## **AASHTOWare Bridge Design Training**

## LS1 – Limit State Selection (BrD 6.4)

This example describes how to select limit states for LRFD spec check analysis. This example assumes you have access to TrainingBridge1 (BID1) in the teaching database from the installation.

## **Topics Covered**

• Select limit states for LRFD spec check analysis

Open TrainingBridge1, open LRFD factors window shown as below.



U TOL DC DW DW LL CE BR PL									
Limit State	Min	Max	Min	Max	Max	Max	Max	Max	
STRENGT	0.900	1.250	0.650	1.500	1.750	1.750	1.750	1.750	
STRENGT	0.900	1.250	0.650	1.500	1.350	1.350	1.350	1.350	
STRENGT	0.900	1.250	0.650	1.500	0.000	0.000	0.000	0.000	
STRENGT	1.500	1.500	0.650	1.500	0.000	0.000	0.000	0.000	
STRENGT	0.900	1.250	0.650	1.500	1.350	1.350	1.350	1.350	
SERVICE-I	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
SERVICE-II	1.000	1.000	1.000	1.000	1.300	1.300	1.300	1.300	
SERVICE-II	1.000	1.000	1.000	1.000	0.800	0.800	0.800	0.800	
FATIGUE-I	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	
EXTREME	0.900	1.250	0.650	1.500	0.500	0.500	0.500	0.500	
EXTREME	0.900	1.250	0.650	1.500	0.500	0.500	0.500	0.500	
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Select "Limit Sates" tab, default limit states selections are shown as below.

A Factors - LRFD								<u> </u>			
Name: 1994 AASHTO LRFE	) Specificatio	ns									
Description: AASHTO LRFD Brid 1994 including 1996	Description: AASHTO LRFD Bridge Design Specifications, First Edition, A1994 including 1996 and 1997 Interim Specifications										
Load Factors Limit States Concr	ete Steel	Wood   Loa	ad Moo	lifiers 🗍 🤅	pecifications						
Superstructure Analysis:											
Limit State	Reinforced Concrete	Prestressed Concrete	Steel	Timber							
STRENGTH-I		<b>v</b>	•	•							
STRENGTH-II											
STRENGTH-III			V								
STRENGTH-IV											
STRENGTH-V			•								
SERVICE-I		•									
SERVICE-II			•								
SERVICE-III		•									
FATIGUE-I		V	•								
EXTREME EVENT-I											
EXTREME EVENT-II											
				Сор	y from Library	ОК	Apply	Cancel			

Uncheck Service –II limit state in steel column.

A Factors - LRFD								_	
Name: 1994 AASHTO LRFC Description: AASHTO LRFD Brid, 1994 including 1996	) Specificatio ge Design Sp and 1997 Inte	ns ecifications, F erim Specifica	first Ed ations	ition, 📕	]				
Load Factors Limit States Concr Superstructure Analysis:	ete Steel	Wood Lo	ad Moo	difiers   !	>pecifications				
Limit State	Concrete	Concrete	Steel	Timber					
STRENGTH-I									
STRENGTH-II									
STRENGTH-III									
STRENGTH-IV									
STRENGTH-V									
SERVICE-I									
SERVICE-II									
SERVICE-III									
FATIGUE-I									
EXTREME EVENT-I									
EXTREME EVENT-II									
				Cop	y from Library	 OK	Apply	Cano	cel

Click OK button to save the change to memory and close the window.

Open member alternative window of "Simple Span Structure/G1/Plate Girder", select "Spec" tab, change LRFD spec selections as the following window.

Member Alterna	tive Description						_	
Member Alternative	Plate Girder							
Description Spec:	S Factors Engine Import Contr	ol Options						
Analysis Method Type	Analysis Module	Selection Type		Spec Version		Factors		
ASD	AASHTO ASD	🗾 System Default	-	MBE 2nd, Std 17th	_	N/A	~	
LFD	AASHTO LFD	▼ System Default	•	MBE 2nd, Std 17th	-	2002 AASHTO Std. Specifications	-	
LRFD	AASHTO LRFD	✓ Override	•	LRFD 5th	•	1994 AASHTO LRFD Specifications	-	
LRFR	AASHTO LRFR	🗾 System Default	•	MBE 2nd, LRFD 5th	*	2011 AASHTO LRFR Specifications	~	
,								

Click OK button to save the change to memory and close the window. Do design review with HL93 for "Simple Span Structure/G1/Plate Girder".

Design Review     C F	Rating	Design Method:	LRFD	•	
Analysis Type: Line Girder Lane/Impact Loading Type: As Requested 'chicles Output Engine Dec	Apply Pref scription Traffic Direction:	erence Setting:	None	<b>•</b>	durrent
Vehicle Selection:           Vehicles           Standard           - Alternate Military I           - HL-33 (IS)           - HS 20 (SI)           - HS 20 HA           _ LRFD Fatigue Tr           - Agency           - User Defined           - Temporary	Both directions .oading uck (SI) uck (US)	Add to Design >> Remove from Analysis <<	Design Vehicles Design Vehicles Design Loads HL-93 (US) Permit Loads Fatigue Loads LRFD Fatigue	a Truck (US)	uyanu90

Analysis Progress		
☐ ☑ Analysis Event          □ ☑ Plate Girder	- Location - 96.6000 (ft)     - Location - 112.7000 (ft)     - Location - 112.8000 (ft)     - Location - 144.9000 (ft)     - Location - 161.0000 (ft)     - STAGE 2     - STAGE 3     - Location - 0.0000 (ft)     - Location - 16.1000 (ft)     - Location - 16.1000 (ft)     - Location - 32.2000 (ft)     - Location - 32.2000 (ft)     - Location - 64.4000 (ft)     - Location - 80.5000 (ft)     - Location - 96.6000 (ft)     - Location - 112.7000 (ft)     - Location - 112.000 (ft)     - Location - 161.0000 (ft)     - Location - 1	×
View Rating Log		Print OK

Click OK in analysis progress window when analysis is complete.

Click "View Spec Check" 📓 button to view article list.

Specification Reference       Linit State       Flex. Sanse +         Image: State State       NA         Image: State	Specification Checks for Plate Girder - 41 of 822		_ 🗆 🗙
Bit Stape 1       Bit State General       NA         Bit Stape 2       Stape 3       Stape 3       NA         Bit Bit Grader       Stape 3       Stape 3       NA         Bit Bit Grader       Stape 3       Stape 3       NA         Bit Bit Grader       Stape 3       NA       NA         Stape 1       13.06 ft       Stape 3       NA         Stape 1       13.06 ft       Stape 3       NA         Stape 1       13.06 ft       Stape 3       NA         Stape 1       27.31 ft       Stape 3       NA         Stape 1       40.07 ft       Stape 3       NA         Stape 1       40.30 ft       Stape 3       NA         Stape 1       40.30 ft       Stape 3       NA         Stape 1       9.10 ft       Stape 3       NA	🖃 🧰 Superstructure Component	Specification Reference	Limit State Flex. Sense 🔺
Bage 2     2 52.62 Citeria for Defection     N/A       Piste Girder     N/A       Span 1     0.00 ft.     6.10.1.10 Stresser for Section in Positive Flexure     N/A       Span 1     13.66 ft.     6.10.1.10 Stresser for Section in Positive Flexure     N/A       Span 1     13.06 ft.     6.10.1.10 Stresser for Section in Positive Flexure     N/A       Span 1     23.2.2 ft.     6.10.1.10 Stresser for Section in Positive Flexure     N/A       Span 1     23.2.6 Mcdulas of Rupture     N/A       Span 1     23.2.6 Mcdulas of Rupture     N/A       Span 1     23.2.7 ft.     6.10.1.10 Stresser for Defection     N/A       Span 1     23.2.7 ft.     6.10.1.10 Stresser for Defection     N/A       Span 1     23.2.7 ft.     6.10.1.7 Whintum Negative Flexure Concrete Deck Reinforcement     N/A       Span 1     43.0 ft.     6.10.1.7 Whintum Negative Flexure Concrete Deck Reinforcement     N/A       Span 1     43.0 ft.     6.10.1.7 Whintum Negative Flexure Concrete Deck Reinforcement     N/A       Span 1     6.10.2 Cross-Section Proportion Limbs     N/A       Span 1     6.10.2 Cross-Section Proportion Limbs     N/A       Span 1     10.3 Ut Web Accore     N/A       Span 1     10.2 Stresser Stress and Mence Flexure     N/A       Span 1     10.2 Stresser Stresser Stresser	🗄 💼 Stage 1	1.3.2.1 Design Philosophy - Limit State - General	N/A
Brage 3       # 4.6.2.7.11-Sections - Letter Whot dod Distribution in Multibeam Bridges       NA         Brack Gridder       Span 1       0.00 ft.       Since 1.1.10.5 Directory Transmission Positive Floxure       NA         Brack Gridder       Span 1.1.10.5 Directory Transmission Positive Floxure       NA       NA         Brack Gridder       Since 1.1.10.2 Web Load-Shedding Factor, Rb       NA         Brack Gridder       Since 1.1.10.2 Web Load-Shedding Factor, Rb       NA         Brack Transmission Positive Floxure       NA       NA         Brack Transmission Positive Floxure Concrete Deck Reinforcement       NA         Brack Transmission Positive Floxure       NA         Brack Transmission Positive Floxure Concrete Deck Reinforcement       NA         Brack Transmission Positive Floxure       NA         Brack Transmission Positive Floxure Concrete Deck Reinforcement       NA         Brack Transmission Positive Floxure       NA         Brack Transmissin Positive Floxure<	🗄 💼 Stage 2	2.5.2.6.2 Criteria for Deflection	N/A
Plate Grder     NA       Span 1     0.00 ft.       Span 1     13.66 ft.       Span 1     16.10 ft.       Span 1     16.10 ft.       Span 1     16.10 ft.       Span 1     2.20 ft.       Span 1     2.20 ft.       Span 1     2.20 ft.       Span 1     2.20 ft.       Span 1     4.10.1.1.10 graph Stress and Member Bending Moments       Span 1     3.20 ft.       Span 1     4.10.1.1.10 graph Stress and Member Bending Moments       Span 1     4.10.1.2 Winkum Negative Stress and Member Bending Moments       Span 1     4.10.1.1.2 Minium Negative Stress and Member Bending Moments       Span 1     4.10.1.1.1 Transverse Stress Stress stress for Sections Noment of Inertia       Span 1     4.30.0 ft.       Span 1     4.10.0 ft.       Span 1     6.10.1.1.1 Transverse Stress Stress stress for Sections Noment of Inertia       Span 1     8.10.1.1.2 Minum Negative Flexure       Span 1     8.10.1.1.1 Transverse Stress stress for Sections Negative Flexure       NA     10.11.1.2 Transverse Stress stress for Sections Negative Flexure       Span 1     8.10.1.1.1 Transverse Stress for Sections Negative Flexure       NA     10.1.1.2 Transverse Stress for Sections Negative Flexure       Span 1     10.0.5.1       Span 1     10.0.5.2	🖻 💼 Stage 3	4.6.2.7.1 I-Sections - Lateral Wind Load Distribution in Multibeam Bridges	N/A
General DescriptionSectors in Positive FlexureNAGeneral Description6.10.1.1.1.5 Stress for Sections in Positive FlexureNAGeneral Description6.10.1.1.0.2 Web Load-Shedding Factor, RbNAGeneral Description6.10.1.1.0.2 Web Load-Shedding Factor, RbNAGeneral Description6.10.1.1.0.1 Hybrid Factor, RbNAGeneral Description6.10.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	🖻 🧰 Plate Girder	5.4.2.6 Modulus of Rupture	N/A
Span 113.66 ft.16.10.1.0.1 Hybrid Factor, RhN/ASpan 116.10 ft.6.10.1.10.2 Web Load-Shedding Factor, RbN/ASpan 132.01 ft.6.10.1.10 Hybrid Factor, RhN/ASpan 132.02 ft.6.10.1.10 Hybrid Factor, RhN/ASpan 140.73 ft.6.10.1.10 Hybrid Factor, RhN/ASpan 140.30 ft.6.10.1.10 Hybrid Factor, RhN/ASpan 154.14 ft.6.10.1.10 Hybrid Factor, RhN/ASpan 16.14.0.11 Webs without Longludnal StrfferersN/ASpan 16.14.0.11 Hybrid Factor, RhN/ASpan 16.14.0.11 Hybrid Factor, RhN/ASpan 16.14.0.11 Webs without Longludnal StrfferersN/ASpan 16.10.3.2 Constructively - SheerN/ASpan 18.00 ft.10.61.0.5.3 Special Fallog Requirement for WebsN/ASpan 19.00 ft.10.61.0.5.3 Special Fallog Requirement for WebsN/ASpan 19.66 ft.6.10.6.2.3 Composte Sections in Positive FlexureN/ASpan 110.7.11 GeneralN/AN/ASpan 110.7.2.1 GeneralN/ASpan 112.1.2.3 ft.6.10.7.2.1 GeneralN/ASpan 113.4.64 ft.6.10.7.3.1 GeneralN/ASpan 114.90 ft.N/A 6.10.7.3.1 GeneralN/ASpan 114.90 ft.N/A 6.10.3.2 Continual ResistanceN/ASpan 114.90 ft.N/A 6.10.3.2 Continual ResistanceN/ASpan 116.10.0.7.2 LoneralN/ASpan 116.		6.10.1.1.1b Stresses for Sections in Positive Flexure	N/A
Span 1       16.10.16.       Image: Span 1       10.2 Web Loads-Bedding Factor, Rb       N/A         Span 1       27.31 ft.       6.10.1.6 Flange Stress and Member Bending Moments       N/A         Span 1       40.20 ft.       6.10.1.7 Minimum Negative Flaxure Concrete Deck Reinforcement       N/A         Span 1       40.30 ft.       6.10.1.1.2 Transverse Stiffeners - Moment of Inertia       N/A         Span 1       5.01.1.1.2 Transverse Stiffeners - Moment of Inertia       N/A         Span 1       5.01.1.1.2 Transverse Stiffeners - Moment of Inertia       N/A         Span 1       6.10.3.2 Composite Sections For Motion Limits       N/A         Span 1       6.03.8 Constructibility - Shear       N/A         Span 1       6.00.80 ft.       N/A       N/A         Span 1       90.98 ft.       N/A       N/A         Span 1       90.39 ft.       N/A       N/A         Span 1       90.30 ft.       N/A       N/A         Span 1       90.30 ft.       N/A       N/A         Span 1       90.30 ft.       10.10.2.2 Lorinal Floc		🛢 6.10.1.10.1 Hybrid Factor, Rh	N/A
Span 1-       27.31 ft.       V       6.10.1.61 Flange Stress and Member Bending Moments       N/A         Span 1-       32.00 ft.       Signan 1-       36.10.1.7 Minimum Negative Flaxure Concrete Deck Reinforcement       N/A         Span 1-       48.30 ft.       Signan 1-       46.30 ft.       N/A         Span 1-       48.30 ft.       Signan 1-       Signan 1-       N/A         Span 1-       46.30 ft.       Signan 1-       Signan 1-       N/A         Span 1-       64.30 ft.       Signan 1-       Signan 1-       N/A         Span 1-       64.30 ft.       Signan 1-       Signan 1-       N/A         Span 1-       67.56 ft.       N/A       Signan 1-       N/A         Span 1-       80.50 ft.       N/A       Signan 1-       N/A         Span 1-       80.98 ft.       N/A       Signan 1-       N/A         Span 1-       107.81 ft.       N/A       N/A       N/A         Span 1-       107.81 ft.       N/A       N/A       N/A         Span 1-       107.81 ft.       N/A       Signan 1-       N/A         Span 1-       107.70 ft.       N/A       Signan 1-       N/A         Span 1-       107.70 ft.       N/A       Signan	Span 1 - 16.10 ft.	6.10.1.10.2 Web Load-Shedding Factor, Rb	N/A
Span 1       32.20 ft.       V 6.10.1.7 Minimum Negative Flexure Concrete Deck Reinforcement       N/A         Span 1       40.30 ft.       0.10.1.9.1 Webs without Longitudinal Stiffeners - Mojecting Width       N/A         Span 1       40.30 ft.       V 6.10.1.1.3 Transverse Stiffeners - Moment of Inertia       N/A         Span 1       64.00 ft.       V 6.10.1.1.3 Transverse Stiffeners - Moment of Inertia       N/A         Span 1       65.05 ft.       V 6.10.2 Cross-Section Propriorito Limits       N/A         Span 1       90.50 ft.       N/A       N/A         Span 1       90.50 ft.       N/A       N/A         Span 1       90.60 ft.       N/A       N/A       N/A         Span 1       96.60 ft.       N/A       N/A       N/A         Span 1       10.7.81 ft.       N/A       N/A       N/A         Span 1       10.2.70 ft.       N/A       N/A       N/A         Span 1       12.70 ft.       N/A       N/A       N/A       N/A         Span 1       12.60 ft.       N/A       N/A       N/A       N/A         Span 1       12.60 ft.       N/A       N/A       N/A       N/A         Span 1       12.61 ft.       6.10.7.2.2 Nominal Flexural Resistrance       N	Span 1 - 27.31 ft.	6.10.1.6 Flange Stress and Member Bending Moments	N/A
Span 1 - 40.73 ft.       IIIII 6.10.19.1 Web webout Longitudinal Stiffeners       N/A         Span 1 - 40.30 ft.       < 6.10.11.1.2 Transverse Stiffeners - Projecting Width		✓ 6.10.1.7 Minimum Negative Flexure Concrete Deck Reinforcement	N/A
Image: Span 1 - 48.30 ft.       Image: Comparison of Compari		6.10.1.9.1 Webs without Longitudinal Stiffeners	N/A
Image: Span 1 - 54.14 ft.       Image: Construction Limits       NA         Span 1 - 64.40 ft.       Image: Construction Limits       NA         Span 1 - 67.56 ft.       Span 1 - 67.56 ft.       NA         Span 1 - 80.50 ft.       NA       NA         Span 1 - 80.50 ft.       NA       NA         Span 1 - 80.98 ft.       NA       NA         Span 1 - 96.60 ft.       Span 1 - 96.60 ft.       NA         Span 1 - 97.81 ft.       NA       NA         Span 1 - 107.81 ft.       NA       NA         Span 1 - 121.23 ft.       Span 1 - 107.81 ft.       NA         Span 1 - 121.23 ft.       Span 1 - 107.81 ft.       NA         Span 1 - 121.23 ft.       Span 1 - 107.81 ft.       NA         Span 1 - 121.23 ft.       Span 1 - 121.23 ft.       NA         Span 1 - 121.23 ft.       Span 1 - 121.23 ft.       NA         Span 1 - 121.23 ft.       Span 1 - 121.23 ft.       NA         Span 1 - 121.23 ft.       Span 1 - 107.31 Flexural Resistance       NA         Span 1 - 144.90 ft.       NA       Span 1 - 121.23 ft.       NA         Span 1 - 144.90 ft.       NA       Span 1 - 144.90 ft.       NA         Span 1 - 144.90 ft.       NA       Span 1 - 144.90 ft.       NA      <	Span 1 - 48.30 ft.	✓ 6.10.11.1.2 Transverse Stiffeners - Projecting Width	N/A
Span 1 - 64:40 ft. <ul> <li>Gam 1 - 67:56 ft.</li> <li>Span 1 - 80:50 ft.</li> <li>Span 1 - 90:50 ft.</li> <li>Span 1 - 90:50 ft.</li> <li>Span 1 - 90:50 ft.</li> <li>Span 1 - 96:60 ft.</li> <li>Span 1 - 107:81 ft.</li> <li>Span 1 - 107:81 ft.</li> <li>Span 1 - 127:27 ft.</li> <li>Span 1 - 127:37 ft.</li> <li>Span 1 - 147:90 ft.</li> <li>Span 1 - 161:00 ft.</li> <l< td=""><td> Span 1 - 54.14 ft.</td><td>✓ 6.10.11.1.3 Transverse Stiffeners - Moment of Inertia</td><td>N/A</td></l<></ul>	Span 1 - 54.14 ft.	✓ 6.10.11.1.3 Transverse Stiffeners - Moment of Inertia	N/A
Span 1 - 67.56 ft.       ✓ 6.10.3.3 Constructibility - Shear       N/A         Span 1 - 80.50 ft.       N/A       N/A         Span 1 - 80.50 ft.       N/A       N/A         Span 1 - 90.50 ft.       N/A       N/A         Span 1 - 90.50 ft.       N/A       N/A         Span 1 - 96.60 ft.       N/A       6.10.6.2.2 Composite Sections in Positive Flexure and Noncomposite Sections       N/A         Span 1 - 96.60 ft.       N/A       6.10.6.2.2 Composite Sections in Negative Flexure and Noncomposite Sections       N/A         Span 1 - 107.81 ft.       N/A 6.10.7.1.2 Nominal Flexural Resistance       N/A         Span 1 - 121.23 ft.       G. 6.10.7.2 General       N/A         Span 1 - 134.64 ft.       ✓ 6.10.7.3 Flexural Resistance       N/A         Span 1 - 144.90 ft.       N/A 6.10.8.1.1 Scoretely Braced Flanges in Tension       N/A         Span 1 - 161.00 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension or Compression       N/A         G 6.10.8.2.2 Local Buckling Resistance       N/A       M/A       G.10.8.2.3 Loteral Torsional Buckling Resistance - Cb Calculation       N/A         Span 1 - 161.00 ft.       N/A 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression       N/A       M/A         G 6.10.8.2.2 Local Buckling Resistance       N/A       G.10.8.2.3 Loteral Torsional Buckling Resistance - C		6.10.2 Cross-Section Proportion Limits	N/A
Image: Span 1 = 80.50 ft.       N/A 6.10.4.2.2 Flexure       N/A         Image: Span 1 = 80.59 ft.       N/A 6.10.5.3 Special Faligue Requirement for Webs       N/A         Image: Span 1 = 96.60 ft.       Image: Span 1 = 96.60 ft.       N/A         Image: Span 1 = 96.60 ft.       Image: Span 1 = 96.60 ft.       N/A         Image: Span 1 = 107.81 ft.       N/A 6.10.7.1.2 Nominal Flexural Resistance       N/A         Image: Span 1 = 127.20 ft.       N/A 6.10.7.1.2 Nominal Flexural Resistance       N/A         Image: Span 1 = 121.23 ft.       Image: Span 1 = 121.23 ft.       N/A 6.10.7.1.2 Nominal Flexural Resistance       N/A         Image: Span 1 = 124.63 ft.       Image: Span 1 = 124.23 ft.       Image: Span 1 = 124.23 ft.       N/A         Image: Span 1 = 124.23 ft.       Image: Span 1 = 124.23 ft.       N/A       N/A         Image: Span 1 = 124.23 ft.       Image: Span 1 = 124.23 ft.       N/A       N/A         Image: Span 1 = 124.23 ft.       Image: Span 1 = 124.23 ft.       N/A       N/A         Image: Span 1 = 124.23 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension       N/A         Image: Span 1 = 124.23 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension or Compression       N/A         Image: Span 1 = 161.00 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension or Compression       N/A	Span 1 - 67.56 ft.	✓ 6.10.3.3 Constructibility - Shear	N/A
Span 1 - 80.98 ft.       NA 6:10.5:3 Special Fatigue Requirement for Webs       N/A         Span 1 - 94.39 ft.       6:10.6:2.2 Composite Sections in Negative Flexure       N/A         Span 1 - 96.60 ft.       6:10.6:2.2 Composite Sections in Negative Flexure and Noncomposite Sections       N/A         Span 1 - 107.81 ft.       A: 6:10.7.1: General       N/A         Span 1 - 122.30 ft.       K: 6:10.7.2: General       N/A         Span 1 - 128.80 ft.       K: 6:10.7.2: Cominal Flexural Resistance       N/A         Span 1 - 144.90 ft.       K: 6:10.7.2: Compression       N/A         Span 1 - 147.82 ft.       K: 6:10.8:1: Discretely Braced Flanges in Compression       N/A         Span 1 - 161.00 ft.       NA 6:10.8:1: Discretely Braced Flanges in Compression       N/A         Span 1 - 161.00 ft.       NA 6:10.8:1: 2: Discretely Braced Flanges in Compression       N/A         Span 1 - 161.00 ft.       NA 6:10.8:1: 2: Discretely Braced Flanges in Compression       N/A         Span 1 - 161.00 ft.       NA 6:10.8:1: 2: Discretely Braced Flanges in Compression       N/A         B: 6:10.8:2: 2: Local Buckling Resistance       N/A       N/A         B: 6:10.8:2: 2: Local Buckling Resistance       N/A       N/A         B: 6:10.8:2: 2: Local Buckling Resistance       N/A       N/A         B: 6:10.8:2: 2: Local Buckling Resistance       N	Span 1 - 80.50 ft.	NA 6.10.4.2.2 Flexure	N/A
Image: Span 1 - 94.39 ft.       Image: 6.10.6.2.2 Composite Sections in Positive Flexure and Noncomposite Sections       N/A         Image: Span 1 - 107.81 ft.       N/A 6.10.7.1.1 General       N/A         Image: Span 1 - 112.70 ft.       N/A 6.10.7.1.2 Nominal Flexural Resistance       N/A         Image: Span 1 - 121.23 ft.       Image: General Composite Sections in Negative Flexure and Noncomposite Sections       N/A         Image: Span 1 - 121.23 ft.       Image: General Composite Sections in Positive Flexure and Noncomposite Sections       N/A         Image: Span 1 - 121.23 ft.       Image: General Composite Sections in Positive Flexure and Noncomposite Sections       N/A         Image: Span 1 - 121.23 ft.       Image: General Composite Sections in Positive Flexure and Noncomposite Sections       N/A         Image: Span 1 - 121.23 ft.       Image: General Composite Sections in Positive Flexure and Noncomposite Sections       N/A         Image: Span 1 - 121.23 ft.       Image: General Composite Sections in Positive Flexure Resistance       N/A         Image: Span 1 - 121.25 ft.       Image: General Composite Sections in Positive Flexure Resistance       N/A         Image: Span 1 - 161.00 ft.       N/A 6.10.8.1.1 Concretely Braced Flanges in Tension or Compression       N/A         Image: General Composite Section Composite Section Composite Section Composite Section N/A       Image: General Composite Section Composite Section N/A         Image: General Composite Secti	Span 1 - 80.98 ft.	NA 6.10.5.3 Special Fatigue Requirement for Webs	N/A
Span 1       96.60 ft.       N/A         Span 1       107.61 ft.       N/A         Span 1       127.01 ft.       N/A         Span 1       127.01 ft.       N/A         Span 1       127.01 ft.       N/A         Span 1       121.27 0 ft.       N/A         Span 1       121.27 0 ft.       N/A         Span 1       121.28 ft.       N/A         Span 1       121.28 oft.       Signan 1         Span 1       124.64 ft.       N/A         Span 1       144.90 ft.       Signan 1         Span 1       144.90 ft.       N/A         Span 1       144.90 ft.       N/A         Span 1       147.82 ft.       N/A         M/A       6.10.8.1.2 Discretely Braced Flanges in Tension       N/A         Span 1       161.00 ft.       N/A       6.10.8.2.1 General       N/A         Span 1       161.00 ft.       N/A       6.10.8.2.1 General       N/A         Span 1       161.00 ft.       N/A       6.10.8.2.1 General       N/A         M/A       6.10.8.2.1 General       N/A       N/A       N/A         Span 1       161.00 ft.       N/A       6.10.8.2.3 Code Branges in Tension or Compression <td< td=""><td></td><td>6.10.6.2.2 Composite Sections in Positive Flexure</td><td>N/A</td></td<>		6.10.6.2.2 Composite Sections in Positive Flexure	N/A
Span 1 - 107.81 ft.       NA 6.10.7.1.1 General       N/A         Span 1 - 112.70 ft.       N/A       N/A         Span 1 - 112.73 ft.       K. 6.10.7.2.1 General       N/A         Span 1 - 128.80 ft.       K. 6.10.7.2.1 General       N/A         Span 1 - 134.64 ft.       6.10.7.2.2 Nominal Flexural Resistance       N/A         Span 1 - 134.64 ft.       K. 6.10.7.2.1 General       N/A         Span 1 - 134.64 ft.       K. 6.10.7.3.1 Obscretely Braced Flanges in Compression       N/A         Span 1 - 147.82 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension       N/A         M 6.10.8.1.3 Onthrousely Braced Flanges in Tension       N/A       N/A         G. 6.10.8.2.2 Local Buckling Resistance       N/A       N/A         G. 6.10.8.2.3 Continuously Braced Flanges in Tension or Compression       N/A         M/A 6.10.8.1.3 Onthrousely Braced Flanges in Tension or Compression       N/A         G. 6.10.8.2.3 Loteral Torsional Buckling Resistance       N/A         G. 6.10.8.2.3 Loteral Torsional Buckling Resistance - the Calculation       N/A         G. 6.10.8.2.3 Loteral Torsional Buckling Resistance - the Calculation       N/A         G. 6.10.8.2.3 Loteral Torsional Buckling Resistance - the Calculation       N/A         G. 6.10.8.2.3 Ch Lateral Torsional Buckling Resistance - N/A       6.10.9.3 Tension-Flange Flexural Resuits		6.10.6.2.3 Composite Sections in Negative Flexure and Noncomposite Sections	N/A
Image: Span 1 - 112.70 ft.       NA 6.10.7.1.2 Nominal Flexural Resistance       N/A         Span 1 - 121.23 ft.       Image: Span 1 - 121.23 ft.       N/A         Span 1 - 121.23 ft.       Image: General Control of Control	Span 1 - 107.81 ft.	NA 6.10.7.1.1 General	N/A
Span 1 - 121.23 ft.       X 6.10.7.2.1 General       N/A         Span 1 - 128.60 ft.       Span 1 - 128.60 ft.       N/A         Span 1 - 128.60 ft.       6.10.7.2.1 General       N/A         Span 1 - 128.60 ft.       6.10.7.3.21 Rowinal Resistance - Ductility Requirement       N/A         Span 1 - 144.90 ft.       M 6.10.8.1.2 Discretely Braced Flanges in Compression       N/A         Span 1 - 147.82 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension or Compression       N/A         M 6.10.8.1.2 Cliscretely Braced Flanges in Tension or Compression       N/A         M 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression       N/A         M 6.10.8.2.2 Local Buckling Resistance       N/A         M 6.10.8.2.3 Local Buckling Resistance       N/A         M 6.10.8.2.3.3 Local Buckling Resistance       N/A         M 6.10.8.3.3 Continue flags Flags Flags       N/A         M 6.10.8.2.3.3 Local Buckling Resistance - Cb Calculation       N/A         M 6.10.8.3.3 Container al Torsional Buckling Resistance - Cb Calculation       N/A         M 6.10.8.1.3 Continue flags Flag		NA 6.10.7.1.2 Nominal Flexural Resistance	N/A
Span 1 - 128.80 ft. <ul> <li>Span 1 - 134.64 ft.</li> <li>Span 1 - 134.64 ft.</li> <li>Span 1 - 144.90 ft.</li> <li>Span 1 - 147.82 ft.</li> <li>NA 6.10.8.1.1 Discretely Braced Flanges in Compression</li> <li>N/A</li> <li>Span 1 - 161.00 ft.</li> <li>Span</li></ul>		× 6.10.7.2.1 General	N/A
→ Span 1 - 134.64 ft.       ✓ 6.10.7.3 Flexural Resistance - Ductility Requirement       N/A         → Span 1 - 144.90 ft.       N/A 6.10.8.1.1 Discretely Braced Flanges in Tension       N/A         → Span 1 - 161.00 ft.       N/A 6.10.8.1.1 Discretely Braced Flanges in Tension or Compression       N/A         → Span 1 - 161.00 ft.       N/A 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression       N/A         → Span 1 - 161.00 ft.       N/A 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression       N/A         → 6.10.8.2.1 General       N/A       N/A       N/A         → 6.10.8.2.3 Lateral Torsional Buckling Resistance       N/A       N/A         → 6.10.8.2.3.3 Lateral Torsional Buckling Resistance - Cb Calculation       N/A         → 6.10.8.2.3.3. Lateral Torsional Buckling Resistance       N/A         → 6.10.8.3.3.1 Ension-Flange Flexural Resistance - Cb Calculation       N/A         → 6.10.9.1 Shear Resistance - General       N/A         → 6.10.2.2 Design Oriteria       N/A		6.10.7.2.2 Nominal Flexural Resistance	N/A
→ Span 1 - 144.90 ft.       NA 6.10.8.1.1 Discretely Braced Flanges in Compression       N/A         → Span 1 - 147.82 ft.       NA 6.10.8.1.2 Discretely Braced Flanges in Tension or Compression       N/A         → Span 1 - 161.00 ft.       N/A 6.10.8.1.2 Discretely Braced Flanges in Tension or Compression       N/A         → G.10.8.2.1 General       N/A       N/A         → G.10.8.2.2 Local Buckling Resistance       N/A         → G.10.8.2.3.3 Cb Lateral Torsional Buckling Resistance - Cb Calculation       N/A         → G.10.8.2.3.3 Cb Lateral Torsional Buckling Resistance       N/A         → G.10.8.2.3 Lateral Torsional Buckling Resistance       N/A         → G.10.8.3.3 Tension-Flange Flexural Resistance       N/A         → G.10.9.1 Shear Resistance       N/A         → G.10.9.1 Shear Resistance       N/A         → G.10.3.2 Design Oriteria       N/A		6.10.7.3 Flexural Resistance - Ductility Requirement	N/A
Span 1 - 147.82 ft.       NA 6.10.8.1.2 Discretely Braced Flanges in Tension       N/A         Span 1 - 161.00 ft.       NA 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression       N/A         B 6.10.8.2.1 General       N/A         B 6.10.8.2.2 Local Buckling Resistance       N/A         B 6.10.8.2.3 Loteral Torsional Buckling Resistance       N/A         B 6.10.8.2.3.3 Loteral Torsional Buckling Resistance       N/A         B 6.10.8.2.3.4 Loteral Torsional Buckling Resistance - the dtp Calculation       N/A         B 6.10.8.2.3.7 Lateral Torsional Buckling Resistance - the dtp Calculation       N/A         B 6.10.8.2.3.7 Lateral Torsional Buckling Resistance - the dtp Calculation       N/A         B 6.10.8.2.3.7 Lateral Torsional Buckling Resistance - the dtp Calculation       N/A         B 6.10.8.2.3.7 Lateral Torsional Buckling Resistance - the dtp Calculation       N/A         B 6.10.9.1 Shear Resistance - General       N/A         C 6.10.9.1 Shear Resistance - General       N/A         M 6.10.2.2.2 Design Criteria       N/A		NA 6.10.8.1.1 Discretely Braced Flanges in Compression	N/A
Span 1 - 161.00 ft.       NA 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression       N/A		NA 6.10.8.1.2 Discretely Braced Flanges in Tension	N/A
■ 6.10.8.2.1 General       N/A         ■ 6.10.8.2.2 Local Buckling Resistance       N/A         ■ 6.10.8.2.3.1 Lateral Torsional Buckling Resistance - Cb Calculation       N/A         ■ 6.10.8.2.3.1 Lateral Torsional Buckling Resistance - rt and Lp Calculation       N/A         ■ 6.10.8.2.3.1 Lateral Torsional Buckling Resistance       N/A         ■ 6.10.8.2.3.1 Lateral Torsional Buckling Resistance - rt and Lp Calculation       N/A         ■ 6.10.8.3.5 Tension-Flange Flexural Resistance       N/A         ■ 6.10.9.1 Shear Resistance       N/A         ■ 6.10.9.1 Shear Resistance       N/A         ■ 6.10.2.2 Design Criteria       N/A		NA 6.10.8.1.3 Continuously Braced Flanges in Tension or Compression	N/A
■ 6.10.8.2.2 Local Buckling Resistance       N/A         ■ 6.10.8.2.3.1 detral Torsional Buckling Resistance       N/A         ■ 6.10.8.2.3.4 tetral Torsional Buckling Resistance - Cb Calculation       N/A         ■ 6.10.8.2.3.4 tetral Torsional Buckling Resistance - rt and Lp Calculation       N/A         ■ 6.10.8.2.3.4 tetral Torsional Buckling Resistance - rt and Lp Calculation       N/A         ■ 6.10.8.2.9.3.4 tetral Torsional Buckling Resistance - rt and Lp Calculation       N/A         ■ 6.10.8.3 Tension-Flange Flexural Resistance       N/A         ■ 6.10.9.1 Shear Resistance       N/A         ■ 6.10.9.1 Shear Resistance - General       N/A         ■ 6.10.2.2 Design Criteria       N/A		6.10.8.2.1 General	N/A
		6.10.8.2.2 Local Buckling Resistance	N/A
<ul> <li>              6.10.8.2.3.Cb Lateral Torsional Buckling Resistance - Cb Calculation                  6.10.8.2.3.1t Lateral Torsional Buckling Resistance - rt and Lp Calculation           N/A                        6.10.8.2.3.1t Lateral Torsional Buckling Resistance - rt and Lp Calculation           N/A                    6.10.8.3 Tension-Flange Flexural Resistance          N/A                 6.10.9.1 Shear Resistance          N/A</li></ul>		6.10.8.2.3 Lateral Torsional Buckling Resistance	N/A
B 6.10.8.2.3.rt Lateral Torsional Buckling Resistance - rt and Lp Calculation     N/A     6.10.8.3 Tension-Filange Flexural Resistance     N/A     6.10.9.3 Shear Resistance     N/A     6.10.9.1 Shear Resistance - General     N/A     6.10_General_Flexural Results     N/A     6.1.2.2 Design Criteria     N/A		6.10.8.2.3.Cb Lateral Torsional Buckling Resistance - Cb Calculation	N/A
■ 6.10.8.3 Tension-Flange Flexural Resistance       N/A         ✓ 6.10.9.5 hear Resistance       N/A         ■ 6.10.9.1 Shear Resistance - General       N/A         ▲ 6.10_General_Flexural Results       N/A         ▲ 6.1.2.2 Design Oriteria       N/A		6.10.8.2.3.rt Lateral Torsional Buckling Resistance - rt and Lp Calculation	N/A
✓ 6.10.9 Shear Resistance     N/A       ■ 6.10.9.1 Shear Resistance - General     N/A       ✓ 6.10_General_Flexural_Results     N/A       ■ 6.6.1.2.2 Design Criteria     N/A		6.10.8.3 Tension-Flange Flexural Resistance	N/A
B 6.10.9.1 Shear Resistance - General     N/A     S.10_General, Flexural, Results     N/A     6.6.1.2.2 Design Criteria     N/A		✓ 6.10.9 Shear Resistance	N/A
★6.10_General_Flexural_Results     N/A       ■ 6.6.1.2.2 Design Criteria     N/A		6.10.9.1 Shear Resistance - General	N/A
B 6.6.1.2.2 Design Criteria N/A ▼		X 6.10_General_Flexural_Results	N/A
		6.6.1.2.2 Design Criteria	N/A 🔍
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Since Service –II limit state is not selected for LRFD spec check, article 6.10.4.2.2 is not applicable.