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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

HENDERSON COUNTY

PART 1 – I–5758 LOCATION:

HENDERSON COUNTY:

BRIDGE#228ONINTERSTATE26WESTBOUNDOVERNORFOLKSOUTHERNRAILROADBRIDGE#230ONINTERSTATE26EASTBOUNDOVERNORFOLKSOUTHERNRAILROADBRIDGE#233ONINTERSTATE26WESTBOUNDOVERCANECREEKBRIDGE#234ONINTERSTATE26EASTBOUNDOVERCANECREEK

TYPE OF WORK:

BRIDGE PRESERVATION – JOINT DEMOLITION AND JOINT REPLACEMENT.



VICINITY MAP – HENDERSON CO.

NORTH CAROLINATION	DESIGN DATA HENDERSON COUNTY #228 ADT 2013 = 29,500 #230 ADT 2013 = 29,500 #233 ADT 2011 = 27,000 #234 ADT 2013 = 29,500	PROJECT LENGTH HENDERSON COUNTY - #228 = 0.039 MILE - #230 = 0.039 MILE - #233 = 0.038 MILE - #234 = 0.038 MILE	Prepared in the Office DEPARTMENT OF TRAN DIVISION OF HIC STRUCTURES MANAGEMENT UNIT - PRESERVA 1000 BIRCH RIDGE DR. RALEIGH DOUGLAS R. CALHO PROJECT ENGINEER 2012 STANDARD SPECIFICA LETTING DATE:
			MARCH 15, 2016

CONTRACT: C203762

PROJECT:

STATE	ST.	SHEET NO.	TOTAL SHEETS		
N.C.	I-57	1			
STATE	PROJ. NO.	F. A. PROJ. NO.	DESCRIP	DESCRIPTION	
52036.1.1		NHPP-0026(002)40	P.E		
520	36.3.1	NHPP-0026(002)40	CONST.		
52037.1.1		NHPP-0026(002)40	P.E		
52037.3.1		NHPP-0026(002)40	CON	ST.	



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re of: NSPORTATION GHWAYS VATION & REPAIR GROUP GH, N.C. 27610	DocuSigned by: John A. Hannaffone 7BC36E9CE2E884E6: SEAL 32492
OUN, P.E.	I V VGINEE C
ER	TANNA WINN
CATIONS	1/25/2016///////////////////////////////////
E: 16	JOHN A. YANNACCONE, P.E. PROJECT DESIGN ENGINEER



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

HENDERSON COUNTY

PART 2 – **I**–5759 LOCATION:

HENDERSON COUNTY:

BRIDGE #211 ON INTERSTATE 26 WEST BOUND OVER CLEAR CREEK BRIDGE #212 ON INTERSTATE 26 EAST BOUND OVER CLEAR CREEK

TYPE OF WORK:

BRIDGE PRESERVATION - JOINT DEMOLITION AND JOINT REPLACEMENT.



C203762 CONTRACT:

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PROJECT



#211 ADT 2013 = 28,500 #212 ADT 2011 = 27,000

DESIGN DATA

PROJECT LENGTH

HENDERSON COUNTY – #211 = 0.042 MILE 0.042 MILE – #212 =

Prepared in the Office DEPARTMENT OF TRAN DIVISION OF HIC STRUCTURES MANAGEMENT UNIT – PRESERV 1000 BIRCH RIDGE DR. RALEIG

DOUGLAS R. CALHO PROJECT ENGINEE 2012 STANDARD SPECIFICA

> LETTING DATE: MARCH 15, 2010

STATE	ST	ATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-57	758∥ I-5759	1A	
STATE	PROJ. NO.	F. A. PROJ. NO.	DESCRIP	FION
52036.1.1		NHPP-0026(002)40	P.E	
52036.3.1		NHPP-0026(002)40	CONST.	
52037.1.1		NHPP-0026(002)40	P.E	
52037.3.1		NHPP-0026(002)40	CON	ST.
				,

of: NSPORTATION GHWAYS ATION & REPAIR GROUP H, N.C. 27610 DUN, P.E. R ATIONS	DocuSigned by: John J. Hannungerone 7BC36E992EE894EESSIO SEAL 32492 1/25/2016
:	PROJECT DESIGN ENGINEER
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STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

HENDERSON COUNTY

PART 1 – I–5758

BRIDGE #228 ON INTERSTATE 26 WEST BOUND OVER NORFOLK SOUTHERN RAILROAD BRIDGE #230 ON INTERSTATE 26 EAST BOUND OVER NORFOLK SOUTHERN RAILROAD BRIDGE #212 ON INTERSTATE 26 EAST BOUND OVER CLEAR CREEK BRIDGE #233 ON INTERSTATE 26 WEST BOUND OVER CANE CREEK BRIDGE #234 ON INTERSTATE 26 EAST BOUND OVER CANE CREEK

PART 2 – I–5759

BRIDGE #211 ON INTERSTATE 26 WEST BOUND OVER CLEAR CREEK

TYPE OF WORK: BRIDGE PRESERVATION – JOINT DEMOLITION AND JOINT REPLACEMENT.

INDEX OF SHEETS

<i>1–1A</i>	COMBINED TITLE SHEETS
1B	INDEX OF SHEETS
PART 1 – I– 5758	
<i>SI</i> – <i>S</i> 6	STRUCTURAL PLANS
SN	STANDARD NOTES
PART 2 – I –5759	
<i>SI</i> – <i>S4</i>	STRUCTURAL PLANS
SN	STANDARD NOTES

C203762 **CONTRACT:**

STATE	ST.	SHEET NO.	TOTAL SHEETS		
N.C.	I-52	$1\mathbb{B}$			
STATE	PROJ. NO.	F. A. PROJ. NO.	DESCRIP	TION	
52036.1.1		NHPP-0026(002)40	P.E	P.E.	
52036.3.1		NHPP-0026(002)40	CON	ST.	
52037.1.1		NHPP-0026(002)40	P.E.		
52037.3.1		NHPP-0026(002)40	CON	ST.	

TOTAL BILL OF MATERIAL					
BRIDGE NO.	BRIDGE JOINT DEMOLITION	ELASTOMERIC CONCRETE	FOAM JOINT SEALS		
	SQ.FT.	CU.FT.	LN.FT.		
228	43.8	10.2	37.6		
230	53.3	12.4	45.7		
233	65.4	16.4	56.0		
234	32.7	7.6	28.0		
TOTAL	195.2	46.6	167.3		

Docus
John

1/25/2016

J. YANNACCONE D. CALHOUN __ DATE : <u>10/15</u> __ DATE : <u>12/15</u> DRAWN BY : ____ CHECKED BY : _

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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS. FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS. FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS. FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS. FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS. FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS. FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS. FOR CRANE SAFETY, SEE SPECIAL PROVISIONS. THE CONTRACTOR SHALL PERFORM ALL WORK IN A MANNER THAT PREVENTS DEBRIS FROM FALLING ONTO THE RAILROAD TRACKS.

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DATE : <u>10/15</u> DATE : <u>11/15</u>

R. BRANNAN

J. YANNACCONE

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NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE.THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

	PROJECT NO. <u>I-5758</u> <u>HENDERSON</u> coum Bridge no. <u>228 & 230</u>))
gned by:	SHEET 2 OF 2	
A. Hammaccon CARO SEAL 32492 MOINER ODIO	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATIO RALEIGH GENERAL DRAWING FOR BRIDGES ON I-26 OVER NORFOLK SOUTHERN RAILROAD)N
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ENT NOT CONSIDERED INAL UNLESS ALL NATURES COMPLETED	NO. BY: DATE: NO. BY: DATE: 1 3	S-3 TOTAL SHEETS 6



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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

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R. BRANNAN

J. YANNACCONE

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE.THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

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		REVI	SIONS		SHEET NO.
ENT NOT CONSIDERED INAL UNLESS ALL NATURES COMPLETED	NO. ВҮ: 1 2	DATE:	NO. ВҮ: З 4	DATE:	S-5 TOTAL SHEETS 6



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DESIGN DATA:

SPECIFICATIONS	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF	
STRUCTURAL STEEL - AASHTO M270 GRADE 36 -	20,000 LBS.PER SQ.IN.
- AASHTO M270 GRADE 50W -	27,000 LBS.PER SQ.IN.
- AASHTO M270 GRADE 50 -	27,000 LBS.PER SQ.IN.
REINFORCING STEEL IN TENSION	
GRADE 60	24,000 LBS.PER SQ.IN.
CONCRETE IN COMPRESSION	1,200 LBS.PER SQ.IN.
CONCRETE IN SHEAR	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR	
UNTREATED - EXTREME FIBER STRESS	1,800 LBS.PER SQ.IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	375 LBS.PER SQ.IN.
EQUIVALENT FLUID PRESSURE OF EARTH	30 LBS.PER CU.FT.

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N.C. DEPARTMENT OF TRANSPORTATION.

(MINIMUM)

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUITMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4"WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2"RADIUS WHICH IS BUILT INTO CURB FORMS: CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4"FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4"RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12"INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

STANDARD NOTES

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE. ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL AND ACTUAL BEAM CAMBER.

TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER. DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT

IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OF ARE OUT TO OUT AS INDICATED ON PLANS. WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8"Ø SHEAR STUDS FOR THE %4"Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8"Ø STUDS FOR 4 - 3/4"Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8"Ø STUDS FOR 4 - 3/4"Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0". EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16"IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2"OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED. WITH THE SOLE EXCEPTION OF EDCES AT SUFFACES WHICH BEAR ON OTHER SUFFACES,ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SUFFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

OR METALLIZING.

HANDRAILS AND POSTS:

SPECIAL NOTES:

SPECIFICATIONS ARTICLE 105-4.

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METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB. METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED CERTIFED MILL BEPORTS ARE REOUTED FOR METAL PAILS AND POSTS NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE



TOTAL BILL OF MATERIAL				
BRIDGE NO.	BRIDGE JOINT DEMOLITION	ELASTOMERIC CONCRETE	FOAM JOINT SEALS	
	SQ.FT.	CU.FT.	LN.FT.	
211	112.0	25.6	112.0	
212	112.0	25.6	112.0	
TOTAL	224.0	51.2	224.0	

- DocuSigned by:	PROJEC HE BRIDGE	ET NO. ENDEF	I RSON 211 {	<u>-5759</u> C0 & 212) UNTY
John A. Yannaccon	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION				
-7BC36E9CEE694E0 SEAL 32492 /25/2016	TOTAL BILL OF MATERIAL				
		REVIS	IONS		SHEET NO.
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	NO. ВY: 1 2	DATE:	но. вт: 3 4	DATE:	S-1 TOTAL SHEETS 4

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	DRAWN BY : CHECKED BY :	J. YANNACCONE D. CALHOUN	DATE : <u>10/15</u> DATE : <u>12/15</u>	
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LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS. BRIDGE JOINT DEMOLITION AND REPLACEMENT IS ANTICIPATED AT ALL BENTS AND END BENTS FOR BOTH BRIDGES. FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS. FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS. FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS. FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS. FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS. FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS. FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

1/25/20



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DRAWN BY : ___ CHECKED BY :

R. BRANNAN

J. YANNACCONE

NOTES

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE.THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

	PROJEC <u>H</u> [BRIDGE	et no. <u>Endef</u> e no	<u>-</u> ?S	I ON 211	<u>-5759</u> co <u>& 2</u> 1	9 DUNTY 12
gned by:	SHEET 2 C)F 2				
A. Hannaccon Beers Story SEAL 32492 MGNEC	depa G F	stat RTMENT ENER OR BR OVER		NORTH CARN TRAN ALEIGH DF GES EAR	NSPORTA AWIN ON I-2 CREEK	tion NG 26
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DESIGN DATA:

SPECIFICATIONS	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	SEE PLANS
IMPACT ALLOWANCE	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF	
STRUCTURAL STEEL - AASHTO M270 GRADE 36 -	20,000 LBS.PER SQ.IN.
- AASHTO M270 GRADE 50W -	27,000 LBS.PER SQ.IN.
- AASHTO M270 GRADE 50 -	27,000 LBS.PER SQ.IN.
REINFORCING STEEL IN TENSION	
GRADE 60	24,000 LBS.PER SQ.IN.
CONCRETE IN COMPRESSION	1,200 LBS.PER SQ.IN.
CONCRETE IN SHEAR	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR	
UNTREATED - EXTREME FIBER STRESS	1,800 LBS.PER SQ.IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	375 LBS.PER SQ.IN.
EQUIVALENT FLUID PRESSURE OF EARTH	30 LBS.PER CU.FT.

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N.C. DEPARTMENT OF TRANSPORTATION.

(MINIMUM)

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

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DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12"INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

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ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE. ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL AND ACTUAL BEAM CAMBER.

TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER. DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT

IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OF ARE OUT TO OUT AS INDICATED ON PLANS. WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8"Ø SHEAR STUDS FOR THE %4"Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8"Ø STUDS FOR 4 - 3/4"Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8"Ø STUDS FOR 4 - 3/4"Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0". EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16"IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2"OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED. WITH THE SOLE EXCEPTION OF EDCES AT SUFFACES WHICH BEAR ON OTHER SUFFACES,ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SUFFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

OR METALLIZING.

HANDRAILS AND POSTS:

SPECIAL NOTES:

SPECIFICATIONS ARTICLE 105-4.

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METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB. METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED CERTIFED MILL BEPORTS ARE REOUTED FOR METAL PAILS AND POSTS NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE

