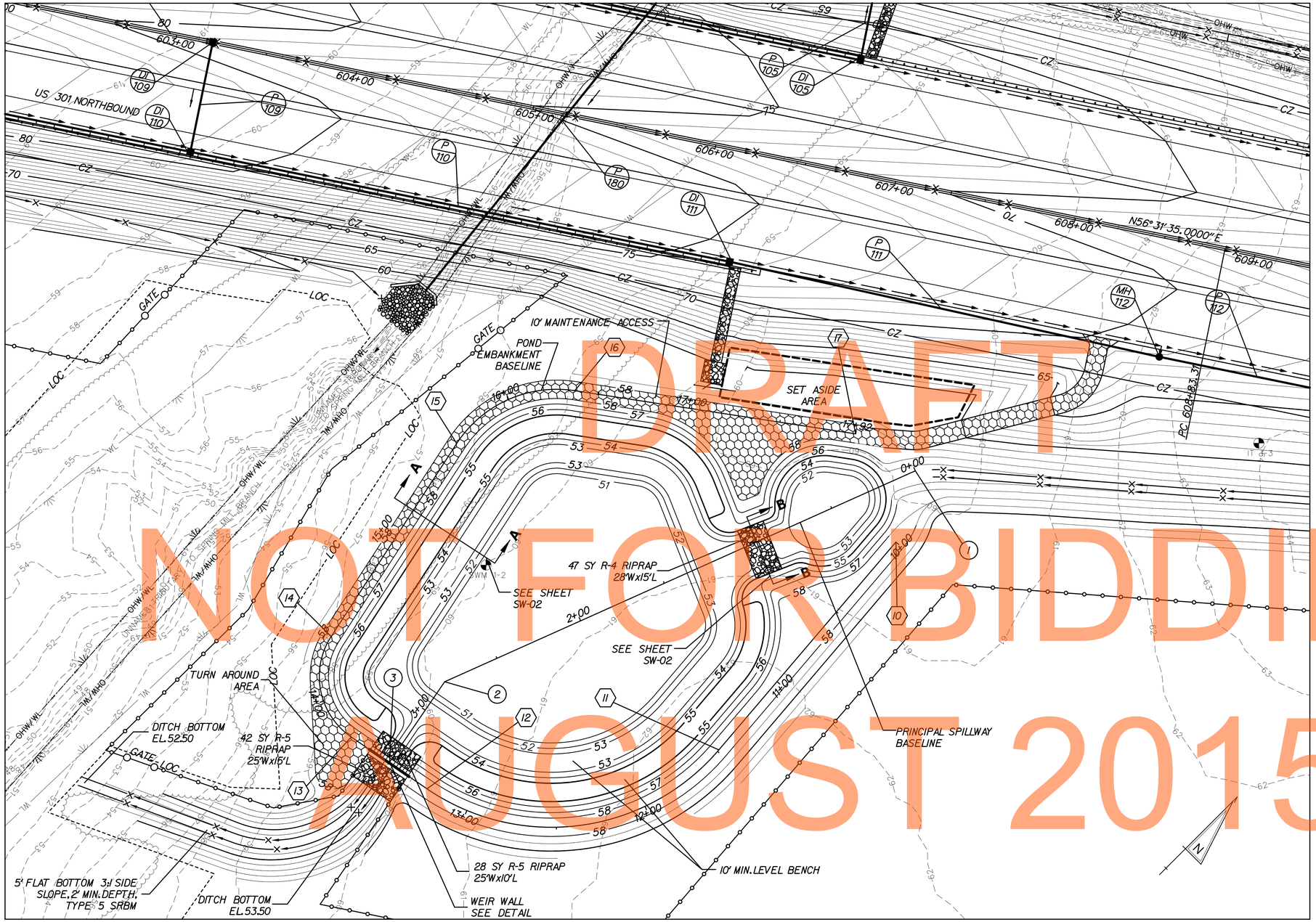


PLAN – SWM FACILITY NO. 700 WET POND

STATION 605+00 RT TO 608+00 RT

POND DESIGN SUMMARY				
DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	WATER SURFACE ELEVATION	STORAGE VOLUME (AC.FT.)
1 YEAR (QUALITY)	7.08	1.01	54.89	0.64
10 - YEAR	21.16	9.05	55.65	1.26
100 - YEAR	45.46	26.84	56.55	2.10

NOTES:

1. HAZARD CLASSIFICATION: CLASS A AS PER POND CODE 378
2. DRAINAGE AREA TO FACILITY: 15.53 ACRES
3. MANAGEMENT PROVIDED BY FACILITY:
   WATER QUALITY BY EXTENDED DETENTION OF RUNOFF FROM THE 1-YEAR STORM.
   WATER QUANTITY FOR 10 AND 100 YEAR STORMS

(X) PRINCIPAL SPILLWAY BASELINE

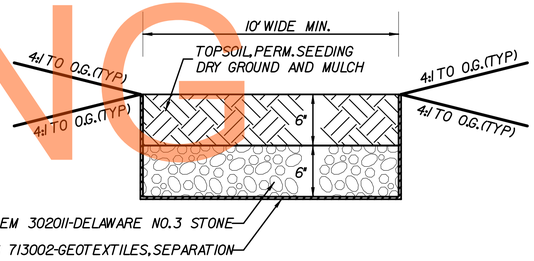
POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	543398.8953	573179.2177
2 PI	2+81.24	543136.0707	573079.1179
3 POE	3+34.37	543083.8545	573088.9035

(X) POND EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
10 POB	10+00.00	543363.9471	573199.2110
11 PC	11+48.92	543215.5066	573211.1079
PI	12+56.90	543107.8643	573219.7350
		RADIUS = 120.00'	
12 PT	13+24.78	543087.9732	573113.5953
13 PC	13+74.83	543078.7529	573064.3958
PI	14+13.90	543071.5562	573025.9937
		RADIUS = 40.00'	
14 PT	14+36.73	543109.7785	573017.8963
15 PC	15+62.28	543232.6057	572991.8754
PI	16+04.25	543273.6638	572983.1773
		RADIUS = 65.00'	
16 PT	16+36.81	543298.4877	573017.0179
17 PC	17+91.76	543390.1349	573141.9534

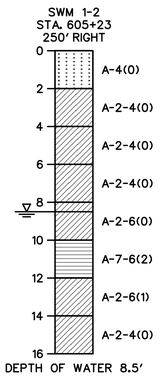
NOTES:

1. THE POND BETWEEN ELEVATIONS 51.0' AND 55.0' SHALL RECEIVE PERMANENT SEEDING, WET GROUND (ITEM 734015). THE REMAINDER OF THE EMBANKMENT AREA SHALL RECEIVE PERMANENT SEEDING, DRY GROUND (ITEM 734013).
2. SIDE SLOPE ABOVE ELEVATION 53.0' SHALL BE TOPSOILED AND MULCHED.



POND MAINTENANCE ACCESS

NOT TO SCALE



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

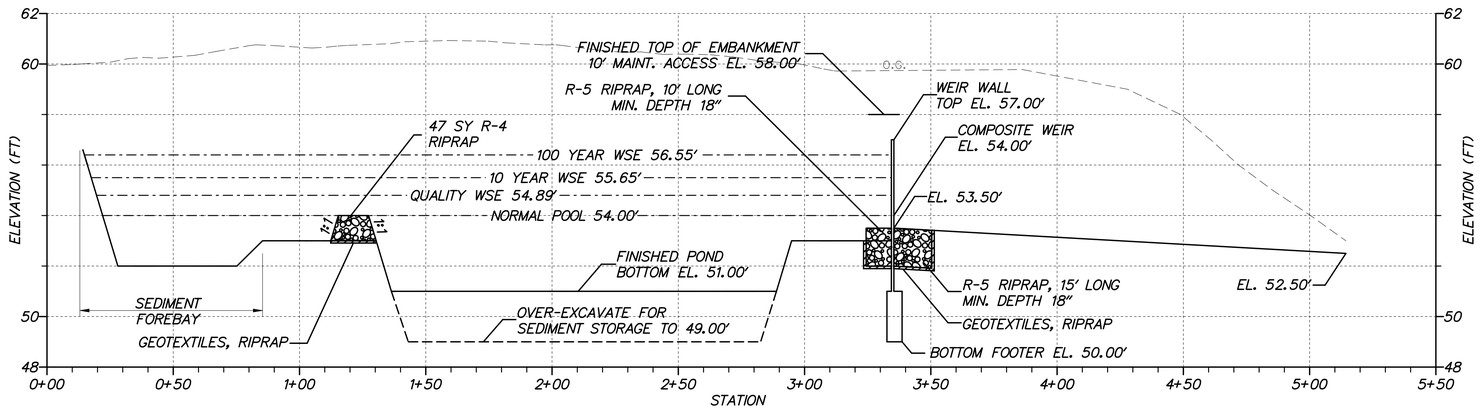
SCALE 0 30 60 90 FEET

US 301, NORFOLK SOUTHERN RR TO SR 896

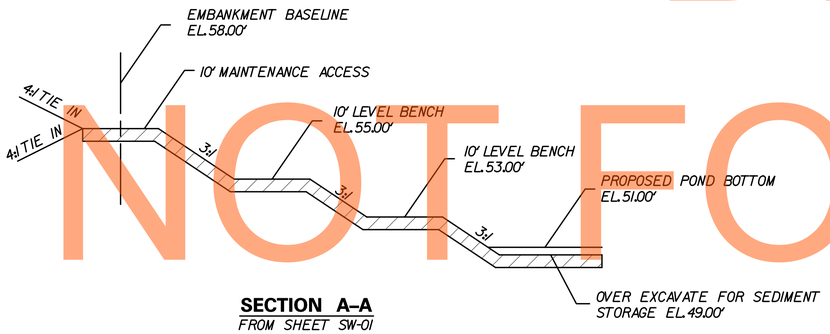
CONTRACT T200911301 | COUNTY NEW CASTLE | BRIDGE NO. | DESIGNED BY: JJK | CHECKED BY: MAA

STORMWATER MANAGEMENT PLAN

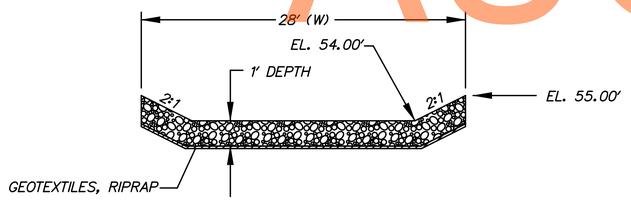
SW-01 | SHEET NO. 153 | TOTAL SHTS. 240



SPILLWAY PROFILE SWM FACILITY NO. 700



SECTION A–A
FROM SHEET SW-01
NOT TO SCALE



SECTION B–B
FROM SHEET SW-01
NOT TO SCALE

POND CONSTRUCTION SEQUENCE AND NOTES - SWM FACILITY NO.700

THE STORMWATER MANAGEMENT POND SHALL FUNCTION AS A SEDIMENT BASIN DURING ROADWAY CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS:

SECTION 271 - STORMWATER MANAGEMENT POND
SECTION 272 - POND OUTLET STRUCTURE,CONCRETE

1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN IN CONSTRUCTION PHASING SHEETS.*
4. *CLEAR AND GRUB REMAINING AREA FOR POND CONSTRUCTION.*
5. *EXCAVATE PARTIAL EMBANKMENT AS NEEDED TO CONSTRUCT AND INSTALL POND OUTLET STRUCTURE. BLOCK POND OUTLET STRUCTURE WEIR FROM ELEVATION 54.0' TO ELEVATION 56.0'. INSTALL SKIMMER DEWATERING DEVICE AND SET DISCHARGE ELEVATION TO 54.4'. DEWATER FOUNDATION AS NEEDED TO CONSTRUCT POND OUTLET STRUCTURE IN ACCORDANCE WITH SECTION III - DEWATERING OPERATIONS AND USE SUMP PIT TYPE I FOR PUMPING. REFER TO SKIMMER DEWATERING DEVICE TABLE BELOW FOR SPECIFIC DETAILS.*
6. *EXCAVATE THE POND AND COMPLETE THE EMBANKMENT AND BASIN TO THE LINES,GRADES AND DETAILS AS SHOWN IN THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL OVER EXCAVATE POND BOTTOM TO ELEVATION 49.0' FOR SEDIMENT STORAGE DURING CONSTRUCTION.*
7. *STABILIZE ALL BARE AREAS.*

MAINTENANCE OF POND AS A SEDIMENT BASIN

1. *CONTRACTOR SHALL INSPECT THE BASIN IMMEDIATELY AFTER EVERY RAIN AND MAKE REPAIRS AS NEEDED.*
2. *CONTRACTOR SHALL CLEARLY MARK THE CLEANOUT ELEVATION ON A STAKE DRIVEN INTO THE GROUND AT A LOCATION CLEARLY VISIBLE FROM THE EMBANKMENT. SEDIMENT SHALL BE REMOVED WHEN CLEANOUT ELEVATION IS REACHED AND DISPOSED OF AT A LOCATION APPROVED BY THE ENGINEER.*
3. *CLEANOUT ELEVATION FOR SWM FACILITY NO.700 IS 53.00'.*

CONVERSION TO PERMANENT STORMWATER MANAGEMENT POND

1. *CONVERT THE BASIN INTO THE PERMANENT STORMWATER MANAGEMENT POND AFTER ALL AREAS DRAINING TO THE POND HAVE BEEN PERMANENTLY STABILIZED AND THE ENGINEER HAS APPROVED THE CONVERSION.*
2. *REMOVE ACCUMULATED SEDIMENT TO ELEVATION 51.0' AND DISPOSE SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER.*
3. *COMPLETE STABILIZATION OF ALL BARE AREAS. REMOVE EROSION AND SEDIMENT CONTROL MEASURES AND DEACTIVATE SKIMMER DEWATERING DEVICE.*

AS-BUILT DRAWINGS OF STORMWATER MANAGEMENT FACILITIES

1. *THE CONTRACTOR SHALL PROVIDE 'AS-BUILT' DRAWINGS OF ALL STORMWATER MANAGEMENT FACILITIES,SUCH AS PONDS,BIOFILTRATION SWALES,BIORETENTION AREAS,ETC. THE 'AS-BUILT' DRAWINGS SHALL SHOW THE ACTUAL FINISHED GROUND CONTOURS,OUTLET STRUCTURE DIMENSIONS AND ELEVATIONS,ETC., AS THEY EXIST AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR.*

SKIMMER DEWATERING DEVICE SCHEDULE				
BASIN NO.	SKIMMER INV.(FT)	ORIFICE SIZE (IN)	BLOCK WEIR FROM-TO EL.(FT)	BASIN CLEANOUT EL.(FT)
700	54.40	4.00	54.00 - 56.00	53.00

VERTICAL SCALE FEET 0 3 6 9

SW-02

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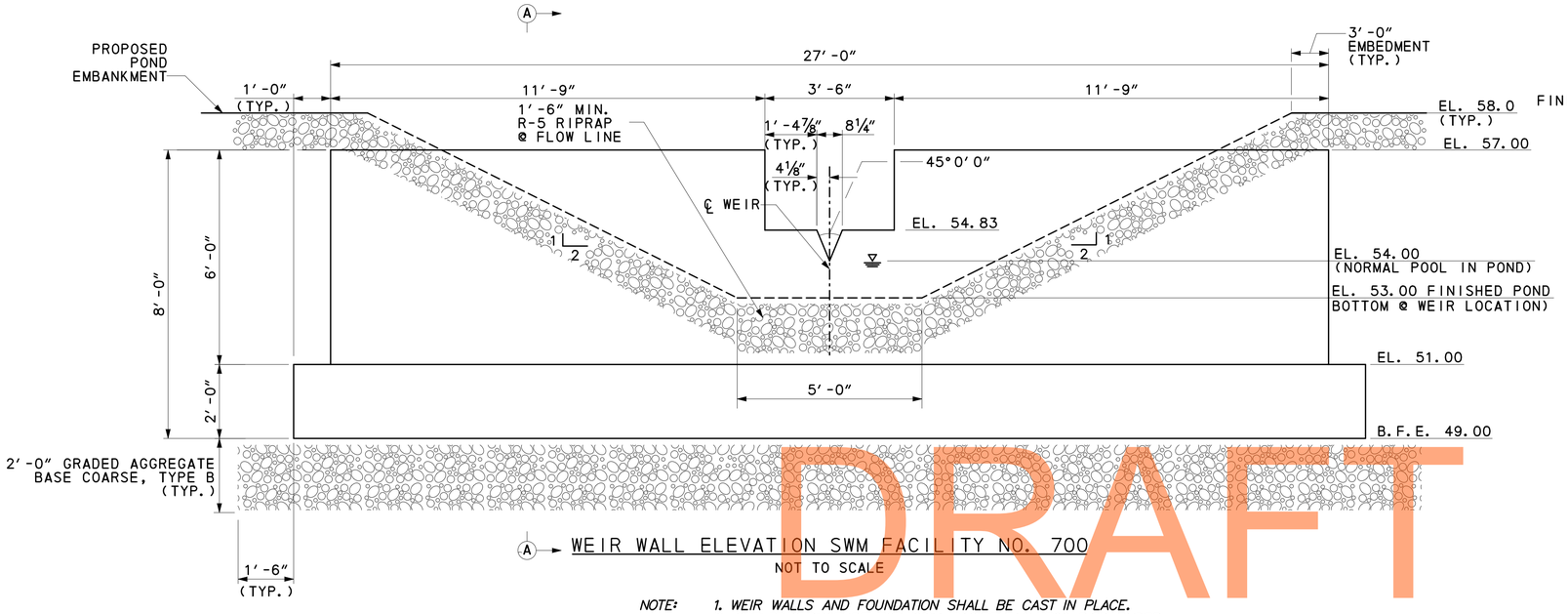
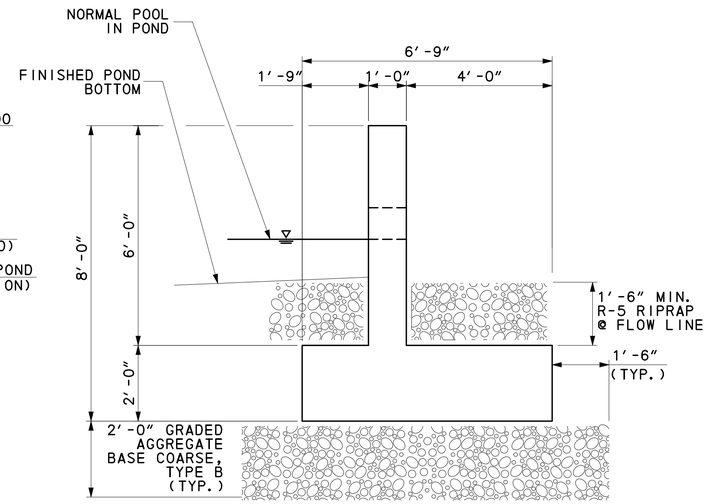
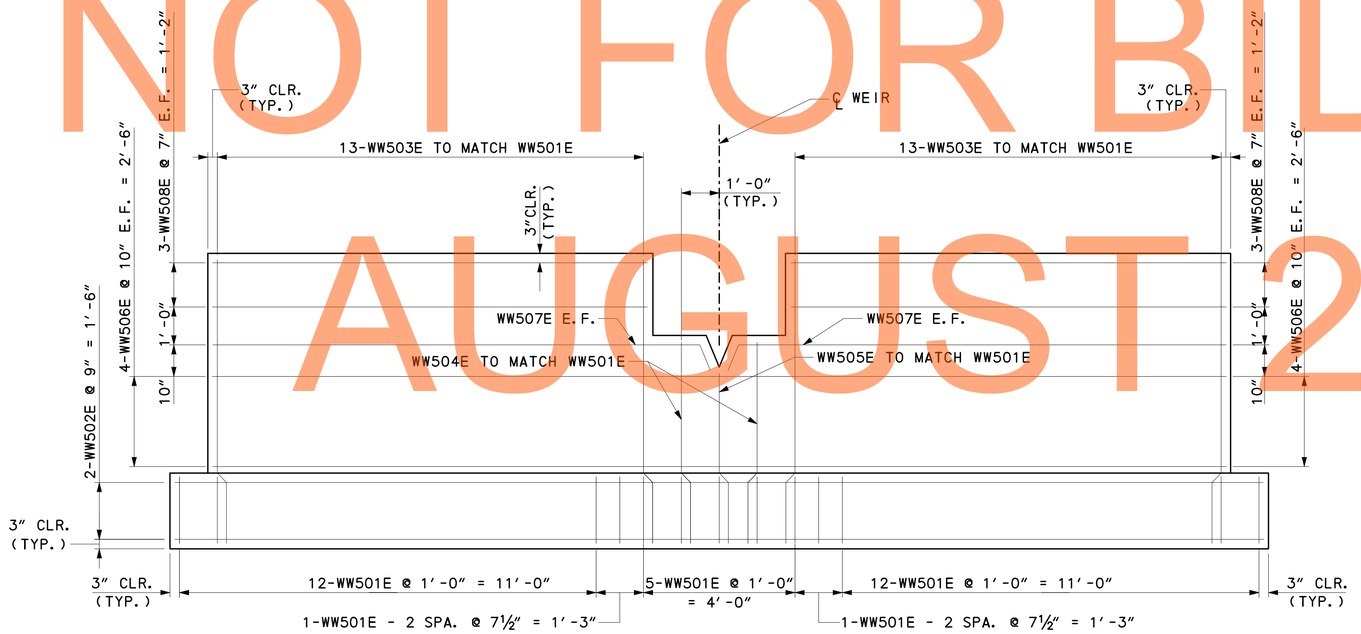
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	US 301, NORFOLK SOUTHERN RR TO SR 896	CONTRACT T200911301	BRIDGE NO.	STORMWATER MANAGEMENT PLAN	SHEET NO. 154
				COUNTY NEW CASTLE	DESIGNED BY: JJK		TOTAL SHTS. 240
					CHECKED BY: MAA		

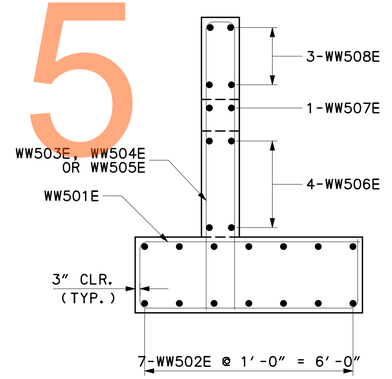




NOTE: 1. WEIR WALLS AND FOUNDATION SHALL BE CAST IN PLACE.
2. OUTLET STRUCTURE FOR SWM FACILITY NO. 700 PAID UNDER ITEM 272000 - POND OUTLET STRUCTURE, CONCRETE #1.



WEIR WALL REINFORCING SWM FACILITY NO. 700
NOT TO SCALE



REINFORCING SECTION
NOT TO SCALE

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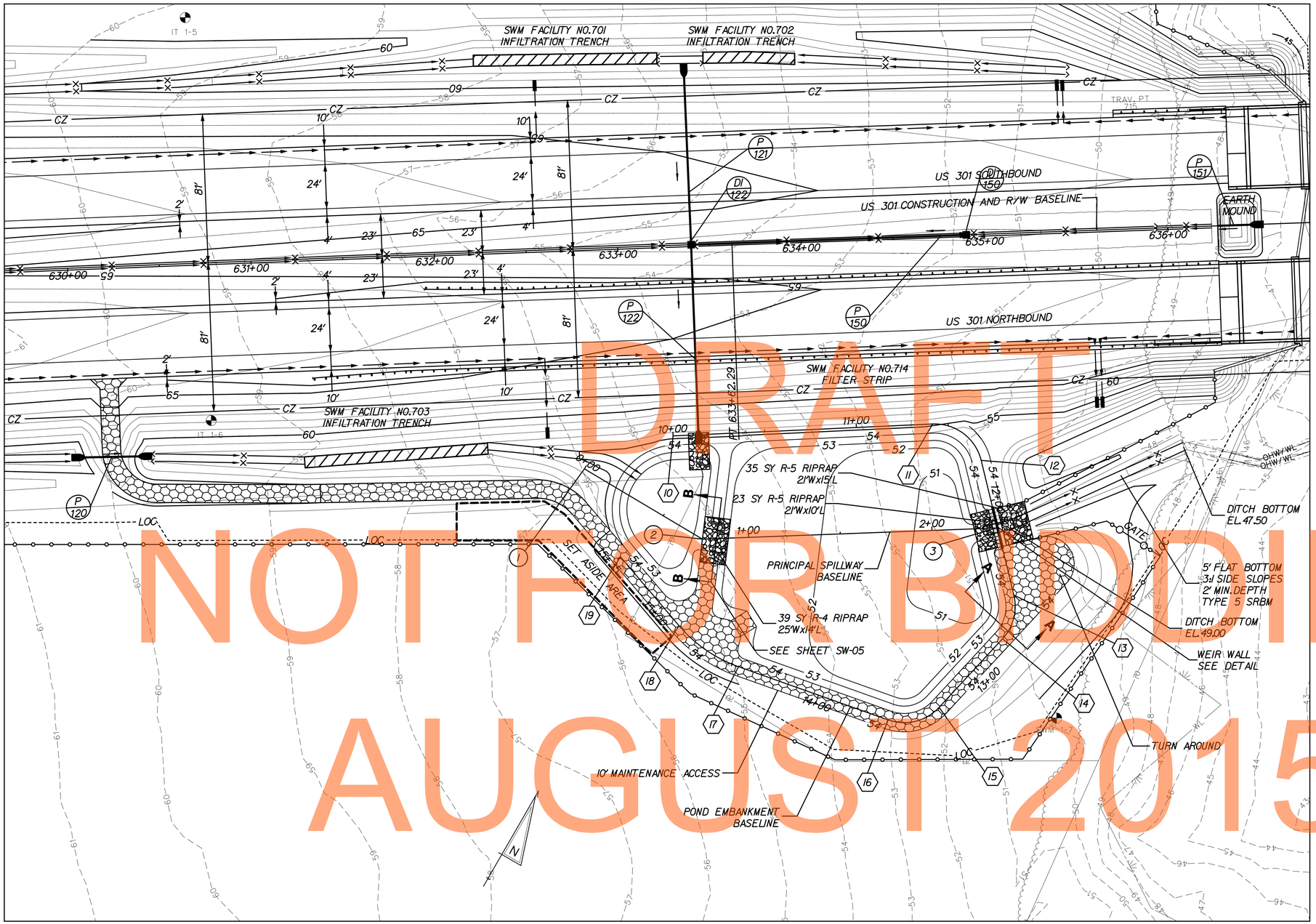
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	US 301, NORFOLK SOUTHERN RR TO SR 896	CONTRACT T200911301	BRIDGE NO.	STORMWATER MANAGEMENT PLAN
				COUNTY NEW CASTLE	DESIGNED BY: JJK	
					CHECKED BY: MAA	

SW-03

SHEET NO. 155

TOTAL SHTS. 240



PLAN – SWM FACILITY NO. 704 DRY POND

STATION 633+00 RT TO 636+00 RT

POND DESIGN SUMMARY				
DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	WATER SURFACE ELEVATION	STORAGE VOLUME (AC.FT.)
10 -YEAR	10.33	5.88	52.01	0.18
100 -YEAR	24.23	13.50	52.79	0.46

NOTES:

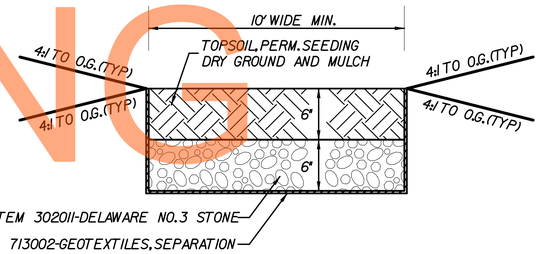
1. HAZARD CLASSIFICATION: CLASS A AS PER POND CODE 378
2. DRAINAGE AREA TO FACILITY: 5.67 ACRES
3. MANAGEMENT PROVIDED BY FACILITY: WATER QUANTITY FOR 10 AND 100 YEAR STORMS

(X) PRINCIPAL SPILLWAY BASELINE			
POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	544798.8776	575289.2918
2 PI	0+74.83	544797.8930	575364.1158
3 POE	2+35.27	544883.3061	575499.9346

⟨X⟩ POND EMBANKMENT BASELINE			
POINT NO.	STATION	NORTHING	EASTING
10 POB	10+00.00	544838.5852	575322.1531
11 PC	11+41.60	544914.9372	575441.4055
PI	11+63.03	544926.4939	575459.4556
		RADIUS = 26.00'	
12 PT	11+77.45	544910.9805	575474.2440
13 PC	12+52.96	544856.3217	575526.3489
PI	12+66.91	544846.2300	575535.9691
		RADIUS = 26.00'	
14 PT	12+78.56	544832.6328	575532.8862
15 PC	13+29.40	544783.0515	575521.6446
PI	13+46.54	544766.3358	575517.8546
		RADIUS = 26.00'	
16 PT	13+59.71	544763.2308	575500.9983
17 PC	14+46.24	544747.5551	575415.9002
PI	14+66.64	544743.8590	575395.8349
		RADIUS = 76.00'	
18 PT	14+86.10	544750.7089	575376.6163
19 POE	15+35.28	544767.2200	575330.2919

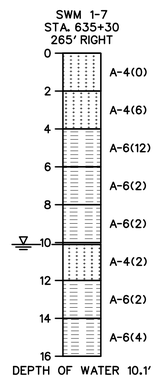
NOTES:

1. THE POND BOTTOM AND EMBANKMENT SHALL RECEIVE PERMANENT SEEDING, DRY GROUND (ITEM 734013).
2. EMBANKMENT SLOPE SHALL BE TOPSOILED AND MULCHED.



POND MAINTENANCE ACCESS

NOT TO SCALE



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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

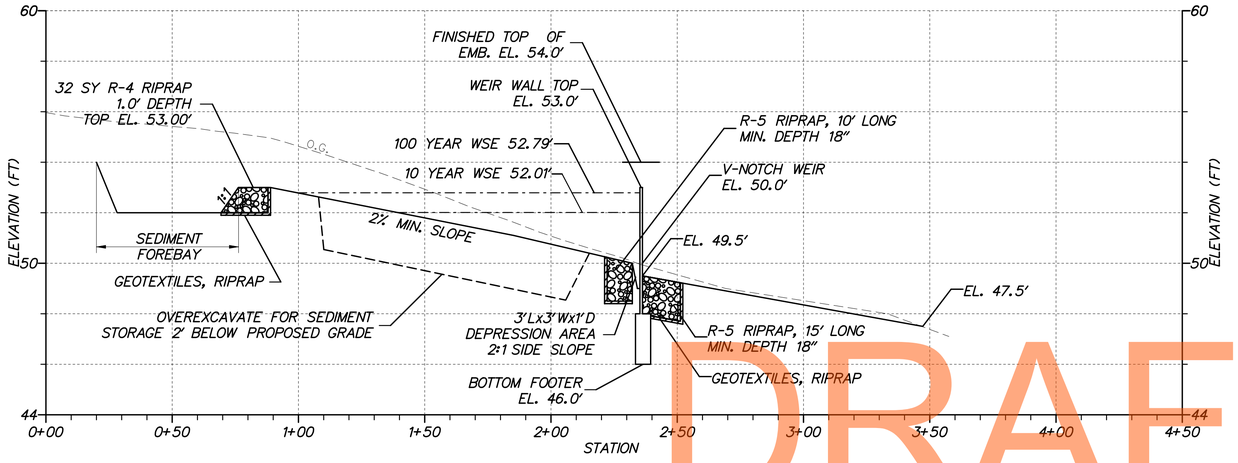
SCALE 0 30 60 90 FEET

US 301,
NORFOLK SOUTHERN RR TO SR 896

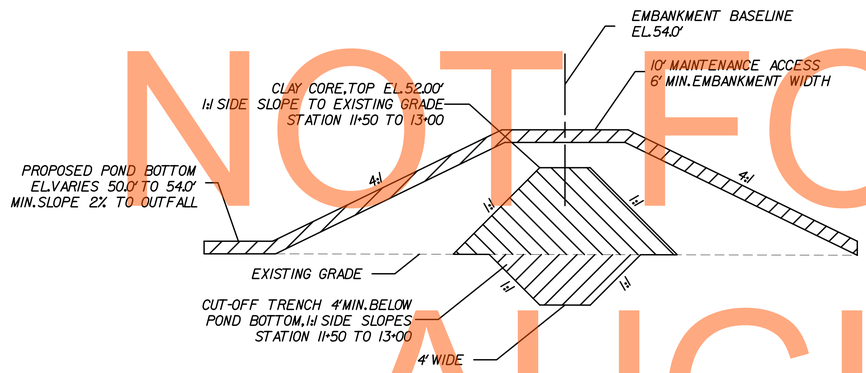
CONTRACT	BRIDGE NO.	
T200911301	DESIGNED BY: JJK	
COUNTY		
NEW CASTLE	CHECKED BY: MAA	

STORMWATER MANAGEMENT PLAN

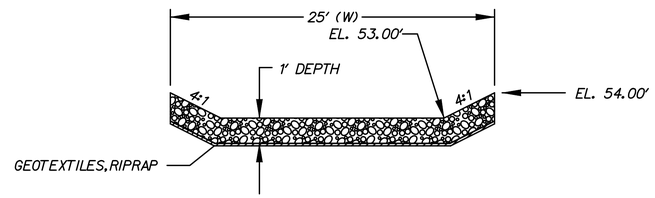
SW-04	
SHEET NO.	156
TOTAL SHTS.	240



SPILLWAY PROFILE SWM FACILITY NO. 704



SECTION A–A
FROM SHEET SW-04
NOT TO SCALE



SECTION B–B
FROM SHEET SW-04
NOT TO SCALE

POND CONSTRUCTION SEQUENCE AND NOTES - SWM FACILITY NO.704

THE STORMWATER MANAGEMENT POND SHALL FUNCTION AS A SEDIMENT BASIN DURING ROADWAY CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS:

SECTION 271 - STORMWATER MANAGEMENT POND
SECTION 272 - POND OUTLET STRUCTURE,CONCRETE

1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN IN CONSTRUCTION PHASING SHEETS.*
4. *CLEAR AND GRUB REMAINING AREA FOR POND CONSTRUCTION.*
5. *EXCAVATE PARTIAL EMBANKMENT AS NEEDED TO CONSTRUCT AND INSTALL POND OUTLET STRUCTURE. BLOCK POND OUTLET STRUCTURE WEIR FROM ELEVATION 50.0' TO ELEVATION 53.0'. INSTALL SKIMMER DEWATERING DEVICE AND SET DISCHARGE ELEVATION TO 50.42'. DEWATER FOUNDATION AS NEEDED TO CONSTRUCT POND OUTLET STRUCTURE IN ACCORDANCE WITH SECTION III - DEWATERING OPERATIONS AND USE SUMP PIT TYPE I FOR PUMPING.*
6. *EXCAVATE THE POND AND COMPLETE THE EMBANKMENT AND BASIN TO THE LINES,GRADES AND DETAILS AS SHOWN IN THE CONSTRUCTION PLANS.*
7. *STABILIZE ALL BARE AREAS.*

MAINTENANCE OF POND AS A SEDIMENT BASIN

1. *CONTRACTOR SHALL INSPECT THE BASIN IMMEDIATELY AFTER EVERY RAIN AND MAKE REPAIRS AS NEEDED.*
2. *CONTRACTOR SHALL CLEARLY MARK THE CLEANOUT ELEVATION ON A STAKE DRIVEN INTO THE GROUND AT A LOCATION CLEARLY VISIBLE FROM THE EMBANKMENT. SEDIMENT SHALL BE REMOVED WHEN CLEANOUT ELEVATION IS REACHED AND DISPOSED OF AT A LOCATION APPROVED BY THE ENGINEER.*
3. *CLEANOUT ELEVATION IN FOREBAY OF SWM FACILITY NO.704 IS 53.00'.*

CONVERSION TO PERMANENT STORMWATER MANAGEMENT POND

1. *CONVERT THE BASIN INTO THE PERMANENT STORMWATER MANAGEMENT POND AFTER ALL AREAS DRAINING TO THE POND HAVE BEEN PERMANENTLY STABILIZED AND THE ENGINEER HAS APPROVED THE CONVERSION.*
2. *REMOVE ACCUMULATED SEDIMENT TO THE ELEVATIONS SHOWN ON THE PLAN AND DISPOSE SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER. THE FINISHED POND BOTTOM SHALL BE SLOPED AT A MINIMUM OF 2% TO THE OUTLET.*
3. *COMPLETE STABILIZATION OF ALL BARE AREAS. REMOVE EROSION AND SEDIMENT CONTROL MEASURES AND DEACTIVATE SKIMMER DEWATERING DEVICE.*

AS-BUILT DRAWINGS OF STORMWATER MANAGEMENT FACILITIES

1. *THE CONTRACTOR SHALL PROVIDE 'AS-BUILT' DRAWINGS OF ALL STORMWATER MANAGEMENT FACILITIES,SUCH AS PONDS,BIOFILTRATION SWALES,BIORETENTION AREAS,ETC. THE 'AS-BUILT' DRAWINGS SHALL SHOW THE ACTUAL FINISHED GROUND CONTOURS,OUTLET STRUCTURE DIMENSIONS AND ELEVATIONS,ETC.,AS THEY EXIST AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR.*

SKIMMER DEWATERING DEVICE SCHEDULE				
BASIN NO.	SKIMMER INV.(FT)	ORIFICE SIZE (IN)	BLOCK WEIR FROM-TO EL.(FT)	BASIN CLEANOUT EL.(FT)
704	50.42	2.00	50.00 - 53.00	53.00 (SEE NOTE)

NOTE: CLEANOUT ELEVATION IS FOR SEDIMENT BASIN FOREBAY. POND SHALL BE CLEANED OUT WHEN THE SEDIMENT EXCEEDS THE 2' OVEREXCAVATED SECTION ALONG THE 2% SLOPE.

VERTICAL SCALE FEET 0 3 6 9

SW-05

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

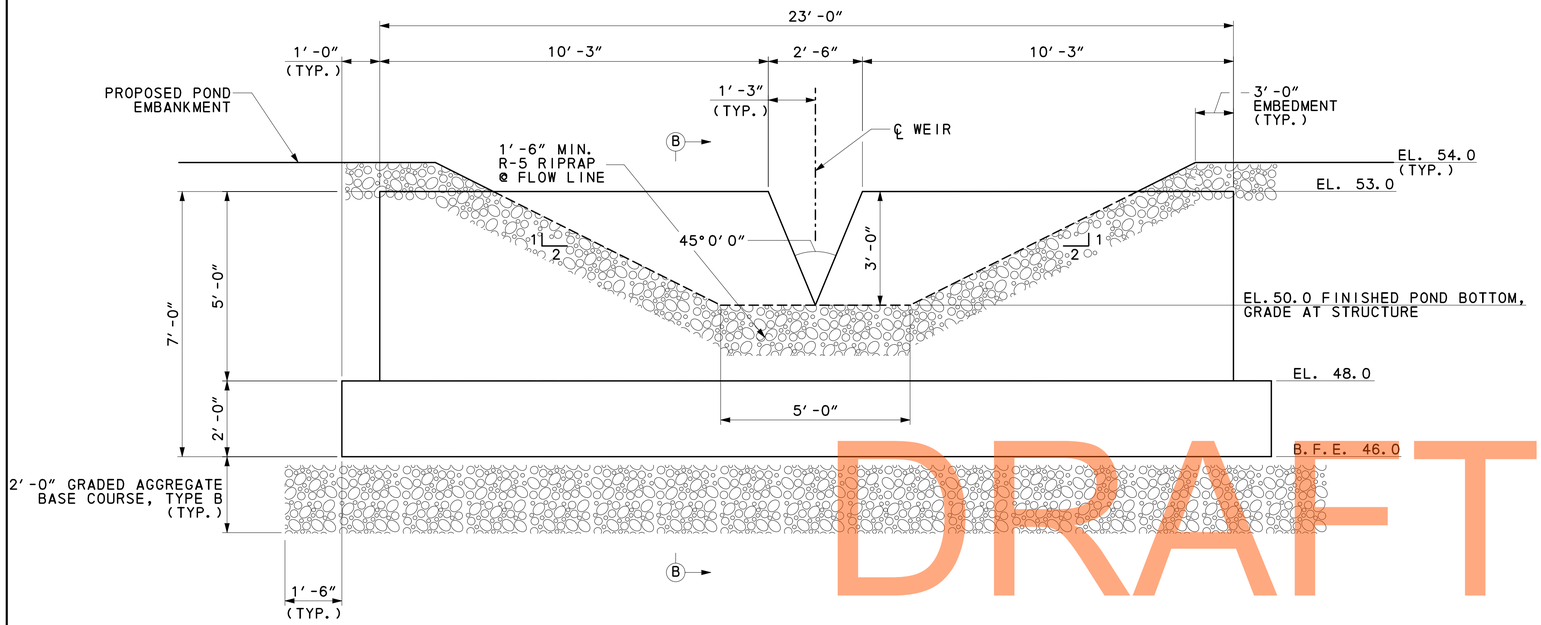
SCALE
0 30 60 90
FEET

US 301,
NORFOLK SOUTHERN RR TO SR 896

CONTRACT T200911301
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: JJK
CHECKED BY: MAA

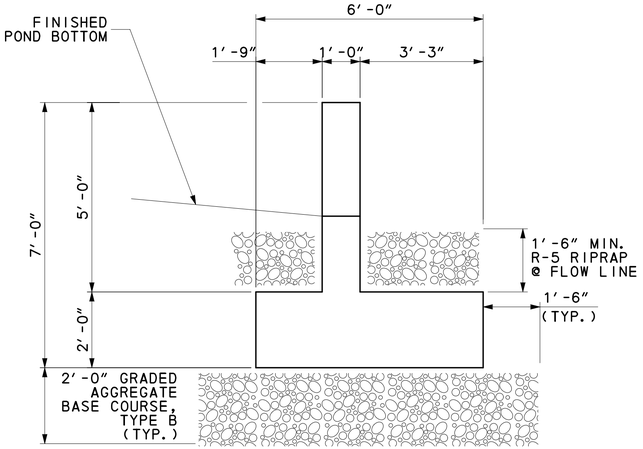
STORMWATER MANAGEMENT PLAN

SHEET NO. 157
TOTAL SHTS. 240



WEIR WALL ELEVATION SWM FACILITY NO. 704

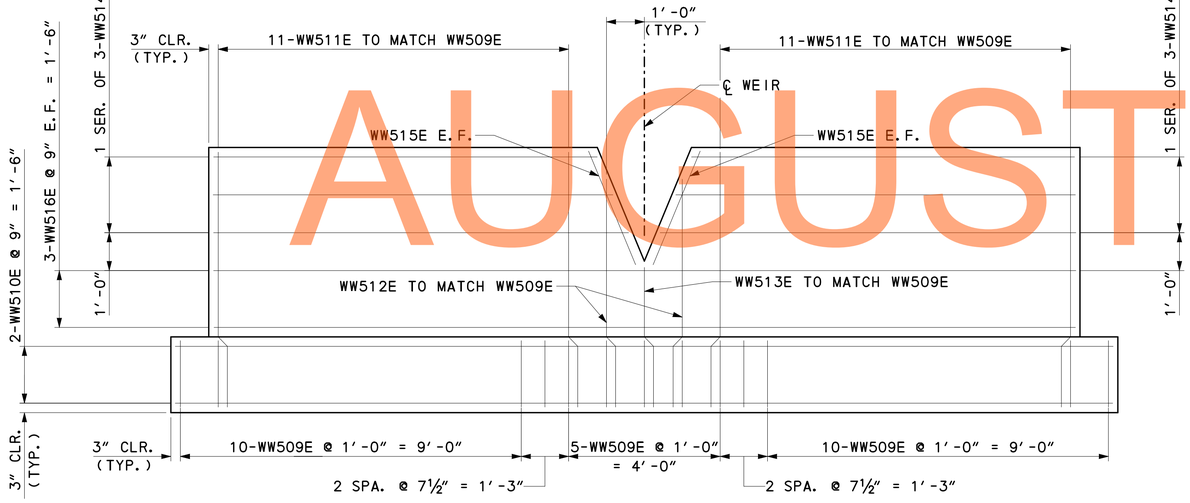
NOT TO SCALE



SECTION B-B

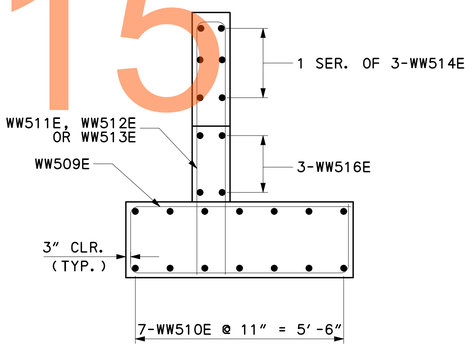
NOT TO SCALE

NOTE: 1. WEIR WALLS AND FOUNDATION SHALL BE CAST IN PLACE.
2. OUTLET STRUCTURE FOR SWM FACILITY NO. 704 PAID UNDER ITEM 272001 - POND OUTLET STRUCTURE, CONCRETE *2.



WEIR WALL REINFORCING SWM FACILITY NO. 704

NOT TO SCALE



REINFORCING SECTION

NOT TO SCALE

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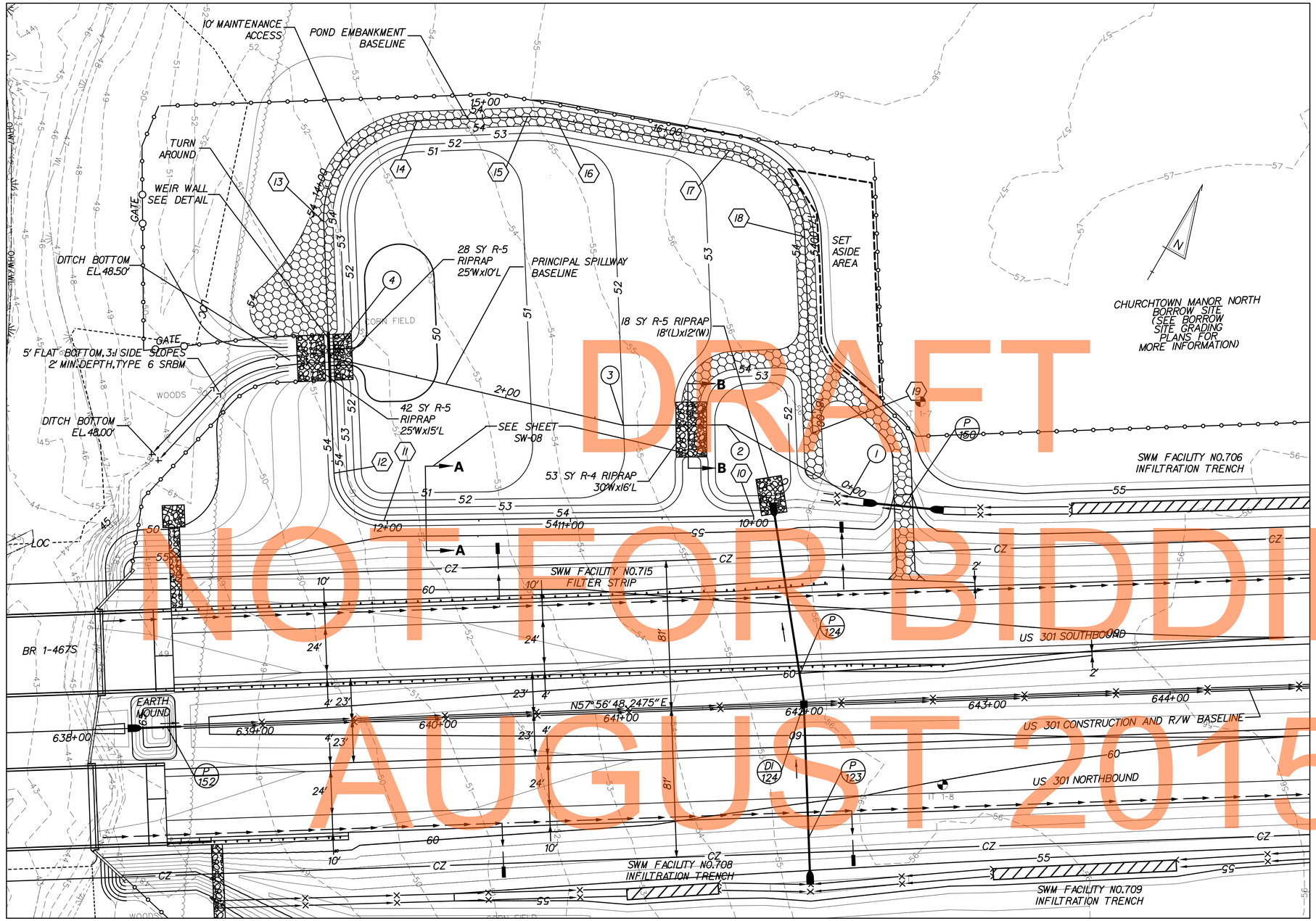
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	US 301, NORFOLK SOUTHERN RR TO SR 896	CONTRACT T200911301	BRIDGE NO.	STORMWATER MANAGEMENT PLAN
				COUNTY NEW CASTLE	DESIGNED BY: JJK	SW-06
					CHECKED BY: MAA	SHEET NO. 158
						TOTAL SHTS. 240



PLAN – SWM FACILITY NO. 705 DRY POND

STATION 638+50 LT TO 642+00 LT

POND DESIGN SUMMARY				
DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	WATER SURFACE ELEVATION	STORAGE VOLUME (AC-FT)
10 - YEAR	14.67	5.44	51.82	0.66
100 - YEAR	32.46	14.03	52.84	1.45

NOTES:

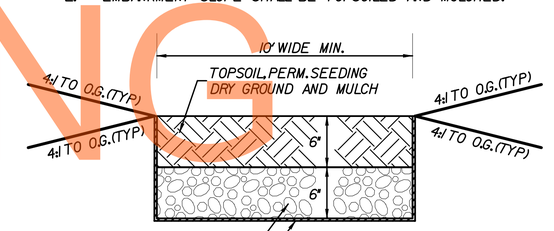
1. HAZARD CLASSIFICATION: CLASS A AS PER POND CODE 378
2. DRAINAGE AREA TO FACILITY: 11.04 ACRES
3. MANAGEMENT PROVIDED BY FACILITY: WATER QUANTITY FOR 10 AND 100 YEAR STORMS

(X) PRINCIPAL SPILLWAY BASELINE			
POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	545501.7462	575972.2701
2 PI	0+77.53	545501.1234	575894.7463
3 PI	1+33.86	545472.7475	575846.0860
4 POE	2+98.20	545424.7859	575688.8992

(X) POND EMBANKMENT BASELINE			
POINT NO.	STATION	NORTHING	EASTING
10 POB	10+00.00	545465.4321	575932.3289
11 PC	12+01.75	545362.3495	575758.9057
PI	12+27.99	545348.9384	575736.3432
		RADIUS = 27.00'	
12 PT	12+43.39	545371.1127	575722.2998
13 PC	13+80.85	545487.2392	575648.7543
PI	14+34.12	545532.2450	575620.2512
		RADIUS = 53.00'	
14 PT	14+64.38	545560.5170	575665.4025
15 PC	15+24.67	545592.5182	575716.5092
PI	15+32.52	545596.6809	575723.1572
		RADIUS = 72.00'	
16 PT	15+40.30	545599.3145	575730.5456
17 PC	16+36.57	545631.6395	575821.2312
PI	16+76.54	545645.0583	575858.8768
		RADIUS = 50.00'	
18 PT	17+04.01	545611.2943	575880.2603
19 POE	18+11.09	545520.8239	575937.5572

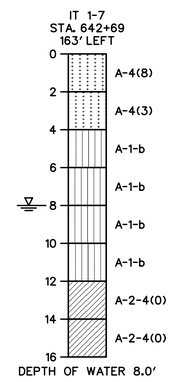
NOTES:

1. THE POND BOTTOM AND EMBANKMENT SHALL RECEIVE PERMANENT SEEDING, DRY GROUND (ITEM 734013).
2. EMBANKMENT SLOPE SHALL BE TOPSOILED AND MULCHED.



POND MAINTENANCE ACCESS

NOT TO SCALE



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

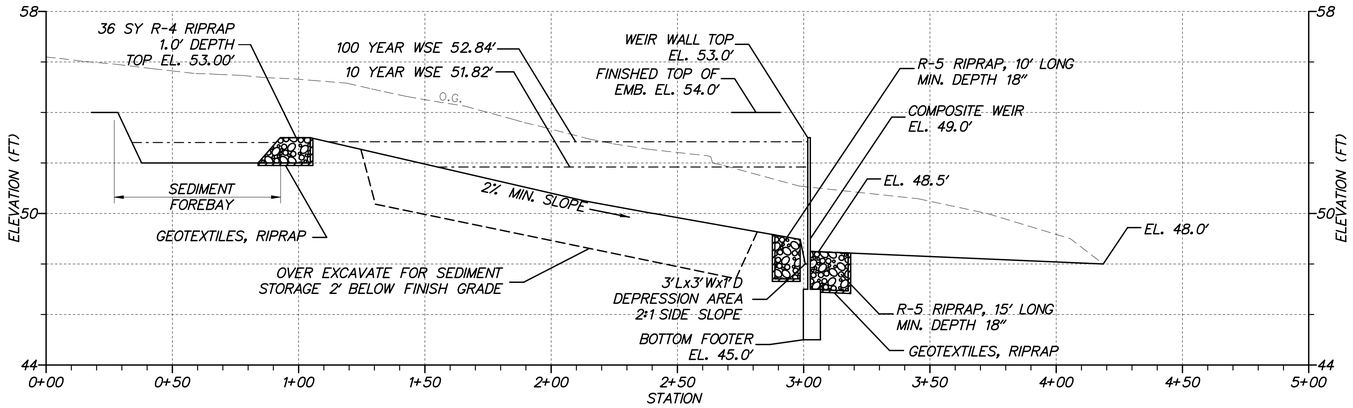
SCALE 0 30 60 90 FEET

US 301, NORFOLK SOUTHERN RR TO SR 896

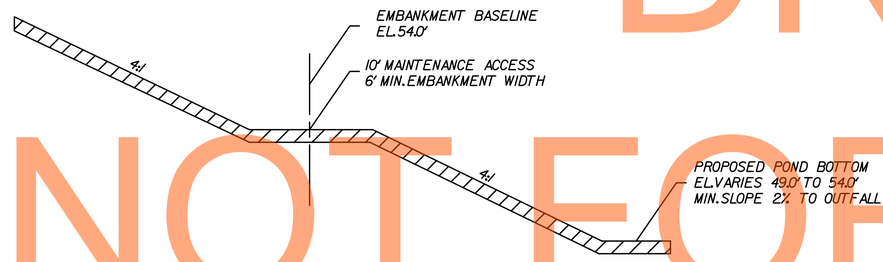
CONTRACT T200911301
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: JJK
CHECKED BY: MAA

STORMWATER MANAGEMENT PLAN

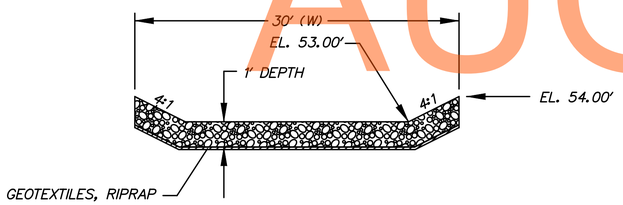
SW-07
SHEET NO. 159
TOTAL SHTS. 240



SPILLWAY PROFILE SWM FACILITY NO. 705



SECTION A–A
FROM SHEET SW-07
NOT TO SCALE



SECTION B–B
FROM SHEET SW-07
NOT TO SCALE

POND CONSTRUCTION SEQUENCE AND NOTES - SWM FACILITY NO.705

THE STORMWATER MANAGEMENT POND SHALL FUNCTION AS A SEDIMENT BASIN DURING ROADWAY CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS:

SECTION 271 - STORMWATER MANAGEMENT POND
SECTION 272 - POND OUTLET STRUCTURE,CONCRETE

1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN IN CONSTRUCTION PHASING SHEETS.*
4. *CLEAR AND GRUB REMAINING AREA FOR POND CONSTRUCTION.*
5. *EXCAVATE PARTIAL EMBANKMENT AS NEEDED TO CONSTRUCT AND INSTALL POND OUTLET STRUCTURE. BLOCK POND OUTLET STRUCTURE WEIR FROM ELEVATION 49.0' TO ELEVATION 53.0'. INSTALL SKIMMER DEWATERING DEVICE AND SET DISCHARGE ELEVATION TO 49.5'. DEWATER FOUNDATION AS NEEDED TO CONSTRUCT POND OUTLET STRUCTURE IN ACCORDANCE WITH SECTION III - DEWATERING OPERATIONS AND USE SUMP PIT TYPE I FOR PUMPING.*
6. *EXCAVATE THE POND AND COMPLETE THE EMBANKMENT AND BASIN TO THE LINES,GRADES AND DETAILS AS SHOWN IN THE CONSTRUCTION PLANS.*
7. *STABILIZE ALL BARE AREAS.*

MAINTENANCE OF POND AS A SEDIMENT BASIN

1. *CONTRACTOR SHALL INSPECT THE BASIN IMMEDIATELY AFTER EVERY RAIN AND MAKE REPAIRS AS NEEDED.*
2. *CONTRACTOR SHALL CLEARLY MARK THE CLEANOUT ELEVATION ON A STAKE DRIVEN INTO THE GROUND AT A LOCATION CLEARLY VISIBLE FROM THE EMBANKMENT. SEDIMENT SHALL BE REMOVED WHEN CLEANOUT ELEVATION IS REACHED AND DISPOSED OF AT A LOCATION APPROVED BY THE ENGINEER.*
3. *CLEANOUT ELEVATION IN FOREBAY OF SWM FACILITY NO.705 IS 53.00'.*

CONVERSION TO PERMANENT STORMWATER MANAGEMENT POND

1. *CONVERT THE BASIN INTO THE PERMANENT STORMWATER MANAGEMENT POND AFTER ALL AREAS DRAINING TO THE POND HAVE BEEN PERMANENTLY STABILIZED AND THE ENGINEER HAS APPROVED THE CONVERSION.*
2. *REMOVE ACCUMULATED SEDIMENT TO THE ELEVATIONS SHOWN ON THE PLAN AND DISPOSE SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER. THE FINISHED POND BOTTOM SHALL BE SLOPED AT A MINIMUM OF 2% TO THE OUTLET.*
3. *COMPLETE STABILIZATION OF ALL BARE AREAS. REMOVE EROSION AND SEDIMENT CONTROL MEASURES AND DEACTIVATE SKIMMER DEWATERING DEVICE.*

AS-BUILT DRAWINGS OF STORMWATER MANAGEMENT FACILITIES

1. *THE CONTRACTOR SHALL PROVIDE 'AS-BUILT' DRAWINGS OF ALL STORMWATER MANAGEMENT FACILITIES,SUCH AS PONDS,BIOFILTRATION SWALES,BIORETENTION AREAS,ETC. THE 'AS-BUILT' DRAWINGS SHALL SHOW THE ACTUAL FINISHED GROUND CONTOURS,OUTLET STRUCTURE DIMENSIONS AND ELEVATIONS,ETC., AS THEY EXIST AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR.*

SKIMMER DEWATERING DEVICE SCHEDULE

BASIN NO.	SKIMMER INV.(FT)	ORIFICE SIZE (IN)	BLOCK WEIR FROM-TO EL.(FT)	BASIN CLEANOUT EL.(FT)
705	49.50	3.00	49.00 - 53.00	53.00 (SEE NOTE)

NOTE: CLEANOUT ELEVATION IS FOR SEDIMENT BASIN FOREBAY. POND SHALL BE CLEANED OUT WHEN THE SEDIMENT EXCEEDS THE 2' OVEREXCAVATED SECTION ALONG THE 2% SLOPE.

VERTICAL SCALE FEET 0 3 6 9

SW-08

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

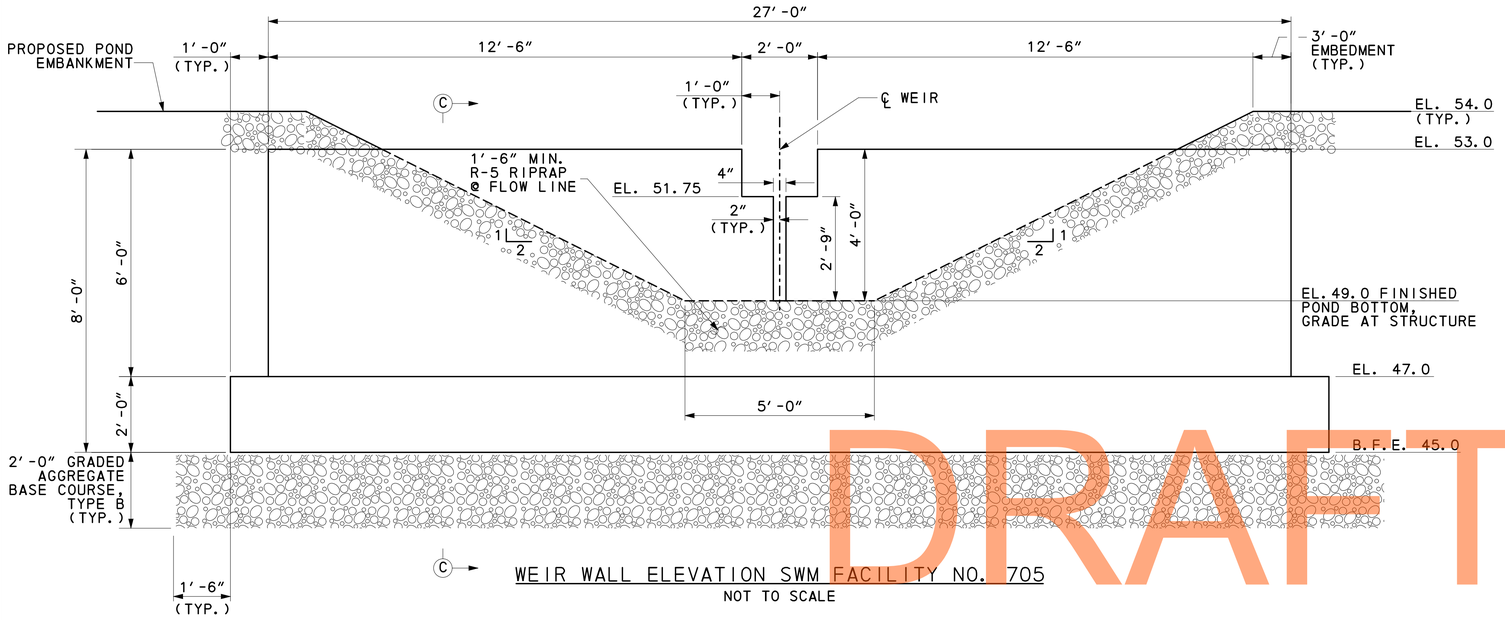
SCALE
0 30 60 90
FEET

US 301,
NORFOLK SOUTHERN RR TO SR 896

CONTRACT T200911301
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: JJK
CHECKED BY: MAA

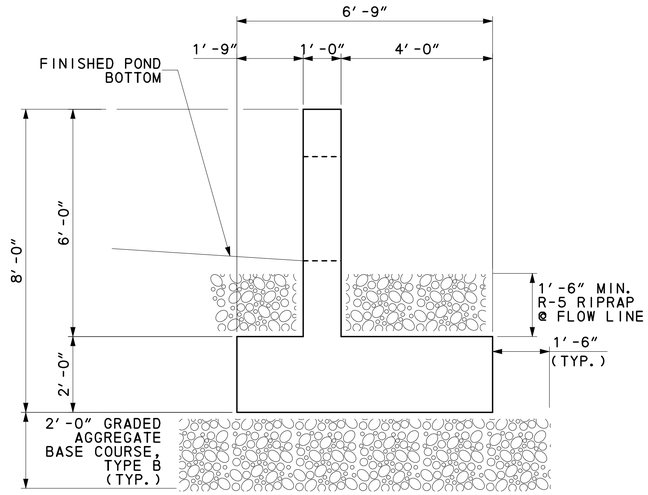
STORMWATER MANAGEMENT PLAN

SHEET NO. 160
TOTAL SHTS. 240



WEIR WALL ELEVATION SWM FACILITY NO. 705

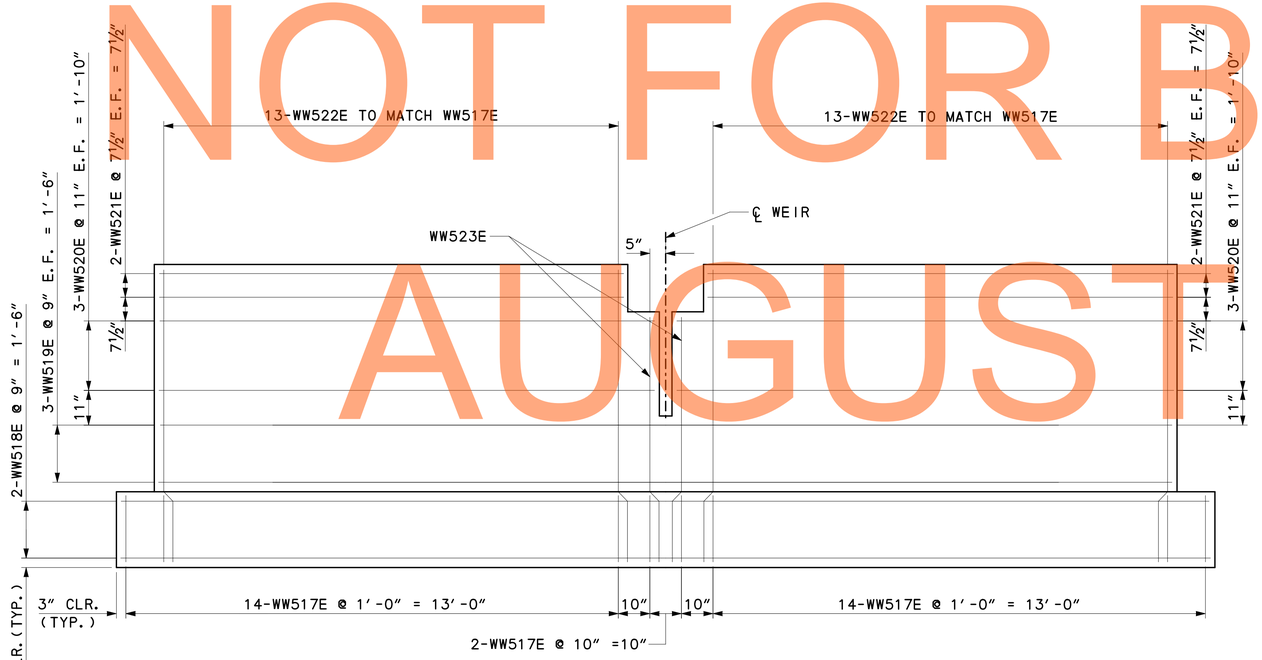
NOT TO SCALE



SECTION C-C

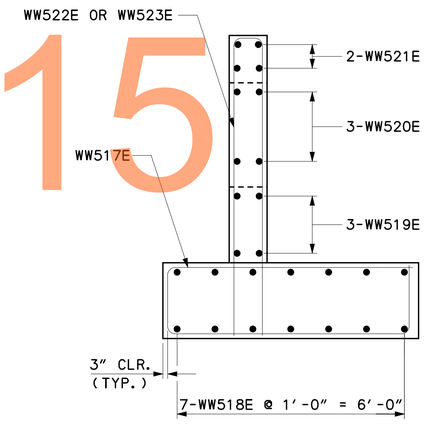
NOT TO SCALE

NOTE: *1. WEIR WALLS AND FOUNDATION SHALL BE CAST IN PLACE.*
2. OUTLET STRUCTURE FOR SWM FACILITY NO. 705 PAID UNDER ITEM 272002 - POND OUTLET STRUCTURE, CONCRETE #3.



WEIR WALL REINFORCING SWM FACILITY NO. 705

NOT TO SCALE



REINFORCING SECTION

NOT TO SCALE

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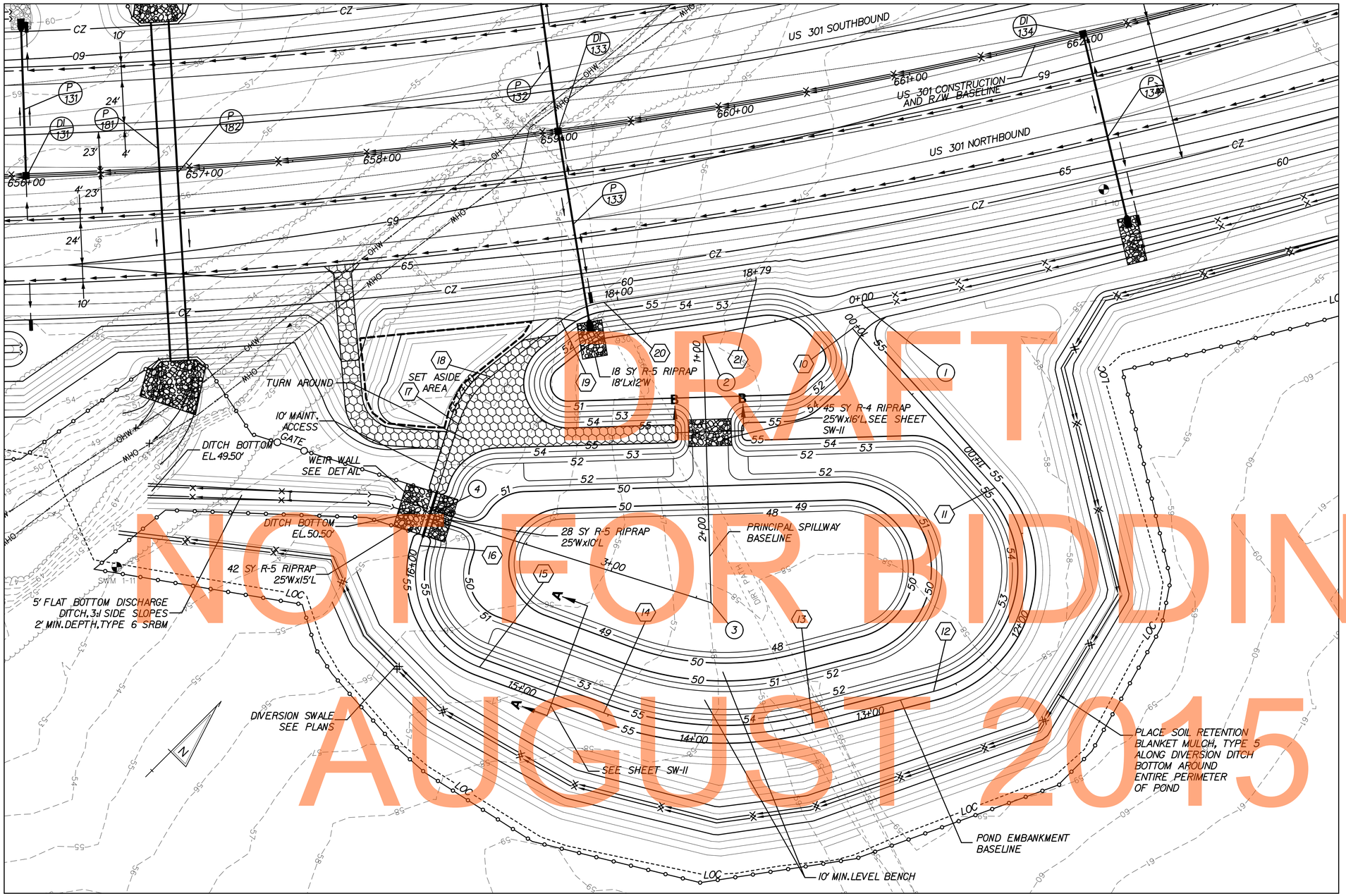
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	US 301, NORFOLK SOUTHERN RR TO SR 896	CONTRACT T200911301	BRIDGE NO.	STORMWATER MANAGEMENT PLAN	SW-09
				COUNTY NEW CASTLE	DESIGNED BY: JJK		SHEET NO. 161
					CHECKED BY: MAA		TOTAL SHTS. 240



PLAN – SWM FACILITY NO. 711 WET POND

STATION 656+50 RT TO 661+50 RT

POND DESIGN SUMMARY				
DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	WATER SURFACE ELEVATION	STORAGE VOLUME (AC.FT.)
1 YEAR (QUALITY)	6.82	0.51	51.76	0.65
10 - YEAR	21.94	3.93	52.64	1.59
100 - YEAR	48.56	18.42	53.66	2.75

NOTES:

1. HAZARD CLASSIFICATION: CLASS A AS PER POND CODE 378
2. DRAINAGE AREA TO FACILITY: 15.21 ACRES
3. MANAGEMENT PROVIDED BY FACILITY:
   WATER QUALITY BY EXTENDED DETENTION OF RUNOFF FROM THE 1 YEAR STORM.
   WATER QUANTITY FOR 10 AND 100 YEAR STORMS

(X) PRINCIPAL SPILLWAY BASELINE

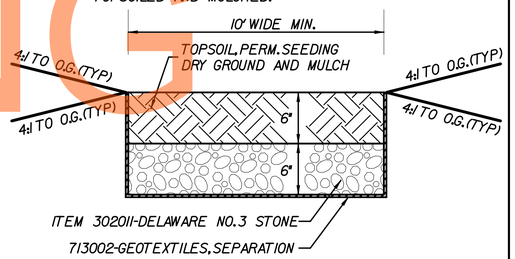
POINT NO.	STATION	NORTHING	EASTING
1 POB	0+00.00	546494.4049	577516.9823
2 PI	0+91.25	546418.6803	577466.0732
3 PI	2+41.15	546315.8692	577575.1673
4 POE	4+06.14	546239.6504	577428.8387

(X) POND EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
10 POB	10+00.00	546480.9520	577522.4079
11 PC	11+20.06	546474.2921	577642.2863
PI	12+34.70	546467.9333	577756.7454
		RADIUS = 70.00'	
12 PT	12+63.23	546369.0188	577698.8036
13 PC	13+33.47	546308.4112	577663.3010
PI	13+95.02	546255.2961	577632.1874
		RADIUS = 196.00'	
14 PT	14+52.76	546229.5074	577576.2927
15 PC	15+27.07	546198.3754	577508.8167
PI	15+79.49	546176.4125	577461.2141
		RADIUS = 55.00'	
16 PT	16+10.83	546222.9081	577436.9957
17 PC	16+82.51	546286.4838	577403.8805
PI	16+99.29	546301.3692	577396.1271
		RADIUS = 55.00'	
18 PT	17+15.09	546318.0473	577398.0055
19 PC	17+65.61	546368.2496	577403.6595
PI	17+79.21	546381.7609	577405.1812
		RADIUS = 50.00	
20 PT	17+92.16	546392.6409	577413.3358
21 POE	18+78.61	546461.8184	577465.1845

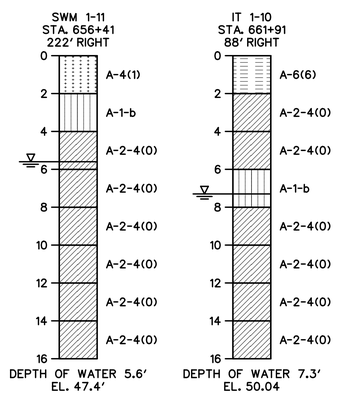
NOTES:

1. THE POND BETWEEN ELEVATIONS 48.0' AND 52.0' SHALL RECEIVE PERMANENT SEEDING, WET GROUND (ITEM 734015). THE REMAINDER OF THE EMBANKMENT AREA SHALL RECEIVE PERMANENT SEEDING, DRY GROUND (ITEM 734013).
2. SIDE SLOPE ABOVE ELEVATION 50.0' SHALL BE TOPSOILED AND MULCHED.



POND MAINTENANCE ACCESS

NOT TO SCALE



SW-10

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

US 301, NORFOLK SOUTHERN RR TO SR 896

CONTRACT T200911301
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: JJK
CHECKED BY: MAA

STORMWATER MANAGEMENT PLAN

SHEET NO. 162
TOTAL SHTS. 240

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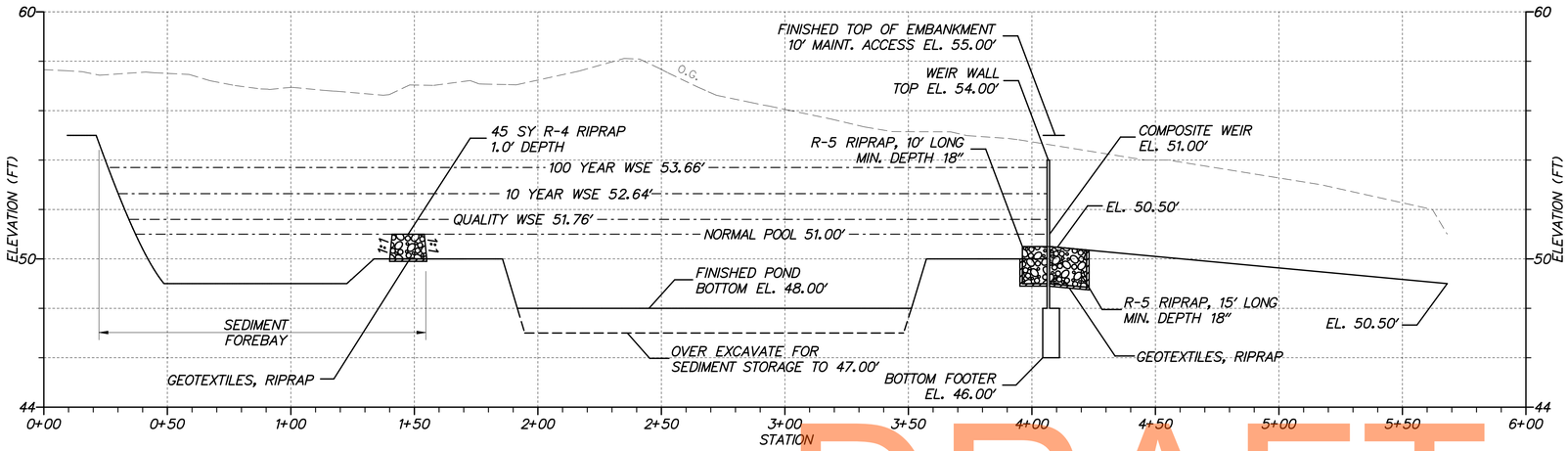
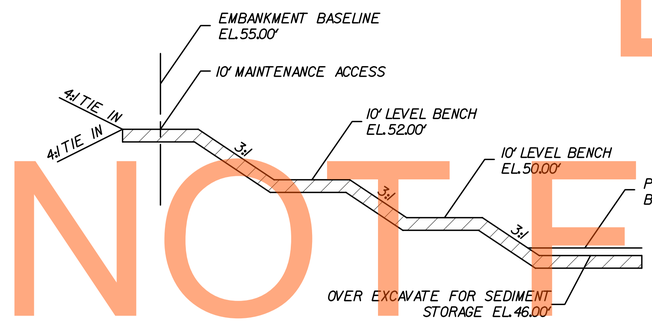
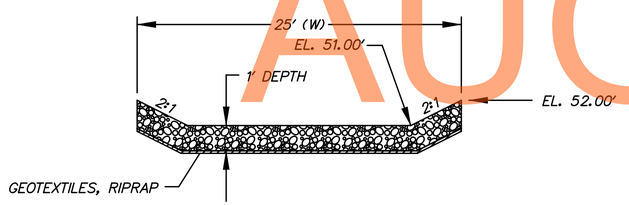


SPILLWAY PROFILE SWM FACILITY NO. 711



SECTION A–A
FROM SHEET SW-10
NOT TO SCALE



SECTION B–B
FROM SHEET SW-10
NOT TO SCALE

SKIMMER DEWATERING DEVICE SCHEDULE				
BASIN NO.	SKIMMER INV.(FT)	ORIFICE SIZE (IN)	BLOCK WEIR FROM-TO EL. (FT)	BASIN CLEANOUT EL.(FT)
711	51.40	4.00	51.00 - 53.00	50.00

POND CONSTRUCTION SEQUENCE AND NOTES - SWM FACILITY NO.711

THE STORMWATER MANAGEMENT POND SHALL FUNCTION AS A SEDIMENT BASIN DURING ROADWAY CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS:

SECTION 271 - STORMWATER MANAGEMENT POND
SECTION 272 - POND OUTLET STRUCTURE,CONCRETE

1. *INSTALL STABILIZED CONSTRUCTION ENTRANCE.*
2. *CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.*
3. *INSTALL PERIMETER SEDIMENT CONTROLS AS SHOWN IN CONSTRUCTION PHASING SHEETS.*
4. *CLEAR AND GRUB REMAINING AREA FOR POND CONSTRUCTION.*
5. *EXCAVATE PARTIAL EMBANKMENT AS NEEDED TO CONSTRUCT AND INSTALL POND OUTLET STRUCTURE. BLOCK POND OUTLET STRUCTURE WEIR FROM ELEVATION 51.0' TO ELEVATION 53.0'. INSTALL SKIMMER DEWATERING DEVICE AND SET DISCHARGE ELEVATION TO 51.4'. DEWATER FOUNDATION AS NEEDED TO CONSTRUCT POND OUTLET STRUCTURE IN ACCORDANCE WITH SECTION III - DEWATERING OPERATIONS AND USE SUMP PIT TYPE I FOR PUMPING.*
6. *EXCAVATE THE POND AND COMPLETE THE EMBANKMENT AND BASIN TO THE LINES,GRADES AND DETAILS AS SHOWN IN THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL OVER EXCAVATE POND BOTTOM TO ELEVATION 46.0' FOR SEDIMENT STORAGE DURING CONSTRUCTION.*
7. *STABILIZE ALL BARE AREAS.*

MAINTENANCE OF POND AS A SEDIMENT BASIN

1. *CONTRACTOR SHALL INSPECT THE BASIN IMMEDIATELY AFTER EVERY RAIN AND MAKE REPAIRS AS NEEDED.*
2. *CONTRACTOR SHALL CLEARLY MARK THE CLEANOUT ELEVATION ON A STAKE DRIVEN INTO THE GROUND AT A LOCATION CLEARLY VISIBLE FROM THE EMBANKMENT. SEDIMENT SHALL BE REMOVED WHEN CLEANOUT ELEVATION IS REACHED AND DISPOSED OF AT A LOCATION APPROVED BY THE ENGINEER.*
3. *CLEANOUT ELEVATION FOR SWM FACILITY NO.711 IS 50.00'.*

CONVERSION TO PERMANENT STORMWATER MANAGEMENT POND

1. *CONVERT THE BASIN INTO THE PERMANENT STORMWATER MANAGEMENT POND AFTER ALL AREAS DRAINING TO THE POND HAVE BEEN PERMANENTLY STABILIZED AND THE ENGINEER HAS APPROVED THE CONVERSION.*
2. *REMOVE ACCUMULATED SEDIMENT TO ELEVATION 58.0' AND DISPOSE SEDIMENT AT A LOCATION APPROVED BY THE ENGINEER.*
3. *COMPLETE STABILIZATION OF ALL BARE AREAS. REMOVE EROSION AND SEDIMENT CONTROL MEASURES AND DEACTIVATE SKIMMER DEWATERING DEVICE.*

AS-BUILT DRAWINGS OF STORMWATER MANAGEMENT FACILITIES

1. *THE CONTRACTOR SHALL PROVIDE 'AS-BUILT' DRAWINGS OF ALL STORMWATER MANAGEMENT FACILITIES,SUCH AS PONDS,BIOFILTRATION SWALES,BIORETENTION AREAS,ETC. THE 'AS-BUILT' DRAWINGS SHALL SHOW THE ACTUAL FINISHED GROUND CONTOURS,OUTLET STRUCTURE DIMENSIONS AND ELEVATIONS,ETC., AS THEY EXIST AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR LAND SURVEYOR.*

VERTICAL SCALE FEET 0 3 6 9

SW-11

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

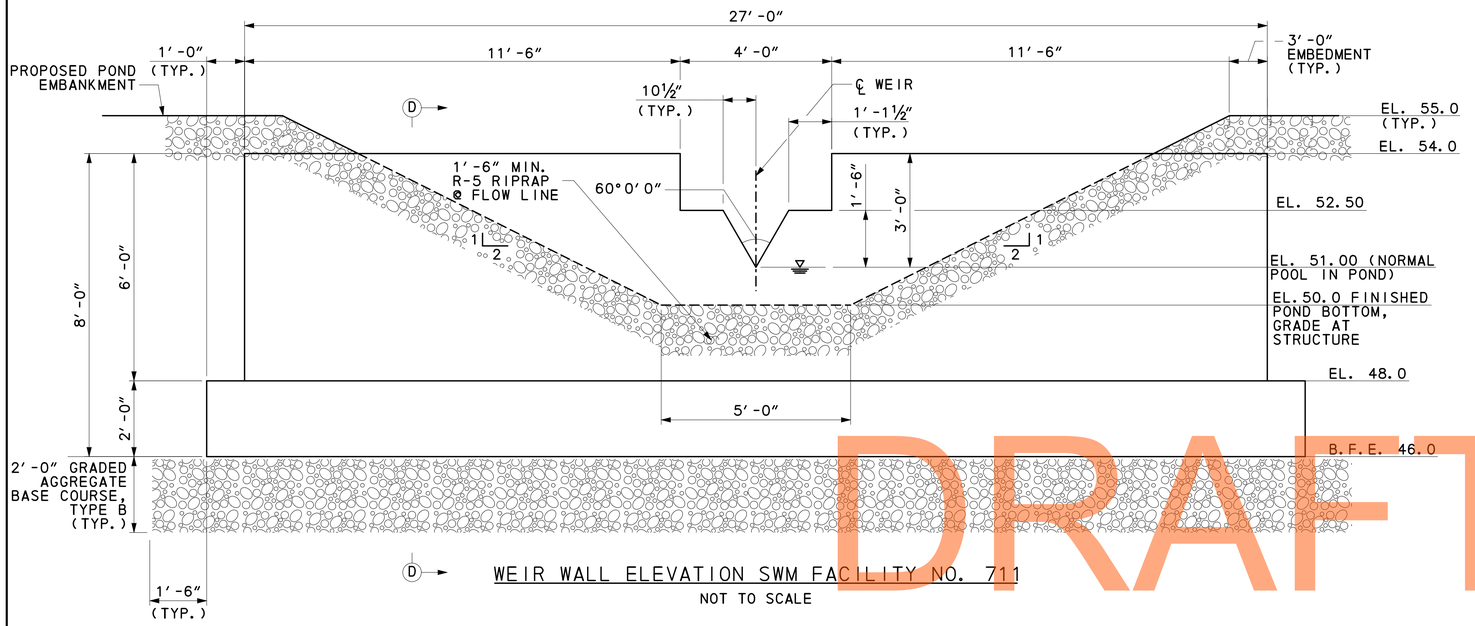
SCALE
0 30 60 90
FEET

US 301,
NORFOLK SOUTHERN RR TO SR 896

CONTRACT	BRIDGE NO.
T200911301	
COUNTY	DESIGNED BY: JJK
NEW CASTLE	CHECKED BY: MAA

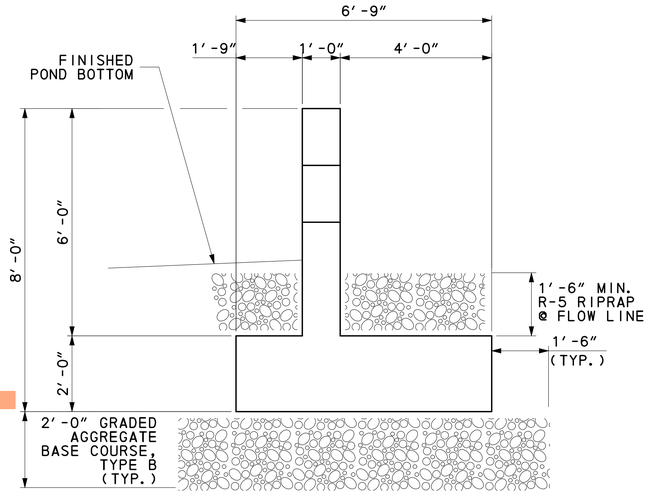
STORMWATER MANAGEMENT PLAN

SHEET NO.
163
TOTAL SHTS.
240



WEIR WALL ELEVATION SWM FACILITY NO. 711

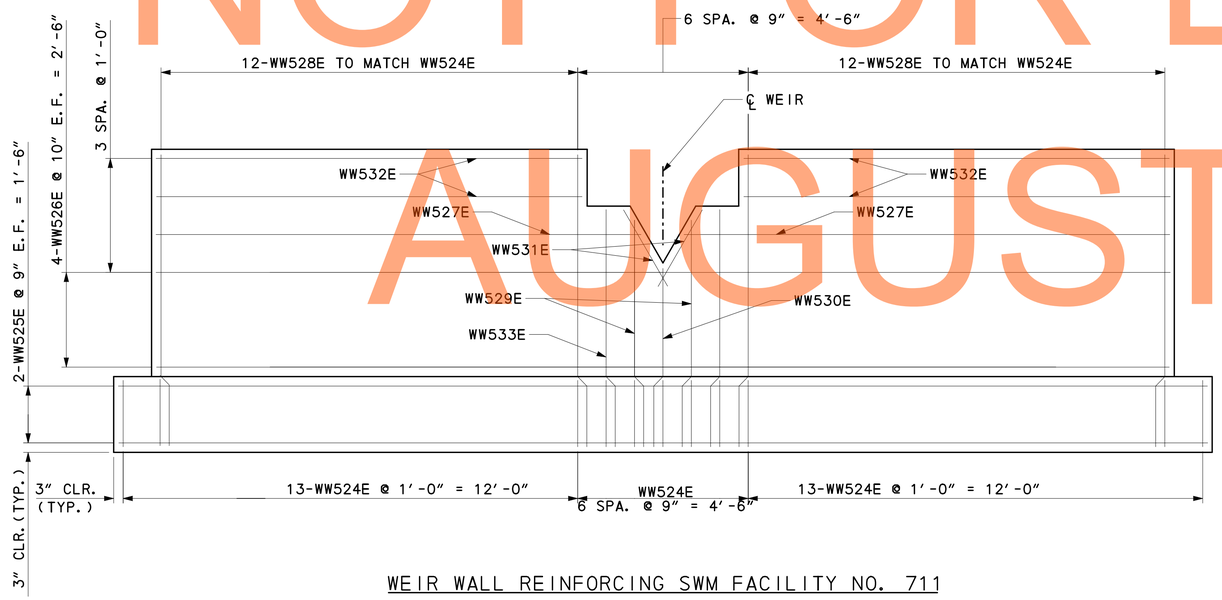
NOT TO SCALE



SECTION D-D

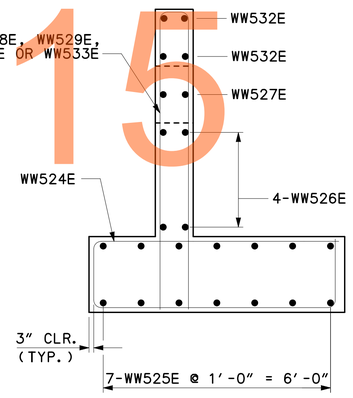
NOT TO SCALE

NOTE: 1. WEIR WALLS AND FOUNDATION SHALL BE CAST IN PLACE.
2. OUTLET STRUCTURE FOR SWM FACILITY NO. 711 PAID UNDER ITEM 272003 - POND OUTLET STRUCTURE, CONCRETE #4.



WEIR WALL REINFORCING SWM FACILITY NO. 711

NOT TO SCALE



REINFORCING SECTION

NOT TO SCALE

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	US 301, NORFOLK SOUTHERN RR TO SR 896	CONTRACT T200911301	BRIDGE NO.	STORMWATER MANAGEMENT PLAN
				COUNTY NEW CASTLE	DESIGNED BY: JJK	SHEET NO. 164
					CHECKED BY: MAA	TOTAL SHTS. 240

SW-12

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(1) ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

(2) ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS: AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES /QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F/R	G	H	J	K	O
SWM NO. 700															
31	5	16-50	WW501E	T1	0-52	6-30	1-60	6-30	1-60		0-52				
14	5	22-60	WW502E	STR		22-60									
26	5	15-60	WW503E	17		7-60	0-60	7-60							
2	5	11-20	WW504E	17		5-40	0-60	5-40							
1	5	9-60	WW505E	17		4-60	0-60	4-60							
8	5	20-60	WW506E	STR		20-60									
4	5	10-42	WW507E	33	9-80	0-30	0-80								
12	5	8-30	WW508E	STR		8-30									
SWM NO. 704															
27	5	14-110	WW509E	T1	0-52	5-60	1-60	5-60	1-60		0-52				
14	5	18-60	WW510E	STR		18-60									
22	5	13-60	WW511E	17		6-60	0-60	6-60							
2	5	12-20	WW512E	17		5-100	0-60	5-100							
1	5	7-60	WW513E	17		3-60	0-60	3-60							
12	5	6-100	WW514E	STR		6-100									
		TO				TO									
		7-80				7-80									
4	5	3-30	WW515E	STR		3-30									
6	5	16-60	WW516E	STR		16-60									
SWM NO. 705															
30	5	16-50	WW517E	T1	0-52	6-30	1-60	6-30	1-60		0-52				
14	5	22-60	WW518E	STR		22-60									
6	5	20-60	WW519E	STR		20-60									
12	5	9-100	WW520E	STR		9-100									
8	5	9-00	WW521E	STR		9-00									
26	5	15-60	WW522E	17		7-60	0-60	7-60							
2	5	14-00	WW523E	17		6-90	0-60	6-90							
SWM NO. 711															
31	5	16-50	WW524E	T1	0-52	6-30	1-60	6-30	1-60		0-52				
14	5	22-60	WW525E	STR		22-60									
8	5	20-60	WW526E	STR		20-60									
4	5	9-60	WW527E	STR		9-60									
24	5	15-60	WW528E	17		7-60	0-60	7-60							
2	5	14-60	WW529E	17		7-00	0-60	7-00							
1	5	9-60	WW530E	17		4-60	0-60	4-60							

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES /QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F/R	G	H	J	K	O
2	5	7-60	WW531E	17		3-60	0-60	3-60							
4	5	8-00	WW532E	STR		8-00									
2	5	12-60	WW533E	17		6-00	0-60	6-00							

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES /QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F/R	G	H	J	K	O

ASTM STANDARD ENGLISH REINFORCING BARS

BAR SIZE	NOMINAL DIMENSIONS: DIAMETER (INCHES)	AREA (INCHES²)	WEIGHT (LBS./FT.)
3	0.375	0.110	0.376
4	0.500	0.200	0.668
5	0.625	0.310	1.043
6	0.750	0.440	1.502
7	0.875	0.600	2.044
8	1.000	0.790	2.670
9	1.128	1.000	3.400
10	1.270	1.270	4.303
11	1.410	1.560	5.313
14	1.693	2.250	7.650
18	2.257	4.000	13.600

RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES

	180° HOOKS		90° HOOKS
	D	A OR G	J	A OR G
3	2¼"	5"	3"	6"
4	3"	6"	4"	8"
5	3¾"	7"	5"	10"
6	4½"	8"	6"	1-0"
7	5¼"	10"	7"	1-2"
8	6"	11"	8"	1-4"
9	9½"	1-3"	11¾"	1-7"
10	10¾"	1-5"	1-1¼"	1-10"
11	1-0"	1-7"	1-2¾"	2-0"
14	1-6¼"	2-3"	1-9¾"	2-7"
18	2-0"	3-0"	2-4½"	3-5"

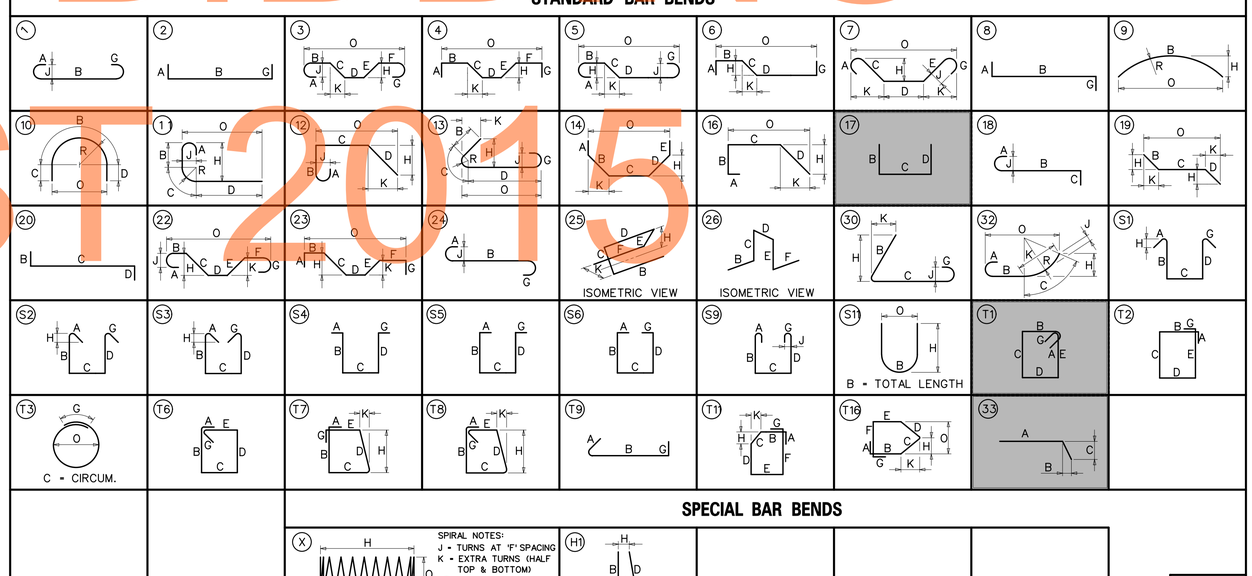
STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES

	90° HOOK	135° HOOK	
	D	A OR G	A OR G
3	1½"	4"	4"	2½"
4	2"	4½"	4½"	3"
5	2½"	6"	5½"	3¾"
6	3"	1-0"	8"	4½"
7	5¼"	1-2"	9"	5¼"
8	6"	1-4"	10½"	6"

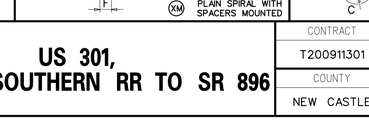
NOTES:

1. FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.
2. STANDARD BAR BENDS INCLUDE ONLY THOSE TYPES BELOW, INDICATED AS SUCH.
3. ALL DIMENSIONS OUT-TO-OUT, EXCEPT "A" AND "G" ON STD. 180° AND 135° HOOKS.
4. "J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD 'ACI' HOOKS ARE TO BE USED.
5. WHERE "J" IS NOT SHOWN, "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" ON TYPES 3, 5 AND 22. WHERE "J" CAN EXCEED "H", IT SHALL BE SHOWN.
6. "H" DIMENSIONS OF STIRRUPS TO BE SHOWN AS NEEDED TO FIT WITHIN THE CONCRETE.
7. UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR (EXCEPT FOR BEND TYPES 11 AND 13).
8. WHERE SLOPE DIFFERS FROM 45° OFFSET, "H" AND "K" MUST BE SHOWN.
9. WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS REQUIRING CLOSER FABRICATION SHOULD HAVE LIMITS INDICATED.
10. FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO TABLE ABOVE, 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.
11. TYPE S1-S6, S11, T1-T3 AND T6-T9 APPLICABLE TO BAR SIZES #3 THROUGH #8.

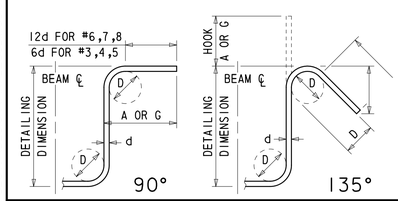
STANDARD BAR BENDS



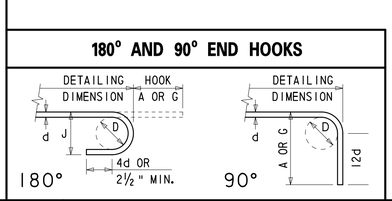
SPECIAL BAR BENDS

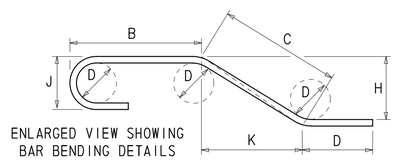


STIRRUP AND TIE HOOKS



180° AND 90° END HOOKS





DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

US 301, NORFOLK SOUTHERN RR TO SR 896

CONTRACT	BRIDGE NO.
T200911301	
COUNTY	DESIGNED BY: JFM
NEW CASTLE	CHECKED BY: MAA

STORMWATER MANAGEMENT PLAN

SW-13

SHEET NO.	TOTAL SHTS.
165	240

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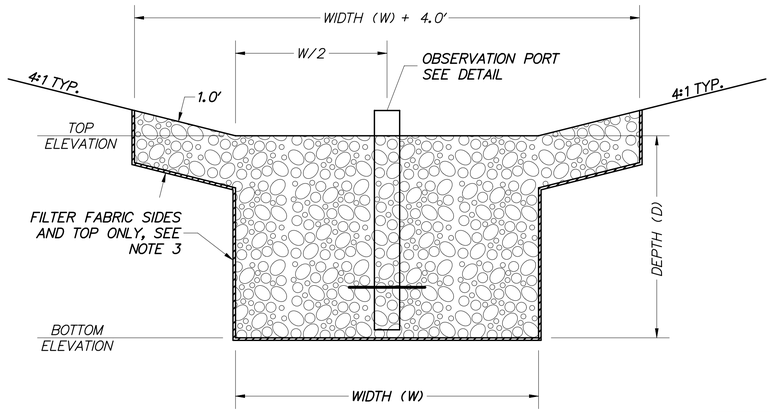
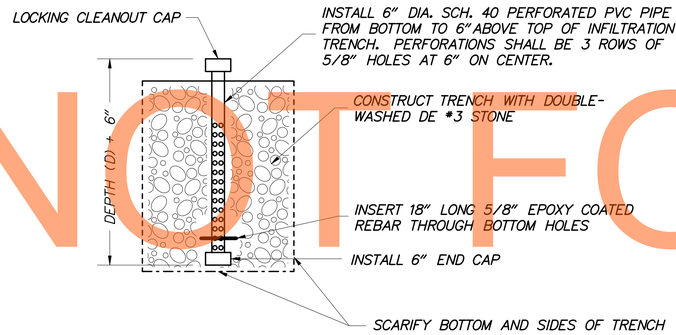


SWM FACILITY NO.	STATION FROM	STATION TO	LENGTH FT.	WIDTH FT.	DEPTH FT.	TOP ELEVATION FT.	BOTTOM ELEVATION FT.	GROUND WATER EL. FT.	MEASURED RATE IN/HR	DESIGN RATE IN/HR
701	632+25LT	633+25LT	100.00	6.00	3.00	57.00	54.00	49.40	10.00+	5.00
702	633+50LT	634+00LT	50.00	6.00	3.00	57.00	54.00	49.40	10.00+	5.00
703	631+25RT	632+25RT	100.00	6.00	3.00	57.00	54.00	47.80	10.00+	5.00
706	643+50LT	645+00LT	150.00	6.00	2.00	53.33	51.33	48.18	3.70	1.85
707	650+00LT	651+50LT	150.00	6.00	4.00	54.83	51.83	48.18	3.70	1.85
708	641+00RT	641+50RT	50.00	6.00	3.00	54.36	51.46	47.36	4.50	2.25
709	643+00RT	644+00RT	100.00	6.00	4.00	54.24	50.24	47.36	4.50	2.25
710	648+50RT	649+50RT	100.00	6.00	3.00	55.81	52.81	47.36	4.50	2.25

INFILTRATION TRENCH DETAIL



OBSERVATION PORT DETAIL

NOTES:

1. FOOTPRINT OF OF PROPOSED INFILTRATION TRENCH PLUS 10 FEET IN ALL DIRECTIONS SHALL BE MARKED IN THE FIELD WITH CONSTRUCTION SAFETY FENCE (ITEM NO. 727014) AT THE BEGINNING OF CONSTRUCTION. THIS AREA SHALL BE OFF LIMITS TO CONSTRUCTION EQUIPMENT UNTIL WORK ON INFILTRATION TRENCHES BEGIN.

2. DURING CONSTRUCTION, THE CONTRACTOR SHALL EXERCISE CAUTION NOT TO DISTURB AND COMPACT ANY IN SITU SOIL LAYER BELOW THE PROPOSED GRADE AND WITHIN THE FOOTPRINT OF THE INFILTRATION TRENCH. THE SIDES AND BOTTOM OF THE TRENCH SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE GEOTEXTILE MATERIAL AND BACKFILLING WITH STONE.

3. FILTER FABRIC SHALL BE PLACED ALONG ALL SIDES OF THE INFILTRATION TRENCH AND EXTEND OVER THE ENTIRE TOP OF THE INFILTRATION TRENCH DURING CONSTRUCTION. ONCE THE ENTIRE DRAINAGE AREA HAS BEEN STABILIZED WITH A GOOD STAND OF GRASS, THE CONTRACTOR SHALL CUT THE FILTER FABRIC AT GROUND LEVEL AND EXPOSE THE TOP SURFACE OF THE THE TRENCH. ANY BARE AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED WITH SRBM, TYPE 5. FILTER FABRIC MATERIAL SHALL CONFORM TO SECTION 827.04 OF THE STANDARD SPECIFICATIONS.

4. STONE BACKFILL FOR THE INFILTRATION TRENCH SHALL BE DE NO. 3 STONE. THE DE NO.3 STONE SHALL BE CLEAN, DOUBLE WASHED CRUSHED AGGREGATE FREE OF ROCK DUST, FINES, AND SOIL PARTICLES. STONES SHALL NOT BE CRUSHED LIMESTONE AGGREGATES. STONE BACKFILL MATERIALS DETERMINED TO BE CONTAMINATED SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

5. AN OBSERVATION PORT SHALL BE INSTALLED AT THE DOWNSTREAM END OF EACH INFILTRATION TRENCH AT A DISTANCE OF 5' FROM THE END OF THE TRENCH. SEE DETAIL.

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	US 301, NORFOLK SOUTHERN RR TO SR 896	CONTRACT T200911301 / COUNTY NEW CASTLE / BRIDGE NO. / DESIGNED BY: JJK / CHECKED BY: MAA	STORMWATER MANAGEMENT PLAN	SW-14 / SHEET NO. 166 / TOTAL SHTS. 240