

City of Lynchburg
Procurement Division
900 Church Street
Lynchburg, Virginia 24504
Telephone No.: (434) 455-3970
Fax No.: (434) 845-0711

Addendum for Bid
James River Interceptor Division 3B
14-876

Date: November 7, 2013
From: Stephanie Suter, CPPO, CPPB
RE: Addendum No. 2

This Addendum and all attachments become part of the bidding documents and modify the Project Manual and Drawing as noted. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

1. The deadline for questions has been extended until 2:00 PM, Wednesday, November 13, 2013.
2. The deadline for bids has been extended to 4:00 PM, Wednesday, November 20, 2013.
3. Revisions to the specifications and bid documents from the design engineer are attached.

READ TERMS AND CONDITIONS AND SIGN

In compliance with the above BID, and subject to all the conditions hereof, the undersigned offers and agrees to comply with any or all of the terms and conditions contained herein, or as mutually agreed upon by subsequent negotiations. This form shall become part of the final file.

Company Name: _____ *Address:* _____ *Date:* _____

Authorized Signature: _____ *Title:* _____

Print Name: _____ *Telephone No.:* _____ *Fax No.:* _____

Bidding Addendum

Addendum No. 2 for City of Lynchburg, James River Interceptor, Division 3B, City Project No. 13023-S: Commission No. 213169.00, dated November 7, 2013.

To: All Bidding Document Holders of Record

From: Wiley|Wilson
Lynchburg, Virginia

This Addendum contains 6 pages and listed attachments and forms as part of the bidding documents and modifies the Project Manual and Drawings dated October 11, 2013, as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

BID DATE

The bid date is being extended to November 20, 2013. The bid opening will be at 4:00 p.m. at location indicated on advertisement. The last day for questions is November 13, 2013.

SPECIFICATIONS

Drawing Index

Remove in entirety and replace with revised Drawing Index.

Section 01000 – General Requirements

Add paragraph 1.07 D (8):

Contractor shall provide all materials and labor as necessary to install and maintain signage throughout the project. Where possible, signs may be installed on existing posts, provided the proper height and offset requirements are met. Otherwise temporary measures shall be utilized. Drilling through brick, concrete, or Belgium block surfaces for sign posts will not be allowed. Coordinate installation with City personnel.

Add paragraph 1.07 F (3):

Upon completion of the project, Contractor shall restore in their entirety the parking lots at 13th street (Sisson Building parking lot), 10th street (Depot Plaza parking lot), and 9th street (Amazement Square and Skate Park parking lots). Restoration shall include 8-inches of base stone where disturbed, a double shot of prime and seal per VDOT specifications with Shenandoah Stone. Curb stops shall be reset and areas restored to pre-construction conditions.

Section 02400 – Tunneling

Remove paragraph 1.03 A. and replace with:

Submittal: Tunneling and boring work details, shop drawings, calculations, complete details of the entire tunneling operation and boring operation, including but not limited to tunnel liner plate design, tunnel shield, sheeting, and construction procedures for tunneling/boring in hard rock conditions, mixed-face conditions, and soil material conditions to the railroad for railroad review and approval within 10 working days of the notice to proceed and at least 30 days before beginning construction of the tunnel. A copy of the railroad submittal data shall be submitted to Engineer for record. Review by Engineer shall not relieve the Contractor of his responsibilities under this contract. Tunneling activities will not be allowed on railroad property until the tunneling work details submittal has been approved by the railroad company. The Contractor shall be responsible for tunnel installation. The base bid shall include removal of 100 CY of unexpected debris, structures, and/or rubble of any type. This volume shall be a shared quantity between the bore and tunnel.

Section 02405 – Bore and jack

Add Section 02405 – Bore and jack

DRAWINGS

G-001

Delete sheet in its entirety and replace with revised sheet G-001.

Drawings SSK-1, SSK-2, SSK-3, and SSK-4

Add to Contract Documents

GENERAL QUESTIONS

Q: We are looking at the bypass pumping portion of the project and I have a few questions pertaining to that.

The specs call for 36 MGD with an additional 61 MGD for storm surge. Is that a total of 97 MGD? The 36 MGD will take approximately four 18" pumps (3 primaries, one standby) and either 3 runs of 18" pipe or 2 runs of 24". The additional 61 MGD will need seven 18" pumps (6 primary, one standby) and an additional 6 runs of 18" pipe or approximately 4 runs of 24". This obviously will take up a lot of space.

Will the storm surge 61 MGD be intercepted at the upper end of the project or do you see the majority coming from the 30" SD line at MH 10th street?

The specs say that the additional storm surge may be bypassed to CSO57 and or CSO59. I believe CSO 57 is located @ Sta. 11+13.66, is CSO59 located @ 9th Street?

Response: The revised language is meant to indicate a total of 97 MGD. This is a worst case flow rate. This flow rate can be a combination of pumped and gravity bypass. The pumped flow could be reduced as sideline connections are made. Temporary gravity overflow connections will be allowed provided they tie-in to an existing overflow line. The existing overflows are CSO57 and CSO59. CSO57 is located in the vicinity of JB#6. A 36-inch pipe connects in alignment with 13th street which has a capacity of 60 MGD. A 30-inch pipe connects in alignment with 12th street which has a capacity of 24 MGD. The total capacity of the pipe crossing the railroad is 84 MGD. The new 54-inch bored pipe will have a capacity of 90 MGD. CSO59 is the storm line connecting to interceptor at 10th street, paralleling the interceptor towards Amazement Square, and discharging upstream of 9th street in the area of the aerial crossings. Addendum #1 gave the capacity of this line as 13 MGD. The actual capacity is 37 MGD.

A total pump capacity of 36 MGD would be required from the upper end of the project. This is the maximum capacity of the 60-inch aerial steel crossing over Blackwater Creek and the maximum capacity of the downstream interceptor. The available capacity in the downstream interceptor must be reached prior to any flow diverting to an overflow (pumped or gravity), just as would occur under normal system operation. The storm surge beyond 36 MGD is expected to come from the connections at 10th, 11th, and 12th streets. Because the interceptor is essentially flat through the project area, bypass of the average and storm flow from the 9th street to 12th street area could occur anywhere along the existing interceptor with reverse or normal flow direction through sections of the existing interceptor. It is possible to bypass 12th street flows from an area upstream, even from 9th street. 37 MGD of that storm surge could dump by gravity at the CSO59 connection at 10th street while it is connected and available. The Contractor shall develop a bypass pumping plan that:

- Can convey 36 MGD from the upper end of the project to the downstream discharge location
- Allows no discharge of overflow unless the downstream interceptor capacity is fully utilized
- Provides for an additional 61MGD of storm surge bypass (pumped or gravity) for the area between 12th street and 10th street to discharge to either the downstream discharge location if the interceptor capacity is not utilized or to an approved overflow location (CSO57 or CSO59)
- Comply with all other parameters listed in the Project Manual

Q: Can you confirm that all work shown on sheet C-104 has been eliminated per addendum #1? If so, does this affect the amount of sheeting that should be included in the bid?

Response: All of the work on sheet C-104 has been eliminated with Addendum #1. The total sheeting to include in the base bid is 200 linear feet.

Q: The plans call out that all grassed areas between 13th street and 10th street are to receive sod. Can you confirm that this includes all grass areas and not just the areas disturbed during construction? If so, does this included the grassed area between the walking trail and the chain-link fence adjacent to the Norfolk Southern rail road tracks?

Response: The bid shall include sod installation for all areas, disturbed or not disturbed. Most areas will be disturbed during replacement of entire irrigation system. Sodding shall include the strip between the walking trail and the chain link fence. There are no exclusions.

Q: Is the city going to require that the shoring for modifications to CSO 56 be signed and sealed by a PE?

Response: A PE seal will be required.

Q: Due to the short period of time between the release of addendum# 2 and bid date we are requesting a bid date extension of 1 week 2. Addendum #1 does specify if the Ariel pipe is still being removed and if bore on Griffin Pipe has been eliminated also.

Response: The bid date will be extended. The last day for questions is November 13, 2013. The bid date is November 20, 2013. The bid opening will be at 4:00p. The aerial pipe is being left in place and modified to tie-in to the new manhole connection (MH#15). Removal of sludge from the aerial pipe will be required prior to modifications. Assume 24-inches of sludge in bottom of pipe. No change in contract will be allowed for a variance from this depth. The bore on the Griffin Pipe property shall be removed from the project. Sheet C-104 and all work contained thereon shall be removed from the project.

Q: Can supply a detail for the plantings and piping in the rain garden that is to be removed.

Response: Additional pond planting details have been included.

Q: Addendum #1 Section 01000 - General Requirements 1.07 E (12) States that the bypass operation shall also include the ability to pump an additional 61 MGD to an existing overflow discharge location of adequate capacity. Will we be required to pick up this additional flow from the main interceptor bypass? If so, does this mean that that setup will have to handle 97 MGD?

Response: See response to bypass question above

Q: Have the agreements with the City of Lynchburg and CSX/NFS been approved and executed.

Response: There are minor modifications to the CSX agreement for property encroachment (tunnel pit) at the upstream tunnel. These are currently under review and approval. Norfolk Southern agreements have been executed.

Q: Are you requiring the contractor to bed with 57 stone to the springline of the concrete pipe?

Response: All pipe bedding shall extend to the springline of the pipe.

Q: Does the City have any testing requirements of spoil material leaving the site?

Response: The testing requirements listed in 'Section 1000 – General requirements' apply to spoils from CSX properties only. Those spoils from CSX property must strictly adhere to testing of each parameter as defined. The spoils from other areas of the project do not have these requirements.

Q: Is there any access to some additional geotechnical information that was not included in the specifications? In particular, I'm trying to track down the boring log for B-12, which is vital information for the proposed tunnel alignment. If you could help me locate this information, I would greatly appreciate it.

Response: The bore holes labeled with 'B-#' were not performed to identify specific geotechnical information. Bore logs were not collected. Depth to groundwater and refusal were the only information collected. This information is included in the Appendix.

Q: Will additional time be added to Phase 1C due to the additional 60" RCP and concrete cradles, 48" steel pipe tie into MH 15?

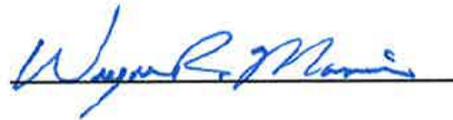
Response: No additional time will be added.

ATTACHMENTS

- Drawing Index (revised)
- Section 2405 – Bore and jack (added)
- CSO#56 New Vault Plan (SSK-1)
- Junction Box 6 Plan (SSK-2)
- Trash Rack Section and Details (SSK-3)
- Trash Rack Details (SSK-4)
- Bio-retention planting plans
- Bio-retention grading plans
- Bio-retention planting specification
- Drawing sheet G-001

End of Addendum No. 2

Wiley|Wilson



Wayne R. Massie, P.E.
Project Engineer



DRAWING INDEX

<u>SHEET</u>	<u>DESCRIPTION</u>	<u>STATION RANGE</u>
G-001	COVER SHEET	ALL
C-001	OVERALL PLAN	ALL
C-101	SANITARY SEWER PLAN AND PROFILE	10+00 TO 17+00
C-102	SANITARY SEWER PLAN AND PROFILE	17+00 TO 25+00
C-103	SANITARY SEWER PLAN AND PROFILE	25+00 TO 28+00
	SANITARY SEWER PLAN AND PROFILE	29+00 TO 30+00
	SANITARY SEWER PLAN AND PROFILE	31+00 TO 33+00
C-104	SANITARY SEWER PLAN AND PROFILE	34+00 TO 38+00
C-105	STORM SEWER PLAN AND PROFILE	99+00 TO 107+00
C-106	STORM SEWER PLAN AND PROFILE	107+00 TO 110+00
	STORM SEWER PLAN AND PROFILE	113+00 TO 115+00
C-107	CSO56 & HORSEFORD RD WATERLINE	
C-401	CSO56 - DEMOLITION PLAN	
C-402	CSO56 - DIMENSIONAL LAYOUT	
C-403	SIGNAGE PLAN	ALL
C-404	SIGNAGE PLAN	ALL
C-405	SIGNAGE PLAN	ALL
C-406	SIGNAGE PLAN	ALL
C-407	SIGNAGE PLAN	ALL
C-408	SIGNAGE PLAN	ALL
C-409	SIGNAGE AND SITE DETAILS	ALL
C-410	AMAZEMENT SQUARE PHASING	ALL
C-501	E AND S CONTROL NARRATIVE & DETAILS	ALL
C-502	SITE IMPROVEMENT DETAILS	ALL
S-001	GENERAL NOTES	
S-101	CSO56 NEW VAULT PLAN & SECTION VIEWS	
S-102	JUNCTION BOX 6 PLAN AND SECTION VIEWS	
S-501	DETAILS	

END OF DRAWING INDEX

SECTION 02405 - BORE AND JACK

1. GENERAL

1.01 REFERENCE SPECIFICATIONS ARE REFERRED TO BY ABBREVIATION AS FOLLOWS.

- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS..... ASTM
- B. AMERICAN WATER WORKS ASSOCIATION..... AWWA
- C. AMERICAN RAILWAY ENGINEERING ASSOCIATION..... A.R.E.A.
- D. AMERICAN ASSOCIATION OF STATE HIGHWAY AND
TRANSPORTATION OFFICIALS..... AASHTO

1.02 SUBMITTALS: PROVIDE THE FOLLOWING IN A TIMELY MANNER IN ACCORDANCE WITH THE APPROVED SUBMITTALS SCHEDULE AS SPECIFIED IN DIVISION 1 - GENERAL REQUIREMENTS.

- A. SUBMITTAL: BORE AND JACK/ALTERNATIVE WORK DETAILS
- B. SUBMITTAL: SHOP DRAWING FOR CASING PIPE.
- C. SUBMITTAL: COMPLETE DETAILS OF THE ENTIRE BORE AND JACK OPERATION TO THE ENGINEER FOR REVIEW AT THE PRECONSTRUCTION CONFERENCE. THE SUBMITTAL SHALL INCLUDE DESIGN CALCULATIONS FOR THE BORE AND JACK TO VERIFY CASING PIPE WILL WITHSTAND LOADING BASED ON AASHTO SECTION 16 "STEEL TUNNEL LINER PLATE", NSCE-8, OR A.R.E.A. SPECIFICATION, CHAPTER 1, PART 4, "CULVERTS." REVIEW BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES UNDER THIS CONTRACT. IF THE CONTRACTOR DETERMINES PRIOR TO BEGINNING CONSTRUCTION THAT AN ALTERNATIVE METHOD OF CASING INSTALLATION SHOULD BE CONSIDERED, THE CONTRACTOR SHALL SUBMIT THE ALTERNATIVE FOR REVIEW IN ACCORDANCE WITH SPECIFICATION SECTION 01000 - GENERAL REQUIREMENTS. AN ALTERNATIVE METHOD WOULD ALSO BE SUBJECT TO RAILROAD APPROVAL AND MAY OR MAY NOT BE ACCEPTED.

1.03 NOTIFY THE OWNER 2 WEEKS PRIOR TO BEGINNING WORK.

1.04 PERFORM ALL WORK IN A MANNER APPROVED BY THE ENGINEER.

1.05 "MIXED FACE" CONDITIONS COULD BE ENCOUNTERED DURING THE BORE AND JACK OPERATION. IN THE EVENT OF A "MIXED FACE" CONDITION, AND/OR IF THE CONTRACTOR IS UNABLE TO USE A CONVENTIONAL BORE AND JACK OPERATION, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AN ALTERNATIVE METHOD OF INSTALLATION FOR THE CASING AND CARRIER PIPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COST DUE TO THE CHANGE. NO EXTRA PAYMENT WILL BE MADE FOR CHANGE IN INSTALLATION METHODS. AN ALLOWANCE FOR UNEXPECTED OBSTRUCTIONS IS GIVEN IN SECTION 2400

1.06 THE CONTRACTOR SHALL DETERMINE FOR HIMSELF THE EXISTING CONDITIONS BOTH ABOVE AND BELOW GROUND. ACCESS AGREEMENTS FOR INVESTIGATION MUST BE MADE WITH NORFOLK SOUTHERN RAILROAD AND PROPERTY OWNERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE INSTALLATION OF THE CASING PIPE TO THE REQUIRED LINE AND GRADE.

2. PRODUCTS

2.03 STEEL CASING PIPE FOR BORING OR JACKING UNDER HIGHWAYS OR RAILROADS SHALL MEET THE REQUIREMENTS OF ASTM A 139, GRADE B. NOMINAL PIPE DIAMETER AND WALL THICKNESS SHALL BE AS INDICATED ON THE DRAWINGS.

3. EXECUTION

3.01 INSTALLATION OF STEEL CASING PIPE

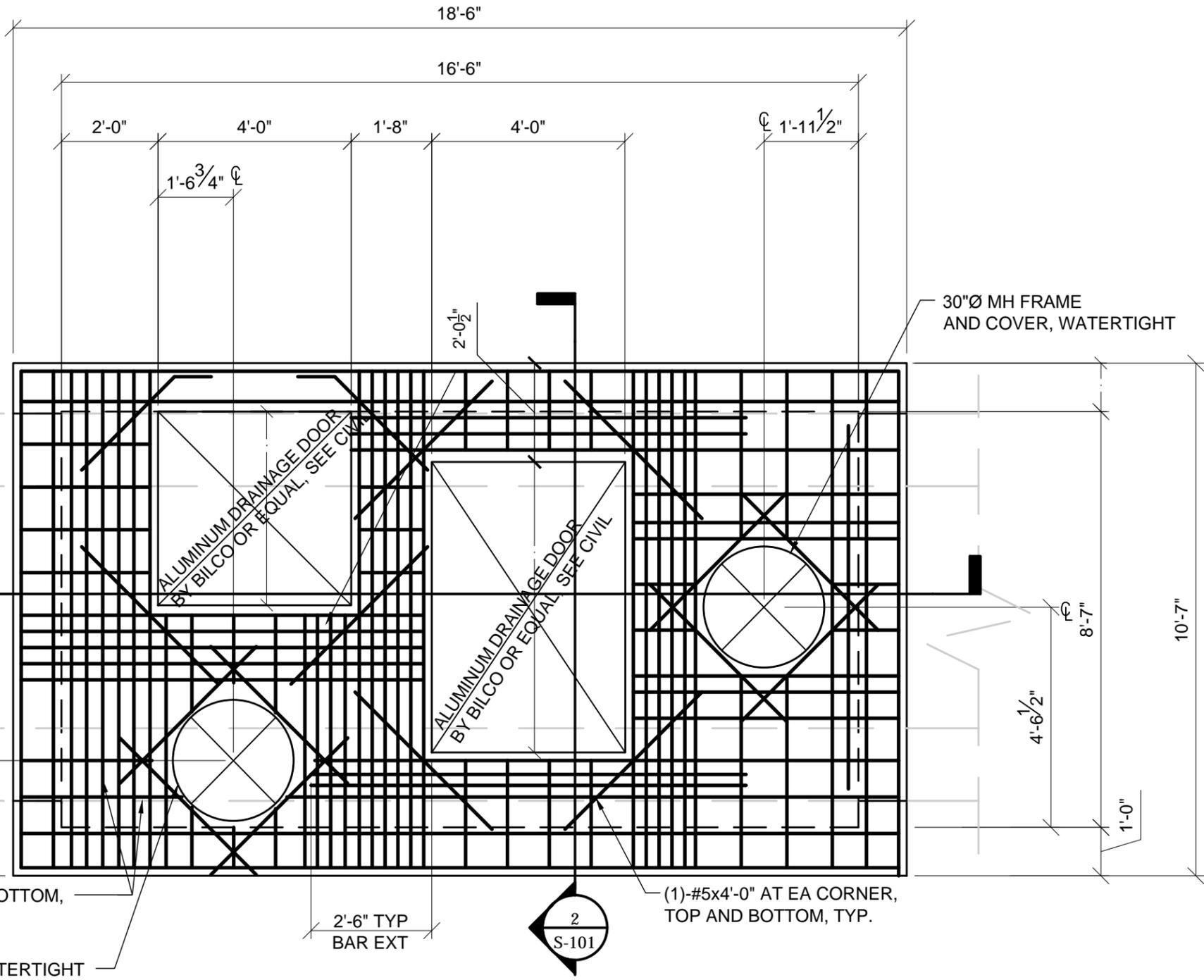
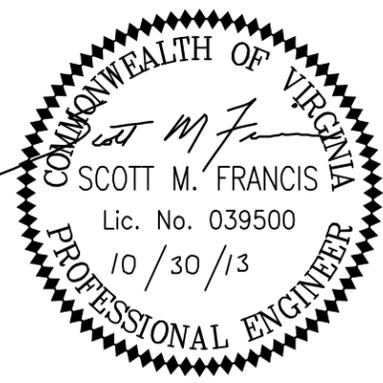
- A. STEEL CASING PIPE SHALL BE INSTALLED BY BORING AND JACKING OR ALTERNATIVE METHOD APPROVED BY THE ENGINEER AND RAILROAD.
- B. COMMENCE BORING AND JACKING OPERATION FROM A PIT, WITH THE BOTTOM EXCAVATED TO GRADE, AND SHEETED OR SHORED IF NECESSARY. BORING AND JACKING THROUGH SOIL OR ROCK SHALL HAVE A STEEL PIPE JACKED IN PLACE.
- C. PIPE SHALL HAVE A DESIGN STRENGTH AND WALL THICKNESS SO AS TO WITHSTAND THE JACKING OPERATION.
- D. CONSTRUCTION SHALL BE PERFORMED IN SUCH A MANNER THAT THE GROUND SURFACE ABOVE THE PIPE LINE WILL NOT SETTLE. INSTALLATION OF THE PIPE LINE SHALL IMMEDIATELY FOLLOW HEADING OR TUNNELING EXCAVATION. VOIDS OCCURRING BEHIND THE PIPE DURING INSTALLATION SHALL BE FILLED WITH HYDRAULIC CEMENT GROUT, OR OTHER MATERIAL AS APPROVED BY THE RAILROAD, AND PLACED UNDER PRESSURE CONTINUOUSLY WITH THE PROGRESSION OF THE BORE AND JACK OPERATION.
- E. AT HIS OWN EXPENSE, THE CONTRACTOR SHALL REPLACE OR REPAIR, AS DIRECTED BY THE ENGINEER, PIPE THAT IS DAMAGED DURING JACKING OPERATIONS. JOINTS OF STEEL PIPE SHALL BE BUTT WELDED AND WATERTIGHT, AS INSTALLATION PROGRESSES.
- G. DO NOT GROUT INSIDE OF THE CASING PIPE. THE CASING PIPE SHALL BE LINED AS DEFINED.

3.02 ALL INSTALLATIONS ACROSS THE PROPERTY OF NORFOLK SOUTHERN AND CSX RAILWAY SHALL CONFORM TO NCSE-8: SPECIFICATIONS FOR PIPELINE OCCUPANCY OF NORFOLK SOUTHERN CORPORATION PROPERTY AND CSX CONSTRUCTION STANDARDS.

- A. THE DIVISION ENGINEER'S OFFICE SHALL BE NOTIFIED A MINIMUM OF 14 DAYS PRIOR TO THE DESIRED START OF CONSTRUCTION.
- B. CASING PIPE SHALL BE CONSTRUCTED AS TO PREVENT LEAKAGE OF ANY SUBSTANCE FROM THE CASING THROUGHOUT ITS LENGTH.
- C. BORE AND JACK INSTALLATIONS SHALL HAVE A BORE HOLE ESSENTIALLY THE SAME AS THE OUTSIDE DIAMETER OF THE PIPE.
- D. THE USE OF WATER OR OTHER LIQUIDS TO FACILITATE CASING EMPLACEMENT AND SPOIL REMOVAL IS PROHIBITED.
- E. THE BORING OPERATION SHALL BE PROGRESSED ON A 24-HOUR BASIS WITHOUT STOPPAGE (EXCEPT FOR ADDING LENGTHS OF PIPE) UNTIL THE LEADING EDGE OF THE PIPE HAS REACHED THE RECEIVING PIT OR AS OTHERWISE DEFINED BY THE RAILROAD.

- F. THE OVER-CUT BY THE CUTTING HEAD SHALL NOT EXCEED THE OUTSIDE DIAMETER OF THE PIPE BY MORE THAN 1/2 INCH. IF VOIDS SHOULD DEVELOP OR IF THE BORED HOLE DIAMETER IS GREATER THAN THE OUTSIDE DIAMETER OF THE PIPE BY MORE THAN APPROXIMATELY 1 INCH, GROUTING OR OTHER METHODS APPROVED BY NORFOLK SOUTHERN OR CSXT SHALL BE EMPLOYED TO FILL SUCH VOIDS.
- G. THE FACE OF THE CUTTING HEAD SHALL BE ARRANGED TO PROVIDE A REASONABLE OBSTRUCTION TO THE FREE FLOW OF SOFT OR POOR MATERIAL.
- H. BULKHEADING EACH DAY MAY BE REQUIRED AS DEFINED BY THE NSC OR CSXT RAILROADS.

END OF SECTION



1
S-101

2
S-101

#6 BARS TOP AND BOTTOM,
TYP WHERE SHOWN
30"Ø MH FRAME
AND COVER, WATERTIGHT

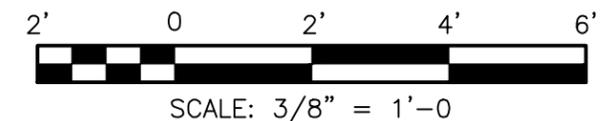
ALUMINUM DRAINAGE DOOR
BY BILCO OR EQUAL, SEE CIVIL

ALUMINUM DRAINAGE DOOR
BY BILCO OR EQUAL, SEE CIVIL

(1)-#5x4'-0" AT EA CORNER,
TOP AND BOTTOM, TYP.

30"Ø MH FRAME
AND COVER, WATERTIGHT

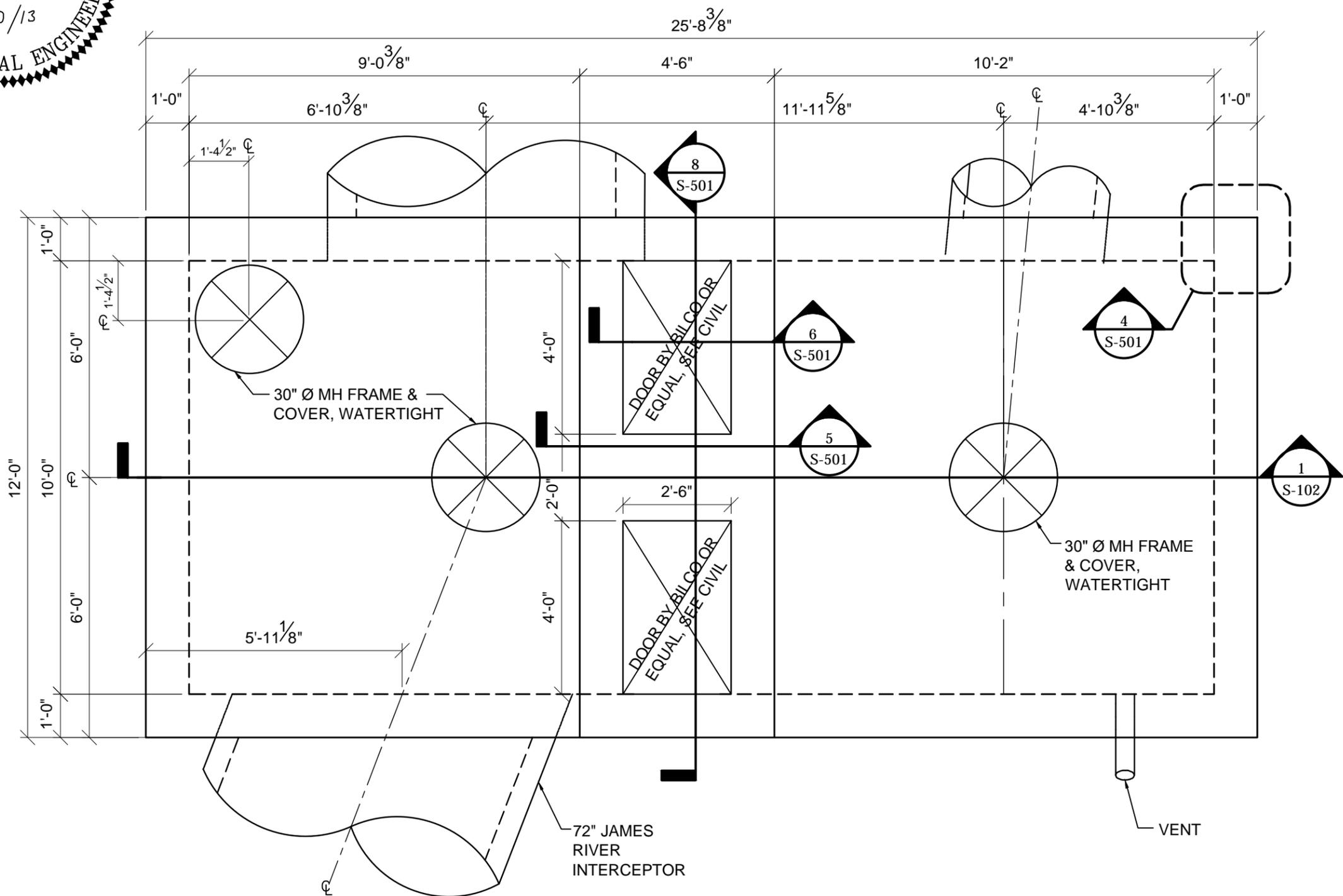
CSO #56 PLAN - ELEVATION 536.50'
SCALE: 1/4" = 1'-0"



X:\2013\213169_Lybg_jr\3B_Redesign\CAD\Struct\Sketch SSK-1.dwg October 30, 2013

127 Nationwide Drive
Lynchburg, Virginia 24502-4272

PROJECT JAMES RIVER INTERCEPTOR DIVISION 3B		TITLE CSO #56 PLAN	
COMM. NO. 213169.00		DRAWN SMF	
DRAWN SMF		CHECKED SMF	
DWG. REFERENCE NO. S-101			
SHEET TITLE SSK-1			
DATE 10/30/13		REV. ----	



JUNCTION BOX #6 PLAN - ELEVATION 519.20'

SCALE: 3/8" = 1'-0"



SCALE: 3/8" = 1'-0"



127 Nationwide Drive
Lynchburg, Virginia 24502-4272

PROJECT
**JAMES RIVER INTERCEPTOR
DIVISION 3B**

TITLE
JUNCTION BOX #6 PLAN

COMM. NO.
213169.00

DRAWN
SMF

CHECKED
SMF

DWG. REFERENCE NO.
S-102

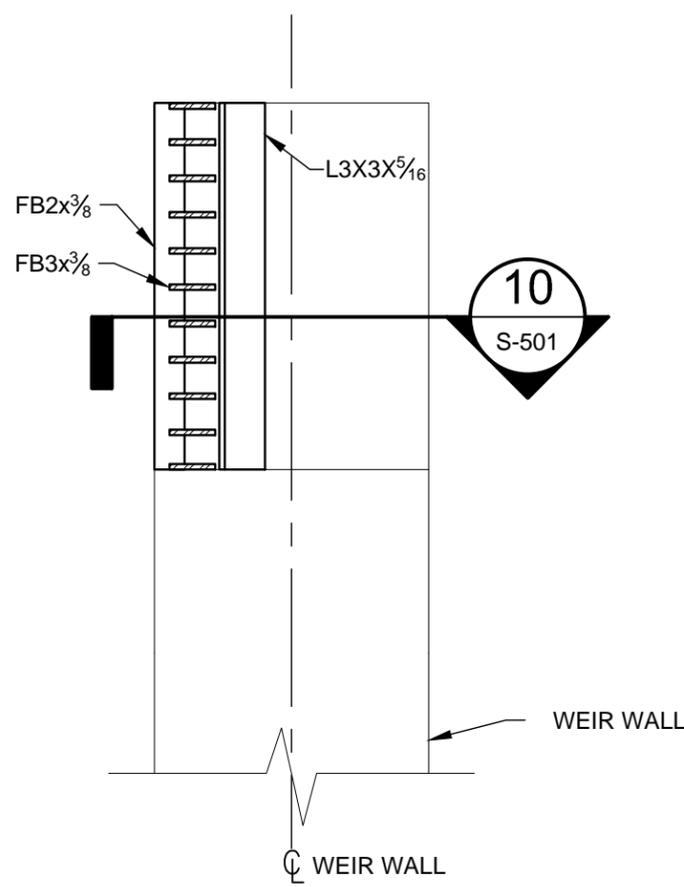
SHEET TITLE

SSK-2

DATE
10/30/13

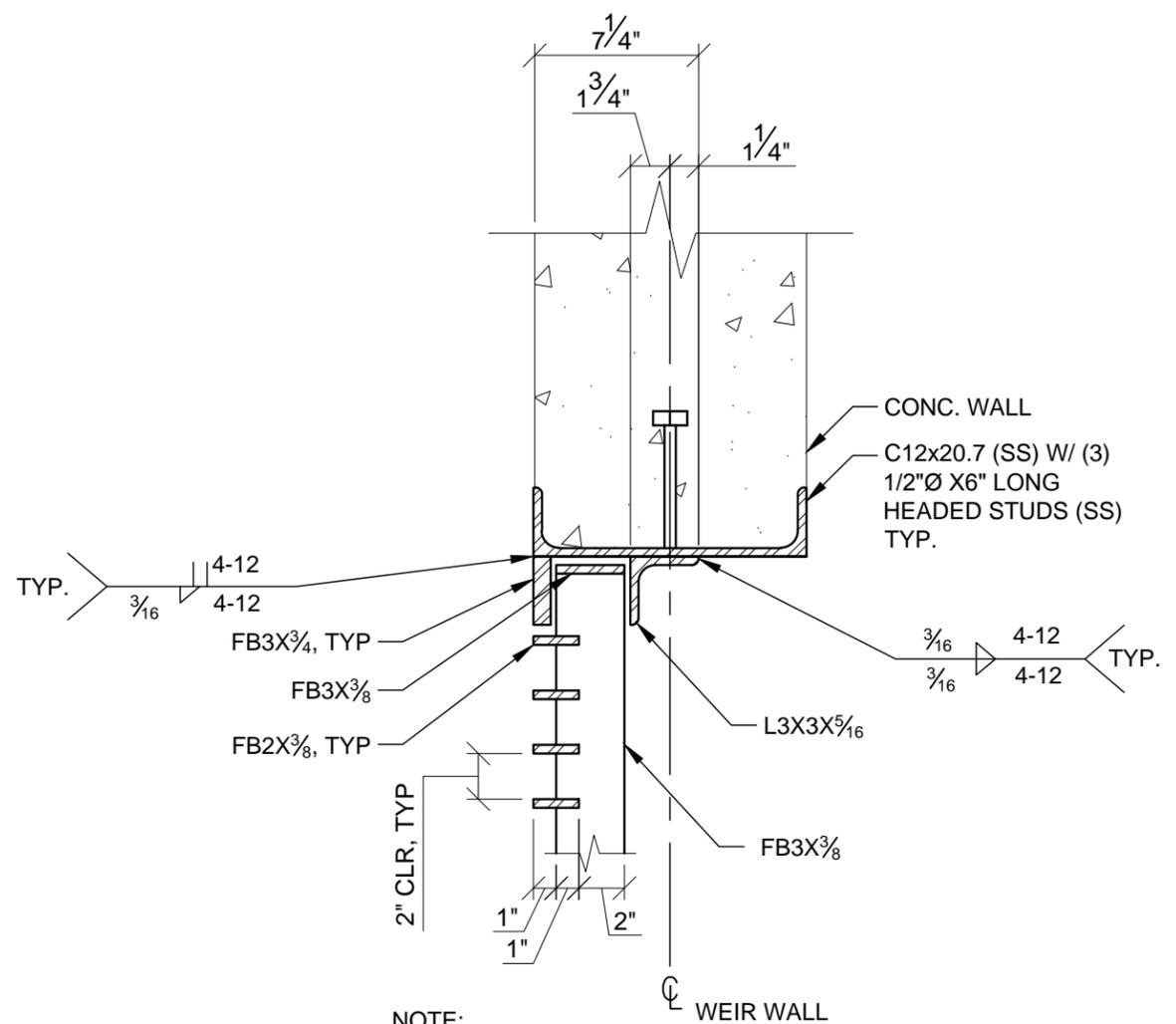
REV.

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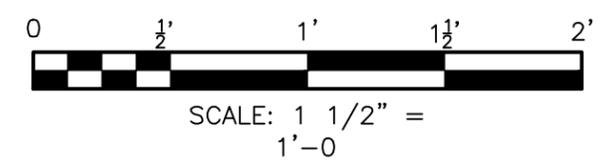
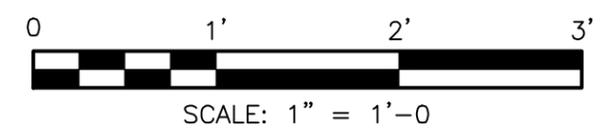
NOTE:
ALL ANGLES AND FLAT BARS SHALL BE STAINLESS STEEL ASTM
A276 TYPE 316L.

TRASH RACK SUPPORT DETAIL 9
SCALE: 1" = 1'-0" S-101



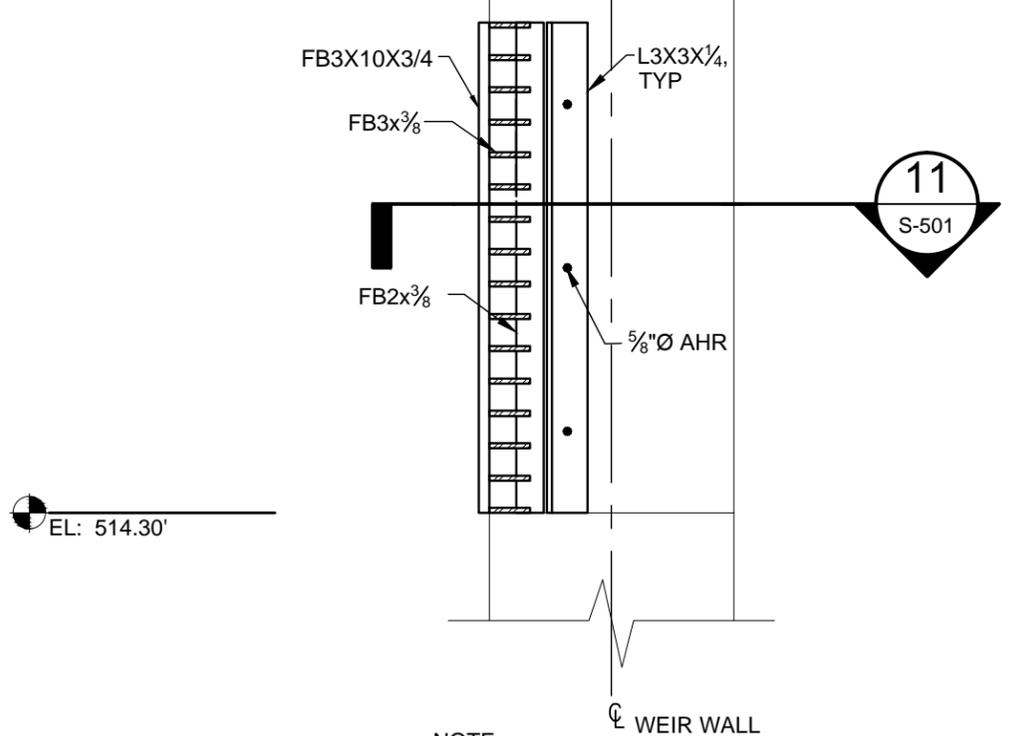
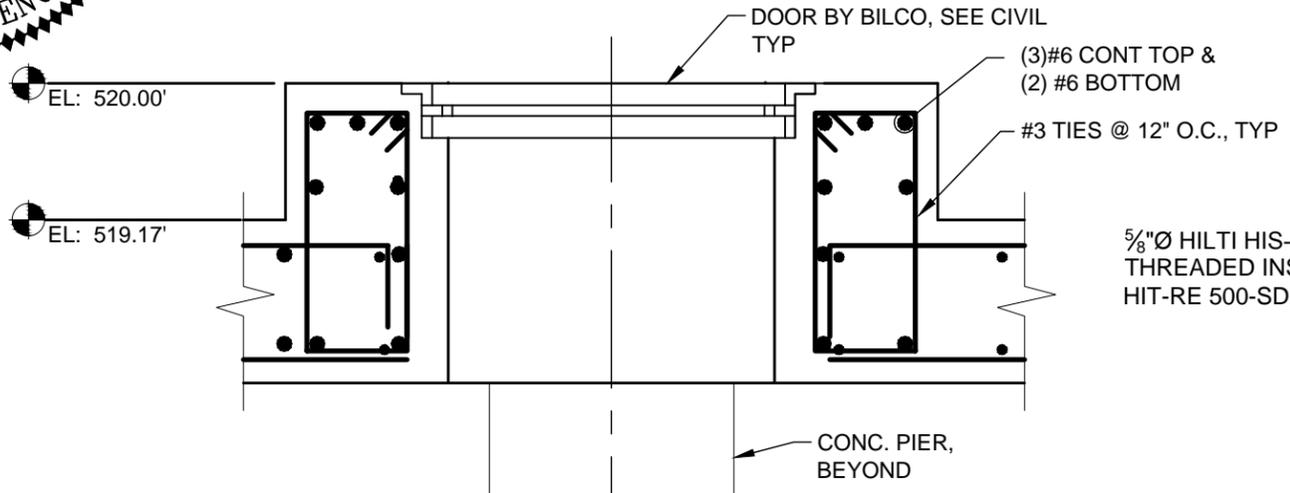
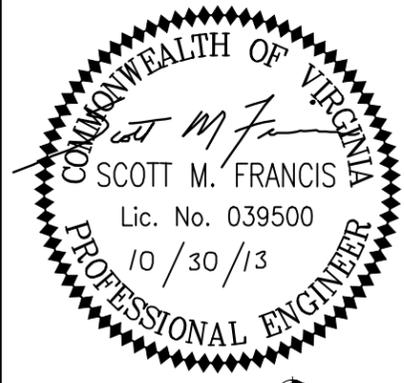
NOTE:
ALL ANGLES, CHANNELS, FLAT BARS, AND HEADED STUDS
SHALL BE STAINLESS STEEL ASTM A276 TYPE 316L.

SECTION 10
SCALE: 1-1/2" = 1'-0" S-501



JAMES RIVER INTERCEPTOR DIVISION 3B	TRASH RACK SECTION AND DETAIL
PROJECT	TITLE
COMM. NO. 213169.00	
DRAWN SMF	CHECKED SMF
DWG. REFERENCE NO. S-501	
SHEET TITLE SSK-3	
DATE 10/30/13	REV. ----

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EL: 514.30'



SCALE: 1" = 1'-0"



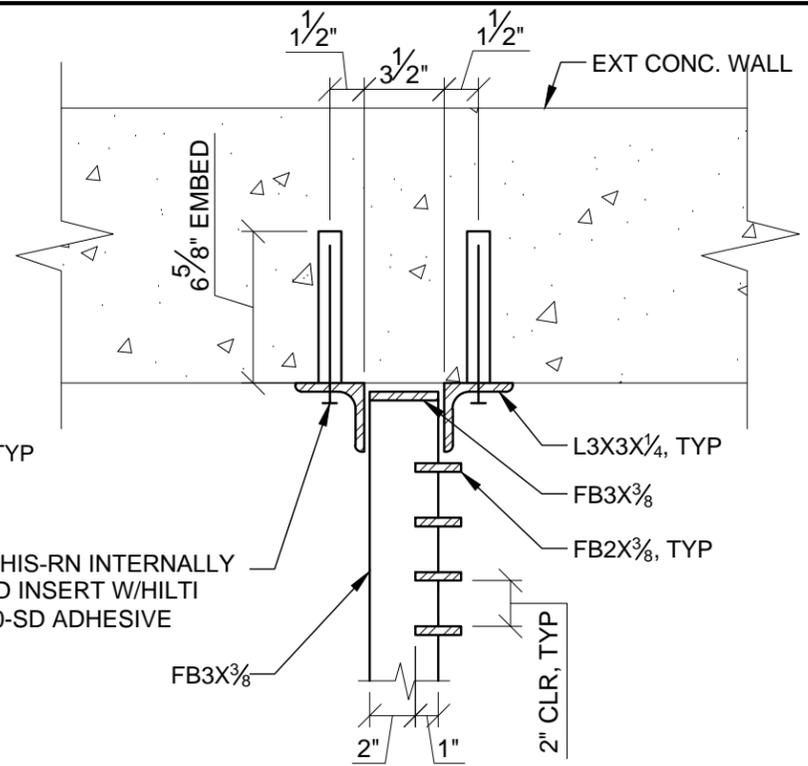
SCALE: 1 1/2" = 1'-0"

NOTE:
ALL ANGLES AND FLAT BARS SHALL BE STAINLESS STEEL ASTM A276 TYPE 316L.

DETAIL

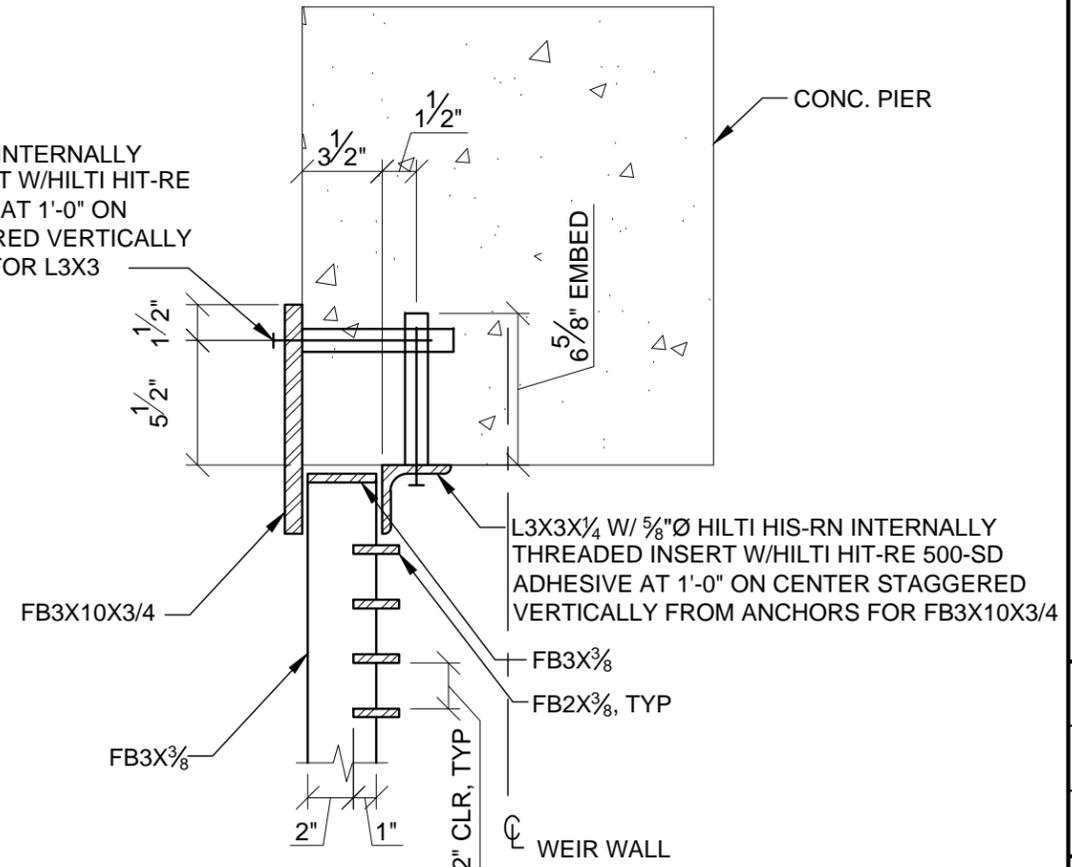
SCALE: 1" = 1'-0"

6
S-102



TRASH RACK AT EXTERIOR WALL

5/8" Ø HILTI HIS-RN INTERNALLY THREADED INSERT W/HILTI HIT-RE 500-SD ADHESIVE AT 1'-0" ON CENTER STAGGERED VERTICALLY FROM ANCHORS FOR L3X3



TRASH RACK AT INTERIOR CONC PIER

TRASH RACK DETAIL

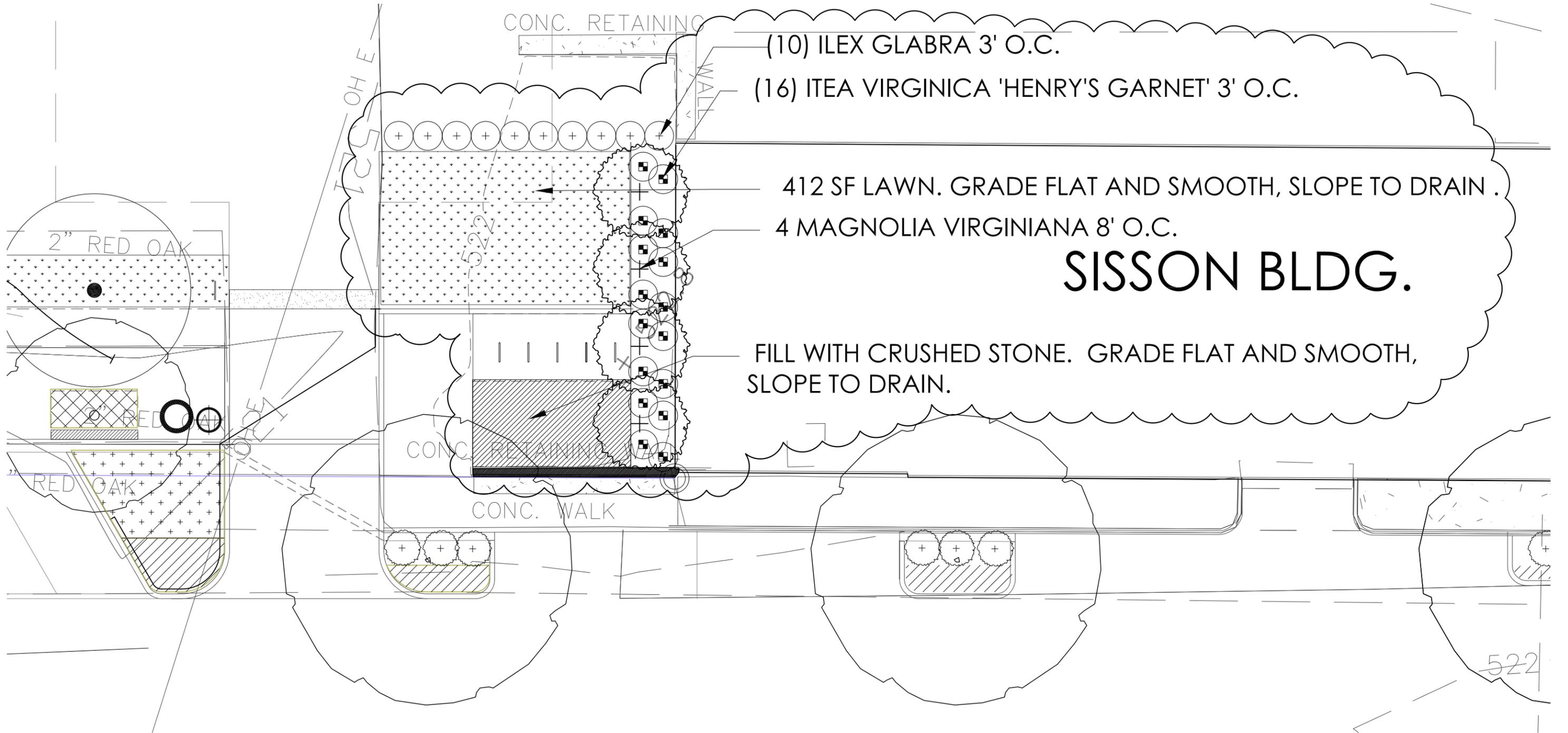
SCALE: 1-1/2" = 1'-0"

11
S-501

Wiley Wilson
Constant Progress

127 Nationwide Drive
Lynchburg, Virginia 24502-4272

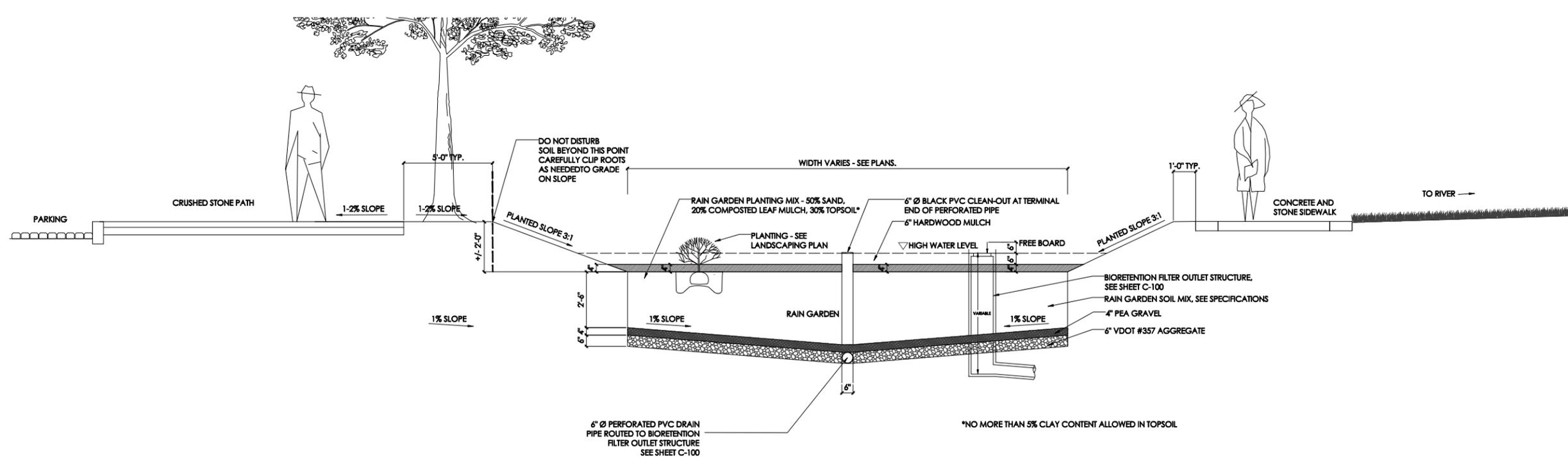
PROJECT		TITLE	
JAMES RIVER INTERCEPTOR DIVISION 3B		TRASH RACK DETAILS	
COMM. NO.	213169.00	DRAWN	CHECKED
DWG. REFERENCE NO.	S-501	SMF	SMF
SHEET TITLE		SSK-4	
DATE	10/30/13	REV.	



NOTE: 3 ILEX GLABRA, 2 ITEA VIRGINICA, AND 410 SF OF LAWN ADDED FROM WHAT IS SHOWN IN 100% DRAWINGS.

1 EAST PRECINCT PLANTING PLAN
L-402 SCALE 1" = 10'-0"





1 RAIN GARDEN - TYPICAL SECTION
SCALE 1/2" = 1'-0"

NO.	Date	Issues / Revisions
1	10.25.07	100% SCHEMATIC DESIGN
2	04.04.08	50% PROGRESS SET
3	07.25.08	80% PROGRESS SET
4	09.04.08	100% SET



Jefferson Street
North
Lynchburg Riverfront
Lynchburg, Virginia

100% SET

PROJECT NO: 0606
DRAWN BY: ZP, NW, AD, PJ
CHECKED BY: RKK, WTB

Rain Garden
Sections

DATE: SEPTEMBER 4, 2008
SCALE:

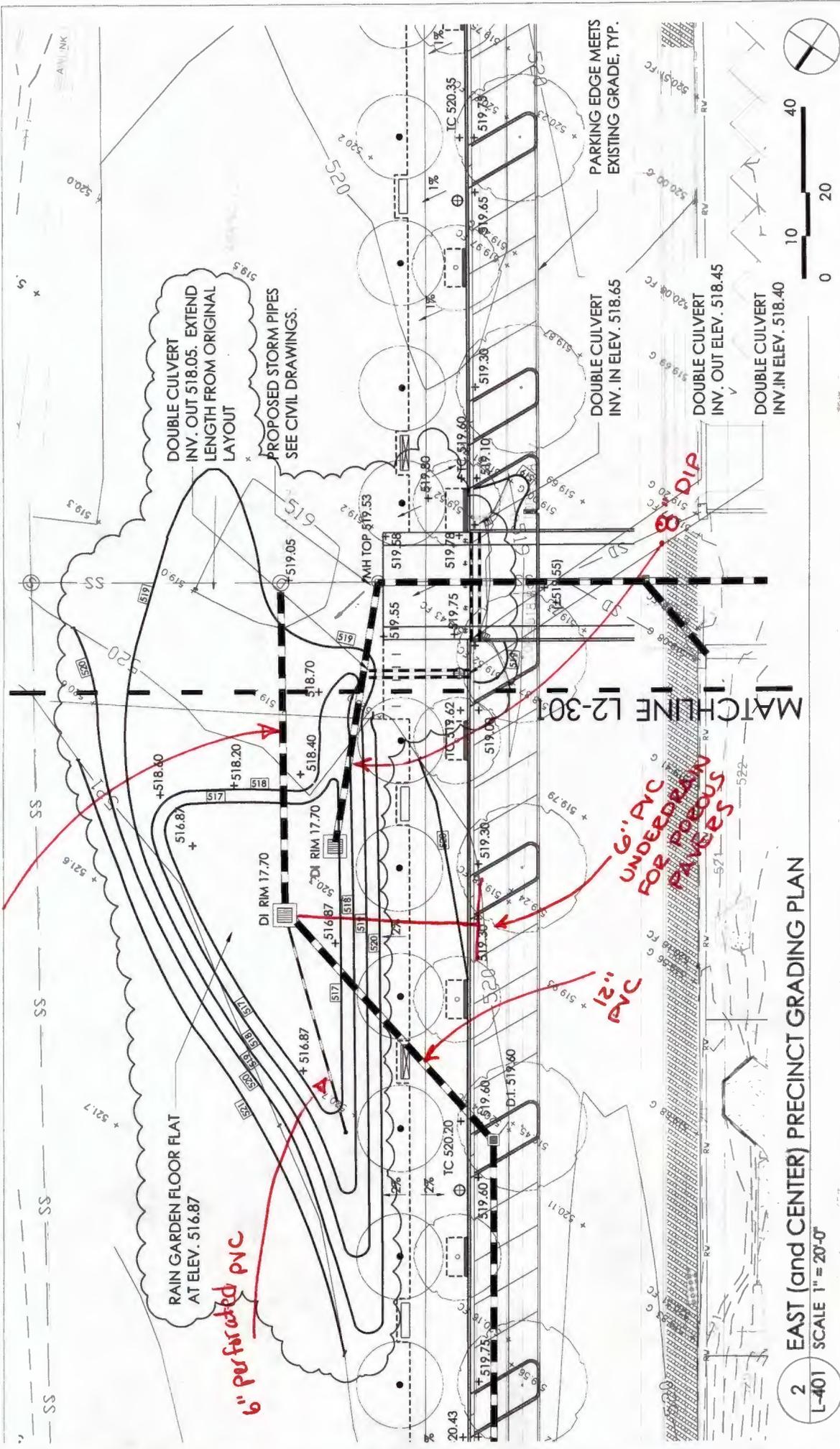
16" HDPE

6" perforated PVC

6" PVC UNDERDRAIN FOR POROUS PAVERES

12" PVC

8" DIP



2 EAST (and CENTER) PRECINCT GRADING PLAN
SCALE 1" = 20'-0"

PROJECT NO. LMP0606
DATE: May 20, 2009

SK-2

Jefferson Street North
Lynchburg Waterfront
Lynchburg, Virginia

NELSON Charlottesville, VA 22902
BYRD 408 Park Street
tel 434.984-1358
WOLTZ LANDSCAPE ARCHITECTS
fax 434.984.4158



FW: FW: JSN - storm sewer and grade modifications at 13th Street .

Kennon Williams to: cheree.taylor@lynchburgva.gov

05/20/2009 05:09 PM

Cc: "Tracy O. Butler", "ricky.lipscomb@lynchburgva.gov"

Hello Cheree,

Attached is the an SK showing the modification to the grades at the sidewalk and rain garden at 13th Street related to elevation changes to structure 12 and lowering the rain garden . Please issue to the contractor if you approve . Let me know if the contractor needs a CAD version for layout .

Thanks, Kennon

Kennon Williams

Senior Project Manager/Designer

Nelson Byrd Woltz Landscape Architects

408 Park Street

Charlottesville, VA 22902

t 434.984.1358

f 434.984.4158

www.nbwla.com

kwilliams@nbwla.com

From: Kennon Williams

Sent: Monday, May 04, 2009 3:23 PM

To: 'cheree.taylor@lynchburgva.gov'

Cc: 'Tracy O. Butler'

Subject: RE: FW: JSN - storm sewer

Hello Cheree:

With regard to the manholes in question in Jefferson Street the following are our recommendations (Note The original drawings and calculations were done by PHR&A and these changes have been coordinated with them , but I am replying as to the changes to facilitate) :

1. For SSW2 there looks like there is a conflict between the frame thickness and weir height. Since the manhole in this area will be below the future raised sidewalk it is ok to raise the manhole top from el 521.99 to 523.13 if you use a 4" thick manhole lid or 523.463 if you use a 8" lid . This will give 12" clear for flow over the weir . (Note :In this area the sidewalk will be at least at elevation 526 so it might make sense to not finalize the manhole tops there until the raised sidewalk work is complete.)

2. For SSW5 the top of the manhole should be raised from el. 522.00 to 522.35 use a 4" manhole lid . This will give 8" clear flow over the weir . Move the location of the manhole as on the attached plan image .

3. For STW 12 , first lower the rain garden to elevation floor elevation to 516.87 and lower the top of the structures 10 and 11 to 517.70. In STR 12 crest elev. of the weir in is to be 518.03. The top of the manhole is to be 519.53 use a 4" thick lid . This will give 6" clear over weir for overflow. This change will mean a certain amount of minor re-grading in this area to make sure the grades work with the new top and the rain garden has the same capacity.

Please let me know if these changes are ok and I will ask PHR&A to revise the drawings structure and we will send a revised grading drawing .

Kennon

Kennon Williams

Senior Project Manager/Designer

Nelson Byrd Woltz Landscape Architects

408 Park Street

Charlottesville, VA 22902

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kwilliams@nbwla.com

-----Original Message-----

From: cheree.taylor@lynchburgva.gov [mailto:cheree.taylor@lynchburgva.gov]

Sent: Monday, May 04, 2009 1:09 PM

To: Kennon Williams

Subject: Re: FW: JSN - storm sewer

Kennon,

We can switch out to the 4" frame and cover. Yes, weir and MH heights will still have to be adjusted. Please send me what you can ASAP. I will have to look at WW5 a little closer. They have started on this work already.

Thanks,

Cheree

Kennon Williams <kwilliams@nbwla.com> wrote on 05/04/2009 11:06:07 AM:

> [image removed]

>

> FW: JSN - storm sewer

>

> Kennon Williams

>

> to:

>

> cheree.taylor@lynchburgva.gov

>

> 05/04/2009 11:06 AM

>

> Cc:

>

> "rscott@coleman-adams.com", "Tracy O. Butler"

>

> Cheree ,

>

> Regarding the manhole structures WW2 , WW5 , and 12, I spoke to

> Tracy Butler about the conflicts with manhole tops and the weir

> heights . He said that a frame cover is available that is only 4”

> thick (--see attached PDF). Please let me know if the contractor

> can use this cover . If so I think we may need still need to adjust

> the weirs /manhole heights slightly, but I need to know if they can

> use this structure before we make any recommendations.

>

>

>

> Also, since we have been working on the LBW it has become apparent

> that we should shift the WW5 manhole over to the side of the 12th

> Street ROW to make room for the future stairs (--see attached PDF). I

> assume this will not change the length of pipes.

>

> Kennon

>

>

>

> Kennon Williams

>

> Senior Project Manager/Designer

>

> Nelson Byrd Woltz Landscape Architects

>

>

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> 408 Park Street

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> kwilliams@nbwla.com

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> From: Tracy O. Butler [mailto:Tracy.Butler@phra.com]

> Sent: Monday, May 04, 2009 9:04 AM

> To: Kennon Williams

> Subject: JSN - storm sewer

>

>

>

> Kennon,

>

>

>

> I shifted STR WW5 per our conversation on Friday and made a sketch,

> which is attached to this email. I also found a cut sheet from

> Neenah Foundry that shows a series of manhole frames, one of which

> is only 4-inches deep. This shallower frame may help the

> situation. Let me know if you need anything else.

>

>

>

> Thanks,

>

>

>

> Tracy O. Butler, P.E.

> Project Engineer

>

> Patton Harris Rust & Associates

> 401 East Market Street, Suite 209

> Charlottesville, Virginia 22902

>

> P 434.295.3130

> F 434.295.3005

> www.phra.com

>

> [attachment "RFI 20090504.pdf" deleted by Cheree Taylor/PubServ/COL]

> [attachment "MH LIDS.pdf" deleted by Cheree Taylor/PubServ/COL]  - 090520
L-401-e-grad-plant SK2 .pdf

SECTION 02900

PLANTS /PLANTING-Updated October 6, 2009 (revisions in yellow)

PART 1 - GENERAL

1.1 SUMMARY

Furnishing and installing trees, shrubs, perennials, groundcovers.

Providing mulch, compost, and soil amendments.

Staking and guying including necessary hardware and deadmen as specified or shown.

Pest and disease control.

Preparing transition zone and sub-grade.

1. Preparing shall include amending and mixing planting soil with controlled fill material soil to the depths indicated for transition zones of each planting area.

1.2 Related Sections:

1. Section 2100, Site Preparation; for Topsoil
2. Section 02200, Earthwork

1.3 SUBMITTALS

- A. Topsoil (Native Soil) analysis: Provide a minimum of 3 soil tests from samples obtained throughout the source stockpile that represent the range of the soil available at the source
- B. Mulch: one (1) cubic foot sample.
- C. Compost: one (1) cubic foot sample and manufacturers literature and material certification that the product meets the requirements listed below .
- D. Off Site Topsoil: Provide a two gallon sample from each off site topsoil source with soil testing results. The sample shall be a mixture of the random samples taken around the source stockpile or field.

1.4 WARRANTY

1. The warranty period for trees and shrubs shall begin at the date of acceptance.

All plant material shall be guaranteed by the Contractor for a period of one year from the date of acceptance to be in good, healthy, and flourishing condition.

When work is accepted in parts, the warranty periods extend from each of the partial acceptance to the terminal date of the last warranty period. Thus, all warranty periods terminate at one time.

The Contractor shall replace, without cost, and as soon as weather conditions permit, and within a specified planting period all plants determined dead and/or dying and rejected by the Landscape Architect during and at the end of the warranty period.

1. Plants shall be free of dead or dying branches and shall bear foliage of normal density, size and color.
2. Trees having lost their central leader or exhibit crown dieback at the end of the one year warranty period shall be replaced. Plants that have had more than 25% of their branches die or removed shall be replaced.
3. Replacements shall match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification. Labor and all materials needed for installation of replacements are included in the warranty.

The warranty of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement.

The Contractor shall make periodic inspections, at no extra cost, during the warranty period to determine what changes, if any, should be made in the maintenance program. Any recommended changes shall be submitted in writing to the Owner.

Final inspection and final acceptance: At the end of the guarantee period, submit a written request for Inspection for Completion at least two (2) weeks prior to the day on which the inspection is requested. The Landscape Architect will inspect all guaranteed work. Upon completion and re-inspection of all repairs or renewals necessary, the Landscape Architect shall recommend to the Owner the final acceptance of the planting.

1.5 MAINTENANCE:

1. Prior to Acceptance:
 1. Maintenance shall begin immediately after each plant is planted. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected in manner consistent with high level of care stipulated for planting until Acceptance of entire Project.
 - a. Tree turnbuckles and stakes shall be tightened and repaired as required.
 - b. Defective work shall be corrected as soon as possible after it becomes apparent and weather season permit.
 - c. Settled plants shall be reset to proper grade and position, planting saucer restored and dead material removed.
 - d. Weed and cultivate ground cover beds.
 2. Do no pruning without approval of the Landscape Architect.
 3. Contractor must notify Owner when control of any insect or disease is required prior to any application of a chemical.

During warranty period:

4. The Contractor shall replace, without cost as soon as weather conditions permit, and within a specified planting period, all plants determined dead and/or dying by the Landscape Architect during and at the end of the warranty Period.

- a. Plants shall be free of dead or dying branches and shall bear foliage of normal density, size, and color.
 - b. Trees and shrubs having lost their central leader or exhibit crown dieback at the end of the one year guarantee shall be replaced.
 - c. Replacements shall match adjacent specimens of the same species. Replacements shall be subject to all requirements stated in this specification. Labor and all materials needed for installation of replacements shall be included in the guarantee.
 - d. Ground cover beds shall be free of weeds and demonstrate a thriving stand of foliage.
5. The warranty of all replacement plants shall extend for an additional period of one year from the date of their acceptance after replacement.
 6. The Contractor shall make periodic inspections, at no extra cost, during the warranty period to determine what changes, if any, should be made in the maintenance program.

PART 2 - MATERIALS

1. PLANTS:

1. Furnish and plant all plants as specified and in quantities listed.
2. All plants shall be purchased from growing nurseries. Wholesale and resale plant suppliers shall not be used as sources unless the contractor can certify that the required trees are not available from a growing nursery. When utilized, the contractor shall submit the name and location of the growing nursery from where the trees were obtained.
3. Growing nurseries shall be located in USDA plant hardiness zones 6a to 7b in the states of New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia.
4. Plants shall be true to species and cultivar specified. Certification of cultivars by supplying nursery must be supplied in writing to the Owner.
5. Plants shall be in accordance with the American Nurserymen Association Standards.
6. Container grown trees shall not be permitted.
7. All plants shall be of specimen quality, symmetrical, so trained or favored in development and appearance as to be unquestionably and outstandingly superior in forms and compactness. They shall indicate vigorous growth, be well branched and densely foliated when in leaf, free of disease, insects, eggs, larvae and shall have well developed root systems.
8. Street trees with multiple leaders will not be accepted. Trees with a damaged or crooked leader, bark or abrasions, sun-scald, disfiguring knots, insect damage will not be accepted.
9. Depth of planting must be checked on all trees being tagged at the nursery. If the flair is not visible, the buttress roots must be located. Any tree with adventitious root growth above the flair or buttress roots shall not be tagged. Any soil piled up around the crown (flair) of the tree must be removed before they are dug.

10. Size: Caliper measurement shall be taken on the trunk 6" above the natural ground line for trees over 4" in caliper. Height and spread dimensions refer to the main body of the plant and not from branch tip to tip. If a range of size is given, no plant shall be less than the minimum size and not less than 50% of the plants shall be as large as the maximum size specified. Plants that meet measurements but do not possess a normal balance between height and spread shall be rejected. Plants larger than specified may be used only if approved by the Landscape Architect. Use of such plants shall not increase the contract price. If larger plants are approved, the root ball shall be increased in proportion to the size of the plant.

B. MULCH:

1. Mulch shall be fine double shredded, hard wood free from roots, leaves, debris, stones, fungus, crabgrass rhizomes, or any material detrimental to plant growth. Material shall be mulching grade, uniform in size.
2. Mulch shall be composted to the point where all wood has turned evenly dark brown within the interior of the fragment. Mulch that has become saturated with water and presents an anaerobic odor shall be rejected.
3. Submit manufacturer's material certificate that product meets the requirements and one-pound sample for approval.

C. TOPSOIL:

1. Topsoil or "Native Soil" as on Drawings is fertile, friable, loamy soil, containing 1.5 to 5 percent by dry weight organic matter; free from subsoil, refuse, roots, heavy or stiff clay, stones larger than 1 inch, noxious seeds, sticks, brush, litter, and other deleterious substances; suitable for the germination of seeds and the support of vegetative growth. The pH value shall be between 5.5 and 7.1. Soil texture to be Loam, Sandy loam, sandy clay loam, with clay content between 20 and 35% and silt content between 15 and 30%. Gravel and stone content shall be less than 15% by weight

Primarily topsoil shall be harvested on site at a single source from the O and or A horizons of the soil profile. On site topsoil should be tested in three random samples from stockpile and the results sent to Landscape architect for approval. If native topsoil is deficient in the above stated requirements, it must be amended to achieve the requirements. If it is entirely unsuitable, poisoned, or degraded to be a danger to plant, animal or human health new topsoil must be brought from off site.

If additional topsoil is needed from off-site because the native topsoil is unacceptable or the quantity of native topsoil is insufficient to complete planting described in drawings, the topsoil source location and extent of area suitable for harvest shall be approved by the Landscape Architect. Off site topsoil must meet the same requirements as the Native Topsoil described above. Send Landscape Architect soil analysis and sample before installing off site topsoil.

COMPOST:

2. Compost shall be mature, stable, weed free, and produced by aerobic decomposition of organic matter. Compost feedstock shall be yard waste trimmings and/or source-separated municipal solid waste to produce a fugally dominated compost mixed with at least 20% composted livestock manures. The product must not contain any visible refuse or other physical contaminants, substances toxic to plants, or over 5% sand, silt, clay or rock material by dry weight. The product shall possess no objectionable odors. The product must meet all applicable USEPA CFR, Title 40, Part 503 Standards for Class A biosolids. The moisture

level shall be such that no visible water or dust is produced when handling the material when applied .

3. Compost shall be dark brown in color, approximately the color of dark chocolate candy (70% chocolate). Black compost and compost the color of milk chocolate shall be rejected.
4. Compost shall have a strong aerobic (sweet) odor. Compost lacking a strong aerobic odor or which has an anaerobic (sour) odor shall be rejected.
5. TESTING: The results of Compost analysis shall be provided by the Compost supplier. Before delivery of the Compost, the supplier must provide the following documentation:
 - a. Feedstock percentage in the final Compost product
 - b. A statement that the Compost meets federal and state health and safety regulations
 - c. A copy of the lab analysis, less than four months old, performed by a Seal of Testing Assurance Certified Laboratory verifying that the Compost meets the following requirements:.

Physical Requirements for Composted Organic Matter

Parameter	Range	Testing Method
pH	5.5-7.5	TMECC 4.11A
Soluble Salt Concentration	< 4dS/m	TMECC 4.10-A
Moisture	35-55% wet weight basis	
Organic Matter	>35% dry weight basis	TMECC 5.07-A
Carbon to nitrogen ratio	15:1 -30:1	
Particle Size	99% pass through 2 inch screen or smaller; 25% pass through 3/8 inch screen or smaller	TMECC 2.02-B
Maturity Index	6 to 8	Solvita
Physical contaminants (man made inerts)	<1% dry weight basis	TMECC 3.08-A

Chemical contaminants Meet or exceed US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3 levels:

Arsenic	< 41ppm	TMECC 4.06-AS
Cadmium	< 39 ppm	TMECC 4.06-CD
Copper	< 1,500 ppm	TMECC 4.05-CU
Lead	< 300 ppm	TMECC 4.06-PB
Mercury	< 17 ppm	TMECC 4.06-HG
Molybdenum	< 75 ppm	TMECC 4.05-MO
Nickel	< 420 ppm	TMECC 4.06-NI
Selenium	< 100 ppm	TMECC 4.06-SE
Zinc	< 2,800 ppm	TMECC 4.06-ZN

Biological contaminants (pathogens) Meet or exceed US EPA Class A standard, 40 CFR § 503.32(a) levels:
Fecal coliform < 1,000 MPN per gram, TMECC 7.01

Salmonella dry weight basis
 < 3 MPN per 4 grams, TMECC 7.0 dry weight
 basis

Compost testing methodologies and sampling procedures shall be as provided in Test methods for the Examination of Composting and Compost (TMECC), as published by the US Composting Council

3. STAKES AND GUYS:

- a. Stakes: Cedar, fir, pine, or other approved wood for bracing or support. Stakes shall be straight and free from bark, unsound and loose knots, rot, cross grain or other defects that may impair strength.
- b. Guy Wire: New, soft, 1/4" stainless steel rope wire, free from bends and kinks.
- c. Hose: 3/4" (inside diameter), red color and black colors as shown on drawings, 2 ply rubber hose.
- d. Turnbuckles: Stainless steel, of size 1/2 inch with minimum 4 inches take-up adjustment.
- e. Thimbles: Use at each splice, size to suit wire.
- f. Splices: Prefabricate "dead-end" splice. Provide splice at each guy wire end and turnbuckle, with thimble.

4. STEEL EDGING:

As shown.

PART 3 - INSTALLATION

3.1 TREES, SHRUBS, PERENNIALS, WILD GRASSES, and GROUNDCOVER

Planting season for trees, shrubs, perennials, wild grasses and groundcover:

1. Environmental Requirements and Planting Schedule: Plant only within the following dates, weather permitting. Do not plant when the ground is frozen, excessively wet, or the soil is otherwise in an unsatisfactory condition for planting:
 - a. The Spring season for all planting materials shall be that period from March 1 through May 15.
 - b. The Fall season is divided into two parts made necessary by the handling characteristics of two plant types.
 - i. September 1 through October 30 shall be the fall planting season for evergreen materials.
 - ii. October 15 through December 1 shall be the fall planting season for deciduous materials.
2. Plant Material, Conditions of Moving and Delivery:

1. The use of an antidesiccant shall not be allowed except by written approval and consent by of Landscape Architect.
 - a. If approved, spray deciduous plants with an antidesiccant, immediately before moving plant material from its source, applying an adequate film over trunks, branches, twigs, and foliage.
 - b. Approval shall be required for any subsequent instance of use.
2. Dig and handle plants with care to prevent injury to trunks, branches and roots.
3. Do not prune prior to delivery. Do not bend or bind-tie trees in such manner as to damage bark, break branches or destroy natural shape. Pack and ship to insure arrival at site in good condition. Provide protective covering during delivery. No plants will be accepted if ball is cracked or broken, or trunks scarred, or branches broken.
4. Trees and Ground Covers:
 - a. Deliver after preparations of planting areas have been completed and approved and place plants immediately.
 - b. If planting is delayed more than 24 hours after delivery, set plants on the ground in a "shade house", erected by Contractor, with rootballs well protected with soil, wet peat, or other acceptable material. Protect balls and roots from freezing, sun, drying winds, and/or mechanical damage. Water as necessary until planted.
5. Rejection of plant materials:
 - a. The landscape architect has the right to reject any and all plant material that does not conform to the requirements of this specification at any time regardless of any previous approval.
 - b. Any plant that has the following characteristics shall be cause for rejection:
 - i. Any plant that has a canopy with 25% or more dead or removed limbs.
 - ii. Evidence of damage to plant material, which diminishes the aesthetic character and form or structural integrity of the plant or group of plants.
 - iii. Evidence of improper digging; inadequate protection following digging carelessness while in transit; evidence of desiccation or wind-related damage; cold damage; improper handling or storage; root zones that have dried to the point of leaf wilt; cracked, loose, damaged or distorted root balls.
 - iv. Plants with undersized root balls or containers, kinked or girdling roots, matted roots on the top, and edges of the container, excessive surface adventitious roots, root balls and containers with no structural roots in the top 3" of the soil.
 - v. Plants balled with synthetic, treated or non-biodegradable fabrics.
 - vi. Any tree that is of a species that characteristically has a dominant central leader, and if the leader is dead or removed, the tree will not have a form consistent with the species.
 - vii. Any tree that has open wounds (not completely healed over) that penetrates the cambium into the wood on trunks or major limbs the removal of which would result in the loss of 25% or more of the structure and form of the tre
6. Planting:
 - a. Excavate planting tree and shrub pits and perennial plant beds as shown.

- b. Any soils polluted by gasoline, oil, plaster, construction debris, unacceptable soils, or other substances which would render subgrade unsuitable for a proper plant growth shall be removed from the premises whether or not such pollution occurs or exists prior to or during the Contract period. In the event that such material is placed, this material shall be removed and replaced with approved material. All remedial operations associated with soil mixes and controlled fill shall be reviewed and approved by the Owner.

Plants shall be placed on a firmed transition grade. The flair must be located and placed at the correct level before continuing planting procedures. All ropes and strings must be cut, non-biodegradable material must be removed and the burlap folded back from the top of the ball

- c. Thoroughly mix topsoil (or "Native Soil") and percentage of compost as shown for plant type and shall be place in all excavated areas insert around plant root ball as shown . Soil must be firmed at 6 to 8 inch intervals and thoroughly settled with water. Trees and shrubs shall stand plumb. Exception: Rain garden planting see below:

- d. In Rain Gardens, plants to be planted in plant holes as shown in drawings for regular planting (not detail 5/L-600) , but in planting holes mix compost and soil with rain garden soil mix as shown for all shrubs, grasses, groundcovers, and perennials. Achieve an approximately 50% rain garden mix with 30% leaf compost and 20% soil in planting hole. Mix planting hole mixture thoroughly. Lightly tamp to steady plant in hole. Then follow rest of normal planting protocols.

- e. Tamp soil lightly to steady plant in hole. Plants to be plumb . Street treest and specimen trees to be plumb with main leader vertical as possible.

- f. Add hardwood mulch as shown.

- g. Staking, Guying and Wrapping trees as shown.

7. Pruning:

- a. Each cut should be made carefully, at the correct location, leaving a smooth surface with no jagged edges or torn bark. The correct anatomical location is just beyond the branch collar.
- b. The natural character of the plant shall be preserved.
- c. All deadwood, suckers, broken or badly bruised branches shall be removed.
- d. Excessive pruning at the time of transplanting shall be avoided.
- e. Pruning shall be done with clean, sharp tools. No leaders shall be cut.

8. Watering:

- a. Upon completion of planting operation, water plant material thoroughly on the interior of the saucer until it is filled or over the entire planting bed.
- b. Apply water slowly so as to penetrate the entire root system and at a rate which will prevent saturation of the soil.

9. Cleaning :

- a. Maintain the site in an orderly condition during the progress of Work. Continuously and promptly remove excess and waste materials and keep lawn areas, walks and roads clear. Store materials and equipment where directed.
- b. Immediately remove rejected materials from the property. Promptly remove equipment, surplus material, and debris and trash resulting from operations under this Contract upon completion and prior to initial acceptance of Work. Leave the site in a neat, orderly condition, "broom clean".

END OF SECTION 2900

The Project Manual and Drawings are provided in ADOBE® ACROBAT® PDF format solely for convenience in reviewing or printing the documents for bidding purposes. Downloaded files contain scanned images of the original bid documents and are not intended to be edited or otherwise modified.

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DEPARTMENT OF WATER RESOURCES

SEWERAGE IMPROVEMENTS

FOR THE CITY OF LYNCHBURG, VIRGINIA

JAMES RIVER INTERCEPTOR

DIVISION 3B

CITY PROJECT NO. 13023-S

LIST OF DRAWINGS

SHEET TITLE	SHEET NUMBER
G-001	COVER
C-001	OVERALL SHEET
C-101	SANITARY SEWER PLAN & PROFILE SAN-1 STA 10+00 TO 17+00
C-102	SANITARY SEWER PLAN & PROFILE SAN-1(CONT) STA 17+00 TO 25+00
C-103	SANITARY SEWER PLAN & PROFILE SAN-1(CONT) STA 25+00 TO 28+00 SAN-2 STA 29+00 TO 30+00 SAN-3 STA 31+00 TO 33+00
C-104	SANITARY SEWER PLAN & PROFILE SAN-4 STA 34+00 TO 38+00
C-105	STORM SEWER PLAN & PROFILE STM-1 STA 99+00 TO 107+00
C-106	STORM SEWER PLAN & PROFILE STM-1(CONT) STA 107+00 TO 110+00 STM-2 STA 113+00 TO 115+00
C-107	CSO 56 & HORSEFORD ROAD WATERLINE
C-401	CSO 56 - DEMOLITION PLAN
C-402	CSO 56 - DIMENSIONAL LAYOUT
C-403	SIGNAGE PLAN
C-404	SIGNAGE PLAN
C-405	SIGNAGE PLAN
C-406	SIGNAGE PLAN
C-407	SIGNAGE PLAN
C-408	SIGNAGE PLAN
C-409	SIGNAGE AND SITE DETAILS
C-410	AMAZEMENT SQUARE PHASING
C-501	EROSION & SEDIMENT CONTROL NARRATIVE & DETAILS
C-502	SITE IMPROVEMENTS DETAILS
S-001	GENERAL NOTES
S-101	CSO 56 NEW VAULT PLAN & SECTION VIEWS
S-102	JUNCTION BOX 6 PLAN & SECTION VIEWS
S-501	DETAILS

CONVENTIONAL SYMBOLS

—SS—	SANITARY SEWER	⊕	BENCHMARK
- - - - - ss - - - - -	EXISTING SANITARY SEWER	⊙	TREE
—SD—	STORM SEWER	○	EXISTING MANHOLE
- - - - - sd - - - - -	EXISTING STORM SEWER	⊗	EXISTING MANHOLE TO BE ABANDONED
- - - - - / / - - - - -	PIPE TO BE ABANDONED	●	SANITARY MANHOLE
- - - - - w - - - - -	WATER LINE	⊙	STORM MANHOLE
- - - - - ugt - - - - -	UG TELEPHONE, FIBER OPTIC	⊞	STORM DROP INLET
- - - - - uge - - - - -	UG ELECTRIC	⊞	STORM INLET
- - - - - NG - - - - -	GAS	⊕	VALVE
⊗	FENCE	⊞	UTILITY POLE
⊞	WOODS LINE	△	DEFLECTION
- - - - -	STREAM/ EDGE OF WATER	▲	SURVEY POINT OF INTERSECTION
- - - - -	TAX MAP LINE	⊕	LIGHT POLE
—	OVERHEAD POWER, TELEPHONE, TELEGRAPH	⊕	SPRINKLER HEAD
- - - - -	EDGE OF PAVEMENT		
—	TRACKS		
—	RETAINING WALL		
▨	GRAVEL		
▩	CONCRETE		
▧	BRICK		

ABBREVIATIONS

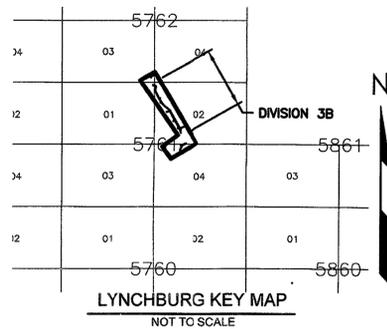
APPROX	APPROXIMATE	N/F	NOW OR FORMERLY
ε	CENTER LINE	NIC	NOT IN CONTRACT
COMM	COMMUNICATION	OH	OVERHEAD
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DIP	DUCTILE IRON PIPE	RR	RAILROAD
E	EASTING	RT	RIGHT
ELEC	ELECTRIC	SAN OR SS	SANITARY
EW	ENDWALL	SD	STORM SEWER
EX OR EXIST	EXISTING	STA	STATION
INV	INVERT	TBA	TO BE ABANDONED
LF	LINEAR FEET	TM	TAX MAP
LT	LEFT	TYP	TYPICAL
MH	MANHOLE	UG	UNDERGROUND
MP	MILE POST	WT	WATERTIGHT
N	NORTHING		

- NOTES:
- THE SIZE OF THE SYMBOLS MAY VARY FROM THOSE SHOWN.
 - ALL ABBREVIATIONS AND SYMBOLS SHOWN MAY NOT BE USED.

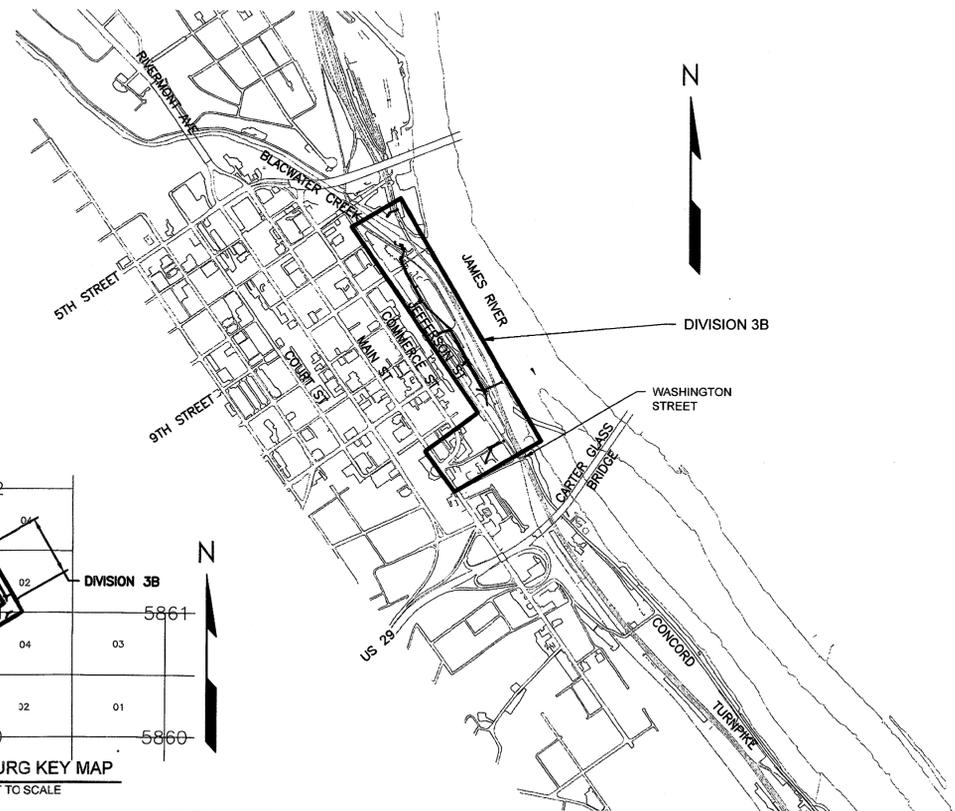
OWNER:
CITY OF LYNCHBURG
DEPARTMENT OF WATER RESOURCES
525 TAYLOR STREET
LYNCHBURG, VIRGINIA 24501
CONTACT: JAMES TALIAN
WATER QUALITY MANAGER-CSO
434-455-3953
JAMES.TALIAN@LYNCHBURGVA.GOV

ENGINEER:
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127 NATIONWIDE DRIVE
LYNCHBURG, VA 24502
CONTACT: WAYNE MASSIE, PE
434-455-3690
WMASSIE@WILEY/WILSON.COM

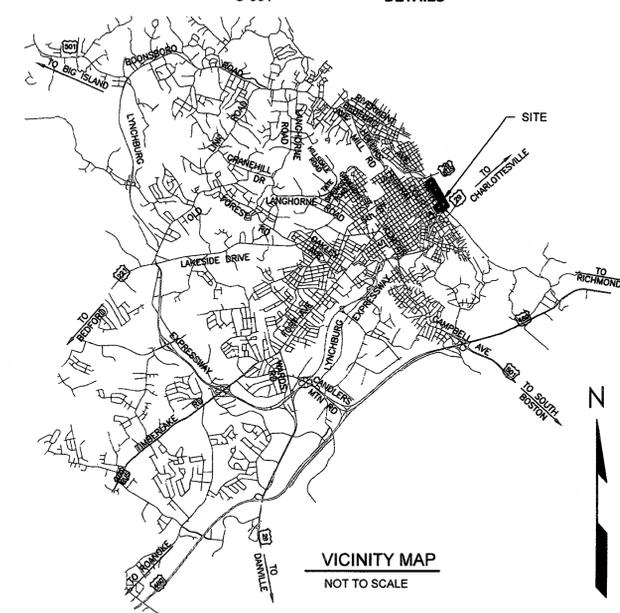
UTILITY CONTACTS:
AEP
VERIZON
COLUMBIA GAS
NORFOLK SOUTHERN RAILROAD
CSX RAILROAD



LYNCHBURG KEY MAP
NOT TO SCALE



LOCATION MAP
SCALE 1" = 800'



VICINITY MAP
NOT TO SCALE

I HEREBY CERTIFY THAT, TO THE BEST OF MY ABILITY, THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE LATEST CITY OF LYNCHBURG MANUAL OF SPECIFICATIONS AND STANDARD DETAILS AND CITY CODE.

SIGNATURE: *Wayne Massie*
PRINTED NAME AND TITLE: WAYNE MASSIE, PE PROJECT ENGINEER
DATE: 10/21/13 REGISTRATION NUMBER: 36495

- NOTES:
- CONTACT CITY CONSTRUCTION COORDINATOR AND MISS UTILITY 48 HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY.
 - ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF LYNCHBURG MANUAL OF SPECIFICATIONS AND STANDARD DETAILS, AND THE PROJECT MANUAL.

J. Talian 10/24/13
CITY ENGINEER
Wayne Massie 10/23/13
UTILITY ENGINEER
Wayne Massie 10/23/13
ESC APPROVAL



DEPARTMENT OF WATER RESOURCES
JAMES RIVER INTERCEPTOR
DIVISION 3B
LYNCHBURG, VIRGINIA

REV.	DATE	DESCRIPTION

COM NO.	213169.00
DATE:	OCTOBER 11, 2013
DRAWN:	RDL
DESIGN:	WRM
CHECK:	WRM
SHEET TITLE	COVER SHEET
SHT. NO.	G-001
REV. NO.	0

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