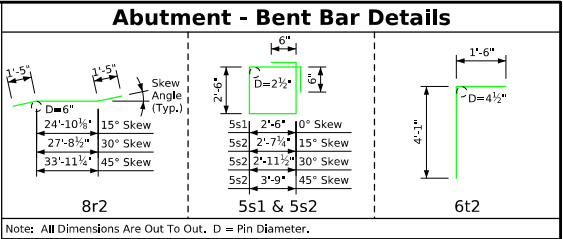


Bill of Reinforcing Steel - One Abutment - 0° Skew											
Bridge Length		20'-0"		30'-0"		40'-0"		50'-0"			
Bar	Location	Shape	Length	No.	Weight	No.	Weight	No.	Weight	No.	Weight
8r1	Abutment Footing Longitudinal		26'-10"	7	502	7	502	7	502	7	502
5s1	Abutment Footing Hoops		11'-0"	25	287	24	275	24	275	22	252
6t1	Footing to Slab Dowels		5'-0"	30	225	30	225	30	225	30	225
6t2	Footing to Slab Dowels		5'-7"	30	252	30	252	30	252	30	252
#2	Pile Spiral		38'-6"	4	26	5	32	6	39	7	45
	Spiral Spacers, L 7/8x7/8x1/8x 0.70		1'-10"	12	15	15	19	18	23	21	27
Epoxy Coated Reinforcing Steel - Total (lbs.)					1,266		1,254		1,254		1,231
Non-Coated Reinforcing Steel - Total (lbs.)					41		51		62		72

Bill of Reinforcing Steel - One Abutment - 15° Skew											
Bridge Length		20'-0"		30'-0"		40'-0"		50'-0"			
Bar	Location	Shape	Length	No.	Weight	No.	Weight	No.	Weight	No.	Weight
8r2	Abutment Footing Longitudinal		27'-8"	7	517	7	517	7	517	7	517
5s1	Abutment Footing Hoops		11'-0"	24	275	24	275	20	229	24	275
5s2	Abutment Footing Hoops		11'-3"	4	47	4	47	4	47	4	47
6t1	Footing to Slab Dowels		5'-0"	30	225	30	225	30	225	30	225
6t2	Footing to Slab Dowels		5'-7"	30	252	30	252	30	252	30	252
#2	Pile Spiral		38'-6"	5	32	5	32	6	39	7	45
	Spiral Spacers, L 7/8x7/8x1/8x 0.70		1'-10"	15	19	15	19	18	23	21	27
Epoxy Coated Reinforcing Steel - Total (lbs.)					1,316		1,316		1,270		1,316
Non-Coated Reinforcing Steel - Total (lbs.)					51		51		62		72

Bill of Reinforcing Steel - One Abutment - 30° Skew											
Bridge Length		20'-0"		30'-0"		40'-0"		50'-0"			
Bar	Location	Shape	Length	No.	Weight	No.	Weight	No.	Weight	No.	Weight
8r2	Abutment Footing Longitudinal		30'-7"	7	572	7	572	7	572	7	572
5s1	Abutment Footing Hoops		11'-0"	24	275	24	275	25	287	24	275
5s2	Abutment Footing Hoops		11'-11"	4	50	4	50	4	50	4	50
6t1	Footing to Slab Dowels		5'-0"	30	225	30	225	30	225	30	225
6t2	Footing to Slab Dowels		5'-7"	30	252	30	252	30	252	30	252
#2	Pile Spiral		38'-6"	5	32	5	32	6	39	7	45
	Spiral Spacers, L 7/8x7/8x1/8x 0.70		1'-10"	15	19	15	19	18	23	21	27
Epoxy Coated Reinforcing Steel - Total (lbs.)					1,374		1,374		1,386		1,374
Non-Coated Reinforcing Steel - Total (lbs.)					51		51		62		72

Bill of Reinforcing Steel - One Abutment - 45° Skew											
Bridge Length		20'-0"		30'-0"		40'-0"		50'-0"			
Bar	Location	Shape	Length	No.	Weight	No.	Weight	No.	Weight	No.	Weight
8r2	Abutment Footing Longitudinal		36'-9"	7	687	7	687	7	687	7	687
5s1	Abutment Footing Hoops		11'-0"	30	344	30	344	30	344	30	344
5s2	Abutment Footing Hoops		13'-6"	4	56	4	56	4	56	4	56
6t1	Footing to Slab Dowels		5'-0"	30	225	30	225	30	225	30	225
6t2	Footing to Slab Dowels		5'-7"	30	252	30	252	30	252	30	252
#2	Pile Spiral		38'-6"	6	39	6	39	6	39	7	45
	Spiral Spacers, L 7/8x7/8x1/8x 0.70		1'-10"	18	23	18	23	18	23	21	27
Epoxy Coated Reinforcing Steel - Total (lbs.)					1,564		1,564		1,564		1,564
Non-Coated Reinforcing Steel - Total (lbs.)					62		62		62		72



Estimated Quantities - One Abutment - 0° Skew					
Location	Unit	20'-0"	30'-0"	40'-0"	50'-0"
Bridge Length	c.y.	9.1	9.1	9.1	9.1
Structural Concrete (Bridge)	lbs.	1,266	1,254	1,254	1,231
Reinforcing Steel (Epoxy Coated)	lbs.	41	51	62	72
Reinforcing Steel (Non-Coated)	no.	4	5	6	7
Steel Piling HP 10x42					

Estimated Quantities - One Abutment - 15° Skew					
Location	Unit	20'-0"	30'-0"	40'-0"	50'-0"
Bridge Length	c.y.	9.4	9.4	9.4	9.4
Structural Concrete (Bridge)	lbs.	1,316	1,316	1,270	1,316
Reinforcing Steel (Epoxy Coated)	lbs.	51	51	62	72
Reinforcing Steel (Non-Coated)	no.	5	5	6	7
Steel Piling HP 10x42					

Estimated Quantities - One Abutment - 30° Skew					
Location	Unit	20'-0"	30'-0"	40'-0"	50'-0"
Bridge Length	c.y.	10.5	10.5	10.5	10.5
Structural Concrete (Bridge)	lbs.	1,374	1,374	1,386	1,374
Reinforcing Steel (Epoxy Coated)	lbs.	51	51	62	72
Reinforcing Steel (Non-Coated)	no.	5	5	6	7
Steel Piling HP 10x42					

Estimated Quantities - One Abutment - 45° Skew					
Location	Unit	20'-0"	30'-0"	40'-0"	50'-0"
Bridge Length	c.y.	12.8	12.8	12.8	12.8
Structural Concrete (Bridge)	lbs.	1,564	1,564	1,564	1,564
Reinforcing Steel (Epoxy Coated)	lbs.	62	62	62	72
Reinforcing Steel (Non-Coated)	no.	6	6	6	7
Steel Piling HP 10x42					

Latest Revision Date
 Approved By Bridge Engineer

Standard Design - 24'-0" Roadway, Single Span Bridge

Single Span Concrete Slab Bridges

July, 2025

Integral Abutment Details

J24S-19-25