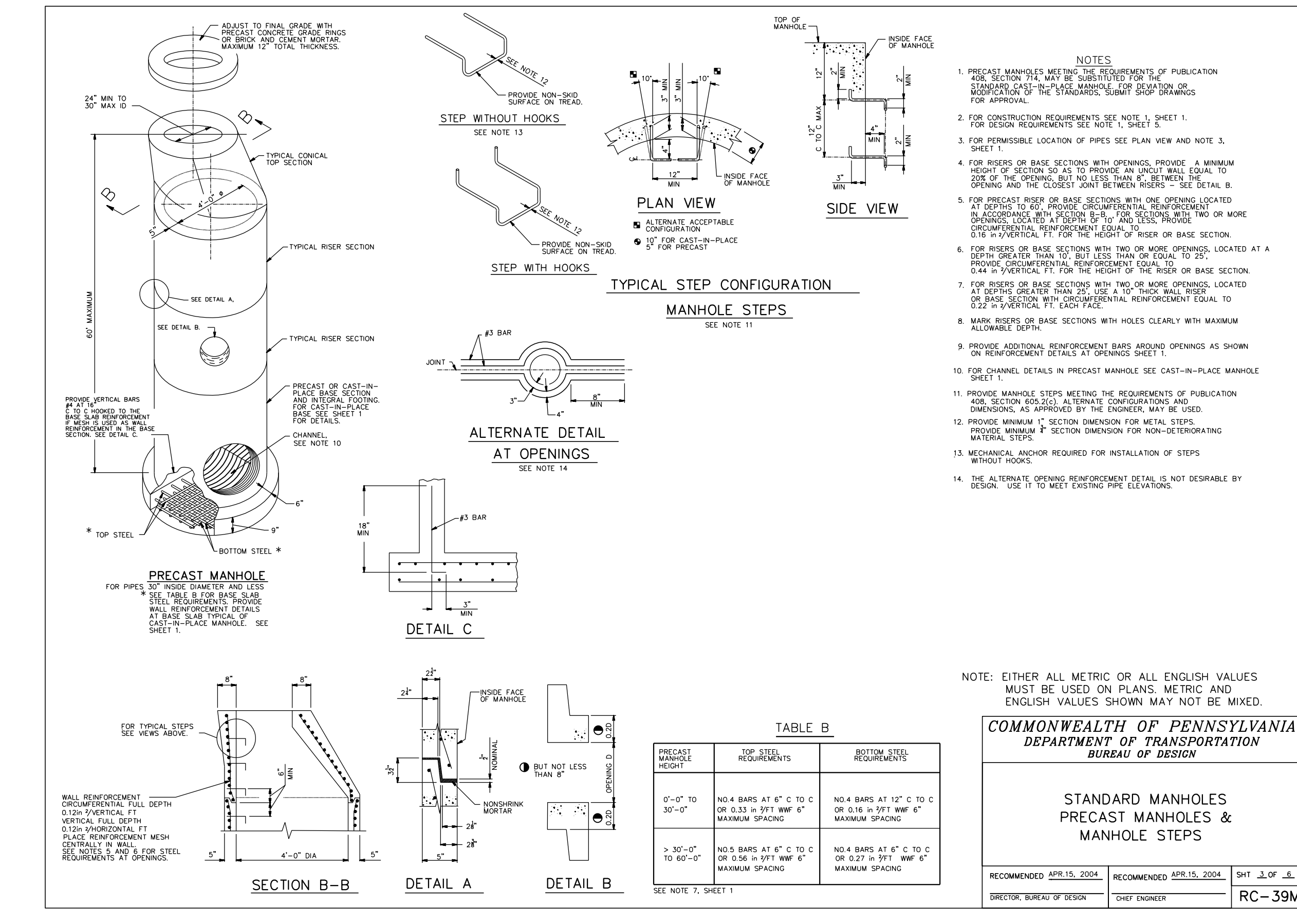
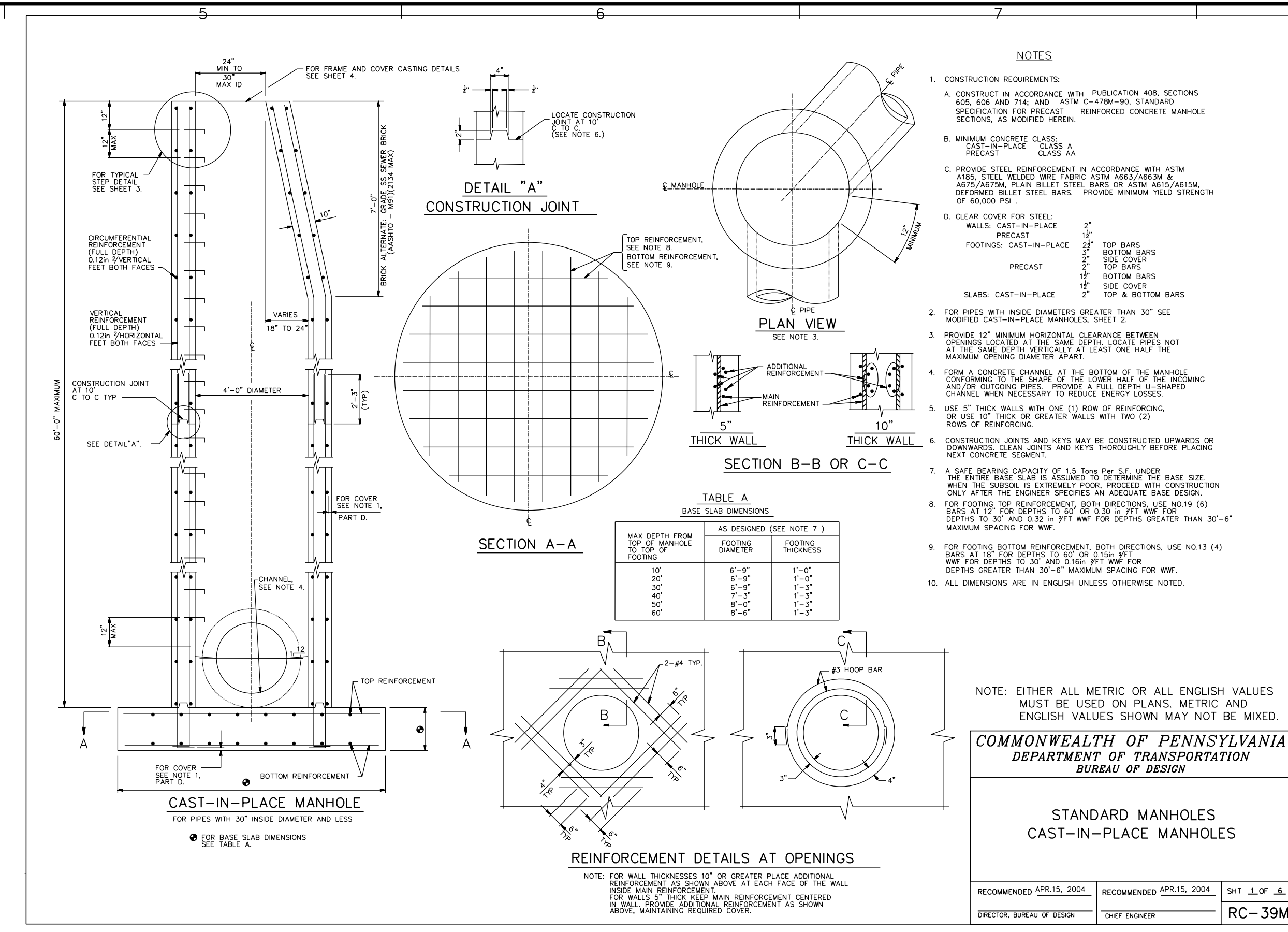
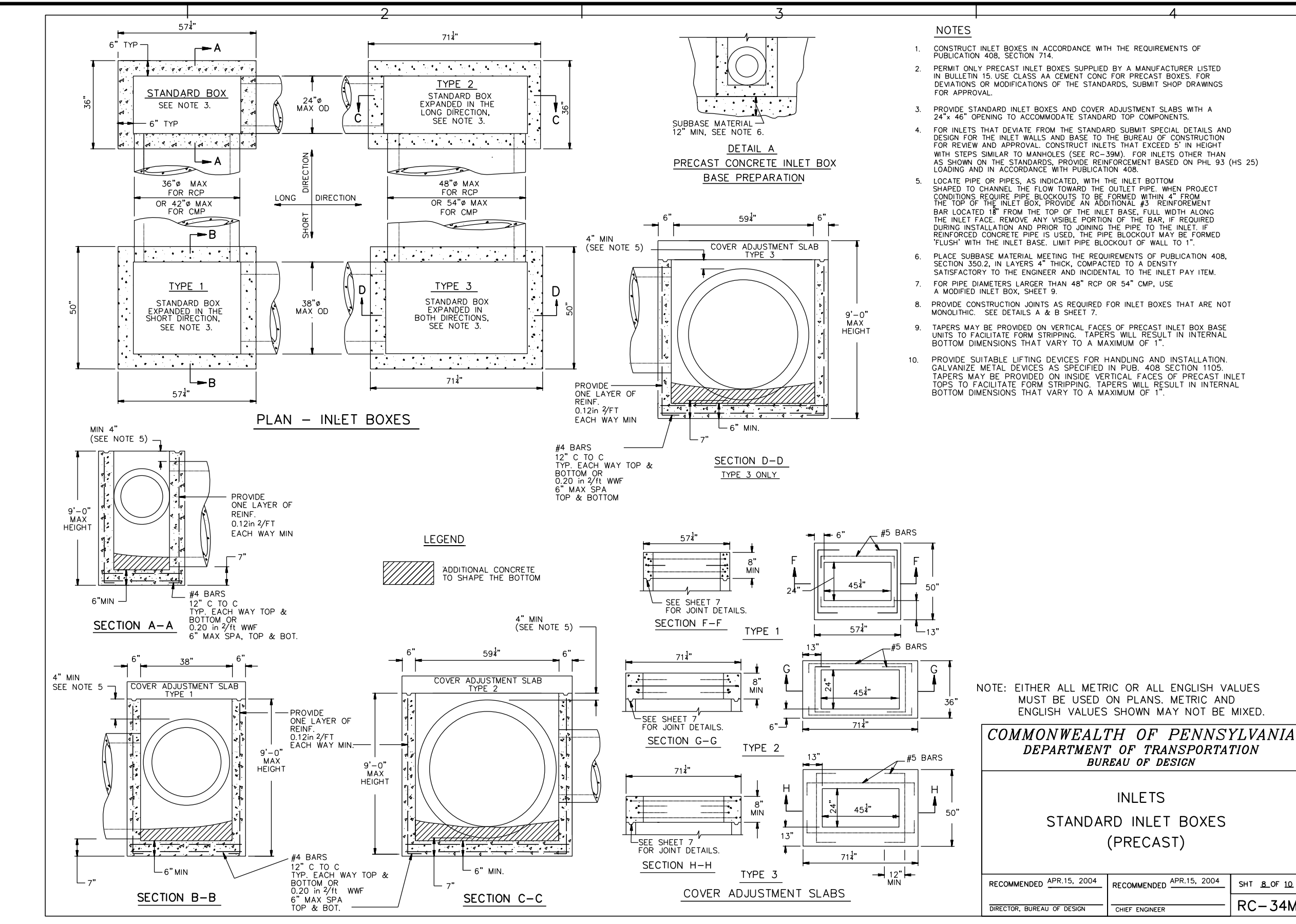
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ABU DHABI ATHENS DOHA
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Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

NOTE: ALL CURBED CATCH BASINS ARE TO BE PENNDOT TYPE C INLETS, AND ALL CURBLESS CATCH BASINS ARE TO BE PENNDOT TYPE M INLETS (UNLESS OTHERWISE SPECIFIED ON SHEET CG-201). THESE INLETS ARE TO BE CONSTRUCTED TO THE STANDARDS OF THE LATEST EDITION OF PENNDOT PUBLICATION #72M, STANDARDS FOR ROADWAY CONSTRUCTION.

Project	AMBLER CROSSINGS	Drawing Title	DRAINAGE DETAILS
Project No.	240025501	Date	4-9-13
Scale	N.T.S.	Drawn By	JKM
Project No.	240025501	Drawing No.	CG-502
Sheet 13 of 25			

Filename: \\langan.com\data\BE\10105\240025501\Cadd Data - 240025501\SheetFiles\240025501-CG501-0101.dwg Date: 10/2/2013 Time: 16:17 User: jkoninghoff Style Table: Langan.stb Layout: CG-502



NOTE: THE CONTRACTOR IS RESPONSIBLE FOR

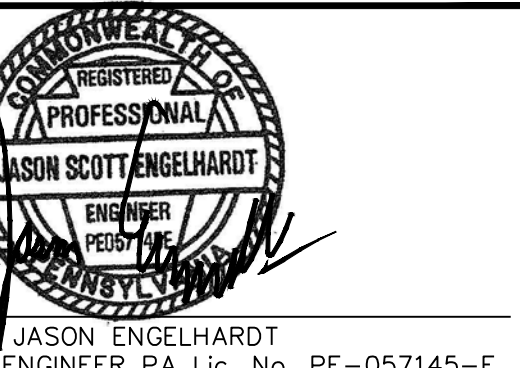
OBTAINING THE MOST CURRENT APPLICABLE ROADWAY CONSTRUCTION DETAILS FROM PENNDOT PUBLICATION 72M.

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Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS



Project: **AMBLER CROSSINGS**

Drawing Title: **DRAINAGE DETAILS**

Project No. 240025501
Date 4-9-13
Scale N.T.S.
Drawn By JKM

Project No.	Drawing No.
240025501	

Sheet 14 of 25

SUBMISSION DATE: 2013-10-03 PROJECT No. 240025501

UTILITY NOTES

- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY (WATER, SEWER, GAS, ELECTRIC, TELEPHONE AND CABLE) LOCATIONS, INVERTS AND CONDITIONS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN ON THE DRAWINGS AND REQUIRING MODIFICATIONS TO THE SITE DESIGN SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONSTRUCTION. DIFFERING UTILITY CONDITIONS THAT ARE ENCOUNTERED BY THE CONTRACTOR, THAT REQUIRE MODIFICATION OF SITE DESIGN AND THAT ARE NOT BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT AT HIS SOLE COST.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY CHANGES. THIS INCLUDES SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED, AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- THE LOCATION OF EXISTING GAS MAINS ARE APPROXIMATE. THE CONTRACTOR MUST CONSULT THE LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION. ALL PROPOSED GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
- THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR MUST CONSULT THE LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION. ALL PROPOSED ELECTRICAL WORK, TRANSFORMER PADS, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
- ALL GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS. MIN. DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SHALL BE 2 FT.
- ALL WATER MAIN WORK SHALL BE IN ACCORDANCE WITH THE AMBLER BOROUGH WATER DEPARTMENT STANDARDS AND SPECIFICATIONS. SEE CONSTRUCTION NOTES BELOW.
- THE CONTRACTOR SHALL COORDINATE THE SANITARY SEWER WORK WITH AMBLER BOROUGH.
- A MINIMUM EIGHTEEN (18) INCHES VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAIN AND ALL OTHER UTILITIES. WHERE CLEARANCE CANNOT BE MAINTAINED, THEN WATER MAIN SHALL BE ENCASED IN CONCRETE TO FEET ON EACH SIDE OF THE CROSSING. IN CASES WHERE THE UTILITY IS A SANITARY OR STORM SEWER MAIN OR LATERAL AND THE CLEARANCE CANNOT BE MAINTAINED, THEN THE SEWER SHALL ALSO BE ENCASED.
- THE CONTRACTOR MUST CONTACT AMBLER BOROUGH ONE WEEK PRIOR TO WATER MAIN CONSTRUCTION, AND 72 HOURS PRIOR TO EXCAVATION NEAR AND CONNECTION TO EXISTING WATER AND SEWER MAIN.
- ALL WATER MAIN FITTINGS AND VALVES SHALL BE MECHANICAL JOINT (RESTRAINED) AND THE FITTINGS SHALL BE PROVIDED WITH THRUST BLOCKING. REFER TO DETAILS FOR THRUST BLOCK DETAILS AND FITTING SCHEDULES.
- ALL FIRE HYDRANTS AND VALVES SHALL OPEN RIGHT (CLOCKWISE).
- SANITARY LATERALS SHALL BE INSTALLED ACCORDING TO THE TYPICAL SANITARY SEWER LATERAL DETAIL.
- ALL PROPOSED SANITARY SEWER LINES AND APPURTENANCES WITHIN THE SUBJECT PROPERTY BOUNDARY WILL BE PRIVATELY OWNED AND MAINTAINED.
- ALL UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS REQUIRED BY PROVIDER.
- CONTRACTOR SHALL COORDINATE EXACT LOCATION OF UTILITIES WITH APPROVED BUILDING PLANS.
- WATER LINE SIZE TO BE VERIFIED BY PLUMBING ENGINEER BASED ON FIXTURE COUNT, FIRE FLOW REQUIREMENTS AND FIRE FLOW TESTING.
- F.D.C. - FIRE DEPARTMENT CONNECTION.
- AS A CONDITION OF FINAL APPROVAL, AN EVALUATION OF THE EXISTING 8 INCH SANITARY SEWER IN SOUTH CHESTNUT STREET WILL BE PERFORMED PRIOR TO CONSTRUCTION OF THE PROPOSED SANITARY SEWER SYSTEM. AN INSPECTION REPORT AND DVD WILL BE FORWARDED TO THE BOROUGH ENGINEER FOR REVIEW.
- THE EXISTING SANITARY SEWER BETWEEN EXISTING SANITARY MANHOLES 1&2 WILL BE INSPECTED FOLLOWING CONSTRUCTION OF THE PROPOSED SANITARY SEWER SYSTEM.
- A BLANKET EASEMENT OVER PROPOSED SANITARY SEWER AND WATER SYSTEMS IS TO BE OFFERED FOR DEDICATION TO THE BOROUGH OF AMBLER.

UTILITY TRENCH EXCAVATION GUIDELINES

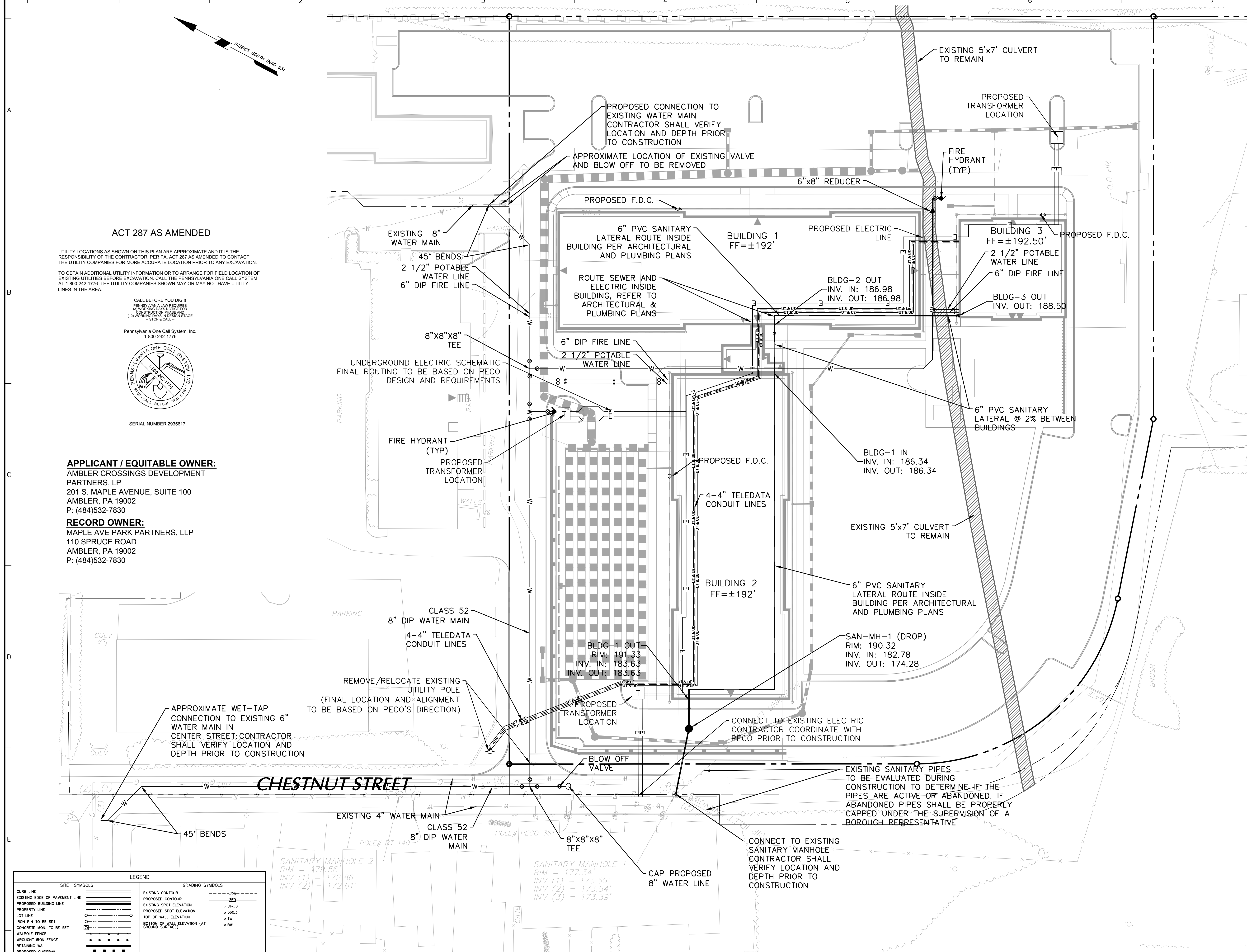
- CONSTRUCTION REQUIREMENTS
 - WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
 - LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
 - ALL DISTURBED AREAS ARE TO BE RESTORED AND STABILIZED WITHIN TWENTY (20) DAYS IN ACCORDANCE WITH THE STABILIZATION METHODS APPLICABLE TO THE AREA OF DISTURBANCE (I.E. SWALES WITH LINER, ROAD WITH BASE COARSE).
- EXCEPTIONS - IN CERTAIN CASES TRENCHES CANNOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED IN THESE CASES, ALL OF THE REQUIREMENTS LISTED UNDER ITEM 1 WILL REMAIN IN EFFECT WITH THE FOLLOWING EXCEPTIONS:
 - DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY.
 - IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL SUBGRADE ELEVATION, AND THE AREA SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.

WATER SYSTEM CONSTRUCTION NOTES

- WATER SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION BY AMBLER BOROUGH WATER DEPARTMENT.
- ALL WATER LINES SHALL HAVE A MINIMUM OF 4' OF COVER.
- ALL WATER LINES SHALL BE DUCTILE IRON PIPE CLASS 52.
- VALVES SHALL BE SET 5' FROM A FITTING.
- MEGALUGS SHALL BE USED TO RESTRAIN MECHANICAL JOINT FITTINGS AND FIELD LOCK GASKETS TO RESTRAIN PUSH-ON JOINTS WITHIN 40" OF BOTH HORIZONTAL AND VERTICAL BENDS IN WATER LINES 12" IN DIAMETER AND SMALLER.
- A 5' MINIMUM HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER LINES AND TREE PLANTING.
- ALL FITTINGS AND HYDRANTS SHALL BE PROVIDED WITH CONCRETE THRUST BLOCKS.
- FIRE HYDRANT LINES SHALL BE 6" DIAMETER, WITH 6" DIAMETER SHUT OFF VALVES.

SANITARY SYSTEM CONSTRUCTION NOTES

- ALL PRECAST SANITARY MANHOLES SHALL RECEIVE TWO INTERIOR COATS (6 MIL. DFT. EACH) OF A WHITE EPOXY COATING.
- MANHOLES NOT LOCATED WITHIN A PAVED AREA SHALL RECEIVE A WATERTIGHT FRAME AND COVER.
- MANHOLES IN PAVING SHALL BE PROVIDED WITH A DEEP BOWL INSERT WITH VENTILATION HOLES.
- CLEANOUTS LOCATED IN PAVED AREAS SHALL BE PROVIDED WITH A CAST IRON LID AND BOX ASSEMBLY.



ACT 287 AS AMENDED

UTILITY LOCATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PER PA. ACT 287 AS AMENDED TO CONTACT THE UTILITY COMPANIES FOR MORE ACCURATE LOCATION PRIOR TO ANY EXCAVATION. TO OBTAIN ADDITIONAL UTILITY INFORMATION OR TO ARRANGE FOR FIELD LOCATION OF EXISTING UTILITIES BEFORE EXCAVATION, CALL THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776. THE UTILITY COMPANIES SHOWN MAY OR MAY NOT HAVE UTILITY LINES IN THE AREA.

CALL BEFORE YOU DIG!! PENNSYLVANIA ONE CALL SYSTEM (1) WORKING DAYS NOTICE FOR STOP & CALL (2) STOP & CALL

Pennsylvania One Call System, Inc. 1-800-242-1776



SERIAL NUMBER 2935617

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LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
CURB LINE	EXISTING CONTOUR
EXISTING EDGE OF PAVEMENT LINE	PROPOSED CONTOUR
PROPOSED BUILDING LINE	EXISTING SPOT ELEVATION
PROPERTY LINE	PROPOSED SPOT ELEVATION
LOT LINE	TOP OF WALL ELEVATION
IRON PIN TO BE SET	BOTTOM OF WALL ELEVATION (AT GRADING SURFACE)
CONCRETE MON. TO BE SET	
WALPOLE FENCE	
WOODPOST IRON FENCE	
RETAINING WALL	
PROPOSED GUIDELINE	
GRADING/ACCESS EASEMENT	
UTILITY EASEMENT	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
EXISTING GAS MAIN	EXISTING GAS VALVE
EXISTING WATER MAIN	EXISTING CATCH BASIN
PROPOSED STORM SEWER	EXISTING WATER VALVE
PROPOSED SANITARY SEWER	EXISTING MANHOLE
PROPOSED WATER MAIN	EXISTING ELECTRIC POLE
PROPOSED STORM SEWER	PROPOSED WATER VALVE
PROPOSED WATER MAIN	PROPOSED HYDRANT
PROPOSED ELECTRIC	
PROPOSED GAS	



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

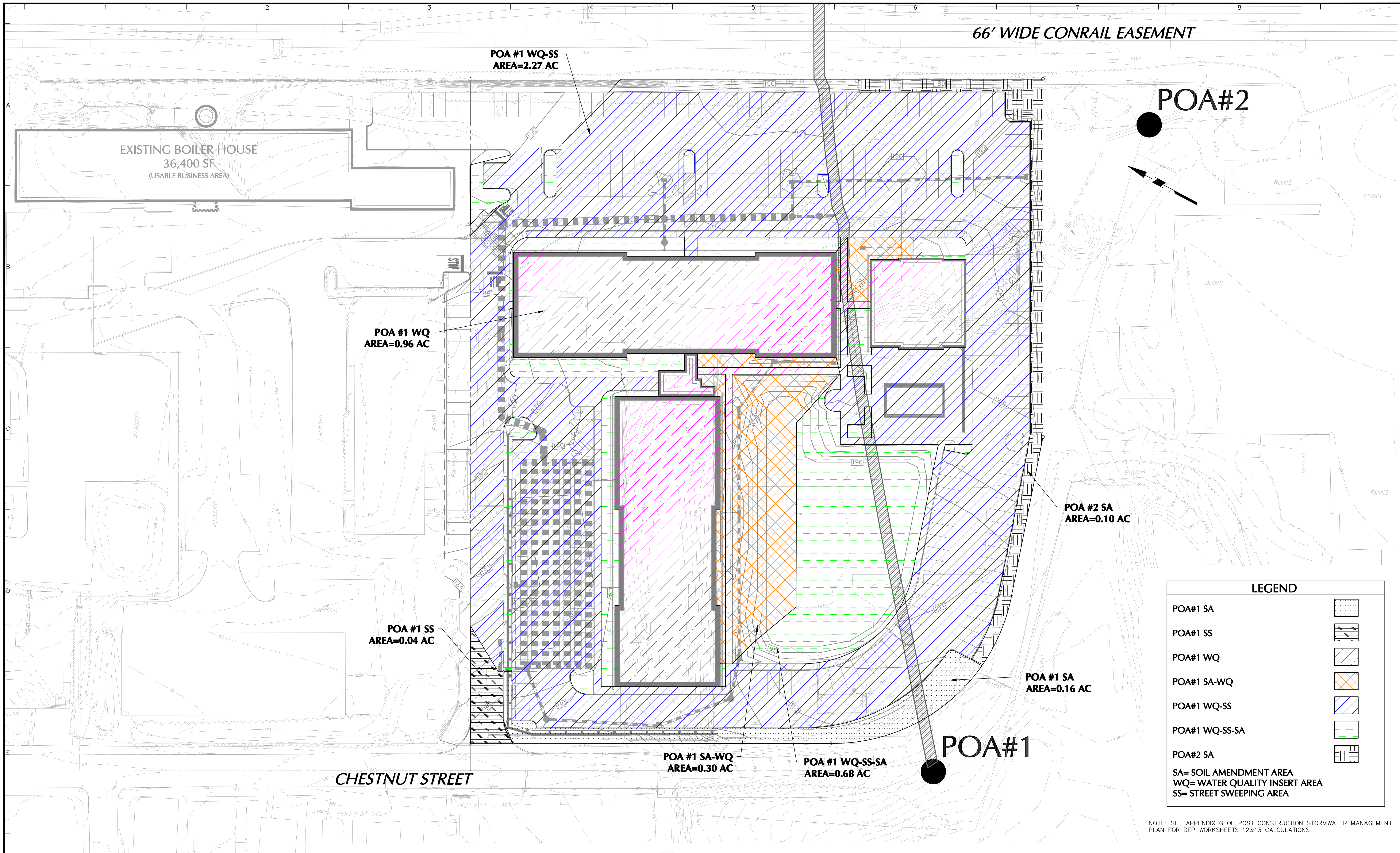
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Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No.	240025501	Drawing No.	
Date	4-9-13	Scale	CU-101
Scale	1"=30'		
Drawn By	JKM	Sheet 17 of 25	

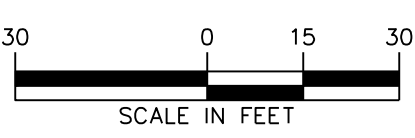


LEGEND

POA#1 SA	
POA#1 SS	
POA#1 WQ	
POA#1 SA-WQ	
POA#1 WQ-SS	
POA#1 WQ-SS-SA	
POA#2 SA	

SA= SOIL AMENDMENT AREA
WQ= WATER QUALITY INSERT AREA
SS= STREET SWEEPING AREA

NOTE: SEE APPENDIX G OF POST CONSTRUCTION STORMWATER MANAGEMENT PLAN FOR DEP WORKSHEETS 12&13 CALCULATIONS



Date	Description	No.
12-18-13	PER DEP REVIEW LETTER	3.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

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Collectively known as Langan

Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
**POST CONSTRUCTION
STORMWATER
MANAGEMENT BMP
WATERSHED MAP**

Project No.	240025501	Drawing No.	PCSM-102
Date	4-9-13		
Scale	1" = 30'		
Drawn By	JKM		
			Sheet 16 of 26

SUBMISSION DATE: 2013-12-18
PROJECT No. 240025501
LANGAN

SOIL AMENDMENT & RESTORATION SPECIFICATIONS FOR MINOR COMPACTION

THE FOLLOWING SPECIFICATIONS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. THESE SPECIFICATIONS INCLUDE INFORMATION ON ACCEPTABLE MATERIALS FOR TYPICAL APPLICATIONS, BUT ARE BY NO MEANS EXCLUSIVE OR LIMITING.

- SCOPE
 - THIS SPECIFICATION COVERS THE USE OF COMPOST FOR SOIL AMENDMENT AND THE MECHANICAL RESTORATION OF COMPACTED, ERODED AND NON-VEGETATED SOILS. SOIL AMENDMENT AND RESTORATION IS NECESSARY WHERE EXISTING SOIL HAS BEEN DEEMED UNHEALTHY IN ORDER TO RESTORE SOIL STRUCTURE AND FUNCTION, INCREASE INFILTRATION POTENTIAL AND SUPPORT HEALTHY VEGETATIVE COMMUNITIES.
- COMPOST MATERIALS
 - COMPOST PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION ARE DESCRIBED IN TABLE 1. THE PRODUCT'S PARAMETERS WILL VARY BASED ON WHETHER VEGETATION WILL BE ESTABLISHED ON THE TREATED SLOPE.
 - ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION. APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (E.G., HEAVY METALS, PESTICIDES, ETC.) AND PATHOGEN LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED.
 - VERY COARSE COMPOST SHOULD BE AVOIDED FOR SOIL AMENDMENT AS IT WILL MAKE PLANTING AND CROP ESTABLISHMENT MORE DIFFICULT.
 - NOTE 1 - SPECIFYING THE USE OF COMPOST PRODUCTS THAT ARE CERTIFIED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING (STA) PROGRAM (WWW.COMPOSTINGCOUNCIL.ORG) WILL ALLOW FOR THE ACQUISITION OF PRODUCTS THAT ARE ANALYZED ON A ROUTINE BASIS, USING THE SPECIFIED TEST METHODS. STA PARTICIPANTS ARE ALSO REQUIRED TO PROVIDE A STANDARD PRODUCT LABEL TO ALL CUSTOMERS, ALLOWING EASY COMPARISON TO OTHER PRODUCTS.
- SUB-SOILING TO RELIEVE COMPACTION
 - BEFORE THE TIME THE COMPOST IS PLACED AND PREFERABLY WHEN EXCAVATION IS COMPLETED, THE SUBSOIL SHALL BE IN A LOOSE, FRIABLE CONDITION TO A DEPTH OF 8 INCHES BELOW FINAL TOPSOIL GRADE AND THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH.
 - TO ACHIEVE THIS CONDITION, SUBSOILING, RIPPING, OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED AS DIRECTED BY THE OWNERS REPRESENTATIVE, WHEREVER THE SUBSOIL HAS BEEN COMPACTED BY EQUIPMENT OPERATION OR HAS BECOME DRIED OUT AND CRUSTED, AND WHERE NECESSARY TO OBLITERATE EROSION RILLS. SUB-SOILING SHALL BE REQUIRED TO REDUCE SOIL COMPACTION IN ALL AREAS WHERE PLANT ESTABLISHMENT IS PLANNED. SUB-SOILING SHALL BE PERFORMED BY THE PRIME OR EXCAVATING CONTRACTOR AND SHALL OCCUR BEFORE COMPOST PLACEMENT.
 - SUBSOILED AREAS SHALL BE LOOSENED TO LESS THAN 1400 KPA (200 PSI) TO A DEPTH OF 8 INCHES BELOW FINAL TOPSOIL GRADE. WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL VERIFY THAT THE SUB-SOILING WORK CONFORMS TO THE SPECIFIED DEPTH.
 - SUB-SOILING SHALL FORM A TWO-DIRECTIONAL GRID. CHANNELS SHALL BE CREATED BY A COMMERCIALY AVAILABLE, MULTI-SHANKED, PARALLELOGRAM IMPLEMENT (SOLID-SHANK RIPPER). THE EQUIPMENT SHALL BE CAPABLE OF EXERTING A PENETRATION FORCE NECESSARY FOR THE SITE. NO DISC CULTIVATORS, CHISEL PLOWS, OR SPRING-LOADED EQUIPMENT WILL BE ALLOWED. THE GRID CHANNELS SHALL BE SPACED A MINIMUM OF 12 INCHES TO A MAXIMUM OF 36 INCHES APART, DEPENDING ON EQUIPMENT, SITE CONDITIONS, AND THE SOIL MANAGEMENT PLAN. THE CHANNEL DEPTH SHALL BE A MINIMUM OF 8 INCHES OR AS SPECIFIED IN THE SOIL MANAGEMENT PLAN. IF SOILS ARE SATURATED, THE CONTRACTOR SHALL DELAY OPERATIONS UNTIL THE SOIL WILL NOT HOLD A BALL WHEN SQUEEZED. ONLY ONE PASS SHALL BE PERFORMED ON ERODIBLE SLOPES GREATER THAN 1 VERTICAL TO 3 HORIZONTAL. WHEN ONLY ONE PASS IS USED, WORK SHOULD BE AT RIGHT ANGLES TO THE DIRECTION OF SURFACE DRAINAGE, WHENEVER PRACTICAL.
 - EXCEPTIONS TO SUB-SOILING INCLUDE AREAS WITHIN THE DRIP LINE OF ANY EXISTING TREES, OVER UTILITY INSTALLATIONS WITHIN 30 INCHES OF THE SURFACE, WHERE TRENCHING/DRAINAGE LINES ARE INSTALLED, WHERE COMPACTION IS BY DESIGN (ABUTMENTS, FOOTINGS, OR IN SLOPES), AND ON INACCESSIBLE SLOPES, AS APPROVED BY THE OWNER'S REPRESENTATIVE. IN CASES WHERE EXCEPTIONS OCCUR, THE CONTRACTOR SHALL OBSERVE A MINIMUM SETBACK OF 20 FEET OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ARCHEOLOGICAL CLEARANCES MAY BE REQUIRED IN SOME INSTANCES.
- COMPOST SOIL AMENDMENT QUALITY
 - THE FINAL, RESULTING COMPOST SOIL AMENDMENT MUST MEET ALL OF THE MANDATORY CRITERIA IN TABLE 4.
 - COMPOST SOIL AMENDMENT INSTALLATION
 - AFTER EXISTING TOPSOIL IS RE-SPREAD, SPREAD 2 INCHES OF APPROVED COMPOST ON EXISTING SOIL. TILL ADDED SOIL INTO EXISTING SOIL WITH A ROTARY TILLER THAT IS SET TO A DEPTH OF 6 INCHES. ADD AN ADDITIONAL 4 INCHES OF APPROVED COMPOST TO BRING THE AREA UP TO GRADE.
 - AFTER PERMANENT PLANTING/SEEDING, 2-3 INCHES OF COMPOST BLANKET WILL BE APPLIED TO ALL AREAS NOT PROTECTED BY GRASS OR OTHER PLANTS.

Soil Texture	Ideal Bulk densities	Bulk densities that may affect root growth	Bulk densities that restrict root growth
	g/cm ³	g/cm ³	g/cm ³
Sands, loamy sands	<1.60	1.69	1.8
Sandy loams, loams	<1.40	1.63	1.8
Sandy clay loams, loams, clay loams	<1.40	1.6	1.75
Silt, silt loams	<1.30	1.6	1.75
Silt loams, silty clay loams	<1.10	1.55	1.65
Sandy clays, silty clays, some clay loams (35-45% clay)	<1.10	1.49	1.58
Clays (>45% clay)	<1.10	1.39	1.47

Source: Protecting Urban Soil Quality, USDA-NRCS

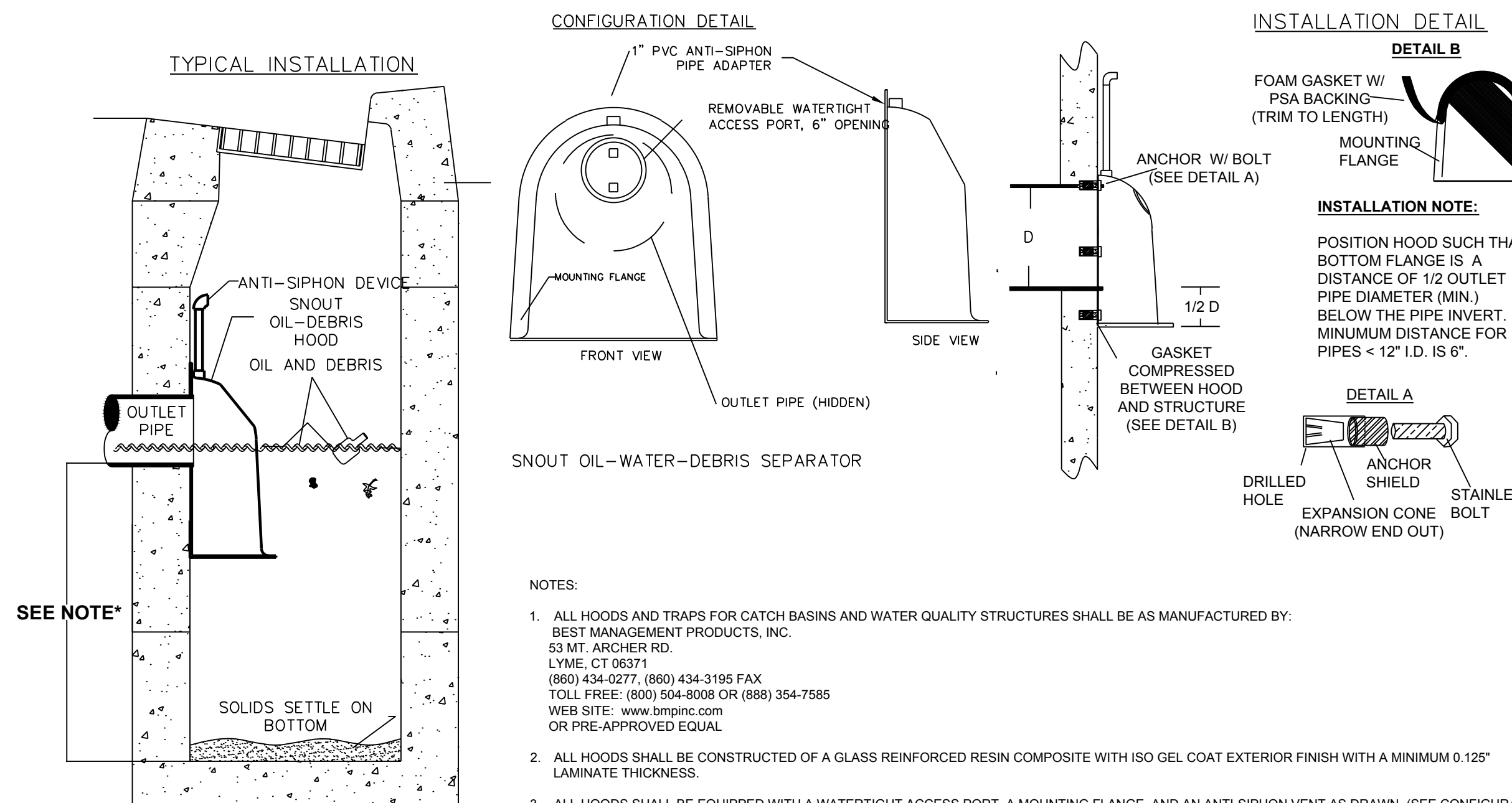
Table 4. Adsorbed Mass of Nutrients and Metals in Unvegetated Plot Runoff From 30-Minute, High-Intensity (100-mm/hr.) Rainstorm

Element	Compost Treatments		Conventional Treatments	
	Biosolids	Yardwaste	Bioindustrial Compost	Topsoil
			Subsoil	
	Geometric Mean (mg)			
Chromium	0.01 ^d	<0.01 ^a	<0.01 ^b	0.92 ^c
Copper	0.02 ^b	<0.01 ^a	0.01 ^d	1.03 ^c
Nickel	<0.01 ^b	<0.01 ^a	<0.01 ^b	0.96 ^c
Lead	0.01 ^b	<0.01 ^a	<0.01 ^b	1.82 ^c
Zinc	0.10 ^b	<0.01 ^a	0.03 ^b	6.55 ^c
Nitrogen	0.47 ^b	<0.01 ^a	0.09 ^{a,b}	266.65 ^c
Phosphorus	0.45 ^b	<0.01 ^a	0.09 ^{a,b}	211.87 ^c
Potassium	0.17 ^b	<0.01 ^a	0.09 ^{a,b}	103.94 ^c

Means within the same row with different letter designations are significantly different (p<0.05).

Highest Medium Lowest

SOIL AMENDMENT SPECIFICATION

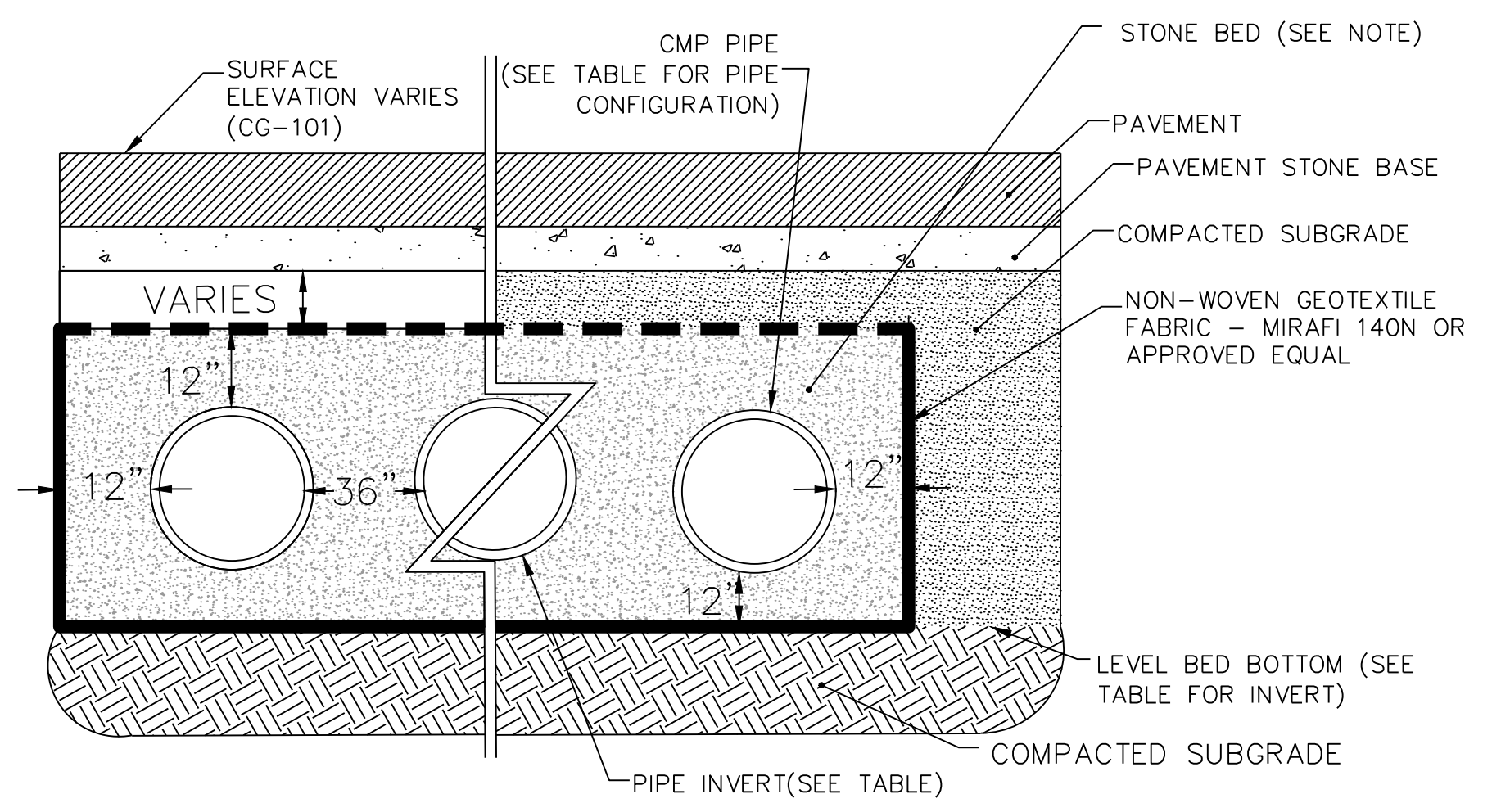


*NOTE- SUMP DEPTH OF 36" MIN. FOR <OR= 12" DIAM. OUTLET. FOR OUTLETS >OR=15", DEPTH = 2.5-3X DIAM.

- NOTES:
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS, INC. 53 MT. ARCHER RD. LYME, CT 06371 (860) 434-0277, (860) 434-3195 FAX TOLL FREE: (800) 504-8008 OR (888) 354-7585 WEB SITE: www.bmpinc.com OR PRE-APPROVED EQUAL.
 - ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM OF 1/25" LAMINATE THICKNESS.
 - ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
 - THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
 - THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
 - THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
 - THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
 - THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
 - INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE: A. INSTALLATION INSTRUCTIONS B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING D. 3/8" STAINLESS STEEL BOLTS E. ANCHOR SHIELDS
 - THE CONTRACTOR IS SPECIFICALLY MADE AWARE THAT OIL/DEBRIS HOODS MAY REQUIRE OVERSIZED STRUCTURES AND/OR DEEPER STRUCTURES TO ACCOMMODATE DEBRIS. EXISTING STRUCTURES IN WHICH DEVICES ARE PROPOSED MAY REQUIRE REPLACEMENT IF UNDERSIZED. CONTRACTOR MUST INCLUDE REPLACEMENT OF EXISTING STRUCTURES RECEIVING SNOUT DEVICE IN BID AND VERIFY PRIOR TO INSTALLATION.

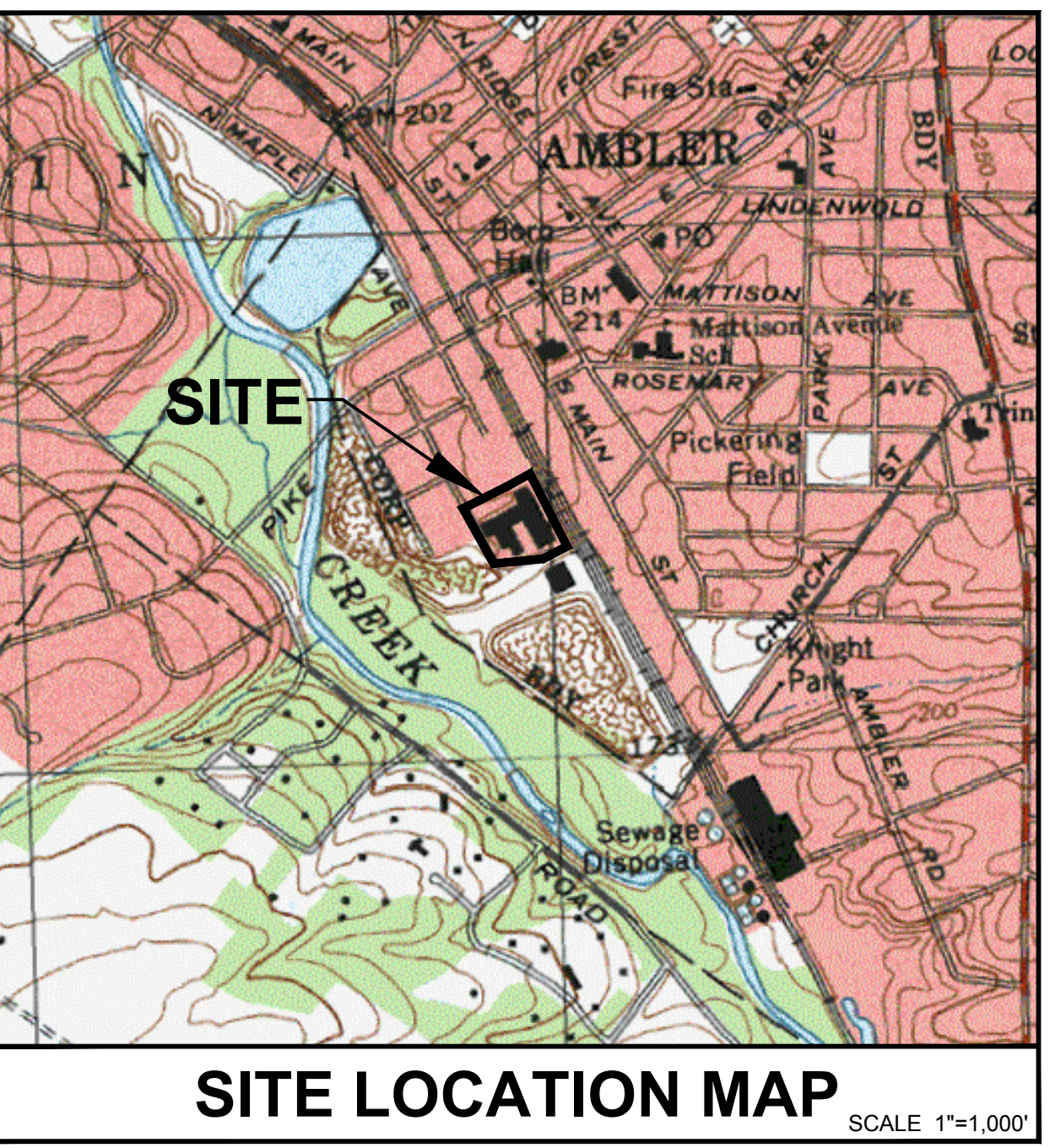
BMP 6.6.4 B SNOUT OIL/DEBRIS SEPARATOR

- NOTES:
- STORMWATER MANAGEMENT STONE BED SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO SIZE NUMBER 3 PER AASHTO SPECIFICATIONS, PART 1, 19TH ED., 1998, OR LATER AND SHALL HAVE Voids 40% AS MEASURED BY ASTM-C29.
 - SEE DRAWING CG-201 FOR PIPE LAYOUT, CONNECTIONS AND INSPECTION PORTS.
 - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STORMWATER SYSTEM TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO ORDERING/CONSTRUCTION. THIS SUBMITTAL MUST INCLUDE THE WITHDRAWAL STRUCTURES AND CONNECTION TO THE UNDERGROUND STORMWATER SYSTEM.



UNDERGROUND DETENTION BASIN	STONE BED INVERT	PIPE INVERT	NUMBER, LENGTH, AND DIA. OF PIPE ROWS
UNDERGROUND DETENTION BASIN #1	INV=175.00	INV=176.00	7 - 150 LF 60-INCH CMP PIPES

SUBSURFACE DETENTION BASIN



SITE LOCATION MAP

APPLICANT / EQUITABLE OWNER:
 AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
 201 S. MAPLE AVENUE, SUITE 100
 AMBLER, PA 19002
 P: (484)532-7830

RECORD OWNER:
 MAPLE AVE PARK PARTNERS, LLP
 110 SPRUCE ROAD
 AMBLER, PA 19002
 P: (484)532-7830

Date	Description	No.
12-18-13	PER DEP REVIEW LETTER	4.
10-3-13	BOROUGH COMMENTS	3.
7-05-13	E&S/NPDES SUBMISSION	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

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 ABU DHABI ATHENS DOHA
 DUBAI ISTANBUL

Langan Engineering, Environmental, Surveying and Landscaped Architecture, P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan International LLC
 Collective names as Langan

Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

Project No.	Drawing No.
240025501	
Date	4-9-13
Scale	N.T.S.
Drawn By	KG
	PSCM-501
	Sheet 17 of 26

SUBMISSION DATE: 2013-12-18 PROJECT No. 240025501

BMP MAINTENANCE PLAN

THE PROPERTY OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER CONVEYANCE SYSTEM, AND ALL OTHER PROPOSED BMP'S AS THE PROPERTY OWNER.

- 1) **STORMWATER CONVEYANCE SYSTEM**
 - CATCH BASINS, MANHOLES AND PIPES TO BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST ANNUALLY AS WELL AS AFTER EVERY STORM EXCEEDING 1-INCH OF RAINFALL.
 - ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION AT LEAST ANNUALLY.
- 2) **SUBSURFACE DETENTION FACILITY**
 - THE SUBSURFACE BASIN MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST ONCE A SEASON (FOUR TIMES A YEAR) AS WELL AS AFTER EVERY STORM EXCEEDING 1-INCH OF RAINFALL WITHIN ONE HOUR. SNOUT UNITS WILL BE INSTALLED AT THE INLETS DIRECTLY UPSTREAM OF THE SUBSURFACE BASIN. SEASONAL INSPECTIONS SHOULD BE ACCEPTABLE BECAUSE MATERIAL ACCUMULATION SHOULD BE MINIMIZED BY THE PROPER OPERATION OF THESE WATER QUALITY DEVICES.
 - SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN ALL RUNOFF HAS DRAINED FROM AND THE BASIN IS REASONABLY DRY. DISPOSAL OF DEBRIS, TRASH, SEDIMENT, AND OTHER WASTE MATERIAL SHALL BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL WASTE REGULATIONS.
 - ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION DURING ANY INSPECTIONS. THE CONDITION OF SURROUNDING ABOVEGROUND AREAS SHALL BE INSPECTED FOR EVIDENCE OF POTENTIAL FAILURES OR DETERIORATION OF THE UNDERGROUND SYSTEM.
 - IF STANDING WATER IS ENCOUNTERED IN THE SUBSURFACE FACILITY, THE WATER SHOULD BE PUMPED DOWNSTREAM THROUGH A SEDIMENT FILTER BAG. AFTER STANDING WATER IS REMOVED, THE FACILITY SHOULD BE INSPECTED AS USUAL. IF MODIFICATIONS TO THE FACILITY ARE REQUIRED TO ALLEVIATE STANDING WATER, THE PROPERTY OWNER SHALL HIRE A PROFESSIONAL ENGINEER TO REMEDY THE STANDING WATER ISSUE. ANY REMEDIES MUST BE APPROVED BY THE TOWNSHIP PRIOR TO THE START OF CONSTRUCTION.
- 3) **STREET SWEEPING**
 - THE STREETS AND PARKING AREAS SHOULD BE CLEANED A MINIMUM OF THREE TIMES PER YEAR. CLEANINGS SHOULD OCCUR AROUND THE BEGINNING OF THE SPRING, SUMMER AND FALL SEASONS.
 - A VACUUM COMMERCIAL CLEANING UNIT SHALL BE USED. THE NON-POROUS AND POREOUS PAVEMENT SHALL BE CLEAN AT THE SAME TIME.
 - TO LIMIT THE DISRUPTION TO THE USE OF THE PROPERTY, SWEEPING SHALL OCCUR DURING OFF HOURS. TYPICALLY, THE EARLY MORNING IS THE OPTIMAL TIME FOR A COMMERCIAL FACILITY.
 - THE PROPERTY OWNER SHALL POST SIGNS TO RESTRICT PARKING AND NOTIFY TENANTS OF THE DATE AND APPROXIMATE TIME OF THE SWEEPING. NOTIFICATION SHOULD OCCUR NO LESS THAN 2 DAYS PRIOR TO SWEEPING.
- 4) **SOIL AMENDMENT & RESTORATION**
 - THE SOIL RESTORATION PROCESS MAY NEED TO BE REPEATED OVER TIME, DUE TO COMPACTION BY USE AND/OR SETTLING.
- 5) **SNOUT OIL/DEBRIS SEPARATOR**
 - THE OIL/DEBRIS SEPARATOR SHALL BE INSPECTED ALONG WITH THE STORMWATER CONVEYANCE SYSTEM. FIRST YEAR ONLY RECOMMENDATIONS:
 - MONTHLY MONITORING OF A NEW INSTALLATION AFTER THE SITE HAS BEEN STABILIZED.
 - MEASUREMENTS SHOULD BE TAKEN AFTER EACH RAIN EVENT OF .5 INCHES OR MORE, OR MONTHLY, AS DETERMINED BY LOCAL WEATHER CONDITIONS.
 - CHECKING SEDIMENT DEPTH AND NOTING THE SURFACE POLLUTANTS IN THE STRUCTURE WILL BE HELPFUL IN PLANNING MAINTENANCE. RAINFALL VOLUME VS. SEDIMENT AND DEBRIS CAPTURE CAN THEN BE PLOTTED AS AN ACCURATE PREDICTOR OF SERVICE INTERVALS.

FOR ONGOING MAINTENANCE AFTER FIRST YEAR:

- THE POLLUTANTS COLLECTED IN SNOUT EQUIPPED STRUCTURES WILL CONSIST OF FLOATABLE DEBRIS, TRASH AND OILS ON THE SURFACE OF THE CAPTURED WATER, AND GRIT AND SEDIMENT ON THE BOTTOM OF THE STRUCTURE.
- IT IS BEST TO SCHEDULE MAINTENANCE BASED ON THE SOLIDS COLLECTED IN THE SUMP.
- OPTIMALLY, THE STRUCTURE SHOULD BE CLEANED WHEN THE SUMP IS HALF FULL (E.G. WHEN 2 FEET OF MATERIAL COLLECTS IN A 4 FOOT SUMP, CLEAN IT OUT).
- FOR FLOATABLES AND TRASH ONLY (WITH OR WITHOUT TRASHSCREEN), SERVICE WHEN 6-INCHES OF FLOATING MATERIAL ACCUMULATES ON SURFACE ABOVE STATIC WATER LEVEL.
- STRUCTURES SHOULD ALSO BE CLEANED IF A SPILL OR OTHER INCIDENT CAUSES A LARGER THAN NORMAL ACCUMULATION OF POLLUTANTS IN A STRUCTURE.
- MAINTENANCE SHOULD BE PERFORMED WITH A VACUUM TRUCK.
- IN THE CASE OF AN OIL SPILL, THE STRUCTURE SHOULD BE SERVICED IMMEDIATELY
- ALL COLLECTED WASTES MUST BE HANDLED AND DISPOSED OF ACCORDING TO LOCAL ENVIRONMENTAL REQUIREMENTS.
- TO MAINTAIN THE SNOUT HOODS THEMSELVES, AN ANNUAL INSPECTION OF THE ANTI-SIPHON VENT AND ACCESS HATCH MUST BE PERFORMED. FLUSHING OF THE VENT IS NEEDED TO MAINTAIN THE ANTI-SIPHON PROPERTIES. OPENING AND CLOSING THE ACCESS HATCH IS ALSO REQUIRED TO PROPERLY MAINTAIN THE STRUCTURAL COMPONENTS OF THE SNOUT.

CRITICAL STAGE OF BMP INSTALLATION
THE INSTALLATION OF THE SOIL AMENDMENT AND RESTORATION AND THE INSTALLATION OF THE SUBSURFACE DETENTION BASIN SHOULD BE INSPECTED BY A LICENSED PROFESSIONAL (ENGINEER OR ARCHITECT).

NOTES:

- 1. AMBLER BOROUGH SHALL HAVE THE RIGHT TO ENTER PRIVATE PROPERTY TO INSPECT AND REPAIR, IF NECESSARY, ANY STORMWATER MANAGEMENT FACILITY.
- 2. ALL STORMWATER MANAGEMENT FACILITIES ARE A PERMANENT PART OF THE DEVELOPMENT AND SHALL NOT BE REMOVED, ALTERED OR MODIFIED WITHOUT PRIOR APPROVAL FROM THE BOROUGH OF AMBLER.
- 3. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES SHALL BE MAINTAINED BY THE OWNER.

LEGEND	
SITE SYMBOLS	GRADING SYMBOLS
CURB LINE	EXISTING CONTOUR
EXISTING EDGE OF PAVEMENT LINE	PROPOSED CONTOUR
PROPOSED BUILDING LINE	EXISTING SPOT ELEVATION
PROPERTY LINE	PROPOSED SPOT ELEVATION
LOT LINE	TOP OF WALL ELEVATION
IRON PIN TO BE SET	BOTTOM OF WALL ELEVATION (AT GROUND SURFACE)
CONCRETE MARK TO BE SET	
WALPOLE FENCE	
WROUGHT IRON FENCE	
RETAINING WALL	
PROPOSED GUARDRAIL	
GRADING/ACCESS EASEMENT	
UTILITY EASEMENT	
UTILITY SYMBOLS	
EXISTING STORM SEWER	EXISTING SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER	EXISTING FIRE HYDRANT
EXISTING GAS MAIN EXISTING	EXISTING GAS VALVE
WATER MAIN EXISTING	EXISTING CATCH BASIN
OVERHEAD ELECTRIC	EXISTING WATER VALVE
PROPOSED STORM SEWER	EXISTING MANHOLE
PROPOSED SANITARY SEWER	EXISTING ELECTRIC POLE
PROPOSED WATER MAIN	PROPOSED WATER VALVE
PROPOSED ELECTRIC	PROPOSED HYDRANT
PROPOSED GAS	

Map Symbol	Soil	Hydrological Soil Group	Depth to Seasonally High Water Table (Ft)	Depth to Bedrock (Ft)	Soil Limitations
MeB	Man made, Shale and Sandstone Materials, Sloping	C	variable	variable	Variable Conditions, Possible Seasonal High water table

Notes: 1. For areas where seasonal high water table is a limitation, ponded water shall be pumped through a "filter bag" or to the sediment basin/trap.

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12-18-13	PER DEP REVIEW LETTER	4.
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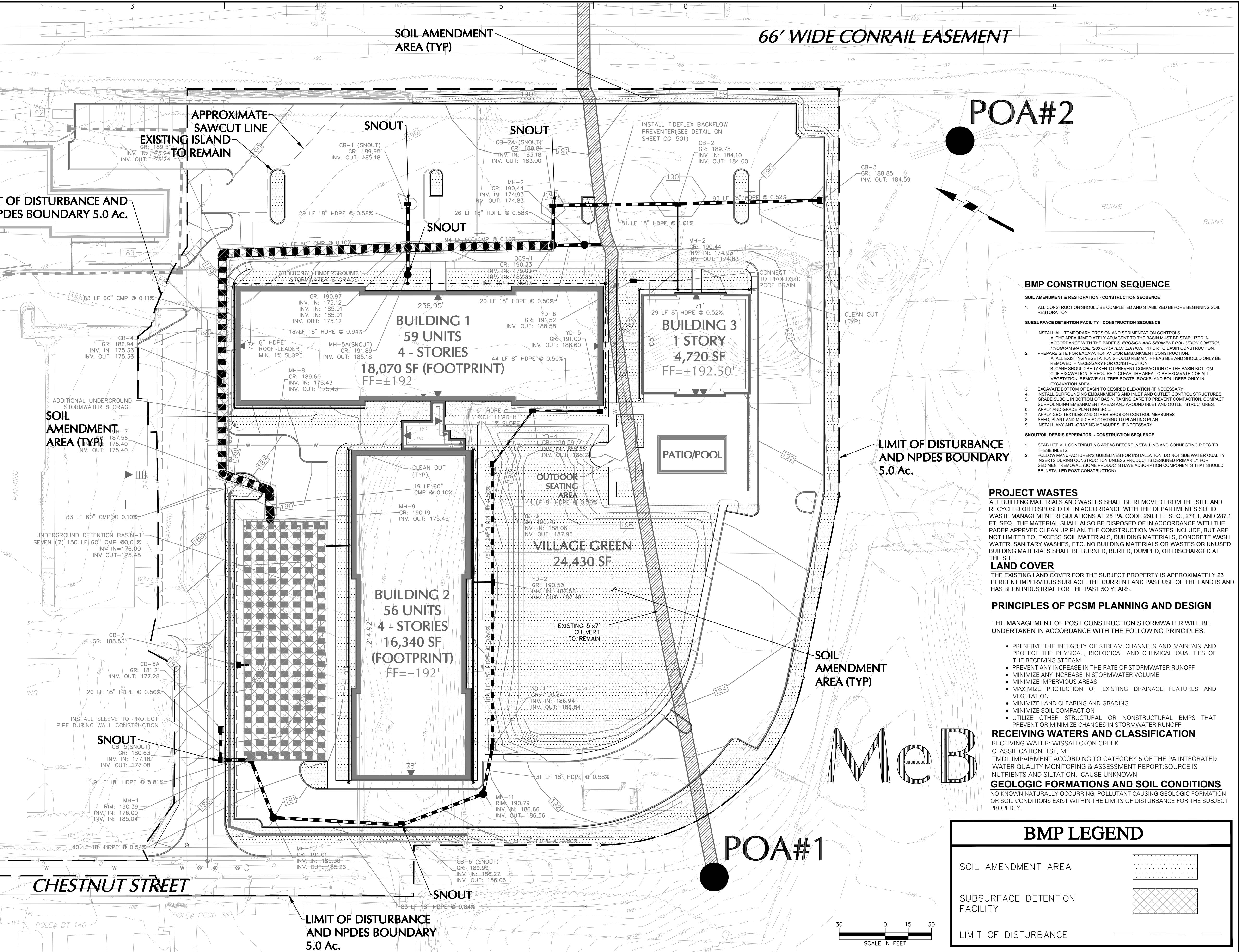
Langan Engineering, Environmentals, Surveying and Landscapes Architecture, P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
**POST CONSTRUCTION
STORMWATER
MANAGEMENT PLAN**

Project No. 240025501
Date 4-9-13
Scale 1"=30'
Drawn By TFH

Drawing No.
PCSM-101
Sheet 15 of 26



- BMP CONSTRUCTION SEQUENCE**
- SOIL AMENDMENT & RESTORATION - CONSTRUCTION SEQUENCE**
1. ALL CONSTRUCTION SHOULD BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION.
- SUBSURFACE DETENTION FACILITY - CONSTRUCTION SEQUENCE**
1. INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS
 - A. THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, OR THE LATEST EDITION, PRIOR TO BASIN CONSTRUCTION.
 2. PREPARE SITE FOR EXCAVATION AND/OR EMBANKMENT CONSTRUCTION.
 - A. IF EXISTING VEGETATION SHOULD REMAIN IF FEASIBLE AND SHOULD ONLY BE REMOVED IF NECESSARY FOR CONSTRUCTION.
 - B. CARE SHOULD BE TAKEN TO PREVENT COMPACTION OF THE BASIN BOTTOM. C. IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. REMOVE ALL TREE ROOTS, ROCKS, AND BouldERS ONLY IN EXCAVATION AREA.
 3. EXCAVATE BOTTOM OF BASIN TO DESIRED ELEVATION (IF NECESSARY)
 4. INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.
 5. GRADE SUBSOIL IN BOTTOM OF BASIN, TAKING CARE TO PREVENT COMPACTION. COMPACT SURROUNDING EMBANKMENT AREAS AND AROUND INLET AND OUTLET STRUCTURES.
 6. APPLY AND GRADE PLANTING SOIL.
 7. APPLY GEO-TEXTILES AND OTHER EROSION-CONTROL MEASURES.
 8. SEED, PLANT AND MAINT ACCORDING TO PLANTING PLAN.
 9. INSTALL ANY ANTI-GRAZING MEASURES, IF NECESSARY.
- SNOUT/OIL DEBRIS SEPARATOR - CONSTRUCTION SEQUENCE**
1. STABILIZE ALL CONTRIBUTING AREAS BEFORE INSTALLING AND CONNECTING PIPES TO THESE INLETS
 2. FOLLOW MANUFACTURER'S GUIDELINES FOR INSTALLATION. DO NOT USE WATER QUALITY INSERTS DURING CONSTRUCTION UNLESS PROVIDED AS DESIGNED. PRIMARY FOCUS ON SEDIMENT REMOVAL. (SOME PRODUCTS HAVE ADSORPTION COMPONENTS THAT SHOULD BE INSTALLED POST-CONSTRUCTION)

PROJECT WASTES
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 200.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. THE MATERIAL SHALL ALSO BE DISPOSED OF IN ACCORDANCE WITH THE PADEP APPROVED CLEAN UP PLAN. THE CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASHES, ETC. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

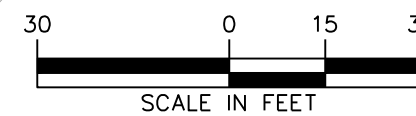
LAND COVER
THE EXISTING LAND COVER FOR THE SUBJECT PROPERTY IS APPROXIMATELY 23 PERCENT IMPERVIOUS SURFACE. THE CURRENT AND PAST USE OF THE LAND IS AND HAS BEEN INDUSTRIAL FOR THE PAST 50 YEARS.

- PRINCIPLES OF PCSM PLANNING AND DESIGN**
- THE MANAGEMENT OF POST CONSTRUCTION STORMWATER WILL BE UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING PRINCIPLES:
- PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM.
 - PREVENT ANY INCREASE IN THE RATE OF STORMWATER RUNOFF
 - MINIMIZE ANY INCREASE IN STORMWATER VOLUME
 - MINIMIZE IMPERVIOUS AREAS
 - MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
 - MINIMIZE LAND CLEARING AND GRADING
 - MINIMIZE SOIL COMPACTION
 - UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPs THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF

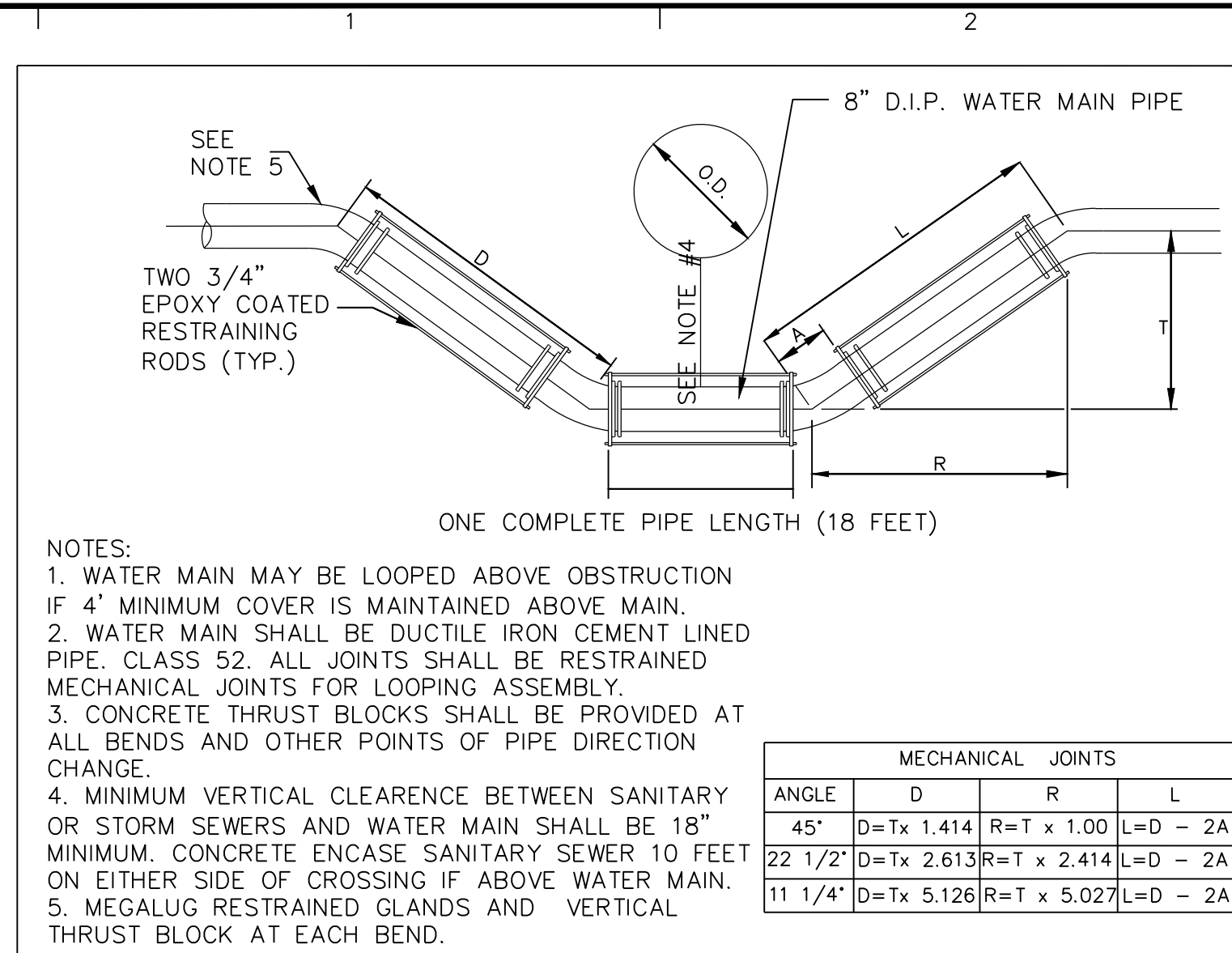
RECEIVING WATERS AND CLASSIFICATION
RECEIVING WATER: WISSAHICKON CREEK
CLASSIFICATION: TSF, MF
TMDL IMPAIRMENT ACCORDING TO CATEGORY 5 OF THE PA INTEGRATED WATER QUALITY MONITORING & ASSESSMENT REPORT-SOURCE IS NUTRIENTS AND SILTATION. CAUSE UNKNOWN

GEOLOGIC FORMATIONS AND SOIL CONDITIONS
NO KNOWN NATURALLY-OCCURRING, POLLUTANT-CAUSING GEOLOGIC FORMATION OR SOIL CONDITIONS EXIST WITHIN THE LIMITS OF DISTURBANCE FOR THE SUBJECT PROPERTY.

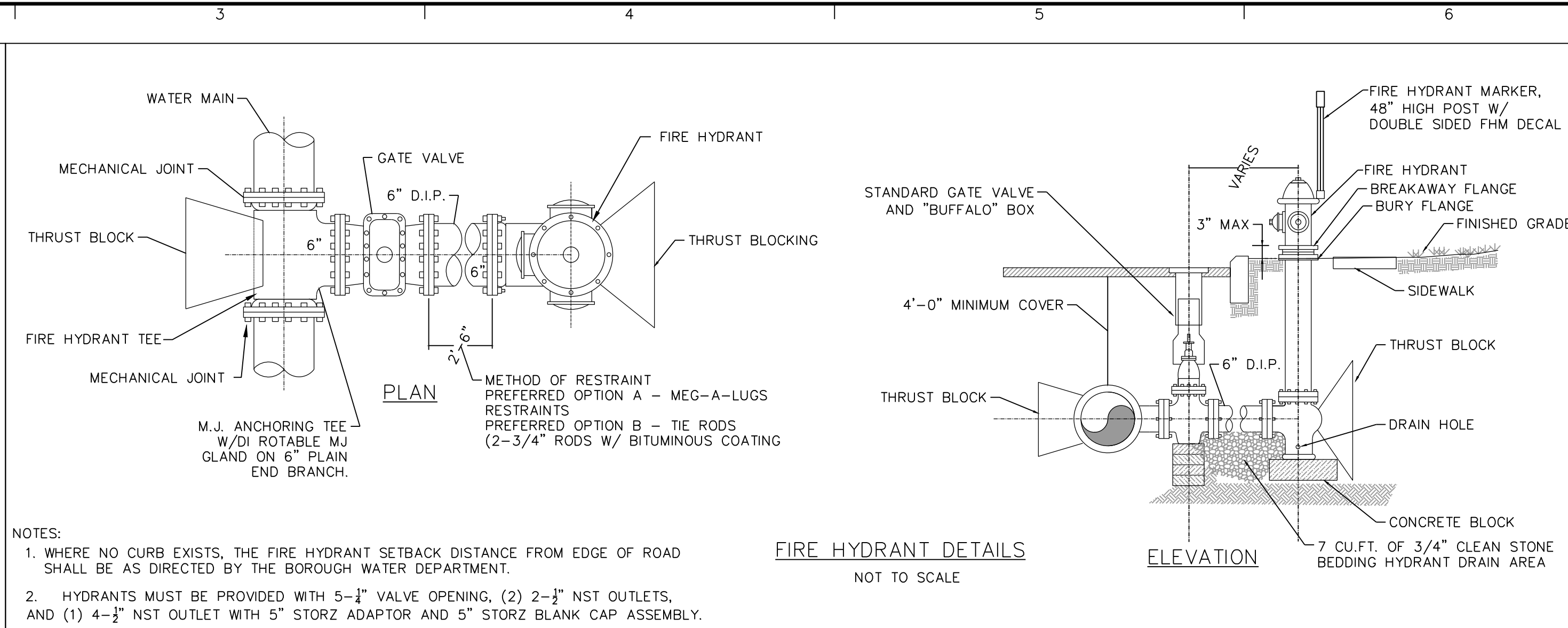
SOIL AMENDMENT AREA	[Symbol]
SUBSURFACE DETENTION FACILITY	[Symbol]
LIMIT OF DISTURBANCE	[Symbol]



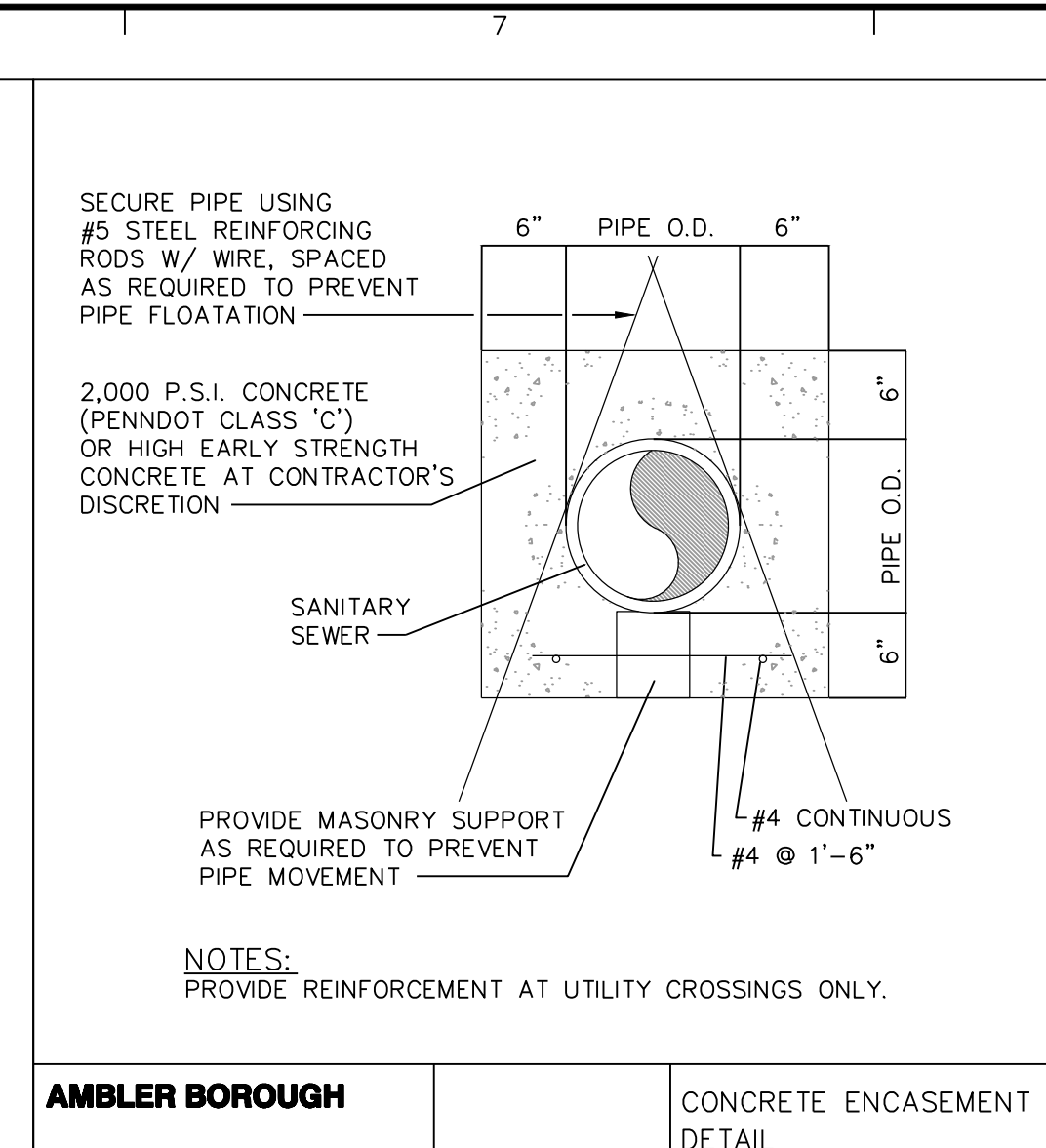
SUBMISSION DATE: 2013-12-18 PROJECT No. 240025501



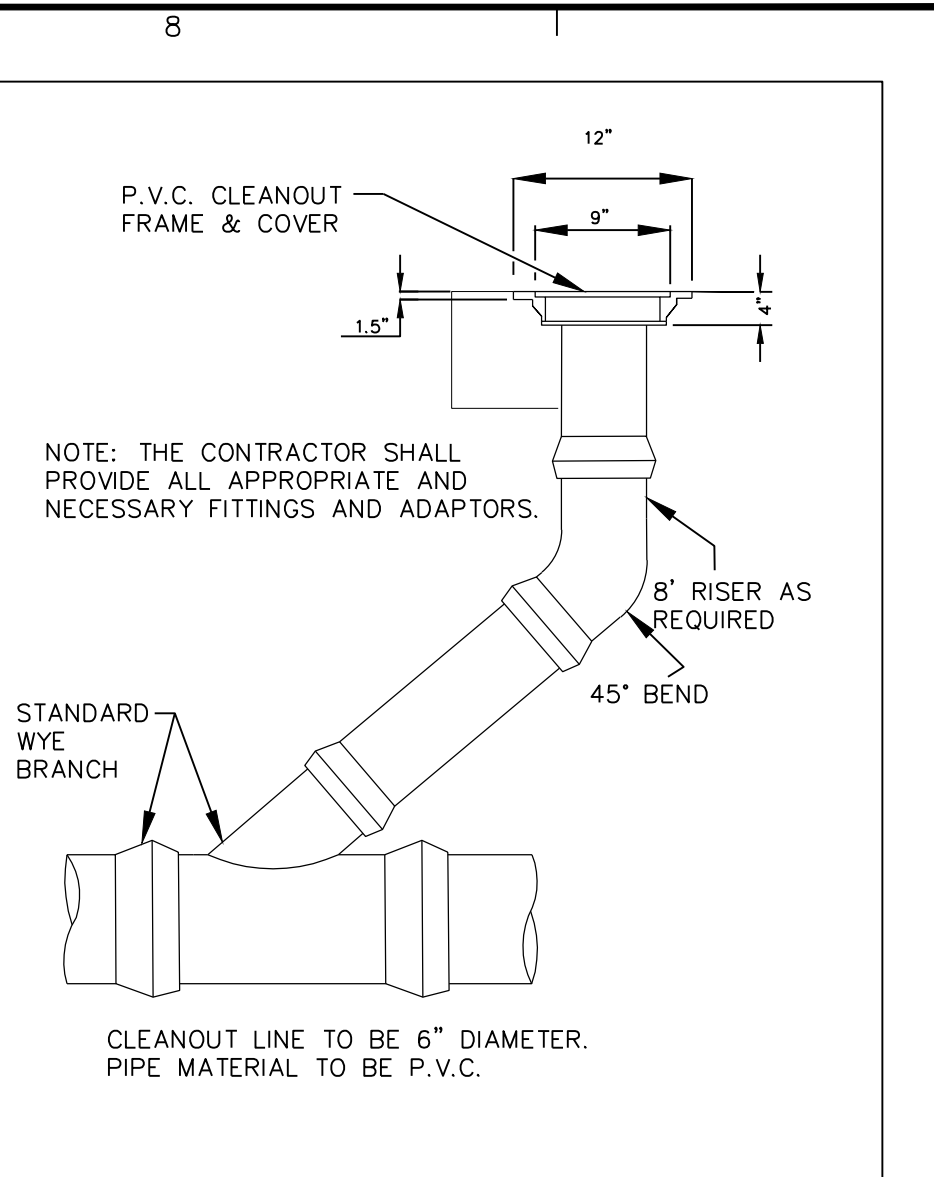
LOOPING WATER DETAIL



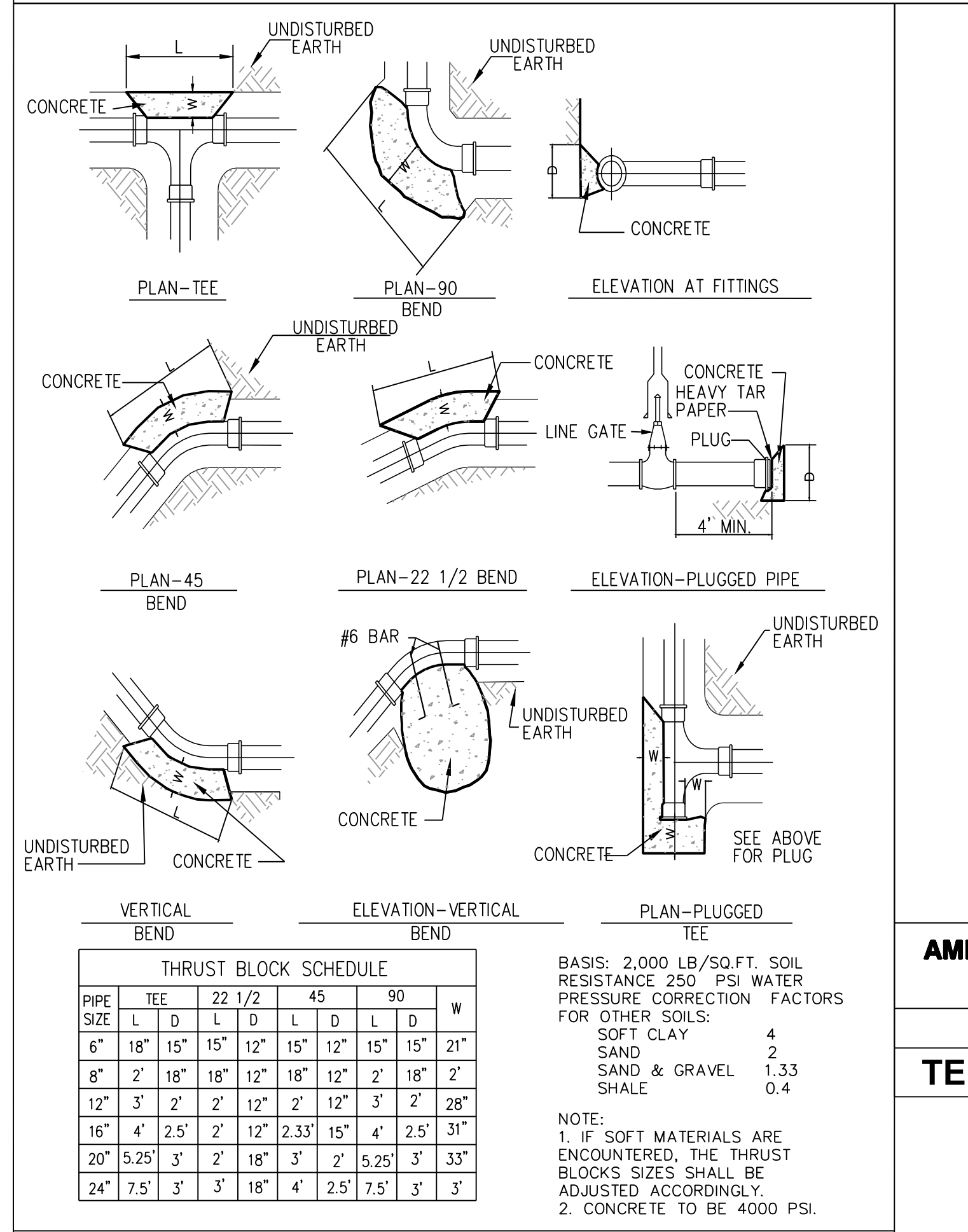
FIRE HYDRANT ASSEMBLY



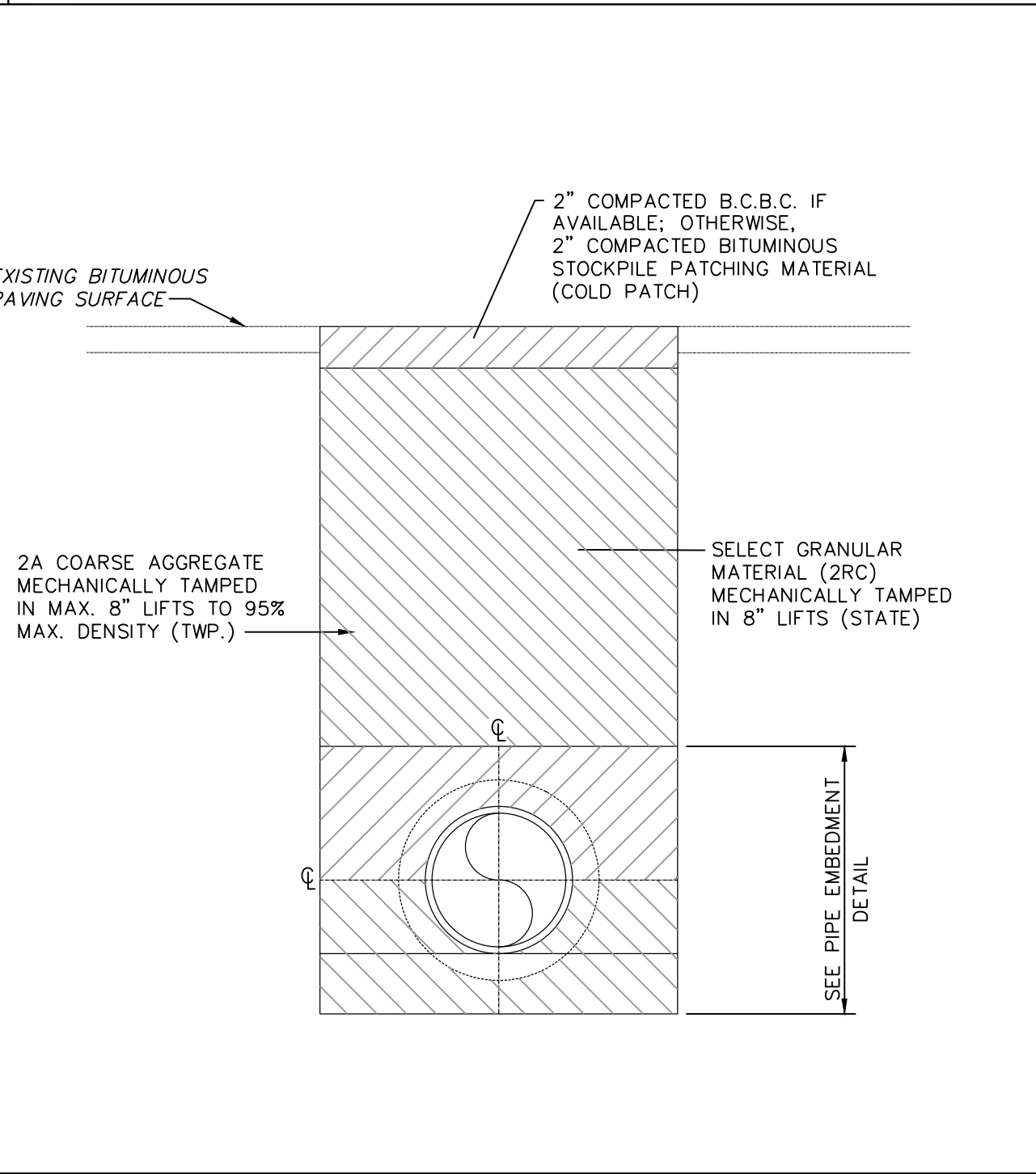
PIPE ENCASEMENT



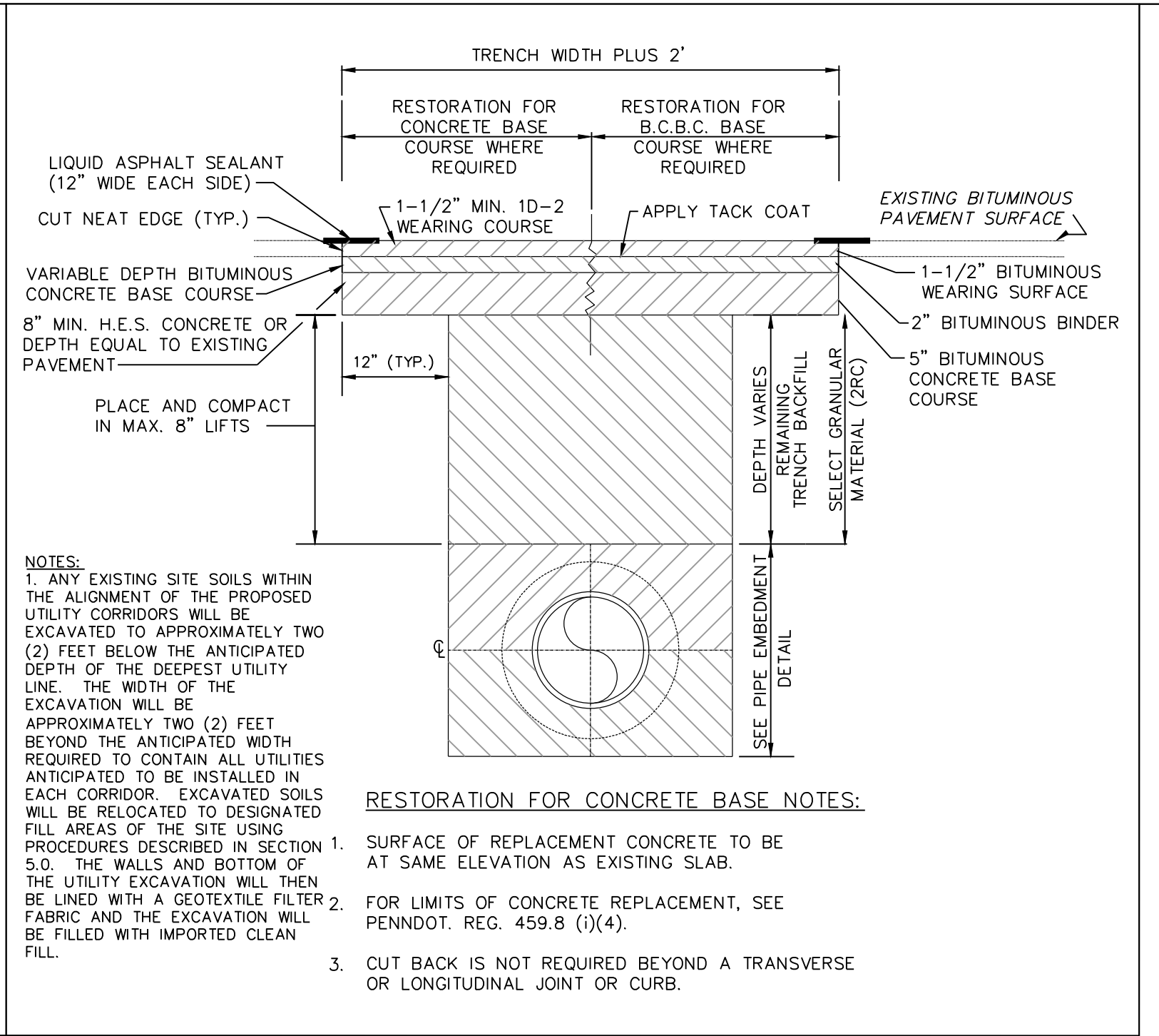
SANITARY SEWER CLEAN OUT



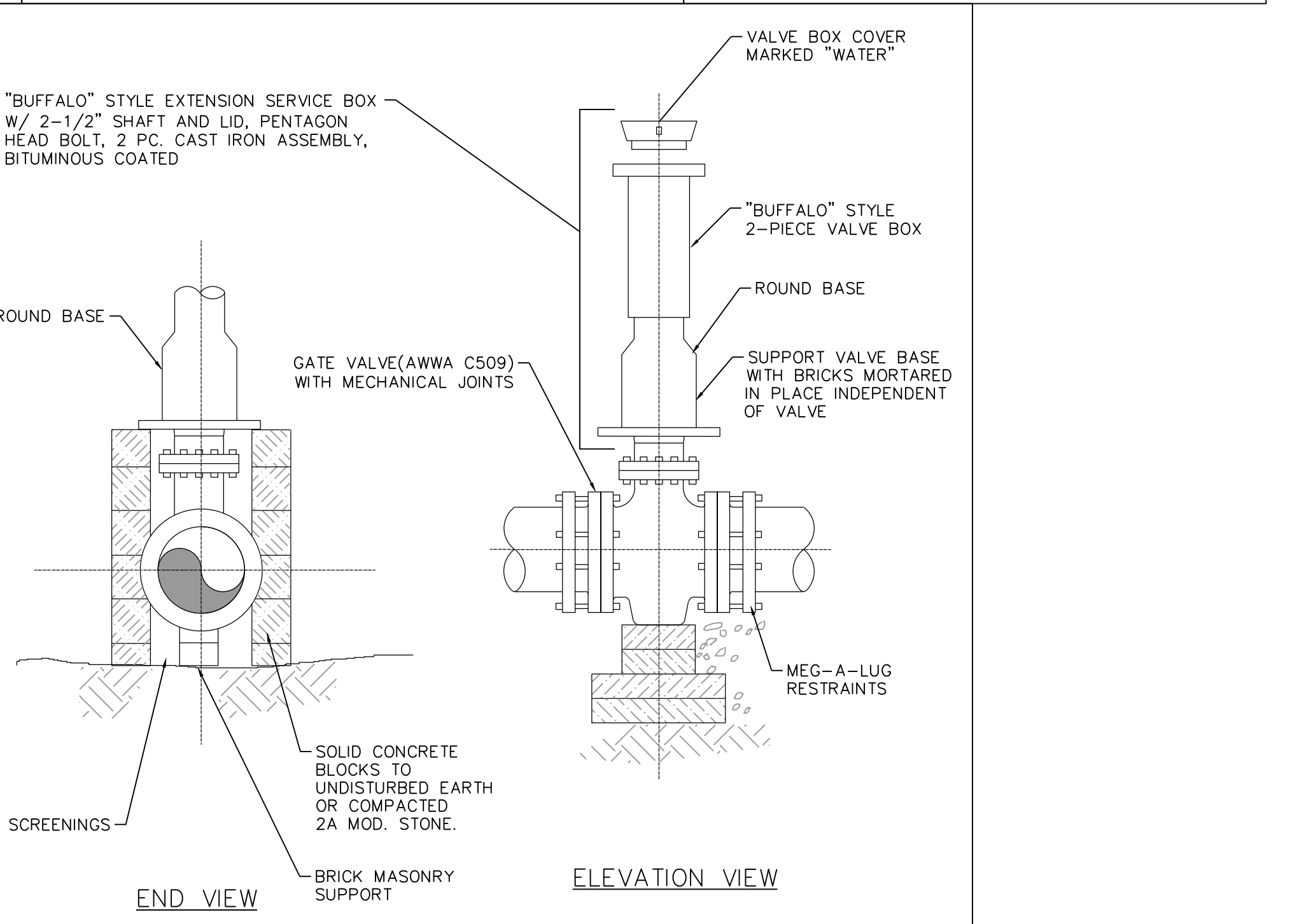
THRUST BLOCKS



TEMPORARY PAVEMENT & TRENCH RESTORATION



PERMANENT PAVEMENT & TRENCH RESTORATION



GATE VALVE AND BOX DETAIL

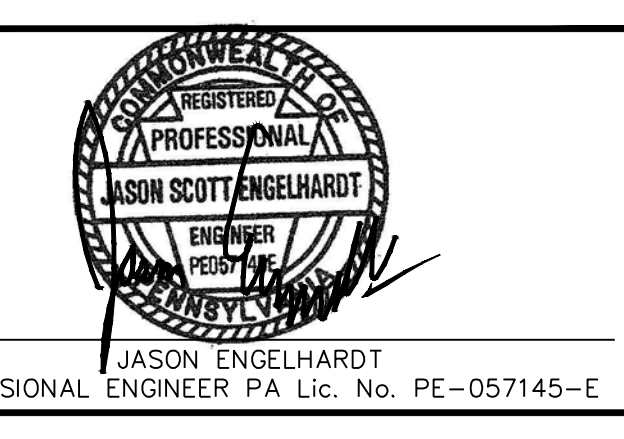
Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

AMBLER BOROUGH	TEMPORARY PAVEMENT AND TRENCH RESTORATION FOR EXISTING TOWNSHIP ROADS AND STATE HIGHWAYS	AMBLER BOROUGH	PERMANENT PAVEMENT AND TRENCH RESTORATION FOR STATE HIGHWAYS
SCALE: NOT TO SCALE		SCALE: NOT TO SCALE	

AMBLER BOROUGH	TEMPORARY PAVEMENT AND TRENCH RESTORATION FOR EXISTING TOWNSHIP ROADS AND STATE HIGHWAYS	AMBLER BOROUGH	PERMANENT PAVEMENT AND TRENCH RESTORATION FOR STATE HIGHWAYS
SCALE: NOT TO SCALE		SCALE: NOT TO SCALE	

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SCALE: NOT TO SCALE		SCALE: NOT TO SCALE	

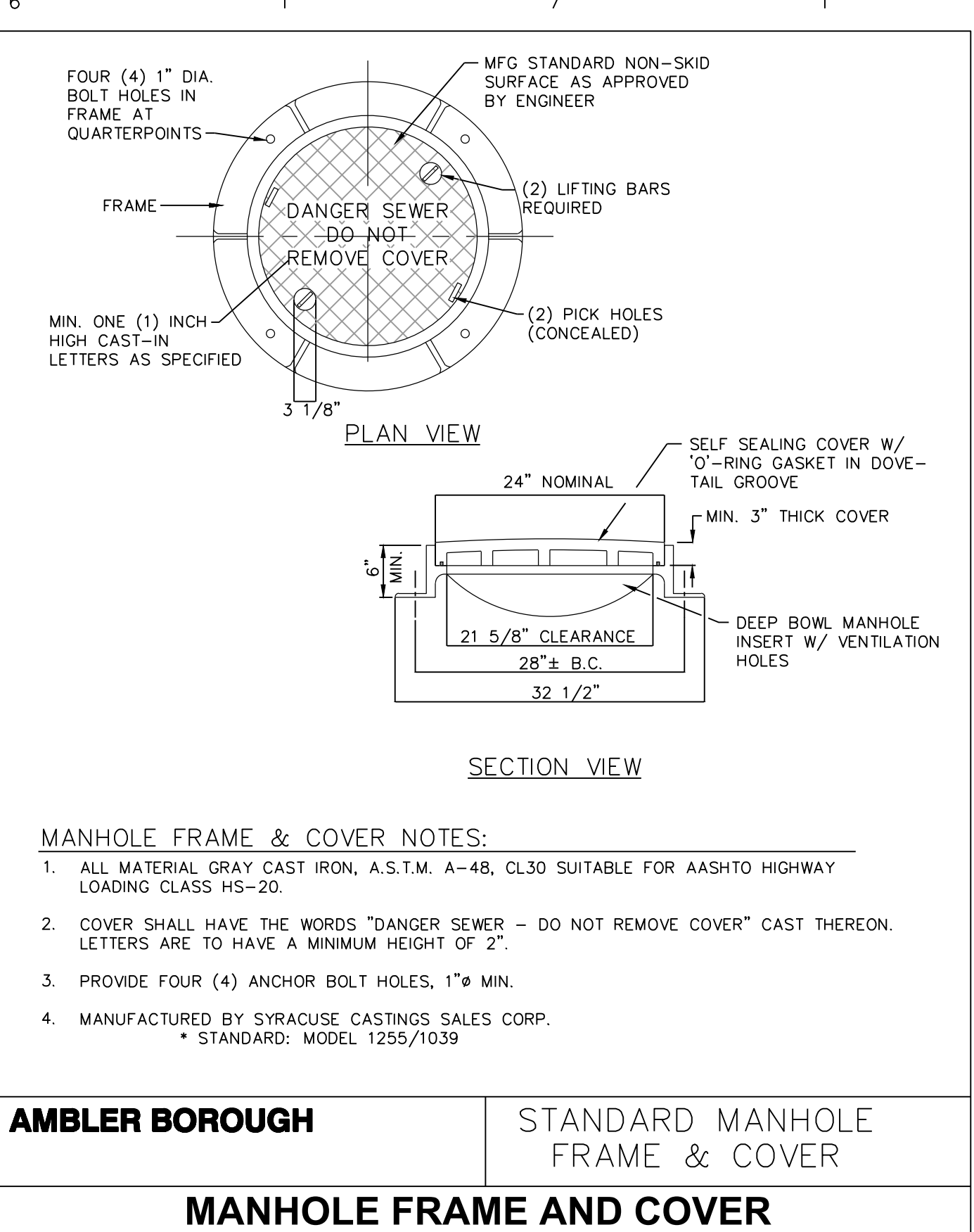
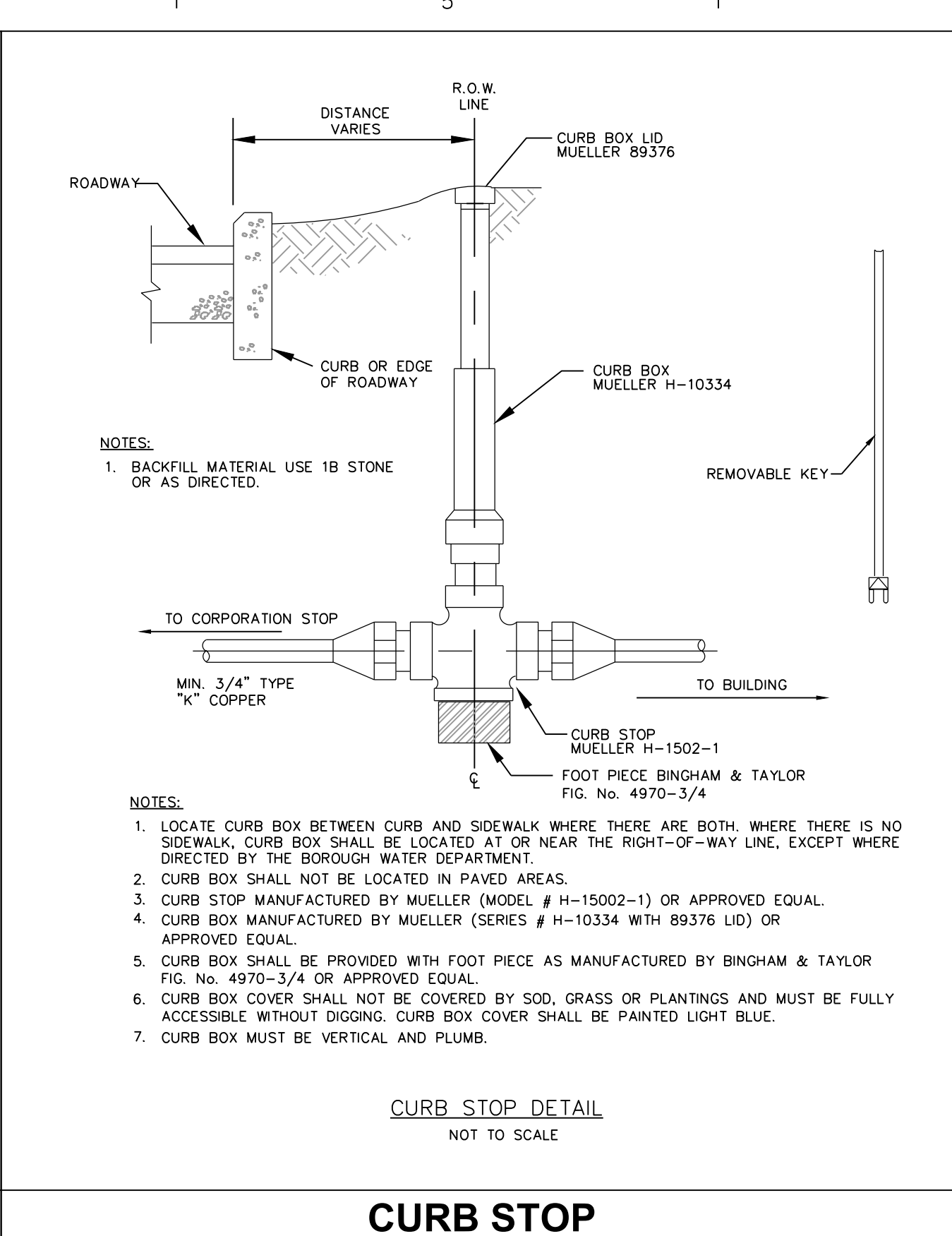
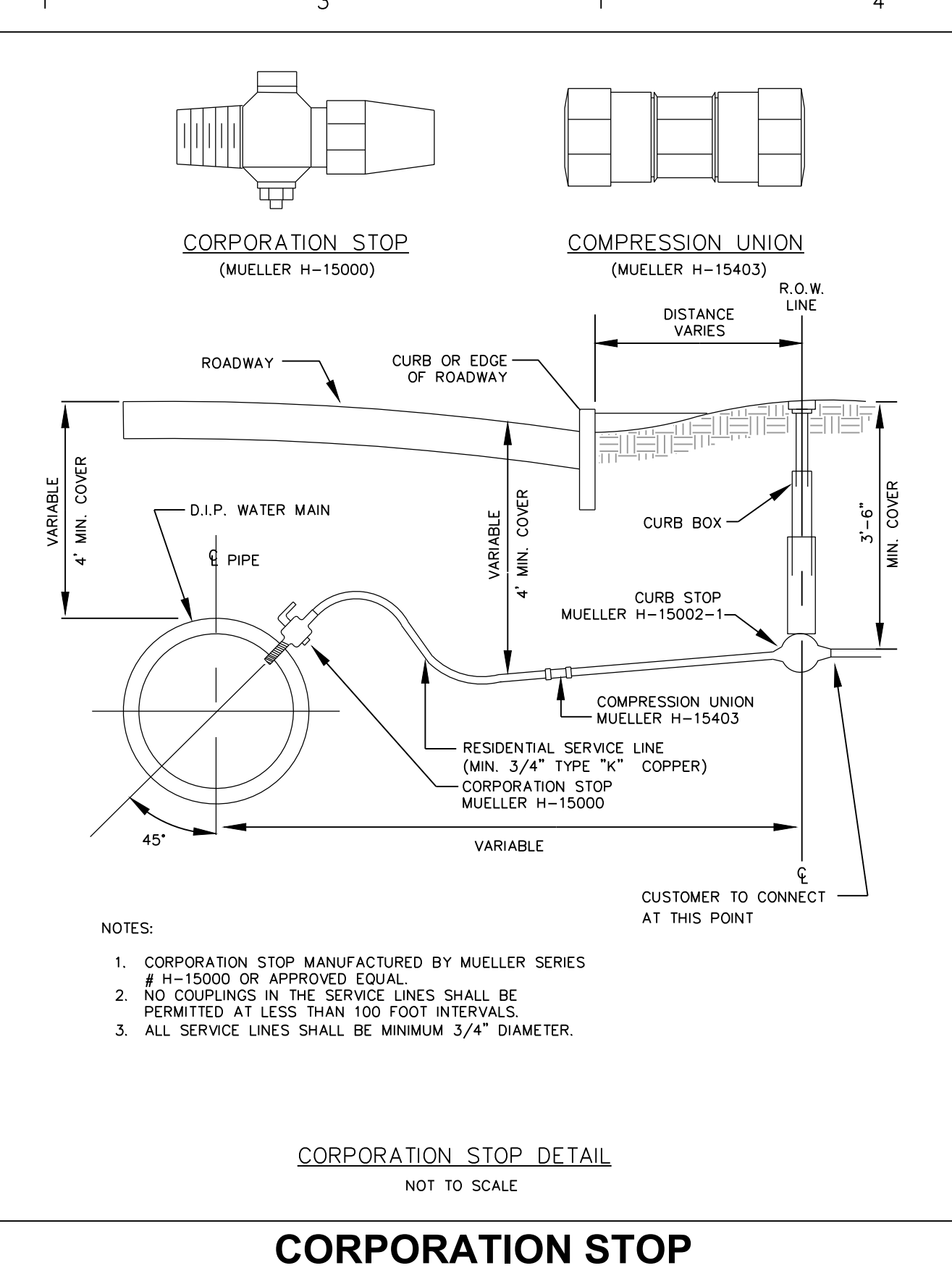
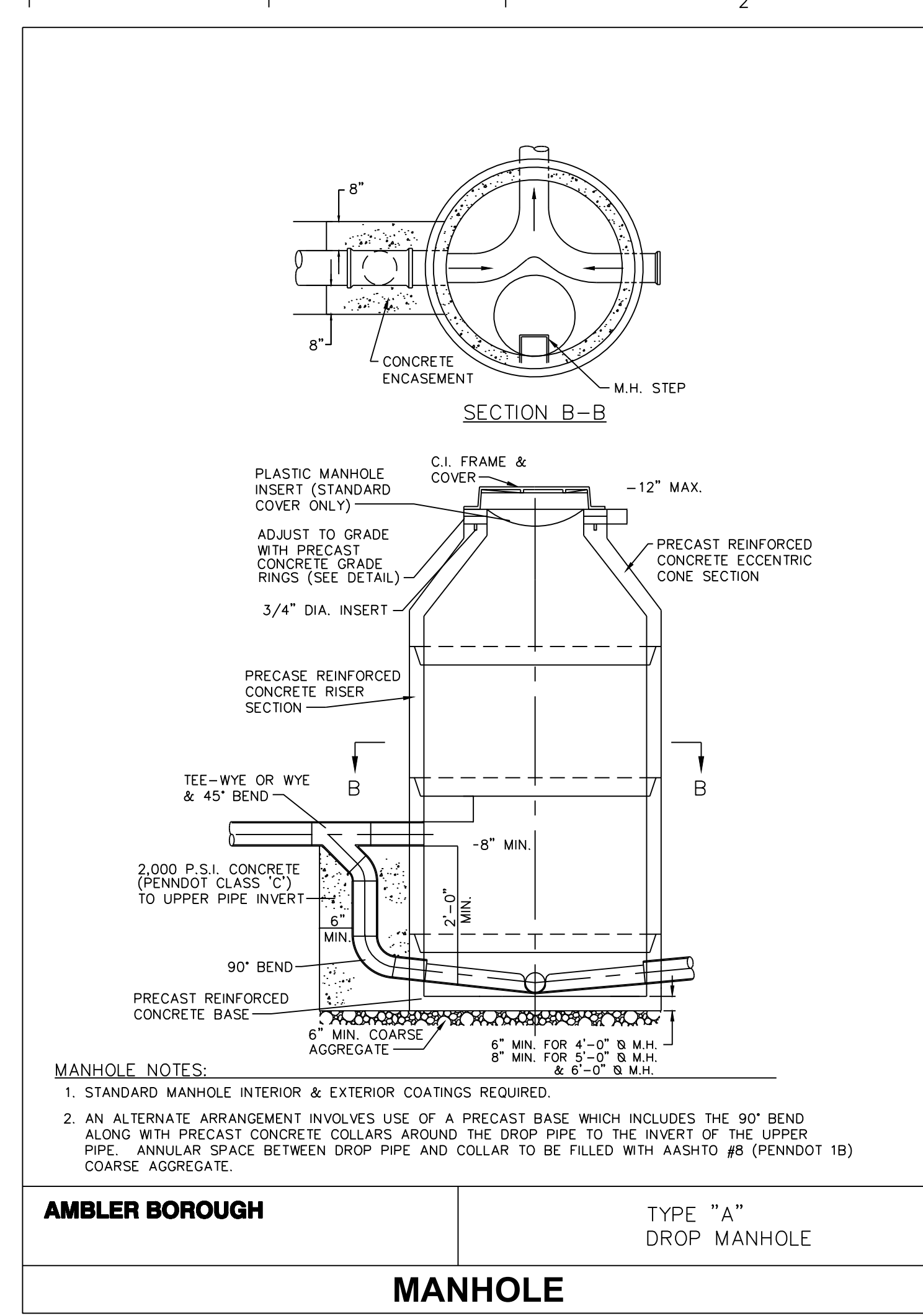


Project
AMBLER CROSSINGS

Drawing Title
UTILITY DETAILS

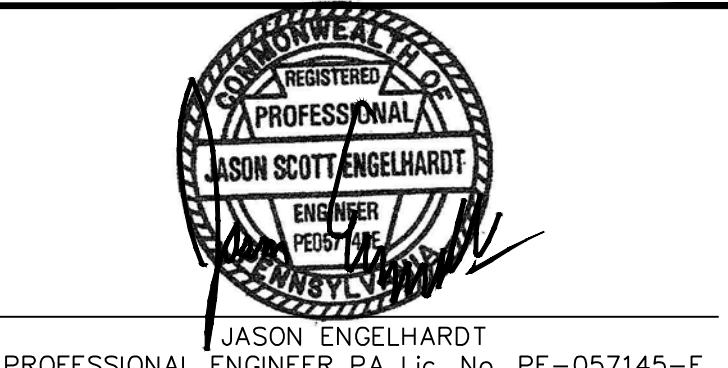
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Date	4-9-13	Scale	N.T.S.
Drawn By	KG	Sheet	18 of 25

SUBMISSION DATE: 2013-10-03 PROJECT No. 240025501



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

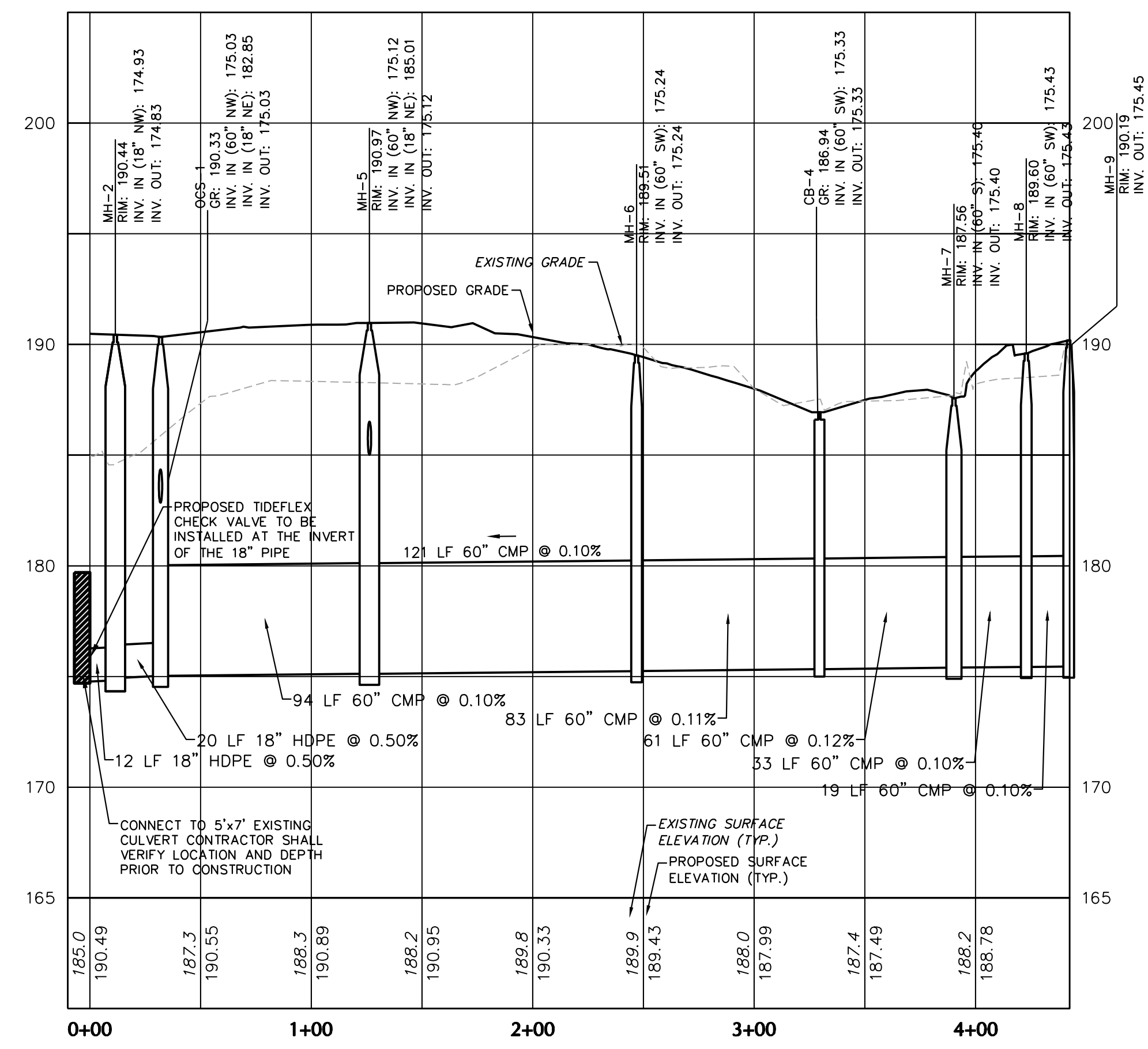
REVISIONS



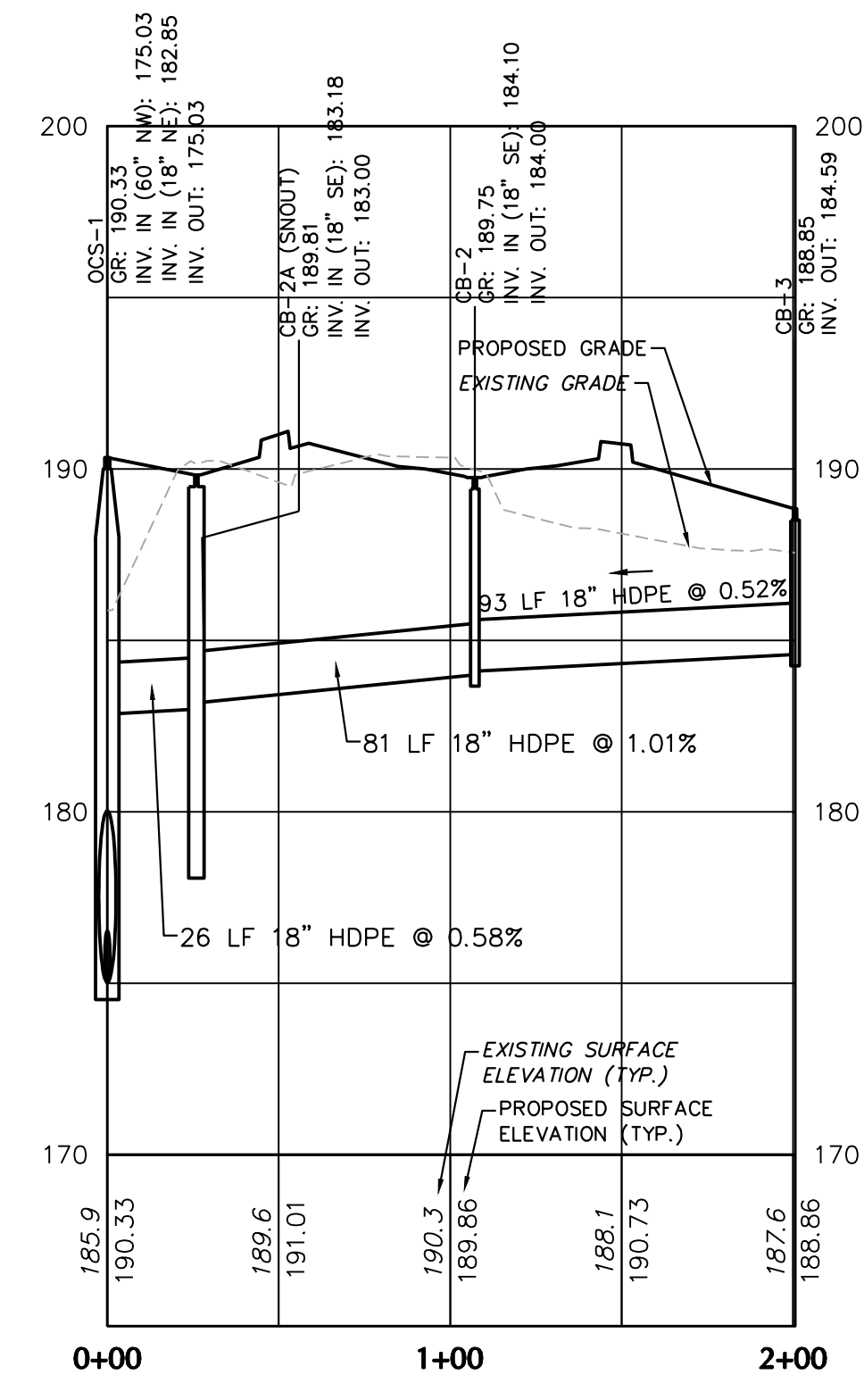
Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
UTILITY DETAILS

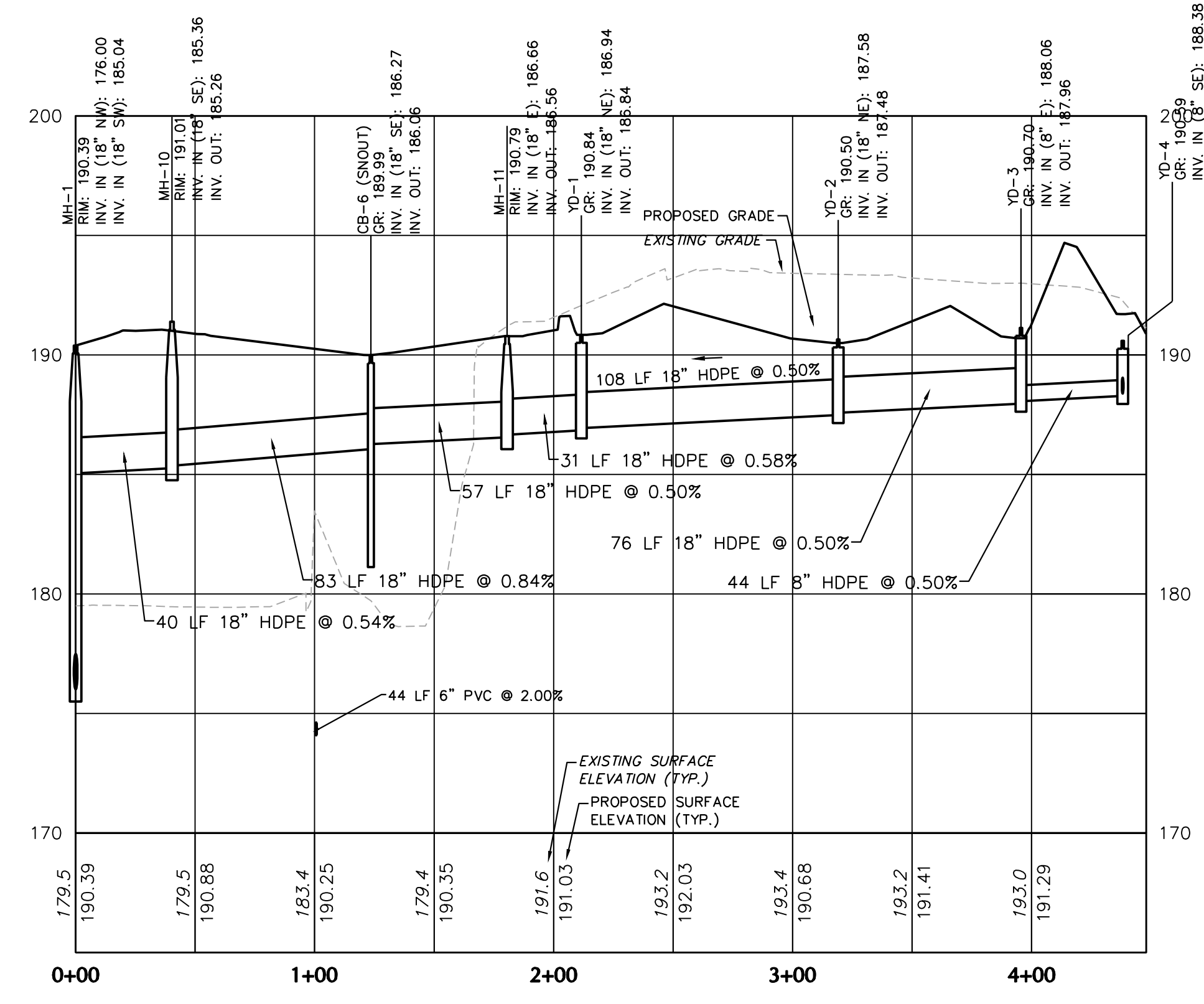
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Date	4-9-13		
Scale	N.T.S		
Drawn By	KG		
			Sheet 19 of 25



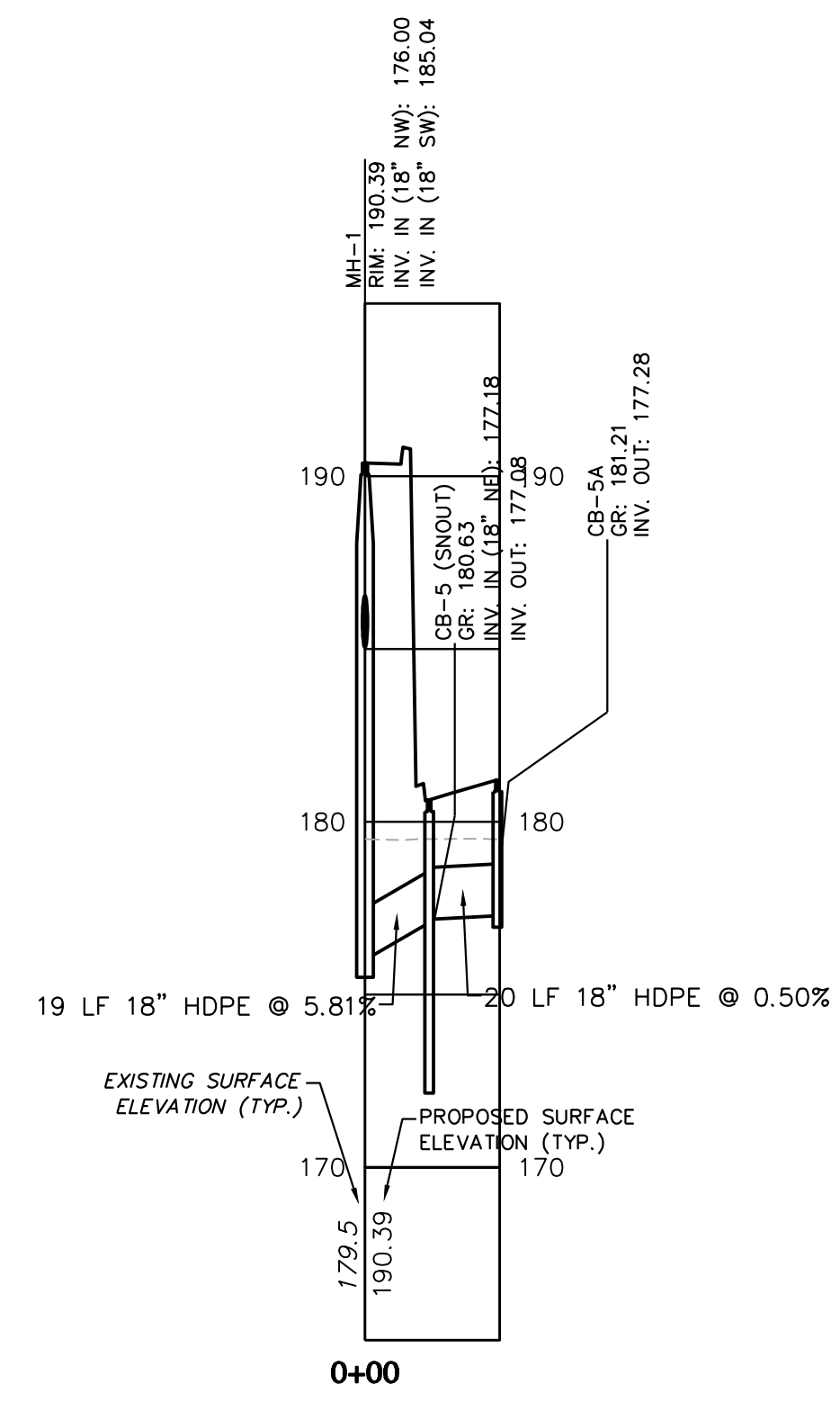
EXISTING CULVERT TO MH-9 PROFILE
(SCALE 1" = 50' HORIZONTAL; 1" = 5' VERTICAL)



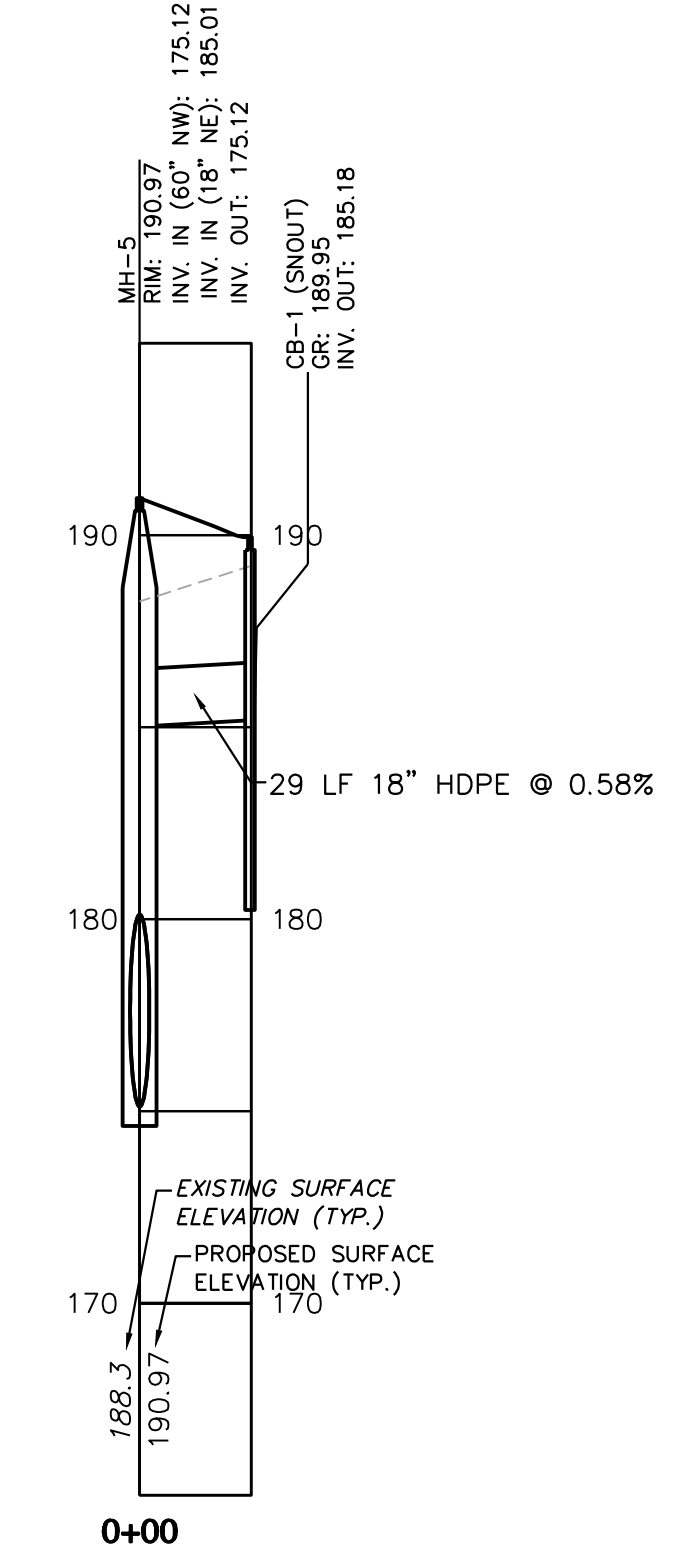
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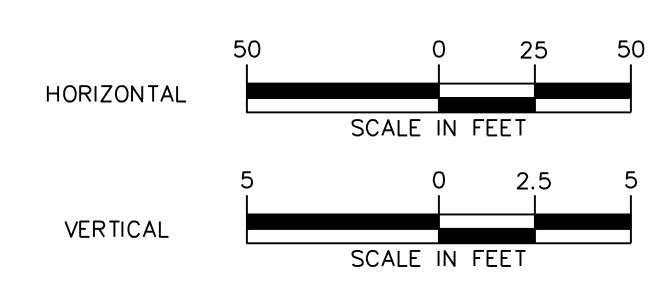
MH-1 TO YD-4 PROFILE
(SCALE 1" = 50' HORIZONTAL; 1" = 5' VERTICAL)



MH-1 TO CB-5A PROFILE
(SCALE 1" = 50' HORIZONTAL; 1" = 5' VERTICAL)



MH-5 TO CB-1 PROFILE
(SCALE 1" = 50' HORIZONTAL; 1" = 5' VERTICAL)



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

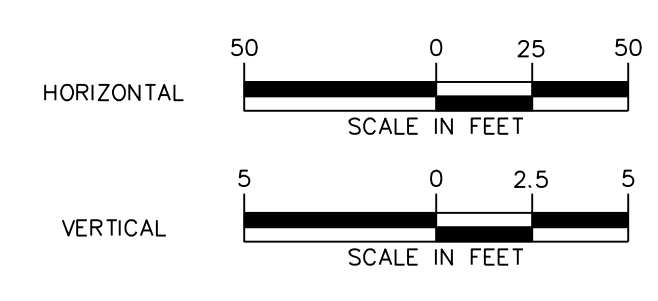
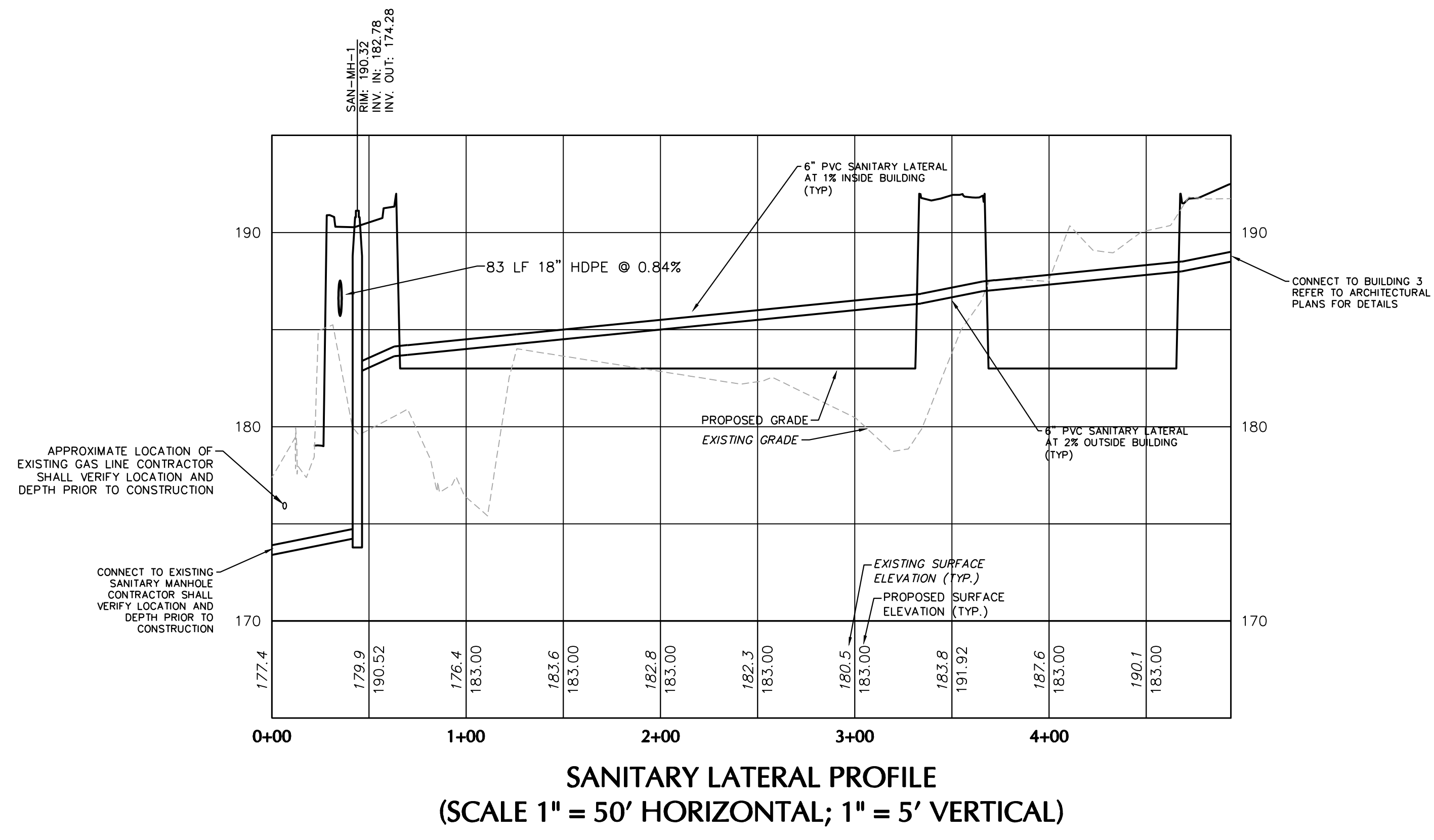
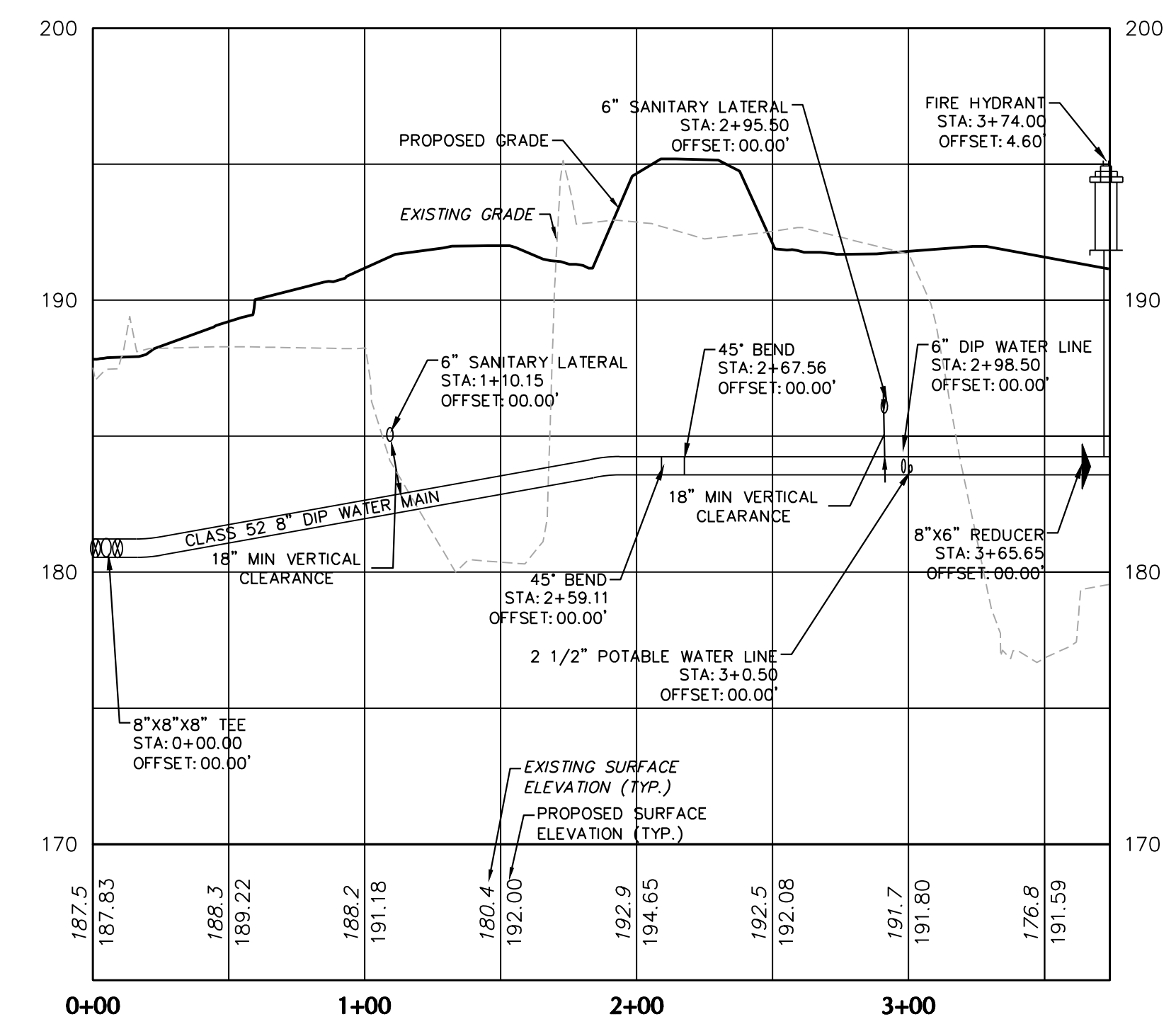
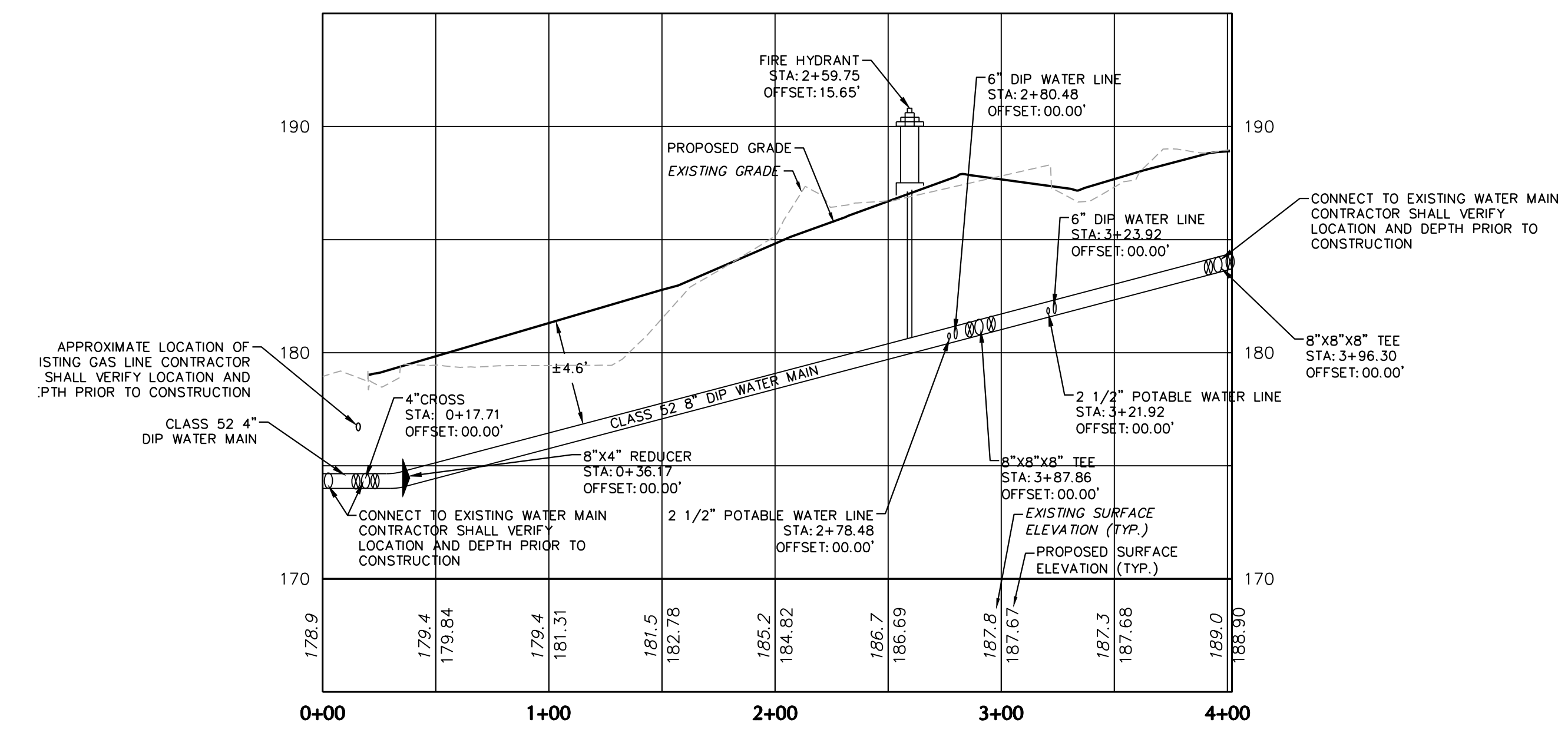
JASON SCOTT ENGELHARDT
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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ABU DHABI ATHENS DOHA
DUBAI ISTANBUL
Langan Engineering, Environmental, Surveying and Landbased Architecture, L.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
DRAINAGE AND UTILITY PROFILES

Project No.	240025501	Drawing No.	CU-601	
Date	4-9-13	Scale		AS SHOWN
Drawn By	JKM			
				Sheet 20 of 25



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

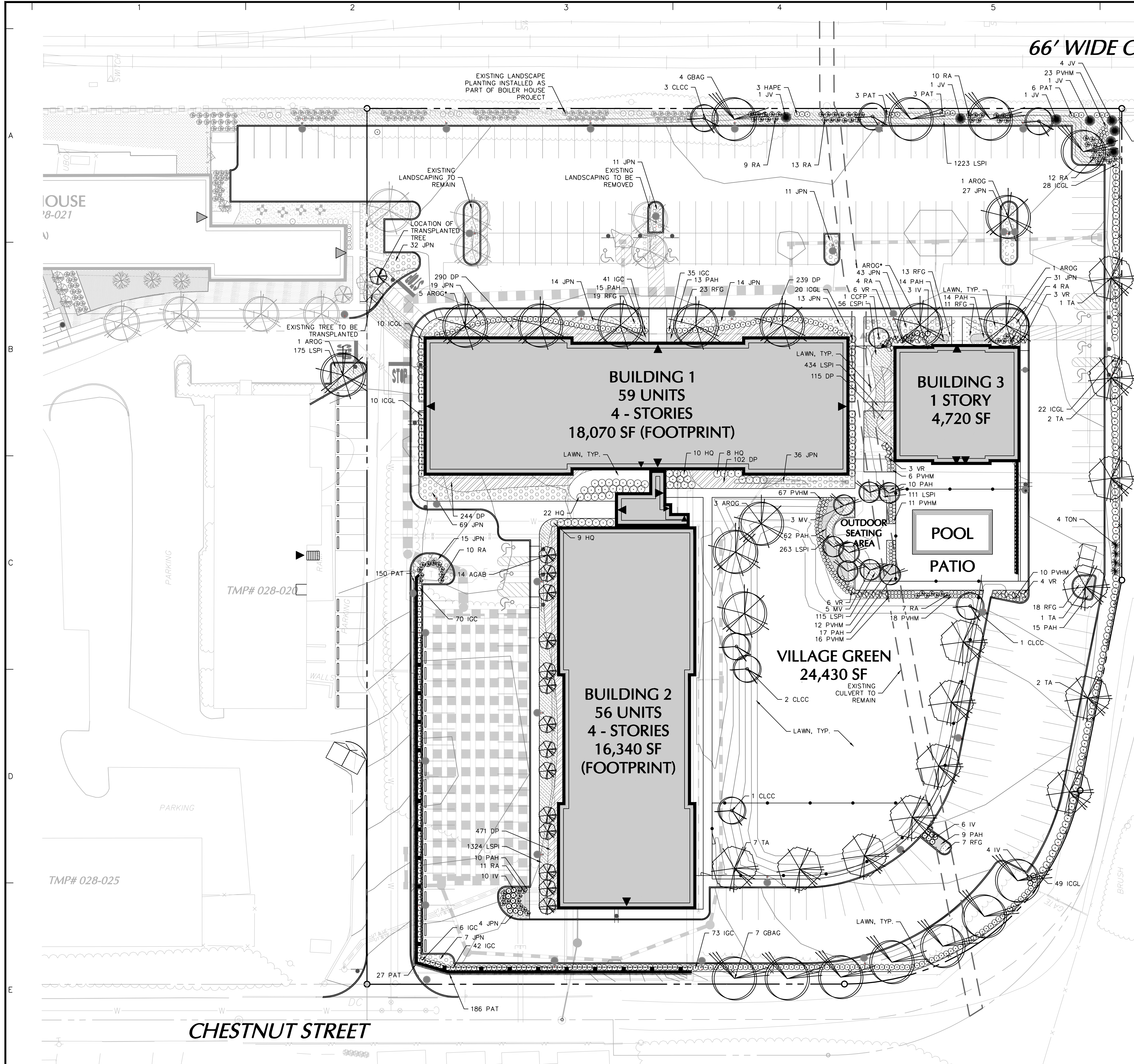
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Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
DRAINAGE AND UTILITY PROFILES

Project No.	240025501	Drawing No.	CU-602
Date	4-9-13		
Scale	AS SHOWN		
Drawn By	JKM		
			Sheet 21 of 25



66' WIDE CONRAIL EASEMENT

- NOTES:**
1. ALL SITE WORK, OR ANY ACTIVITY WITH THE POTENTIAL TO DISTURB SUBSOILS, SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROVED SOIL MANAGEMENT AND CLEANUP PLANS FOR THE SITE.
 2. REFER TO SHEET LP-501 FOR LANDSCAPE NOTES, DETAILS AND PLANT SCHEDULE.

Landscape Planting Requirements			
Ordinance Section	Required	Provided	Complies
Parking Lot Landscaping			
22-100.2			
2A. One landscaped stall per every 10 spaces, and not more than 10 spaces in a row	216 proposed parking spaces/10= 22 landscaped islands required	9 landscaped islands provided, average of 22 spaces in a row	no (waiver requested)
2C. Each planting island shall contain one shade tree plus shrubs and/or groundcover to cover the entire area.		One shade tree plus groundcover in each proposed island where no utility conflicts exist	yes
3. All parking lots shall be screened from public roads and from adjacent properties.	Site element screen required for proposed west, southwest, and south lots (853 LF total site element screen)	853 LF site element screen (opaque retaining wall with vines or shrubs planted 3' O.C.) provided along west, southwest, and south lots	yes
Street Trees			
22-100.3			
1. Street trees required along all existing and proposed streets and driveways which serve five or more residential dwelling units, and along walkways through parking lots, planted at least 1 tree per 40 LF of frontage	6 trees required along S. Chestnut and Maple Ave. + 6 trees required along driveway between S. Chestnut and Maple Ave. = 12 total trees required	Street trees proposed elsewhere on site (identified with an asterisk (***)). No street trees proposed along Maple Ave. frontage or proposed driveway due to retaining wall.	yes
Buffers and Screens			
22-100.4			
3A.C. Provide continuous planting area along all property lines	235 LF of buffer required along east property line	235 LF of buffer planting provided along eastern property line, site element screens provided along south and west property lines	yes
3G. For every 100 LF of buffer, provide 1 canopy tree and either 2 ornamental trees or one evergreen and one ornamental tree	235 LF of buffer required; 3 canopy trees, 3 ornamental trees, and 3 evergreen trees required	235 LF of buffer provided; 3 canopy trees, 3 ornamental trees, and 4 evergreen trees provided	yes
4A. Provide a site element screen for all parking lots of 3 or more stalls that are within 100 feet of property lines, unless the adjacent use is industrial.	Approx. 1037 LF of site element screen required along property line to screen proposed west, southwest and south parking lots	1037 LF of site element screen provided along west, southwest, and south property lines to screen parking lots from adjacent residences and public road	yes
27-2703			
3G. All TOD developments shall provide a permanent landscaped planting area of at least ten feet in depth along all property lines adjacent to existing residential uses.	Approx. 115 LF of property line bordering residential use to the southwest to have 10' landscape planting area	Approx. 115 LF of 10'-wide landscape planting area provided along southwest property line bordering residential	yes

*Calculation does not include existing vegetation provided as part of Boiler House project or areas requiring site element screens.

I HEREBY CERTIFY THAT I AM A REGISTERED LANDSCAPE ARCHITECT, LICENSED IN COMPLIANCE WITH THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA. THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS HAS BEEN PREPARED IN ACCORDANCE WITH ACCEPTED LANDSCAPE ARCHITECTURAL PRACTICE AND IS TRUE AND CORRECT.

MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT PA Lic. No. LA002533

DATE

SIGNATURE

OWNERS CERTIFICATION

I HAVE LAID OUT UPON MY LAND SITUATE IN THE BOROUGH OF AMBLER, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____ DAY OF _____, 20____

PRINTED NAME
COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THE _____ DAY OF _____, 20____, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN THE BOROUGH OF AMBLER, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND SEAL, THE DAY AND YEAR AFORESAID.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____

APPROVED THIS _____ DAY OF _____, 20____, BY THE PLANNING COMMISSION OF THE BOROUGH OF AMBLER, MONTGOMERY COUNTY, PA.

ATTEST: SIGNATURE, PRESIDENT

DATE SIGNED

ATTEST: SIGNATURE, SECRETARY

SEAL: DATE SIGNED

(BOROUGH NOTARY SEAL)

REVIEWED THIS _____ DAY OF _____, 20____, BY THE PLANNING COMMISSION OF THE BOROUGH OF AMBLER, MONTGOMERY COUNTY, PA.

ATTEST: SIGNATURE DATE SIGNED

REVIEWED BY THE BOROUGH ENGINEER OF THE BOROUGH OF AMBLER, MONTGOMERY COUNTY, PA.

BOROUGH ENGINEER SIGNATURE DATE SIGNED

RECORDED IN THE MONTGOMERY COUNTY COURT HOUSE THIS _____ DAY OF _____, 20____, IN PLAN BOOK _____, PAGE _____

MCPC No. _____

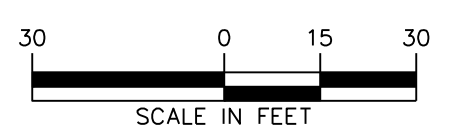
PROCESSED AND REVIEWED, A REPORT HAS BEEN PREPARED BY THE MONTGOMERY COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE MUNICIPALITIES PLANNING CODE.

CERTIFIED THIS DATE _____

MONTGOMERY COUNTY PLANNING COMMISSION FOR THE DIRECTOR

APPLICANT / EQUITABLE OWNER:
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
201 S. MAPLE AVENUE, SUITE 100
AMBLER, PA 19002
P: (484)532-7830

RECORD OWNER:
MAPLE AVE PARK PARTNERS, LLP
110 SPRUCE ROAD
AMBLER, PA 19002
P: (484)532-7830



Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.

REVISIONS

MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT PA Lic. LA002533

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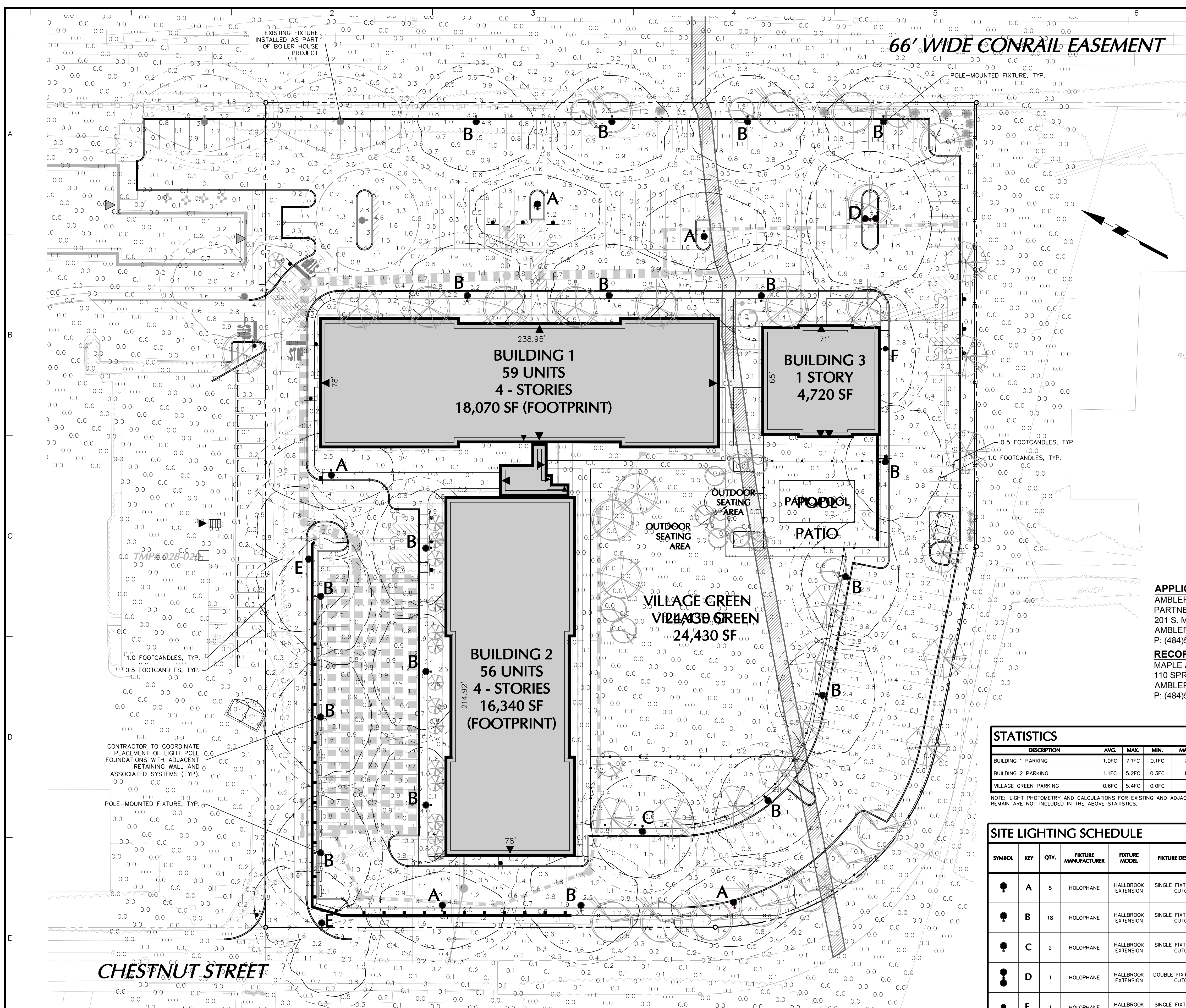
Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY

Drawing Title
LANDSCAPE PLAN

Project No. 240025501
Date 4-9-13
Scale 1"=30'
Drawn By RG

Drawing No.
LP-101

Sheet 22 of 25



- GENERAL LIGHTING NOTES:**
- POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE WITH IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY ACCEPTABLE LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY ACCEPTABLE LLF TO ENSURE ADEQUATE LIGHT INTENSITIES OVER YEARS OF USE AND WEAR. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR OTHER POTENTIAL LIGHT SOURCES AND/OR OTHER FACTORS WHICH HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS.
 - PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST-IN-PLACE CONCRETE.
 - CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES. SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.
 - CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
 - AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.
 - CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.
 - INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.
 - POINT SPACING ON PLACE OF CALCULATION IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON A 0.72 MAINTENANCE FACTOR.
 - ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
 - SITE ELECTRICAL CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
 - SITE ELECTRICAL CONTRACTOR SHALL CONFIRM THAT LIGHT FIXTURES MATCH SPECIFICATIONS ON THE PLANS.
 - REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
 - SITE ELECTRICAL CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERCISED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
 - POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
 - ELECTRICIAN AND INSTALLATION OF WALL MOUNTED FIXTURES SHALL BE COORDINATED WITH THE ARCHITECTURAL, STRUCTURAL, AND SITE DRAWINGS FOR SAFETY AND TO PROVEN EXPOSED WIRING.
 - POST-APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE BOROUGH FOR REVIEW AND APPROVAL.
 - THE BOROUGH RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION INSPECTIONS TO VERIFY COMPLIANCE WITH THE ORDINANCE REQUIREMENTS AND APPROVED LIGHTING PLAN COMMITMENTS AND, IF DEEMED APPROPRIATE BY THE BOROUGH, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE BOROUGH.
 - ALL EXTERIOR LIGHTING SHALL MEET IESNA FULL-CUTOFF CRITERIA UNLESS OTHERWISE APPROVED BY THE BOROUGH.
 - THE INSTALLER SHALL NOTIFY THE BOROUGH TO ARRANGE FOR INSPECTION AND APPROVAL OF ALL EXTERIOR LIGHTING, INCLUDING BUILDING-MOUNTED LIGHTING, PRIOR TO ITS INSTALLATION.
 - LIGHTING SUBSTITUTION REQUIREMENTS:**
ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS.
B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES BY ISOFOOTCANDLE THE SYSTEM'S PERFORMANCE. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.
C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS, IES CALCULATIONS, CANDLEPOWER TABULATIONS, ZONE LUMEN SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY, BUT NOT LIMITED TO, OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, VOLTAGE, FINISH AND HOUSING DESCRIPTION.
D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

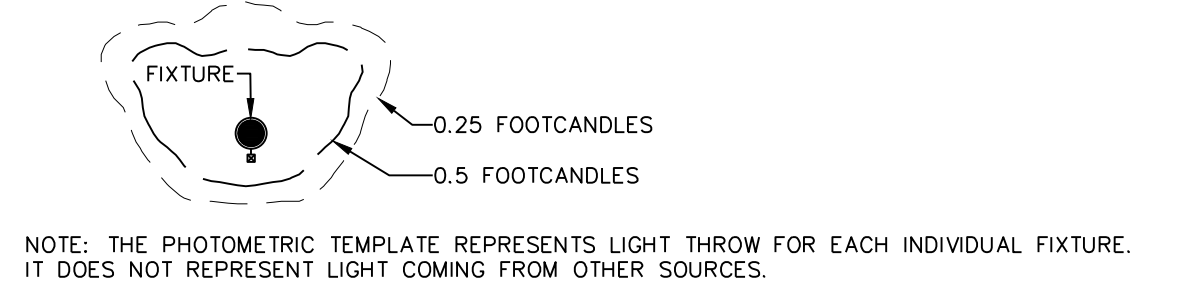
APPLICANT / EQUITABLE OWNER:
AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
201 S. MAPLE AVENUE, SUITE 100
AMBLER, PA 19002
P: (484)532-7830

RECORD OWNER:
MAPLE AVE PARK PARTNERS, LLP
110 SPRUCE ROAD
AMBLER, PA 19002
P: (484)532-7830

STATISTICS

DESCRIPTION	AVG.	MAX.	MIN.	MAX/MIN	AVG/MIN
BUILDING 1 PARKING	1.0FC	7.1FC	0.1FC	71.0:1	9.9:1
BUILDING 2 PARKING	1.1FC	5.2FC	0.3FC	17.3:1	3.4:1
VILLAGE GREEN PARKING	0.6FC	5.4FC	0.0FC	N/A	N/A

NOTE: LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING AND ADJACENT LIGHTING TO REMAIN ARE NOT INCLUDED IN THE ABOVE STATISTICS.



- NOTES:**
- REFER TO SHEET LL-501 FOR SITE LIGHTING NOTES, DETAILS AND FIXTURE CUTSHEETS.
 - ALL SITE WORK, OR ANY ACTIVITY WITH THE POTENTIAL TO DISTURB SUBSOILS, SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROVED SOIL MANAGEMENT AND CLEANUP PLANS FOR THE SITE.
 - CONTRACTOR SHALL INSTALL AUTOMATED SWITCHES ON SITE LIGHTING SO THAT PROPOSED LIGHT LEVELS ARE DIMMED TO 25% OF THOSE SHOWN ON THIS PLAN. DIMMING SHALL OCCUR BETWEEN THE HOURS OF 11 PM AND 6 AM.

SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	OPTICS	LUMENS	LLF	IES FILE	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.
A	5	HOLOPHANE	HALLBROOK EXTENSION	SINGLE FIXTURE: FULL CUTOFF	15'	175W METAL HALIDE	TYPE III		14,000	0.72	GE175MH000X521XX.IES	GE-175PM-MA-1-B-5-21	HOLOPHANE	14' HIGH CAST ALUMINUM PRINCETON SERIES POLE WITH VALENCIA CROSS ARM	14'	Z-P-1555X18-CA-B K-GW-VL27/1CXH-GWL/F2 00-SCA
B	18	HOLOPHANE	HALLBROOK EXTENSION	SINGLE FIXTURE: FULL CUTOFF	15'	175W METAL HALIDE	TYPE IV		14,000	0.72	GE175MH000X526X.IES	GE-175PM-MA-1-B-5-26	HOLOPHANE	14' HIGH CAST ALUMINUM PRINCETON SERIES POLE WITH VALENCIA CROSS ARM	14'	Z-P-1555X18-CA-B K-GW-VL27/1CXH-GWL/F2 00-SCA
C	2	HOLOPHANE	HALLBROOK EXTENSION	SINGLE FIXTURE: FULL CUTOFF	15'	175W METAL HALIDE	TYPE V		14,000	0.72	GE175MH000X525X.IES	GE-175PM-MA-1-B-5-25	HOLOPHANE	14' HIGH CAST ALUMINUM PRINCETON SERIES POLE WITH VALENCIA CROSS ARM	14'	Z-P-1555X18-CA-B K-GW-VL27/1CXH-GWL/F2 00-SCA
D	1	HOLOPHANE	HALLBROOK EXTENSION	DOUBLE FIXTURE: FULL CUTOFF	15'	175W METAL HALIDE	2x TYPE IV		28,000	0.72	GE175MH000X526X.IES	GE-175PM-MA-1-B-5-25	HOLOPHANE	14' HIGH CAST ALUMINUM PRINCETON SERIES POLE WITH DOUBLE VALENCIA CROSS ARM	14'	Z-P-1555X18-CA-B K-GW-VL54/2-CA/BK-GWL/F200-SCA
E	1	HOLOPHANE	HALLBROOK EXTENSION	SINGLE FIXTURE: FULL CUTOFF	15'	175W METAL HALIDE	TYPE V		14,000	0.72	GE175MH000X525X.IES	GE-175PM-MA-1-B-5-25	HOLOPHANE	BUILDING MOUNTED FIXTURE WITH VALENCIA CROSS ARM	13'	VL27/1-CA/BK
F	2	SPRING CITY ELECTRICAL MFG.	BOROUGH HORIZONTAL	SINGLE FIXTURE: CUTOFF	14'-6"	150W HIGH PRESSURE SODIUM	TYPE III		12,800	0.72	BRH-PBR0-HC3.IES	ALMBRH-PBR0-HC3	SPRING CITY ELECTRICAL MFG.	CAST IRON MADISON ST. LOUIS TOP POLE. POLE FINISH: SHERWIN WILLIAMS AERONON GREEN-BLACK	12'-8"	--

10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.
Date	Description	No.
REVISIONS		

MICHAEL SZURA
REGISTERED LANDSCAPE ARCHITECT P a Lic. LA002533

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Langan International LLC
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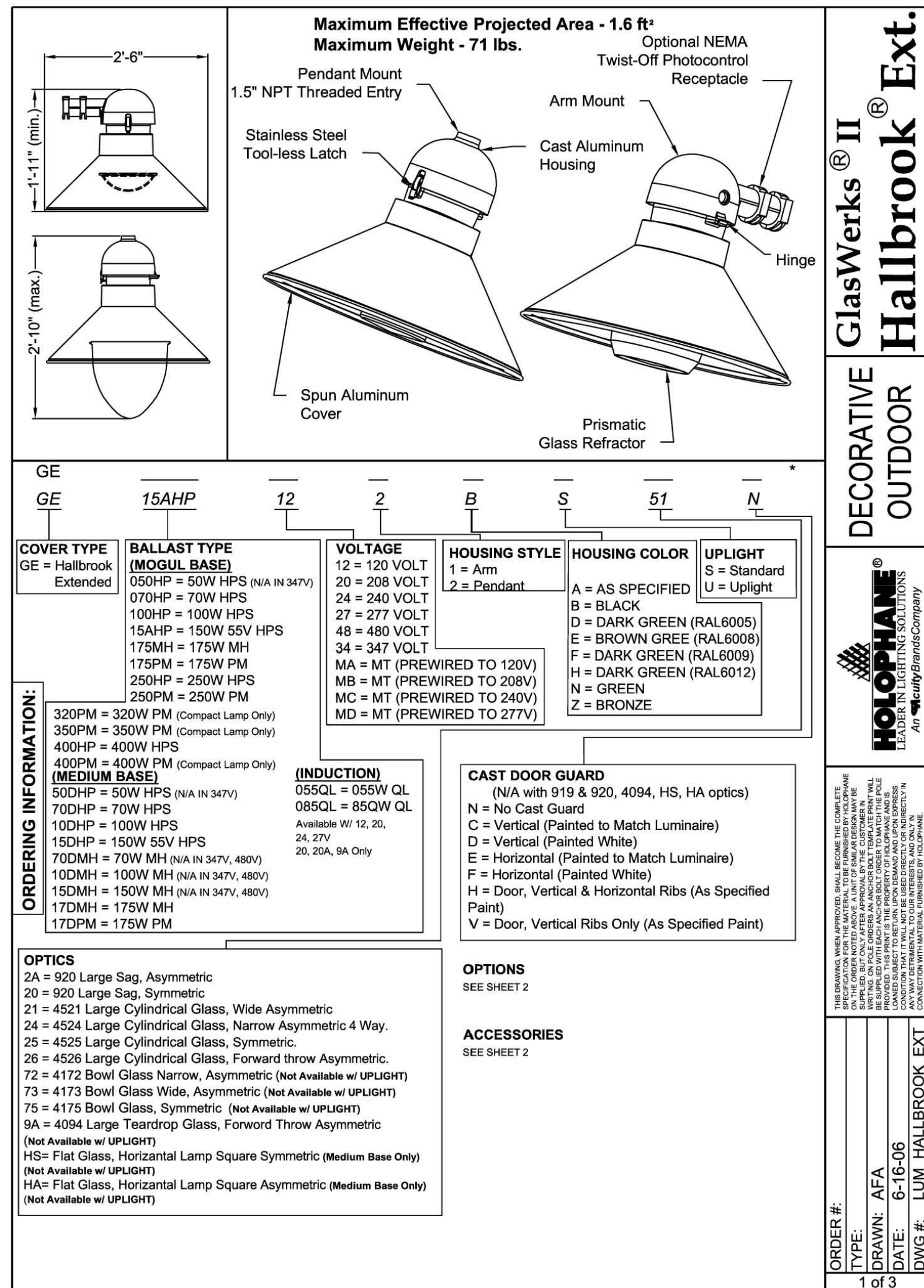
Project
AMBLER CROSSINGS
AMBLER BOROUGH
MONTGOMERY COUNTY
PENNSYLVANIA

Drawing Title
SITE LIGHTING PLAN

Project No. 240025501
Date 4-9-13
Scale 1"=30'
Drawn By RG

Drawing No.
LL-101

Sheet 24 of 25



OPTIONS
 P = NEMA TWISTLOCK PHOTOCONTROL, RECEPTACLE ONLY
 T = PROTECTED STARTER FOR HPS UNITS ONLY
 BOTH NEMA AND STARTER TOGETHER FOR HPS ONLY UNITS ONLY, NOT AVAILABLE WITH "P" OR "T"
 NEMA050P = NEMA LABEL 50 HPS
 NEMA070P = NEMA LABEL 70 HPS
 NEMA100P = NEMA LABEL 100 HPS
 NEMA150P = NEMA LABEL 150 HPS
 NEMA070M = NEMA LABEL 70 MH
 NEMA100M = NEMA LABEL 100 MH
 NEMA150M = NEMA LABEL 150 MH
 NEMA100MV = NEMA LABEL 100 MV
 NEMA175M = NEMA LABEL 175 MH
 PCTW51L120 = DTL TWISTLOCK PHOTOCONTROL, 120 VOLT
 PCTW51L250 = DTL TWISTLOCK PHOTOCONTROL, 120-277 VOLT
 PCTW51L480 = DTL TWISTLOCK PHOTOCONTROL, 480 VOLT
 PCTW51SHRTCAP = SHORTING CAP
 LEADS3FT10GA = 3 FEET OF PREWIRED LEADS
 LEADS3FT10GA = 10 FEET OF PREWIRED LEADS
 LEADS3FT10GA = 20 FEET OF PREWIRED LEADS
 LEADS3FT10GA = 25 FEET OF PREWIRED LEADS
 LEADS3FT10GA = 30 FEET OF PREWIRED LEADS

ACCESSORIES:
 IG-5 = Plug-in Replacement Starter (HPS Only)
 IG-6 = Plug-in Replacement Protected Starter (HPS Only)
 IG-7 = Plug-in Replacement Starter kit for 700MH, 100MH and 150MH Units.

Specifications

GENERAL DESCRIPTION
 The Euro styled luminaire consists of a prismatic glass optical assembly shielded by a flared cut-off reflector and a top mounted cast aluminum ballast assembly with a circumferential 1-1/2 inch reveal.

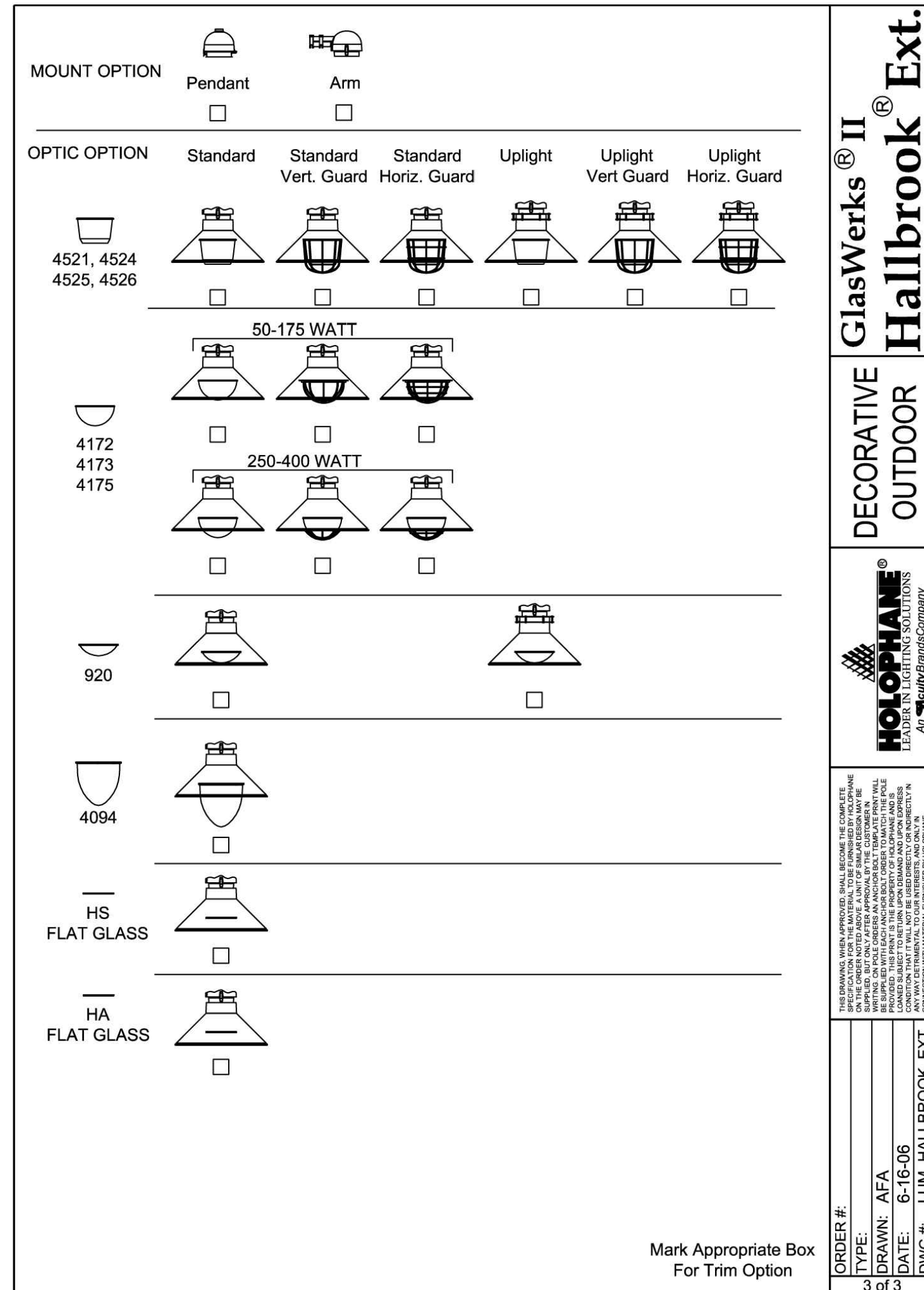
OPTICAL ASSEMBLY
 The optical assembly consists of a thermal resistant annealed borosilicate glass refractor mechanically held in a formed aluminum door frame. The hinged door frame is attached to the spun cover with two tool-less screws and hinge. A cast aluminum vertical or horizontal guard door frame is not available on this series. The hinged door assembly allows easy access for re-lamping. Light from a vertical lamp is distributed by precisely molded refracting prisms to maximize utilization, uniformity and luminaire spacing. Thirteen unique refractors are available for symmetrical or asymmetric distribution.

BALLAST ASSEMBLY
 The cast aluminum ballast housing, has a smooth domed contour. A terminal block is provided with a quick disconnect receptacle. The ballast housing is hinged with a tool-less latch to provide easy access to the ballast assembly. The unitized ballast assembly, containing the ballast and other electrical components, plugs into the quick disconnect receptacle. The ballast plate is attached with two tool-less screws. A nickel plated lamp grip socket of street lighting grade with a glazed porcelain body and the center contact backed by a coiled spring, is positioned mechanically to the ballast plate, placing the lamp at the light center of the prismatic glass refractor. The pendant mount version has a 1-1/2 inch circumferential reveal. This housing has an integral 1-1/2 inch NPT threaded entry with stainless steel set screw. The arm mount version is provided with two U-bolts with washers and nuts and two leveling set screws that lock the housing to a 2 inch nominal (2-3/8" O.D.) horizontal arm and allow a +/- 5 degree adjustment from horizontal to the cover.

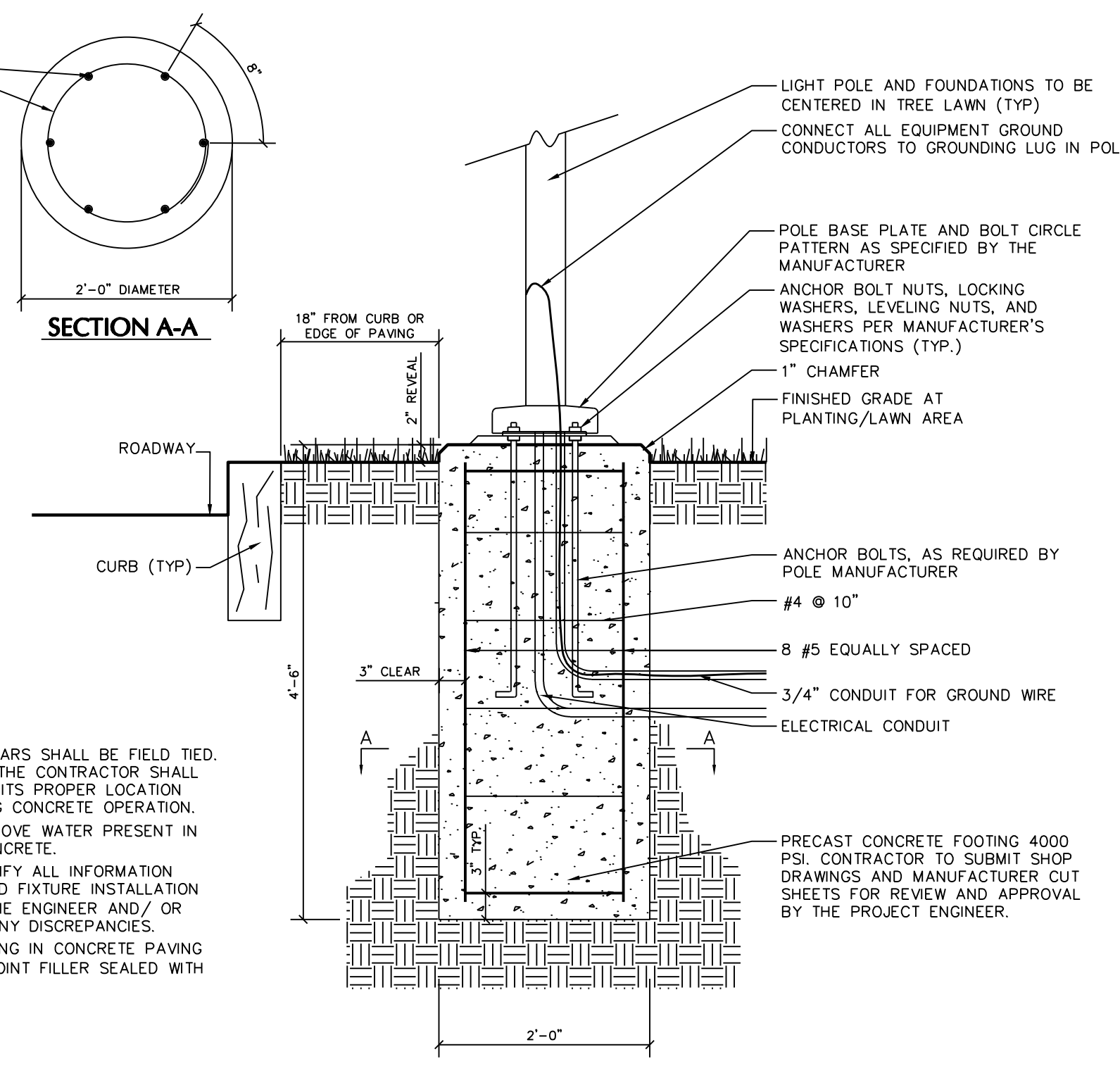
BALLASTS
 (Refer to the Ballast Handbook for specific operating characteristics)
 All HPS ballasts are High Power Factor Lag type.
 175 watt Metal Halide (MH) ballasts are Peak Lead Autotransformer type. 70, 100, and 150 watt MH units are High Power Factor Lag type ballasts.

FINISH
 The luminaire is finished with polyester powder paint applied after a seven stage pretreatment process to insure maximum durability.

ORDER #: LUM_HALLBROOK_EXT
TYPE: DRAWING_AFA
DATE: 6-16-06
DWG #: 2 of 3



1 LIGHT FIXTURE
 NTS



- NOTES:**
- VERTICAL AND HORIZONTAL BARS SHALL BE FIELD TIED. WELDING IS NOT PERMITTED. THE CONTRACTOR SHALL SUPPORT REINFORCEMENT IN ITS PROPER LOCATION FROM THE FORMWORK DURING CONCRETE OPERATION.
 - THE CONTRACTOR SHALL REMOVE WATER PRESENT IN HOLE PRIOR TO POURING CONCRETE.
 - THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO THE POLE AND FIXTURE INSTALLATION WITH THE MANUFACTURER, THE ENGINEER AND/OR OWNER TO BE NOTIFIED OF ANY DISCREPANCIES.
 - INSTALLATION OF POLE FOOTING IN CONCRETE PAVING REQUIRES 1/2" EXPANSION JOINT FILLER SEALED WITH JOINT SEALANT.

NOTE: THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.

2 LIGHT POLE FOUNDATION
 NTS

Date	Description	No.
10-3-13	BOROUGH COMMENTS	2.
6-21-13	BOROUGH COMMENTS	1.
REVISIONS		

MICHAEL SZURA
 REGISTERED LANDSCAPE ARCHITECT PA LIC. LA002533

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 Langan Engineering and Environmental Services, Inc.
 Langan International LLC
 Collectively known as Langan

Project
AMBLER CROSSINGS
 AMBLER BOROUGH
 MONTGOMERY COUNTY
 PENNSYLVANIA

Drawing Title
SITE LIGHTING NOTES AND DETAILS

Project No.	240025501	Drawing No.	LL-501
Date	4-9-13	Scale	N.T.S.
Drawn By	RG	Sheet	25 of 25