

SUMMARY OF QUANTITIES - SUPERSTRUCTURE (PER SPAN)

SPAN	PRESTRESSED CONCRETE BEAM TYPE	ABUTMENT TO ABUTMENT							ABUTMENT TO STANDARD PIER							ABUTMENT TO STEPPED PIER										
		PRESTRESSED CONCRETE BEAMS (TYPE ①)	SAW-CUT GROOVING (SY)	CONCRETE RAIL (TR3) (LF)	STRUCTURAL STEEL ② (LB)	WEATHERING STEEL FIXED BEARING ASSEMBLY ③ (EA)	CLASS AA CONCRETE (CY)	REINFORCING STEEL ⑥ (LB)	PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF)	SAW-CUT GROOVING (SY)	CONCRETE RAIL (TR3) (LF)	STRUCTURAL STEEL ② (LB)	WEATHERING STEEL FIXED BEARING ASSEMBLY ③ (EA)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY ④ (EA)	ELASTOMERIC BEARING PADS ⑤ (EA)	CLASS AA CONCRETE (CY)	REINFORCING STEEL ⑦ (LB)	PRESTRESSED CONCRETE BEAMS (TYPE ①) (LF)	SAW-CUT GROOVING (SY)	CONCRETE RAIL (TR3) (LF)	STRUCTURAL STEEL ② (LB)	WEATHERING STEEL FIXED BEARING ASSEMBLY ③ (EA)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY ④ (EA)	ELASTOMERIC BEARING PADS ⑤ (EA)	CLASS AA CONCRETE (CY)	REINFORCING STEEL ⑦ (LB)
30'	II	89.00	74.6	63.0	320	6	42.0	6,070	89.00	71.5	61.5	300	3	3	3	32.7	7,290	89.00	72.4	62.2	300	3	3	3	33.0	7,310
	B	89.00	74.6	63.0	320	6	41.8	6,070	89.00	71.5	61.5	300	3	3	3	32.6	7,280	89.00	72.4	62.2	300	3	3	3	32.8	7,310
35'	II	104.00	86.8	73.0	320	6	45.5	6,820	104.00	83.8	71.5	300	3	3	3	36.3	8,040	104.00	84.6	72.2	300	3	3	3	36.5	8,070
	B	104.00	86.8	73.0	320	6	45.4	6,820	104.00	83.8	71.5	300	3	3	3	36.1	8,030	104.00	84.6	72.2	300	3	3	3	36.3	8,060
40'	II	119.00	99.0	83.0	320	6	49.0	7,730	119.00	96.0	81.5	300	3	3	3	39.8	8,940	119.00	96.8	82.2	300	3	3	3	40.0	8,970
	B	119.00	99.0	83.0	320	6	48.9	7,720	119.00	96.0	81.5	300	3	3	3	39.6	8,940	119.00	96.8	82.2	300	3	3	3	39.9	8,960
45'	II	134.00	111.3	93.0	320	6	52.6	8,480	134.00	108.2	91.5	300	3	3	3	43.3	9,690	134.00	109.0	92.2	300	3	3	3	43.5	9,720
	B	134.00	111.3	93.0	320	6	52.4	8,480	134.00	108.2	91.5	300	3	3	3	43.2	9,680	134.00	109.0	92.2	300	3	3	3	43.4	9,710
50'	II	149.00	123.5	103.0	320	6	56.1	9,380	149.00	120.4	101.5	300	3	3	3	46.8	10,660	149.00	121.3	102.2	300	3	3	3	47.1	10,680
	B	149.00	123.5	103.0	320	6	55.9	9,380	149.00	120.4	101.5	300	3	3	3	46.7	10,650	149.00	121.3	102.2	300	3	3	3	46.9	10,680
55'	II	164.00	135.7	113.0	320	6	59.6	10,130	164.00	132.7	111.5	300	3	3	3	50.4	11,400	164.00	133.5	112.2	300	3	3	3	50.6	11,430
	B	164.00	135.7	113.0	320	6	59.5	10,130	164.00	132.7	111.5	300	3	3	3	50.2	11,400	164.00	133.5	112.2	300	3	3	3	50.4	11,430
60'	II	179.00	147.9	123.0	320	6	63.1	11,150	179.00	144.9	121.5	300	3	3	3	53.9	12,310	179.00	145.7	122.2	300	3	3	3	54.1	12,340
	C	179.00	147.9	123.0	320	6	67.4	11,360	179.00	144.9	121.5	300	3	3	3	56.2	12,520	179.00	145.7	122.2	300	3	3	3	56.4	12,550
65'	III	194.00	160.2	133.0	320	6	71.3	12,120	194.00	157.1	131.5	300	3	3	3	60.2	13,280	194.00	157.9	132.2	300	3	3	3	60.4	13,310
	C	194.00	160.2	133.0	320	6	70.9	12,110	194.00	157.1	131.5	300	3	3	3	59.7	13,270	194.00	157.9	132.2	300	3	3	3	60.0	13,300
70'	III	209.00	172.4	143.0	320	6	74.9	13,020	209.00	169.3	141.5	300	3	3	3	63.7	14,250	209.00	170.1	142.2	300	3	3	3	64.0	14,270
	C	209.00	172.4	143.0	320	6	74.5	13,020	209.00	169.3	141.5	300	3	3	3	63.3	14,230	209.00	170.1	142.2	300	3	3	3	63.5	14,260
75'	III	224.00	184.6	153.0	320	6	78.4	13,770	224.00	181.5	151.5	300	3	3	3	67.3	14,990	224.00	182.4	152.2	300	3	3	3	67.5	15,020
	C	224.00	184.6	153.0	320	6	78.0	13,770	224.00	181.5	151.5	300	3	3	3	66.8	14,980	224.00	182.4	152.2	300	3	3	3	67.1	15,010
80'	III	239.00	196.8	163.0	320	6	82.0	14,680	239.00	193.8	161.5	300	3	3	3	70.9	15,900	239.00	194.6	162.2	300	3	3	3	71.1	15,930
	IV	239.00	196.8	163.0	320	6	86.7	15,150	239.00	193.8	161.5	300	3	3	3	73.8	16,380	239.00	194.6	162.2	300	3	3	3	74.0	16,410
85'	III	254.00	209.0	173.0	320	6	85.5	15,430	254.00	206.0	171.5	300	3	3	3	74.4	16,650	254.00	206.8	172.2	300	3	3	3	74.6	16,680
	IV	254.00	209.0	173.0	320	6	90.2	15,900	254.00	206.0	171.5	300	3	3	3	77.3	17,130	254.00	206.8	172.2	300	3	3	3	77.6	17,160
90'	IV	269.00	221.3	183.0	320	6	93.8	16,810	269.00	218.2	181.5	300	3	3	3	80.9	18,040	269.00	219.0	182.2	300	3	3	3	81.2	18,060
95'	IV	284.00	233.5	193.0	320	6	97.4	17,560	284.00	230.4	191.5	300	3	3	3	84.5	18,780	284.00	231.3	192.2	300	3	3	3	84.8	18,810
100'	IV	299.00	245.7	203.0	320	6	101.0	18,460	299.00	242.7	201.5	300	3	3	3	88.1	19,690	299.00	243.5	202.2	300	3	3	3	88.4	19,720
105'	IV	314.00	257.9	213.0	410	6	105.7	19,350	314.00	254.9	211.5	400	3	3	3	92.8	20,580	314.00	255.7	212.2	400	3	3	3	93.1	20,610
110'	BT-72	329.00	270.2	223.0	600	6	125.5	21,040	329.00	267.1	221.5	670	3	3	3	109.4	22,500	329.00	267.9	222.2	670	3	3	3	109.6	22,530
	J	329.00	270.2	223.0	600	6	125.2	21,040	329.00	267.1	221.5	670	3	3	3	109.3	22,500	329.00	267.9	222.2	670	3	3	3	109.5	22,530
115'	BT-72	344.00	282.4	233.0	600	6	129.3	21,790	344.00	279.3	231.5	670	3	3	3	113.2	23,250	344.00	280.1	232.2	670	3	3	3	113.4	23,280
	J	344.00	282.4	233.0	600	6	129.0	21,790	344.00	279.3	231.5	670	3	3	3	113.1	23,250	344.00	280.1	232.2	670	3	3	3	113.3	23,280
120'	BT-72	359.00	294.6	243.0	600	6	133.1	22,810	359.00	291.5	241.5	670	3	3	3	117.0	24,150	359.00	292.4	242.2	670	3	3	3	117.2	24,180
	J	359.00	294.6	243.0	600	6	132.8	22,810	359.00	291.5	241.5	670	3	3	3	116.9	24,150	359.00	292.4	242.2	670	3	3	3	117.1	24,180
125'	J	374.00	306.8	253.0	600	6	136.6	23,570	374.00	303.8	251.5	670	3	3	3	120.7	24,900	374.00	304.6	252.2	670	3	3	3	120.9	24,930
130'	J	389.00	319.0	263.0	600	6	140.4	24,470	389.00	316.0	261.5	670	3	3	3	124.5	25,810	389.00	316.8	262.2	670	3	3	3	124.7	25,830
135'	J	404.00	331.3	273.0	600	6	144.2	25,220	404.00	328.2	271.5	670	3	3	3	128.3	26,560	404.00	329.0	272.2	670	3	3	3	128.5	26,590

- ① PRESTRESSED CONCRETE BEAM TYPE SHALL BE TYPE II, TYPE B, TYPE III, TYPE C, TYPE IV, TYPE 72 BT OR TYPE J BT AS APPLICABLE.
- ② QUANTITIES SHOWN INCLUDE WEIGHT OF STEEL ANGLE BUMPERS AT ABUTMENT ENDS OF DECK SLAB. FOR EACH STEEL ANGLE BUMPER OMITTED FROM END OF DECK SLAB, DEDUCT 110 POUNDS FROM THE QUANTITIES SHOWN.
- 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 "WEATHERING STEEL 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, CONTACT ANGLES, ANCHOR BOLTS, NUTS, WASHERS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH OF "WEATHERING STEEL EXPANSION BEARING ASSEMBLY."

- ⑤ PROVIDE AND INSTALL ELASTOMERIC BEARING PADS BETWEEN THE TOP SURFACE OF THE P.C. 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."
- ⑥ QUANTITY INCLUDES PROVISION FOR LAP SPLICES REQUIRED IN THE LONGITUDINAL REINFORCING STEEL AS FOLLOWS:
30' THRU 55' SPANS - NO LAP SPLICES
60' THRU 115' SPANS - 1 LAP SPLICE
120' THRU 135' SPANS - 2 LAP SPLICES
- ⑦ 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 105' SPANS - 1 1/2 LAP SPLICES
110' THRU 135' SPANS - 2 LAP SPLICES
LAP SPLICES ACCOUNT FOR ADJACENT SPAN COMBINATIONS AND ARE APPROXIMATE. PAYMENT FOR "REINFORCING STEEL" WILL BE BASED ON PLAN QUANTITY.

PRESTRESSED CONCRETE BEAM TYPE	SPAN	WEATHERING STEEL FIXED BEARING ASSEMBLY (LB)	WEATHERING STEEL EXPANSION BEARING ASSEMBLY (LB)
II AND B	30' THRU 60'	80	150
III AND C	60' AND 65'	90	160
	70' THRU 85'	90	170
IV AND BT-72	80' THRU 90'	90	190
	95' THRU 110'	90	200
	115' AND 120'	90	210
J	110' THRU 135'	100	220

APPROVED BY BRIDGE ENGINEER *Robert A. Dush* DATE **9-9-2011**

OKLAHOMA DEPARTMENT OF TRANSPORTATION
COUNTY BRIDGE STANDARD (ENGLISH)

SUPERSTRUCTURE QUANTITIES
P.C. BEAMS
(SHEET NO. 1 OF 2)
26' CLEAR ROADWAY - INTEGRAL - SKEWED 0°

2009 SPECIFICATIONS CB26-I-SKO-SPR-QUAN-PCB-1 01E CB-515E