

**BEGIN
CONTRACT T200911301
STATION 493 + 00.00**

STA 496+50.00 US 301 (CONTRACT 200911304) BK =
STA 595+96.65 US 301 (CONTRACT 200911301) AH

208.01
STATE OF DELAWARE,
(DEPARTMENT OF TRANSPORTATION)
T.M.#13-012.00-132
INS.#20090625-0041078
M.F.#4492

NOT FOR BIDDING

AUGUST 2015

MATCH LINE STA. 599 + 00

\$FILES

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
101	15" RCP	IV	231.00	0.010	87.31	85.00
102	15" RCP	IV	298.00	0.010	84.66	81.68
106	15" RCP	IV	292.00	0.009	88.63	86.00
107	15" RCP	IV	298.00	0.010	85.70	82.72

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	494+88.66	62.92	*
2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	494+88.66	62.92	1187.50
3	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	495+71.03	-21.00	*
4	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	495+71.03	-21.00	312.50
5	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	498+83.53	-21.00	*
6	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	496+05.30	-62.92	*
7	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	496+05.30	-62.92	1437.50
31	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	495+17.22	21.00	*
32	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	495+17.22	21.00	37.50
33	END ANCHORAGE 31	495+54.72	21.00	*

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
100	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	476'
101	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	368'

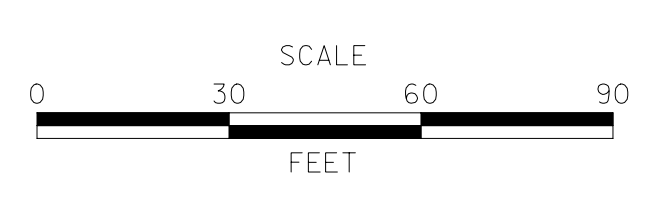
DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
101	595+35.00	-62.92	48" x 30"	2	94.84	87.31
102	597+68.00	-62.92	48" x 30"	2	92.07	84.66
106	594+26.00	62.92	48" x 30"	2	95.48	88.63
107	597+20.00	62.92	48" x 30"	2	92.80	85.70

NOTE: OFFSET AND T.G. ELEVATION DATA APPLIED TO THE FLOW LINE

* LENGTH AS DETAILED IN STANDARD CONSTRUCTION DETAILS



ADDENDUMS / REVISIONS	



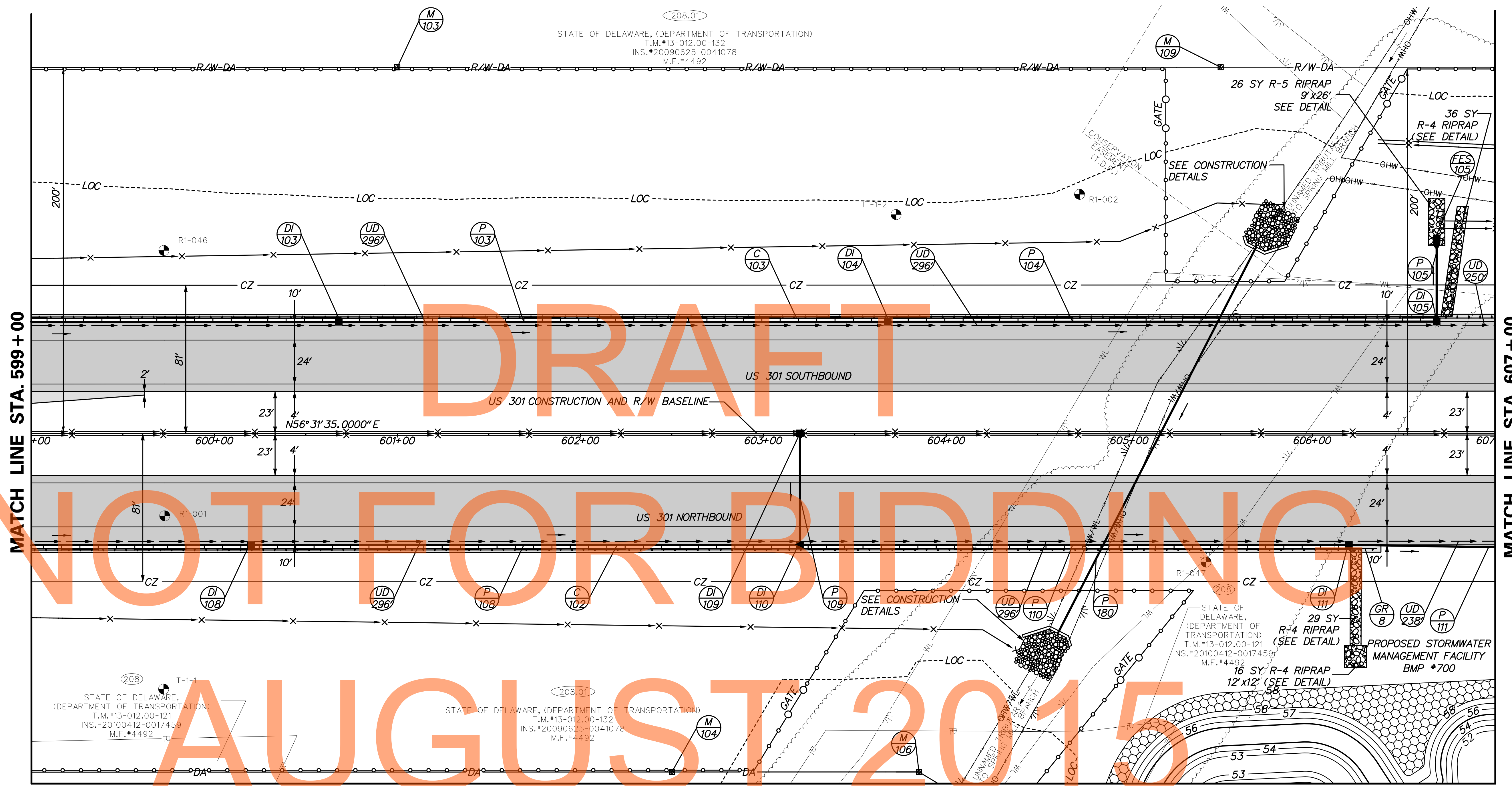
**US 301,
NORFOLK SOUTHERN RR TO SR 896**

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

CONSTRUCTION PLAN

CP-01
SHEET NO. 19
TOTAL SHTS. 240

208.01
STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
T.M.#13-012.00-132
INS.#20090625-0041078
M.F.#4492



MATCH LINE STA. 599+00

MATCH LINE STA. 607+00

MATCH LINE SHEET CP-03

DRAFT
NOT FOR BIDDING
AUGUST 2015

\$FILES

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
105	15" RCFE	0.015	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
103	15" RCP	IV	298.00	0.010	79.25	76.27
104	15" RCP	IV	298.00	0.010	71.90	68.92
105	15" RCP	IV	40.00	0.015	63.36	62.76
108	15" RCP	IV	298.00	0.010	79.24	76.27
109	18" RCP	IV	60.00	0.005	75.44	75.14
110	15" RCP	IV	298.00	0.010	72.79	69.82
111	18" RCP	IV	237.00	0.010	66.83	64.46
180*	48"x76" RCEP	IV	237.00	0.008	52.80	50.80

* SEE CONSTRUCTION DETAILS FOR MORE INFORMATION

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
103	600+68.00	-62.92	48" x 30"	2	86.06	79.25
104	603+68.00	-62.92	48" x 30"	2	79.61	71.90
105	606+68.00	-62.92	48" x 30"	2	73.32	63.36
108	600+20.00	62.92	48" x 30"	2	87.09	79.24
109	603+20.00	0.00	34" x 24"	2	78.84	75.44
110	603+20.00	62.92	48" x 30"	2	80.64	72.79
111	606+20.00	62.92	48" x 30"	2	74.20	66.83

NOTE: OFFSET AND T.G. ELEVATION DATA APPLIED TO FLOW LINE

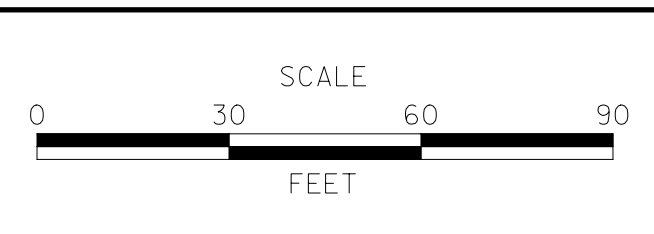
GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEG IN STA.	OFFSET	LENGTH
8	END ANCHORAGE 31	606+22.82	62.92	*

* LENGTH AS DETAILED IN STANDARD CONSTRUCTION DETAILS

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
102	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	721'
103	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	770'



ADDENDUMS / REVISIONS	

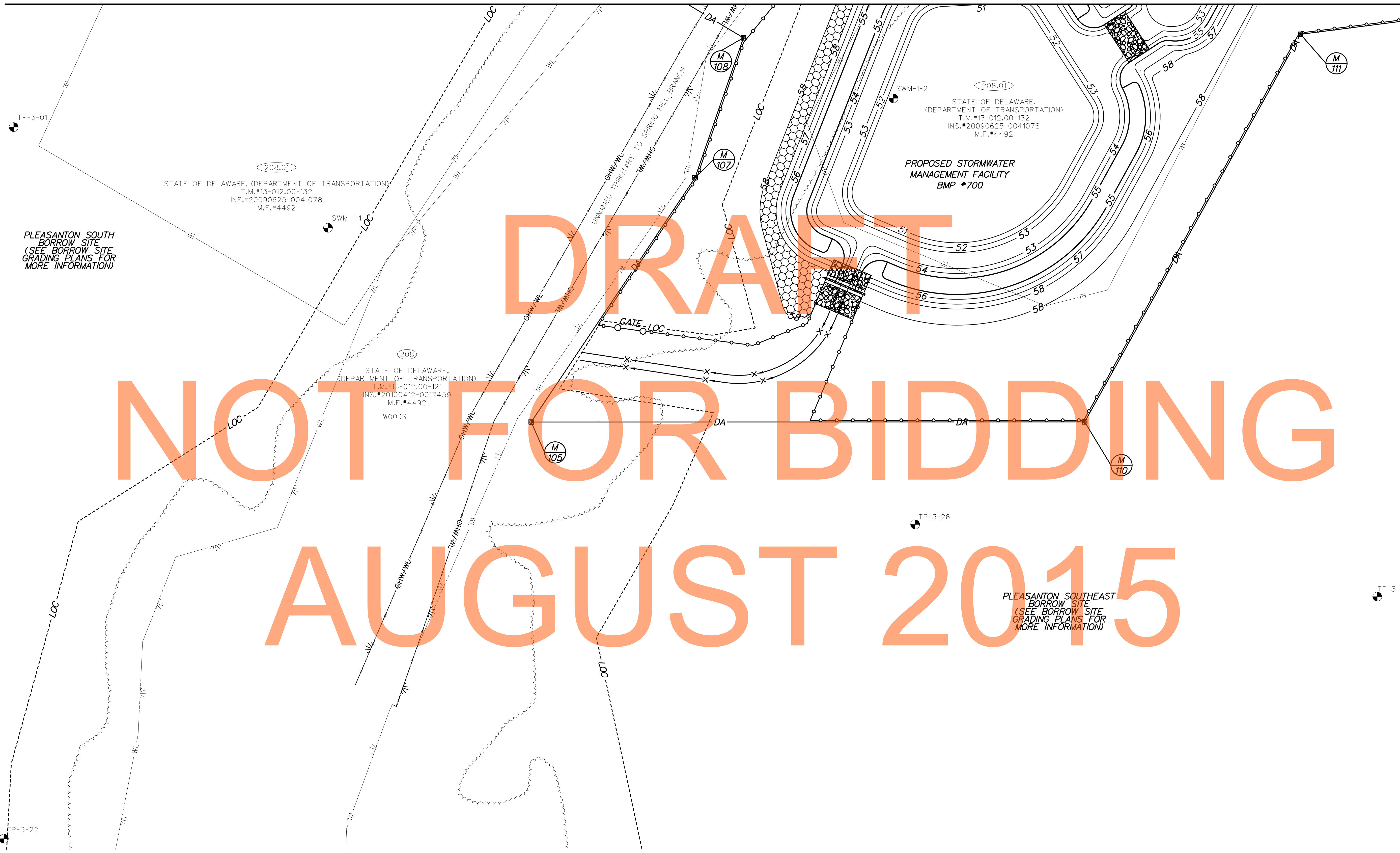
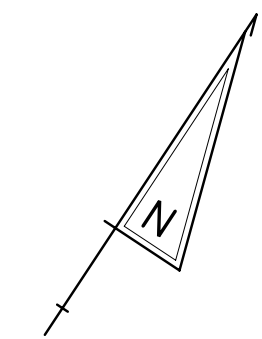


US 301,
NORFOLK SOUTHERN RR TO SR 896

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

CONSTRUCTION PLAN

SHEET NO.	20
TOTAL SHTS.	240

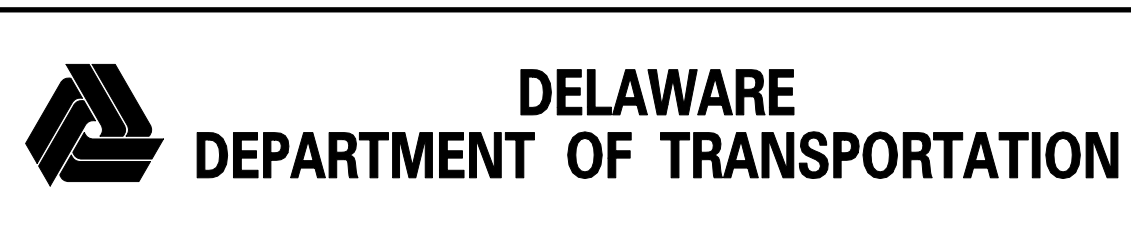


DRAFT

NOT FOR BIDDING

AUGUST 2015

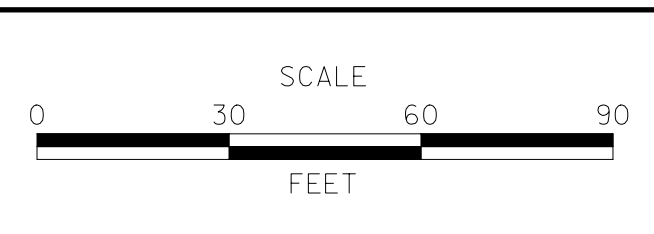
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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NO.	DATE	DESCRIPTION



US 301,
NORFOLK SOUTHERN RR TO SR 896

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

CONSTRUCTION PLAN

CP-03
SHEET NO. 21
TOTAL SHTS. 240

STATE OF DELAWARE,
(DEPARTMENT OF TRANSPORTATION)
T.M.#13-012.00-132
INS.#20090625-0041078
M.F.#4492

STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
T.M.#13-012.00-063
INS.#20090625-0041079
M.F.#4492

STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
T.M.#13-012.00-132
INS.#20090625-0041078
M.F.#4492

STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
T.M.#13-012.00-121
INS.#20100412-0017459
M.F.#4492

MATCH LINE STA. 607+00

MATCH LINE STA. 616+00

DRAFT

NOT FOR BIDDING

AUGUST 2015

MATCH LINE SHEET CP-03

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
113	24" RCFE	0.006	YES
115	24" RCFE	0.006	NO
118	18" RCFE	0.004	NO

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
9	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	609+89.39	-62.92	*

* LENGTH AS DETAILED IN STANDARD CONSTRUCTION DETAILS

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
106	44.00	61.63
109	7.00	65.77
110	31.00	59.92
111	26.00	59.98
112	26.00	59.98
113	5.00	61.81
114	29.00	58.79
115	29.00	58.79

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
112	18" RCP	IV	237.00	0.010	62.84	60.47
113	24" RCP	IV	100.00	0.006	58.46	57.86
114	24" RCP	IV	62.00	0.006	57.86	57.49
115	24" RCP	IV	32.00	0.008	57.49	57.23
116	15" RCP	IV	24.00	0.009	58.65	58.43
117	15" RCP	IV	24.00	0.009	58.65	58.43
118	18" RCP	IV	82.00	0.004	58.43	58.10

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
114	611+00.00	0.00	48" x 30"	2	63.24	57.86
116	613+53.00	0.00	34" x 24"	2	61.65	58.65
117	614+03.00	0.00	34" x 24"	2	61.65	58.65
118	613+78.00	0.00	34" x 24"	2	61.63	58.43

MANHOLE SCHEDULE

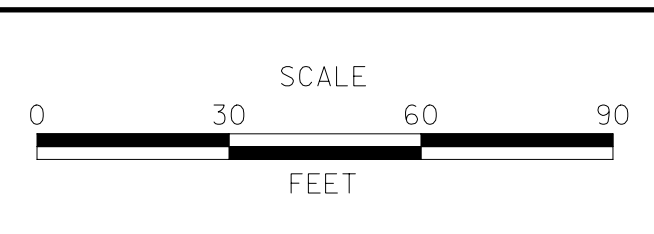
NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INV. EL.
112	608+60.00	67.00'	48" x 30"	68.75	62.84
115	611+00.00	67.00'	48" x 30"	64.77	57.49

PLEASANTON SOUTHEAST BORROW SITE
(SEE BORROW SITE GRADING PLANS FOR MORE INFORMATION)



ADDENDUMS / REVISIONS

NO.	DESCRIPTION



**US 301,
NORFOLK SOUTHERN RR TO SR 896**

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

CONSTRUCTION PLAN

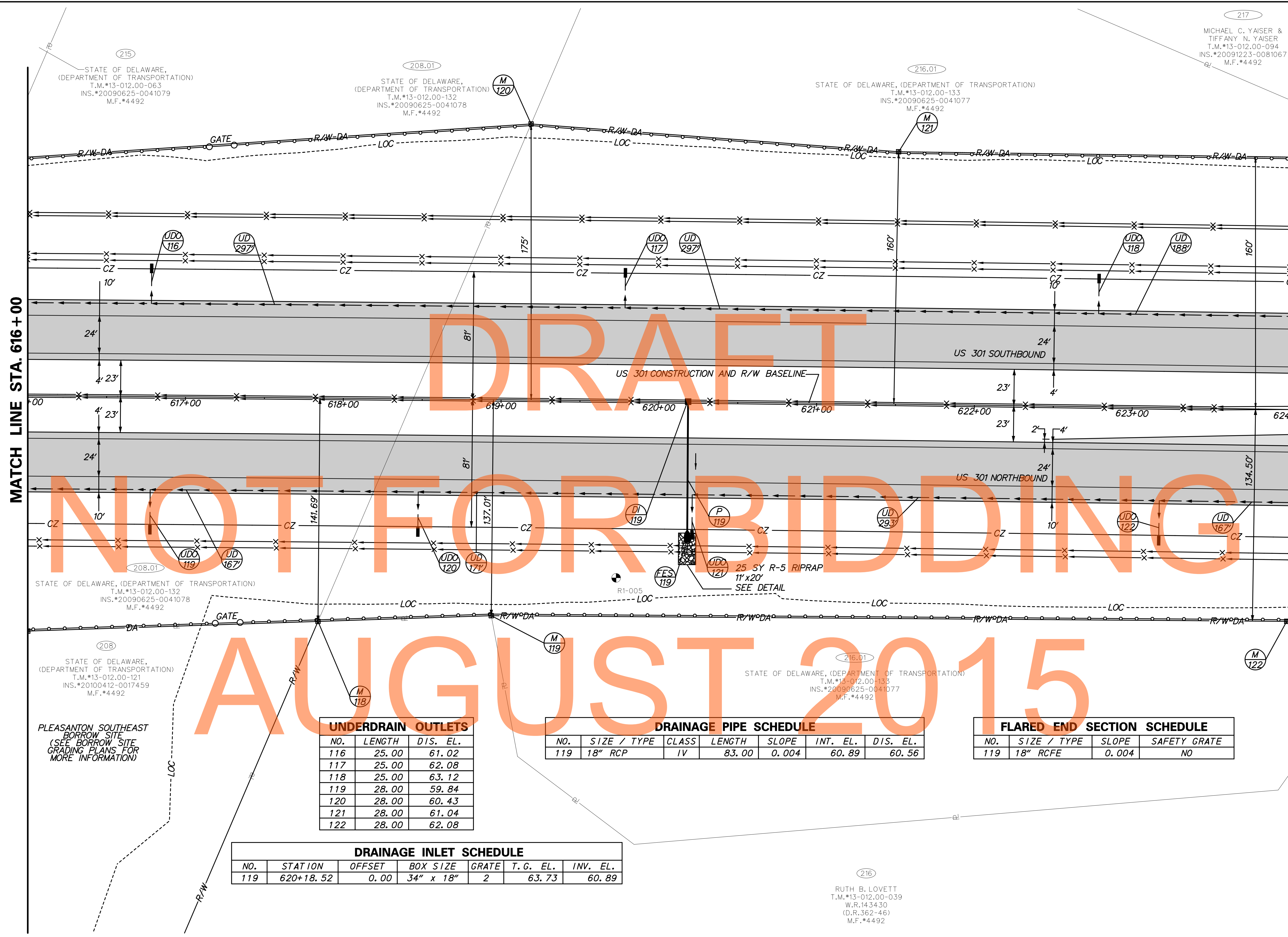
SHEET NO. 22
TOTAL SHTS. 240

217
 MICHAEL C. YAISER &
 TIFFANY N. YAISER
 T.M.#13-012.00-094
 INS.#20091223-0081067
 M.F.#4492

215
 STATE OF DELAWARE,
 (DEPARTMENT OF TRANSPORTATION)
 T.M.#13-012.00-063
 INS.#20090625-0041079
 M.F.#4492

208.01
 STATE OF DELAWARE,
 (DEPARTMENT OF TRANSPORTATION)
 T.M.#13-012.00-132
 INS.#20090625-0041078
 M.F.#4492

216.01
 STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
 T.M.#13-012.00-133
 INS.#20090625-0041077
 M.F.#4492



MATCH LINE STA. 616+00

MATCH LINE STA. 624+00

NOT FOR BIDDING

AUGUST 2015

STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
 T.M.#13-012.00-132
 INS.#20090625-0041078
 M.F.#4492

208
 STATE OF DELAWARE,
 (DEPARTMENT OF TRANSPORTATION)
 T.M.#13-012.00-121
 INS.#20100412-0017459
 M.F.#4492

PLEASANTON SOUTHEAST
 BORROW SITE
 (SEE BORROW SITE
 GRADING PLANS FOR
 MORE INFORMATION)

216.01
 STATE OF DELAWARE, (DEPARTMENT OF TRANSPORTATION)
 T.M.#13-012.00-133
 INS.#20090625-0041077
 M.F.#4492

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
116	25.00	61.02
117	25.00	62.08
118	25.00	63.12
119	28.00	59.84
120	28.00	60.43
121	28.00	61.04
122	28.00	62.08

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
119	18" RCP	IV	83.00	0.004	60.89	60.56

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
119	18" RCFE	0.004	NO

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
119	620+18.52	0.00	34" x 18"	2	63.73	60.89

216
 RUTH B. LOVETT
 T.M.#13-012.00-039
 W.R.143430
 (D.R.362-46)
 M.F.#4492



ADDENDUMS / REVISIONS

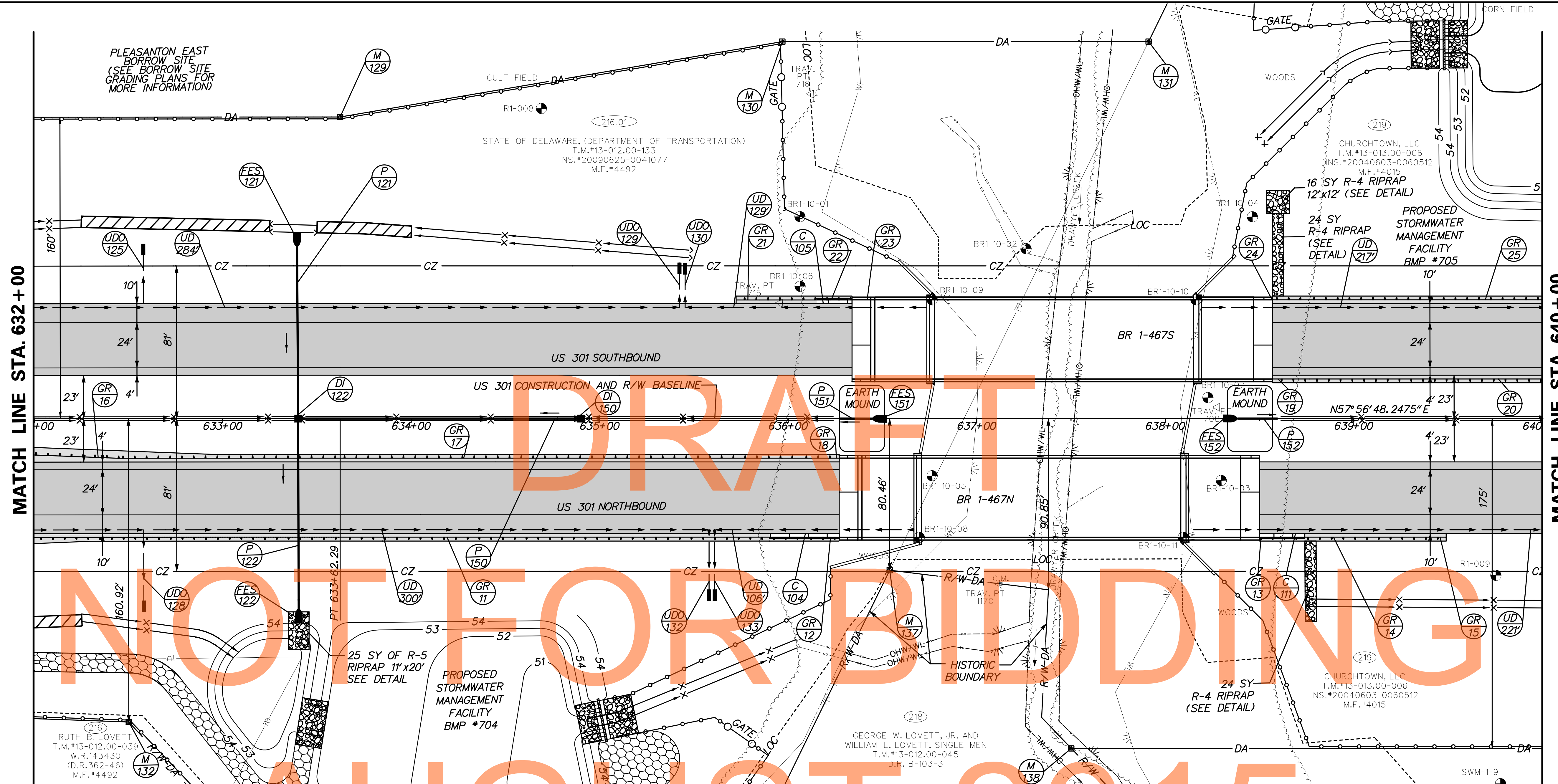


US 301,
 NORFOLK SOUTHERN RR TO SR 896

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

CONSTRUCTION PLAN

CP-05
SHEET NO. 23
TOTAL SHTS. 240



MATCH LINE STA. 632+00

MATCH LINE STA. 640+00

DRAFT
NOT FOR BIDDING

MATCH LINE SHEET CP-08

BMP SCHEDULE

NO.	TYPE	STATION FROM	STATION TO
701	INFILTRATION TRENCH	632+25 LT	633+25 LT
702	INFILTRATION TRENCH	633+50 LT	634+00 LT
714	FILTER STRIP	632+25 RT	635+90 RT
715	FILTER STRIP	638+60 LT	643+50 LT

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
121	18" RCFE	0.012	YES
122	18" RCFE	0.012	NO
151	18" RCFE	0.010	NO
152	18" RCFE	0.005	NO

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
11	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	631+82.15	62.92	425.00
12	GUARDRAIL TO BARRIER CONNECTION APPROACH, TYPE 1-31	636+07.27	62.92	*
13	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	638+61.51	62.92	*
14	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	638+61.51	62.92	75.00
15	END ANCHORAGE 31	639+36.51	62.92	*
16	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	632+44.74	21.00	*
17	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	632+44.74	21.00	362.50
18	GUARDRAIL TO BARRIER CONNECTION APPROACH, TYPE 1-31	636+07.27	21.00	*
19	GUARDRAIL TO BARRIER CONNECTION APPROACH, TYPE 1-31	638+76.59	-21.00	*
20	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	638+76.59	-21.00	350.00
21	END ANCHORAGE 31	635+84.84	-62.92	*
22	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	635+84.84	-62.92	37.50
23	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 31	636+22.34	-62.92	*
24	GUARDRAIL TO BARRIER CONNECTION APPROACH, TYPE 1-31	638+76.59	-62.92	*
25	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	638+76.59	-62.92	287.50

* LENGTH AS DETAILED IN STANDARD CONSTRUCTION DETAILS

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
121	18" RCP	IV	93.00	0.012	56.46	55.31
122	18" RCP	IV	102.00	0.012	55.31	54.08
150	18" RCP	IV	147.00	0.005	58.42	57.69
151	18" RCP	IV	20.00	0.010	62.84	62.64
152	18" RCP	IV	20.00	0.005	61.60	61.50

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
125	34.00	59.00
128	44.00	58.00
129	24.00	58.91
130	24.00	58.91
132	38.00	54.00
133	38.00	54.00

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
122	633+40.00	0.00	48" x 30"	2	62.59	55.31
150	634+90.00	0.00	48" x 30"	2	61.72	58.42

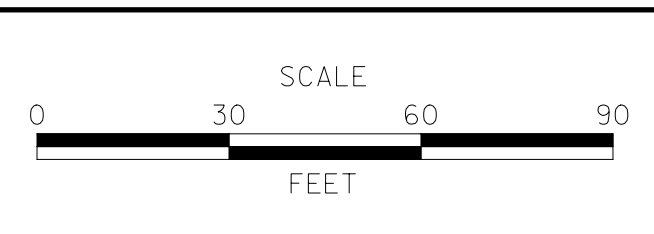
CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
104	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	37'
105	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	19'
111	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	24'



ADDENDUMS / REVISIONS

NO.	DESCRIPTION



US 301,
NORFOLK SOUTHERN RR TO SR 896

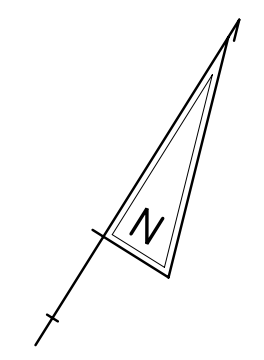
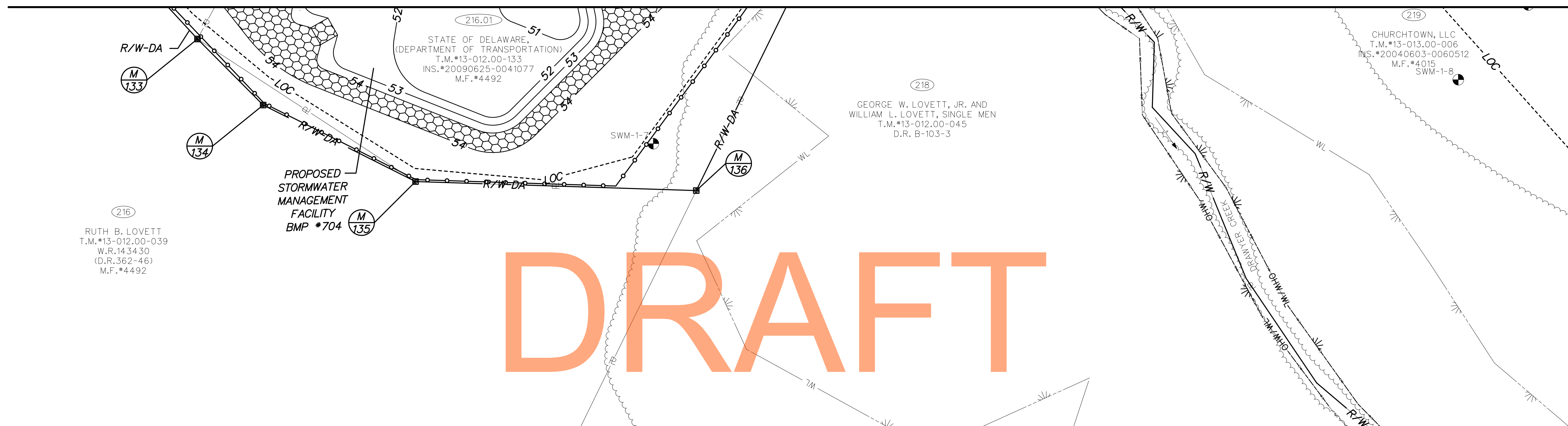
CONTRACT	T200911301	BRIDGE NO.	1-467 N&S
COUNTY	NEW CASTLE	DESIGNED BY:	WJD
		CHECKED BY:	MAA

CONSTRUCTION PLAN

SHEET NO.	25
TOTAL SHTS.	240

\$FILES \$DATES

MATCH LINE SHEET CP-07



DRAFT

NOT FOR BIDDING

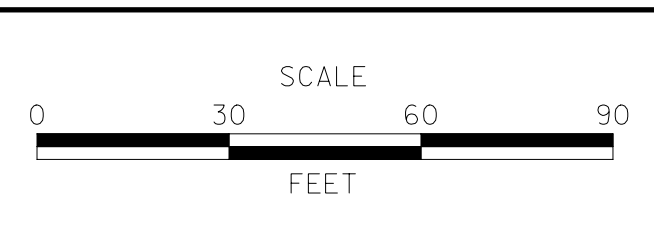
AUGUST 2015

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MATCH LINE SHEET CP-09



ADDENDUMS / REVISIONS	



**US 301,
NORFOLK SOUTHERN RR TO SR 896**

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

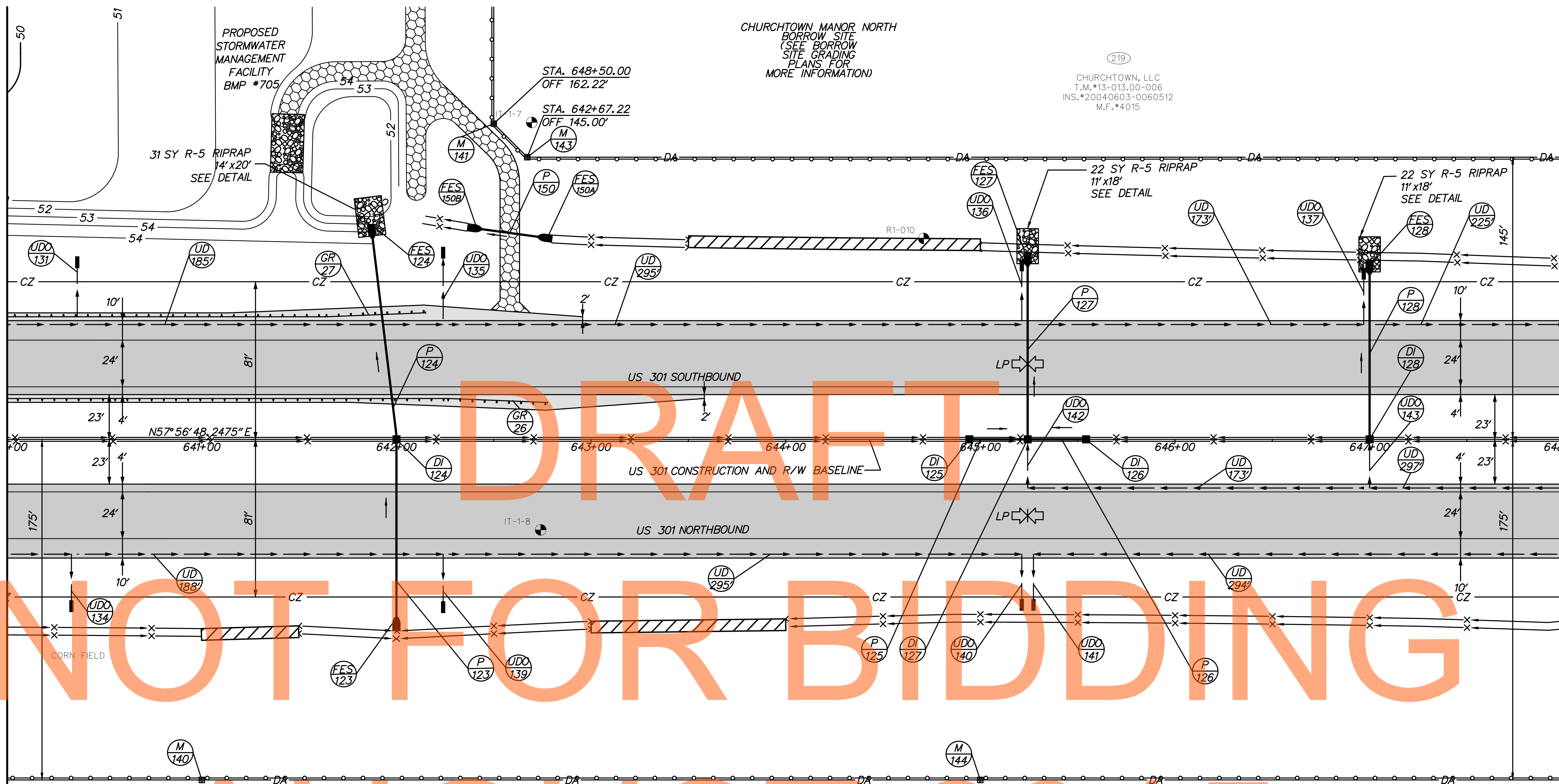
CONSTRUCTION PLAN

CP-08
SHEET NO.
26
TOTAL SHTS.
240

MATCH LINE STA. 640+00

MATCH LINE STA. 648+00

MATCH LINE SHEET CP-08



UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
131	35.00	55.00
134	30.00	56.81
135	34.00	54.25
136	33.00	54.39
137	29.00	54.92
139	30.00	55.84
140	29.00	55.17
141	29.00	55.17
142	24.00	55.87
143	24.00	56.05

DRAINAGE PIPE SCHEDULE							
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.	
123	24" RCP	IV	92.00	0.005	53.69	53.23	
124	24" RCP	IV	105.00	0.005	53.23	52.70	
125	15" RCP	IV	28.00	0.004	53.98	53.88	
126	15" RCP	IV	28.00	0.004	53.98	53.88	
127	18" RCP	IV	90.00	0.005	53.88	53.43	
128	18" RCP	IV	86.00	0.005	54.38	53.95	
150	21" RCP	IV	32.00	0.004	53.10	52.99	

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
123	24" RCFE	0.005	YES
124	24" RCFE	0.005	NO
127	18" RCFE	0.005	NO
128	18" RCFE	0.005	NO
150A	21" RCFE	0.004	NO
150B	21" RCFE	0.004	NO

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
124	642+00.00	0.00	48" x 30"	2	57.77	53.23
125	644+94.31	0.00	34" x 24"	2	57.17	53.98
126	645+54.31	0.00	34" x 24"	2	57.17	53.98
127	645+24.31	0.00	34" x 24"	2	57.16	53.88
128	647+00.00	0.00	34" x 18"	2	57.34	54.38

BMP SCHEDULE			
NO.	TYPE	STATION FROM	STATION TO
706	INFILTRATION TRENCH	643+50 LT	645+00 LT
708	INFILTRATION TRENCH	641+00 RT	641+50 RT
709	INFILTRATION TRENCH	643+00 RT	644+00 RT
715	FILTER STRIP	638+60 LT	643+50 LT

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
26	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	642+26.59	-21.00	*
27	GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31	641+64.09	-63.00	*

* LENGTH AS DETAILED IN STANDARD CONSTRUCTION DETAILS



ADDENDUMS / REVISIONS



US 301, NORFOLK SOUTHERN RR TO SR 896

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

CONSTRUCTION PLAN

CP-09
SHEET NO.
27
TOTAL SHTS.
240

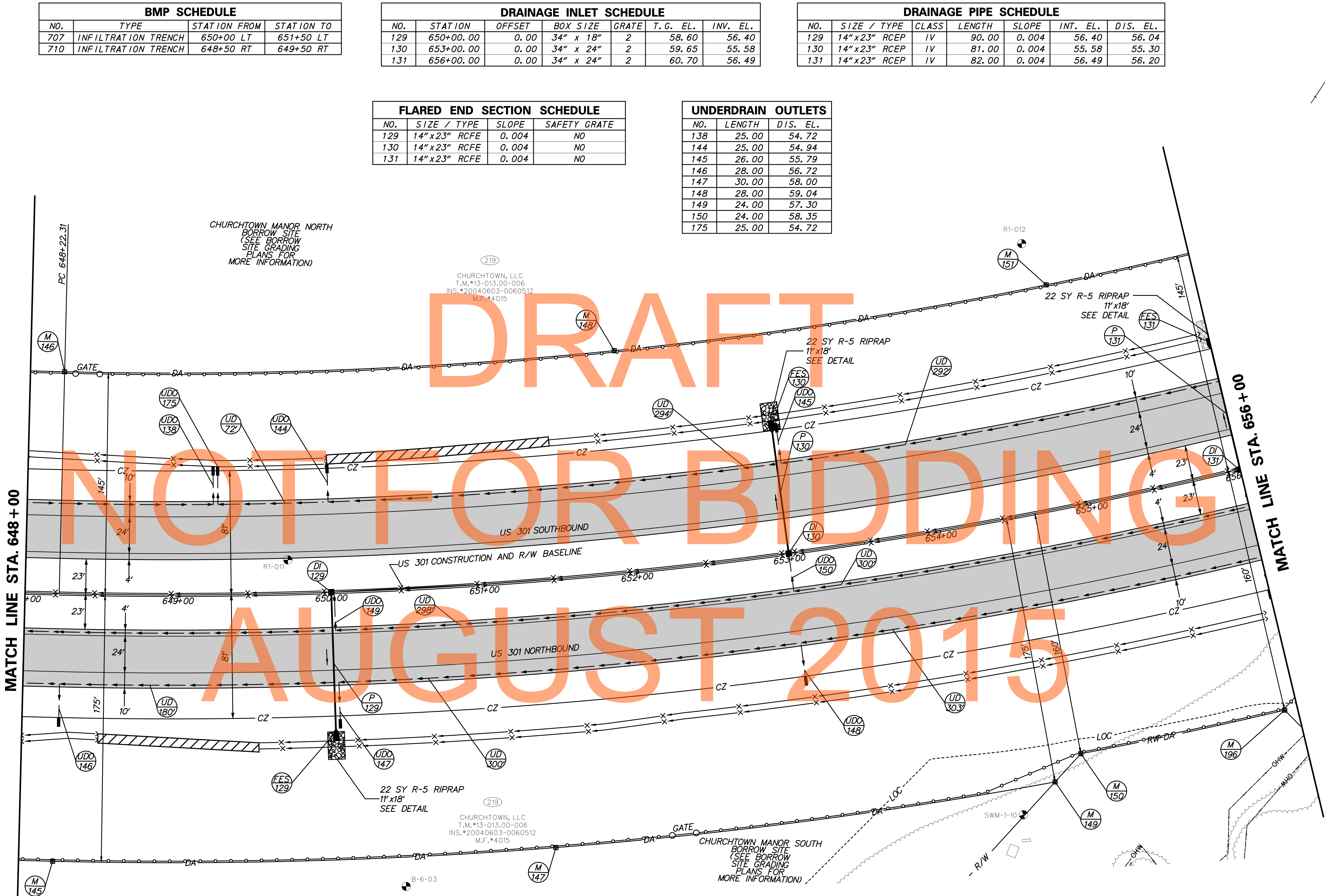
BMP SCHEDULE			
NO.	TYPE	STATION FROM	STATION TO
707	INFILTRATION TRENCH	650+00 LT	651+50 LT
710	INFILTRATION TRENCH	648+50 RT	649+50 RT

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
129	650+00.00	0.00	34" x 18"	2	58.60	56.40
130	653+00.00	0.00	34" x 24"	2	59.65	55.58
131	656+00.00	0.00	34" x 24"	2	60.70	56.49

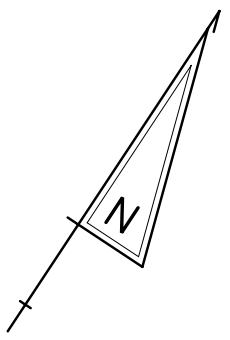
DRAINAGE PIPE SCHEDULE								
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.		
129	14" x 23" RCEP	IV	90.00	0.004	56.40	56.04		
130	14" x 23" RCEP	IV	81.00	0.004	55.58	55.30		
131	14" x 23" RCEP	IV	82.00	0.004	56.49	56.20		

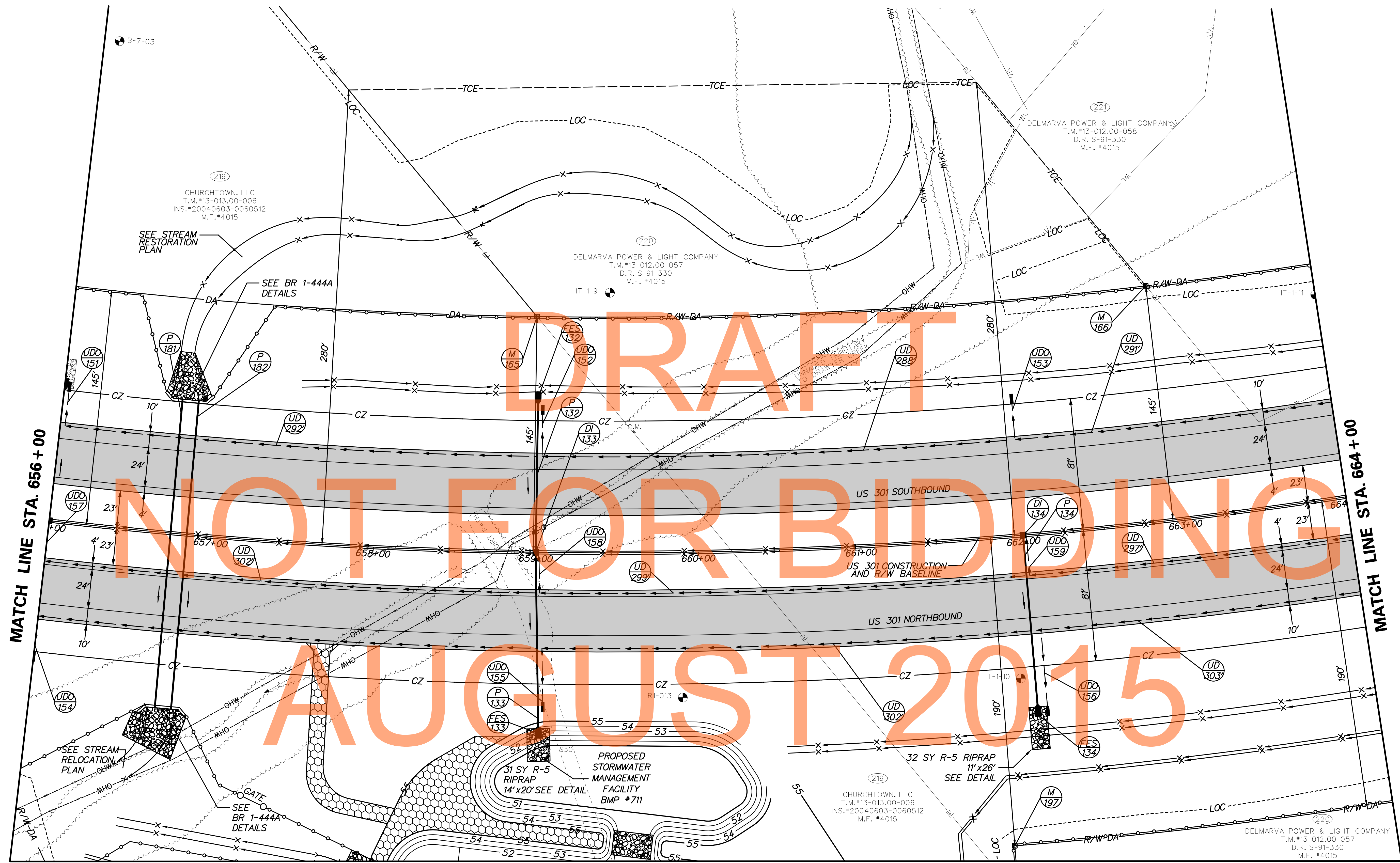
FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
129	14" x 23" RCFE	0.004	NO
130	14" x 23" RCFE	0.004	NO
131	14" x 23" RCFE	0.004	NO

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
138	25.00	54.72
144	25.00	54.94
145	26.00	55.79
146	28.00	56.72
147	30.00	58.00
148	28.00	59.04
149	24.00	57.30
150	24.00	58.35
175	25.00	54.72



SFILES \$DATES





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AUGUST 2015

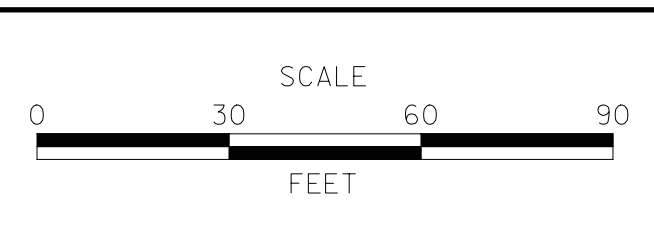
MATCH LINE SHEET CP-12

\$FILES \$DATES

SEE NEXT SHEET FOR SCHEDULES



ADDENDUMS / REVISIONS



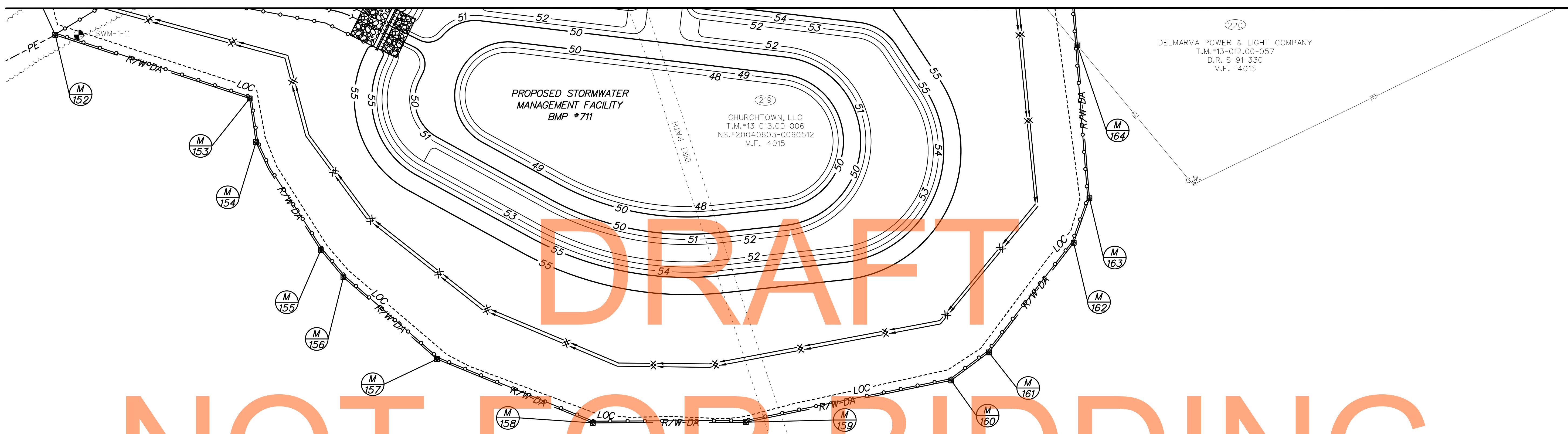
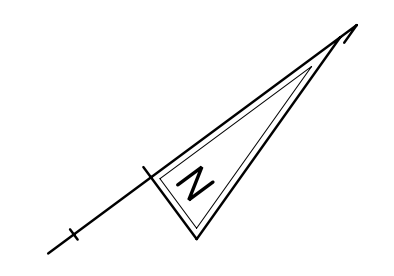
**US 301,
NORFOLK SOUTHERN RR TO SR 896**

CONTRACT T200911301	BRIDGE NO. 1-444A
COUNTY NEW CASTLE	DESIGNED BY: WJD
	CHECKED BY: MAA

CONSTRUCTION PLAN

CP-11
SHEET NO. 29
TOTAL SHTS. 240

MATCH LINE SHEET CP-11



220
 DELMARVA POWER & LIGHT COMPANY
 T.M.#13-012.00-057
 D.R. S-91-330
 M.F. #4015

219
 CHURCHTOWN, LLC
 T.M.#13-013.00-006
 INS.#20040603-0060512
 M.F. 4015

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 AUGUST 2015

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
151	27.00	56.66
152	32.00	56.02
153	28.00	57.94
154	28.00	60.07
155	40.00	57.00
156	53.00	55.98
157	24.00	59.40
158	24.00	60.45
159	24.00	61.50

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
132	24" RCFE	0.005	YES
133	24" RCFE	0.005	NO
134	18" RCFE	0.005	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
132	24" RCP	IV	91.00	0.005	53.97	53.52
133	24" RCP	IV	107.00	0.005	53.52	52.98
134	18" RCP	IV	105.00	0.005	56.52	55.99
181*	53" x 83" RCEP	IV	190.50	0.019	51.05	47.45
182	38" x 60" RCEP	IV	190.50	0.019	52.45	48.85

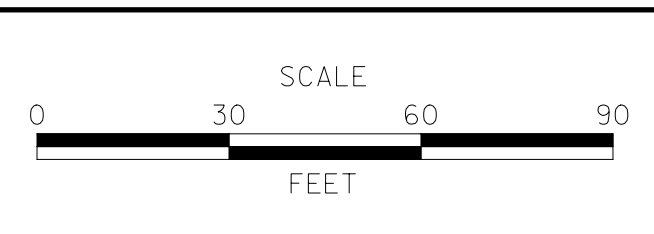
* SEE CONSTRUCTION DETAILS FOR MORE INFORMATION

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T. G. EL.	INV. EL.
133	659+00.00	0.00	48" x 30"	2	61.75	53.52
134	662+00.00	0.00	34" x 24"	2	62.80	56.52

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ADDENDUMS / REVISIONS	

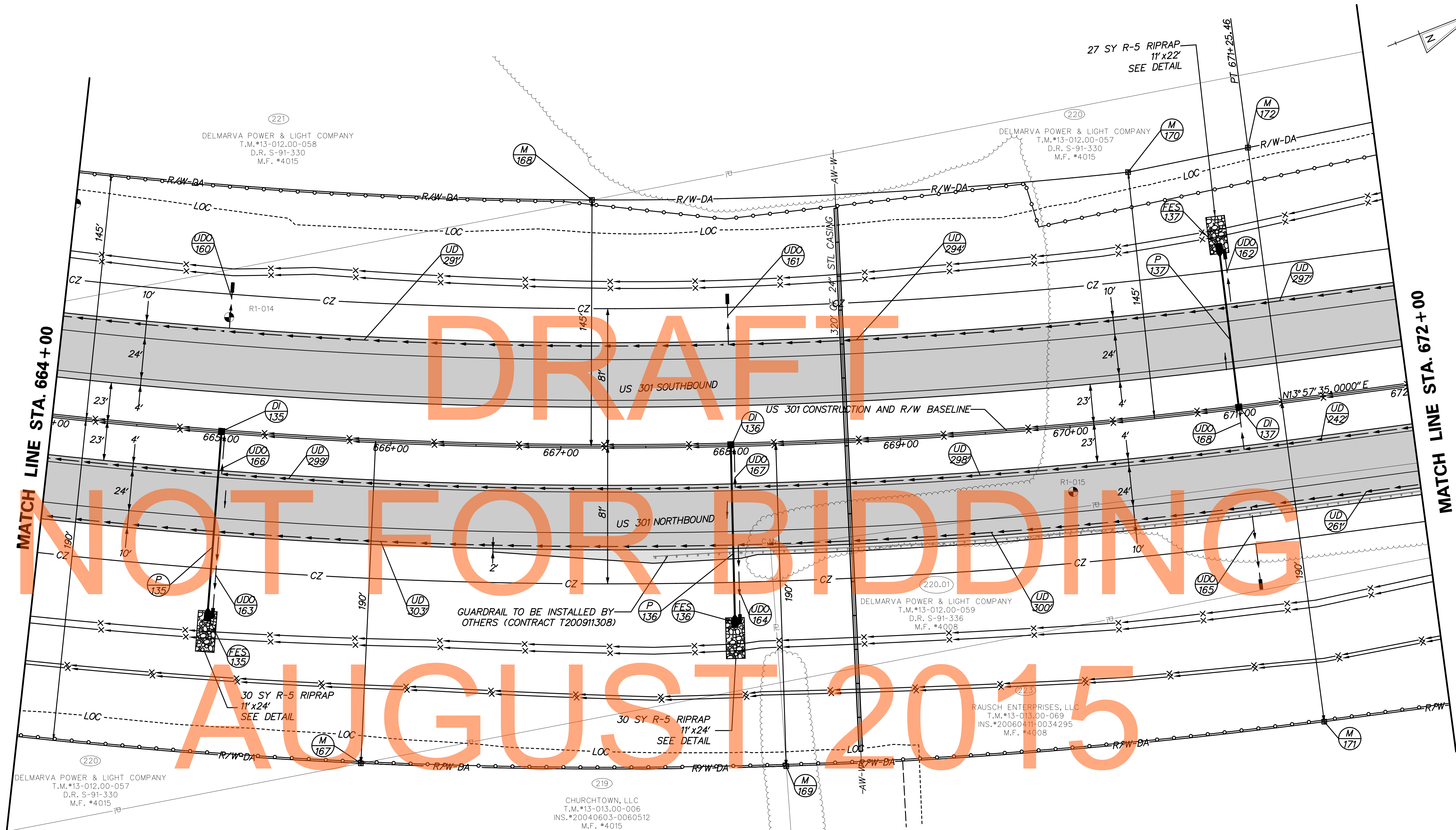


**US 301,
 NORFOLK SOUTHERN RR TO SR 896**

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

CONSTRUCTION PLAN

CP-12
SHEET NO. 30
TOTAL SHTS. 240



MATCH LINE STA. 664+00

MATCH LINE STA. 672+00

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AUGUST 2015

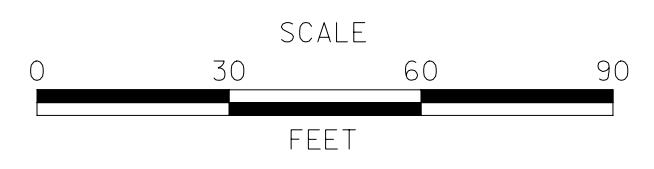
DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
135	18" RCP	IV	105.00	0.005	57.56	57.04
136	18" RCP	IV	101.00	0.005	59.86	59.34
137	18" RCP	IV	90.00	0.005	63.24	62.79

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
135	18" RCFE	0.005	NO
136	18" RCFE	0.005	NO
137	18" RCFE	0.005	NO

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
135	665+00.00	0.00	34" x 24"	2	63.85	57.56
136	668+00.00	0.00	34" x 24"	2	65.11	59.86
137	671+00.00	0.00	34" x 24"	2	69.33	63.24

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
160	29.00	58.88
161	30.00	60.82
162	35.00	63.78
163	51.00	57.52
164	47.00	59.85
165	50.00	62.95
166	24.00	62.55
167	24.00	63.81
168	24.00	68.03

ADDENDUMS / REVISIONS

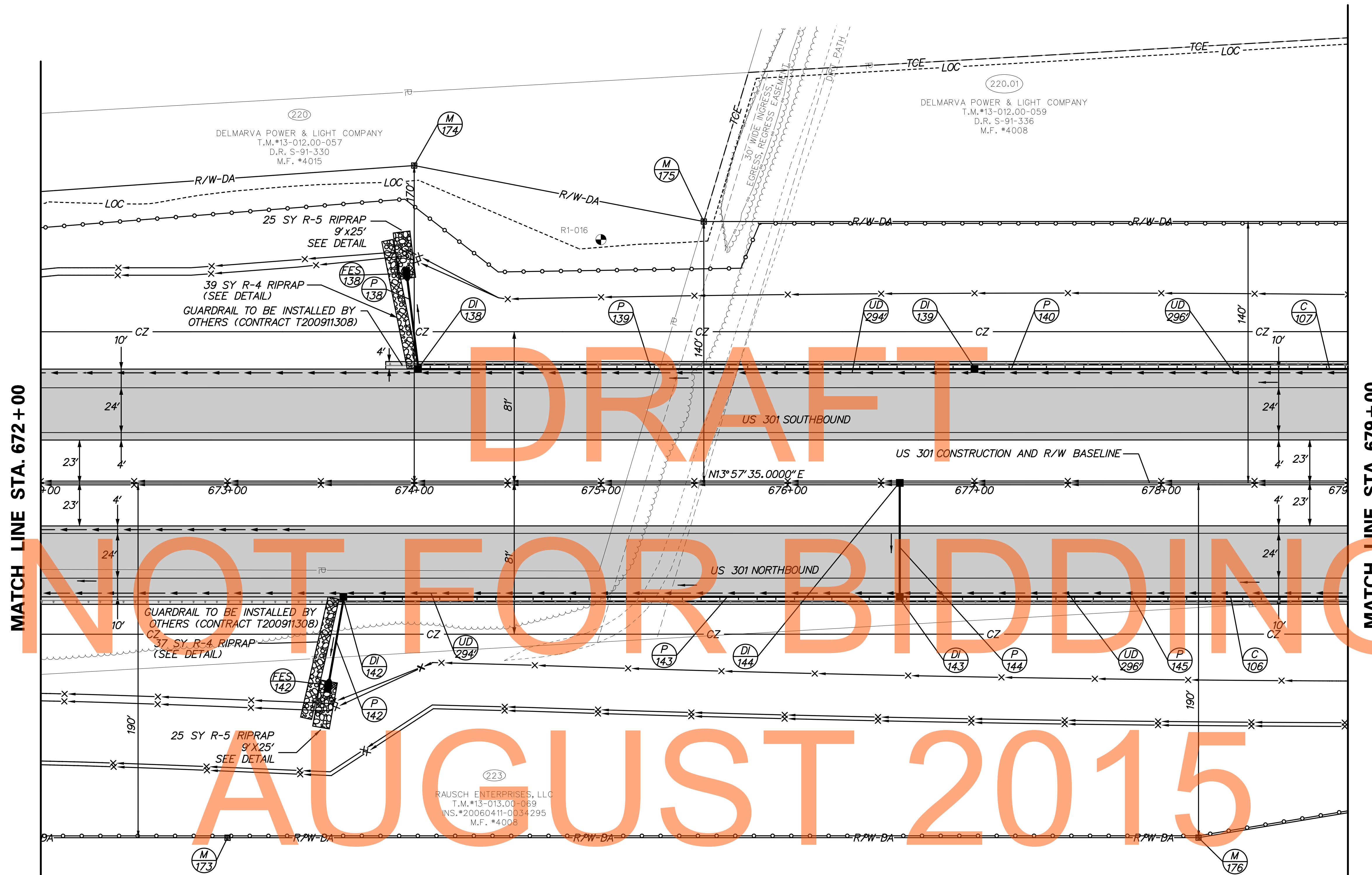
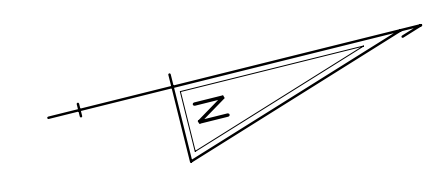


**US 301,
NORFOLK SOUTHERN RR TO SR 896**

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

CONSTRUCTION PLAN

CP-13
SHEET NO. 31
TOTAL SHTS. 240



MATCH LINE STA. 672+00

MATCH LINE STA. 679+00

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AUGUST 2015

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
106	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	540'
107	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	498'

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
138	15" RCP	IV	48.00	0.062	69.07	66.09
139	15" RCP	IV	298.00	0.010	77.59	74.63
140	15" RCP	IV	298.00	0.010	85.70	82.72
142	15" RCP	IV	45.00	0.044	68.39	66.41
143	15" RCP	IV	296.00	0.010	76.91	73.95
144	18" RCP	IV	60.00	0.010	80.99	80.39
145	15" RCP	IV	298.00	0.010	84.65	81.67

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
138	674+02.00	-62.92	48" x 30"	2	79.01	69.07
139	677+00.00	-62.92	48" x 30"	2	87.10	77.59
142	673+62.00	62.92	48" x 30"	2	78.33	68.39
143	676+60.00	62.92	48" x 30"	2	86.20	76.91
144	676+60.00	0.00	34" x 24"	2	84.39	80.99

NOTE: OFFSET AND T.G. ELEVATION DATA APPLIED TO FLOW LINE

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
138	15" RCFE	0.062	NO
142	15" RCFE	0.044	NO

ADDENDUMS / REVISIONS	



**US 301,
NORFOLK SOUTHERN RR TO SR 896**

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

CONSTRUCTION PLAN



CP-14
SHEET NO. 32
TOTAL SHTS. 240

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
140	680+00.00	-62.92	48" x 30"	2	92.05	85.70
141	682+00.00	-62.92	48" x 30"	2	93.60	87.47
145	679+60.00	62.92	48" x 30"	2	91.57	84.65
146	682+00.00	62.92	48" x 30"	2	93.60	87.03

NOTE: OFFSET AND T.G. ELEVATION DATA APPLIED TO FLOW LINE

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	D/S. EL.
141	15" RCP	IV	198.00	0.005	87.47	86.48
146	15" RCP	IV	238.00	0.010	87.03	84.65
230	18" RCP	IV	100.00	0.005	66.10	65.65

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
108	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	190'
109	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	290'
110	INTEGRAL PCC CURB AND GUTTER, TYPE 1-4	41'

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
203A	18" RCP	0.003	NO
203B	18" RCP	0.003	NO

MATCH LINE STA. 679+00

END CONTRACT T200911301 STATION 687+72.79

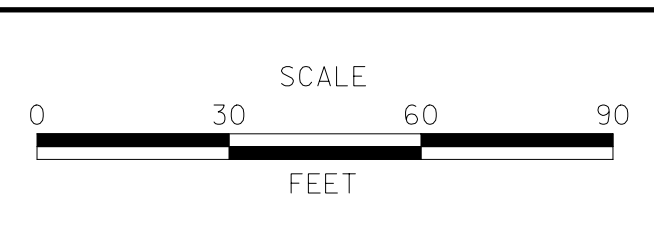
MATCH LINE THIS SHEET

MATCH LINE THIS SHEET

\$FILES \$DATES



ADDENDUMS / REVISIONS	



US 301, NORFOLK SOUTHERN RR TO SR 896

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

CONSTRUCTION PLAN

SHEET NO.	33
TOTAL SHTS.	240

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