

Bill of Reinforcing Steel for Superstructure - 20' Bridge																		
Location	Skew Shape	0 Degree				15 Degree				30 Degree				45 Degree				
		Bar	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight	No.	Length	Weight				
Slab Longitudinal Bottom		8a1	31	20'-6"	1697	31	20'-6"	1697	31	20'-6"	1697	31	20'-6"	1697				
Slab Longitudinal Bottom		7a2	16	13'-4"	436	16	13'-4"	436	16	13'-4"	436	16	13'-4"	436				
Slab Longitudinal Bottom, at Rail		7a3	4	20'-6"	168	4	20'-6"	168	4	20'-6"	168	4	20'-6"	168				
Slab Longitudinal Bottom, at Rail		8a4	4	20'-6"	219	4	20'-6"	219	4	20'-6"	219	4	20'-6"	219				
Slab Longitudinal Top		8b1	62	15'-0"	2483	62	15'-0"	2483	62	15'-0"	2483	62	15'-0"	2483				
Slab Longitudinal Top		7b2	32	14'-8"	959	32	14'-8"	959	32	14'-8"	959	32	14'-8"	959				
Slab Longitudinal Top, at Rail		7b3	8	14'-8"	240	8	14'-8"	240	8	14'-8"	240	8	14'-8"	240				
Slab Longitudinal Top, at Rail		8b4	8	15'-0"	320	8	15'-0"	320	8	15'-0"	320	8	15'-0"	320				
Slab Transverse Bottom		6c1	17	26'-10"	685	17	27'-9"	709	6	26'-10"	242	4	20'-8"	124				
Slab Transverse Ends, Bottom		6c3	-	-	-	-	-	-	24	VARIES	578	36	VARIES	689				
Slab Transverse, Top		4d1	17	26'-10"	305	17	27'-9"	315	6	26'-10"	108	4	20'-8"	55				
Slab Transverse Ends, Top		4d3	-	-	-	-	-	-	24	VARIES	257	36	VARIES	307				
Top of Slab, Transverse, at Rail		4j1	32	7'-5"	159	32	7'-5"	159	32	7'-5"	159	30	7'-5"	149				
Paving Block Lifting Hoops		5z1	8	2'-10"	24	8	2'-10"	24	8	2'-10"	24	8	2'-10"	24				
Epoxy-Coated Sub Total - LBS.					7,695			7,729			7,890			7,870				
Integral Abutment Bars																		
Slab, Transverse at Abutment		8e1	14	26'-10"	1003	-	-	-	-	-	-	-	-	-				
Slab, Transverse at Abutment		8e2	-	-	-	14	27'-8"	1034	14	30'-6"	1140	14	36'-9"	1374				
Slab, Hairpins, at Abutment		6e3	60	5'-0"	451	60	5'-1"	458	60	5'-5"	488	60	6'-1"	548				
Slab, Diagonal, at Abutment		6e4	60	5'-11"	533	60	5'-11"	533	60	5'-11"	533	60	5'-11"	533				
Wing, Vertical		5m1	40	4'-5"	184	40	4'-5"	184	40	4'-5"	184	40	4'-5"	184				
Wing, Horizontal		5n1	48	6'-8"	334	48	6'-8"	334	48	6'-8"	334	48	6'-8"	334				
Epoxy-Coated Sub Total - Integral Abutment - LBS.					2,505			2,543			2,679			2,973				
High Abutment Bars																		
Slab, Diagonal, at Abutment		6e4	60	5'-11"	533	58	5'-11"	515	-	-	-	-	-	-				
Slab, Transverse at Abutment		8e5	18	34'-8"	1666	18	35'-11"	1726	-	-	-	-	-	-				
Slab, Transverse at Abutment, Cap Ends		8e6	4	5'-2"	55	4	5'-4"	57	-	-	-	-	-	-				
Abutment Hairpins		6s1	160	8'-0"	1923	140	8'-0"	1682	-	-	-	-	-	-				
Abutment Hairpins, Cap Ends		6s2	-	-	-	16	8'-1"	194	-	-	-	-	-	-				
Abutment Hairpins, Cap Ends		5s3	24	8'-4"	209	24	8'-5"	211	-	-	-	-	-	-				
Spiral		#2	10	38'-6"	64	12	38'-6"	77	-	-	-	-	-	-				
Spiral Spacers, L 7/8x7/8x1/8x 0.7			30	1'-10"	39	36	1'-10"	46	-	-	-	-	-	-				
Epoxy-Coated Sub Total - High Abutment - LBS.					4,386			4,385										
Non-Coated Sub Total - High Abutment - LBS.					103			123										

Estimated Quantities for Superstructure - 20' Bridge											
Item	Skew	Integral Abutment				High Abutment					
* Structural Concrete (Bridge)	0°	15°	30°	45°	0°	15°					
Reinf. Steel Epoxy Coated With Open Rail	C.Y.	41.8	42.2	43.5	46.4	52.9	53.6				
Reinf. Steel Epoxy Coated With W-Beam Guardrail	LBS.	13,002	13,074	13,371	13,645	14,271	14,304				
Reinf. Steel Non-Coated	LBS.	10,200	10,272	10,569	10,843	12,081	12,114				
* Includes 4 wings for integral abutment at 1.18 CY each and temporary paving blocks; excludes rail concrete.	LBS.	-	-	-	-	103	123				

