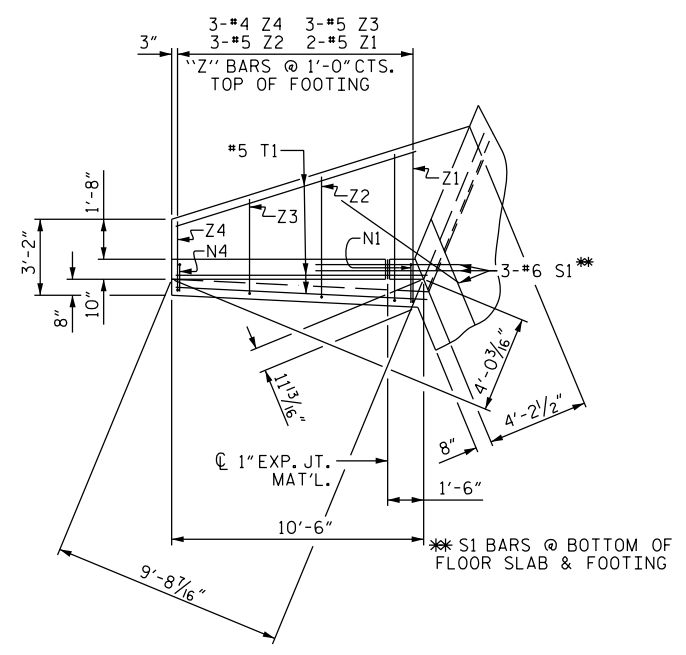
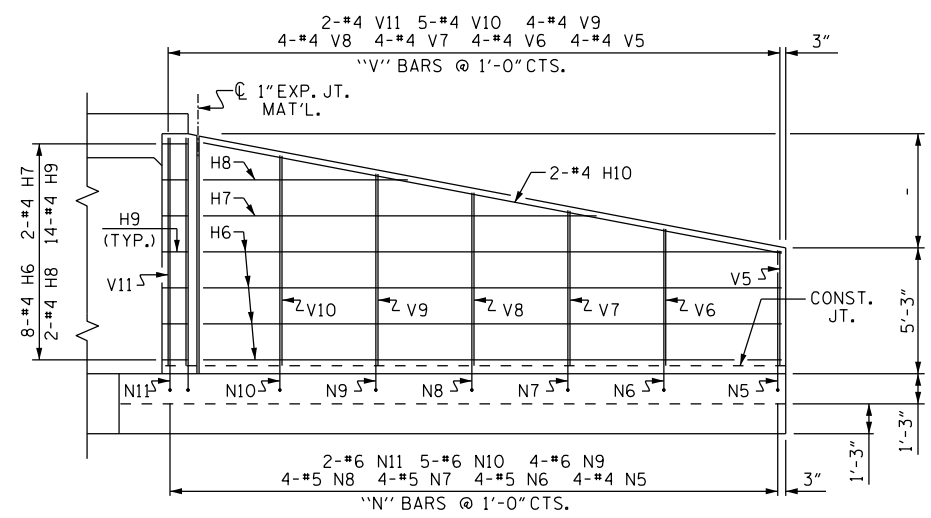


PLAN W1

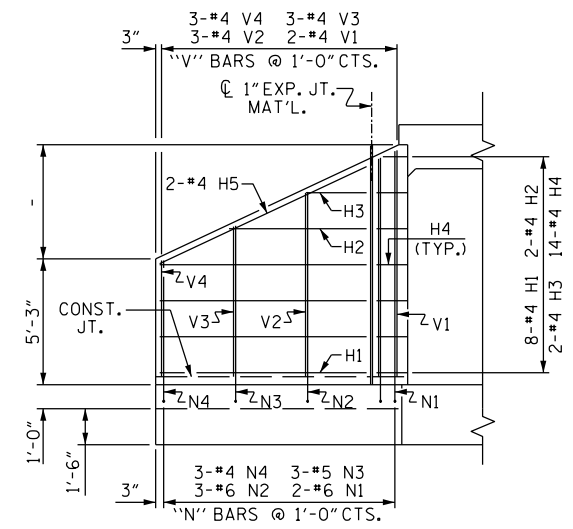
* CENTER ALL #6 C1 BARS ON C CENTERFOOT



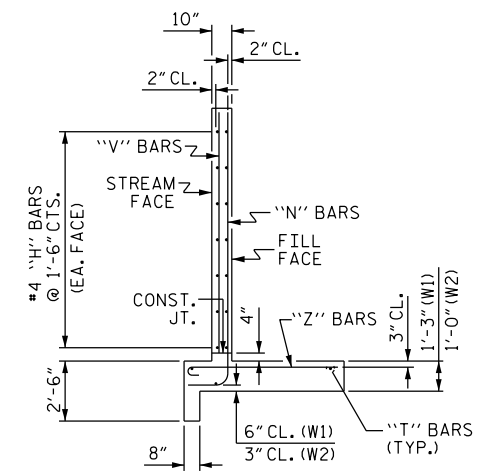
PLAN W2



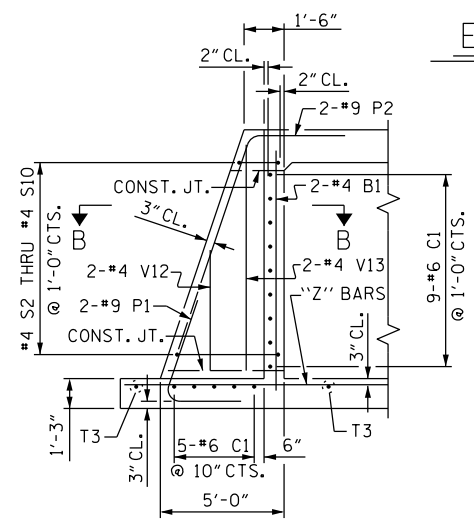
ELEVATION W1



ELEVATION W2

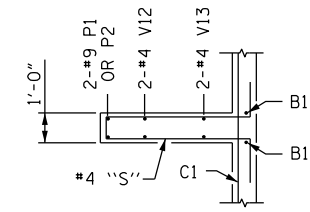


WING SECTION



SECTION A-A

STANDARD REINFORCING STEEL IN BARREL NOT SHOWN



SECTION B-B

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	4	#4	STR	10'-0"	27
C1	28	#6	STR	9'-0"	379
H6	16	#4	STR	24'-1"	257
H7	4	#4	STR	16'-5"	44
H8	4	#4	STR	8'-9"	23
H9	28	#4	1	3'-3"	61
H10	4	#4	STR	24'-6"	65
M1	10	#8	2	16'-4"	436
N5	8	#4	3	6'-10"	37
N6	8	#5	3	7'-7"	63
N7	8	#5	3	8'-4"	70
N8	8	#5	3	9'-1"	76
N9	8	#6	3	9'-10"	118
N10	10	#6	3	10'-7"	159
N11	4	#6	3	11'-5"	69
P1	4	#9	4	7'-3"	99
P2	4	#9	5	13'-2"	179
S2	2	#4	6	11'-9"	16
S3	2	#4	6	11'-1"	15
S4	2	#4	6	10'-5"	14
S5	2	#4	6	9'-9"	13
S6	2	#4	6	9'-1"	12
S7	2	#4	6	8'-5"	11
S8	2	#4	6	7'-7"	10
S9	2	#4	6	6'-11"	9
S10	2	#4	6	6'-3"	8
T2	8	#5	STR	26'-0"	217
T3	4	#5	STR	13'-0"	54
V5	8	#5	STR	4'-9"	25
V6	8	#4	STR	5'-6"	29
V7	8	#4	STR	6'-3"	33
V8	8	#4	STR	7'-0"	37
V9	8	#4	STR	7'-9"	41
V10	10	#4	STR	8'-6"	57
V11	4	#4	STR	9'-5"	25
V12	4	#4	STR	4'-6"	12
V13	4	#4	STR	8'-9"	23
Z5	8	#4	7	3'-4"	18
Z6	8	#4	7	4'-2"	22
Z7	8	#5	7	5'-2"	43
Z8	8	#5	7	6'-0"	50
Z9	8	#5	7	6'-10"	57
Z10	10	#8	7	8'-1"	216
Z11	10	#10	7	9'-5"	405
Z12	10	#10	STR	10'-1"	434
Z13	10	#10	STR	9'-4"	402
Z14	8	#10	STR	8'-7"	295

LONG WING W1

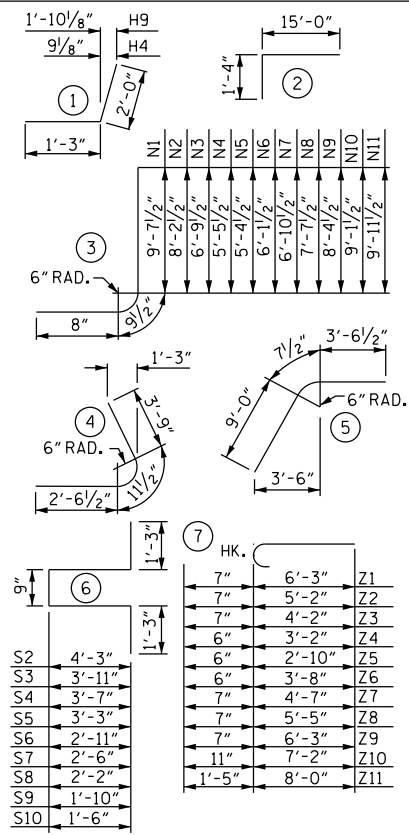
SHORT WING W2

REINFORCING STEEL FOR 2 W1 WINGS 4,765 LBS.

WING QUANTITIES

REINFORCING STEEL FOR 4 WINGS	5,524 LBS.
CLASS A CONCRETE	
4 WINGS	47.7 C.Y.
2 END CURTAIN WALL	- C.Y.
2 HEADWALLS	- C.Y.
TOTAL	- C.Y.

BAR TYPES



DIMENSIONS ARE OUT TO OUT

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	16	#4	STR	8'-7"	92
H2	4	#4	STR	5'-8"	15
H3	4	#4	STR	2'-6"	7
H4	28	#4	1	3'-3"	61
H5	4	#4	STR	9'-6"	25

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
N1	4	#6	3	11'-1"	67
N2	6	#6	3	9'-8"	87
N3	6	#5	3	8'-3"	52
N4	6	#4	3	6'-11"	28

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
S1	6	#6	STR	6'-0"	54
T1	6	#5	STR	10'-6"	66

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
V1	4	#4	STR	9'-1"	24
V2	6	#4	STR	7'-8"	31
V3	6	#4	STR	6'-3"	25
V4	6	#4	STR	4'-10"	19

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
Z1	4	#5	7	6'-9"	28
Z2	6	#5	7	5'-8"	35
Z3	6	#5	7	4'-7"	29
Z4	6	#4	7	3'-5"	14

REINFORCING STEEL FOR 2 W2 WINGS 759 LBS.

PROJECT NO. _____ COUNTY _____

STATION: _____

SHEET _____ OF _____

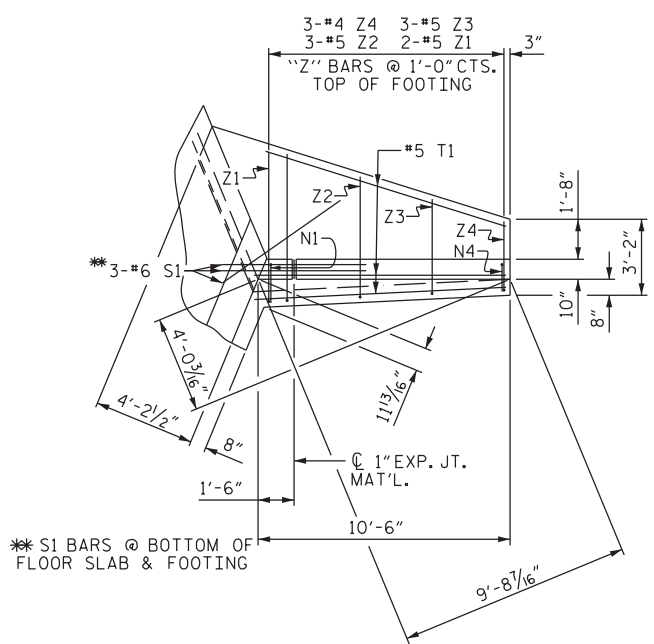
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD WINGS
FOR MULTIPLE BARREL
CONCRETE BOX CULVERT
H = 9'-0" SLOPE = 2:1
45° SKEW

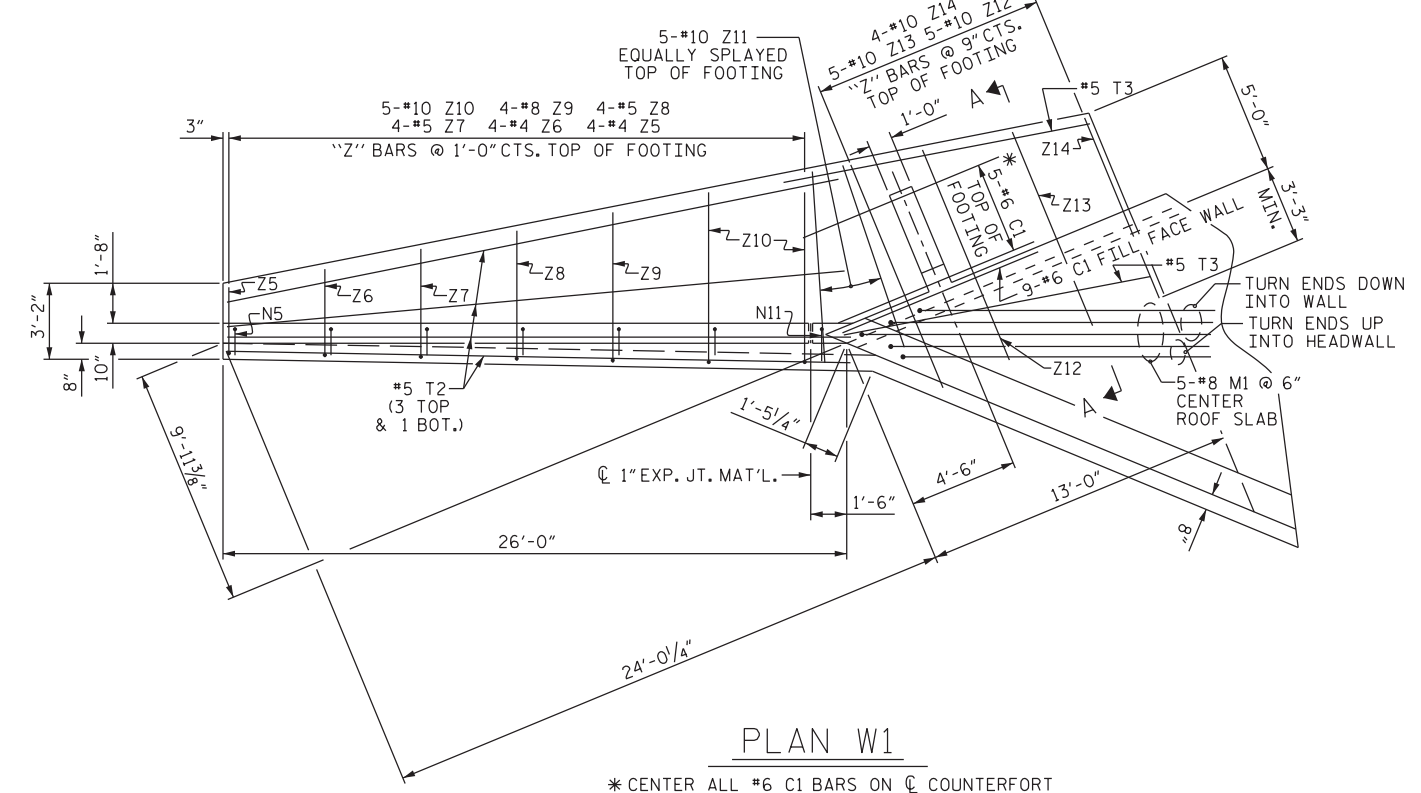
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-
1			3			
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ASSEMBLED BY :	-	DATE :	-
CHECKED BY :	-	DATE :	-
DRAWN BY :	MAA	9/15	REV. 6/19
CHECKED BY :	BHB	9/15	MAA/THC

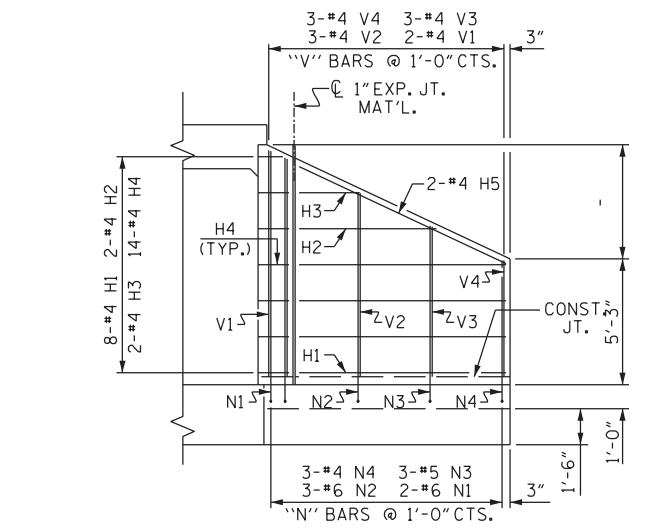


PLAN W2

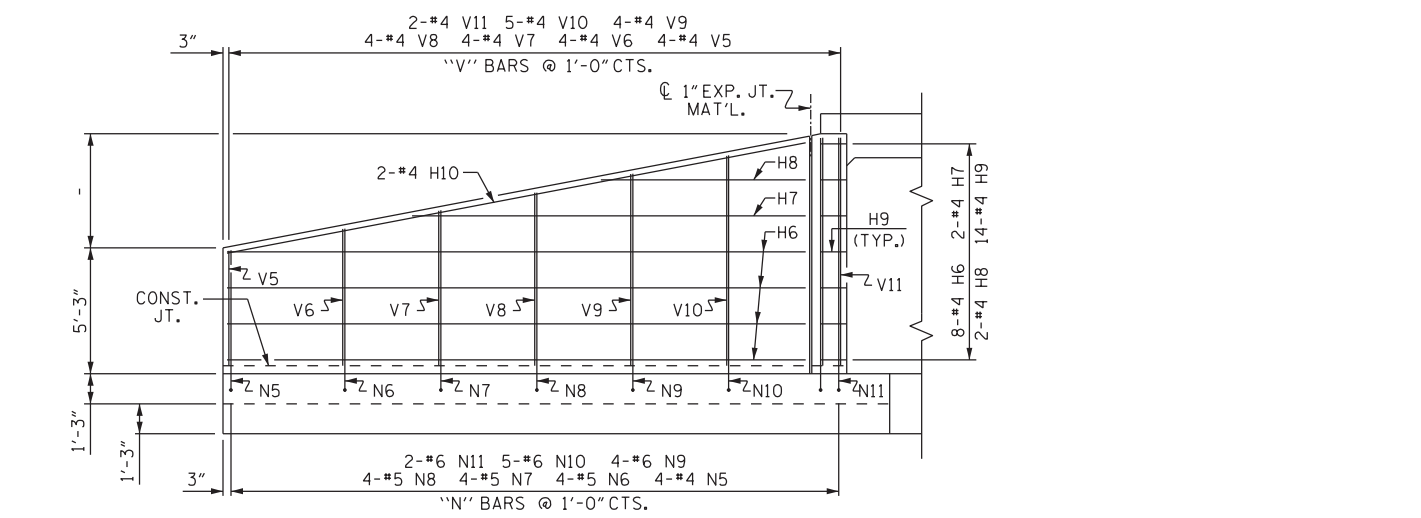


PLAN W1

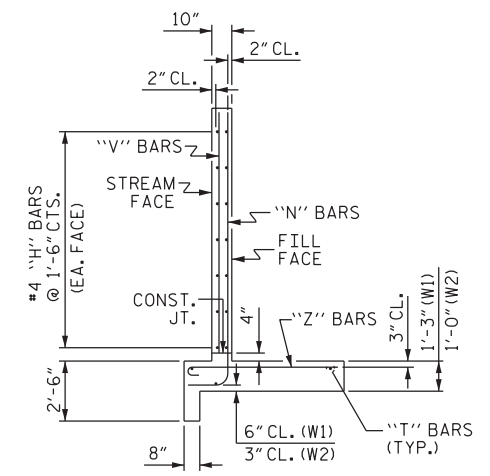
* CENTER ALL #6 C1 BARS ON CL COUNTERFORT



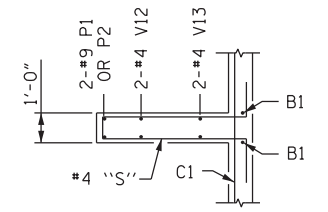
ELEVATION W2



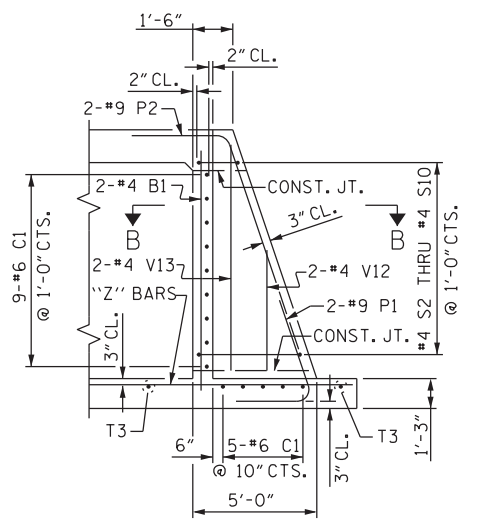
ELEVATION W1



WING SECTION



SECTION B-B



SECTION A-A

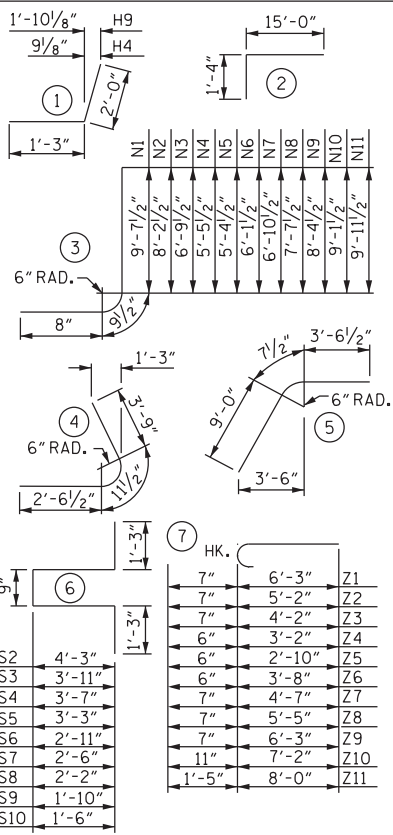
STANDARD REINFORCING STEEL IN BARREL NOT SHOWN

BILL OF MATERIAL

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	#4	STR	10'-0"	27	
C1	#6	STR	9'-0"	379	
H6	#4	STR	24'-1"	257	
H7	#4	STR	16'-5"	44	
H8	#4	STR	8'-9"	23	
H9	#4	1	3'-3"	61	
H10	#4	STR	24'-6"	65	
M1	#8	2	16'-4"	436	
N5	#4	3	6'-10"	37	
N6	#5	3	7'-7"	63	
N7	#5	3	8'-4"	70	
N8	#5	3	9'-1"	76	
N9	#6	3	9'-10"	118	
N10	#6	3	10'-7"	159	
N11	#6	3	11'-5"	69	
P1	#4	#9	4	7'-3"	99
P2	4	#9	5	13'-2"	179
S2	2	#4	6	11'-9"	16
S3	2	#4	6	11'-1"	15
S4	2	#4	6	10'-5"	14
S5	2	#4	6	9'-9"	13
S6	2	#4	6	9'-1"	12
S7	2	#4	6	8'-5"	11
S8	2	#4	6	7'-7"	10
S9	2	#4	6	6'-11"	9
S10	2	#4	6	6'-3"	8
T2	8	#5	STR	26'-0"	217
T3	4	#5	STR	13'-0"	54
V5	8	#5	STR	4'-9"	25
V6	8	#4	STR	5'-6"	29
V7	8	#4	STR	6'-3"	33
V8	8	#4	STR	7'-0"	37
V9	8	#4	STR	7'-9"	41
V10	10	#4	STR	8'-6"	57
V11	4	#4	STR	9'-5"	25
V12	4	#4	STR	4'-6"	12
V13	4	#4	STR	8'-9"	23
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Z6	8	#4	7	4'-2"	22
Z7	8	#5	7	5'-2"	43
Z8	8	#5	7	6'-0"	50
Z9	8	#5	7	6'-10"	57
Z10	10	#8	7	8'-1"	216
Z11	10	#10	7	9'-5"	405
Z12	10	#10	STR	10'-1"	434
Z13	10	#10	STR	9'-4"	292
Z14	8	#10	STR	8'-7"	405
REINFORCING STEEL FOR 2 W1 WINGS				4,765 LBS.	

LONG WING W1

BAR TYPES



DIMENSIONS ARE OUT TO OUT

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
H1	#4	STR	8'-7"	92
H2	#4	STR	5'-8"	15
H3	#4	STR	2'-6"	7
H4	#4	1	3'-3"	61
H5	#4	STR	9'-6"	25

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
N1	#6	3	11'-1"	67
N2	#6	3	9'-8"	87
N3	#5	3	8'-3"	52
N4	#4	3	6'-11"	28

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
S1	#6	STR	6'-0"	54
T1	#5	STR	10'-6"	66

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
V1	#4	STR	9'-1"	24
V2	#4	STR	7'-8"	31
V3	#4	STR	6'-3"	25
V4	#4	STR	4'-10"	19

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
Z1	#5	7	6'-9"	28
Z2	#5	7	5'-8"	35
Z3	#5	7	4'-7"	29
Z4	#4	7	3'-5"	14
REINFORCING STEEL FOR 2 W2 WINGS				759 LBS.

PROJECT NO. _____ COUNTY _____

STATION: _____

SHEET _____ OF _____

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD WINGS
FOR MULTIPLE BARREL
CONCRETE BOX CULVERT
H = 9'-0" SLOPE = 2:1
135° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-
1			3			
2			4			

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