

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on SG23.

DEAD LOAD DEFLECTION TABLE

Span 6 Beam	IA	IB	IC	D	E
R1	1"	1 1/2"	1"	14'-8 5/8"	58'-9 1/4"
R2 & R3	3/4"	1 1/8"	3/4"	14'-7 1/8"	58'-6 13/16"
*R4	3/4"	5/8"	3/8"	9'-11 5/8"	36'-1 1/4"
R5	3/4"	1"	3/4"	14'-8 1/8"	58'-8 1/2"

*Beam R4 is a partial length beam in Span 6. It frames into a crosshead beam and does not bear on Pier 5.

BEAM R1 - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+51.76	3.69	623.61	623.61
☉ N. Brg. Pier 5	31+50.94	3.73	623.61	623.61
6A	31+40.88	4.24	623.52	623.58
6B	31+30.80	4.56	623.45	623.56
6C	31+20.72	4.69	623.39	623.51
6D	31+10.63	4.65	623.34	623.44
6E	31+00.55	4.42	623.30	623.35
☉ S. Brg. Pier 6	30+91.72	4.07	623.27	623.27
☉ Pier 6	30+90.90	4.03	623.27	623.27

RAMP F & P.G.L. - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+53.03	0.00	623.84	623.84
☉ N. Brg. Pier 5	31+52.24	0.00	623.84	623.84
6A	31+42.24	0.00	623.78	623.83
6B	31+32.24	0.00	623.73	623.80
6C	31+22.24	0.00	623.68	623.76
6D	31+12.24	0.00	623.63	623.69
6E	31+02.24	0.00	623.57	623.61
☉ S. Brg. Pier 6	30+93.64	0.00	623.53	623.53
☉ Pier 6	30+92.81	0.00	623.52	623.52

BEAM R2 - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+54.29	-3.71	624.07	624.07
☉ N. Brg. Pier 5	31+53.49	-3.66	624.06	624.06
6A	31+43.56	-3.20	623.98	624.03
6B	31+33.62	-2.91	623.91	623.99
6C	31+23.67	-2.81	623.85	623.95
6D	31+13.72	-2.88	623.81	623.88
6E	31+03.78	-3.14	623.77	623.81
☉ S. Brg. Pier 6	30+95.27	-3.51	623.75	623.75
☉ Pier 6	30+94.47	-3.55	623.74	623.74

BEAM R3 - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+56.58	-10.58	624.48	624.48
☉ N. Brg. Pier 5	31+55.79	-10.53	624.47	624.47
6A	31+45.98	-10.02	624.40	624.45
6B	31+36.17	-9.69	624.33	624.42
6C	31+26.34	-9.54	624.27	624.37
6D	31+16.51	-9.56	624.22	624.30
6E	31+06.68	-9.77	624.18	624.22
☉ S. Brg. Pier 6	30+98.27	-10.09	624.16	624.16
☉ Pier 6	30+97.48	-10.13	624.16	624.16

BEAM R4 - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	---	---	---	---
☉ N. Brg. Pier 5	---	---	---	---
6A	---	---	---	---
6B	31+35.96	-15.60	624.69	624.76
6C	31+28.63	-15.47	624.64	624.71
6D	31+18.91	-15.46	624.59	624.64
6E	31+09.18	-15.62	624.55	624.57
☉ S. Brg. Pier 6	31+00.86	-15.90	624.52	624.52
☉ Pier 6	31+00.07	-15.93	624.52	624.52

WEST GORE - SPAN 6

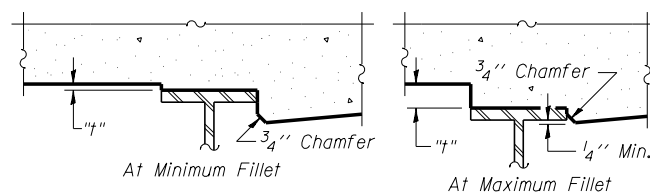
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+58.35	-16.00	624.79	624.79
☉ N. Brg. Pier 5	31+57.58	-16.00	624.79	624.79
6A	31+47.86	-16.00	624.77	624.82
6B	31+38.15	-16.00	624.72	624.79
6C	31+28.43	-16.00	624.67	624.75
6D	31+18.71	-16.00	624.62	624.69
6E	31+09.00	-16.00	624.57	624.60
☉ S. Brg. Pier 6	31+00.90	-16.00	624.53	624.53
☉ Pier 6	31+00.10	-16.00	624.52	624.52

BEAM R5 - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+57.83	-14.41	624.70	624.70
☉ N. Brg. Pier 5	31+57.09	-14.48	624.70	624.70
6A	31+47.41	-15.53	624.74	624.79
6B	31+37.76	-16.75	624.80	624.88
6C	31+28.16	-18.14	624.73	624.81
6D	31+18.62	-19.70	624.66	624.72
6E	31+09.12	-21.44	624.59	624.61
☉ S. Brg. Pier 6	31+03.73	-22.51	624.55	624.55
☉ Pier 6	31+03.00	-22.65	624.55	624.55

☉ LONGITUDINAL JOINT - SPAN 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 5	31+58.46	-16.36	624.80	624.80
☉ N. Brg. Pier 5	31+57.72	-16.43	624.79	624.79
6A	31+48.07	-17.46	624.79	624.83
6B	31+38.46	-18.67	624.75	624.82
6C	31+28.89	-20.05	624.71	624.79
6D	31+19.37	-21.60	624.68	624.74
6E	31+09.91	-23.32	624.64	624.67
☉ S. Brg. Pier 6	31+04.53	-24.38	624.62	624.62
☉ Pier 6	31+03.81	-24.53	624.62	624.62



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown herein. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown herein, minus slab thickness, equals the fillet heights "t" above top flange of beams.

NOTE:

Station and offset measured from ☉ Ramp F & P.G.L.

benesch
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312-565-0450 Job No. 10093

FILE NAME = 0160486_60J16_023.TOS.Elev.6and7.dgn

USER NAME = jsurber	DESIGNED - TJJ	REVISED -
CHECKED - LRB	REVISIONS -	
PLOT SCALE =	DRAWN - TJJ	REVISED -
PLOT DATE = 8/6/2014	CHECKED - LRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS SPANS 6 AND 7 (3 OF 4)
STRUCTURE NO. 016-0486

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	2013-038B-R	COOK	821	613
CONTRACT NO. 60J16				

SHEET NO. SG23 OF SG100 SHEETS

ILLINOIS FED. AID PROJECT

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