

VICINITY MAP

# UNIVERSITY DRIVE APARTMENTS

## LOCATED IN LANCASTER, SOUTH CAROLINA

*INDEX*

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THE DESIGN OF ALL ROADS, SANITARY SEWER, STORM DRAIN PIPING AND DITCHES, & WATER QUALITY & DETENTION FEATURES PRESENTED HEREIN HAS BEEN COMPLETED FROM FIELD SURVEY INFORMATION PROVIDED BY HUCKS & ASSOC.

THESE DOCUMENTS ARE SUBJECT TO PERIODIC REVISIONS BY JOEL E. WOOD & ASSOCIATES. THE HOLDER IS RESPONSIBLE FOR VERIFYING THAT THESE DOCUMENTS ARE THE MOST CURRENT PRIOR TO USE.



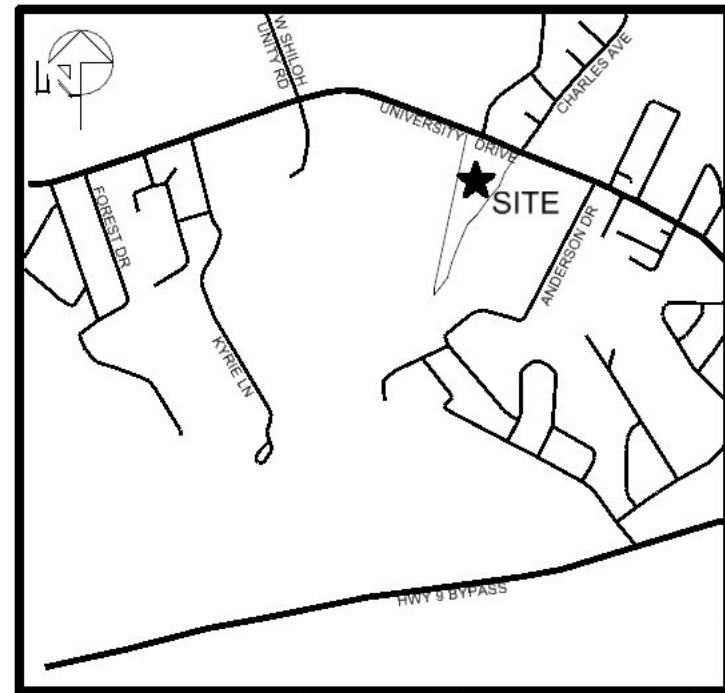
Know what's below.  
Call before you dig.

<p><b>APPROVALS</b></p> <p>Project Engr: _____</p> <p>Drawn By: _____</p> <p>Checked By: _____</p> <p>Review: _____</p> <p>Bid: _____</p> <p>Construction: _____</p>	<p style="text-align: center;"><b>PREPARED BY</b></p> <div style="text-align: center;"> <p><b>JOEL E. WOOD &amp; ASSOCIATES</b></p> <p>PLANNING • ENGINEERING • MANAGEMENT</p> <p>P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390</p> </div>	<p style="text-align: center;"><b>SEALS</b></p> <div style="text-align: center;"> <p><b>INFORMATION ONLY</b></p> </div>	<p style="text-align: center;"><b>PROJECT</b></p> <p style="text-align: center;">UNIVERSITY APARTMENTS</p> <p style="text-align: center;">CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR 1640 UNIVERSITY DEVELOPEMENT LLC</p>	<p style="text-align: center;"><b>SHEET TITLE</b></p> <p style="text-align: center; font-size: 1.2em;"><b>COVER</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="font-size: 0.8em;">NO.</th> <th style="font-size: 0.8em;">DATE</th> <th style="font-size: 0.8em;">REVISIONS</th> <th style="font-size: 0.8em;">BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISIONS	BY																																	<p>SCALE: N.T.S.</p> <p>DATE: 6/1/2023</p> <p>JOB NO.: 221005</p> <p>SHEET <b>C100</b></p>
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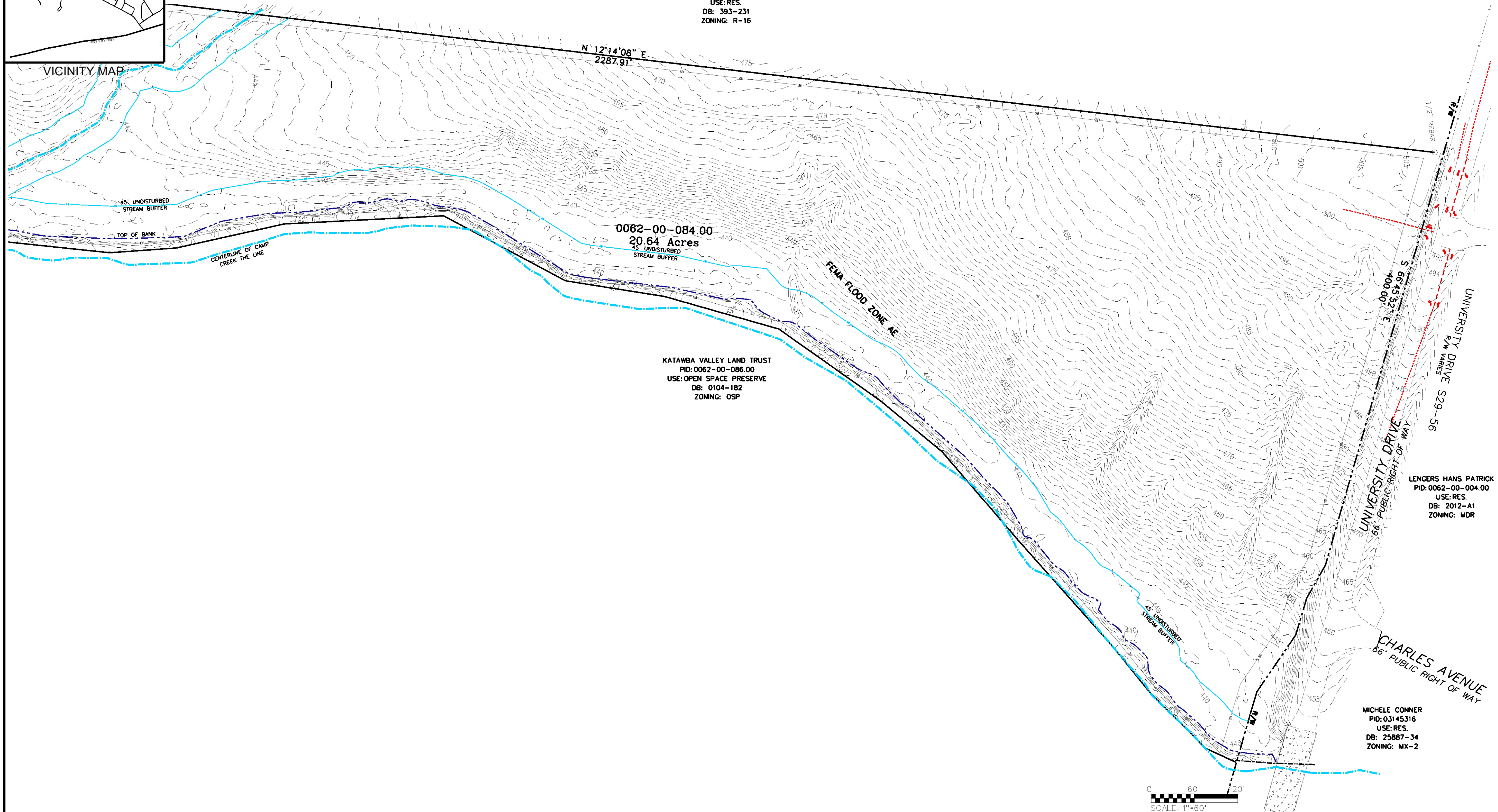






VICINITY MAP

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 PID: 0062-00-083.00  
 USE: RES.  
 DB: 393-231  
 ZONING: R-16

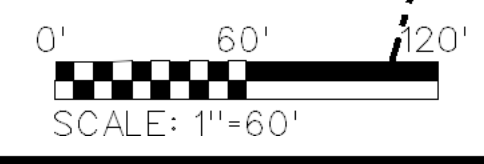


0062-00-084.00  
 20.64 Acres  
 45' UNDISTURBED  
 STREAM BUFFER

KATAWBA VALLEY LAND TRUST  
 PID: 0062-00-086.00  
 USE: OPEN SPACE PRESERVE  
 DB: 0104-182  
 ZONING: OSP

LENGERS HANS PATRICK  
 PID: 0062-00-004.00  
 USE: RES.  
 DB: 2012-A1  
 ZONING: MDR

MICHELE CONNER  
 PID: 03145316  
 USE: RES.  
 DB: 25887-34  
 ZONING: MX-2



APPROVALS	
Project Engr:	_____
Drawn By:	_____
Checked By:	_____
Review:	_____
Bid:	_____
Construction:	_____

PREPARED BY

**JOEL E. WOOD & ASSOCIATES**  
 PLANNING • ENGINEERING • MANAGEMENT

P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS

**INFORMATION ONLY**

**PROJECT**

UNIVERSITY DRIVE APARTMENTS

LANCASTER COUNTY, SOUTH CAROLINA  
 PREPARED FOR  
 1640 UNIVEF TY VALKANAS'EMENT LLC

**SHEET TITLE**

**EXISTING CONDITIONS**

NO.	DATE	REVISIONS	BY

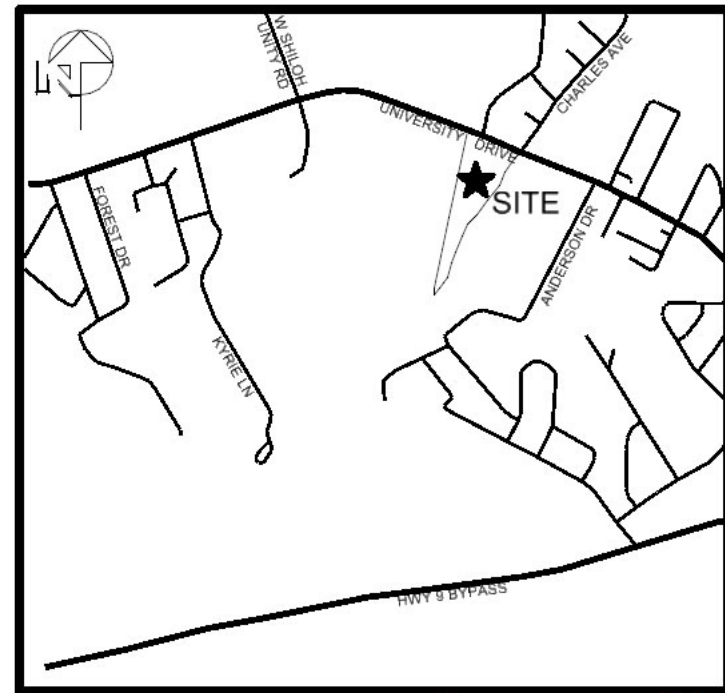
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DATE: 11/01/2022

JOB NO.: 221015

SHEET C201





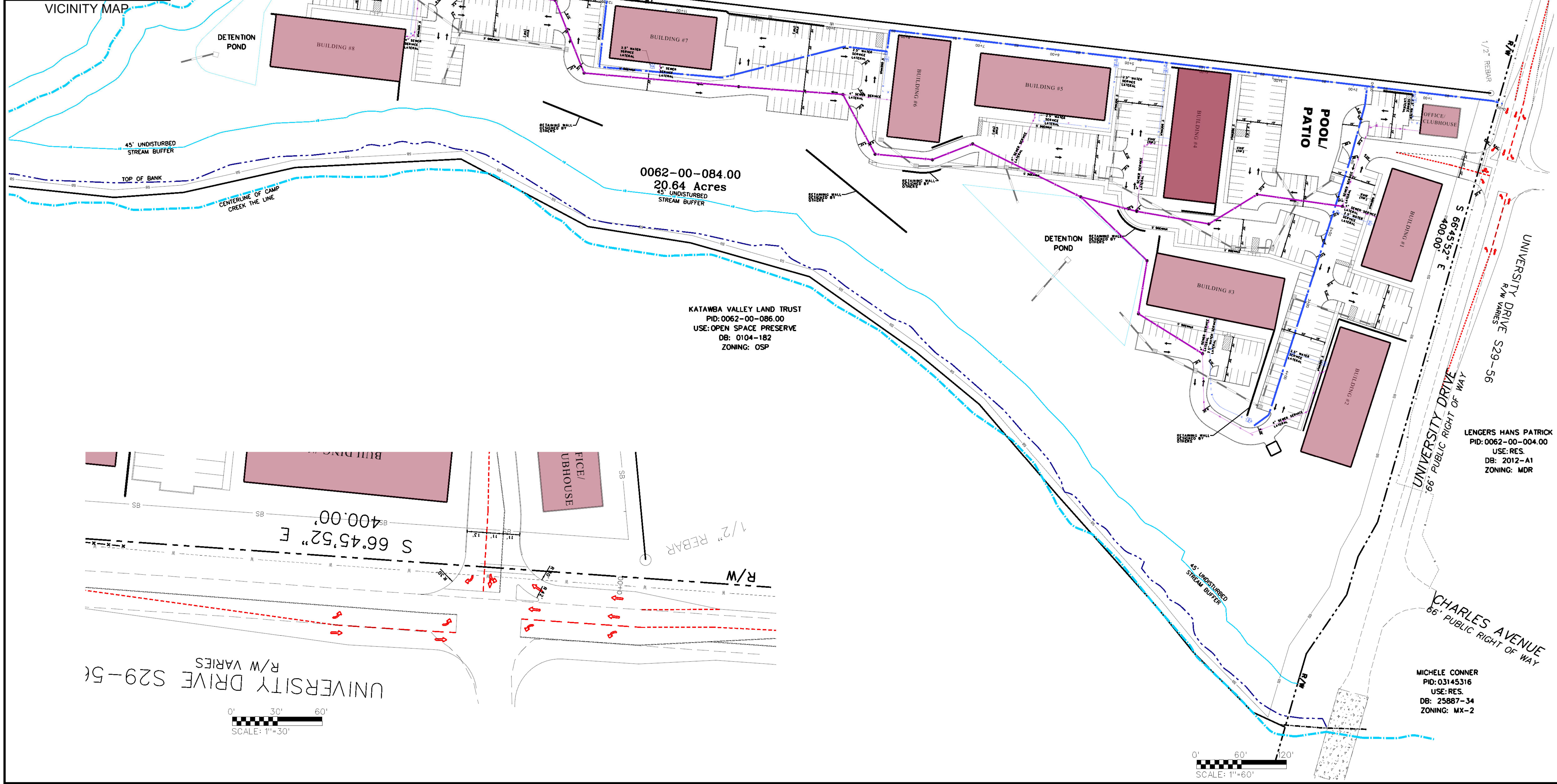
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0062-00-084.00  
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 45' UNDISTURBED  
 STREAM BUFFER

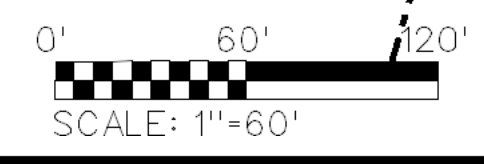
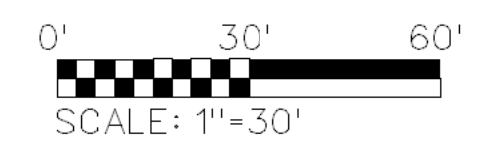
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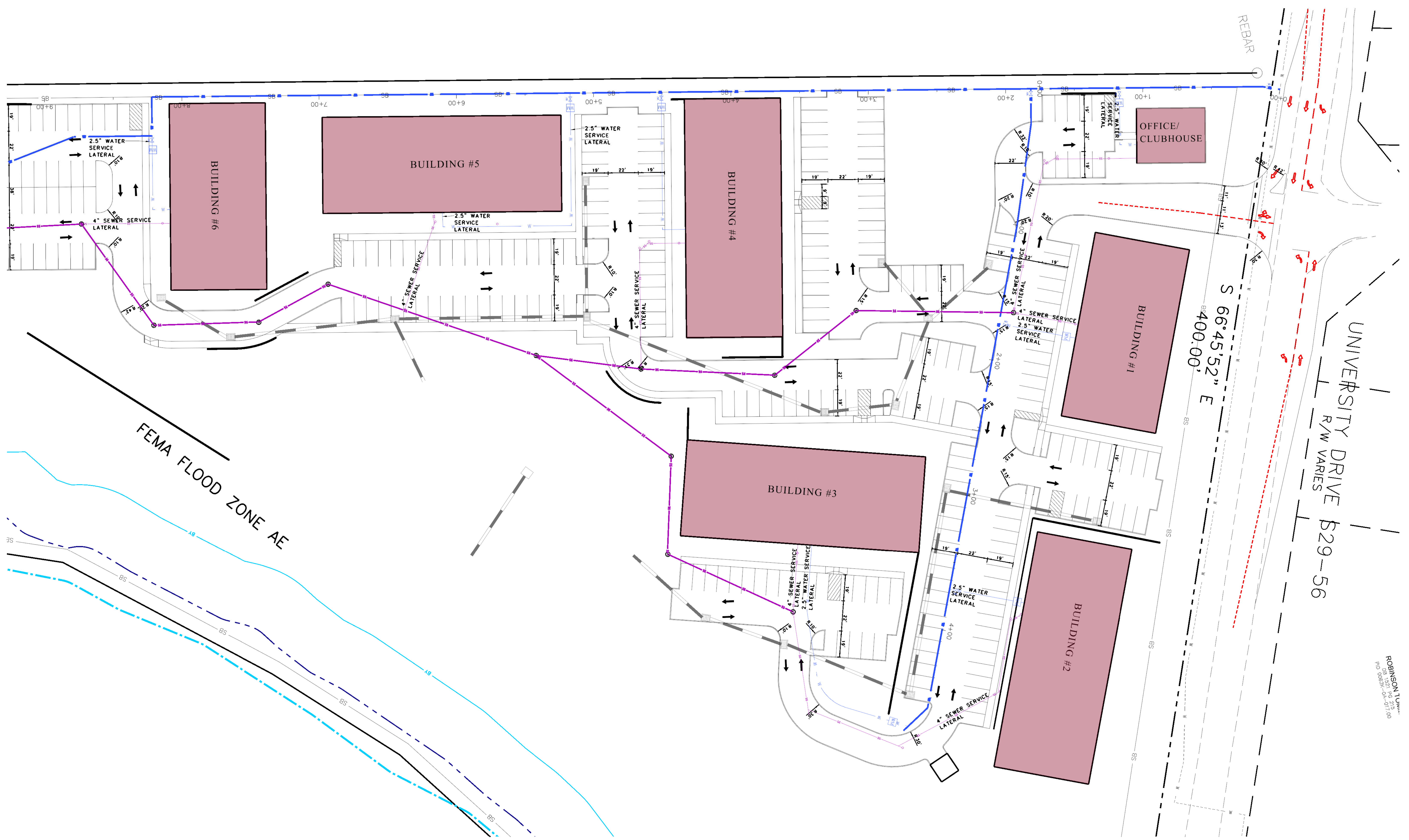


UNIVERSITY DRIVE S29-56  
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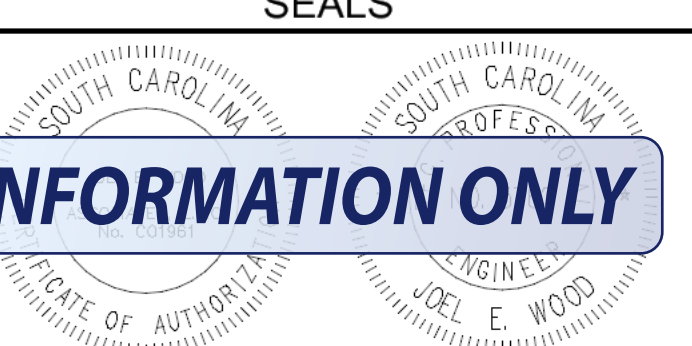


<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b>  <b>INFORMATION ONLY</b>	<b>PROJECT</b> UNIVERSITY DRIVE APARTMENTS LANCASTER COUNTY, SOUTH CAROLINA PREPARED FOR TY VALKANAS	<b>SHEET TITLE</b> SITE PLAN	NO. DATE REVISIONS BY	SCALE: 1" = 60' DATE: 11/01/2022 JOB NO.: 221015 SHEET C300
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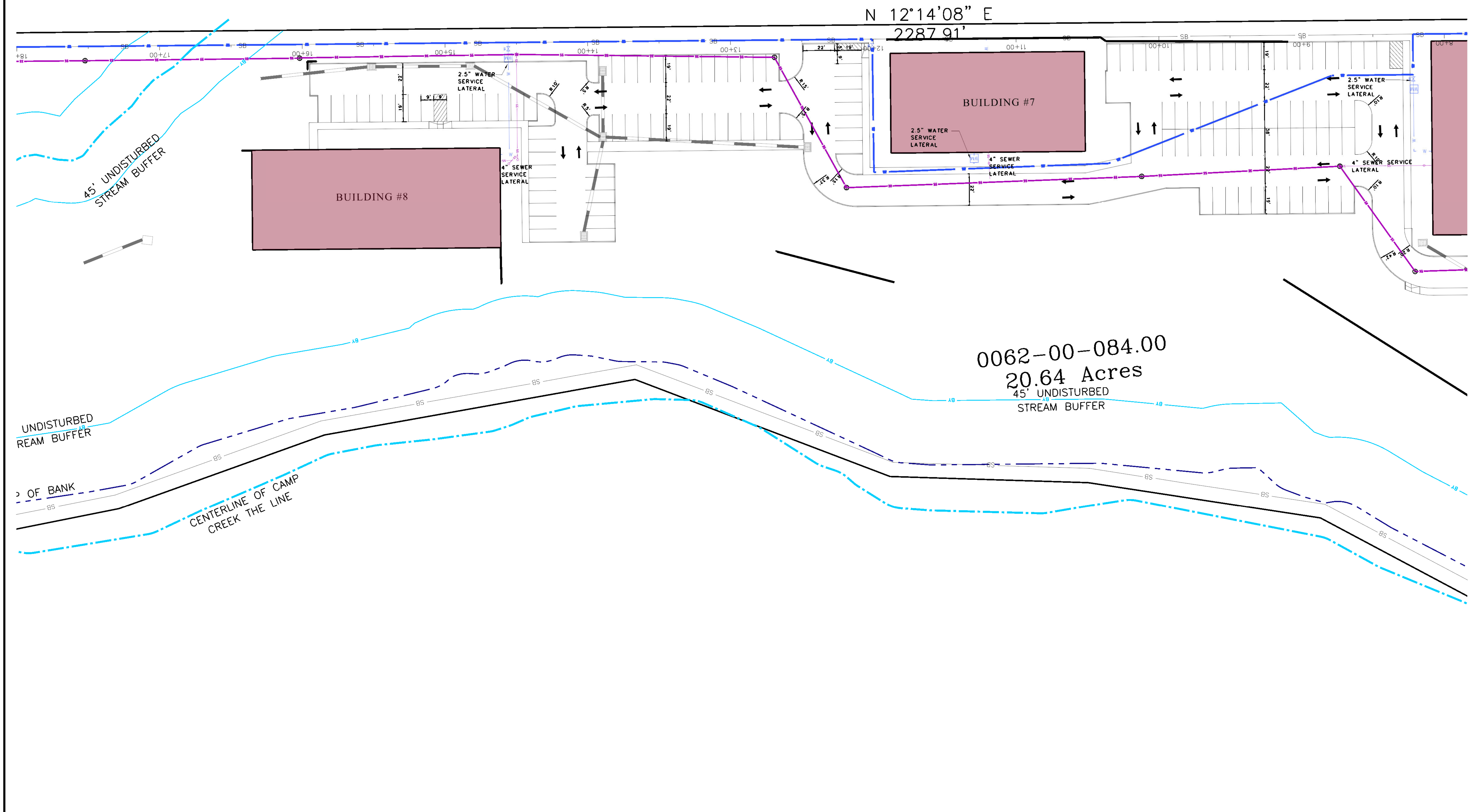




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 1521 PG. 07 OF 00  
 0965K-06-07.00


<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b>  <b>INFORMATION ONLY</b>	<b>PROJECT</b> UNIVERSITY DRIVE APARTMENTS LANCASTER COUNTY, SOUTH CAROLINA PREPARED FOR TY VALKANAS	<b>SHEET TITLE</b> SITE PLAN	<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISIONS	BY																																									SCALE: 1" = 20' DATE: 11/01/2022 JOB NO.: 221015 SHEET C301
NO.	DATE	REVISIONS	BY																																															





APPROVALS	
Project Engr:	_____
Drawn By:	_____
Checked By:	_____
Review:	_____
Bid:	_____
Construction:	_____


PREPARED BY



**JOEL E. WOOD & ASSOCIATES**  
 PLANNING • ENGINEERING • MANAGEMENT

P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS



**INFORMATION ONLY**

**PROJECT**

UNIVERSITY DRIVE APARTMENTS

LANCASTER COUNTY, SOUTH CAROLINA  
 PREPARED FOR  
 TY VALKANAS

**SHEET TITLE**

**SITE PLAN**

NO.	DATE	REVISIONS	BY

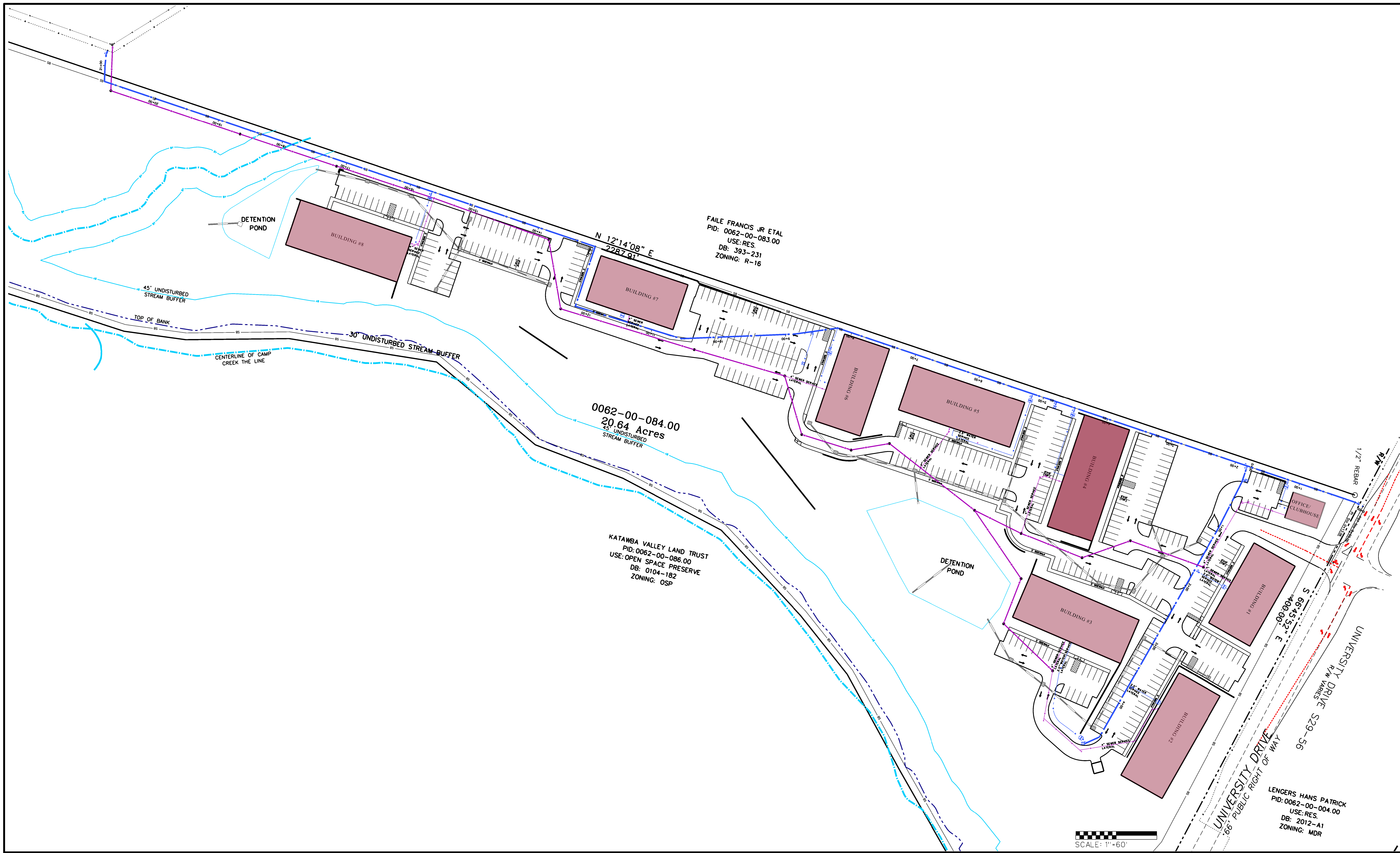
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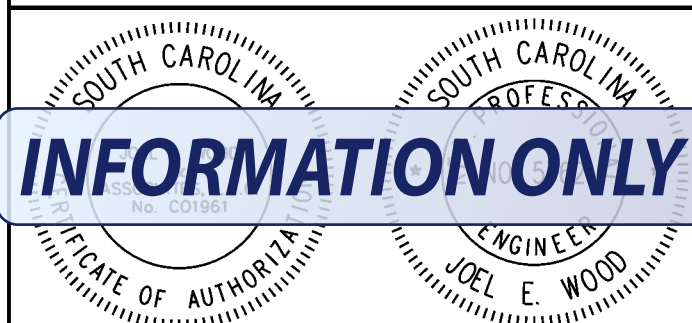
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JOB NO.: 221015

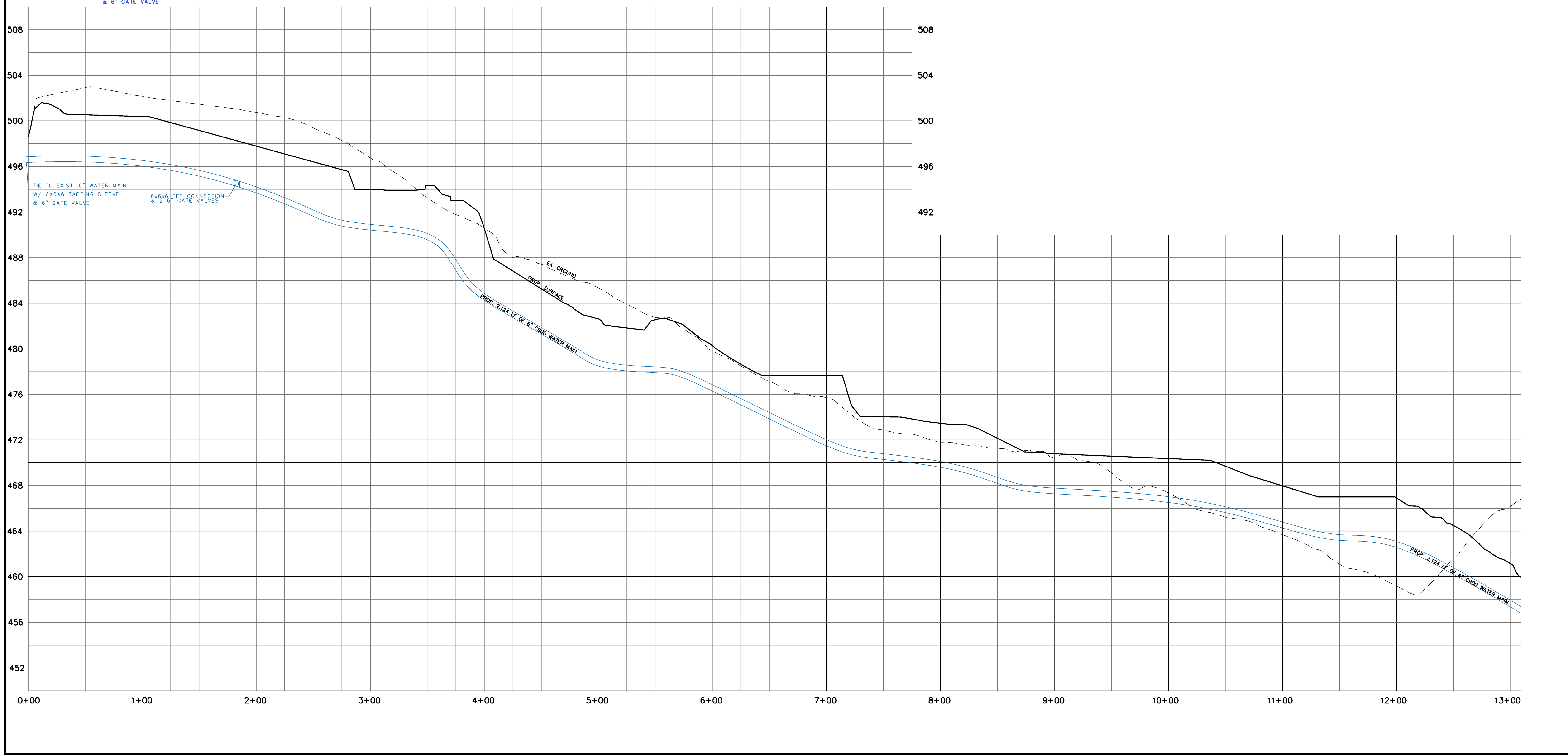
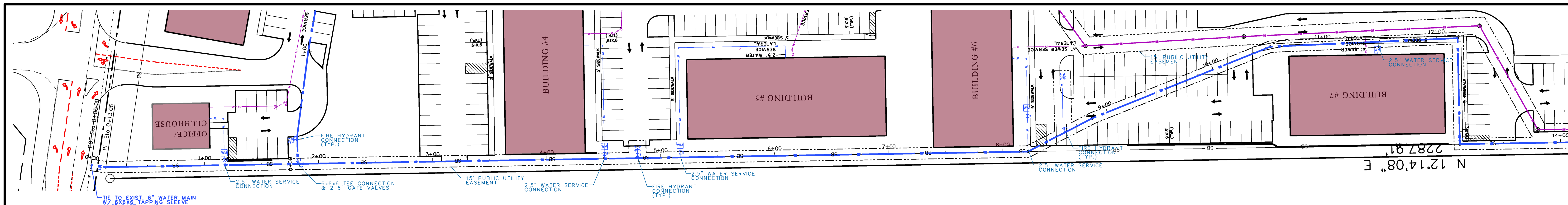
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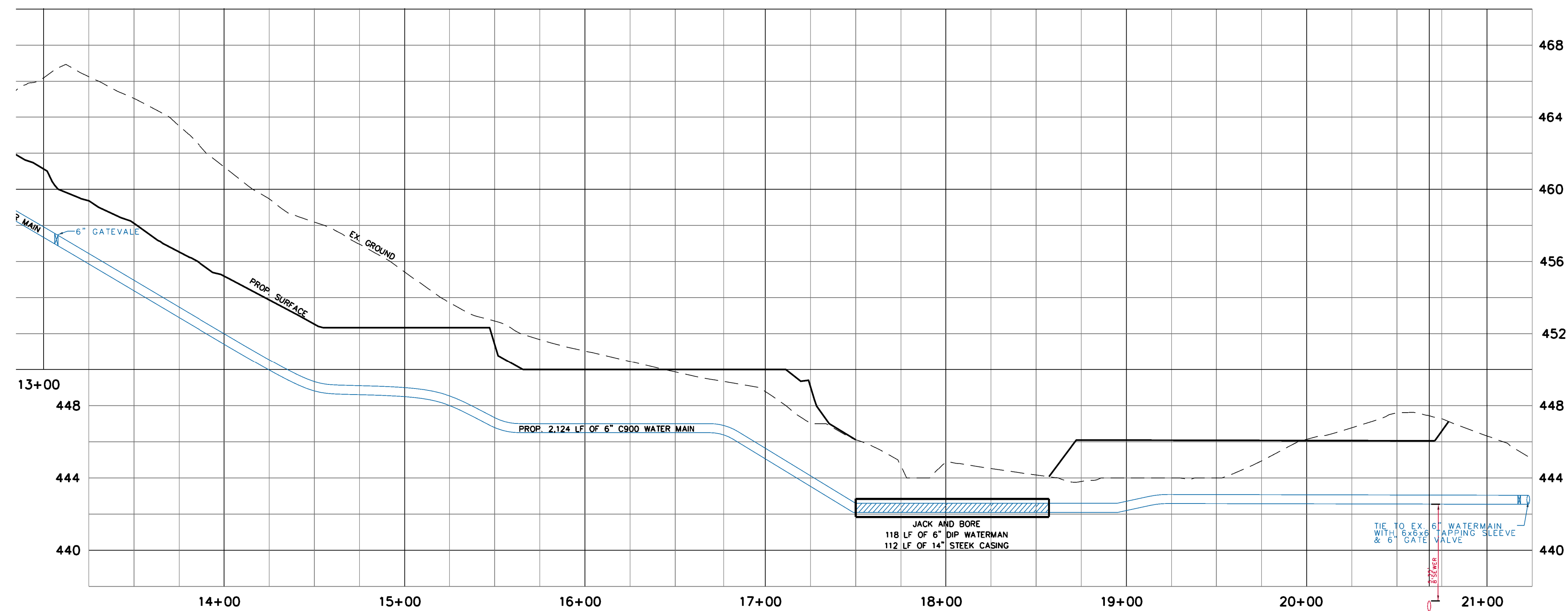
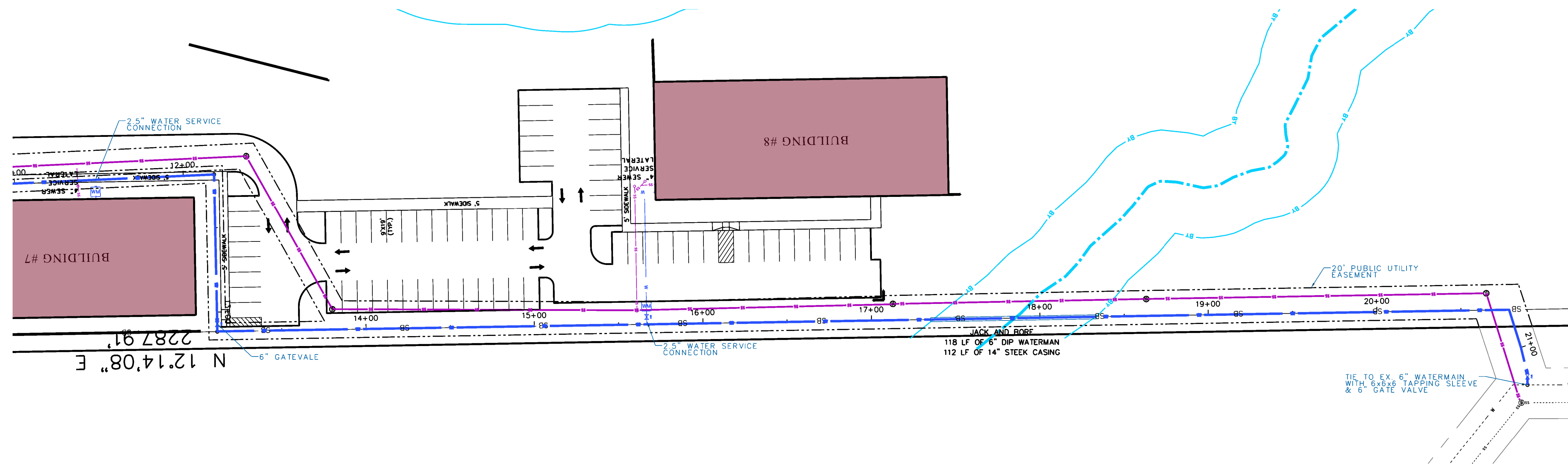
<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b>  <b>INFORMATION ONLY</b>	<b>PROJECT</b> UNIVERSITY DRIVE APARTMENTS LANCASTER COUNTY, SOUTH CAROLINA PREPARED FOR TY VALKANAS	<b>SHEET TITLE</b> UTILITY OVERALL PLAN	<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISIONS	BY																																					SCALE: 1" = 60' DATE: 11/01/2022 JOB NO.: 221015 SHEET C400
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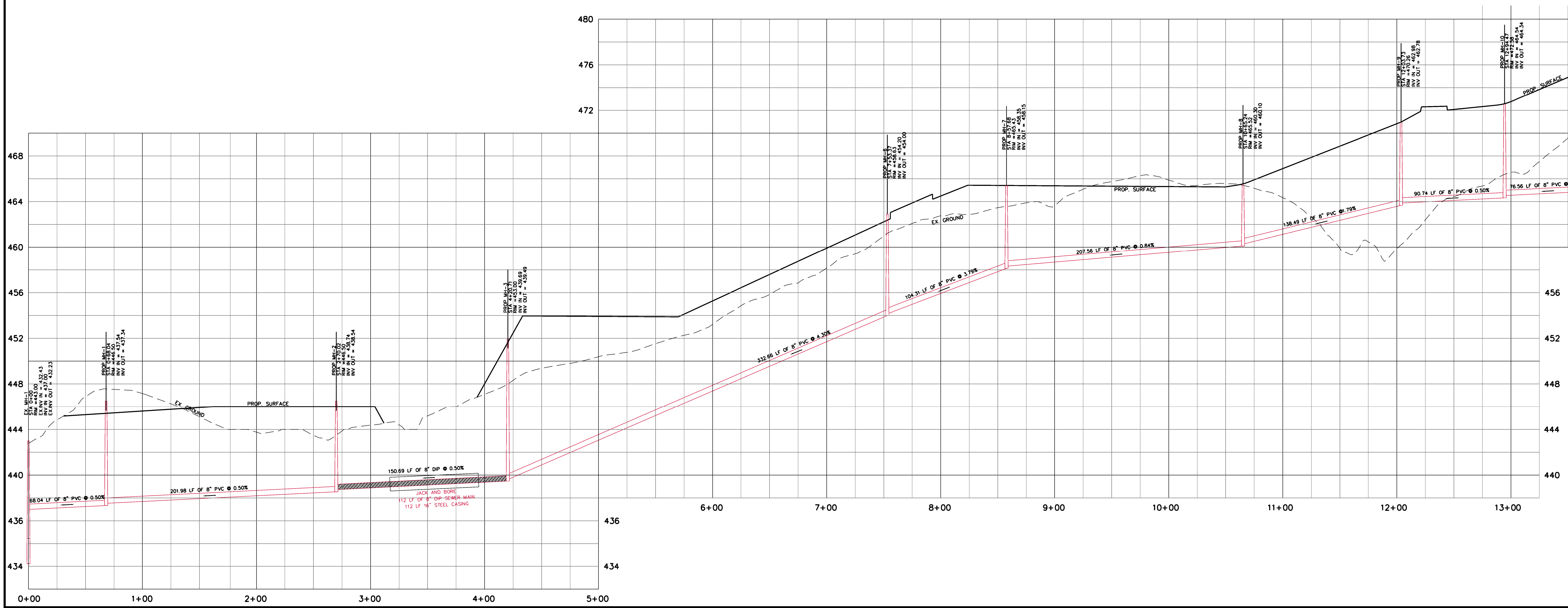
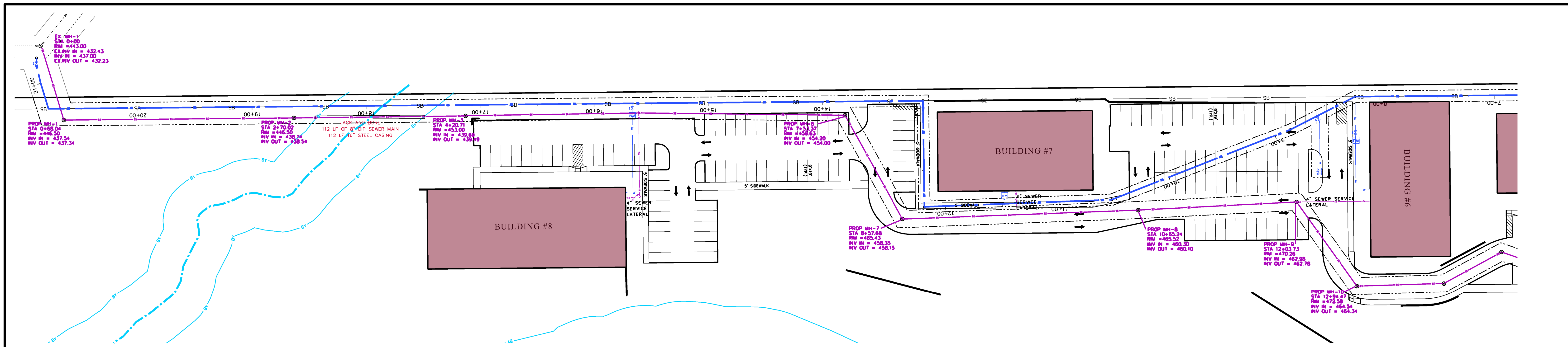
<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b> <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b> 	<b>PROJECT</b> UNIVERSITY APARTMENTS CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR 1640 UNIVERSITY DEVELOPEMENT LLC	<b>SHEET TITLE</b> PLAN PROFILE WATER LINE	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISIONS	BY																																	SCALE: VERT.: 1"=4' HORIZ.: 1"=40' DATE: 6/1/2023 JOB NO.: 221005 SHEET <b>C401</b>
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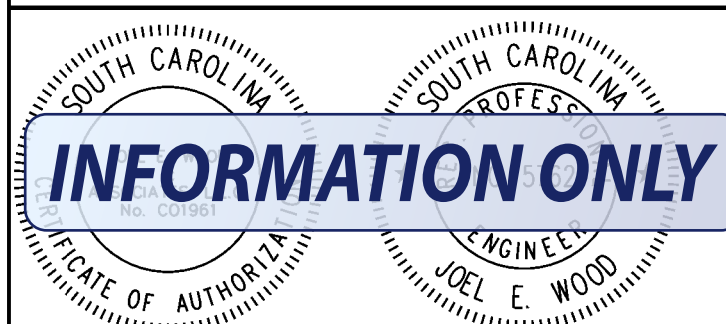




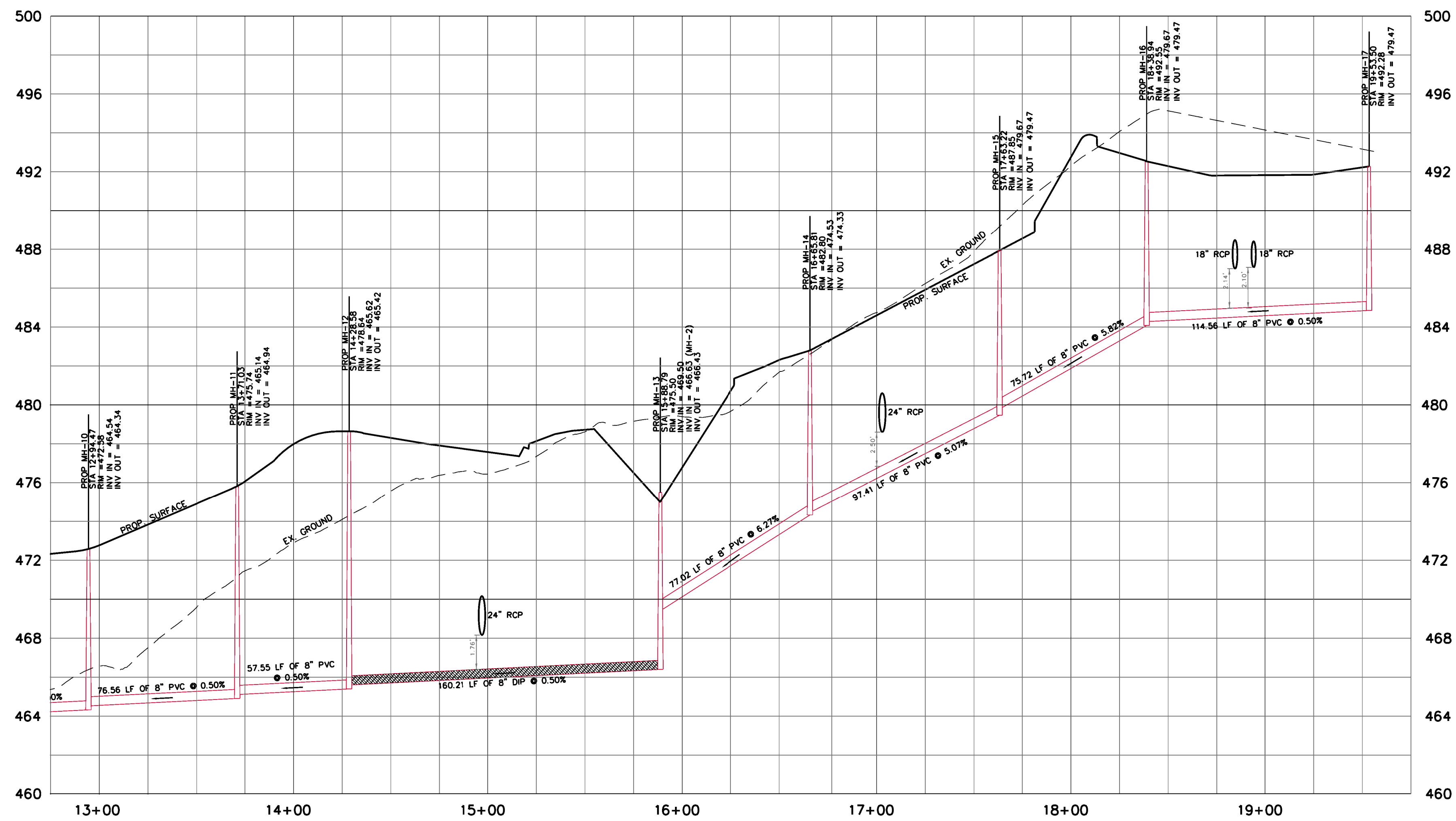
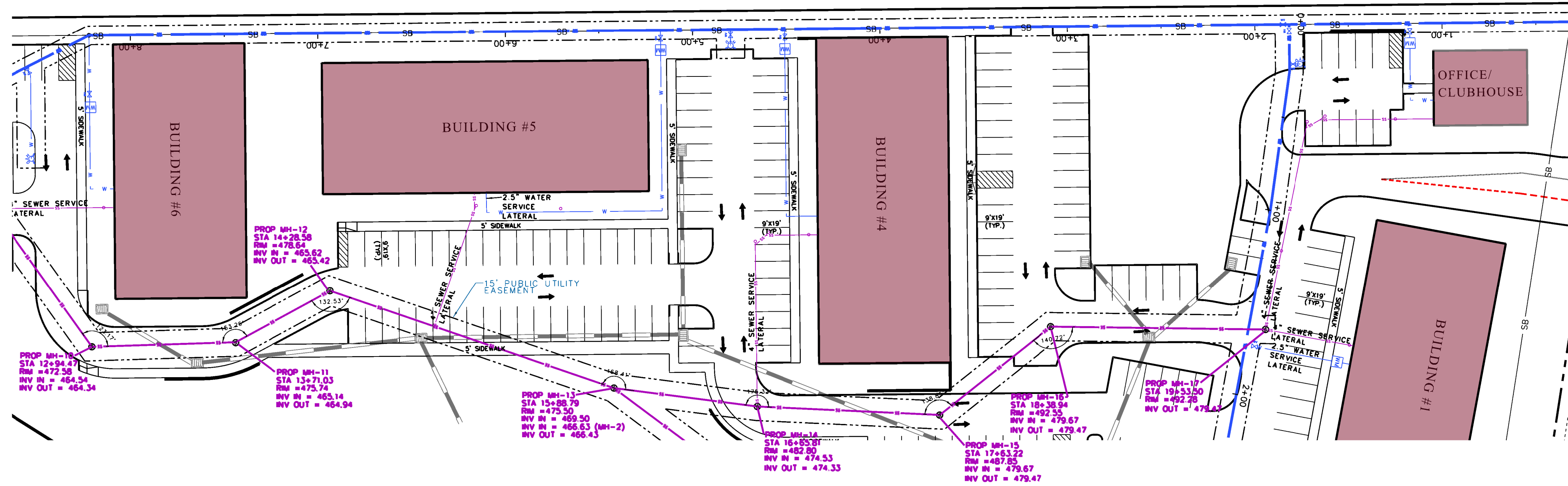
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Project Engr:	_____	<p><b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390</p>	<p><b>INFORMATION ONLY</b></p>	UNIVERSITY APARTMENTS		CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR 1640 UNIVERSITY DEVELOPEMENT LLC		PLAN PROFILE WATER LINE										
Drawn By:	_____																	
Checked By:	_____																	
Review:	_____																	
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Construction:	_____																	
										SCALE: VERT.: 1"=4' HORIZ.: 1"=40'		DATE: 6/1/2023		JOB NO.: 221005		SHEET C402		







<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____		<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390		<b>SEALS</b>  <b>INFORMATION ONLY</b> JOEL E. WOOD ENGINEER		<b>PROJECT</b> UNIVERSITY APARTMENTS CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR 1640 UNIVERSITY DEVELOPEMENT LLC		<b>SHEET TITLE</b> PLAN PROFILE WATER LINE		<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DATE	REVISIONS	BY																	SCALE: VERT.: 1"=4' HORIZ.: 1"=40' DATE: 6/1/2023 JOB NO.: 221005 SHEET <b>C403</b>	
NO.	DATE	REVISIONS	BY																														





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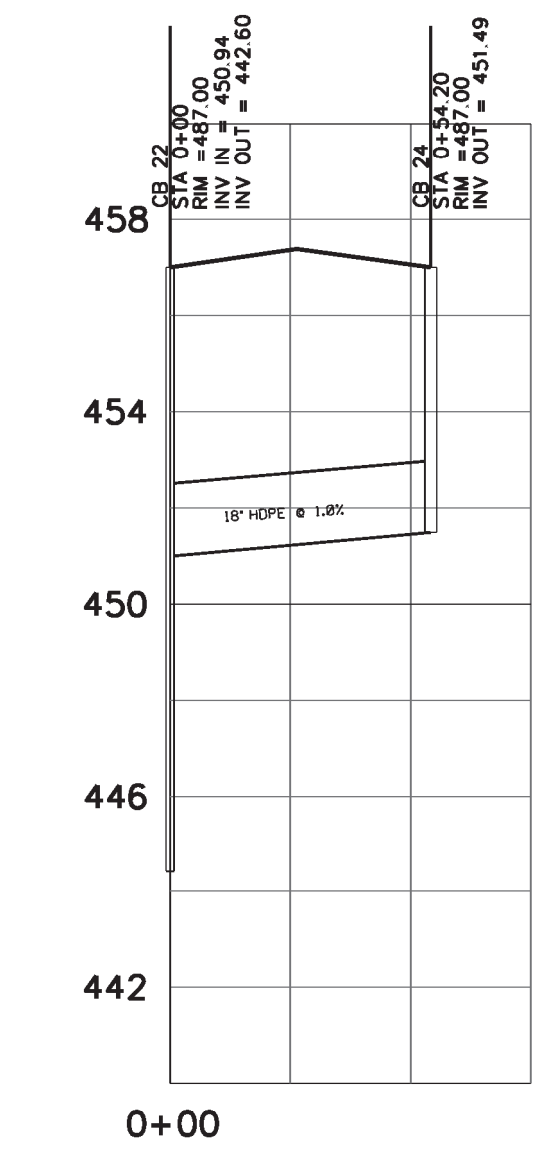
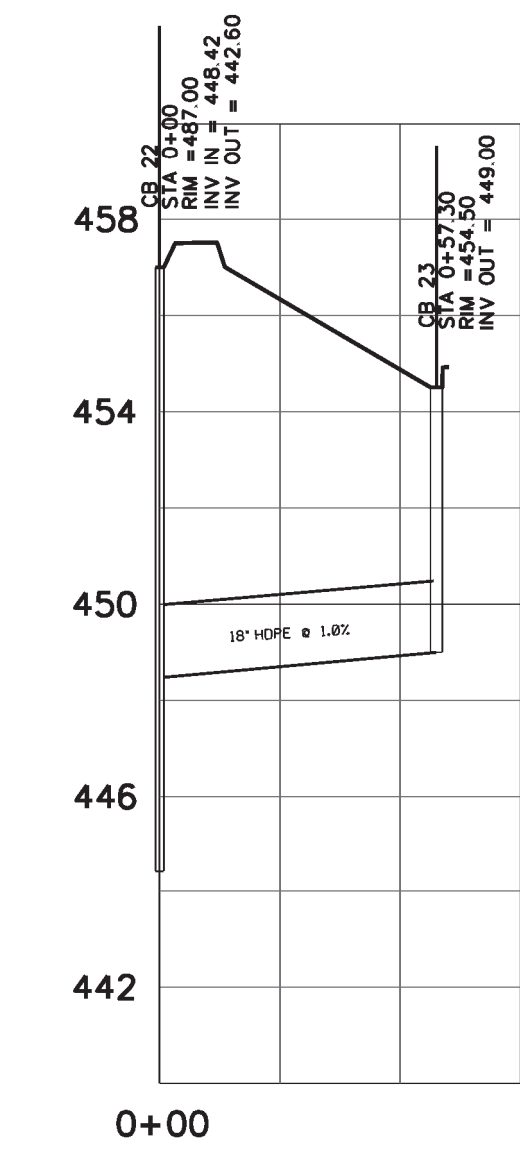
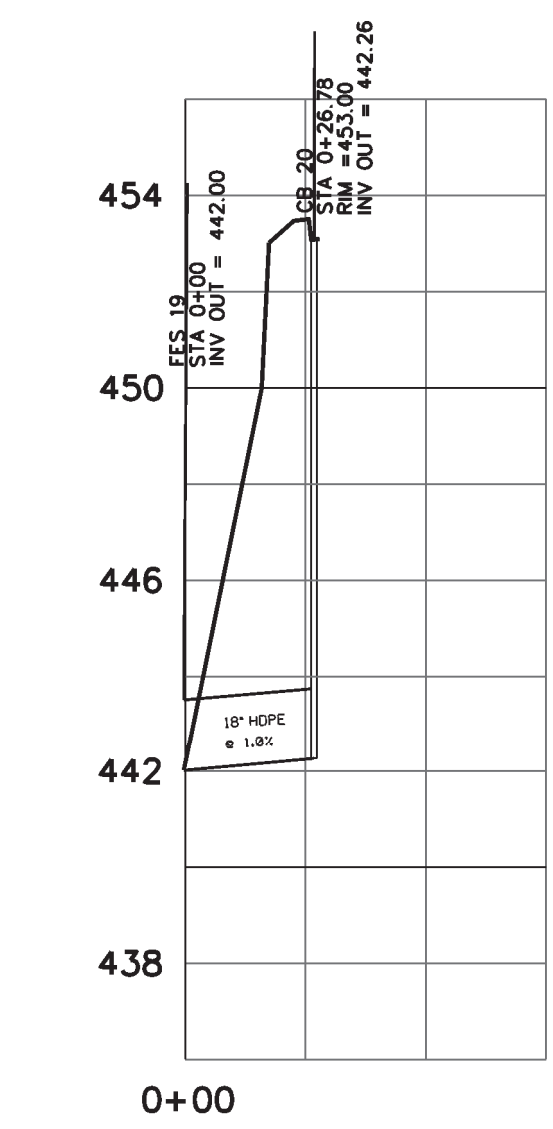
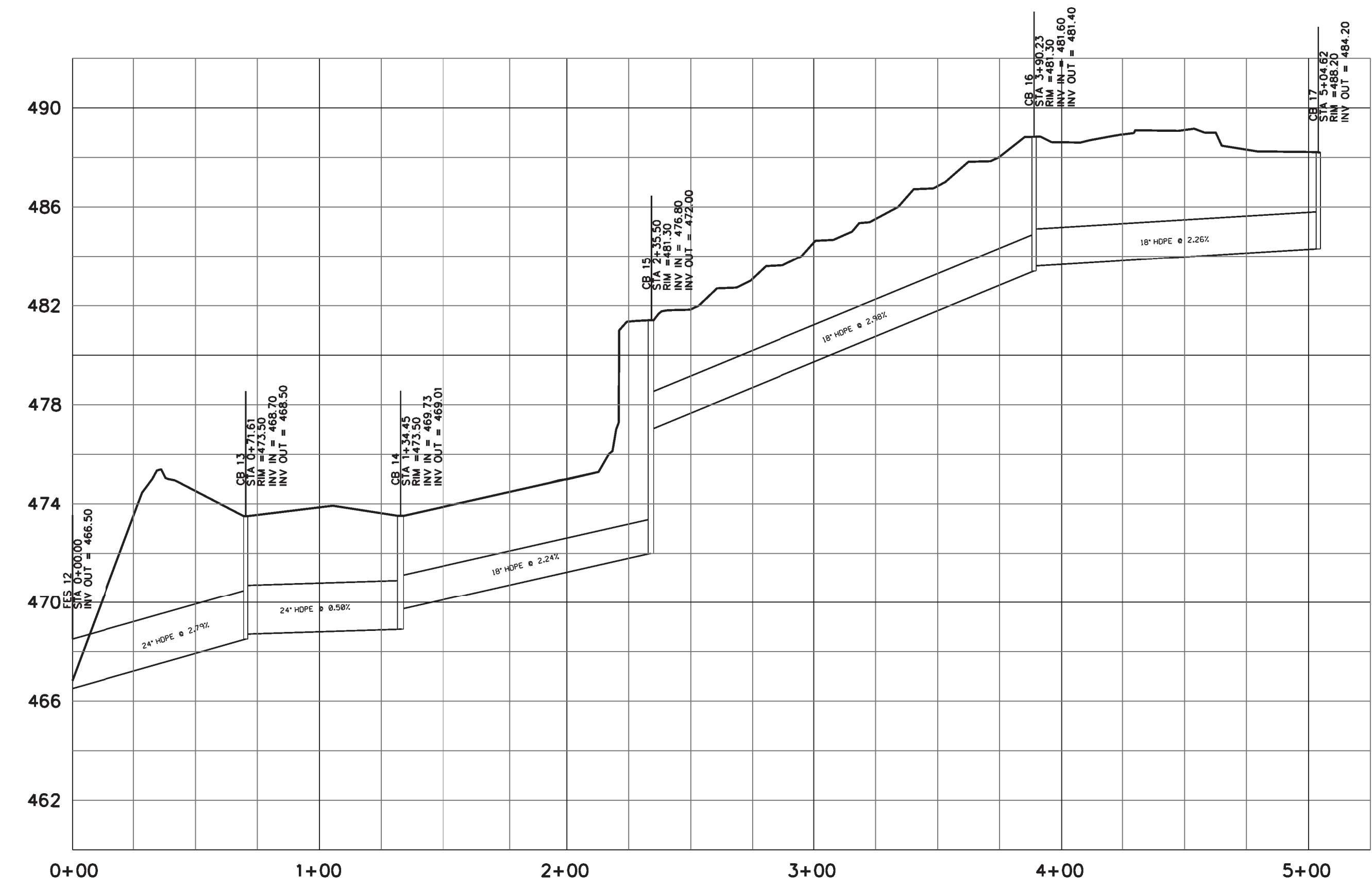
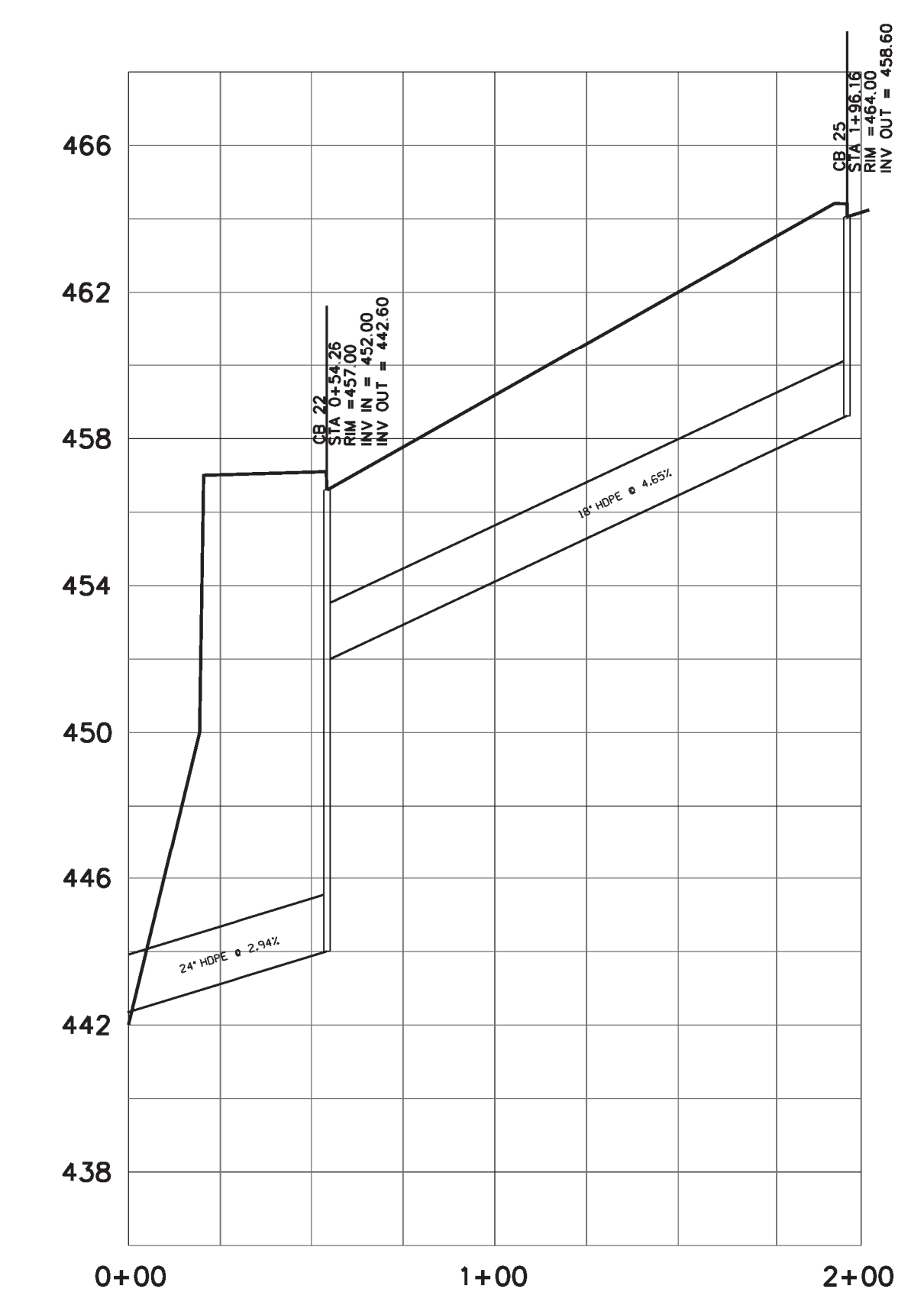
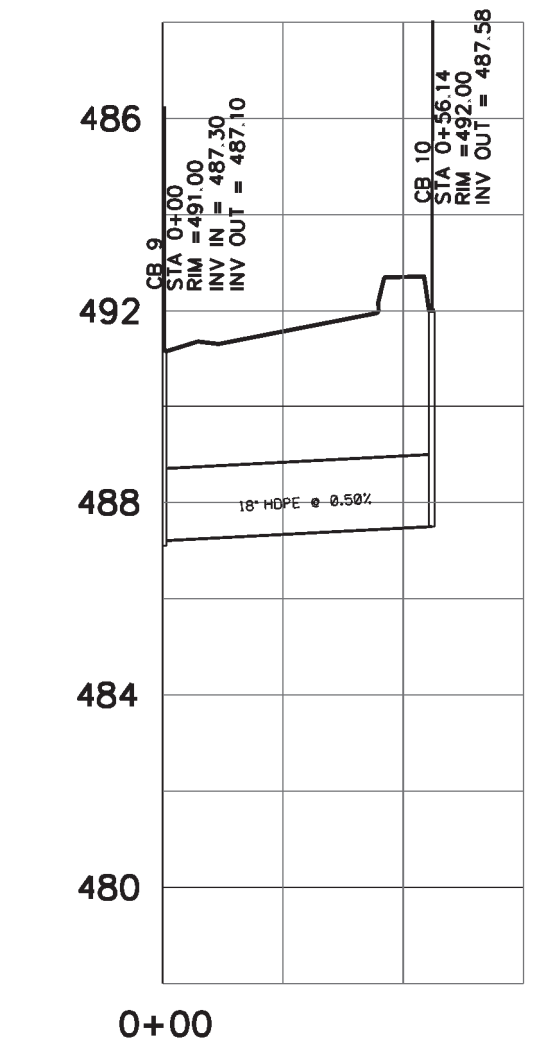
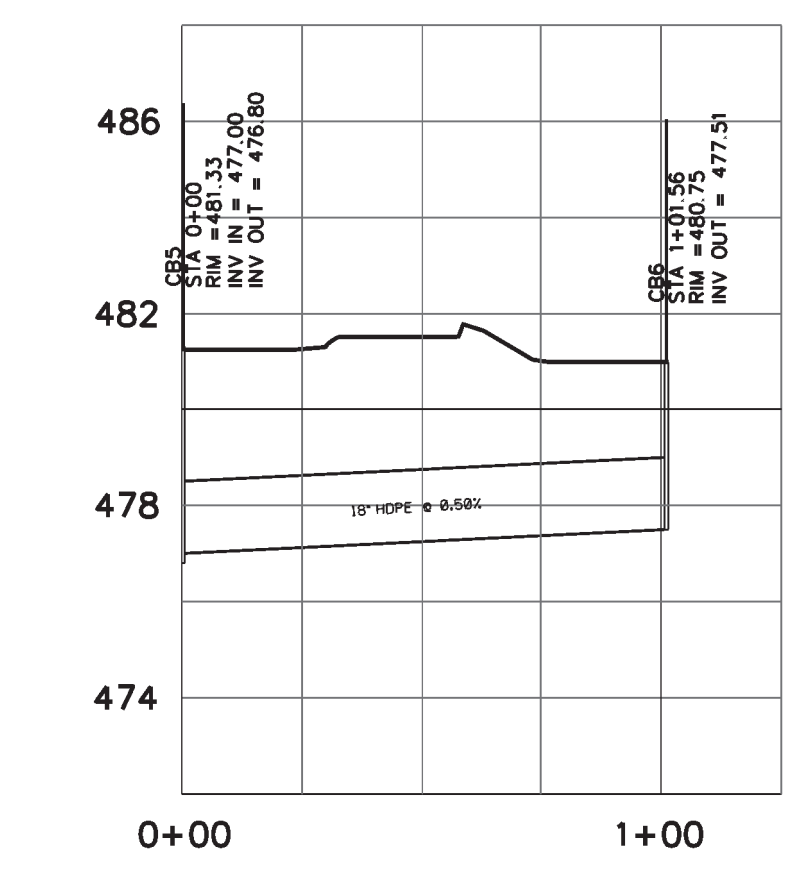
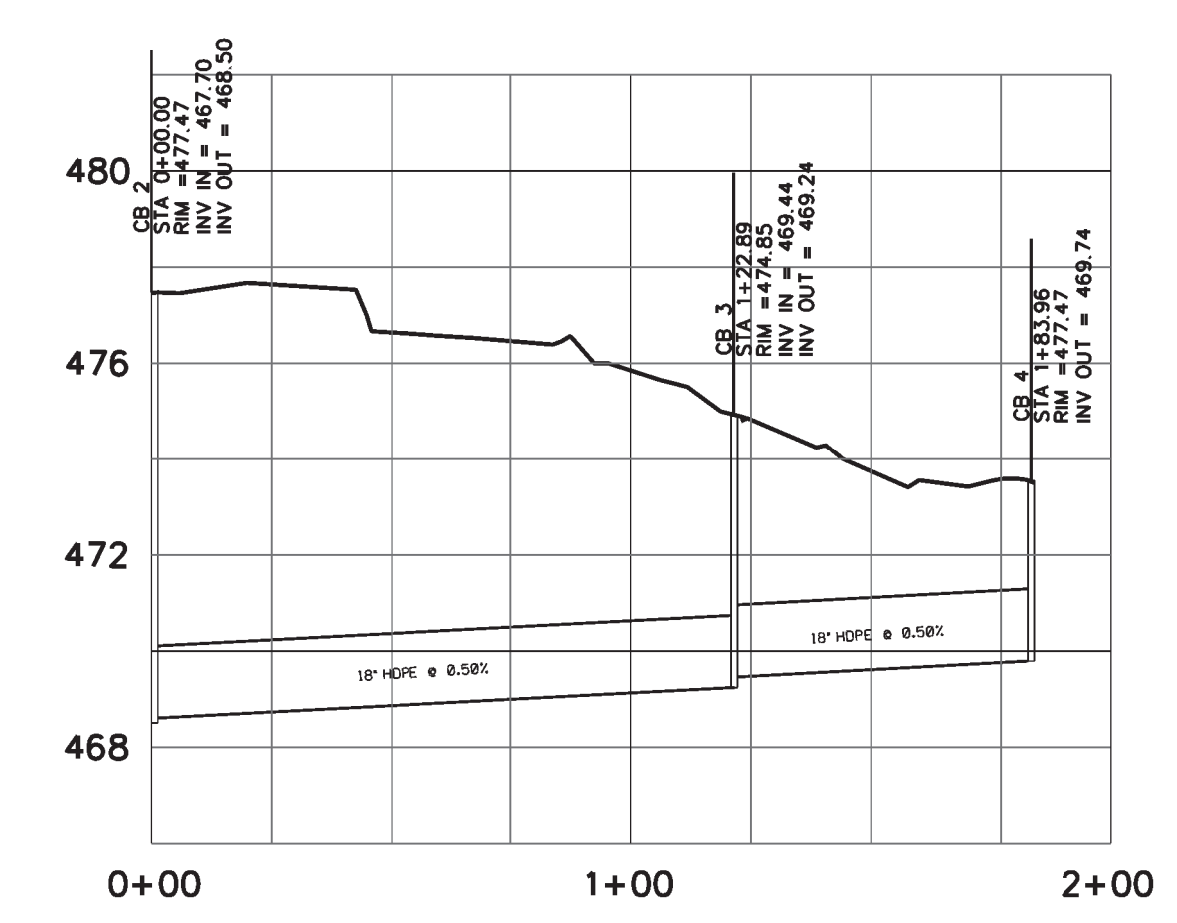
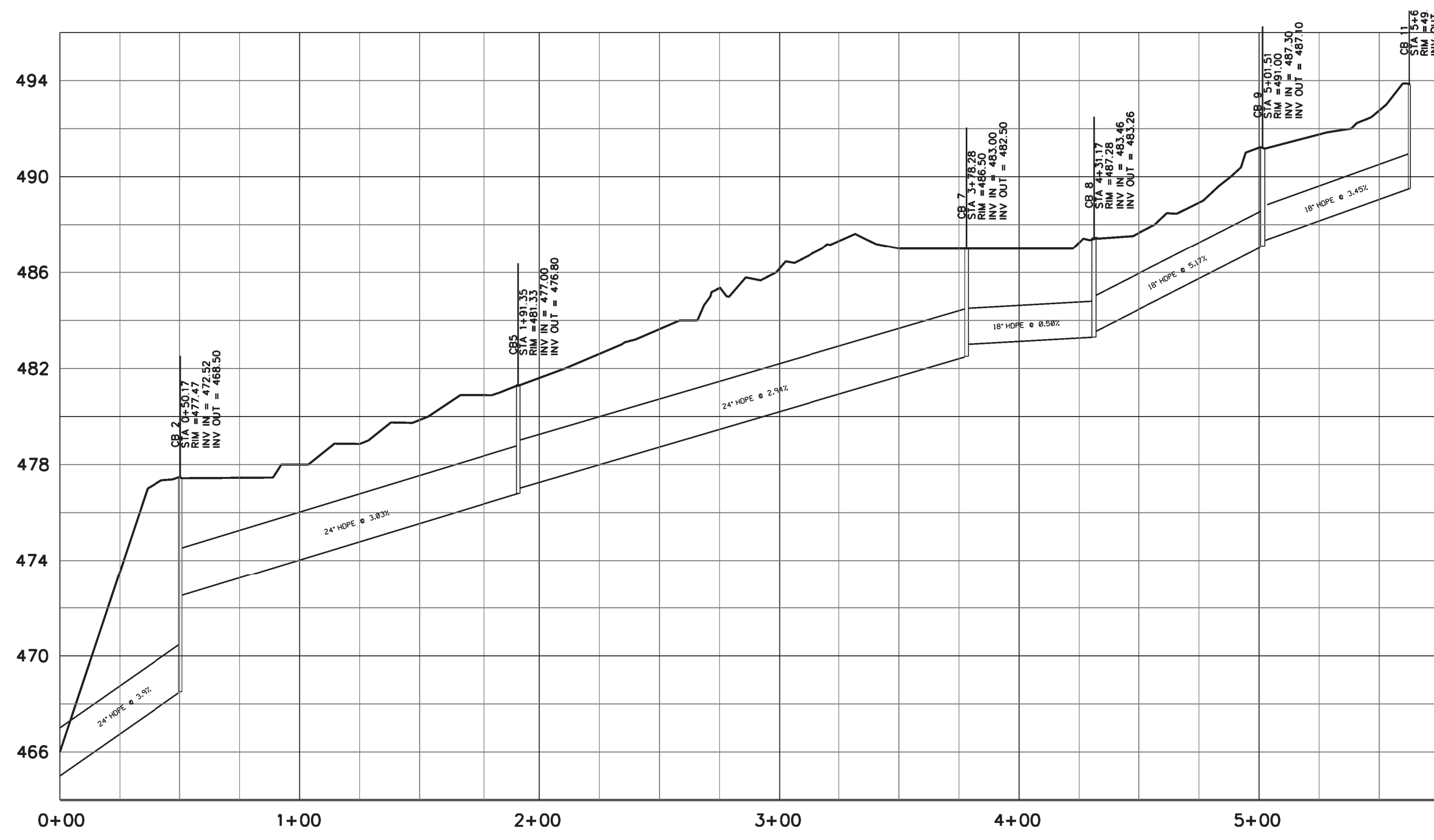



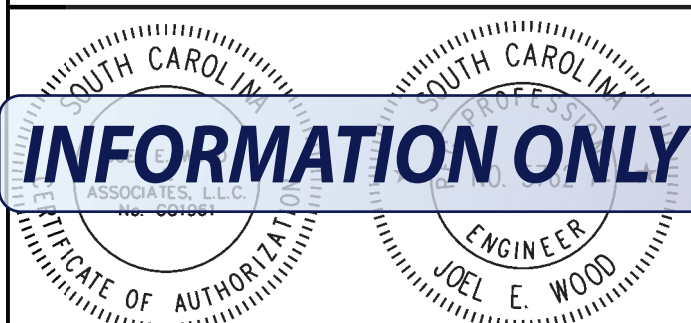








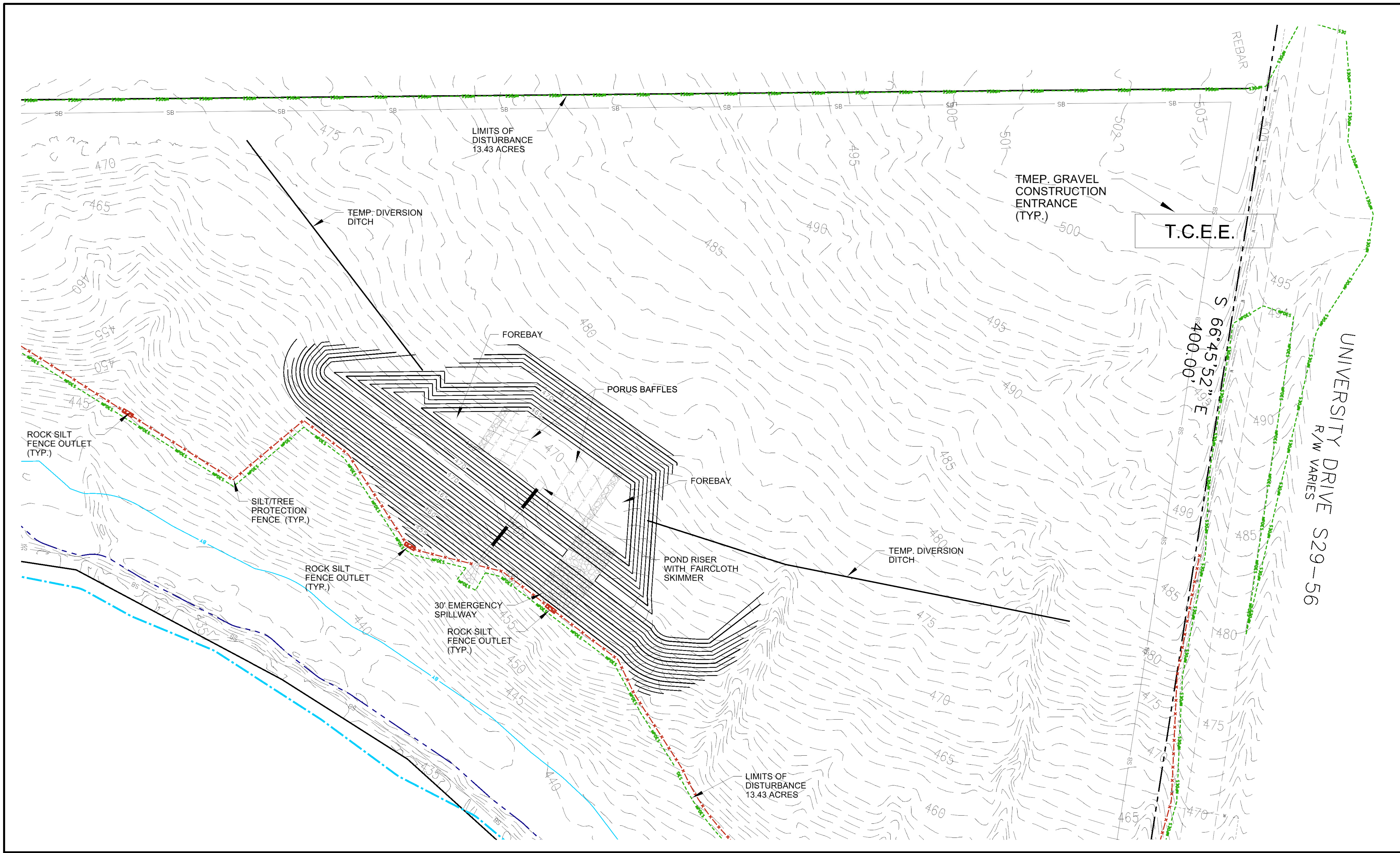




<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____		<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390		<b>SEALS</b> 		<b>PROJECT</b> UNIVERSITY APARTMENTS CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR 1640 UNIVERSITY DEVELOPEMENT LLC		<b>SHEET TITLE</b> STORMDRAIN PROFILES		<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DATE	REVISIONS	BY																																									SCALE: VERT.: 1" = 4' HORIZ.: 1" = 40' DATE: 6/1/2023 JOB NO.: 221005 SHEET <b>C407</b>	
NO.	DATE	REVISIONS	BY																																																						



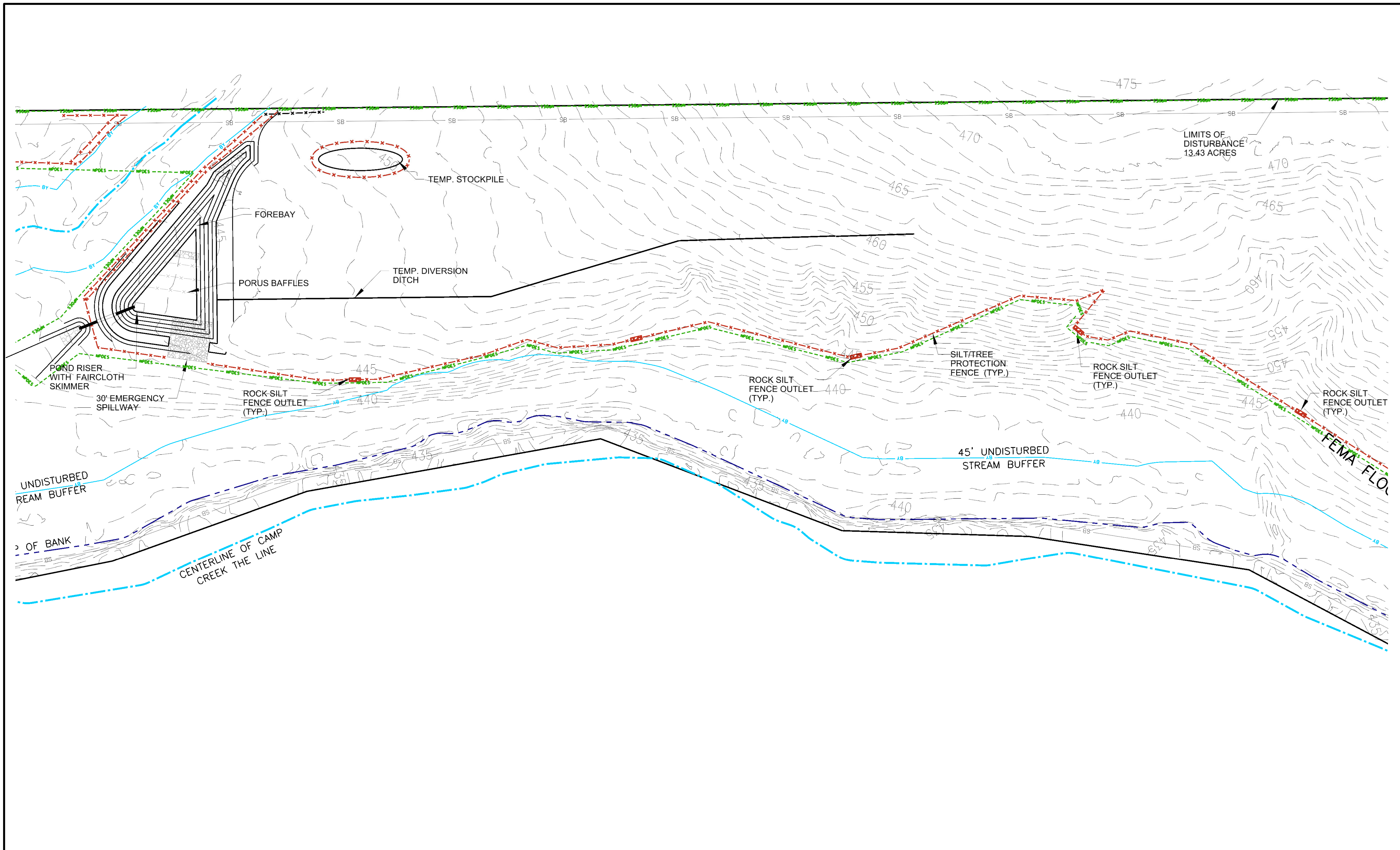



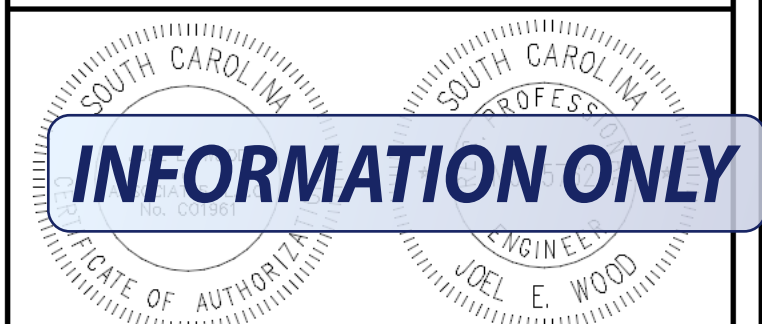




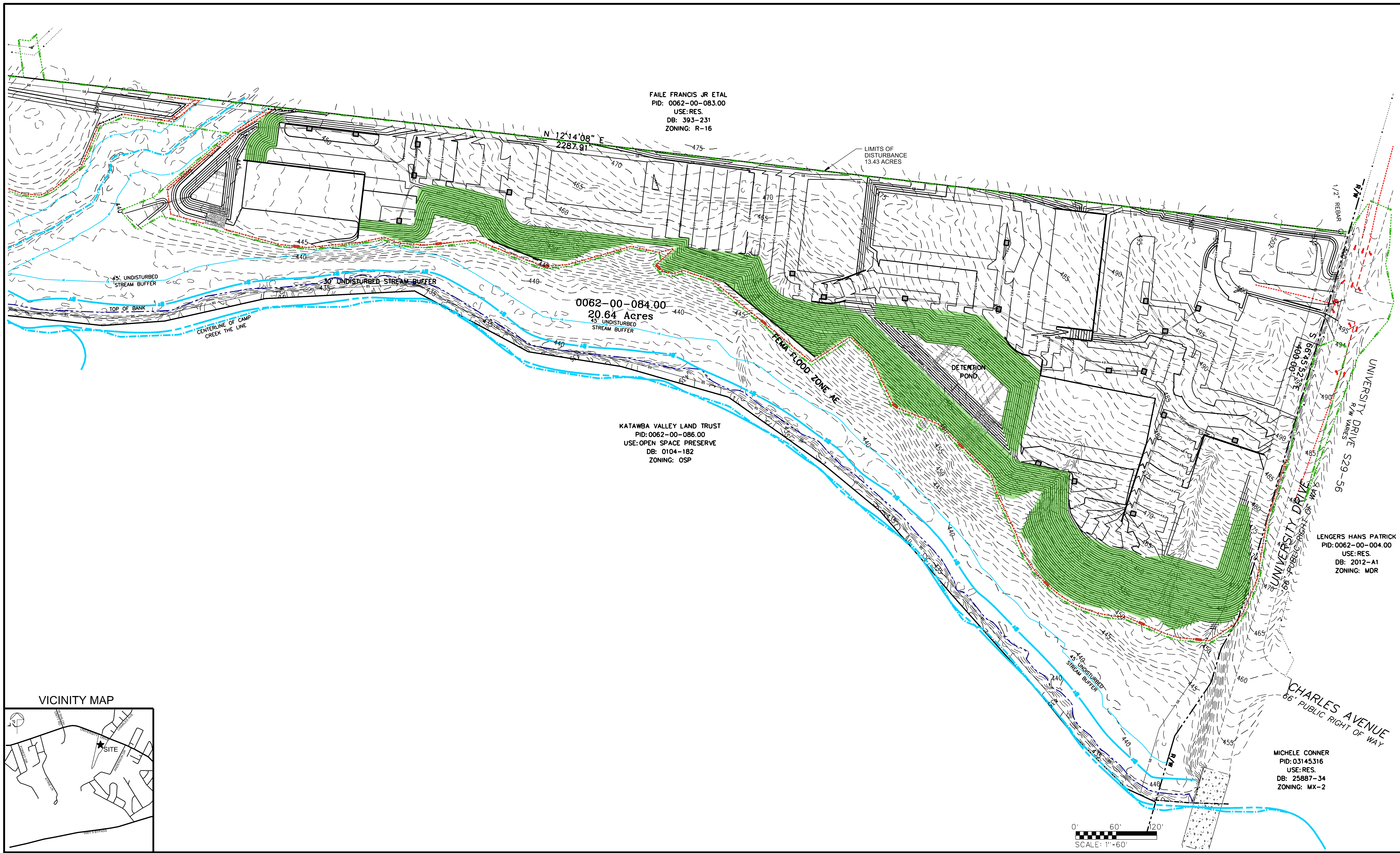
<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____		<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390		<b>SEALS</b>  <b>INFORMATION ONLY</b> ENGINEER TY VALKANAS		<b>PROJECT</b> <b>UNIVERSITY DRIVE APARTMENTS</b> LANCASTER COUNTY, SOUTH CAROLINA PREPARED FOR <b>TY VALKANAS</b>		<b>SHEET TITLE</b> <b>PHASE 1</b> <b>SEDIMENT &amp; EROSION CONTROL PLAN</b>		<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DATE	REVISIONS	BY																																									SCALE: 1" = 20' DATE: 11/01/2022 JOB NO.: 221015 SHEET <b>C501</b>	
NO.	DATE	REVISIONS	BY																																																						





<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b>  <b>INFORMATION ONLY</b>	<b>PROJECT</b> UNIVERSITY DRIVE APARTMENTS LANCASTER COUNTY, SOUTH CAROLINA PREPARED FOR TY VALKANAS	<b>SHEET TITLE</b> <b>PHASE 1</b> <b>SEDIMENT &amp; EROSION CONTROL PLAN</b>	NO.	DATE	REVISIONS	BY	SCALE: 1" = 20'
									DATE: 11/01/2022





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 ZONING: R-16

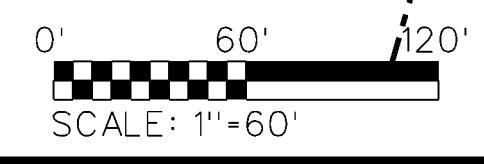
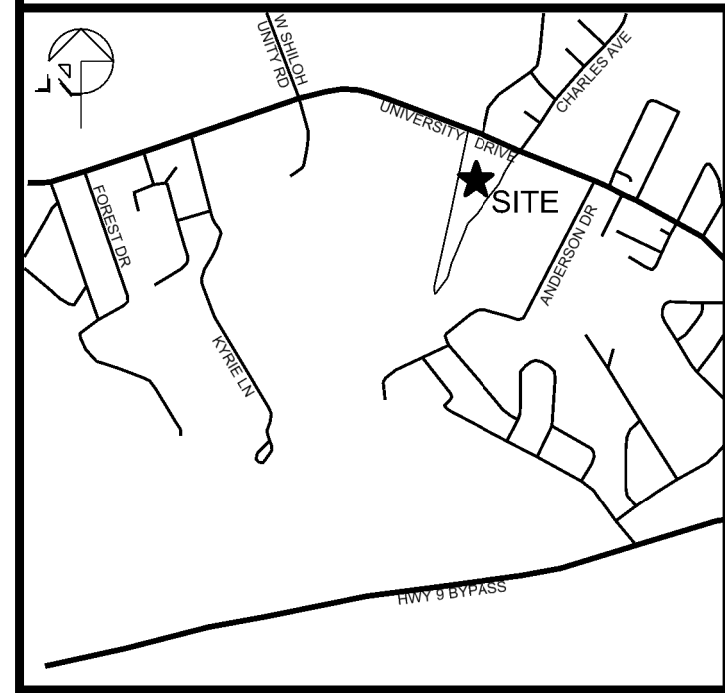
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 45' UNDISTURBED  
 STREAM BUFFER


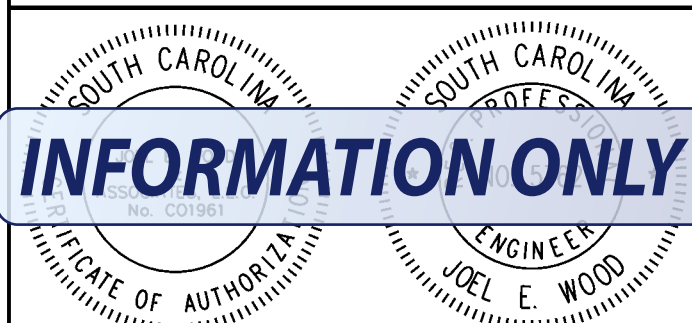
KATAWBA VALLEY LAND TRUST  
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 USE: OPEN SPACE PRESERVE  
 DB: 0104-182  
 ZONING: OSP

LENCERS HANS PATRICK  
 PID: 0062-00-004.00  
 USE: RES.  
 DB: 2012-A1  
 ZONING: MDR

MICHELE CONNER  
 PID: 03145316  
 USE: RES.  
 DB: 25887-34  
 ZONING: MX-2

VICINITY MAP




<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____  Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b>  <b>INFORMATION ONLY</b>	<b>PROJECT</b> UNIVERSITY DRIVE APARTMENTS  LANCASTER COUNTY, SOUTH CAROLINA PREPARED FOR TY VALKANAS	<b>SHEET TITLE</b>  <b>PHASE 2 OVERALL          SEDIMENT &amp; EROSION CONTROL PLAN</b>	<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISIONS</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISIONS	BY																	SCALE: 1" = 60' DATE: 11/01/2022 JOB NO.: 221015 SHEET C503
			NO.	DATE	REVISIONS	BY																				





APPROVALS	
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Construction:	_____

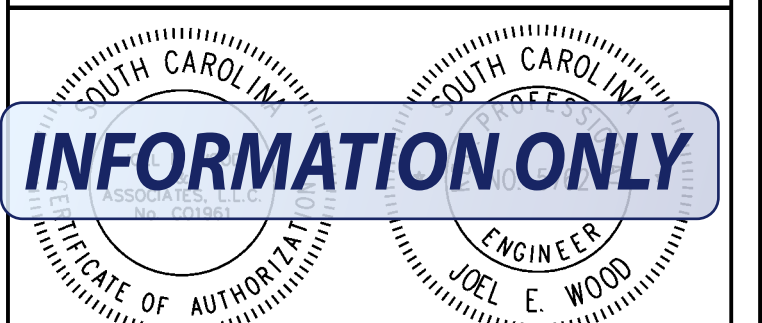
PREPARED BY



**JOEL E. WOOD & ASSOCIATES**  
PLANNING • ENGINEERING • MANAGEMENT

P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS



**INFORMATION ONLY**

ENGINEER  
TY VALKANAS

**PROJECT**

UNIVERSITY DRIVE APARTMENTS

LANCASTER COUNTY, SOUTH CAROLINA  
PREPARED FOR  
TY VALKANAS

**SHEET TITLE**

**PHASE 2  
SEDIMENT & EROSION CONTROL PLAN**

NO.	DATE	REVISIONS	BY

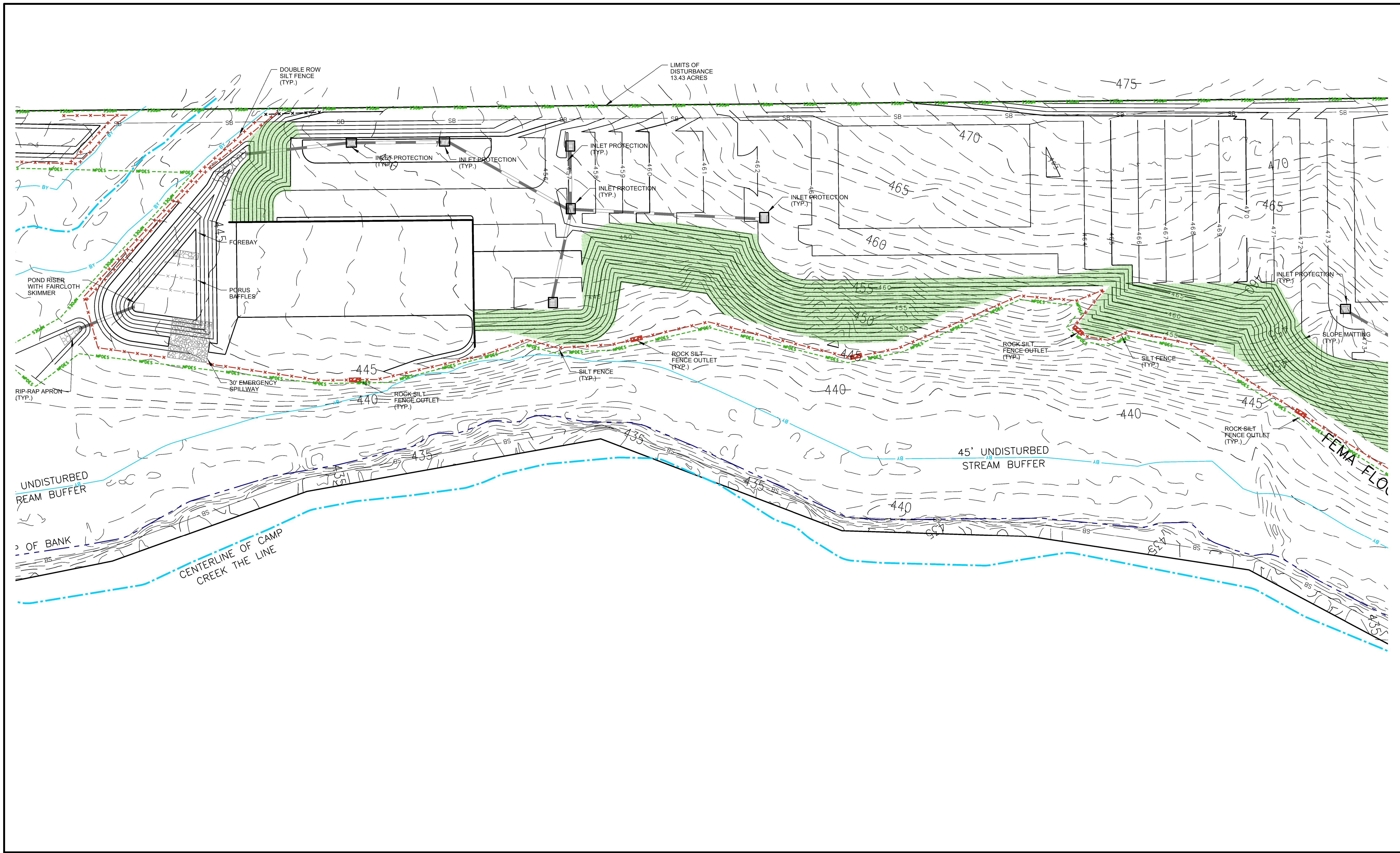
SCALE: 1" = 20'

DATE: 11/01/2022

JOB NO.: 221015


SHEET C504





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Review:	_____
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Construction:	_____

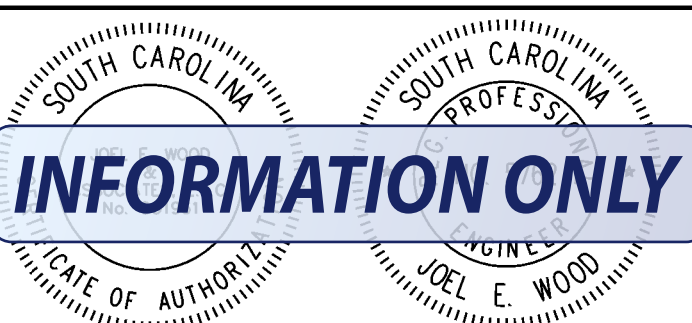
PREPARED BY



**JOEL E. WOOD & ASSOCIATES**  
PLANNING • ENGINEERING • MANAGEMENT

P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS



**INFORMATION ONLY**

**PROJECT**

UNIVERSITY DRIVE APARTMENTS

LANCASTER COUNTY, SOUTH CAROLINA  
PREPARED FOR  
TY VALKANAS

**SHEET TITLE**

**PHASE 2  
SEDIMENT & EROSION CONTROL PLAN**

NO.	DATE	REVISIONS	BY

SCALE: 1" = 20'

DATE: 11/01/2022

JOB NO.: 221015


SHEET C505





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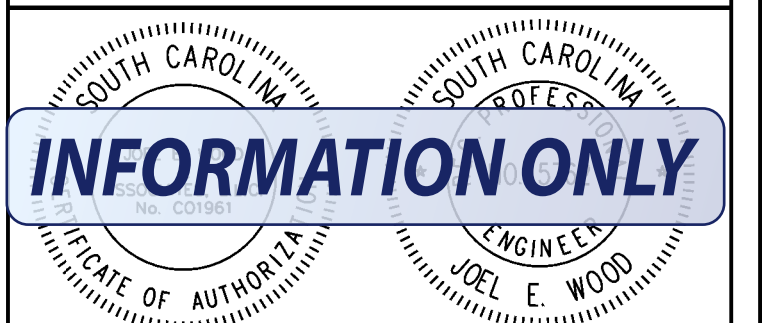
PREPARED BY



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SEALS



**INFORMATION ONLY**

**PROJECT**

UNIVERSITY DRIVE APARTMENTS

LANCASTER COUNTY, SOUTH CAROLINA  
PREPARED FOR  
TY VALKANAS

**SHEET TITLE**

**PHASE 3  
SEDIMENT & EROSION CONTROL PLAN**

NO.	DATE	REVISIONS	BY

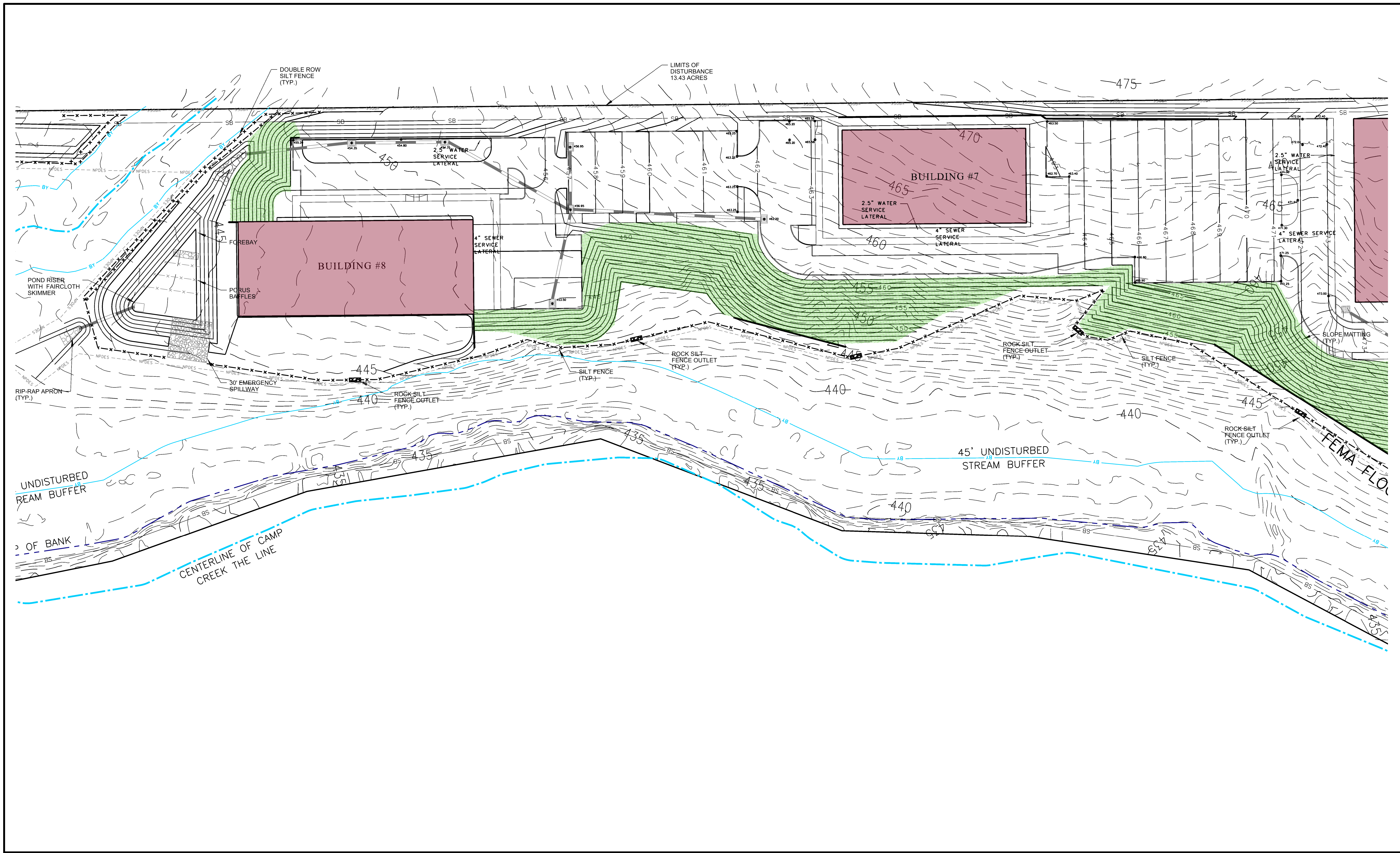
SCALE: 1" = 20'

DATE: 11/01/2022

JOB NO.: 221015


SHEET C507





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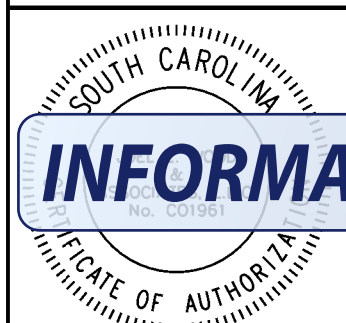

PREPARED BY



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P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS

**INFORMATION ONLY**

**PROJECT**

UNIVERSITY DRIVE APARTMENTS

LANCASTER COUNTY, SOUTH CAROLINA  
PREPARED FOR  
TY VALKANAS

**SHEET TITLE**

**PHASE 3  
SEDIMENT & EROSION CONTROL PLAN**

NO.	DATE	REVISIONS	BY

SCALE: 1" = 20'

DATE: 11/01/2022

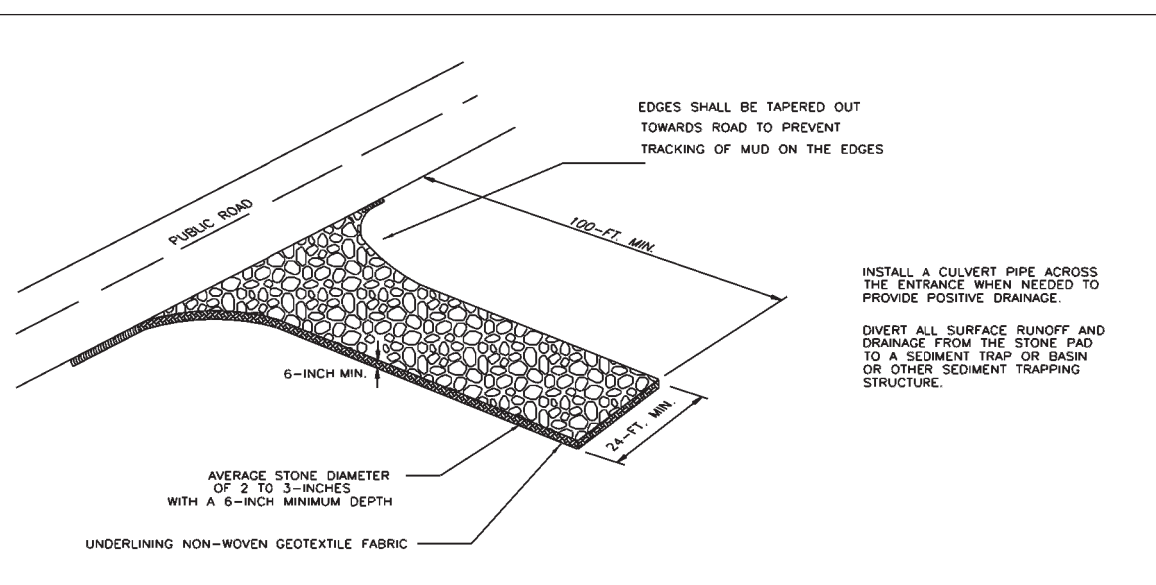
JOB NO.: 221015

SHEET C508









South Carolina Department of Health and Environmental Control  
 STABILIZED CONSTRUCTION ENTRANCE  
 SHEET NUMBER: SC-06 Page 1 of 3  
 APPROVED BY: [Signature] DATE: [Date]

**STABILIZED CONSTRUCTION ENTRANCE**  
 When and Where to Use It  
 Stabilized construction entrances should be used at all points where traffic will be leaving a construction site and moving directly onto a public road.

**Important Considerations**  
 If washing is used, provisions must be made to intercept the wash water and trap the sediment before it is carried offsite. Washdown facilities should be required as directed by SCDEH or needed. Washdown areas in general must be established with crushed gravel and drain into a sediment trap or sediment basin. Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by vehicles.

**Installation:**  
 Remove all vegetation and any objectionable material from the foundation area. Diverst all surface runoff and drainage from stones to a sediment trap or basin. Install a non-woven geotextile fabric prior to placing any stone.

Install a culvert pipe across the entrance when needed to provide positive drainage. The entrance shall consist of 1-inch to 3-inch D50 stone placed at a minimum depth of 6-inches.

Minimum dimensions of the entrance shall be 24-feet wide by 100-feet long, and may be modified as necessary to accommodate site constraints. The edges of the entrance shall be tapered out towards the road to prevent tracking of mud at the edge of the entrance.

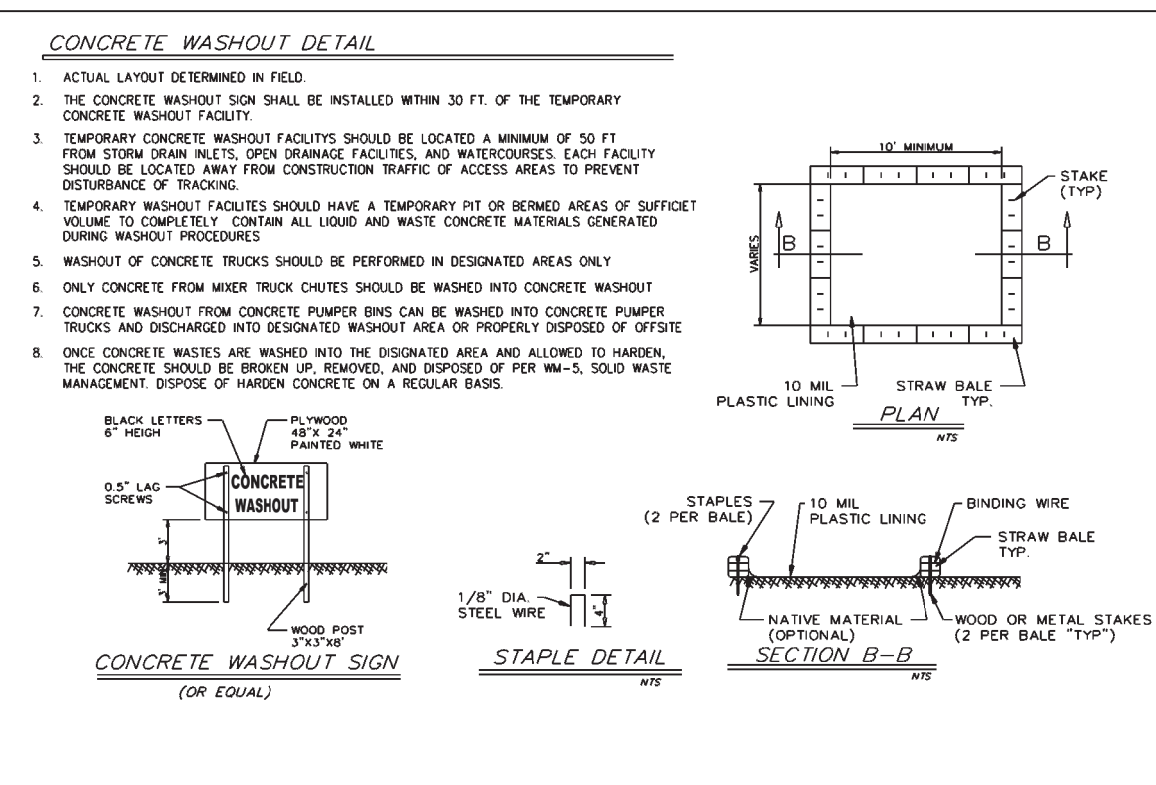
**STABILIZED CONSTRUCTION ENTRANCE**  
 Inspection and Maintenance:  
 Inspect construction entrances every seven (7) calendar days and within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation, or after heavy use. Check for mud and sediment buildup and soil integrity. Make any inspections during periods of wet weather. Maintenance is required more frequently in wet weather conditions. Reshape the stone pad as needed for drainage and runoff control.

Wash or replace stones as needed and as directed by the inspector. The stone in the entrance should be washed or replaced whenever the entrance fails to reduce mud becoming carried off-site by vehicles. Frequent washing will extend the useful life of stone.

Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used when the water can be discharged to a sediment trap or basin. Repair any broken pavement immediately.

South Carolina Department of Health and Environmental Control  
 STABILIZED CONSTRUCTION ENTRANCE  
 SHEET NUMBER: SC-06 Pages 2&3 of 3  
 APPROVED BY: [Signature] DATE: [Date]

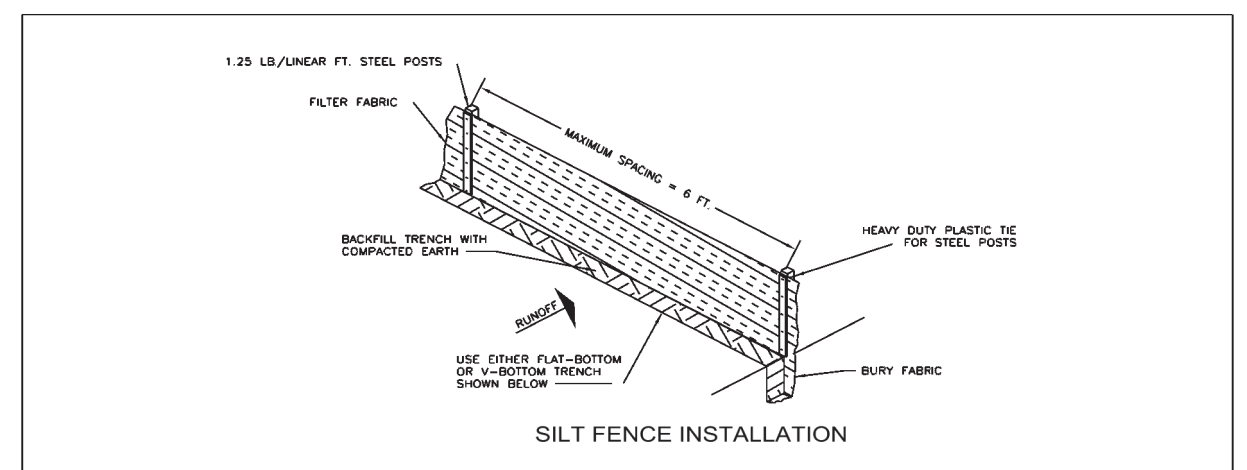
**A CONSTRUCTION ENTRANCE DETAIL** SCALE=N.T.S.



**B CONCRETE WASHOUT DETAIL** SCALE=N.T.S.

- SOIL STOCKPILE AREA GENERAL NOTES:**
- CONTACTOR IS TO INSTALL SILT FENCE AROUND EXTERIOR OF STOCKPILE AREA
  - STOCKPILE AREA MUST BE REMOVED AND STABILIZED BEFORE THE SITE WILL BE RELEASED FOR FINAL APPROVAL
  - WITHIN SEVEN CALENDAR DAYS, TEMPORARY STABILIZATION MEASURES SHALL BE COMPLETED ON TOPSOIL STOCKPILES. THE BURIAL OF ANY CELLULOSE DEBRIS WILL NEED TO BE PLATTED. THE REMOVAL OF SOIL OR WASTE FROM THE PROPOSED SITE WILL NEED TO BE TAKEN TO A PERMITTED LANDFILL OR ANOTHER PERMITTED SITE WITH A VALID LAND DISTURBANCE PERMIT. THE ASSOCIATED SITE WOULD ALSO BE REQUIRED TO PROVIDE THE APPROPRIATE EROSION AND SEDIMENT CONTROL NECESSARY TO RETAIN SEDIMENT ON SITE (WITHIN THE LIMITS OF DISTURBANCE PERMITTED).

**C TOPSOIL STOCKPILE AREA** SCALE=N.T.S.



South Carolina Department of Health and Environmental Control  
 SILT FENCE  
 SHEET NUMBER: SC-03 Page 1 of 2  
 APPROVED BY: [Signature] DATE: [Date]

**SILT FENCE DETAIL**  
 When and Where to Use It:  
 Silt fence is applicable in areas where the maximum sheet or perforated flow path length to the fence is 100-feet, where the maximum slope steepness (normal perpendicular to fence line) is 20%, that do not receive concentrated flows greater than 0.5 cfs.

Use steel posts with a minimum length of 4-feet, weighing 1.25 pounds per linear foot (8 BS) with projections to cut in fastening the fabric. Except when heavy city soils are present on site, steel posts will have a metal soil stabilization points welded near the bottom such that when the post is driven in the proper depth, the post will be below the ground level for added stability.

The soil grades should have the following characteristics:  
 Be composed of maximum 13 percent clay.  
 Have a minimum cross section area of 17-square inches.

**Geotextile Filter Fabric**  
 Filter fabric is composed of fibers consisting of long chain synthetic polymers composed of at least 85% by weight of polypropylene, polyethylene, or polyethylene. Formed into a network such that the diameter or pore size is proportional to the sediment to be filtered. Free of any treatment or coating which might otherwise affect its physical properties after installation. Free of defects or flaws that significantly affect its physical and/or filtering properties. Cut to a maximum width of 36 inches.

Use only fabric approved on SCOT Approval Sheet #34 meeting the requirements of the most current edition of the SCOT Standard Specifications for Highway Construction.

South Carolina Department of Health and Environmental Control  
 SILT FENCE  
 SHEET NUMBER: SC-03 Page 2 of 3  
 APPROVED BY: [Signature] DATE: [Date]

**SILT FENCE DETAIL**  
 Installation:  
 Excavate a trench approximately 3-inches wide and 6-inches deep when placing fabric by hand. Place 12-inches of geotextile fabric into the 6-inch deep trench, extending the remaining 6-inches beyond the outer side of the trench. Spread the mesh with soil or gravel and compact to 12-inches of depth. Add the gravel when mechanically installing silt fence with a string method. Purchase fabric in continuous rolls and cut to the length of the trench to be installed. When joints are necessary, overlap joints at least 6-inches together. A support post with both ends fastened to the post, with a 6-inch minimum overlap. Install posts to a minimum depth of 24-inches. Install posts a maximum of 1- to 2'-inches above the fabric, with no more than 3-feet of soil between posts. Space posts to maximum 6-foot centers. Attach fabric to steel posts using hardware fabric or heavy-duty wire or at least 18-inch long spaced a maximum of 6-inches apart. Staple a 2-inch wide strip over the filter fabric to securely fasten it to the up-slope side of the stone pile. Attach the steel posts using heavy-duty plastic ties that can evenly spaced and placed in a manner to prevent sagging or tearing of the fabric. In all cases, ties should be spaced at no less than 4 places. Install the fabric a maximum of 24-inches above the ground. When necessary, the height of the fence above ground may be greater than 24-inches. In all cases, when all fence height may be required. The post height will be the exposed post height. Post spacing when the same and extra height fabric will be 4'-, 5'-, or 6'-feet tall. Locate all fence checks every 100 feet, maximum end of the posts. Install the fence perpendicular to the direction of flow and place the fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanup.

**Inspection and Maintenance**  
 Inspect every seven calendar days and within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation. Check for sediment buildup and soil integrity. Check when runoff has stopped or channel beneath the fence, or where the fence has sagged or collapsed by fence overlapping. If the fence has failed, begun to deteriorate, or in any way becomes ineffective, replace the section of fence immediately. Remove sediment accumulated only the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected. Remove trapped sediment from the site or discharge it on site.

Remove all fence within 30 days after final stabilization is achieved or other temporary best management practices (BMPs) are no longer needed. Permanently stabilize disturbed areas resulting from fence removal.

South Carolina Department of Health and Environmental Control  
 SILT FENCE  
 SHEET NUMBER: SC-03 Page 3 of 3  
 APPROVED BY: [Signature] DATE: [Date]

**D SILT FENCE DETAIL** SCALE=N.T.S.

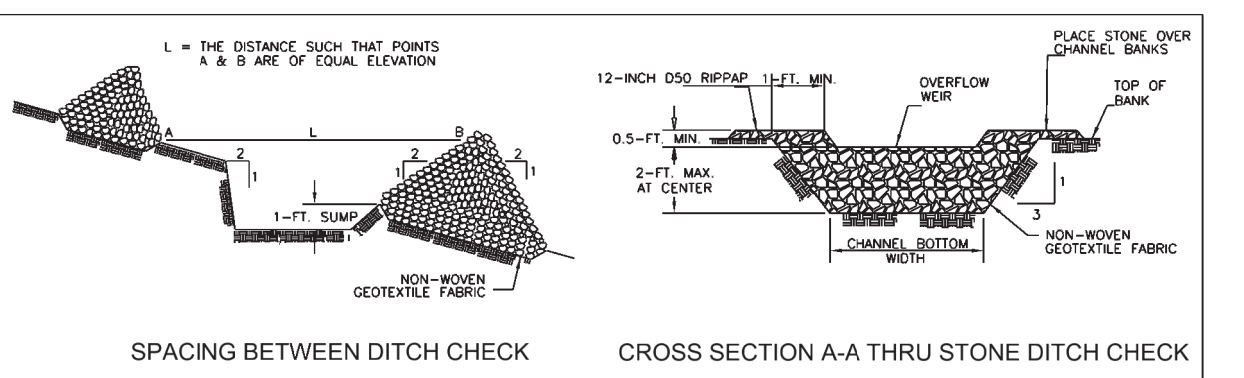
**HAZARDOUS SUBSTANCE OR OIL SPILL INFORMATION**  
 THE CONTRACTOR MUST PREVENT OR MINIMIZE THE DISCHARGE OF HAZARDOUS SUBSTANCES OR OIL IN STORM WATER DISCHARGES FROM THE CONSTRUCTION SITE IN ACCORDANCE WITH THE SWPPP. THIS PERMIT DOES NOT RELIEVE THE CONTRACTOR OF THE FEDERAL REPORTING REQUIREMENTS OF 40 CFR PART 110.40 CFR PART 117 AND 40 CFR PART 302 RELATING TO SPILLS OR OTHER RELEASES OF OILS OR HAZARDOUS SUBSTANCES.

POTENTIAL HAZARDOUS SUBSTANCES THAT COULD POTENTIALLY BE PRESENT ON THE SITE ARE FUELS, OILS, AND GREASES FROM CONSTRUCTION EQUIPMENT. MAINTENANCE AND/OR REPAIRS OF EQUIPMENT SHOULD NOT BE CONDUCTED ON THE SITE. FUEL TANKS SHALL NOT BE STORED ON THE SITE. ROLL-OFF CONTAINERS SHALL BE UTILIZED FOR STORING GARBAGE AND CONSTRUCTION DEBRIS DURING CONSTRUCTION OF THE HOME.

WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE OR OIL IN AN AMOUNT EQUAL TO OR IN EXCESS OF REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR PART 110, 40 CFR PART 117 AND 40 CFR PART 302, OCCURS DURING A 24-HOUR PERIOD:

- THE CONTRACTOR MUST NOTIFY DHEC'S EMERGENCY RESPONSE SECTION AT (803.253.6488) AND THE NATIONAL RESPONSE CENTER (NCR) AT (800.424.8802) IN ACCORDANCE WITH THE REQUIREMENTS OF 40 CFR PART 110, 40 CFR PART 117 AND 40 CFR PART 302 AS SOON AS SITE STAFF HAVE KNOWLEDGE OF THE DISCHARGE; AND
- THE CONTRACTOR MUST MODIFY THE SWPPP UNDER SUBPART 3.11 WITHIN 14 CALENDAR DAYS OF KNOWLEDGE OF THE RELEASE TO: PROVIDE A DESCRIPTION OF THE RELEASE, THE CIRCUMSTANCES LEADING TO THE RELEASE, AND THE DATE OF THE RELEASE. IN ADDITION, CONTRACTOR MUST REVIEW THE SWPPP TO IDENTIFY MEASURES TO PREVENT TO REOCCURRENCE OF SUCH RELEASE AND TO RESPOND TO SUCH RELEASE, AND CONTRACTOR MUST MODIFY THE SWPPP WHERE APPROPRIATE.

**E HAZARDOUS SPILL INFORMATION** SCALE=N.T.S.



South Carolina Department of Health and Environmental Control  
 ROCK DITCH CHECK  
 SHEET NUMBER: SC-04 Page 1 of 2  
 APPROVED BY: [Signature] DATE: [Date]

**ROCK DITCH CHECK**  
 When and Where to Use It:  
 A rock ditch check should be installed in steeply sloped swales, or in swales where adequate vegetation cannot be established. Rock ditch checks should be used only in small open channels. Rock ditch checks should not be placed in waters of the commonwealth or USGS blue-line streams (unless approved by SCDEH or Federal authorities).

**Installation:**  
 A non-woven geotextile fabric shall be installed over the soil surface where the rock ditch check is to be placed. The body of the rock ditch check shall be composed of 12-inch D50 riprap.

The upstream face of the rock ditch check may be composed of 1-inch D50 washed stone. Rock ditch checks should not exceed a height of 2-feet at the centerline of the channel. Rock ditch checks should have a minimum top flow length of 2-feet.

Stone should be placed over the channel banks to prevent water from cutting around the ditch check. The rock must be placed by hand or mechanical placement (no dumping of rock to form dam) to achieve complete coverage of the ditch or swale end to ensure that the center of the check is lower than the edges.

The maximum spacing between the dams should be such that the top of the upstream check is at the same elevation as the top of the downstream check.

**Inspection and Maintenance**  
 Inspect rock ditch checks every seven (7) calendar days and within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation. Inspect for sediment and debris accumulation. Inspect ditch check edges for erosion and repair promptly as required.

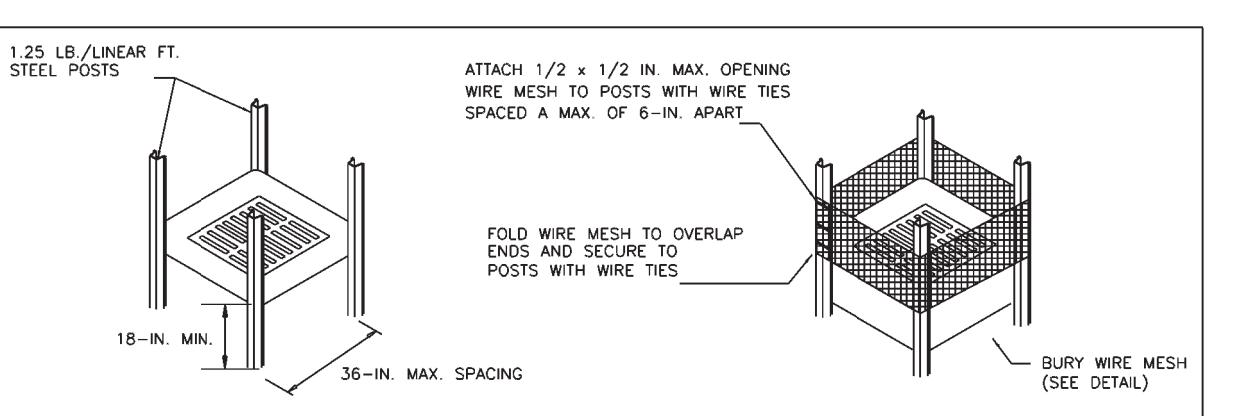
Sediment should be removed when it reaches 1/3 the original check height. In the case of grass-lined ditches and swales, rock ditch checks should be removed when the grass has matured sufficiently to protect the ditch or swale unless the slope of the swale is greater than 4%.

After construction is complete, all stone should be removed by the grading contractor if vegetation will be used for permanent erosion control measures.

The area beneath the rock ditch checks should be seeded and mulched immediately after rock check dam removal.

South Carolina Department of Health and Environmental Control  
 ROCK DITCH CHECK  
 SHEET NUMBER: SC-04 Page 2 of 2  
 APPROVED BY: [Signature] DATE: [Date]

**F ROCK DITCH CHECK** SCALE=N.T.S.



South Carolina Department of Health and Environmental Control  
 TYPE B - HARDWARE FABRIC AND STONE INLET PROTECTION  
 SHEET NUMBER: SC-08 Page 1 of 2  
 APPROVED BY: [Signature] DATE: [Date]

**TYPE B - WIRE MESH AND STONE INLET PROTECTION**  
 Material:  
 Use hardware fabric or comparable wire mesh with maximum openings of 0.5-inches x 0.5-inches as the supporting material.

Use steel posts that meet the following minimum physical requirements:  
 Be composed of high strength steel with minimum yield strength of 50,000 psi.  
 Have a standard "I" section with a nominal face width of 1.38-inches and nominal "T" length of 1.48-inches.  
 Weigh 1.25 pounds per foot (± 8%).  
 Be pointed with a water based baked enamel point.

Use heavy-duty wire ties to attach the wire mesh material to the steel posts.  
 Place Aggregate No. 5 washed stone against the hardware fabric on all sides.

**Installation:**  
 Excavate a trench 6-inches deep around the outside perimeter of the inlet.

Use hardware fabric or comparable wire mesh with maximum openings of 0.5-inches by 0.5-inches as the supporting material. Extended the fabric a minimum of 6-inches into the ground. Backfill the trench with soil or crushed stone and compact over the fabric.

Use steel posts with a minimum post length of 36-inches consisting of standard "I" sections with a weight of 1.25 pounds per foot (±8%). Install the wire mesh fabric above grade a minimum of 18-inches without exceeding 24-inches.

Space the steel posts a maximum of 3-feet apart around the perimeter of the inlet and drive them into the ground a minimum of 18-inches.

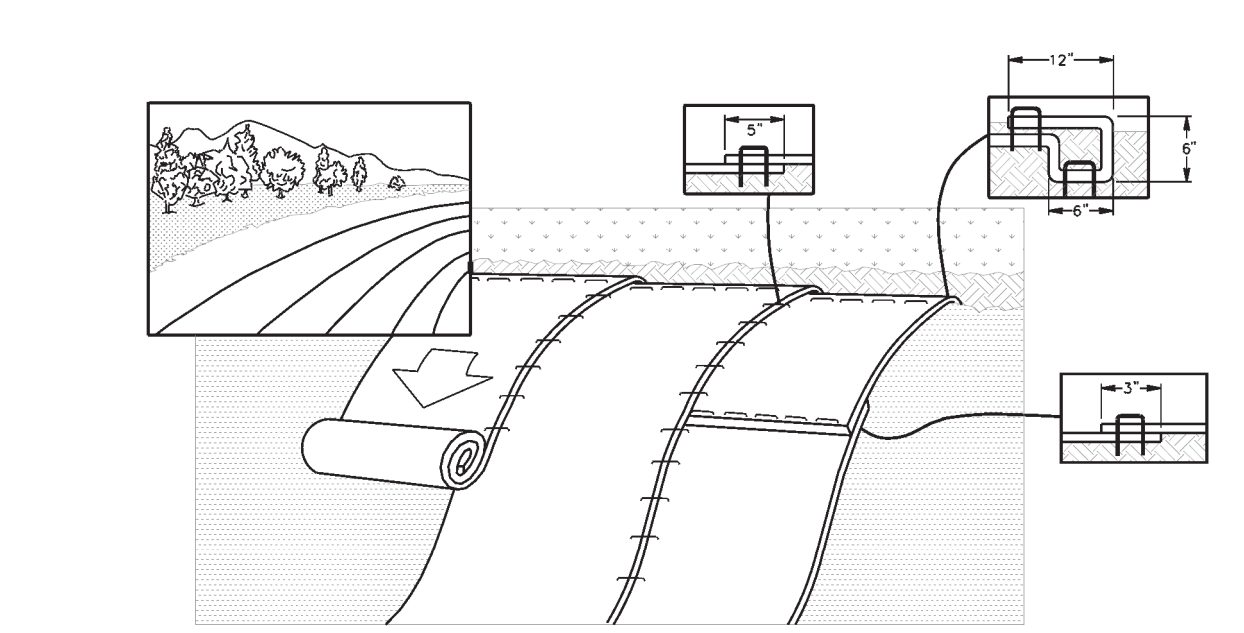
Use heavy-duty wire ties spaced a maximum of 6-inches apart to attach the wire mesh material to the steel posts.  
 Place Aggregate No. 5 washed stone to a minimum height of 12-inches, and a maximum height of 24-inches against the hardware fabric on all sides.

**Inspection and Maintenance:**  
 If the stone becomes clogged with sediment, pull the stones away from the inlet and clean or replace them.  
 Since cleaning of gravel at a construction site may be difficult, an alternative approach would be to use the clogged stone as fill and pull fresh stone around the inlet.

Remove accumulated sediment from stone when sediment reaches 1/2 of the height of the structure.

South Carolina Department of Health and Environmental Control  
 TYPE B - HARDWARE FABRIC AND STONE INLET PROTECTION  
 SHEET NUMBER: SC-08 Page 2 of 2  
 APPROVED BY: [Signature] DATE: [Date]

**G STONE INLET PROTECTION (PRIOR TO BASE & CURB)** SCALE=N.T.S.



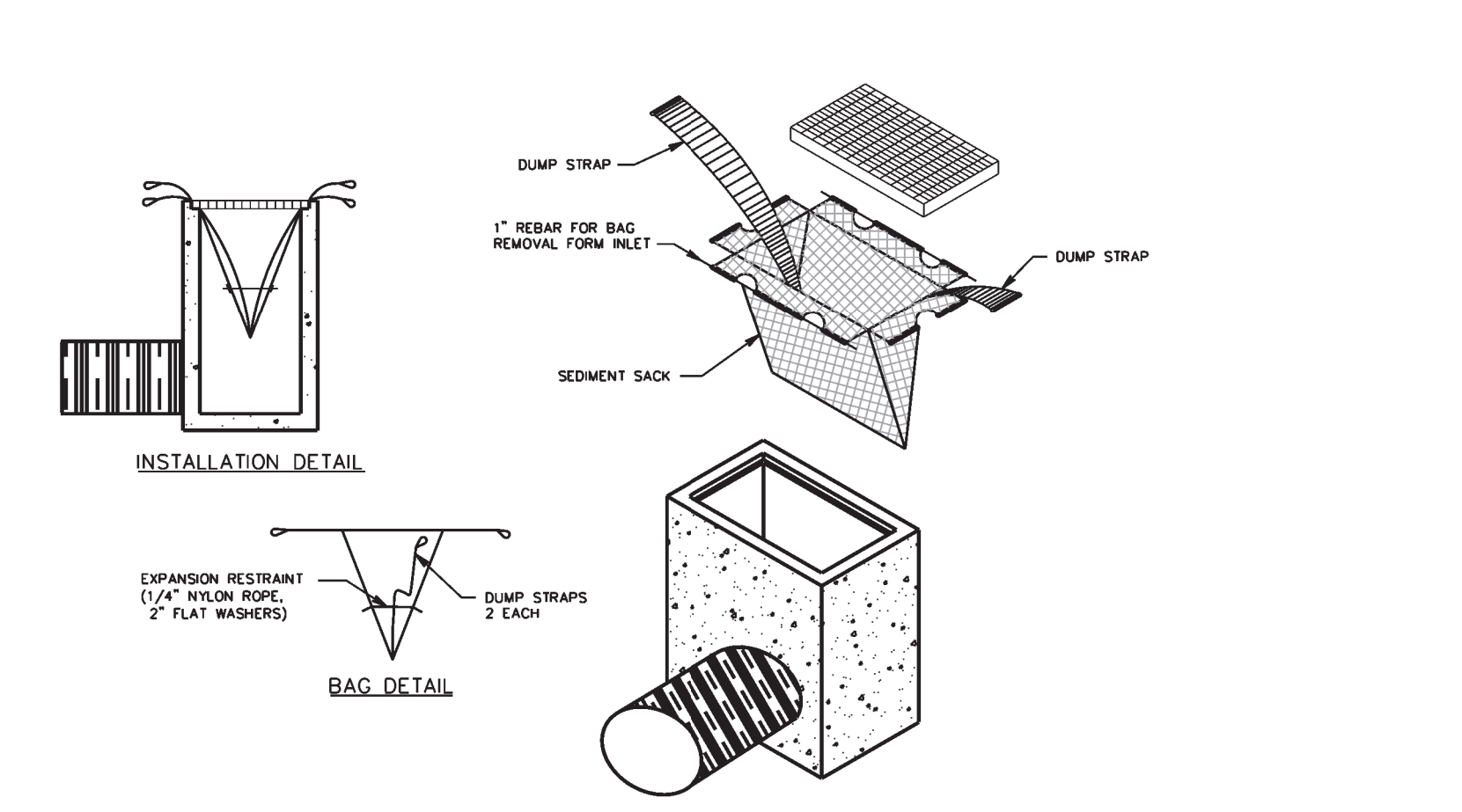
**NOTE:**  
 \*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

\*USE CLASS "A" EROSION CONTROL BLANKET PER SCDEH SPECIFICATIONS

- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FILL REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
- ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM - STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
- CONSECUTIVE RECP'S SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.

**NOTE:**  
 \*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

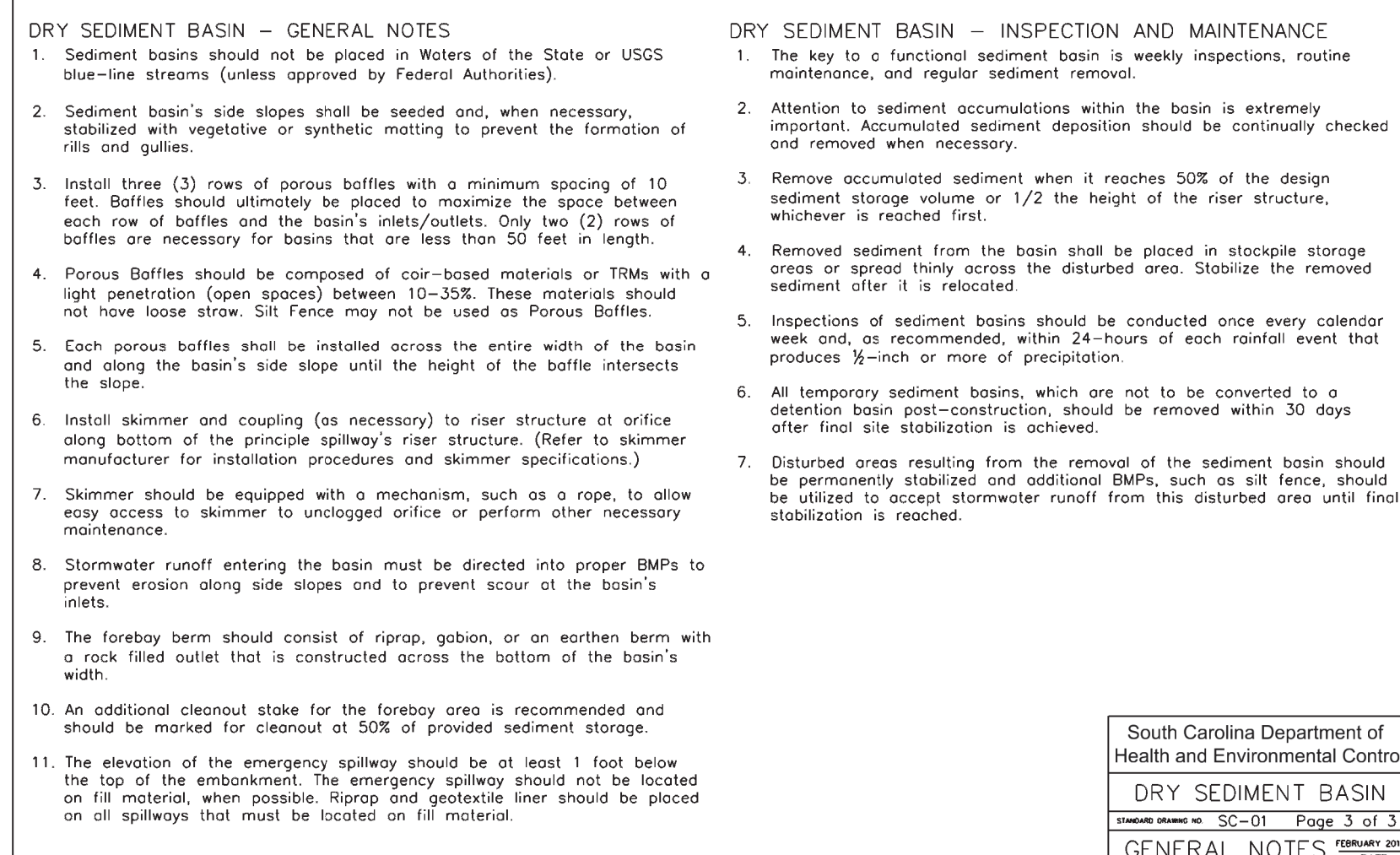
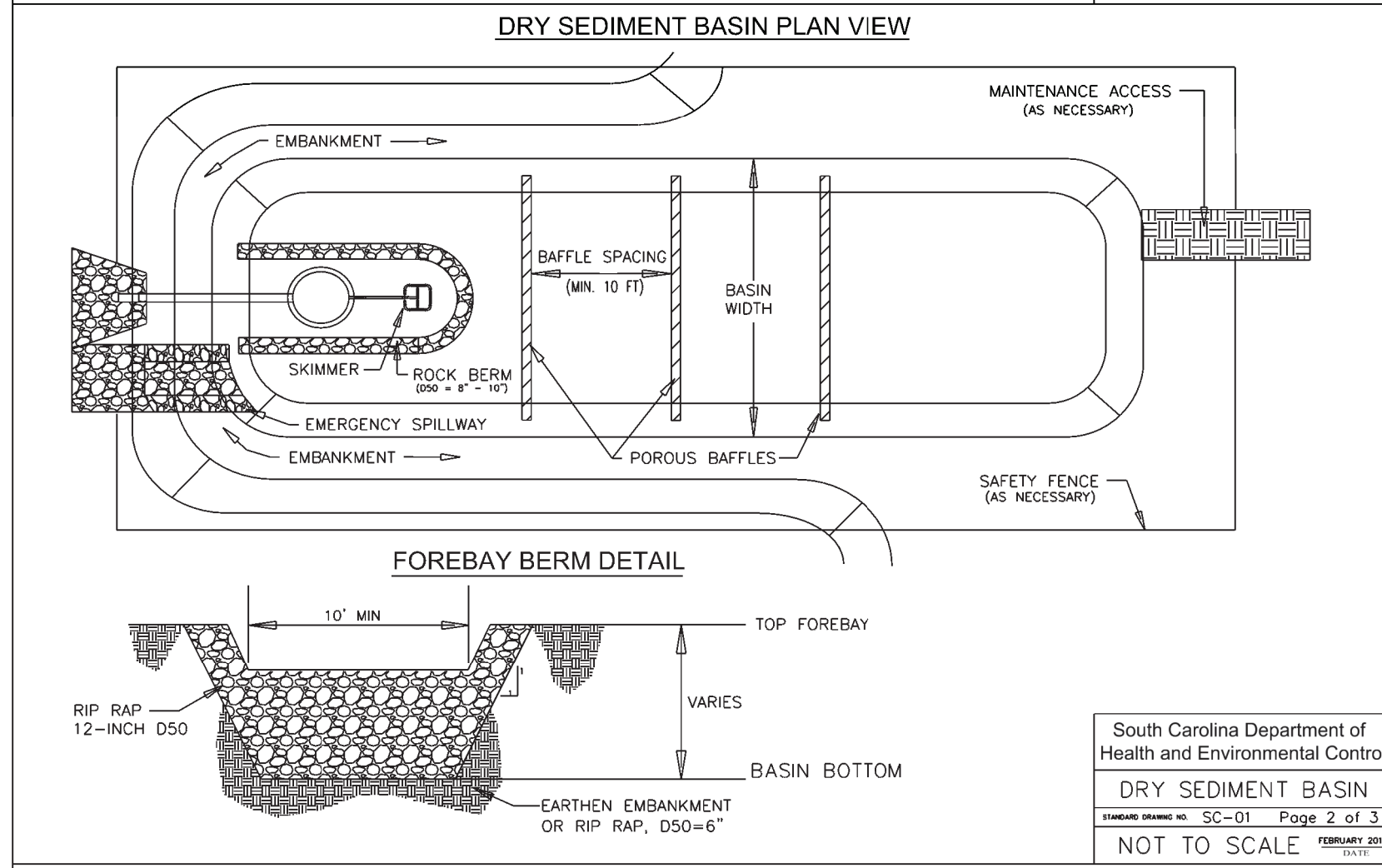
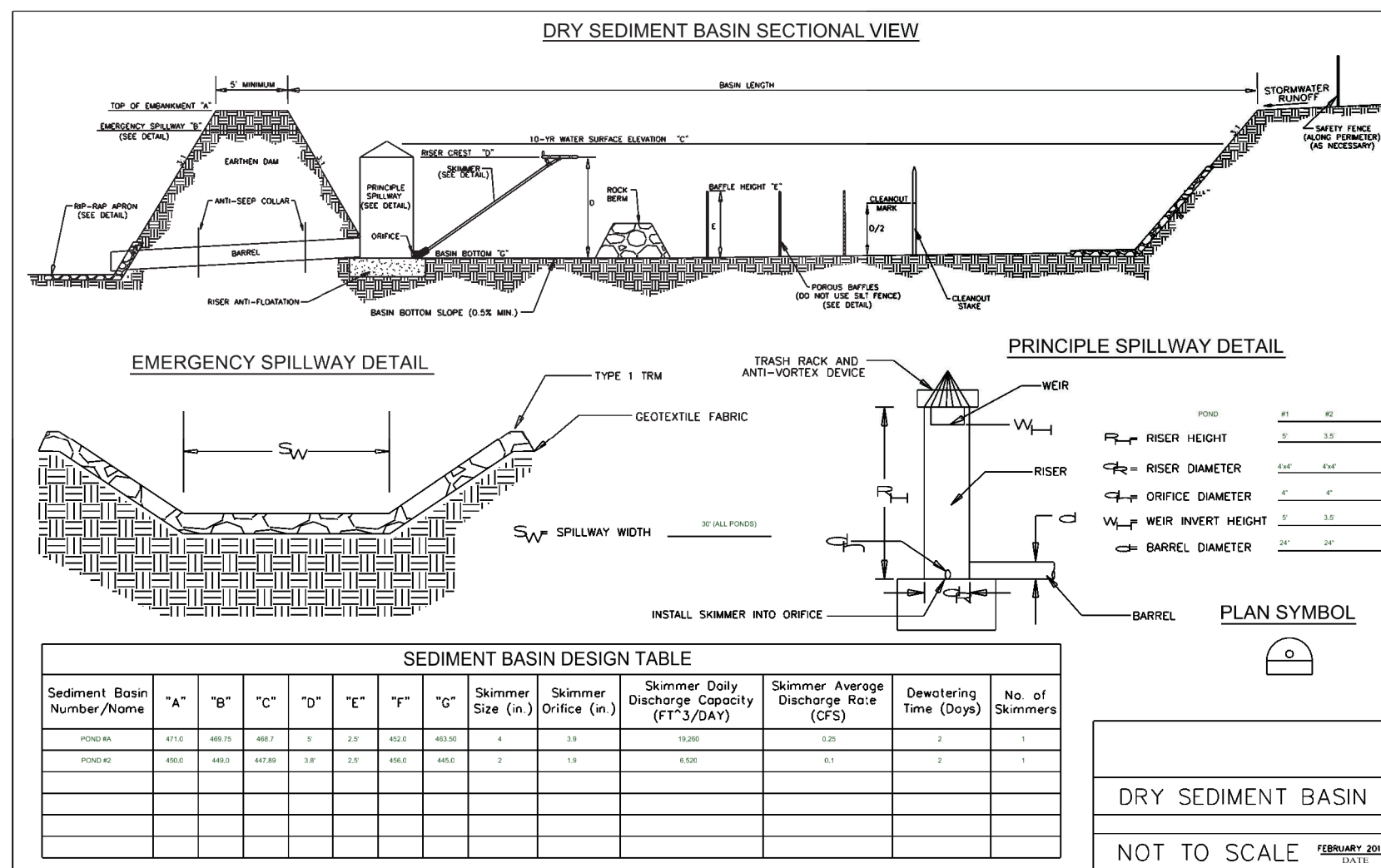
**H SLOPE MATTING** SCALE=N.T.S.



**I CATCH BASIN SILT SACK (AFTER BASE & CURB)** SCALE=N.T.S.

APPROVALS		PREPARED BY		SEALS		PROJECT		SHEET TITLE		NO.	DATE	REVISIONS	BY	SCALE: N.T.S.
Project Engr: _____ Drawn By: _____ Checked By: _____		 <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390				<b>UNIVERSITY APARTMENTS</b>  CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR <b>1640 UNIVERSITY DEVELOPEMENT LLC</b>		<b>DETAILS</b>						DATE: 6/1/2023 JOB NO.: 221005
Review: _____ Bid: _____ Construction: _____														SHEET <b>C700</b>





DRY SEDIMENT BASIN - GENERAL NOTES

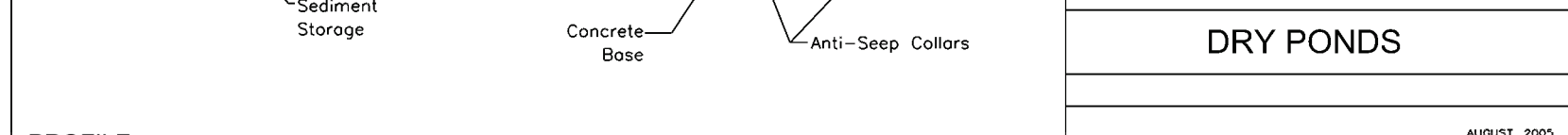
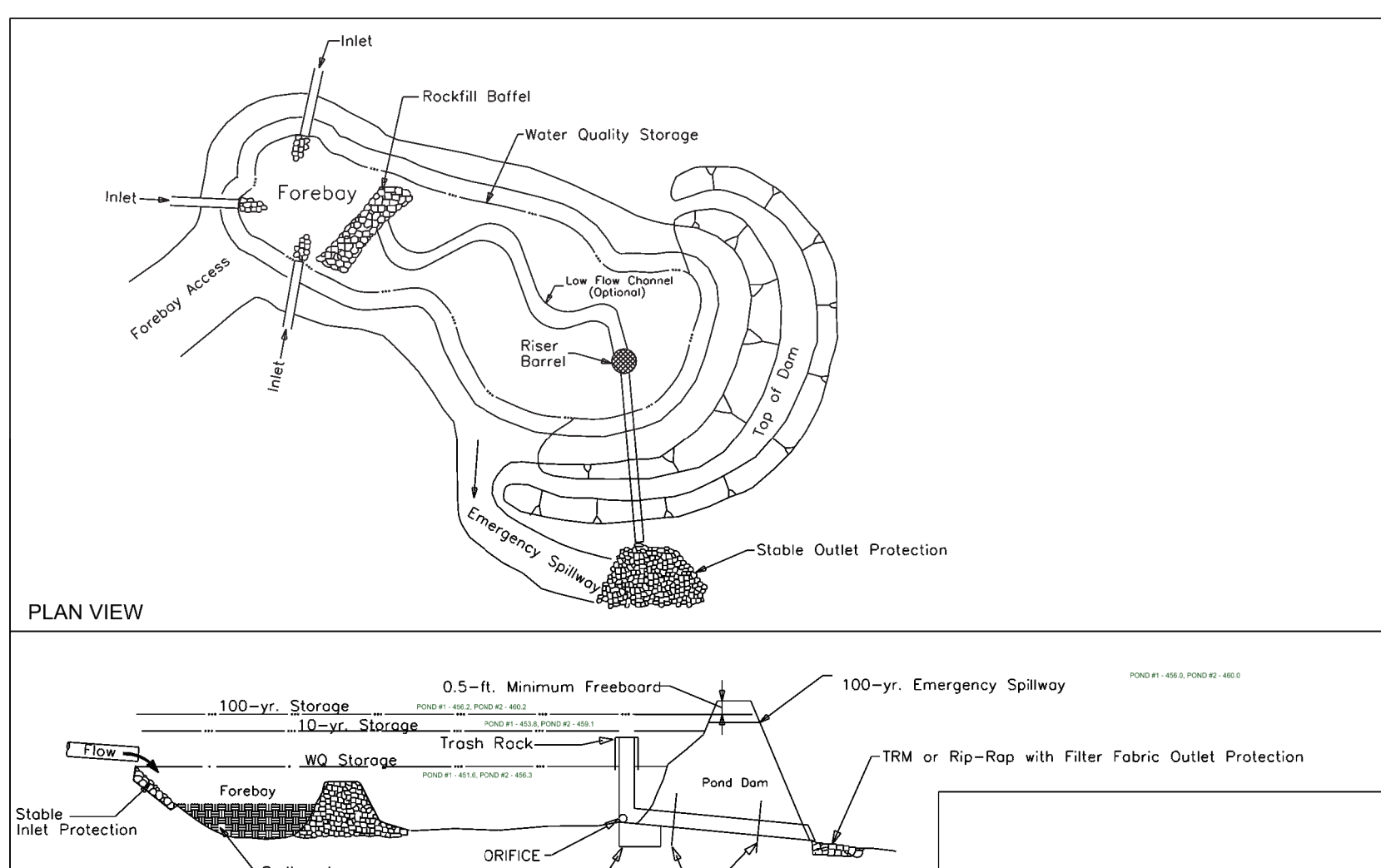
- Sediment basins should not be placed in Waters of the State or USGS blue-line streams (unless approved by Federal Authorities).
- Sediment basin's side slopes shall be seeded and, when necessary, stabilized with vegetative or synthetic material to prevent the formation of rills and gullies.
- Install three (3) rows of porous baffles with a minimum spacing of 10 feet. Baffles should ultimately be placed to maximize the space between each row of baffles and the basin's inlets/outlets. Only two (2) rows of baffles are necessary for basins that are less than 50 feet in length.
- Porous Baffles should be composed of cor-boost materials or TRMs with a light generation (open spaces) between 10-35%. These materials should not have loose straw. Silt fence may not be used on Porous Baffles.
- Each porous baffles shall be installed across the entire width of the basin and along the basin's side slope until the height of the baffle intersects the slope.
- Install skimmer and coupling (as necessary) to riser structure at orifice along bottom of the principle spillway's riser structure. (Refer to skimmer manufacturer for installation procedures and skimmer specifications.)
- Skimmer should be equipped with a mechanism, such as a rope, to allow easy access to skimmer to unclog orifice or perform other necessary maintenance.
- Stormwater runoff entering the basin must be directed into proper BMPs to prevent erosion along side slopes and to prevent scour of the basin's inlets.
- The forebay berm should consist of riprap, gabion, or an earthen berm with a rock filled outlet that is constructed across the bottom of the basin's width.
- An additional cleanout stake for the forebay area is recommended and should be marked for cleanout at 50% of provided sediment storage.
- The elevation of the emergency spillway should be at least 1 foot below the top of the embankment. The emergency spillway should not be located on fill material, when possible. Riprap and geotextile liner should be placed on all spillways that must be located on fill material.

DRY SEDIMENT BASIN - INSPECTION AND MAINTENANCE

- The key to a functional sediment basin is weekly inspections, routine maintenance, and regular sediment removal.
- Attention to sediment accumulations within the basin is extremely important. Accumulated sediment deposition should be continually checked and removed when necessary.
- Remove accumulated sediment when it reaches 50% of the design sediment storage volume or 1/2 the height of the riser structure, whichever is reached first.
- Removed sediment from the basin shall be placed in stockpile storage areas or spread thinly across the disturbed area. Stabilize the removed sediment after it is relocated.
- Inspections of sediment basins should be conducted once every calendar week and, as recommended, within 24-hours of each rainfall event that produces 1/2-inch or more of precipitation.
- All temporary sediment basins, which are not to be converted to a detention basin post-construction, should be removed within 30 days after final site stabilization is achieved.
- Disturbed areas resulting from the removal of the sediment basin should be permanently stabilized and additional BMPs, such as silt fence, should be utilized to accept stormwater runoff from this disturbed area until final stabilization is reached.

DRY SEDIMENT POND

SCALE=NTS



DRY PONDS

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

DRY Storm Water Detention Ponds

Dry pond inside slopes should not be more than 3:1

The pond floor should have a minimum slope of 2% toward the outlet or underdrain system. Adequate maintenance access must be provided for all dry detention and dry ED ponds.

Low Flow Channel

A low flow channel should be provided to prevent standing water conditions. This channel should be protected to prevent scouring. The remainder of the pond should drain toward this channel. Where recreational uses are desired, the low-flow channel should be placed to one side instead in the middle of the pond.

Outfall

For a dry detention pond, the outlet structure is sized for water quality control and water quantity control (based upon hydrographing calculations) and consist of a weir, orifice, outlet pipe, combination outlet, or other acceptable control structure.

A low flow orifice capable of releasing the water quality volume over 24 hours must be provided. The water quality orifice should have a minimum diameter of 2-inches and should be adequately protected from clogging by an acceptable external trash rack.

The outfall of dry ponds should always be stabilized to prevent scour and erosion. If the pond discharges to a channel with dry weather flow, care should be taken to minimize tree clearing along the downstream channel, and to reestablish a forested riparian zone in the shortest possible distance.

Emergency Spillway

An emergency spillway must be included to pass the 100-year storm event. The spillway prevents pond water levels from overtopping the embankment and causing structural damage. The spillway must be designed and installed to protect against erosion problems.

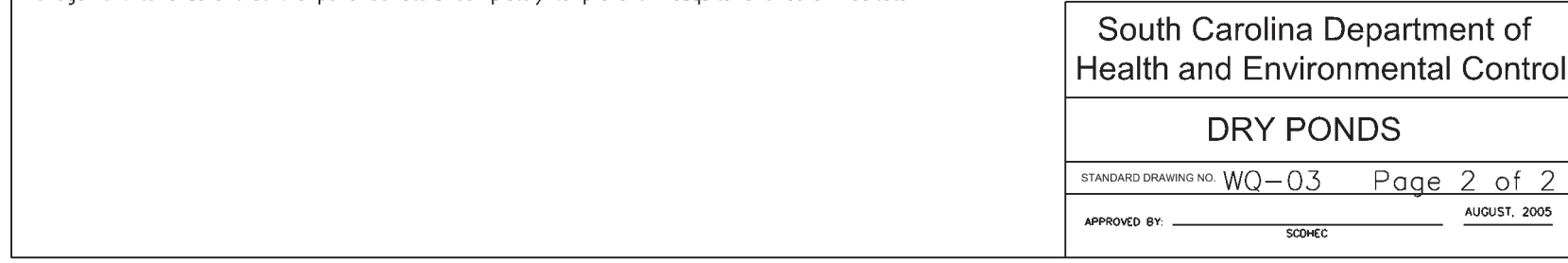
Anti-seep Collars

Seepage control or anti-seep collars should be provided for all outlet pipes.

Inspection and Maintenance

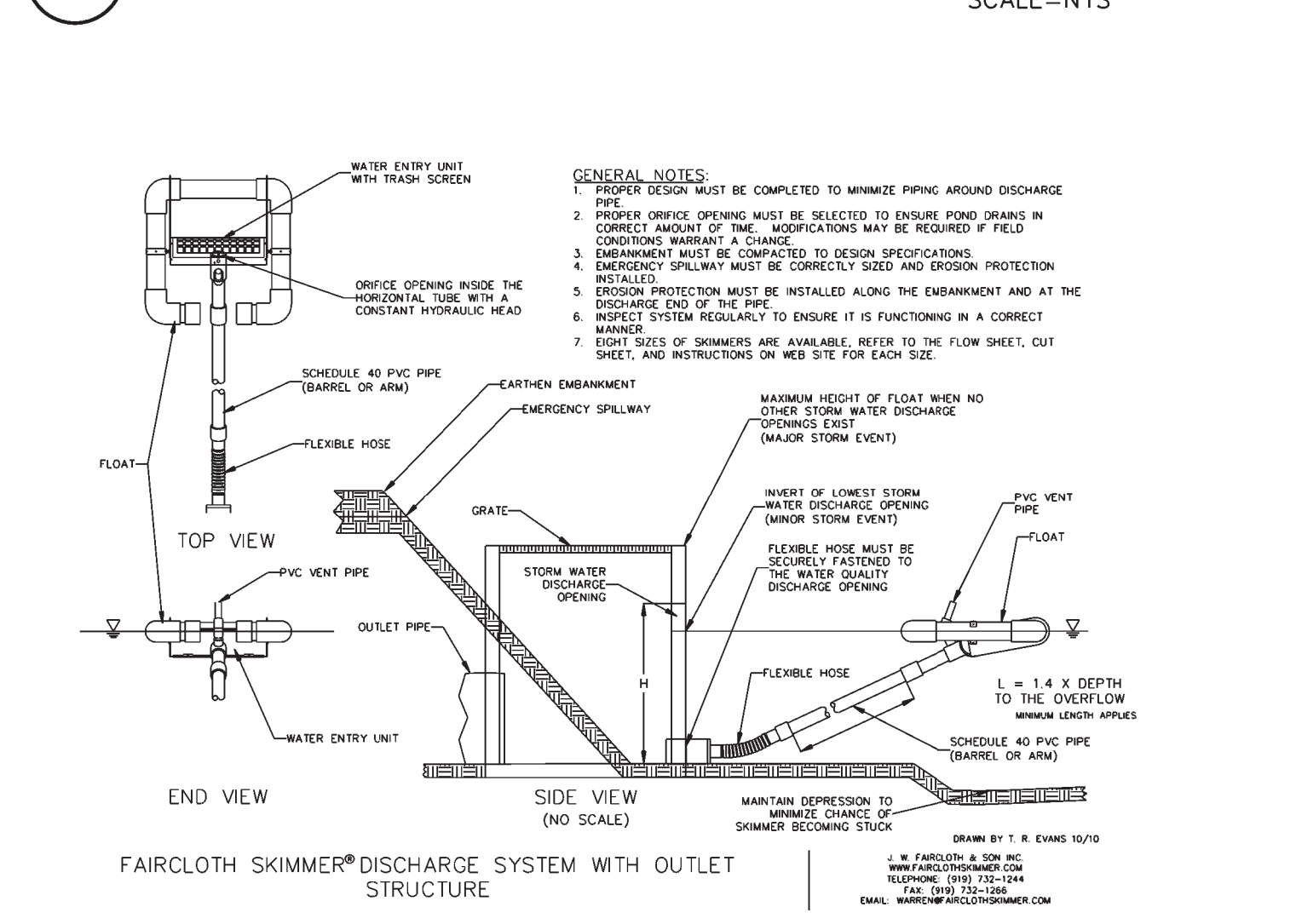
Regular inspection and maintenance is critical to the effective operation of dry ponds as designed. Maintenance responsibility for a pond should be vested with a responsible authority by means of a legally binding and enforceable maintenance agreement that is executed as a condition of plan approval.

Inspections should be conducted semi-annually and after significant storm events to identify potential problems early. Most maintenance efforts will need to be directed toward vegetation management and basic housekeeping practices such as removal of debris accumulations and vegetation management to ensure that the pond detowers completely to prevent mosquito and other habitats.



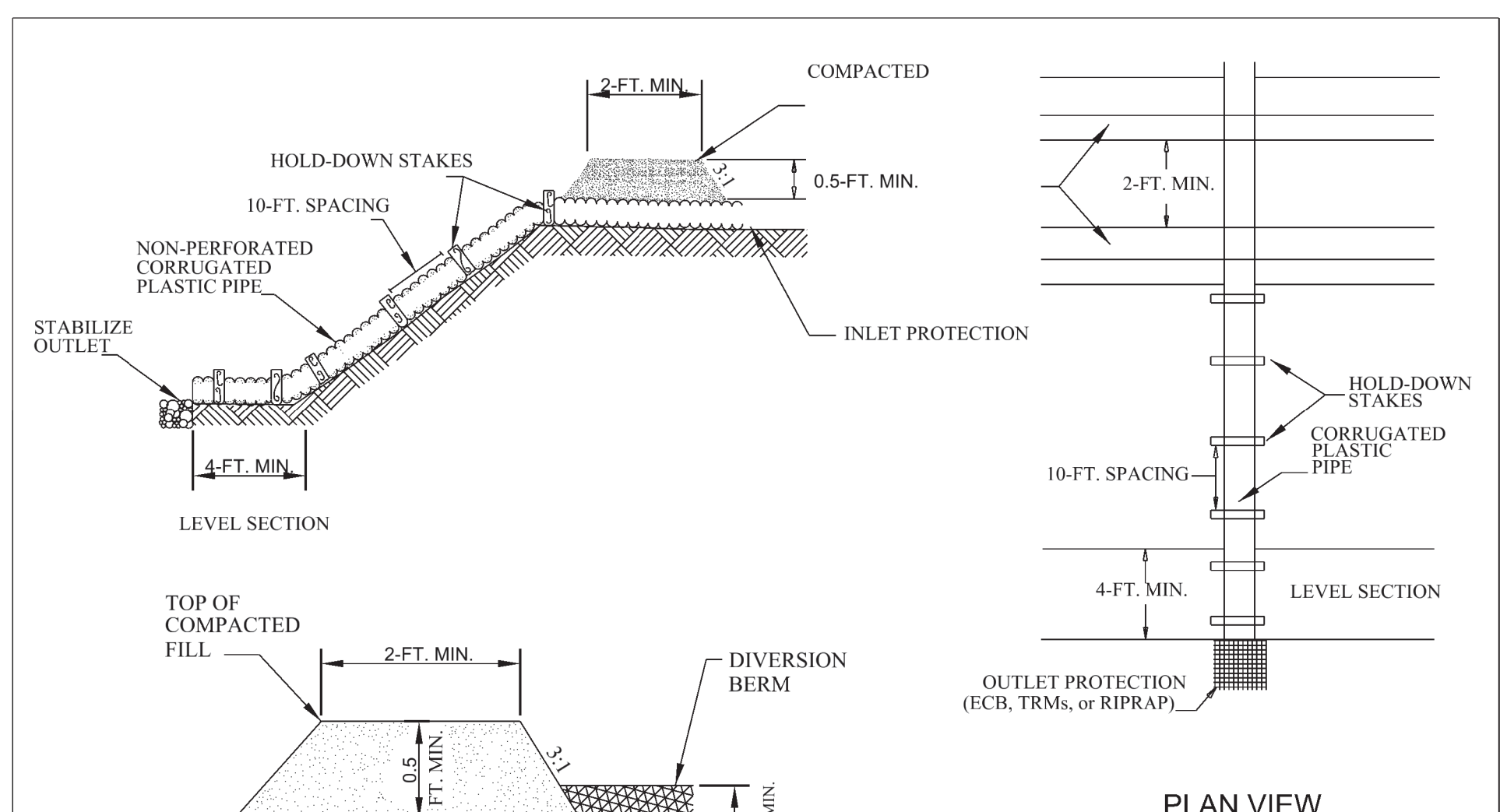
**K PERMANENT DRY POND**

SCALE=NTS



**M PERMANENT DRY POND**

SCALE=NTS



South Carolina Department of Health and Environmental Control

PIPE SLOPE DRAIN

STANDARD DRAWING NO. RC-01 PAGE 1 of 2

NOT TO SCALE JULY 31, 2005 DATE

PIPE SLOPE DRAIN

When and Where to Use It

Pipe slope drains are used when it is necessary for water to flow down a slope without causing erosion, especially before a slope has been stabilized or before permanent drainage structures are installed.

Installation

Typical pipe slope drains are made of non-perforated corrugated plastic pipe.

Slope drain sections should be securely fastened together, have gasket watertight fittings, and be securely anchored into the soil.

Diversion berms or dikes should direct runoff to slope drains. The minimum depth of these dikes or berms should be 1.5-feet. The height of the berm around the pipe inlet should be a minimum of 1.5-feet high and at least 0.5-feet higher than the top of the pipe. The berm at the pipe inlet shall be compacted around the pipe. The area around the inlet shall be properly stabilized with ECBs, TRMs, riprap or other applicable stabilization techniques.

The area below the outlet must be properly stabilized with ECBs, TRMs, riprap or other applicable stabilization technique.

If the pipe slope drain is conveying sediment-laden water, direct all flows into the sediment trapping facility.

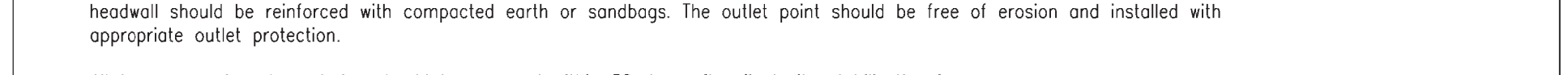
Permanent slope drains should be buried beneath the soil surface a minimum 1.5-feet.

Inspection and Maintenance

Inspect pipe slope drain inlet and outlet points every seven (7) calendar days and within 24-hours after each rainfall event that produces 1/2-inch or more of precipitation.

The inlet should be free from undercutting, and no water should be going around the point of entry. If there are problems, the headwall should be reinforced with compacted earth or sandbags. The outlet point should be free of erosion and installed with appropriate outlet protection.

All temporary pipe slope drains should be removed within 30 days after final site stabilization is achieved or after the temporary BMP is no longer needed. Disturbed soil areas resulting from removal should be permanently stabilized.



**L PIPE SLOPE DRAIN**

SCALE=NTS

APPROVALS

Project Engr: \_\_\_\_\_

Drawn By: \_\_\_\_\_

Checked By: \_\_\_\_\_

Review: \_\_\_\_\_

Bid: \_\_\_\_\_

Construction: \_\_\_\_\_

PREPARED BY

**JOEL E. WOOD & ASSOCIATES**

PLANNING • ENGINEERING • MANAGEMENT

P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS

**INFORMATION ONLY**

SOUTH CAROLINA PROFESSIONAL ENGINEER

JOEL E. WOOD

PROJECT

**UNIVERSITY APARTMENTS**

CITY OF LANCASTER, SOUTH CAROLINA

PREPARED FOR

**1640 UNIVERSITY DEVELOPEMENT LLC**

SHEET TITLE

**DETAILS**

NO.	DATE	REVISIONS	BY

SCALE: N.T.S.

DATE: 6/1/2023

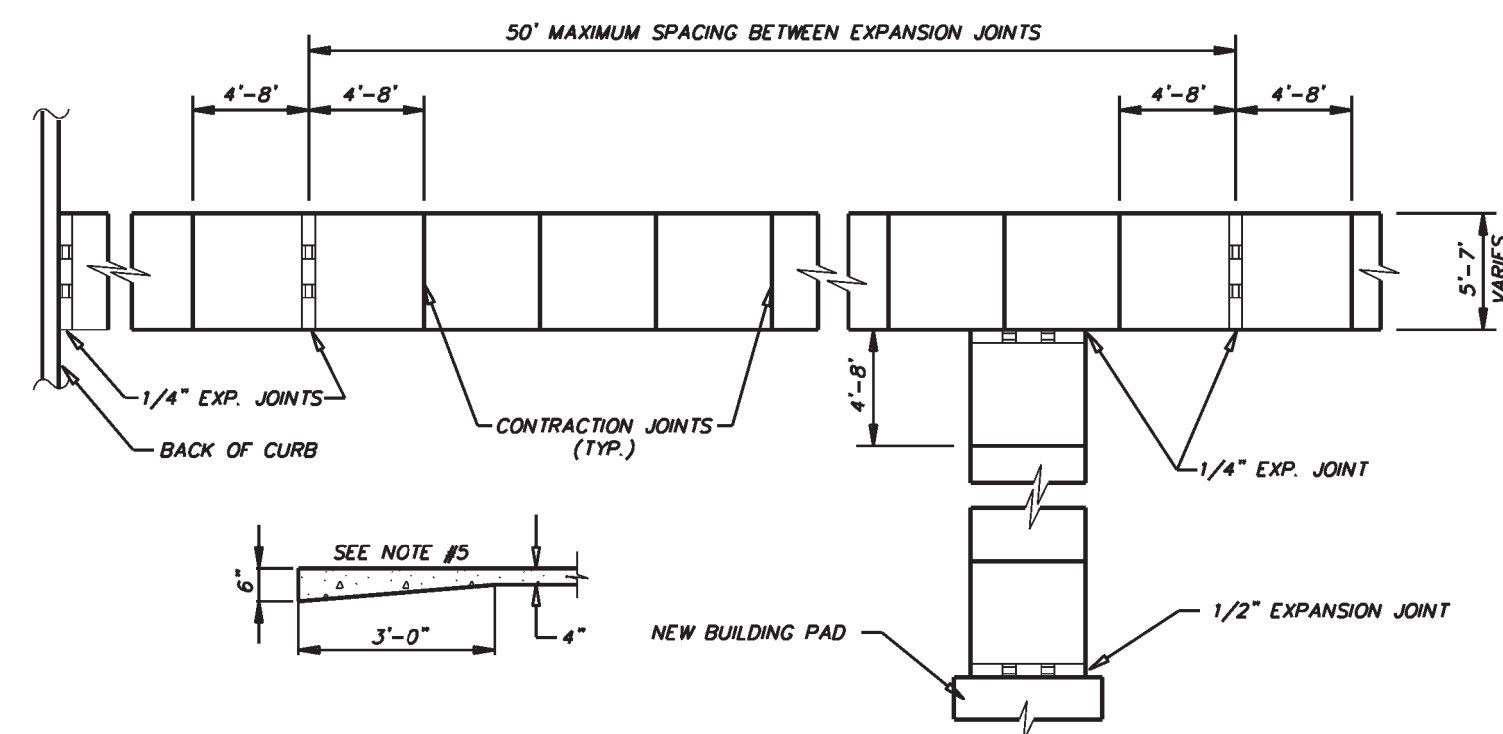
JOB NO.: 221005

SHEET **C701**



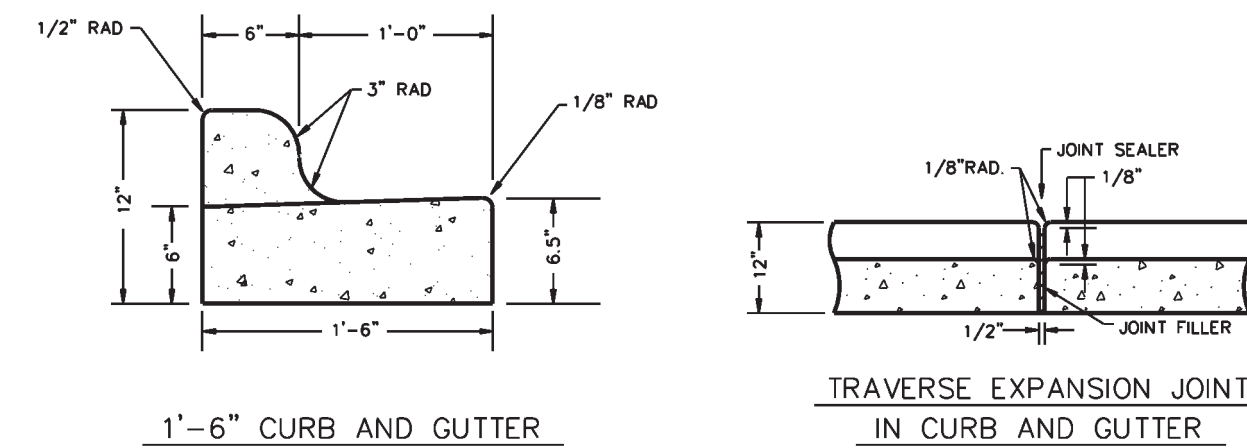






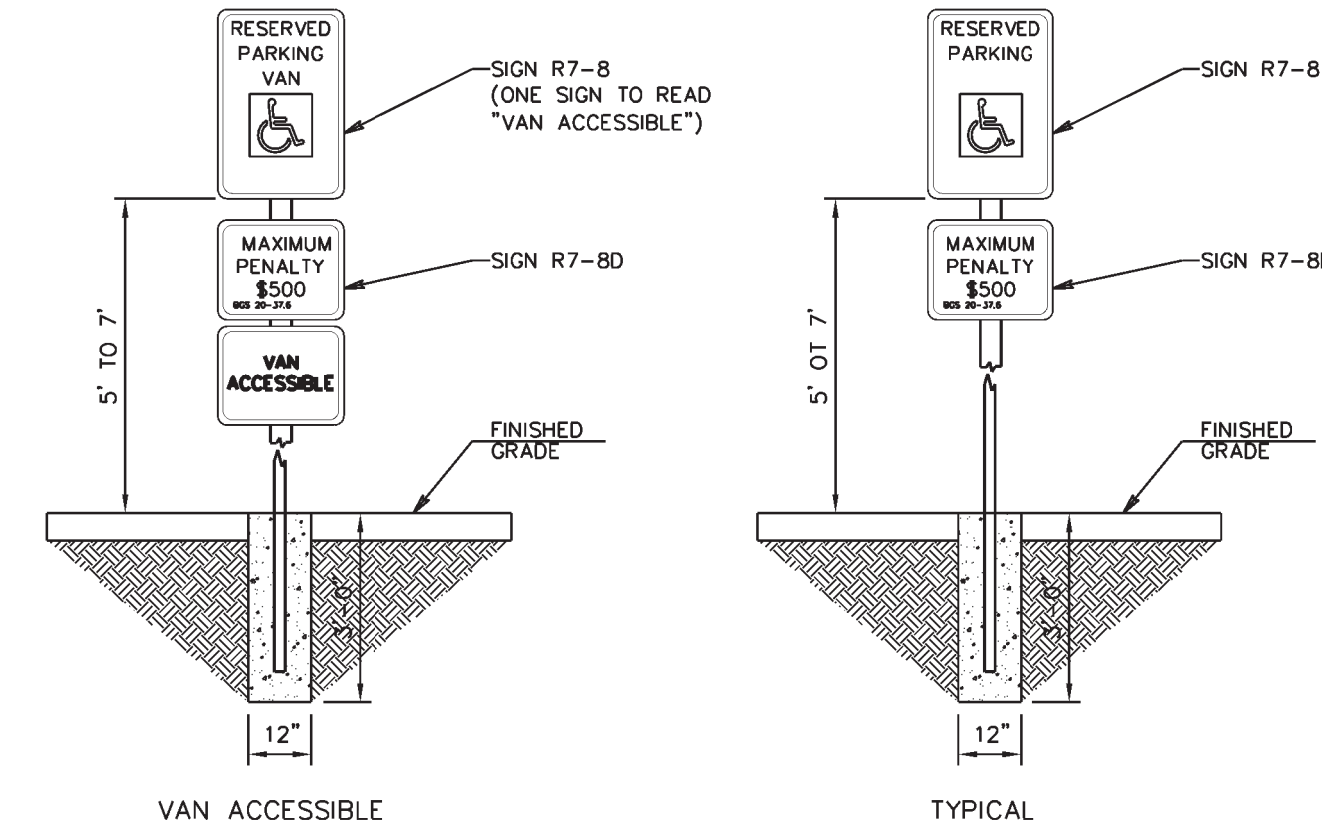
- GENERAL NOTES:
- ALL SIDEWALKS SHALL BE 4" THICK.
  - CONTRACTION JOINTS SHALL BE SPACED AT 6'-0" FOR 5' WIDE SIDEWALKS AND 8'-0" FOR 7' WIDE SIDEWALKS.
  - CONTRACTION JOINTS SHALL BE 1" DEEP AND EDGED WITH A 3/8" RADIUS.
  - WHEN SIDEWALKS ABUT ROADWAY OR PARKING AREAS WHERE THERE IS NO CURB, SIDEWALKS SHALL BE 6" THICK FOR A MINIMUM LENGTH OF 3 FEET.
  - A 1/2" EXPANSION MATERIAL IS REQUIRED WHERE CONCRETE SIDEWALK ABUTS OTHER CONCRETE STRUCTURE.
  - A LAYER OF #15 FELT IS REQUIRED BETWEEN SIDEWALK AND ADJACENT PARALLELING CONCRETE CURB.

**A** STANDARD JOINT DETAIL FOR SIDEWALKS  
SCALE=NTS

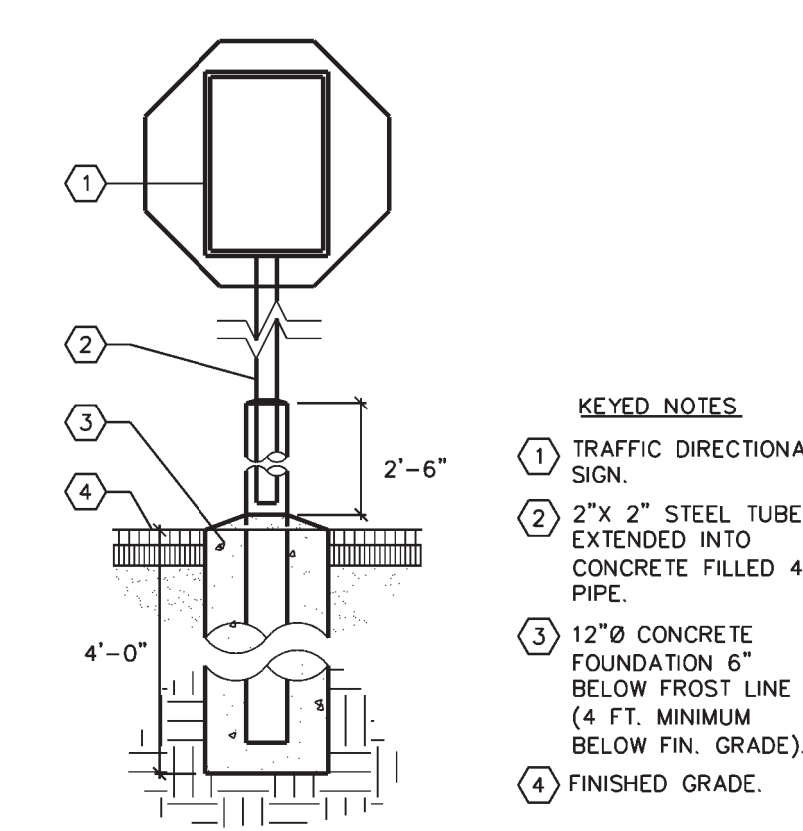


- GENERAL NOTES:
- CONTRACTION JOINTS SHALL BE SPACED AT 10 FOOT INTERVALS. WHERE A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10 FOOT INTERVALS A 15 FOOT SPACING MAY BE USED. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
  - CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED.
  - ALL CONTRACTION JOINTS SHALL BE FILLED WITH JOINT SEALER.
  - EXPANSION JOINTS SHALL BE SPACED AT 90 FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS.
  - JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
  - CONCRETE SHALL BE 3600 PSI STRENGTH AFTER 28 DAYS.

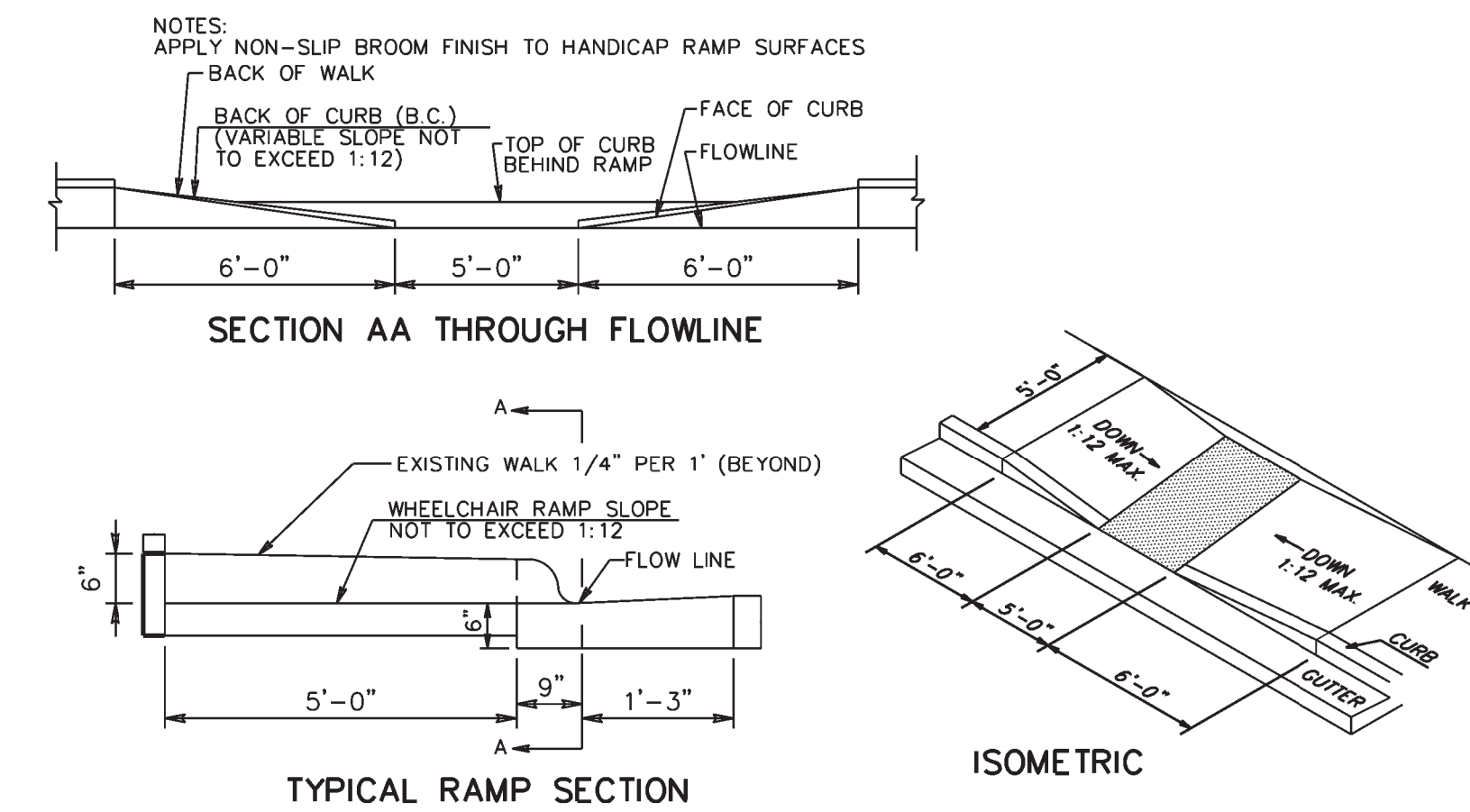
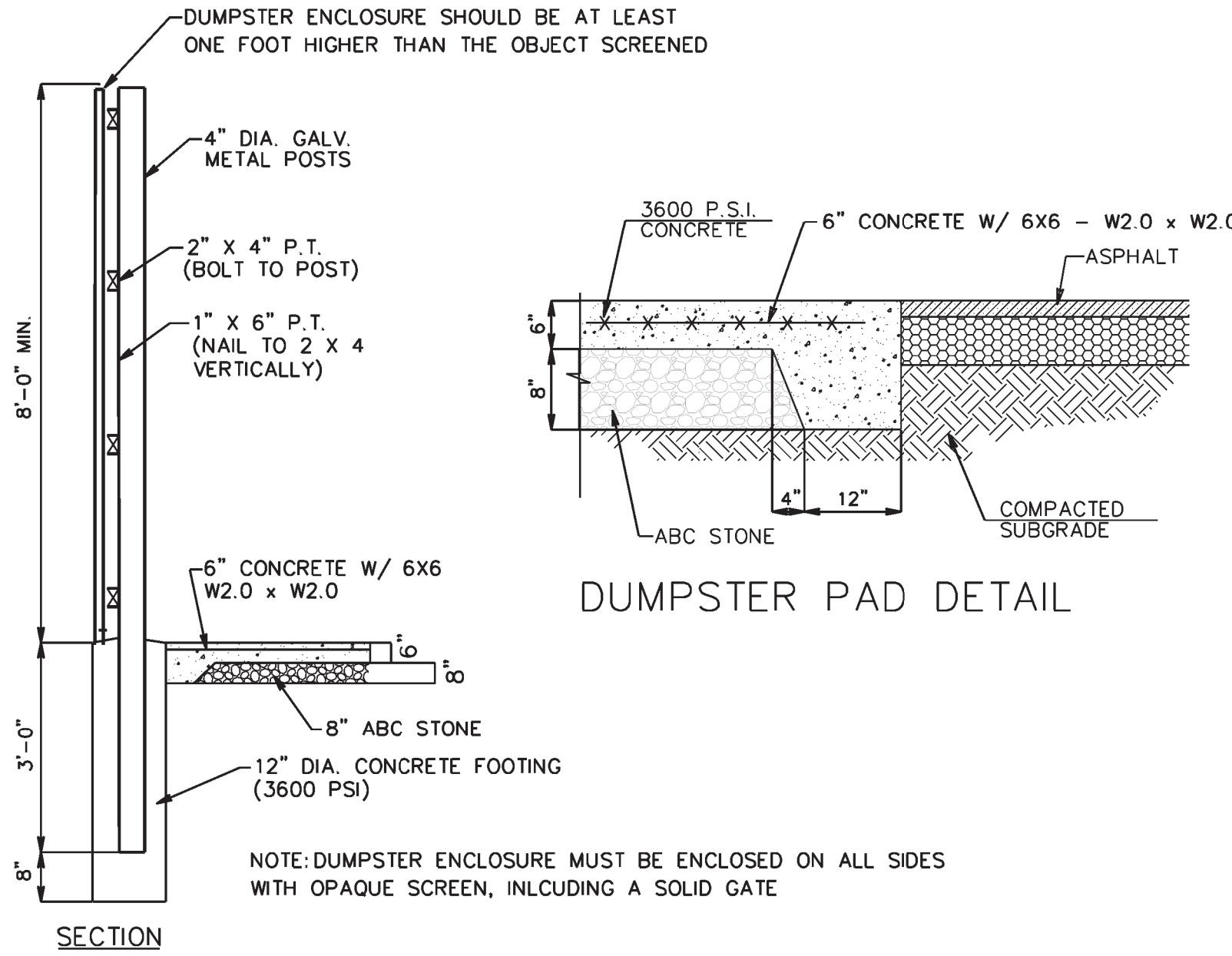
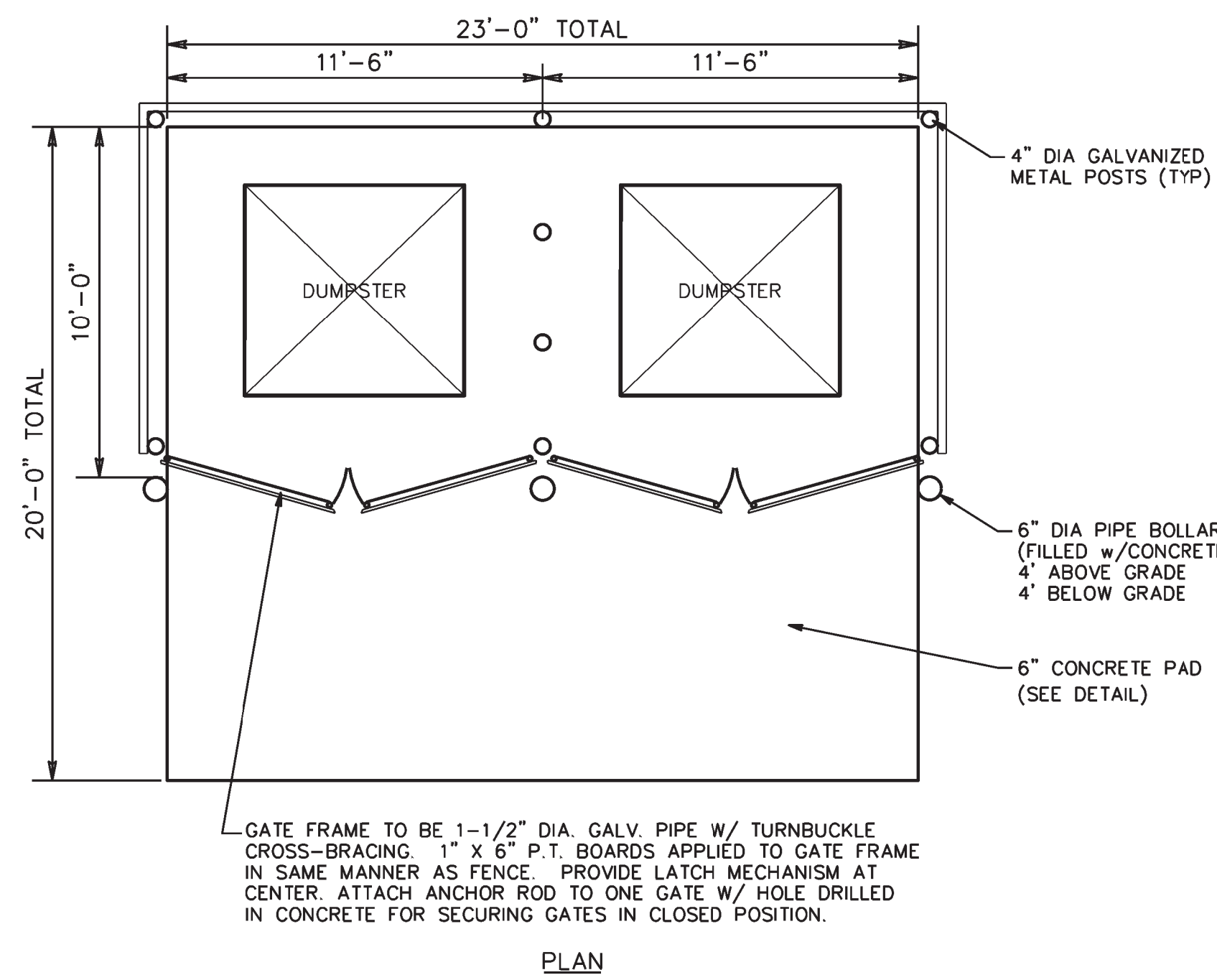
**B** CURB & GUTTER DETAIL  
SCALE=NTS



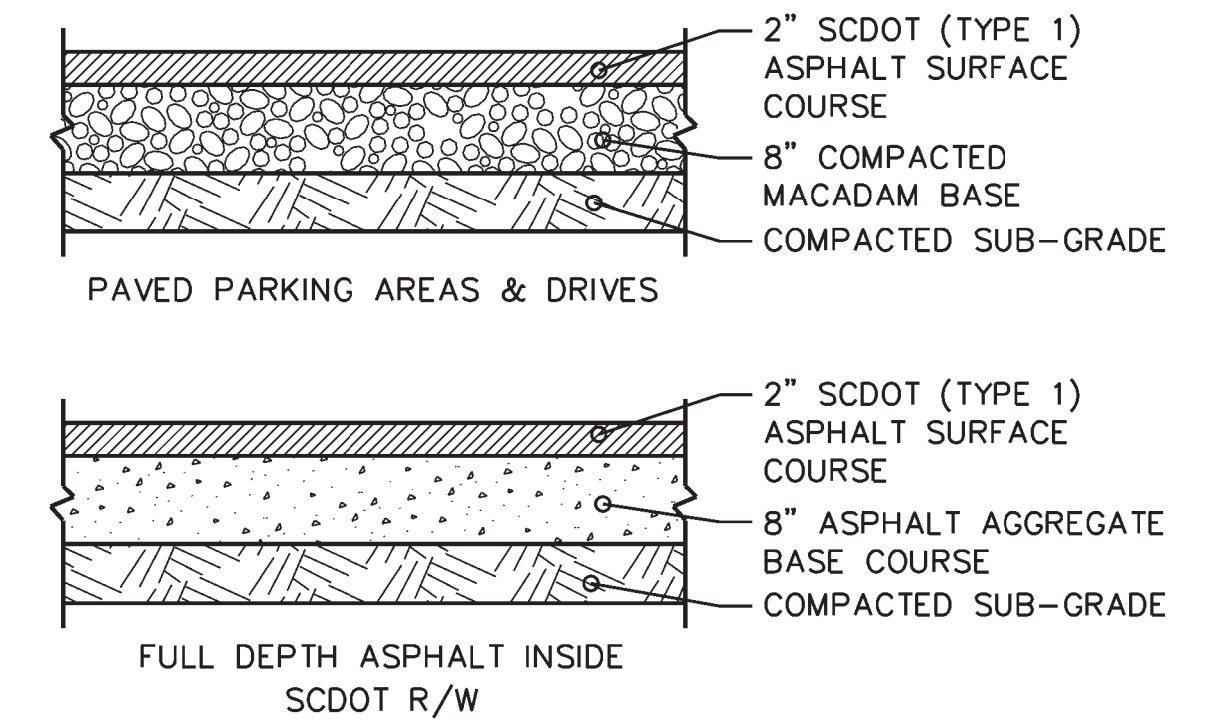
**C** HANDICAP SIGN DETAIL  
SCALE=NTS



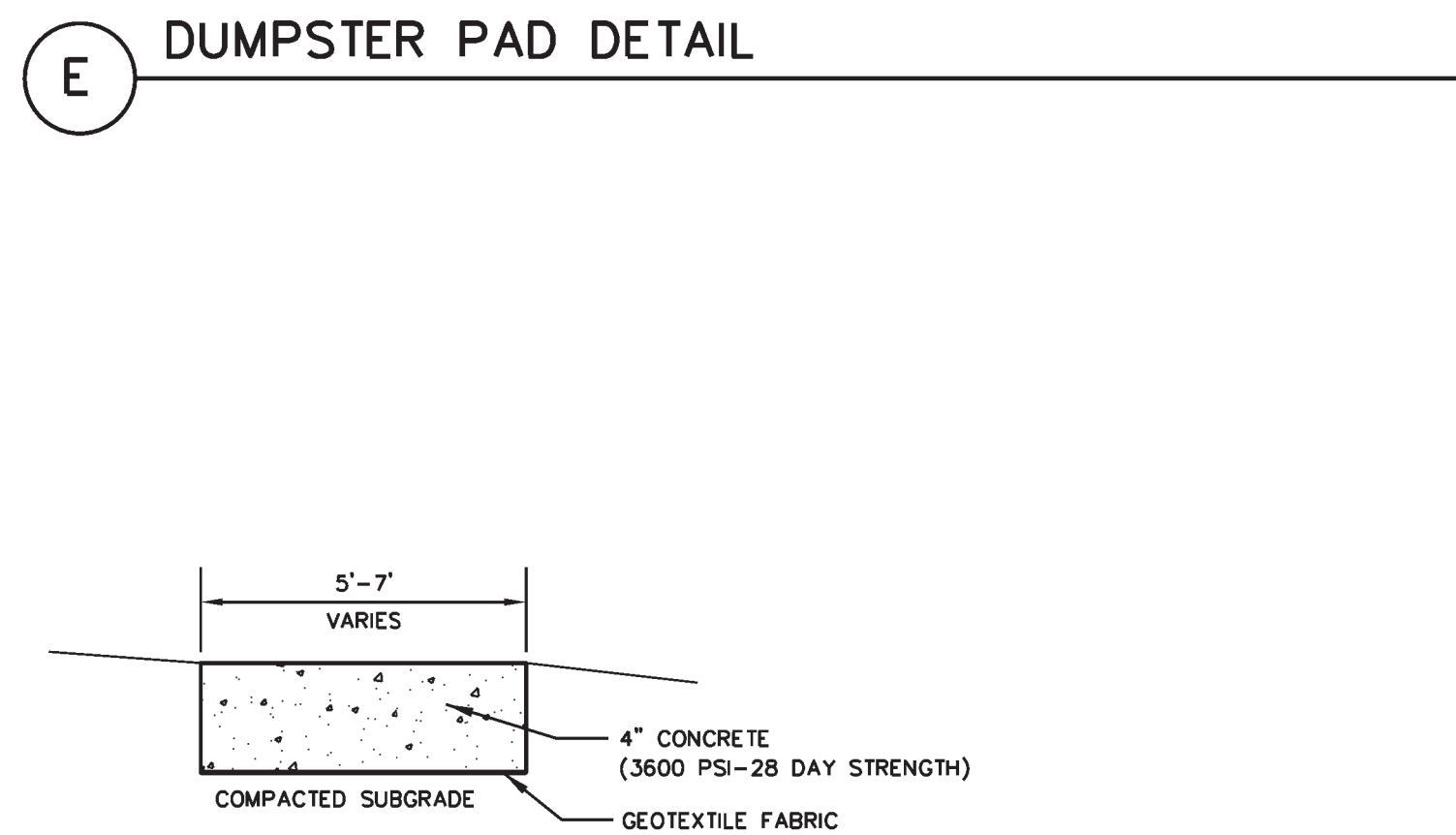
**D** STANDARD SIGN POST  
SCALE=NTS



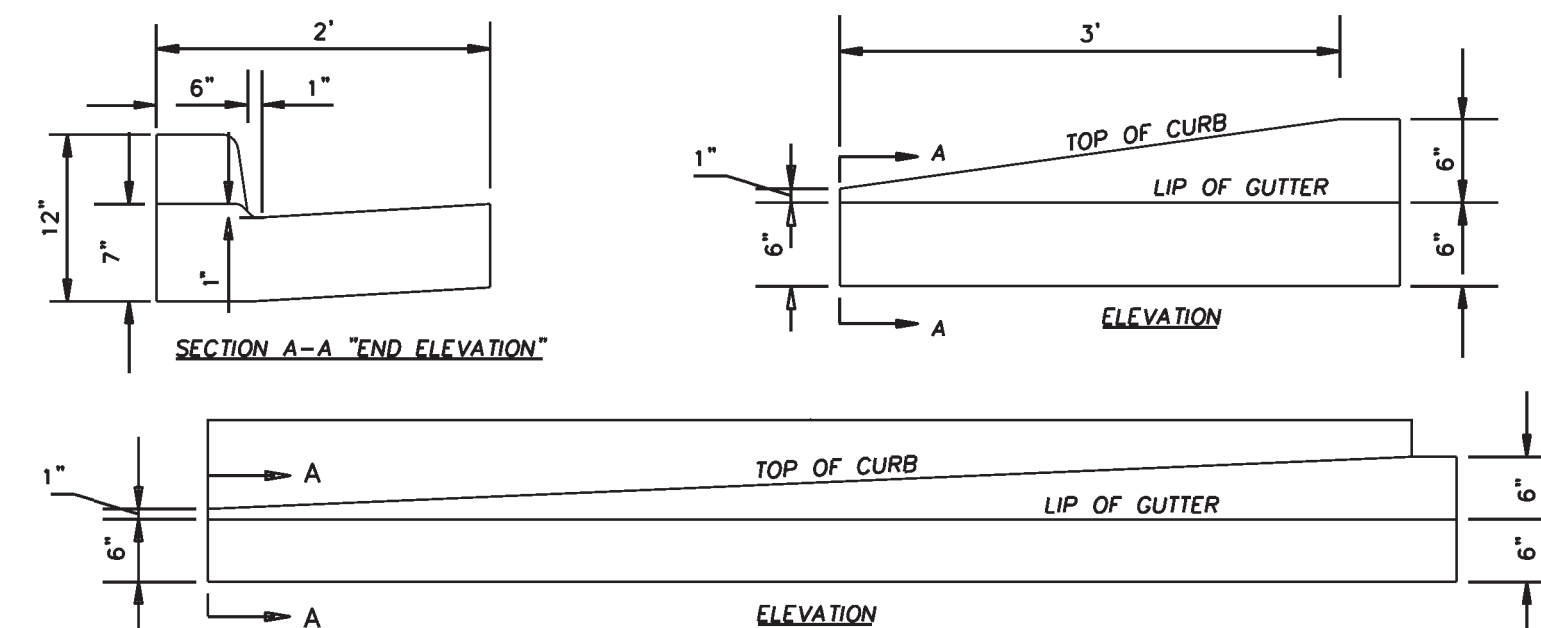
**F** HANDICAP RAMP DETAIL  
SCALE=NTS



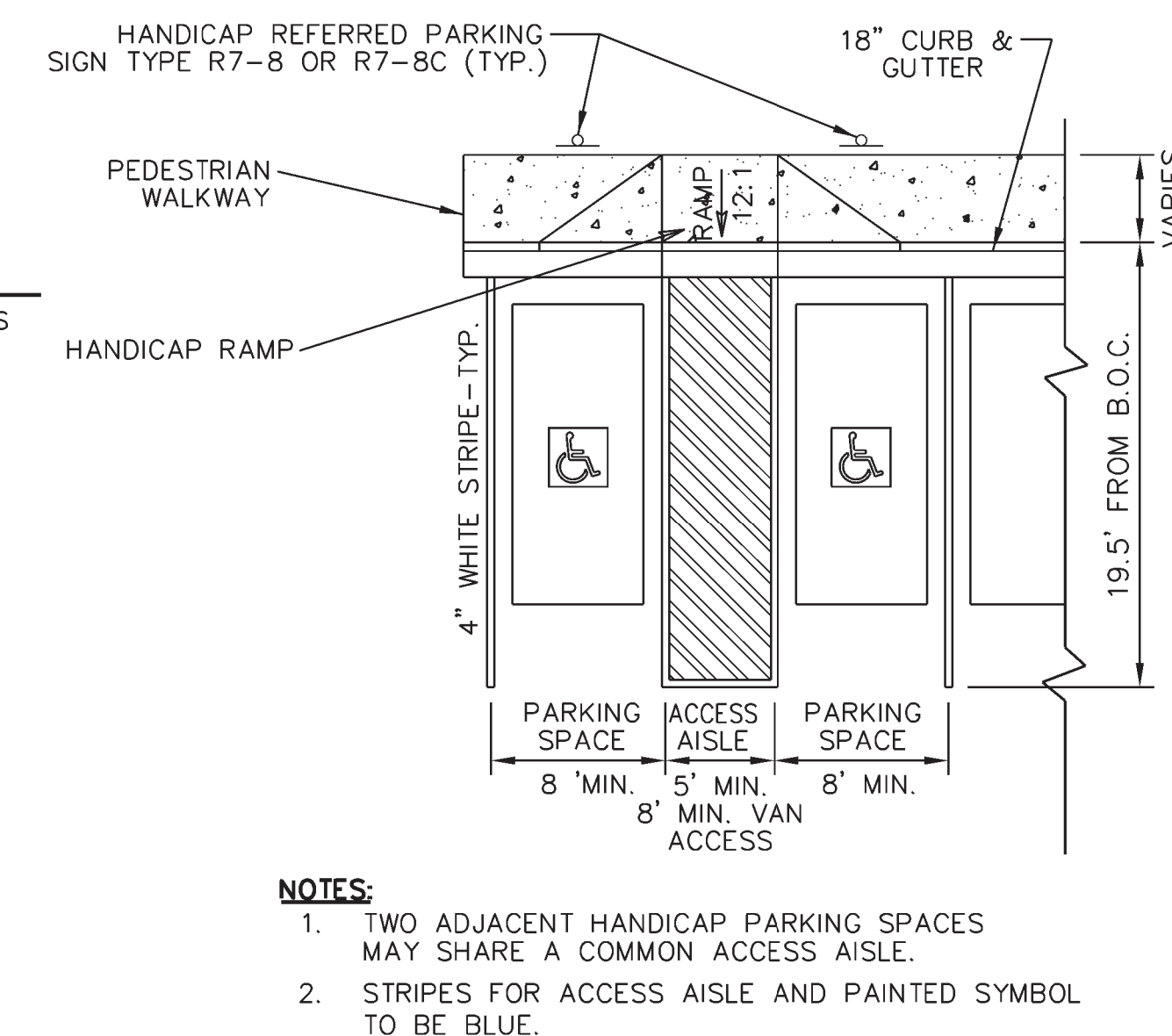
**G** PAVEMENT SECTIONS  
SCALE=NTS



**H** STANDARD SIDEWALK  
SCALE=NTS

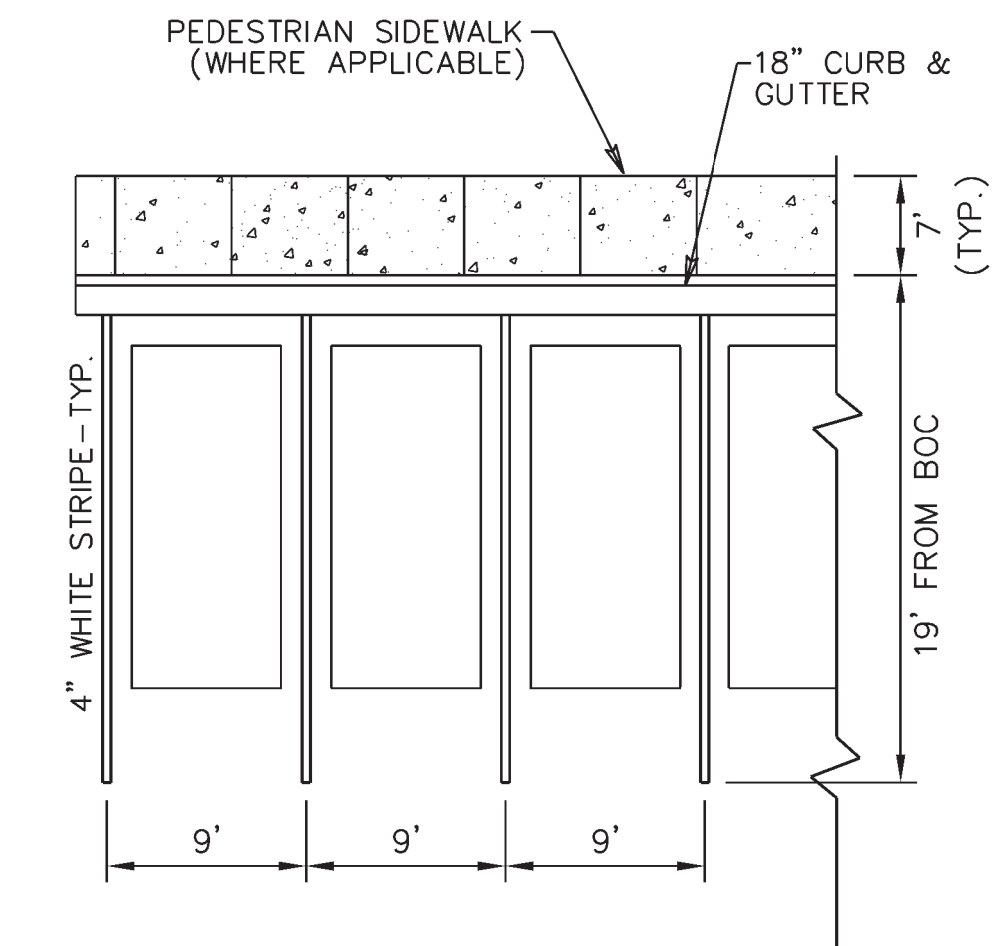


**I** CURB END TAPER DETAIL  
SCALE=NTS



- NOTES:
- TWO ADJACENT HANDICAP PARKING SPACES MAY SHARE A COMMON ACCESS AISLE.
  - STRIPES FOR ACCESS AISLE AND PAINTED SYMBOL TO BE BLUE.

**J** HANDICAP PARKING DETAIL  
SCALE=NTS



**K** TYPICAL STRIPING DETAIL  
SCALE=NTS

APPROVALS	PREPARED BY	SEALS	PROJECT	SHEET TITLE	NO.	DATE	REVISIONS	BY	SCALE: N.T.S.		
Project Engr: _____ Drawn By: _____ Checked By: _____	<p><b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390</p>		<p><b>UNIVERSITY APARTMENTS</b> CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR <b>1640 UNIVERSITY DEVELOPEMENT LLC</b></p>	<p><b>DETAILS</b></p>					DATE: 6/1/2023		
Review: _____ Bid: _____ Construction: _____											JOB NO.: 221005







**PLAN-BENDS**  
**PLAN-TEES**

**SECTION X-X BENDS & TEES**

PIPE SIZE	90° BEND		45° BEND		22-1/2° BEND		11-1/4° BEND		TEE		PLUG
	A	B	A	B	A	B	A	B	C	D	
4"	18"	12"	10"	13"	7"	10"	7"	10"	12"	14"	6"
6"	18"	12"	10"	13"	7"	10"	7"	10"	12"	14"	9"
8"	24"	18"	13"	18"	10"	12"	10"	12"	16"	18"	11"
10"	28"	22"	15"	22"	12"	15"	12"	15"	20"	22"	14"
12"	32"	28"	19"	28"	14"	18"	14"	18"	22"	28"	17"
16"	54"	38"	30"	36"	18"	36"	18"	36"	42"	54"	24"

2000 PSF SOIL (SAND & GRAVEL WITH CLAY)

**NOTES:**

- BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE.
- ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
- THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE.
- KEEP ALL PIPING JOINTS CLEAR OF CONCRETE THRUST BLOCKS.

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
THRUST BLOCKING DETAIL

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WS-1

**PLAN VIEW FOR WATER LINE UNDER SEWER LINE**  
**PLAN VIEW FOR SEWER LINE UNDER WATER LINE**

WATER AND SEWER LINE SHALL BE WATER MAIN PIPE (FOR 10" OR 12" DIA. WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.)  
CONCRETE FERROUS METAL PIPE FOR 10" OR 12" DIA. WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

o = OVER 18" SDR 21 PVC SHALL APPLY

o = LESS THAN 18" SDR 21 WATER AND SEWER LINE SHALL BE WATER MAIN STANDARD JOINTS FOR 10" OR 12" DIA. WATER MAIN PIPE (FOR 10" OR 12" DIA. WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.)  
o = OVER 18" SDR 21 PVC SHALL APPLY

NOTE: SEE STANDARD SPECIFICATIONS SECTION 2.12

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
FERROUS MATERIALS AND JOINT REQUIREMENTS FOR WATER LINE AND SEWER LINE CROSSINGS

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WS-2

**TOTAL WIDTH OF PAVEMENT TO BE REMOVED & REPLACED**

STREET-WIDTH	MINIMUM REPLACE	
	CABC	I-2
ASPHALT ROADWAY	8"	2"
ASPHALT DRIVEWAY	6"	2"
CONCRETE DRIVEWAY	6"	CONCRETE ON SUBGRADE
CONCRETE SIDEWALK	4"	CONCRETE ON SUBGRADE
STONE ROADWAY	6"	STONE ON SUBGRADE
STONE DRIVEWAY	4"	STONE ON SUBGRADE

**NOTES:**

- ALL BACKFILL LOCATED WITHIN THE VEHICULAR LOAD ZONE IS TO BE PLACED IN LIFTS NOT TO EXCEED 6" AND COMPACTED TO 95% OF STANDARD PROCTOR TEST (ASTM D698).
- ALL BACKFILL OUTSIDE THE VEHICULAR LOAD ZONE BUT LOCATED IN THE RIGHT OF WAY IS TO BE COMPACTED TO 95% OF STANDARD PROCTOR TEST (ASTM D698).
- THE LACK OF PROPER COMPACTION EQUIPMENT OR THE USE OF IMPROPER COMPACTION METHODS SHALL BE CAUSE FOR THE IMMEDIATE SHUTDOWN OF THE WORK BY THE ENGINEER.

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
TYPICAL PAVEMENT REPAIR FOR UTILITY CUT

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WS-3

**TYPICAL PIPE CROSSING**

**FRONT VIEW**  
**DETAIL**  
**SIDE VIEW**

**NOTES:**

- STEEL ENCASEMENT PIPE SHALL CONFORM TO ASTM A-139 WITH WALL THICKNESS AND GRADE AS DEFINED IN THE SPECIFICATIONS. MINIMUM ALLOWABLE YIELD STRENGTH IS 35,000 PSI.
- CARRIER PIPE SHALL BE ADEQUATELY SUPPORTED THE ENTIRE LENGTH WITHIN THE CASING BY USING "SPIDER" STEEL SUPPORTS AT A MAXIMUM OF 9 FOOT CENTERS (ONE AT EACH JOINT AND ONE INTERMEDIATE). OTHER METHODS MUST MEET APPROVAL OF THE TOWN OF DUNCAN.

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
ENCASEMENT PIPE UNDER HIGHWAYS AND RAILROADS

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WS-4

**END ELEVATION**  
**CASING SECTION A-A**

NOTE: ENTIRE SPIDER ASSEMBLY TO BE BITUMINOUS-COATED AFTER FABRICATION.

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STEEL SPIDER

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WS-5

AREAS REQUIRED FOR CONCRETE BLOCKING FOR TEES AND BENDS ETC. BASED ON TEST PRESSURE OF 200 P.S.I.

ALL AREAS GIVEN ARE IN SQUARE FEET (AGAINST UNDISTURBED EARTH)

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	EARLY DRY CLAY 4000 LBS./FT <sup>2</sup>	SOFT CLAY 2000 LBS./FT <sup>2</sup>	GRAVEL-COARSE SAND 1600 LBS./FT <sup>2</sup>	TIE RODS REQUIRED
6"					
11-1/4"	1,108	1	1	1	
22-1/2"	2,207	1	2	2	
45°	4,328	2	3	3	
90°	7,996	2	4	5	
PLUG	5,665	2	3	4	2-5/8"
8"					
11-1/4"	1,970	1	1	2	
22-1/2"	3,922	1	2	3	
45°	7,694	2	4	5	
90°	14,215	4	8	9	
PLUG	10,053	3	5	6	2-5/8"
12"					
11-1/4"	4,433	2	3	3	
22-1/2"	8,826	3	5	6	
45°	17,312	5	9	11	
90°	31,983	8	16	19	
PLUG	22,619	6	12	14	4-3/4"
16"					
11-1/4"	7,881	2	4	5	
22-1/2"	15,691	4	8	10	
45°	30,779	8	16	19	
90°	56,861	15	29	35	
PLUG	40,213	10	21	25	6-3/4"

REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.

USE 6" - 90° BEND VALVE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR. (2 - 5/8" ROD IS ADEQUATE FOR 6" F.H. LEG)

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
AREAS REQUIRED FOR CONCRETE BLOCKING FOR TEES & BENDS ETC. (BASED ON TEST PRESSURE OF 200 PSI)

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WS-8

**NOTES:**

- BACKFILL TO 95% OF MAXIMUM DENSITY WHERE EXCAVATIONS CUT THROUGH PAVEMENTS, CURBS, DRIVEWAYS AND SIDEWALKS, AND UNDER OR ADJACENT TO STRUCTURES.
- STONE TO BE SIZE 1/2" TO 1-1/2", WELL TAMPED.
- STONE IS REQUIRED TO 6" BELOW PIPE WHERE WET CONDITIONS OR ROCK IS ENCOUNTERED, ONLY AS DIRECTED.
- HAND SHAPE TRENCH BOTTOM FOR LOWER QUADRANT OF PIPE AND BELLS.
- PROVIDE MINIMUM 3'-0" COVER OVER PIPE.

DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD WATER LINE TRENCH

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WL-1

**NOTES:**

- BACKFILL TO 95% OF MAXIMUM DENSITY WHERE EXCAVATIONS CUT THROUGH PAVEMENTS, CURBS, DRIVEWAYS AND SIDEWALKS, AND UNDER OR ADJACENT TO STRUCTURES.
- STONE TO BE SIZE 1/2" TO 1-1/2", WELL TAMPED.
- STONE IS REQUIRED TO 6" BELOW PIPE WHERE WET CONDITIONS OR ROCK IS ENCOUNTERED, ONLY AS DIRECTED.
- HAND SHAPE TRENCH BOTTOM FOR LOWER QUADRANT OF PIPE AND BELLS.
- PROVIDE MINIMUM 3'-0" COVER OVER PIPE.

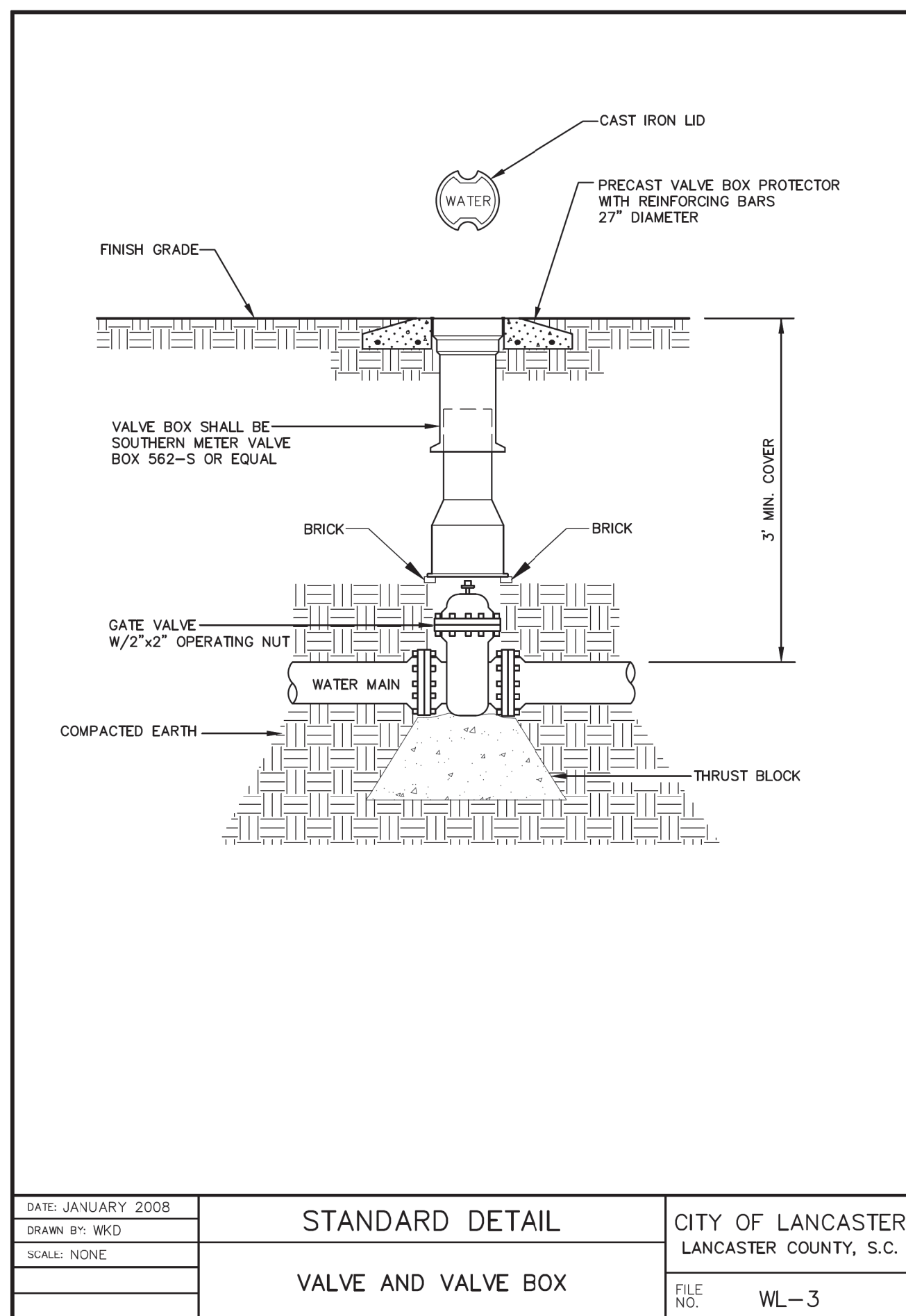
DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
BLOW OFF

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. WL-2

<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____  Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b> <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b> 	<b>PROJECT</b> <b>UNIVERSITY APARTMENTS</b> CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR <b>1640 UNIVERSITY DEVELOPEMENT LLC</b>	<b>SHEET TITLE</b> <b>DETAILS</b>	NO.	DATE	REVISIONS	BY	SCALE: N.T.S.
									DATE: 6/1/2023
									JOB NO.: 221005
									SHEET <b>C705</b>



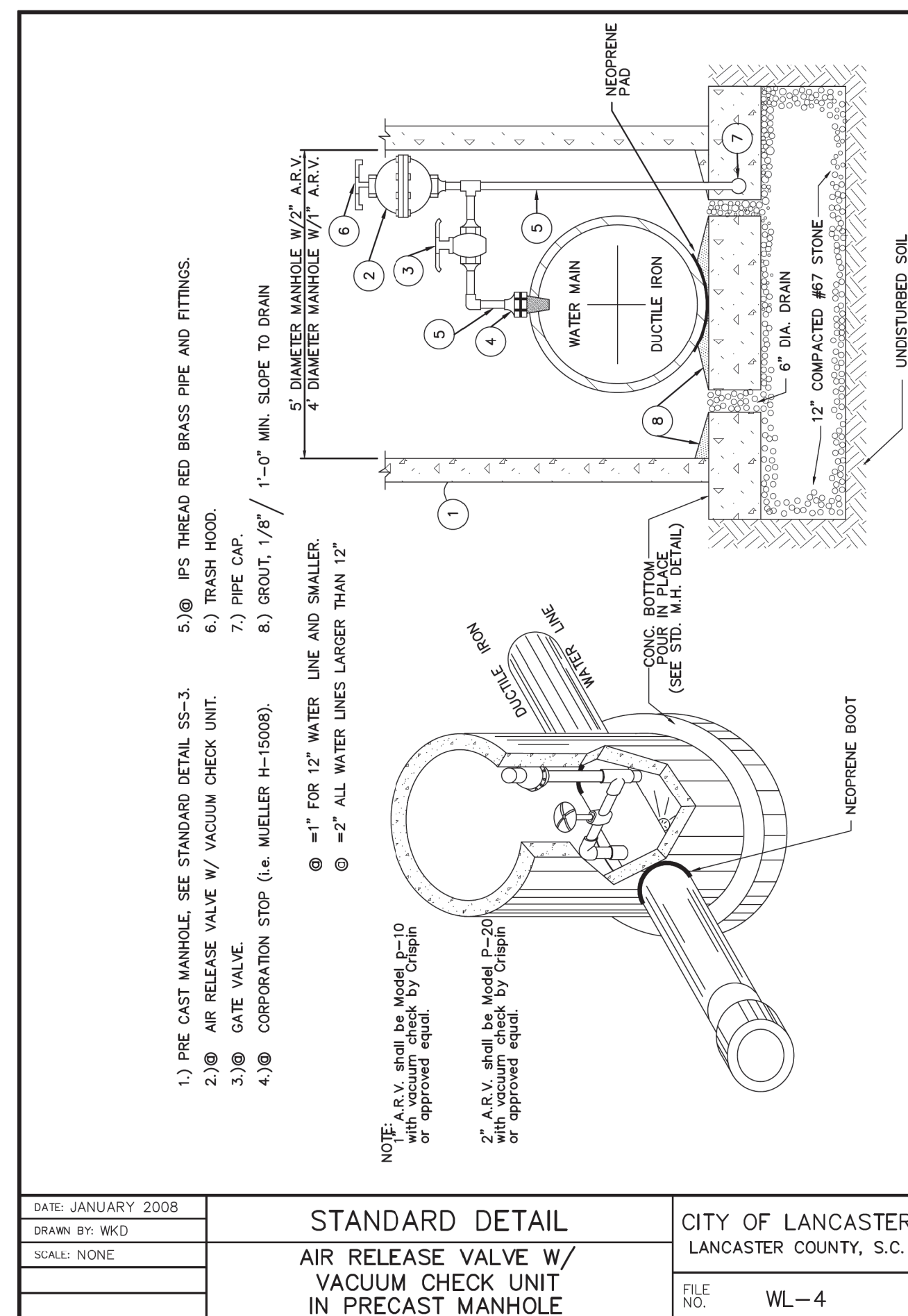


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
VALVE AND VALVE BOX

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: WL-3

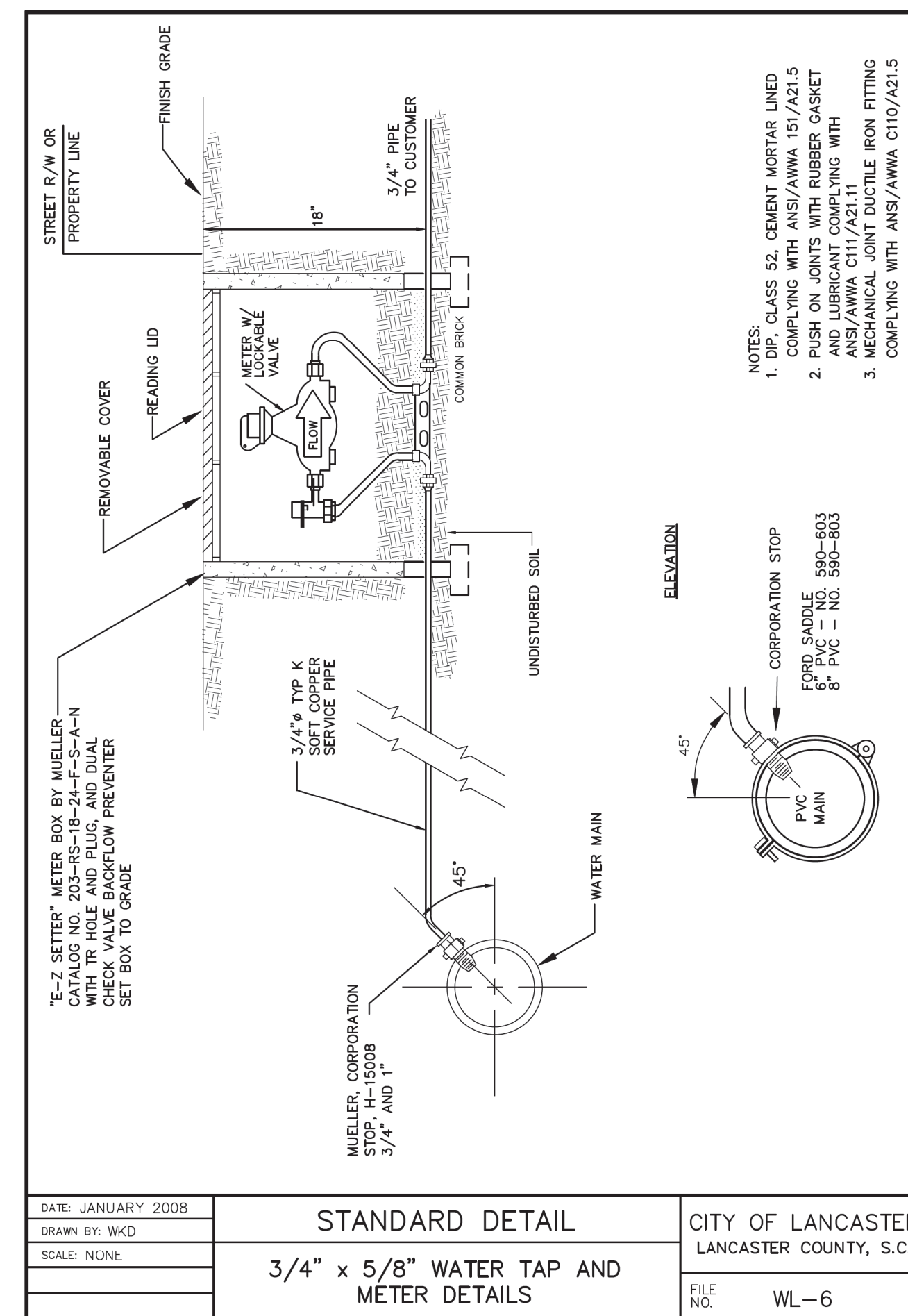


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
AIR RELEASE VALVE W/  
VACUUM CHECK UNIT  
IN PRECAST MANHOLE

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: WL-4

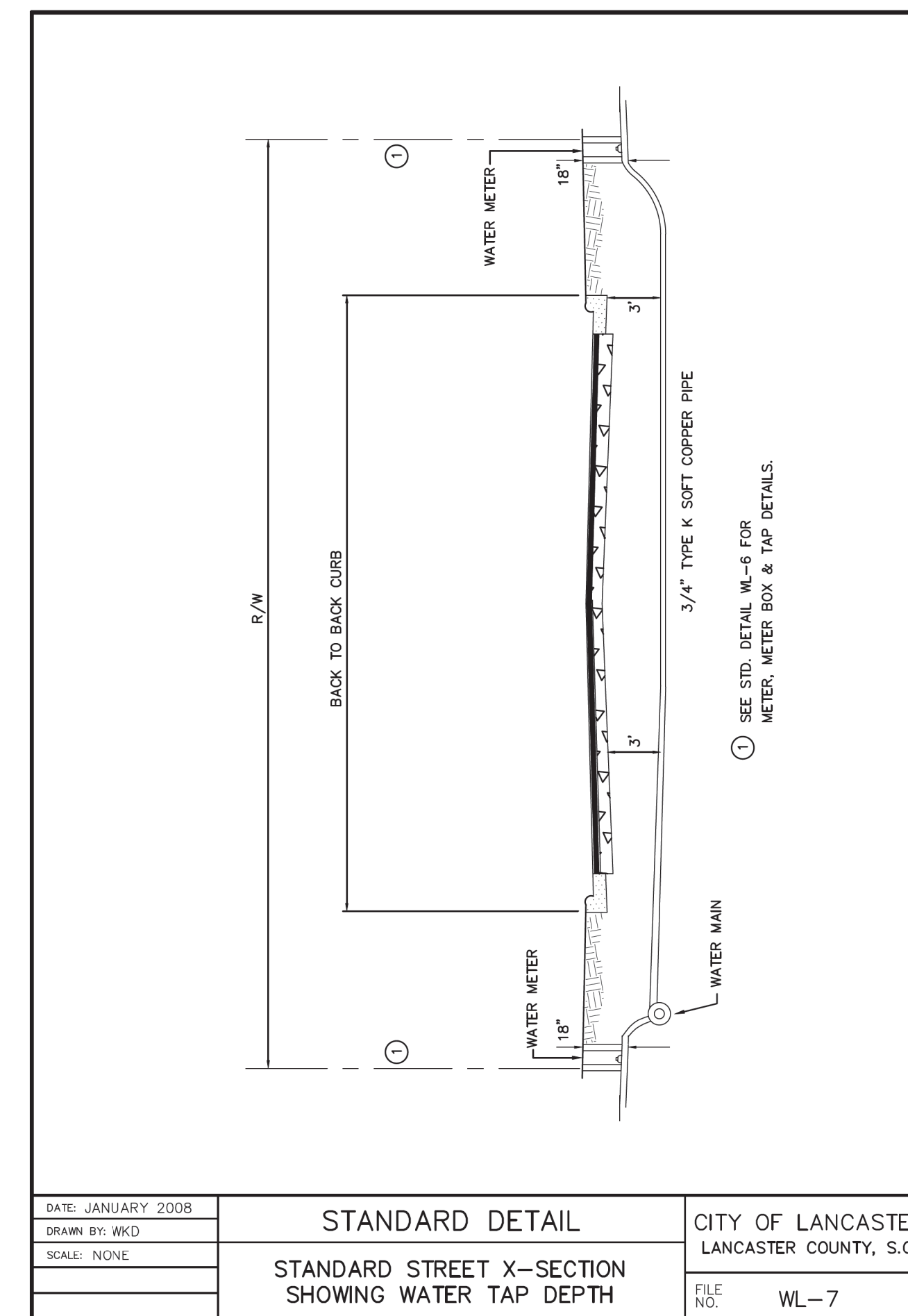


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
3/4" x 5/8" WATER TAP AND  
METER DETAILS

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: WL-6

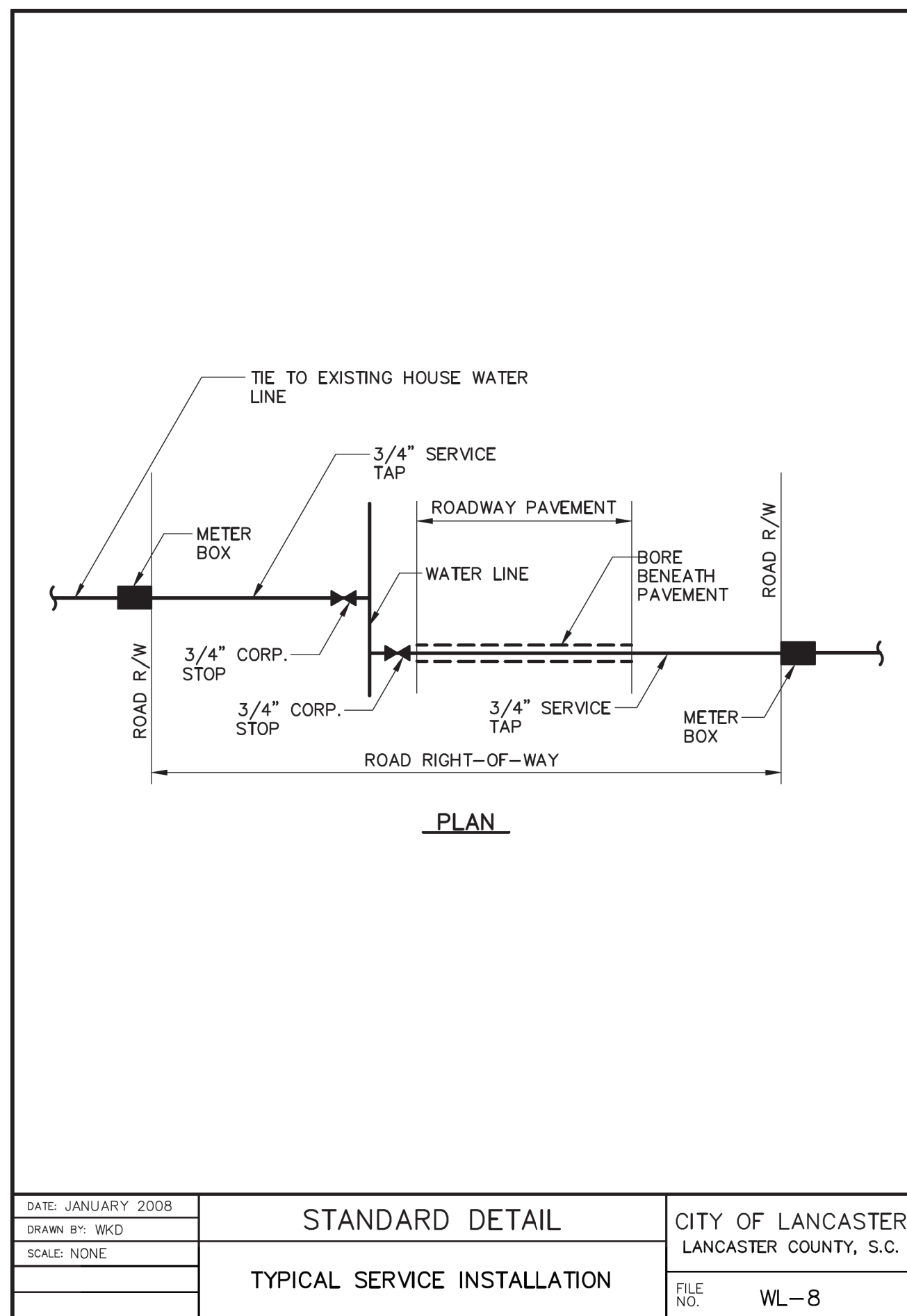


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD STREET X-SECTION  
SHOWING WATER TAP DEPTH

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: WL-7

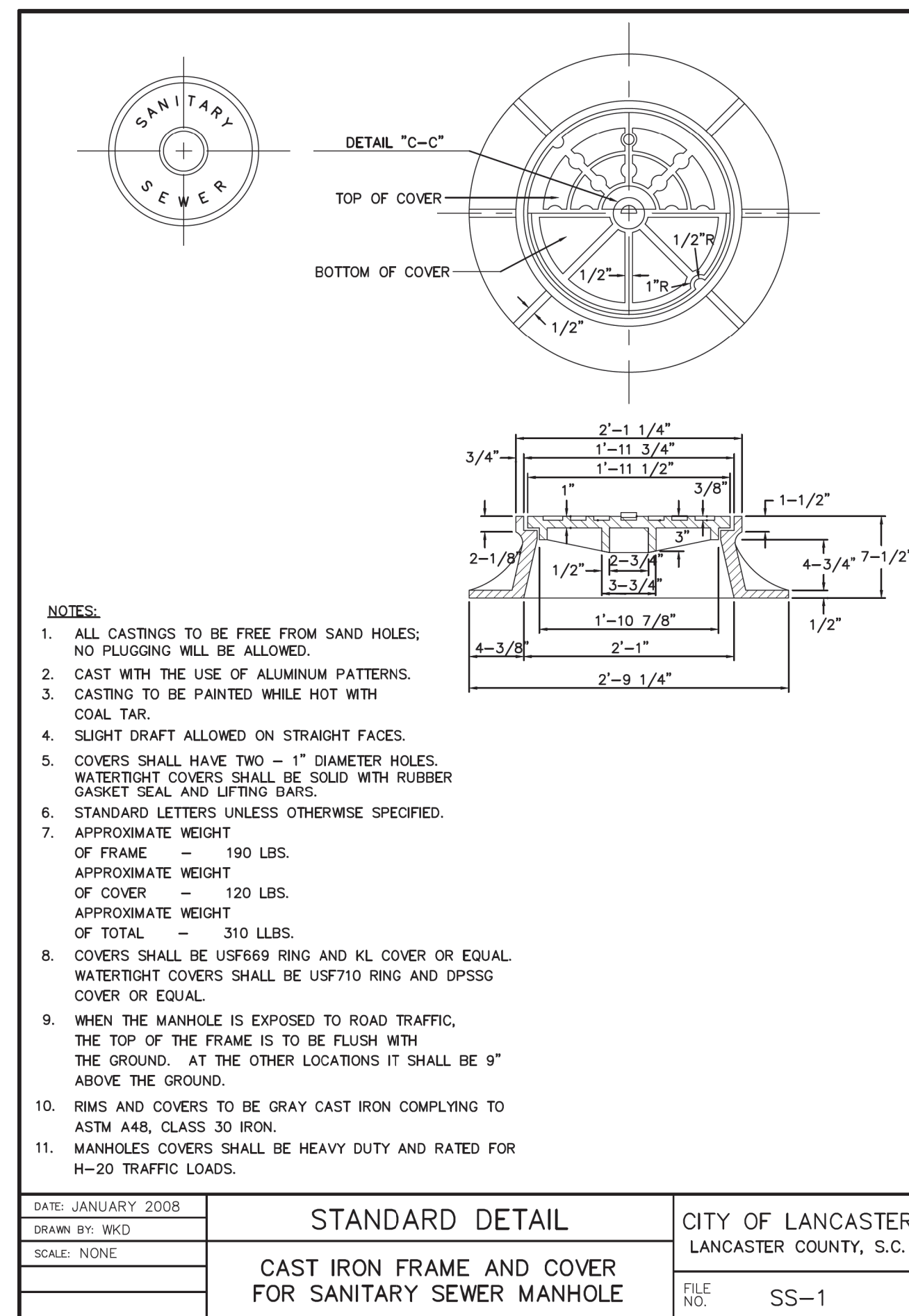


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
TYPICAL SERVICE INSTALLATION

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: WL-8

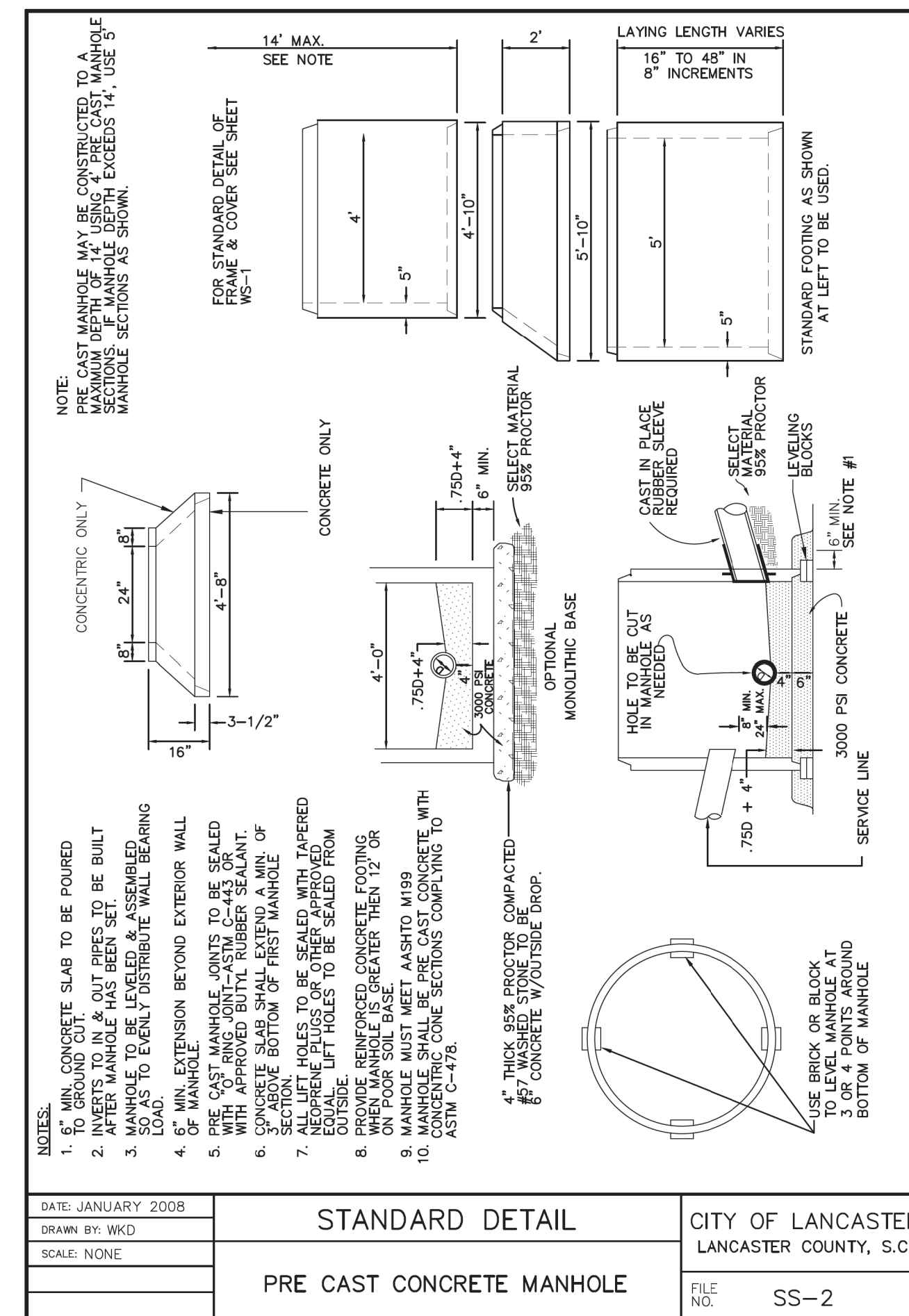


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
CAST IRON FRAME AND COVER  
FOR SANITARY SEWER MANHOLE

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: SS-1

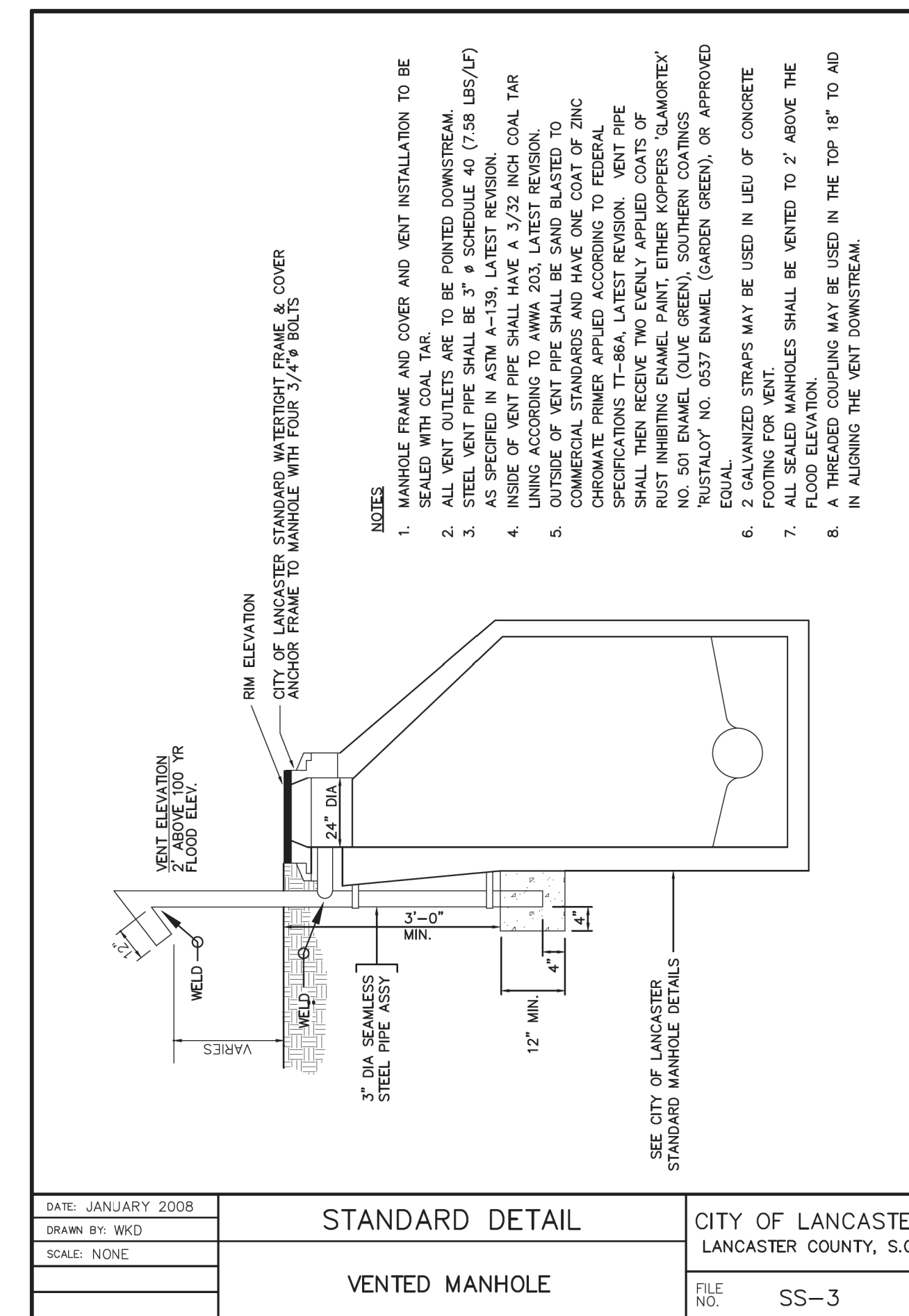


DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
PRE CAST CONCRETE MANHOLE

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: SS-2



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
VENTED MANHOLE

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.

FILE NO: SS-3

**APPROVALS**

Project Engr: \_\_\_\_\_  
 Drawn By: \_\_\_\_\_  
 Checked By: \_\_\_\_\_

**PREPARED BY**

**W** **JOEL E. WOOD & ASSOCIATES**  
 PLANNING • ENGINEERING • MANAGEMENT  
 P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

**SEALS**

**INFORMATION ONLY**

SOUTH CAROLINA PROFESSIONAL ENGINEER  
 JOEL E. WOOD

**PROJECT**

UNIVERSITY APARTMENTS

CITY OF LANCASTER, SOUTH CAROLINA  
 PREPARED FOR  
 1640 UNIVERSITY DEVELOPEMENT LLC

**SHEET TITLE**

**DETAILS**

NO.	DATE	REVISIONS	BY

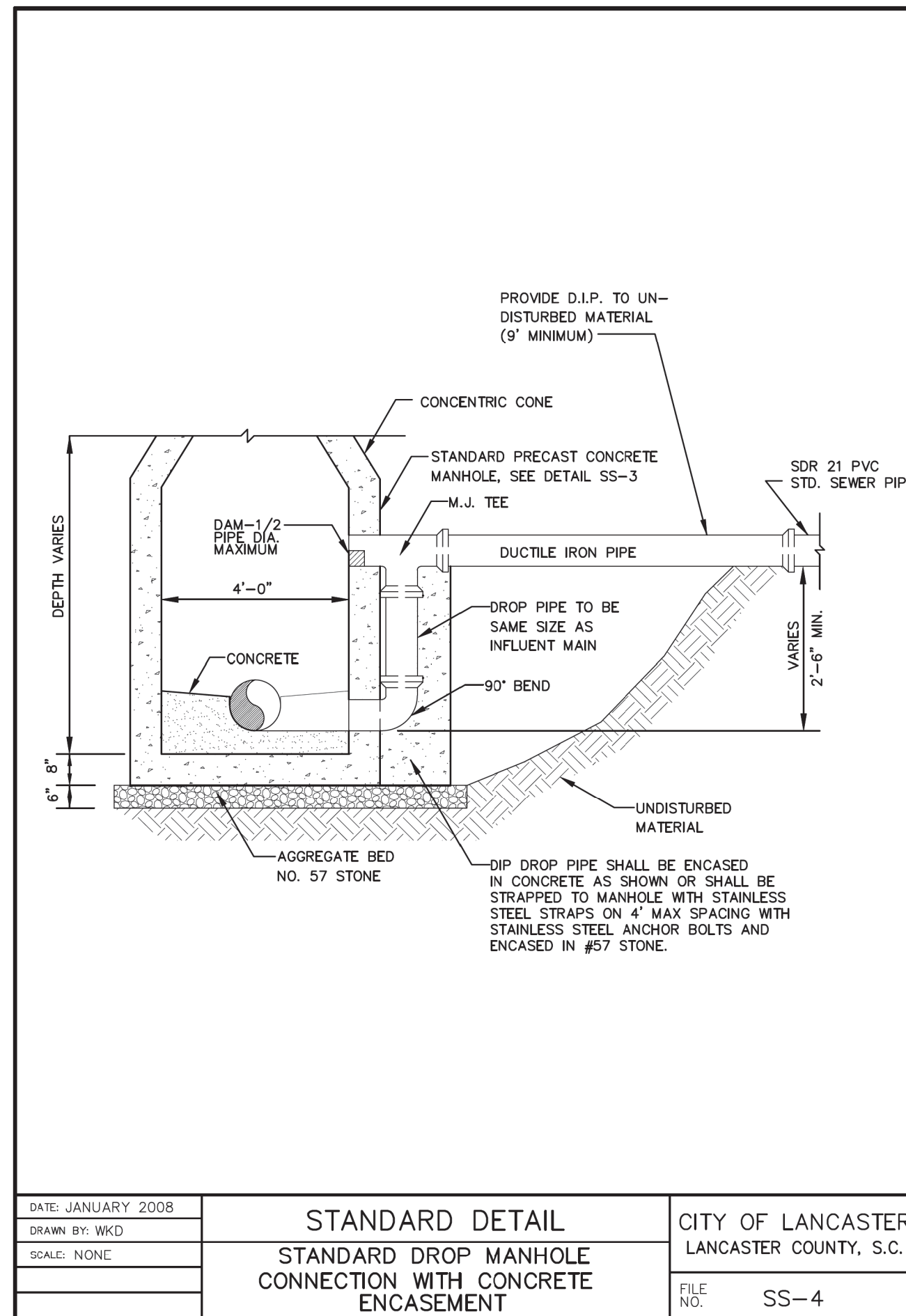
SCALE: N.T.S.

DATE: 6/1/2023

JOB NO.: 221005

SHEET **C706**

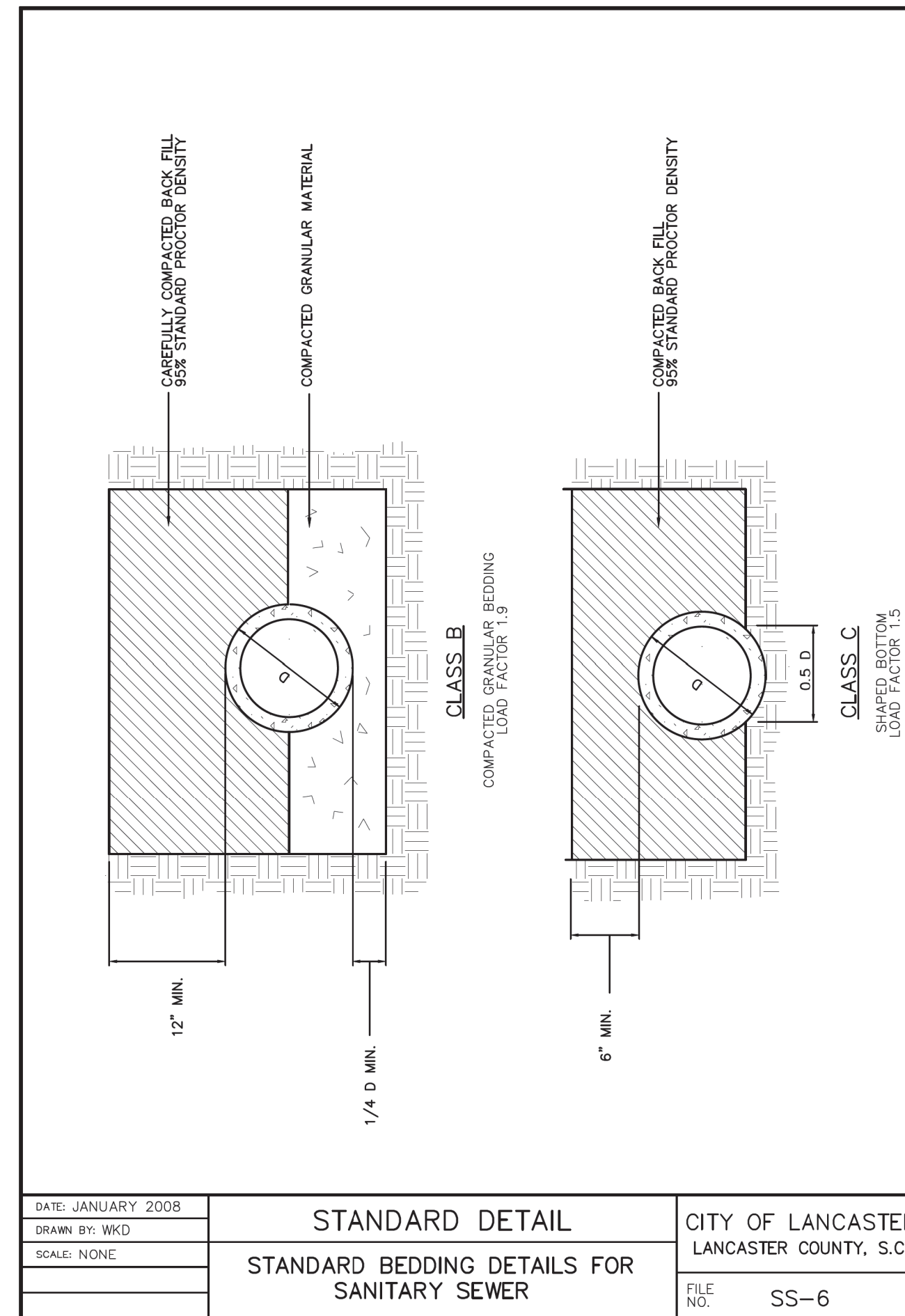




DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD DROP MANHOLE CONNECTION WITH CONCRETE ENCASEMENT

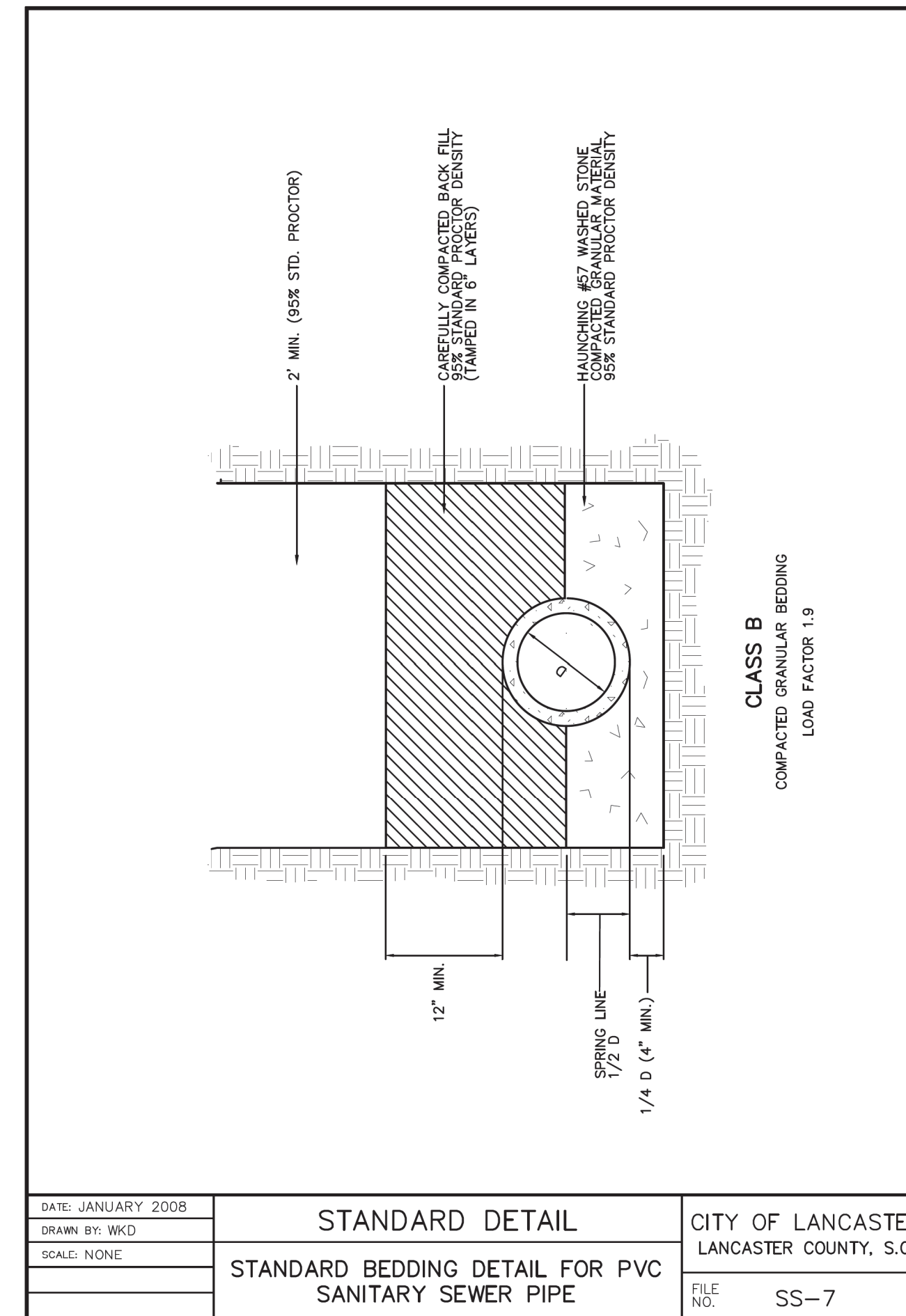
CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-4



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD BEDDING DETAILS FOR SANITARY SEWER

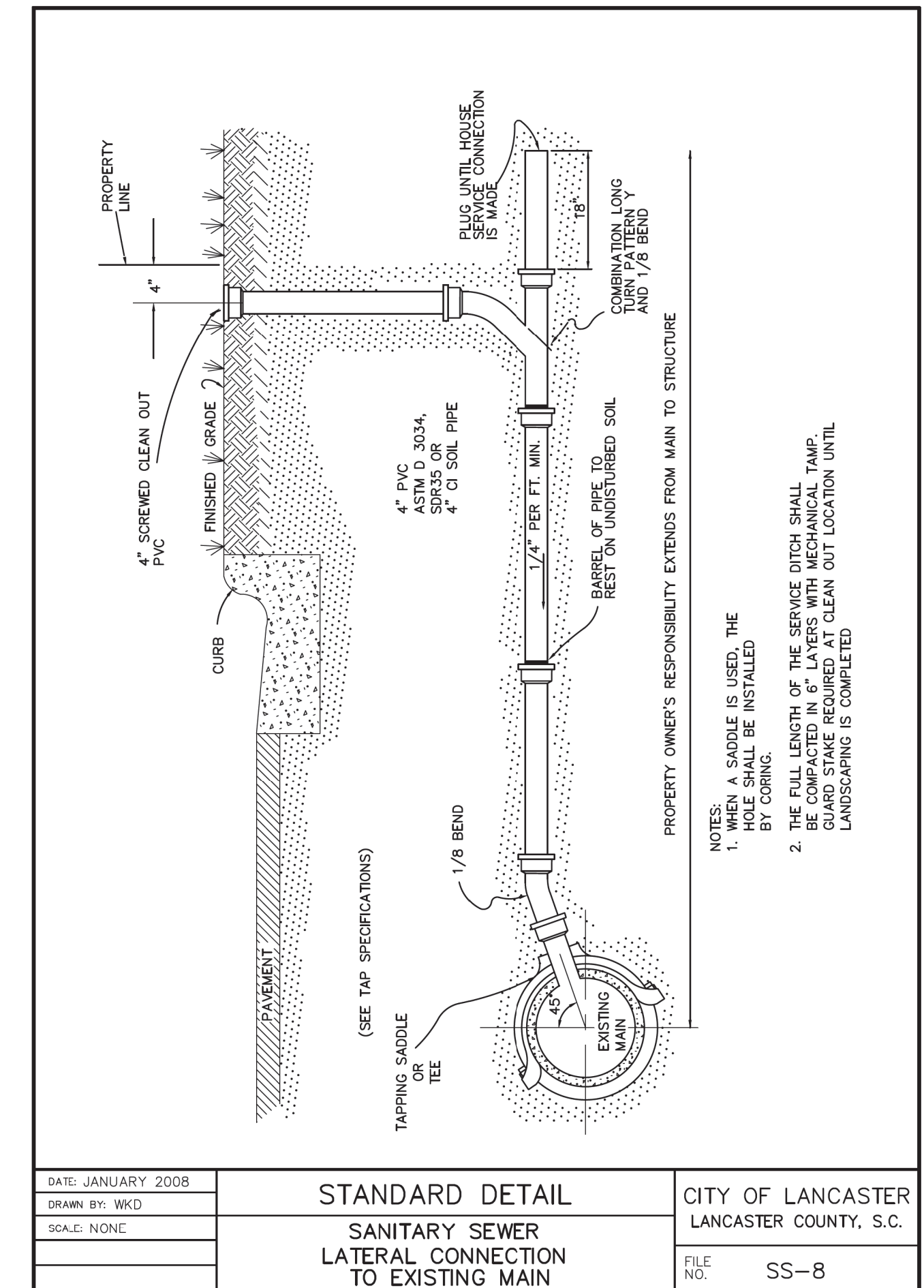
CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-6



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD BEDDING DETAIL FOR PVC SANITARY SEWER PIPE

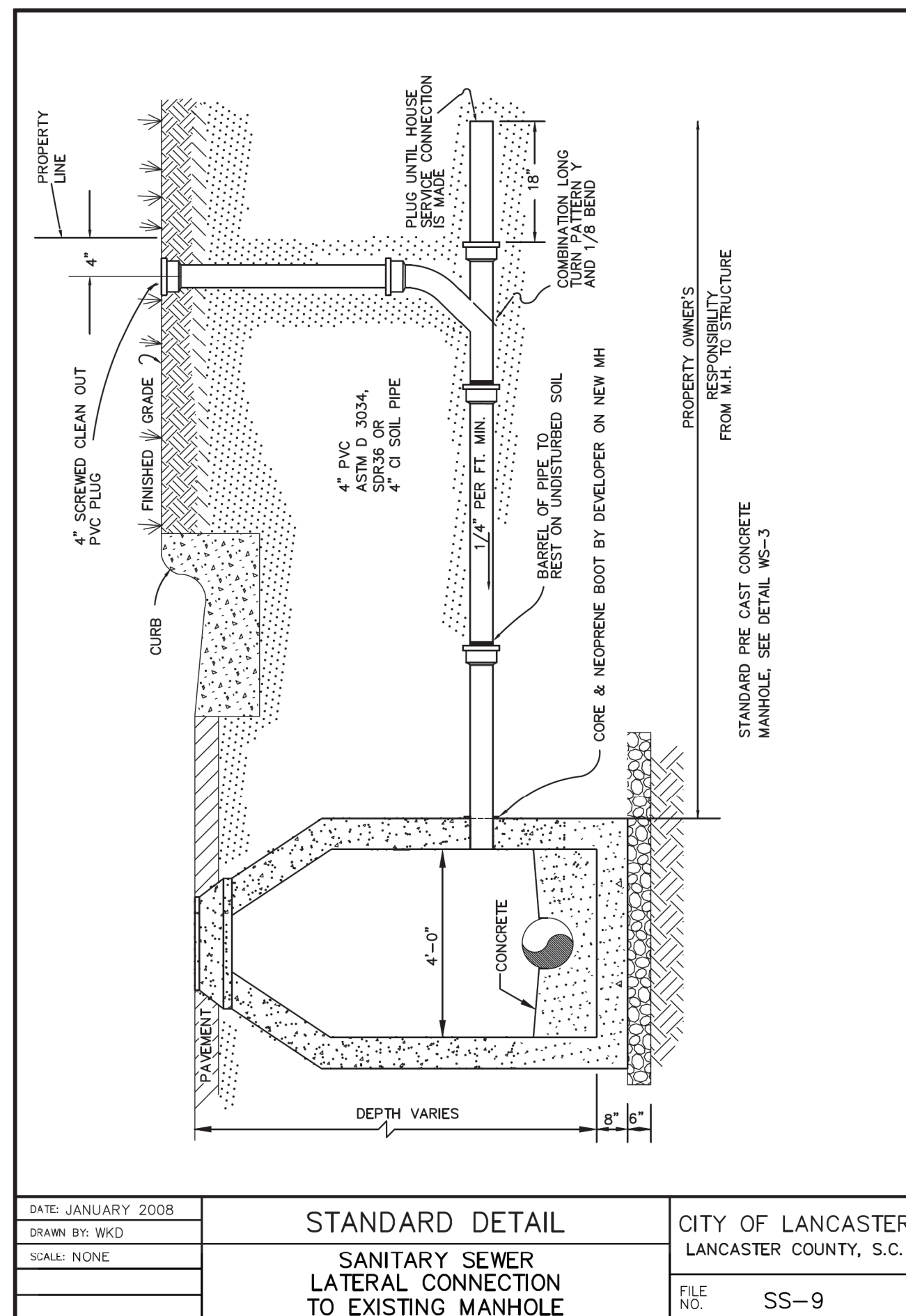
CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-7



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
SANITARY SEWER LATERAL CONNECTION TO EXISTING MAIN

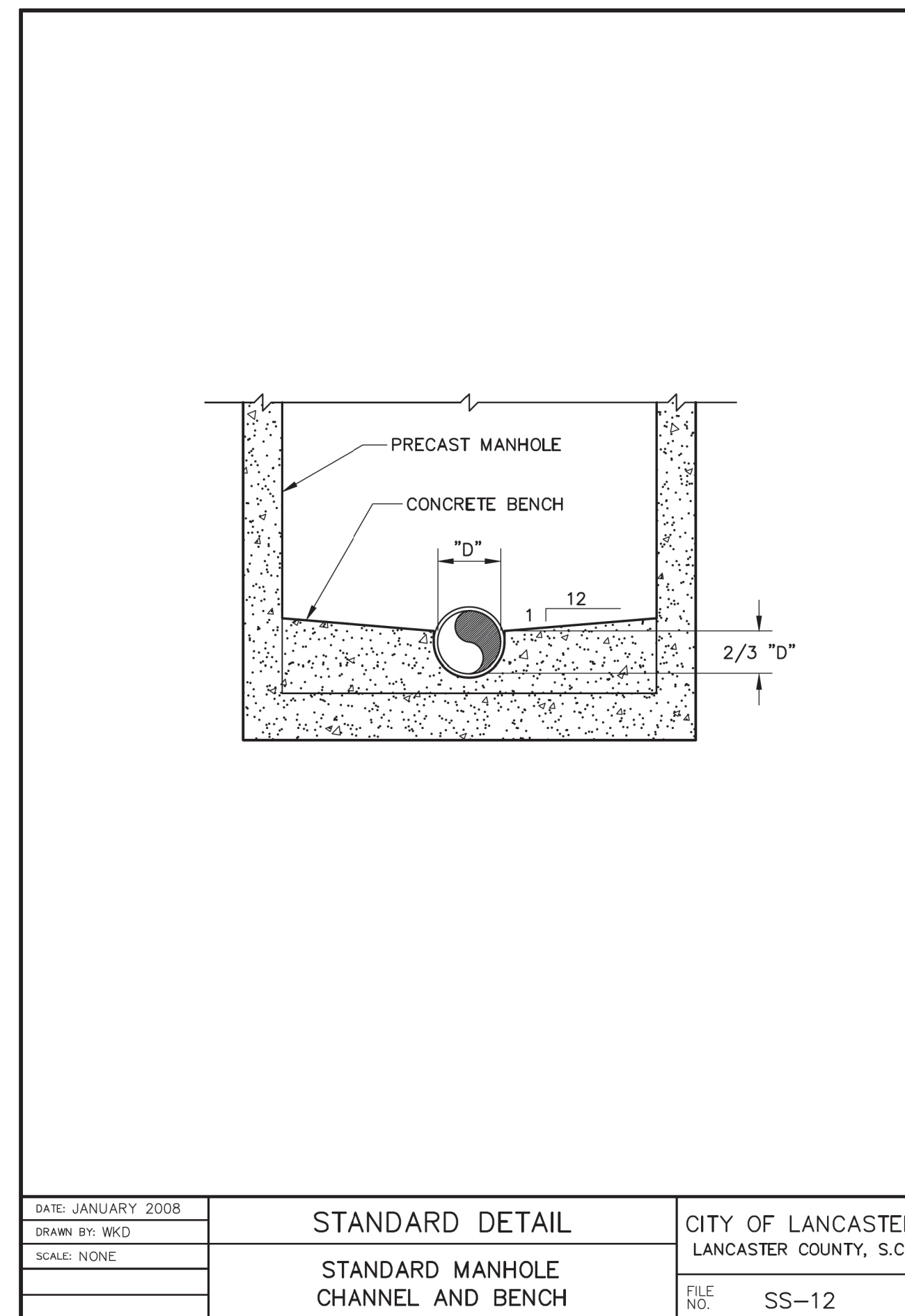
CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-8



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
SANITARY SEWER LATERAL CONNECTION TO EXISTING MANHOLE

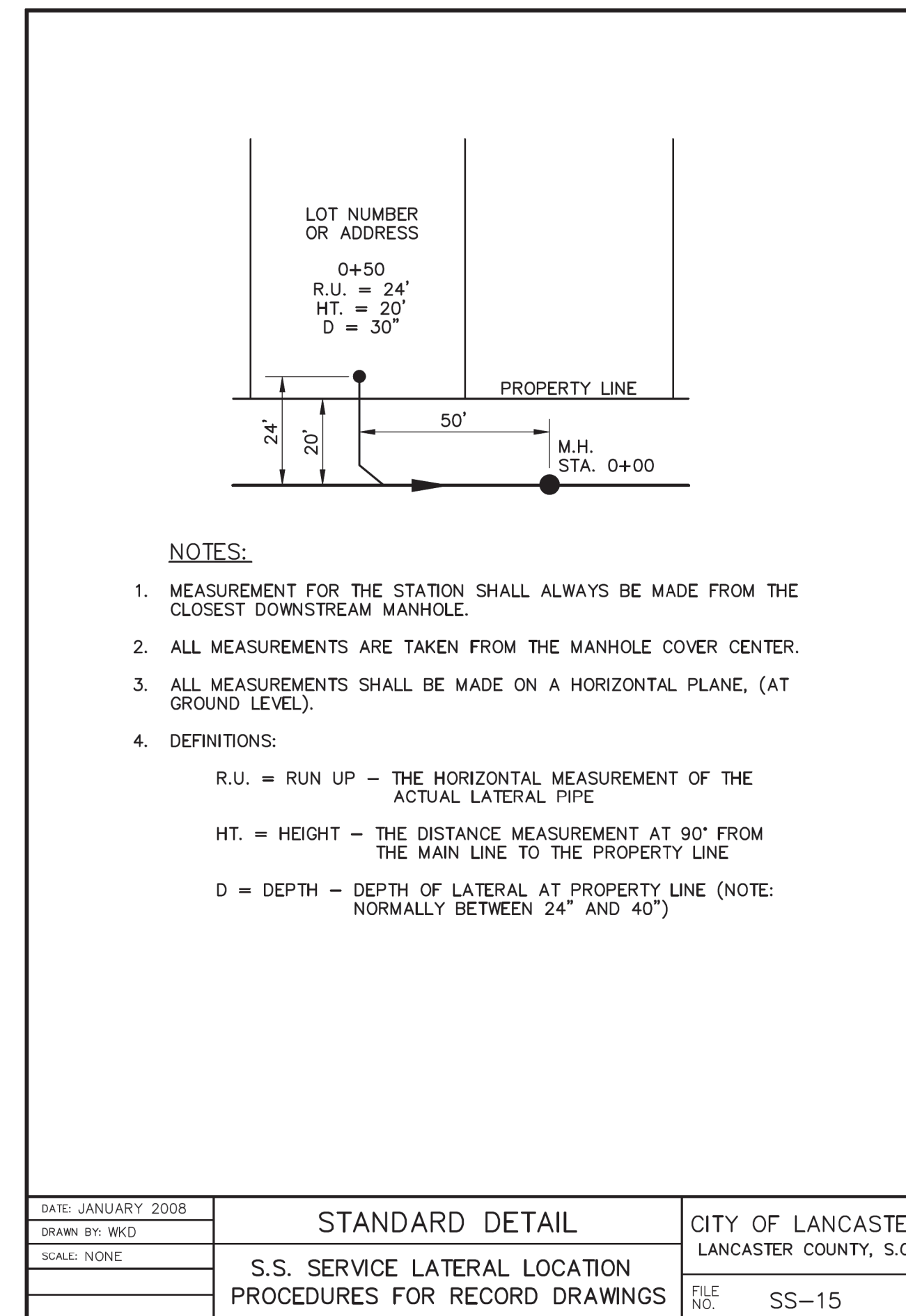
CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-9



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD MANHOLE CHANNEL AND BENCH

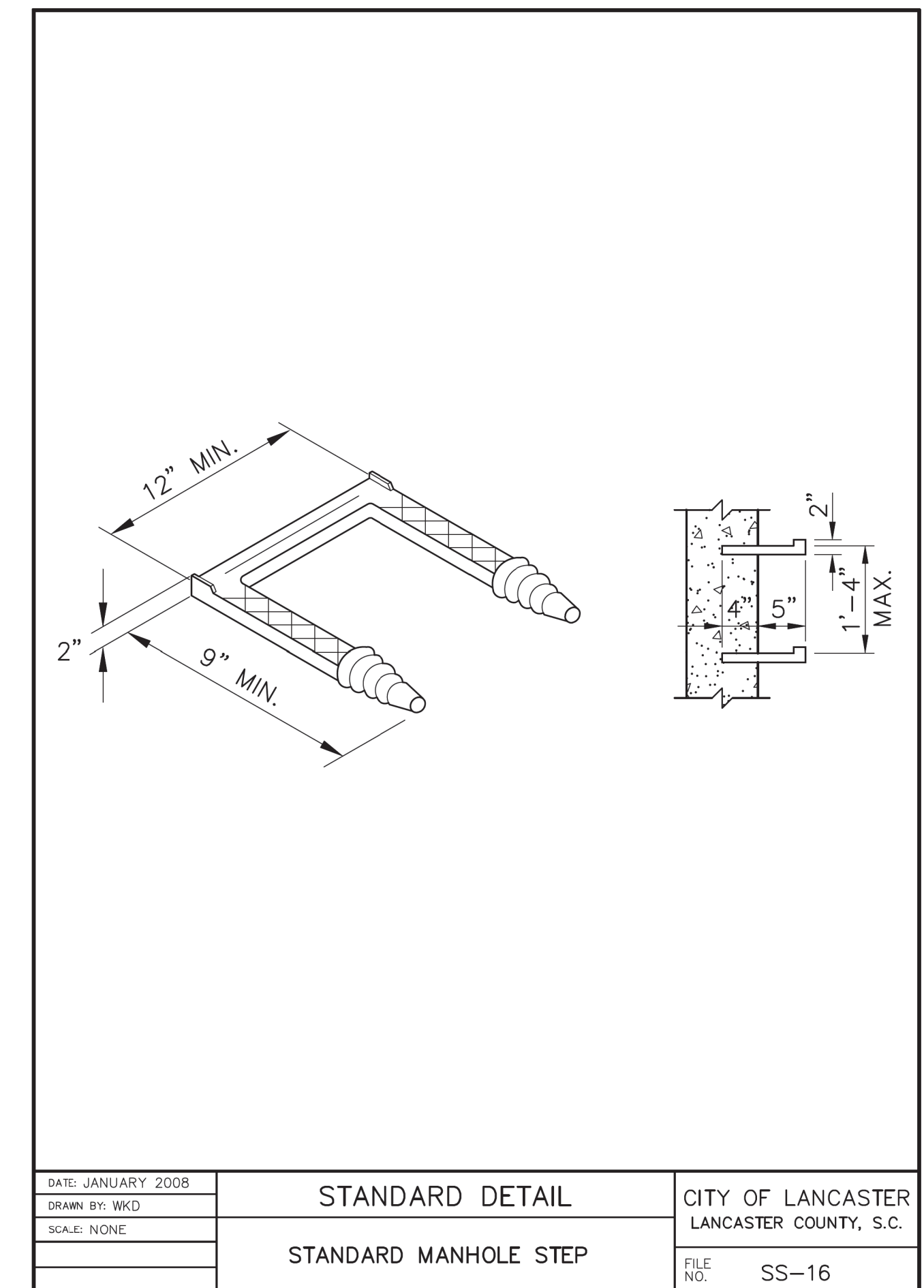
CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-12



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
S.S. SERVICE LATERAL LOCATION PROCEDURES FOR RECORD DRAWINGS

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-15



DATE: JANUARY 2008  
DRAWN BY: WKD  
SCALE: NONE

**STANDARD DETAIL**  
STANDARD MANHOLE STEP

CITY OF LANCASTER  
LANCASTER COUNTY, S.C.  
FILE NO. SS-16

**APPROVALS**

Project Engr: \_\_\_\_\_  
Drawn By: \_\_\_\_\_  
Checked By: \_\_\_\_\_  
Review: \_\_\_\_\_  
Bid: \_\_\_\_\_  
Construction: \_\_\_\_\_

**PREPARED BY**

**W** **JOEL E. WOOD & ASSOCIATES**  
PLANNING • ENGINEERING • MANAGEMENT  
P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

**SEALS**

**INFORMATION ONLY**

SOUTH CAROLINA PROFESSIONAL ENGINEER  
JOEL E. WOOD

**PROJECT**

UNIVERSITY APARTMENTS  
CITY OF LANCASTER, SOUTH CAROLINA  
PREPARED FOR  
1640 UNIVERSITY DEVELOPEMENT LLC

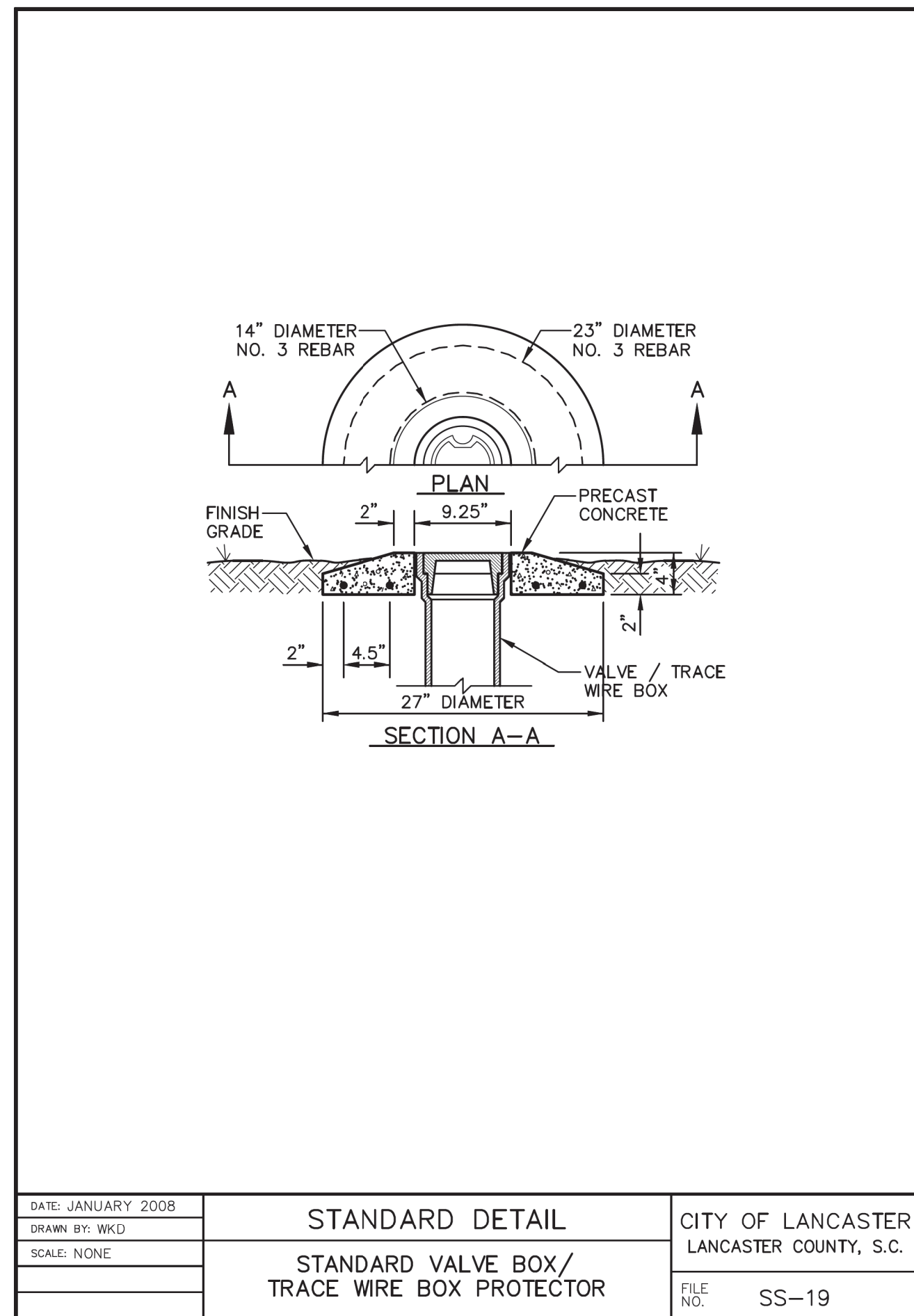
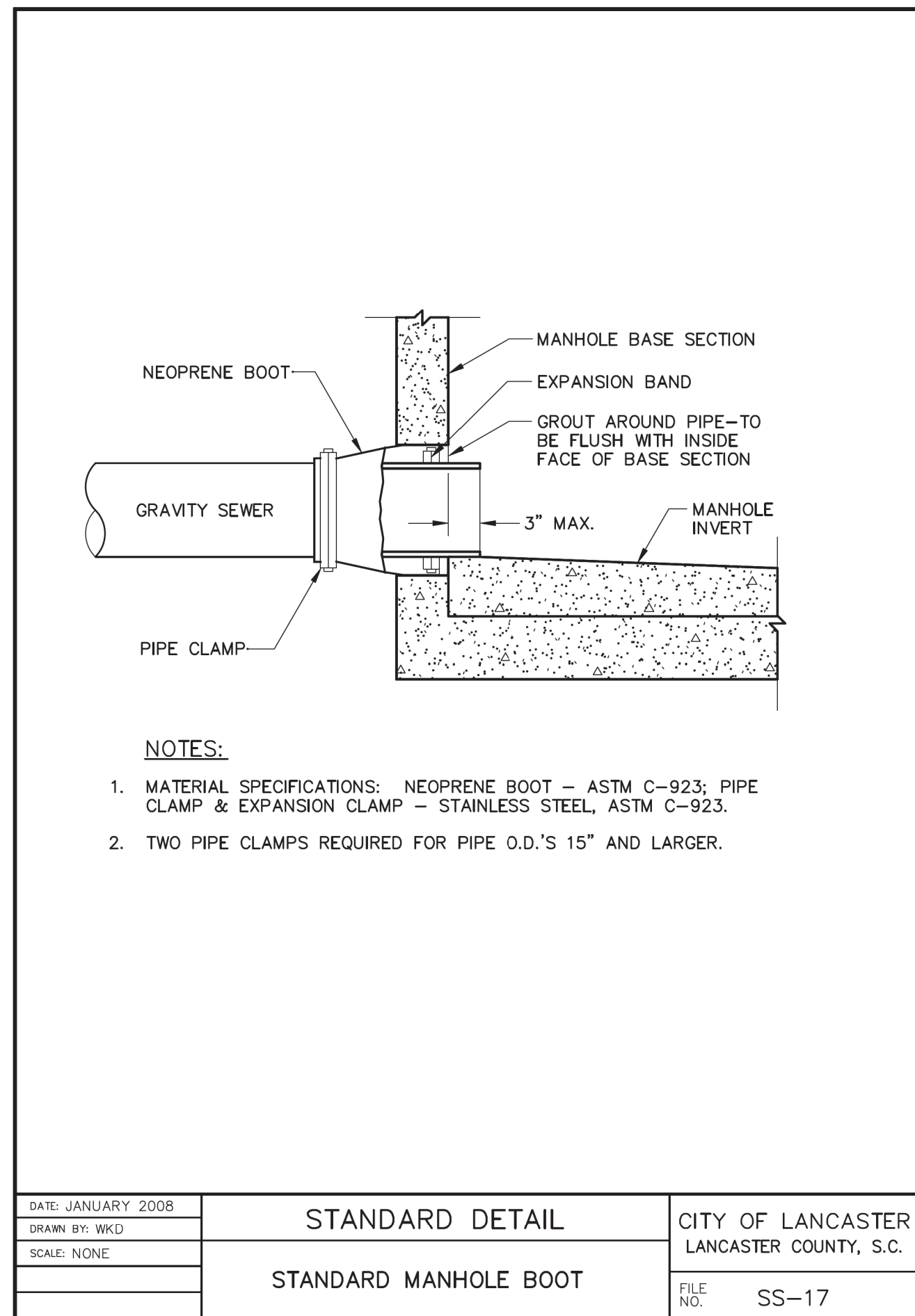
**SHEET TITLE**

**DETAILS**

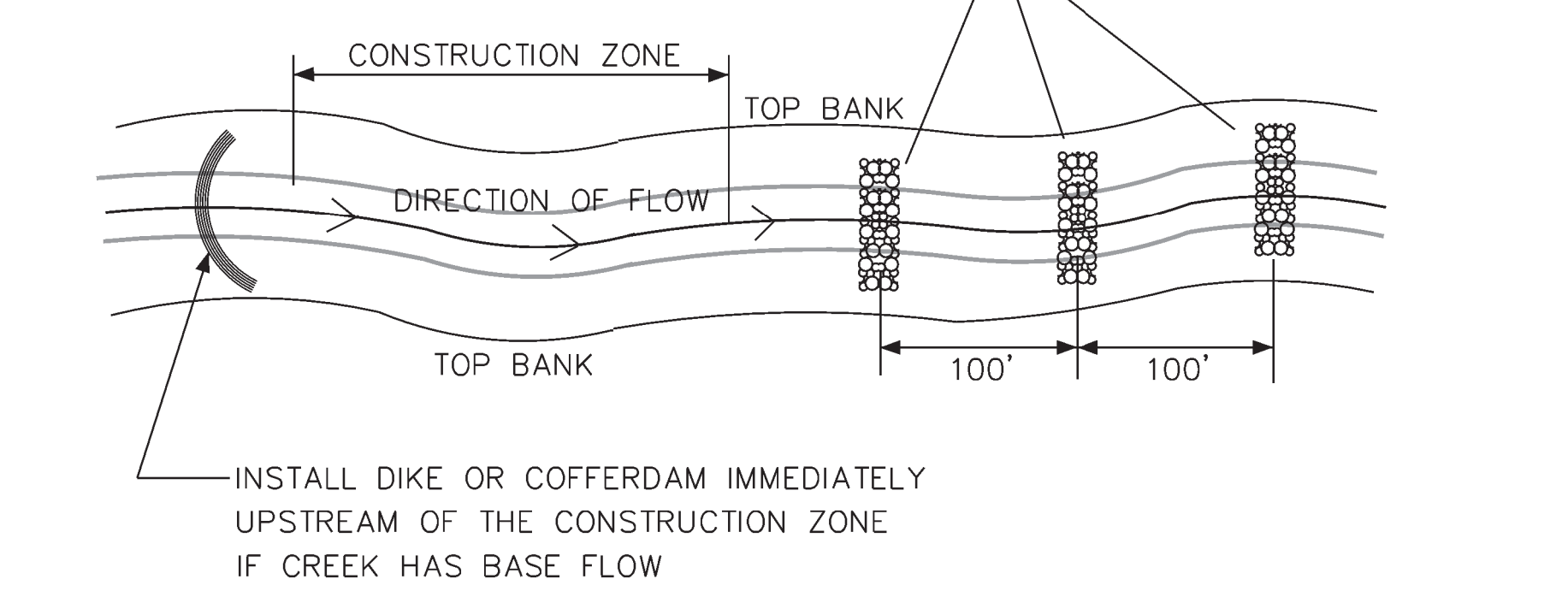
NO.	DATE	REVISIONS	BY

SCALE: N.T.S.  
DATE: 6/1/2023  
JOB NO.: 221005  
SHEET **C707**

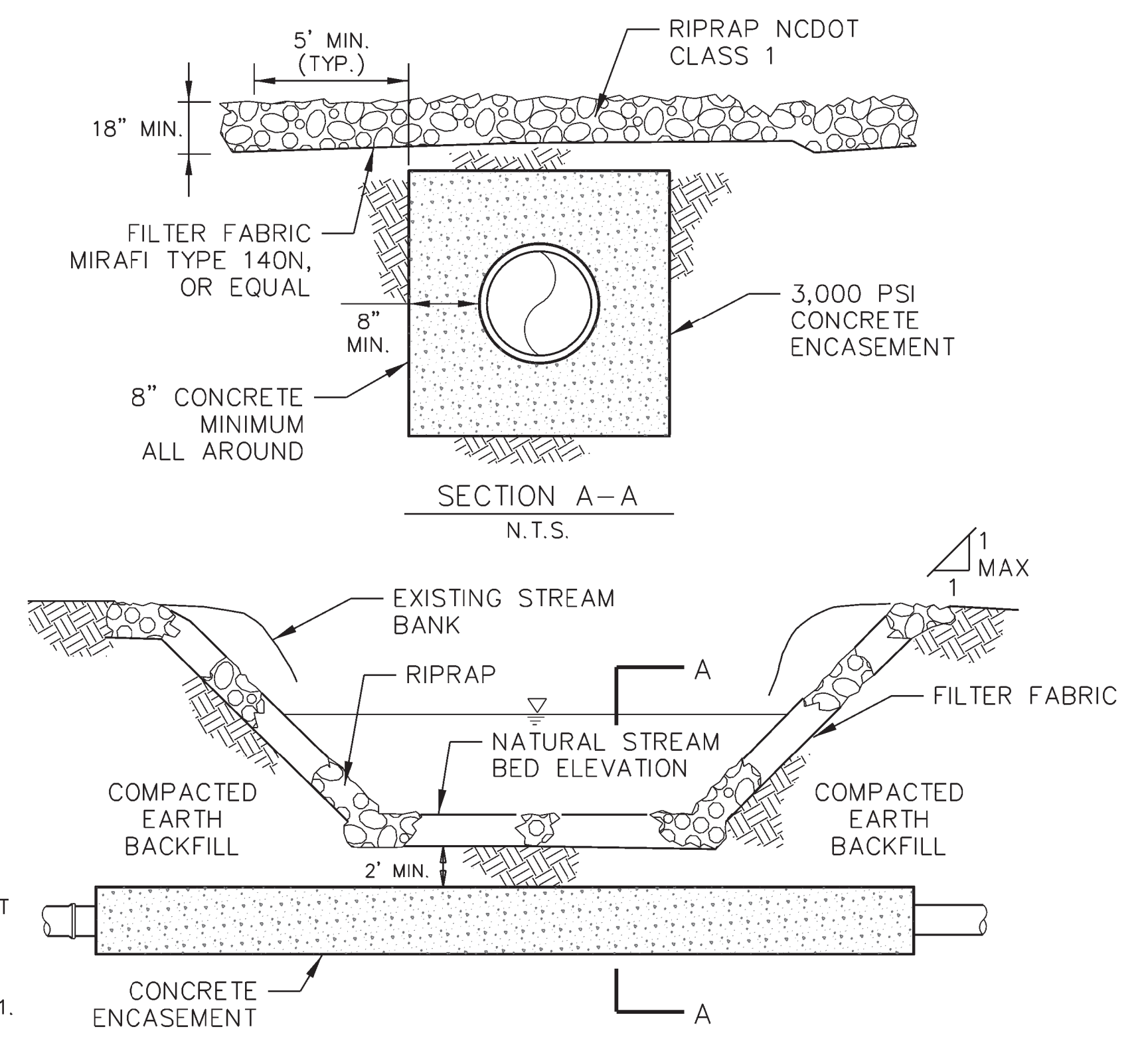




- NOTES:**
1. WORK IN CREEK SHALL BE PLANNED TO MINIMIZE THE NUMBER OF DAYS OF DISTURBANCE. WHENEVER POSSIBLE, WORK SHALL BE COMPLETED WITHIN A WEEK.
  2. THE CONTRACTOR IS TO OBSERVE THE LOCAL WEATHER FORECASTS AND NOT BEGIN WORK IN THE CREEK UNLESS AT LEAST THREE DAYS WITHOUT RAIN IS ANTICIPATED.
  3. THE DISTURBED CREEK BED AND BANKS ARE TO BE STABILIZED BEFORE THE WEEKEND OR WHENEVER CONSTRUCTION CEASES FOR ONE OR MORE DAYS. CREEK BANKS ARE TO BE STABILIZED USING NORTH AMERICAN GREEN MATTING SC250.
  4. FOR LARGER CREEKS, CONSTRUCTION SHOULD OCCUR ON ONE SIDE OF THE CREEK AT A TIME. THE FIRST SIDE SHOULD BE STABILIZED BEFORE BEGINNING CONSTRUCTION ON THE OPPOSITE SIDE.
  5. A TEMPORARY PIPE OR PUMP MAY BE INSTALLED TO CONTROL CREEK FLOW DURING CONSTRUCTION.
- CONSTRUCT THREE ROCK CHECK DAMS (SEE DETAIL) AT 100-FOOT SPACING DOWN STREAM FROM THE CONSTRUCTION ZONE IF CONDITIONS AND PROPERTY RIGHTS ALLOW.


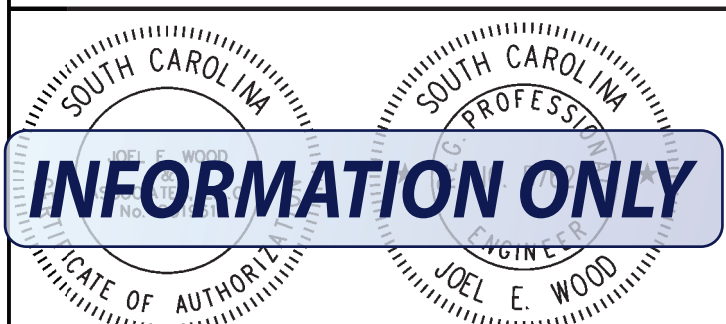


**A CREEK CROSSING EROSION CONTROL MEASURES** SCALE=N.T.S.



- NOTES:**
1. CREEK CROSSINGS MAY REQUIRE A PERMIT FROM STATE AND/OR FEDERAL REGULATORY AGENCIES.
  2. COMPACTED EARTH BACKFILL WITHIN EXTENTS OF STREAM CROSSING SHALL EXTEND FROM TOP OF PIPE ENCASEMENT TO TOP OF TRENCH. COMPACT TO 95% MAXIMUM DENSITY PER ASTM D 698.
  3. MATCH EXISTING BANK PROFILE EXCEPT WHERE SLOPE OF BANK EXCEEDS 1 TO 1.

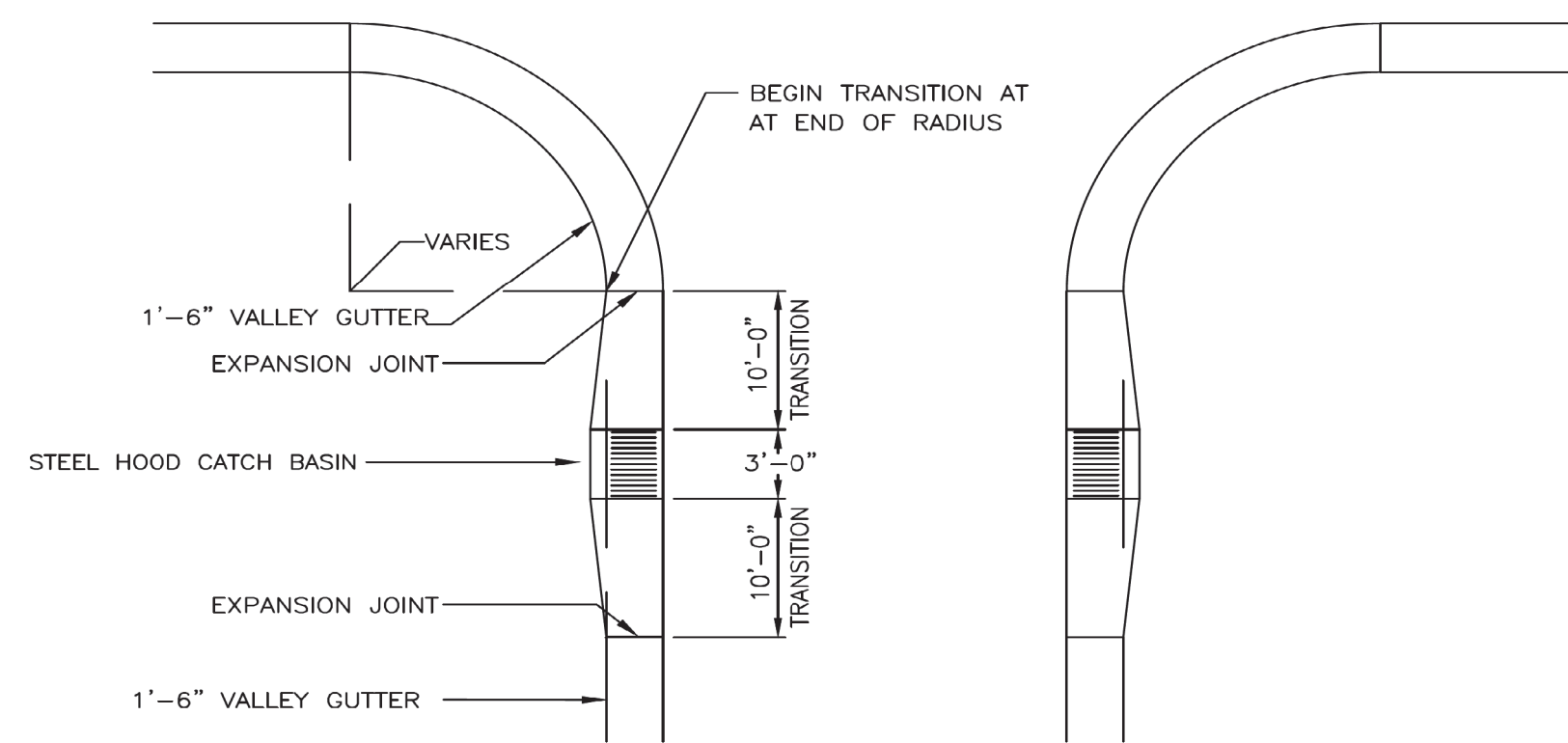
**B TYPICAL STREAM CROSSING** SCALE=N.T.S.

<b>APPROVALS</b> Project Engr: _____ Drawn By: _____ Checked By: _____ Review: _____ Bid: _____ Construction: _____	<b>PREPARED BY</b>  <b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	<b>SEALS</b> 	<b>PROJECT</b> UNIVERSITY APARTMENTS CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR 1640 UNIVERSITY DEVELOPEMENT LLC	<b>SHEET TITLE</b> DETAILS	NO.	DATE	REVISIONS	BY	SCALE: N.T.S.
									DATE: 6/1/2023
									JOB NO.: 221005
									SHEET C708



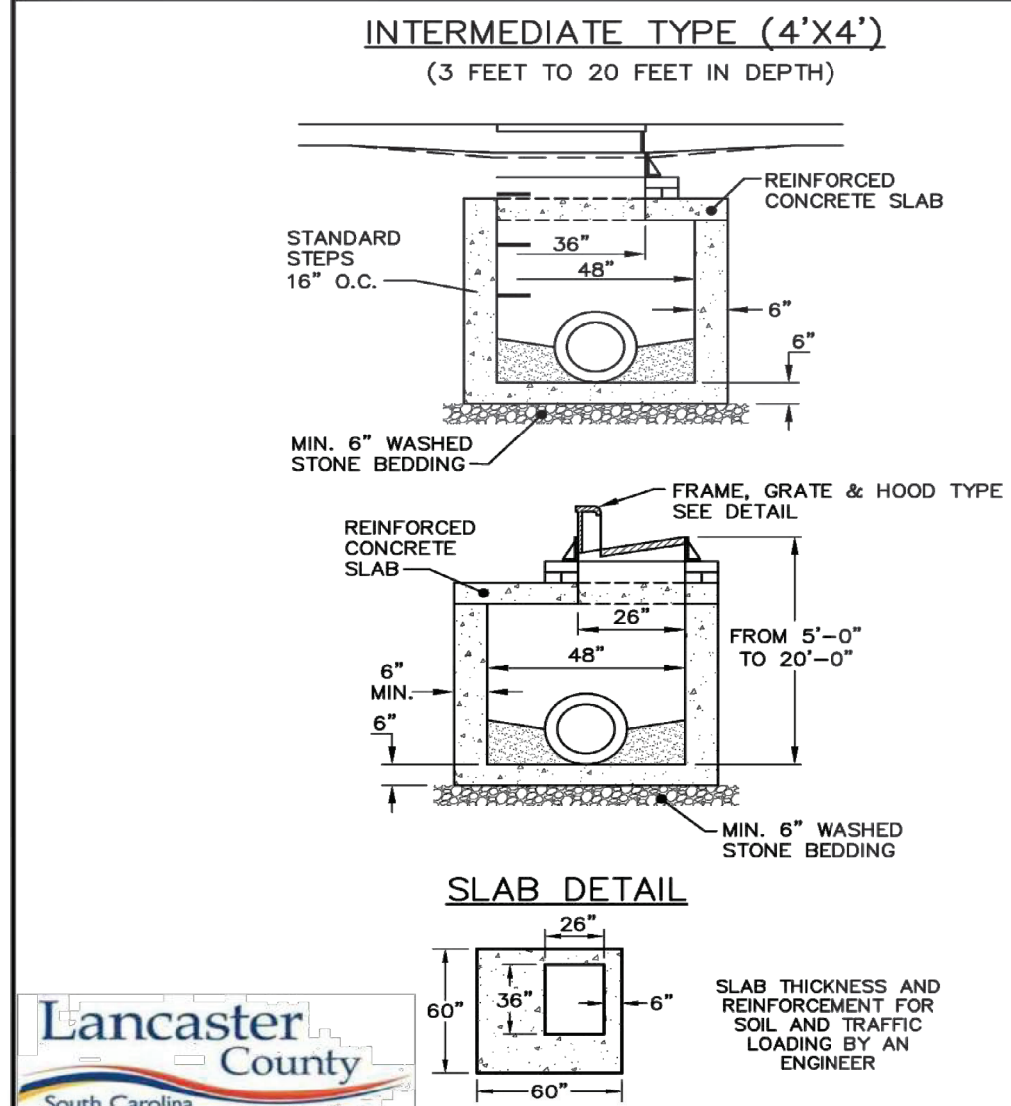






NOTE: RADIUS AT INTERSECTION MAY VARY.

CATCH BASIN PLACEMENT AT INTERSECTION



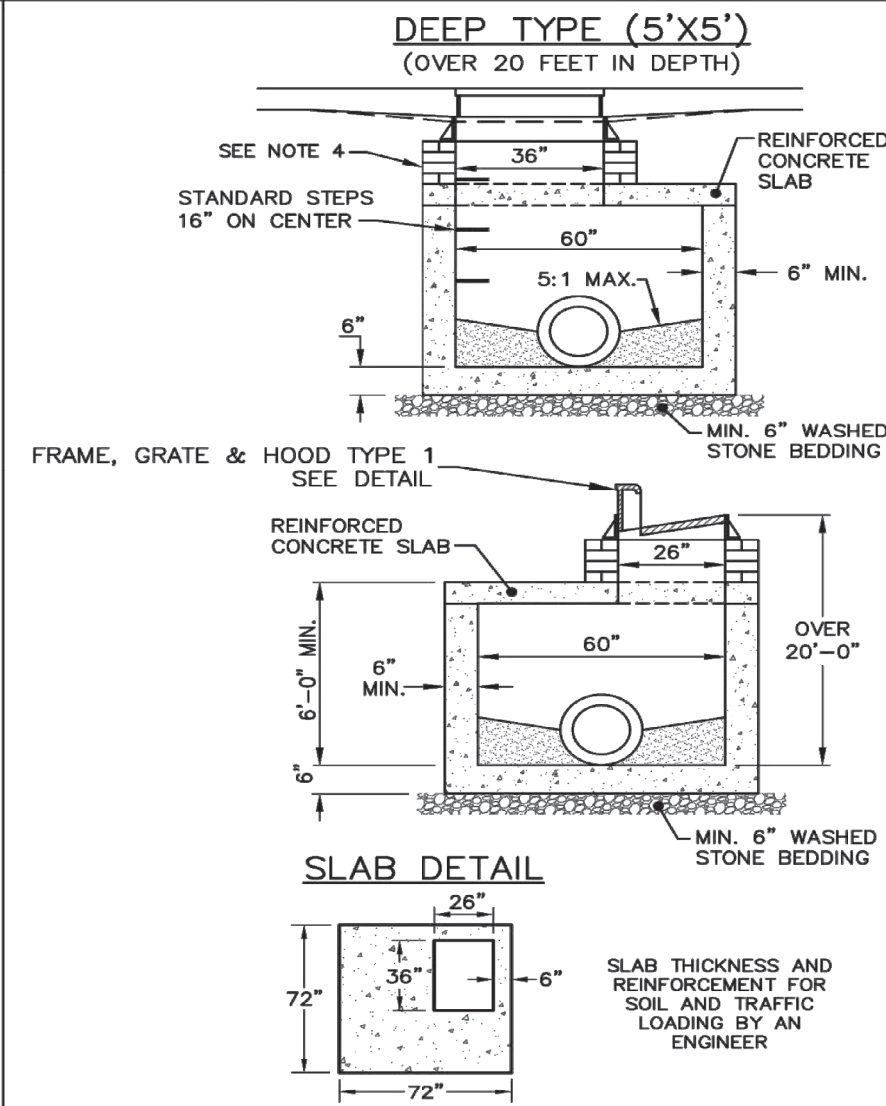
**Lancaster County**  
South Carolina

REVISIONS:

EFFECTIVE DATE: 11/26/2016

STANDARD PRECAST CONCRETE CATCH BASIN

DETAIL No. SD5  
SHEET 1 OF 1

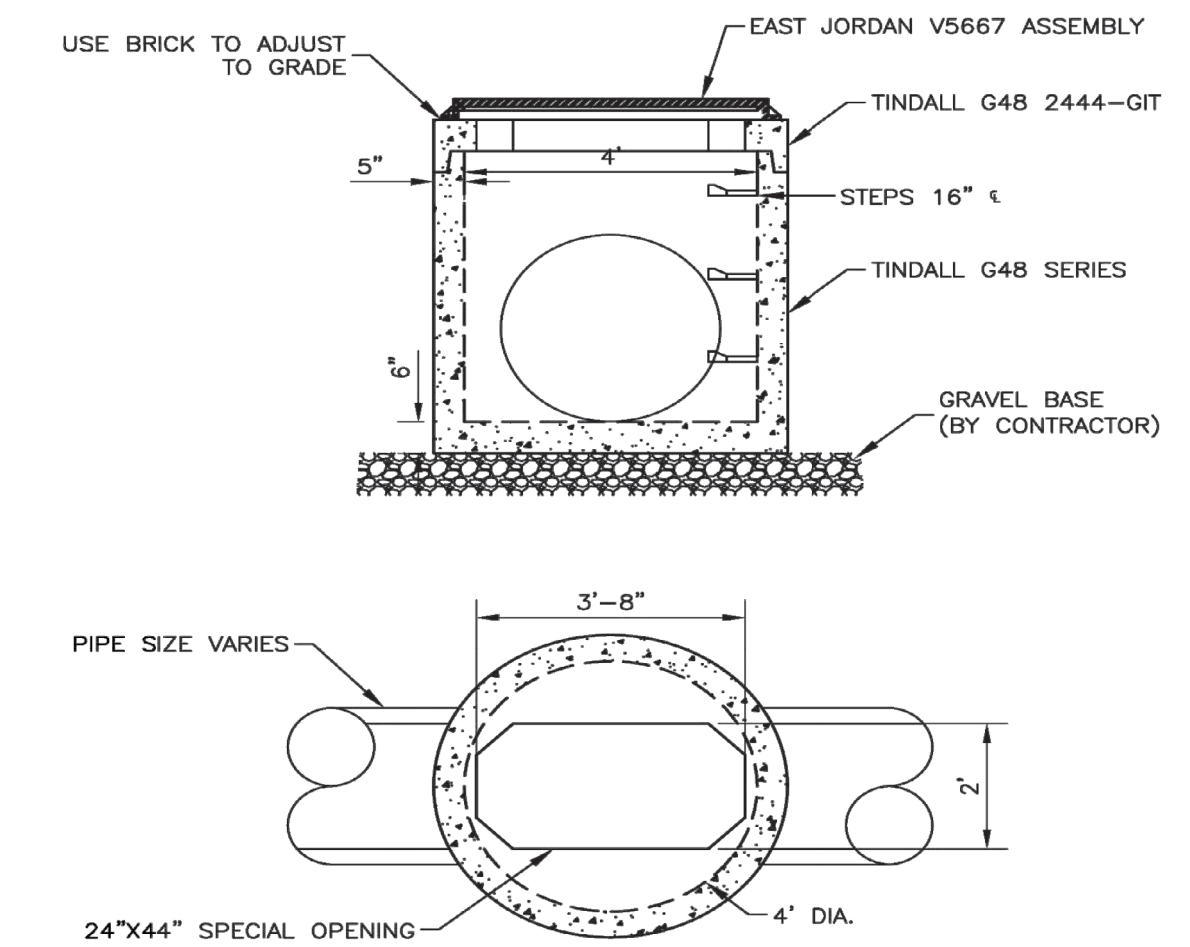


**Lancaster County**  
South Carolina

REVISIONS:

EFFECTIVE DATE: 11/26/2016

DETAIL No. SD5  
SHEET 1 OF 1



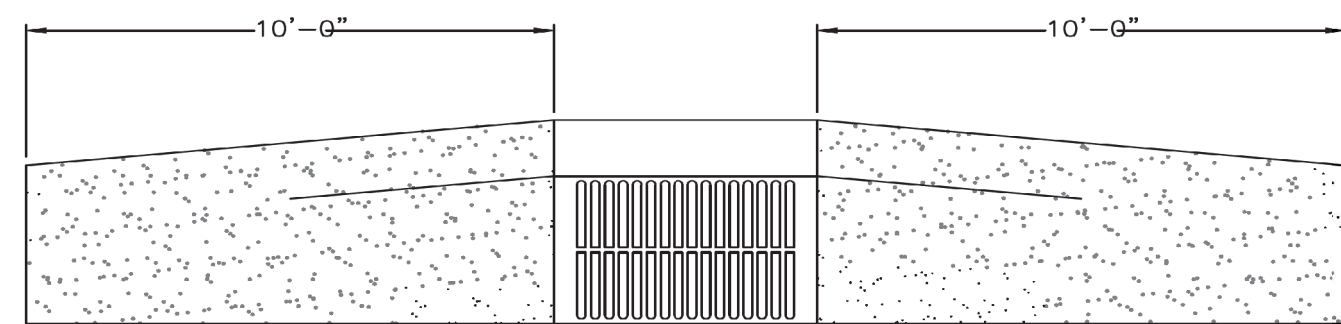
**Lancaster County**  
South Carolina

REVISIONS:

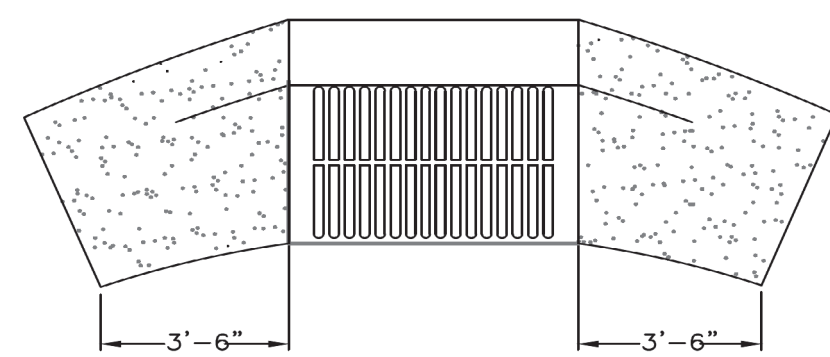
EFFECTIVE DATE: 11/26/2016

STANDARD PRECAST DROP INLET

DETAIL No. SD11  
SHEET 1 OF 1

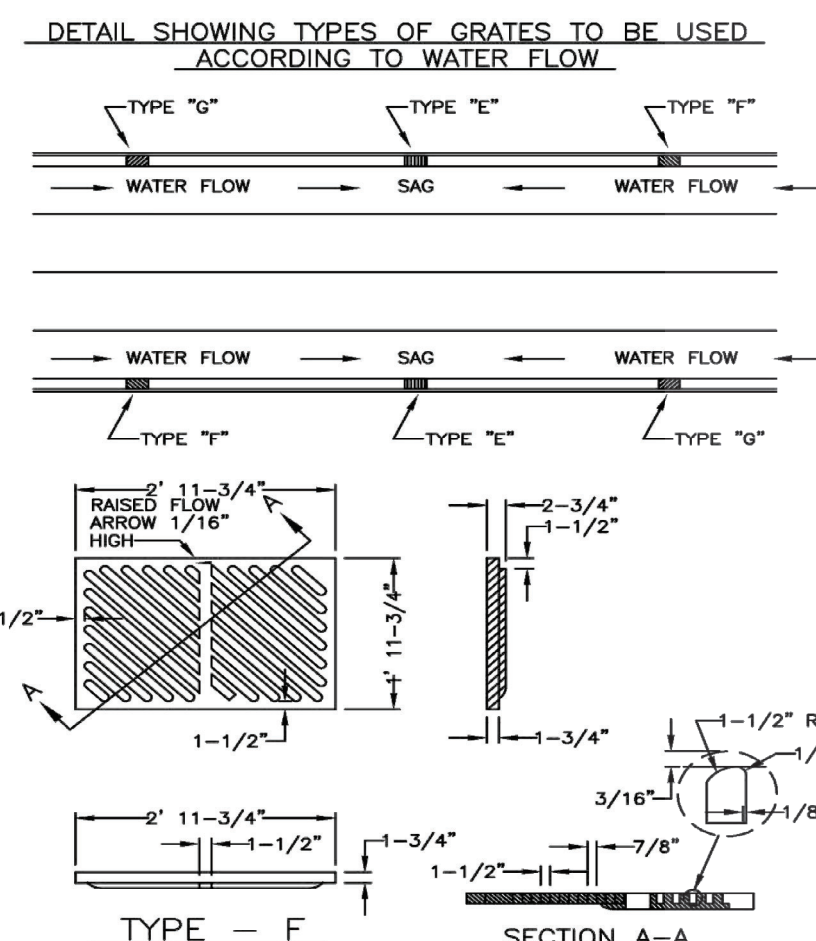


PLAN FOR TANGENT SECTION



PLAN FOR RESIDENTIAL CUL-DE-SAC

CATCH BASIN FRAME IN VALLEY GUTTER



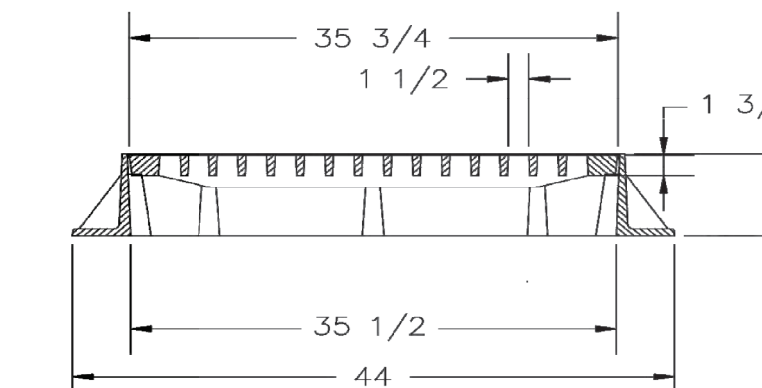
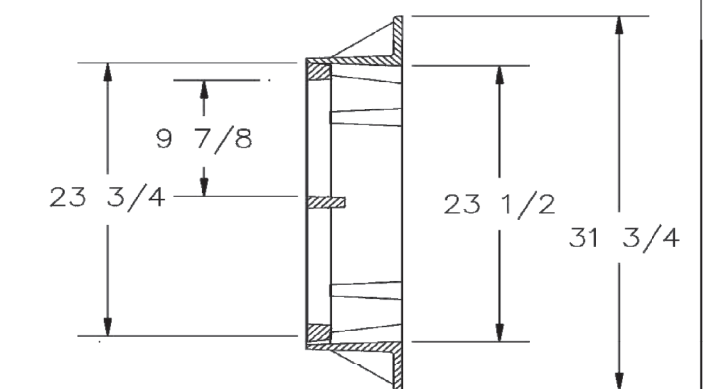
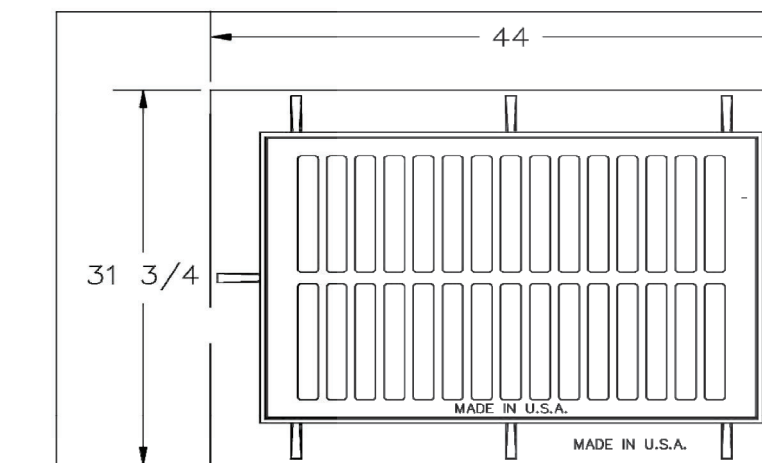
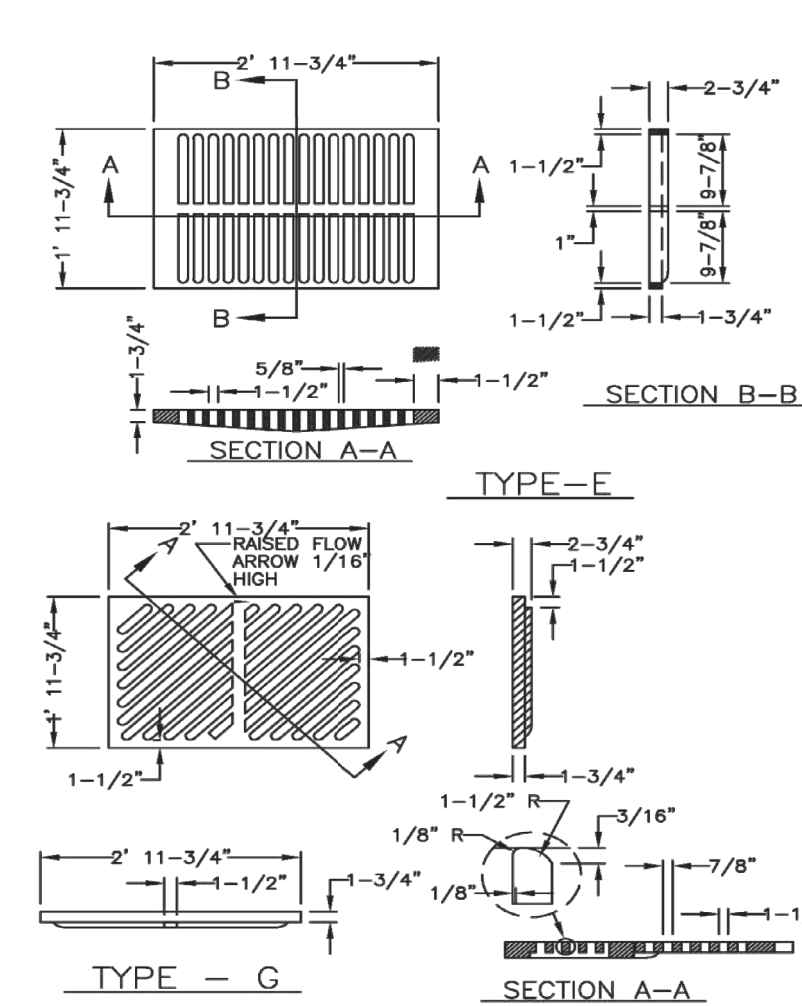
**Lancaster County**  
South Carolina

REVISIONS:

EFFECTIVE DATE: 11/26/2016

TYPE 1 CATCH BASIN GRATE TYPES

DETAIL No. SD7  
SHEET 1 OF 1



NOTES:  
1- MATERIAL: ASTM-A48 CLASS 35B GRAY IRON  
2- FRAME WT: 240 LBS. APP.  
3- GRATE WT: 170 LBS. APP.  
U.S. FOUNDRY & MFG. CORP. MIAMI, FLORIDA  
USF 4137 FRAME AND 6237 GRATE  
DWN. BY: A.M. DATE: 04/10/91  
CHK. BY: DWG. NO: A2495A

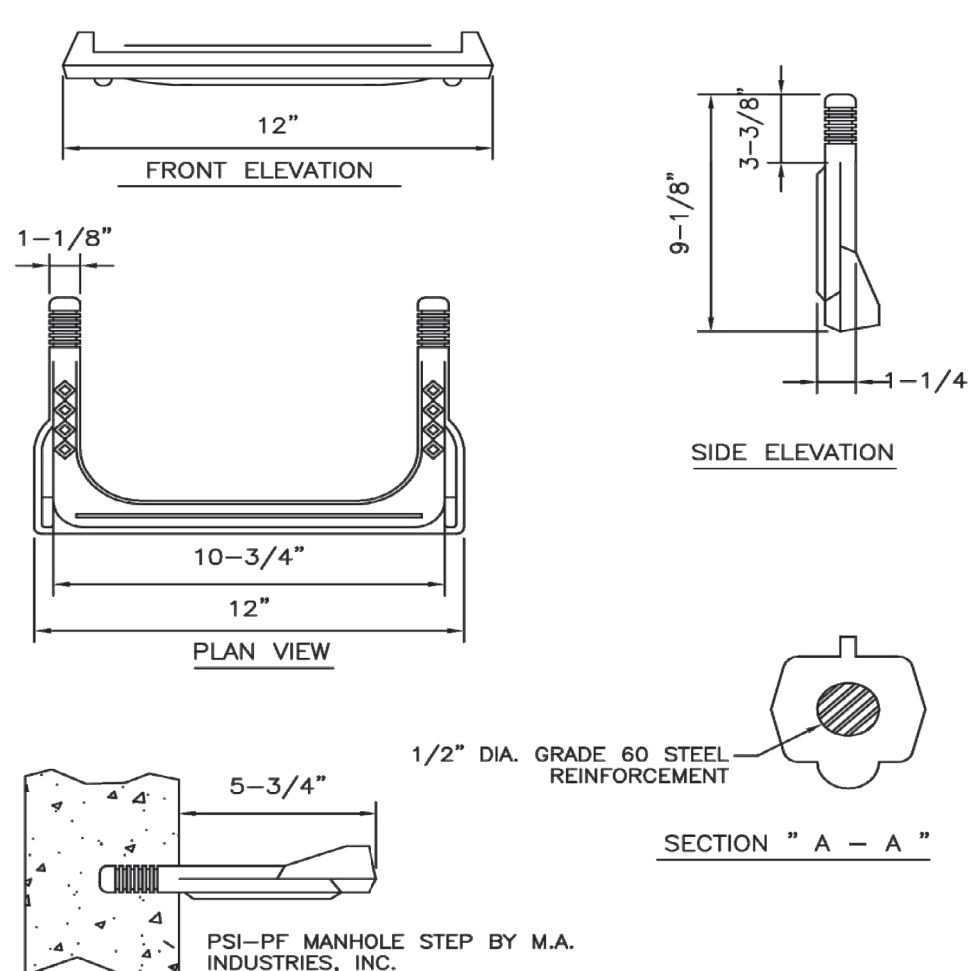
**Lancaster County**  
South Carolina

REVISIONS:

EFFECTIVE: XX/XX/XX

FRAME & GRATE FOR DROP INLETS

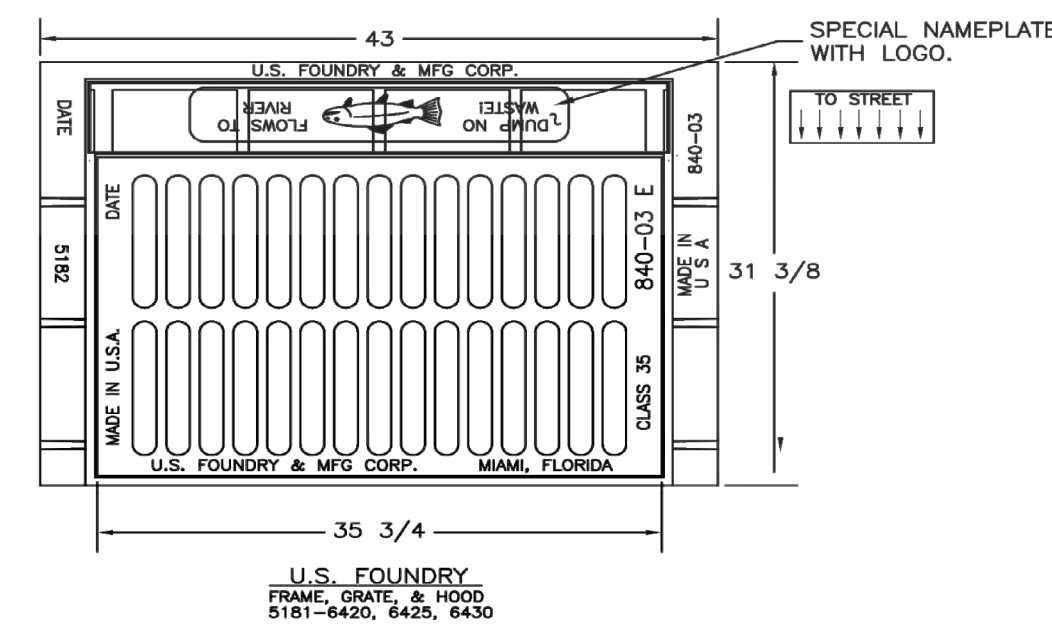
DETAIL No. SD12  
SHEET 1 OF 1



NOTE: STEPS TO BE PLACED 16\"/>

STRUCTURE STEPS

DETAIL No. SD3  
SHEET 1 OF 1



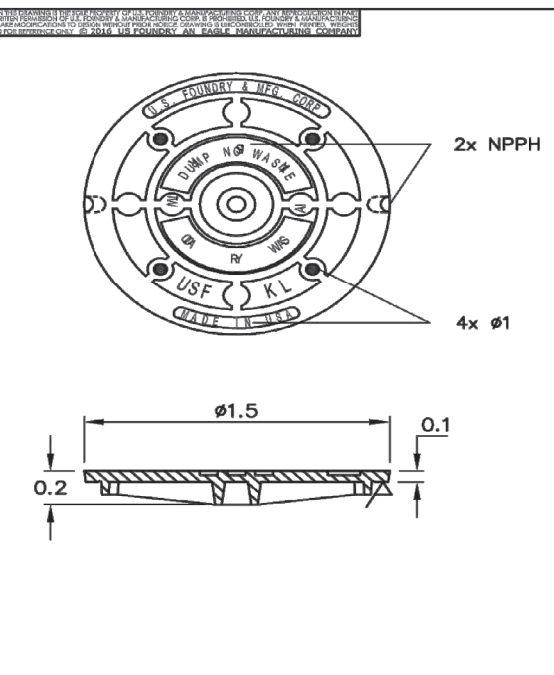
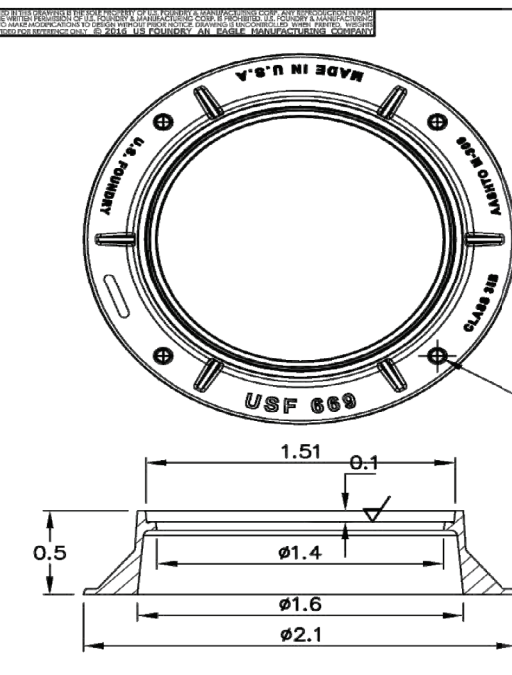
**Lancaster County**  
South Carolina

REVISIONS:

EFFECTIVE: XX/XX/XX

TYPE 1 CATCH BASIN HOOD & GRATE

DETAIL No. SD8  
SHEET 1 OF 1



**Lancaster County**  
South Carolina

REVISIONS:

EFFECTIVE: XX/XX/XX

RING AND COVER FOR STORM SYSTEMS

DETAIL No. SD15  
SHEET 1 OF 1

APPROVALS

Project Engr: \_\_\_\_\_  
Drawn By: \_\_\_\_\_  
Checked By: \_\_\_\_\_  
Review: \_\_\_\_\_  
Bid: \_\_\_\_\_  
Construction: \_\_\_\_\_

PREPARED BY

**W** **JOEL E. WOOD & ASSOCIATES**  
PLANNING • ENGINEERING • MANAGEMENT  
P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390

SEALS

**INFORMATION ONLY**  
SOUTH CAROLINA PROFESSIONAL SEAL  
JOEL E. WOOD

PROJECT

UNIVERSITY APARTMENTS  
CITY OF LANCASTER, SOUTH CAROLINA  
PREPARED FOR  
1640 UNIVERSITY DEVELOPEMENT LLC

SHEET TITLE

DETAILS

NO.	DATE	REVISIONS	BY

SCALE: N.T.S.

DATE: 6/1/2023

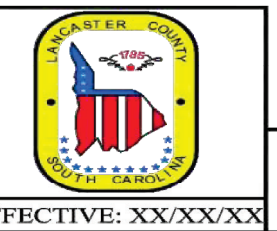
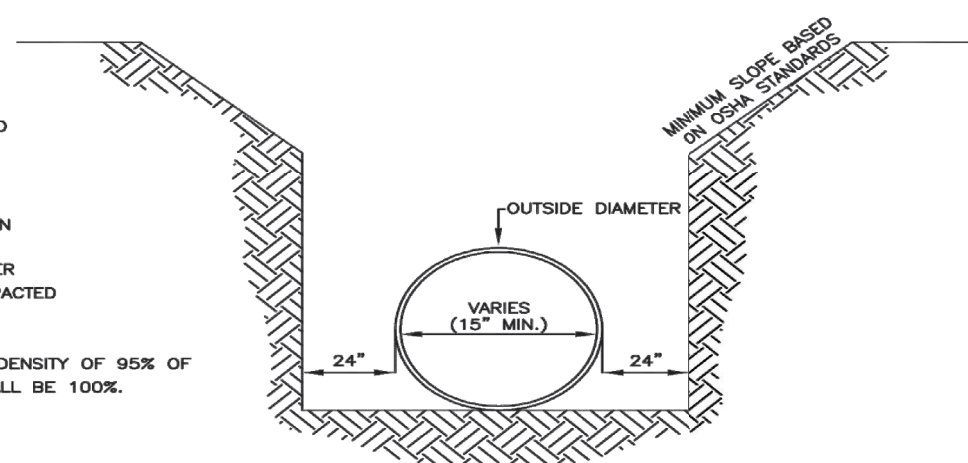
JOB NO.: 221005

SHEET C710



**NOTES:**

1. A MINIMUM OF 24" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTION OF FILL MATERIAL. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE PLACED IN LAYERS NOT TO EXCEED 6". UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY. EACH AND EVERY LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY COMPACTED INTO PLACE.
2. ALL BACKFILL MATERIAL SHALL HAVE AN IN PLACE COMPACTED DENSITY OF 95% OF STANDARD PROCTOR. THE FINAL 2" BELOW FINISHED GRADE SHALL BE 100%.
3. ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS.
4. BACKFILL MATERIAL BENEATH ROADWAY SHALL BE SELECT BACKFILL MATERIAL.



TRENCH DETAIL FOR STORM DRAIN PIPES

DETAIL No. SD2  
SHEET 1 OF 1

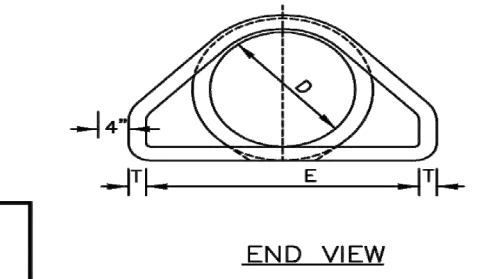
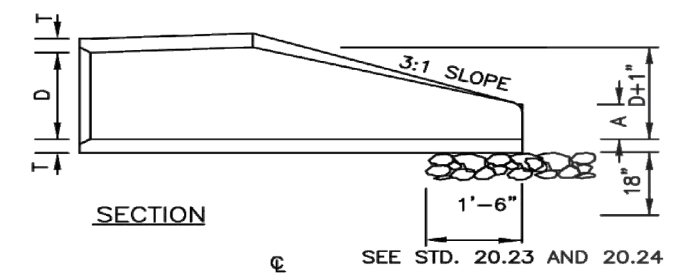
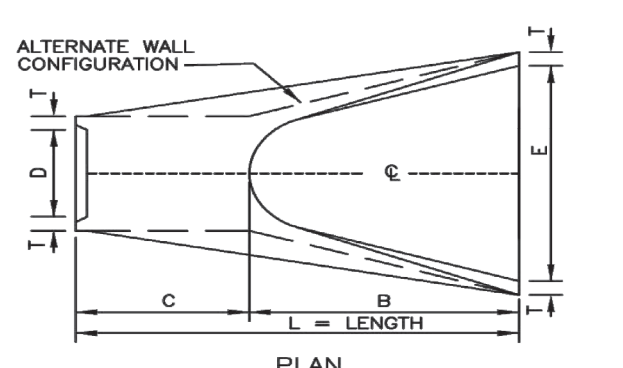


TABLE OF DIMENSIONS						
D	F	A	B	C	E	WT.
12"	2-1/4"	4"	2'-0"	4'-1"	2'-0"	6'-11"
15"	2-1/4"	6"	2'-3"	3'-10"	2'-0"	6'-11"
18"	2-1/2"	8"	2'-3"	3'-10"	3'-0"	6'-11"
24"	3"	10"	2'-6"	2'-0"	4'-0"	6'-2"
30"	3-1/2"	11"	2'-6"	1'-8"	3'-0"	6'-2"
36"	4"	1'-3"	5'-3"	2'-11"	6'-0"	8'-2"
42"	4-1/2"	1'-6"	6'-3"	2'-11"	6'-8"	8'-2"
48"	5"	2'-0"	6'-0"	2'-2"	7'-0"	8'-2"
54"	5-1/2"	2'-3"	5'-0"	2'-10"	7'-6"	8'-4"
60"	6"	2'-6"	5'-0"	3'-3"	8'-0"	8'-3"
66"	6-1/2"	3'-0"	6'-0"	2'-3"	8'-6"	8'-3"
72"	7"	3'-0"	6'-6"	1'-0"	9'-0"	8'-3"

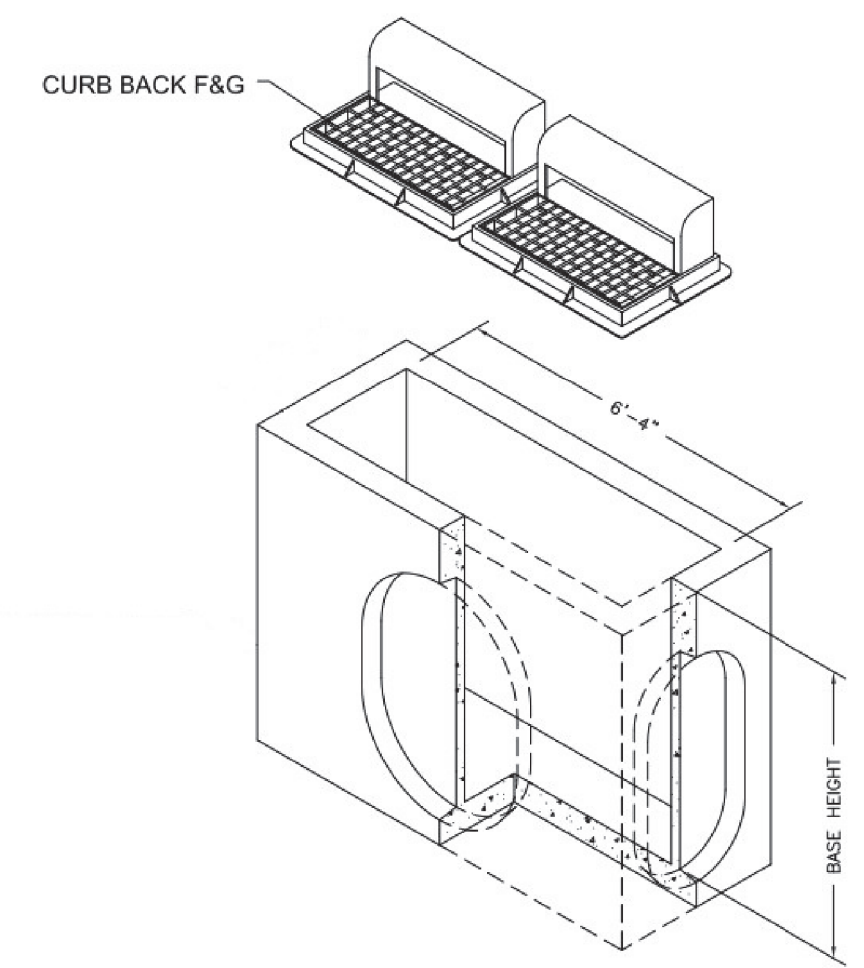
**GENERAL NOTES:**

1. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M170, TABLE 2, WALL B.
2. ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.
3. PROVIDE TONGUE OR SPIGOT JOINT AT INLET END SECTION.
4. PROVIDE GROOVE OR BELL JOINT AT OUTLET END SECTION.
5. THE DIMENSIONS FOR END SECTIONS SHALL SUBSTANTIALLY AGREE WITH THE TABLE. MINOR VARIATIONS WILL BE PERMITTED BASED ON THE MANUFACTURER'S STANDARD FORMS AND TEMPLATES.
6. NOT TO BE USED IN SCDOT MAINTAINED RIGHT OF WAY.



FLARED END SECTION  
12" THROUGH 72" PIPE

DETAIL No. SD16  
SHEET 1 OF 1



DOUBLE CATCH BASIN (DCB) ISOMETRIC

SCALE=NTS

APPROVALS	PREPARED BY	SEALS	PROJECT	SHEET TITLE	NO.	DATE	REVISIONS	BY	SCALE: N.T.S.
Project Engr: _____ Drawn By: _____ Checked By: _____	<b>JOEL E. WOOD &amp; ASSOCIATES</b> PLANNING • ENGINEERING • MANAGEMENT P.O. BOX 296 CLOVER, SC 29710 (803) 684-3390	 <b>INFORMATION ONLY</b>	<b>UNIVERSITY APARTMENTS</b> CITY OF LANCASTER, SOUTH CAROLINA PREPARED FOR <b>1640 UNIVERSITY DEVELOPEMENT LLC</b>	<b>DETAILS</b>					DATE: 6/1/2023 JOB NO.: 221005 SHEET <b>C711</b>