

BRIDGE CONSISTS OF

- 1 - 127' -6" NON-COMPOSITE STEEL PLATE GIRDER SIMPLE SPAN ----- SPECIAL DESIGN
- 2 - CONCRETE END ABUTMENTS ----- SPECIAL DESIGN
- CHAIN LINK WIRE FENCE WITH HANDRAIL ----- SPECIAL DESIGN
- BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)

UTILITIES

NO UTILITIES ON BRIDGE

GENERAL NOTES

SPECIFICATIONS - CONSTRUCTION SPECIFICATIONS SHALL BE ALL APPLICABLE CHAPTERS OF THE AREMA MANUAL OF RECOMMENDED PRACTICE, CURRENT EDITION, AS MODIFIED BY NORFOLK SOUTHERN CORPORATION UNDERPASS GRADE SEPARATION DESIGN CRITERIA, CURRENT EDITION, THE GEORGIA STANDARD SPECIFICATIONS, 2001 EDITION, AND 2008 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS SHALL BE USED FOR ALL CONSTRUCTION NOT SPECIFIED IN AFOREMENTIONED AREMA AND NORFOLK SOUTHERN DOCUMENTS.

CONCRETE - ALL CONCRETE SHALL MEET, OR EXCEED, THE MINIMUM CRITERIA SPECIFIED BY THE NORFOLK SOUTHERN CORPORATION FOR CAST-IN-PLACE CONCRETE. THESE CRITERIA INCLUDE:
 - AIR CONTENT SHALL BE BETWEEN 4% AND 6%.
 - MIN. CEMENT CONTENT 610 LBS. PER CUB. YD.
 - NO FLYASH OR OTHER ADMIXTURES UNLESS APPROVED BY RAILROAD ENGINEER.
 - RAILROAD APPROVAL OF DESIGN MIX PRIOR TO CONCRETE PLACEMENT.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

SHORING - THE CONTRACTOR SHALL SUBMIT COMPLETE SHORING DETAILS FOR APPROVAL BY THE ENGINEER AND NORFOLK SOUTHERN RAILWAY. THE CONTRACTOR'S SUBMISSION SHALL INCLUDE COMPLETE CALCULATIONS FOR ALL APPLICABLE LOADS FOR ALL STAGES OF CONSTRUCTION AND FULLY DETAILED PLANS WITH CONSTRUCTION PROCEDURE. THE DETAILS SHALL BE PREPARED, STAMPED, AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA. DETAILS SHALL BE IN ACCORDANCE WITH CURRENT AREMA SPECIFICATIONS. RAILROAD LIVE LOAD SHALL BE CONSIDERED AS WELL AS A VERTICAL SURCHARGE OF 1900 PSF ACTING ON A CONTINUOUS STRIP OF 8'-6" WIDE. LATERAL PRESSURE DUE TO THIS SURCHARGE SHALL BE COMPUTED USING THE STRIP LOAD FORMULA SHOWN IN AREMA SPECIFICATIONS CHAPTER 8, PART 20. EXCAVATION SHALL NOT BEGIN WITHIN THE RAILROAD RIGHT-OF-WAY PRIOR TO WRITTEN APPROVAL OF THE ENGINEER AND NORFOLK SOUTHERN RAILWAY. COMPLETE PLANS SHALL BE SUBMITTED BY THE CONTRACTOR AS SOON AS POSSIBLE AFTER WORK BEGINS ON THE PROJECT, AND SHALL ALLOW SUFFICIENT TIME FOR THOROUGH REVIEWS BY THE ENGINEER AND NORFOLK SOUTHERN RAILWAY. ALL COSTS INVOLVED IN THE PROPOSED DESIGN, AS WELL AS ALL CONSTRUCTION COSTS FOR THE SHORING SHALL BE INCLUDED IN THE PRICE BID FOR "LUMP SHORING."

GENERAL NOTES (CONTINUED)

WAITING PERIOD - NONE REQUIRED. WORK AT ABUTMENTS MAY BEGIN IMMEDIATELY FOLLOWING COMPLETION OF GRADING.

ANCHOR BOLTS - PLACE ANCHOR BOLTS IN FORMED 3" DIAMETER X 18" DEEP HOLES AND GROUT IN PLACE AS PER SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR ANCHOR BOLT HOLES.

CHAIN LINK FENCE - CHAIN LINK FENCE AND HANDRAIL DETAILED IN THE PLANS SHALL BE PAID FOR AS "LF CH LK FENCE, ZC COAT, 8 FT, 9 GA".

FRACTURE CRITICAL MEMBERS - ALL GIRDER WEBS AND BOTTOM FLANGES ARE FRACTURE CRITICAL MEMBERS AND SHALL CONFORM TO THE CHARPY V-NOTCH TEST REQUIREMENTS AS SPECIFIED IN THE CURRENT AREMA SPECIFICATIONS FOR STEEL STRUCTURES.

STRUCTURAL STEEL FABRICATION AND WELDING - ALL STRUCTURAL STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIFICATIONS FOR STEEL". ALL WELDING AND WELDING INSPECTIONS SHALL ADHERE TO THESE SPECIFICATIONS.

PAINT - PROVIDE PAINT SYSTEM IN ACCORDANCE WITH NORFOLK SOUTHERN PAINT SPECIFICATIONS FOR ALL STRUCTURAL STEEL ON THIS PROJECT. FAYING SURFACES SHALL BE MASKED DURING PAINT APPLICATION.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERSTOPS, JOINT FILLERS, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

RAILROAD INSPECTION - ALL WORK INVOLVED IN THE CONSTRUCTION OF THE RAILWAY STRUCTURE SHALL BE PERFORMED TO THE SATISFACTION OF NORFOLK SOUTHERN RAILWAY. ALL METHODS OF HANDLING WORK AFFECTING THE SAFETY OF RAIL OPERATIONS SHALL BE APPROVED BY NORFOLK SOUTHERN RAILWAY BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. RAIL TRAFFIC SHALL, AT ALL TIMES, BE MAINTAINED AND PROTECTED. THE CONTRACTOR SHALL NOT AT ANY TIME DELAY OR INTERFERE WITH RAIL OPERATIONS.

BRIDGE EXCAVATION - SEE ROADWAY PLAN GENERAL NOTES FOR LOCATIONS OF HARD ROCK AND/OR BOULDERS.

CONSTRUCTION JOINTS - ALL CONSTRUCTION JOINTS SHOWN ON THE PLANS SHALL BE REQUIRED UNLESS SHOWN AS OPTIONAL. CONSTRUCTION JOINTS SHALL NOT BE PERMITTED EXCEPT AS SHOWN ON THE PLANS, OR WHERE WRITTEN APPROVAL HAS BEEN OBTAINED FROM NORFOLK SOUTHERN RAILWAY.

WATERPROOFING - WATERPROOFING FOR DECK SHALL CONSIST OF A WATERPROOFING MEMBRANE AND ASPHALT PANELS FURNISHED AND CONSTRUCTED IN ACCORDANCE WITH AREMA CHAPTER 8, PART 29, AND SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH GEORGIA DOT SPECIFICATIONS SECTION 530 AS "WATERPROOFING".

DAMPPROOFING - DAMPPROOFING FOR THE ABUTMENT BACKWALLS SHALL BE APPLIED TO ALL SURFACES IN CONTACT WITH BACKFILL OR EMBANKMENT. DAMPPROOFING SHALL BE FURNISHED AND CONSTRUCTED IN ACCORDANCE WITH AREMA CHAPTER 8, PART 29, AND SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH GEORGIA DOT SPECIFICATION SECTION 531 AS "DAMPPROOFING".

DESIGN DATA

SPECIFICATIONS ----- AREMA CURRENT EDITION AND NORFOLK SOUTHERN GUIDELINES (DESIGNED FOR SEISMIC PERFORMANCE CATEGORY A)

COOPER E-80 LOADING ----- DIESEL IMPACT ALLOWED
 - NON-COMPOSITE FOR STRESS AND FATIGUE
 -- COMPOSITE FOR LIVE LOAD DEFLECTIONS

FUTURE BALLAST ALLOWANCE ----- 6 IN.

CONCRETE: SUPERSTRUCTURE ----- CLASS AA-1, $f'_c = 4,500$ PSI
 SUBSTRUCTURE ----- CLASS AA-1, $f'_c = 4,500$ PSI

STRUCTURAL STEEL GIRDERS (ASTM A709, GR 50) ----- SERVICE LOAD DESIGN
 $f_y = 50,000$ PSI

REINFORCEMENT STEEL: ----- GRADE 60, $f_y = 60,000$ PSI

SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
211-0200	3286	CY	BRIDGE EXCAVATION, GRADE SEPARATION
449-1000	1	EA	BRIDGE DECK JOINT SEAL, BR NO - 2 ABUTMENT NO. - 1
449-1000	1	EA	BRIDGE DECK JOINT SEAL, BR NO - 2 ABUTMENT NO. - 2
500-1008	LUMP	LS	SUPERSTR CONCRETE, CL AA-1, BR NO - 2 (270)
500-3650	1331	CY	CLASS AA-1 CONCRETE
501-3000	LUMP	LS	STR STEEL, BR NO - 2 (1064500)
511-1000	274724	LB	BAR REINF STEEL
514-1000	LUMP	LS	EPOXY COATED SUPERSTR REINF STEEL, BR NO - 2 (37414)
522-1000	LUMP	LS	SHORING
530-0105	692	SY	WATERPROOFING
531-1000	537	SY	DAMPPROOFING
544-1000	LUMP	LS	DECK DRAIN SYSTEM, BR NO - 2
643-1171	314	LF	CH LK FENCE, ZC COAT, 8 FT, 9 GA

BRIDGE NO. 2

URS 400 NORTHPARK TOWN CENTER
 1000 ABERNATHY ROAD, N.E.
 SUITE 900
 ATLANTA, GA 30328
 TEL: (678) 808-8800
 FAX: (678) 808-8400

GEORGIA
DEPARTMENT OF TRANSPORTATION
 ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES
 NORFOLK SOUTHERN RAILWAY OVER SR 92
 DOUGLAS COUNTY CSSTP-0006-00(900)

SCALE: NONE FEBRUARY 2014

DRAWING NO. 35-015	BY	DATE
BRIDGE SHEET 02 OF 20		

DESIGNED: CAV	CHECKED: RSC	REVIEWED: DLC/WMD
DRAWN: CAV	DESIGN GROUP: YSK	APPROVED: BFR

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