

### STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER JAMES H. TROGDON, III GOVERNOR SECRETARY

January 10, 2020

#### Addendum No. 1

Contract No.: DA00470

WBS Element: 17BP.1.R.63

Replacement of Bridge #36 on SR 1143 (Sladesville-Credle Rd) over Smith Creek in Hyde

County

To Whom It May Concern:

Reference is made to the proposal and plans previously furnished for this project.

The following revision has been made to the proposal and plans:

Pages 128 - 131, "Bid Form" has been revised to delete the line item for "Precast Reinforced Concrete Barrier, Single Faced" and update the quantity for line item "Vertical Concrete Barrier Rail". Please replace the original Pages 128 - 131, "Bid Form" with the attached revised Pages 128 -131, "Bid Form".

Plan Sheet S-2, "General Drawing" has been revised to update the quantity for "Vertical Concrete Barrier Rail". Please replace the original Plan Sheet S-2, "General Drawing" with the attached revised Plan Sheet S-2, "General Drawing".

The amended EBS File (DA00470.001x) has been uploaded. We apologize for any inconvenience.

Sincerely,

DocuSigned by:

-CDAEAC77A6394FB...

C. E. Slachta

**Division Proposals Engineer** 

Cc: J. D. Jennings, PE

C. W. Bridgers Jr., PE

G. A. Byrum, PE

R. W. Midgett, PE

M. B. Gill, PE

Website: www.ncdot.gov

ITEMIZED PROPOSAL FOR CONTRACT NO. DA00470 REVISED 1/10/2020 Page 1 of 4

Jan 10, 2020 10:40 am

County: Hyde

Line #			Description	escription Quantity			
		F	ROADWAY ITEMS				
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.		
0002	0030000000-N	SP	TYPE II MODIFIED APPROACH FILL, STATION ******* (12+78.81)	Lump Sum	L.S.		
0003	0050000000-Е	226	SUPPLEMENTARY CLEARING & GRUB- BING	1 ACR			
0004	0057000000-Е	226	UNDERCUT EXCAVATION	300 CY			
0005	0195000000-E	265	SELECT GRANULAR MATERIAL	300 CY			
0006	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZA- TION	300 SY			
0007	0248000000-N	SP	GENERIC GRADING ITEM (EXCAVATION & EMBANKMENT)	Lump Sum	L.S.		
8000	0318000000-E	300	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRUCTURES	5 TON			
0009	0320000000-Е	300	FOUNDATION CONDITIONING GEO- TEXTILE	10 SY			
0010	1330000000-E	607	INCIDENTAL MILLING	300 SY			
0011	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	240 TON			
0012	1520000000-E	SP	ASPHALT CONC SURFACE COURSE, TYPE S9.5B (LEVELING COURSE)	150 TON			
0013	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	21 TON			
0014	2022000000-Е	815	SUBDRAIN EXCAVATION	45 CY			
0015	2026000000-Е	815	GEOTEXTILE FOR SUBSURFACE DRAINS	200 SY			
0016	2036000000-Е	815	SUBDRAIN COARSE AGGREGATE	34 CY			
0017	2044000000-Е	815	6" PERFORATED SUBDRAIN PIPE	200 LF			
0018	2070000000-N	815	SUBDRAIN PIPE OUTLET	1 EA			
 0017	2044000000-Е	815	6" PERFORATED SUBDRAIN PIPE	200 LF			

Jan 10, 2020 10:40 am

County: Hyde

Line Item Number Sec Description Quantity Unit Cost Amount

#	item Number	#	Description	Quantity	Cint Cost	Amount
0019	2077000000-Е	815	6" OUTLET PIPE	6		
				LF		
0020	2556000000-Е	846	SHOULDER BERM GUTTER	87		
				LF 		
0021	2570000000-N	SP	MODIFIED CONCRETE FLUME	1 EA		
			STEEL BEAM GUARDRAIL			
				LF		
			ADDITIONAL GUARDRAIL POSTS	2		
				EA		
0024	3215000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE	4		
				EA		
0025	3288000000-N	SP	GUARDRAIL END UNITS, TYPE TL-2	4		
				EA		
0026	3649000000-E	876	RIP RAP, CLASS B	2		
0027	3656000000-Е	876	GEOTEXTILE FOR DRAINAGE	160 SY		
0028	4457000000-N	 SP	TEMPORARY TRAFFIC CONTROL	Lump Sum	L.S.	
0020	443700000011	Oi	12.m Ground Houring General	·		
0029	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING	1,692		
			LINES (4", 90 MILS)	LF		
0030	4900000000-N	 1251	PERMANENT RAISED PAVEMENT	6		
			MARKERS	EA		
0031	6000000000-E	 1605	TEMPORARY SILT FENCE	 1,145		
0001	000000000 E	1000	TEM GIVANI GIETTENGE	LF		
0032	6006000000-E	1610	STONE FOR EROSION CONTROL,	75		
			CLASS A	TON		
0033	 6009000000-E	 1610	STONE FOR EROSION CONTROL,	5		
			CLASS B	TON		
0024	C012000000 E	1610	SEDIMENT CONTROL STONE			
0034	6012000000-Е	1010	SEDIMENT CONTROL STONE	5 TON		
0035	 6015000000-E	 1615	TEMPORARY MULCHING	0.5		
				ACR		
0036	6018000000-Е	1620	SEED FOR TEMPORARY SEEDING	100		
				LB		
0037	6021000000-Е	1620	FERTILIZER FOR TEMPORARY SEED- ING	0.5 TON		
				TON		

Jan 10, 2020 10:40 am

County: Hyde

Line #	Item Number	Sec #	Description	Quantity	Amount	
0038	6024000000-Е	1622	TEMPORARY SLOPE DRAINS	200 LF		
 0039	6029000000-E	SP	SAFETY FENCE	920 LF		
 0040	6030000000-E	1630	SILT EXCAVATION	 10 CY		
 0041	6036000000-E	 1631	MATTING FOR EROSION CONTROL	2,300 SY		
 0042	6037000000-E	SP	COIR FIBER MAT	100 SY		
 0043	6048000000-E	SP	FLOATING TURBIDITY CURTAIN	225 SY		
0044	6071012000-E	SP	COIR FIBER WATTLE	100 LF		
 0045	6084000000-E	1660	SEEDING & MULCHING	0.5 ACR		
0046	6087000000-E	1660	MOWING	1 ACR		
0047	6090000000-E	1661	SEED FOR REPAIR SEEDING	50 LB		
0048	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.25 TON		
0049	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	50 LB		
0050	6108000000-E	1665	FERTILIZER TOPDRESSING	0.25 TON		
0051	6114500000-N	1667	SPECIALIZED HAND MOWING	10 MHR		
0052	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	25 EA		
0053	6123000000-E	1670	REFORESTATION	0.1 ACR		
0054	6132000000-N	SP	GENERIC EROSION CONTROL ITEM (CONC WASHOUT STR))	2 EA		

#### STRUCTURE ITEMS

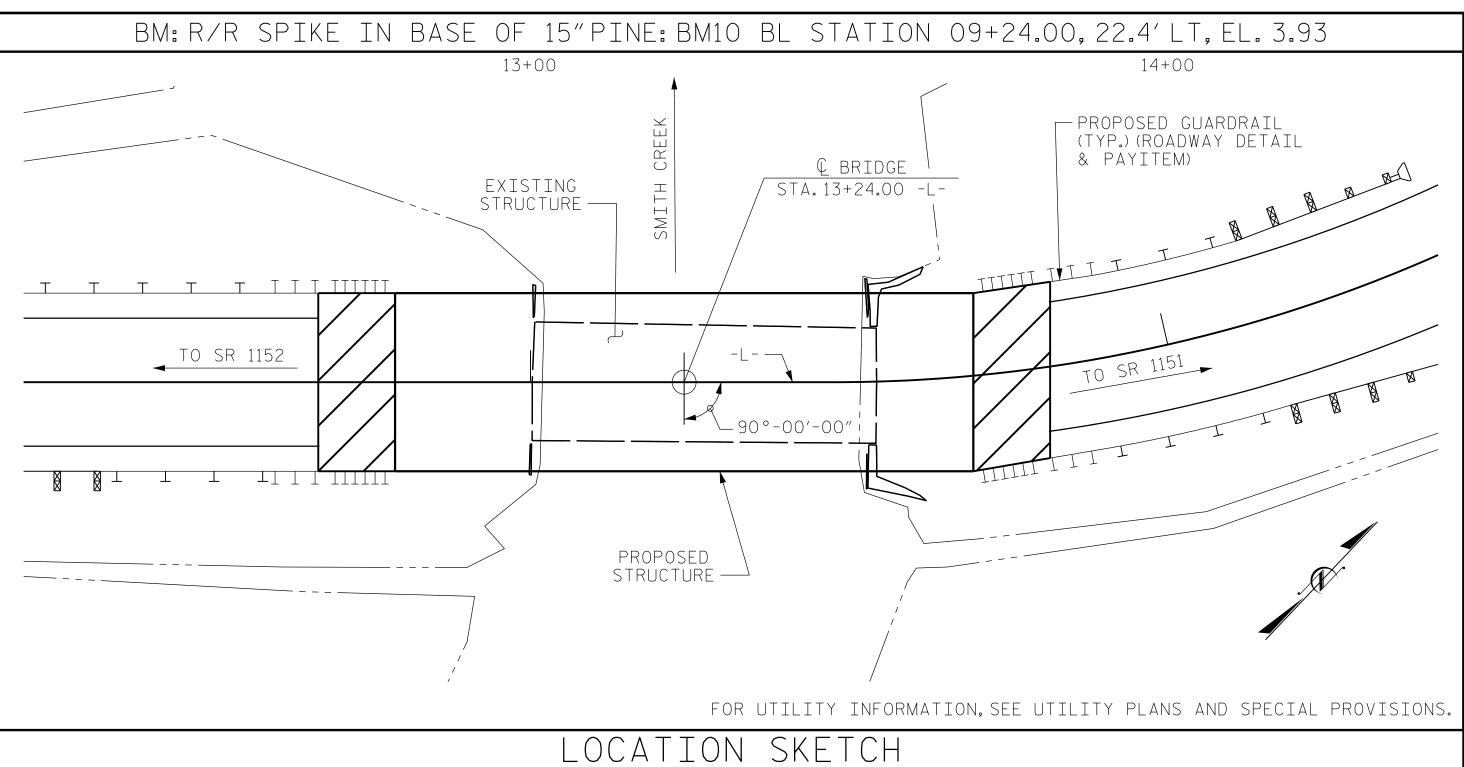
(12+78.81)

Jan 10, 2020 10:40 am

ITEMIZED PROPOSAL FOR CONTRACT NO. DA00470 REVISED 1/10/2020 Page 4 of 4

County: Hyde

Line #			Description	Quantity	Unit Cost	Amount
0056	8065000000-N	SP	ASBESTOS ASSESSMENT	Lump Sum	L.S.	
0057	8112730000-N	450	PDA TESTING	1 EA		
0058	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	36.7 CY		
0059	8210000000-N	422	BRIDGE APPROACH SLABS, STATION	Lump Sum	L.S.	
			(12+78.81)			
0060	8217000000-E	425	REINFORCING STEEL (BRIDGE)	5,875 LB		
0061	8328000000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** PRESTRESSED CONCRETE PILES (16")	17 EA		
0062	8333000000-E	450	16" PRESTRESSED CONCRETE PILES	1,405 LF		
0063	8393000000-N	450	PILE REDRIVES	10 EA		
0064	8505000000-E	460	VERTICAL CONCRETE BARRIER RAIL	180 LF		
0065	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	140 TON		
0066	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	225 SY		
0067	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
0068	8762000000-E	430	3'-0" X 1'-9" PRESTRESSED CONC CORED SLABS	900 LF		
0069	8867000000-E	SP	GENERIC STRUCTURE ITEM (FIBER OPTIC CONDUIT)	100 LF		
1040/.	Jan10/Q18468.8/D330	0058342000/	E69 Total Amount Of Bid Fo	r Entire Proiect :		



TOTAL BILL OF MATERIAL										
	REMOVAL OF EXISTING STRUCTURE AT STA 13+24.00 -L-	ASBESTOS ASSESSMENT	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS AA CONCRETE	BRIDGE APPROACH SLABS	EPOXY COATED REINFORCING STEEL	PILE DRIVING EQUIPMENT SETUP FOR 16" PRESTRESSED CONCRETE PILES		
	LUMP SUM	LUMP SUM	EACH	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	EACH		
SUPERSTRUCTURE										
END BENT 1					13.7		1983	5		
BENT 1					9.3		1909	7		
END BENT 2					13.7		1983	5		
TOTAL	LUMP SUM	LUMP SUM	1	LUMP SUM	36.7	LUMP SUM	5875	17		

	TOTAL BILL OF MATERIAL											
		PRESTRESSED CRETE PILES	PILE REDRIVES	VERTICAL CONCRETE BARRIER RAILS	RIP RIP CLASS II (2'-0"THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	PI	'-0" X 1'-9" RESTRESSED DRED SLABS	PREDRILLING FOR PILES		
	No.	LIN.FT.	EACH	LIN.FT.	TON	SQ. YDS.	LUMP SUM	No.	LIN.FT.	LIN.FT.		
SUPERSTRUCTURE				{180}				20	900			
END BENT 1	5	400	3	}	70	80				100		
BENT 1	7	630	4	{ }						105		
END BENT 2	5	375	3	}	70	80				100		
TOTAL	17	1405	10	{180}	140	160	LUMP SUM	20	900	305		

1

NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASTHO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.

THIS STRUCTURE CONTAINS THE NECESSARY CORROSION PROTECTION REQUIRED FOR A CORROSIVE SITE.

- FOR UTILITY INFORMATION, SEE UTILITY PLANS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCATED FOR A DISTANCE OF 18 FT EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICAITONS.

CLASS AA CONCRETE SHALL BE USED IN ALL CAST-IN-PLACE COLUMNS, BENT CAPS, PILE CAPS, AND FOOTINGS, AND SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR.

ALL BAR SUPPORTS USED IN THE BARRIER RAIL, BENT CAPS, END BENTS CAPS AND ALL INCIDENTAL REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH THE STANDARD SPECIFICAITONS.

THE CONCRETE IN THE BENT CAP, END BENT CAPS, AND PILES OF BENT NO. 1 AND END BENTS NO.1 & 2 SHALL CONTAIN SILICA FUME. SILICA FUME SHALL BE SUBSTITUTED FOR 5% OF THE PORTLAND CEMENT BY WEIGHT. IF THE OPTION OF ARTICLE 1024-1 OF THE STANDARD SPECIFICATIONS TO PARTIALLY SUBSTITUTE CLASS F FLY ASH FOR PORTLAND CEMENT IS EXERCISED, THEN THE RATE OF FLY ASH SUBSTITUTION SHALL BE REDUCED TO 1.0 LB OF FLY ASH PER 1.0 LB OF CEMENT. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

AFTER SERVING AS A TEMPORARY STRUCTURE THE EXISTING STRUCTURE CONSISTING OF 3 SPANS TOTALING 52'-O", WITH TIMBER FLOORS AND TIMBER JOISTS, ON TIMBER CAPS WITH TIMBER PILES, AND 19'-2' CLEAR ROADWAY TO BE REMOVED). THE EXISTING BRIDGE IS PRESENTLY POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECASSARY DURING THE LIFE OF THE PROJECT.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES.

- FOR CALCIUM NITRITE CORROSION INHIBITOR. SEE SPECIAL PROVISIONS.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

## HYDRAULIC DATA

DESIGN DISCHARGE= 470 CFS.
FREQUENCY OF DESIGN FLOOD = 25 YR.
DESIGN HIGH WATER ELEVATION= 0.8 FT.
DRAINAGE AREA = 2.92 SQ. MI.
BASE FLOOD DISCHARGE (Q100)= 700 CFS.
BASE HIGH WATER FLEVATION = 1.56 FT.

# OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE=	615 CFS
FREQUENCY OF OVERTOPPING FLOOD=	50(+) YR
OVERTOPPING FLOOD ELEVATION=	1.OFT.

Prepared by URS Corporation - North Carolina

1> REVISION #1:

UPDATED QUANTITIES

## FOUNDATION NOTES

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PILES AT END BENTS No. 1 AND 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 75 TONS PER PILE.

DRIVE PILES AT END BENTS No. 1 AND 2 TO A REQUIRED DRIVING RESISTANCE OF 125 TONS PER PILE.

PILES AT BENT No. 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 105 TONS PER PILE.

DRIVE PILES AT BENT No.1 TO A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESITANCE FOR DOWNDRAG OR SCOUR.

INSTALL PILES AT BENT No. 1 TO A TIP ELEVATION NO HIGHER THAN -40

THE SCOUR CRITICAL ELEVATION FOR BENT No. 1 IS ELEVATION -12 FT. SCOUR CRITICAL ELEVATION IS USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 15 TO 25 FT-KIPS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENT No.1 AND 2. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 35 TO 45 FT-KIPS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT BENT No.1. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

TESTING PILES WITH THE PDA DURING DRIVING, RESTRIKING OR REDRIVING MAY BE REQUIRED. THE ENGINEER WILL DETERMINE THE NEED FOR PDA TESTING. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS (AND FOR PILE DRIVING CRITERIA, SEE PILE DRIVING CRITERIA PROVISION).

STEEL PILE TIPS ARE REQUIRED FOR PRESTRESSED CONCRETE PILES AT END BENTS No. 1 AND 2, AND BENT No. 1. FOR STEEL PILE TIPS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

PREDRILLING FOR PILES IS REQUIRED AT END BENTS No. 1 AND 2, AND BENT No. 1. PREDRILL PILE LOCATIONS TO ELEVATION -20 FT WITH EQUIPMENT THAT WILL RESULT IN A MAXIMUM PREDRILLING DIAMETER OF 23". FOR PREDRILLING FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

SPUDDING MAY BE USED INSTEAD OF PREDRILLING AT END BENT No. 1 AND 2, AND BENT No. 1.

TEMPORARY STEEL CASINGS ARE REQUIRED FOR PREDRILLING AT END ENTS No. 1 AND 2, AND BENT No. 1.

### REVISED 1/10/2020

MKT | 1/7/20

PROJECT NO. <u>178P.1</u>.R.63 HYDE COUNTY STATION: 13+24.00 -L-

SHEET 2 OF 2 REPLACES BRIDGE No. 470036

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

GENERAL DRAWING FOR BRIDGE ON SR 1143 OVER SMITH CREEK BETWEEN SR 1152 AND SR 1151

27'-10" CLEAR ROADWAY - 90° SKEW REVISIONS SHEET NO S-2 DATE: BY: DATE: BY:

TOTAL SHEETS

1600 Perimeter Park Drive, Suite 400 Morrisville,NC 27560 PHONE( 919) 461-1100 FAX( 919) 461-1415 NC LIC. # C-2243

DRAWN BY: \_\_\_\_Z.H.BROWN \_\_\_ DATE: 4/2/15 CHECKED BY: K.H. COMPTON DATE: 4/20/15 DESIGNED BY: \_\_\_\_M.K.TOM\_\_\_DATE: 5/27/14