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* BRIDGE ENGINEERING SOFTWARE CENTER *
*   DEPARTMENT OF CIVIL ENGINEERING  *
*       UNIVERSITY OF MARYLAND       *
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USE OR PURPOSE.

(D) THE CUMULATIVE LIABILITY OF UMD TO LICENSEE FOR ALL CLAIMS, DEMANDS OR ACTIONS ARISING OUT OF OR RELATING TO THE LICENSED MATERIALS AND THIS AGREEMENT, SHALL NOT EXCEED THE TOTAL AMOUNT OF ALL LICENSE FEES PAID TO UMD HEREUNDER DURING THE TWELVE (12) MONTHS IMMEDIATELY PRECEDING SUCH CLAIM, DEMAND OR ACTION. THIS LIMITATION OF LIABILITY IS INTENDED TO APPLY WITHOUT REGARD TO WHICH OTHER PROVISIONS OF THIS AGREEMENT HAVE BEEN BREACHED OR HAVE PROVEN INEFFECTIVE.

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TABLE 0.0.1.1 PROJECT DATA
****

DESCRIPTION	DATE
MOONVILLE BRIDGE EXTERIOR BEAM	10/24/2019

CONTRACT NUMBER	STR NO	STR UNIT	DES -BY- STK	CHK -BY-	SPECS. USED

TABLE 0.0.1.2 GENERAL PROGRAM OPTIONS
****

OUTPUT LEVEL (0,1)	SPAN INTERVAL (MAX=20)	CONSTRUCTION 1= COMPOSITE 2= NONCOMP.	ANALYSIS CODE CODE ID	YEAR	UNIT TYPE	DESIGN OPTION	PROGRAM FLOW CONTROL
0	10	2	AASHTO	2012	0	2	2

* output level : 0 = basic output
  1 = detailed output

* span interval : maximum = 20
  default = 10

* structural type : 1 = composite (default)
  2 = noncomposite
  3 = reinforced concrete
  4 = prestressed concrete

* type of unit : 0 = English (default)
  1 = Metric
  2 = Metric input English output
  3 = English input Metric output

* design option : 0 = WSD (default)
  1 = LFD
  2 = LRFD

* program flow : 0 = DL analysis only
  1 = DL + LL analysis
  2 = code check
  3 = rating
  4 = design
  5 = design + code check
  6 = design + recycle + code check
  7 = DL stage only
  8 = DL stage + LL

* EFFECTIVE FLANGE WITH OPTION = 0
  0 - DEFAULT (2008)
  1 - "PRIOR TO 2007" WIDTH IS USED

TABLE 0.0.3.1 STRUCTURAL DETAILS
****

BEAM NUMBER	WIDTH BETWEEN CURBS OR BARRIER (ft)	EDGE OF OVERHANG SLAB TO CURB (ft)	WIDTH OF CURB (ft)	HAUNCH DEPTH (in)	HAUNCH WIDTH. (in)	COMPOSITE PERCENTAGE AT NEG MOM REGION (%)	STEEL LOAD DETAIL FACTOR >= 1.0	RIGHT EDGE OF OVERHANG SLAB TO CURB (ft)
POSITION OF GIRDERS 1=INT. 2,3=EXT.								
3	2	12.00	1.50	0.00	4.50	12.10	0.00	1.05
0.00	0.00							

* WIDTH BETWEEN CURBS OR BARRIERS (ROAD WIDTH) is used for the determination of traffic lanes

* The section properties with composite percentage at negative moment region is calculated by using the linear interpolation between the noncomposite section (N=Inf.) and 100% composite for the analysis at negative moment region.

* DETAIL FACTOR is used for the steel dead load only

* EXT=2 for the same left and right exterior overhang information or only left exterior overhang information

* EXT=3 for the right exterior overhang information

TABLE 0.0.3.2 SPAN LENGTHS --- in feet
****

SPAN-1	SPAN-2	SPAN-3	SPAN-4	SPAN-5	SPAN-6	SPAN-7	SPAN-8	SPAN-9	SPAN-10

29.25 71.75 52.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

TABLE 0.0.3.4 BEAM SPACING --- in feet
****

SPAN-1 SPAN-2 SPAN-3 SPAN-4 SPAN-5 SPAN-6 SPAN-7 SPAN-8 SPAN-9 SPAN-10
------,------,------,------,------,------,------,------,------,------,

4.50 4.50 4.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00

TABLE 0.0.4.1 DEFINITION OF SECTIONS
****

SECTION NO.	ID.	STANDARD SECTN NOMINAL DEPTH (in)	WEIGHT (lb/ft)	PLATE GIRDER WEB DEPTH (in)	WEB THICK. (in)	ROLLED SECTIONS WITH COVER PLATES OR PLATE GIRDERS ... (in) TOP PLATE WIDTH	TOP PLATE THICK.	BOT. PLATE WIDTH	BOT. PLATE THICK.	REINFORCED CONCRETE SECTION AREA (in**2)	Ix (in**4)
1	W	36	170			0.00	0.0000	0.00	0.0000		

NOTE: [1] maximum allowable section number is 70

[2] For design option (flow 4, 5 or 6) this card need not be input

TABLE 0.0.5.1 DEFINITION OF MEMBERS
****

MEMBER NUMBER (IN ORDER)	MEMB SECT LEFT	END ID RIGHT	MEMBER DESCRIPTN LNGTH (ft)	TYPE 0=PRISMAT	PARAMETERS FOR NONPRISMATIC MEMB S(0)	S(1)	YIELD STRESS (KSI) WEB	TOP	BOT
1	1	1	153.00				33.	33.	33.

NOTE: [1] maximum allowable member number is 70.

[2] For design process (flow 4, 5 or 6) this card need not be input

[3] For hybrid section, yield stress defined here will override DATA TYPE 13012 for code checking

TABLE 0.0.6.1 AASHTO LIVE LOADING - LOAD TYPE (A)
****

AASHTO LOADING HL - 93	TANDEM LIVE LOAD 1=YES : 0=NO	AASHTO ROAD TYPE 1,2,3 OR 4 ADTT	ADTTSL	SIDEWALK ---LIVE LOAD--- (k/ft)
H-15	0	1	0	0	0.34

HL-93 VEHICLE X FACTOR OF 0.00

NOTE: * Road types 1, 2, 3 and 4 are used for fatigue check.

* Road type 1 is Rural Interstate. 2 is Urban Interstate.

3 is Other Rural. 4 is Other Urban.
truck on the bridge distributed to the girders as designated
in AASHTO LRFD Art.4.6.2.2 for one traffic lane loading.

For Fatigue, Fraction of Truck, p, is based on the Road Types.

Ref. AASHTO LRFD Table C3.6.1.4.2.1.

* Default road type = 1

* Sidewalk live loading is assumed taken by exterior girder only

* HL-93 is for both truck(s) + lane and tandem(s) + lane loading,
as per 3.6.1.3.1.

* ADTT used in this calculation is 4000

TABLE 0.8.1.2 SPECIFICATION OF IMPACT AND DISTRIBUTION FACTORS
****

IMPACT FACTOR TO OVERRIDE THE AASHTO FORMULA

SP NO	IMP FCTR STR/SER (%)	DF M- ST/SE	DF M+ FA	DF M- FA	IMP F FA (%)	A D M G C NO=0 ;YES= 1	OPTIONAL DISTRIBUTION FACTORS DF M+ ST/SE	LOADING TYPES A D M G C
1	0.00	0	0.00	0.00	0.00	0.00	0 0 0 0 0	0.44	0 0 0 0 0
1	0.00	0	0.00	0.00	0.00	0.00	0 0 0 0 0	0.44	0 0 0 0 0
2	0.00	0	0.00	0.00	0.00	0.00	0 0 0 0 0	0.44	0 0 0 0 0
2	0.00	0	0.00	0.00	0.00	0.00	0 0 0 0 0	0.44	0 0 0 0 0
3	0.00	0	0.00	0.00	0.00	0.00	0 0 0 0 0	0.44	0 0 0 0 0
3	0.00	0	0.00	0.00	0.00	0.00	0 0 0 0 0	0.44	0 0 0 0 0

OPTIONAL CALCULATION OF FACTOR LOADING TYPES

NOTE ** : distribution factor - fraction of a wheel load for WSD/LFD

or fraction of an axle load for LRFD
0 = The special distribution factor defined is not applied to the indicated loading type.

1 = The special distribution factor defined is applied to the indicated loading type of calculation of all moment, shear and deflection.

2 = The special distribution factor defined is only applied to the loading type for calculating moment.

3 = The special distribution factor defined is only applied to the loading type for calculating shear.

4 = The special distribution factor defined is only applied to the loading type for calculating deflection.

TABLE 0.0.11.1 DEFINITION OF UNIFORM AND CONCENTRATED LOADS

LOAD IDENTIFICATION			UNIFROM LOAD DATA			CONCENTRATED LOAD DATA	
LOAD NO.	TYPE	DESCRIPTION	INTENSITY (k/ft)	POSITION FROM (ft)	TO	INTENSITY (Kips)	DISTANCE FROM L SUPT (ft)
1	0	WOOD FLOOR	0.258	0.00	153.00	0.00	0.00
2	0	RAILING	0.100	0.00	153.00	0.00	0.00

NOTE: LOAD TYPE, 0 = (Default) Loads for noncomposite construction or Superimposed Loads for composite construction (In LRFD, it is for DW load)

1 = Superimposed Loads (In LRFD, it is for DC2 load)

TABLE 0.0.13.1 YIELD STRESS (Fy) AND LATERAL BRACING DATA (lb)

LOCATION		YIELD STRESS		SPACING OF LATERAL BRACING
DISTANCE FROM (ft)	DISTANCE TO (ft)	Fy (ksi)	Fy (WEB) (ksi)	Lb (ft)
0.00	153.00	50.0	50.0	15.00

** WARNING: LATERAL BRACING DISTANCE CAN NOT BE EVENLY DIVIDED **

NOTE: [1] default Fy = 36 ksi

[2] default spacing of lateral bracing = 25 feet

Please refer to AASHTO LRFD Art. 6.7.4 for requirement.

[3] The spacing of lateral bracing is also assumed to
be the diaphragm spacing which is used for the
calculation of wind effect (code check only).

*** WARNING in LRFD Distrib Factor *** Nb < 4
*** WARNING in LRFD Distrib Factor *** Nb < 4
*** WARNING in LRFD Distrib Factor *** Nb < 4
1

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TABLE 2.2.5.3=MOMENT SUMMARY FOR NONCOMPOSITE CONSTRUCTION (UNFACTORED)
****

SP NO	IN NO	D FROM L SUPP (ft)	TOTAL DL (k-ft)	TOTAL POS LL+I (k-ft)	GOVERN LOAD TYPE	TOTAL NEG LL+I (k-ft)	GOVERN LOAD TYPE	TOTAL MAX POS (k-ft)	TOTAL MAX NEG (k-ft)
1	0	0.00	0.0	0.0	HL-93	0.0	HL-93	0.0	0.0
1	1	2.92	2.4	66.2	HL-93	-32.4	HL-93	68.6	-30.0
1	2	5.85	0.2	114.9	HL-93	-64.8	HL-93	115.1	-64.6
1	3	8.77	-6.6	146.4	HL-93	-97.2	HL-93	139.9	-103.7
1	4	11.70	-17.9	161.7	HL-93	-129.6	HL-93	143.8	-147.5
1	5	14.62	-33.9	161.9	HL-93	-162.0	HL-93	128.0	-195.9
1	6	17.55	-54.5	156.1	HL-93	-249.5	HL-93	101.6	-303.9
1	7	20.47	-79.6	135.6	HL-93	-299.4	HL-93	56.0	-379.0
1	8	23.40	-109.4	102.0	HL-93	-349.2	HL-93	-7.4	-458.6
1	9	26.32	-143.7	58.0	HL-93	-407.3	HL-93	-85.7	-551.1
1	10	29.25	-182.7	58.2	HL-93	-392.5	HL-93	-124.4	-575.1
2	0	0.00	-182.7	58.2	HL-93	-392.5	HL-93	-124.4	-575.1
2	1	7.18	-62.4	58.2	HL-93	-214.4	HL-93	-4.2	-276.8
2	2	14.35	30.3	146.8	HL-93	-85.6	HL-93	177.1	-55.3
2	3	21.53	95.3	248.0	HL-93	-41.9	HL-93	343.3	53.4
2	4	28.70	132.7	316.1	HL-93	-35.5	HL-93	448.8	97.2
2	5	35.87	142.4	359.8	HL-93	-58.2	HL-93	502.2	84.2
2	6	43.05	124.5	343.4	HL-93	-94.6	HL-93	467.9	29.9
2	7	50.22	78.9	285.0	HL-93	-136.2	HL-93	363.9	-57.3
2	8	57.40	5.7	181.7	HL-93	-172.0	HL-93	187.4	-166.3
2	9	64.57	-95.2	69.3	HL-93	-297.8	HL-93	-25.9	-392.9
2	10	71.75	-223.7	14.0	HL-93	-308.3	HL-93	-209.6	-532.0
3	0	0.00	-223.7	14.0	HL-93	-308.3	HL-93	-209.6	-532.0
3	1	5.20	-136.0	55.8	HL-93	-382.0	HL-93	-80.2	-517.9
3	2	10.40	-62.8	143.7	HL-93	-275.2	HL-93	81.0	-337.9
3	3	15.60	-4.1	228.5	HL-93	-243.5	HL-93	224.4	-247.7
3	4	20.80	40.0	287.5	HL-93	-144.8	HL-93	327.6	-104.8
3	5	26.00	69.7	317.4	HL-93	-120.7	HL-93	387.1	-51.0

3	6	31.20	84.8	273.3	HL-93	-49.8	HL-93	358.1	35.0
3	7	36.40	85.4	259.6	HL-93	-37.3	HL-93	344.9	48.0
3	8	41.60	71.4	210.5	HL-93	-24.9	HL-93	282.0	46.5
3	9	46.80	43.0	124.4	HL-93	-12.4	HL-93	167.4	30.5
3	10	52.00	0.0	0.0	HL-93	0.0	HL-93	0.0	0.0

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TABLE 2.2.5.4=MOMENT SUMMARY FOR NONCOMPOSITE CONSTRUCTION (LRFD)
****

SP NO	IN NO	D FROM L SUPT (ft)	SERVICE I (k-ft)	SERVICE II (k-ft)	STRENGTH I (k-ft)	STRENGTH II (k-ft)	STRENGTH IV (k-ft)	FATIGUE RANGE (k-ft)
1	0	0.00	0.0	0.0	0.0	0.0	0.0	0.0
1	1	2.92	68.6	88.5	119.0	92.5	3.6	50.4
1	2	5.85	115.1	149.6	201.3	155.4	0.3	90.7
1	3	8.77	139.9	183.8	250.7	192.1	-9.8	121.5
1	4	11.70	-147.5	192.3	267.7	203.0	-26.9	143.2
1	5	14.62	-195.9	-244.5	-327.4	-262.6	-50.9	156.8
1	6	17.55	-303.9	-378.8	-507.2	-407.4	-81.7	168.7
1	7	20.47	-379.0	-468.8	-627.1	-507.4	-119.4	172.7
1	8	23.40	-458.6	-563.4	-753.0	-613.3	-164.1	169.9
1	9	26.32	-551.1	-673.3	-899.2	-736.2	-215.6	161.5
1	10	29.25	-575.1	-692.9	-923.7	-766.7	-274.0	174.2
2	0	0.00	-575.1	-692.9	-923.7	-766.7	-274.0	174.2
2	1	7.18	-276.8	-341.1	-456.1	-370.3	-93.5	47.2
2	2	14.35	177.1	221.2	296.3	237.5	45.4	92.5
2	3	21.53	343.3	417.7	557.6	458.4	142.9	139.4
2	4	28.70	448.8	543.6	725.2	598.7	199.0	173.5
2	5	35.87	502.2	610.1	814.3	670.3	213.6	190.2
2	6	43.05	467.9	570.9	762.3	625.0	186.7	199.7
2	7	50.22	363.9	449.4	601.0	487.0	118.3	182.7
2	8	57.40	187.4	241.9	325.4	252.7	8.5	137.5
2	9	64.57	-392.9	-482.3	-644.5	-525.4	-142.7	99.6
2	10	71.75	-532.0	-624.5	-829.5	-706.2	-335.5	129.8

3	0	0.00	-532.0	-624.5	-829.5	-706.2	-335.5	129.8
3	1	5.20	-517.9	-632.5	-844.7	-691.9	-203.9	134.1
3	2	10.40	-337.9	-420.5	-562.9	-452.9	-94.2	157.5
3	3	15.60	-247.7	-320.7	-431.5	-334.1	-6.2	189.0
3	4	20.80	327.6	413.9	555.1	440.1	60.1	198.5
3	5	26.00	387.1	482.3	645.8	518.8	104.5	202.6
3	6	31.20	358.1	440.1	588.3	478.9	127.2	192.3
3	7	36.40	344.9	422.8	564.9	461.1	128.0	173.4
3	8	41.60	282.0	345.1	461.0	376.8	107.1	137.6
3	9	46.80	167.4	204.7	273.4	223.7	64.5	82.9
3	10	52.00	0.0	0.0	0.0	0.0	0.0	0.0

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TABLE 2.2.6.3=SHEAR SUMMARY FOR NONCOMPOSITE CONSTRUCTION (UNFACTORED)

****

SP NO	IN NO	D L	FROM SUPP (ft)	TOTAL DL (kips)	TOTAL POS LL+I (kips)	GOVERN LOAD TYPE	TOTAL NEG LL+I (kips)	GOVERN LOAD TYPE	TOTAL MAX ABS (kips)	TOTAL MIN ABS (kips)
1	0		0.00	1.6	25.7		-11.1		27.3	-9.5
1	1		2.92	0.0	22.1		-11.1		22.1	-11.1
1	2		5.85	-1.5	18.6		-11.4		-12.9	17.1
1	3		8.77	-3.1	15.4		-11.9		-15.0	12.3
1	4		11.70	-4.7	12.4		-14.3		-19.0	7.8
1	5		14.62	-6.2	9.7		-16.9		-23.1	3.4
1	6		17.55	-7.8	7.2		-19.9		-27.7	-0.6
1	7		20.47	-9.4	4.9		-22.9		-32.3	-4.4
1	8		23.40	-11.0	3.0		-25.9		-36.9	-8.0
1	9		26.32	-12.5	1.3		-28.9		-41.4	-11.2
1	10		29.25	-14.1	0.8		-31.8		-45.9	-13.3
2	0		0.00	18.7	37.2		-3.1		55.9	15.6
2	1		7.18	14.8	32.8		-3.2		47.6	11.7

2	2	14.35	11.0	28.1	-4.0	39.1	7.0
2	3	21.53	7.1	23.3	-6.6	30.4	0.6
2	4	28.70	3.3	18.6	-9.8	21.9	-6.5
2	5	35.87	-0.6	14.2	-13.5	-14.1	13.6
2	6	43.05	-4.4	10.2	-17.8	-22.2	5.7
2	7	50.22	-8.3	6.6	-22.4	-30.7	-1.6
2	8	57.40	-12.1	3.7	-27.3	-39.4	-8.4
2	9	64.57	-16.0	1.5	-32.2	-48.2	-14.5
2	10	71.75	-19.8	0.9	-37.0	-56.8	-19.0
3	0	0.00	18.3	35.4	-0.1	53.7	18.2
3	1	5.20	15.5	31.8	-0.9	47.3	14.6
3	2	10.40	12.7	28.1	-2.5	40.7	10.2
3	3	15.60	9.9	24.3	-4.5	34.2	5.4
3	4	20.80	7.1	20.6	-7.0	27.7	0.1
3	5	26.00	4.3	16.9	-9.9	21.2	-5.6
3	6	31.20	1.5	13.3	-13.1	14.8	-11.6
3	7	36.40	-1.3	9.9	-16.8	-18.1	8.6
3	8	41.60	-4.1	7.0	-20.9	-24.9	2.9
3	9	46.80	-6.9	4.8	-25.3	-32.1	-2.1
3	10	52.00	-9.7	4.6	-30.0	-39.6	-5.0

TABLE 1.2.6.4=SHEAR SUMMARY FOR NONCOMPOSITE CONSTRUCTION (LRFD)
****

SP NO	IN NO	D FROM L SUPT (ft)	SERVICE I (kips)	SERVICE II (kips)	STRENGTH I (kips)	STRENGTH II (kips)	STRENGTH IV (kips)	FATIGUE RANGE (kips)
1	0	0.00	27.3	35.0	47.0	36.8	2.4	18.9
1	1	2.92	22.1	28.7	38.7	29.8	0.1	17.2
1	2	5.85	17.1	22.7	31.3	23.9	-2.3	15.5
1	3	8.77	-15.0	-18.6	-24.9	-20.1	-4.7	13.8
1	4	11.70	-19.0	-23.3	-31.1	-25.4	-7.0	12.5
1	5	14.62	-23.1	-28.2	-37.6	-30.9	-9.4	12.4
1	6	17.55	-27.7	-33.6	-44.9	-36.9	-11.7	12.5

1	7	20.47	-32.3	-39.1	-52.2	-43.1	-14.1	12.7
1	8	23.40	-36.9	-44.6	-59.5	-49.2	-16.4	12.9
1	9	26.32	-41.4	-50.1	-66.8	-55.2	-18.8	13.1
1	10	29.25	-45.9	-55.4	-73.9	-61.2	-21.1	14.0
2	0	0.00	55.9	67.1	89.3	74.5	28.0	22.4
2	1	7.18	47.6	57.5	76.6	63.5	22.3	19.9
2	2	14.35	39.1	47.5	63.4	52.2	16.5	17.4
2	3	21.53	30.4	37.4	50.0	40.7	10.7	15.9
2	4	28.70	21.9	27.5	36.9	29.4	4.9	14.5
2	5	35.87	-14.1	-18.2	-24.4	-19.0	-0.9	13.3
2	6	43.05	-22.2	-27.6	-36.9	-29.8	-6.6	14.3
2	7	50.22	-30.7	-37.4	-50.0	-41.0	-12.4	15.3
2	8	57.40	-39.4	-47.6	-63.5	-52.6	-18.2	16.7
2	9	64.57	-48.2	-57.8	-77.0	-64.2	-24.0	18.3
2	10	71.75	-56.8	-67.9	-90.4	-75.6	-29.8	20.8
3	0	0.00	53.7	64.3	85.6	71.5	27.4	19.0
3	1	5.20	47.3	56.8	75.7	63.0	23.2	17.0
3	2	10.40	40.7	49.2	65.6	54.3	19.0	15.5
3	3	15.60	34.2	41.5	55.4	45.6	14.8	14.2
3	4	20.80	27.7	33.8	45.2	37.0	10.6	12.9
3	5	26.00	21.2	26.2	35.1	28.4	6.5	13.6
3	6	31.20	14.8	18.8	25.2	19.9	2.3	12.6
3	7	36.40	-18.1	-23.1	-31.1	-24.4	-1.9	13.1
3	8	41.60	-24.9	-31.2	-41.8	-33.4	-6.1	14.0
3	9	46.80	-32.1	-39.7	-53.1	-43.0	-10.3	15.9
3	10	52.00	-39.6	-48.6	-65.0	-53.0	-14.5	18.8

TABLE 2.2.7.2=SUMMARY OF REACTIONS (UNFACTORED)
****

SUPT NO.	TOTAL DEAD LOADS (K)	LL+I ,(K), LOAD TYPE = HL - 93 MINIMUM	GOVERN. LOAD TYPE	MAXIMUM	GOVERN. LOAD TYPE	TOTAL DL+LL+I (L R F D) MINIMUM	MAXIMUM

1	1.61	-11.99	HL-93	25.69	HL-93	ST1	-17.45	47.03
						ST2	-17.83	40.50
						ST4	1.96	2.41
						SE1	-9.15	27.29
						SE2	-12.38	35.00
2	32.79	-4.62	HL-93	50.45	HL-93	ST1	19.91	130.80
						ST2	21.03	126.68
						ST4	40.03	49.19
						SE1	28.17	83.24
						SE2	26.79	98.38
3	38.10	-1.16	HL-93	84.64	HL-93	ST1	30.62	197.51
						ST2	30.80	181.12
						ST4	46.50	57.15
						SE1	37.01	122.73
						SE2	36.69	148.12
4	9.66	-4.98	HL-93	29.98	HL-93	ST1	0.35	64.99
						ST2	0.27	58.63
						ST4	11.79	14.49
						SE1	5.15	39.64
						SE2	3.80	48.63

NOTE: [1] " - " Indicates Uplift

ST1 = STRENGTH I; ST2 = STRENGTH II; SE1 = SERVICE I;SE2 = SERVICE II.

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TABLE 2.2.8.1=DEAD LOAD DEFLECTIONS FOR NONCOMPOSITE CONSTRUCTION (UNFACTORED)

SP NO	IN D NO	L FROM SUPT (ft)	DEAD LOAD BEAM (in)	DEAD LOAD SLAB (in)	CONCENTRATED LOADS (in)	UNIFORM LOADS (in)	T O T A L +=UP , -=DOWN
1	0	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
1	1	2.92	0.0018	0.0000	0.0000	0.0037	0.0055
1	2	5.85	0.0037	0.0000	0.0000	0.0074	0.0111

1	3	8.77	0.0056	0.0000	0.0000	0.0112	0.0167
1	4	11.70	0.0073	0.0000	0.0000	0.0147	0.0220
1	5	14.62	0.0088	0.0000	0.0000	0.0176	0.0264
1	6	17.55	0.0097	0.0000	0.0000	0.0194	0.0291
1	7	20.47	0.0097	0.0000	0.0000	0.0194	0.0292
1	8	23.40	0.0084	0.0000	0.0000	0.0169	0.0253
1	9	26.32	0.0054	0.0000	0.0000	0.0108	0.0162
1	10	29.25	0.0000	0.0000	0.0000	0.0000	0.0000
2	0	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
2	1	7.18	-0.0234	0.0000	0.0000	-0.0468	-0.0702
2	2	14.35	-0.0531	0.0000	0.0000	-0.1062	-0.1593
2	3	21.53	-0.0801	0.0000	0.0000	-0.1602	-0.2402
2	4	28.70	-0.0980	0.0000	0.0000	-0.1960	-0.2940
2	5	35.87	-0.1032	0.0000	0.0000	-0.2064	-0.3097
2	6	43.05	-0.0948	0.0000	0.0000	-0.1896	-0.2844
2	7	50.22	-0.0745	0.0000	0.0000	-0.1490	-0.2235
2	8	57.40	-0.0467	0.0000	0.0000	-0.0934	-0.1401
2	9	64.57	-0.0186	0.0000	0.0000	-0.0372	-0.0558
2	10	71.75	0.0000	0.0000	0.0000	0.0000	0.0000
3	0	0.00	0.0000	0.0000	0.0000	0.0000	0.0000
3	1	5.20	0.0022	0.0000	0.0000	0.0045	0.0067
3	2	10.40	-0.0025	0.0000	0.0000	-0.0050	-0.0076
3	3	15.60	-0.0106	0.0000	0.0000	-0.0211	-0.0317
3	4	20.80	-0.0189	0.0000	0.0000	-0.0378	-0.0566
3	5	26.00	-0.0252	0.0000	0.0000	-0.0504	-0.0756
3	6	31.20	-0.0280	0.0000	0.0000	-0.0561	-0.0841
3	7	36.40	-0.0266	0.0000	0.0000	-0.0532	-0.0797
3	8	41.60	-0.0208	0.0000	0.0000	-0.0417	-0.0625
3	9	46.80	-0.0115	0.0000	0.0000	-0.0230	-0.0344
3	10	52.00	0.0000	0.0000	0.0000	0.0000	0.0000

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TABLE 2.0.8.1A=CAMBER INFORMATION (UNFACTORED)
****

SP NO	IN NO	D FROM L SUPT	NONCOMPOSITE DEAD LOADS (IN) STEEL CAMBER	SLAB CAMBER	OTHER DL (IN) DEFL.	OTHER DL (IN) CAMBER	TOTAL (IN) DEFL.	TOTAL (IN) CAMBER

		(FT)	DEFL.	SIZE	DEFL.	SIZE		SIZE		SIZE	
1	0	0.0	0.000	--	0.000	--	0.000	--	0.000	--	
1	1	2.9	0.002	0 -1/16	0.000	0 0/16	0.004	0 -1/16	0.006	0	-1/16
1	2	5.8	0.004	0 -1/16	0.000	0 0/16	0.007	0 -1/16	0.011	0	-1/16
1	3	8.8	0.006	0 -1/16	0.000	0 0/16	0.011	0 -1/16	0.017	0	-1/16
1	4	11.7	0.007	0 -1/16	0.000	0 0/16	0.015	0 -1/16	0.022	0	-1/16
1	5	14.6	0.009	0 -1/16	0.000	0 0/16	0.018	0 -1/16	0.026	0	-1/16
1	6	17.5	0.010	0 -1/16	0.000	0 0/16	0.019	0 -1/16	0.029	0	-1/16
1	7	20.5	0.010	0 -1/16	0.000	0 0/16	0.019	0 -1/16	0.029	0	-1/16
1	8	23.4	0.008	0 -1/16	0.000	0 0/16	0.017	0 -1/16	0.025	0	-1/16
1	9	26.3	0.005	0 -1/16	0.000	0 0/16	0.011	0 -1/16	0.016	0	-1/16
1	10	29.2	0.000	--	0.000	--	0.000	--	0.000	--	
2	0	0.0	0.000	--	0.000	--	0.000	--	0.000	--	
2	1	7.2	-0.023	0 1/16	0.000	0 0/16	-0.047	0 1/16	-0.070	0	1/ 8
2	2	14.4	-0.053	0 1/16	0.000	0 0/16	-0.106	0 1/ 8	-0.159	0	3/16
2	3	21.5	-0.080	0 1/ 8	0.000	0 0/16	-0.160	0 3/16	-0.240	0	1/ 4
2	4	28.7	-0.098	0 1/ 8	0.000	0 0/16	-0.196	0 1/ 4	-0.294	0	5/16
2	5	35.9	-0.103	0 1/ 8	0.000	0 0/16	-0.206	0 1/ 4	-0.310	0	5/16
2	6	43.0	-0.095	0 1/ 8	0.000	0 0/16	-0.190	0 1/ 4	-0.284	0	5/16
2	7	50.2	-0.074	0 1/ 8	0.000	0 0/16	-0.149	0 3/16	-0.223	0	1/ 4
2	8	57.4	-0.047	0 1/16	0.000	0 0/16	-0.093	0 1/ 8	-0.140	0	3/16
2	9	64.6	-0.019	0 1/16	0.000	0 0/16	-0.037	0 1/16	-0.056	0	1/16
2	10	71.7	0.000	--	0.000	--	0.000	--	0.000	--	
3	0	0.0	0.000	--	0.000	--	0.000	--	0.000	--	
3	1	5.2	0.002	0 -1/16	0.000	0 0/16	0.004	0 -1/16	0.007	0	-1/16
3	2	10.4	-0.003	0 1/16	0.000	0 0/16	-0.005	0 1/16	-0.008	0	1/16
3	3	15.6	-0.011	0 1/16	0.000	0 0/16	-0.021	0 1/16	-0.032	0	1/16
3	4	20.8	-0.019	0 1/16	0.000	0 0/16	-0.038	0 1/16	-0.057	0	1/16
3	5	26.0	-0.025	0 1/16	0.000	0 0/16	-0.050	0 1/16	-0.076	0	1/ 8
3	6	31.2	-0.028	0 1/16	0.000	0 0/16	-0.056	0 1/16	-0.084	0	1/ 8
3	7	36.4	-0.027	0 1/16	0.000	0 0/16	-0.053	0 1/16	-0.080	0	1/ 8
3	8	41.6	-0.021	0 1/16	0.000	0 0/16	-0.042	0 1/16	-0.062	0	1/16
3	9	46.8	-0.011	0 1/16	0.000	0 0/16	-0.023	0 1/16	-0.034	0	1/16
3	10	52.0	0.000	--	0.000	--	0.000	--	0.000	--	

NOTE: for camber, please refer to AASHTO' Art.10.14 or LRFD Art. 6.7.2

TABLE 2.1.8.1B=LOCATION OF DEAD LOAD POINT OF CONTRAFLEXURE (UNFACTORED)
****

SP NO	DEAD LOAD POINT OF CONTRAFLEXURE LEFT, DIST. FROM LEFT SUPT,(ft)	DEAD LOAD POINT OF CONTRAFLEXURE RIGHT, DIST. FROM LEFT SUPT,(ft)
1	14.62	14.62
2	35.87	35.87
3	26.00	26.00

TABLE 2.2.8.2=MAX. LIVE LOAD DEFLECTIONS FOR NONCOMP. CONSTRUCTIONS
****
(UNFACTORED)

SPAN NO.	D FROM L SUPT (ft)	NUMBER OF LANE AND DIST. FACTOR FOR LL DEFL.	LL + I. DEFLECTION (inch)	GOVERN. LOAD TYPE	1/800 OF SPAN L AASHTO 2.5.2.6.2	ROTATION [5] Rad.
1	14.62	1 0.333	-0.047	MAX HL-93	0.44	0.00026
			0.046	MIN		
			-0.010	MAX LANE		
			0.018	MIN LANE		
2	35.87	1 0.333	-0.522	MAX HL-93	1.08	0.00080
			0.117	MIN		
			-0.129	MAX LANE		
			0.037	MIN LANE		
3	26.00	1 0.333	-0.286	MAX HL-93	0.78	0.00075
			0.138	MIN		
			-0.064	MAX LANE		
			0.041	MIN LANE		

NOTE: [1] " - " indicates downward deflection

[2] The distribution factor for LL+I deflection is defined as

DF = (NL/Ng) ..... AASHTO LRFD Art. 2.5.2.6

where NL= no. of traffic lanes
Ng= no. of girders

[3] This table is based upon the optional criteria specified in AASHTO LRFD Art. 3.6.1.3.2

[4] The number of traffic lanes is determined according to AASHTO LRFD Art.3.6.1.1.1.
The 1st line is for the most probable number of lanes and the 2nd line is for the next probable number of lanes.

[5] Max rotations at left (1st line) & right (2nd line) supports of the span without averaging, factor and impact

[6] If ADTT is between 100 and 1000, multi-presence factor of 0.95 is applied. If ADTT is below 100, factor is 0.9 (AASHTO LRFD C3.6.1.1.2).

TABLE 2.2.9.3A=SERVICE I TOTAL (DC+DW+(LL+I)) STRESS SUMMARY

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi) TOP	YIELD STRESS Fy (ksi) BOT	MAXIMUM POSITIVE,(ksi) ------STEEL----- TOP	MAXIMUM POSITIVE,(ksi) ------STEEL----- BOT	MAXIMUM NEGATIVE,(ksi) -----STEEL------ TOP	MAXIMUM NEGATIVE,(ksi) -----STEEL------ BOT
1	0	0.00	33.	33.	0.00	0.00	0.00	0.00
1	1	2.92	33.	33.	-1.42	1.42	0.62	-0.62
1	2	5.85	33.	33.	-2.38	2.38	1.34	-1.34
1	3	8.77	33.	33.	-2.89	2.89	2.15	-2.15
1	4	11.70	33.	33.	-2.97	2.97	3.05	-3.05
1	5	14.62	33.	33.	-2.65	2.65	4.05	-4.05

1	6	17.55	33.	33.	-2.10	2.10	6.29	-6.29
1	7	20.47	33.	33.	-1.16	1.16	7.84	-7.84
1	8	23.40	33.	33.	0.15	-0.15	9.49	-9.49
1	9	26.32	33.	33.	1.77	-1.77	11.40	-11.40
1	10	29.25	33.	33.	2.57	-2.57	11.90	-11.90
2	0	0.00	33.	33.	2.57	-2.57	11.90	-11.90
2	1	7.18	33.	33.	0.09	-0.09	5.73	-5.73
2	2	14.35	33.	33.	-3.66	3.66	1.14	-1.14
2	3	21.53	33.	33.	-7.10	7.10	-1.10	1.10
2	4	28.70	33.	33.	-9.28	9.28	-2.01	2.01
2	5	35.87	33.	33.	-10.39	10.39	-1.74	1.74
2	6	43.05	33.	33.	-9.68	9.68	-0.62	0.62
2	7	50.22	33.	33.	-7.53	7.53	1.18	-1.18
2	8	57.40	33.	33.	-3.88	3.88	3.44	-3.44
2	9	64.57	33.	33.	0.54	-0.54	8.13	-8.13
2	10	71.75	33.	33.	4.34	-4.34	11.00	-11.00
3	0	0.00	33.	33.	4.34	-4.34	11.00	-11.00
3	1	5.20	33.	33.	1.66	-1.66	10.71	-10.71
3	2	10.40	33.	33.	-1.67	1.67	6.99	-6.99
3	3	15.60	33.	33.	-4.64	4.64	5.12	-5.12
3	4	20.80	33.	33.	-6.78	6.78	2.17	-2.17
3	5	26.00	33.	33.	-8.01	8.01	1.06	-1.06
3	6	31.20	33.	33.	-7.41	7.41	-0.72	0.72
3	7	36.40	33.	33.	-7.14	7.14	-0.99	0.99
3	8	41.60	33.	33.	-5.83	5.83	-0.96	0.96
3	9	46.80	33.	33.	-3.46	3.46	-0.63	0.63
3	10	52.00	33.	33.	0.00	0.00	0.00	0.00

TABLE 2.2.9.3B=SERVICE II TOTAL (DC+DW+1.3(LL+I)) STRESS SUMMARY
****

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi) TOP	BOT	MAXIMUM POSITIVE,(ksi) ------STEEL----- TOP	BOT	MAXIMUM NEGATIVE,(ksi) -----STEEL------ TOP	BOT
1	0	0.00	33.	33.	0.00	0.00	0.00	0.00
1	1	2.92	33.	33.	-1.83	1.83	0.82	-0.82
1	2	5.85	33.	33.	-3.09	3.09	1.74	-1.74
1	3	8.77	33.	33.	-3.80	3.80	2.75	-2.75
1	4	11.70	33.	33.	-3.98	3.98	3.86	-3.86
1	5	14.62	33.	33.	-3.65	3.65	5.06	-5.06

1	6	17.55	33.	33.	-3.07	3.07	7.84	-7.84
1	7	20.47	33.	33.	-2.00	2.00	9.70	-9.70
1	8	23.40	33.	33.	-0.48	0.48	11.65	-11.65
1	9	26.32	33.	33.	1.41	-1.41	13.93	-13.93
1	10	29.25	33.	33.	2.21	-2.21	14.33	-14.33
2	0	0.00	33.	33.	2.21	-2.21	14.33	-14.33
2	1	7.18	33.	33.	-0.27	0.27	7.06	-7.06
2	2	14.35	33.	33.	-4.58	4.58	1.68	-1.68
2	3	21.53	33.	33.	-8.64	8.64	-0.84	0.84
2	4	28.70	33.	33.	-11.24	11.24	-1.79	1.79
2	5	35.87	33.	33.	-12.62	12.62	-1.38	1.38
2	6	43.05	33.	33.	-11.81	11.81	-0.03	0.03
2	7	50.22	33.	33.	-9.30	9.30	2.03	-2.03
2	8	57.40	33.	33.	-5.00	5.00	4.51	-4.51
2	9	64.57	33.	33.	0.11	-0.11	9.98	-9.98
2	10	71.75	33.	33.	4.25	-4.25	12.92	-12.92
3	0	0.00	33.	33.	4.25	-4.25	12.92	-12.92
3	1	5.20	33.	33.	1.31	-1.31	13.08	-13.08
3	2	10.40	33.	33.	-2.57	2.57	8.70	-8.70
3	3	15.60	33.	33.	-6.06	6.06	6.63	-6.63
3	4	20.80	33.	33.	-8.56	8.56	3.07	-3.07
3	5	26.00	33.	33.	-9.98	9.98	1.80	-1.80
3	6	31.20	33.	33.	-9.10	9.10	-0.42	0.42
3	7	36.40	33.	33.	-8.75	8.75	-0.76	0.76
3	8	41.60	33.	33.	-7.14	7.14	-0.81	0.81
3	9	46.80	33.	33.	-4.23	4.23	-0.55	0.55
3	10	52.00	33.	33.	0.00	0.00	0.00	0.00

TABLE 2.2.9.3C=STRENGTH I TOTAL (1.25DC+1.50DW+1.75(LL+I)) STRESS SUMMARY
****

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi) TOP	BOT	MAXIMUM POSITIVE,(ksi) ------STEEL----- TOP	BOT	MAXIMUM NEGATIVE,(ksi) -----STEEL------ TOP	BOT
1	0	0.00	33.	33.	0.00	0.00	0.00	0.00
1	1	2.92	33.	33.	-2.46	2.46	1.11	-1.11
1	2	5.85	33.	33.	-4.16	4.16	2.34	-2.34
1	3	8.77	33.	33.	-5.13	5.13	3.69	-3.69
1	4	11.70	33.	33.	-5.37	5.37	5.17	-5.17
1	5	14.62	33.	33.	-4.95	4.95	6.77	-6.77

1	6	17.55	33.	33.	-4.19	4.19	10.49	-10.49
1	7	20.47	33.	33.	-2.77	2.77	12.97	-12.97
1	8	23.40	33.	33.	-0.76	0.76	15.58	-15.58
1	9	26.32	33.	33.	1.75	-1.75	18.60	-18.60
1	10	29.25	33.	33.	2.79	-2.79	19.11	-19.11
2	0	0.00	33.	33.	2.79	-2.79	19.11	-19.11
2	1	7.18	33.	33.	-0.43	0.43	9.43	-9.43
2	2	14.35	33.	33.	-6.13	6.13	2.29	-2.29
2	3	21.53	33.	33.	-11.53	11.53	-1.04	1.04
2	4	28.70	33.	33.	-15.00	15.00	-2.27	2.27
2	5	35.87	33.	33.	-16.84	16.84	-1.71	1.71
2	6	43.05	33.	33.	-15.77	15.77	0.09	-0.09
2	7	50.22	33.	33.	-12.43	12.43	2.81	-2.81
2	8	57.40	33.	33.	-6.73	6.73	6.07	-6.07
2	9	64.57	33.	33.	0.05	-0.05	13.33	-13.33
2	10	71.75	33.	33.	5.49	-5.49	17.16	-17.16
3	0	0.00	33.	33.	5.49	-5.49	17.16	-17.16
3	1	5.20	33.	33.	1.63	-1.63	17.47	-17.47
3	2	10.40	33.	33.	-3.52	3.52	11.64	-11.64
3	3	15.60	33.	33.	-8.16	8.16	8.93	-8.93
3	4	20.80	33.	33.	-11.48	11.48	4.17	-4.17
3	5	26.00	33.	33.	-13.36	13.36	2.50	-2.50
3	6	31.20	33.	33.	-12.17	12.17	-0.47	0.47
3	7	36.40	33.	33.	-11.69	11.69	-0.94	0.94
3	8	41.60	33.	33.	-9.54	9.54	-1.01	1.01
3	9	46.80	33.	33.	-5.66	5.66	-0.70	0.70
3	10	52.00	33.	33.	0.00	0.00	0.00	0.00

TABLE 2.2.9.3D=STRENGTH I TOTAL (0.90DC+0.65DW+1.75(LL+I)) STRESS SUMMARY
****

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi) TOP	BOT	MAXIMUM POSITIVE,(ksi) ------STEEL----- TOP	BOT	MAXIMUM NEGATIVE,(ksi) -----STEEL------ TOP	BOT
1	0	0.00	33.	33.	0.00	0.00	0.00	0.00
1	1	2.92	33.	33.	-2.44	2.44	1.13	-1.13
1	2	5.85	33.	33.	-4.16	4.16	2.34	-2.34
1	3	8.77	33.	33.	-5.19	5.19	3.63	-3.63
1	4	11.70	33.	33.	-5.54	5.54	5.01	-5.01
1	5	14.62	33.	33.	-5.26	5.26	6.46	-6.46

1	6	17.55	33.	33.	-4.69	4.69	9.99	-9.99
1	7	20.47	33.	33.	-3.50	3.50	12.24	-12.24
1	8	23.40	33.	33.	-1.76	1.76	14.57	-14.57
1	9	26.32	33.	33.	0.44	-0.44	17.28	-17.28
1	10	29.25	33.	33.	1.12	-1.12	17.43	-17.43
2	0	0.00	33.	33.	1.12	-1.12	17.43	-17.43
2	1	7.18	33.	33.	-1.01	1.01	8.86	-8.86
2	2	14.35	33.	33.	-5.85	5.85	2.56	-2.56
2	3	21.53	33.	33.	-10.66	10.66	-0.16	0.16
2	4	28.70	33.	33.	-13.78	13.78	-1.06	1.06
2	5	35.87	33.	33.	-15.54	15.54	-0.41	0.41
2	6	43.05	33.	33.	-14.63	14.63	1.23	-1.23
2	7	50.22	33.	33.	-11.71	11.71	3.54	-3.54
2	8	57.40	33.	33.	-6.68	6.68	6.13	-6.13
2	9	64.57	33.	33.	-0.83	0.83	12.46	-12.46
2	10	71.75	33.	33.	3.44	-3.44	15.11	-15.11
3	0	0.00	33.	33.	3.44	-3.44	15.11	-15.11
3	1	5.20	33.	33.	0.38	-0.38	16.23	-16.23
3	2	10.40	33.	33.	-4.09	4.09	11.07	-11.07
3	3	15.60	33.	33.	-8.20	8.20	8.89	-8.89
3	4	20.80	33.	33.	-11.12	11.12	4.54	-4.54
3	5	26.00	33.	33.	-12.72	12.72	3.14	-3.14
3	6	31.20	33.	33.	-11.39	11.39	0.30	-0.30
3	7	36.40	33.	33.	-10.90	10.90	-0.16	0.16
3	8	41.60	33.	33.	-8.88	8.88	-0.36	0.36
3	9	46.80	33.	33.	-5.26	5.26	-0.31	0.31
3	10	52.00	33.	33.	0.00	0.00	0.00	0.00

TABLE 2.2.9.3E=STRENGTH II TOTAL (1.25DC+1.50DW+1.35(LL+I)) STRESS SUMMARY
****

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi) TOP	BOT	MAXIMUM POSITIVE,(ksi) ------STEEL----- TOP	BOT	MAXIMUM NEGATIVE,(ksi) -----STEEL------ TOP	BOT
1	0	0.00	33.	33.	0.00	0.00	0.00	0.00
1	1	2.92	33.	33.	-1.91	1.91	0.84	-0.84
1	2	5.85	33.	33.	-3.21	3.21	1.80	-1.80
1	3	8.77	33.	33.	-3.91	3.91	2.89	-2.89
1	4	11.70	33.	33.	-4.04	4.04	4.10	-4.10
1	5	14.62	33.	33.	-3.61	3.61	5.43	-5.43

1	6	17.55	33.	33.	-2.90	2.90	8.43	-8.43
1	7	20.47	33.	33.	-1.65	1.65	10.50	-10.50
1	8	23.40	33.	33.	0.09	-0.09	12.69	-12.69
1	9	26.32	33.	33.	2.23	-2.23	15.23	-15.23
1	10	29.25	33.	33.	3.27	-3.27	15.86	-15.86
2	0	0.00	33.	33.	3.27	-3.27	15.86	-15.86
2	1	7.18	33.	33.	0.05	-0.05	7.66	-7.66
2	2	14.35	33.	33.	-4.91	4.91	1.58	-1.58
2	3	21.53	33.	33.	-9.48	9.48	-1.38	1.38
2	4	28.70	33.	33.	-12.39	12.39	-2.57	2.57
2	5	35.87	33.	33.	-13.87	13.87	-2.19	2.19
2	6	43.05	33.	33.	-12.93	12.93	-0.70	0.70
2	7	50.22	33.	33.	-10.07	10.07	1.69	-1.69
2	8	57.40	33.	33.	-5.23	5.23	4.65	-4.65
2	9	64.57	33.	33.	0.62	-0.62	10.87	-10.87
2	10	71.75	33.	33.	5.61	-5.61	14.61	-14.61
3	0	0.00	33.	33.	5.61	-5.61	14.61	-14.61
3	1	5.20	33.	33.	2.09	-2.09	14.31	-14.31
3	2	10.40	33.	33.	-2.33	2.33	9.37	-9.37
3	3	15.60	33.	33.	-6.27	6.27	6.91	-6.91
3	4	20.80	33.	33.	-9.10	9.10	2.97	-2.97
3	5	26.00	33.	33.	-10.73	10.73	1.50	-1.50
3	6	31.20	33.	33.	-9.91	9.91	-0.88	0.88
3	7	36.40	33.	33.	-9.54	9.54	-1.25	1.25
3	8	41.60	33.	33.	-7.80	7.80	-1.22	1.22
3	9	46.80	33.	33.	-4.63	4.63	-0.81	0.81
3	10	52.00	33.	33.	0.00	0.00	0.00	0.00

TABLE 2.2.9.3F=STRENGTH II TOTAL (0.90DC+0.65DW+1.35(LL+I)) STRESS SUMMARY
****

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi) TOP	BOT	MAXIMUM POSITIVE,(ksi) ------STEEL----- TOP	BOT	MAXIMUM NEGATIVE,(ksi) -----STEEL------ TOP	BOT
1	0	0.00	33.	33.	0.00	0.00	0.00	0.00
1	1	2.92	33.	33.	-1.89	1.89	0.86	-0.86
1	2	5.85	33.	33.	-3.21	3.21	1.81	-1.81
1	3	8.77	33.	33.	-3.97	3.97	2.83	-2.83
1	4	11.70	33.	33.	-4.20	4.20	3.94	-3.94
1	5	14.62	33.	33.	-3.92	3.92	5.12	-5.12

1	6	17.55	33.	33.	-3.40	3.40	7.93	-7.93
1	7	20.47	33.	33.	-2.38	2.38	9.77	-9.77
1	8	23.40	33.	33.	-0.92	0.92	11.68	-11.68
1	9	26.32	33.	33.	0.92	-0.92	13.91	-13.91
1	10	29.25	33.	33.	1.60	-1.60	14.18	-14.18
2	0	0.00	33.	33.	1.60	-1.60	14.18	-14.18
2	1	7.18	33.	33.	-0.52	0.52	7.09	-7.09
2	2	14.35	33.	33.	-4.64	4.64	1.86	-1.86
2	3	21.53	33.	33.	-8.61	8.61	-0.51	0.51
2	4	28.70	33.	33.	-11.17	11.17	-1.35	1.35
2	5	35.87	33.	33.	-12.56	12.56	-0.89	0.89
2	6	43.05	33.	33.	-11.79	11.79	0.44	-0.44
2	7	50.22	33.	33.	-9.35	9.35	2.41	-2.41
2	8	57.40	33.	33.	-5.17	5.17	4.70	-4.70
2	9	64.57	33.	33.	-0.25	0.25	10.00	-10.00
2	10	71.75	33.	33.	3.56	-3.56	12.56	-12.56
3	0	0.00	33.	33.	3.56	-3.56	12.56	-12.56
3	1	5.20	33.	33.	0.84	-0.84	13.07	-13.07
3	2	10.40	33.	33.	-2.91	2.91	8.79	-8.79
3	3	15.60	33.	33.	-6.31	6.31	6.87	-6.87
3	4	20.80	33.	33.	-8.74	8.74	3.34	-3.34
3	5	26.00	33.	33.	-10.09	10.09	2.14	-2.14
3	6	31.20	33.	33.	-9.13	9.13	-0.11	0.11
3	7	36.40	33.	33.	-8.76	8.76	-0.46	0.46
3	8	41.60	33.	33.	-7.14	7.14	-0.57	0.57
3	9	46.80	33.	33.	-4.23	4.23	-0.41	0.41
3	10	52.00	33.	33.	0.00	0.00	0.00	0.00

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TABLE 2.2.22.6=FLANGE PROPORTIONS CHECK
****

SP NO	NO	D FROM L SUPT (ft)	bf/2tf	[1]	bf (in)	[2] (in)	tf (in)	[3] (in)	Iyc/Iyt	FLAG
1	0	0.00	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	1	2.92	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	2	5.85	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	3	8.77	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	4	11.70	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	5	14.62	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	6	17.55	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	7	20.47	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	8	23.40	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	9	26.32	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
1	10	29.25	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
2	0	0.00	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
2	1	7.18	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
2	2	14.35	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
2	3	21.53	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0
2	4	28.70	5.45	12.	12.0	5.7	1.100	0.748		
			5.45	12.	12.0	5.7	1.100	0.748	1.00	0

```
 2  5  35.87   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 2  6  43.05   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 2  7  50.22   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 2  8  57.40   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 2  9  64.57   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 2 10  71.75   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0


 3  0   0.00   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  1   5.20   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  2  10.40   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  3  15.60   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  4  20.80   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  5  26.00   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  6  31.20   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  7  36.40   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  8  41.60   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3  9  46.80   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0
 3 10  52.00   5.45 12.  12.0   5.7  1.100  0.748
               5.45 12.  12.0   5.7  1.100  0.748    1.00    0


-------------------------------------------------------------

  NOTE: [1] = 12.  (Eq. 6.10.2.2-1)
        [2] = D/6  (Eq. 6.10.2.2-2)
        [3] = 1.1tw  (Eq. 6.10.2.2-3)

        For each nodal point, the 1st line checked criteria for top
        flange and the 2nd line checked criteria for bottom flange
```

TABLE 1.2.22.7.0=CB VALUES FOR LATERAL BRACING
****

LATERAL BRACING NO	DIST. FROM LEFT SUPT ----(FT)---- FROM	TO	fo (ksi)	f2 (ksi)	fmid (ksi)	f1 (ksi)	Cb
1	0.0	15.0	0.000	7.250	3.105	0.000	1.750
2	15.0	30.0	7.250	18.096	14.775	11.454	1.206
3	30.0	45.0	1.793	18.096	8.405	1.793	1.649
4	45.0	60.0	0.000	1.793	-1.669	0.000	1.750
5	60.0	75.0	0.000	2.096	-1.061	0.000	1.750
6	75.0	90.0	2.096	9.490	4.628	2.096	1.533
7	90.0	105.0	9.490	17.401	15.292	13.183	1.127
8	105.0	120.0	6.056	17.401	11.070	6.056	1.421
9	120.0	135.0	0.000	6.056	2.753	0.000	1.750

Note: f0, f2, fmid, f1, and Cb are defined in Art. 6.10.8.2.3
1

TABLE 1.2.22.7B=FLB AND LTB RESISTANCE
****

SP NO	IN NO	D L	FROM SUPT (ft)	Co mp	Rh	Rb	Cb	FLB Fnc (Ksi)	LTB Fnc (Ksi)	GOV Fnc (Ksi)
1	0		0.00	1	1.000	1.000	1.75	33.00	33.00	33.00
1	1		2.92	1	1.000	1.000	1.75	33.00	33.00	33.00
1	2		5.85	1	1.000	1.000	1.75	33.00	33.00	33.00
1	3		8.77	0	1.000	1.000	0.00	33.00	33.00	33.00
					1.000	1.000	1.75	33.00	33.00	33.00
1	4		11.70	0	1.000	1.000	0.00	33.00	33.00	33.00
					1.000	1.000	1.75	33.00	33.00	33.00
1	5		14.62	0	1.000	1.000	0.00	33.00	33.00	33.00
					1.000	1.000	1.75	33.00	33.00	33.00

1	6	17.55	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.21	33.00	33.00	33.00
1	7	20.47	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.21	33.00	33.00	33.00
1	8	23.40	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.21	33.00	33.00	33.00
1	9	26.32	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.21	33.00	33.00	33.00
1	10	29.25	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.21	33.00	33.00	33.00
2	0	0.00	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.21	33.00	33.00	33.00
2	1	7.18	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.65	33.00	33.00	33.00
2	2	14.35	1	1.000	1.000	1.65	33.00	33.00	33.00
2	3	21.53	1	1.000	1.000	1.75	33.00	33.00	33.00
2	4	28.70	1	1.000	1.000	1.75	33.00	33.00	33.00
2	5	35.87	1	1.000	1.000	1.75	33.00	33.00	33.00
2	6	43.05	1	1.000	1.000	1.75	33.00	33.00	33.00
2	7	50.22	1	1.000	1.000	1.53	33.00	33.00	33.00
2	8	57.40	1	1.000	1.000	1.53	33.00	33.00	33.00
2	9	64.57	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.13	33.00	33.00	33.00
2	10	71.75	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.13	33.00	33.00	33.00
3	0	0.00	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.13	33.00	33.00	33.00
3	1	5.20	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.42	33.00	33.00	33.00
3	2	10.40	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.42	33.00	33.00	33.00
3	3	15.60	0	1.000	1.000	0.00	33.00	33.00	33.00
				1.000	1.000	1.42	33.00	33.00	33.00
3	4	20.80	1	1.000	1.000	1.75	33.00	33.00	33.00
3	5	26.00	1	1.000	1.000	1.75	33.00	33.00	33.00
3	6	31.20	1	1.000	1.000	1.75	33.00	33.00	33.00
3	7	36.40	1	1.000	1.000	1.00	33.00	29.43	29.43
3	8	41.60	1	1.000	1.000	1.00	33.00	29.43	29.43
3	9	46.80	1	1.000	1.000	1.00	33.00	29.43	29.43
3	10	52.00	1	1.000	1.000	1.00	33.00	29.43	29.43

Note: In the positive moment region, the result is for DL case
In the negative moment region, the 1st line is for DL case
and the 2nd line is for LL case

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TABLE 2.2.22.10=CONSTRUCTIBILITY CHECK (STRENGTH IV)
****

SP	IN	D	FROM (ft)	fl (ksi)	0.6Fyt (ksi)	fbu (ksi)	[1] (ksi)	fbu+fl (ksi)	[2] (ksi)	fbu+1/3fl (ksi)	[3] (ksi)	FLAG
1	0		0.00	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
1	1		2.92	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
1	2		5.85	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
1	3		8.77	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	4		11.70	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	5		14.62	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	6		17.55	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	7		20.47	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	8		23.40	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	9		26.32	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
1	10		29.25	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
2	0		0.00	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
2	1		7.18	0.0	-	0.0	-	0.0	33.0	-	-	0
				0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
2	2		14.35	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
2	3		21.53	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
2	4		28.70	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
2	5		35.87	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
2	6		43.05	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0
2	7		50.22	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
				0.0	-	0.0	-	0.0	33.0	-	-	0

2	8	57.40	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
2	9	64.57	0.0	-	0.0	-	0.0	33.0	-	-	0
			0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
2	10	71.75	0.0	-	0.0	-	0.0	33.0	-	-	0
			0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
3	0	0.00	0.0	-	0.0	-	0.0	33.0	-	-	0
			0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
3	1	5.20	0.0	-	0.0	-	0.0	33.0	-	-	0
			0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
3	2	10.40	0.0	-	0.0	-	0.0	33.0	-	-	0
			0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
3	3	15.60	0.0	-	0.0	-	0.0	33.0	-	-	0
			0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
3	4	20.80	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
3	5	26.00	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
3	6	31.20	0.0	19.8	0.0	33.0	0.0	33.0	0.0	33.0	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
3	7	36.40	0.0	19.8	0.0	33.0	0.0	33.0	0.0	29.4	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
3	8	41.60	0.0	19.8	0.0	33.0	0.0	33.0	0.0	29.4	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
3	9	46.80	0.0	19.8	0.0	33.0	0.0	33.0	0.0	29.4	0
			0.0	-	0.0	-	0.0	33.0	-	-	0
3	10	52.00	0.0	19.8	0.0	33.0	0.0	33.0	0.0	29.4	0
			0.0	-	0.0	-	0.0	33.0	-	-	0

NOTE: [1] = (PHI)f * Fcrw (Eq. 6.10.3.2.1-3)
[2] = (PHI)f * Rh * Fyc (Eq. 6.10.3.2.1-1) or
= (PHI)f * Rh * Fyt (Eq. 6.10.3.2.2-1)
[3] = (PHI)f * Fnc (Eq. 6.10.3.2.1-2)

"-" is N.A.
Under FLAG Column, 0 = OK; 1= NG

For each nodal point, the 1st line checked criteria for top flange and the 2nd line checked criteria for bottom flange

The values of fbu and fl shall be determined based on factored loads, and shall be taken as positive in sign in all resistance equations (Art. 6.10.1.6)

The value of fbu is the actual stress in this table,

TABLE 2.2.22.10A=RATIO OF APPLIED STRESS AND THE CAPACITY
****

SP	IN	D	FROM	fl/ 0.6Fyt	fbu/ [1]	fbu+fl/ [2]	fbu+1/3fl/ [3]	MAX. RAT.	GOVN.
1	0		0.00	0.000	0.000	0.000	0.000	0.000	1
						0.000		0.000	3
1	1		2.92	0.000	0.000	0.000	0.000	0.000	1
						0.000		0.000	3
1	2		5.85	0.000	0.000	0.000	0.000	0.000	1
						0.000		0.000	3
1	3		8.77			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	4		11.70			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	5		14.62			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	6		17.55			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	7		20.47			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	8		23.40			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	9		26.32			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
1	10		29.25			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
2	0		0.00			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
2	1		7.18			0.000		0.000	3
				0.000	0.000	0.000	0.000	0.000	1
2	2		14.35	0.000	0.000	0.000	0.000	0.000	1
						0.000		0.000	3
2	3		21.53	0.000	0.000	0.000	0.000	0.000	1
						0.000		0.000	3
2	4		28.70	0.000	0.000	0.000	0.000	0.000	1

					0.000		0.000	3
2	5	35.87	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
2	6	43.05	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
2	7	50.22	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
2	8	57.40	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
2	9	64.57			0.000		0.000	3
			0.000	0.000	0.000	0.000	0.000	1
2	10	71.75			0.000		0.000	3
			0.000	0.000	0.000	0.000	0.000	1
3	0	0.00			0.000		0.000	3
			0.000	0.000	0.000	0.000	0.000	1
3	1	5.20			0.000		0.000	3
			0.000	0.000	0.000	0.000	0.000	1
3	2	10.40			0.000		0.000	3
			0.000	0.000	0.000	0.000	0.000	1
3	3	15.60			0.000		0.000	3
			0.000	0.000	0.000	0.000	0.000	1
3	4	20.80	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
3	5	26.00	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
3	6	31.20	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
3	7	36.40	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
3	8	41.60	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
3	9	46.80	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3
3	10	52.00	0.000	0.000	0.000	0.000	0.000	1
					0.000		0.000	3

NOTE: [1] = (PHI)f * Fcrw (Eq. 6.10.3.2.1-3)
[2] = (PHI)f * Rh * Fyc (Eq. 6.10.3.2.1-1) or
= (PHI)f * Rh * Fyt (Eq. 6.10.3.2.2-1)
[3] = (PHI)f * Fnc (Eq. 6.10.3.2.1-2)

The governing number is listed as below.
1 = fl / 0.6Fyt
2 = fbu / [1]
3 = fbu + fl / [2]

4 = (fbu + 1/3fl) / [3]

1

TABLE 2.2.22.14=STRENGTH LIMIT STATE CHECK
****

SP NO	IN NO	D L	FROM SUPT (ft)	ID	Mu+1/3flSxt (k-ft)	[1] (k-ft)	fbu (ksi)	[2] (ksi)	fl (ksi)	[3] (ksi)	fbu+ 1/3fl (ksi)	[4] (ksi)	FLAG MCTD
1	0		0.00	0	-	-	0.0	-	0.0	19.8	0.0	33.0	--0-
					-	-	0.0	-	0.0	19.8	0.0	33.0	-0--
1	1		2.92	0	-	-	2.5	-	0.0	19.8	2.5	33.0	-0--
					-	-	2.5	-	0.0	19.8	2.5	33.0	--0-
1	2		5.85	0	-	-	4.2	-	0.0	19.8	4.2	33.0	-0--
					-	-	4.2	-	0.0	19.8	4.2	33.0	--0-
1	3		8.77	0	-	-	5.2	-	0.0	19.8	5.2	33.0	-0--
					-	-	5.2	-	0.0	19.8	5.2	33.0	--0-
1	4		11.70	0	-	-	5.5	-	0.0	19.8	5.5	33.0	-0--
					-	-	5.5	-	0.0	19.8	5.5	33.0	--0-
1	5		14.62	0	-	-	6.8	-	0.0	19.8	6.8	33.0	--0-
					-	-	6.8	-	0.0	19.8	6.8	33.0	-0--
1	6		17.55	0	-	-	10.5	-	0.0	19.8	10.5	33.0	--0-
					-	-	10.5	-	0.0	19.8	10.5	33.0	-0--
1	7		20.47	0	-	-	13.0	-	0.0	19.8	13.0	33.0	--0-
					-	-	13.0	-	0.0	19.8	13.0	33.0	-0--
1	8		23.40	0	-	-	15.6	-	0.0	19.8	15.6	33.0	--0-
					-	-	15.6	-	0.0	19.8	15.6	33.0	-0--
1	9		26.32	0	-	-	18.6	-	0.0	19.8	18.6	33.0	--0-
					-	-	18.6	-	0.0	19.8	18.6	33.0	-0--
1	10		29.25	0	-	-	19.1	-	0.0	19.8	19.1	33.0	--0-
					-	-	19.1	-	0.0	19.8	19.1	33.0	-0--
2	0		0.00	0	-	-	19.1	-	0.0	19.8	19.1	33.0	--0-
					-	-	19.1	-	0.0	19.8	19.1	33.0	-0--
2	1		7.18	0	-	-	9.4	-	0.0	19.8	9.4	33.0	--0-
					-	-	9.4	-	0.0	19.8	9.4	33.0	-0--
2	2		14.35	0	-	-	6.1	-	0.0	19.8	6.1	33.0	-0--
					-	-	6.1	-	0.0	19.8	6.1	33.0	--0-
2	3		21.53	0	-	-	11.5	-	0.0	19.8	11.5	33.0	-0--
					-	-	11.5	-	0.0	19.8	11.5	33.0	--0-

2	4	28.70	0	-	-	15.0	-	0.0	19.8	15.0	33.0	-0--
				-	-	15.0	-	0.0	19.8	15.0	33.0	--0-
2	5	35.87	0	-	-	16.8	-	0.0	19.8	16.8	33.0	-0--
				-	-	16.8	-	0.0	19.8	16.8	33.0	--0-
2	6	43.05	0	-	-	15.8	-	0.0	19.8	15.8	33.0	-0--
				-	-	15.8	-	0.0	19.8	15.8	33.0	--0-
2	7	50.22	0	-	-	12.4	-	0.0	19.8	12.4	33.0	-0--
				-	-	12.4	-	0.0	19.8	12.4	33.0	--0-
2	8	57.40	0	-	-	6.7	-	0.0	19.8	6.7	33.0	-0--
				-	-	6.7	-	0.0	19.8	6.7	33.0	--0-
2	9	64.57	0	-	-	13.3	-	0.0	19.8	13.3	33.0	--0-
				-	-	13.3	-	0.0	19.8	13.3	33.0	-0--
2	10	71.75	0	-	-	17.2	-	0.0	19.8	17.2	33.0	--0-
				-	-	17.2	-	0.0	19.8	17.2	33.0	-0--
3	0	0.00	0	-	-	17.2	-	0.0	19.8	17.2	33.0	--0-
				-	-	17.2	-	0.0	19.8	17.2	33.0	-0--
3	1	5.20	0	-	-	17.5	-	0.0	19.8	17.5	33.0	--0-
				-	-	17.5	-	0.0	19.8	17.5	33.0	-0--
3	2	10.40	0	-	-	11.6	-	0.0	19.8	11.6	33.0	--0-
				-	-	11.6	-	0.0	19.8	11.6	33.0	-0--
3	3	15.60	0	-	-	8.9	-	0.0	19.8	8.9	33.0	--0-
				-	-	8.9	-	0.0	19.8	8.9	33.0	-0--
3	4	20.80	0	-	-	11.5	-	0.0	19.8	11.5	33.0	-0--
				-	-	11.5	-	0.0	19.8	11.5	33.0	--0-
3	5	26.00	0	-	-	13.4	-	0.0	19.8	13.4	33.0	-0--
				-	-	13.4	-	0.0	19.8	13.4	33.0	--0-
3	6	31.20	0	-	-	12.2	-	0.0	19.8	12.2	33.0	-0--
				-	-	12.2	-	0.0	19.8	12.2	33.0	--0-
3	7	36.40	0	-	-	11.7	-	0.0	19.8	11.7	29.4	-0--
				-	-	11.7	-	0.0	19.8	11.7	33.0	--0-
3	8	41.60	0	-	-	9.5	-	0.0	19.8	9.5	29.4	-0--
				-	-	9.5	-	0.0	19.8	9.5	33.0	--0-
3	9	46.80	0	-	-	5.7	-	0.0	19.8	5.7	29.4	-0--
				-	-	5.7	-	0.0	19.8	5.7	33.0	--0-
3	10	52.00	0	-	-	0.0	-	0.0	19.8	0.0	30.3	-0--
				-	-	0.0	-	0.0	19.8	0.0	33.0	--0-

NOTE: Top flange is assumed to be continuously braced for composite bridges.
[1] = (PHI)f * Mn (Eq. 6.10.7.1.1-1)
[2] = (PHI)f * Fnc for comp. flange of composite
sections in positive flexure (Eq. 6.10.7.2.1-1)
= (PHI)f * Rh * Fyt for tension flange of composite sections in
negative flexure and non-composite sections (Eq. 6.10.8.1.3-1)
[3] = 0.6*Fyt for composite sections in positive flexure
or tension flange for composite sections in

negative flexure and non-composite sections (Eq. 6.10.1.6-1)
= 0.6*Fyc for comp. flange of composite sections in
negative flexure and non-composite sections (Eq. 6.10.1.6-1)
[4] = (PHI)f * Fnt for non-compact tension flange
of composite sections in positive flexure (Eq. 6.10.8.1.2-1)
= (PHI)f * Fnc for comp. flange of composite sections
in negative flexure and non-composite sections (Eq. 6.10.8.1.1-1)

"-" is N.A.

Under FLAG Column, 0 = OK; 1= NG
M = Moment; C = Comp. Flange; T = Tension Flange
D = Ductility

For negative moment region or non-compact sections in
positive moment region, the 1st line is for top
flange and the 2nd line is for bottom flange

The values of fbu, Mu and fl shall be determined based on
factored loads, and shall be taken as positive in
sign in all resistance equations (Art. 6.10.1.6)

The value of fbu is the actual stress in this table,
the users can use the maximum value within the
unbraced length to do their own check

TABLE 2.2.22.14A=RATIO OF APPLIED STRESS/MOMENT AND THE CAPACITY
****

SP	IN	D FROM	ID	Mu+1/3flSxt/ [1]	fbu/ [2]	fl/ [3]	fbu+1/3fl/ [4]	MAX. RAT.	GOVN.
1	0	0.00	0		0.000	0.000	0.000		4
					0.000	0.000	0.000		4
1	1	2.92	0		0.000	0.075	0.075		4
					0.000	0.075	0.075		4
1	2	5.85	0		0.000	0.126	0.126		4
					0.000	0.126	0.126		4
1	3	8.77	0		0.000	0.157	0.157		4
					0.000	0.157	0.157		4
1	4	11.70	0		0.000	0.168	0.168		4
					0.000	0.168	0.168		4

1	5	14.62	0	0.000	0.205	0.205	4	
				0.000	0.205	0.205	4	
1	6	17.55	0	0.000	0.318	0.318	4	
				0.000	0.318	0.318	4	
1	7	20.47	0	0.000	0.393	0.393	4	
				0.000	0.393	0.393	4	
1	8	23.40	0	0.000	0.472	0.472	4	
				0.000	0.472	0.472	4	
1	9	26.32	0	0.000	0.564	0.564	4	
				0.000	0.564	0.564	4	
1	10	29.25	0	0.000	0.579	0.579	4	
				0.000	0.579	0.579	4	
2	0	0.00	0	0.000	0.579	0.579	4	
				0.000	0.579	0.579	4	
2	1	7.18	0	0.000	0.286	0.286	4	
				0.000	0.286	0.286	4	
2	2	14.35	0	0.000	0.186	0.186	4	
				0.000	0.186	0.186	4	
2	3	21.53	0	0.000	0.350	0.350	4	
				0.000	0.350	0.350	4	
2	4	28.70	0	0.000	0.455	0.455	4	
				0.000	0.455	0.455	4	
2	5	35.87	0	0.000	0.510	0.510	4	
				0.000	0.510	0.510	4	
2	6	43.05	0	0.000	0.478	0.478	4	
				0.000	0.478	0.478	4	
2	7	50.22	0	0.000	0.377	0.377	4	
				0.000	0.377	0.377	4	
2	8	57.40	0	0.000	0.204	0.204	4	
				0.000	0.204	0.204	4	
2	9	64.57	0	0.000	0.404	0.404	4	
				0.000	0.404	0.404	4	
2	10	71.75	0	0.000	0.520	0.520	4	
				0.000	0.520	0.520	4	
3	0	0.00	0	0.000	0.520	0.520	4	
				0.000	0.520	0.520	4	
3	1	5.20	0	0.000	0.530	0.530	4	
				0.000	0.530	0.530	4	
3	2	10.40	0	0.000	0.353	0.353	4	
				0.000	0.353	0.353	4	
3	3	15.60	0	0.000	0.271	0.271	4	
				0.000	0.271	0.271	4	
3	4	20.80	0	0.000	0.348	0.348	4	
				0.000	0.348	0.348	4	
3	5	26.00	0	0.000	0.405	0.405	4	
				0.000	0.405	0.405	4	

3	6	31.20	0			0.000	0.369	0.369	4
						0.000	0.369	0.369	4
3	7	36.40	0			0.000	0.397	0.397	4
						0.000	0.354	0.354	4
3	8	41.60	0			0.000	0.324	0.324	4
						0.000	0.289	0.289	4
3	9	46.80	0			0.000	0.192	0.192	4
						0.000	0.171	0.171	4
3	10	52.00	0			0.000	0.000	0.000	4
						0.000	0.000	0.000	4

NOTE: [1] = (PHI)f * Mn (Eq. 6.10.7.1.1-1)
[2] = (PHI)f * Fnc for comp. flange of composite sections in positive flexure (Eq. 6.10.7.2.1-1)
= (PHI)f * Rh * Fyt for tension flange of composite sections in negative flexure and non-composite sections (Eq. 6.10.8.1.3-1)
[3] = 0.6*Fyt for composite sections in positive flexure or tension flange for composite sections in negative flexure and non-composite sections (Eq. 6.10.1.6-1)
= 0.6*Fyc for comp. flange of composite sections in negative flexure and non-composite sections (Eq. 6.10.1.6-1)
[4] = (PHI)f * Fnt for non-compact tension flange of composite sections in positive flexure (Eq. 6.10.8.1.2-1)
= (PHI)f * Fnc for comp. flange of composite sections in negative flexure and non-composite sections (Eq. 6.10.8.1.1-1)

The governing number is listed as below.
1 = (Mu+1/3flSxt) / [1]
2 = fbu / [2]
3 = fl / [3]
4 = (fbu + 1/3fl) / [4]

TABLE 2.2.22.17=TRANSVERSE STIFFENER SPACING
****

SP NO	IN NO	D FROM L SUPT (ft)	YIELD STRESS Fy (ksi)	LFD/LRFD MAXIMUM SHEAR (k)	UNSTIFFENED SHEAR CAPACITY (k)	REQUIREMENT OF TRANS. STIFFENERS 1=YES , 0=NO	MAX. ALLOWABLE TRANS. STIFFENERS SPACING (ft-in)	

1	0	0.00	33.	47.03	442.52	0
1	1	2.92	33.	38.68	442.52	0
1	2	5.85	33.	31.32	442.52	0
1	3	8.77	33.	24.87	442.52	0
1	4	11.70	33.	31.08	442.52	0
1	5	14.62	33.	37.60	442.52	0
1	6	17.55	33.	44.89	442.52	0
1	7	20.47	33.	52.21	442.52	0
1	8	23.40	33.	59.53	442.52	0
1	9	26.32	33.	66.78	442.52	0
1	10	29.25	33.	73.91	442.52	0
2	0	0.00	33.	89.35	442.52	0
2	1	7.18	33.	76.60	442.52	0
2	2	14.35	33.	63.39	442.52	0
2	3	21.53	33.	50.04	442.52	0
2	4	28.70	33.	36.86	442.52	0
2	5	35.87	33.	24.44	442.52	0
2	6	43.05	33.	36.91	442.52	0
2	7	50.22	33.	50.00	442.52	0
2	8	57.40	33.	63.47	442.52	0
2	9	64.57	33.	77.03	442.52	0
2	10	71.75	33.	90.39	442.52	0
3	0	0.00	33.	85.61	442.52	0
3	1	5.20	33.	75.68	442.52	0
3	2	10.40	33.	65.56	442.52	0
3	3	15.60	33.	55.36	442.52	0
3	4	20.80	33.	45.18	442.52	0
3	5	26.00	33.	35.10	442.52	0
3	6	31.20	33.	25.21	442.52	0
3	7	36.40	33.	31.09	442.52	0
3	8	41.60	33.	41.79	442.52	0
3	9	46.80	33.	53.11	442.52	0
3	10	52.00	33.	64.99	442.52	0

TABLE 2.2.22.20B=SPECIAL SHEAR REQUIREMENTS FOR WEBS
****

SP NO	IN NO	D L	FROM SUPT (ft)	SHEAR DL (k)	SHEAR FATIGUE (k)	FACTORED PERM. V*	<=>	Vcr (k)	<=>	UNF. PERM + FAC FATIG V** (k)
1	0		0.00	1.61	18.23	2.01	<	442.52	>	28.96
1	1		2.92	0.04	15.92	0.05	<	442.52	>	23.91
1	2		5.85	1.53	13.64	1.92	<	442.52	>	21.99
1	3		8.77	3.10	11.42	3.88	<	442.52	>	20.24
1	4		11.70	4.67	9.28	5.84	<	442.52	>	18.60
1	5		14.62	6.24	9.26	7.81	<	442.52	>	20.14
1	6		17.55	7.82	11.39	9.77	<	442.52	>	24.91
1	7		20.47	9.39	13.43	11.73	<	442.52	>	29.53
1	8		23.40	10.96	15.34	13.70	<	442.52	>	33.97
1	9		26.32	12.53	17.11	15.66	<	442.52	>	38.20
1	10		29.25	14.10	18.73	17.62	<	442.52	>	42.19
2	0		0.00	18.69	28.19	23.37	<	442.52	>	60.98
2	1		7.18	14.84	24.78	18.55	<	442.52	>	52.01
2	2		14.35	10.99	20.99	13.73	<	442.52	>	42.47
2	3		21.53	7.13	17.02	8.92	<	442.52	>	32.66
2	4		28.70	3.28	13.08	4.10	<	442.52	>	22.90
2	5		35.87	0.57	9.38	0.71	<	442.52	>	14.64
2	6		43.05	4.42	11.70	5.53	<	442.52	>	21.98
2	7		50.22	8.28	15.48	10.35	<	442.52	>	31.49
2	8		57.40	12.13	19.44	15.16	<	442.52	>	41.29
2	9		64.57	15.98	23.39	19.98	<	442.52	>	51.06
2	10		71.75	19.84	27.11	24.79	<	442.52	>	60.50
3	0		0.00	18.26	25.37	22.83	<	442.52	>	56.32
3	1		5.20	15.47	22.03	19.34	<	442.52	>	48.52
3	2		10.40	12.68	18.64	15.85	<	442.52	>	40.64
3	3		15.60	9.89	15.29	12.36	<	442.52	>	32.82
3	4		20.80	7.09	11.74	8.87	<	442.52	>	24.71
3	5		26.00	4.30	10.76	5.38	<	442.52	>	20.44
3	6		31.20	1.51	8.48	1.89	<	442.52	>	14.23
3	7		36.40	1.28	11.37	1.60	<	442.52	>	18.35
3	8		41.60	4.08	14.72	5.09	<	442.52	>	26.15
3	9		46.80	6.87	18.34	8.58	<	442.52	>	34.37
3	10		52.00	9.66	22.19	12.08	<	442.52	>	42.95

NOTE: This table checks Art. 6.10.3.3 and Art. 6.10.5.3.

Vcr is the shear-buckling resistance determined from Eq. 6.10.9.3.3-1.
* f*(DL)
If default, load factor f=1.25 is used.
** (DL)+f*FATIGUE LOAD
If default, Fatigue I load factor f=1.5 is used.

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TABLE 2.2.22.21=SERVICE LIMIT STATE CHECK
****

SP NO	IN NO	D L	FROM SUPT (ft)	TOP FLANGE ff (ksi)	TOP FLANGE ff+fl/2 (ksi)	TOP FLANGE [1] (ksi)	TOP FLANGE RATIO1	BOT. FLANGE ff+fl/2 (ksi)	BOT. FLANGE [2] (ksi)	BOT. FLANGE RATIO2	COMP. FLG fc (ksi)	COMP. FLG fcrw [3] (ksi)	FLAG TBC
1	0		0.00	-	0.0	26.4	0.000	0.0	26.4	Infin	0.0	33.0	000
1	1		2.92	-	1.8	26.4	0.069	1.8	26.4	Infin	1.8	33.0	000
1	2		5.85	-	3.1	26.4	0.117	3.1	26.4	Infin	3.1	33.0	000
1	3		8.77	-	3.8	26.4	0.144	3.8	26.4	Infin	3.8	33.0	000
1	4		11.70	-	4.0	26.4	0.151	4.0	26.4	Infin	4.0	33.0	000
1	5		14.62	-	5.1	26.4	0.192	5.1	26.4	Infin	5.1	33.0	000
1	6		17.55	-	7.8	26.4	0.297	7.8	26.4	Infin	7.8	33.0	000
1	7		20.47	-	9.7	26.4	0.367	9.7	26.4	Infin	9.7	33.0	000
1	8		23.40	-	11.7	26.4	0.441	11.7	26.4	Infin	11.7	33.0	000
1	9		26.32	-	13.9	26.4	0.528	13.9	26.4	Infin	13.9	33.0	000
1	10		29.25	-	14.3	26.4	0.543	14.3	26.4	Infin	14.3	33.0	000
2	0		0.00	-	14.3	26.4	0.543	14.3	26.4	Infin	14.3	33.0	000
2	1		7.18	-	7.1	26.4	0.267	7.1	26.4	Infin	7.1	33.0	000
2	2		14.35	-	4.6	26.4	0.173	4.6	26.4	Infin	4.6	33.0	000
2	3		21.53	-	8.6	26.4	0.327	8.6	26.4	Infin	8.6	33.0	000
2	4		28.70	-	11.2	26.4	0.426	11.2	26.4	Infin	11.2	33.0	000
2	5		35.87	-	12.6	26.4	0.478	12.6	26.4	Infin	12.6	33.0	000
2	6		43.05	-	11.8	26.4	0.447	11.8	26.4	Infin	11.8	33.0	000
2	7		50.22	-	9.3	26.4	0.352	9.3	26.4	Infin	9.3	33.0	000
2	8		57.40	-	5.0	26.4	0.190	5.0	26.4	Infin	5.0	33.0	000
2	9		64.57	-	10.0	26.4	0.378	10.0	26.4	Infin	10.0	33.0	000
2	10		71.75	-	12.9	26.4	0.489	12.9	26.4	Infin	12.9	33.0	000
3	0		0.00	-	12.9	26.4	0.489	12.9	26.4	Infin	12.9	33.0	000
3	1		5.20	-	13.1	26.4	0.496	13.1	26.4	Infin	13.1	33.0	000

3	2	10.40	-	8.7	26.4	0.329	8.7	26.4	Infin	8.7	33.0	000
3	3	15.60	-	6.6	26.4	0.251	6.6	26.4	Infin	6.6	33.0	000
3	4	20.80	-	8.6	26.4	0.324	8.6	26.4	Infin	8.6	33.0	000
3	5	26.00	-	10.0	26.4	0.378	10.0	26.4	Infin	10.0	33.0	000
3	6	31.20	-	9.1	26.4	0.345	9.1	26.4	Infin	9.1	33.0	000
3	7	36.40	-	8.7	26.4	0.331	8.7	26.4	Infin	8.7	33.0	000
3	8	41.60	-	7.1	26.4	0.270	7.1	26.4	Infin	7.1	33.0	000
3	9	46.80	-	4.2	26.4	0.160	4.2	26.4	Infin	4.2	33.0	000
3	10	52.00	-	0.0	26.4	0.000	0.0	26.4	Infin	0.0	33.0	000

NOTE: [1] = 0.95RhFyf for composite sections (Eq. 6.10.4.2.2-1)
= 0.80RhFyf for non-composite sections (Eq. 6.10.4.2.2-3)
[2] = 0.95RhFyf for composite sections (Eq. 6.10.4.2.2-2)
= 0.80RhFyf for non-composite sections (Eq. 6.10.4.2.2-3)
[3] = 0.9Ek / (D/tw)^2 (Eq. 6.10.1.9.1-1)
but not to exceed the smaller of RhFyc and Fyw/0.7
k = bending-buckling coefficient
= 9 / (Dc/D)^2 (Eq. 6.10.1.9.1-2)
where:
Dc = depth of the web in compression in the elastic
range. For composite sections, Dc shall be
determined as specified in Article D6.3.1

"-" is N.A.

Flag check - 0 = OK; 1 = NG
T = Top Flange; B = Bottom Flange; C = Comp. Flange

The values of fl shall be determined based on
factored loads, and shall be taken as positive in
sign in all resistance equations (Art. 6.10.1.6)

RATIO1 = ff / [1] or (ff + fl/2) / [1] (top flange)
RATIO2 = (ff + fl/2) / [2] (bot. flange)

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TABLE 2.2.22.23.1=FATIGUE I STRESS RANGE FOR INFINITE LIFE (FACTORED)
****

(1) Main (Longitudinal) Load Carrying Members

(2) Road Type = I --- Rural Interstate

SP NO	IN NO	D L	FROM SUPT (ft)	TOP OF TOP FLANGE GOVERN. LOADING	STRESS RANGE (ksi)	ACCEPTABLE STRESS CATEGORY	BOTTOM OF BOTTOM FLANGE GOVERN. LOADING	STRESS RANGE (ksi)	ACCEPTABLE STRESS CATEGORY
1	0		0.00	TR	0.0	A B B^C^C D E E^	TR	0.0	A B B^C^C D E E^
1	1		2.92	TR	2.1	A B B^C^C D E E^	TR	2.1	A B B^C^C D E E^
1	2		5.85	TR	3.8	A B B^C^C D E	TR	3.8	A B B^C^C D E
1	3		8.77	TR	5.0	A B B^C^C D	TR	5.0	A B B^C^C D
1	4		11.70	TR	5.9	A B B^C^C D	TR	5.9	A B B^C^C D
1	5		14.62	TR	6.5	A B B^C^C D	TR	6.5	A B B^C^C D
1			14.62	I:P					
1	6		17.55	TR	7.0	A B B^C^C D	TR	7.0	A B B^C^C D
1	7		20.47	TR	7.1	A B B^C^C	TR	7.1	A B B^C^C
1	8		23.40	TR	7.0	A B B^C^C	TR	7.0	A B B^C^C
1	9		26.32	TR	6.7	A B B^C^C D	TR	-6.7	A B B^C^C D E E^
1	10		29.25	TR	7.2	A B B^C^C	TR	-7.2	A B B^C^C D E E^
2	0		0.00	TR	7.2	A B B^C^C	TR	-7.2	A B B^C^C D E E^
2	1		7.18	TR	2.0	A B B^C^C D E E^	TR	2.0	A B B^C^C D E E^
2	2		14.35	TR	3.8	A B B^C^C D E	TR	3.8	A B B^C^C D E
2	3		21.53	TR	-5.8	A B B^C^C D E E^	TR	5.8	A B B^C^C D
2	4		28.70	TR	-7.2	A B B^C^C D E E^	TR	7.2	A B B^C^C
2	5		35.87	TR	-7.9	A B B^C^C D E E^	TR	7.9	A B B^C^C
2			35.87	I:P					
2	6		43.05	TR	-8.3	A B B^C^C D E E^	TR	8.3	A B B^C^C
2	7		50.22	TR	7.6	A B B^C^C	TR	7.6	A B B^C^C
2	8		57.40	TR	5.7	A B B^C^C D	TR	5.7	A B B^C^C D
2	9		64.57	TR	4.1	A B B^C^C D E	TR	4.1	A B B^C^C D E
2	10		71.75	TR	5.4	A B B^C^C D	TR	-5.4	A B B^C^C D E E^
3	0		0.00	TR	5.4	A B B^C^C D	TR	-5.4	A B B^C^C D E E^
3	1		5.20	TR	5.5	A B B^C^C D	TR	-5.5	A B B^C^C D E E^
3	2		10.40	TR	6.5	A B B^C^C D	TR	6.5	A B B^C^C D
3	3		15.60	TR	7.8	A B B^C^C	TR	7.8	A B B^C^C

```
 3  4  20.80    TR      8.2 A B B^C^C         TR      8.2 A B B^C^C
 3  5  26.00    TR      8.4 A B B^C^C         TR      8.4 A B B^C^C
 3     26.00  I:P
 3  6  31.20    TR      8.0 A B B^C^C         TR      8.0 A B B^C^C
 3  7  36.40    TR      7.2 A B B^C^C         TR      7.2 A B B^C^C
 3  8  41.60    TR      5.7 A B B^C^C D       TR      5.7 A B B^C^C D
 3  9  46.80    TR     -3.4 A B B^C^C D E E^  TR      3.4 A B B^C^C D E
 3 10  52.00    TR      0.0 A B B^C^C D E E^  TR      0.0 A B B^C^C D E E^


 ------------------------------------------------------------------------------
 NOTE: Negative sign means live load stresses all in compression or the permanent
       load compressive stress more than twice the max. live load tensile stress.
 ------------------------------------------------------------------------------
 NOTE: TR = Truck loading;  LRFD Fatigue I Limit State with 1.5 load factor.
       Design for Infinite Life

 NOTE: ITEM ; INT = Span interval point
              SCG = Section-change point
              POC = Dead load point of contraflexure

              I:P = Point where INT coincides with POC
              I:C = Point where INT coincides with SCG
              S:P = Point where SCG coincides with POC

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 TABLE 2.2.22.23.2=FATIGUE II STRESS RANGE FOR FINITE LIFE (FACTORED)
                  ************************************

     (1) Main (Longitudinal) Load Carrying Members

     (2) Road Type = I --- Rural Interstate
         ---------


                      TOP OF TOP FLANGE          BOTTOM OF BOTTOM FLANGE
                 ----------------------------- -----------------------------
 SP IN D FROM  GOVERN. STRESS   ACCEPTABLE   GOVERN. STRESS   ACCEPTABLE
 NO NO L SUPT  LOADING RANGE      STRESS     LOADING RANGE      STRESS
        (ft)            (ksi)    CATEGORY             (ksi)    CATEGORY
 ------------------------------------------------------------------------

  1  0   0.00    TR      0.0 A B B^C^C D E E^  TR      0.0 A B B^C^C D E E^
```

1	1	2.92	TR	1.0 A B B^C^C D E E^	TR	1.0 A B B^C^C D E E^
1	2	5.85	TR	1.9 A B B^C^C D	TR	1.9 A B B^C^C D
1	3	8.77	TR	2.5 A B B^C^C	TR	2.5 A B B^C^C
1	4	11.70	TR	3.0 A B B^	TR	3.0 A B B^
1	5	14.62	TR	3.2 A B	TR	3.2 A B
1		14.62	I:P			
1	6	17.55	TR	3.5 A B	TR	3.5 A B
1	7	20.47	TR	3.6 A B	TR	3.6 A B
1	8	23.40	TR	3.5 A B	TR	3.5 A B
1	9	26.32	TR	3.3 A B	TR	-3.3 A B B^C^C D E E^
1	10	29.25	TR	3.6 A B	TR	-3.6 A B B^C^C D E E^
2	0	0.00	TR	3.6 A B	TR	-3.6 A B B^C^C D E E^
2	1	7.18	TR	1.0 A B B^C^C D E E^	TR	1.0 A B B^C^C D E E^
2	2	14.35	TR	1.9 A B B^C^C D E	TR	1.9 A B B^C^C D E
2	3	21.53	TR	-2.9 A B B^C^C D E E^	TR	2.9 A B B^C^C
2	4	28.70	TR	-3.6 A B B^C^C D E E^	TR	3.6 A B B^
2	5	35.87	TR	-3.9 A B B^C^C D E E^	TR	3.9 A B
2		35.87	I:P			
2	6	43.05	TR	-4.1 A B B^C^C D E E^	TR	4.1 A B
2	7	50.22	TR	3.8 A B B^	TR	3.8 A B B^
2	8	57.40	TR	2.8 A B B^C^C	TR	2.8 A B B^C^C
2	9	64.57	TR	2.1 A B B^C^C D E	TR	2.1 A B B^C^C D E
2	10	71.75	TR	2.7 A B B^C^C	TR	-2.7 A B B^C^C D E E^
3	0	0.00	TR	2.7 A B B^C^C	TR	-2.7 A B B^C^C D E E^
3	1	5.20	TR	2.8 A B B^C^C	TR	-2.8 A B B^C^C D E E^
3	2	10.40	TR	3.3 A B B^C^C	TR	3.3 A B B^C^C
3	3	15.60	TR	3.9 A B	TR	3.9 A B
3	4	20.80	TR	4.1 A B	TR	4.1 A B
3	5	26.00	TR	4.2 A B	TR	4.2 A B
3		26.00	I:P			
3	6	31.20	TR	4.0 A B	TR	4.0 A B
3	7	36.40	TR	3.6 A B B^	TR	3.6 A B B^
3	8	41.60	TR	2.8 A B B^C^C	TR	2.8 A B B^C^C
3	9	46.80	TR	-1.7 A B B^C^C D E E^	TR	1.7 A B B^C^C D E
3	10	52.00	TR	0.0 A B B^C^C D E E^	TR	0.0 A B B^C^C D E E^

NOTE: Negative sign means live load stresses all in compression or the permanent load compressive stress more than twice the max. live load tensile stress.

NOTE: TR = Truck loading; LRFD Fatigue II Limit State with 0.75 load factor. Design for Finite Life w/ ADTT Single Lane= 4000 & No. of Cycles=109500000

* If ADTT Single Lane greater than or equal to 960, refer to Fatigue I Table.

NOTE: ITEM ; INT = Span interval point

SCG = Section-change point
POC = Dead load point of contraflexure

I:P = Point where INT coincides with POC
I:C = Point where INT coincides with SCG
S:P = Point where SCG coincides with POC

TABLE 2.2.22.29=SPLICE DESIGN AT SECTION CHANGE POINTS
****

Assumption: 1. Plate design is based on the average of the calculated design stress and the allowable stress at the point of the splice but no less than 75% of the allowable stress.
2. Web splice is proportioned for shear, moment due to eccentricity of the shear and the portion of the flexural moment resisted by the web. Min. shear of 1.5V or average.
3. The bolt design is based on the capacity. Designer should check the need of staggering to satisfy the requirement of net areas.

TABLE 2.2.22.30=BEARING STIFFENERS
****

SUP.	NO.	MAT'L.	SIZE (INCH or mm)	WELDING
1	2	A709 GR. 50	5.50 X 0.6250 X 36.2	5/16
2	2	A709 GR. 50	5.50 X 0.6250 X 36.2	5/16
3	4	A709 GR. 50	5.50 X 0.6250 X 36.2	5/16
4	2	A709 GR. 50	5.50 X 0.6250 X 36.2	5/16

```
     ----------------------------------------------------------------

     Please see LRFD Art. 6.10.11.2
1
               BRIDGE ENGINEERING SOFTWARE & TECHNOLOGY CENTER       MERLIN V 10.6
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36144C\EngData\Merl

     TABLE 1.2.30.1=CODE CHECK STATUS SUMMARY
                    ************************

 STATUS                  TABLE NO.
-------------------------------------------------------------------------------

  OK     1.2.8.2=MAXIMUM LIVE LOAD DEFLECTION FOR COMPOSITE CONSTRUCTION

  OK     1.2.22.4=DEPTH RATIOS

  OK     1.2.22.10=CONSTRUCTIBILITY CHECK

  OK     1.2.22.14=STRENGTH LIMIT STATE CHECK

  OK     1.2.22.17=TRANSVERSE STIFFENER SPACING

  OK     1.2.22.21=SERVICE LIMIT STATE CHECK


         MORE TABLES TO BE INSPECTED ...

         1.2.22.23A=FATIGUE STRESS RANGE FOR TRUCK (UNFACTORED)

         1.2.22.24=SHEAR CONNECTOR (FATIGUE CRITERIA) (UNFACTORED)

         1.2.22.24A=SHEAR CONNECTOR (ULTIMATE STRENGTH CRITERIA)

         1.2.22.29=SPLICE DESIGN AT SECTION CHANGE POINTS
```