

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER G4.12

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+40.94	90.42	628.78	628.79
A	400+46.84	86.69	628.79	628.82
B	400+56.84	80.66	628.80	628.85
C	400+66.84	74.99	628.78	628.85
D	400+76.84	69.67	628.76	628.85
E	400+86.84	64.67	628.76	628.87
F	400+96.84	59.98	628.72	628.83
G	401+06.84	55.60	628.67	628.78
H	401+16.84	51.52	628.60	628.70
I	401+26.84	47.72	628.52	628.60
J	401+36.84	44.20	628.42	628.48
K	401+46.84	40.95	628.31	628.35
⊕ R4 Pier	401+60.61	36.90	628.00	628.01
L	401+70.61	34.27	627.76	627.77
M	401+80.61	31.89	627.53	627.53
N	401+90.61	29.76	627.30	627.30
O	402+00.61	27.18	627.06	627.06
P	402+10.61	25.48	626.83	626.84
Q	402+20.61	24.03	626.61	626.62
R	402+30.61	23.65	626.40	626.42
S	402+40.61	22.71	626.19	626.20
T	402+50.61	22.00	625.98	625.99
⊕ W. Brg. R4 Abut.	402+63.61	21.43	625.71	625.71
⊕ Joint R4 Abut. Bk. of R4 Abut.	402+64.36 402+66.61	21.43 21.43	625.70 625.65	625.70 625.65

GIRDER G4.11

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+95.22	-46.30	629.30	629.30
F	400+96.84	-45.32	629.22	629.22
G	401+06.84	-39.28	628.85	628.86
H	401+16.84	-33.23	628.47	628.49
I	401+26.84	-27.18	628.10	628.12
⊕ G4.8	401+32.11	-24.00	627.90	627.92

GIRDER G4.13

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+47.68	73.50	628.84	628.86
B	400+56.84	73.50	628.83	628.88
⊕ FB-4.2	400+61.62	73.50	628.82	628.88

GIRDER G4.14

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+50.24	67.00	628.86	628.88
B	400+56.84	67.00	628.85	628.89
C	400+66.84	67.00	628.81	628.88
⊕ FB-4.3	400+73.62	67.00	628.78	628.87

GIRDER G4.15

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+52.82	60.50	628.89	628.91
B	400+56.84	60.50	628.89	628.93
C	400+66.84	60.50	628.83	628.90
D	400+76.84	60.50	628.78	628.87
E	400+86.84	60.50	628.73	628.84
⊕ FB-4.4	400+88.62	60.50	628.72	628.83

GIRDER G4.16

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+55.40	54.00	628.92	628.94
B	400+56.84	54.00	628.93	628.96
C	400+66.84	54.00	628.86	628.92
D	400+76.84	54.00	628.79	628.88
E	400+86.84	54.00	628.73	628.83
F	400+96.84	54.00	628.66	628.77
⊕ FB-4.5	401+03.62	54.00	628.61	628.72

GIRDER G4.17

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+57.98	47.50	628.94	628.96
C	400+66.84	47.50	628.88	628.93
D	400+76.84	47.50	628.81	628.89
E	400+86.84	47.50	628.73	628.84
F	400+96.84	47.50	628.65	628.77
G	401+06.84	47.50	628.57	628.69
H	401+16.84	47.50	628.50	628.60
⊕ FB-4.6	401+18.62	47.50	628.49	628.59

GIRDER G4.18

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+60.56	41.00	628.97	628.99
C	400+66.84	41.00	628.92	628.96
D	400+76.84	41.00	628.83	628.90
E	400+86.84	41.00	628.74	628.84
F	400+96.84	41.00	628.65	628.77
G	401+06.84	41.00	628.56	628.68
H	401+16.84	41.00	628.46	628.57
I	401+26.84	41.00	628.37	628.46
⊕ FB-4.7	401+33.62	41.00	628.31	628.38

GIRDER G4.19

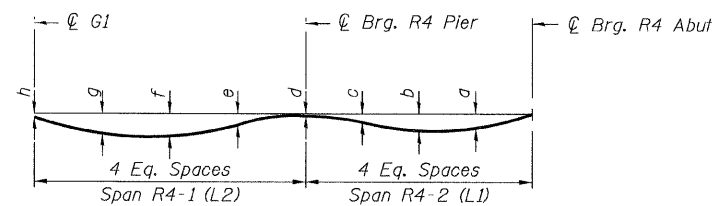
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+63.14	34.50	628.99	629.00
C	400+66.84	34.50	628.96	628.98
D	400+76.84	34.50	628.85	628.89
E	400+86.84	34.50	628.75	628.81
F	400+96.84	34.50	628.64	628.71
G	401+06.84	34.50	628.54	628.62
H	401+16.84	34.50	628.43	628.51
I	401+26.84	34.50	628.32	628.39
J	401+36.84	34.50	628.22	628.27
K	401+46.84	34.50	628.11	628.14
⊕ FB-4.8	401+48.61	34.50	628.09	628.12

GIRDER G4.20

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+65.72	28.00	629.02	629.02
C	400+66.84	28.00	629.01	629.02
D	400+76.84	28.00	628.89	628.91
E	400+86.84	28.00	628.77	628.81
F	400+96.84	28.00	628.65	628.70
G	401+06.84	28.00	628.53	628.58
H	401+16.84	28.00	628.40	628.45
I	401+26.84	28.00	628.28	628.33
J	401+36.84	28.00	628.16	628.20
K	401+46.84	28.00	628.04	628.06
⊕ R4 Pier	401+60.66	28.00	627.87	627.87
L	401+70.66	28.00	627.67	627.67
⊕ FB-4.9	401+75.61	28.00	627.57	627.57

P.G.L. RAMP 4 FLARE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS
⊕ G1	400+76.84	0.00	629.13	629.14
E	400+86.84	0.00	628.95	628.96
F	400+96.84	0.00	628.75	628.77
G	401+06.84	0.00	628.54	628.57
H	401+16.84	0.00	628.34	628.37
I	401+26.84	0.00	628.14	628.17
J	401+36.84	0.00	627.93	627.95
K	401+46.84	0.00	627.73	627.75
⊕ R4 Pier	401+60.66	0.00	627.45	627.47
L	401+70.66	0.00	627.25	627.27
M	401+80.66	0.00	627.05	627.08
N	401+90.66	0.00	626.85	626.90
O	402+00.66	0.00	626.65	626.72
P	402+10.66	0.00	626.45	626.54
Q	402+20.66	0.00	626.25	626.35
R	402+30.66	0.00	626.05	626.15
S	402+40.66	0.00	625.85	625.94
T	402+50.66	0.00	625.65	625.72
⊕ W. Brg. R4 Abut.	402+63.61	0.00	625.39	625.43
⊕ Joint R4 Abut. Bk. of R4 Abut.	402+64.36 402+66.61	0.00 0.00	625.38 625.33	625.38 625.33



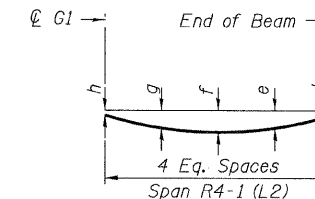
DEAD LOAD DEFLECTION DIAGRAM

(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 above.

Girder	a	b	c	d	e	f	g	h	L1	L2
G4.1*	-	1/2"	1/8"	0	1/4"	1/2"	3/8"	0	60'-0"	92'-3 3/4"
G4.2	7/8"	1 1/8"	1/2"	0	1/8"	1/4"	1/4"	0	103'-0"	89'-8 3/4"
G4.3	7/8"	1 1/8"	1/2"	1/8"	1/4"	1/4"	1/8"	0	103'-0"	87'-1 3/4"
G4.4	7/8"	1 1/8"	1/2"	1/8"	1/4"	3/8"	3/8"	1/8"	103'-0"	84'-6 7/8"
G4.5	7/8"	1 1/8"	1/2"	1/8"	1/4"	3/8"	3/8"	1/8"	103'-0"	81'-11 1/8"
G4.6	7/8"	1 1/8"	1/2"	1/8"	1/4"	3/8"	3/8"	1/4"	103'-0"	79'-4 1/8"
G4.7	7/8"	1 1/8"	1/2"	1/8"	1/4"	3/8"	3/8"	1/4"	103'-0"	76'-9 1/8"
G4.8	1 1/4"	1 1/8"	1/2"	0	1/8"	1/4"	3/8"	1/4"	103'-0"	74'-3"
G4.9	-	-	-	1/4"	-	1/4"	-	1/8"	-	10'-9 3/8"
G4.10	-	-	-	3/8"	-	1/4"	-	1/8"	-	21'-6 1/8"
G4.10A	-	-	-	3/8"	-	1/4"	-	1/8"	-	32'-4"
G4.11	-	-	-	1/4"	1/4"	1/4"	1/8"	0	-	43'-1 1/4"
G4.12	1/8"	1 1/8"	0	1/8"	1 3/8"	1"	1/8"	1/8"	104'-4 1/8"	131'-7 1/8"
G4.13	-	-	-	3/8"	-	1/2"	-	1/4"	-	13'-11 1/2"
G4.14	-	-	-	1"	-	3/4"	-	1/4"	-	23'-4 1/2"
G4.15	-	-	-	1 1/4"	1 1/8"	1"	5/8"	1/4"	-	35'-9 1/2"
G4.16	-	-	-	1 3/8"	1 1/4"	1 1/8"	3/4"	1/4"	-	48'-2 3/8"
G4.17	-	-	-	1 1/4"	1 3/8"	1 3/8"	1"	1/4"	-	60'-7 5/8"
G4.18	-	-	-	3/4"	1 3/8"	1 1/2"	1"	1/4"	-	73'-0 3/8"
G4.19	-	-	-	3/8"	7/8"	1"	3/4"	1/8"	-	85'-5 3/8"
G4.20	-	-	-	0	3/8"	5/8"	1/2"	0	-	94'-10 3/4"

* For G4.1 only, b is end of girder and c is midspan



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

TOP OF SLAB ELEV. - 2
RAMP 4 FLARE
STRUCTURE NO. 016-0724

TYLIN INTERNATIONAL	DESIGNED - JPM, EKH	REVISIONS		SHEET NO. 28	F.A.I. RTE. 55	SECTION 0711.2R & 1011.1BR	COUNTY COOK	TOTAL SHEETS 200	SHEET NO. 58
	CHECKED - AMD,	NAME	DATE						
	DRAWN - JPM, EKH								
	CHECKED - AMD,								
	DATE - 08/02/10			137 SHEETS	CONTRACT NO. 60L39				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT									

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