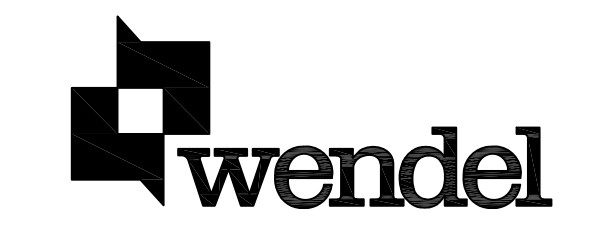


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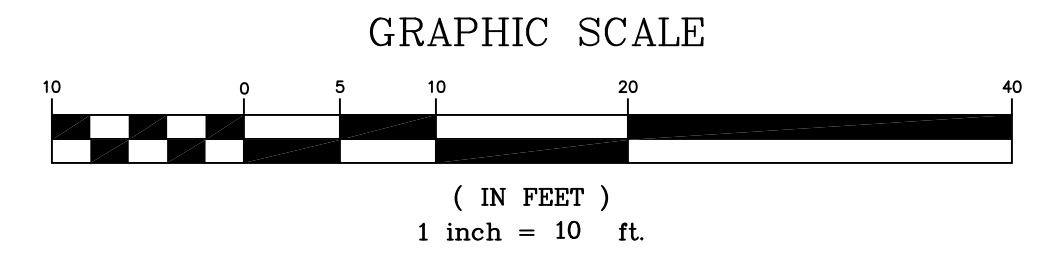
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NO.	REVISIONS	DATE

SEE SHEET C011  
 FOR PIPE PROFILES.

MINOR SITE PLAN NARRATIVE  
 THIS PROJECT WILL BE CLASSIFIED AS A MINOR SITE PLAN PER THE DEFINITION OF SUCH AS CONTAINED IN THE "LEESBURG SUBDIVISION AND LAND DEVELOPMENT REGULATIONS", MARCH 13, 2007 ORDINANCE NO. 2007-O-09 AS LAST AMENDED AUGUST 12, 2008. THE PROVISIONS OF SEC.13-64.2-B(2), WITH WHICH THIS PROJECT WILL COMPLY AND UPON WHAT BASIS THIS PROJECT'S MINOR SITE PLAN QUALIFICATION WILL CITE, ARE LISTED BELOW:  
 SEC. 13-64.2-B-2  
 NEW CONSTRUCTION OR RE-CONSTRUCTION OF PUBLIC FACILITIES AND/OR RESIDENTIAL, COMMERCIAL, RETAIL, OFFICE, INDUSTRIAL OR INSTITUTIONAL USES WITH LESS THAN 6,000 SQUARE FEET OF GROSS FLOOR AREA THAT DO NOT REQUIRE THE APPROVAL OF VDOT, FEMA, THE VIRGINIA HEALTH DEPARTMENT AND/OR OTHER STATE OR FEDERAL AGENCIES AND WHERE THE APPLICANT CAN VERIFY TO THE LAND DEVELOPMENT OFFICIAL THAT THE BONDED VALUE OF THE PROPOSED PUBLIC FACILITIES IS LESS THAN \$30,000.

NOTE:  
 CONTRACTOR TO COORDINATE WITH UTILITIES DEPARTMENT TO SHUT OFF WATERLINE VALVES DURING CONSTRUCTION.



DWG. TITLE	DATE	SCALE	DWN.	CHK.	WSS.	PROJ. No.	DWG. No.
PROPOSED CONDITIONS	04/29/11	1" = 10'	KAB				C006

M:\projects\2009\09080\_Leesburg\Task 03\_Maintenance Facility\CADD\Current Sheets\Fuel Island\Prog CONDITIONS.dwg May 27, 2011 - 2:13pm RKK\_SITE.CTB Plot Scale 1=1 Plot By: abarnall Tab: Layout1

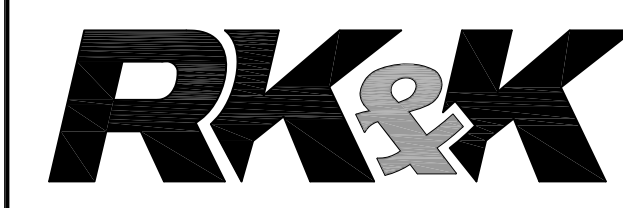


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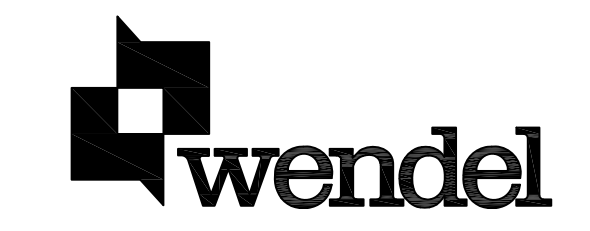
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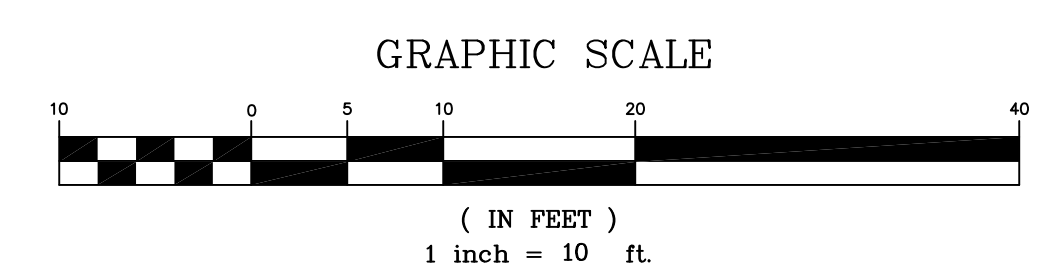
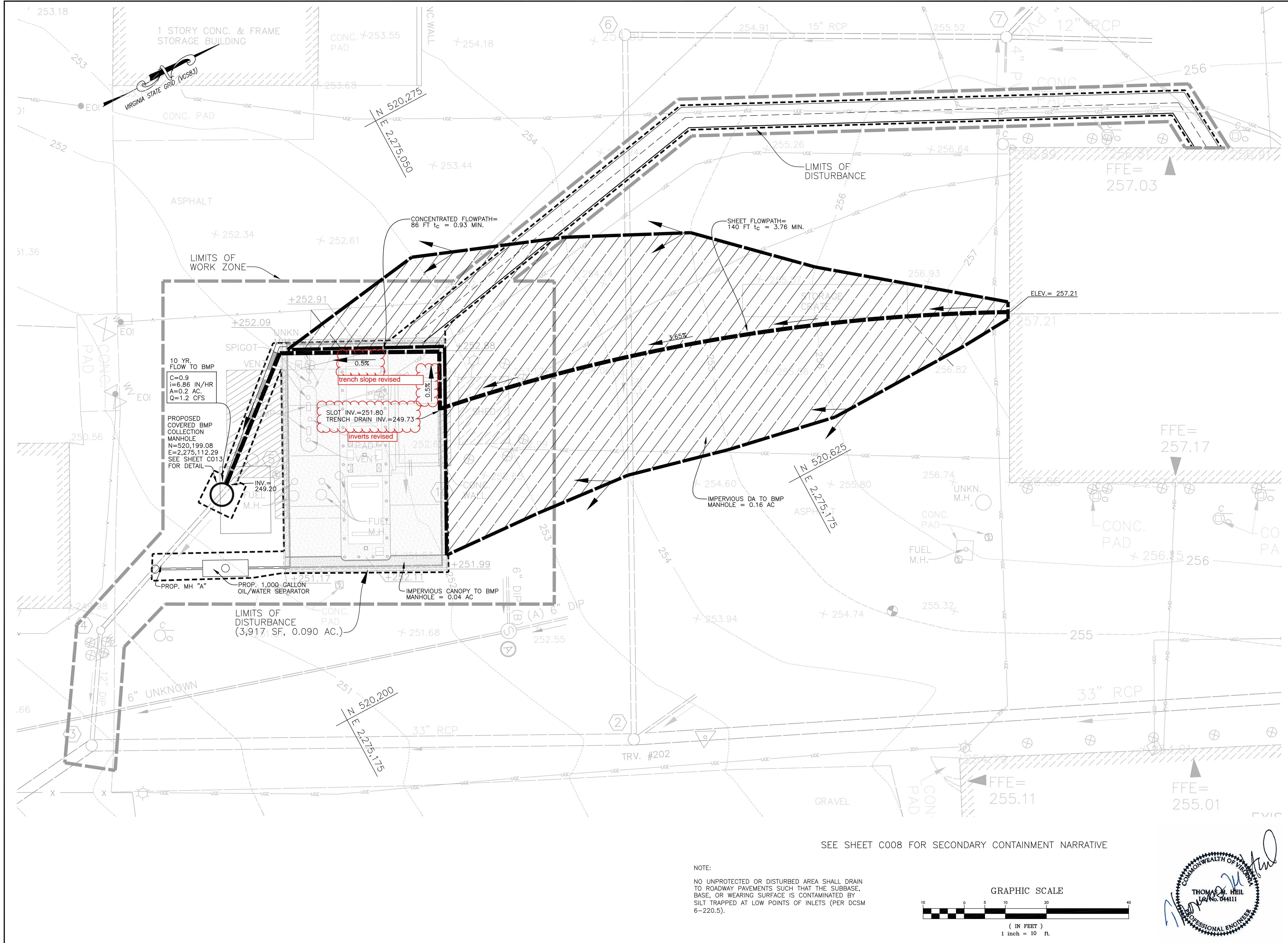
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DWG. TITLE  
**BMP MAP**

DATE	04/29/11
SCALE	1" = 10'
DWN. KAB	CHK. WSS
PROJ. No.	
DWG. No.	C007



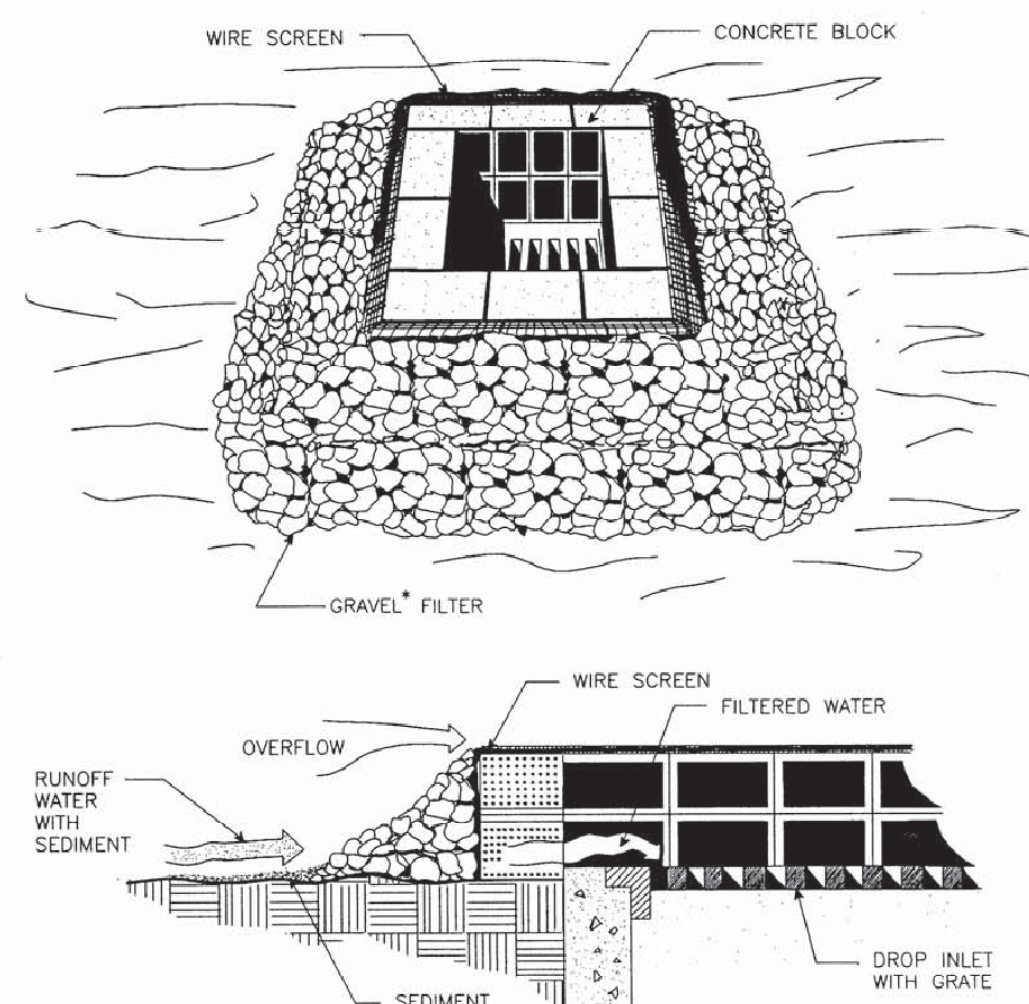
COMMONWEALTH OF VIRGINIA  
THOMAS W. HILL  
No. 04111  
PROFESSIONAL ENGINEER

SEE SHEET C008 FOR SECONDARY CONTAINMENT NARRATIVE

M:\projects\2009\09080\_leesburg\task 03\_maintenance facility\cadd\current sheets\fuel island\y-bmp map.dwg May 27, 2011 - 12:52pm RK&K\_SITECTB Plot Scale 1=1 Plot By: abornall Tab: Layout1



**BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER**



**SPECIFIC APPLICATION**

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

\* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

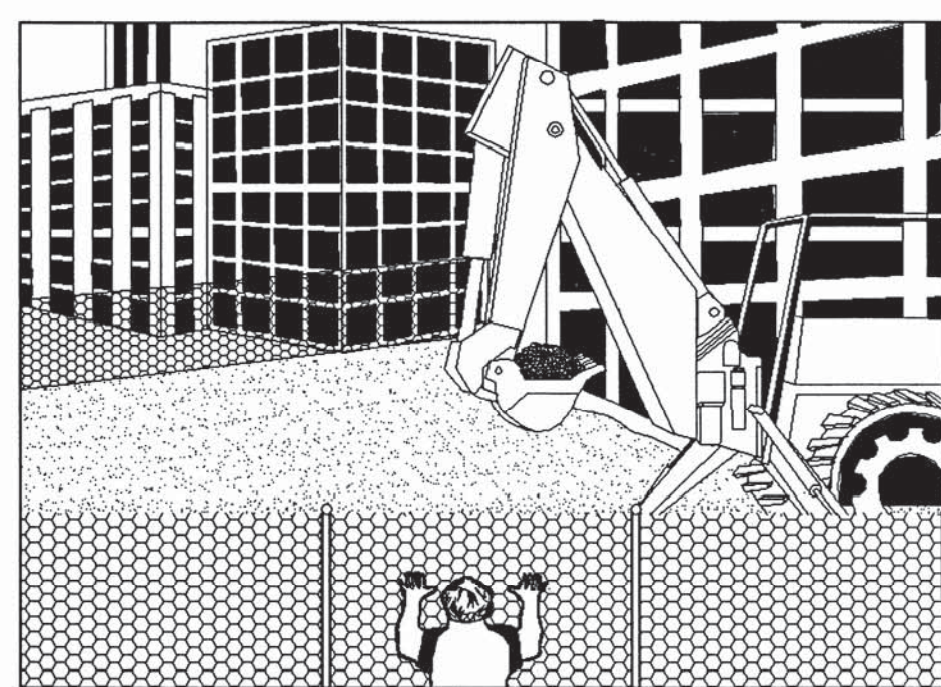
Source: Va. DSWC

Plate 3.07-3

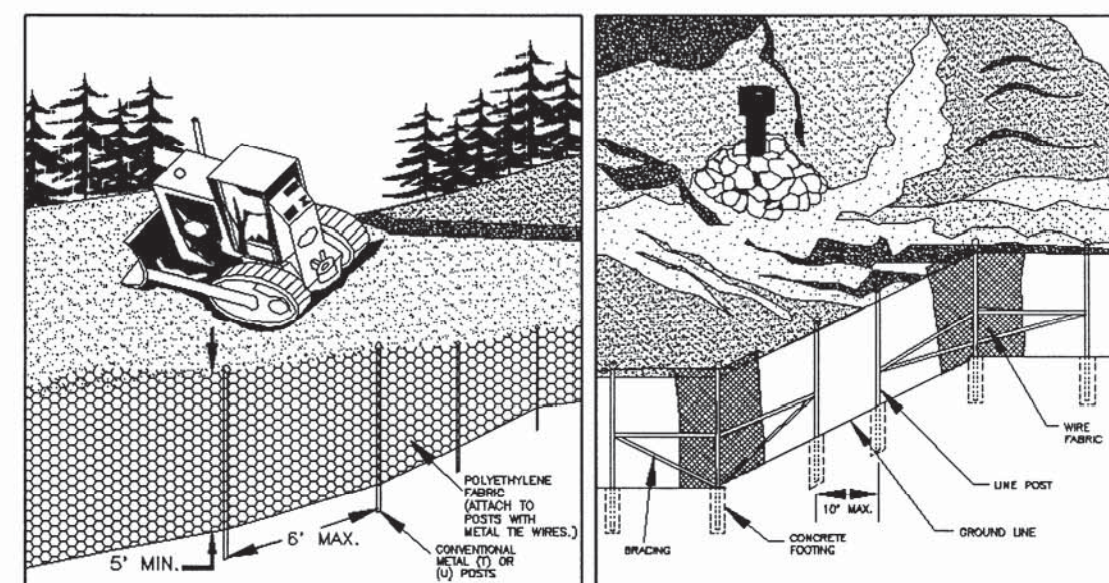
III - 38

DETAIL 2

**SAFETY FENCE**



PERSPECTIVE VIEW



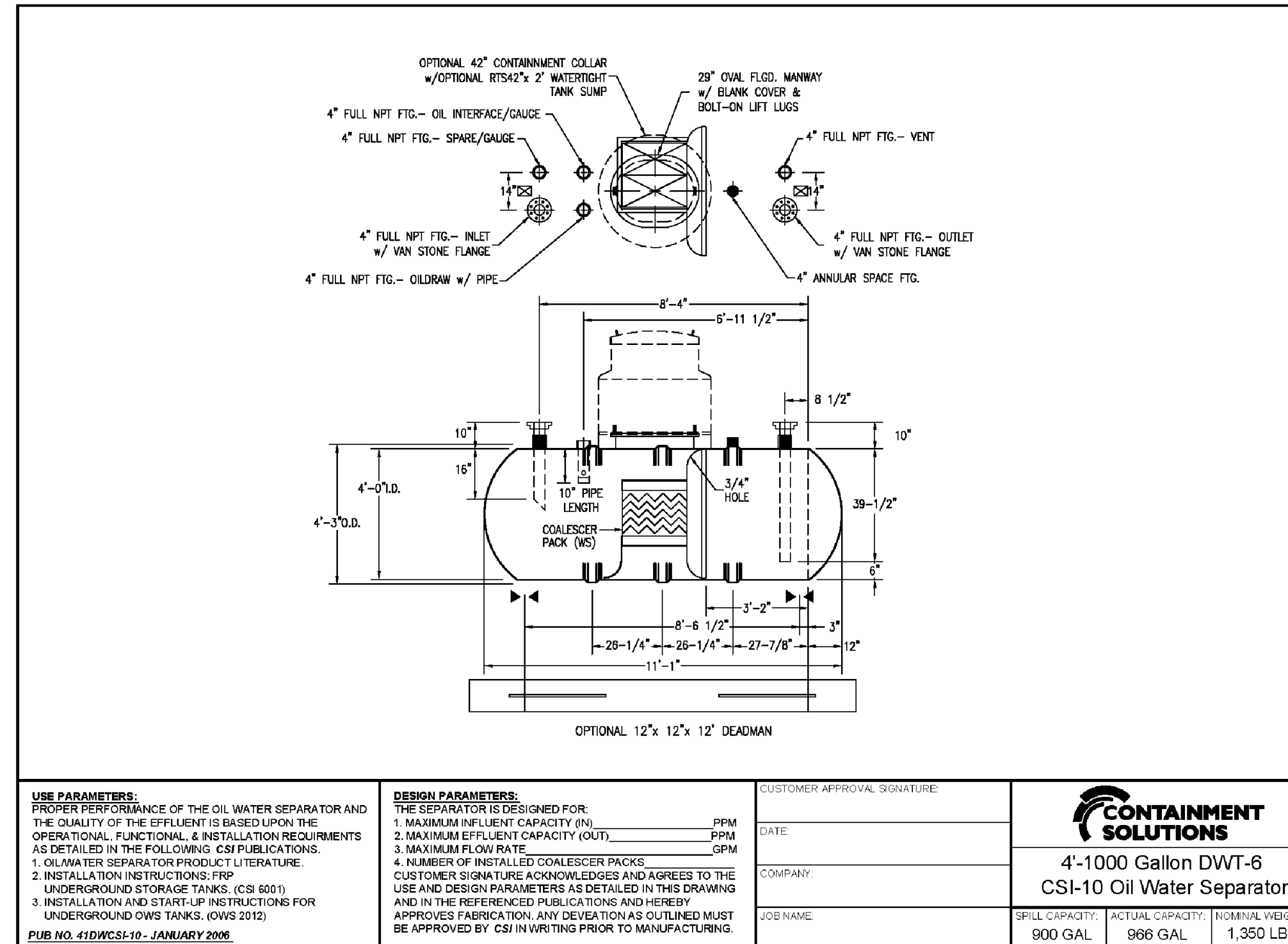
PERSPECTIVE VIEW PLASTIC FENCE

PERSPECTIVE VIEW METAL FENCE

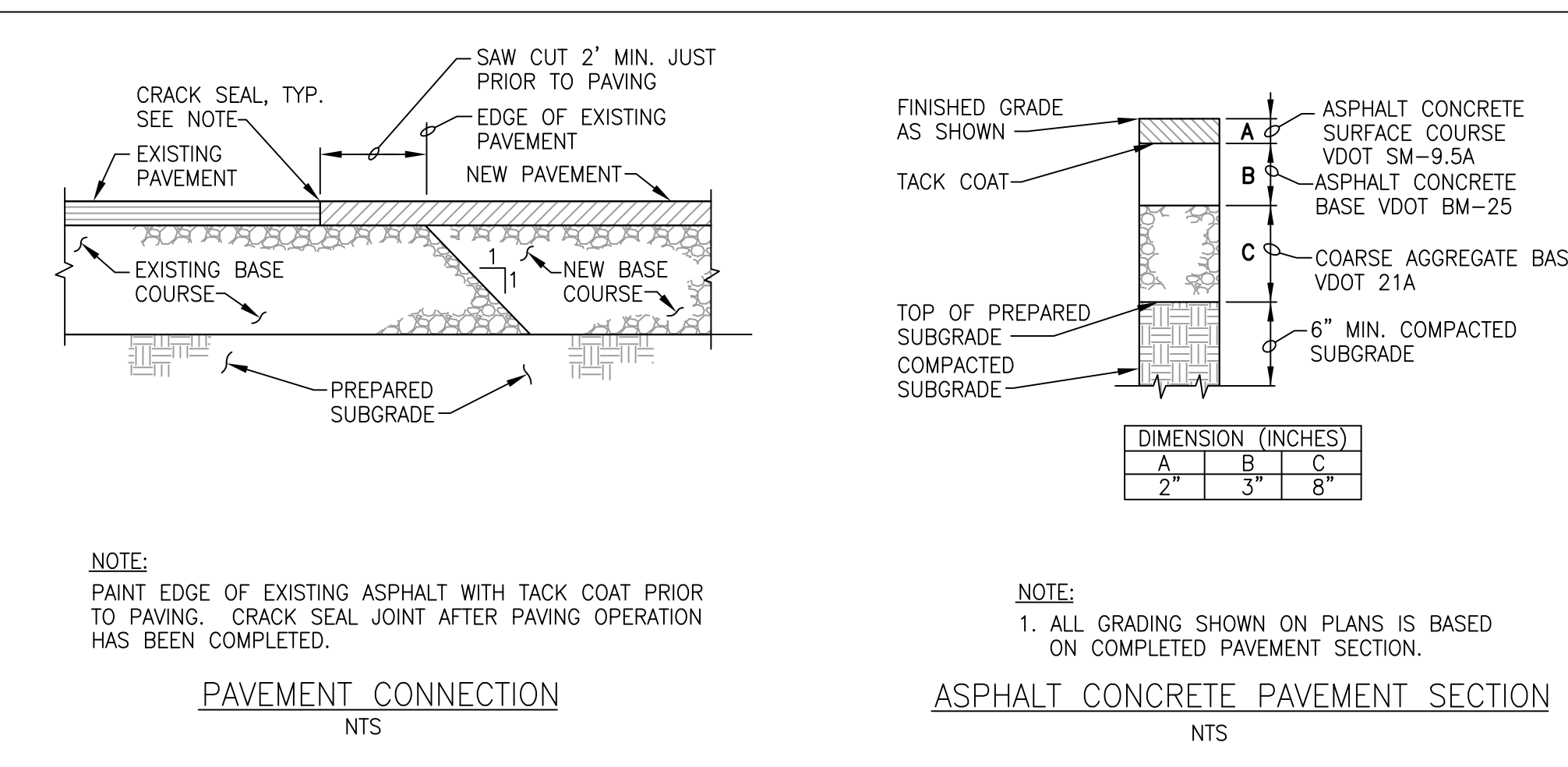
Source: Adapted from Conwed Plastics and VDOT Road and Bridge Standards

Plate 3.01-1

III - 5



<p><b>USE PARAMETERS:</b> PROPER PERFORMANCE OF THE OIL WATER SEPARATOR AND THE QUALITY OF THE EFFLUENT IS BASED UPON THE OPERATIONAL, FUNCTIONAL, &amp; INSTALLATION REQUIREMENTS AS DETAILED IN THE FOLLOWING PUBLICATIONS: 1. OIL WATER SEPARATOR PRODUCT LITERATURE. 2. INSTALLATION INSTRUCTIONS: FRP UNDERGROUND STORAGE TANKS, (CS 6531). 3. INSTALLATION AND START-UP INSTRUCTIONS FOR UNDERGROUND OWS TANKS, (JWS 2012) PUB. NO. 41DWCS-10 - JANUARY 2006.</p>	<p><b>DESIGN PARAMETERS:</b> THE SEPARATOR IS DESIGNED FOR: 1. MAXIMUM EFFLUENT CAPACITY (IN) _____ GPM 2. MAXIMUM EFFLUENT CAPACITY (OUT) _____ GPM 3. MAXIMUM FLOW RATE _____ GPM 4. NUMBER OF INSTALLED COALESCER PACKS _____ CUSTOMER SIGNATURE ACKNOWLEDGES AND AGREES TO THE USE AND DESIGN PARAMETERS AS DETAILED IN THIS DRAWING AND IN THE REFERENCED PUBLICATIONS AND HEREBY APPROVES FABRICATION. ANY DEVIATION AS OUTLINED MUST BE APPROVED BY CSI IN WRITING PRIOR TO MANUFACTURING.</p>	<p>CUSTOMER APPROVAL SIGNATURE: _____ DATE: _____ COMPANY: _____ JOB NAME: _____</p>						
		<p><b>CONTAINMENT SOLUTIONS</b> 4'-1000 Gallon DWT-6 CSI-10 Oil Water Separator</p> <table border="1"> <tr> <td>SPIRAL CAPACITY:</td> <td>ACTUAL CAPACITY:</td> <td>NOMINAL WEIGHT:</td> </tr> <tr> <td>900 GAL</td> <td>906 GAL</td> <td>1,350 LBS</td> </tr> </table>			SPIRAL CAPACITY:	ACTUAL CAPACITY:	NOMINAL WEIGHT:	900 GAL
SPIRAL CAPACITY:	ACTUAL CAPACITY:	NOMINAL WEIGHT:						
900 GAL	906 GAL	1,350 LBS						



**NOTE:**  
PAINT EDGE OF EXISTING ASPHALT WITH TACK COAT PRIOR TO PAVING. CRACK SEAL JOINT AFTER PAVING OPERATION HAS BEEN COMPLETED.

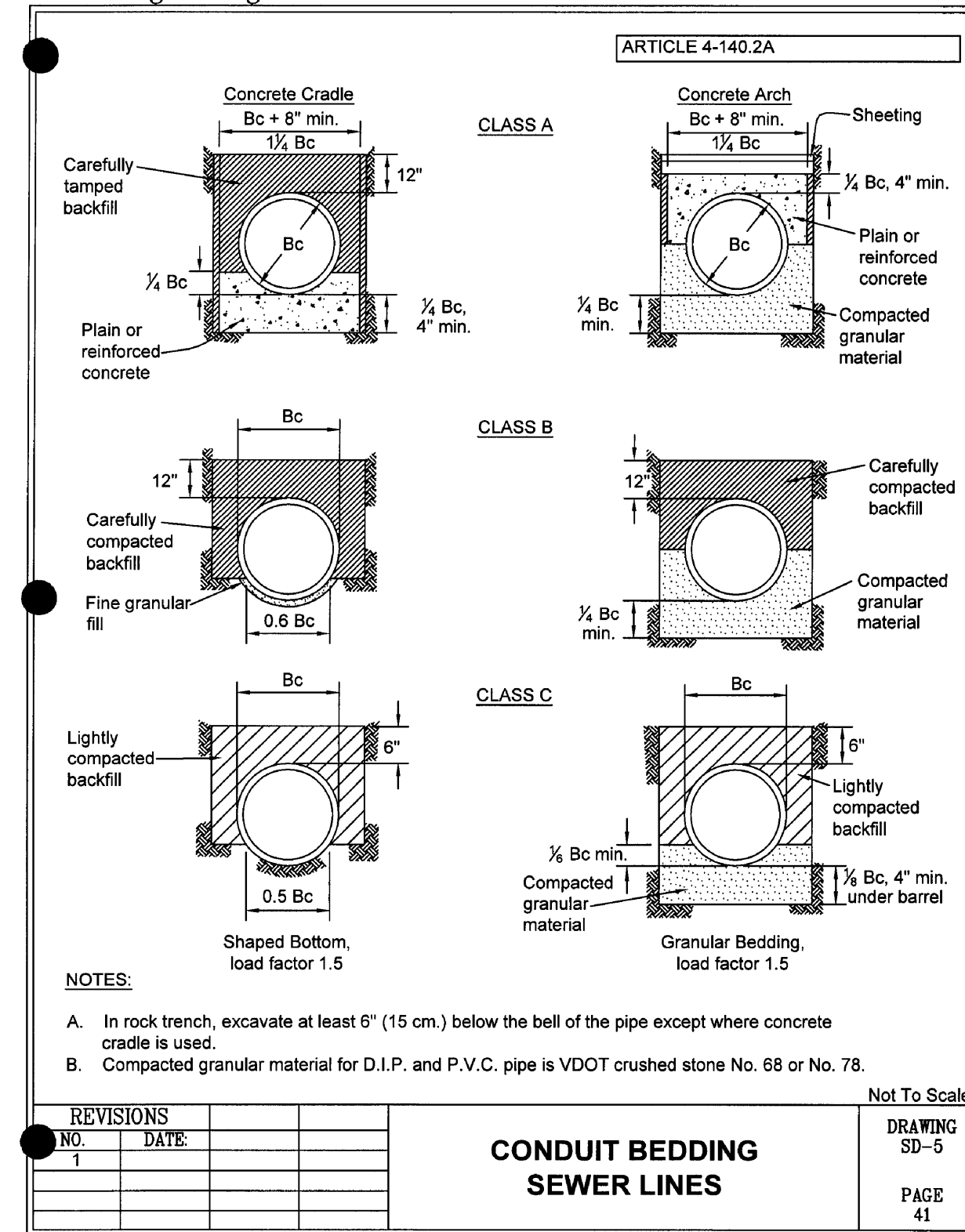
PAVEMENT CONNECTION N.T.S.

**NOTE:**  
1. ALL GRADING SHOWN ON PLANS IS BASED ON COMPLETED PAVEMENT SECTION.

ASPHALT CONCRETE PAVEMENT SECTION N.T.S.

*The Town of Leesburg in Virginia*

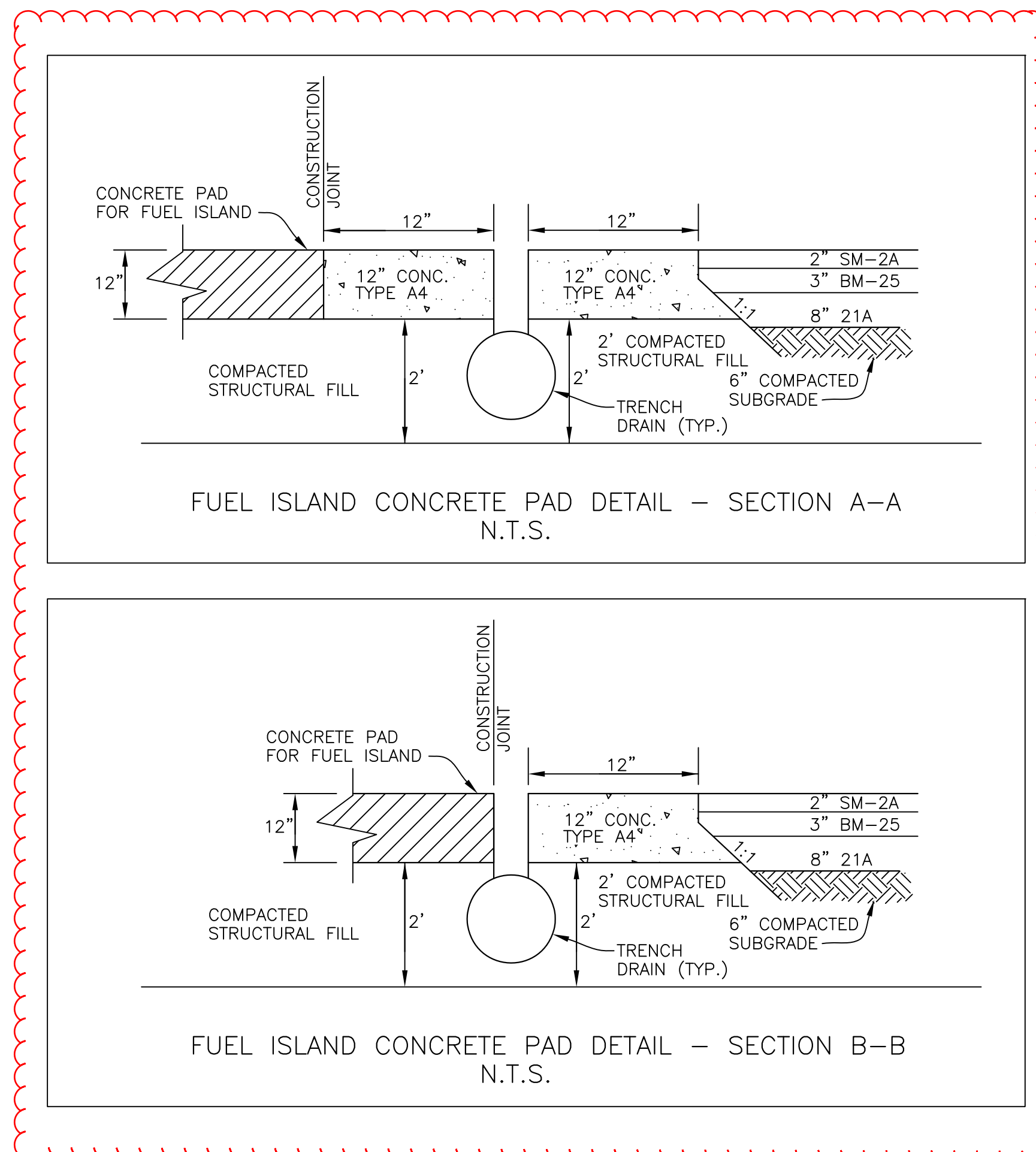
DESIGN AND CONSTRUCTION STANDARD



NOTES:

- A. In rock trench, excavate at least 6" (15 cm.) below the bell of the pipe except where concrete cradle is used.
- B. Compacted granular material for D.I.P. and P.V.C. pipe is VDOT crushed stone No. 68 or No. 78.

REVISIONS		Not To Scale
NO.	DATE	
1		
CONDUIT BEDDING SEWER LINES		DRAWING SD-5
		PAGE 41



FUEL ISLAND CONCRETE PAD DETAIL - SECTION A-A N.T.S.

FUEL ISLAND CONCRETE PAD DETAIL - SECTION B-B N.T.S.

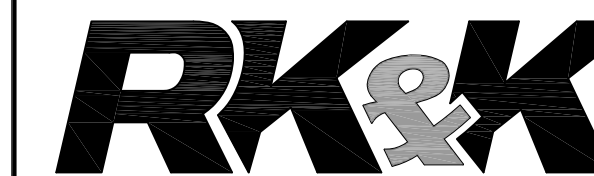
NOTE:

NO UNPROTECTED OR DISTURBED AREA SHALL DRAIN TO ROADWAY PAVEMENTS SUCH THAT THE SUBBASE, BASE, OR WEARING SURFACE IS CONTAMINATED BY SILT TRAPPED AT LOW POINTS OF INLETS (PER DCSM 6-220.5).



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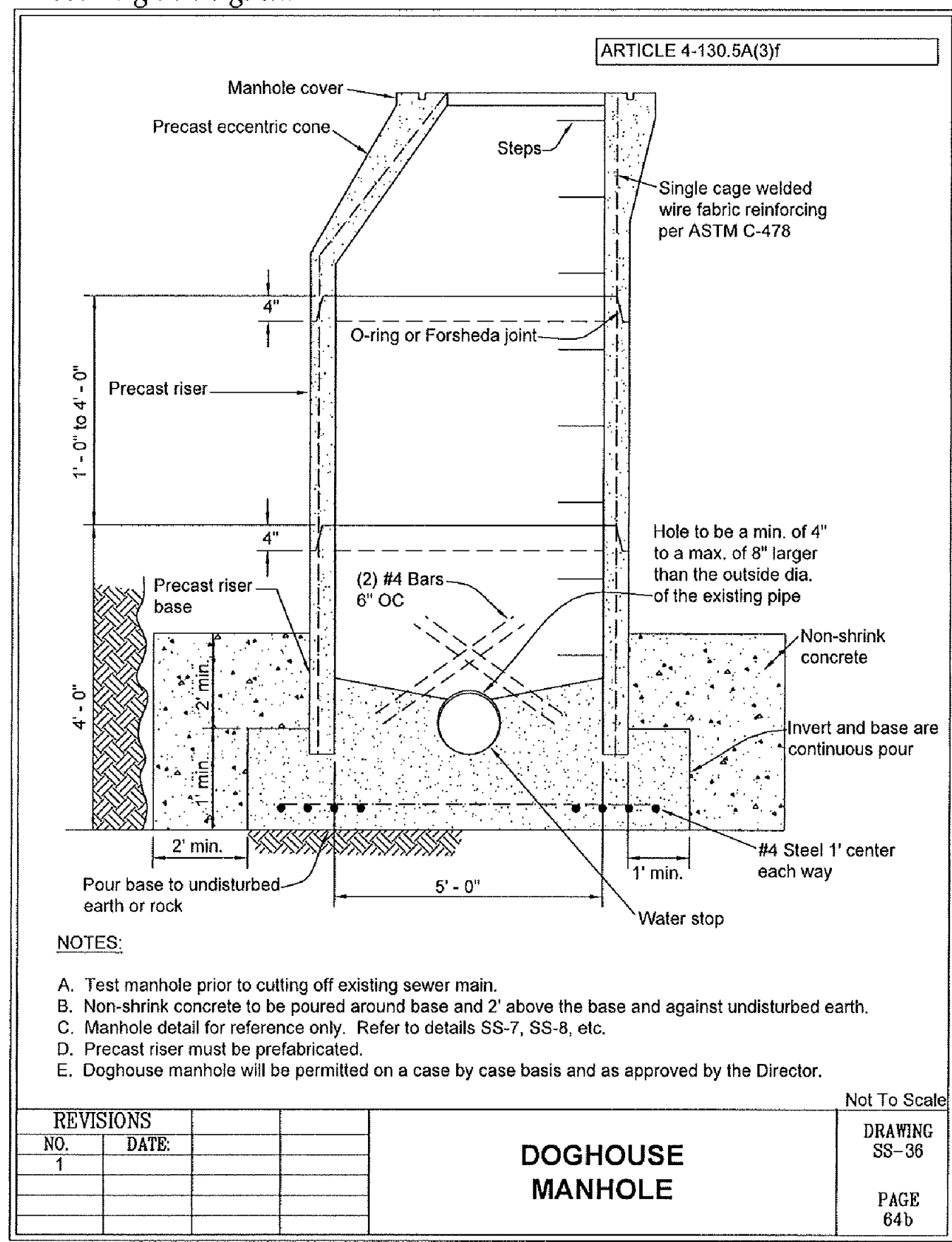
NO.	REVISIONS	DATE
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DWG. TITLE		

SITE DETAILS

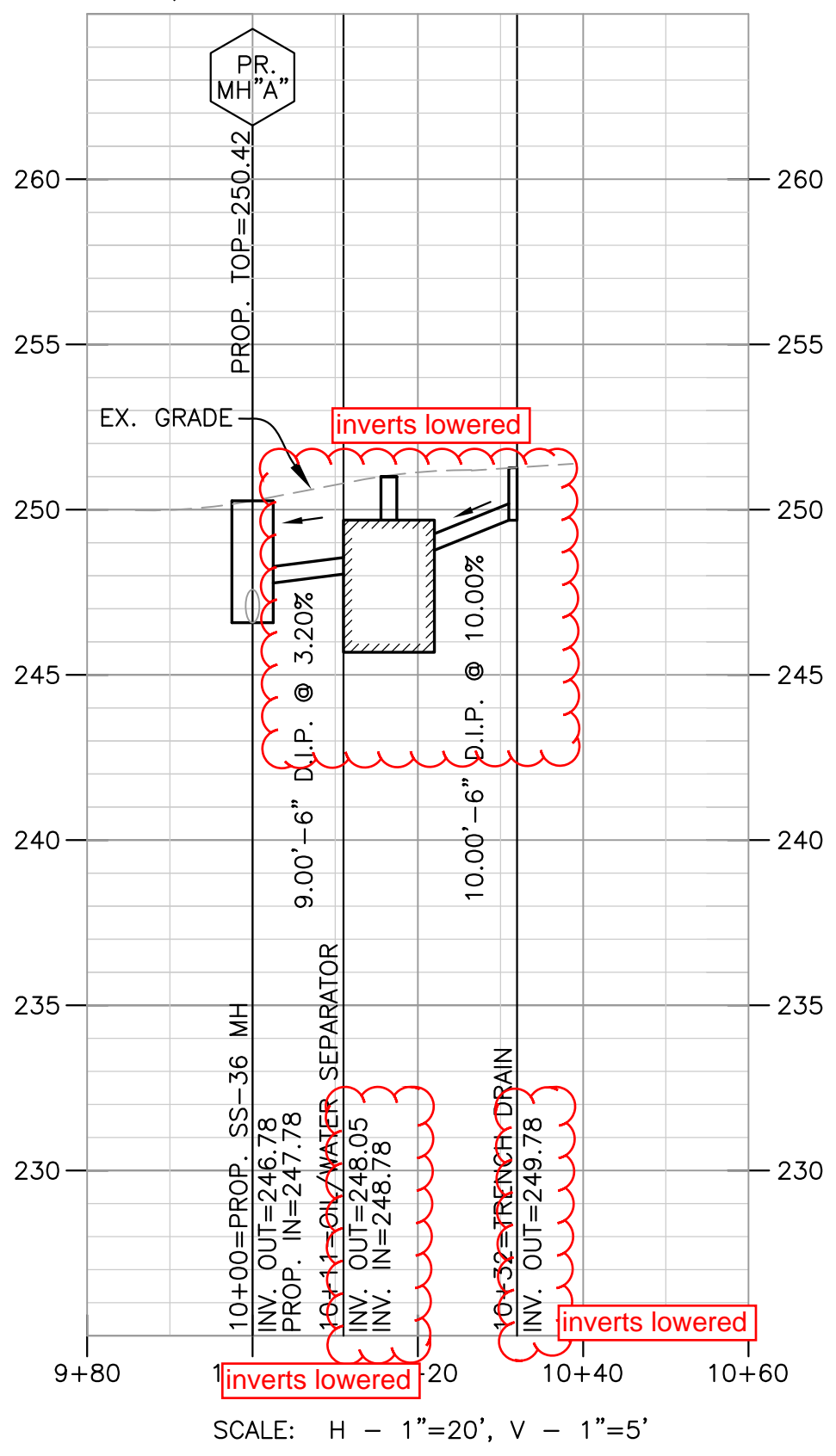
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C010

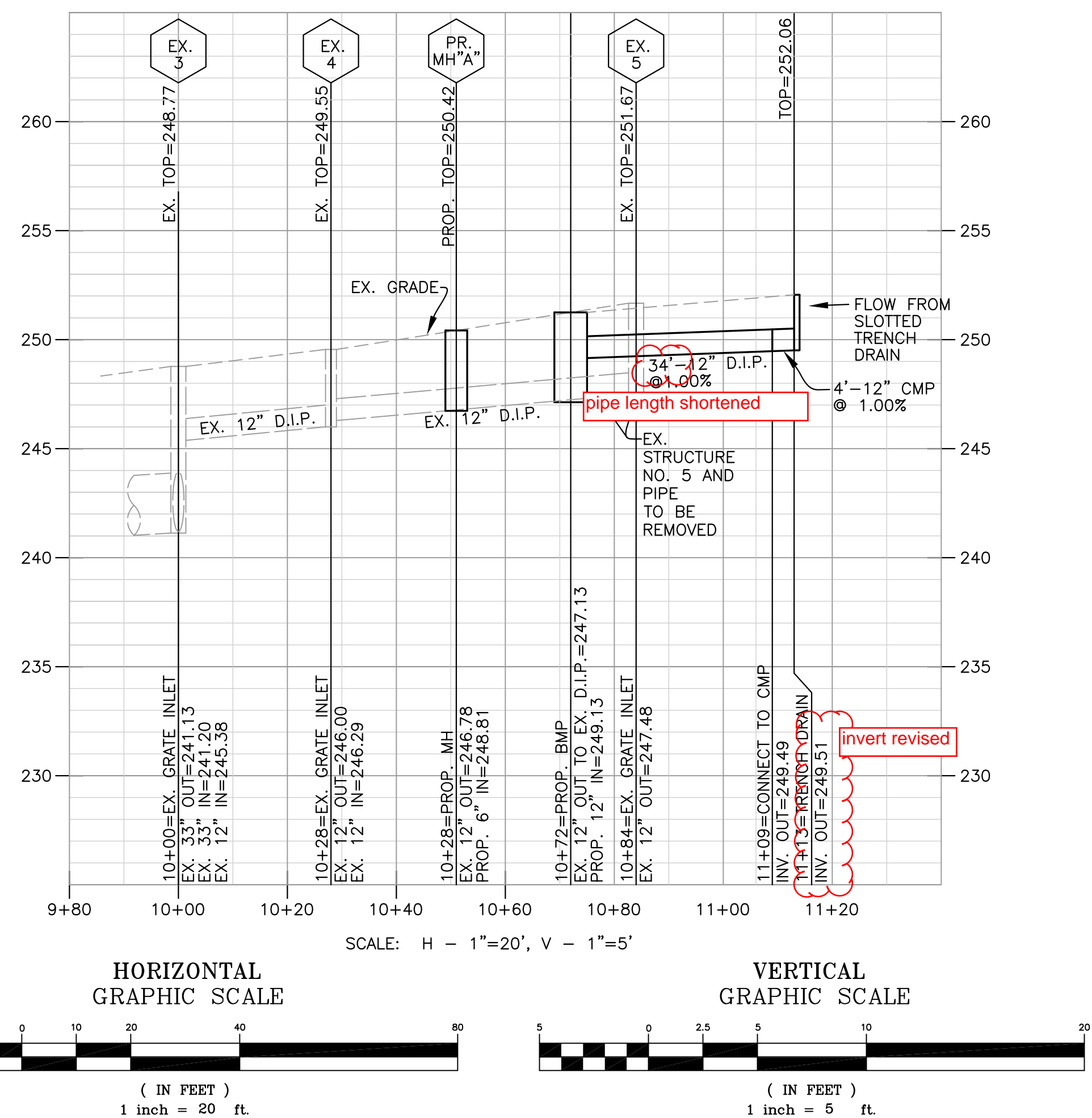




TRENCH OUTFALL #2  
OIL/WATER SEPARATOR PROFILE



TRENCH OUTFALL #1  
BMP PROFILE



NOTE: SEE TRENCH DRAIN DETAILS SHEET C012

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The Model S3 Hydrant is designed for use anywhere potable water is required.  
Unlike conventional hydrants which drain the water into the ground, the Model S3 employs a reservoir below front line to contain the water. The hydrant is completely sealed to prevent surface and ground water from entering reservoir or service line. The valve, with its unique venturi design, removes the stored water along with the water being used.

The Model S3 is equipped with a diverter spout, which allows the hydrant to be operated independently from the backflow preventer. When the hydrant is to be used with a hose, the diverter sleeve is pulled down during flow and water is automatically diverted to the backflow preventer hose connection. The diverter will work with or without a hose attached to the backflow preventer and will automatically release any time the hydrant is shut off.

An important feature of the S3 is easy maintenance. The entire working portion of the hydrant can be removed from the reservoir without any excavation.

**SPECIFICATIONS:**  
HOSE CONNECTION BACKFLOW PREVENTER (BFP)  
• NIDEL® Model 37HF  
• ASSE 1052  
• Field Testable (see instruction sheet)  
• Two Check Valves

**OPTIONAL:** ASSE 1057 listed - Consists of NIDEL® Model 34HF Single Check Vacuum Breaker  
Order example: S3-Bury\_Depth-SC

**PATENT - U.S.** Patent number 5249028 (Additional Patents Pending)

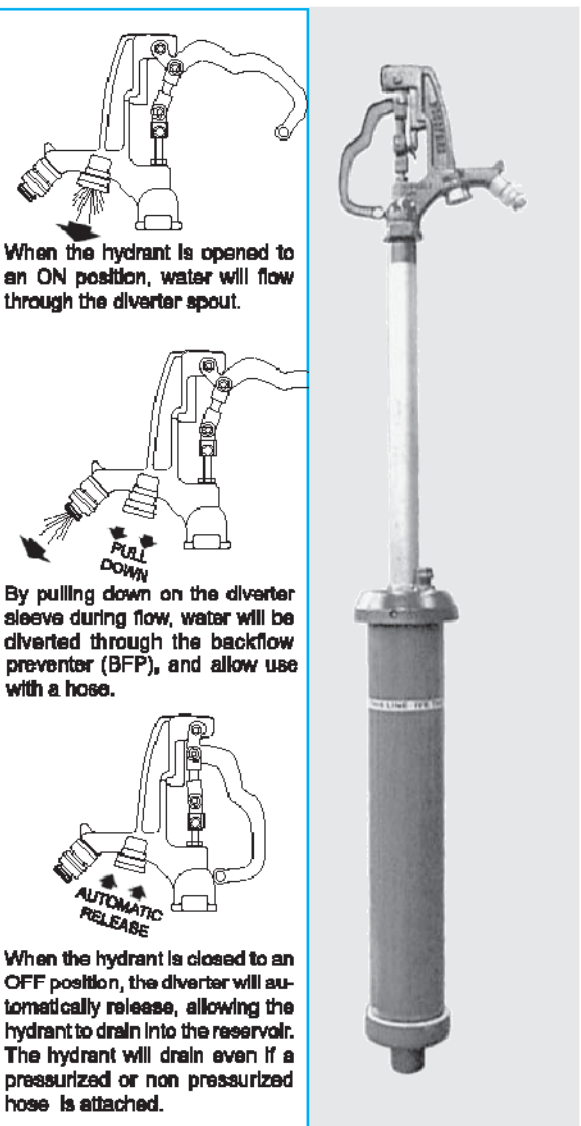
**FEMALE INLET - 1" N.P.T.**  
**MIN PRESSURE - 20 psi**  
**MAX PRESSURE - 100 psi**  
**MAX TEMPERATURE - 120° F**  
**FLOW RATES (GPM)**

PSI	DIVERTER	BFP
20	4.5	1.5
30	5.5	3.0
40	6.5	4.0
50	7.0	5.0
60	8.0	6.0
70	8.5	7.0
80	8.0	7.0
90	9.5	8.0
100	10.0	9.5

When ordering, specify bury depth.

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**Backflow Protected Automatic Draining Freeless Sanitary Yard Hydrant Model S3**



**MODEL S3 PARTS LIST**

ITEM	PART #	DESCRIPTION	ITEM	PART #	DESCRIPTION
1	10449	Head (Includes Items 1-18)	34	OPERATING PIPE (Bury Depth & Length)	
2	37HF-BR	37HF Backflow Preventer	10023	1' Bury (35 1/2" Long)	
3	15220	Diverter Assembly	10024	2' Bury (47 1/2" Long)	
4	10100	Packing Nut	10025	3' Bury (59 1/2" Long)	
5	10101	Packing	10026	4' Bury (71 1/2" Long)	
6	10102	Packing Support Washer	10027	5' Bury (83 1/2" Long)	
7	10104	Brass Rod Stem	10028	6' Bury (95 1/2" Long)	
8	10211	Reducing Coupling	10029	7' Bury (107 1/2" Long)	
9	10206	Hex Nut	35	1 1/2" PIPE CASING (Bury Depth & Length)	
10	10444	Upper Link	10055	1' Bury (35 1/2" Long)	
11	18211	Lower Link (with set screw 10019)	10056	2' Bury (47 1/2" Long)	
12	10010	Set Screw	10057	3' Bury (59 1/2" Long)	
13	10241	Cam and Clevis Assembly (blue)	10058	4' Bury (71 1/2" Long)	
14	10020	Link Bolt	10059	5' Bury (83 1/2" Long)	
15	10021	Lever Bolt	10060	6' Bury (95 1/2" Long)	
16	10443	Lever	10081	7' Bury (107 1/2" Long)	
17	10106	Ringer	36	RESERVOIR PIPE (Bury Depth & Length)	
18	10017	Valve Body (1" NPT Inlet)	10421	1' Bury (20" Long)	
19	1" EXTENSION PIPE (Bury Depth & Length)	10422	2' Bury (38 1/2" Long)		
10411	1' Bury (5.88' Long)	10423	3' Bury (52 1/2" Long)		
10412	2' Bury (7" Long)	10424	4' Bury (66" Long)		
10413	3' Bury (8.38" Long)	10425	5' Bury (79 1/2" Long)		
10414	4' Bury (10 1/2" Long)	10426	6' Bury (92 1/2" Long)		
10415	5' Bury (11 1/8" Long)	10427	7' Bury (105 1/2" Long)		
10416	6' Bury (12 1/2" Long)	15301	Warning Label Kit		
10417	7' Bury (13 7/8" Long)				
20	10180	Werklin Assembly			
21	10321	Valve Body O-Ring (2 Required)			
22	10432	Brass Sleeve			
23	10408	Check Valve			
24	15216	Siphon Tube Assembly			
25	10446	Vent Cap			
26	10440	3/8" Pipe Nipple			
27	10198	Belted Valve			
28	10405	Hydrant O-Ring			
29	10410	Reservoir O-Ring			
30	10409	Reservoir Clamp Screw			
31	10406	Hydrant Clamp Screw			
32	15218	Casting Cover Weathering Label			
33	10401	Inlet Casting			
RE-KIT	Repair Kit (includes Items 4-7 & 17)				
RE-KIT	Repair Kit (includes Items 8-15)				

**ROUGH-IN DIMENSIONS**

Bury Depth	1'	2'	3'	4'	5'	6'	7'
Reservoir Depth	10 1/2"	11 7/8"	13 1/4"	14 5/8"	16"	17 3/8"	19 3/4"
Overall Bury Depth	22 1/2"	35 7/8"	48 1/4"	62 5/8"	76"	89 5/8"	102 3/4"
Weight (lbs)	38	42	48	54	59	65	71

Must ship by truck due to length.

For more information contact  
**WOODFORD MANUFACTURING COMPANY**  
2121 Wynoka Road, Colorado Springs, Colorado 80915 • Phone: (800) 621-6032 • Fax: (800) 785-4115  
To view our complete product line visit: www.woodfordmfg.com or email: sales@woodfordmfg.com  
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NO.	REVISIONS	DATE

DWG. TITLE

UTILITY PROFILES & DETAILS

DATE: 04/29/11  
SCALE: H: 1" = 20' / V: 1" = 5'  
DWN. KAB CHK. WSS  
PROJ. No. \_\_\_\_\_  
DWG. No. \_\_\_\_\_

THOMAS H. HEIL  
No. 044111  
PROFESSIONAL ENGINEER

SANITARY YARD HYDRANT DETAIL

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# 12"Ø SLOTTED DRAIN

## CENTRAL WAREHOUSE & MAINTENANCE FACILITY

### LEESBURG, VA

TOWN OF  
LEESBURG, VIRGINIA

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CENTRAL WAREHOUSE &  
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**INDEX:**

1	COVER SHEET
2	PLAN VIEW
3	DETAILS

**SPECIFICATION FOR CORRUGATED STEEL PIPE - CONT.:**

THE GRATES SHALL BE VERTICAL (STRAIGHT SIDES) WITH A 1-3/4" OPENING IN THE TOP AND 8"C.C. SPACERS UNLESS SHOWN OTHERWISE ON THE PLANS. THE TOP AND BOTTOM GRATE SHALL BE 2-1/2" OR 6" HIGH AS NEEDED.

**MANUFACTURING TOLERANCES**

VERTICAL ELBOW	- ±3/8"
HORIZONTAL ELBOW	- ±5/8"
TWIST	- ±1/2"

CONTECH METHOD #1 FOR VARIABLE HEIGHT GRATES, OR AN APPROVED EQUAL SHALL BE USED TO ACHIEVE THE SLOPE SHOWN ON THE PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

**HANDLING & ASSEMBLY:**  
SHALL BE IN ACCORDANCE WITH NCSPA'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) RECOMMENDATIONS.

THE CORRUGATED STEEL PIPE SHALL HAVE A MINIMUM OF TWO REROLLED ANNULAR ENDS.

THE SLOTTED DRAIN BANDS SHALL BE MODIFIED HUGGER BANDS TO SECURE THE PIPE AND PREVENT INFILTRATION OF THE BACKFILL.

WHEN THE SLOTTED DRAIN IS BANDED TOGETHER, THE ADJACENT GRATES SHALL HAVE A MAXIMUM 3" GAP.

**INSTALLATION:**  
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A 798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS, THE CONTRACTOR MUST BRING THEM TO THE ATTENTION OF THE PROJECT ENGINEER.

IT IS ALWAYS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

**CONSTRUCTION LOADS:**  
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURERS OR NCSPA'S GUIDELINES.

**SPECIFICATION FOR CORRUGATED STEEL PIPE - ALUMINIZED TYPE 2 STEEL:**

**SCOPE:**  
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

**MATERIALS:**  
THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M 216 OR ASTM A 929.

THE GRATE AND PLATE EXTENDERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123 EXCEPT WITH A 2oz. GALVANIZED COATING.

**PIPE FABRICATION:**  
THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M-36 OR ASTM A 760, THE PIPE SIZES, GAUGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

THE GRATES SHALL BE MANUFACTURED FROM ASTM A1011, GRADE 36 STEEL. THE SPACERS AND BEARING BARS (SIDES) SHALL BE 3/16" MATERIAL ± 0.000".

THE GRATE SHALL BE FILLET WELDED WITH A MINIMUM WELD 1" LONG TO THE CSP ON EACH SIDE OF THE GRATE AT EVERY OTHER CORRUGATION.

THE SPACERS SHALL BE ON 6" CENTERS AND WELDED ON BOTH SIDES TO EACH BEARING BAR (SIDES) WITH FOUR (4) 1-1/4" LONG 3/16" FILLET WELDS ON EACH SIDE OF THE BEARING BAR.

THE PLATE EXTENDER SHALL BE 7 GAGE STEEL MEETING ASTM A781.

THE ENGINEER MAY CALL FOR TENSILE STRENGTH TEST ON THE GRATE IF THE GRATE IS NOT IN COMPLIANCE WITH SECTION 3.2. IF TENSILE STRENGTH TEST ARE CALLED FOR, MINIMUM RESULTS FOR AN IN-PLACE SPACER PULLED PERPENDICULAR TO THE BEARING BAR SHALL BE:

- T = 12,000 LBS FOR 2-1/2" GRATE
- T = 15,000 LBS FOR 6" GRATE

THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (5) PAGES.

CUSTOMER \_\_\_\_\_ DATE \_\_\_\_\_

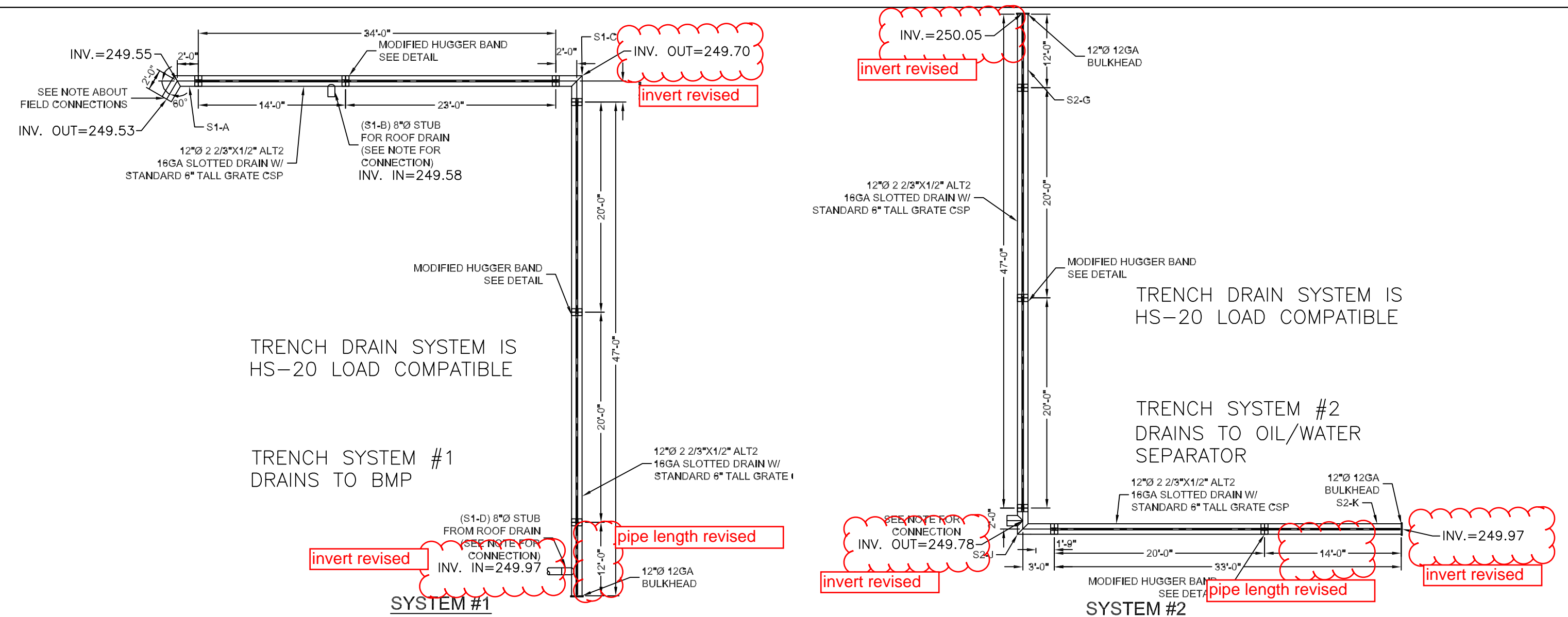
**NOTES:**

- ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF GRATES, SHALL BE VERIFIED BY THE ENGINEER PRIOR TO RELEASING FOR FABRICATION.
- ALL CUTS, AND WELDS SHALL BE PAINTED WITH A ZINC-BASED PAINT.
- IN SITUATIONS WHERE A FINE-GRAINED BACKFILL MATERIAL IS USED ADJACENT TO THE PIPE SYSTEM, AND ESPECIALLY IN SITUATIONS INVOLVING HIGH GROUNDWATER TABLES, CONSIDERATION SHOULD BE GIVEN TO THE USE OF GASKETED PIPE JOINTS. AT THE VERY LEAST, THE PIPE JOINTS SHOULD BE WRAPPED IN A SUITABLE, NON-WOVEN GEOTEXTILE FABRIC TO PREVENT INFILTRATION OF FINES INTO THE PIPE SYSTEM.
- ALL FITTINGS COMPLY WITH ASTM A998.
- SYSTEM MADE FROM 12"Ø, 2 2/3"x1/2", ALT2, 16GA, CMP.
- CMP IS SUBJECT TO MANUFACTURERS TOLERANCES.

CONTRACTOR TO COORDINATE WITH MANUFACTURER PRIOR TO ORDERING SLOTTED TRENCH DRAINS

note added

CONTECH PROJECT ID # 439270



**CONNECTION SPECIFICATIONS**

JOINT TYPE:	FERNCO CORRUGATED PIPE COUPLING
MAXIMUM TEST PRESSURE:	4.3 PSI (29.6KPA)
MAXIMUM OPERATING TEMPERATURE:	140° F NONCONSISTENT
CONFORMS TO:	ASTM #D5926, C1173 AND APPLICABLE PORTIONS OF ASTM #C443, C425, C564, CSA B602 AND D1869

**SYSTEM #1 PIPE SCHEDULE**

12"Ø 16GA ALT2 2 2/3"x1/2" SLOTTED DRAIN

PIPE #	PIPE LENGTH	GRATE HEIGHT AT INLET (H1)	GRATE HEIGHT AT OUTLET (H2)	GRATE LENGTH	TOP GRATE	BOTTOM GRATE	QTY
STANDARD	20'-0"	6"	6"	19'-6"	6"	6"	2
S1-A	4'-0"	6"	6"	19'-6"	6"	6"	1
S1-B	14'-0"	6"	6"	19'-6"	6"	6"	1
S1-B1	1'-0"	6"	6"	19'-6"	6"	6"	1
S1-C	1'-0"	6"	6"	19'-6"	6"	6"	1
S1-D	1'-0"	6"	6"	19'-6"	6"	6"	1
S1-D1	1'-0"	6"	6"	19'-6"	6"	6"	1
*	BULKHEAD	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	1
QTY	5						

**SYSTEM #2 PIPE SCHEDULE**

12"Ø 16GA ALT2 2 2/3"x1/2" SLOTTED DRAIN

PIPE #	PIPE LENGTH	GRATE HEIGHT AT INLET (H1)	GRATE HEIGHT AT OUTLET (H2)	GRATE LENGTH	TOP GRATE	BOTTOM GRATE	QTY
STANDARD	20'-0"	6"	6"	19'-6"	6"	6"	3
S2-G	7'-0"	6"	6"	6'-6"	6"	6"	1
S2-J	5'-0"	6"	6"	6'-6"	6"	6"	1
S2-K	1'-0"	6"	6"	6'-6"	6"	6"	1
S1-B *	15'-0"	6"	6"	19'-6"	6"	6"	1
*	BULKHEAD	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	1
QTY	5						

PROGRESS PRINT 100%  
May 13, 2011  
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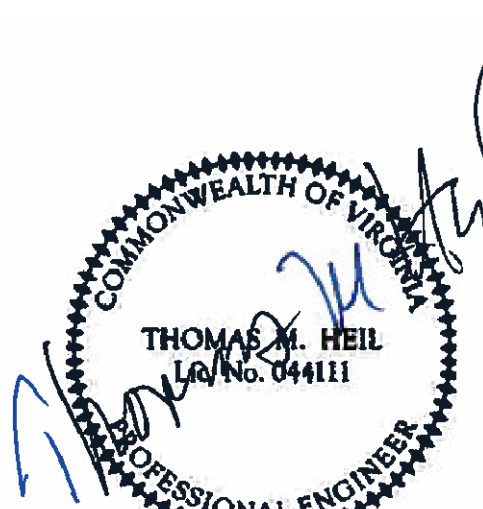
NO.	REVISIONS	DATE

DWG. TITLE

### TRENCH DRAIN DETAILS

DATE	04/29/11		
SCALE	N/A		
DWN.	KAB	CHK.	WSS
PROJ. No.			
DWG. No.			

C012



SLOTTED DRAIN - 439270-002  
CENTRAL WAREHOUSE & MAINTENANCE FACILITY  
LEESBURG, VA  
SITE DESIGNATION: DRAINAGE

PROJECT NO.	439270	REV. NO.	002	DATE	4/27/11
DRAWN	JAP	CHECKED	JAP	APPROVED	
SHEET NO.	2	OF	5		

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