

U.S. CUSTOMARY
UNITS

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION



PS&E PLANS

CONSTRUCTION PLANS FOR:

SR 1 TYBOUTS CORNER LEFT EXIT SIGN DESIGN SERVICES

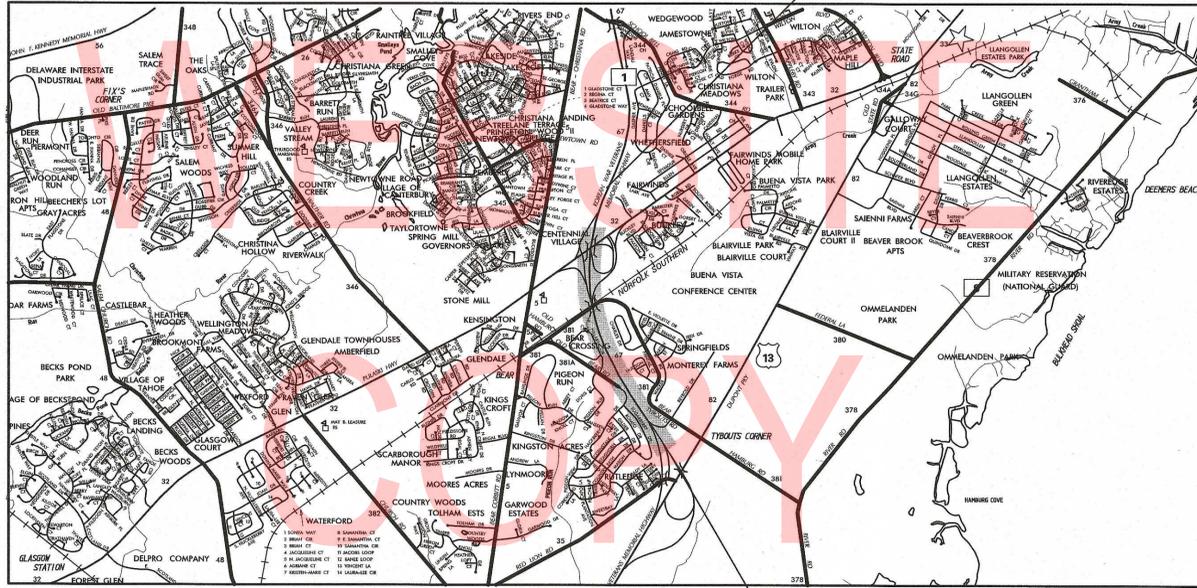
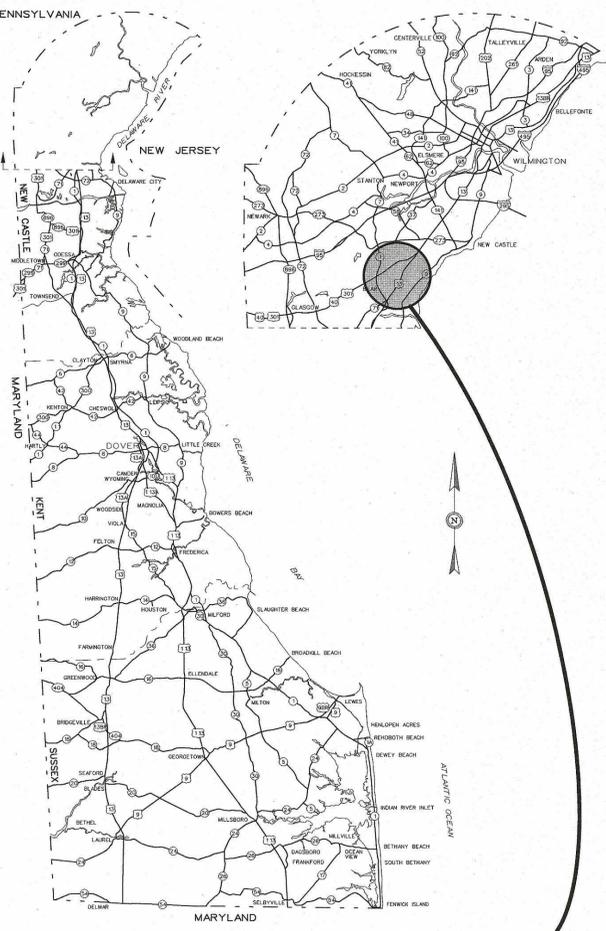
CONTRACT NUMBER: T201809201

FEDERAL AID PROJECT NUMBER: NHS-N067(30)

COUNTY: NEW CASTLE M.R. #: 067

END CONTRACT
STATION 249+00

DESIGN DESIGNATION			
MRD #: N067	ROAD NAME: SR 1 SOUTHBOUND		
FUNCTIONAL CLASS: FREEWAY/EXPRESSWAY	D.H.V. PROJECTED: 4,500	YEAR: 2028	
TYPE OF CONSTRUCTION: WIDENING	DESIGN SPEED: 60 MPH		
A.A.D.T. CURRENT: 48,500	YEAR: 2018	TRUCKS: 15%	
A.A.D.T. PROJECTED: 52,000	YEAR: 2028	DIRECTION OF DISTRIBUTION: 100%	
APPROVED DESIGN EXCEPTIONS			
DESIGN PARAMETER	REQUIRED	PROVIDED	DATE
ADDENDA / REVISIONS			
ASSOCIATED CONTRACTS			
CONTRACT NO.	CONTRACT NAME		
83-101-02	DELAWARE ROUTE 7 PHASE I		
83-101-03	DELAWARE ROUTE 7 PHASE II		
93-101-01	SR 1, US 13 TO I-95 LIGHTING		
T201611001	CANTILEVER SIGN STRUCTURE MATERIALS, SR 1 NORTHBOUND AUXILIARY LANE		
T201511001	SR 1 NORTHBOUND AUXILIARY LANE, US 40 TO SR 273		
T201809201	SR 1 SOUTHBOUND AUXILIARY LANE		



BEGIN CONTRACT
STATION 178+65

PREPARED BY
RUMMEL, KLEPPER & KAHL, LLP
TRAFFIC DESIGN

Benny L. Bennett 7/8/19
DATE

THIS SEAL APPLIES TO ALL SHEETS
BEARING THE "RK&K" SECTION DESIGNATION.

PREPARED BY
RUMMEL, KLEPPER & KAHL, LLP
TRAFFIC DESIGN

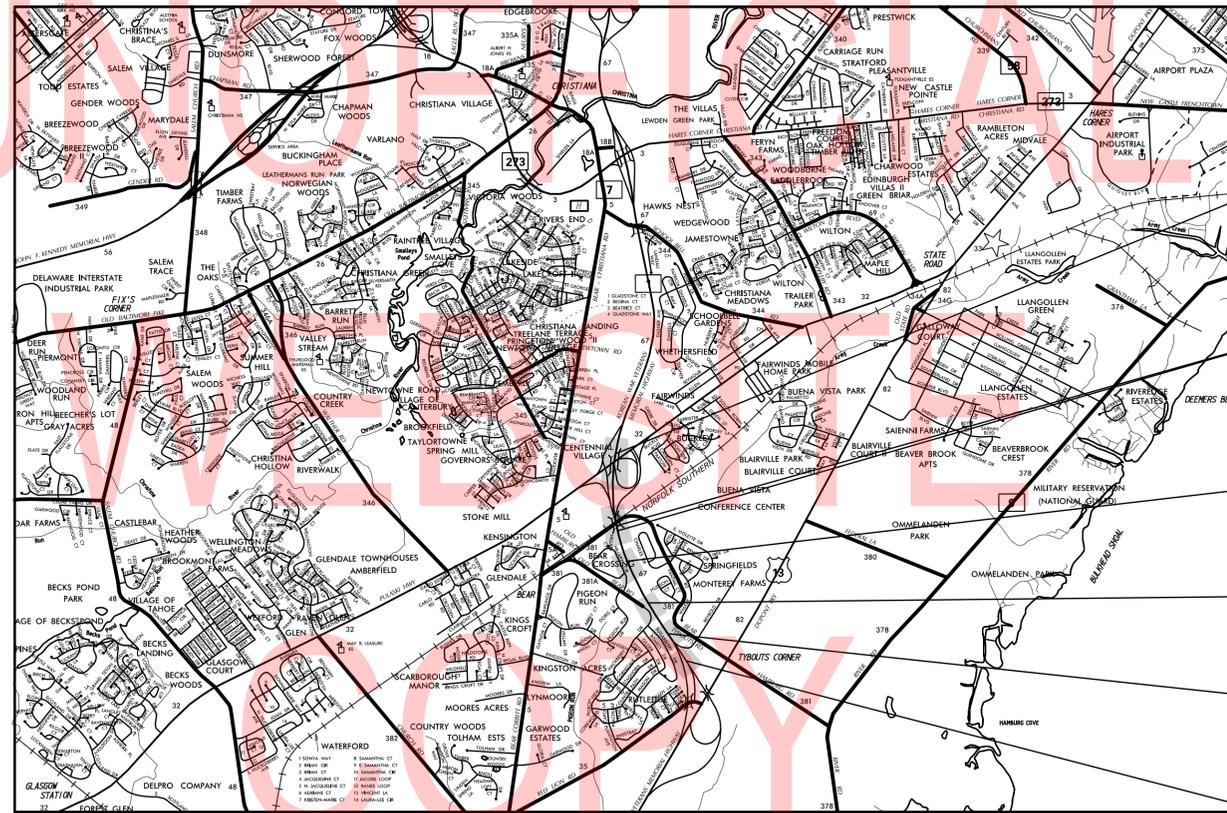
Benny L. Bennett 7/3/19
DATE

THIS SEAL APPLIES TO ALL SHEETS
BEARING THE "RK&K" SECTION DESIGNATION.

APPROVED FOR ADVERTISEMENT

Neil L. ... 7/23/19
CHIEF TRAFFIC ENGINEER DATE

INDEX OF SHEETS		
SECTION	SHEET DESCRIPTION	SHEET NO(S)
RK&K	TITLE	1
RK&K	INDEX OF SHEETS	2
RK&K	ADDENDA AND REVISIONS	3
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NEW OVERHEAD STRUCTURE
SO1258B 067 (6)

NEW OVERHEAD STRUCTURE
SO1258A 067
REMOVE SC1256 067 (7)

NEW SIGN STRUCTURE
REPLACES SO1259 067 (8)

EXISTING SIGN STRUCTURE
REMOVAL SO1260 067 (9)

NEW SIGN STRUCTURE
REPLACES SO1261 067 (10)

NEW SIGN STRUCTURE
REPLACES SO1257K 067 (11)

ADDENDA / REVISIONS

NOT TO SCALE

**SR 1 TYBOUTS
LEFT EXIT COMPLIANCE**

CONTRACT	BRIDGE NO.
T201809201	
COUNTY	DESIGNED BY: RK&K
NEW CASTLE	CHECKED BY: RK&K

INDEX OF SHEETS
RK&K
SHEET NO.
2

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ADDENDA / REVISIONS	NOT TO SCALE	SR 1 TYBOUTS LEFT EXIT COMPLIANCE	CONTRACT	BRIDGE NO.	ADDENDA AND REVISION	SECTION
			T201809201	DESIGNED BY: RK&K		RK&K
			COUNTY	CHECKED BY: RK&K		SHEET NO.
			NEW CASTLE			3

GENERAL NOTES

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2018, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.
- LANE CLOSURES ALONG SR 1 ARE PERMITTED BETWEEN 8:00 PM AND 5:00 AM, SUNDAY NIGHT THROUGH FRIDAY MORNING.
- CONTRACTOR SHALL COORDINATE CONSTRUCTION EFFORTS WITH PAVEMENT & REHABILITATION PROJECT NORTH VIII, 2018 TO AVOID CONFLICTS. THIS INCLUDES INSTALLATION AND TRANSITION OF GUARDRAIL.
- STAGING AREAS - PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DIRECTED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE CONTRACT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE- GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATIONS 732, 734, AND 735, FOR TOPSOIL, SEED AND MULCH RESPECTIVELY, TO SATISFACTION OF THE ENGINEER. THE SEED SHALL ADHERE TO THE SPECIFICATION OF SECTION 734 FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STRAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COST ASSOCIATED WITH REESTABLISHING A SATISFACTORY STRAND OF GRASS SHALL BE THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE SURVEY INFORMATION NECESSARY TO VERIFY MINIMUM SIGN STRUCTURE HEIGHTS AND SPAN LENGTHS FOR EACH SIGN STRUCTURE. THE CONTRACTOR SHALL SUBMIT ALL SURVEY INFORMATION TO THE DEPARTMENT FOR FINAL DESIGN AND TO VERIFY THE STRUCTURAL ADEQUACY OF ALL MEMBER SIZES AND CONNECTIONS PROVIDED IN THE CONTRACT DRAWINGS.
- FORM MASTS FOR SIGN STRUCTURES TO THE RADIUS SHOWN ON THE PLANS IN ACCORDANCE WITH THE TUBE AND PIPE ASSOCIATION INTERNATIONAL RECOMMENDED STANDARDS FOR INDUCTION BENDING OF PIPE AND TUBE (TPA-IBS-98).
- STEEL TEMPLATES SHALL BE USED TO SET ANCHOR BOLTS PLUMB WHEN POURING THE FOUNDATION.
- BASE PLATES SHALL BE IN FULL CONTACT WITH ALL FLAT WASHERS.
- ALL ANCHOR BOLTS SHALL BE TIGHTENED USING TURN OF NUT METHOD (1/6 TURN AFTER SNUG TIGHT).
- THREADS OF ANCHOR BOLTS SHALL BE BURRED OFF AT FACE OF NUT AFTER COLUMN IS INSTALLED.
- LOCK WASHERS WITH FLAT WASHERS SHALL ONLY BE USED FOR U- BOLT CONNECTIONS AND NUTS SHALL BE TURNED UNTIL THE LOCK WASHER IS FLAT.
- MAST AND MAST ARM O.D. DIMENSIONS ARE ACTUAL.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE ORDERING ANY MATERIALS.
- FABRICATE ALL SIGN STRUCTURES INTO THE LARGEST PRACTICAL SECTIONS PRIOR TO GALVANIZING. SUBMIT SPLICE LOCATIONS TO THE ENGINEER FOR APPROVAL. DO NOT COMMENCE FABRICATION UNTIL SUCH SPLICE LOCATIONS ARE APPROVED.
- DO NOT USE GROUT BETWEEN BASE PLATE AND CONCRETE PEDESTAL.
- SLOPE TOP OF PEDESTAL 4% FROM CENTER TO NEAR EDGES FOR DRAINAGE.
- PROVIDE DOUBLE NUTS AND WASHERS FOR EACH ANCHOR BOLT.
- PERMANENT CAMBER EQUAL TO L/1000 HAS BEEN PROVIDED IN ADDITION TO THE DEAD LOAD CAMBER. CAMBER SHALL BE INCORPORATED DURING FABRICATION.
- THE COST OF THE ROUND, NON -TAPERED, TUBULAR STEEL PIPE AND STRUCTURAL STEEL SHAPES, PLATES AND BARS, INCLUDING FABRICATION, COATING, ERECTION AND CONNECTIONS SHALL BE PAID FOR UNDER THE PERTINENT "STEEL SIGN STRUCTURES, TUBULAR ARCH, OVERHEAD" ITEM 617001.
- THE COST OF EACH FOUNDATION, INCLUDING EXCAVATION, REINFORCEMENT, CONCRETE AND ANCHORAGE MATERIALS, SHALL BE PAID FOR UNDER THE PERTINENT DRILLED SHAFT FOUNDATION ITEM 606004 AND 606005.
- ALL TOWER SUPPORTS SHALL BE LOCATED BEHIND PHYSICAL TRAFFIC BARRIERS, IF PRESENT.

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR ESC SUPERVISOR REQUIREMENT
(X) INSIGNIFICANT	NONE
() MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MEDIUM	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

22. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

(X)	NONE
()	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
()	ALL PLAN SHEETS, IN PDF FORMAT.
()	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	DESIGN FILE, IN .DGN FILE FORMAT, CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL (DTM).

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

23. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

()	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 743000.
(X)	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 812500.

24. THE DISTURBED AREA FOR THIS PROJECT IS 2.8 ACRES.

DESIGN SPECIFICATIONS:

- AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 2015, 1ST EDITION.
- AASHTO "LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, 2017", WITH INTERIMS THROUGH 2018.
- DELAWARE DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL, 2017 EDITION.
- AASHTO/AWS D1.5 BRIDGE WELDING CODE AND AWS D1.1 STRUCTURAL WELDING CODE.

DESIGN LOADS:

- THE DESIGN WIND SPEED IS 115 MPH (STRENGTH DESIGN) AND 76 MPH (SERVICE LOAD DESIGN).
- THE DESIGN SIGN PANEL AREA INCLUDES AN ADDITIONAL 15% INCREASE IN AREA OVER THE ACTUAL SIGN PANEL AREA.
- FATIGUE DESIGN FOR OVERHEAD SIGN STRUCTURES IS BASED ON FATIGUE CATEGORY I FOR NATURAL WIND GUSTS AND TRUCK -INDUCED GUSTS.

MATERIALS:

- SIGN STRUCTURE POSTS AND OVERHEAD MEMBERS SHALL BE ROUND, NON -TAPERED, TUBULAR STEEL PIPE CONFORMING TO THE FOLLOWING REQUIREMENTS:
 - THE PIPE SHALL HAVE A MINIMUM YIELD STRENGTH OF 52,000 PSI AND CONFORM TO ONE OF THE FOLLOWING MATERIAL DESIGNATIONS:
 - ASTM A53, GRADE B, TYPE E OR S
 - API 5LX, GRADE X52
 - ASTM A106, GRADE C, TYPE S
 - ASTM A500, GRADE B
 - MILL CERTIFICATIONS FOR EACH SIGN STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
 - THE PIPE SHALL HAVE A MINIMUM CHARPY V-NOTCH IMPACT TEST RESULT OF 25 FT-LB AT 40°F. CHARPY V-NOTCH SAMPLING AND TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH ASTM A673, FREQUENCY H.
- ALL STEEL PLATES AND SHAPES SHALL CONFORM TO AASHTO M270, GRADE 36 OR BETTER. ALL STEEL PLATES AND SHAPES SHALL MEET THE CHARPY V-NOTCH REQUIREMENTS FOR ZONE 2, NON- FRACTURE CRITICAL.
- THE STRUCTURE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
- ALL CONNECTION BOLTS SHALL CONFORM TO AASHTO M164. WASHERS SHALL CONFORM TO AASHTO M293, AND NUTS SHALL CONFORM TO AASHTO M291, GRADE DH, OR AASHTO M292, GRADE 2H.
- ANCHOR BOLTS SHALL CONFORM TO AASHTO M314, GRADE 55. ANCHOR NUTS SHALL CONFORM TO AASHTO M291, GRADE DH, OR AASHTO M292, GRADE 2H. WASHERS SHALL CONFORM TO AASHTO M293.
- ALL HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.
- PORTLAND CEMENT CONCRETE FOR PEDESTALS AND FOUNDATIONS SHALL BE DELDOT CLASS B (f'c = 3,000 PSI).
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
- REINFORCING STEEL SHALL CONFORM TO AASHTO M31, GRADE 60.
- ALL REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" UNLESS OTHERWISE NOTED.

SIGN STRUCTURE LOCATION

SIGN STRUCTURE NUMBER	STRUCTURE TYPE	HISTORICAL SR 1 BASELINE	SUPPORT OFFSET FROM HISTORIC BASELINE *	
			WEST SUPPORT	EAST SUPPORT
SO 1258A 067	OVERHEAD	249+00	79'LT	91'RT
SO 1258B 067	OVERHEAD	230+70	91'LT	90.86'RT
SO 1259 067	OVERHEAD	218+65	91'LT	79'RT
SO 1261 067	OVERHEAD	192+00	85'LT	85'RT
SO 1257K 067	OVERHEAD	179+80	61.33'LT	59'RT

* OFFSET DISTANCES ARE MEASURED BETWEEN SUPPORT CENTERS AND REPORTED TO THE NEAREST FOOT. FINAL SIGN STRUCTURE LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER.

PROJECT NOTES

SECTION 100

- ANY DAMAGE TO ITEMS NOT DESIGNATED TO BE REPLACED BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

SECTION 200

- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO EXCAVATE TEST PIT AT POINTS OF POSSIBLE UTILITY CONFLICTS, TO DETERMINE IF A CONFLICT EXISTS. ANY CONFLICT SHALL BE COORDINATED BY THE CONTRACTOR, WITH THE ENGINEER AND THE UTILITY COMPANY INVOLVED. THE ENGINEER SHALL ULTIMATELY DETERMINE THE SOLUTION TO THE UTILITY CONFLICT. TEST HOLES SHALL BE INCIDENTAL TO ITEM 606004-DRILLED SHAFT, 60", 606005-DRILLED SHAFT, 72".
- ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - OVERHEAD SIGN STRUCTURES.
 - OVERHEAD SIGN FOUNDATIONS (REMOVE 1.5' MINIMUM BELOW EXISTING GROUND SURFACE)
 - CANTILEVER SIGN STRUCTURES.
 - CANTILEVER SIGN FOUNDATIONS (REMOVE 1.5' MINIMUM BELOW EXISTING GROUND SURFACE)
 - FLARED END SECTIONS
 - GUARDRAIL
 - GUIDE SIGN FOUNDATIONS
 EXISTING SIGN STRUCTURES AND SIGN PANELS SHALL BE PROPERTY OF THE CONTRACTOR
- EXISTING SIGN STRUCTURE FOUNDATIONS SHALL BE CUT 1.5' BELOW EXISTING GRADE. PAYMENT SHALL BE INCLUDED IN ITEM 211000 - REMOVAL OF STRUCTURE AND OBSTRUCTIONS. AREA AROUND EXISTING STRUCTURE SHALL BE REGRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATIONS 908004 AND 908014.

SECTION 600

- THE SIGN STRUCTURE SHALL BE SHOP-ASSEMBLED TO ENSURE PROPER FIT OF SPLICE BOLTS IN THE FIELD.
- ALL WELDING SHALL BE SUBJECT TO NON -DESTRUCTIVE TESTING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE ANSI/AASHTO/AWS D1.1 STRUCTURAL WELDING CODE - STEEL. WELDS IN MAIN MEMBERS SHALL BE ULTRASONICALLY INSPECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- SIGN STRUCTURES SHALL BE FABRICATED SO THAT AFTER ERECTION, THE MAST AND MAST ARMS SHALL CONFORM TO THE CAMBER DIAGRAMS SHOWN IN THE DRAWINGS.
- THE CONTRACTOR SHALL INCLUDE ESTIMATED LEAD TIME OR DELIVERY DATE ON SHOP DRAWINGS.

SECTION 700

- THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL EXISTING CONDITIONS, LAYOUT DIMENSIONS, AND CLEARANCES THAT ARE SHOWN ON THE DRAWINGS PRIOR TO ANY CONSTRUCTION WORK. THE COST OF THIS ITEM SHALL BE INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.
- THE CONTRACTOR SHALL SURVEY THE LAYOUT OF PROPOSED FOUNDATIONS AND ANCHOR BOLTS AND OBTAIN ENGINEER'S APPROVAL OF THE FOUNDATION LOCATION PRIOR TO PREPARING SHOP DRAWINGS FOR SIGN SUPPORTS TO BE ERECTED THEREON. THE SHOP DRAWINGS SHALL INCLUDE THE MEASUREMENTS OBTAINED FROM THE SURVEY. ALL SURVEY DATA WILL BE BASED ON THE NATIONAL GEODETIC SURVEY VERTICAL DATUM (NAVD88) AND THE NATIONAL GEODETIC SURVEY HORIZONTAL DATUM (NAD83) PAVEMENT FOR ALL SURVEY WORK WILL BE INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.
- THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO GAPS BETWEEN SECTIONS OF SIGN.

MISCELLANEOUS

- THE CONTRACTOR SHALL COVER ALL SIGN FOUNDATION EXCAVATIONS AT THE END OF EACH WORKDAY WITH STEEL PLATES CAPABLE OF SUPPORTING PEDESTRIAN LOADS OR AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO ITEMS 606004-DRILLED SHAFT, 60", 606005-DRILLED SHAFT, 72".
- IF ANY PUMPING IS NECESSARY TO EXCAVATE FOR THE SIGN STRUCTURE FOUNDATIONS, PLEASE REFER TO SECTION 111 FOR THE PUMPING REQUIREMENTS. PAYMENT SHALL BE INCIDENTAL TO ITEM 606004-DRILLED SHAFT, 60", 606005-DRILLED SHAFT, 72".
- IT IS ANTICIPATED THAT ALL WORK WILL OCCUR WITHIN DELDOT'S EXISTING RIGHT OF WAY OR EASEMENT AREAS. SHOULD THE NEED OCCUR TO TRESPASS ONTO PRIVATE PROPERTY, IT WILL BE THE RESPONSIBILITY OF THE DELDOT PROJECT MANAGER TO SECURE SUCH TRESPASS NEEDS.
- THE CONTRACTOR SHALL CONTACT THE CHIEF OF SCHEDULING FOR DART FIRST STATE, 14 DAYS PRIOR TO THE START OF CONSTRUCTION, AT 302-576-6191.
- BASED ON CURRENT COORDINATION, THE PROJECT IS CLEAR FOR CULTURAL RESOURCES AND EXEMPT FROM SHPO REVIEW UNDER STIPULATION II.A.11 OF DELDOT'S PROGRAMMATIC AGREEMENT WITH FEDERAL HIGHWAY ADMINISTRATION (FHWA) AND DELAWARE STATE HISTORIC PRESERVATION OFFICE (SHPO). THERE ARE NO CULTURAL RESOURCES CONCERNS AS LONG AS THE PROJECT SCOPE IS NOT MODIFIED AND ALL STAGING AND STOCKPILING REMAIN WITHIN THE EXISTING ROADWAY FOOTPRINT. SHOULD IT BE NECESSARY TO ADD ADDITIONAL ACCESS LOCATIONS, OTHER STOCKPILING/STAGING AREAS, OR OTHERWISE ALTER THE SCOPE OF THE PROJECT, DELDOT ENVIRONMENTAL STUDIES STAFF WILL NEED TO REVIEW THESE CHANGES FOR POTENTIAL CULTURAL RESOURCES CONCERNS.

ADDENDA / REVISIONS

NOT TO SCALE

SR 1 TYBOOTS
LEFT EXIT COMPLIANCE

CONTRACT	BRIDGE NO.
T201809201	
COUNTY	DESIGNED BY: RK&K
NEW CASTLE	CHECKED BY: RK&K

NOTES

SECTION
RK&K
SHEET NO.
5

SEQUENCE OF CONSTRUCTION:

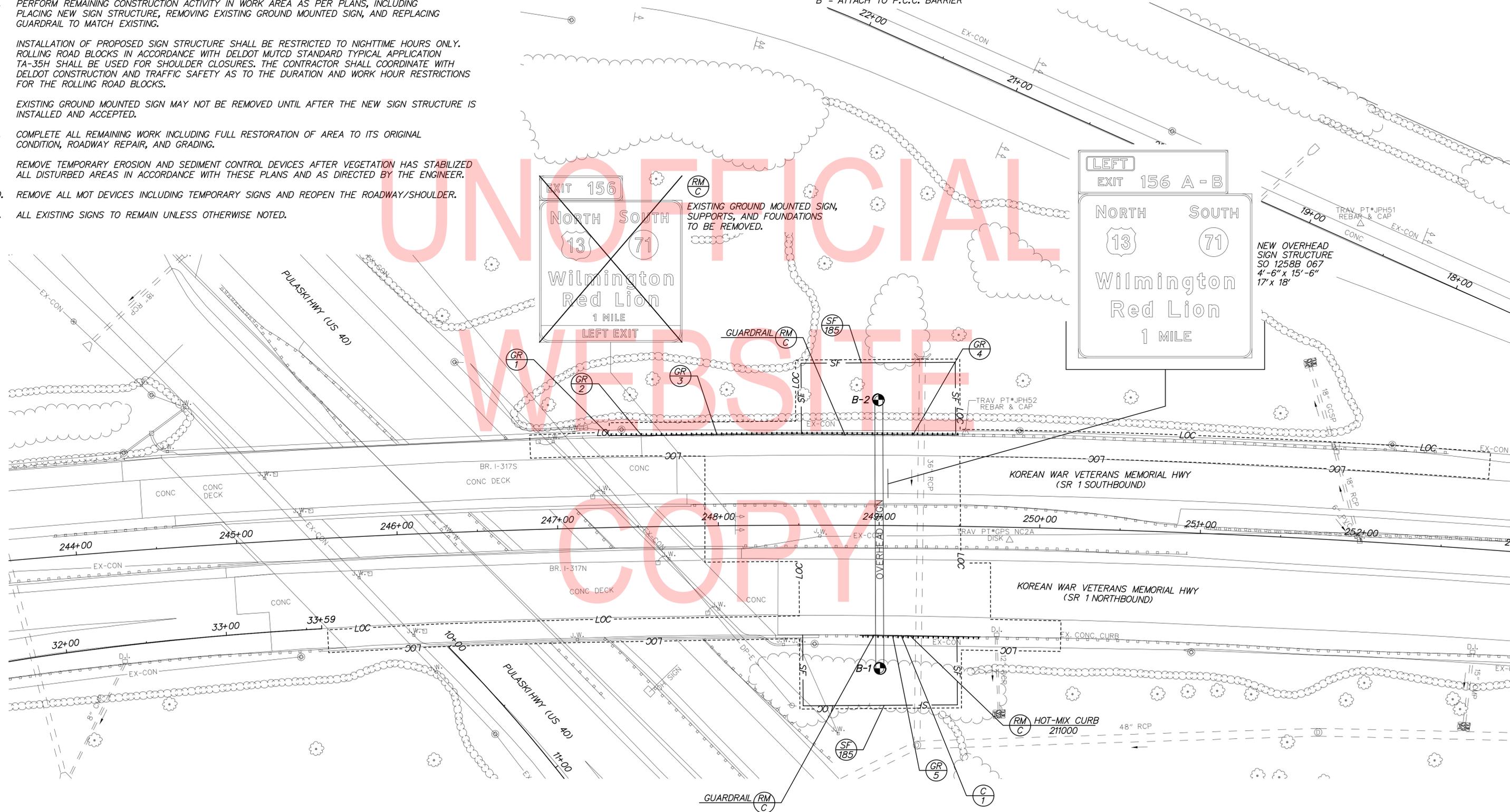
1. INSTALL MOT DEVICES IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE OUTSIDE SHOULDERS, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL CASES MAY BE REQUIRED BASED ON FIELD CONDITIONS.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. REMOVE GUARDRAIL AND HOT MIX CURB TO THE EXTENTS SHOWN IN THE PLANS.
4. PERFORM EXCAVATIONS FOR DRILLED SHAFT TO THE DIMENSIONS AND ELEVATIONS SHOWN IN PLANS.
5. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING PLACING NEW SIGN STRUCTURE, REMOVING EXISTING GROUND MOUNTED SIGN, AND REPLACING GUARDRAIL TO MATCH EXISTING.
6. INSTALLATION OF PROPOSED SIGN STRUCTURE SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
7. EXISTING GROUND MOUNTED SIGN MAY NOT BE REMOVED UNTIL AFTER THE NEW SIGN STRUCTURE IS INSTALLED AND ACCEPTED.
8. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
10. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
11. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

SOIL BORING SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
B-1	249+00	89' RT	596460.2584	589643.6171
B-2	249+00	78' LT	596482.4078	589478.0906

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	P. C. C. CURB, TYPE 1-4	75'

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27 (721014)	247+33	B	1 EA
2	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	247+53	-56'	28 LF
3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	247+81	-56'	137.5 LF
4	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	252+00	-56'	28 LF
5	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	248+88	+68'	75 LF

NOTES: ALL BEGINNING STATIONS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 A = OFFSET ATTENUATORS AS PER STANDARD DETAILS
 B = ATTACH TO P.C.C. BARRIER



ADDENDA / REVISIONS



SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

CONTRACT	BRIDGE NO.
T201809201	DESIGNED BY: RK&K
COUNTY	CHECKED BY: RK&K
NEW CASTLE	

SIGNING
CONSTRUCTION PLAN

SECTION
RK&K
SHEET NO.
6

7/15/2019 7:57:50 AM \\BALSROV05\2015\2015\15063_DELDOT1742\TASKS\TASK 19 SR 1 TYBOUTS CORNER LEFT EXIT SIGN DESIGN SERVICES\TRAFFIC DESIGN\CADD\CP_SSC01_SRIE_TYBOUTS.DGN

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
6	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27 (721014)	229+75	B	1 EA
7	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	229+95	-69'	28 LF
8	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	230+24	VARIABLES	75 LF
9	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	230+97	-71'	28 LF
10	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-27 (721014)	230+38	B	1 EA
11	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	230+58	69'	28 LF
12	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	230+86	70'	12.5 LF
13	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	231+00	70'	28 LF

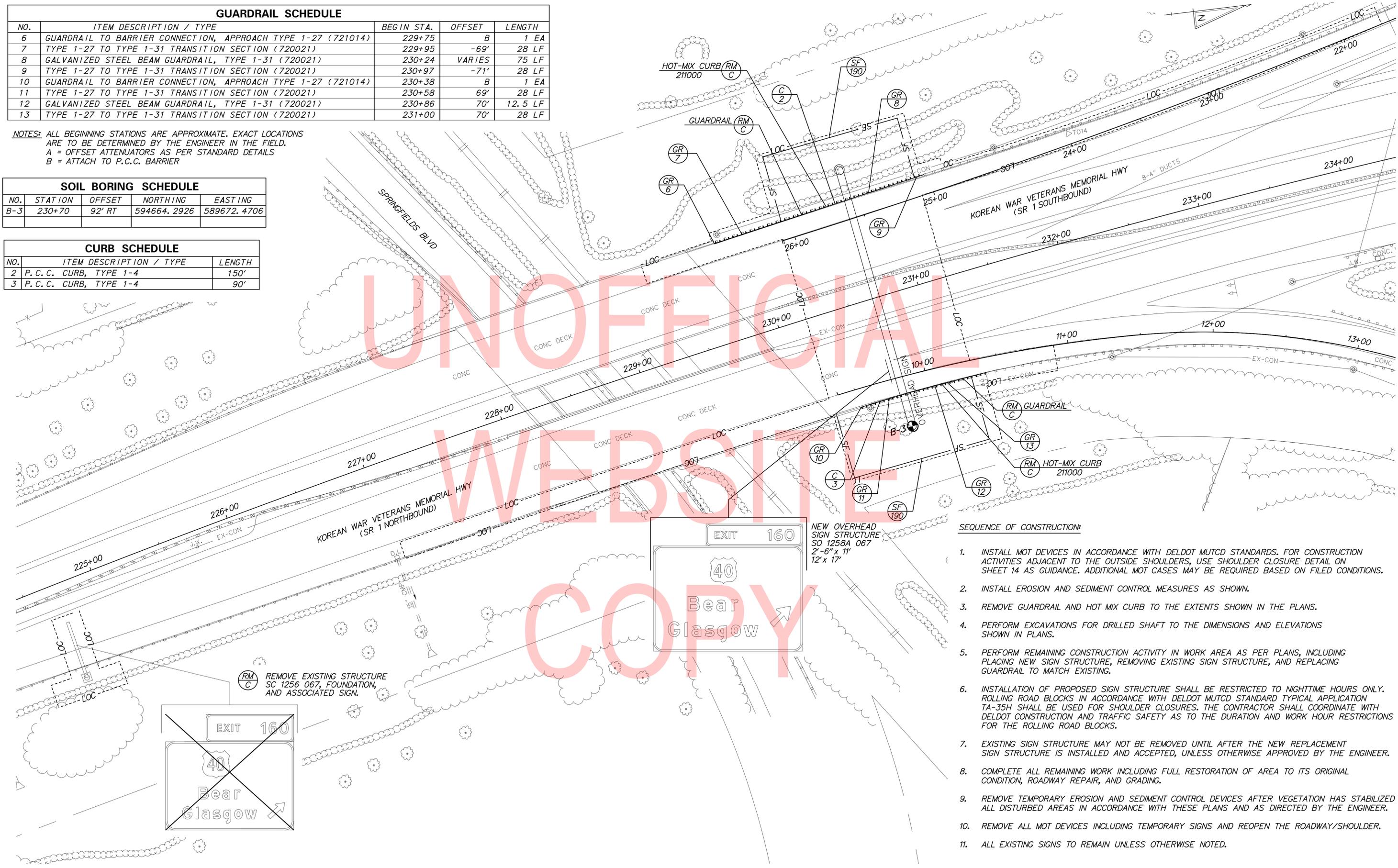
NOTES: ALL BEGINNING STATIONS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 A = OFFSET ATTENUATORS AS PER STANDARD DETAILS
 B = ATTACH TO P.C.C. BARRIER

SOIL BORING SCHEDULE

NO.	STATION	OFFSET	NORTHING	EASTING
B-3	230+70	92' RT	594664.2926	589672.4706

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
2	P.C.C. CURB, TYPE 1-4	150'
3	P.C.C. CURB, TYPE 1-4	90'



SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE OUTSIDE SHOULDERS, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL MOT CASES MAY BE REQUIRED BASED ON FILED CONDITIONS.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. REMOVE GUARDRAIL AND HOT MIX CURB TO THE EXTENTS SHOWN IN THE PLANS.
4. PERFORM EXCAVATIONS FOR DRILLED SHAFT TO THE DIMENSIONS AND ELEVATIONS SHOWN IN PLANS.
5. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING PLACING NEW SIGN STRUCTURE, REMOVING EXISTING SIGN STRUCTURE, AND REPLACING GUARDRAIL TO MATCH EXISTING.
6. INSTALLATION OF PROPOSED SIGN STRUCTURE SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
7. EXISTING SIGN STRUCTURE MAY NOT BE REMOVED UNTIL AFTER THE NEW REPLACEMENT SIGN STRUCTURE IS INSTALLED AND ACCEPTED, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
8. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
10. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
11. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

(RM C) REMOVE EXISTING STRUCTURE SC 1256 067, FOUNDATION, AND ASSOCIATED SIGN.



ADDENDA / REVISIONS



SR 1 TYBOUTS LEFT EXIT COMPLIANCE

CONTRACT	BRIDGE NO.
T201809201	
COUNTY	DESIGNED BY: RK&K
NEW CASTLE	CHECKED BY: RK&K

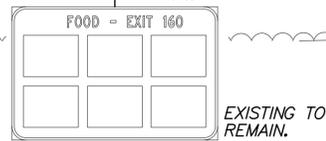
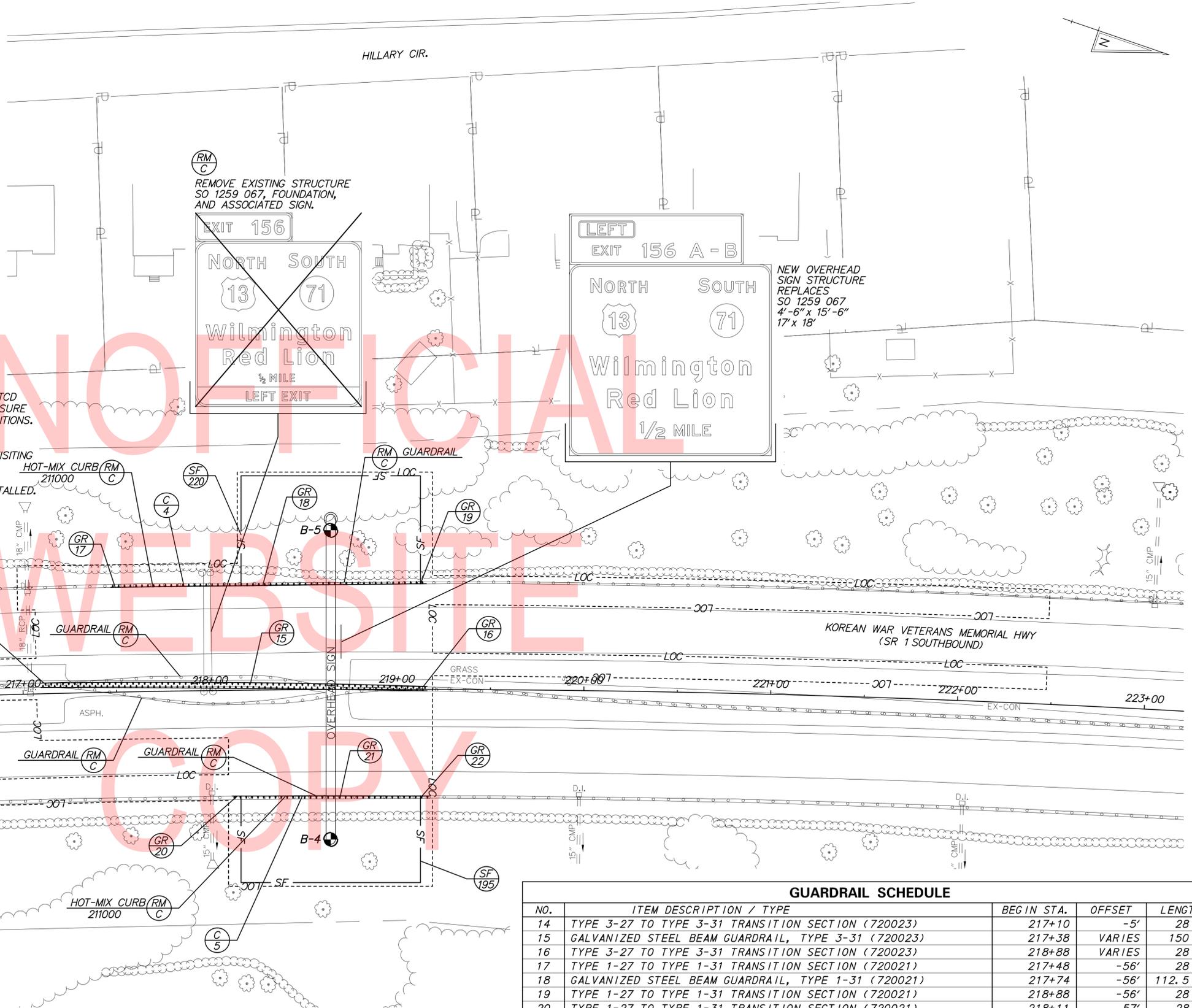
SIGNING CONSTRUCTION PLAN

SECTION
RK&K
SHEET NO.
7

7/15/2019 8:04:39 AM \\BALSRV05\2015\2015\15063_DELDOT1742\TASKS\TASK 19_SR_1 TYBOUTS CORNER LEFT EXIT SIGN DESIGN SERVICES\TRAFFIC DESIGN\CADD\CP_SSC02_SR1E_TYBOUTS.DGN

SEQUENCE OF CONSTRUCTION:

1. INSTALL OUTSIDE SHOULDER MOT DEVICES IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE OUTSIDE SHOULDERS, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL MOT CASES MAY BE REQUIRED BASED ON FILED CONDITIONS.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. REMOVE GUARDRAIL AND HOT MIX CURB TO THE EXTENTS SHOWN IN THE PLANS.
4. PERFORM EXCAVATIONS FOR DRILLED SHAFT TO THE DIMENSIONS AND ELEVATIONS SHOWN IN PLANS.
5. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING PLACING NEW SIGN STRUCTURE, REMOVING EXISTING OVERHEAD TRUSS, OUTSIDE SHOULDER UPRIGHT, OUTSIDE SHOULDER FOUNDATION, AND REPLACING GUARDRAIL TO MATCH EXISTING.
6. INSTALLATION OF PROPOSED SIGN STRUCTURE SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
7. EXISTING SIGN STRUCTURE MAY NOT BE REMOVED UNTIL AFTER THE NEW REPLACEMENT SIGN STRUCTURE IS INSTALLED AND ACCEPTED, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
8. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
10. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
11. INSTALL INSIDE SHOULDER MOT DEVICES IN SOUTHBOUND DIRECTION IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE INSIDE SHOULDER, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL MOT CASES MAY BE REQUIRED BASED ON FILED CONDITIONS.
12. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING REMOVING EXISTING OVERHEAD UPRIGHT AND FOUNDATION, REPLACING EXISTING GUARDRAIL, AND REMOVAL OF EXISTING GUARDRAIL.
13. EXISTING NORTHBOUND GUARDRAIL SHALL REMAIN UNTIL PROPOSED MEDIAN GUARDRAIL HAS BEEN INSTALLED.
14. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
15. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.



CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
4	P. C. C. CURB, TYPE 1-4	170'
5	P. C. C. CURB, TYPE 1-4	106'

SOIL BORING SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
B-4	218+65	80' RT	593510.3953	589960.5843
B-5	218+65	85' LT	593456.5763	589802.6432

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
14	TYPE 3-27 TO TYPE 3-31 TRANSITION SECTION (720023)	217+10	-5'	28 LF
15	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31 (720023)	217+38	VARIES	150 LF
16	TYPE 3-27 TO TYPE 3-31 TRANSITION SECTION (720023)	218+88	VARIES	28 LF
17	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	217+48	-56'	28 LF
18	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	217+74	-56'	112.5 LF
19	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	218+88	-56'	28 LF
20	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	218+11	57'	28 LF
21	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	218+39	57'	28 LF
22	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	218+90	57'	28 LF

NOTES: ALL BEGINNING STATIONS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 A = OFFSET ATTENUATORS AS PER STANDARD DETAILS
 B = ATTACH TO P.C.C. BARRIER

ADDENDA / REVISIONS



SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

CONTRACT	BRIDGE NO.
T201809201	
COUNTY	DESIGNED BY: RK&K
NEW CASTLE	CHECKED BY: RK&K

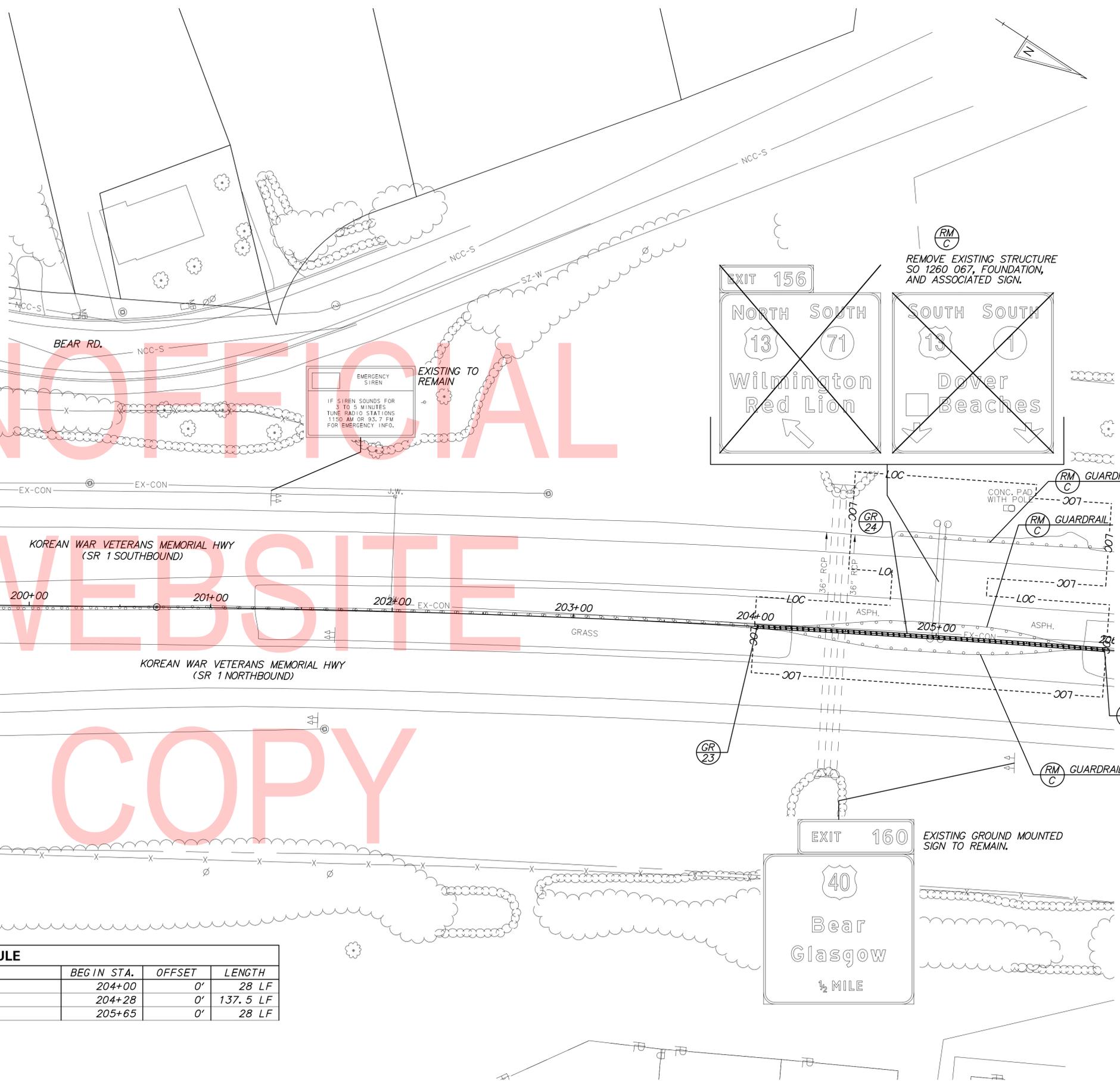
SIGNING
CONSTRUCTION PLAN

SECTION
RK&K
SHEET NO.
8

7/15/2019 8:18:06 AM \\BALSRV05\2015\2015\15063_DELDOT1742\TASKS\TASK 19_SR_1TYBOUTS_CORNER_LEFT_EXIT_SIGN_DESIGN_TRAFFIC_SERVICES\TRAFFIC_SIGN_DESIGN\CADD\CP_SSC03_SR1E_TYBOUTS.DGN

SEQUENCE OF CONSTRUCTION:

1. INSTALL INSIDE SHOULDER MOT DEVICES IN SOUTHBOUND DIRECTION IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE INSIDE SHOULDER, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL MOT CASES MAY BE REQUIRED BASED ON FILED CONDITIONS.
2. REMOVAL OF EXISTING SIGN STRUCTURE OVERHEAD TRUSS SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
3. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING REMOVING EXISTING OVERHEAD UPRIGHT AND FOUNDATION AND REPLACING EXISTING GUARDRAIL AS SHOWN IN PLAN VIEW PROVIDING TIE INTO EXISTING.
4. EXISTING NORTHBOUND GUARDRAIL SHALL REMAIN UNTIL PROPOSED MEDIAN GUARDRAIL HAS BEEN INSTALLED
5. EXISTING SIGN STRUCTURE MAY NOT BE REMOVED UNTIL AFTER THE INSTALLATION OF NEW REPLACEMENT SIGN STRUCTURE SO 1259 067 IS INSTALLED AND ACCEPTED.
4. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
5. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
6. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.



UNOFFICIAL WEBSITE COPY

RELOCATED SERVICE SIGN FROM SHEET 10.
SEE SHEET 13 FOR POST AND FOUNDATION INFORMATION.

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
23	TYPE 3-27 TO TYPE 3-31 TRANSITION SECTION (720023)	204+00	0'	28 LF
24	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31 (720023)	204+28	0'	137.5 LF
25	TYPE 3-27 TO TYPE 3-31 TRANSITION SECTION (720023)	205+65	0'	28 LF

NOTES: ALL BEGINNING STATIONS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
A = OFFSET ATTENUATORS AS PER STANDARD DETAILS
B = ATTACH TO P.C.C. BARRIER

ADDENDA / REVISIONS



**SR 1 TYBOUTS
LEFT EXIT COMPLIANCE**

CONTRACT T201809201	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: RK&K
	CHECKED BY: RK&K

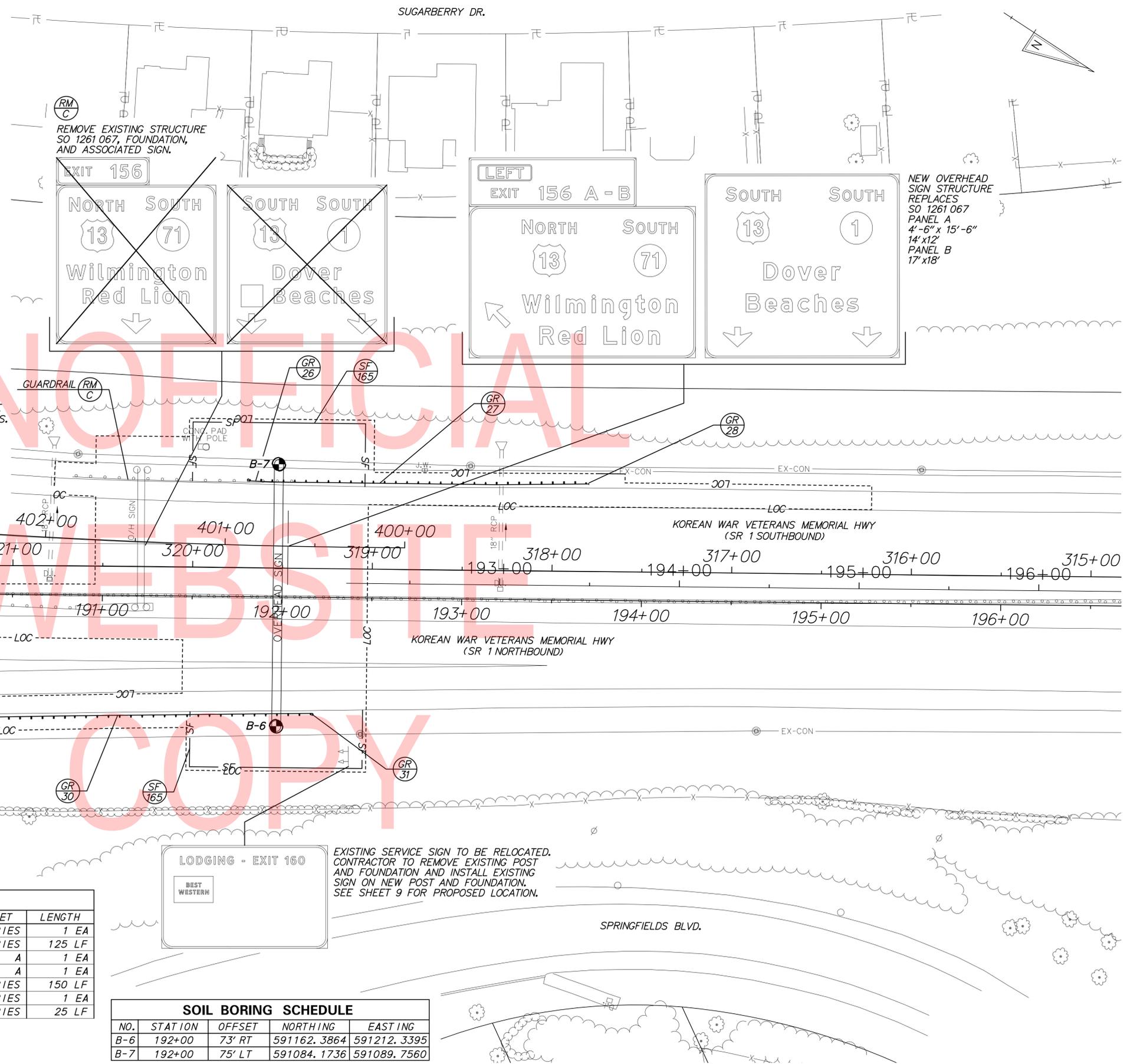
**SIGNING
CONSTRUCTION PLAN**

SECTION RK&K	SHEET NO. 9
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7/15/2019 8:21:58 AM \\BALSRV05\2015\2015\15063_DELDOT1742\TASKS\TASK 19_SR 1 TYBOUTS CORNER LEFT EXIT SIGN DESIGN SERVICES\TRAFFIC DESIGN\CADD\CP_SSC04_SR1E_TYBOUTS.DGN

SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE OUTSIDE SHOULDERS, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL CASES MAY BE REQUIRED BASED ON FIELD CONDITIONS.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. REMOVE GUARDRAIL AND HOT MIX CURB TO THE EXTENTS SHOWN IN THE PLANS.
4. PERFORM EXCAVATIONS FOR DRILLED SHAFT TO THE DIMENSIONS AND ELEVATIONS SHOWN IN PLANS.
5. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING PLACING NEW SIGN STRUCTURE, REMOVING EXISTING OVERHEAD TRUSS, OUTSIDE SHOULDER UPRIGHT, OUTSIDE SHOULDER FOUNDATION, AND REPLACING GUARDRAIL TO MATCH EXISTING.
6. INSTALLATION OF PROPOSED SIGN STRUCTURE SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
7. EXISTING SIGN STRUCTURE MAY NOT BE REMOVED UNTIL AFTER THE NEW REPLACEMENT SIGN STRUCTURE IS INSTALLED AND ACCEPTED, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
8. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
10. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
11. INSTALL INSIDE SHOULDER MOT DEVICES IN NORTHBOUND DIRECTION IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE INSIDE SHOULDER, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL MOT CASES MAY BE REQUIRED BASED ON FILED CONDITIONS.
12. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING REMOVING EXISTING OVERHEAD UPRIGHT AND FOUNDATION, REMOVAL OF EXISTING GUARDRAIL, AND TIE INTO EXISTING GUARDRAIL..
13. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
14. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.



GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
26	END ANCHORAGE 31 (721006)	191+57	VARIES	1 EA
27	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	191+71	VARIES	125 LF
28	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3 (721001)	192+98	A	1 EA
29	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3 (721001)	190+07	A	1 EA
30	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	190+23	VARIES	150 LF
31	END ANCHORAGE 31 (721006)	191+73	VARIES	1 EA
38	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	189+50	VARIES	25 LF

NOTES: ALL BEGINNING STATIONS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 A = OFFSET ATTENUATORS AS PER STANDARD DETAILS
 B = ATTACH TO P.C.C. BARRIER

LODGING - EXIT 160



EXISTING SERVICE SIGN TO BE RELOCATED. CONTRACTOR TO REMOVE EXISTING POST AND FOUNDATION AND INSTALL EXISTING SIGN ON NEW POST AND FOUNDATION. SEE SHEET 9 FOR PROPOSED LOCATION.

SOIL BORING SCHEDULE

NO.	STATION	OFFSET	NORTHING	EASTING
B-6	192+00	73' RT	591162.3864	591212.3395
B-7	192+00	75' LT	591084.1736	591089.7560

ADDENDA / REVISIONS



**SR 1 TYBOUTS
LEFT EXIT COMPLIANCE**

CONTRACT T201809201	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: RK&K
	CHECKED BY: RK&K

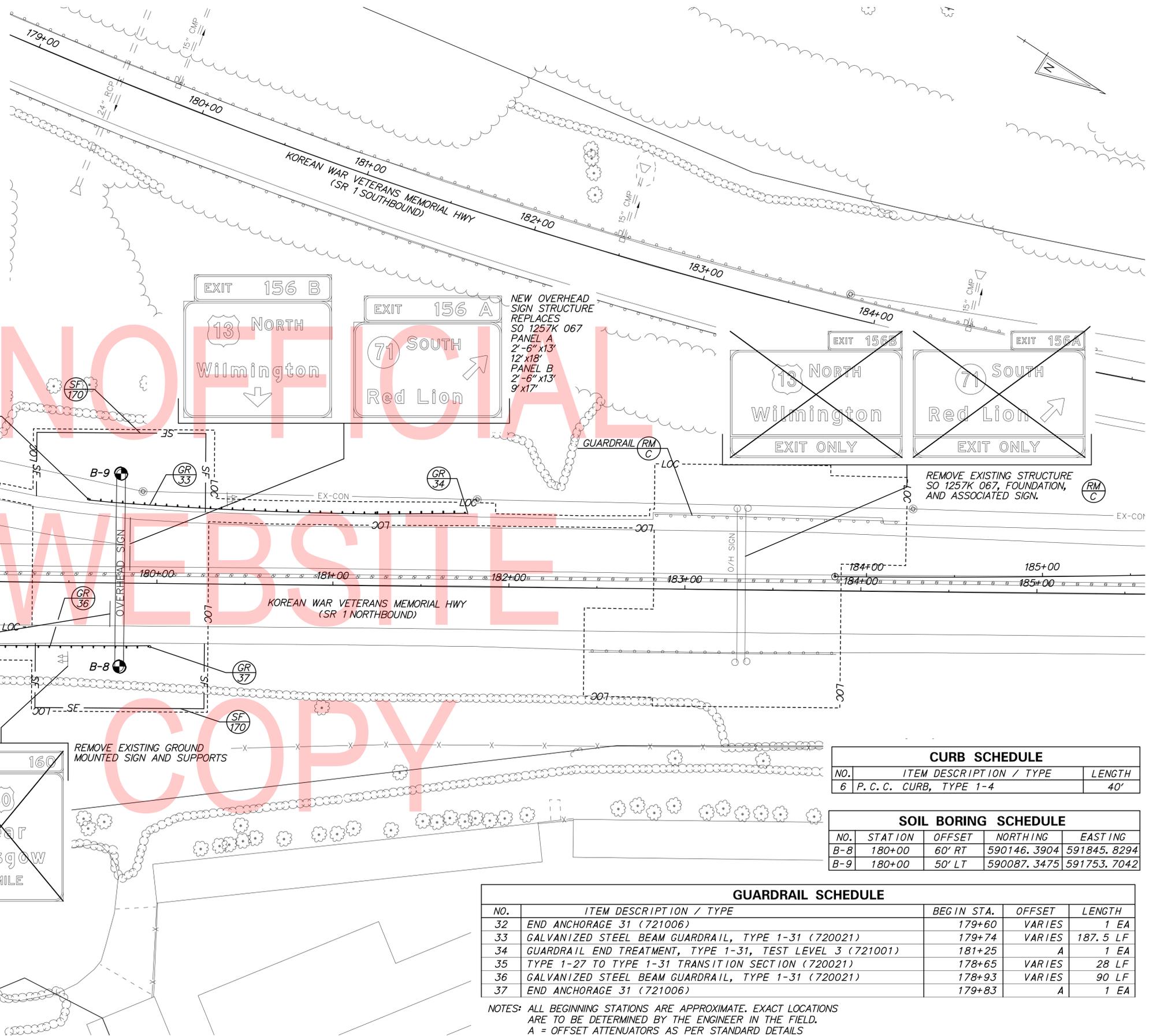
**SIGNING
CONSTRUCTION PLAN**

SECTION RK&K
SHEET NO. 10

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SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH DELDOT MUTCD STANDARDS. FOR CONSTRUCTION ACTIVITIES ADJACENT TO THE OUTSIDE SHOULDERS, USE SHOULDER CLOSURE DETAIL ON SHEET 14 AS GUIDANCE. ADDITIONAL MOT CASES MAY BE REQUIRED BASED ON FILED CONDITIONS.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. REMOVE GUARDRAIL AND HOT MIX CURB TO THE EXTENTS SHOWN IN THE PLANS.
4. PERFORM EXCAVATIONS FOR DRILLED SHAFT TO THE DIMENSIONS AND ELEVATIONS SHOWN IN PLANS.
5. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING PLACING NEW SIGN STRUCTURE, REMOVING EXISTING SIGN STRUCTURE, REMOVING EXISTING GROUND MOUNTED SIGN, REMOVE EXISTING GUARDRAIL, INSTALLING NEW GUARDRAIL AND EXTENDING EXISTING GUARDRAIL TO MATCH EXISTING.
6. INSTALLATION OF PROPOSED SIGN STRUCTURE SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
7. EXISTING SIGN STRUCTURE MAY NOT BE REMOVED UNTIL AFTER THE NEW REPLACEMENT SIGN STRUCTURE IS INSTALLED AND ACCEPTED, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
8. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
9. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
10. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.
11. ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.



CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
6	P. C. C. CURB, TYPE 1-4	40'

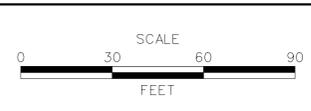
SOIL BORING SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
B-8	180+00	60' RT	590146.3904	591845.8294
B-9	180+00	50' LT	590087.3475	591753.7042

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
32	END ANCHORAGE 31 (721006)	179+60	VARIES	1 EA
33	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	179+74	VARIES	187.5 LF
34	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3 (721001)	181+25	A	1 EA
35	TYPE 1-27 TO TYPE 1-31 TRANSITION SECTION (720021)	178+65	VARIES	28 LF
36	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 (720021)	178+93	VARIES	90 LF
37	END ANCHORAGE 31 (721006)	179+83	A	1 EA

NOTES: ALL BEGINNING STATIONS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
 A = OFFSET ATTENUATORS AS PER STANDARD DETAILS
 B = ATTACH TO P.C.C. BARRIER

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ADDENDA / REVISIONS



SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

CONTRACT T201809201	BRIDGE NO.
COUNTY NEW CASTLE	DESIGNED BY: RK&K
	CHECKED BY: RK&K

SIGNING
CONSTRUCTION PLAN

SECTION RK&K
SHEET NO. 11

7/8/2019 10:40:47 AM \\BALSRY05\2015\2015\15063_DELDOT1742\TASKS\TASK 19_SR_1TYBOUTS_CORNER_LEFT_EXIT_SIGN_DESIGN_SERVICES\TRAFFIC_DESIGN\CADD\CP_SSC07_SRILE_TYBOUTS.DGN

PANEL DESIGNATION	SHEET NUMBER	QUANTITY	LEGEND	SIZE			COLOR		BORDER			REMARKS	PANEL DESIGNATION	SHEET NUMBER	QUANTITY	LEGEND	SIZE			COLOR		BORDER			REMARKS		
				AREA	HEIGHT	WIDTH	LEGEND	BCKGRND	WIDTH	RAD IUS	ARROW						SHIELD	AREA	HEIGHT	WIDTH	LEGEND	BCKGRND	WIDTH	RAD IUS		ARROW	SHIELD
SO 1258B (067)	6	1		375.75 ^{sq}	4'-6"	15'-6"	W	G	2"	6"	-	-	SO 1261 (067) PANEL B	10	1		306 ^{sq}	17'-0"	18'-0"	W	G	2"	12"	(1) M1-4 36" (1) M1-5 36"	-	EXTRUDED ALUMINUM	
SO 1258A (067)	7	1		231.5 ^{sq}	2'-6"	11'-0"	W	G	2"	6"	-	-	SO 1257K (067) PANEL A	11	1		186.5 ^{sq}	11'-0"	14'-0"	W	G	2"	12"	DOWN 22"	M1-4 36"	-	EXTRUDED ALUMINUM
SO 1259 (067)	8	1		375.75 ^{sq}	4'-6"	15'-6"	W	G	2"	6"	-	-	SO 1257K (067) PANEL B	11	1		158.5 ^{sq}	9'-0"	14'-0"	W	G	2"	12"	TYPE A @45°	M1-5 36"	-	EXTRUDED ALUMINUM
SO 1261 (067) PANEL A	10	1		363.75 ^{sq}	4'-6"	15'-6"	W	G	2"	6"	-	-	SO 1257K (067) PANEL C	11	1		245 ^{sq}	15'-0"	14'-6"	W	G	2"	12"	-	M1-4 36"	-	EXTRUDED ALUMINUM

NOTES: 1. COLORS: B=BLACK, BL=BLUE, BR=BROWN, G=GREEN, W=WHITE/SILVER, Y=YELLOW.
2. THE CONTRACTOR WILL FURNISH AND INSTALL ALL SIGNS SHOWN ON THIS SHEET.

ADDENDA / REVISIONS

NOT TO SCALE

SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

CONTRACT	BRIDGE NO.
T201809201	DESIGNED BY: RK&K
COUNTY	CHECKED BY: RK&K
NEW CASTLE	

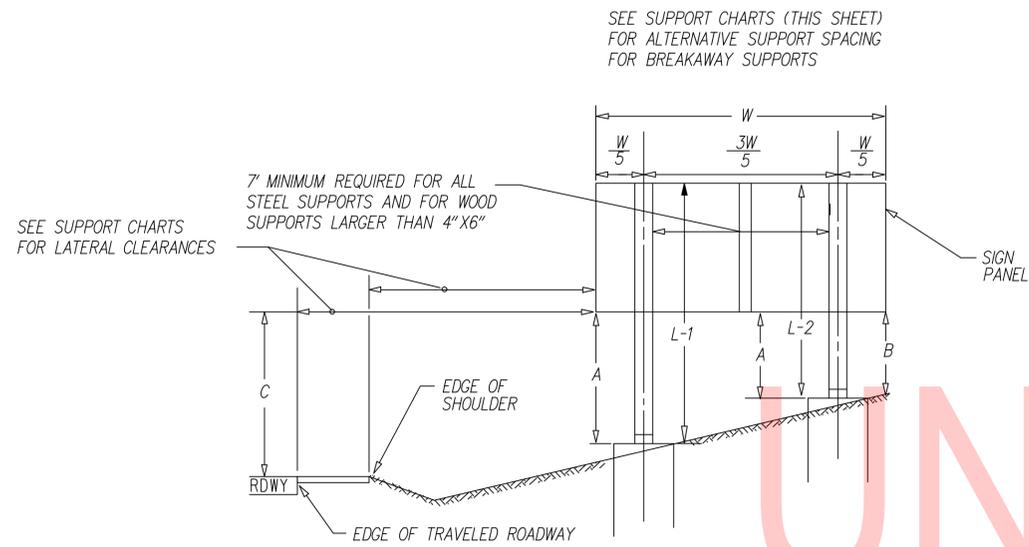
GUIDE SIGN
DETAILS

SECTION
RK&K
SHEET NO.
12

GROUND MOUNTED SIGN DETAIL

BREAKAWAY AND NON-BREAKAWAY TYPE A SIGN POST FOUNDATIONS

SIGN CLEARANCE



VERTICAL CLEARANCE OF SIGNS

- A. 7'-6" MINIMUM FOR BREAKAWAY SUPPORTS OR 5'-6" FOR NON-BREAKAWAY SUPPORTS.
 - B. 2'-0" MINIMUM
 - C. 7'-6" MINIMUM & PREFERABLE. THIS DIMENSION IS TO BE INCREASED ONLY WHEN REQUIRED TO MEET A = 7'-6" FOR BREAKAWAY OR A (MIN.) = 5'-6" FOR NON-BREAKAWAY AND B (MIN) 2'-0"
- ALL DIMENSIONS ARE TO BOTTOM OF SIGN

*TOTAL WEIGHT BELOW THE HINGES SHOULD BE LESS THAN 600 POUNDS

LATERAL CLEARANCE
SEE SUPPORT CHARTS

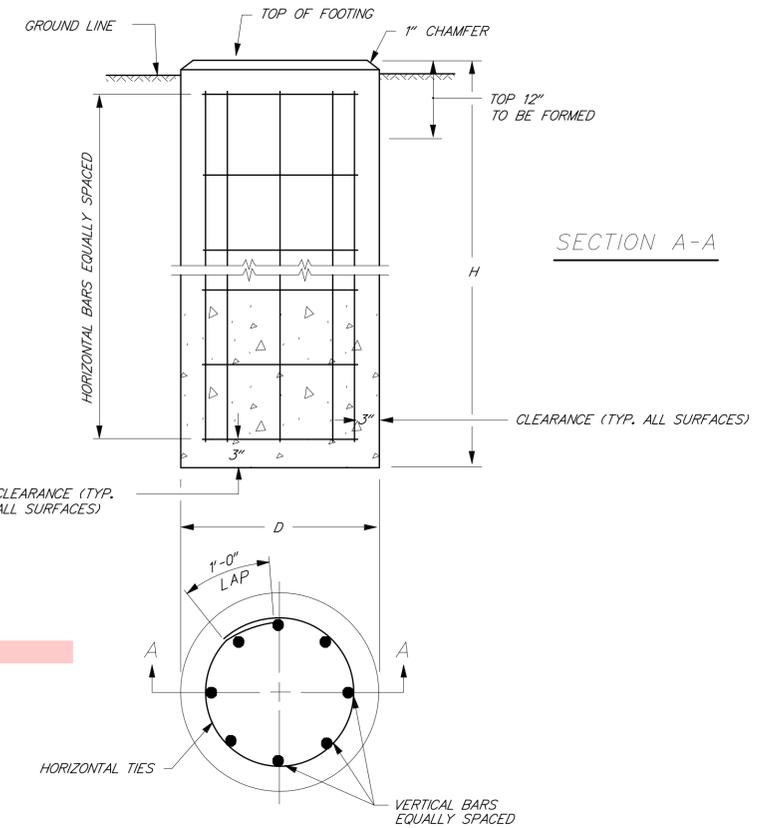
** OBJECT CODES

- W = FACE OF W-BEAM TRAFFIC BARRIER
- FOC = FACE OF CURB
- ES = EDGE OF SHOULDER
- ETR = EDGE OF TRAVELED ROADWAY
- CM = CENTERED IN MEDIAN
- CG = CENTERED IN GORE (6' MINIMUM FROM EDGE OF PAVEMENT)
- EF = EDGE OF FENCE

GUIDE SIGN STEEL SUPPORT CHART

SIGN NO.	SHEET NO.	POST SIZE	*BW OR NBW	SUPPORT L - 1	SUPPORT L - 2	SUPPORT L - 3	LATERAL CLEARANCE		SUPPORT SPACING FROM LEFT EDGE OF SIGN
							OFFSET	OBJECT **	
EXGM-1	9	W8x21	BW	19'-6"	20'-6"	-	6'	ES	2'-11'-2"

*BW = BREAKAWAY NBW = NON-BREAKAWAY



FOUNDATION DATA TABLE

POST SIZE	D	H	VERTICAL REINFORCEMENT	HORIZONTAL REINFORCEMENT	CONCRETE REQ'D C.Y.
W6 x 9	30"	6'-0"	EIGHT (8)- NO.7	SEVEN (7)- NO.4	1.1
W6 x 12 OR TS 5" x 5" x 1/4"	30"	6'-0"	EIGHT (8)- NO.7	SEVEN (7)- NO.4	1.1
W6 x 15 OR W6 x 16 OR TS 6" x 6" x 1/4"	30"	6'-6"	EIGHT (8)- NO.7	SEVEN (7)- NO.4	1.2
W8 x 18	30"	7'-6"	EIGHT (8)- NO.9	EIGHT (8)- NO.4	1.4
W8 x 21 OR TS 7" x 7" x 1/4"	30"	8'-0"	EIGHT (8)- NO.9	NINE (9)- NO.4	1.5
W10 x 22 OR TS 8" x 8" x 1/4"	36"	8'-6"	EIGHT (8)- NO.10	NINE (9)- NO.4	2.3
W10 x 26	36"	9'-0"	EIGHT (8)- NO.10	TEN (10)- NO.4	2.4
W12 x 26	36"	10'-0"	EIGHT (8)- NO.10	ELEVEN (11)- NO.4	2.7
W14 x 30	36"	11'-0"	EIGHT (8)- NO.10	TWELVE (12)- NO.4	2.9
W16 x 31	36"	12'-0"	EIGHT (8)- NO.10	THIRTEEN (13)- NO.4	3.2
W18 x 35 OR W18 X 40	36"	13'-0"	EIGHT (8)- NO.10	FOURTEEN (14)- NO.4	3.5
W21 x 44	42"	12'-0"	TWELVE (12)- NO.10	THIRTEEN (13)- NO.4	4.3

ADDENDA / REVISIONS

NOT TO SCALE

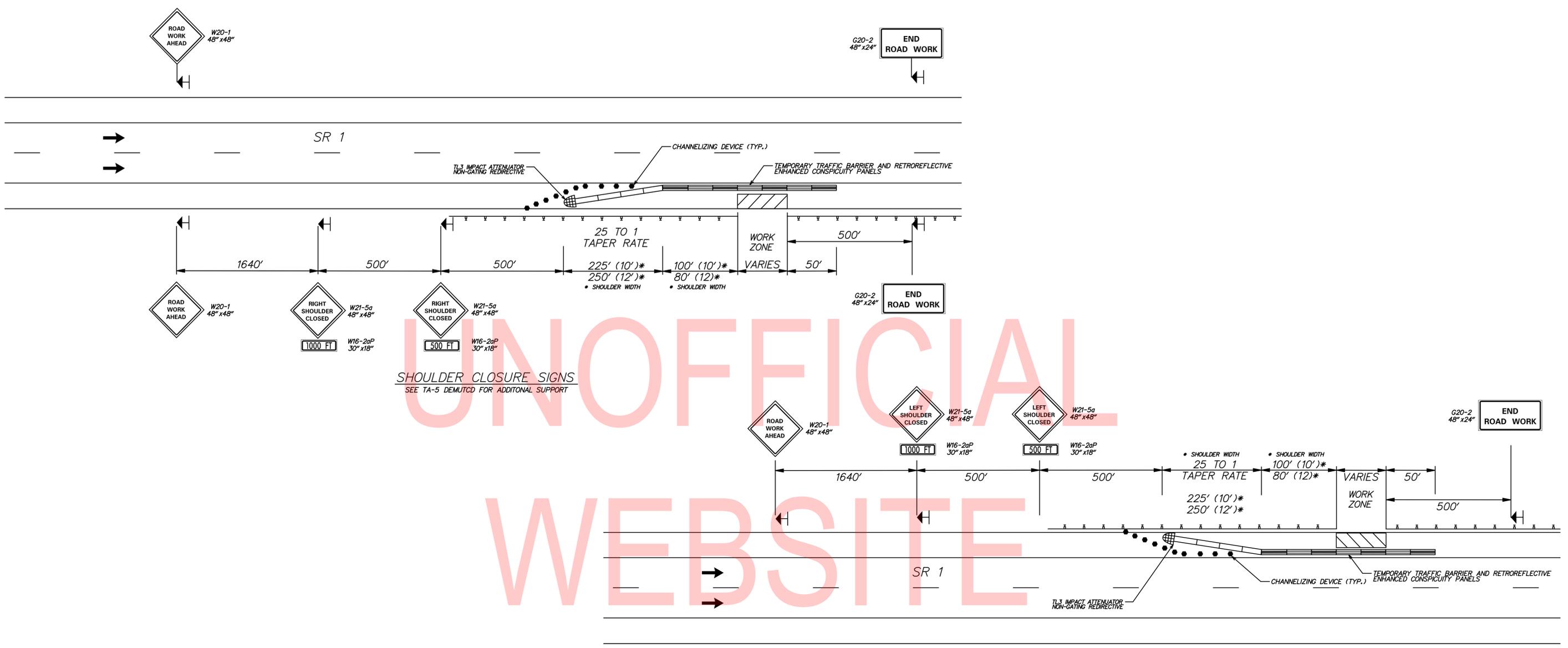
SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

CONTRACT	BRIDGE NO.
T201809201	
COUNTY	DESIGNED BY: RK&K
NEW CASTLE	CHECKED BY: RK&K

GROUND MOUNTED
SIGN DETAILS

SECTION
RK&K
SHEET NO.
13

\\BALSRV05\2015\201515063_DELDOT1742\TASKS\TASK 19_S1_1TYBOUTS_CORNER LEFT EXIT_SIGN DESIGN SERVICES\TRAFFIC DESIGN\CADD\DOT1_SR1E_TYBOUTS.DGN



SHOULDER CLOSURE SIGNS
SEE TA-5 DEMUTCD FOR ADDITIONAL SUPPORT

INSIDE SHOULDER CLOSURE SIGNS
SEE TA-5 DEMUTCD FOR ADDITIONAL SUPPORT

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SEQUENCE OF CONSTRUCTION

1. ALL SIGNING SHALL COMPLY WITH THE "DELAWARE MANUAL ON UNIFORM TRAFFIC DEVICES" (DEMUTCD)
2. CONSTRUCTION FORCES SHALL UTILIZE TA-5, TA-5A, TA-33, TA-35H, TA-42, AND TA-44 FOR MOT OPERATIONS. ADDITIONAL CASE MAY BE REQUIRED BASED ON FIELD CONDITIONS AND CONSTRUCTION NEEDS.
3. ONLY ONE SET OF SIGNS, SHOULDER CLOSURE OR LANE CLOSURE, SHALL BE VISIBLE AT ANY TIME. SIGNS FOR THE CLOSURE TYPE NOT IN USE SHALL BE COMPLETELY COVERED, WITH NO RETROREFLECTIVE MATERIAL SHOWING.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH OTHER CONTRACTORS IN THE AREA.
5. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
6. REMOVE GUARDRAIL AND HOT MIX CURB TO THE EXTENTS SHOWN IN THE PLANS.
7. PERFORM EXCAVATIONS FOR DRILLED SHAFT TO THE DIMENSIONS AND ELEVATIONS SHOWN IN PLANS.
8. PERFORM REMAINING CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS, INCLUDING PLACING NEW SIGN STRUCTURE, REMOVING EXISTING SIGN STRUCTURE, AND REPLACING GUARDRAIL TO MATCH EXISTING.

9. INSTALLATION OF PROPOSED SIGN STRUCTURE SHALL BE RESTRICTED TO NIGHTTIME HOURS ONLY. ROLLING ROAD BLOCKS IN ACCORDANCE WITH DELDOT MUTCD STANDARD TYPICAL APPLICATION TA-35H SHALL BE USED FOR SHOULDER CLOSURES. THE CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION AND TRAFFIC SAFETY AS TO THE DURATION AND WORK HOUR RESTRICTIONS FOR THE ROLLING ROAD BLOCKS.
10. EXISTING SIGN STRUCTURE MAY NOT BE REMOVED UNTIL AFTER THE NEW REPLACEMENT SIGN STRUCTURE IS INSTALLED AND ACCEPTED, UNLESS NOTED ON THE PLANS OR OTHERWISE APPROVED BY THE ENGINEER.
11. COMPLETE ALL REMAINING WORK INCLUDING FULL RESTORATION OF AREA TO ITS ORIGINAL CONDITION, ROADWAY REPAIR, AND GRADING.
12. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
13. REMOVE ALL MOT DEVICES INCLUDING TEMPORARY SIGNS AND REOPEN THE ROADWAY/SHOULDER.

ADDENDA / REVISIONS	NOT TO SCALE	SR 1 TYBOUTS LEFT EXIT COMPLIANCE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8pt;">CONTRACT</td> <td style="font-size: 8pt;">BRIDGE NO.</td> </tr> <tr> <td style="font-size: 8pt;">T201809201</td> <td style="font-size: 8pt;">DESIGNED BY: RK&K</td> </tr> <tr> <td style="font-size: 8pt;">COUNTY</td> <td style="font-size: 8pt;">CHECKED BY: RK&K</td> </tr> <tr> <td style="font-size: 8pt;">NEW CASTLE</td> <td></td> </tr> </table>	CONTRACT	BRIDGE NO.	T201809201	DESIGNED BY: RK&K	COUNTY	CHECKED BY: RK&K	NEW CASTLE		CONSTRUCTION PHASING SHOULDER CLOSURE DETAIL	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8pt;">SECTION</td> </tr> <tr> <td style="font-size: 8pt;">RK&K</td> </tr> <tr> <td style="font-size: 8pt;">SHEET NO.</td> </tr> <tr> <td style="font-size: 8pt;">14</td> </tr> </table>	SECTION	RK&K	SHEET NO.	14
CONTRACT	BRIDGE NO.																
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OVERHEAD SIGN SUPPORT STRUCTURE CHART

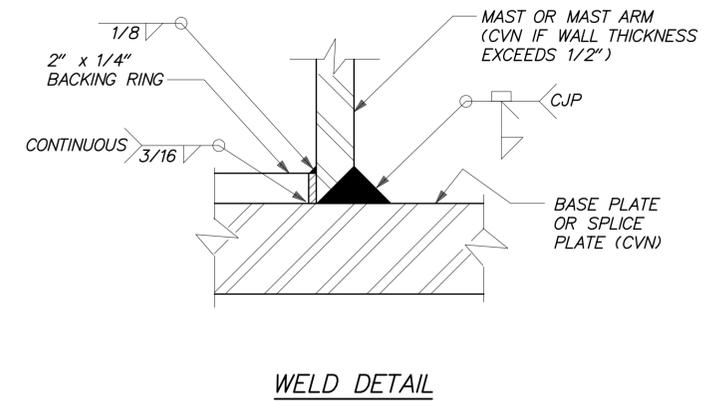
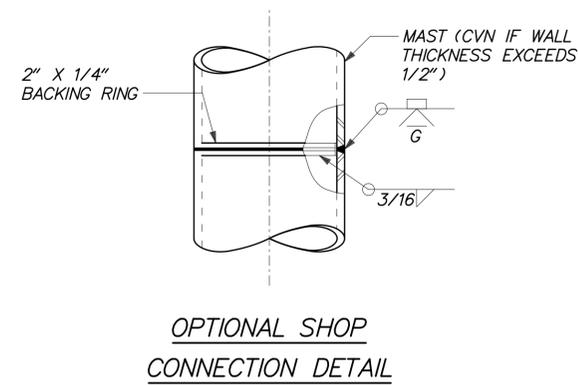
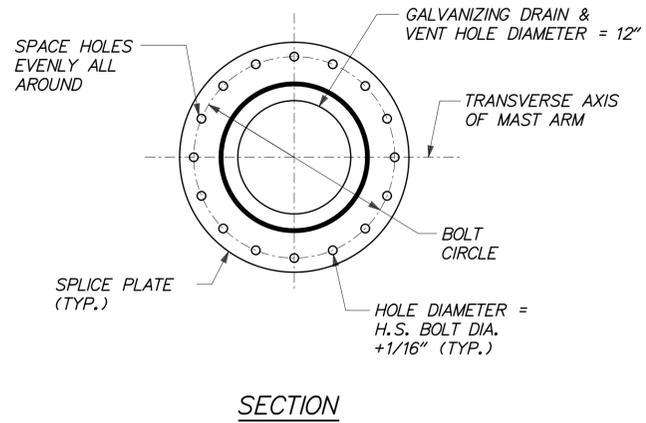
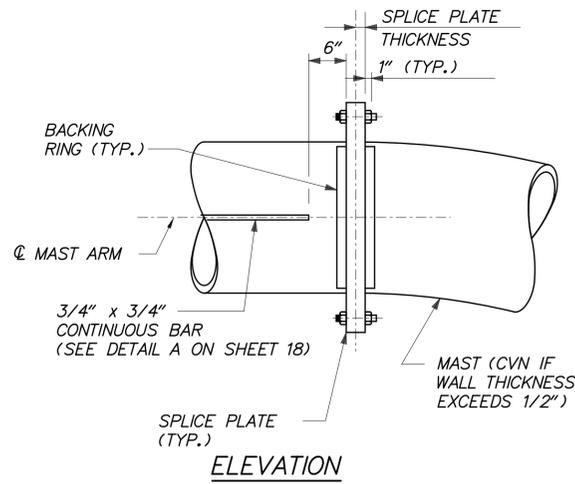
			MAST AND MAST ARM				ANCHOR BOLTS				BASE PLATE			H.S. (SPLICE) BOLTS			SPLICE PLATE	
SIGN STRUCTURE NO.	SIGN STRUCTURE SPAN LENGTH*	DESIGN PANEL AREA (SF)	MAST ARM SPAN LENGTH*	MINIMUM SIGN STRUCTURE HEIGHT*	DIAMETER (INCHES)	THICKNESS (INCHES)	NO. OF BOLTS	DIAMETER (INCHES)	BOLT EMBEDMENT LENGTH	BOLT CIRCLE (INCHES)	DIAMETER (INCHES)	THICKNESS (INCHES)	DRAIN AND VENT HOLE DIAMETER (INCHES)	NO. OF BOLTS	DIAMETER (INCHES)	BOLT CIRCLE (INCHES)	DIAMETER (INCHES)	THICKNESS (INCHES)
SO 1258B 067	170' -0"	2009	150' -0"	30' -0"	36	0.5	20	2	4' -0"	45	52	3.5	12	16	2	45	52	3.25
SO 1258A 067	181' -10"	628	161' -10"	27' -6"	30	0.5	16	2	4' -0"	40	47	3.25	10	16	1.5	40	47	2.5
SO 1259 067	170' -0"	2009	150' -0"	30' -0"	36	0.5	20	2	4' -0"	45	52	3.5	12	16	2	45	52	3.25
SO 1261 067	170' -0"	2009	150' -0"	27' -0"	36	0.5	20	2	4' -0"	45	52	3.5	12	16	2	45	52	3.25
SO 1257K 067	108' -4"	895	88' -4"	25' -0"	28	0.5	16	2	4' -0"	36	43	3	10	12	1.5	36	43	2

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**NOTE: THE DESIGN SIGN STRUCTURE HEIGHT WAS DETERMINED ASSUMING A 6-FOOT MAX. VERTICAL TOLERANCE BETWEEN THE TRUE HIGH POINT IN THE FINISHED ROADWAY SURFACE AND PROPOSED TOP OF DRILLED SHAFT FOUNDATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING SURVEYS TO VERIFY SPAN LENGTHS AND STRUCTURE HEIGHTS. SURVEY RESULTS SHALL BE SUBMITTED TO THE DEPARTMENT FOR VERIFICATION OF ALL INFORMATION PROVIDED IN THE SIGN STRUCTURE CHARTS.*

7/8/2019 12:50:59 PM \\BALSRV05\2015\2015\15063_DELID011742\TASKS\TASK 19 SR 1 TYBOUTS CORNER LEFT EXIT SIGN DESIGN SERVICES\CADD\PLANS\SS-03_LEFT_EXIT.DGN

ADDENDA / REVISIONS	NOT TO SCALE	SR 1 TYBOUTS LEFT EXIT COMPLIANCE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">CONTRACT</td> <td style="font-size: 8px;">BRIDGE NO.</td> </tr> <tr> <td style="font-size: 8px;">T201809201</td> <td style="font-size: 8px;"></td> </tr> <tr> <td style="font-size: 8px;">COUNTY</td> <td style="font-size: 8px;">DESIGNED BY: CNN</td> </tr> <tr> <td style="font-size: 8px;">NEW CASTLE</td> <td style="font-size: 8px;">CHECKED BY: JSW</td> </tr> </table>	CONTRACT	BRIDGE NO.	T201809201		COUNTY	DESIGNED BY: CNN	NEW CASTLE	CHECKED BY: JSW	SIGN SUPPORT STRUCTURE CHARTS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">SECTION</td> </tr> <tr> <td style="font-size: 8px;">RK&K</td> </tr> <tr> <td style="font-size: 8px;">SHEET NO.</td> </tr> <tr> <td style="font-size: 8px;">16</td> </tr> </table>	SECTION	RK&K	SHEET NO.	16
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T201809201																	
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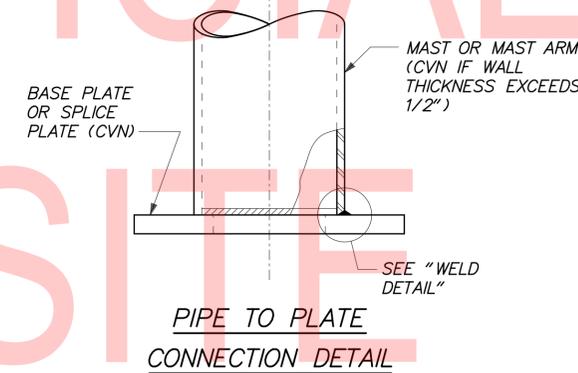
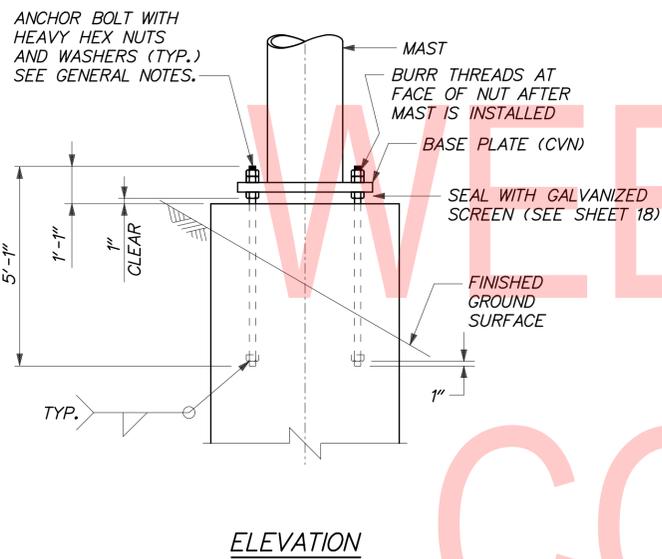
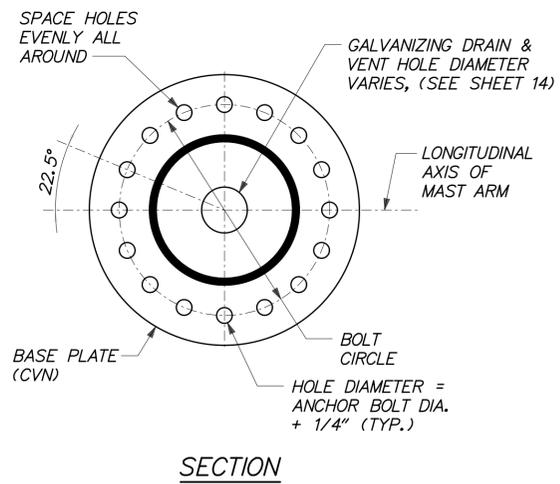


**OVERHEAD STRUCTURE
END CONNECTION DETAILS**

(MAST ARM SPLICE CONNECTION SIMILAR)
(16 BOLT CONFIGURATION SHOWN, OTHER CONFIGURATIONS SIMILAR)

WELD DETAIL NOTE:

BACKING RING MUST BE FITTED/SIZED TO THE PIPE COLUMN AND CONTINUOUSLY FILLET WELDED TO THE BASE PLATE BEFORE THE FULL PENETRATION GROOVE WELD IS MADE. BACKING RING MUST BE FABRICATED AS A CONTINUOUS RING.

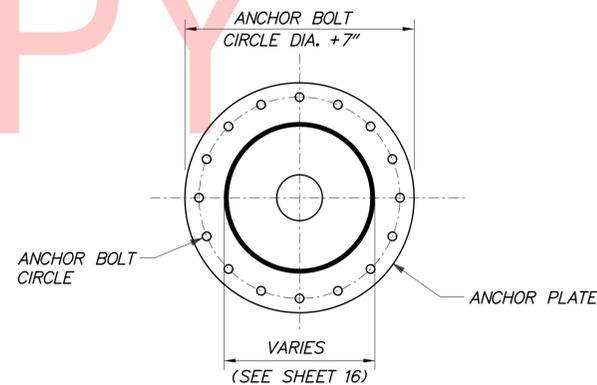


NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR DRILLED SHAFT INFORMATION, SEE SHEET 19.
3. FOR SIGN PANEL SUPPORT BEAM DETAILS, SEE SHEET 18.
4. SEAL WITH GALVANIZED SCREEN, 1 1/4" TO 3/8" OPENING, TO PREVENT ENTRY OF RODENTS. SCREEN IS TO BE REMOVABLE AND ATTACHED TO BASE PLATE WITH STAINLESS STEEL HARDWARE. SCREEN IS TO BE OF SUFFICIENT STIFFNESS TO PREVENT ENTRY BETWEEN SCREEN AND FOUNDATION WHILE PERMITTING DRAINAGE.
5. TOP WELD OF BACKING RING SHALL BE MADE AFTER ULTRASONIC INSPECTION OF THE GROOVE WELD.

**OVERHEAD STRUCTURE
BASE CONNECTION DETAILS**

(16 BOLT CONFIGURATION SHOWN, OTHER CONFIGURATIONS SIMILAR)



ANCHOR PLATE DETAIL

(16 BOLT CONFIGURATION SHOWN, OTHER CONFIGURATIONS SIMILAR)

ADDENDA / REVISIONS

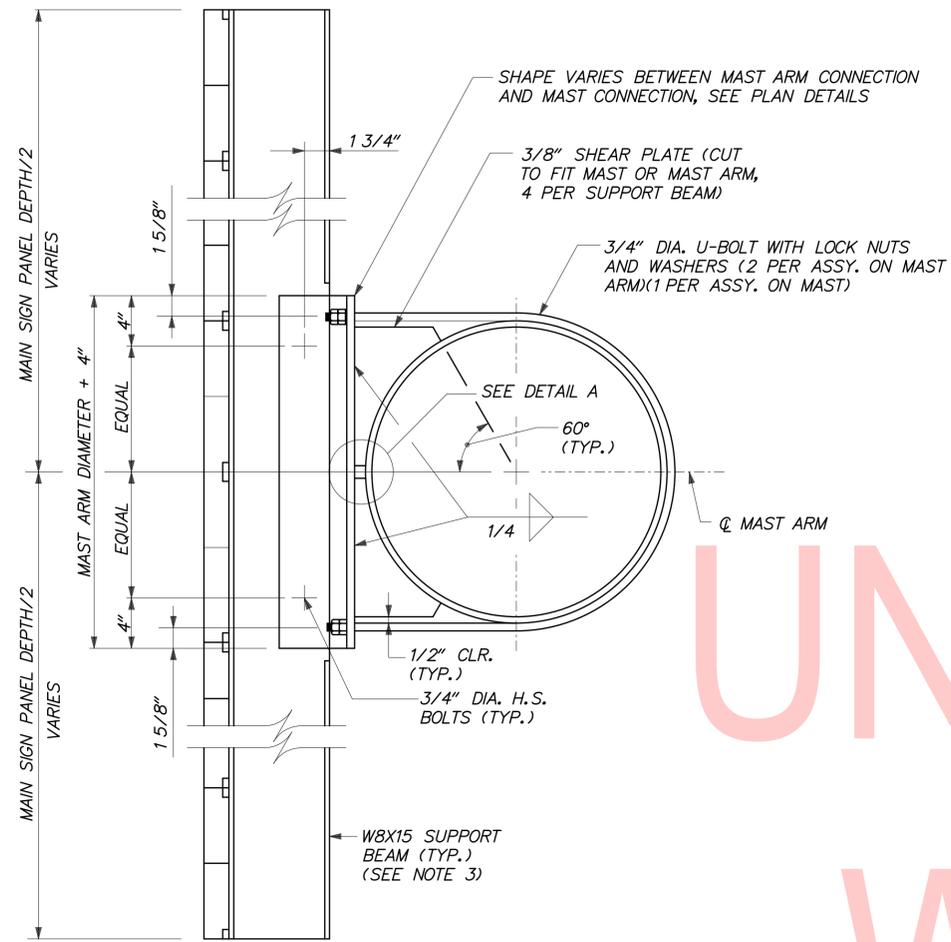
NOT TO SCALE

SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

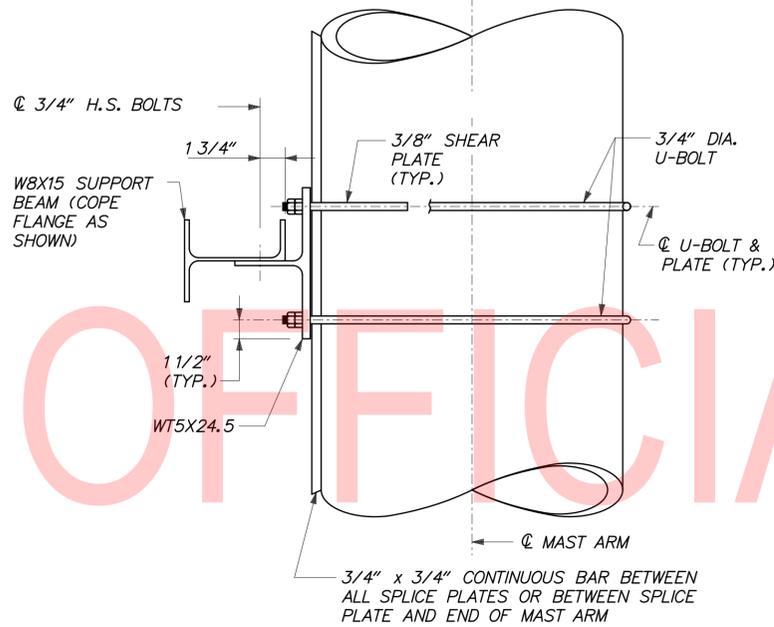
CONTRACT	BRIDGE NO.	
T201809201	DESIGNED BY:	CNN
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NEW CASTLE		

OVERHEAD
SIGN STRUCTURE
DETAILS

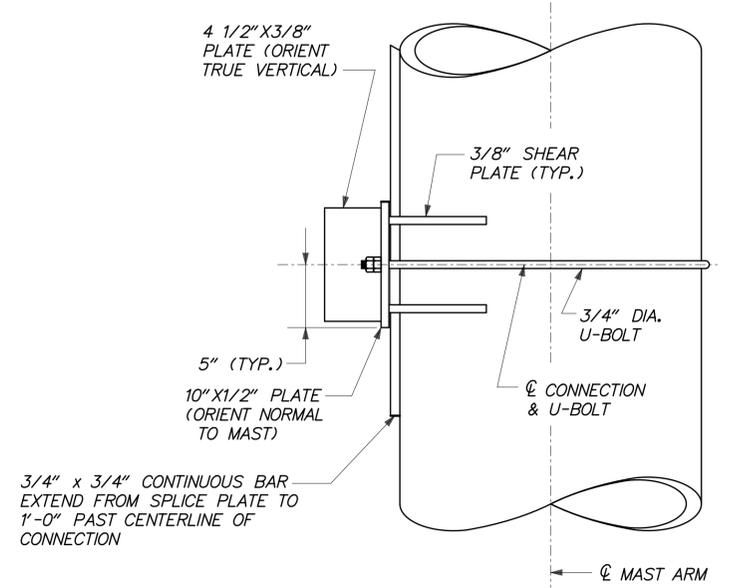
SECTION
RK&K
SHEET NO.
17



SINGLE SIGN PANEL SECTION



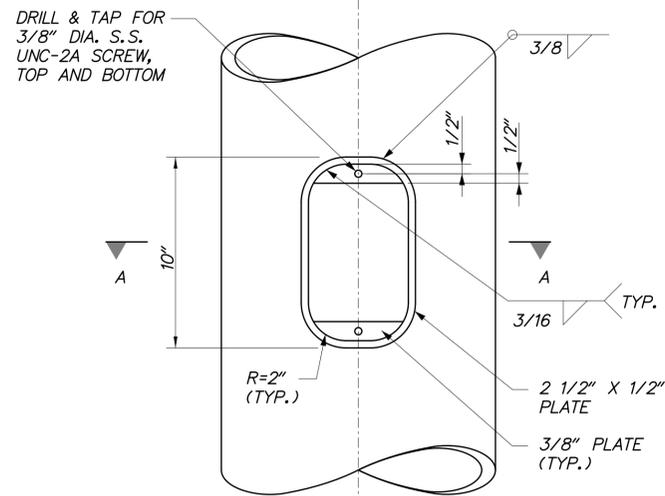
MAST ARM SINGLE SIGN PANEL PLAN



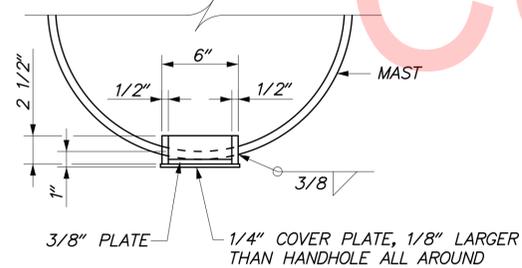
MAST SINGLE SIGN PANEL PLAN

SUPPORT BEAM TO MAST ARM CONNECTION DETAILS

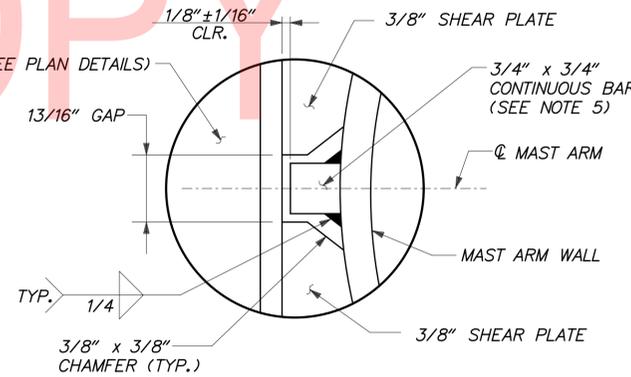
(PLAN DETAILS VARY FOR SUPPORT BEAM CONNECTION TO MAST ARM AND MAST)
(SECTION SHOWN FOR BOTH PLAN DETAILS)



ELEVATION



SECTION A-A



DETAIL A

REINFORCED HANDHOLE

NOTES:

- FOR GENERAL NOTES, SEE SHEET 5.
- FOR SIGN PANEL DETAILS, SEE SIGN DETAIL SHEETS.
- LOCATE SUPPORT BEAMS TO AVOID END AND SPLICE CONNECTIONS. MAXIMUM SPACING = 5'-0". MAXIMUM DISTANCE TO PANEL EDGE = 2'-6".
- SIGN PANEL SUPPORT BEAM DETAILS GIVEN ON THIS SHEET ARE ONLY VALID FOR SIGNS WHERE THE HORIZONTAL CENTERLINE OF THE SIGN PANEL IS AT THE SAME LOCATION AS THE CENTERLINE OF MAST ARM.
- CONTINUOUS BARS SHALL BE ATTACHED ON THE SIGN SIDE ONLY AT THE LOCATION(S) WHERE THE SUPPORT BEAMS ARE TO BE ATTACHED TO THE MAST ARM, EXTENDING A MINIMUM OF 1'-0" BEYOND THE SIGN PANELS ON EACH SIDE.

ADDENDA / REVISIONS

NOT TO SCALE

SR 1 TYBOUTS
LEFT EXIT COMPLIANCE

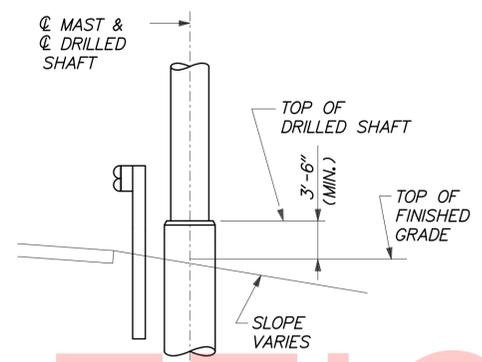
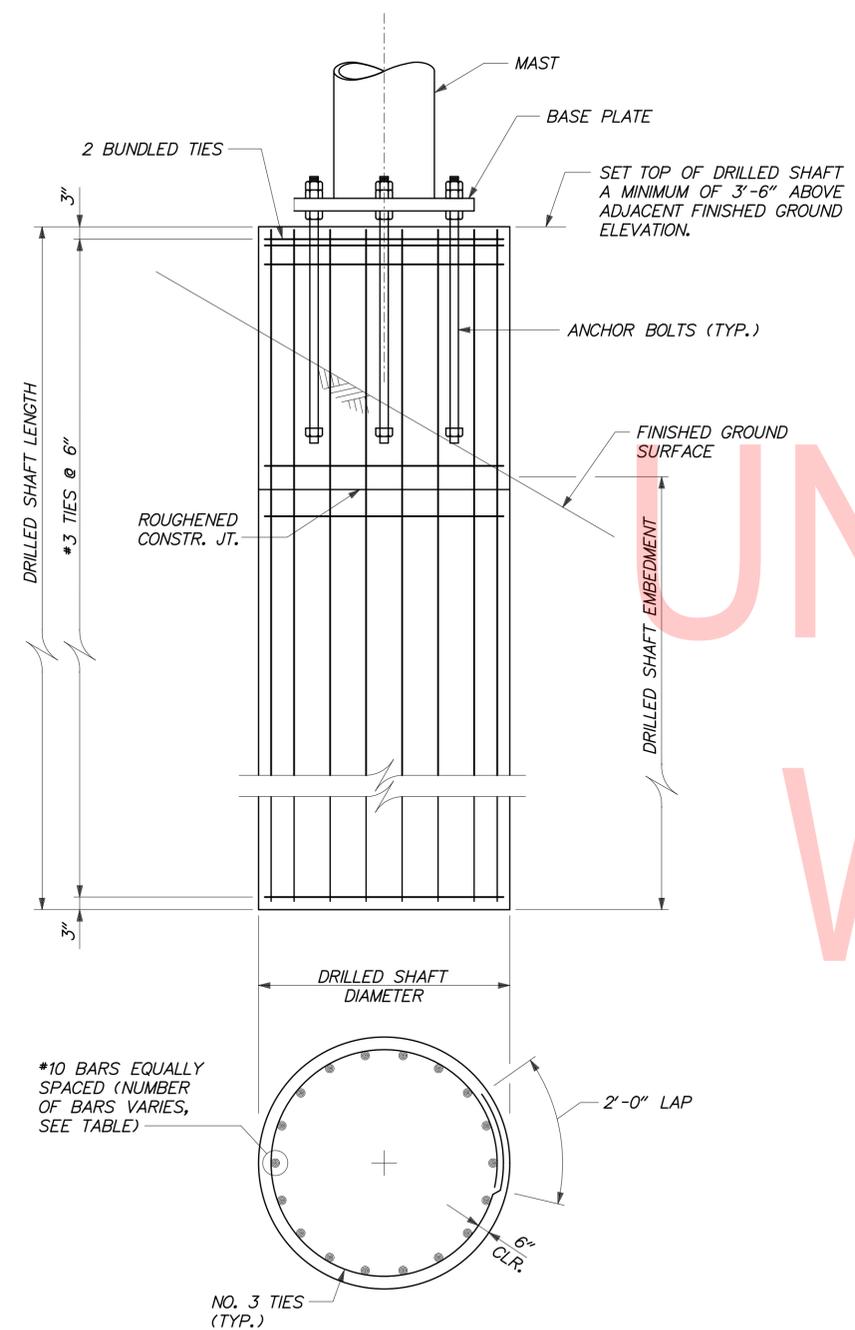
CONTRACT
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OVERHEAD
SIGN STRUCTURE
DETAILS

SECTION
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SHEET NO.
18

SIGN STRUCTURE FOUNDATIONS				
SIGN STRUCTURE NUMBER	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH (EA. FOUNDATION) (FT)	DRILLED SHAFT EMBEDMENT (FT)	LONGITUDINAL REINFORCEMENT
SO 1258B 067	6' - 0"	25	21.5	32 - #10 BARS
SO 1258A 067	5' - 0"	25	21.5	24 - #10 BARS
SO 1259 067	6' - 0"	32	28.5	32 - #10 BARS
SO 1261 067	6' - 0"	35	31.5	32 - #10 BARS
SO 1257K 067	5' - 0"	22	18.5	24 - #10 BARS



TYPICAL SHOULDER DETAIL

**DRILLED SHAFT FOUNDATION DETAILS
ROADSIDE INSTALLATION**

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NOTES:

- FOR MORE INFORMATION REGARDING PLACEMENT, MATERIALS, AND FABRICATION OF DRILLED SHAFTS, REFER TO SECTION 606 - DRILLED SHAFTS OF THE STANDARD SPECIFICATIONS.
- ALL ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO FABRICATION AND CONSTRUCTION. COST OF REINFORCING BARS INSIDE THE DRILLED SHAFT IS INCLUDED IN THE BID PRICE FOR THE APPROPRIATE DRILLED SHAFT ITEMS. REINFORCEMENT SHALL BE EPOXY COATED.
- CONCRETE SPACERS OR OTHER APPROVED NON -CORROSIVE SPACING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH SUBSECTION 606.03(9) OF THE STANDARD SPECIFICATIONS.
- ACCESS TUBES FOR CROSSHOLE SONIC LOG (CSL) TESTING SHALL BE INSTALLED IN ACCORDANCE WITH SUBSECTION 606.03(13) OF THE STANDARD SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT THE SITE WHERE DRILLED SHAFTS WILL BE BUILT PRIOR TO SUBMITTING THEIR BID PROPOSALS, TO DETERMINE THE ACCESSIBILITY TO VARIOUS LOCATIONS, ASCERTAIN THE CONDITIONS UNDER WHICH THE WORK WILL BE CONDUCTED, AND ESTABLISH THE EQUIPMENT THAT WILL BE REQUIRED TO PERFORM THE WORK, INCLUDING WORK IN ANY AREAS WITH LOW OVERHEAD AND/OR NEAR HIGH TENSION POWER LINES, OR ADJACENT TO ACTIVE TRAFFIC.
- CONSTRUCTION OF DRILLED SHAFT FOUNDATIONS MAY REQUIRE THE USE OF TEMPORARY CASING. THE LENGTH OF DRILLED SHAFT SHALL BE ADJUSTED IN THE FIELD AS REQUIRED.
- IF DRILLED SHAFT EXCAVATION IS UNSHORED (TEMPORARY CASING) CONCRETE SHALL BE PLACED IN THE SAME WORKING DAY AS EXCAVATION TAKES PLACE.

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ADDENDA / REVISIONS	NOT TO SCALE	SR 1 TYBOUTS LEFT EXIT COMPLIANCE	CONTRACT	BRIDGE NO.	SIGN STRUCTURE FOUNDATION DETAILS	SECTION
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			COUNTY	DESIGNED BY:	CNN	SHEET NO.
			NEW CASTLE	CHECKED BY:	JSW	19