INDEX OF SHEETS

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
424026-03	ENTRANCE/ALLEY PEDESTRIAN CROSSING
515001-04	NAME PLATES FOR BRIDGES
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-10	TRAFFIC BARRIER TERMINAL, TYPE 6A
631066	TRAFFIC BARRIER TERMINAL, TYPE 14
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701431-13	LANE CLOSURE, MULTILANE, UNDIV. WITH CROSSOVER, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", THE " SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS', THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE "MANUAL OF TEST PROCEDURES FOR MATERIALS", AND THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS".

2. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL " J.U.L.I.E" AT 1-800-892-0123 FOR FIELD LOCATION OF BURIED ELECTRIC, TELEPHONE, GAS AND OTHER FACILITIES AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

3. LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE COUNTY DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL HAVE THE RESPECTIVE UTILITY COMPANIES FIELD LOCATE ALL OF THEIR FACILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE DEPTHS OF THE EXISTING UTILITIES IF NECESSARY. ANY RELOCATION OR LOWERING OF UTILITIES SHALL BE COORDINATED BY THE CONTRACTOR IN SUCH A MANNER AS TO NOT IMPEDE PROJECT PROGRESS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

5. THE CONTRACTOR SHALL NOTIFY THE COUNTY AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK AND COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER.

6. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATIONS.

7. MAINTAINING DRAINAGE: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN DRAINAGE FLOWS AT ALL TIMES DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL SUPPLY A PLAN AS A SUBMITTAL REVIEW FOR EACH LOCATION THAT WILL MAINTAIN FLOWS THAT MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS AND NOT CAUSE ANY DAMAGE UPSTREAM OR TO ANY ADJACENT DRAINAGE WATERSHED. THE PLAN SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF ILLINOIS. THE PLAN MUST BE SUBMITTED AT LEAST TWO WEEKS PRIOR TO THE START OF WORK. THE COST OF MAINTAINING DRAINAGE FLOWS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT.

8. THE CONTRACTOR SHALL NOT SCALE DIMENSIONS FROM THE CONTRACT PLANS FOR CONSTRUCTION PURPOSES. SCALES, IF SHOWN ARE FOR INFORMATION ONLY.

9. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, THE PROPOSED CONCRETE TRUCK WASHOUT LOCATION . RUNOFF FROM WASHOUT AREAS SHALL BE CONTAINED IN DESIGNATED AREAS SO THAT RUNOFF DOES NOT REACH DITCHES, STREAMS, OR DRAINAGE SYSTEMS.

10. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND AS-BUILT PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF THE MATERIALS.

11. ALL WORK SHALL BE COMPLETED WITHIN THE COUNTY RIGHT-OF-WAY WITH NO EQUIPMENT OR MATERIAL STORAGE ON PRIVATE PROPERTY.

12. THE CONTRACTOR'S OPERATIONS AND TEMPORARY STORAGE ACTIVITIES SHALL BE LIMITED TO THE WORK AREA AND/OR CONSTRUCTION LIMITS.

13. COORDINATE ANY REQUIRED SIGN REMOVAL WITH THE COUNTY ONE (1) WEEK PRIOR TO CONSTRUCTION.

14. NO CHANNEL GRADING OR CULVERT CONSTRUCTION ACTIVITIES WILL BE ALLOWED IN STANDING WATER OR DURING PERIODS OF HIGH FLOWS AND EXCESSIVE CHANNEL FLOW VELOCITIES.

15. SAW CUTTING SHALL BE PERFORMED AT LOCATIONS DESIGNATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER, AND SHALL BE CONSIDERED INCLUDED IN THE COST OF APPLICABLE PAY ITEMS. CLEANING AND REMOVAL OF ANY AND ALL SAW CUT DEBRIS SHALL ALSO BE INCLUDED. TRAFFIC IS TO BE MAINTAINED FOR THE DURATION OF THE PROJECT.

16. THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO CONTROL RESIDUAL CONCRETE, CONCRETE SEDIMENTS, AND RINSE WATER:

   A) TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED FOR RINSING OUT CONCRETE TRUCKS. SIGNS SHALL BE INSTALLED DIRECTING CONCRETE TRUCK DRIVERS WHERE DESIGNATED WASHOUT FACILITIES ARE LOCATED.

   B) THE CONTRACTOR SHALL HAVE THE LOCATION OF TEMPORARY CONCRETE WASHOUT FACILITIES APPROVED BY THE RESIDENT ENGINEER.

   C) ALL TEMPORARY CONCRETE WASHOUT FACILITIES ARE TO BE INSPECTED BY THE CONTRACTOR AFTER EACH USE AND ALL SPILLS MUST BE REPORTED TO THE RESIDENT ENGINEER AND CLEANED UP IMMEDIATELY.

   D) CONCRETE WASTE SOLIDS/LIQUIDS SHALL BE DISPOSED OF PROPERLY.

COMMITMENT: WETLAND IDENTIFIED ON THE PLAN IS OUTSIDE PROJECT LIMITS AND WILL BE AVOIDED.

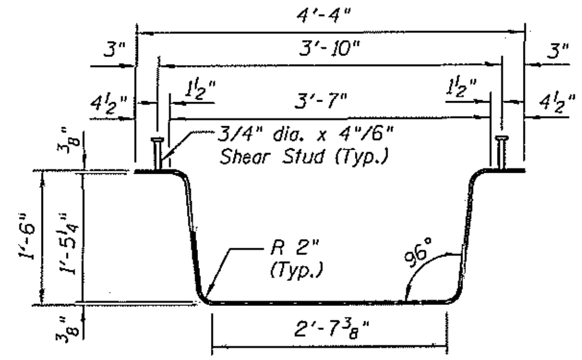
RATES OF APPLICATION

ITEMS		RATE OF APPLICATION
AGGREGATE BASE COURSE	=	2.05 TONS/ CU YD
RIPRAP	=	1.5 TONS/ CU YD
PORTLAND CEMENT	=	8% BY WEIGHT
BITUMINOUS MATERIALS (TACK COAT)	=	0.025 LB/SQ FT
BITUMINOUS MATERIALS (PRIME COAT)	=	0.25 TO 0.50 GAL/SQ YD AT 8.2 TO 8.35 LB/GAL

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE:0010

CODE NUMBER	PAY ITEM	Unit	Total
20200100	EARTH EXCAVATION	Cu. Yd.	797
25000200	SEEDING, CLASS 2	Acre	0.50
25000400	NITROGEN FERTILIZER NUTRIENT	Pound	28
25000500	PHOSPHORUS FERTILIZER NUTRIENT	Pound	28
25000600	POTASSIUM FERTILIZER NUTRIENT	Pound	28
25100630	EROSION CONTROL BLANKET	Sq. Yd.	1477
28000400	PERIMETER EROSION BARRIER	Foot	1119
28000510	INLET FILTERS	Each	2
28100107	STONE RIPRAP, CLASS A4	Sq. Yd.	650
28200200	FILTER FABRIC	Sq. Yd.	650
35101800	AGGREGATE BASE COURSE, TYPE B 6"	Sq. Yd.	335
35102000	AGGREGATE BASE COURSE, TYPE B 8"	Sq. Yd.	687
35102400	AGGREGATE BASE COURSE, TYPE B 12"	Sq. Yd.	119
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	6863
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	467
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C" N50	TON	420
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ. YD.	111
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ. FT.	117
42400800	DETECTABLE WARNING	SQ. FT.	8
44000161	HMA SURFACE REMOVAL, 3"	SQ. YD.	2281
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ. YD.	143
44000300	CURB REMOVAL	FOOT	1060
44000600	SIDEWALK REMOVAL	SQ. FT.	97
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU. YD.	288
50200300	COFFERDAM EXCAVATION	CU. YD.	430
50201121	COFFERDAM (TYPE 2)(LOCATION-1)	EACH	1
50201122	COFFERDAM (TYPE 2)(LOCATION-2)	EACH	1
50300225	CONCRETE STRUCTURES	CU. YD.	259
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	2.2
50300260	BRIDGE DECK GROOVING	SQ. YD.	626
50300265	SEAL COAT CONCRETE	CU. YD.	238
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU. YD.	157
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	84,450
50800515	BAR SPLICERS	EACH	400
50900207	STEEL RAILING, TYPE CO-10	FOOT	277
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	1415
51202305	DRIVING PILES	FOOT	1415
51203200	TEST PILE METAL SHELLS	EACH	4
51204650	PILE SHOES	EACH	42
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	108
52200010	TEMPORARY SHEET PILING	SQ. FT.	435
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	20
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU. YD.	56
59100100	GEOCOMPOSITE WALL DRAIN	SQ. YD.	90
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	180
60500060	REMOVING INLETS	EACH	2
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	883
63100119	TRAFFIC BARRIER TERMINAL, TYPE 14	EACH	4
63100167	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	EACH	4
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DAY	105
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
~~70106700~~	~~TEMPORARY RUMBLE STRIPS~~	~~EACH~~	~~2~~
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	1000
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	4687
70307120	TEMPORARY PAVEMENT MARKING - LINE 4"- TYPE IV TAPE	FOOT	15133
70307210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE IV TAPE	FOOT	24
70400100	TEMPORARY CONCRETE BARRIER	FOOT	810
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	108
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	570
70600240	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2 (2)	EACH	~~4~~ 2
70600340	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2
72501000	TERMINAL MARKER-DIRECT APPLIED	EACH	4
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	2742
X0322916	PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER	EACH	3
X0326806	WASHOUT BASIN	L SUM	1
X6024240	INLETS, SPECIAL	EACH	2
XX009565	ERECTING SUPERSTRUCTURE	SQ. FT.	6175
Z0004510	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	SQ. YD.	119
Z0013798	CONSTRUCTION LAYOUT	L SUM	1



ESTIMATED STEEL SECTION

Notes:

Two ½ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and places as shown on bearing details.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

The structural steel plates of the fixed bearings, including pintles (if applicable), shall conform to the requirements of AASHTO M270 Grade 50.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

"CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.

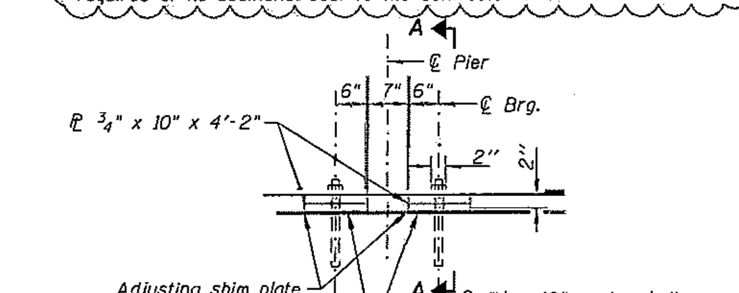
All primary members (Tub Girders) shall be A572 Grade 65. All secondary members shall be M270 Grade 50.

All structural steel and H.S. bolts shall be galvanized according to the Special Provisions.

* Bearing plate width is based on plate layout along the ℄ of bearing. Abutment width allows for bearing plate aligned perpendicular to girder. Adjustment is allowed if needed for design of PBFSTG.

** ~~Chastain and & Associates LLC design includes substructure elements only. Abutment design and details are based on assumed typical reactions and dimensions. Contractor shall verify that final design and details are compatible with the selected superstructure prior to construction. The contractor shall employ a Structural Engineer licensed in the State of Illinois to provide alternate abutment designs as required at no additional cost to the contract.~~ (2)

Fabricator's Structural Engineer shall provide information for all table spaces and shall provide calculations & information to Chastain & Associates LLC as part of the shop drawing submittals.



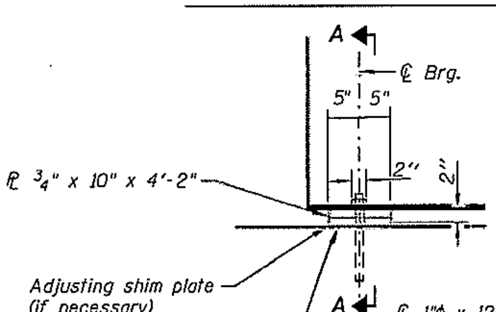
Adjusting shim plate (if necessary)

1⅜" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with PBFSTG.

℄ 1"ϕ x 12" anchor bolts (F1554 Grade 36) with 2¼"x2¼"x5⁄16" ℞ washer under nut 1⅜"x2" slotted hole in flange 1½ϕ holes in bearing plate

ELEVATION AT PIER

Notes:
All bearing plates, anchor bolts, nuts, washers, and pintles (if applicable) shall be galvanized according to AASHTO M111 or M232 as applicable.

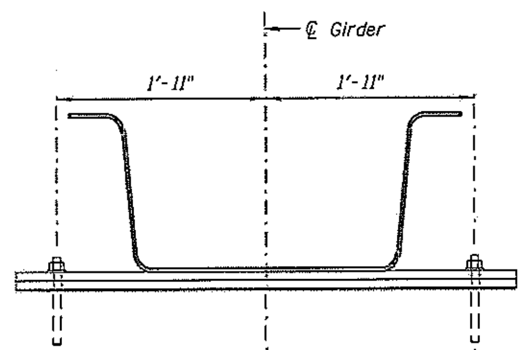


Adjusting shim plate (if necessary)

1⅜" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with PBFSTG.

℄ 1"ϕ x 12" anchor bolts (F1554 Grade 36) with 2¼"x2¼"x5⁄16" ℞ washer under nut 1⅜"x2" slotted hole in flange 1½ϕ holes in bearing plate

ELEVATION AT ABUTMENT



SECTION A-A

(Horiz. dimensions at Rt. Δ's to ℄ Girder)

FIXED BEARINGS AT ABUTMENTS

(18 required)

GIRDER MOMENT TABLE

		Interior		Exterior	
		0.5 End Span	0.5 Ctr. Span	0.5 End Span	0.5 Ctr. Span
Is	(in⁴)	1475	1475	1475	1475
Ic (n)	(in⁴)	8835	8835	8835	8835
Ic (3n)	(in⁴)	6204	6204	6204	6204
Ss	(in³)	224.88	224.88	224.88	224.88
Sc (n)	(in³)	451	451	451	451
Sc (3n)	(in³)	408	408	408	408
DC1	(k/')	0.81587	0.81587	1.01431	1.01431
MDC1	('k)	87.01	192.24	108.17	239
DC2	(k/')	0.02222	0.02222	0.02222	0.02222
MDC2	('k)	2.37	5.24	2.37	5.24
DW	(k/')	0.31667	0.31667	0.24167	0.24167
MDW	('k)	33.77	74.61	25.77	56.94
LLDF		0.675	0.675	0.54	0.54
MLL+IM	('k)	330.3	560.1	264.2	448.1
MU (Strength I)	('k)	740.32	1338.97	639.18	1174.87
ϕf Mn	('k)	2157	2157	2157	2157
fs DC1	(ksi)	4.64	10.26	5.77	12.75
fs DC2	(ksi)	0.07	0.154	0.07	0.154
fs DW	(ksi)	0.99	2.2	0.99	2.2
fs (LL+IM)	(ksi)	8.79	14.9	7.03	11.92
fs (Service II)	(ksi)	17.13	31.98	15.74	30.08
0.95Rh Fyf	(ksi)	47.5	47.5	47.5	47.5
fs (Total)(Strength I)	(ksi)	22.76	42.39	20.74	39.51
ϕf Fn	(ksi)	50	50	50	50
Vf	(k)	299.776	299.776	299.776	299.776

(2)

INTERIOR GIRDER REACTION TABLE

		Abutment		Pier	
		Interior	Exterior	Interior	Exterior
LLDF		0.675	0.54	0.675	0.54
OCF		1	1	1	1
RDC1	(k)	12.39	15.4	18.12	22.53
RDC2	(k)	0.34	0.34	0.49	0.49
RDW	(k)	4.81	3.67	7.03	5.37
RLL	(k)	39.38	31.51	47.58	38.07
RIM	(k)	10.915	8.732	12.608	10.086
RTotal	(k)	67.835	59.652	85.828	76.546

*** Information to be provided by PBFSTG manufacturer. See Special Provisions.

ESTIMATED GIRDER REACTION TABLE

		Abutment	Pier
		Interior/Exterior	Interior/Exterior
RDC1	(k)	12.39/15.4	18.12/22.53
RDC2	(k)	0.34/0.34	0.49/0.49
RDW	(k)	4.81/3.67	7.03/5.37
RLL	(k)	39.38/31.51	47.58/38.07
RIM	(k)	10.915/8.732	10.086
RTotal	(k)	67.835/59.652	76.456

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{LL+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{LL+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(LL+IM)$

$0.95R_hF_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_s(LL+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

LLDF: Live Load Distribution Factor

OCF: Obtuse Correction Factor

Information is provided on this sheet that is not applicable to Erecting Superstructure