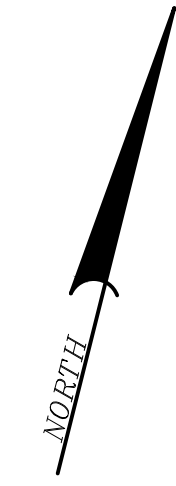
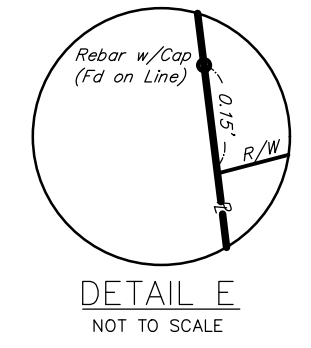




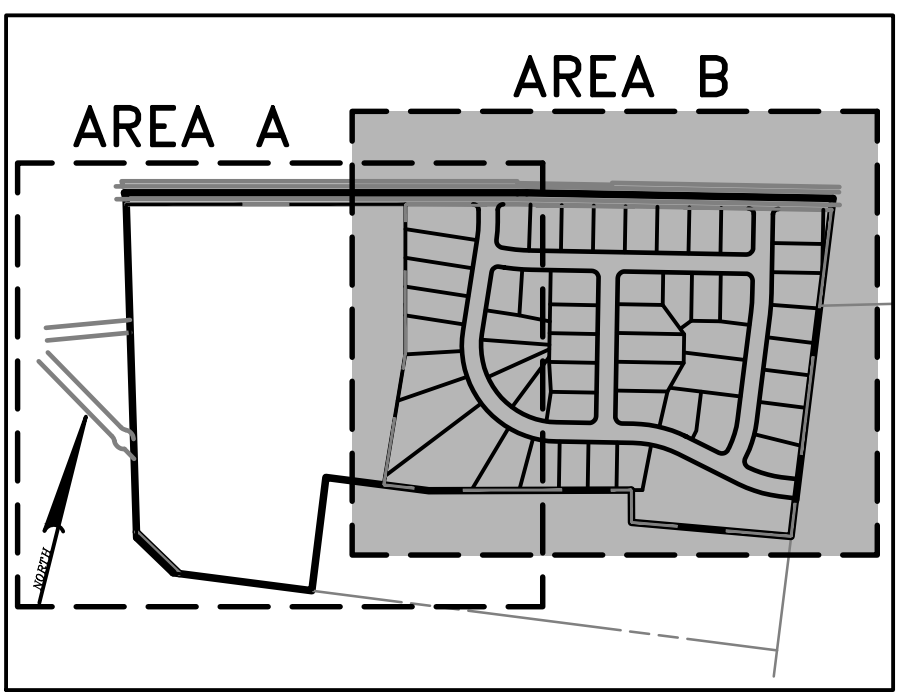
**LEGEND**

- EXISTING BOUNDARY LINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- EXISTING CURB
- EXISTING PAVEMENT
- EXISTING STREAM
- EXISTING FLOODPLAIN
- EXISTING WETLAND
- EXISTING VEGETATION
- DECIDUOUS TREE
- EVERGREEN TREE
- EXISTING TREELINE
- EXISTING FENCE
- PROPOSED CURB
- PROPOSED PAVEMENT
- PROPOSED TREELINE
- PROPOSED LOT LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED STORMWATER EASEMENT
- PROPOSED OFF-SITE DRAINAGE EASEMENT
- PROPOSED CONSTRUCTION AND ACCESS EASEMENT
- PROPOSED ACCESS EASEMENT
- PROPOSED CONSTRUCTION EASEMENT
- PROPOSED SNOW EASEMENT
- PROPOSED LANDSCAPE EASEMENT
- EXISTING CONSERVATION EASEMENT



**NOTES:**

1. EXCAVATION, THE PLACEMENT OF FILL OR STRUCTURES, AND ANY ALTERATIONS THAT MAY ADVERSELY AFFECT THE FLOW OF STORMWATER WITH ANY PORTION OF THE EASEMENT ARE PROHIBITED.

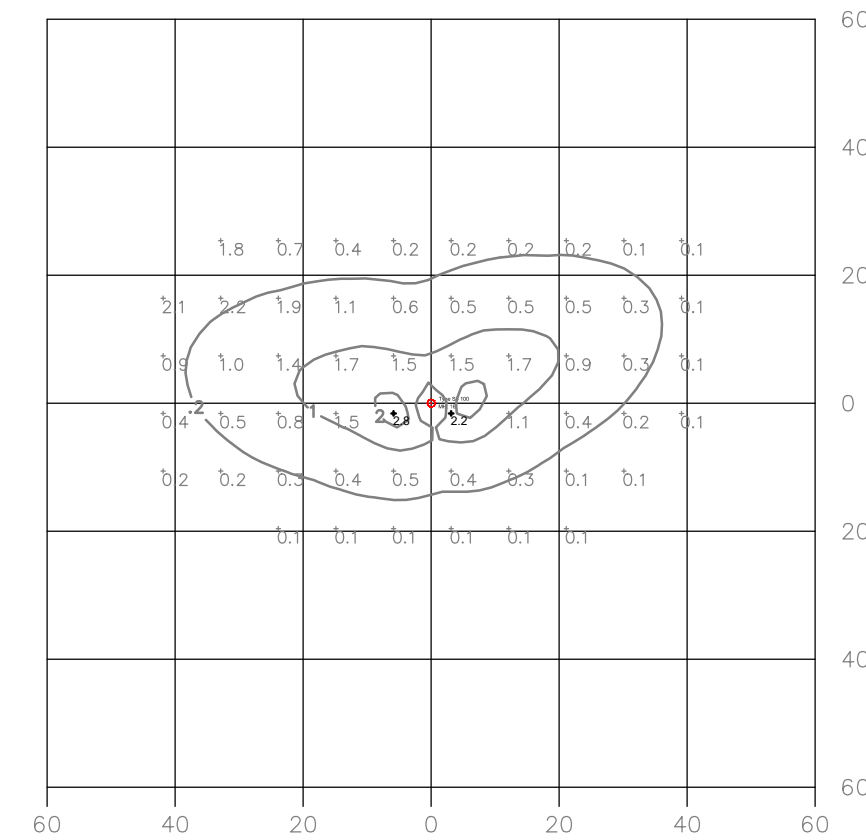


<p><b>FOR RETTEW ASSOCIATES BY:</b></p> <p>INVEST: 019792000-SV-BASE PHASED 019792000-LD-BASE PHASED 019792000-LD-ORAD PHASED 019792000-SV-UDS PHASED 019792000-SV-TPD PHASED 019792000-LD-KEY PHASED 019792000-LD-KEY PHASED 019792000-LD-BOUNDARY</p>	<p><b>MANAGER:</b> KIM M. FASNACHT</p> <p><b>DESIGN BY:</b> KMF</p> <p><b>SURV. CHIEF:</b> JAR</p> <p><b>DRAWN BY:</b> JAR</p>	<p><b>CLIENT:</b> KGH DEVELOPMENT 120 NORTH PONTE BLVD. LANCASTER, PA 17601 (717) 560-9095</p>	<p><b>RETTEW ASSOCIATES, INC.</b> 1500 W. MARKET ST. LANCASTER, PA 17602 PH: (717) 560-9095 WWW.RETTEW.COM</p>	<p><b>EASEMENT PLAN</b> AREA B FINAL LAND DEVELOPMENT, SUBDIVISION, AND LOT ADD-ON PLAN FOR <b>RAFFENSPERGER - PHASE 1</b> MOUNT JOY TOWNSHIP LANCASTER COUNTY, PA</p>	<p><b>DRAWING REFERENCE:</b> C:\ADD\System\Software\Autodesk\Temp\AutoCAD\Temp\171440\019792000-Final-Plan-Phase1.dwg</p>						
<p><b>DATE:</b> 4/12/24</p> <p><b>SHEET NO. 17 OF 33</b></p> <p><b>DWG. NO. 019792000</b></p>		<p><b>SCALE:</b> 1"=50'</p>		<p><b>REVISION:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		NO.	DATE	DESCRIPTION			
NO.	DATE	DESCRIPTION									

SHADE TREE PLANT SCHEDULE				
SYM. KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE/CONDITIONS
AR	26	Acer rubrum 'Red Sunset'	Red Sunset Maple	MIN 2" CAL. 6" ABOVE GRADE B&B
AS	26	Acer saccharum	Sugar Maple	MIN 2" CAL. 6" ABOVE GRADE B&B
GT	16	Gleditsia triacanthos 'Inermis'	Thornless Honeylocust	MIN 2" CAL. 6" ABOVE GRADE B&B
QM	27	Quercus montana	Chestnut Oak	MIN 2" CAL. 6" ABOVE GRADE B&B
TC	34	Tilia cordata	Little Leaf Linden	MIN 2" CAL. 6" ABOVE GRADE B&B

EVERGREEN TREE PLANT SCHEDULE				
SYM. KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE/CONDITIONS
JV	27	Juniperus virginiana	Eastern Redcedar	MIN 6" HT B&B
PA	33	Picea abies	Norway Spruce	MIN 6" HT B&B
PG	23	Picea glauca	White Spruce	MIN 6" HT B&B
PS	31	Pinus strobus	White Pine	MIN 6" HT B&B

NOTE: 1. ALL REQUIRED LANDSCAPE PLANTS SHALL BE MAINTAINED AND GUARANTEED FOR A LENGTH OF 18 MONTHS FROM THE DATE OF PLANTING. NO MORE THAN 1/3 OF THE TREES OR SHRUBS SHALL BE DAMAGED OR DEAD WITHOUT REPLACEMENT. REPLACEMENT PLANTS SHALL CONFORM TO ALL REQUIREMENTS OF SECTION 119.59.A OF THE ORDINANCE AND SHALL BE MAINTAINED AFTER REPLANTING FOR AN ADDITIONAL 18 MONTHS.



INITIAL LIGHTING OUTPUT VALUES  
NOT TO SCALE

NOTES

- LUMINAIRE: SPRING CITY ELECTRICAL MANUFACTURING - VILLA MODEL  
 LAMP SIZE: 100 WATT  
 LAMP TYPE: LED  
 OPTICS: CR3 (TYPE III)  
 POLE: 14' HEIGHT, ROUND BLACK FIBERGLASS DIRECTLY EMBEDDED 3" IN THE GROUND  
 ELECTRIC SUPPLY: LOW-MOUNT UNDERGROUND

- THE LIGHTING DESIGN LAYOUT SHOWN IS CONCEPTUAL, BASED ON THE LIGHT FIXTURE REQUIRED BY THE TOWNSHIP. UTILIZING THE LED LIGHT OPTION FOR THE VILLA MODEL LIGHT PROVIDED BY SPRING CITY ELECTRICAL. REFER TO DETAIL ON SHEET 28.
- ALL LIGHTING FIXTURES SHALL BE ACTUATED BY A PHOTOELECTRIC CONTROLLED SWITCH.
- LIGHTS SHALL BE SPACED ACCORDING TO THE LIGHTING PLAN PROVIDED.
- STREETLIGHT FIXTURES TO BE SPRING CITY ELECTRICAL MANUFACTURING COMPANY, VILLA MODEL LIGHT FIXTURE OR APPROVED EQUAL.
- THE MINIMUM FOOTCANDLE SHALL BE 0.4 FOR RESIDENTIAL SUBDIVISIONS. ANY LIGHTING SUBSTITUTIONS MUST MEET THIS REQUIREMENT AND BE APPROVED BY THE TOWNSHIP.

Symbol	Qty	Label	[MANUFAC]	Description	Arrangement	LLD	LDD	LLF
⊕	53	Type S3 100	Spring City Electrical Manufacturing Co	WSH-LE100-L1-EVX-30-CR3-YS11-CU	SINGLE	1,000	1,000	0.810

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	LVRatio	Grid Z
CalcPts_1	Illuminance	Fc	1.60	2.8	0.6	2.67	4.67	N.A.	0
CalcPts_2	Illuminance	Fc	1.57	2.8	0.6	2.62	4.67	N.A.	0

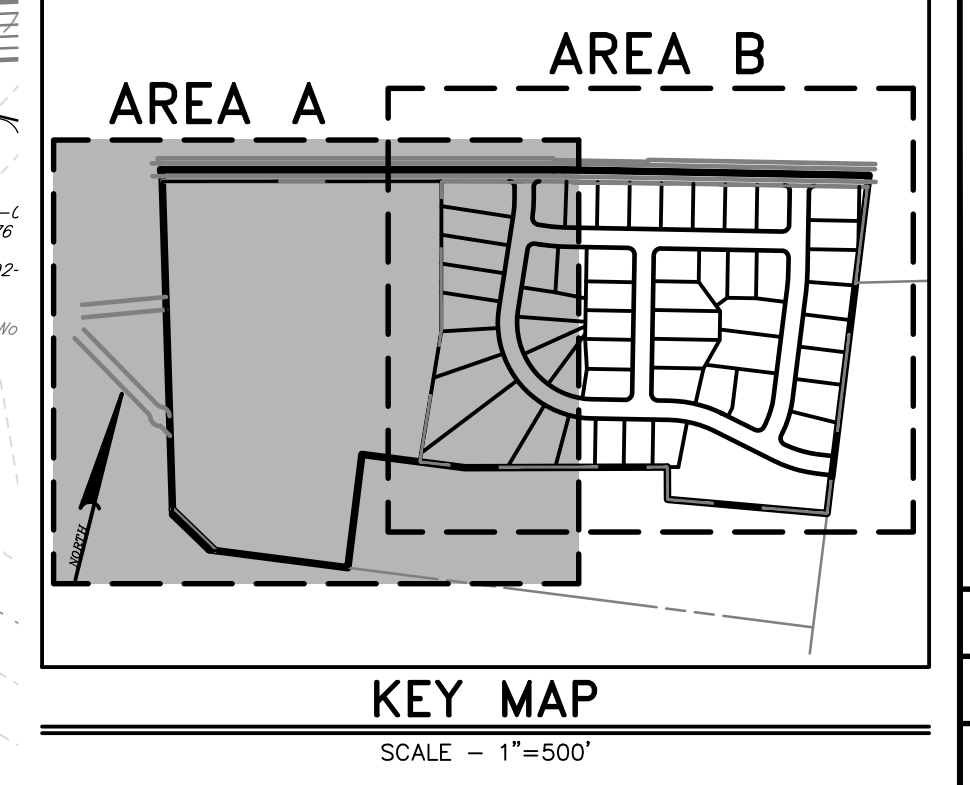


### LEGEND

- EXISTING BOUNDARY LINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- EXISTING CURB
- EXISTING PAVEMENT
- EXISTING STREAM
- EXISTING FLOODPLAIN
- EXISTING WETLAND
- EXISTING VEGETATION
- DECIDUOUS TREE
- EVERGREEN TREE
- EXISTING TREELINE
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING WELL
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY SEWER FORCEMAIN
- EXISTING TELEPHONE BOX
- EXISTING GAS LINE
- EXISTING GAS VALVE
- EXISTING STORM MANHOLE
- EXISTING STORM INLET
- EXISTING STORM HEADWALL/ENDWALL
- EXISTING STORM PIPE
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- PROPOSED PAVEMENT
- PROPOSED LOT LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED WATER LINE
- PROPOSED WATER LATERAL
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY LATERAL
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED STORM HEADWALL/ENDWALL
- PROPOSED PIPE OUTLET PROTECTION
- PROPOSED STORM PIPE
- PROPOSED EVERGREEN TREE
- PROPOSED DECIDUOUS TREE
- PROPOSED SHRUB
- LANDSCAPING TAG
- PROPOSED POLE LIGHT
- PROPOSED LIGHTING FOOT CANDLE TICK
- PROPOSED CLEAR SIGHT TRIANGLE

### LANDSCAPING NOTES

- THE PURPOSE OF THE PLANT SELECTION LIST FOR REQUIRED LANDSCAPING MATERIALS IS TO PROVIDE FLEXIBILITY TO THE DEVELOPER FOR THE LANDSCAPE DESIGN AND TO ACCOUNT FOR PLANT MATERIAL AVAILABILITY AND SPECIFIC SITE AND SOIL CONDITION SUITABILITY. THIS GENERAL LIST IS A COMPILATION OF RECOMMENDED PLANT SPECIES BY THE PLANTING PLAN'S REGISTERED LANDSCAPE ARCHITECT. IT IS INTENDED TO SERVE AS A GUIDE IN PLANT SELECTION. SUBSTITUTIONS NOT ON THIS LIST MAY BE USED WITH THE APPROVAL OF THE SAID LANDSCAPE ARCHITECT AND WEST EARL TOWNSHIP.
- ALL REQUIRED LANDSCAPING SHALL BE PLACED AT THE APPROXIMATE LOCATIONS INDICATED ON THE APPROVED PLAN.
- ALL PLANT MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH THE "AMERICAN NURSERYMAN'S ASSOCIATION" GUIDELINES.
- THE TOP OF THE MAIN ORDER ROOT (FIRST LARGE SET OF ROOTS THAT DIVIDE FROM THE TRUNK) SHALL BE PLANTED NO LOWER THAN ONE OR TWO INCHES INTO THE SOIL.
- STREET TREES SHALL CONSIST OF A MINIMUM OF ONE DECIDUOUS CANOPY TREE PER 50' OF STREET FRONTAGE OR FRACTION THEREOF, SHALL BE PLANTED PARALLEL TO THE STREET.
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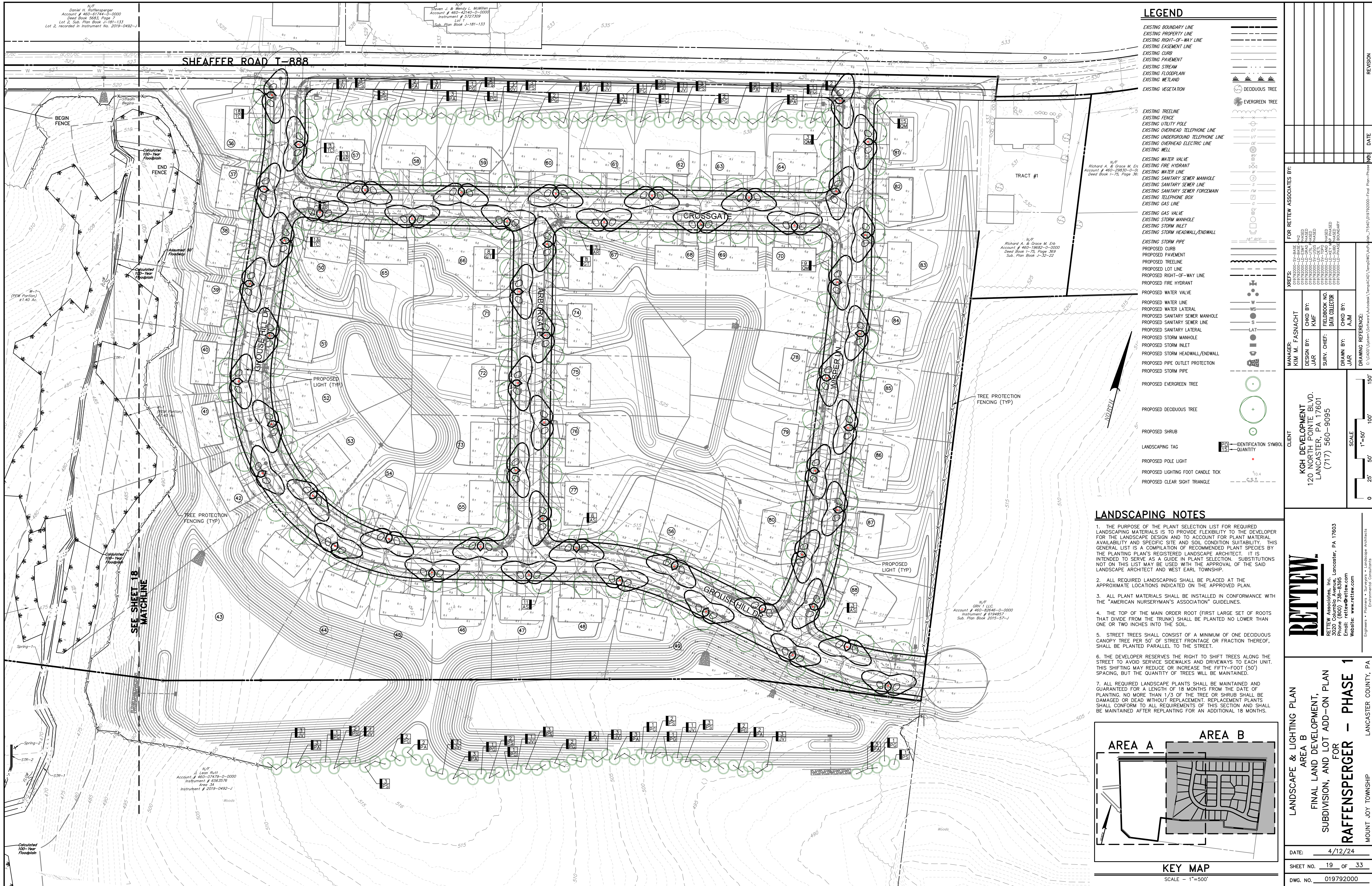
FOR RETTEW ASSOCIATES BY:

MANAGER: KIM M. FASNACHT  
 DESIGN BY: JAR  
 SURV. CHIEF: JAR  
 DRAWN BY: JAR

CLIENT: KGH DEVELOPMENT  
 120 NORTH PONTE BLVD.  
 LANCASTER, PA 17601  
 (717) 560-9095

DATE: 4/12/24  
 SHEET NO. 18 OF 33  
 DWG. NO. 019792000

LANDSCAPE & LIGHTING PLAN  
 FINAL LAND DEVELOPMENT,  
 SUBDIVISION, AND LOT ADD-ON PLAN  
 FOR  
**RAFFENSPERGER - PHASE 1**  
 MOUNT JOY TOWNSHIP  
 LANCASTER COUNTY, PA

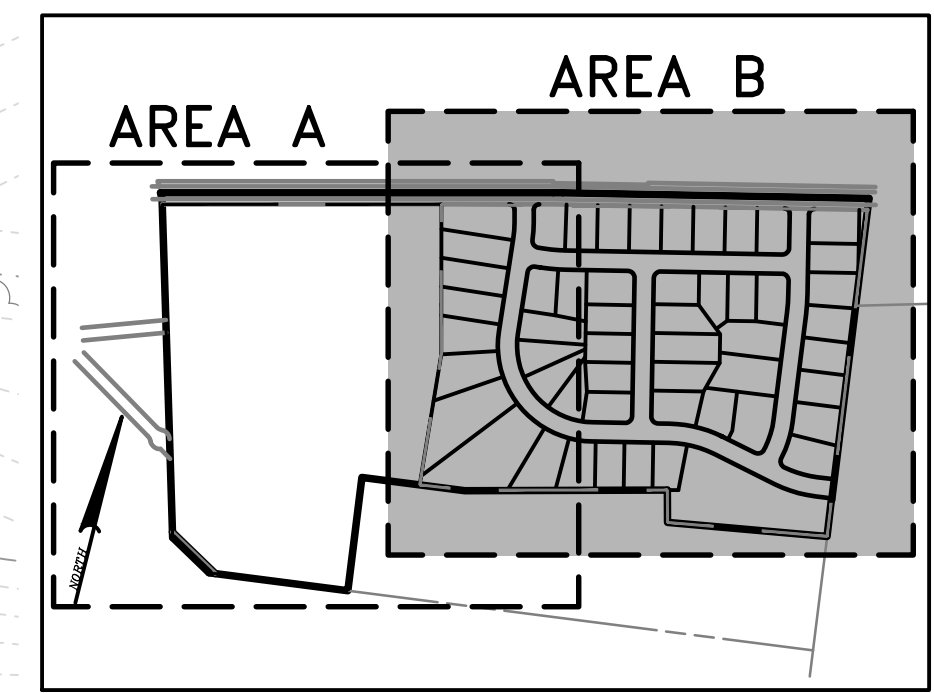


### LEGEND

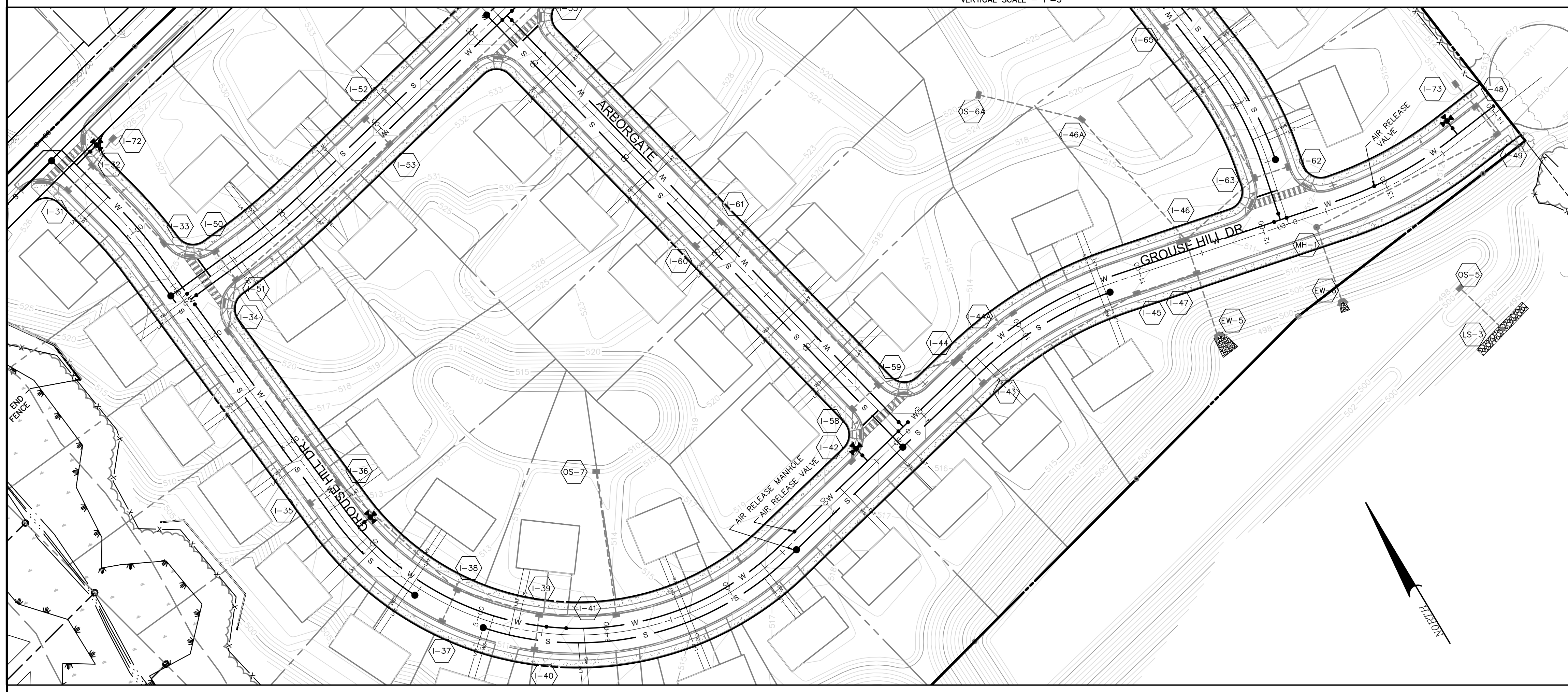
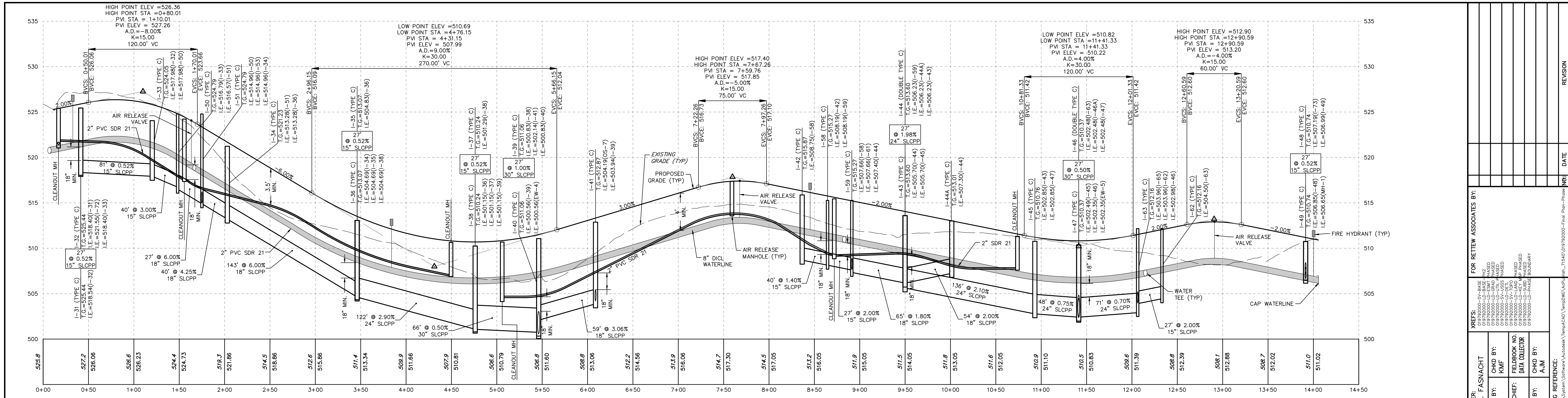
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PROPOSED DECIDUOUS TREE	
PROPOSED SHRUB	
LANDSCAPING TAG	
PROPOSED POLE LIGHT	
PROPOSED LIGHTING FOOT CANDLE TIX	
PROPOSED CLEAR SIGHT TRIANGLE	

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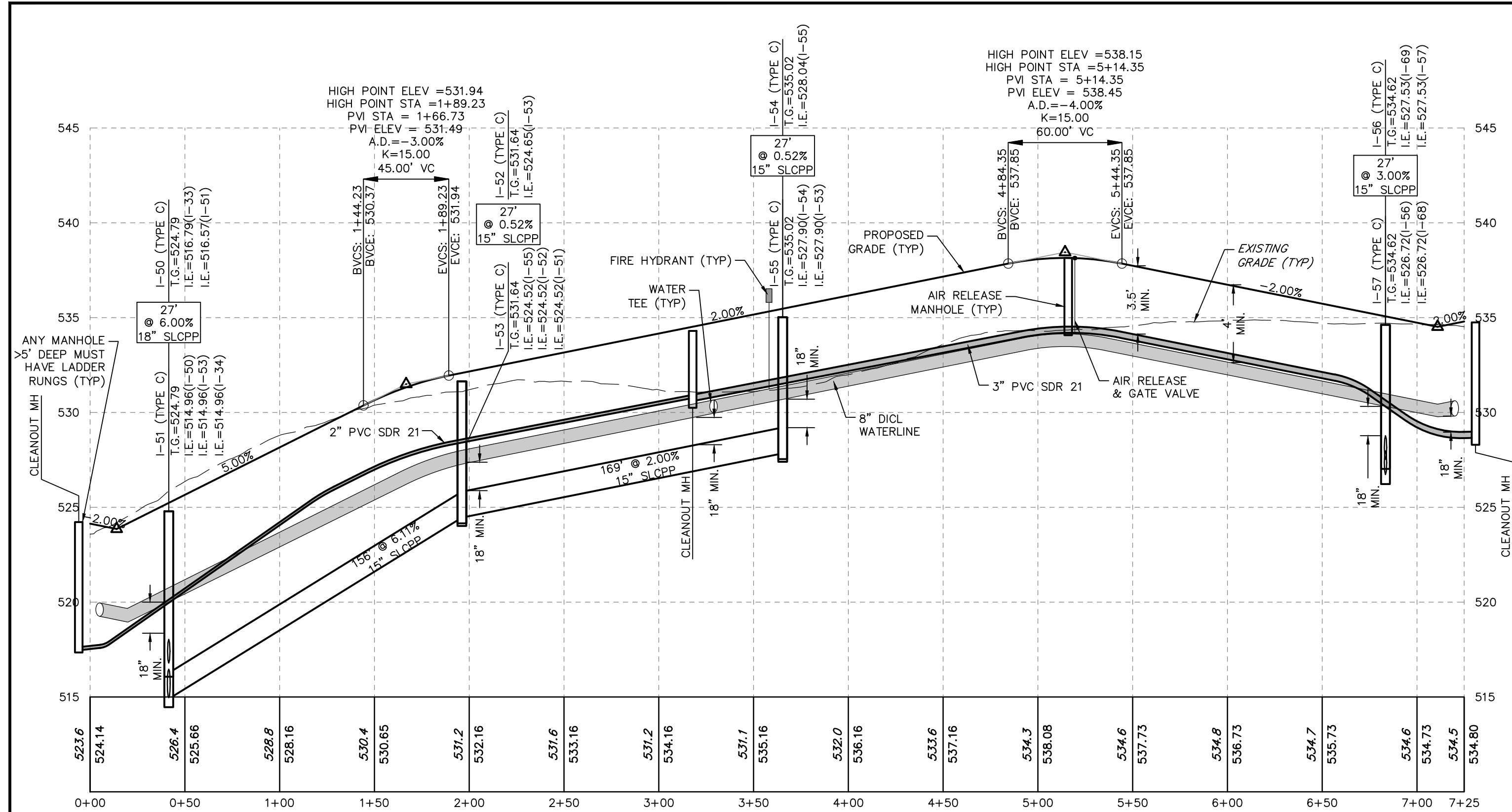
<b>MANAGER:</b> KIM M. FASNAUGHT <b>DESIGN BY:</b> JAR <b>SURV. CHIEF:</b> JAR <b>DRAWN BY:</b> JAR		<b>CHD BY:</b> KMF <b>FIELDBOOK NO. DATA COLLECTOR:</b> JAR <b>CHD BY:</b> JAR		<b>DRAWING REFERENCE:</b> JAR	
<b>CLIENT:</b> KGH DEVELOPMENT 120 NORTH POINTE BLVD. LANCASTER, PA 17601 (717) 560-9095		<b>FOR RETTEW ASSOCIATES BY:</b> JAR 019792000-04-BASE 019792000-05-BASE 019792000-06-BASE 019792000-07-BASE 019792000-08-BASE 019792000-09-BASE 019792000-10-BASE 019792000-11-BASE 019792000-12-BASE 019792000-13-BASE 019792000-14-BASE 019792000-15-BASE 019792000-16-BASE 019792000-17-BASE 019792000-18-BASE 019792000-19-BASE 019792000-20-BASE 019792000-21-BASE 019792000-22-BASE 019792000-23-BASE 019792000-24-BASE 019792000-25-BASE 019792000-26-BASE 019792000-27-BASE 019792000-28-BASE 019792000-29-BASE 019792000-30-BASE 019792000-31-BASE 019792000-32-BASE 019792000-33-BASE 019792000-34-BASE 019792000-35-BASE 019792000-36-BASE 019792000-37-BASE 019792000-38-BASE 019792000-39-BASE 019792000-40-BASE 019792000-41-BASE 019792000-42-BASE 019792000-43-BASE 019792000-44-BASE 019792000-45-BASE 019792000-46-BASE 019792000-47-BASE 019792000-48-BASE 019792000-49-BASE 019792000-50-BASE 019792000-51-BASE 019792000-52-BASE 019792000-53-BASE 019792000-54-BASE 019792000-55-BASE 019792000-56-BASE 019792000-57-BASE 019792000-58-BASE 019792000-59-BASE 019792000-60-BASE 019792000-61-BASE 019792000-62-BASE 019792000-63-BASE 019792000-64-BASE 019792000-65-BASE 019792000-66-BASE 019792000-67-BASE 019792000-68-BASE 019792000-69-BASE 019792000-70-BASE 019792000-71-BASE 019792000-72-BASE 019792000-73-BASE 019792000-74-BASE 019792000-75-BASE 019792000-76-BASE 019792000-77-BASE 019792000-78-BASE 019792000-79-BASE 019792000-80-BASE 019792000-81-BASE 019792000-82-BASE 019792000-83-BASE 019792000-84-BASE 019792000-85-BASE 019792000-86-BASE 019792000-87-BASE 019792000-88-BASE 019792000-89-BASE 019792000-90-BASE 019792000-91-BASE 019792000-92-BASE 019792000-93-BASE 019792000-94-BASE 019792000-95-BASE 019792000-96-BASE 019792000-97-BASE 019792000-98-BASE 019792000-99-BASE 019792000-100-BASE		<b>DATE:</b> 4/12/24 <b>SHEET NO.:</b> 19 OF 33 <b>DWG. NO.:</b> 019792000	



<b>MANAGER:</b> KIM M. FASNACHT <b>DESIGN BY:</b> JAR <b>SURV. CHIEF:</b> JAR <b>DRAWN BY:</b> JAR		<b>FOR RETNEW ASSOCIATES BY:</b> 019792000-SV-BASE 019792000-LD-BASE 019792000-LD-ROAD 019792000-SV-ROAD 019792000-SV-UTD 019792000-SV-UTD 019792000-LD-UTD 019792000-LD-UTD 019792000-LD-UTD 019792000-LD-UTD	
<b>CLIENT:</b> KCH DEVELOPMENT 120 NORTH POINTE BLVD. LANCASTER, PA 17601 (717) 560-9095		<b>DATE:</b> 4/12/24 <b>SHEET NO.:</b> 20 OF 33 <b>DWG. NO.:</b> 019792000	
<b>PROFILES</b> FINAL LAND DEVELOPMENT, SUBDIVISION, AND LOT ADD-ON PLAN FOR <b>RAFFENSPERGER - PHASE 1</b> MOUNT JOY TOWNSHIP LANCASTER COUNTY, PA		<b>RETNW</b> RETNEW Associates, Inc. 800 738-8995 Phone: (610) 738-8995 Email: retnew@retnew.com Website: www.retnew.com Engineers • Planners • Surveyors • Landscape Architects Environmental Scientists	

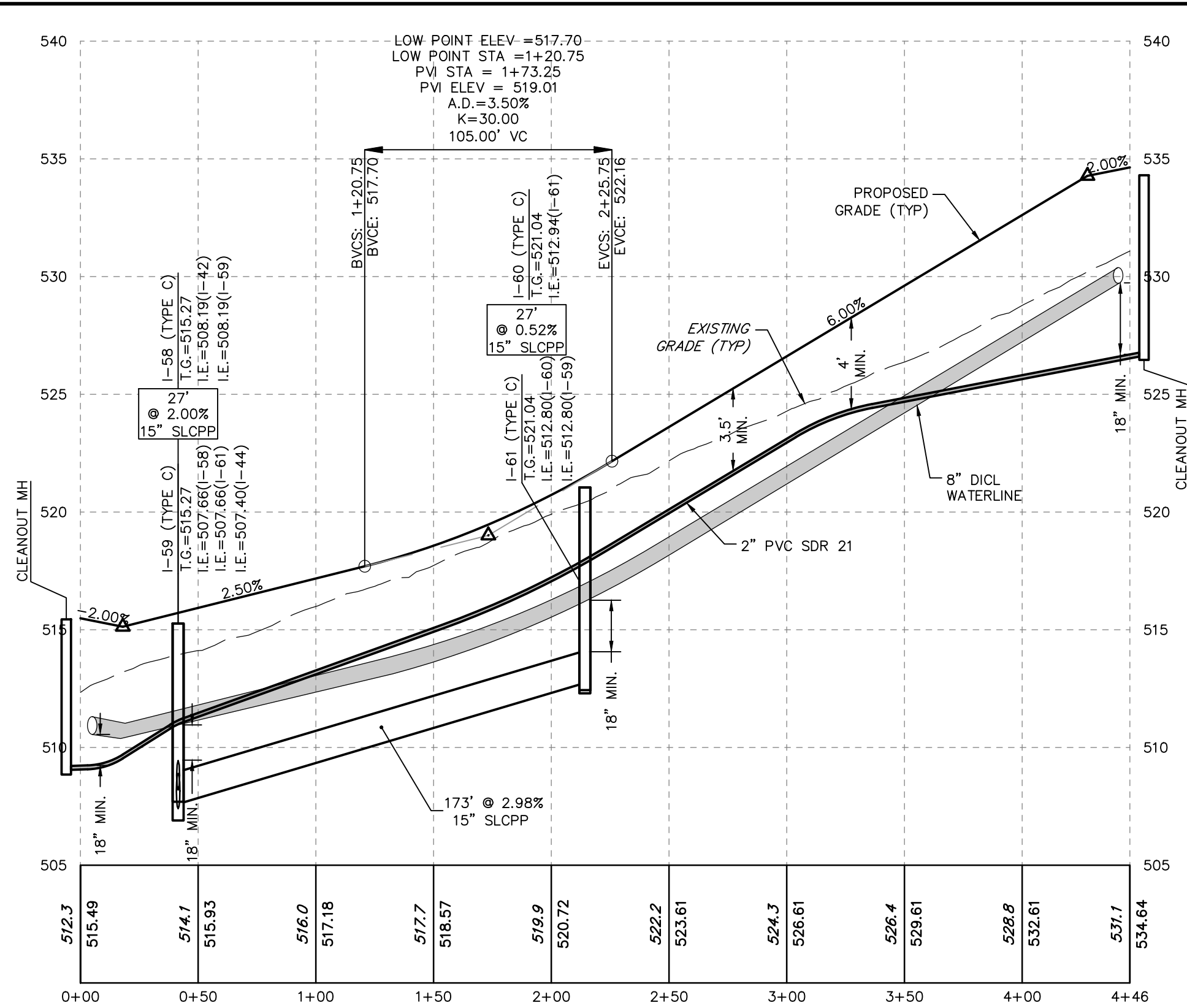
**NOTES:**  
 1. INLETS AND MANHOLES GREATER THAN FIVE FEET IN DEPTH SHALL BE EQUIPPED WITH LADDER RUNGS.

NOT FOR CONSTRUCTION/NOT FOR BIDDING



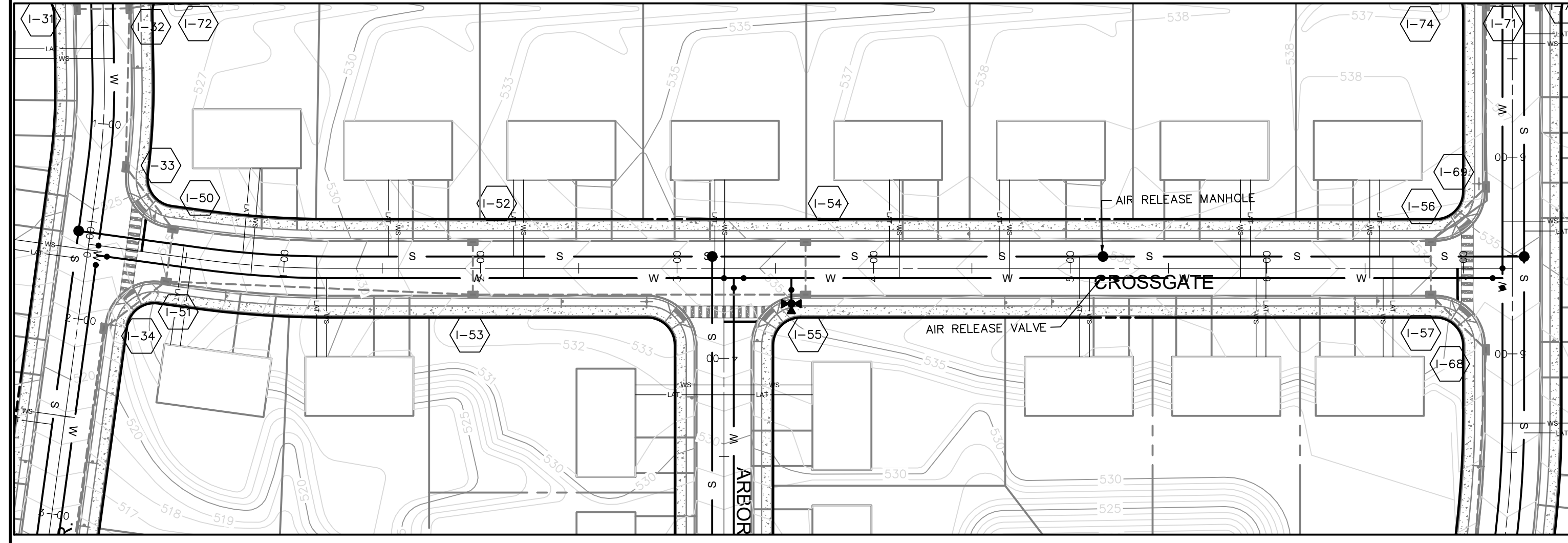
"CENTERLINE PROFILE OF CROSSGATE"

HORIZONTAL SCALE - 1"=50'  
VERTICAL SCALE - 1"=5'



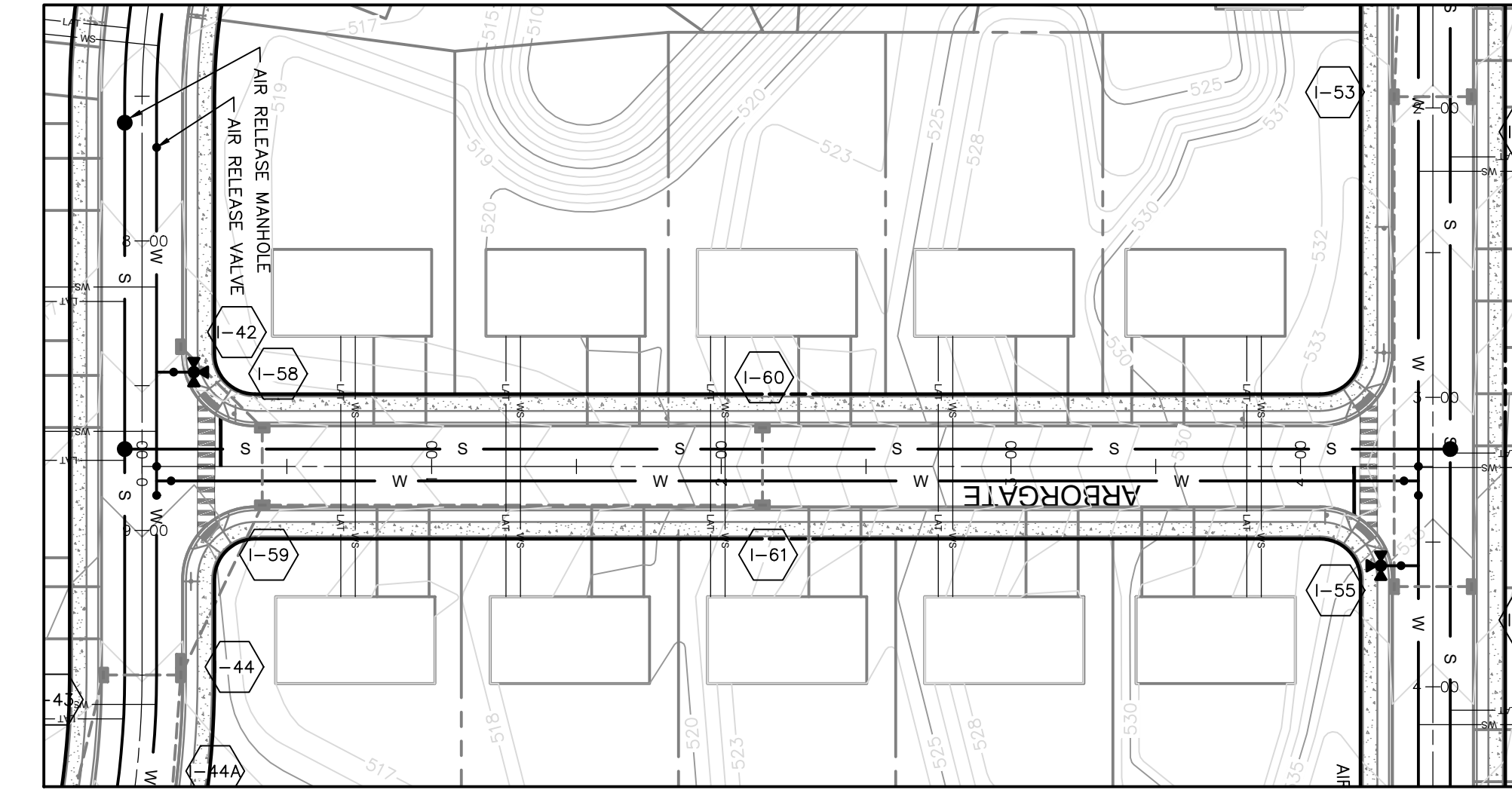
"CENTERLINE PROFILE OF ARBORGATE"

HORIZONTAL SCALE - 1"=50'  
VERTICAL SCALE - 1"=5'



CROSSGATE PLAN VIEW

SCALE - 1"=50'



ARBORGATE PLAN VIEW

SCALE - 1"=50'

NO.	DATE	REVISION

FOR RETTEW ASSOCIATES BY:

MANAGER: KIM M. FASNAUGHT  
 DESIGN BY: JAR  
 SURV. CHIEF: JAR  
 DRAWN BY: JAR  
 CHECK BY: JAR

CLIENT: KGH DEVELOPMENT  
 120 NORTH PONTE BLVD.  
 LANCASTER, PA 17601  
 (717) 560-9095

**RETTEW**  
 RETTEW Associates, Inc.  
 Phone: (610) 738-8995  
 Email: rettew@rettew.com  
 Website: www.rettew.com

PROFILES  
 FINAL LAND DEVELOPMENT,  
 SUBDIVISION, AND LOT ADD-ON PLAN  
 FOR  
**RAFFENSPERGER - PHASE 1**  
 MOUNT JOY TOWNSHIP  
 LANCASTER COUNTY, PA

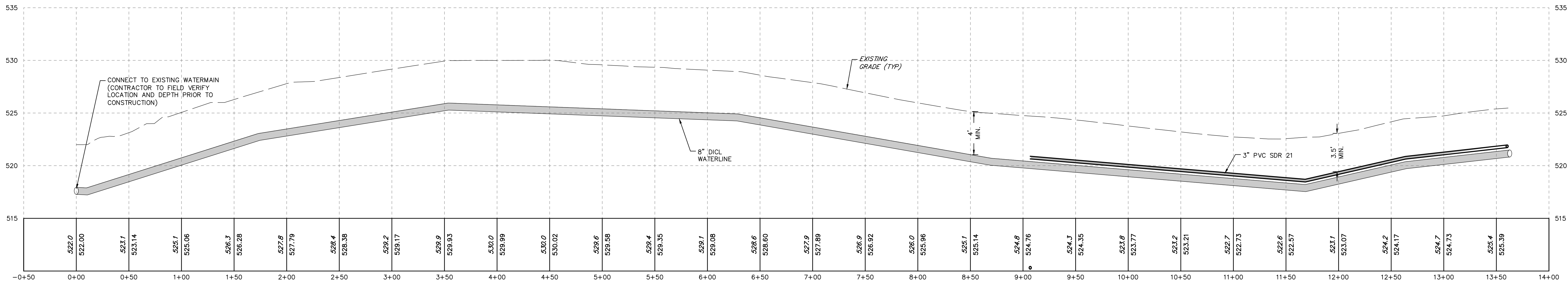
DATE:	4/12/24
SHEET NO.:	21 of 33
DWG. NO.:	019792000

NOTES:

- INLETS AND MANHOLES GREATER THAN FIVE FEET IN DEPTH SHALL BE EQUIPPED WITH LADDER RUNGS.

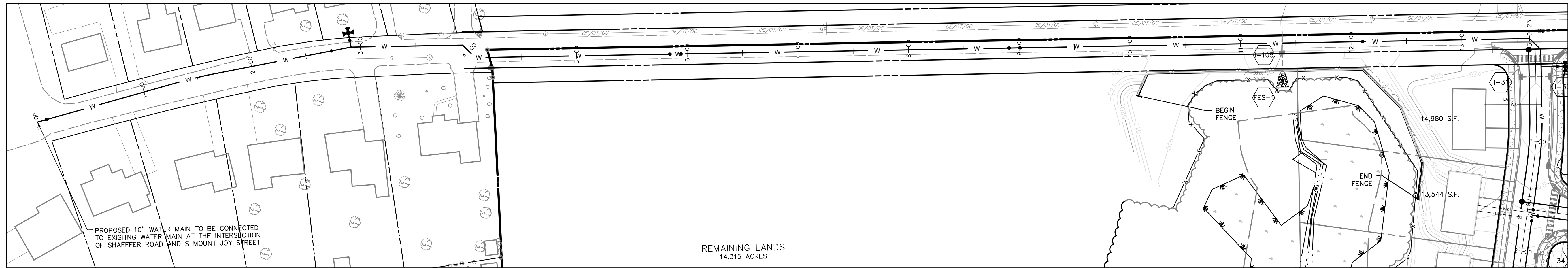






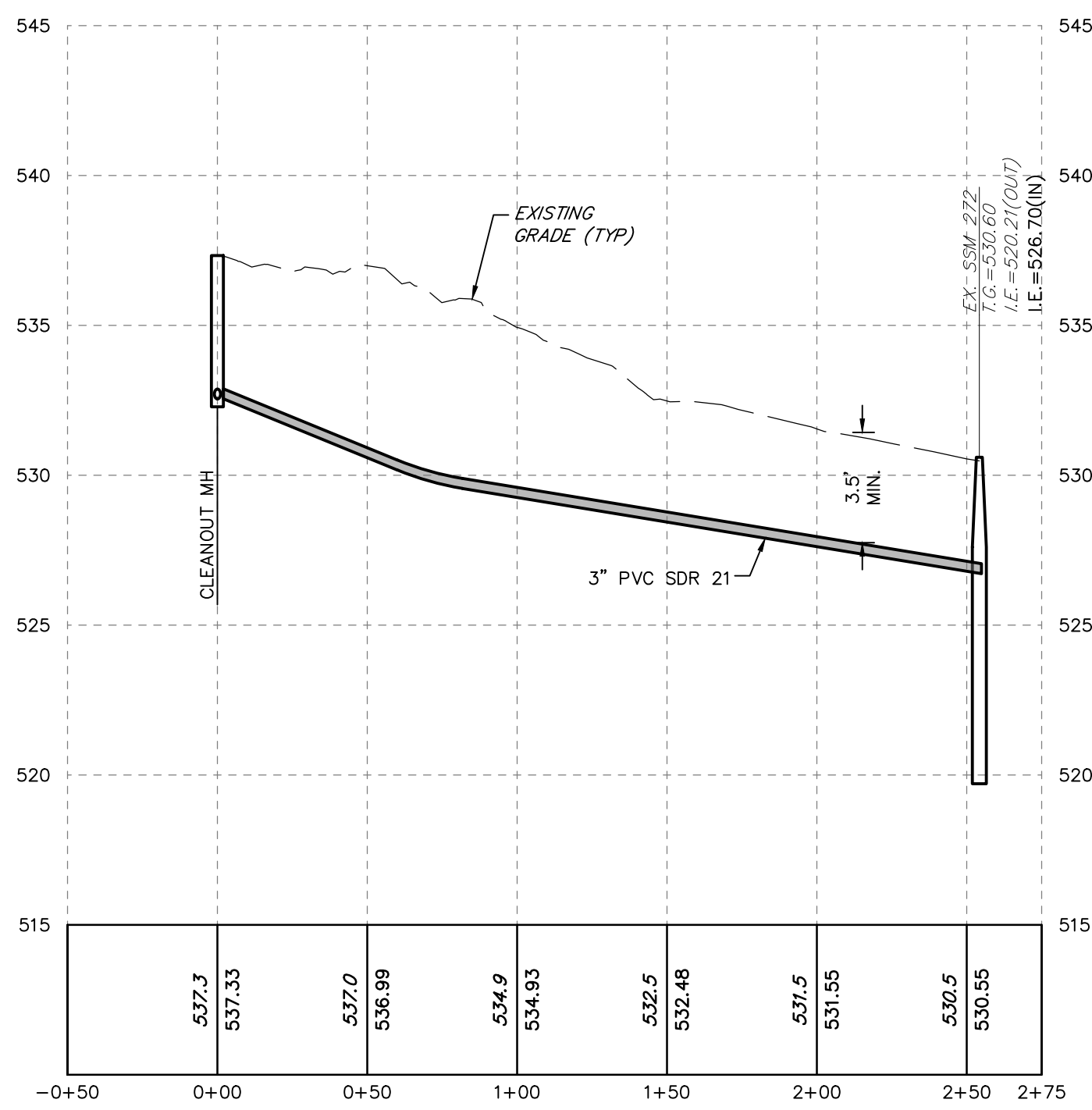
**SHEAFFER ROAD WATER AND SANITARY**

HORIZONTAL SCALE - 1"=50'  
VERTICAL SCALE - 1"=5'



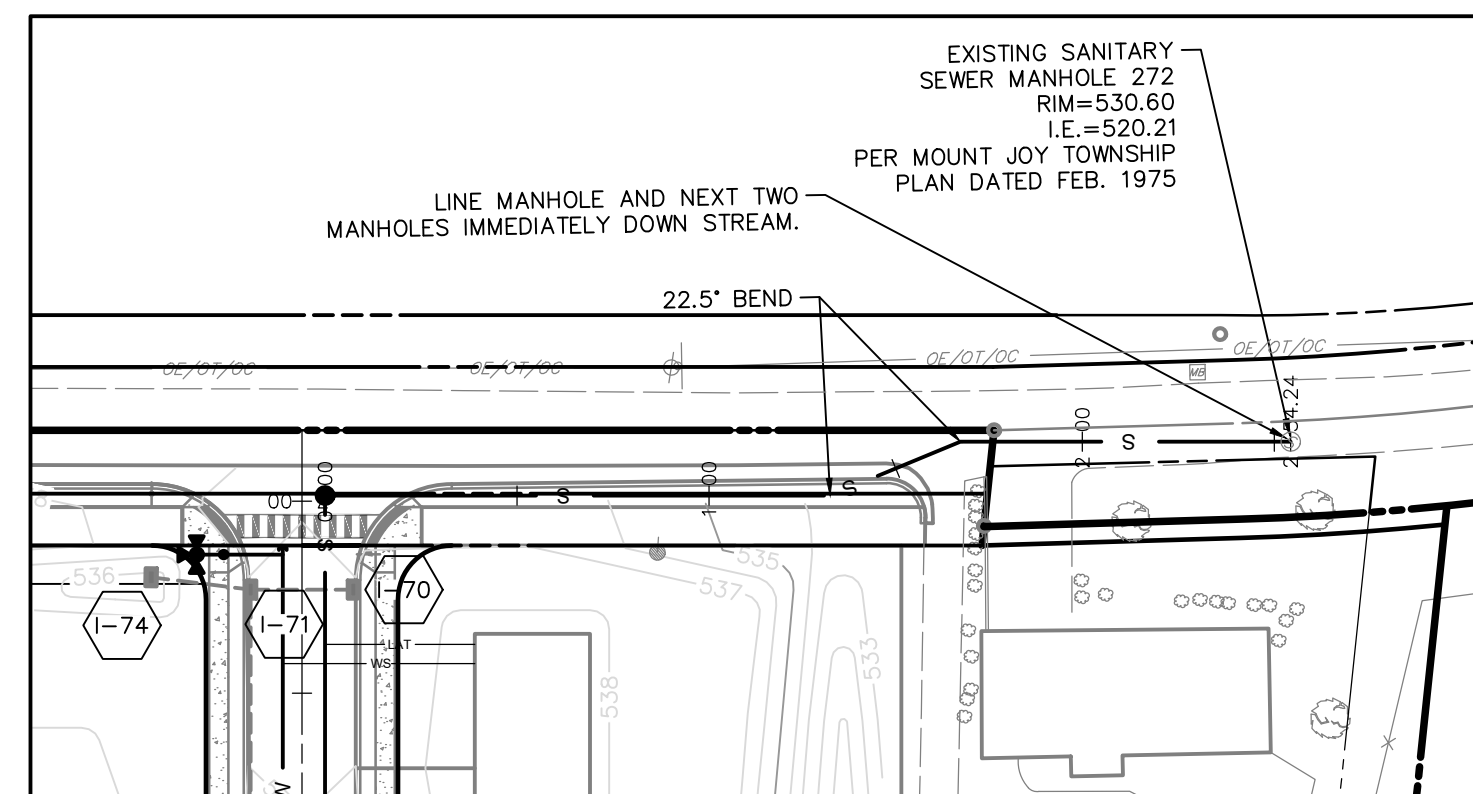
**SHEAFFER ROAD WATER AND SANITARY PLAN VIEW**

SCALE - 1"=50'



**SANITARY SEWER CONNECTION**

HORIZONTAL SCALE - 1"=50'  
VERTICAL SCALE - 1"=5'



**SANITARY SEWER CONNECTION PLAN VIEW**

SCALE - 1"=50'

FOR RETTEW ASSOCIATES BY:		DATE		REVISION	
MANAGER:	KIM M. FASNACHT	DESIGN BY:	KMF	DATE:	
DESIGN BY:	JAR	FILED BY:	JAR	DATE:	
SURV. CHIEF:	FILED BY:	FILED BY:	JAR	DATE:	
DATA COLLECTOR:	FILED BY:	FILED BY:	JAR	DATE:	
DRAWN BY:	JAR	FILED BY:	JAR	DATE:	
FILED BY:	JAR	FILED BY:	JAR	DATE:	
DRAWING REFERENCE:	C:\CAD\System\Sheffera\Autodesk\Temp\DWG\Plan_71540\019792000-Final_Plan_Phase				
CLIENT:	KCH DEVELOPMENT 120 NORTH POINTE BLVD. LANCASTER, PA 17601 (717) 560-9095				
SCALE:	0 25' 50' 100' 150'				
PROFILES	FINAL LAND DEVELOPMENT, SUBDIVISION, AND LOT ADD-ON PLAN FOR <b>RAFFENSPERGER - PHASE 1</b> MOUNT JOY TOWNSHIP LANCASTER COUNTY, PA				
DATE:	4/12/24				
SHEET NO.:	24 OF 33				
DWG. NO.:	019792000				

**RETTEW**  
RETTEW Associates, Inc. Lancaster, PA 17603  
Phone (800) 738-8395  
Email: rettew@rettew.com  
Website: www.rettew.com  
Engineers • Planners • Surveyors • Landscape Architects  
Subsidiaries: RETTEW ASSOCIATES

**NOTES:**  
1. INLETS AND MANHOLES GREATER THAN FIVE FEET IN DEPTH SHALL BE EQUIPPED WITH LADDER RUNGS.



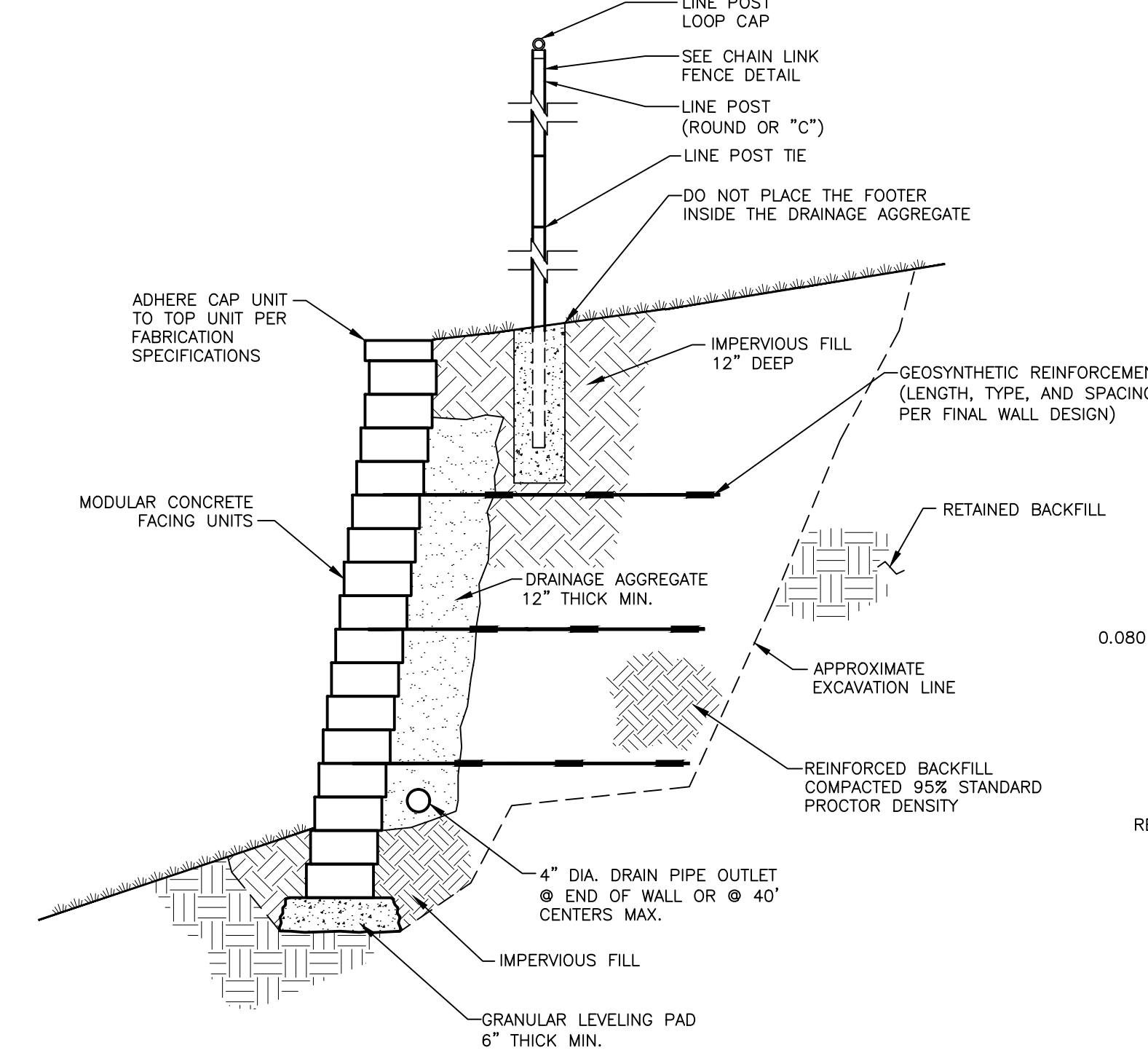


**NOTES**

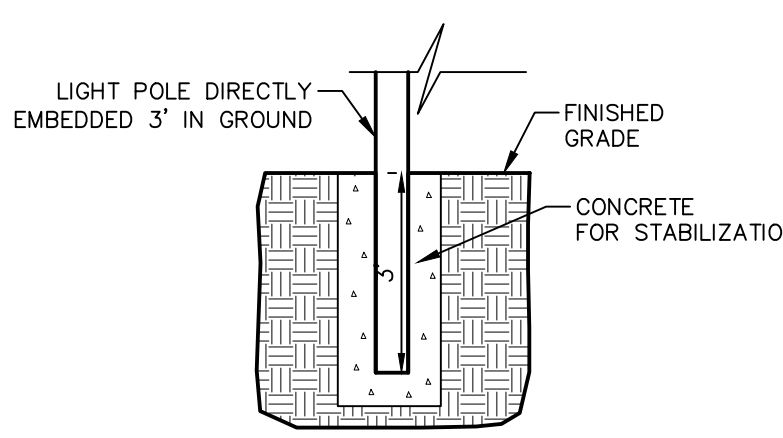
- SUBMIT TWO SETS OF DETAILED DESIGN CALCULATIONS AND FINAL RETAINING WALL PLANS FOR APPROVAL AT LEAST TWO WEEKS PRIOR TO THE BEGINNING OF WALL CONSTRUCTION. ALL CALCULATIONS AND DRAWINGS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN PENNSYLVANIA.
- UNLESS FURTHER GEOTECHNICAL EVALUATION IS CONDUCTED BY THE CONTRACTOR OR A QUALIFIED GEOTECHNICAL ENGINEER, USE THE FOLLOWING ASSUMED GEOTECHNICAL PARAMETERS IN THE PREPARATION OF THE FINAL WALL DESIGN:
 

UNIT WEIGHT (γ) (pcf)	INTERNAL FRICTION ANGLE (φ) (DEGREES)	COHESION (c)
REINFORCED FILL	*	0
RETAINED SOIL	28	0
FOUNDATION SOIL	28	0

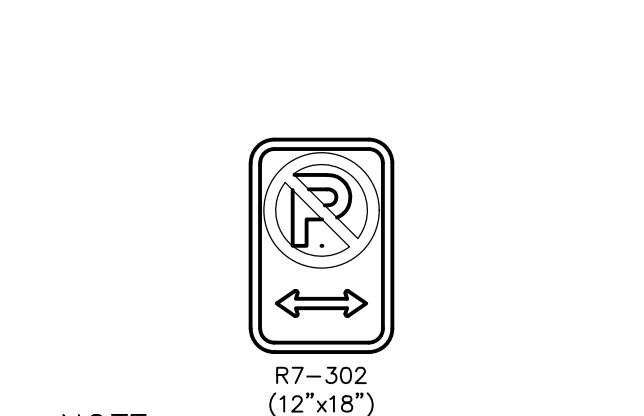
\* DETERMINED DURING WALL DESIGN BASED ON PROPOSED BACKFILL MATERIAL.
- WALL DESIGN TO INCLUDE AN EVALUATION OF THE GLOBAL STABILITY OF THE PROPOSED WALL, TAKING INTO ACCOUNT THE EXISTING SLOPE (3:1 MAX.) AT THE TOE OF THE PROPOSED WALL. PERFORM THE INTERNAL AND EXTERNAL STABILITY ANALYSIS IN ACCORDANCE WITH THE "NOMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS", USING THE RECOMMENDED MINIMUM FACTORS OF SAFETY IN THIS MANUAL.
- WALL DESIGN TO INCLUDE 250 PSF LIVE LOAD SURCHARGE.
- SEE GRADING PLAN FOR TOP AND BOTTOM OF WALL ELEVATIONS.



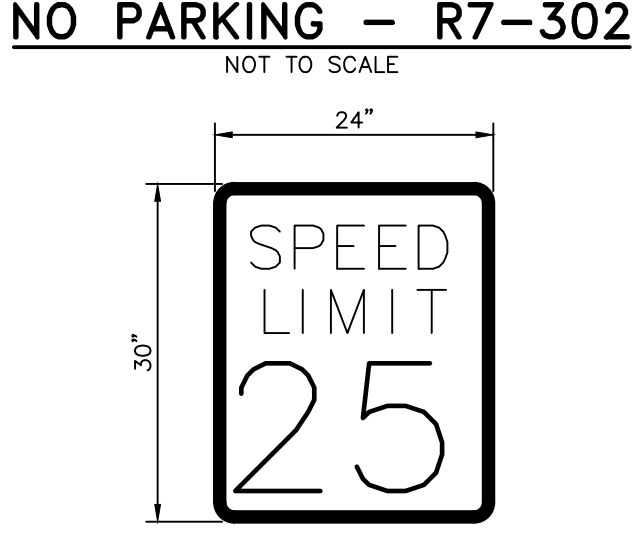
**TYP. SECTION-SEGMENTAL RETAINING WALL**  
NOT TO SCALE



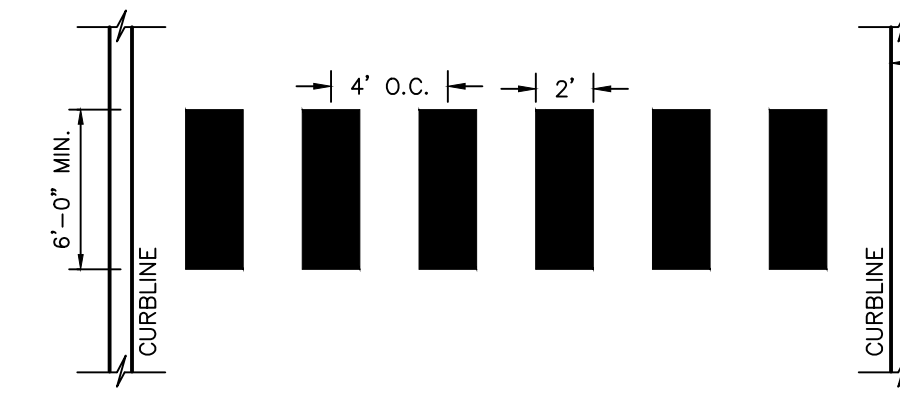
**LIGHT POLE DETAIL**  
NOT TO SCALE



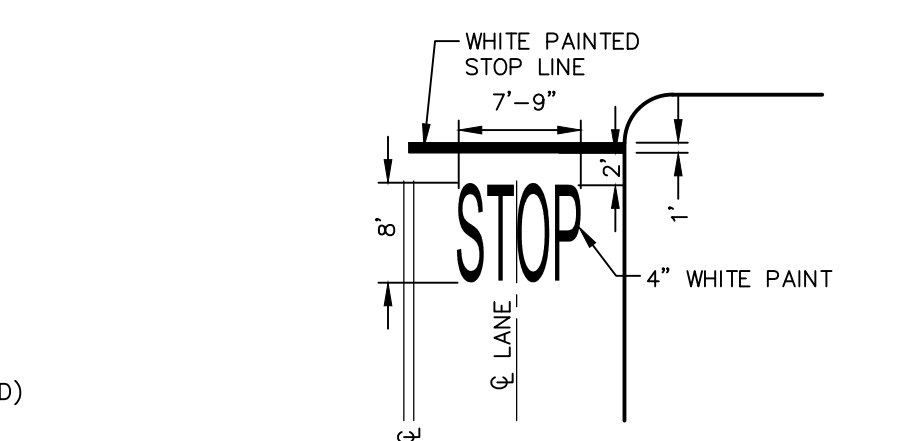
**NO PARKING - R7-302**  
NOT TO SCALE



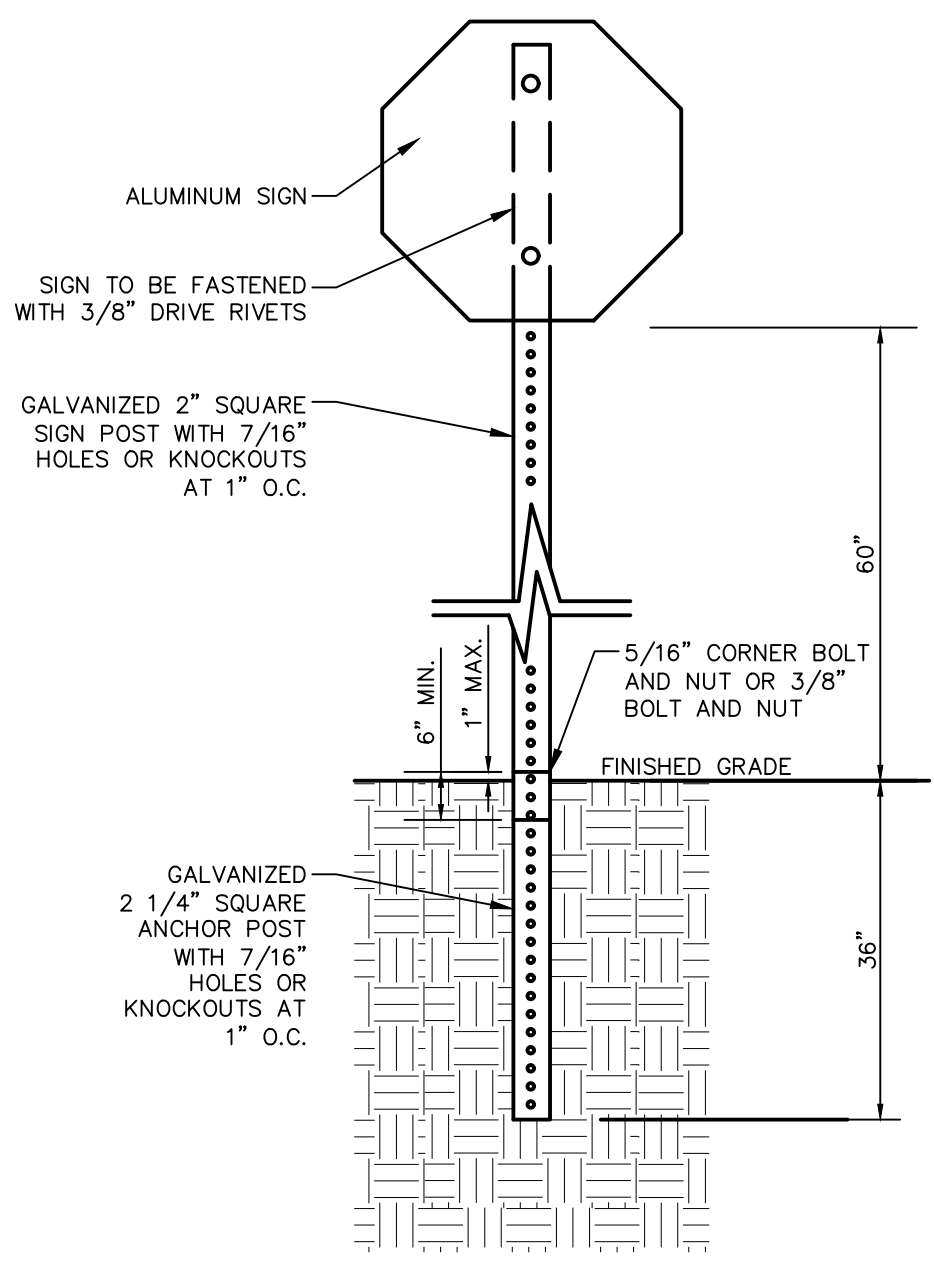
**SPEED LIMIT SIGN - R2-1**  
NOT TO SCALE



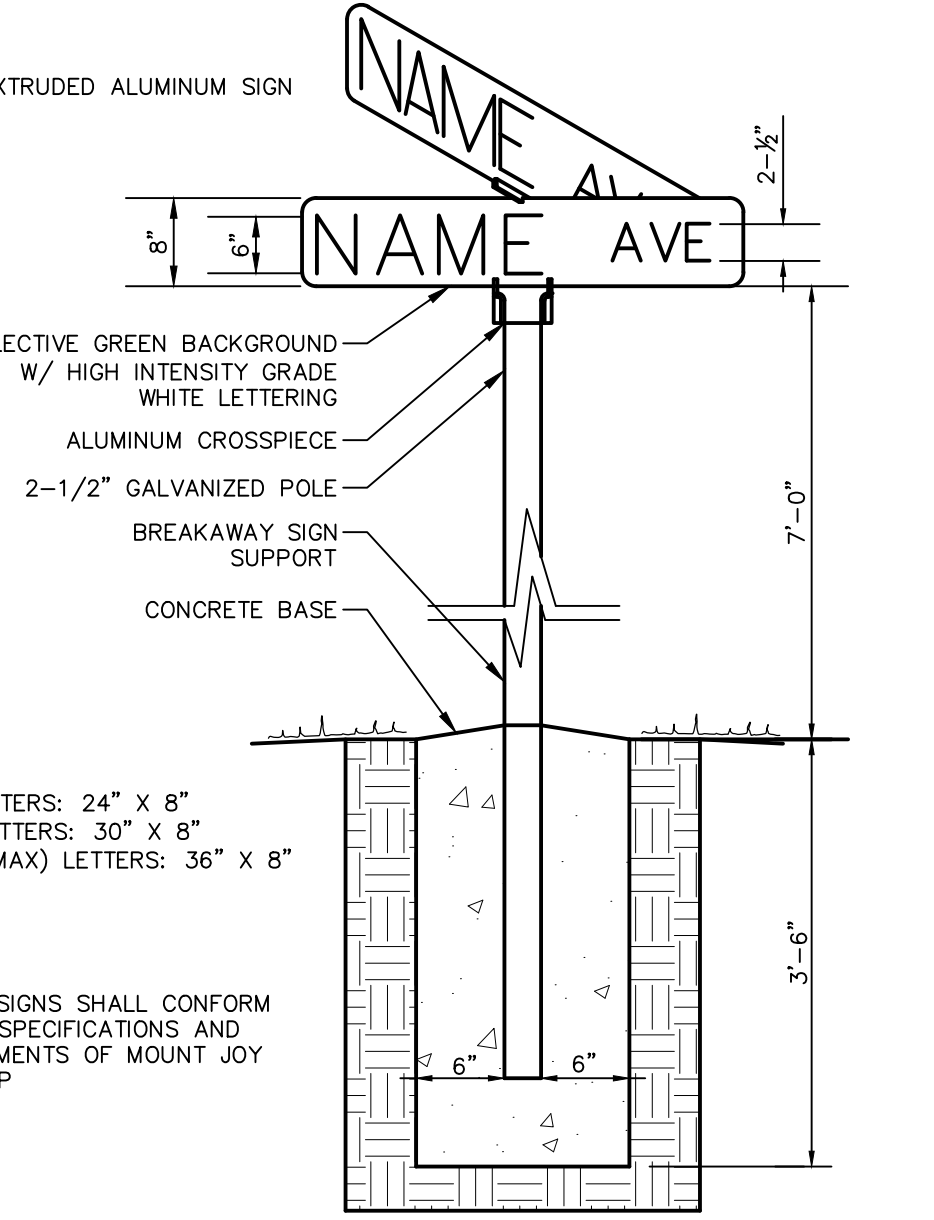
**CROSSWALK DETAIL**  
NOT TO SCALE



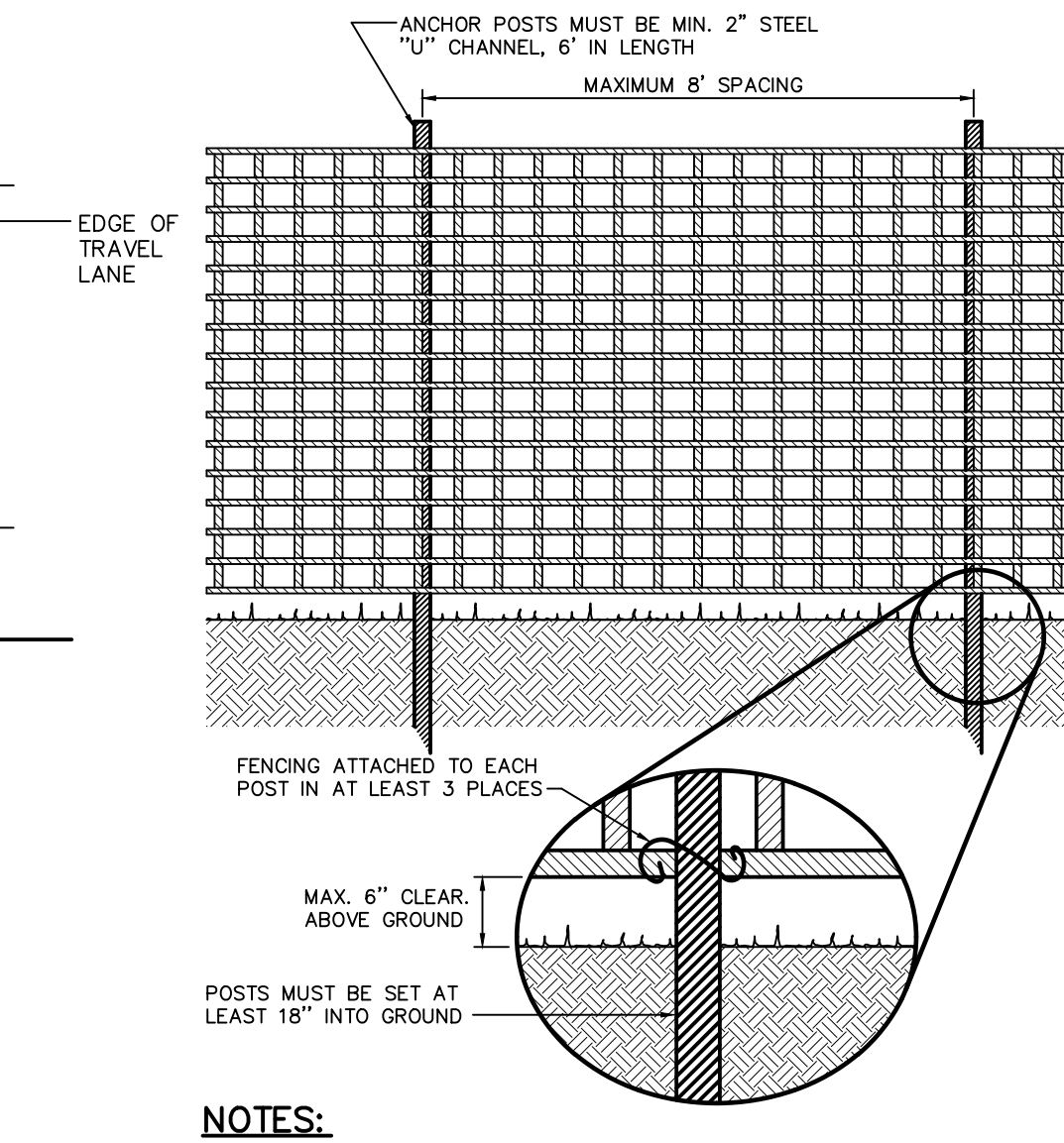
**STOP BAR DETAIL**  
NOT TO SCALE



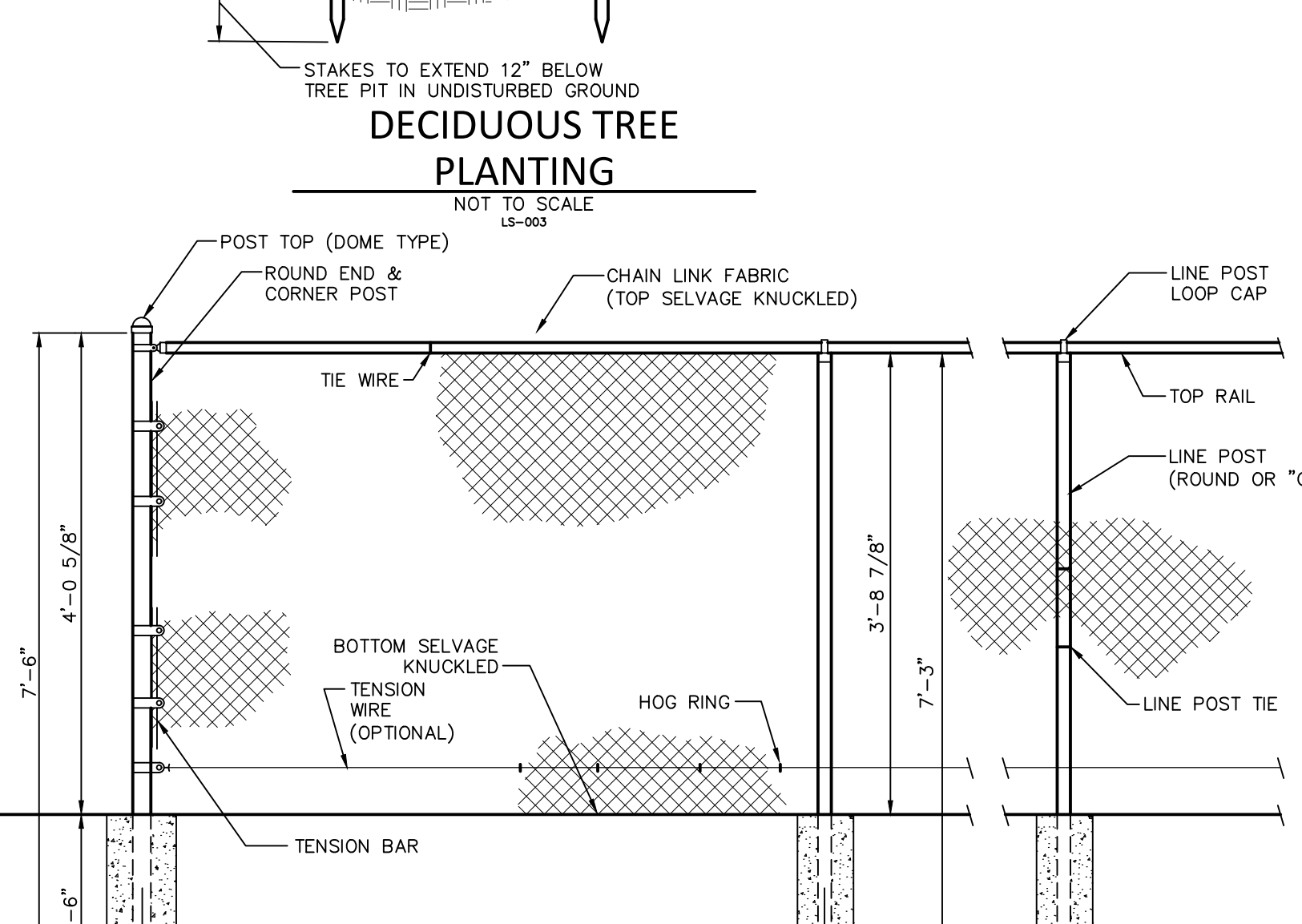
**STOP SIGN**  
NOT TO SCALE



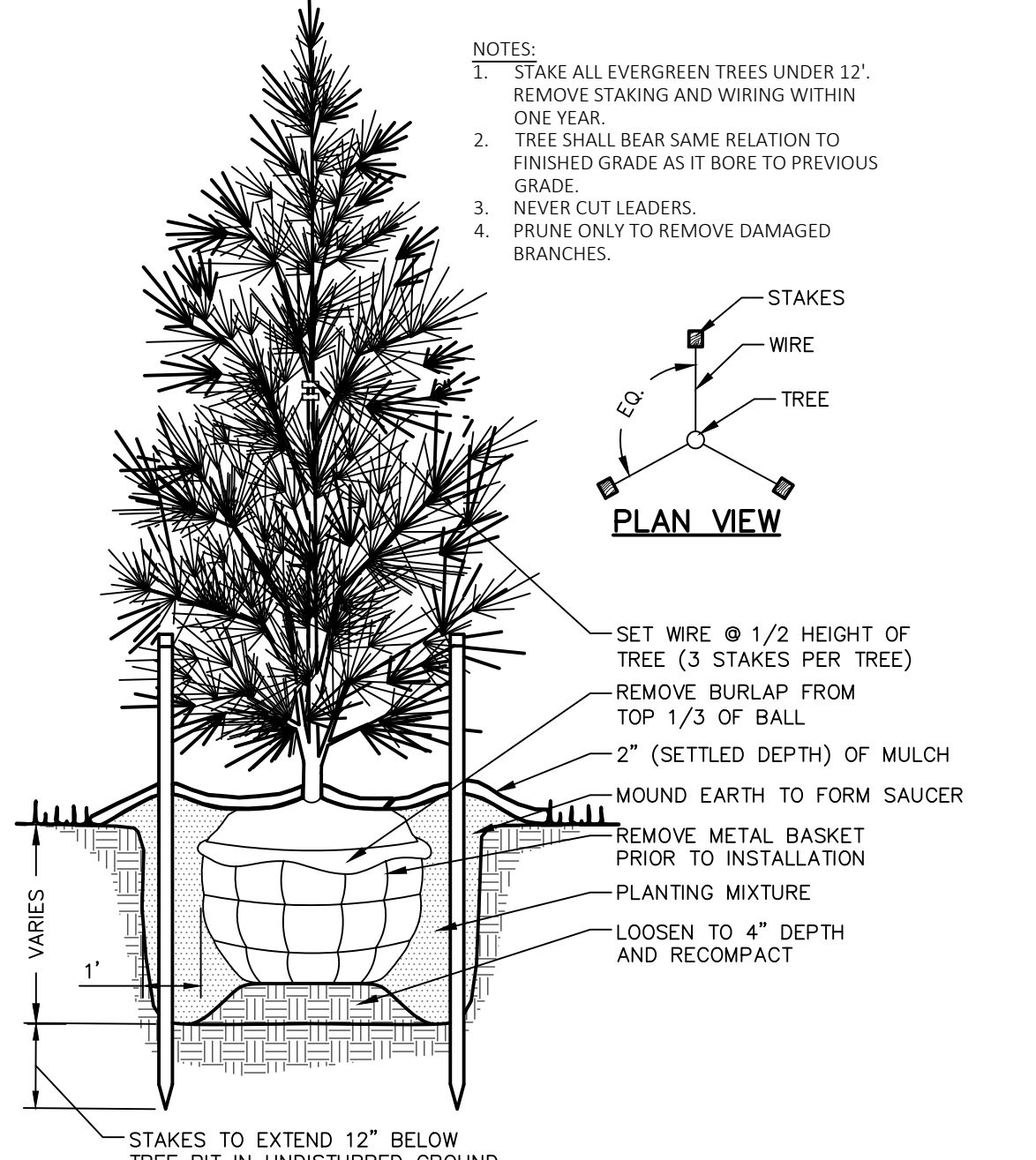
**STREET IDENTIFICATION SIGN**  
NOT TO SCALE



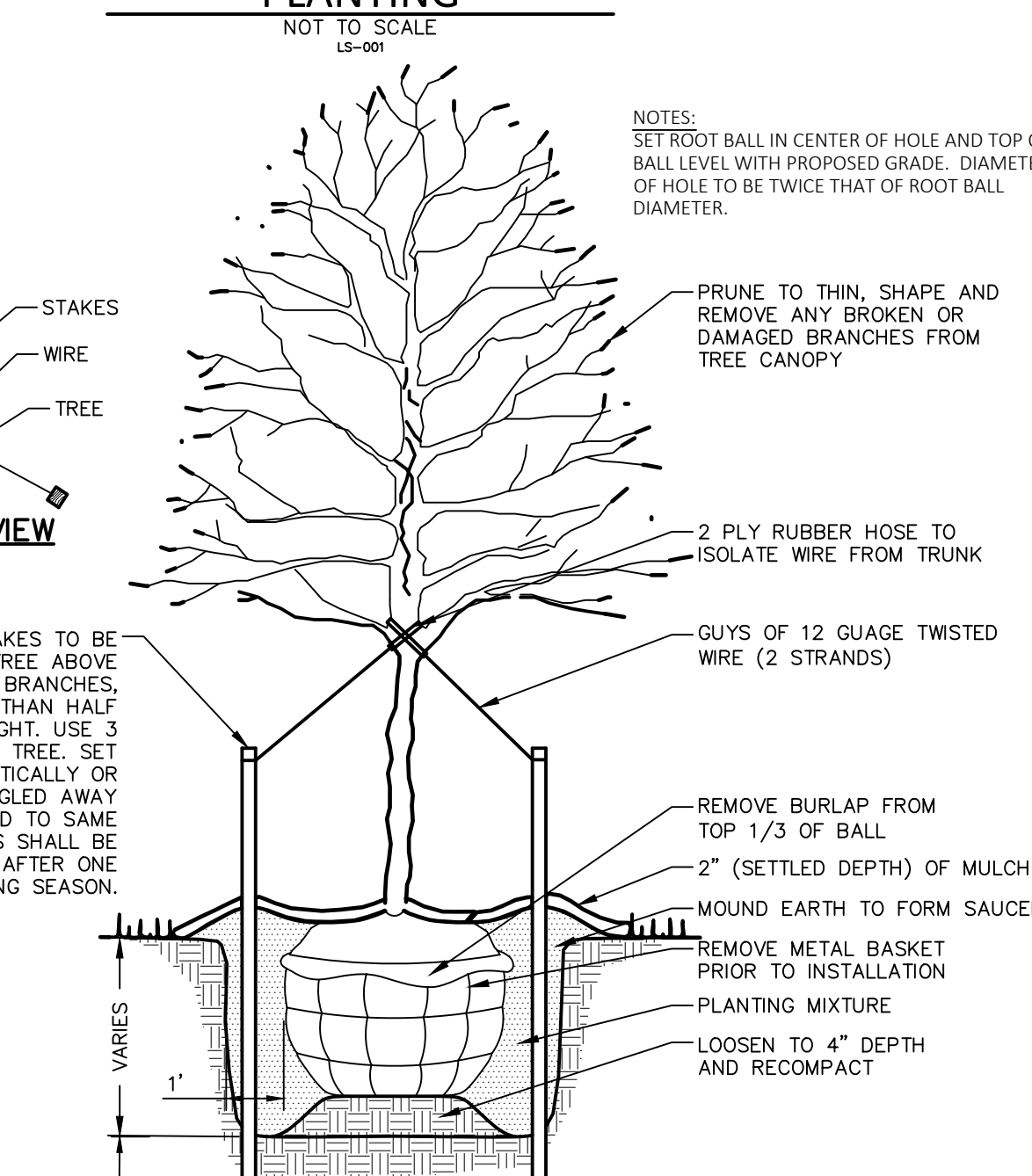
**ORANGE CONSTRUCTION FENCE DETAIL**  
NOT TO SCALE



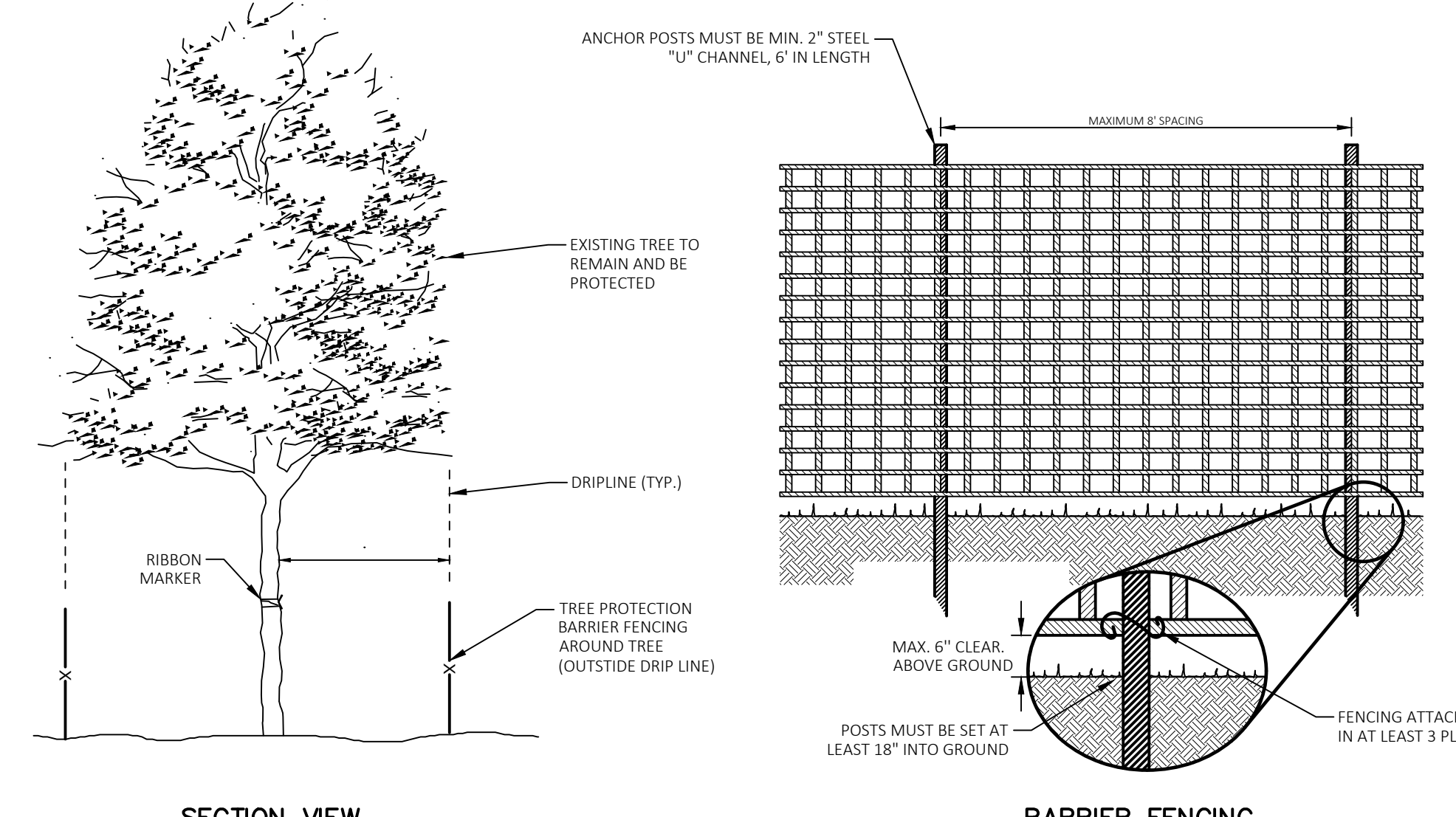
**CHAIN LINK FENCE DETAIL - 4'-0\"/>**



**EVERGREEN TREE PLANTING**  
NOT TO SCALE



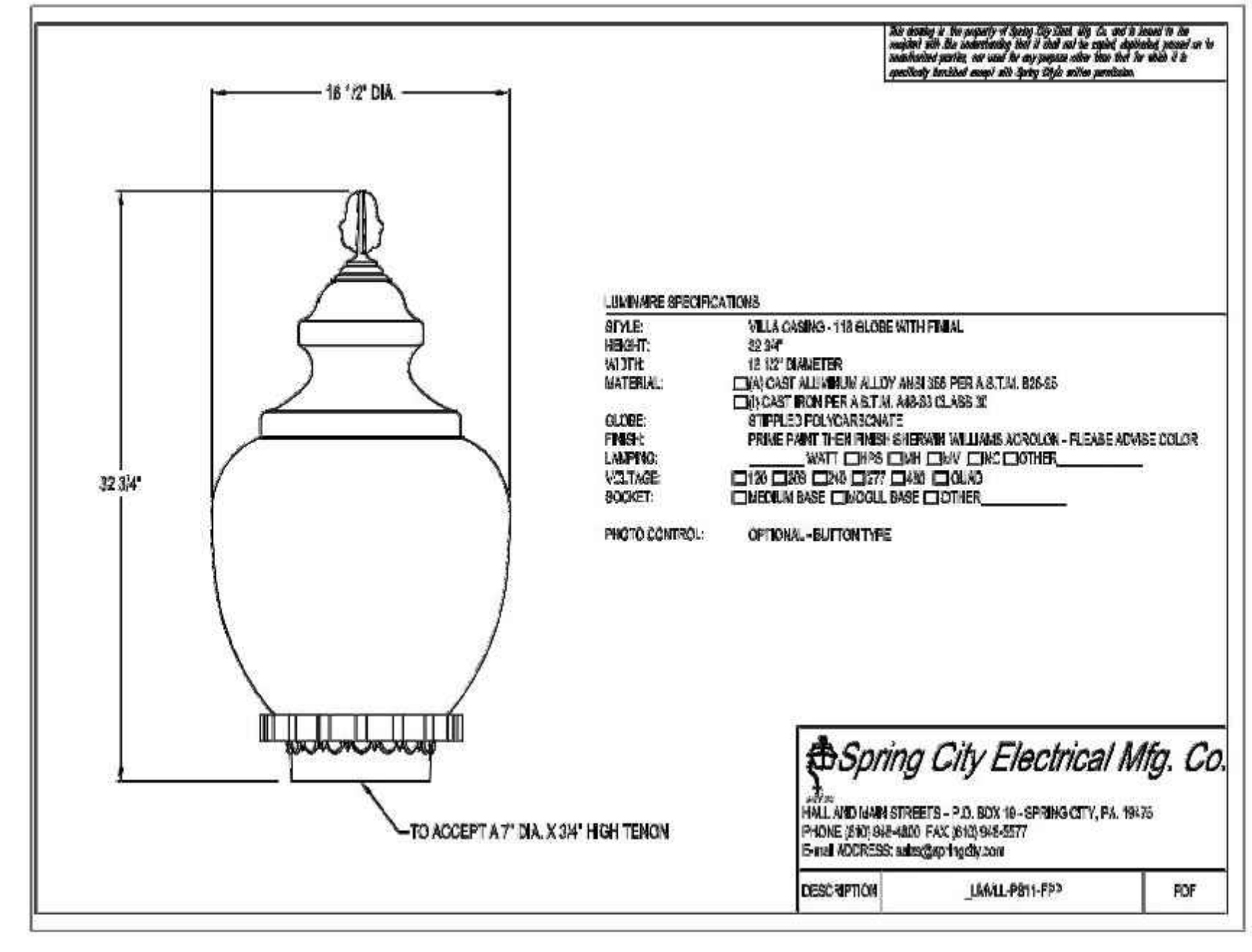
**DECIDUOUS TREE PLANTING**  
NOT TO SCALE



**TREE PROTECTION BARRIER FENCING**  
NOT TO SCALE

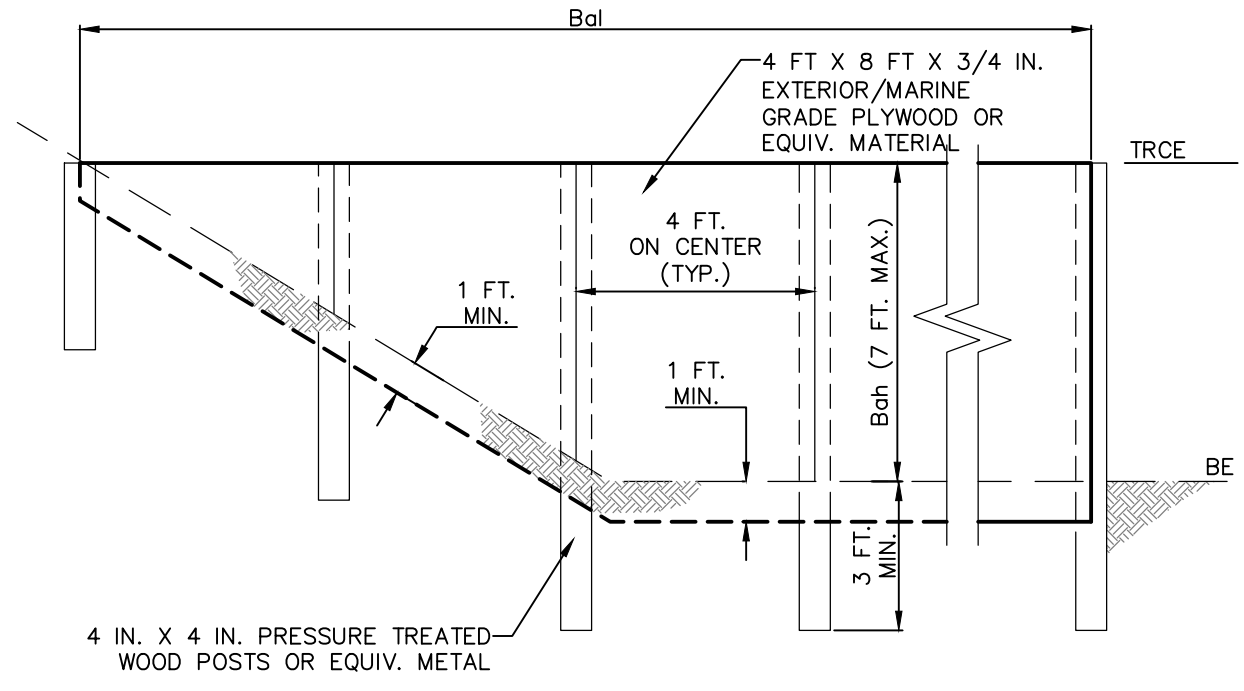
- NOTES:**
- GRADE CHANGES AND EXCAVATIONS SHALL NOT ENCRUCH UPON THE TREE PROTECTION ZONE.
  - TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED, OR PULLED INTO A TREE PROTECTION ZONE OR INTO TREES TO BE RETAINED.
  - NO TOXIC MATERIALS, INCLUDING PETROLEUM BASED AND DERIVED PRODUCTS SHALL BE STORED WITHIN ONE HUNDRED (100) FEET OF A TREE PROTECTION ZONE.
  - THE AREA WITHIN THE TREE PROTECTION ZONE SHALL NOT BE BUILT UPON, NOR SHALL ANY MATERIALS BE STORED THERE EITHER TEMPORARILY OR PERMANENTLY. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED IN THE TREE PROTECTION ZONE.
  - SEDIMENT, RETENTION AND DETENTION BASINS SHALL NOT BE LOCATED WITHIN THE TREE PROTECTION ZONE, NOR SHALL THEY DISCHARGE INTO THE TREE PROTECTION ZONE.
  - WHEN TREE STUMPS ARE LOCATE WITHIN TEN (10) FEET OF THE TREE PROTECTION ZONE, THE STUMPS SHALL ONLY BE REMOVED BY MEANS OF A STUMP GRINDER TO MINIMIZE THE EFFECT ON THE SURROUNDING ROOT SYSTEMS.
  - TREE ROOTS WHICH MUST BE SEVERED SHALL BE CUT BY A BACKHOE OR SIMILAR EQUIPMENT ALIGNED RADICALLY TO THE TREE. (THIS METHOD REDUCES THE LATERAL MOVEMENT OF THE ROOTS DURING EXCAVATION, WHICH IF DONE BY OTHER METHODS, COULD DAMAGE THE INTERTWINED ROOTS OF ADJACENT TREES.)
  - WITHIN FOUR (4) HOURS OF ANY SEVERANCE OF ROOTS, ALL TREE ROOTS THAT HAVE BEEN EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY AND COVERED TEMPORARILY WITH MOIST PEAT MOSS, MOIST BURLAP OR OTHER BIODEGRADABLE MATERIAL TO KEEP THEM FROM DRYING OUT UNTIL PERMANENT COVER CAN BE INSTALLED.
  - IF THERE IS NO ALTERNATIVE BUT TO LOCATE A UTILITY LINE THROUGH A TREE PROTECTION ZONE, TUNNELING SHALL BE USED INSTEAD OF TRENCHING, EXCEPT WHERE IN THE OPINION OF THE TOWNSHIP, SURVIVAL OF THE TREE WOULD NOT BE AFFECTED BY EITHER METHOD. THE TOWNSHIP SHALL DETERMINE THE MOST DESIRABLE LOCATION FOR THE UTILITY LINE. TRENCHES SHALL BE FILLED AS SOON AS POSSIBLE, AND TAMPED LIGHTLY TO AVOID AIR SPACES.
  - MARKING THE TREE PROTECTION ZONE ON THE SITE PRIOR TO CONSTRUCTION, THE TREE PROTECTION ZONE SHALL BE DELINEATED BY THE FOLLOWING METHODS:
    - THE TREE PROTECTION ZONE THAT IS DELINEATED ON THE SITE PRIOR TO CONSTRUCTION SHALL CONFORM TO THE APPROVED DEVELOPMENT PLANS.
    - ALL TREES SCHEDULED TO REMAIN SHALL BE MARKED; WHERE GROUPS OF TREES EXIST, ONLY THE TREES ON THE EDGE NEED TO BE MARKED.
    - A SUITABLE FENCE MOUNTED ON STEEL POSTS, LOCATED EIGHT FEET ON CENTER, SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. THE FENCING ALONG THE ZONE SHALL BE MAINTAINED UNTIL ALL CONSTRUCTION AND OTHER WORK HAS BEEN COMPLETED. ANY DAMAGES TO THE PROTECTIVE FENCING SHALL BE REPLACED AND REPAIRED BEFORE FURTHER CONSTRUCTION COMMENCES.
    - IN ADDITION TO THE TREE PROTECTION ZONE, TREES MAY BE LEFT STANDING AS PROTECTION BEHIND THE TRUNKS OF THE TREES TO BE RETAINED AND THE LIMITS OF GRADING WHEN ADDITIONAL TREES ARE USED AS PROTECTION, THE TREE PROTECTION ZONE ON THE APPROVED PLAN SHALL BE MARKED IN THE FIELD SO THAT THE ADDITIONAL BUFFER AREA IS DELINEATED. WHEN THIS METHOD OF PROTECTION IS USED, THESE ADDITIONAL TREES SHALL BE REMOVED AT THE TIME OF COMPLETION OF THE PROJECT.
  - WHERE A TREE DESIGNATED FOR PRESERVATION IS SEVERELY DAMAGED BY CONSTRUCTION (OR IS CLEARLY NOT GOING TO SURVIVE) WITHIN ONE (1) YEAR OF THE END DATE OF CONSTRUCTION, TREE REPLACEMENT SHALL OCCUR.
  - PROTECTION BARRIERS SHALL BE 4' HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND SNOW-FENCE MAY BE USED).
  - PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
  - ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.
  - TREE PROTECTION FENCING SHALL BE LOCATED OUTSIDE OF DRIP LINE.

**TREE PROTECTION BARRIER FENCING**  
NOT TO SCALE



**LIGHTING DETAIL**  
NOT TO SCALE

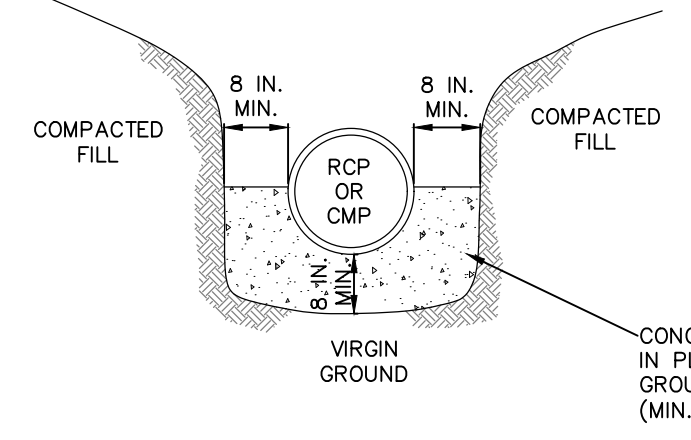
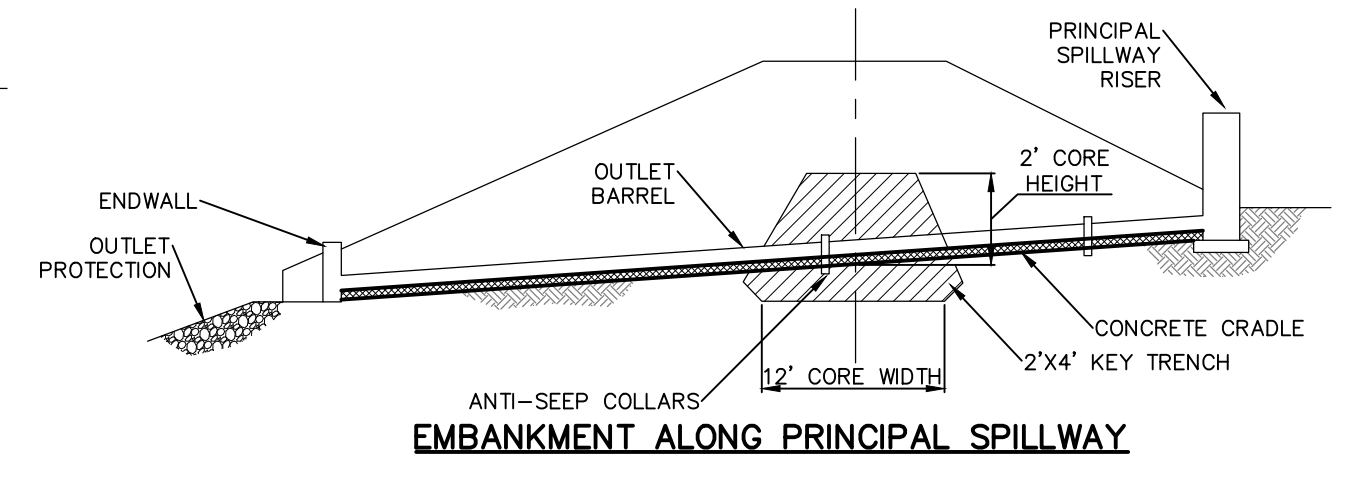
FOR RETIEW ASSOCIATES BY:		DATE	
REVISION		NO.	
MANAGER:	KIM M. FASNACHT	DESIGN BY:	CHD BY:
DESIGN BY:	KMF	DATE:	JAR
SURV. CHIEF:	JAR	FIELDBOOK NO.:	DATE:
DRAWN BY:	JAR	DATE:	JAR
DRAWING REFERENCE:		DATE:	
KGH DEVELOPMENT 120 NORTH PONTE BLVD. LANCASTER, PA 17601 (717) 560-9095			
RETIEW Associates, Inc. 17603 Lancaster, PA 17603 Phone: (610) 738-8395 Email: retiew@retiew.com Website: www.retiew.com			
DETAILS FINAL LAND DEVELOPMENT, SUBDIVISION, AND LOT ADD-ON PLAN FOR <b>RAFFENSPERGER - PHASE 1</b> MOUNT JOY TOWNSHIP LANCASTER COUNTY, PA			
DATE:		4/12/24	
SHEET NO.:		26 OF 33	
DWG. NO.:		019792000	



BASIN OR TRAP NO.	BAFFLE LENGTH Boh (FT)	BAFFLE HEIGHT Boh (FT)	TEMPORARY RISER CREST ELEV. TRCE (FT)	BOTTOM ELEV BE (FT)
3	290	4.0	498.50	496.00
5	415	3.0	499.55	498.00

**NOTES:**  
 SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.  
 AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE AT THE BAFFLE LOCATION  
 IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.  
 BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.  
 SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.  
 DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.  
 BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

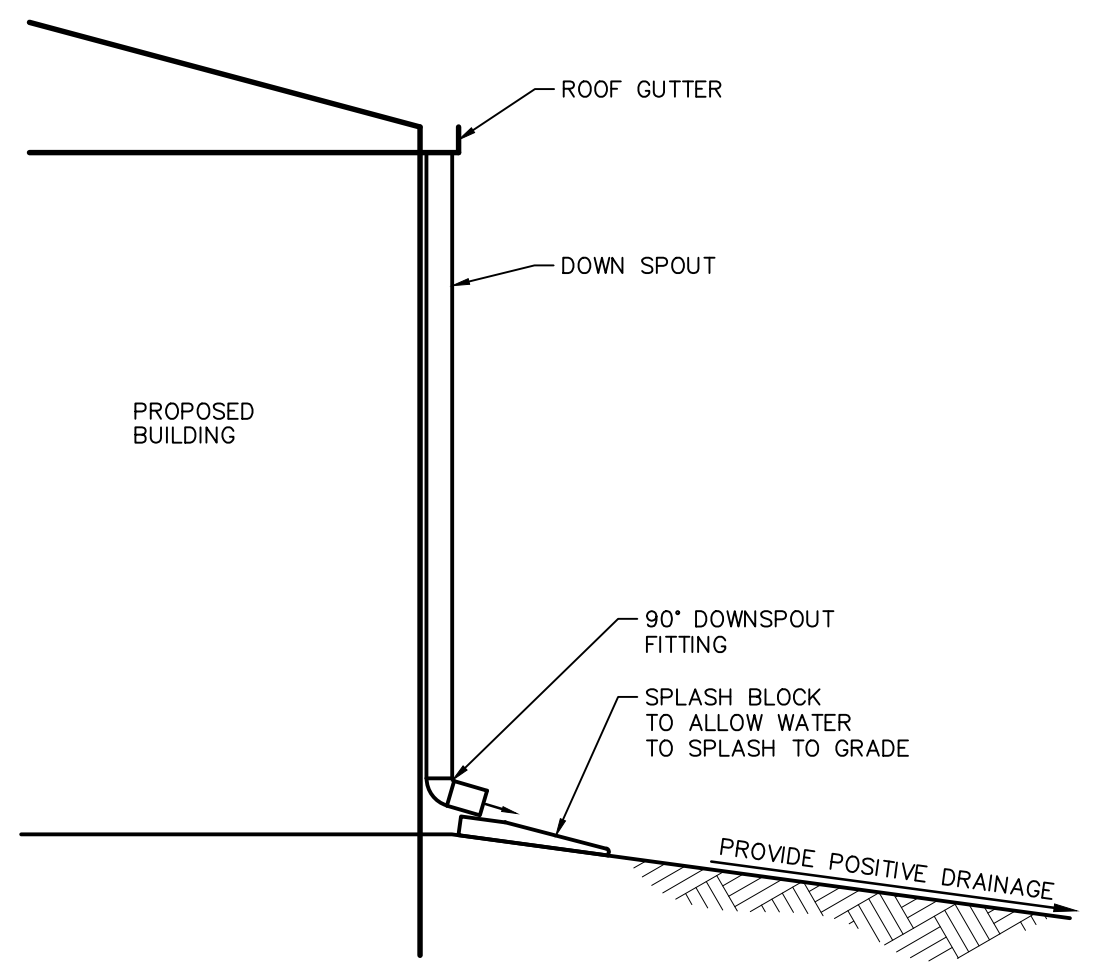
**STANDARD CONSTRUCTION DETAIL #7-14**  
**BAFFLE**  
 NOT TO SCALE



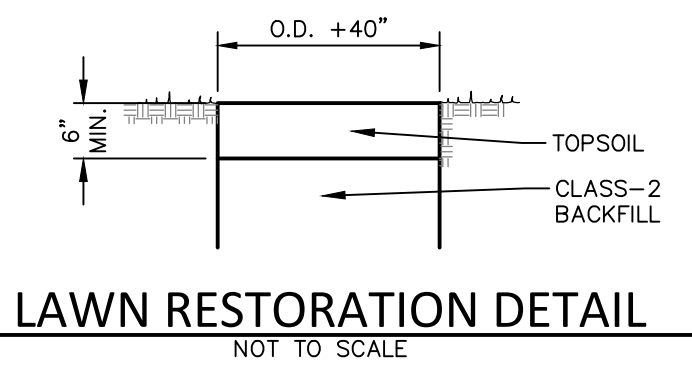
**NOTES:**  
 1. A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI-SEEP COLLARS AND/OR FILTER DIAPHRAGM. ANTI-SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN  
 2. CONCRETE CRADLE TO EXTEND TO NEXT DOWNSTREAM STRUCTURE OR BOTTOM OF OUTSIDE BERM, WHICHEVER IS SHORTER..

**ALTERED CONSTRUCTION DETAIL #7-17**  
**CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL**  
 NOT TO SCALE

Lot No.	Direction of Roof Drains
36	All to Front
37	All to Front
38	All to Front
39	All to Front
40	All to Front
41	All to Front
42	All to Front
43	Split Front/Back
44	Split Front/Back
45	Split Front/Back
46	Split Front/Back
47	Split Front/Back
48	Split Front/Back
49	All to Front
50	All to Front
51	All to Front
52	All to Front
53	All to Front
54	All to Front
55	All to Front
56	All to Front
57	All to Front
58	All to Front
59	All to Front
60	All to Front
61	All to Front
62	All to Front
63	All to Front
64	All to Front
65	All to Front
66	All to Front
67	Split Front/Back
68	All to Front
69	All to Front
70	All to Front
71	All to Front
72	All to Front
73	All to Front
74	Split Front/Back
75	Split Front/Back
76	All to Front
77	All to Front
78	Split Front/Back
79	All to Front
80	All to Front
81	Split Front/Back
82	Split Front/Back
83	Split Front/Back
84	Split Front/Back
85	All to Front
86	All to Front
87	All to Front
88	All to Front



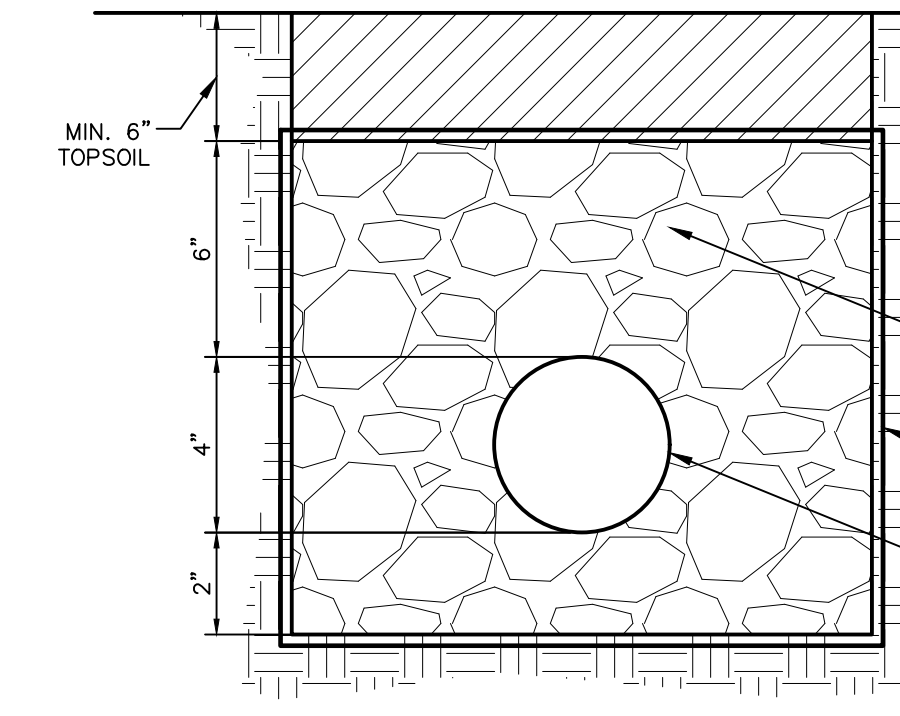
**TYPICAL ROOF DRAIN LATERAL/CLEAN-OUT DETAIL**  
 NOT TO SCALE



**LAWN RESTORATION DETAIL**  
 NOT TO SCALE

**WETLAND MAINTENANCE**

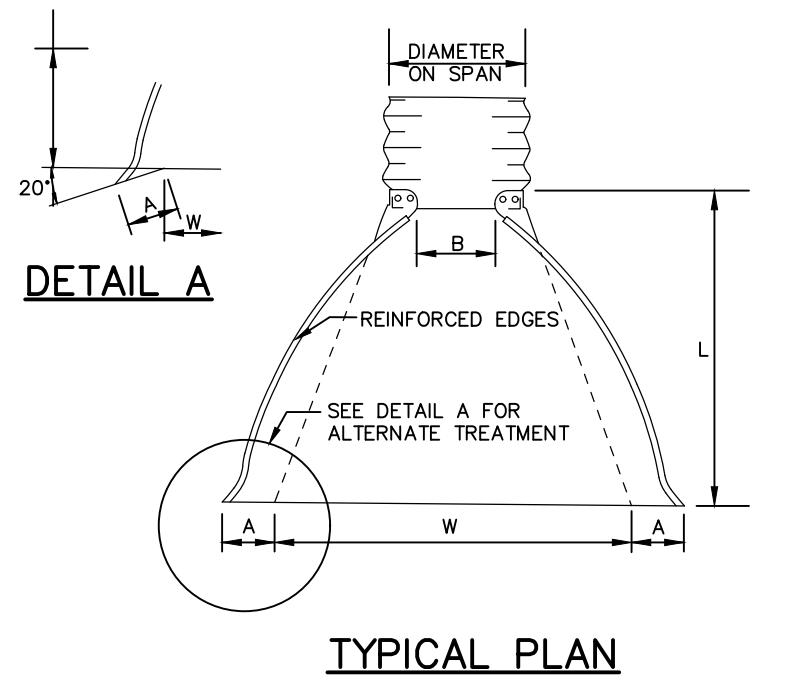
- THE WETLAND AREA SHALL NOT BE MOWED.
- NO INVASIVE OR NOXIOUS PLANT SPECIES SHALL BE INTRODUCED, AND ANY SUCH SPECIES MAY BE REMOVED BY HAND.
- VOLUNTEER TREES AND SHRUBS MAY REMAIN IN THE WETLAND AREA, HOWEVER TREES THAT BECOME ESTABLISHED IN THE BERM SHALL BE REMOVED SO THAT THE INTEGRITY OF THE BASIN IS NOT COMPROMISED.
- NO PESTICIDES OR HERBICIDES SHALL BE USED.
- TRASH OR DEBRIS THAT ACCUMULATE FOLLOWING STORM EVENTS SHALL BE REMOVED AS SOON AS POSSIBLE.
- IF PROBLEMS ARE OBSERVED REGARDING THE FUNCTIONING OF THE WETLAND AREA, MOUNT JOY TOWNSHIP AND ROBERT GABRIEL AND ASSOC. OR ANOTHER QUALIFIED PARTY SHALL BE CONTACTED IMMEDIATELY TO ASSESS THE SITUATION AND DEVELOP SOLUTIONS.



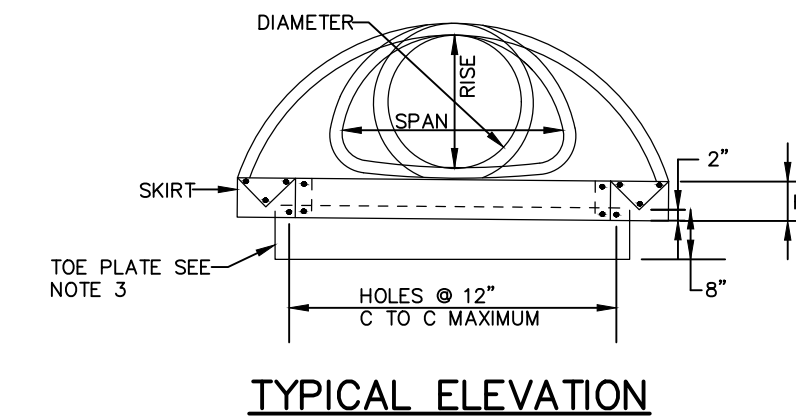
**GROUNDWATER DRAIN DETAIL**  
 NOT TO SCALE

TABLE B-DIMENSIONS FOR END SECTIONS FOR CIRCULAR CORRUGATED METAL PIPE

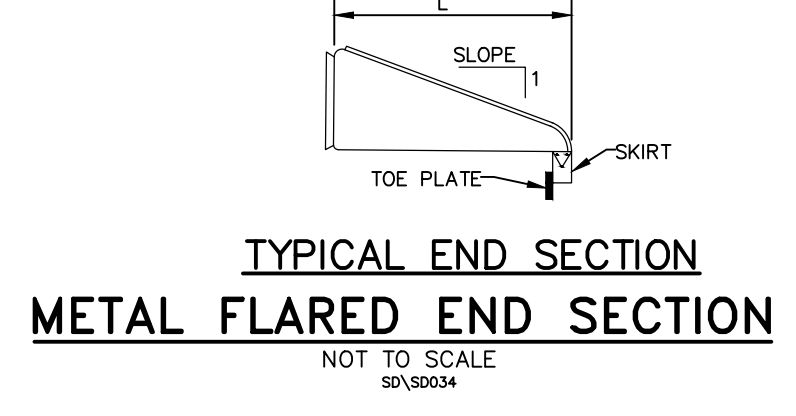
DIAM.	GAGE	A (±1")	B (MAX.) (±2")	H (±2")	L (±2")	W (±2")	SLOPE
12"	16	6	8	6	21	24	24
15"	16	7	8	6	26	30	24
18"	16	8	10	6	31	36	24
21"	16	9	12	6	36	42	24
24"	16	10	13	6	41	48	24
30"	14	12	16	8	51	60	24
36"	14	14	19	9	60	72	24
42"	12	16	22	11	69	84	24
48"	12	18	27	12	78	90	24
54"	12	18	30	12	84	102	24
60"	12	18	33	12	87	114	24
66"	12	18	36	12	87	120	24
72"	12	18	39	12	87	126	24
78"	12	18	42	12	87	132	14
84"	12	18	45	12	87	138	14
90"	12	24	37	12	87	144	14
96"	12	25	35	12	87	150	14



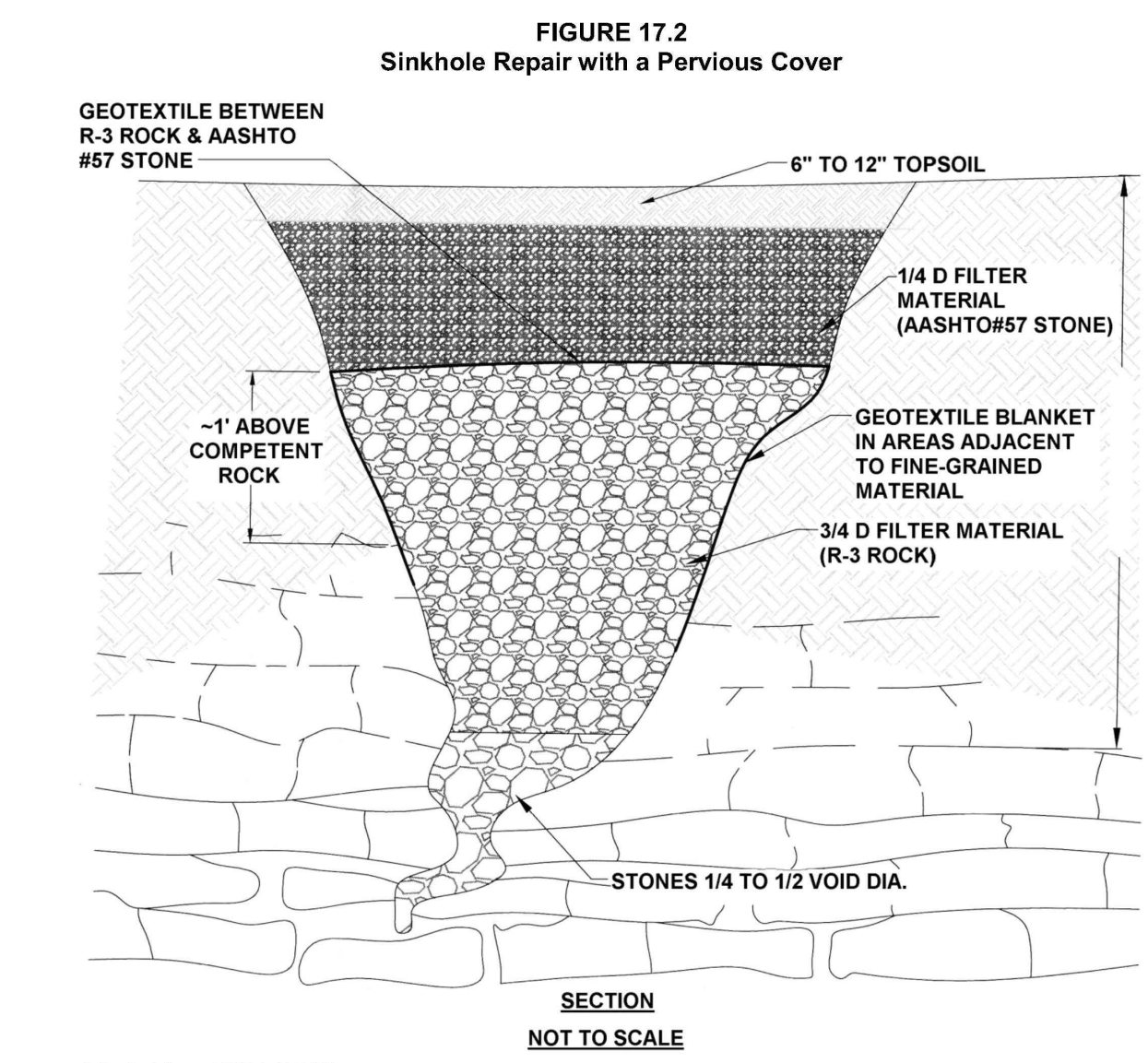
**TYPICAL PLAN**



**TYPICAL ELEVATION**

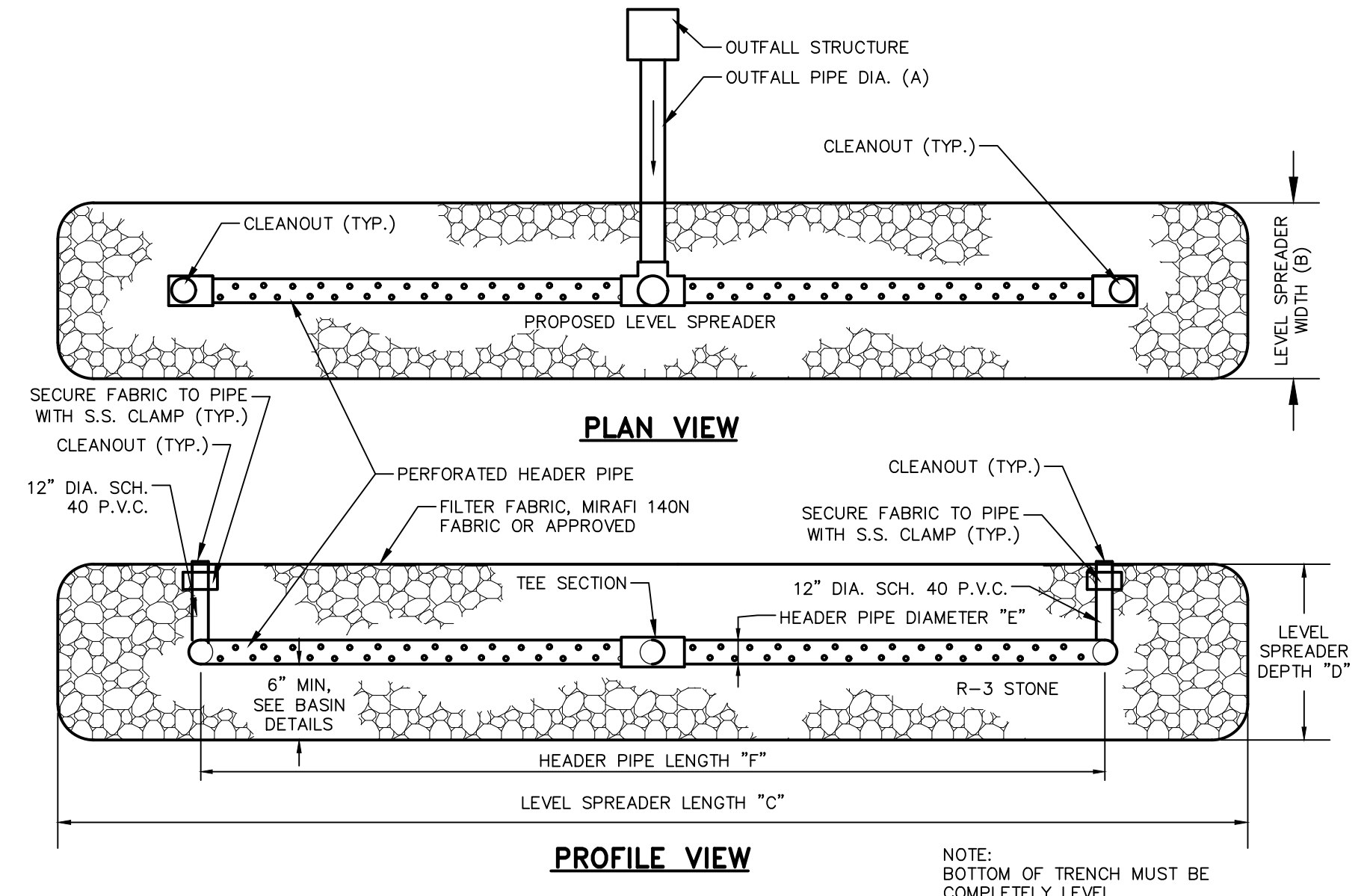


**TYPICAL END SECTION**  
**METAL FLARED END SECTION**  
 NOT TO SCALE



Adapted from USDA NRCS  
 Loose material shall be excavated from the sinkhole and expose solution void(s) if possible. Enlarge sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.  
 Stones used for the "bridge" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.

**SINKHOLE REMEDIATION-OPTION #1**  
 NOT TO SCALE

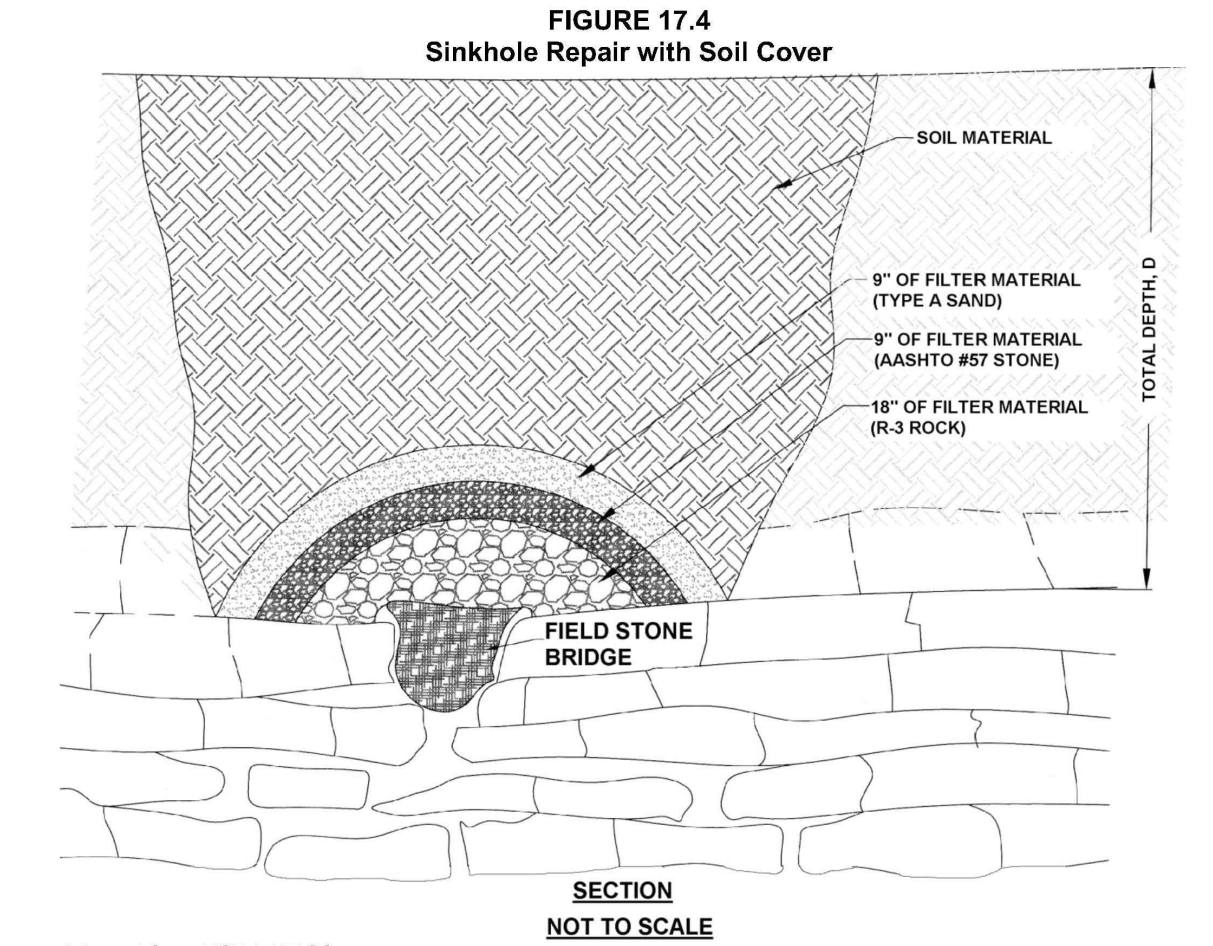


LEVEL SPREADER TABLE

LEVEL SPREADER	OUTFALL STRUCTURE	OUTFALL PIPE DIA. "A" (IN.)	LEVEL SPREADER WIDTH "B" (FT.)	LEVEL SPREADER LENGTH "C" (FT.)	LEVEL SPREADER DEPTH "D" (FT.)	HEADER PIPE DIA. "E" (IN.)	HEADER PIPE LENGTH "F" (FT.)
LS-2	OS-3	18	7	50	3-5"	18	40
LS-3	OS-5	24	7	50	3-5"	24	40

\* DEPTH VARIES DUE TO FINISHED GRADE SLOPE ACROSS THE LEVEL SPREADER

**LEVEL SPREADER DETAIL**  
 NOT TO SCALE



Adapted from USDA NRCS  
 Loose material shall be excavated from the sinkhole and expose solution void(s) if possible. Enlarge sinkhole if necessary to allow for installation of filter materials. OSHA regulations must be followed at all times during excavation.  
 Select field stone(s) about 1.5 times larger than solution void(s) to form "bridge." Place rock(s) so no large openings exist along the sides. Stones used for the "bridge" and filters shall have a moderately hard rock strength and be resistant to abrasion and degradation. Shale and similar soft and/or non-durable rock are not acceptable.  
 Minimum thickness of R-3 rock is 18." AASHTO #57 stone thickness shall be a minimum of 9" thick. Minimum thickness of type A sand shall be 9". NOTE: A non-woven geotextile with a burst strength between 100 and 200 psi may be substituted for the AASHTO#57 stone and type A sand.  
 Soil shall be mineral soil with at least 12% fines and overfilled by 5% to allow for settlement. Suitable soil from the excavation may be used. Any available topsoil shall be placed on top surface.

**SINKHOLE REMEDIATION-OPTION #2**  
 NOT TO SCALE

**REVIEW ASSOCIATES, INC.**  
 120 NORTH POINTE BLVD.  
 LANCASTER, PA 17601  
 (717) 560-9095

**MANAGER:** KIM M. FASNAUGHT  
**DESIGN BY:** JAR  
**SURV. CHIEF:** JAR  
**DRAWN BY:** JAR

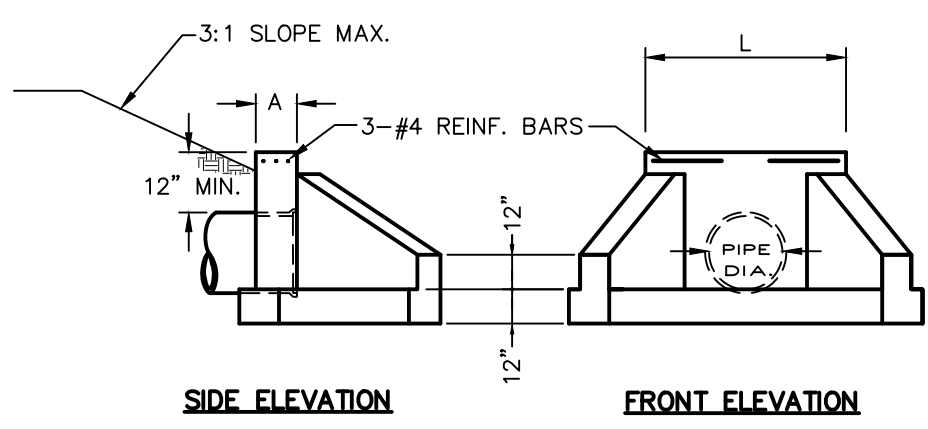
**CLIENT:** KGH DEVELOPMENT, 120 NORTH POINTE BLVD. LANCASTER, PA 17601 (717) 560-9095

**DETAILS:** FINAL LAND DEVELOPMENT, SUBDIVISION, AND LOT ADD-ON PLAN FOR RAFFENSPERGER - PHASE 1

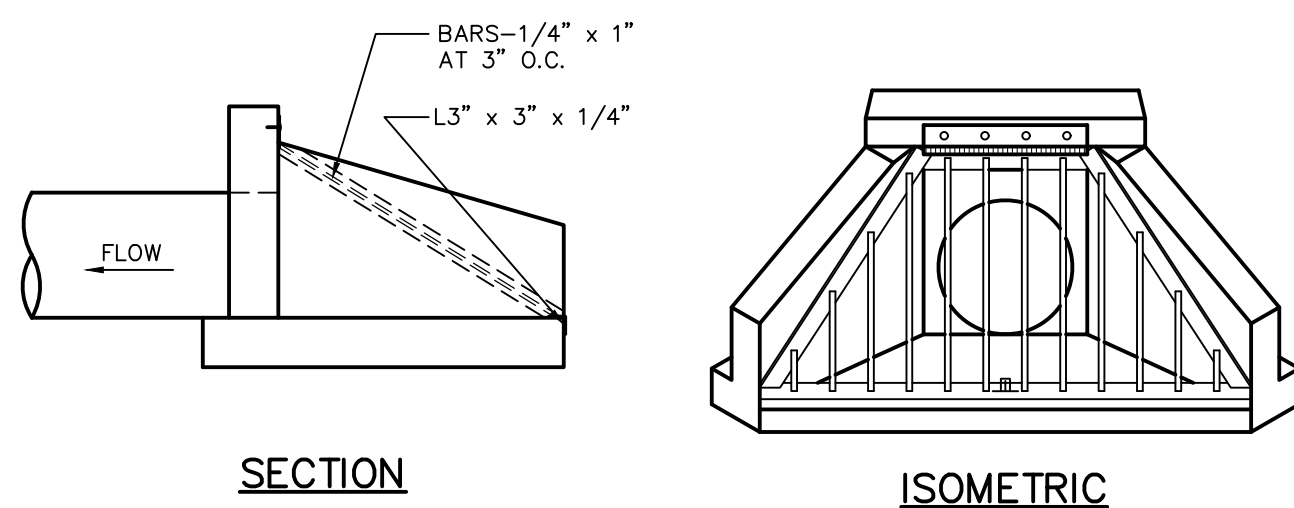
**DATE:** 4/12/24  
**SHEET NO.:** 27 of 33  
**DWG. NO.:** 019792000

**NOT FOR CONSTRUCTION/NOT FOR BIDDING**

PIPE DIAMETER	L	W	A
15" & 18"	4.0'	4.0'	12"
24"	4.6'	4.25'	12"
30"	5.2'	4.4'	12"
36"	5.8'	4.6'	12"
42"	6.3'	5.8'	12"
48"	6.9'	6.9'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.2'	15"
72"	9.2'	11.5'	15"

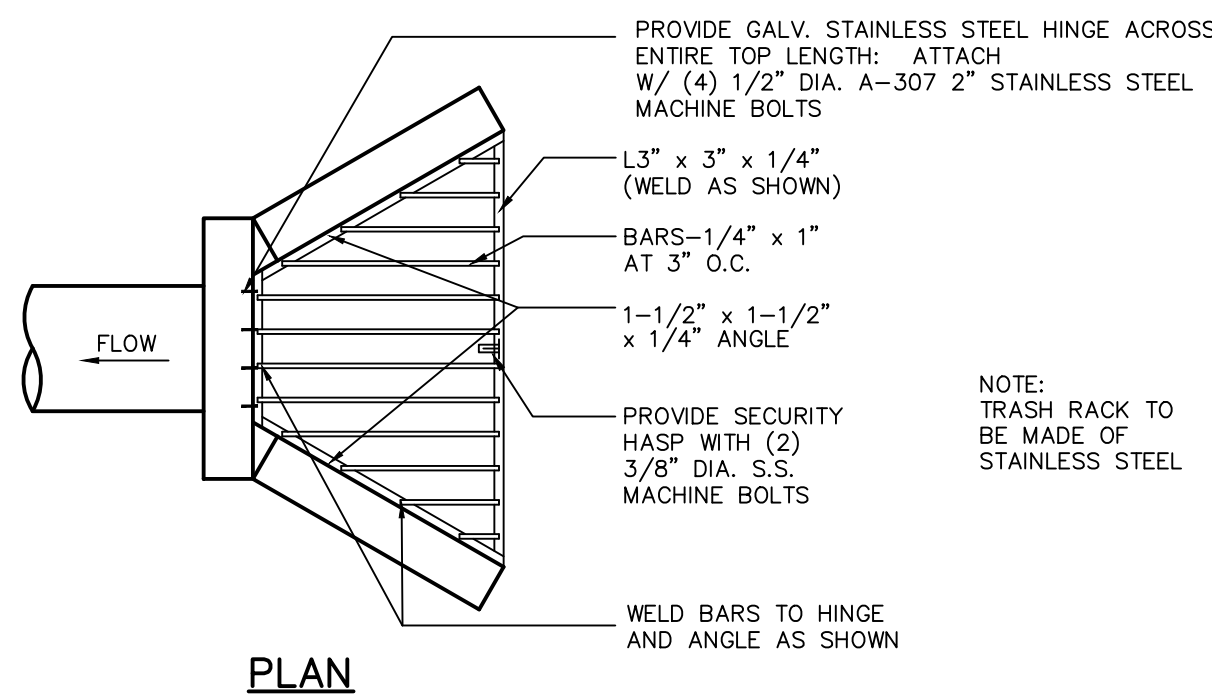


TYPE D-W ENDWALL  
NOT TO SCALE



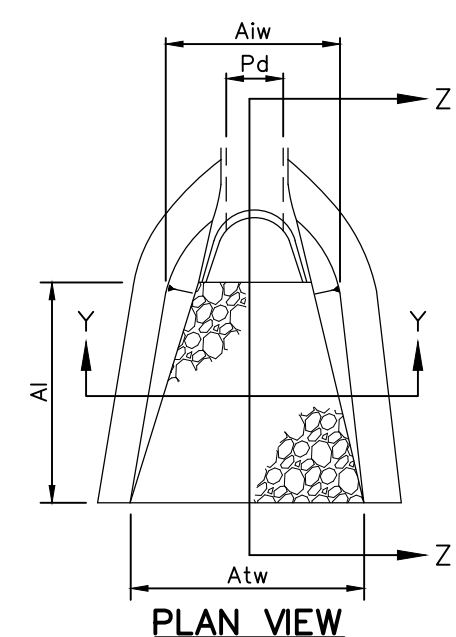
SECTION

ISOMETRIC

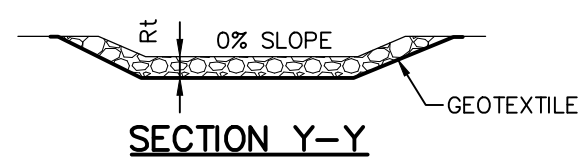


PLAN

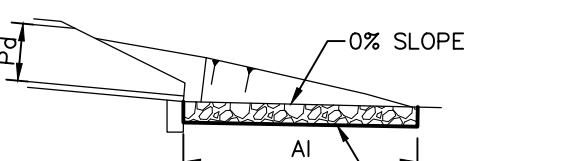
HEADWALL/ENDWALL TRASH RACK  
NOT TO SCALE



PLAN VIEW



SECTION Y-Y



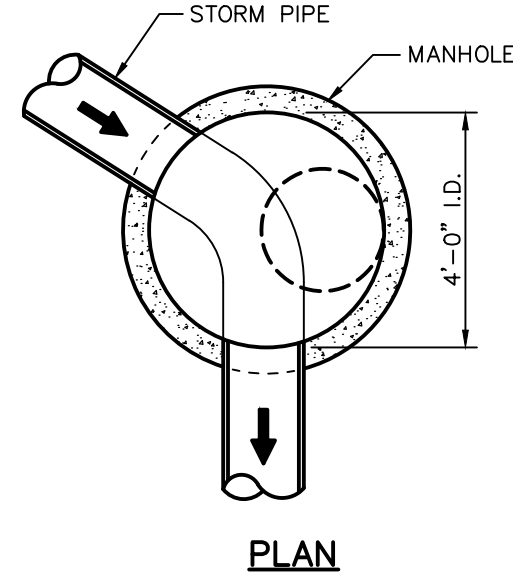
SECTION Z-Z

NOTES:  
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.  
ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

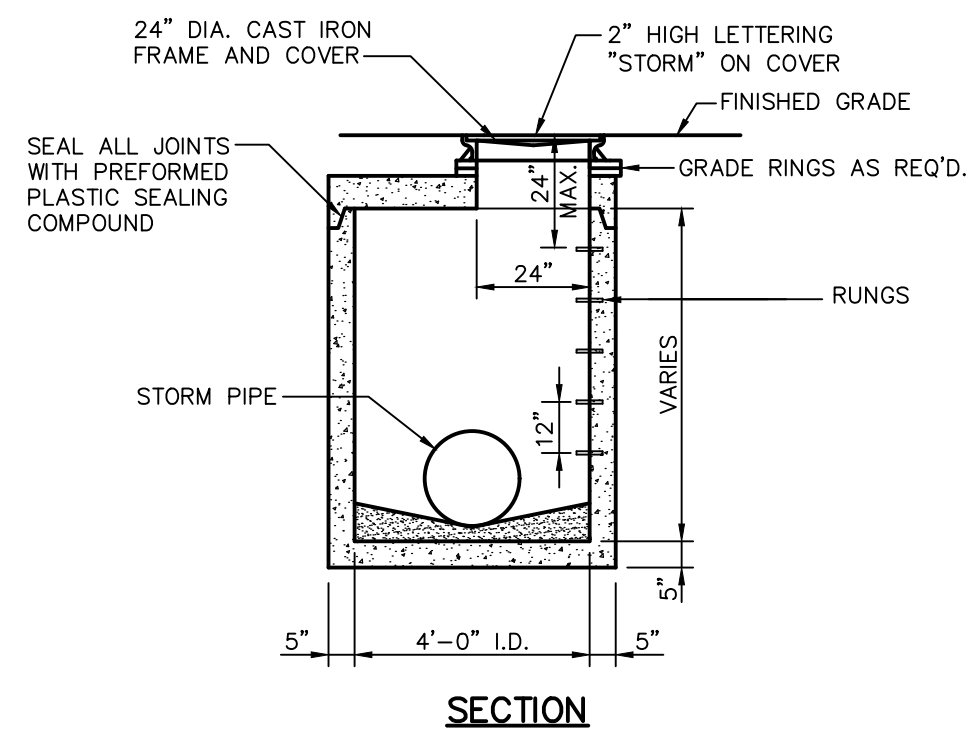
STANDARD CONSTRUCTION DETAIL #9-1  
RIPRAP APRON AT PIPE OUTLET  
WITH FLARED END SECTION OR ENDWALL  
NOT TO SCALE

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON	
		SIZE R- (IN)	THICK Rt (IN)	INITIAL WIDTH Ai (FT)	TERMINAL WIDTH Atw (FT)
EW-4	30	5	27	16	8
EW-5	30	5	27	16	14
EW-6	15	4	18	8	4
EW-9	15	4	18	8	4
I-105 OUTFALL	15	4	18	8	4

NOTES:  
1. ADJUST TO GRADE WITH CONCRETE GRADE RINGS. BOLT FRAME TO MANHOLE USING (4) 3/4" STN. STL. BOLTS EQUALLY SPACED AND EMBEDDED 3" MIN. (4" MAX. HEIGHT)  
2. MECHANICALLY VIBRATED PRECAST CONCRETE RISER AND TOP SHALL CONFORM TO A.S.T.M. SPEC. C-478

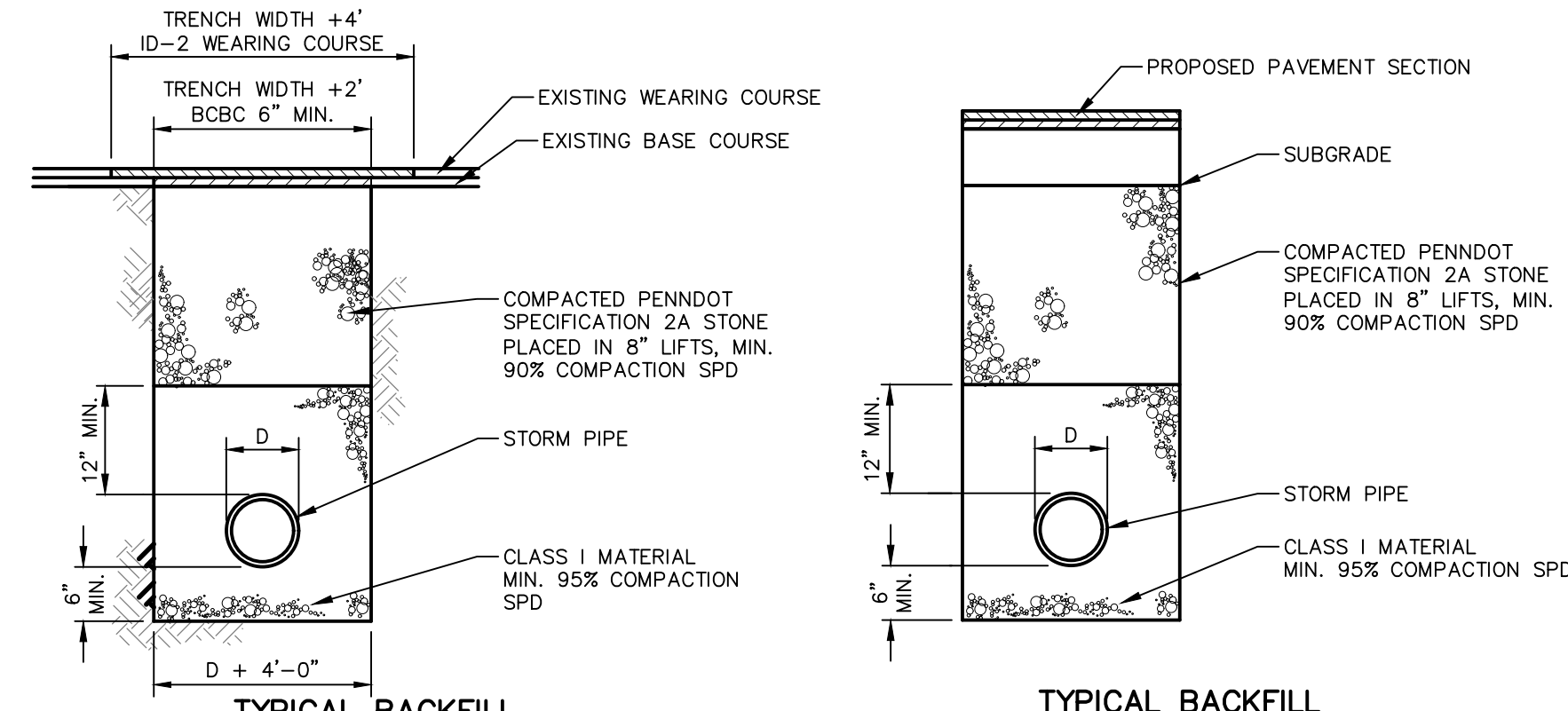


PLAN



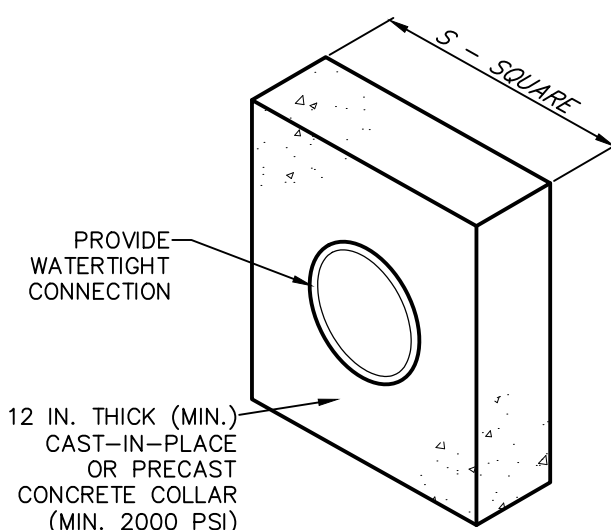
SECTION

STORM MANHOLE  
NOT TO SCALE



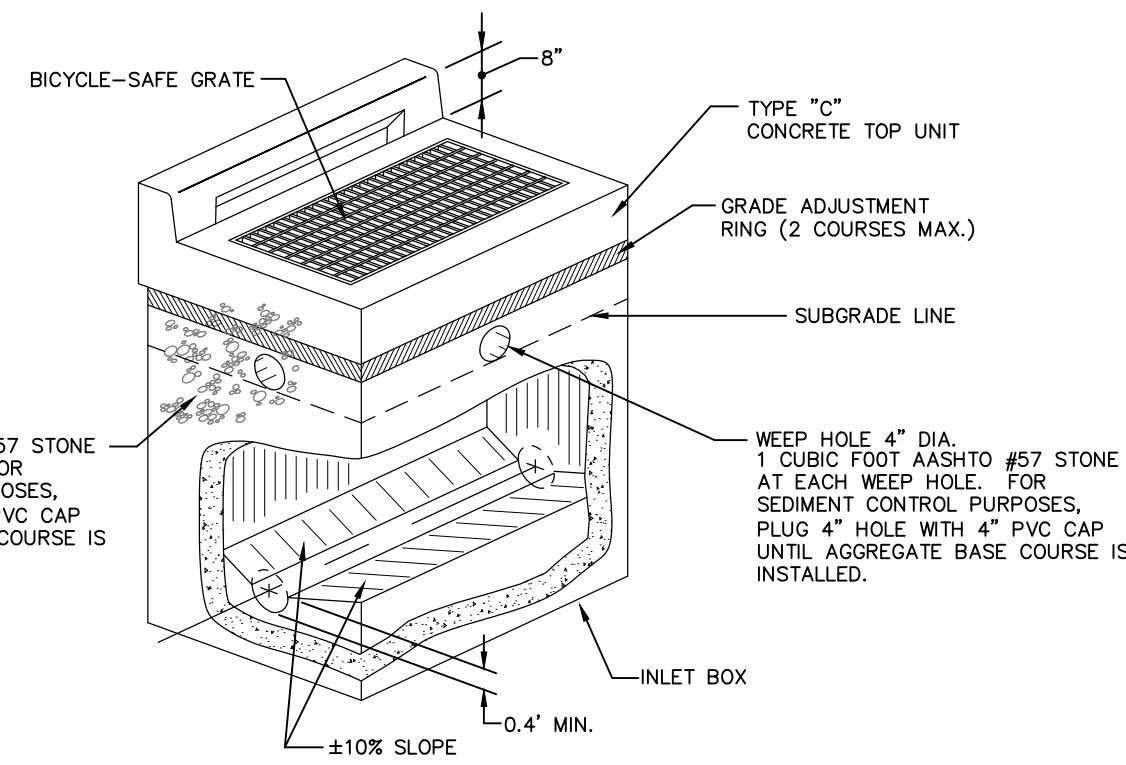
TYPICAL BACKFILL (EXISTING STREETS AND ROADWAYS)  
TYPICAL TRENCH BACKFILL (NEW STREET OR ROAD CONSTRUCTION)  
NOT TO SCALE

BASIN OR TRAP NO.	PIPE SIZE (IN)	COLLAR SIZE S (IN)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)
BASIN 3	18	77	1	10
BASIN 4	15	104	1	10
BASIN 5	24	103	1	10
BASIN 6	15	81	1	10

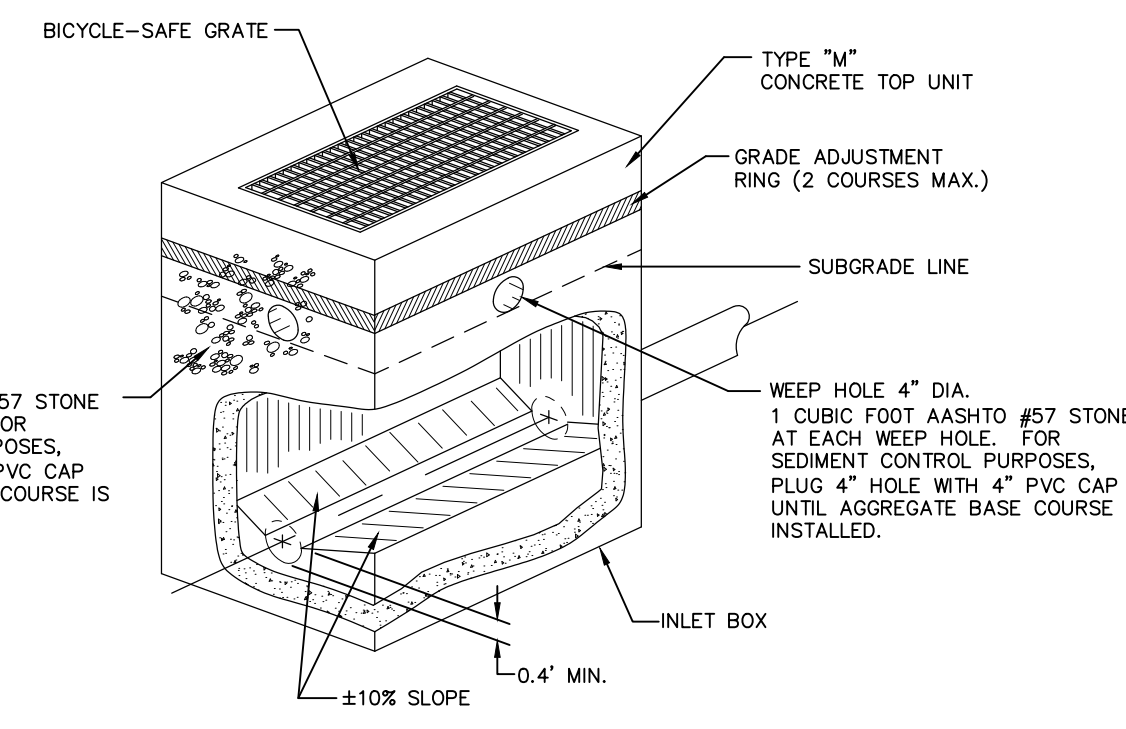


NOTES:  
ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.  
COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

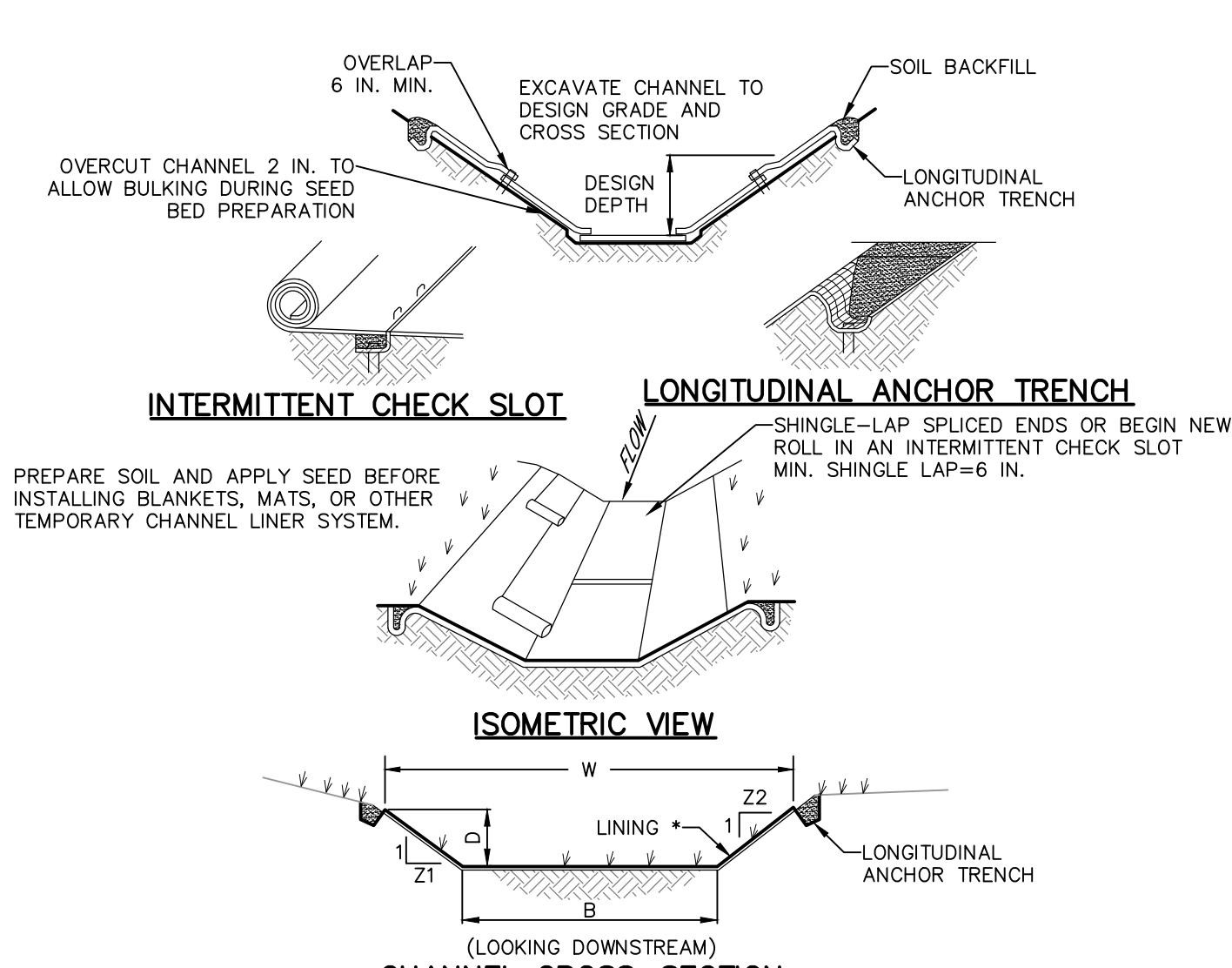
STANDARD CONSTRUCTION DETAIL #7-16  
CONCRETE ANTI-SEEP COLLAR FOR  
PERMANENT BASINS OR TRAPS  
NOT TO SCALE



PENNDOT TYPE C INLET  
NOT TO SCALE



PENNDOT TYPE M INLET  
NOT TO SCALE



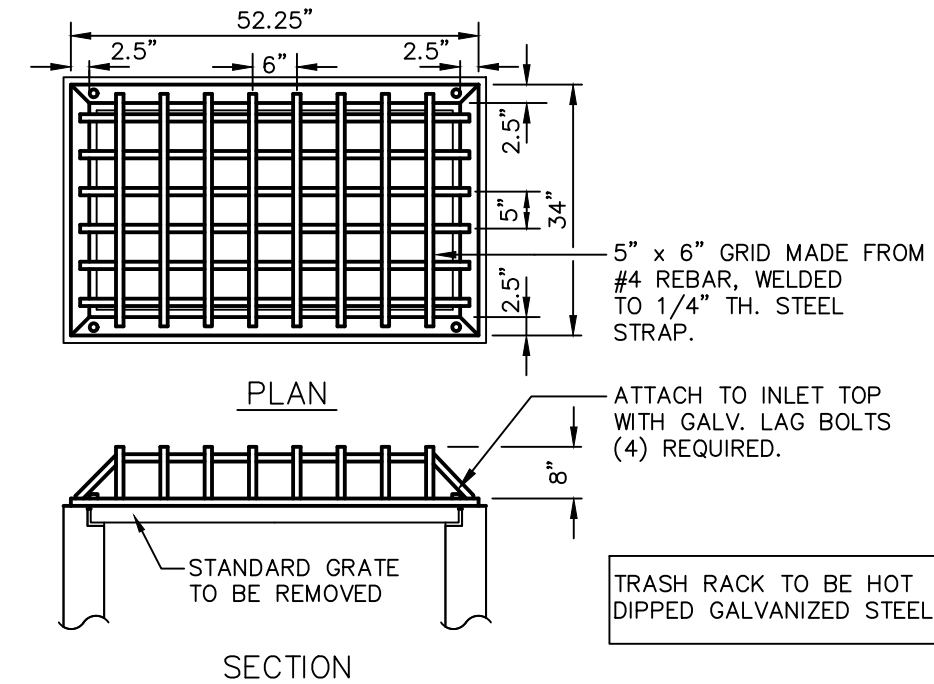
CHANNEL CROSS-SECTION  
(LOOKING DOWNSTREAM)

\* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING * (OR EQUIVALENT)	STAPLE PATTERN
5	ALL	2	2	14	4	4	NAG S75	D
6	ALL	2	1.5	8	4	4	NAG S75	D
8	ALL	2	1	7	4	4	NAG S75	D
9	TO BASIN	2	1	7	4	4	NAG S75	D
10	ALL	0	0.75	37.5	25	25	NAG S75	D
11	ALL	2	0.75	17	10	10	NAG S75	D

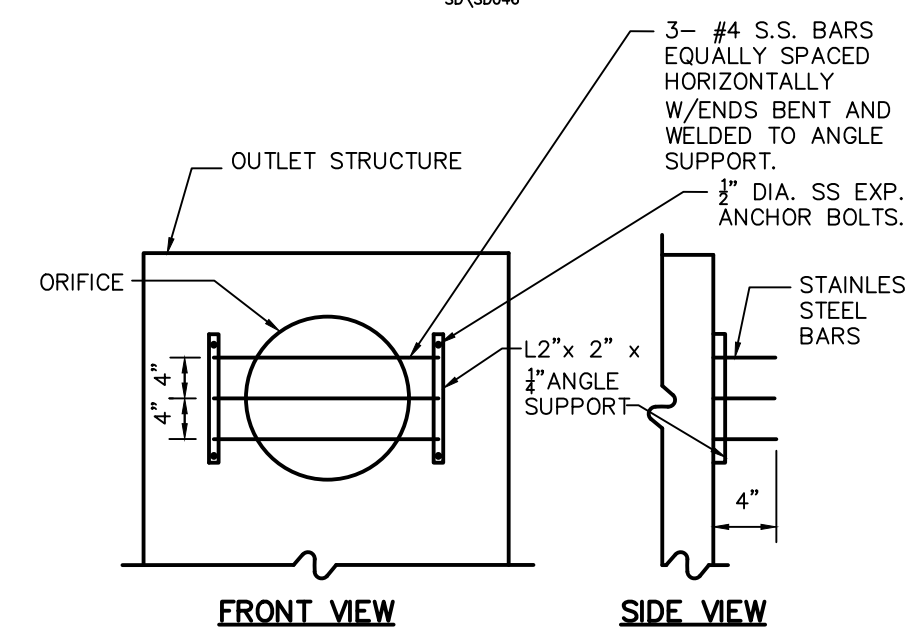
NOTES:  
ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.  
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.  
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.  
NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1  
VEGETATED CHANNEL  
NOT TO SCALE



SECTION

TRASH RACK  
NOT TO SCALE



FRONT VIEW

SIDE VIEW

TRASH SCREEN  
NO SCALE

CLIENT: KGH DEVELOPMENT, 120 NORTH POINTE BLVD., LANCASTER, PA 17601 (717) 560-9095

MANAGER: KIM M. FASNACHT  
DESIGN BY: JAR  
SURV. CHIEF: JAR  
DRAWN BY: JAR

FOR RETTEW ASSOCIATES BY: [REDACTED]

REVISIONS: [REDACTED]

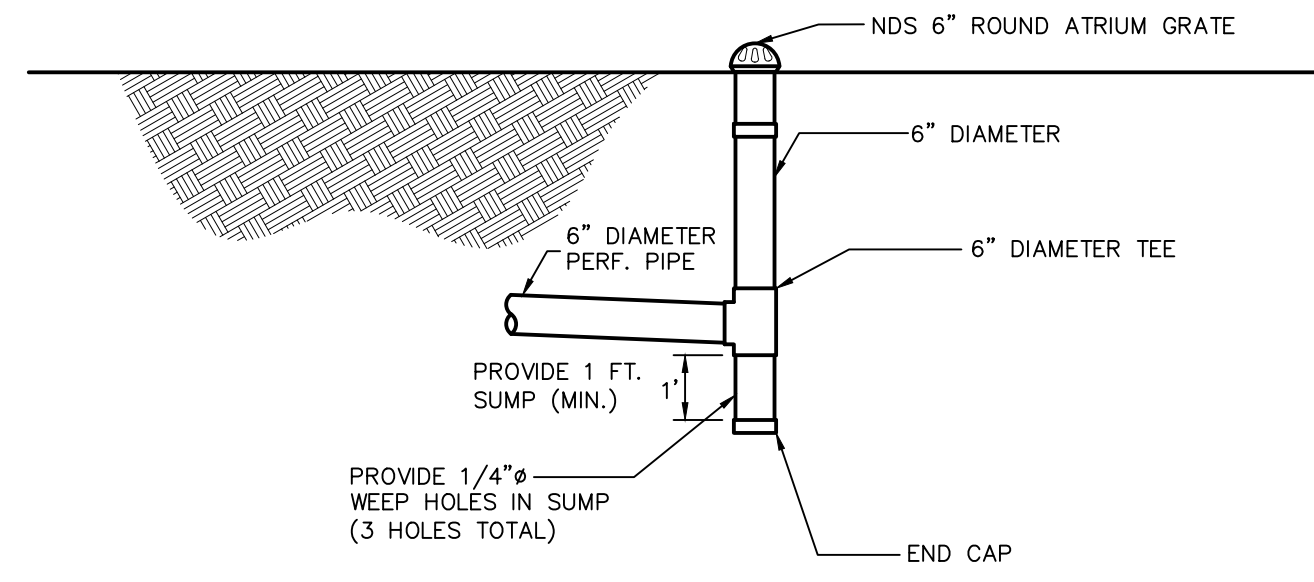
DATE: 4/12/24

SHEET NO. 28 OF 33

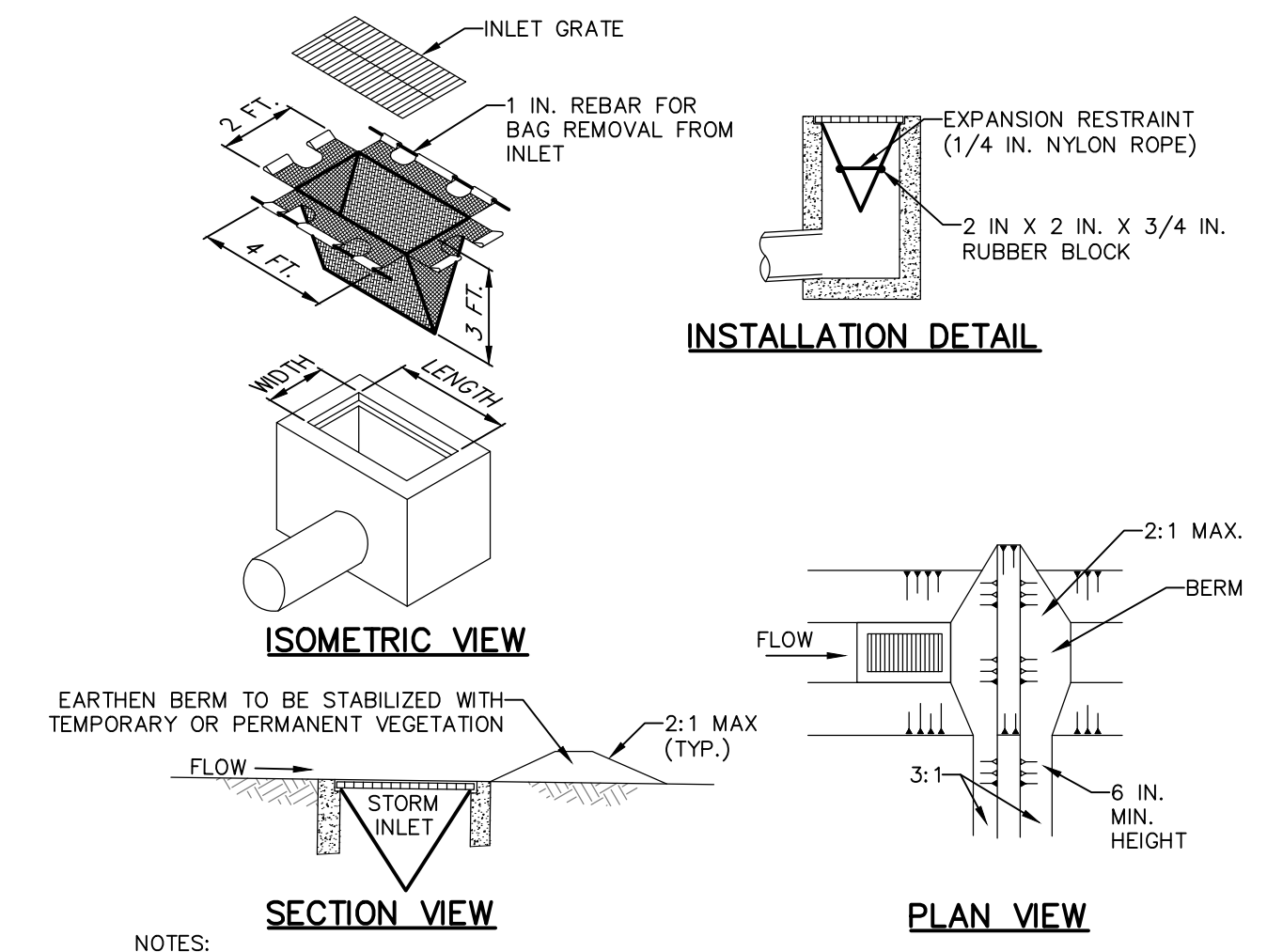
DWG. NO. 019792000

NOT FOR CONSTRUCTION/NOT FOR BIDDING



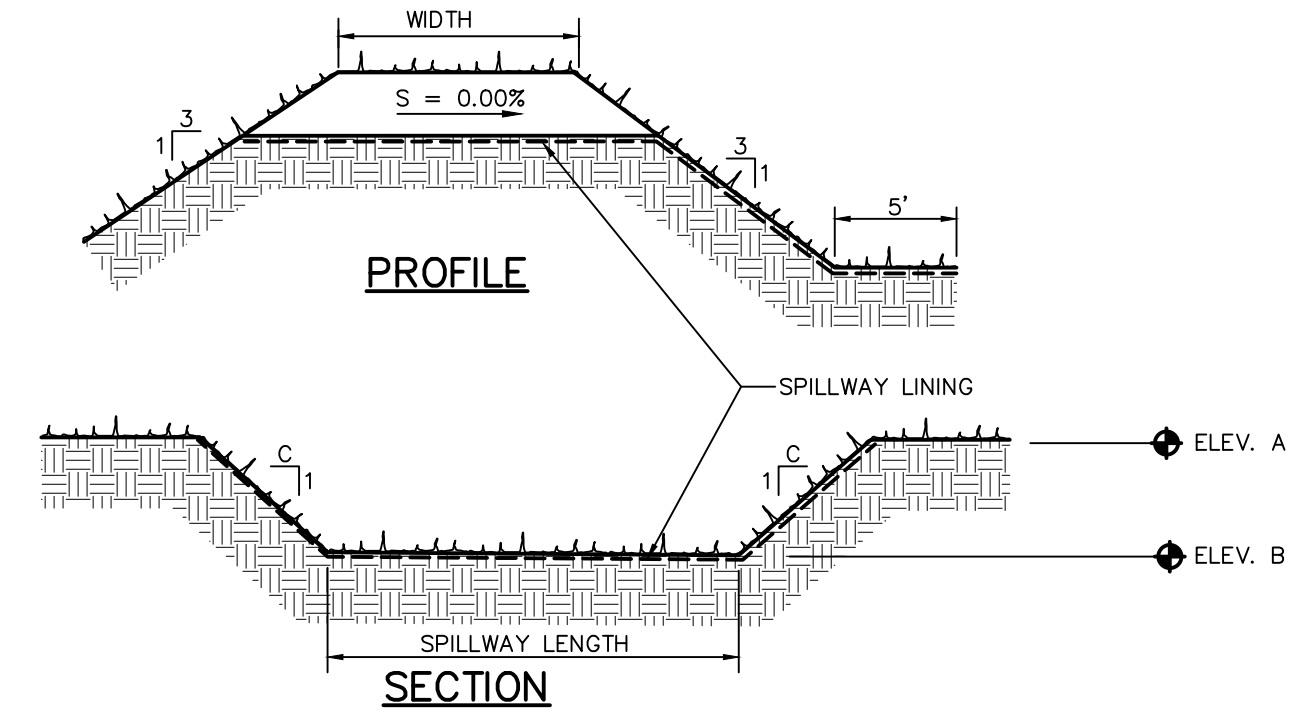


**TYPICAL IN-LINE CLEAN-OUT DETAIL**  
NOT TO SCALE  
SD/50088



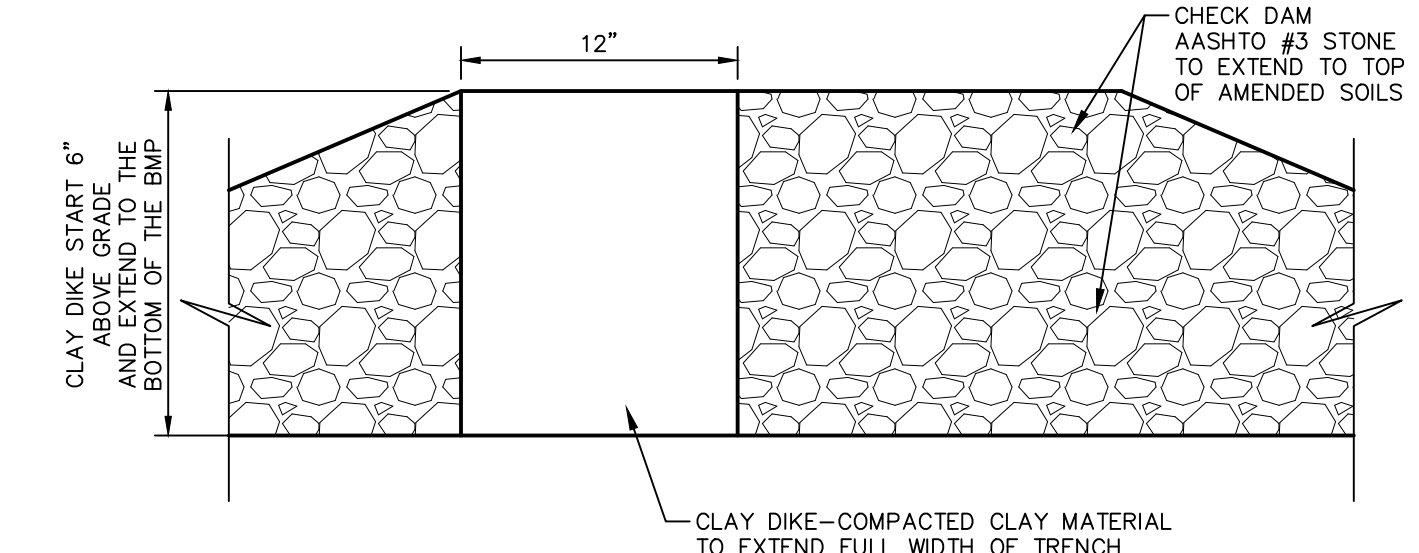
**NOTES:**  
 MAXIMUM DRAINAGE AREA = 1/2 ACRE.  
 INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.  
 ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE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

**STANDARD CONSTRUCTION DETAIL #4-16**  
**FILTER BAG INLET PROTECTION - TYPE M INLET**  
NOT TO SCALE

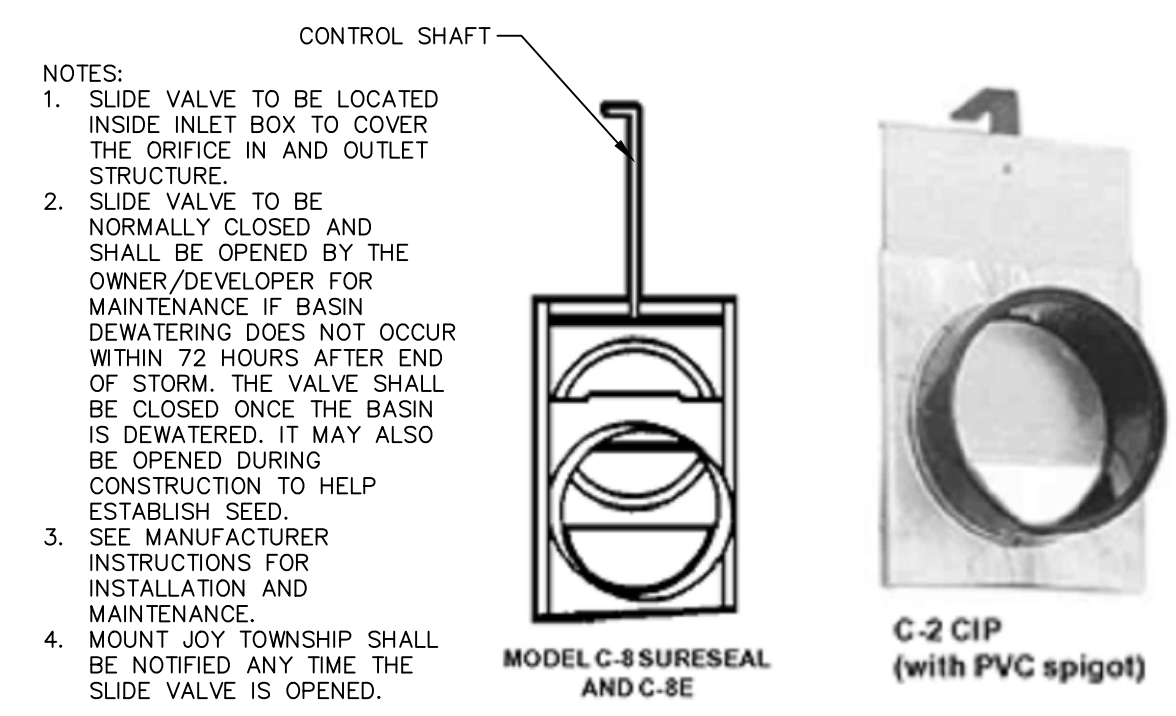


BASIN	TOP OF BERM ELEV. A	SPILLWAY ELEV. B	SLOPE C	SPILLWAY LENGTH(FT)	BERM WIDTH(FT)	SPILLWAY LINING
BASIN 3	501.00	499.50	3	50	8	NAG SC150
BASIN 4*	513.00	512.25	3	12	6	NAG DS75
BASIN 5	502.00	500.50	3	50	8	NAG C350
BASIN 6	524.00	522.25	3	25	8	NAG S150

**NOTES:**  
 • CONSISTS OF TWO 6' WIDE CHANNELS BETWEEN LOTS  
**EMERGENCY SPILLWAY**  
 NOT TO SCALE  
 SD/50087



**CLAY DIKE DETAIL**  
NOT TO SCALE  
0-03

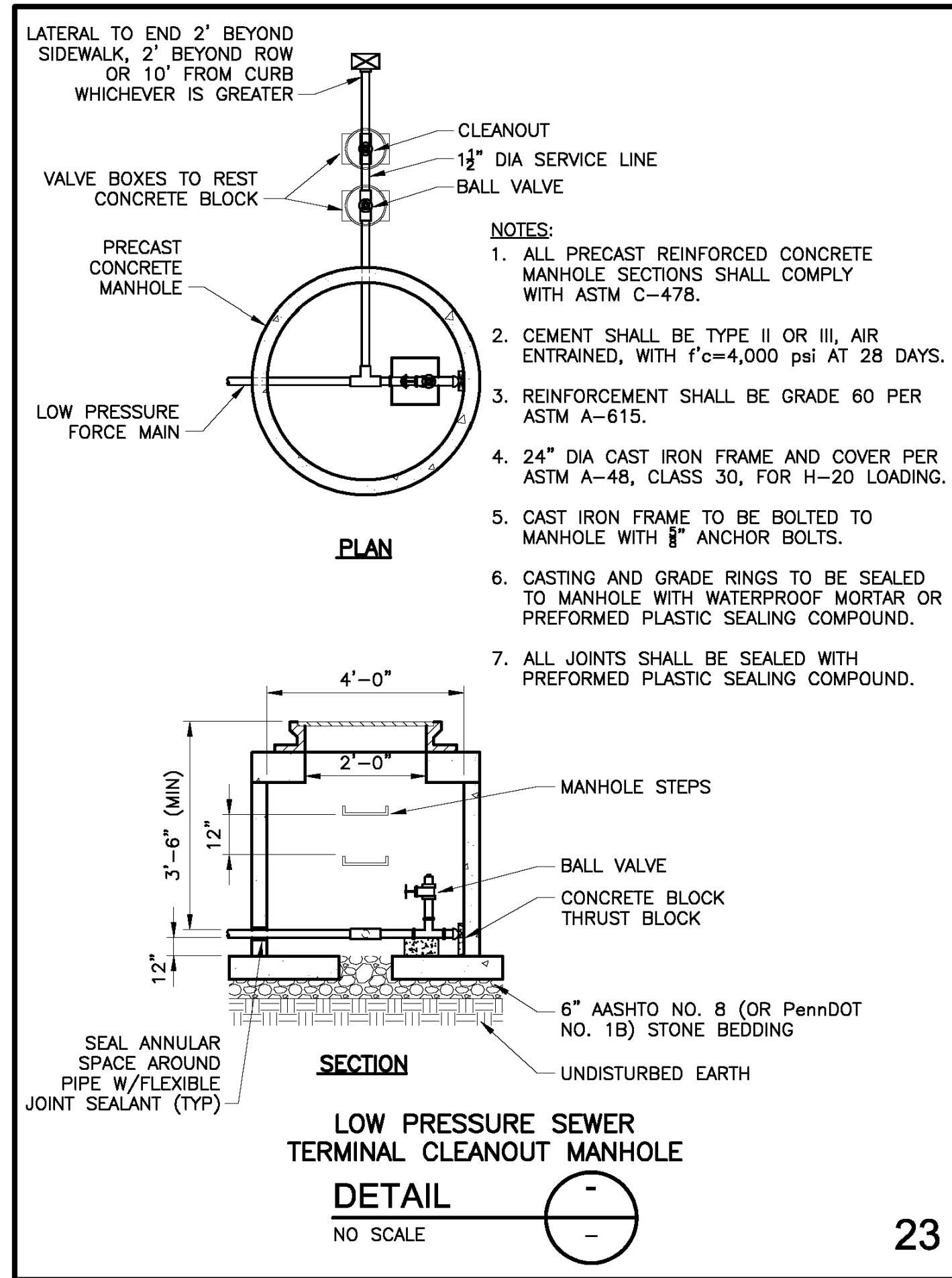
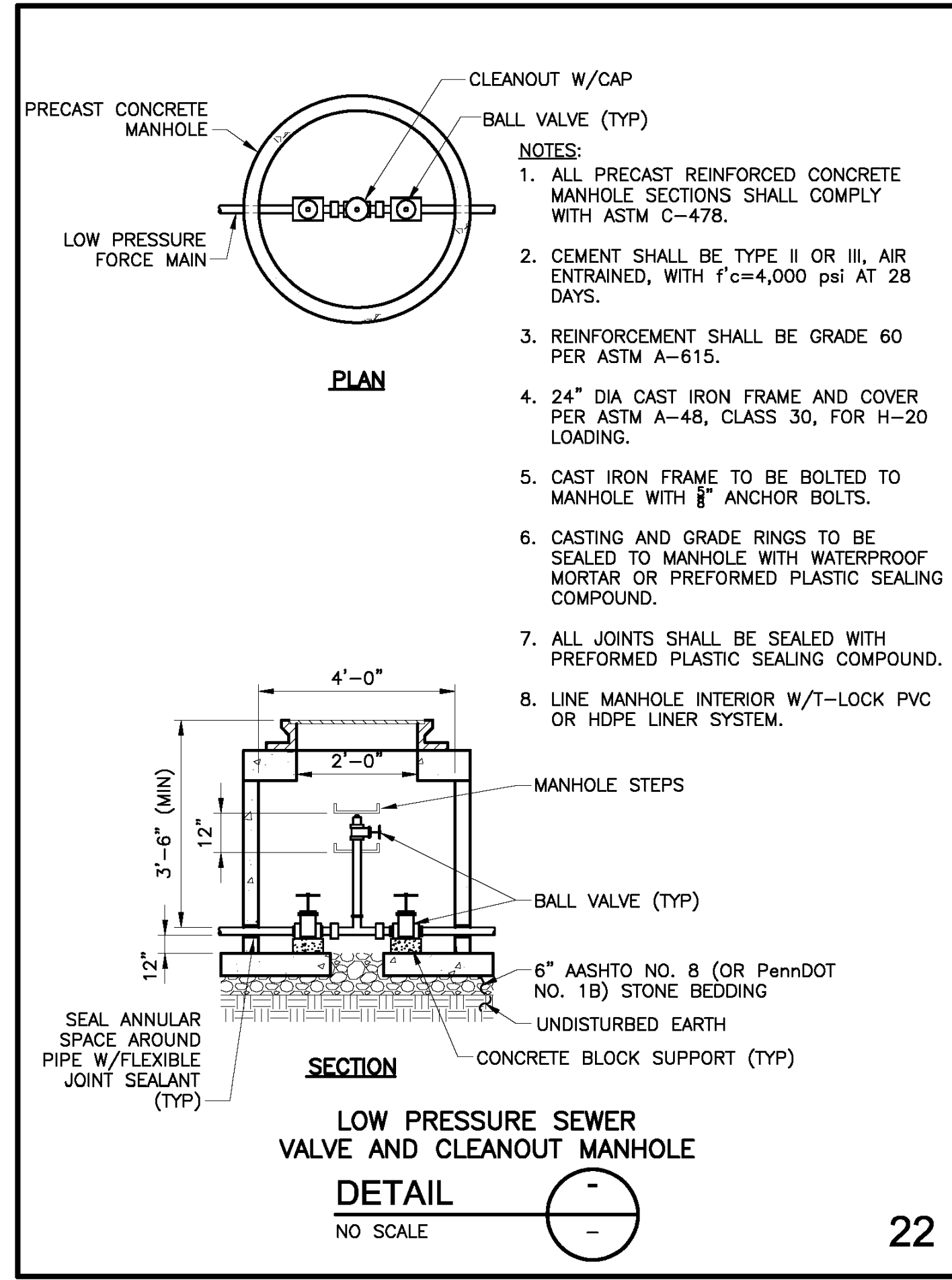
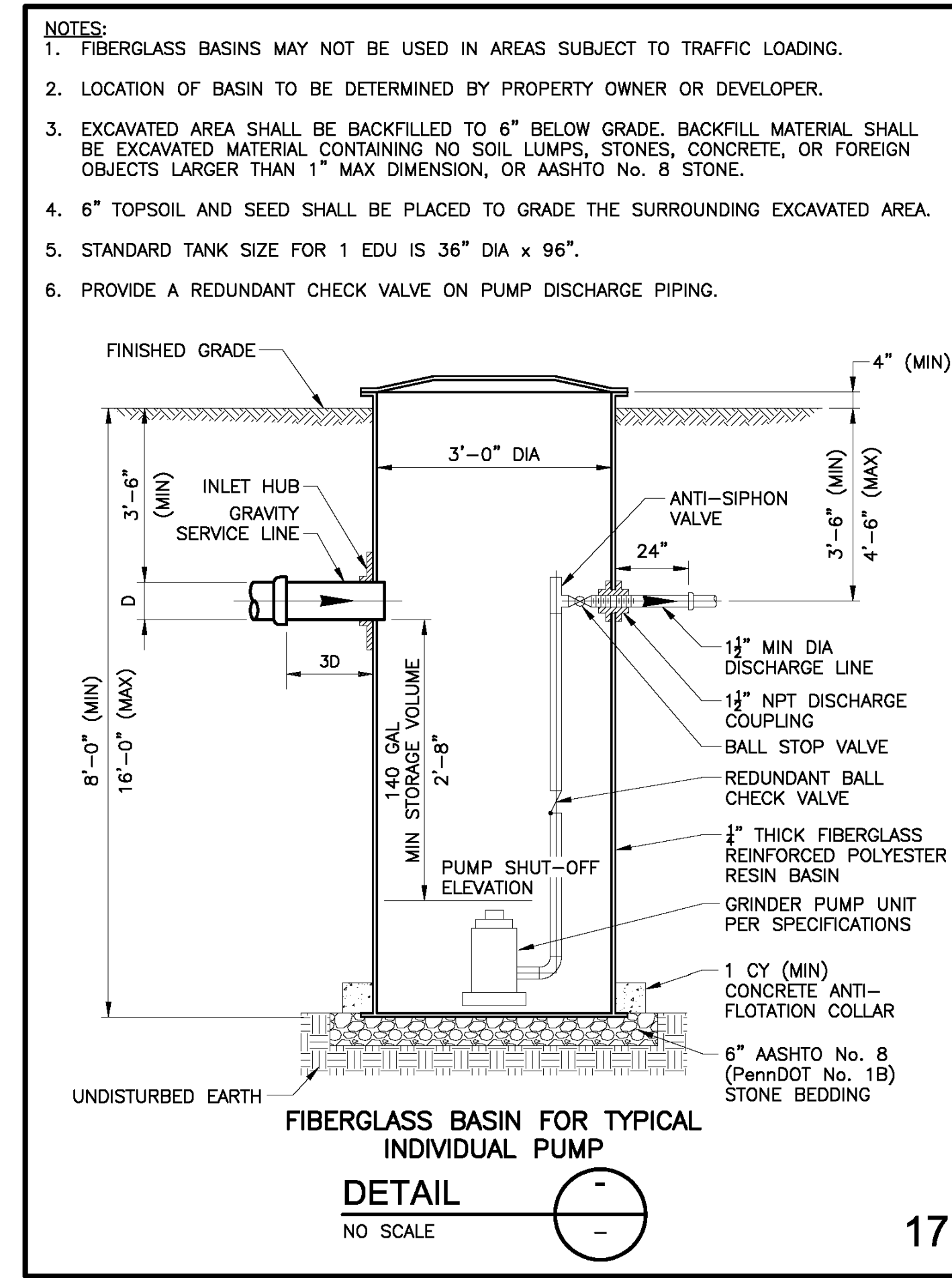
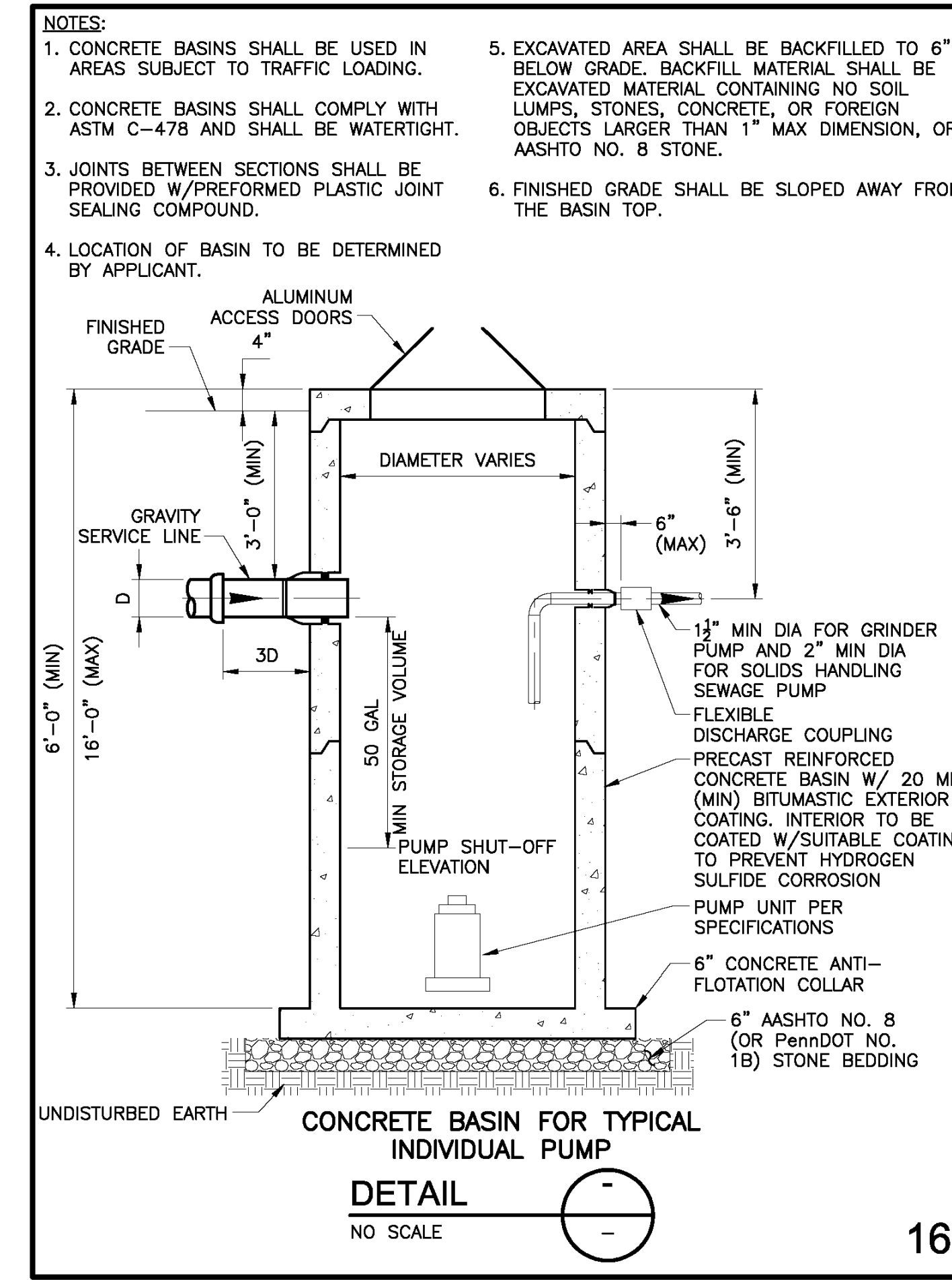
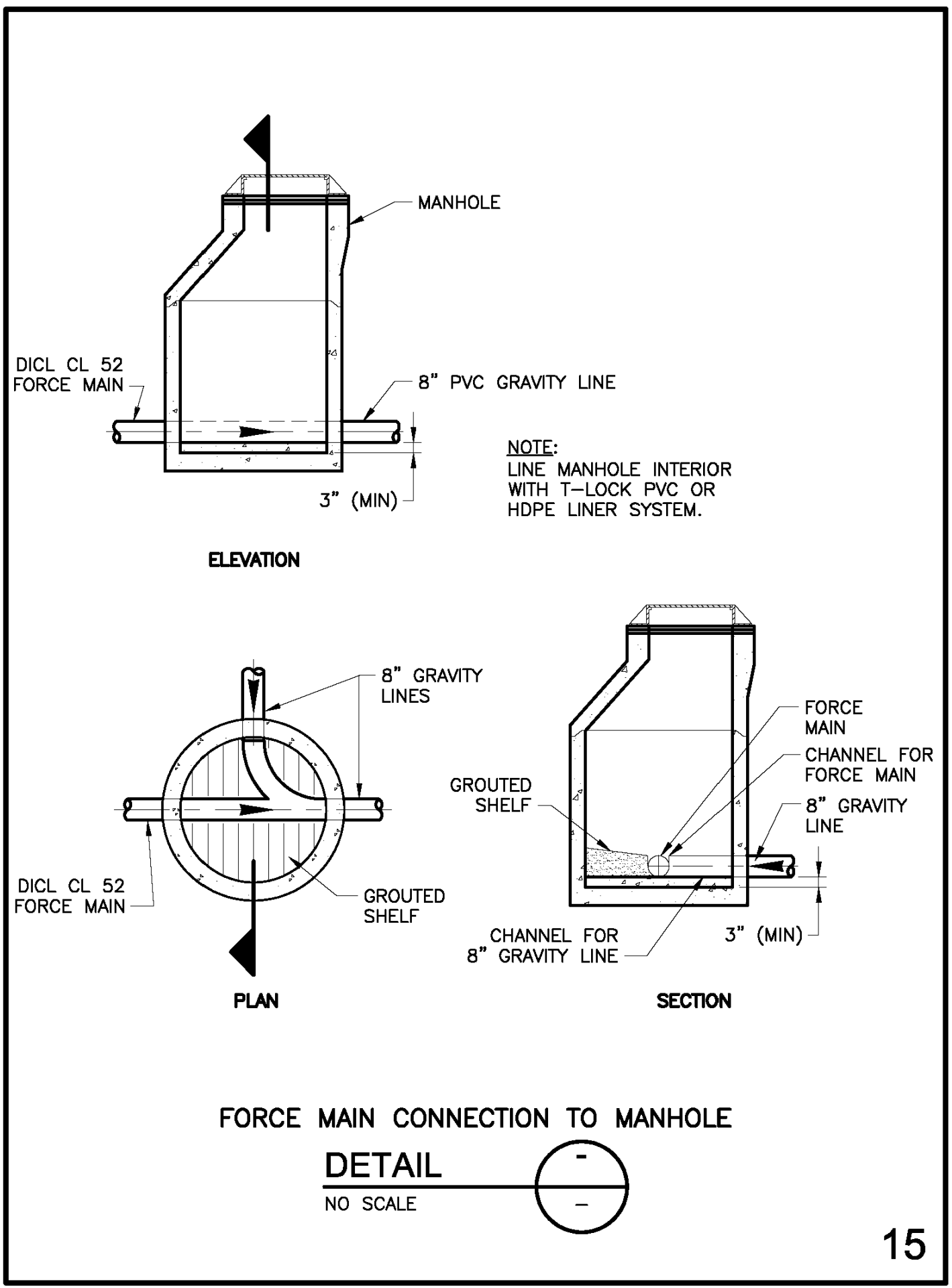
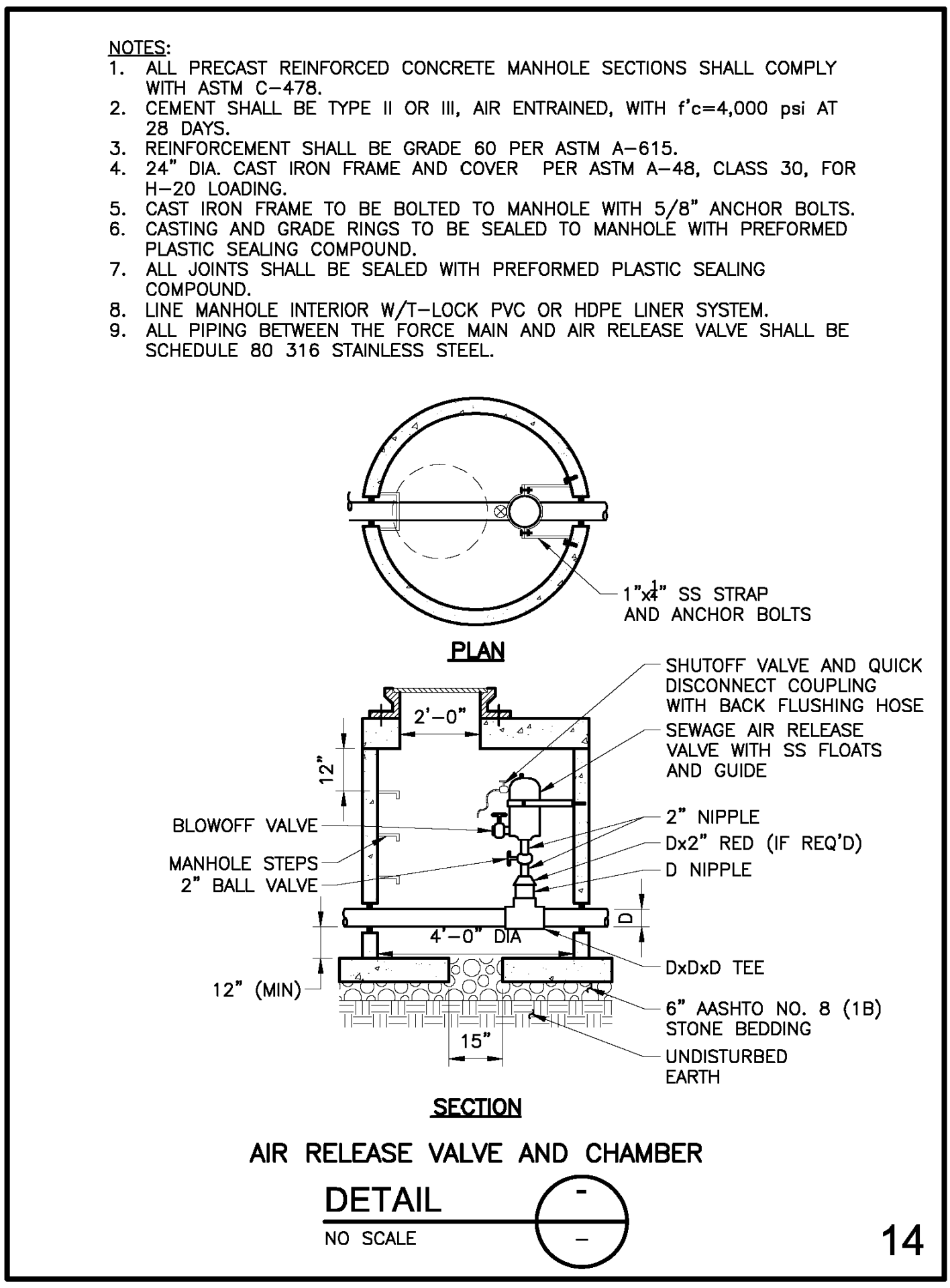
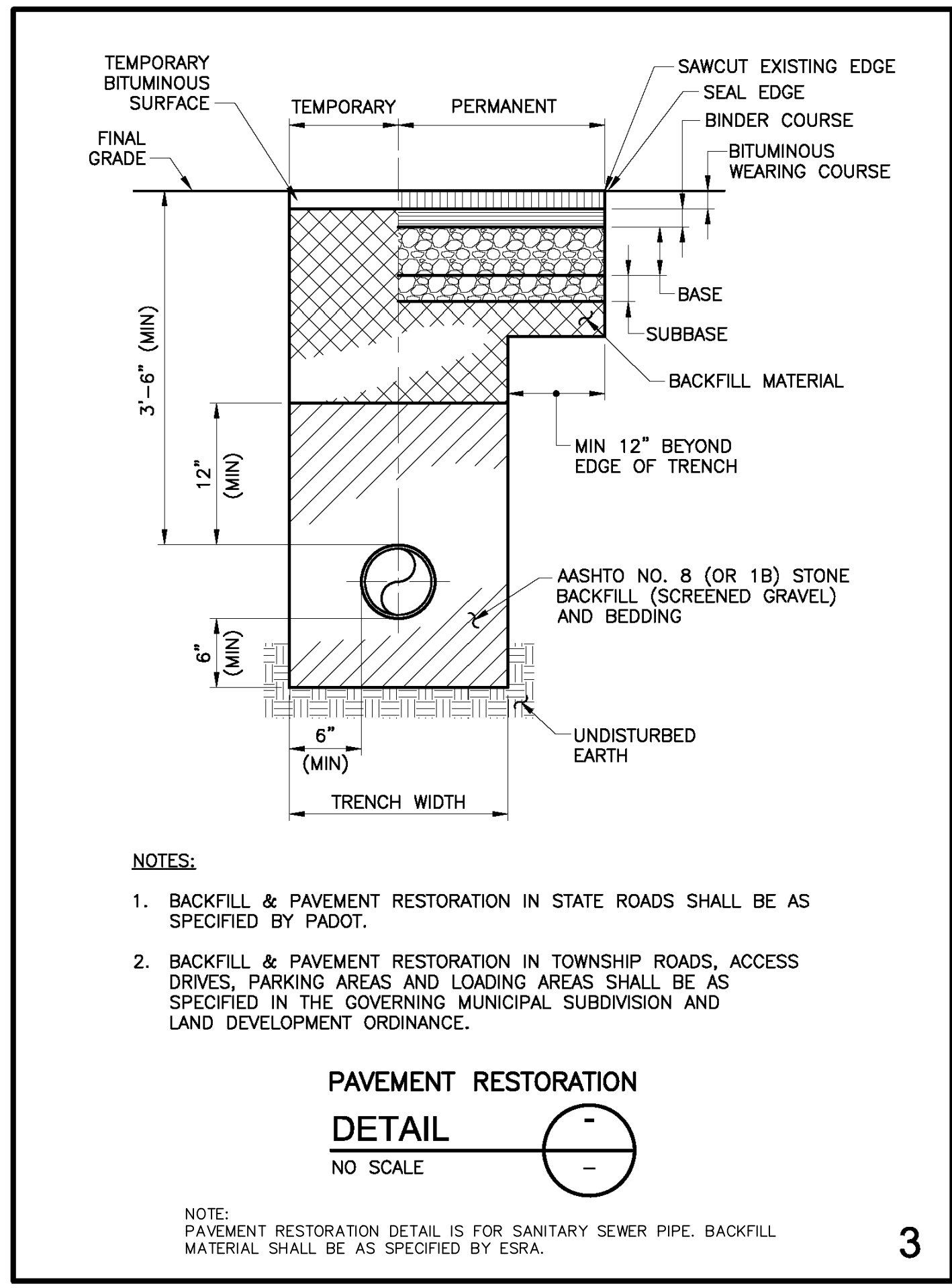
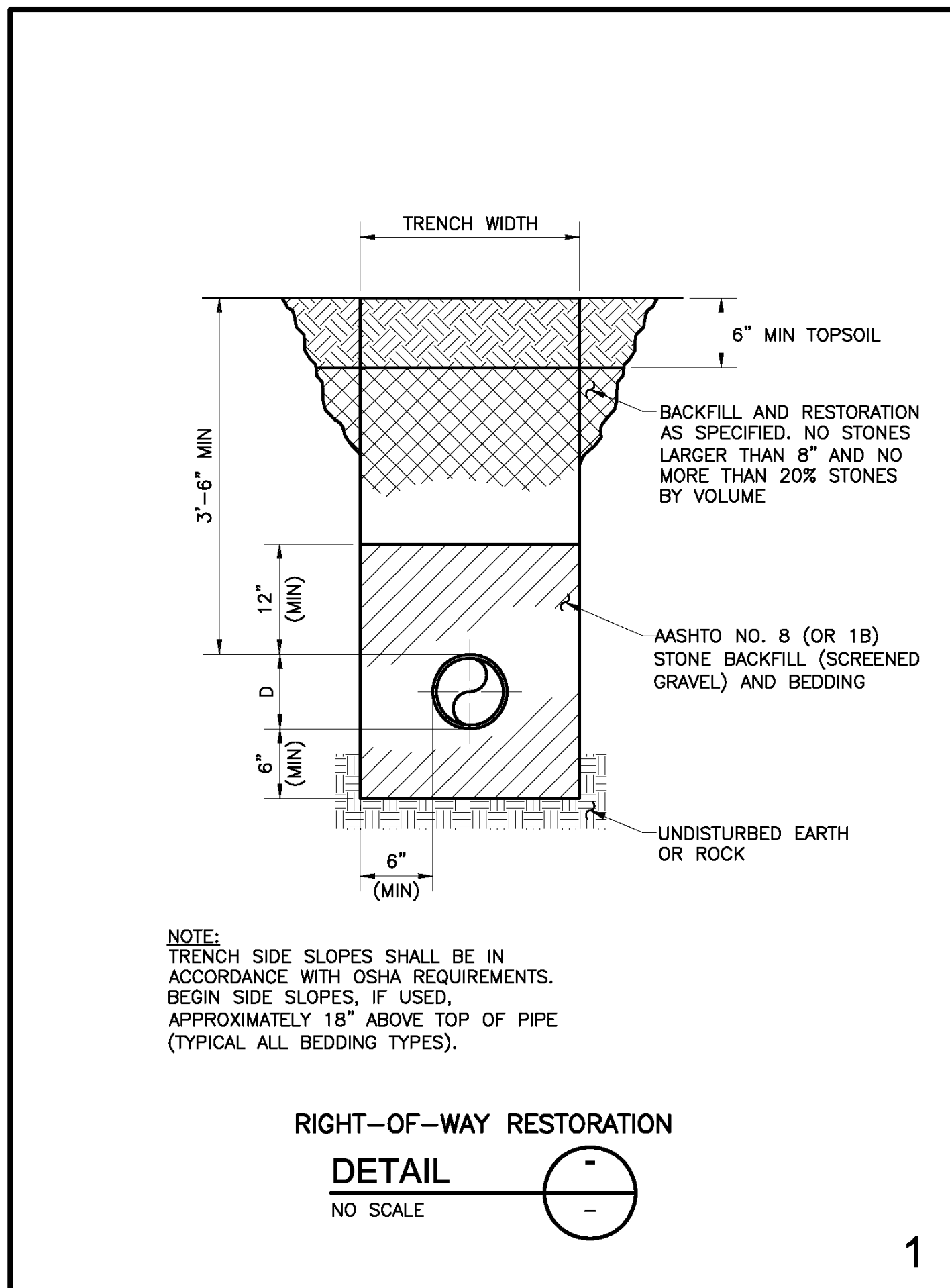


**SLIDE VALVE**  
NOT TO SCALE  
NOTE: THE SLIDE IS TO BE INSTALLED IN ALL OUTLET STRUCTURES ASSOCIATED WITH THE INFILTRATION BASINS AND RAIN GARDEN.

DATE:	4/12/24
SHEET NO.	30 OF 33
DWG. NO.	019792000
CLIENT	KGH DEVELOPMENT 120 NORTH POINTE BLVD. LANCASTER, PA 17601 (717) 560-9095
MANAGER	KIM M. FASNACHT
DESIGN BY	CHKD BY: KMF
SURV. CHIEF	FILEDROCK NO. DATA COLLECTOR
DRAWN BY	CHKD BY: AJM
DRAWING REFERENCE:	
PHASES:	019792000-SV-BASE PHASED 019792000-LD-BASE PHASED 019792000-LD-ORAD PHASED 019792000-SV-UG25 PHASED 019792000-SV-UG25 PHASED 019792000-SV-UG25 PHASED 019792000-LD-UG25 PHASED 019792000-LD-UG25 PHASED 019792000-LD-UG25 PHASED 019792000-LD-UG25 PHASED
FOR RETIEW ASSOCIATES BY:	
NO.	DATE
REVISION	

DETAILS  
 FINAL LAND DEVELOPMENT,  
 SUBDIVISION, AND LOT ADD-ON PLAN  
 FOR  
**RAFFENSPERGER - PHASE 1**  
 MOUNT JOY TOWNSHIP  
 LANCASTER COUNTY, PA

**RETIEW**  
 RETIEW Associates, Inc. Lancaster, PA 17603  
 Phone (800) 738-8995  
 Email: retiew@retiew.com  
 Website: www.retiew.com  
 Engineers • Planners • Surveyors • Landscape Architects  
 Environmental Consultants



FOR RETTEW ASSOCIATES BY:

MANAGER: KIM M. FASNAUGHT  
DESIGN BY: KMF  
SURV. CHIEF: JAR  
DRAWN BY: JAR

NOTES:

019792000-04-BASE PHASED  
019792000-05-BASE PHASED  
019792000-06-ROAD PHASED  
019792000-07-ROAD PHASED  
019792000-08-ROAD PHASED  
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019792000-100-ROAD PHASED

CLIENT: KGH DEVELOPMENT, 120 NORTH POINTE BLVD., LANCASTER, PA 17601 (717) 560-9095

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Engineers • Planners • Surveyors • Landscape Architects  
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DATE: 4/12/24  
SHEET NO. 31 OF 33  
DWG. NO. 019792000

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