

SUMMARY OF QUANTITIES - SUPERSTRUCTURE (PER SPAN)																			
SPAN	ABUTMENT TO ABUTMENT					ABUTMENT TO STANDARD PIER						ABUTMENT TO STEPPED PIER							
	CONCRETE RAIL (TR3)	STRUCTURAL STEEL	CLASS AA CONCRETE	REINFORCING STEEL ①	(PL) FIXED BEARING ASSEMBLY ③	CONCRETE RAIL (TR3)	STRUCTURAL STEEL	CLASS AA CONCRETE	REINFORCING STEEL ②	(PL) FIXED BEARING ASSEMBLY ③	(PL) EXPANSION BEARING ASSEMBLY ④	(PL) ELASTOMERIC BEARING PADS ⑤	CONCRETE RAIL (TR3)	STRUCTURAL STEEL	CLASS AA CONCRETE	REINFORCING STEEL ②	(PL) FIXED BEARING ASSEMBLY ③	(PL) EXPANSION BEARING ASSEMBLY ④	(PL) ELASTOMERIC BEARING PADS ⑤
	(LF)	(LB)	(CY)	(LB)	(EA)	(LF)	(LB)	(CY)	(LB)	(EA)	(EA)	(EA)	(LF)	(LB)	(CY)	(LB)	(EA)	(EA)	(EA)
30'	63.0	10,110	44.3	6,660	8	61.5	11,290	35.2	8,580	4	4	4	62.2	11,290	34.3	10,640	4	4	4
35'	73.0	11,560	48.7	7,500	8	71.5	12,740	39.6	9,420	4	4	4	72.2	12,740	38.6	11,480	4	4	4
40'	83.0	14,280	52.7	8,500	8	81.5	15,460	43.7	10,420	4	4	4	82.2	15,460	42.8	12,480	4	4	4
45'	93.0	17,390	56.6	9,340	8	91.5	18,570	47.9	11,250	4	4	4	92.2	18,570	47.4	13,320	4	4	4
50'	103.0	22,190	60.3	10,330	8	101.5	23,390	51.9	12,320	4	4	4	102.2	23,390	51.8	14,390	4	4	4
55'	113.0	29,250	64.0	11,370	8	111.5	30,450	56.0	13,360	4	4	4	112.2	30,450	57.5	15,430	4	4	4
60'	123.0	35,130	67.7	12,520	8	121.5	36,380	60.0	14,360	4	4	4	122.2	36,380	62.0	16,420	4	4	4
65'	133.0	39,100	71.8	13,360	8	131.5	40,470	64.3	15,200	4	4	4	132.2	40,470	66.5	17,260	4	4	4
70'	143.0	46,180	75.6	14,350	8	141.5	47,550	68.3	16,270	4	4	4	142.2	47,550	70.6	18,330	4	4	4
75'	153.0	54,330	79.3	15,190	8	151.5	56,130	72.4	17,110	4	4	4	152.2	56,130	75.0	19,170	4	4	4
80'	163.0	64,160	83.0	16,190	8	161.5	65,970	76.4	18,110	4	4	4	162.2	65,970	79.1	20,170	4	4	4
85'	173.0	73,560	86.6	17,030	8	171.5	75,370	80.5	18,940	4	4	4	172.2	75,370	83.2	21,010	4	4	4
90'	183.0	83,280	90.3	18,020	8	181.5	85,160	84.6	19,940	4	4	4	182.2	85,160	87.3	22,000	4	4	4
95'	193.0	100,470	93.3	18,860	8	191.5	102,340	88.3	20,780	4	4	4	192.2	102,340	91.1	22,840	4	4	4
100'	203.0	105,360	97.7	19,850	8	201.5	107,240	92.6	21,770	4	4	4	202.2	107,240	95.4	23,840	4	4	4

- ① QUANTITY INCLUDES PROVISION FOR LAP SPLICES REQUIRED IN THE LONGITUDINAL REINFORCING STEEL AS FOLLOWS:
30' THRU 55' SPANS - NO LAP SPLICES
60' THRU 100' SPANS - 1 LAP SPLICE
- ② QUANTITY INCLUDES PROVISION FOR LAP SPLICES REQUIRED IN THE LONGITUDINAL REINFORCING STEEL AS FOLLOWS:
30' THRU 45' SPANS - 1/2 LAP SPLICE
50' THRU 65' SPANS - 1 LAP SPLICE
70' THRU 100' SPANS - 1 1/2 LAP SPLICES
LAP SPLICES ACCOUNT FOR ADJACENT SPAN COMBINATIONS AND ARE APPROXIMATE. PAYMENT FOR "REINFORCING STEEL" WILL BE BASED ON PLAN QUANTITY.
- ③ AT THE ABUTMENTS, PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS DETAILED IN THE PLANS. SEE SUMMARY FOR THE ESTIMATED TOTAL AMOUNT OF STRUCTURAL STEEL PER EACH FIXED BEARING ASSEMBLY. ALL COST OF PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES INCLUDING THE COST OF ANCHOR PLATES, ANCHOR BARS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "FIXED BEARING ASSEMBLY."
- ④ AT THE PIERS, PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS DETAILED IN THE PLANS. SEE SUMMARY FOR THE ESTIMATED TOTAL AMOUNT OF STRUCTURAL STEEL PER EACH EXPANSION BEARING ASSEMBLY. ALL COST OF PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES INCLUDING THE COST OF STEEL REINFORCED ELASTOMERIC BEARING PADS, ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "EXPANSION BEARING ASSEMBLY."
- ⑤ PROVIDE AND INSTALL ELASTOMERIC BEARING PADS BETWEEN THE TOP SURFACE OF THE ROLLED BEAMS AND THE BOTTOM SURFACE OF THE DECK SLAB. THE ELASTOMERIC BEARING PADS ARE TO BE OF THE SIZE AND SHAPE AS DETAILED IN THE PLANS AND LOCATED AT EACH BEAM END ABOVE THE PIERS. ALL COST OF PROVIDING AND INSTALLING THE ELASTOMERIC BEARING PADS INCLUDING THE COST OF ELASTOMERIC BEARING PADS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "ELASTOMERIC BEARING PADS."

SUMMARY OF QUANTITIES - SUPERSTRUCTURE (PER SPAN)																		
SPAN	STANDARD PIER TO STANDARD PIER						STANDARD PIER TO STEPPED PIER						STEPPED PIER TO STEPPED PIER					
	CONCRETE RAIL (TR3)	STRUCTURAL STEEL	CLASS AA CONCRETE	REINFORCING STEEL ②	(PL) EXPANSION BEARING ASSEMBLY ④	(PL) ELASTOMERIC BEARING PADS ⑤	CONCRETE RAIL (TR3)	STRUCTURAL STEEL	CLASS AA CONCRETE	REINFORCING STEEL ②	(PL) EXPANSION BEARING ASSEMBLY ④	(PL) ELASTOMERIC BEARING PADS ⑤	CONCRETE RAIL (TR3)	STRUCTURAL STEEL	CLASS AA CONCRETE	REINFORCING STEEL ②	(PL) EXPANSION BEARING ASSEMBLY ④	(PL) ELASTOMERIC BEARING PADS ⑤
	(LF)	(LB)	(CY)	(LB)	(EA)	(EA)	(LF)	(LB)	(CY)	(LB)	(EA)	(EA)	(LF)	(LB)	(CY)	(LB)	(EA)	(EA)
30'	60.0	12,470	26.1	10,420	8	8	60.7	12,470	26.4	10,450	8	8	61.4	12,470	26.7	10,490	8	8
35'	70.0	13,920	30.5	11,260	8	8	70.7	13,920	30.7	11,290	8	8	71.4	13,920	31.0	11,330	8	8
40'	80.0	16,640	34.8	12,260	8	8	80.7	16,640	35.1	12,290	8	8	81.4	16,640	35.4	12,320	8	8
45'	90.0	19,750	39.2	13,090	8	8	90.7	19,750	39.5	13,130	8	8	91.4	19,750	39.8	13,160	8	8
50'	100.0	24,580	43.6	14,170	8	8	100.7	24,580	43.8	14,200	8	8	101.4	24,580	44.1	14,230	8	8
55'	110.0	31,650	47.9	15,210	8	8	110.7	31,650	48.2	15,240	8	8	111.4	31,650	48.5	15,270	8	8
60'	120.0	37,640	52.3	16,200	8	8	120.7	37,640	52.6	16,230	8	8	121.4	37,640	52.9	16,270	8	8
65'	130.0	41,840	56.7	17,040	8	8	130.7	41,840	57.0	17,080	8	8	131.4	41,840	57.3	17,110	8	8
70'	140.0	48,920	61.1	18,110	8	8	140.7	48,920	61.4	18,140	8	8	141.4	48,920	61.6	18,100	8	8
75'	150.0	58,010	65.4	18,950	8	8	150.7	58,010	65.7	18,980	8	8	151.4	58,090	66.0	19,020	8	8
80'	160.0	67,850	69.8	19,950	8	8	160.7	67,850	70.1	19,980	8	8	161.4	67,920	70.4	20,010	8	8
85'	170.0	77,250	74.5	20,780	8	8	170.7	77,250	74.8	20,820	8	8	171.4	77,320	75.1	20,850	8	8
90'	180.0	87,040	78.9	21,780	8	8	180.7	87,040	79.1	21,810	8	8	181.4	87,040	79.4	21,850	8	8
95'	190.0	104,220	83.2	22,620	8	8	190.7	104,220	83.5	22,650	8	8	191.4	104,220	83.8	22,680	8	8
100'	200.0	109,120	87.6	23,620	8	8	200.7	109,120	87.9	23,650	8	8	201.4	109,120	88.2	23,680	8	8

SUMMARY OF QUANTITIES BEARING ASSEMBLY STRUCTURAL STEEL (PER EACH ASSEMBLY)		
SPAN	FIXED BEARING ASSEMBLY	EXPANSION BEARING ASSEMBLY
	(LB)	(LB)
30'	80	160
35'	80	160
40'	80	160
45'	80	160
50'	80	160
55'	80	160
60'	80	160
65'	80	160
70'	80	170
75'	80	170
80'	80	170
85'	80	180
90'	80	180
95'	80	190
100'	80	190

NOTES

QUANTITY CALCULATIONS ASSUME ALL PIERS ARE FIXED PIERS. ANY ADJUSTMENTS TO THE QUANTITIES OF "CONCRETE RAIL (TR3)", "CLASS AA CONCRETE" AND "REINFORCING STEEL" NECESSARY TO ACCOUNT FOR EXPANSION JOINT OPENINGS WITHIN THE BRIDGE ARE MINOR AND HAVE NOT BEEN CONSIDERED. PAYMENT FOR "CONCRETE RAIL (TR3)", "CLASS AA CONCRETE" AND "REINFORCING STEEL" WILL BE BASED ON PLAN QUANTITY.

APPROVED BY BRIDGE ENGINEER	<i>Robert J. Nuss</i>	DATE	10/16/08
OKLAHOMA DEPARTMENT OF TRANSPORTATION COUNTY BRIDGE STANDARD (ENGLISH)			
SUPERSTRUCTURE QUANTITIES ROLLED BEAMS			
32' CLEAR ROADWAY - INTEGRAL - SKEWED 0°			
1999 STANDARD SPECIFICATIONS	CB32-I-SKO-SPR-QUAN-RB	00E	CB-900E