SPAN A

BILL OF MATERIAL FOR ONE CORED SLAB SECTION

			EXTERIOR UNIT			INTERIOR UNIT		
BAR	SIZE	TYPE	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT
B1	# 4	STR	2	28′-5″	38	2	28′-5″	38
S1	# 4	3	8	3′-9″	20	8	3′-9″	20
S2	# 4	3	56	4′-10″	181	56	4′-10″	181
✳S3	# 5	1	30	5′- 4″	167			
REINFORCING STEEL				LBS.	239			239
✳EPOXY COATED								
REINFORCING STEEL				LBS.	167			
5,000 P.S.I. CONCRETE				CU. YDS.	3.8			3.8
1/2″ Ø L.R. STRANDS				No.	17			17

DEAD LOAD DEFLECTION AND CAMBER

	3′-0″ × 1′-6″
	1/2″ Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE) ↑	15/16″
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD ✳✳ ↓	1/16″
FINAL CAMBER ↑	7/8″

✳✳ INCLUDES FUTURE WEARING SURFACE

CORED SLABS REQUIRED

UNIT TYPE	NUMBER	LENGTH	TOTAL LENGTH
INTERIOR	9	28′-9 3/4″	259′-3 3/4″
EXTERIOR	2	28′-9 3/4″	57′-7 1/2″
TOTAL	11		316′-11 1/4″

SPAN B

BILL OF MATERIAL FOR ONE CORED SLAB SECTION

			EXTERIOR UNIT			INTERIOR UNIT		
BAR	SIZE	TYPE	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT
B2	# 4	STR	4	18′-3″	49	4	18′-3″	49
S1	# 4	3	8	3′-9″	20	8	3′-9″	20
S2	# 4	3	68	4′-10″	220	68	4′-10″	220
✳S3	# 5	1	36	5′- 4″	200			
REINFORCING STEEL				LBS.	289			289
✳EPOXY COATED								
REINFORCING STEEL				LBS.	200			
5,000 P.S.I. CONCRETE				CU. YDS.	4.5			4.5
1/2″ Ø L.R. STRANDS				No.	17			17

DEAD LOAD DEFLECTION AND CAMBER

	3′-0″ × 1′-6″
	1/2″ Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE) ↑	1 1/4″
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD ✳✳ ↓	1/8″
FINAL CAMBER ↑	1 1/8″

✳✳ INCLUDES FUTURE WEARING SURFACE

CORED SLABS REQUIRED

UNIT TYPE	NUMBER	LENGTH	TOTAL LENGTH
INTERIOR	9	34′-10 1/2″	313′-10 1/2″
EXTERIOR	2	34′-10 1/2″	69′-9″
TOTAL	11		383′-7 1/2″

SPAN C

BILL OF MATERIAL FOR ONE CORED SLAB SECTION

			EXTERIOR UNIT			INTERIOR UNIT		
BAR	SIZE	TYPE	NUMBER	LENGTH	WEIGHT	NUMBER	LENGTH	WEIGHT
B3	# 4	STR	4	20′-3″	54	4	20′-3″	54
S1	# 4	3	8	3′-9″	20	8	3′-9″	20
S2	# 4	3	76	4′-10″	245	76	4′-10″	245
✳S3	# 5	1	40	5′- 4″	223			
REINFORCING STEEL				LBS.	319			319
✳EPOXY COATED								
REINFORCING STEEL				LBS.	223			
5,000 P.S.I. CONCRETE				CU. YDS.	5.1			5.1
1/2″ Ø L.R. STRANDS				No.	17			17

DEAD LOAD DEFLECTION AND CAMBER

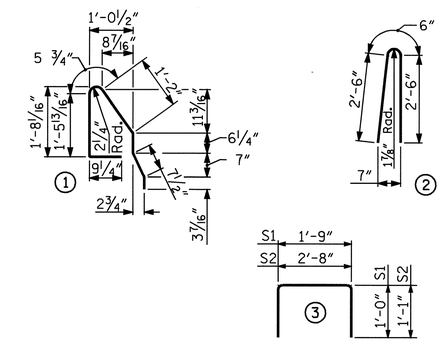
	3′-0″ × 1′-6″
	1/2″ Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE) ↑	1 3/8″
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD ✳✳ ↓	1/8″
FINAL CAMBER ↑	1 1/4″

✳✳ INCLUDES FUTURE WEARING SURFACE

CORED SLABS REQUIRED

UNIT TYPE	NUMBER	LENGTH	TOTAL LENGTH
INTERIOR	9	38′-9 3/4″	349′-3 3/4″
EXTERIOR	2	38′-9 3/4″	77′-7 1/2″
TOTAL	11		426′-11 1/4″

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

GRADE 270 STRANDS

	1/2″ Ø L.R.
AREA (SQUARE INCHES)	0.153
ULTIMATE STRENGTH (LBS. PER STRAND)	41,300
APPLIED PRESTRESS (LBS. PER STRAND)	30,980

BARRIER RAIL BILL OF MATERIAL

SPAN A						SPAN B						SPAN C					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
✳ B4	14	5	STR	28′-4″	413	✳ B5	28	5	STR	17′-0″	496	✳ B6	28	5	STR	19′-0″	555
✳ S4	60	5	2	5′-6″	344	✳ S4	72	5	2	5′-6″	413	✳ S4	80	5	2	5′-6″	459
✳EPOXY COATED REINF. STEEL LBS. = 757						✳EPOXY COATED REINF. STEEL LBS. = 909						✳EPOXY COATED REINF. STEEL LBS. = 1014					
CLASS AA CONCRETE CU.YDS. = 6.4						CLASS AA CONCRETE CU.YDS. = 7.8						CLASS AA CONCRETE CU.YDS. = 8.7					

✳TOTAL EPOXY COATED REINF. STEEL LBS. = 2680
TOTAL CLASS AA CONCRETE CU. YDS. = 22.9
TOTAL CONCRETE BARRIER RAIL (FT) = 205.75

PROJECT NO. B-3639
EDGECOMBE COUNTY
STATION: 17+59.40 -L-

SHEET 6 OF 6

NORTH CAROLINA PROFESSIONAL SEAL 11259 ENGINEER DAVID R. ANDERSON
1-12-06

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

3′-0″ X 1′-6″ PRESTRESSED CONCRETE CORED SLAB UNIT

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-9
1			3			TOTAL SHEETS
2			4			20

ASSEMBLED BY : N. O. TRAN DATE : 12-3-04
CHECKED BY : T. A. WALTER DATE : 12-3-04

11-JAN-2006 12:25
I:\Structures\ntran\Mlaroa-sc\wkg\b3639-cs.dgn
ntran