GENERAL NOTES FOR JOISTS, JOIST GIRDERS AND BRIDGING

I. STEEL ENCOUNTERS IS NOT A CONTRACTOR NOR ERECTOR BUT IS A VALUE ADDED SUPPLIER THEREFORE WILL NOT BE RESPONSIBLE FOR NOR PARTICIPATE IN ANY UNLOADING, STORING, HOISTING OR ERECTION ON THE PROJECT.

Ι.	NOTE TO CONTRACTOR AND/OR ERECTOR: IT IS THE CONTRACTOR AND ERECTORS RESPONSIBILITY TO FAMILIARIZE YOUR SELF WITH THE RECOMMENDATION
	FOR HANDLING AND ERECTING STEEL JOISTS AND JOIST GIRDERS. ALSO REFER TO TECHNICAL DIGEST #9 - HANDLING AND ERECTION OF STEEL JOISTS AND
	JOIST GIRDERS PUBLISHED BY THE STEEL JOIST INSTITUTE. (843-626-1995)

III. ERECTOR MUST SATISFY ITSELF THAT ALL MEMBERS ARE SUPPORTED, ANCHORED & STABLE PRIOR TO RELEASING HOISTING CABLES.

- IV. STEEL ENCOUNTERS IS NOT AN ENGINEERING DESIGN FIRM AND THEREFORE DOES NOT DEVELOP LOAD REQUIREMENT OF MEMBERS. JOIST AND GIRDERS ARE DESIGNED PER THE LOAD & DEFLECTION CRITERIA SHOWN IN THE ENGINEER OF RECORDS CONTRACT DOCUMENTS. IT IS THE ENGINEER OF RECORD'S RESPONSIBILITY TO VERIFY THAT ALL LOADS ARE IN COMPLIANCE WITH IBC. SEE FRAMING PLAN NOTE #1 & #2 ON THIS SHEET FOR ADDITIONAL INFORMATION.
- V ENGINEER & ARCHITECT OF RECORD THRU REVIEW OF STEEL ENCOUNTERS DOCUMENTS ARE RESPONSIBLE TO VERIEV THAT COMPLETE DESIGN CRITERIA INFORMATION FROM STRUCTURAL DOCUMENTS IS REFLECTED PROPERLY ON THE JOIST AND GIRDER PLACEMENT PLANS
- A. CHECK ALL QUANTITIES, MARK NUMBERS AND CONDITION OF MATERIALS ON ARRIVAL. NOTE ON THE DELIVERY TICKET, SHORTAGES, DISCREPANCIES AND DAMAGED MATERIALS. STEEL ENCOUNTERS INC. (SEI) WILL NOT BE LIABLE FOR ANY SHORTAGES OR DAMAGED MATERIALS NOT CLEARLY NOTED ON THE DELIVERY TICKET.
- B. WHEN UNLOADING MATERIAL ALWAYS HOOK CHAINS OR SLINGS TO TOP OR BOTTOM CHORDS AT PANEL POINTS ONLY. NEVER HOOK TO THE WEB MEMBERS. DO NOT JERK WHILE LIFTING OR DROP WHEN LANDING. WHEN UNLOADING BY HAND USE EXTREME CARE WHEN BREAKING BUNDLES, UNLOAD EACH JOIST SEPARATELY.
- C. STORE JOIST IN BUNDLES IN A VERTICAL POSITION ON WOOD BLOCKING PLACED AT PANEL POINTS. STORE JOISTS ON SIDES IF HEIGHT OF BUNDLE IS GREATER THAN TWICE IT'S WIDTH. JOISTS FROM BROKEN BUNDLES SHOULD BE LAID FLAT ON BLOCKING TO PREVENT SAGGING OF JOISTS. CONTRACTOR AND/OR ERECTOR MUST COVER STORED JOISTS IN A MANNER THAT PROVIDES ADEQUATE VENTILATION TO PROTECT PRIMER COAT. REFER TO NOTE R THIS SHEET FOR DISCUSSION ON PRIMER COAT. ALL BRIDGING MARK NUMBERS MUST BE PROTECTED TO PREVENT DETERIORATION.
- D. ERECTION MUST BE DONE USING ONLY PLANS NOTED "FINAL PLANS FOR FIELD USE" AND EXECUTED IN ACCORDANCE WITH THE LATEST EDITION OF SJI AND OSHA REQUIREMENTS. REFER TO THE FINAL PLACEMENT DRAWING FOR THE TAGGED END LOCATION OF JOISTS AND JOIST GIRDERS. WITH PARTICULAR ATTENTION PAID TO BOLTED ERECTION STABILITY BRIDGING REQUIREMENTS.
- E. STEEL ENCOUNTERS INC. MUST BE NOTIFIED AT ONCE IF JOISTS, JOIST GIRDERS OR ACCESSORIES CAN NOT BE ERECTED OR NOT ERECTED ACCORDING TO THE FINAL PLACEMENT PLANS. STEEL ENCOUNTERS INC. WILL NOT BE RESPONSIBLE FOR ANY FIELD REPAIRS OR CHANGES MADE WITHOUT PRIOR WRITTEN CONSENT FROM STEEL ENCOUNTERS INC. STEEL ENCOUNTERS NOR ITS JOIST SUPPLIERS WILL NOT ACCEPT ANY MODIFICATIONS TO OUR PRODUCTS WITHOUT THE PRIOR APPROVAL OF THE PROJECT STRUCTURAL ENGINEER OF RECORD NOR WILL WE ACCEPT ANY MODIFICATIONS WITHOUT OUR PRIOR APPROVAL
- F. JOISTS ARE FABRICATED TO MEET THE ERECTION REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) 29 CFR SUBPART R-STEEL ERECTION, EXCEPT AS NOTED BELOW. FIELD COMPLIANCE WITH THIS ACT IS NECESSARY. JOIST AT OR NEAR COLUMNS. ("OSHA COLUMN JOISTS")

STEEL JOIST INSTITUTE SPONSORED RESEARCH HAS SHOWN THAT MANY FACTORS AFFECT THE STABILITY OF OSHA COLUMN JOISTS. LIMITATIONS EXIST REGARDING THE DESIGN OF THESE JOISTS (OSHA 1926.757(a)(3)) MAKING THEM UNSTABLE TO SAFELY SUPPORT AN EMPLOYEE WITHOUT THE NEED FOR ERECTION BRIDGING. THEREFORE, SJI, STEEL ENCOUNTERS AND JOIST MANUFACTURERS ABSOLUTELY RECOMMEND THAT THE JOIST BRIDGING BE INSTALLED AND POSITIVELY ANCHORED PRIOR TO SUPPORTING LOADS OF ANY KIND INCLUDING MAN LOADS.

- 1. SJI, STEEL ENCOUNTERS AND JOIST MANUFACTURERS RECOMMEND THAT NO ONE BE ALLOWED TO WALK ON UNBRIDGED JOISTS. UNDER NO CIRCUMSTANCES ARE DECK BUNDLES, OR OTHER MATERIAL BUNDLES OR ANY OTHER CONSTRUCTION OR LIVE LOADS OF ANY KIND, TO BE PLACED ON UNBRIDGED JOISTS.
- G. DO NOT WELD JOIST OR JOIST GIRDER BOTTOM CHORD EXTENSIONS TO STABILIZER PLATES OR CLIP ANGLES UNLESS SPECIFICALLY NOTED ON THE STRUCTURAL CONTRACT DRAWINGS, AND THEN WELD ONLY AFTER ALL DEAD LOADS ARE APPLIED, OR UNLESS SPECIFICALLY NOTED OTHERWISE BY STRUCTURAL DOCUMENTS.
- H. DO NOT CUT AWAY ANY CHORDS, WEBS OR ANY PORTION OR ANY JOIST OR JOIST GIRDER THEREOF. FIELD WELDING MUST NOT DAMAGE JOISTS OR GIRDERS. NO HOLES ARE PROVIDED IN JOIST OR JOIST GIRDERS FOR THE ATTACHMENT OF OTHER TRADES NOR ARE THEY DESIGNED FOR THEM. DO NOT DRILL OR CUT ANY HOLES IN ANY MEMBERS AT ANYTIME.
- J. METAL DECK MUST BE ATTACHED TO THE TOP CHORD OF THE JOIST AT A MINIMUM (OR MORE FREQUENTLY AS SHOWN ON THE STRUCTURAL DOCUMENTS) OF 36" ON CENTER TO PROVIDE THE SJI MINIMUM REQUIRED PERMANENT LATERAL BRACING FOR THE TOP CHORD. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATIONS OF DECK. DO NOT DAMAGE JOIST TOP CHORDS.
- K. ERECT BOTTOM CHORD BEARING JOISTS OR JOIST GIRDERS WITH CAMBER UPWARD. INSTALL ALL REQUIRED ERECTION STABILITY BRIDGING TO STABILIZE MEMBERS. ALSO, ATTACH BEARING ENDS TO SUPPORTS AND VERIFY JOIST STABILITY.
- L. STEEL JOISTS AND JOIST GIRDERS SHALL NOT BE USED AS ANCHORAGE POINTS FOR A FALL ARREST SYSTEM DURING ERECTION OR ANYTIME UNLESS SPECIFICALLY DESIGNED AS SUCH IN THE STRUCTURAL DOCUMENTS.
- M. JOIST GIRDERS: 1. WHERE JOIST GIRDERS ARE SUPPLIED WITH SLOTS/HOLES IN THE BEARING SEATS, ALL ERECTION BOLTS AT EACH END SHALL BE INSTALLED AND TIGHTENED PER THE "AISC" SPECIFICATION. WHERE SLOTS ARE NOT SUPPLIED, JOIST GIRDER ENDS SHALL BE WELDED TO THE SUPPORTS.
- 2. NO LOADS SHALL BE PLACED ON THE JOIST GIRDER UNTIL THE JOISTS BEARING ON THE JOIST GIRDER ARE IN PLACE AND WELDED OR BOLTED TO THE GIRDER.
- 3. THE BOTTOM CHORD OF JOIST GIRDERS MUST BE RESTRAINED FROM LATERAL MOVEMENT TO HELP BRACE THE GIRDER DURING ERECTION, PER SJI. ONE METHOD SJI RECOMMENDS IS A POSITIVELY ANCHORED VERTICAL STABILIZER PLATE BETWEEN THE BOTTOM CHORD ANGLES. ERECTOR IS RESPONSIBLE FOR GIRDER RESTRAINT.
- 4. AFTER COLUMNS ARE PLUMB WITH ERECTION BOLTS IN PLACE, FIELD WELD THE JOIST GIRDERS TO THE CAP PLATE AS SHOWN ON OUR PLACEMENT DRAWINGS AND IF NOT NOTED THEN A MINIMUM OF 1/4" FILLET WELDS 2" LONG AT EACH SIDE OF SEAT OR EQUAL. ERECTOR IS RESPONSIBLE TO REVIEW THE CONTRACT DRAWINGS TO DETERMINE WHETHER ADDITIONAL WELD IS REQUIRED. 5. DO NOT WELD GIRDER BOTTOM CHORD BRACES (GB'S) TO THE BOTTOM CHORD OF JOISTS UNTIL ALL ROOF OR FLOOR DEAD LOADS ARE APPLIED.
- BOTTOM CHORD BRACES SHALL BE CONNECTED WITH A FILLET WELD OR THE EQUIVALENT. FILLET WELD SIZE SHALL NOT BE LESS THAN THE THICKNESS OF THE GB ANGLE, FOLLOW AISC SPECIFICATIONS FOR WELD REQUIREMENTS DISCUSSION ON MIN/MAX WELD SIZE. THE WELD LENGTH SHALL NOT BE LESS THAN THE LEG OF THE GB ANGLE. N. JOISTS:
- 1. DO NOT COMPLETELY WELD JOISTS TO BEARING SUPPORT UNTIL PROPERLY ALIGNED, HOWEVER AS SOON AS THE JOIST IS IN ITS FINAL POSITION, THE JOIST ENDS SHALL BE WELDED TO ITS SUPPORT AT A MINIMUM AS NOTED BELOW. ALIGN JOISTS WHILE INSTALLING BRIDGING. AFTER INSTALLATION OF ALL BRIDGING, COMPLETE THE ATTACHMENT OF JOISTS TO THE BEARING SUPPORT, DO NOT ATTEMPT TO ALIGN OR STRAIGHTEN GROUPS OF JOISTS AFTER INSTALLATION AND PERMANENT ATTACHMENT TO THE BEARING SUPPORTS HAS BEEN MADE.
- 2. BOTH SIDES OF THE SEAT ON ONE END OF THE JOIST MUST BE ATTACHED TO THE SUPPORT AS THE JOISTS ARE POSITIONED.
- 3. WHEN SLOTS OR HOLES ARE PROVIDED IN THE BEARING SEATS ON ONE END OR BOTH ENDS OF A JOIST, ALL BOLTS SHALL BE INSTALLED AND TIGHTENED PER THE "AISC" SPECIFICATION. WHERE CONSTRUCTIBILITY DOES NOT ALLOW FOR BOLTING, JOIST FINAL CONNECTIONS SHALL BE MADE BY WELDING OR AS SPECIFIED BY THE PROJECT STRUCTURAL ENGINEER OF RECORD.
- 4. PER SJI JOIST STANDARDS ENDS SHALL BEAR ON STEEL STRUCTURAL MEMBERS OR BEARING PLATES AND SHALL BE ATTACHED THERETO WITH A MINIMUM OF: K1-12 SERIES JOISTS - TWO 1/8" FILLET WELDS 2 1/2" LONG OR EQUAL. LH02-06 SERIES JOISTS TWO 1/4" FILLET WELDS 2 1/2" LONG OR EQUAL.
- LH07-17, DLH10-17, JG SERIES JOISTS TWO 1/4" FILLET WELDS 2 1/2" LONG OR EQUAL. DLH18-25, JG* SERIES JOISTS - TWO 1/4" FILLET WELDS 4" LONG OR EQUAL. *JOIST GIRDERS W/ SELF WEIGHT > 50PLF
- HOWEVER THE CONTRACT DRAWINGS MUST BE REVIEWED TO DETERMINE WHETHER ANY MORE STRINGENT OR SPECIAL WELD IS REQUIRED BASED ON CONTRACT DOCUMENTS PREPARED BY ENGINEER OF RECORD.

5. ALL THE NOTES HEREIN ARE NOT BASED ON A PANELIZED CONSTRUCTION METHOD. IF PANELIZED CONSTRUCTION IS UTILIZED, THE CONTRACTOR AND ERECTOR IS COMPLETELY RESPONSIBLE TO FOLLOW OSHA ERECTION REQUIREMENTS. THE JOIST AT EACH END OF THE PANEL MUST BE

SECURED TO SUPPORTS. 6. AT NO TIME SHALL ANYONE BE PERMITTED TO WALK ON A STEEL JOIST OR UNSECURED PANELIZED JOIST ASSEMBLY.

7. WHERE JOISTS ARE LOCATED AT COLUMNS, THE EXTENDED ENDS OF THE BOTTOM CHORD MUST BE RESTRAINED FROM LATERAL MOVEMENT TO HELP BRACE THE JOIST FROM OVERTURNING DURING ERECTION. THIS IS USUALLY ACCOMPLISHED WITH A VERTICAL STIFFENER PLATE ATTACHED P. BRIDGING:

- MANDATORY.
- 2. JOIST SPANS UP TO 60 FEET:
- 3. JOIST SPANS OVER 60 FEET UP TO 100 FEET: "ERECTION STABILITY BRIDGING".

HORIZONTAL BRIDGING.

- 4. JOIST SPANS OVER 100 FEET:
- LH SERIES SERIES JOISTS 1/8" FILLET WELD 1" LONG OR EQUAL.

DO NOT WELD BRIDGING TO WEB MEMBERS.

- BOLTED AT THEIR POINT OF INTERSECTION.
- PLACEMENT DRAWINGS. SEE NOTE(12).
- POINT AT EACH END OF JOIST. SEE NOTE(12).

- Q. PLACEMENT DRAWINGS:

TO THE COLUMN OR BEAM. PER OSHA 1926.757 (a)(i). PLATE EXTENDS BETWEEN THE BOTTOM CHORD ANGLES.

THE REQUIRED ROWS OF BRIDGING SHALL BE INSTALLED AND ANCHORED DURING JOIST ERECTION PER OSHA 1926.757 FIELD COMPLIANCE IS

1. CERTAIN DIAGONAL BRIDGING NOTED AS, "ERECTION STABILITY BRIDGING" SHALL BE INSTALLED AND ANCHORED PRIOR TO SLACKENING THE HOISTING CABLES, PER THE LATEST STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS. THE LOCATION(S) OF THE "ERECTION STABILITY BRIDGING" IS INDICATED AND LABELED AS SUCH ON THE STEEL ENCOUNTERS PLACEMENT DRAWINGS. KNOW AND FOLLOW ALL OSHA REQUIREMENTS.

WHEN THE JOIST SPAN IS LESS THAN THE ERECTION STABILITY SPAN AS SHOWN IN SJI SPECIFICATION SECTION 105 (TITLED ERECTION STABILITY AND HANDLING), ALL BRIDGING IS WELDED HORIZONTAL BRIDGING. WHEN THE JOIST SPAN IS GREATER THAN THE ERECTION STABILITY SPAN. A ROW OF BRIDGING NEAREST MID-SPAN OF THE JOIST SHALL BE "ERECTION STABILITY BRIDGING". ALL OTHER ROWS OF BRIDGING ARE WELDED

ALL ROWS SHALL BE BOLTED DIAGONAL BRIDGING. THE TWO ROWS NEAREST THIRD POINTS OF THE JOIST SPAN SHALL BE BOLTED DIAGONAL

ALL ROWS SHALL BE BOLTED DIAGONAL BRIDGING. ALL ROWS SHALL BE BOLTED DIAGONAL "ERECTION STABILITY BRIDGING".

5. ALL WELDED HORIZONTAL BRIDGING IS SHIPPED IN 20'0" LENGTHS. LAP JOINTS IN BRIDGING SHALL BE 3" MINIMUM AND 6" MAXIMUM BRIDGING LAPS MAY OCCUR BETWEEN JOISTS. WELD JOINTS WITH 1/8" FILLET 1" LONG AT EACH LEG OF BRIDGING ANGLE. USE ALL DROPS 4'-0" AND LONGER. 6. ALL WELDED HORIZONTAL BRIDGING SHALL BE ATTACHED TO EACH JOIST WITH A MINIMUM WELD AS FOLLOWS:

K AND KCS SERIES JOISTS - 1/8" FILLET WELD 1/2" LONG OR EQUAL.

DLH SERIES SERIES JOISTS - 1/8" FILLET WELD 1 1/2" LONG OR EQUAL. WELD REQUIRED AT ONLY ONE CHORD ANGLE PER JOIST.

7. THE WEIGHT OF A BUNDLE OF JOIST BRIDGING SHALL NOT EXCEED 1000 POUNDS. A BUNDLE OF JOIST BRIDGING SHALL BE PLACED ON A MINIMUM OF 3 JOISTS, AND SHALL BE PLACED WITHIN 1'-0" OF THE ANCHORED END OF THESE 3 JOISTS.

8. ALL BOLTED CONNECTIONS FOR BRIDGING SHALL BE TIGHTENED PER THE "AISC" SPECIFICATION. ALL BOLTED DIAGONAL BRIDGING SHALL BE

9. ALL BRIDGING SHALL BE EQUALLY SPACED RELATIVE TO THE SPAN OF THE JOISTS AT WHICH IT IS BEING INSTALLED, UNLESS SHOWN OTHERWISE ON

10. WHEN UPLIFT BRIDGING IS REQUIRED AT JOISTS, IT WILL BE SHOWN ON THE PLACEMENT DRAWINGS AND INDICATED IN THE FRAMING PLAN NOTES. SEE UPLIFT BRIDGING DIAGRAM. INSTALL UPLIFT BRIDGING AT BOTTOM CHORD ONLY AS CLOSE AS POSSIBLE OF THE FIRST BOTTOM CHORD PANEL

11. WHEN PERMANENT BRIDGING TERMINUS POINTS CANNOT BE USED DURING ERECTION, ADDITIONAL TEMPORARY BRIDGING TERMINUS POINTS ARE REQUIRED TO PROVIDE STABILITY. WHERE ADDITIONAL BRIDGING TERMINUS POINTS ARE REQUIRED FOR STABILITY IN ACCORDANCE WITH OSHA 1926.757(c)(5), THE MATERIAL AND DESIGN OF THOSE POINTS IS NOT BY STEEL ENCOUNTERS NOR THE JOIST MFR.

12. STEEL ENCOUNTERS DOES NOT SPECIFICALLY LOCATE BRIDGING NOR IS STEEL ENCOUNTERS RESPONSIBLE TO VERIFY BRIDGING, IT IS THE CONTRACTOR AND ERECTORS RESPONSIBILITY TO VERIFY THAT BRIDGING LOCATIONS ARE NOT IN CONFLICT NOR INTERFERES WITH ACCESS TO EQUIPMENT, LADDERS, ROOF HATCHES, OPENINGS, CATWALKS OR ANY OTHER ELEMENT THAT INTERFERES WITH BRIDGING PLACEMENT. STEEL ENCOUNTERS AND THE ENGINEER OF RECORD MUST BE CONTACTED IN WRITING TO COORDINATE AN APPROPRIATE BRIDGING LOCATION.

THE PLACEMENT DRAWING(S) AS ISSUED BY STEEL ENCOUNTERS SHALL NOT BE USED AS NOR CONSIDERED TO BE A "SITE-SPECIFIC ERECTION PLAN" AS DEFINED BY OSHA SUBPART R-STEEL ERECTION SUB-SECTION 1926.752 (e). STEEL ENCOUNTERS PLACEMENT DRAWING IS ONLY FOR JOIST AND GIRDER LOCATION AND END CONDITIONS.

R. JOIST, JOIST GIRDERS AND ACCESSORIES ARE FURNISHED WITH ONE DIP COAT OF GRAY PRIMER. IT IS NOT OF ARCHITECTURAL QUALITY NOR IS IT INTENDED TO BE A PERMANENT FINISH COAT. THE COATING MAY NOT BE UNIFORM AND MAY INCLUDE DRIPS, RUNS AND SAGS. DIESEL SMOKE DAMAGE, BANDING & DUNNAGE MARKS, CRACKS, PEELING AND OTHER IMPERFECTIONS SHOULD BE EXPECTED. REPAIR OF SUCH DAMAGE IS NOT THE **RESPONSIBILITY OF STEEL ENCOUNTERS INC.**



ADDITIONAL WEB MEMBERS (ONE ON EACH SIDE OF JOIST) SHALL BE FIELD WELDED FROM THE POINT OF LOAD TO THE NEAREST PANEL POINT ON THE OPPOSITE CHORD AT NO COST TO JOIST SUPPLIER.





NOTE: UPLIFT BRIDGING IS REQUIRED ONLY WHERE SHOWN ON PLANS. SEE NOTE P.12

2018 INTERNATIONAL BUILDING CODE SECTION 2207 - STEEL JOISTS 2206.2 DESIGN (IBC 2009) OR 2207.2 DESIGN (IBC 2012, IBC 2015). THE REGISTERED DESIGN PROFESSIONAL SHALL INDICATE ON THE CONSTRUCTION DOCUMENTS THE STEEL JOIST AND/OR STEEL JOIST GIRDER DESIGNATIONS FROM THE SPECIFICATIONS LISTED IN SECTION 2206.1 AND SHALL INDICATE THE REQUIREMENTS FOR JOIST AND JOIST	
GIRDER DESIGN, LAYOUT, END SUPPORTS, ANCHORAGE, NON-SJI STANDARD BRIDGING, BRIDGING TERMINATION CONNECTIONS AND BEARING CONNECTION DESIGN TO RESIST UPLIFT AND LATERAL LOADS. THESE DOCUMENTS SHALL INDICATE SPECIAL REQUIREMENTS AS FOLLOWS:	
 SPECIAL LOADS INCLUDING: 1.1 CONCENTRATED LOADS; 1.2 NONUNIFORM LOADS; 1.3 NET UPLIFT LOADS; 1.4 AXIAL LOADS; 1.5 END MOMENTS; AND 1.6 CONNECTION FORCES. 	
2. SPECIAL CONSIDERATION INCLUDING; 2.1 PROFILES FOR NONSTAND JOIST AND JOIST GIRDER CONFIGURATIONS (STANDARD JOIST AND JOIST GIRDER CONFIGURATIONS ARE AS INCDICATED IN THE SJI CATALOGUE); 2.2 OVERSIZED OR OTHER NONSTANDARD WEB OPENINGS: AND 2.3 EXTENDED ENDS.	
3. DEFLECTION CRITERIA FOR LIVE AND TOTAL LOADS FOR NON SJI STANDARD JOISTS.	



Engineer of Record Review of Deferred Submittal

Engineer of Record has performed a general review of this deferred submittal and finds it to be: [x] In general conformance with project design

Engineer of Record has reviewed this deferred submittal only for general conformance with this design concept of the project and for information given in the Engineer of Record's documents. Any noted nonconformities and errors are marked.

However, deviations from plans or specifications not clearly indicated by the contractor have not been reviewed.

The Engineer of Record's review does not include independent engineering calculations unless expressly noted herein. The Design of members and systems contained in this submittal is the responsibility of the professional engineer whose professional stamp appears on the submittal.

MACKENZIE. By: siw Date: 05/25/2021

[] In general conformance with project design, except as noted

HORIZONTAL BRIDGING.

UPLIFT BRIDGING SEE FRAMING PLAN NOTE#14

City Of Portland FRAMING PLAN NOTEREVIEWED FOR

- 1. DESIGN TO COMPLY WITH 018 INTERNATIONAL BUILDING CODE VERIFY ALL LOADS ARE NOTED IN ACCORDANCE WITH (2018 IBC (SEE EXCERPT BELOW LEFT) NO LOADS ASSUMED BY STEEL EN Permit #: 20-174521-DFS-01-CO
- 3. JOIST AND JOIST GIRDER DESIGN SHALL BE ACCORDING TO ALI
- 4. LIMIT JOIST LIVE LOAD DEFLECTION TO L/240. (PER SPEC.'S)
- 5. JOISTS TO BE DESIGNED FOR A NET UPLIFT LOAD OF (# PSF) (PE
- 5A. DESIGN ALL GIRDERS FOR A NET PLF UPLIFT LOAD OF (# PSF) (F <#.#K> INDICATES THE AXIAL LOAD, TENSION OR COMPRESSION JOIST OR GIRDER IS TO BE DESIGNED FOR AT RESPECTIVE END
- 7. JOISTS ARE DESIGNED FOR ADDITIONAL PT. LOADS AT LOCATIO JOIST CHORDS ARE NOT DESIGNED FOR ANY OTHER LOADS BE (UNO-SEE NOTE#7A CONCERNING LOADS THAT CAN BE PLACED IF POINT LOADS ARE NOT SPECIFICALLY DIMENSIONED ON THE PANEL POINTS OR FIELD WELD AN EXTRA MEMBER FROM POINT ON OPPOSITE CHORD AT NO EXPENSE TO JOIST SUPPLIER. SEE
- 7A. JOIST DESIGNED FOR AN ADLOAD OF 500# @ ANYPANEL POINT.
- 8. SELF WEIGHT IS INCLUDED IN JOIST/GIRDER DESIGNATIONS.
- 9. GIRDERS, JOISTS AND BRIDGING TO RECEIVE ONE SHOP COAT S NO JOISTS ARE FIREPROOFED. JOISTS LEFT UN-PAINTED @ FIR
- 10. JOISTS ARE FABRICATED WITH CAMBER PER STEEL JOIST INSTI COORDINATION OF EFFECTS OF THIS CAMBER WITH ADJACENT JOISTS HAVE THE APPROXIMATE CAMBERS PER THE FOLLOWIN

	TOP CHORD		APPROX.				
	20'-0	=	<u>1/4"</u>				
	30'-0	=	3/8"				
	40'-0	=	5/8"				
	50'-0	=	1"				
	60'-0	=	1 1/2"				
	00 0		· ·/~				

CAMBER NOTED ABOVE IS FOR JOISTS WITH PARALLEL TOP AND

- 11. ALL JOIST (UNO) REQUIRE FIELD BOLTING OF JOIST AT ERECT INTO PANELS, ALL JOIST SPANNING 40'-0" OR GREATER BEARING SHALL BE FABRICATED TO ALLOW FOR FIELD BOLTING DURING I THE JOIST TO STEEL STRUCTURE SHALL BE MADE BY FIELD WEI PRE-ASSEMBLED INTO PANELS WITH BRIDGING SHALL BE ATTAC CORNER BEFORE THE HOISTING CABLES ARE RELEASED.
- 12. * INDICATES COLUMN STABILIZATION JOIST. HOISTING CABLES BOTH BEARING SEATS OF THIS JOIST ARE FIELD BOLTED AT A S OR FIELD WELDED AT A WALL BEARING PLATE. WHERE EITHER AT A COLUMN, THE BOTTOM CHORD SHALL BE RESTRAINED BY A
- 12A. ** INDICATES COLUMN STABILIZATION JOIST. WHEN THE SPAN COLUMNS, IS GREATER THAN 60'-0", THE JOISTS SHALL BE SET BOLTED DIAGONAL BRIDGING INSTALLED PRIOR TO HOISTING. UNTIL BOTH SIDES OF THE JOIST BEARING SHOE ARE ATTACHEI
- 13. HORIZONTAL BRIDGING TO BE AS NOTED ON PLAN. SHIPPED IN 2 AS REQUIRED. SEE GENERAL NOTE P. ON THIS SHEET FOR MOR
- 14. PROVIDE ONE ROW HORIZONTAL UPLIFT BRIDGING AT EACH EN BOTTOM CHORD PANEL POINT ONLY. SEE BRIDGING DIAGRAM ON THIS SHEET. ROWS OF BRIDGING INDICATED THUS (_____ __).
- 15. WHEN SKYLIGHTS OR MECHANICAL DUCTS REQUIRE REMOVAL BRIDGING AT ONE JOIST SPACE, WELDED CROSS BRIDGING SHA JOIST SPACE. HORIZONTAL BRIDGING SHALL REMAIN AT ADJACH
- 16. BOLTED DIAGONAL BRIDGING TO BE: 1.1/4 x 1.1/4 x 7/64 MARK-PLACE BOLTED HORIZONTAL BRIDGING AT SPACES ADJACENT SEE PLAN FOR MARK. ROWS OF BRIDGING INDICATED THUS (
- 17. WHEN SKYLIGHTS OR MECHANICAL DUCTS INTERFERE WITH TH JOIST SPACE, IT MAY BE REMOVED ONLY AFTER ROOF DECK IS ADJACENT JOIST SPACES HAVE BOLTED OR WELDED DIAGONAL STABILITY BRIDGING" SHALL BE INSTALLED AS THE JOISTS ARE
- 18. JOIST CHORD SIZES WILL NOT BE AVAILABLE UNTIL FABRICATIO
- 19. STEEL ENCOUNTERS' PROPOSAL EXCLUDES AN ENGINEER'S ST JOIST CALCULATIONS, IF REQUIRED WILL NOT BE AVAILABLE UN WILL BE STAMPED BY CIVIL ENGINEER.
- 20. IF ZONING OF MATERIALS AND DELIVERIES ARE REQUIRED, PLE/ FAILURE TO PROVIDE ERECTION ZONING OR SEQUENCING AT T



CODE. 2019 D.S 8 IBC SECT ON	.S.C. 2207).
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THE PLAN, THE POINT LOAD TO SEE SECTION	IN PLACE THE LOADS AT NEAREST PANEL POINT AA ON THIS SHEET.
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SEI JOB NUMBER

37671

NMBS FILE NUMBER

5620-0092

DRAWING NUMBER

J1 oғ 4



UPLIFT 17.9 PSF @ GIRDERS 19.2 PSF @ JOIST

UPLIFT 11.5 PSF @ GIRDERS 12.8 PSF @ JOIST



ERECTOR NOTE: BRIDGING SIZES MAY VARY -REVIEW PLAN PRIOR TO LAYOUT

ERECTOR NOTE

PLACE JOIST OR GIRDER WITH TAGGED END AS INDICATED BY THE ARROW HEAD SYMBOL AT THE END OF MEMBER SHOWN ON THE ERECTION PLAN.

NOTICE: JOIST AND DECK DELIVERIES

AS THE RECIPIENT OF MATERIALS DELIVERED FROM OUR VENDORS, YOU ARE RESPONSIBLE FOR THE INVENTORY AND INSPECTION OF ALL MATERIALS THAT ARE DELIVERED TO THE SITE. IF THERE IS DAMAGE OR MISSING MATERIAL, IT MUST BE NOTED ON THE DELIVERY TICKET AT THE TIME OF UNLOADING. YOU MUST ALSO NOTIFY STEEL ENCOUNTERS BY TELEPHONE OR EMAIL IMMEDIATELY AFTER IDENTIFYING ANY ITEMS DAMAGED OR MISSING.

IF DAMAGED OR MISSING MATERIAL IS NOT NOTED ON THE DELIVERY TICKETS, STEEL ENCOUNTERS WILL NOT ACCEPT ANY CHARGES TO REPLACE OR REPAIR THE MATERIALS.



- LOADS ARE IN KIPS (ON GIRDERS)
- JOIST AND GIRDER DESIGN.

37671

J2 oF 4

5620-0092



Engineer of Record Review of Deferred Submittal

Engineer of Record has performed a general review of this deferred submittal and finds it to be: [x] In general conformance with project design

[] In general conformance with project design, except as noted

Engineer of Record has reviewed this deferred submittal only for general conformance with this design concept of the project and for information given in the Engineer of Record's documents. Any

However, deviations from plans or specifications not clearly indicated by the contractor have not been

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appears on the submittal.

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MACKENZIE.

By: siw Date: 05/25/2021



UPLIFT 17.9 PSF @ GIRDERS 19.2 PSF @ JOIST

UPLIFT 11.5 PSF @ GIRDERS 12.8 PSF @ JOIST

48'-5" 6'-6" 7 SPA. @ 6'-11 =	48'-5" 6'-6" ZONE 2 6'-6"	51'-10½" 6 SPA. @ 6'-5ậ" = 38'-10½"	5 6'-6" 6'-6"	51'-10½" 6 SPA. @ 6'-5¾" = 38'-10½"	6 6'-6" 6'-6" 6 5	51-10 ^{1/2} SPA. @ 6'-5 ^{1/2} = 38'-10 ^{1/2}	6'-6"
1252 PLF		SM S1					
							UB G
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€16 61 62 62 62 62 62 62 62 62 62 62	6/163 6/163 6/163 6/162	6/163 6/163 6/163		6/16 6/16	6(16) B3	6/163 6/163 6/163	6/163
UB UB UB	UB UB UB UB	UB		UB UB UB	(64) B3 UB UB UB		UB
3	<91.5>	۲۹۱.5> ۲ UB که محمد ال	S3A BB → S ∪B 5 → B HB → HB → B	^{<91.5>}	<u>S3A</u> <u>S3A</u> <u>S</u> UB <u>S</u> UB <u>S</u> UB <u>S</u> UB <u>S</u> UB <u>S</u> <u>S</u> UB <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u>	\$91.5> b b b b b b b c c c c c c c c	S3AA UB ∰
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				UB U	UB UB UB	UВ 	UB
3 — 5 UB 5 UB 5 UB 5 UB 5	-₩- UBB™ -₩-₩- ₩B -₩-₩- ₩ -₩- HB -₩-₩B -₩B	⊼ ⁵ ∪B ¹ 5 <u>5</u> 6 HB 6	₩B — ₩	—————————————————————————————————————	<u>,</u>	—————————————————————————————————————	UB 5 5
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- + + + + + + + + + + + + + + + + + + +		286/163 	286/163 → HB	<u>286/163</u> - HB - H	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		HB
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3 UB UB (14) B4					UB UB UB		
361-H286/163 361-H286/163 361-H286/163 351-H286/163 353 353 351-H286/163 353 353 353 353 353 353 353 353 353 3	36LH286/163 36LH286/163 36LH286/163 36LH286/163	361-H286/163 361-H286/163	36LH286/163 36LH286/163 36LH286/163 0 0	36LH286/163 36LH286/163	36LH286/163 36LH286/163 36LH286/163 36LH286/163 36LH286/163 36LH286/163		36LH286/163
24 C4 C4 C4 (14) B84			2K ADLOAD)		(64 /8 6)		
							UB 😸 🚖

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Date: 07/13/21 Permit #: 20-174521-DFS-01-CO

ROOF JOISTS FRAMING PLAN

REF: S01.21 & S01.22

- 1. COLOR CODE: RED.
- 2. SEE SHEET J1 FOR GENERAL FRAMING NOTES.
- 3. SEE SHEET J4 FOR FRAMING SECTIONS.
- 4. (XXX/YYY) LOADS SHOWN ON ROOF JOIST FRAMING PLANS ARE: TOTAL DESIGN LOAD IN PLF/ SNOW LOAD IN PLF (ON JOISTS) LOADS ARE IN KIPS (ON GIRDERS)

ALL DESIGN LOADS NOTED ON STEEL ENCOUNTERS' SHEET J1 AND J3 ARE CORRECT AS SHOWN. ONLY THE LOADS ON J1, J3, AND J4 WILL BE INCORPORATED INTO THE JOIST AND GIRDER DESIGN.

S.E.O.R: PLEASE DO NOT WAIT FOR JOIST CALCULATIONS BEFORE REVIEWING DESIGN INPUT SHOWN ON THESE J DRAWINGS.

- 5. CONTRACTOR & OR ERECTOR SHALL COORDINATE GIRDER, JOIST AND BRIDGING LOCATIONS TO AVOID CONFLICTS/INTERFERENCE WITH ALL OTHER MATERIALS, HATCHES, OPENINGS, ECT. & OTHER TRADES WORK.
- 6. HORIZONTAL BRIDGING TO BE: L 1 1/2 x 1 1/2 x 7/64 MARK-D. SEE FRAMING PLAN NOTE #13 ON SHEET J1 FOR MORE INFORMATION. ROWS OF BRIDGING INDICATED THUS (______ HB _____) ON PLAN.
- 6A. UPLIFT BRIDGING TO BE: L 1 1/2 x 1 1/2 x 7/64 MARK-D. SEE FRAMING PLAN NOTE #14 ON SHEET J1 FOR MORE INFORMATION. ROWS OF BRIDGING INDICATED THUS (_____ UB ____) ON PLAN.
- \bullet DENOTES BOLTED END OF JOIST. 7.
- 9. WELDED DIAGONAL BRIDGING TO BE: L 1 x 1 x 7/64 MARK-XW. FIELD WELDED, SEE PLAN FOR MARK. ROWS OF BRIDGING INDICATED THUS (______).
- 10. TYP. JOIST AXIAL LOAD IS 14.6K (ASD)(UNO)
- 11. TYP. GIRDER AXIAL LOAD IS 57.3K (ASD)

ERECTOR NOTE

PLACE JOIST OR GIRDER W TAGGED END AS INDICATED THE ARROW HEAD SYMBOL END OF MEMBER SHOWN OF ERECTION PLAN.

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=		JOIST OUANTITIES		Α
		JOIST GIRDERS	0	REV.
/ITH		SHORT SPAN	0	SPEC.
) BY		LONG SPAN	0	
AT THE		JOIST SUBSTITUTES	0	5
FINAL PLANS FINAL PLANS FOR FIELD USE BACKCHARGES WILL NOT BE HONORED WITHOUT AUTHORIZATION BY STEEL ENCOUNTERS, INC.			STEEI 2300 SUITE DETAILI DESCR PROJEC LOCATH ARCHIT CUSTO	

— UB — **56** G1 UB UB * * * * *

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> MACKENZIE. By: siw Date: 05/25/2021



(8)

6'-6"

51'-10¹/₂" 6 SPA. @ 6'-5³/₄" = 38'-10¹/₂"



