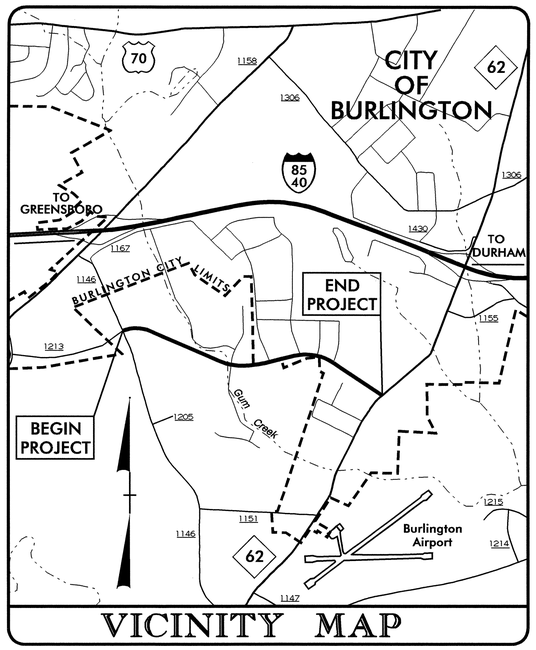
TIP NO: U-3304

CONTRACT: C201857



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

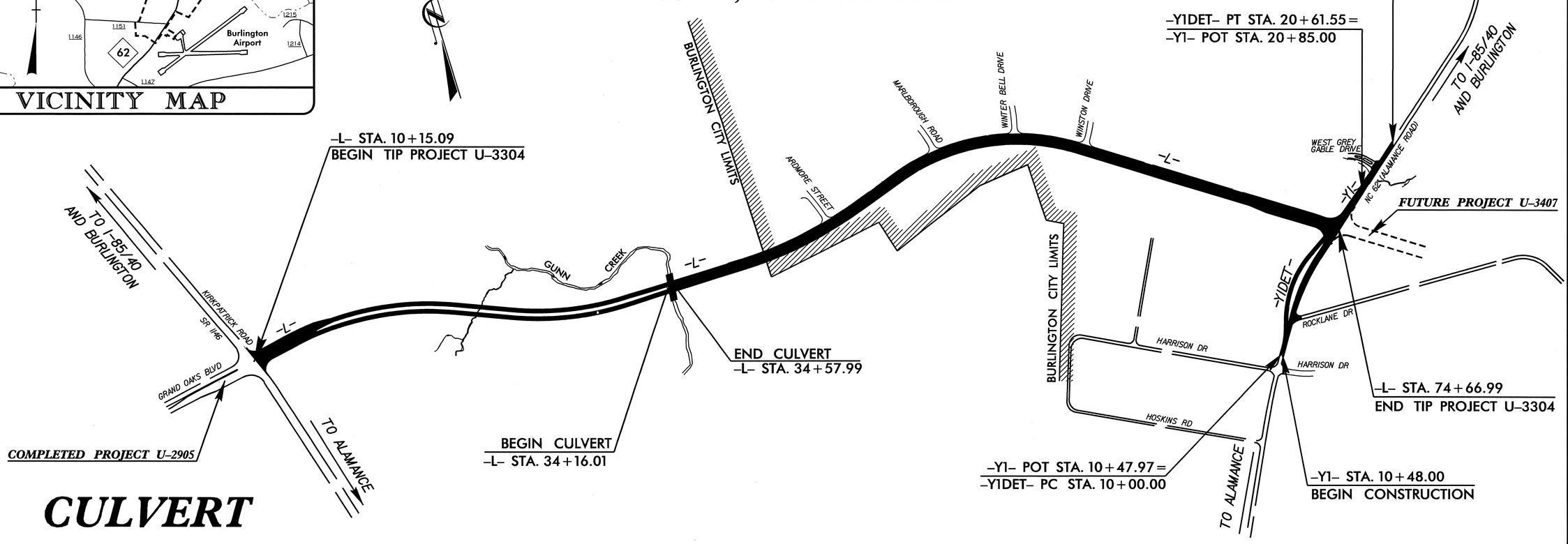
ALAMANCE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3304		

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34912.1.1	STP-0701(8)	P.E.
34912.2.2	STP-0701(8)	R/W, UTIL.
34912.3.3	STP-0701(16)	CONSTR.

LOCATION: BURLINGTON – GRAND OAKS BLVD EXTENSION FROM SR 1146 (KIRKPATRICK ROAD) TO NC 62 (ALAMANCE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, CULVERT, CURB AND GUTTER, SIGNALS AND PAVING



CULVERT

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DESIGN DATA

ADT 2008 = 10,575
ADT 2030 = 23,500
DHV = 11 %
D = 60 %
T = 6 % *
V = 50 MPH

* TTST 2 % DUAL 4 %

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-3304 = 1.214 mi

LENGTH STRUCTURE TIP PROJECT U-3304 = 0.008 mi

TOTAL LENGTH TIP PROJECT U-3304 = 1.222 mi

Prepared In the Office of:

DIVISION OF HIGHWAYS

2006 STANDARD SPECIFICATIONS

LETTING DATE :

July 15, 2008

B.C. HUNT, PE
PROJECT ENGINEER

V. A. PATEL, PE
PROJECT DESIGN ENGINEER

STRUCTURE DESIGN UNIT
1000 BIRCH RIDGE DR.
RALEIGH, N.C. 27610

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

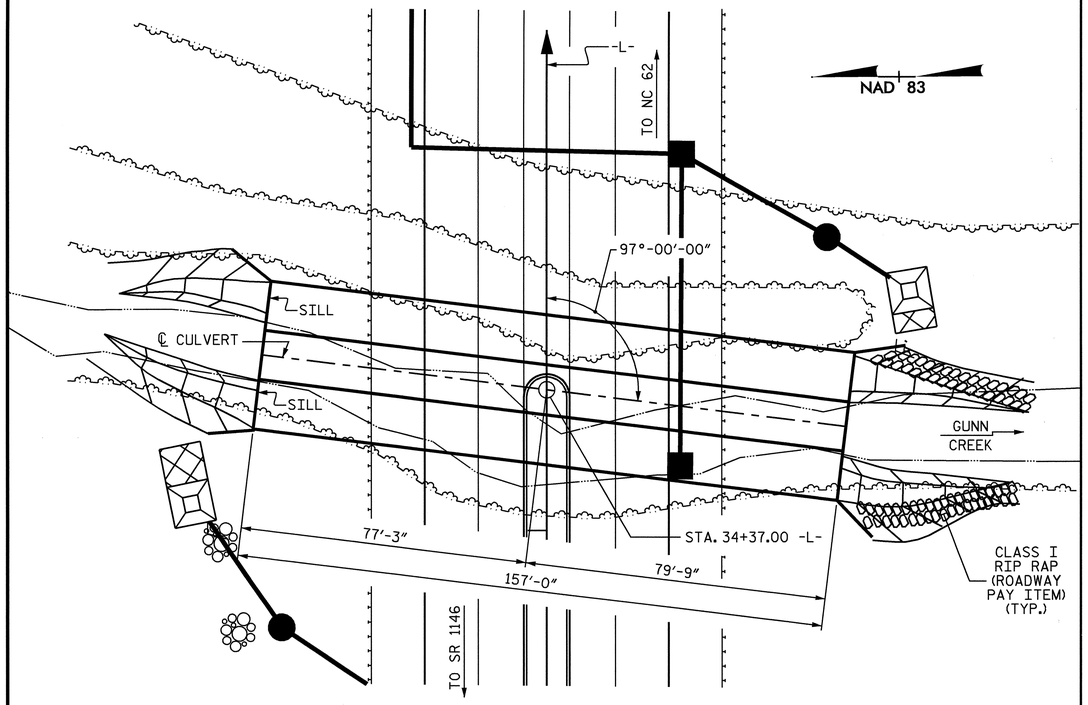
P.E.
STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR *DATE*

06-MAY-2008 07:36
r:\structures\plans\u-3304_sd_cu.dgn
sdombrowski

BM #2 R.R. SPIKE IN BASE OF 20" MAPLE, 271.58' RT. OF STA. 34+21.20 -L-, EL. 577.910



LOCATION SKETCH

FOR UTILITY INFORMATION SEE UTILITY PLANS AND SPECIAL PROVISIONS

ROADWAY DATA

GRADE PT. EL. @ STA. 34+37.00 -L- _____ = 599.250
BED EL. @ STA. 34+37.00 -L- _____ = 573.300
ROADWAY SLOPES @ STA. 34+37.00 -L- ___ = 2:1

HYDRAULIC DATA

DESIGN DISCHARGE _____ = 2820 C.F.S.
FREQUENCY OF DESIGN FLOOD _____ = 50 YR.
DESIGN HIGH WATER ELEVATION _____ = 584.900
DRAINAGE AREA _____ = 3.5 SQ.MI.
BASIC DISCHARGE (Q100) _____ = 3380 C.F.S.
BASIC HIGH WATER ELEVATION _____ = 586.000

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE _____ = +5160 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD _____ = 500+ YR.
OVERTOPPING FLOOD ELEVATION _____ = 597.400

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE	
BARREL @ 5.664 CY/FT. =	889.2 C.Y.
4 WINGS, 2 HEADWALLS 2 SILLS & 2 CURTAIN WALLS =	51.3 C.Y.
TOTAL =	940.5 C.Y.
REINFORCING STEEL	
BARREL =	150,199 LBS.
4 WINGS, 2 HEADWALLS & 2 CURTAIN WALLS =	2,853 LBS.
TOTAL =	153,052 LBS.
CULVERT EXCAVATION =	LUMP SUM
FOUNDATION COND. MATERIAL =	461 TONS

NOTES

ASSUMED LIVE LOAD ----------HS20 OR ALTERNATE LOADING.

DESIGN FILL----------16.0 FT.

FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET SN.

3"Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:

1. WING FOOTINGS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FT. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.

NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.

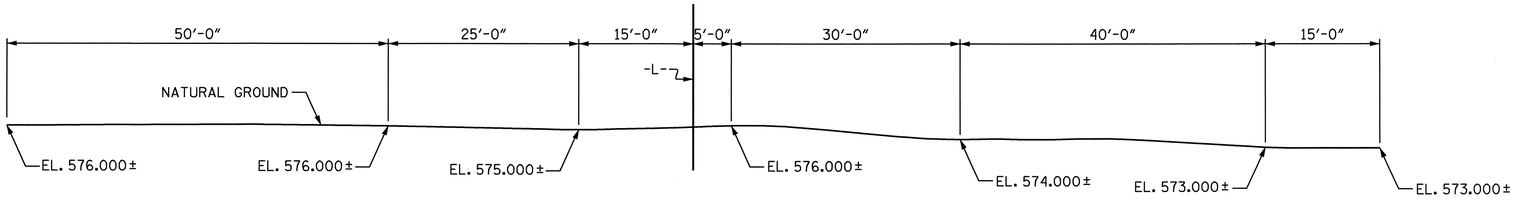
FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.



PROFILE ALONG ℄ CULVERT

DRAWN BY : S. DOMBROWSKI DATE : 9/07
CHECKED BY : K.D. LAYNE DATE : 10/07

NORTH CAROLINA PROFESSIONAL SEAL 14091 ENGINEER BUCK CHARLES HUNT
5/6/08

NORTH CAROLINA PROFESSIONAL SEAL 23371 ENGINEER VIPUL A. PATEL
5/6/08

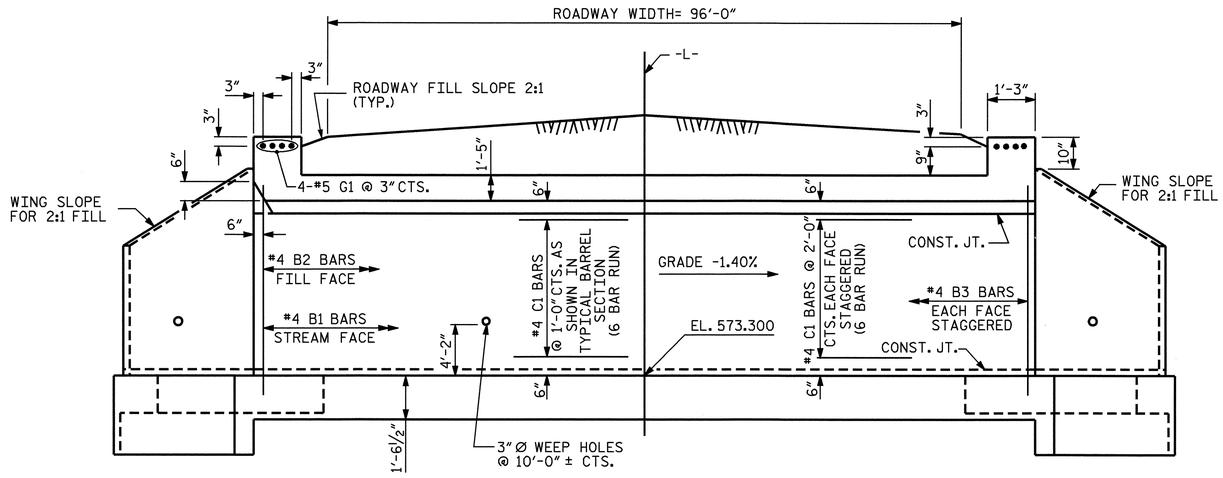
PROJECT NO. U-3304
ALAMANCE COUNTY
STATION: 34+37.00 -L-
SHEET 1 OF 4 BRIDGE #C421

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TRIPLE 13 FT. X 11 FT. CONCRETE BOX CULVERT 97° SKEW

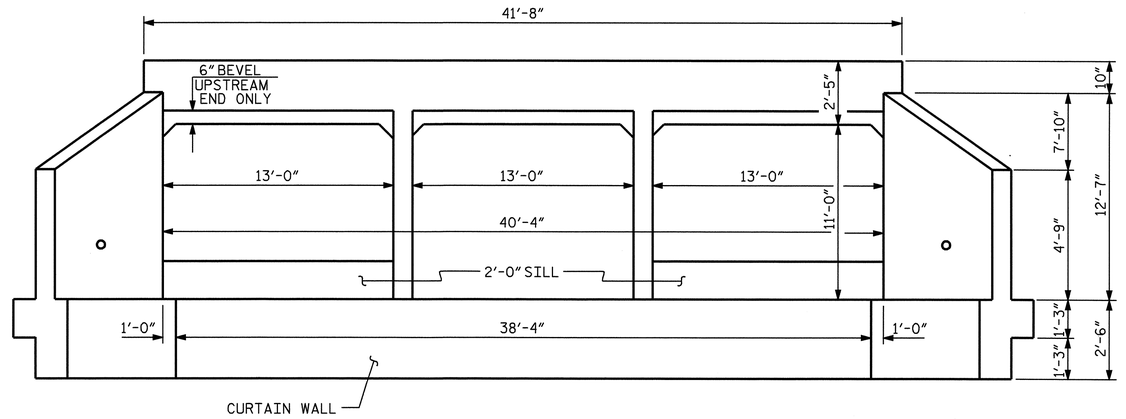
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-1
1			3			TOTAL SHEETS
2			4			4

06-MAY-2008 07:36
r:\structures\plans\u-3304_sd_cu.dgn
sdombrowski

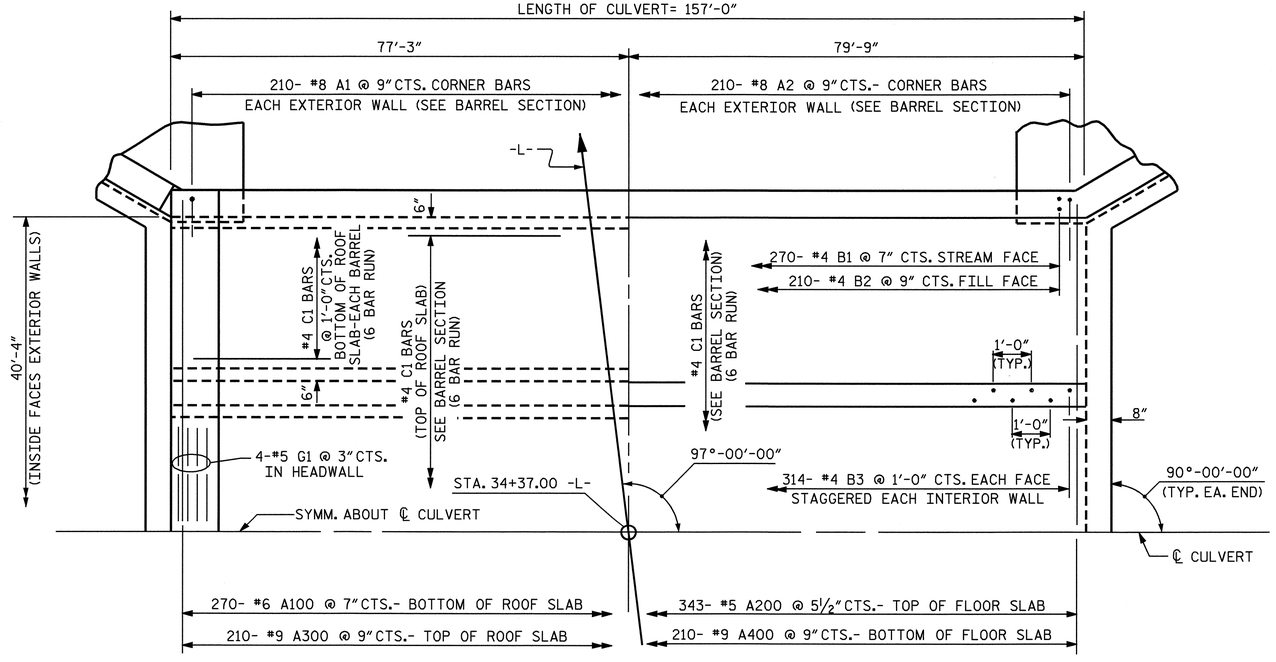


EXTERIOR WALL INTERIOR WALL

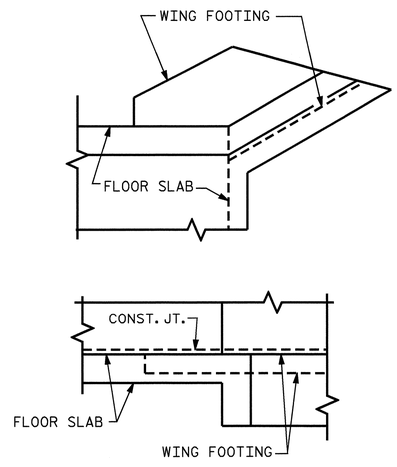
CULVERT SECTION NORMAL TO ROADWAY



END ELEVATION



PART PLAN - ROOF SLAB PART PLAN - FLOOR SLAB



DETAIL

CONNECTION OF WING FOOTING AND FLOOR SLAB

PROJECT NO. U-3304
ALAMANCE COUNTY
STATION: 34+37.00 -L-
SHEET 2 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TRIPLE 13 FT. X 11 FT. CONCRETE BOX CULVERT 97° SKEW

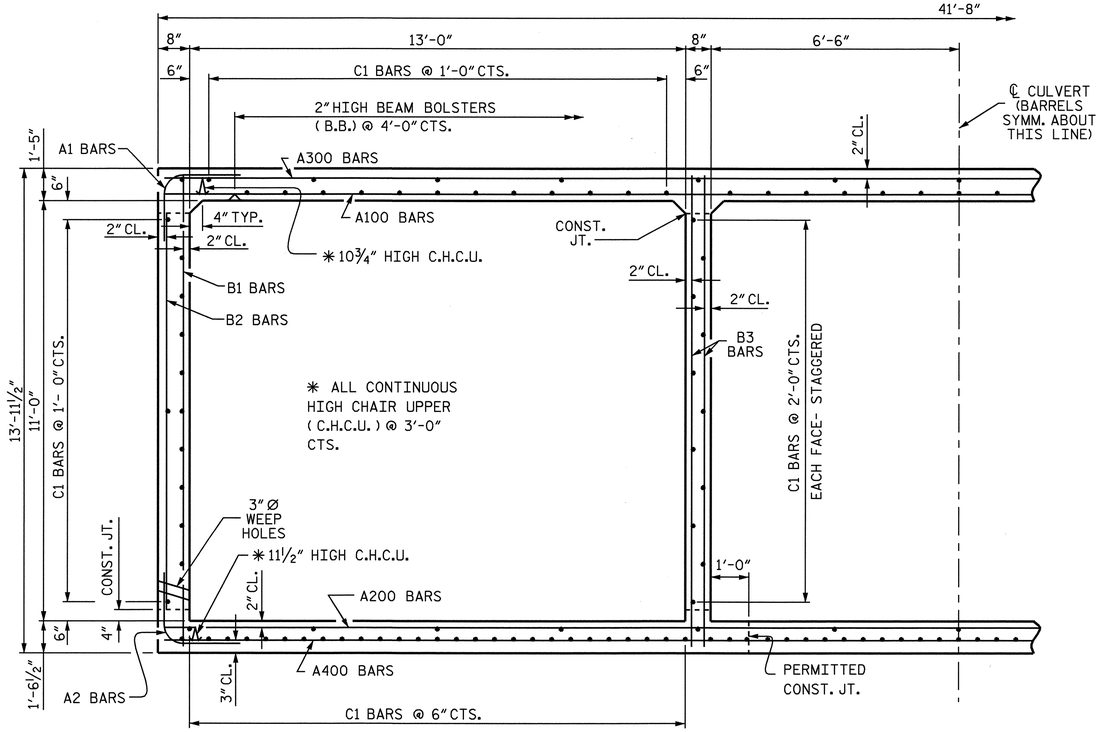
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-2
1			3			TOTAL SHEETS
2			4			4

NORTH CAROLINA PROFESSIONAL SEAL 23371 ENGINEER VIPUL A. PATEL 5/6/08

ASSEMBLED BY : S. DOMBROWSKI	DATE : 9/07	SPECIAL	
CHECKED BY : K.D. LAYNE	DATE : 10/07		
DRAWN BY : JOEL JOHNSON	DATE : MAR. 1971	STANDARD	
CHECKED BY : GARY BROOME	DATE : MAR. 1971		

REVISED 8-28-92 BY E.L.R. CHECKED BY G.R.P.
REDRAWN NOV. 1990 BY TSS. CHECKED BY ARB
REVISED 11-19-99 BY M.M. CHECKED BY R.W.W.

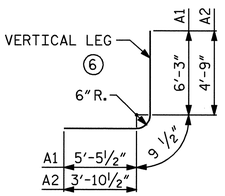
STD. NO. CB13



RIGHT ANGLE SECTION OF BARREL

THERE ARE 192 C1 BARS IN SECTION OF BARREL.

BAR TYPE



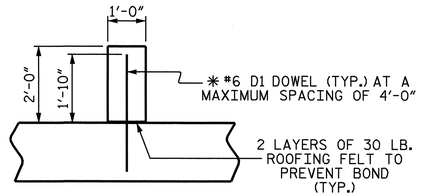
BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

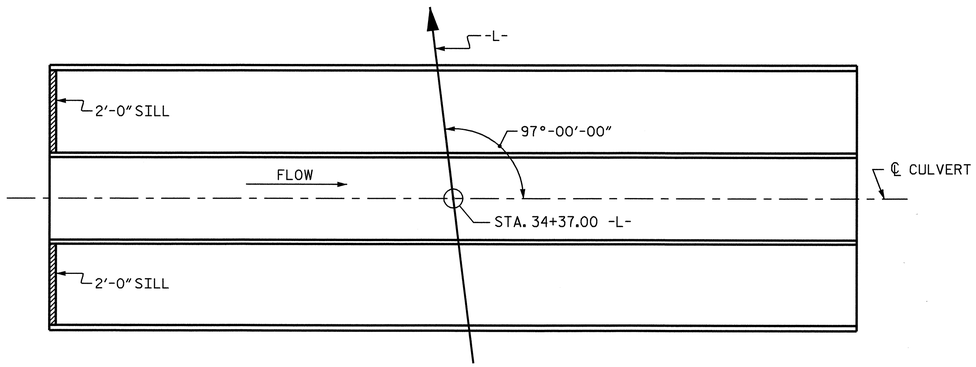
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A100	270	#6	STR	41'-3"	16729
A200	343	#5	STR	41'-3"	14757
A300	210	#9	STR	41'-3"	29452
A400	210	#9	STR	41'-3"	29452
A1	420	#8	6	12'-6"	14017
A2	420	#8	6	9'-5"	10560
B1	540	#4	STR	13'-5"	4840
B2	420	#4	STR	10'-4"	2899
B3	628	#4	STR	13'-5"	5628
C1	1152	#4	STR	27'-11"	21483
D1	8	#6	STR	3'-1"	37
G1	8	#5	STR	41'-4"	345
TOTAL REINFORCING STEEL LBS.					150199

SPLICE LENGTH CHART

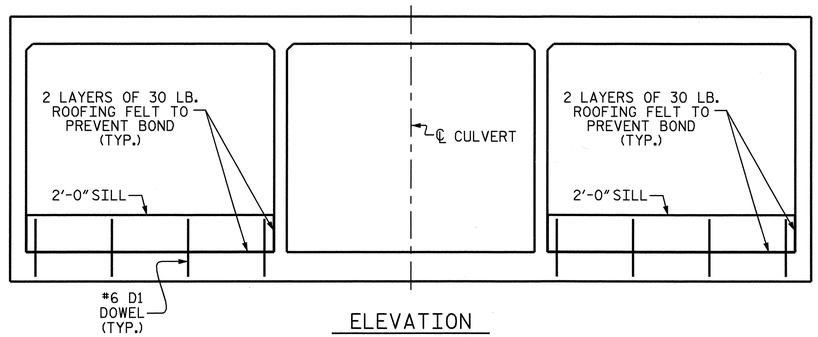
BAR	SIZE	SPLICE LENGTH
A200	#5	3'-0"
A400	#9	5'-0"
B1	#4	1'-9"
B3	#4	1'-9"
C1	#4	1'-11"



SECTION THRU 2'-0" SILL



PLAN OF CULVERT SHOWING LOCATION OF SILLS



ELEVATION

CULVERT SILL DETAILS

* DOWELS MAY BE PUSHED INTO GREEN CONCRETE AFTER SLAB HAS BEEN FLOAT FINISHED

NORTH CAROLINA PROFESSIONAL SEAL 23371 ENGINEER PAUL A. PATEL
3/14/08

PROJECT NO. U-3304
ALAMANCE COUNTY
STATION: 34+37.00 -L-

SHEET 3 OF 4

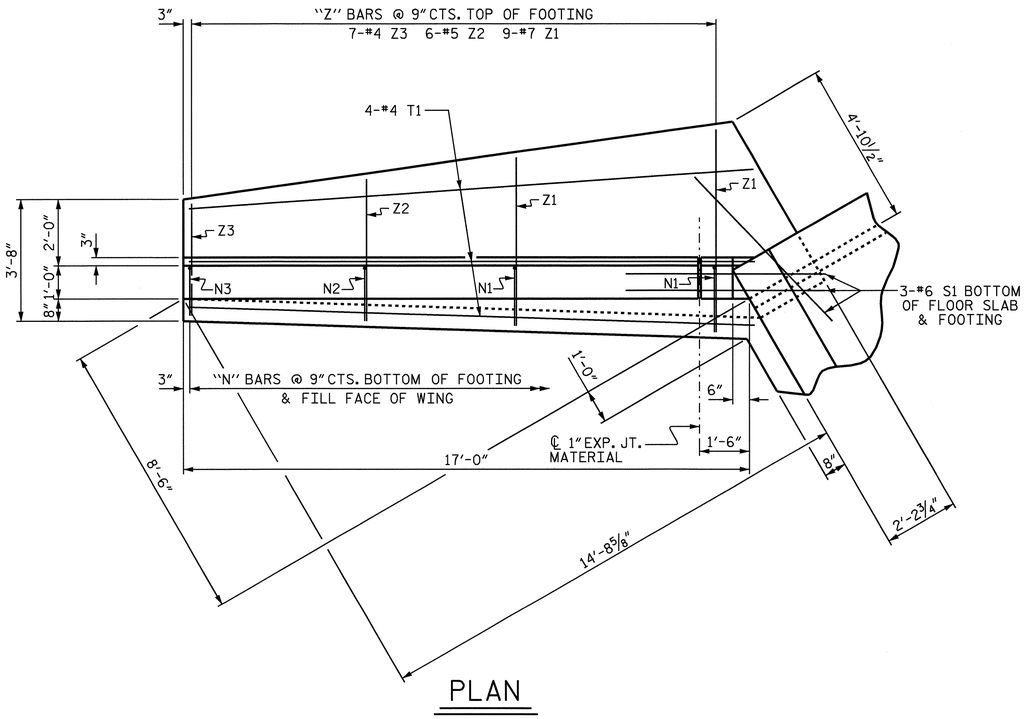
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TRIPLE 13 FT. X 11 FT. CONCRETE BOX CULVERT 97° SKEW

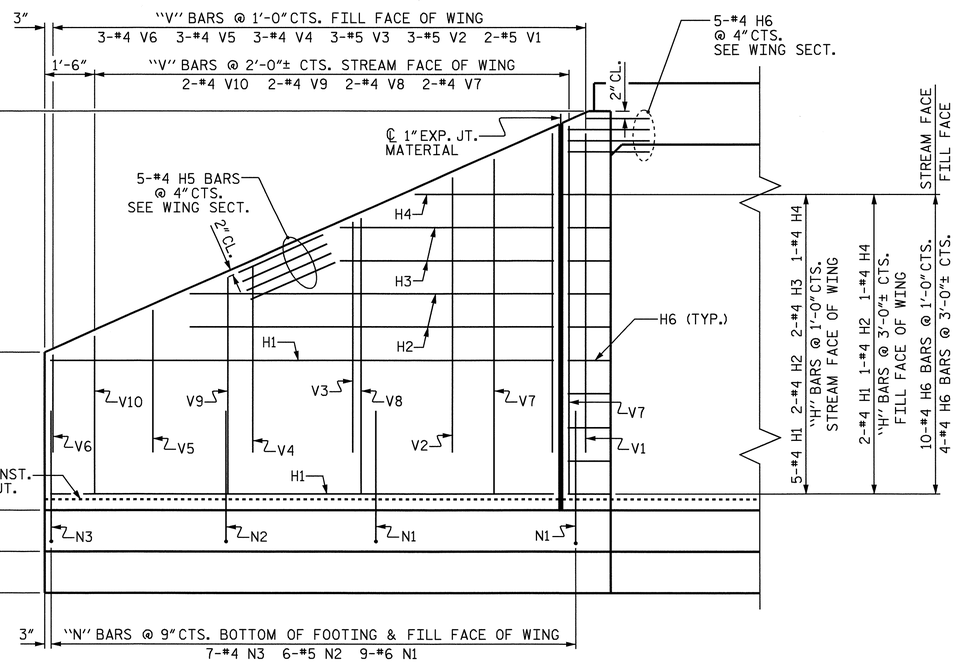
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-3
1			3			TOTAL SHEETS
2			4			4

DRAWN BY : S. DOMBROWSKI DATE : 9/07
CHECKED BY : K.D. LAYNE DATE : 10/07

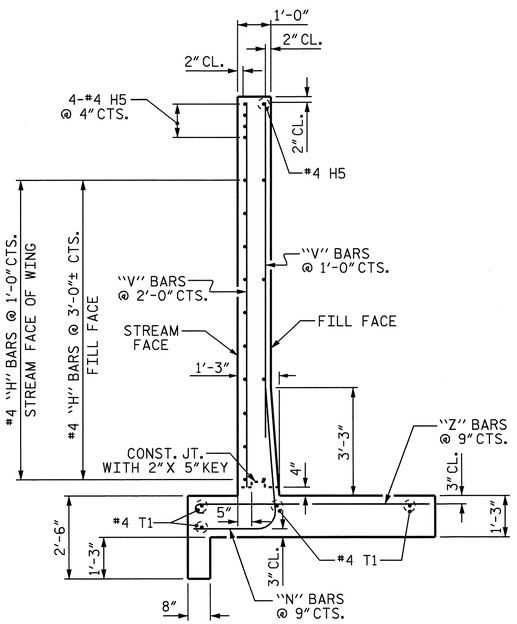
05-MAR-2008 12:33
r:\structures\plans\u-3304_sd_cu.dgn
sdombrowski



PLAN

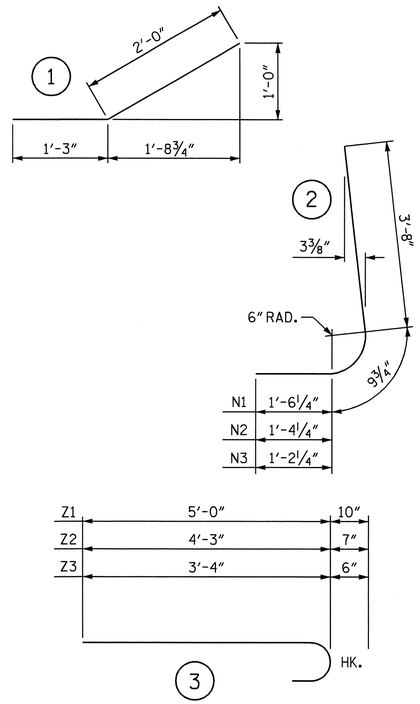


ELEVATION



TYPICAL WING SECTION

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	28	#4	STR	15'- 1"	282
H2	12	#4	STR	10'-10"	87
H3	8	#4	STR	6'- 4"	34
H4	8	#4	STR	4'- 1"	22
H5	20	#4	STR	16'-0"	214
H6	76	#4	1	3'- 3"	165
N1	36	#6	2	6'-0"	324
N2	24	#5	2	5'-10"	146
N3	28	#4	2	5'- 8"	106
S1	12	#6	STR	6'- 0"	108
T1	16	#4	STR	17'- 0"	182
V1	8	#5	STR	10'- 3"	86
V2	12	#5	STR	8'- 9"	110
V3	12	#5	STR	7'- 6"	94
V4	12	#4	STR	6'- 0"	48
V5	12	#4	STR	4'- 9"	38
V6	12	#4	STR	3'- 6"	28
V7	8	#4	STR	10'- 0"	53
V8	8	#4	STR	8'- 3"	44
V9	8	#4	STR	6'- 6"	35
V10	8	#4	STR	4'- 9"	25
Z1	36	#7	3	5'-10"	429
Z2	24	#5	3	4'-10"	121
Z3	28	#4	3	3'-10"	72

REINFORCING STEEL FOR 4 WINGS 2853 LBS

CLASS A CONCRETE

4 WINGS	40.8 CY
2 HEADWALLS	3.9 CY
2 END CURTAIN WALLS	4.7 CY
2 SILLS	1.9 CY
TOTAL	51.3 CY

PROJECT NO. U-3304

ALAMANCE COUNTY

STATION: 34+37.00 -L-

SHEET 4 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD WINGS FOR CONCRETE BOX CULVERT

H = 11'-0" SLOPE = 2:1
90° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-4
1			3			TOTAL SHEETS
2			4			4

STD. NO. CW9011

NORTH CAROLINA PROFESSIONAL SEAL 23371 ENGINEER VIPUL A. PATEL
5/6/08

ASSEMBLED BY :	S. DOMBROWSKI	DATE :	9/07
CHECKED BY :	K.D. LAYNE	DATE :	10/07
DRAWN BY :	A.K.PATEL	DATE :	11/04
CHECKED BY :	M. K. BEARD	DATE :	12/04

06-MAY-2008 07:35
r:\structures\plans\u-3304_sd_cu.dgn
sdombrowski

STANDARD NOTES

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. (MINIMUM)

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 2002 STANDARD SPECIFICATIONS "FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

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, ABUTMENT BACKWALLS, AND APPROACH SLABS; CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP; AND CLASS S SHALL BE USED FOR UNDERWATER FOOTING SEALS.

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.

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 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 WITH THE EXCEPTION OF #2 BARS WHICH MAY BE FABRICATED FROM COLD DRAWN STEEL WIRE. 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 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 3/4" 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 ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 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.

PLACEMENT OF BEAM OR GIRDER MEMBERS ON TRUCKS FOR HAULING SHALL BE DONE IN COMPLIANCE WITH LIMITS SHOWN ON SKETCHES PROVIDED TO THE MATERIALS AND TEST UNIT APPROVED BY THE STRUCTURE DESIGN UNIT DATED MAY 8, 1991. THESE SKETCHES PRIMARILY LIMIT THE UNSUPPORTED CANTILEVER LENGTH OF MEMBERS. WHEN THE CONTRACTOR WISHES TO PLACE MEMBERS ON TRUCKS NOT IN ACCORDANCE WITH THESE LIMITS, TO SHIP BY RAIL, TO ATTACH SHIPPING RESTRAINTS TO THE MEMBERS OR TO INVERT MEMBERS, HE SHALL SUBMIT A SKETCH FOR APPROVAL PRIOR TO SHIPPING. SEE ALSO ARTICLE 1072-11.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, 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 SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

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. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

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 SPECIFICATIONS ARTICLE 105-4.

REV. 6-16-95 EEM ω RGW REV. 6-27-02 RWW ω JTE
REV. 8-16-99 RWW ω JTE

ENGLISH

JANUARY, 1990

STD. NO. SN