CO. 00. 160942 DFS. 01.

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00-100942-DFS-01-CO Micro

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DEC 20 2000
DOCUMENT SERVICES

JOIST GIRDER
BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	1 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
5	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
G1	1	48G5N13.0	51-8 5/8	7/8	1 3/4	51-6	5 7/8	6 3/4	6	6				
G2	3	48G5N17.5	51-8 5/8	7/8	1 3/4	51-6	5 7/8	6 3/4	6	6				
G3	1	48G5N25.0	51-8 5/8	7/8	1 3/4	51-6	5 7/8	6 3/4	6	6				

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	TOP CHORD HOLES HCL	LOCATION	HCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	# REQ'D.
G1	8	5 3/8	8	6 1/4			1A	1-3 1/4						87.0	348	
G2	8	5 3/8	8	6 1/4			1A	1-3 1/4						39.0	480	
G3	8	5 3/8	8	6 1/4			1A	1-3 1/4						55.0	634	

MARK	"A"	"B"	"C"	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
G1	9-10	11-8	10-0	0.9K	19-10	13.0K	49-10						
G2	9-10	11-8	10-0	1.2K	19-10	17.5K	49-10						
G3	9-10	11-8	10-0	1.1K	9-10	2.5K	19-10	25.0K	49-10				

MARK	REMARKS	REMARKS	REMARKS	REMARKS	REMARKS
G1	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"				
G2	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"				
G3	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"				

GENERAL NOTES
△ LL ≤ L/360

NO EXCEPTION TAKEN ☐ MAKE CORRECTIONS NOTED
REVISE AND RESUBMIT ☐ REJECTED

REVIEWED FOR GENERAL CONFORMITY WITH CONTRACT DOCUMENTS. SUBCONTRACTOR IS RESPONSIBLE FOR ALL QUANTITIES, DIMENSIONS, JOINERY AND COMPLETE COMPLIANCE WITH CONTRACT DOCUMENTS.

ANDERSEN CONSTRUCTION CO., INC.
BY Rick Jurado DATE 12/19/00

NO EXCEPTION TAKEN ☐ MAKE CORRECTIONS NOTED ☐
REJECTED ☐ REVISE AND RESUBMIT ☐
SUBMIT SPECIFIED ITEM ☐

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR: DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

KRAMER, GEHLEN & ASSOC., INC.
CONSULTING STRUCTURAL ENGINEERS
DATE 12/18/00 BY RJ

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY
ACCO JOB # 6275
SUBMITTAL #

PAGE 1 OF 15 WOOD-LAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00 ISSUED FOR PRODUCTION 11/17/00
△1 Per contractor's approval 11/29/00

JOIST GIRDER

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	2 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
9	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
G4	1	48G6N13.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G5	6	48G6N17.5	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G6	2	48G6N25.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	TOP CHORD HOLES HCL	LOCATION	HCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	I REQ'D.
G4	8	6 1/4	8	6 1/4	1A	1-0 / 1-3 1/4	1A	1-0 / 1-3 1/4						87.0	310 △1	
G5	8	6 1/4	8	6 1/4	1A	1-0 / 1-3 1/4	1A	1-0 / 1-3 1/4						39.0	480	
G6	8	6 1/4	8	6 1/4	1A	1-0 / 1-3 1/4	1A	1-0 / 1-3 1/4						55.0	684	

MARK	"A"	"B"	"C"	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
G4	8-0	4-2	10-0										
G5	8-0	4-2	10-0										
G6	8-0	4-2	10-0										

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
G4	KNIFE PLATE BE, HOLD BACK 11"
G5	KNIFE PLATE BE, HOLD BACK 11"
G6	KNIFE PLATE BE, HOLD BACK 11"

GENERAL NOTES

△ LL ≤ L/360

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY _____ SHOP ORDER CHECKED BY _____

 WOCO-LAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00 ISSUED FOR PRODUCTION 11/17/00

△1 Per contractor's approval 11/29/00

JOIST GIRDER

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	3 BTF SHT 1 OF 1	SCO-1359
PIECE COUNT	PAINT	REFER TO DWG
5	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
G7	1	48G6N13.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G8	3	48G6N17.5	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G9	1	48G6N25.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	TOP CHORD HOLES HCL	LOCATION	HCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	1 REQ'D.
G7	8	6 1/4	8	6 1/4	1A	1-3 1/4	1A	1-3 1/4						87.0	300	
G8	8	6 1/4	8	6 1/4	1A	1-3 1/4	1A	1-3 1/4						39.0	480	
G9	8	6 1/4	8	6 1/4	1A	1-3 1/4	1A	1-3 1/4						55.0	684	

MARK	"A"	"B"	"C"	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
G7	5-6	6-8	10-0										
G8	5-6	6-8	10-0										
G9	5-6	6-8	10-0										

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
G7	KNIFE PLATE BE, HOLD BACK 11"
G8	KNIFE PLATE BE, HOLD BACK 11"
G9	KNIFE PLATE BE, HOLD BACK 11"

GENERAL NOTES

Δ LL $\leq$ L/360

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

JOIST GIRDER

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	4 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
5	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH CR EDL	TYPE DR EDR
G10	1	48G5N13.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G11	3	48G5N17.5	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G12	1	48G5N25.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	TOP CHORD HOLES HCL	LOCATION	HCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	1 REQ'D.
G10	8	6 1/4	8	6 1/4	1A	1-3 1/4	1A	1-3 1/4						87.0	276	
G11	8	6 1/4	8	6 1/4	1A	1-3 1/4	1A	1-3 1/4						39.0	480	
G12	8	6 1/4	8	6 1/4	1A	1-3 1/4	1A	1-3 1/4						55.0	684	

MARK	"A"	"B"	"C"	ADDITIONAL CONCENTRATED LOADS-LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
G10	13-0	9-2	10-0	13.0K	3-0	1.2K	13-0						
G11	13-0	9-2	10-0	17.5K	3-0	2.0K	13-0						
G12	13-0	9-2	10-0	25.0K	3-0	2.9K	13-0						

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
G10	KNIFE PLATE LE, HOLD BACK 11" | TIE ROD RE
G11	KNIFE PLATE BE, HOLD BACK 11"
G12	KNIFE PLATE BE, HOLD BACK 11"

GENERAL NOTES

Δ LL $\leq$ L/360

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

JOIST GIRDER

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	5 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
5	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
G13	3	48G5N17.5	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G14	1	48G5N25.0	52-5 1/2	1 3/4	1 3/4	52-2	6 3/4	6 3/4	6	6				
G15	1	48G6N17.5	59-8		1 3/4	59-6 1/4	5	6 3/4	6	6				

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	TOP CHORD HOLES HCL	LOCATION	HCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	I REQ'D.
G13	8	5 1/4	8	6 1/4	1A	1-0 1-3 1/4	1A	1-0 1-3 1/4						39.0	480	
G14	8	6 1/4	8	6 1/4	1A	1-0 1-3 1/4	1A	1-0 1-3 1/4						55.0	684	
G15			8	6 1/4			1A	1-0 1-3 1/4						39.0	480	

MARK	"A"	"B"	"C"	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
G13	10-6	11-8	10-0	17.5K △1	0-6 1/4 △1	1.2K	10-6	17.5K	50-6				
G14	10-6	11-8	10-0	25.0K △1	0-6 1/4 △1	1.8K	10-6	25.0K	50-6				
G15	14-0 1/4	5-6	10-0	8.8K	4-0 1/4								

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
G13	KNIFE PLATE BE, HOLD BACK 11"
G14	KNIFE PLATE BE, HOLD BACK 11"
G15	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"

GENERAL NOTES

△ LL ≤ L/360

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

 WOOD-LAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00 ISSUED FOR PRODUCTION 11/17/00

△1 Per contractor's approval 11/29/00

JOIST GIRDER

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	6 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
3	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
G16	1	48G6N17.5	55-9 3/4		1 3/4	55-8	5	6 3/4	6	6				
G17	1	48G6N17.5	51-11 3/8		1 3/4	51-9 5/8	5	6 3/4	6	6				
G18	1	48G5N25.0 △1	48-1 1/8		1 3/4	47-11 3/8	5	6 3/4	6	6				

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	TOP CHORD HOLES HCL	LOCATION	HCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	1 REQ'D.
G16			8	6 1/4			1A	1-0 / 1-3 1/4						39.0	480	
G17			8	6 1/4			1A	1-0 / 1-3 1/4						39.0	480	
G18			8	6 1/4			1A	1-0 / 1-3 1/4						55.0	684 △1	

MARK	"A"	"B"	"C"	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
G16	10-2	5-6	10-0										
G17	6 3 5/8	5-6	10-0										
G18	12-5 3/8	5-6	10-0	8.8K	2-5 3/8								

MARK	REMARKS - REMARKS -- REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
G16	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"
G17	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"
G18	NO AXIAL FORCE LE | KNIFE PLATE RE, HOLD BACK 11"

GENERAL NOTES

△ LL ≤ L/360

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

 WOOD-LAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00 ISSUED FOR PRODUCTION 11/17/00

△1 Per contractor's approval 11/29/00

LONG SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	7 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
6	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
T1	5	44LH15	72-5 1/4		1/4	72-5			3 3/4	3 3/4	1.125	RE		
T2	1	44LH15	72-4 3/4		1/4	72-4 1/2			3 3/4	3 3/4	1.125	RE		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADDL TC AXIAL FORCE	NET UPLIFT	I REQ'D.
T1	7	1 3/4	7	1 3/4						11.0	120	
T2	7	1 3/4	7	1 3/4						11.0	120	

MARK	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
T1														
T2														

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
T1	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"
T2	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"

GENERAL NOTES

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

$\Delta LL \leq L/360$

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY _____ SHOP ORDER CHECKED BY _____

SHORT SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	8 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
19	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END
J1	5	30K10	40-0 3/4	1/4	2 1/4	39-10 1/4			3 3/4	3 3/4	.875	LE
J2	1	30K10	39-11 3/4	1/4	2 1/4	39-9 1/4			3 3/4	3 3/4	.875	LE
J3	13	30K10	39-11 1/2	1/4	1/4	39-11			3 3/4	3 3/4		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	ADD. TC AXIAL FORCE	BC Lyy DISTANCE	NET UPLIFT
J1	9	1 3/4	9	1 3/4	11.0		120
J2	9	1 3/4	9	1 3/4	11.0		120
J3	9	1 3/4	9	1 3/4	11.0		120

MARK	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD
J1													
J2													
J3													

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
J1	TIE PLATE BE, HOLD BACK NAILER 6"
J2	TIE PLATE BE, HOLD BACK NAILER 6"
J3	TIE PLATE BE, HOLD BACK NAILER 6"

GENERAL NOTES

$\Delta LL \leq L/360$

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

 WOOD-LAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00

SHORT SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
RED	9 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
5	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END
J4	2	30K10	39-10 1/2	1/4	1/4	39-10			3 3/4	3 3/4		
J5	1	30K10	39-11	1/4	1/4	39-10 1/2			3 3/4	3 3/4		
J6	2	30K10	39-9 1/4		1/4	39-9			3 3/4	3 3/4		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	ADD. TC AXIAL FORCE	BC Lyy DISTANCE	NET UPLIFT
J4	9	1 3/4	9	1 3/4	11.0		120
J5	9	1 3/4	9	1 3/4	11.0		120
J6	9	1 3/4	9	1 3/4	11.0		120

ADDITIONAL CONCENTRATED LOADS-LOCATED FROM BASE LENGTH LEFT END

MARK	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD
J4													
J5													
J6													

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
J4	TIE PLATE BE, HOLD BACK NAILER 6"
J5	TIE PLATE BE, HOLD BACK NAILER 6"
J6	TIE PLATE BE, HOLD BACK NAILER 6"

GENERAL NOTES

$\Delta LL \leq L/360$

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY _____ SHOP ORDER CHECKED BY _____

 WCCC-JAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00

LONG SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
BLUE	10 BTF SHT 1 OF 1	SCO-1359
PIECE COUNT	PAINT	REFER TO DWG
27	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
T3	25	44LH15	72-5 1/4		1/4	72-5			3 3/4	3 3/4	1.125	RE		
T4	1	44LH542/291	72-5 1/4		1/4	72-5			3 3/4	3 3/4	1.125	RE		
T5	1	44LH562/311	72-5 1/4		1/4	72-5			3 3/4	3 3/4	1.125	RE		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	I REQ'D.
T3										11.0	120	
T4										11.0	120	
T5										11.0	120	

ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END

MARK	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
T3														
T4														
T5														

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
T3	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"
T4	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"
T5	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"

GENERAL NOTES

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

$\Delta LL \leq L/360$

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

LONG SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
BLUE	11 BTF SHT 1 OF 1	SCO-1359
PIECE COUNT	PAINT	REFER TO DWG
2	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END	PITCH OR EDL	TYPE OR EDR
T6	1	44LH15	72-5 1/4		1/4	72-5			3 3/4	3 3/4	1.125	RE		
T7	1	44LH542/291	72-5 1/4		1/4	72-5			3 3/4	3 3/4	1.125	RE		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	FIXED MOMENT LEFT	FIXED MOMENT RIGHT	LATERAL MOMENT LEFT	LATERAL MOMENT RIGHT	BC Lyy DISTANCE	ADD. TC AXIAL FORCE	NET UPLIFT	I REQ'D.
T6										11.0	120	
T7										11.0	120	

MARK	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD	SPLICE
T6	0.58K	21-0	0.58K	29-0	0.58K	37-0	0.58K	45-0						
T7	0.15K	21-0	0.15K	29-0	0.15K	37-0	0.15K	45-0						

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
T6	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"
T7	NO AXIAL FORCE LE | TIE PLATE RE, HOLD BACK NAILER 6"

GENERAL NOTES

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

$\Delta LL \leq L/360$

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY _____ SHOP ORDER CHECKED BY _____

SHORT SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
BLUE	12 BTF SHT 1 OF 1	S00-1359
PIECE COUNT	PAINT	REFER TO DWG
30	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END
J7	27	30K10	40-0 3/4	1/4	2 1/4	39-10 1/4			3 3/4	3 3/4		
J8	2	30K468/345	40-0 3/4	1/4	2 1/4	39-10 1/4			3 3/4	3 3/4		
J9	1	30K488/365	40-0 3/4	1/4	2 1/4	39-10 1/4			3 3/4	3 3/4		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	ADD. TC AXIAL FORCE	BC Lyy DISTANCE	NET UPLIFT
J7					11.0		120
J8					11.0		120
J9					11.0		120

MARK	ADDITIONAL CONCENTRATED LOADS—LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD
J7													
J8													
J9													

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
J7	TIE PLATE BE, HOLD BACK NAILER 6"
J8	TIE PLATE BE, HOLD BACK NAILER 6"
J9	TIE PLATE BE, HOLD BACK NAILER 6"

GENERAL NOTES

$\Delta LL \leq L/360$

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY _____ SHOP ORDER CHECKED BY _____

 WOOD-LAM P.O. # 00-02-200 ISSUED FOR APPROVAL 11/7/00

SHORT SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
BLUE	13 BTF SHT 1 OF 1	SCO-1359
PIECE COUNT	PAINT	REFER TO DWG
79	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCDL	TCDR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END
J10	70	30K10	39-11 1/2	1/4	1/4	39-11			3 3/4	3 3/4		
J11	6	30K468/345	39-11 1/2	1/4	1/4	39-11			3 3/4	3 3/4		
J12	3	30K488/365	39-11 1/2	1/4	1/4	39-11			3 3/4	3 3/4		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	ADD. TC AXIAL FORCE	BC Lyy DISTANCE	NET UPLIFT
J10					11.0		120
J11					11.0		120
J12					11.0		120

MARK	ADDITIONAL CONCENTRATED LOADS-LOCATED FROM BASE LENGTH LEFT END LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD
J10													
J11													
J12													

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
J10	TIE PLATE BE, HOLD BACK NAILER 6"
J11	TIE PLATE BE, HOLD BACK NAILER 6"
J12	TIE PLATE BE, HOLD BACK NAILER 6"

GENERAL NOTES

$\Delta LL \leq L/360$

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

DRAWN BY ADD CHECKED BY MKA SHOP ORDERED BY _____ SHOP ORDER CHECKED BY _____

 WOOD-LAM P.O. # CO-02-200 ISSUED FOR APPROVAL 11/7/00

SHORT SPAN JOIST

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
BLUE	14 BTF SHT 1 OF 1	SCO-1359
PIECE COUNT	PAINT	REFER TO DWG
12	GREY	1 OF 2

MARK	QTY	DESIGNATION	OVERALL LENGTH	TCXL	TCXR	BASE LENGTH	EXT BOTTOM CHORD LEFT	EXT BOTTOM CHORD RIGHT	BRG DEPTH LEFT	BRG DEPTH RIGHT	SLOPE RATE	HIGH END
J13	12	30K10	39-9 1/4		1/4	39-9			3 3/4	3 3/4		

MARK	BEARING SEAT SLOTS SCL	LOCATION	SCR	LOCATION	ADD. TC AXIAL FORCE	BC Lyy DISTANCE	NET UPLIFT
J13					11.0		120

ADDITIONAL CONCENTRATED LOADS-LOCATED FROM BASE LENGTH LEFT END

MARK	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	LOAD	LOCATION	ADLOAD
J13													

MARK	REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - REMARKS - - REMARKS
J13	TIE PLATE BE, HOLD BACK NAILER 6"

GENERAL NOTES

$\Delta LL \leq L/360$

1 3/4" LSL NAILER INSTALLED BY MFGR. USE #14 X 1 3/4" GRADE 5 SCREWS @ 24" O.C. SEE DETAIL 1/2.

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY SHOP ORDER CHECKED BY

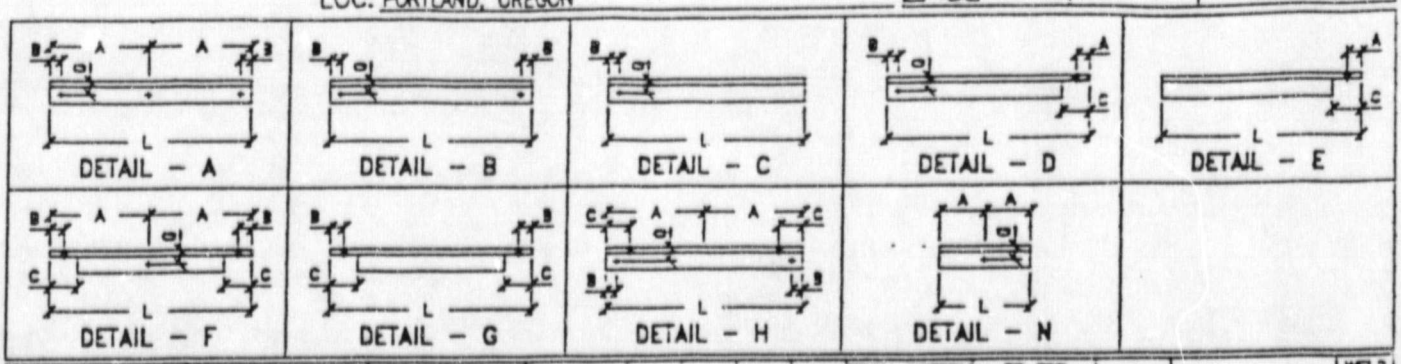
BRIDGING/ACCESSORIES

BILL OF MATERIALS

JOB: COLUMBIA DISTRIBUTION

LOC: PORTLAND, OREGON

COLOR CODE	LIST NUMBER	FILE NUMBER
BLUE	15 END SHT 1 OF 1	S00-1359
SS TONS / LS TONS	PAINT GREY	REFER TO DWG 1 OF 2



MARK	QTY	DESCRIPTION	L	A	B	C	G	DET	FROM BOTTOM OF MEMBER #1	TO TOP OF MEMBER #2	ELEV. Δ	SPACE	WELD OR BOLT
UB1	20								48G	44LH			
UB2	160								48G	30K			
J4	580								30K	2x6			
J5	210								44LH	2x6			

REMARKS:

____	____X____	BOLTS	____	____X____	BOLTS
____	____X____	NUTS	____	____X____	NUTS
____	____X____	WASHERS	____	____X____	WASHERS

DRAWN BY ADP CHECKED BY MKA SHOP ORDERED BY ____ SHOP ORDER CHECKED BY ____

canam steel Corporation

SOLUTIONS + SERVICE

00-160942-DFS-01-CO

STRUCTURAL CALCULATIONS

THE STEEL JOISTS DESIGNATED BELOW WERE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATIONS ESTABLISHED BY THE STEEL JOIST INSTITUTE.

- G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11, G12, -
- G13, G14, G15, G16, G17, G18, C1, C2, C3, C4, C5, C6, -
- C7, J1, J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, -
- J12, J13, - END -

NO EXCEPTION TAKEN ☑ MAKE CORRECTIONS NOTED ☐
REJECTED ☐ REVISE AND RESUBMIT ☐
SUBMIT SPECIFIED ITEM ☐

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR: DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF HIS WORK.

KRAMER, GEHLEN & ASSOC., INC.
CONSULTING STRUCTURAL ENGINEERS

DATE 12/18/00 BY RJ

RECEIVED
DEC 20 2000
DOCUMENT SERVICES
13 Dec 2000

REGISTERED PROFESSIONAL ENGINEER 16330 OREGON SEPT. 21, 1993 TIMOTHY W. BARDELL

CUSTOMER: WOOD LANE
JOB NO.: A04061

☒ NO EXCEPTION TAKEN ☐ MAKE CORRECTIONS NOTED
☐ REVISE AND RESUBMIT ☐ REJECTED
REVIEWED GENERAL CONFORMITY WITH CONTRACT DOCUMENTS. SUBCONTRACTOR IS RESPONSIBLE FOR ALL QUANTITIES, DIMENSIONS, JOINERY AND COMPLETE COMPLIANCE WITH CONTRACT DOCUMENTS.

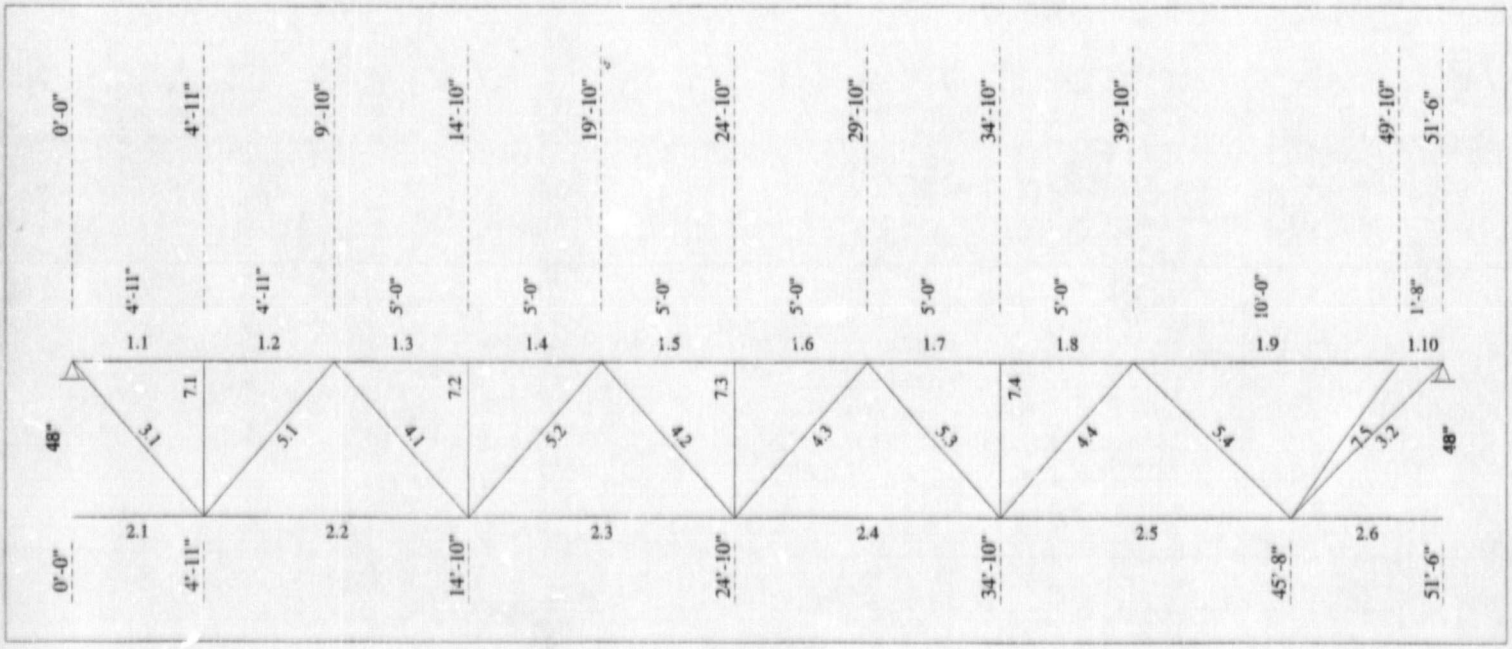
ANDERSEN CONSTRUCTION CO., INC.
BY Rick Jukuda DATE 12/18/00
ACCO JOB # 625
SUBMITTAL #

Portland APPROVED 08 2001

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G1 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N13.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	13.00	9.10	3.48	9'-10"	9'-10"	5	1	90	0
2	1	Near	13.00	9.10	3.48	19'-10"	10'-0"	5	1	90	0
3	1	Near	13.00	9.10	3.48	29'-10"	10'-0"	5	1	90	0
4	1	Near	13.00	9.10	3.48	39'-10"	10'-0"	5	1	90	0
5	1	Far	0.90	0.90	0.00	19'-10"	19'-10"	5	1	90	0
6	1	Far	13.00	13.00	0.00	49'-10"	30'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-87.00	87.00	0.00	0.00
(case 2)..:	0.00	0.00	87.00	-87.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

Mark: G1

canamsteel Corporation

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:24:01

DEFLECTION

Allowed deflection under live load ..... = 1.71 in (L/ 360)
Calculated deflection under service live load .... = 1.11 in (L/ 551)
Joist inertia ..... = 5099.19 in^4
Required camber ..... = 1.08 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.87 in)

Left Reaction = 27.90/ -5.38 kips Right Reaction = 38.06/ -5.01 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	74.97	-80.02		LL 4 X .375	z 72	0.683	4'-11"		
1.2	74.97	-80.02		do	z 75	0.699	4'-11"		
1.3	85.56	-99.01		do	z 76	0.876	5'-0"		
1.4	85.56	-99.01		do	z 76	0.876	do		
1.5	89.45	-110.71		do	z 76	0.979	do		
1.6	89.45	-110.71		do	z 76	0.979	do		
1.7	86.54	-101.61		do	z 76	0.899	do		
1.8	86.54	-101.61		do	z 76	0.899	5'-0"		
1.9	75.72	-84.13	x	do	xx 97	0.958	10'-0"		
1.10	75.72	-94.76		LL 4 X .375	z 23	0.592	1'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 83	0.564	4'-11"		
2.2	70.52	-13.64		do	z 172	0.747	9'-11"		
2.3	109.44	-20.93	x	do	xx111	0.871	10'-0"		
2.4	111.96	-21.42	x	do	yy140	0.892	10'-0"		
2.5	80.46	-15.11		do	z 188	0.858	10'-10"		
2.6	0.00	0.00		LL 3.5 X .313	z 99	0.549	5'-10"		
End Diagonal									
3.1	44.49	-11.12	x	LL 2 X .216	xx119	0.907	6'-2 1/2"	.216 - 7"	
3.2	68.04	-17.01		LL 3 X .25	z 138	0.789	6'-11 1/4"	.250 - 9 1/4"	T45
Diagonal Towards End									
4.1	24.50	-6.13	x	LLV 1.75 x .143	xx139	0.851	6'-4 7/8"	.143 - 5 3/4"	
4.2	15.67	-3.92	x	LL 2 X .216	xx123	0.319	do	.216 - 2 1/2"	
4.3	0.31	-15.67	x	LL 2 X .216	xx123	0.973	do	.216 - 2 1/2"	
4.4	19.84	-4.96	x	LLV 1.75 x .143	xx139	0.689	6'-4 7/8"	.143 - 4 5/8"	
Diagonal Towards Center									
5.1	8.79	-45.42	x	LL 3 X .224	xx 80	0.973	6'-4"	.224 - 6 7/8"	
5.2	4.60	-24.49	x	LL 2.5 X .188	xx 97	0.904	6'-4 7/8"	.188 - 4 3/8"	
5.3	3.98	-19.82	x	LL 2.5 X .188	xx 97	0.732	6'-4 7/8"	.188 - 3 5/8"	
5.4	9.16	-45.70	x	LL 3 X .25	xx 90	0.955	7'-0 7/8"	.250 - 6 1/8"	
Secondary Web Member									
7.1	0.00	-1.68		U 1 x 1 x 0.118	z 155	0.019	4'-0"	.118 - 1 1/2"	
7.2	0.00	-2.08	d	U 1 3/8 x 0.118	z 106	0.479	do	do	
7.3	0.00	-2.33	d	do	z 106	0.535	do	do	
7.4	0.00	-2.14	d	U 1 3/8 x 0.118	z 106	0.491	4'-0"	.118 - 1 1/2"	
7.5	0.00	-19.23		LL 3 X .224	z 114	0.650	5'-9 1/4"	.224 - 2 7/8"	

BRIDGING

Maximum spacing between rows of bridging
@ Top Chord: 40'-10 7/8" ==> 0 Row(s) Minimum

Laterals supports
Concentrated loads

canamsteel Corporation

Mark: G1

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:24:01

@ Bottom Chord: 36'-10 1/8" ==> 2 Row(s) Minimum Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 19'-10"
		KB 29'-10"

---

v3.6 12/06/00

Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

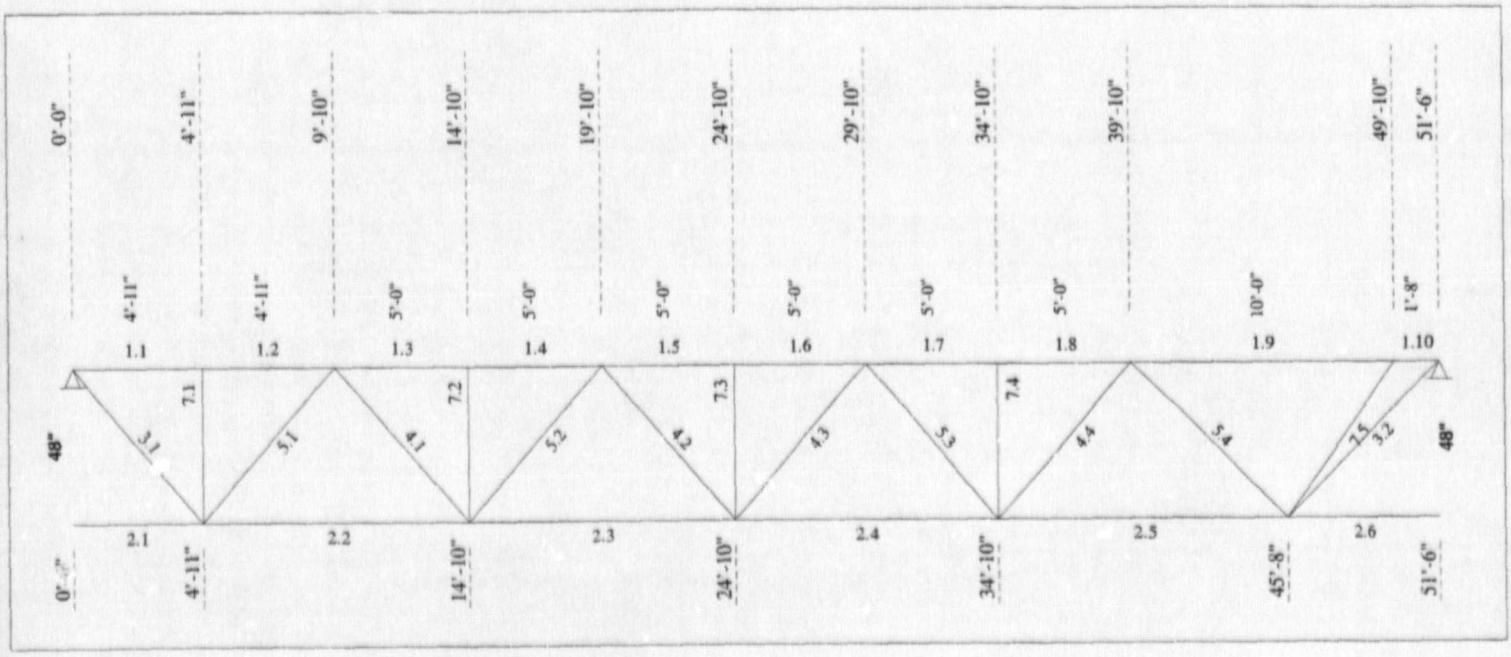
CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:
0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support
Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
2165 (317.84) / 2288 (336.44)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G2 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	9'-10"	9'-10"	5	1	90	0
2	1	Near	17.50	12.25	4.80	19'-10"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	29'-10"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	39'-10"	10'-0"	5	1	90	0
5	1	Far	1.20	1.20	0.00	19'-10"	19'-10"	5	1	90	0
6	1	Far	17.50	17.50	0.00	49'-10"	30'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G2

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:24:29

DEFLECTION

Allowed deflection under live load ..... = 1.71 in (L/ 360)
Calculated deflection under service live load .... = 1.19 in (L/ 516)
Joist inertia ..... = 6428.75 in^4
Required camber ..... = 1.08 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.70 in)

Left Reaction = 37.54/ -7.43 kips Right Reaction = 51.22/ -6.92 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	40.00	-46.81		LL 4 X .438	z 73	0.346	4'-11"		
1.2	40.00	-46.81		do	z 75	0.612	4'-11"		
1.3	54.67	-121.53		do	z 76	0.931	5'-0"		
1.4	54.67	-121.53		do	z 76	0.931	do		
1.5	60.06	-149.53	x	do	yy 58	0.980	do		
1.6	60.06	-149.53	x	do	yy 58	0.980	do		
1.7	56.02	-129.97		do	z 76	0.995	do		
1.8	56.02	-129.97		do	z 76	0.995	5'-0"		
1.9	41.03	-57.05	x	do	xx 98	0.654	10'-0"		
1.10	41.03	-76.20		LL 4 X .438	z 23	0.411	1'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .375	z 72	0.476	4'-11"		
2.2	95.25	-18.89		do	z 151	0.738	9'-11"		
2.3	147.81	-29.00		do	z 152	0.862	10'-0"		
2.4	151.23	-29.68		do	z 152	0.882	10'-0"		
2.5	108.68	-20.93		do	z 165	0.756	10'-10"		
2.6	0.00	0.00		LL 4 X .375	z 86	0.543	5'-10"		
End Diagonal									
3.1	60.00	-15.00		LL 2.5 X .230	z 148	1.007	6'-2 1/2"	.230 - 8 7/8"	T45
3.2	91.81	-22.95		LL 3 X .313	z 139	0.860	6'-11 1/4"	.313 - 9 7/8"	T45
Diagonal Towards End									
4.1	33.04	-8.26	x	LL 2 X .142	xx121	1.005	6'-4 7/8"	.142 - 7 7/8"	
4.2	21.13	-5.28	x	LL 2.5 X .188	xx 97	0.389	do	.188 - 3 3/4"	
4.3	0.43	-21.13	x	LL 2.5 X .188	xx 97	0.779	do	.188 - 3 3/4"	
4.4	26.75	-6.69	x	LL 2 X .142	xx121	0.814	6'-4 7/8"	.142 - 6 3/8"	
Diagonal Towards Center									
5.1	12.16	-61.27	x	LL 3 X .281	xx 81	1.009	6'-4"	.281 - 7 3/8"	
5.2	6.36	-33.02	x	LL 2.5 X .230	xx 98	0.988	6'-4 7/8"	.230 - 4 7/8"	
5.3	5.51	-26.74	x	LL 2.5 X .230	xx 98	0.800	6'-4 7/8"	.230 - 3 7/8"	
5.4	12.68	-61.66	x	LL 3.5 X .313	xx 77	0.759	7'-0 7/8"	.313 - 6 5/8"	
Secondary Web Member									
7.1	0.00	-0.98		U 1 x 1 x 0.090	z 160	0.739	4'-0"	.091 - 1 1/2"	
7.2	0.00	-2.55	d	U 1 3/8 x 0.118	z 106	0.581	do	.118 - 1 1/2"	
7.3	0.00	-3.13	d	do	z 106	0.715	do	do	
7.4	0.00	-2.72	d	U 1 3/8 x 0.118	z 106	0.622	4'-0"	.118 - 1 1/2"	
7.5	0.00	-25.94		LL 3 X .224	z 114	0.873	5'-9 1/4"	.224 - 3 7/8"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 41'-2" ==> 0 Row(s) Minimum Concentrated loads

@ Bottom Chord: 41'-0 3/8" ==> 2 Row(s) Minimum Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 19'-10"
		KB 29'-10"

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v3.6 12/06/00

Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

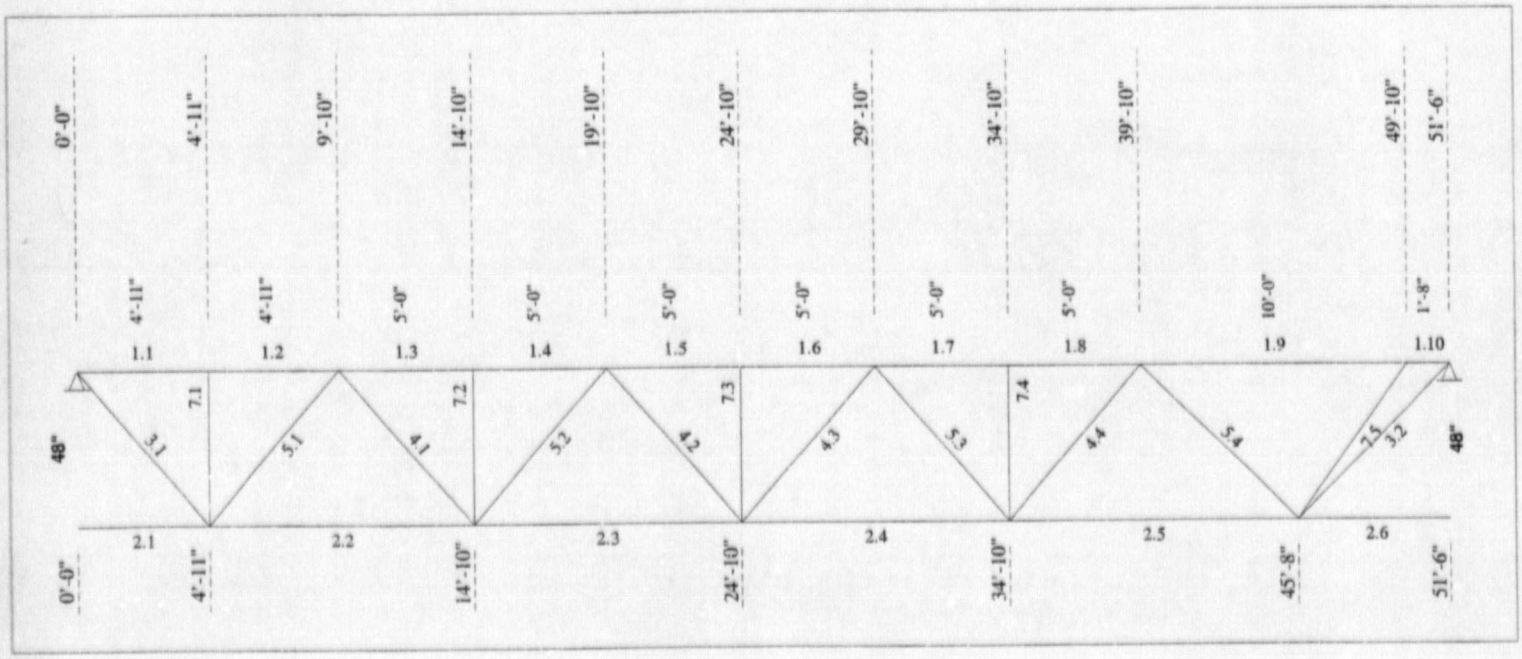
CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:
0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support
Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
2663 (384.21) / 2825 (406.99)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G3 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N25.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	25.00	17.50	6.84	9'-10"	9'-10"	5	1	90	0
2	1	Near	25.00	17.50	6.84	19'-10"	10'-0"	5	1	90	0
3	1	Near	25.00	17.50	6.84	29'-10"	10'-0"	5	1	90	0
4	1	Near	25.00	17.50	6.84	39'-10"	10'-0"	5	1	90	0
5	1	Far	1.10	1.10	0.00	9'-10"	9'-10"	5	1	90	0
6	1	Far	2.50	2.50	0.00	19'-10"	10'-0"	5	1	90	0
7	1	Far	25.00	25.00	0.00	49'-10"	30'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-55.00	55.00	0.00	0.00
(case 2)..:	0.00	0.00	55.00	-55.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G3

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:24:54

DEFLECTION

Allowed deflection under live load ..... = 1.71 in (L/ 360)
Calculated deflection under service live load .... = 1.23 in (L/ 501)
Joist inertia ..... = 9118.51 in^4
Required camber ..... = 1.08 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.15 in)

Left Reaction = 54.99/ -10.60 kips Right Reaction = 73.67/ -9.87 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	57.24	-69.40		LL 5 X .5	z 58	0.317	4'-11"		
1.2	57.24	-69.40		do	z 60	0.630	4'-11"		
1.3	78.41	-179.59		do	z 61	0.839	5'-0"		
1.4	78.41	-179.59		do	z 61	0.839	do		
1.5	86.19	-219.75	x	do	yy 49	0.941	do		
1.6	86.19	-219.75	x	do	yy 49	0.941	do		
1.7	80.36	-190.12		do	z 61	0.888	do		
1.8	80.36	-190.12		do	z 61	0.888	5'-0"		
1.9	58.73	-83.25	x	do	xx 78	0.667	10'-0"		
1.10	58.73	-110.93		LL 5 X .5	z 18	0.410	1'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 5 X .438	z 58	0.482	4'-11"		
2.2	141.23	-27.26		do	z 121	0.743	9'-11"		
2.3	217.94	-41.86		do	z 122	0.867	10'-0"		
2.4	221.54	-42.83		do	z 122	0.882	10'-0"		
2.5	158.68	-30.20		do	z 132	0.809	10'-10"		
2.6	0.00	0.00		LL 5 X .438	z 69	0.570	5'-10"		
End Diagonal									
3.1	88.54	-22.14		LL 3 X .281	z 123	0.918	6'-2 1/2"	.281 - 10 5/8"	
3.2	133.16	-33.29		LL 3.5 X .375	z 119	0.893	6'-11 1/4"	.313 - 14 3/8"	T45
Diagonal Towards End									
4.1	48.01	-12.00	x	LL 2 X .216	xx122	0.979	6'-4 7/8"	.216 - 7 1/2"	
4.2	30.63	-7.66	x	LL 2.5 X .230	xx 97	0.465	do	.230 - 4 1/2"	
4.3	0.62	-30.63	x	LL 2.5 X .230	xx 97	0.911	do	.230 - 4 1/2"	
4.4	39.35	-9.84	x	LL 2 X .216	xx122	0.802	6'-4 7/8"	.216 - 6 1/8"	
Diagonal Towards Center									
5.1	17.47	-90.45	x	LL 3.5 X .344	xx 69	0.934	6'-4"	.313 - 9 3/4"	
5.2	9.14	-48.00	x	LL 3 X .25	xx 81	0.905	6'-4 7/8"	.250 - 6 1/2"	
5.3	7.91	-39.33	x	LL 3 X .25	xx 81	0.742	6'-4 7/8"	.250 - 5 3/8"	
5.4	18.23	-89.77	x	LL 3.5 X .344	xx 77	1.002	7'-0 7/8"	.313 - 9 3/4"	
Secondary Web Member									
7.1	0.00	-1.44		U 1 x 1 x 0.118	z 153	0.761	4'-0"	.118 - 1 1/2"	
7.2	0.00	-3.72	d	U 1 3/8 x 0.118	z 104	0.831	do	.118 - 1 1/2"	
7.3	0.00	-4.55	d	U 1 3/8 x 0.157	z 102	0.554	do	.158 - 1 1/2"	
7.4	0.00	-3.93	d	U 1 3/8 x 0.118	z 104	0.880	4'-0"	.118 - 1 1/2"	
7.5	0.00	-37.30		LL 3 X .313	z 114	0.917	5'-9 1/4"	.313 - 4"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 49'-3 3/4" ==> 0 Row(s) Minimum Concentrated loads

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Mark: G3

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:24:54

@ Bottom Chord: 49'-2 1/4" ==> 1 Row(s) Minimum Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 19'-10"

---

v3.6 12/06/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member 1 = within a panel with no reinforcement

2 = anywhere within a panel 3 = at any panel point along the joist

4 = anywhere along the joist 5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

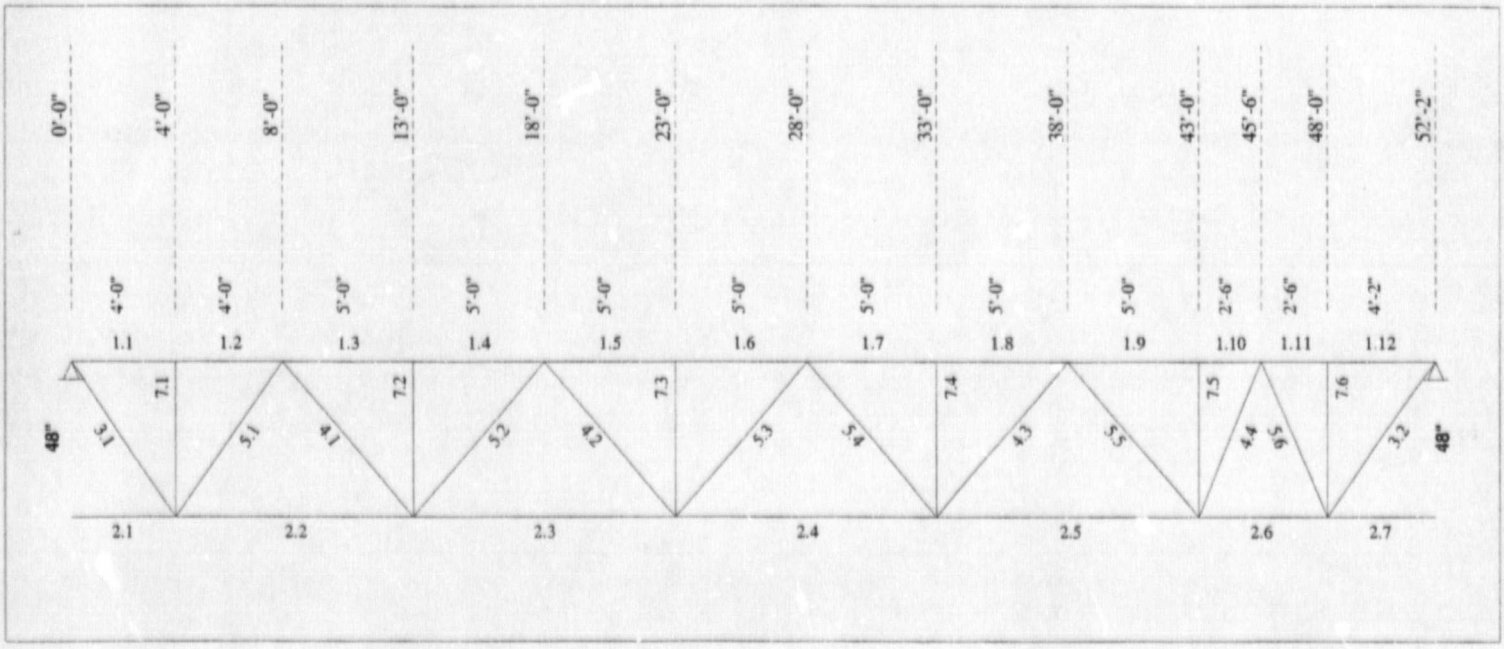
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

3785 (609.41) / 4002 (644.23)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G4 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N13.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	13.00	9.10	3.10	8'-0"	8'-0"	5	1	90	0
2	1	Near	13.00	9.10	3.10	18'-0"	10'-0"	5	1	90	0
3	1	Near	13.00	9.10	3.10	28'-0"	10'-0"	5	1	90	0
4	1	Near	13.00	9.10	3.10	38'-0"	10'-0"	5	1	90	0
5	1	Near	13.00	9.10	3.10	48'-0"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-87.00	87.00	0.00	0.00
(case 2)..:	0.00	0.00	87.00	-87.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G4

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 17:31:17

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.16 in (L/ 538)
Joist inertia ..... = 5099.19 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.87 in)

Left Reaction = 30.14/ -5.35 kips Right Reaction = 34.94/ -6.21 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	73.65	-78.75		LL 4 X .375	z 58	0.599	4'-0"		
1.2	73.65	-78.75		do	z 61	0.611	4'-0"		
1.3	83.25	-97.42		do	z 76	0.862	5'-0"		
1.4	83.25	-97.42		do	z 76	0.862	do		
1.5	88.19	-111.85		do	z 76	0.990	do		
1.6	88.19	-111.85		do	z 76	0.990	do		
1.7	87.07	-105.56		do	z 76	0.934	do		
1.8	87.07	-105.56		do	z 76	0.934	do		
1.9	79.88	-90.89		do	z 76	0.804	5'-0"		
1.10	79.88	-90.89		do	z 38	0.692	2'-6"		
1.11	74.79	-80.95		do	z 38	0.692	2'-6"		
1.12	74.79	-80.95		LL 4 X .375	z 61	0.628	4'-2"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 67	0.507	4'-0"		
2.2	61.72	-10.99		do	z 157	0.727	9'-0"		
2.3	106.48	-18.96		do	z 174	0.918	10'-0"		
2.4	117.21	-20.87	x	do	yy156	0.933	do		
2.5	93.90	-16.72		do	z 174	0.816	10'-0"		
2.6	50.90	-9.05		do	z 87	0.654	5'-0"		
2.7	0.00	0.00		LL 3.5 X .313	z 70	0.354	4'-2"		
End Diagonal									
3.1	42.66	-10.67	x	LL 2 X .188	xx105	0.992	5'-6 1/2"	.188 - 7 5/8"	
3.2	50.56	-12.64	x	LL 2 X .250	xx109	0.899	5'-7 7/8"	.250 - 6 7/8"	
Diagonal Towards End									
4.1	28.18	-7.05	x	LLV 1.75 x .143	xx139	0.978	6'-4 7/8"	.143 - 6 5/8"	
4.2	14.38	-3.60	x	LL 1.5 X .156	xx164	0.729	do	.156 - 3 1/8"	
4.3	14.68	-3.67	x	do	xx164	0.744	6'-4 7/8"	.156 - 3 1/4"	
4.4	26.20	-6.55	x	LL 1.5 X .156	xx119	0.984	4'-8 5/8"	.156 - 5 5/8"	
Diagonal Towards Center									
5.1	7.77	-43.59	x	LL 3 X .224	xx 71	0.862	5'-7 7/8"	.224 - 6 5/8"	
5.2	5.02	-28.16	x	LL 2.5 X .250	xx 98	0.784	6'-4 7/8"	.250 - 3 7/8"	
5.3	1.21	-14.38	x	LL 2 X .216	xx123	0.893	do	.216 - 2 1/4"	
5.4	2.62	-14.66	x	LL 2 X .216	xx123	0.910	do	.216 - 2 1/4"	
5.5	6.44	-36.08	x	LL 2.5 X .250	xx 98	1.004	6'-4 7/8"	.250 - 4 7/8"	
5.6	4.65	-26.21	x	LL 2 X .216	xx 89	0.939	4'-8 5/8"	.216 - 4 1/8"	
Secondary Web Member									
7.1	0.00	-1.66		LL 2 X .163	z 116	0.119	4'-0"	.163 - 1 1/2"	
7.2	0.00	-2.05	d	U 1 3/8 x 0.118	z 106	0.471	do	.118 - 1 1/2"	
7.3	0.00	-2.35	d	do	z 106	0.541	do	do	
7.4	0.00	-2.22	d	do	z 106	0.510	do	do	
7.5	0.00	-1.91	d	U 1 3/8 x 0.118	z 106	0.439	do	.118 - 1 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	2.33	-13.00	LL 2 X .163	z 116	0.938	4'-0"	.163 - 2 5/8"	

BRIDGING

Maximum spacing between rows of bridging

				Laterals supports
@ Top Chord:	41'-0 3/8"	==>	0 Row(s) Minimum	Concentrated loads
@ Bottom Chord:	36'-10 1/8"	==>	2 Row(s) Minimum	Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord	
		KB	18'-0"
		KB	28'-0"

v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

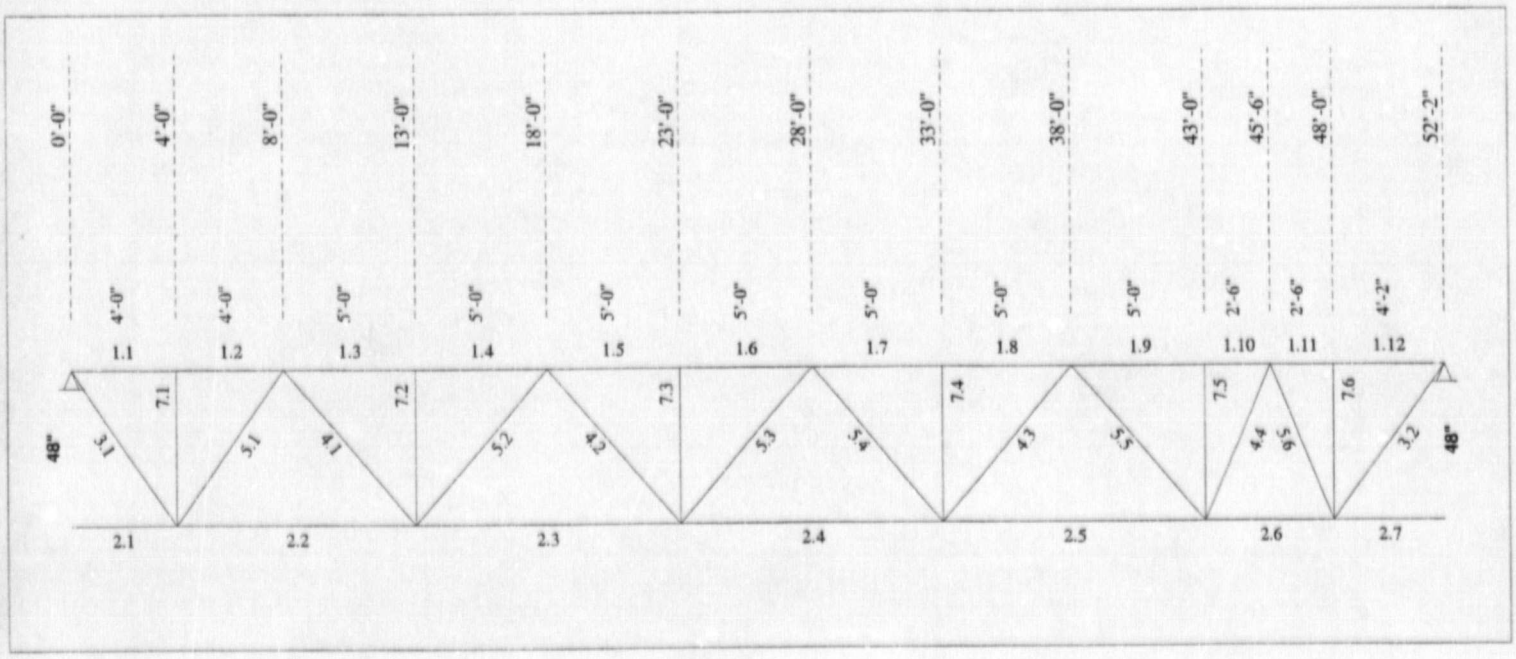
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

2180 (320.16) / 2266 (333.05)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G5 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	8'-0"	8'-0"	5	1	90	0
2	1	Near	17.50	12.25	4.80	18'-0"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	28'-0"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	38'-0"	10'-0"	5	1	90	0
5	1	Near	17.50	12.25	4.80	48'-0"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G5

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 17:37:28

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.23 in (L/ 504)
Joist inertia ..... = 6428.75 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.70 in)

Left Reaction = 40.55/ -8.31 kips Right Reaction = 47.03/ -9.63 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	39.09	-43.76		LL 4 X .438	z 59	0.288	4'-0"		
1.2	39.09	-43.76		do	z 61	0.572	4'-0"		
1.3	54.02	-113.62		do	z 76	0.870	5'-0"		
1.4	54.02	-113.62		do	z 76	0.870	do		
1.5	61.71	-151.10	x	do	yy 58	0.990	do		
1.6	61.71	-151.10	x	do	yy 58	0.990	do		
1.7	59.97	-142.60	x	do	yy 58	0.935	do		
1.8	59.97	-142.60	x	do	yy 58	0.935	do		
1.9	48.79	-88.13		do	z 76	0.718	5'-0"		
1.10	48.79	-88.13		do	z 38	0.578	2'-6"		
1.11	40.85	-49.38		do	z 38	0.578	2'-6"		
1.12	40.85	-49.38		LL 4 X .438	z 61	0.331	4'-2"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .375	z 58	0.417	4'-0"		
2.2	83.38	-17.11		do	z 137	0.719	9'-0"		
2.3	143.85	-29.51		do	z 152	0.838	10'-0"		
2.4	158.34	-32.48		do	z 152	0.923	do		
2.5	126.85	-26.02		do	z 152	0.791	10'-0"		
2.6	68.76	-14.09		do	z 76	0.634	5'-0"		
2.7	0.00	0.00		LL 4 X .375	z 61	0.344	4'-2"		
End Diagonal									
3.1	57.53	-14.38		LL 2.5 X .230	z 132	0.874	5'-6 1/2"	.230 - 8 1/2"	T45
3.2	68.18	-17.05		LL 2.5 X .250	z 135	0.957	5'-7 7/8"	.250 - 9 1/4"	T45
Diagonal Towards End									
4.1	38.01	-9.50	x	LL 2 X .188	xx122	0.884	6'-4 7/8"	.188 - 6 7/8"	
4.2	19.40	-4.85	x	LL 1.5 X .156	xx164	0.980	do	.156 - 4 1/4"	
4.3	19.80	-4.95	x	LL 1.5 X .156	xx164	1.000	6'-4 7/8"	.156 - 4 1/4"	
4.4	35.30	-8.82	x	LL 2 X .163	xx 88	0.941	4'-8 5/8"	.163 - 7 3/8"	
Diagonal Towards Center									
5.1	12.07	-58.78	x	LL 3 X .281	xx 72	0.886	5'-7 7/8"	.281 - 7 1/8"	
5.2	7.80	-38.00	x	LL 3 X .25	xx 81	0.719	6'-4 7/8"	.250 - 5 1/8"	
5.3	1.87	-19.40	x	LL 2.5 X .188	xx 97	0.715	do	.188 - 3 1/2"	
5.4	4.07	-19.78	x	LL 2.5 X .188	xx 97	0.729	do	.188 - 3 1/2"	
5.5	10.00	-48.68	x	LL 3 X .25	xx 81	0.921	6'-4 7/8"	.250 - 6 5/8"	
5.6	7.23	-35.31	x	LL 2.5 X .188	xx 70	0.990	4'-8 5/8"	.188 - 6 3/8"	
Secondary Web Member									
7.1	0.00	-0.92		LL 2 X .216	z 116	0.051	4'-0"	.216 - 1 1/2"	
7.2	0.00	-2.38	d	U 1 3/8 x 0.118	z 106	0.543	do	.118 - 1 1/2"	
7.3	0.00	-3.16	d	do	z 106	0.723	do	do	
7.4	0.00	-2.99	d	do	z 106	0.682	do	do	
7.5	0.00	-1.85	d	U 1 3/8 x 0.118	z 106	0.422	do	.118 - 1 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	3.60	-17.50	LL 2 X .216	z 116	0.972	4'-0"	.216 - 2 3/4"	

---------- BRIDGING ----------

Maximum spacing between rows of bridging

				Laterals supports
@ Top Chord:	41'-3 1/2" ==>	0 Row(s) Minimum	Concentrated loads
@ Bottom Chord:	41'-0 3/8" ==>	2 Row(s) Minimum	Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 18'-0"
		KB 28'-0"

---

v3.6 12/05/00

Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

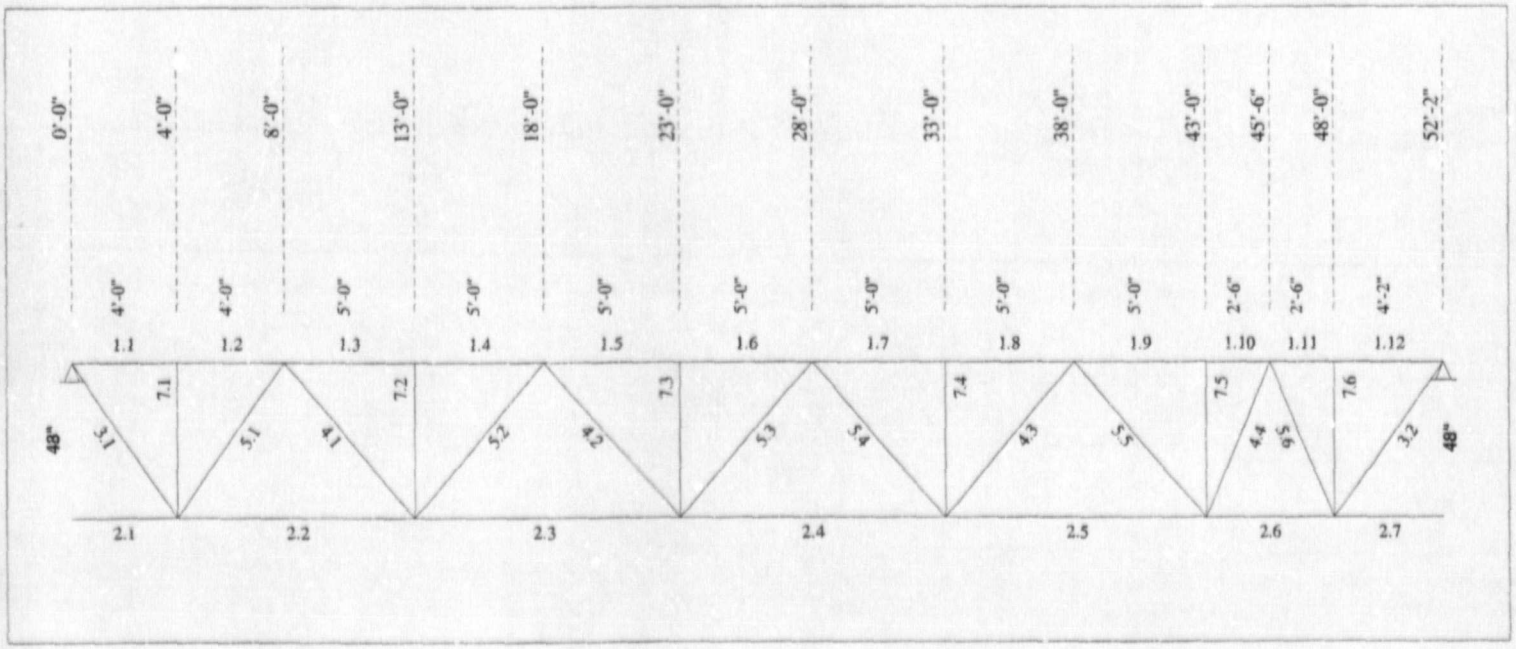
CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:
0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support
Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projects no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
2688 (384.93) / 2798 (400.44)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G6 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N25.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	25.00	17.50	6.84	8'-0"	8'-0"	5	1	90	0
2	1	Near	25.00	17.50	6.84	18'-0"	10'-0"	5	1	90	0
3	1	Near	25.00	17.50	6.84	28'-0"	10'-0"	5	1	90	0
4	1	Near	25.00	17.50	6.84	38'-0"	10'-0"	5	1	90	0
5	1	Near	25.00	17.50	6.84	48'-0"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-55.00	55.00	0.00	0.00
(case 2)..:	0.00	0.00	55.00	-55.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G6

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 17:37:29

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.17 in (L/ 533)
Joist inertia ..... = 9720.08 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.13 in)

Left Reaction = 57.92/ -11.85 kips Right Reaction = 67.16/ -13.74 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	55.95	-62.76		LL 5 X .5	z 47	0.266	4'-0"		
1.2	55.95	-62.76		do	z 49	0.577	4'-0"		
1.3	77.52	-164.33		do	z 61	0.767	5'-0"		
1.4	77.52	-164.33		do	z 61	0.767	do		
1.5	88.62	-218.54	x	do	yy 49	0.936	do		
1.6	88.62	-218.54	x	do	yy 49	0.936	do		
1.7	86.10	-206.25		do	z 61	0.963	do		
1.8	86.10	-206.25		do	z 61	0.963	do		
1.9	69.96	-127.45		do	z 61	0.724	5'-0"		
1.10	69.96	-127.45		do	z 31	0.546	2'-6"		
1.11	58.50	-71.42		do	z 31	0.546	2'-6"		
1.12	58.50	-71.42		LL 5 X .5	z 49	0.307	4'-2"		
Bottom Chord									
2.1	0.00	0.00		LL 5 X .5	z 47	0.363	4'-0"		
2.2	120.60	-24.70		do	z 110	0.626	9'-0"		
2.3	208.05	-42.61		do	z 122	0.901	10'-0"		
2.4	229.01	-46.90		do	z 122	0.901	do		
2.5	183.47	-37.57		do	z 122	0.901	10'-0"		
2.6	99.44	-20.35		do	z 61	0.722	5'-0"		
2.7	0.00	0.00		LL 5 X .5	z 49	0.391	4'-2"		
End Diagonal									
3.1	82.66	-20.67		LL 3 X .25	z 109	0.958	5'-6 1/2"	.250 - 11 1/8"	T45
3.2	98.01	-24.50		LL 3 X .313	z 112	0.918	5'-7 7/8"	.313 - 10 5/8"	T45
Diagonal Towards End									
4.1	54.71	-13.68	x	LL 2.5 X .188	xx 96	1.008	6'-4 7/8"	.188 - 9 7/8"	
4.2	27.92	-6.98	x	LLV 1.75 x .143	xx138	0.969	do	.143 - 6 5/8"	
4.3	28.49	-7.12	x	LLV 1.75 x .143	xx138	0.989	6'-4 7/8"	.143 - 6 3/4"	
4.4	50.60	-12.65	x	LL 2.5 X .188	xx 70	0.932	4'-8 5/8"	.188 - 9 1/8"	
Diagonal Towards Center									
5.1	17.31	-84.50	x	LL 3.5 X .313	xx 61	0.903	5'-7 7/8"	.313 - 9 1/8"	
5.2	11.21	-54.69	x	LL 3.5 X .313	xx 69	0.626	6'-4 7/8"	.313 - 5 7/8"	
5.3	2.69	-27.92	x	LL 2.5 X .230	xx 97	0.830	do	.230 - 4 1/8"	
5.4	5.84	-28.48	x	LL 2.5 X .230	xx 97	0.847	do	.230 - 4 1/8"	
5.5	14.36	-70.07	x	LL 3.5 X .313	xx 69	0.802	6'-4 7/8"	.313 - 7 1/2"	
5.6	10.35	-50.61	x	LL 3 X .224	xx 58	0.909	4'-8 5/8"	.224 - 7 5/8"	
Secondary Web Member									
7.1	0.00	-1.30		LL 2.5 X .188	z 91	0.045	4'-0"	.188 - 1 1/2"	
7.2	0.00	-3.40	d	U 1 3/8 x 0.118	z 104	0.759	do	.118 - 1 1/2"	
7.3	0.00	-4.52	d	do	z 104	1.010	do	do	
7.4	0.00	-4.27	d	do	z 104	0.953	do	do	
7.5	0.00	-2.64	d	U 1 3/8 x 0.118	z 104	0.589	do	.118 - 1 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	5.13	-25.00	LL 2.5 X .188	z 91	0.859	4'-0"	.188 - 4 1/2"	

---------- BRIDGING ----------

Maximum spacing between rows of bridging

				Laterals supports
@ Top Chord:	49'-5 1/4" ==>	0 Row(s) Minimum		Concentrated loads
@ Bottom Chord:	49'-5 1/4" ==>	1 Row(s) Minimum		Acc. to the force

POSITION @ Top Chord @ Bottom Chord

KB 18'-0"

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v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

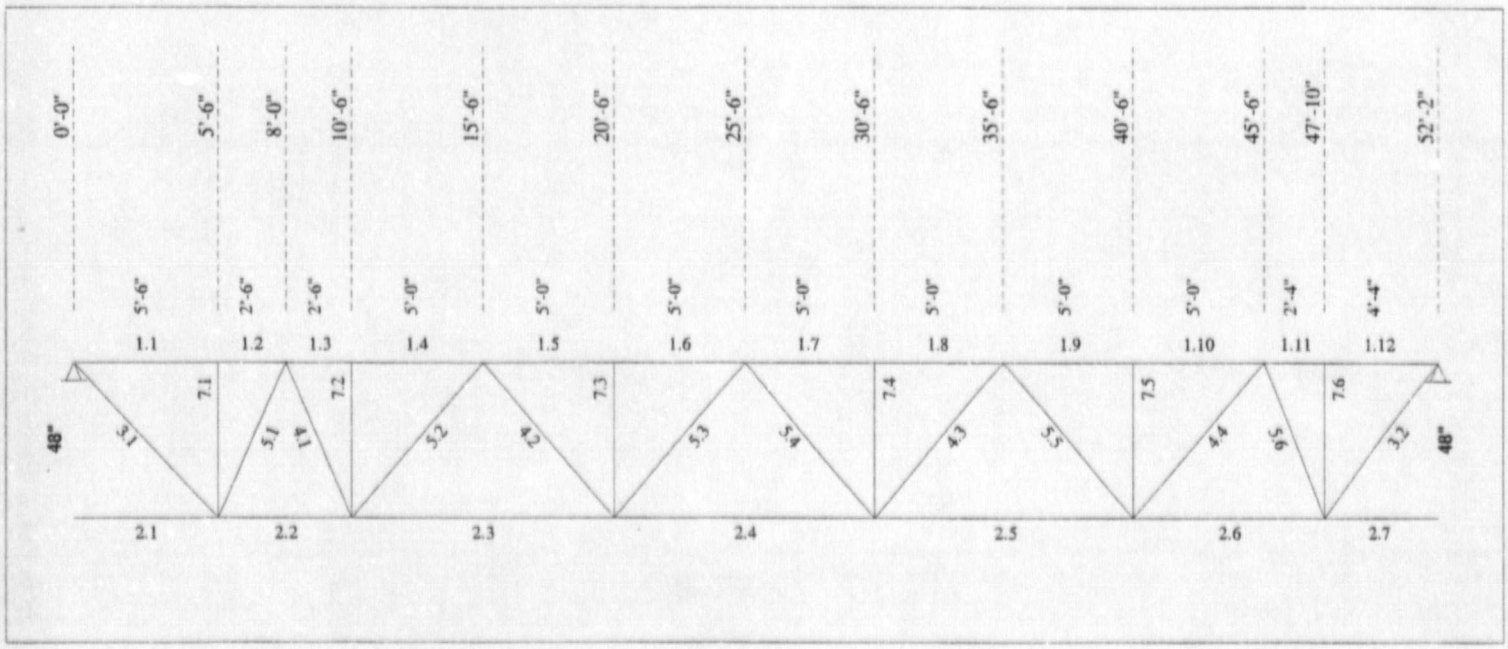
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

4012 (663.26) / 4172 (690.10)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G7 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N13.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	13.00	9.10	3.00	5'-6"	5'-6"	5	1	90	0
2	1	Near	13.00	9.10	3.00	15'-6"	10'-0"	5	1	90	0
3	1	Near	13.00	9.10	3.00	25'-6"	10'-0"	5	1	90	0
4	1	Near	13.00	9.10	3.00	35'-6"	10'-0"	5	1	90	0
5	1	Near	13.00	9.10	3.00	45'-6"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-87.00	87.00	0.00	0.00
(case 2)..:	0.00	0.00	87.00	-87.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth .. [in]: at left.: 7 1/2" at right: 7 1/2"

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Mark: G7

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 17:37:29

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.16 in (L/ 534)
Joist inertia ..... = 5099.19 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.87 in)

Left Reaction = 33.27/ -5.72 kips Right Reaction = 31.81/ -5.47 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	76.27	-84.63		LL 4 X .375	z 81	0.789	5'-6"		
1.2	76.27	-84.63		do	z 38	0.715	2'-6"		
1.3	80.83	-93.96		do	z 38	0.715	2'-6"		
1.4	80.83	-93.96		do	z 76	0.831	5'-0"		
1.5	87.03	-108.85		do	z 76	0.963	do		
1.6	87.03	-108.85		do	z 76	0.963	do		
1.7	87.36	-110.76		do	z 76	0.980	do		
1.8	87.36	-110.76		do	z 76	0.980	do		
1.9	81.82	-95.98		do	z 76	0.849	do		
1.10	81.82	-95.98		do	z 76	0.849	5'-0"		
1.11	74.25	-80.49		do	z 36	0.559	2'-4"		
1.12	74.25	-80.49		LL 4 X .375	z 63	0.636	4'-4"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 93	0.447	5'-6"		
2.2	59.66	-10.27		do	z 87	0.746	5'-0"		
2.3	99.38	-17.12		do	z 174	0.888	10'-0"		
2.4	118.31	-20.38		do	z 174	0.987	do		
2.5	103.20	-17.78		do	z 174	0.972	10'-0"		
2.6	54.07	-9.32		do	z 128	0.848	7'-4"		
2.7	0.00	0.00		LL 3.5 X .313	z 72	0.444	4'-4"		
End Diagonal									
3.1	56.99	-14.25	x	LL 2.5 X .230	xx102	0.866	6'-8"	.230 - 8 3/8"	
3.2	46.97	-11.74	x	LL 2 X .216	xx111	0.958	5'-9 1/4"	.216 - 7 3/8"	
Diagonal Towards End									
4.1	24.18	-6.04	x	LL 1.5 X .156	xx119	0.908	4'-8 5/8"	.156 - 5 1/4"	
4.2	13.67	-3.42	x	do	xx164	0.693	6'-4 7/8"	.156 - 3"	
4.3	13.67	-3.42	x	LL 1.5 X .156	xx164	0.693	do	.156 - 3"	
4.4	30.88	-7.72	x	LL 1.75 X .155	xx139	0.993	6'-4 7/8"	.155 - 6 3/4"	
Diagonal Towards Center									
5.1	4.15	-24.19	x	LL 2 X .188	xx 89	0.981	4'-8 5/8"	.188 - 4 3/8"	
5.2	5.74	-33.27	x	LL 2.5 X .230	xx 98	0.998	6'-4 7/8"	.230 - 4 7/8"	
5.3	2.06	-13.67	x	LL 2 X .188	xx122	0.956	do	.188 - 2 1/2"	
5.4	1.64	-13.67	x	LL 2 X .188	xx122	0.956	do	.188 - 2 1/2"	
5.5	5.33	-30.87	x	LL 2.5 X .230	xx 98	0.925	6'-4 7/8"	.230 - 4 1/2"	
5.6	6.42	-37.22	x	LL 2.5 X .230	xx 70	0.809	4'-7 5/8"	.230 - 5 1/2"	
Secondary Web Member									
7.1	2.25	-13.00		LL 2 X .163	z 116	0.938	4'-0"	.163 - 2 5/8"	
7.2	0.00	-1.98	d	U 1 3/8 x 0.118	z 106	0.454	do	.118 - 1 1/2"	
7.3	0.00	-2.29	d	do	z 106	0.526	do	do	
7.4	0.00	-2.33	d	do	z 106	0.535	do	do	
7.5	0.00	-2.02	d	U 1 3/8 x 0.118	z 106	0.464	do	.118 - 1 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	0.00	-1.69	LL 2 X .163	z 116	0.122	4'-0"	.163 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging

			Laterals supports
@ Top Chord:	41'-0 3/8" ==>	0 Row(s) Minimum	Concentrated loads
@ Bottom Chord:	36'-10 1/8" ==>	1 Row(s) Minimum	Acc. to the force

POSITION @ Top Chord @ Bottom Chord

KB 25'-6"

v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

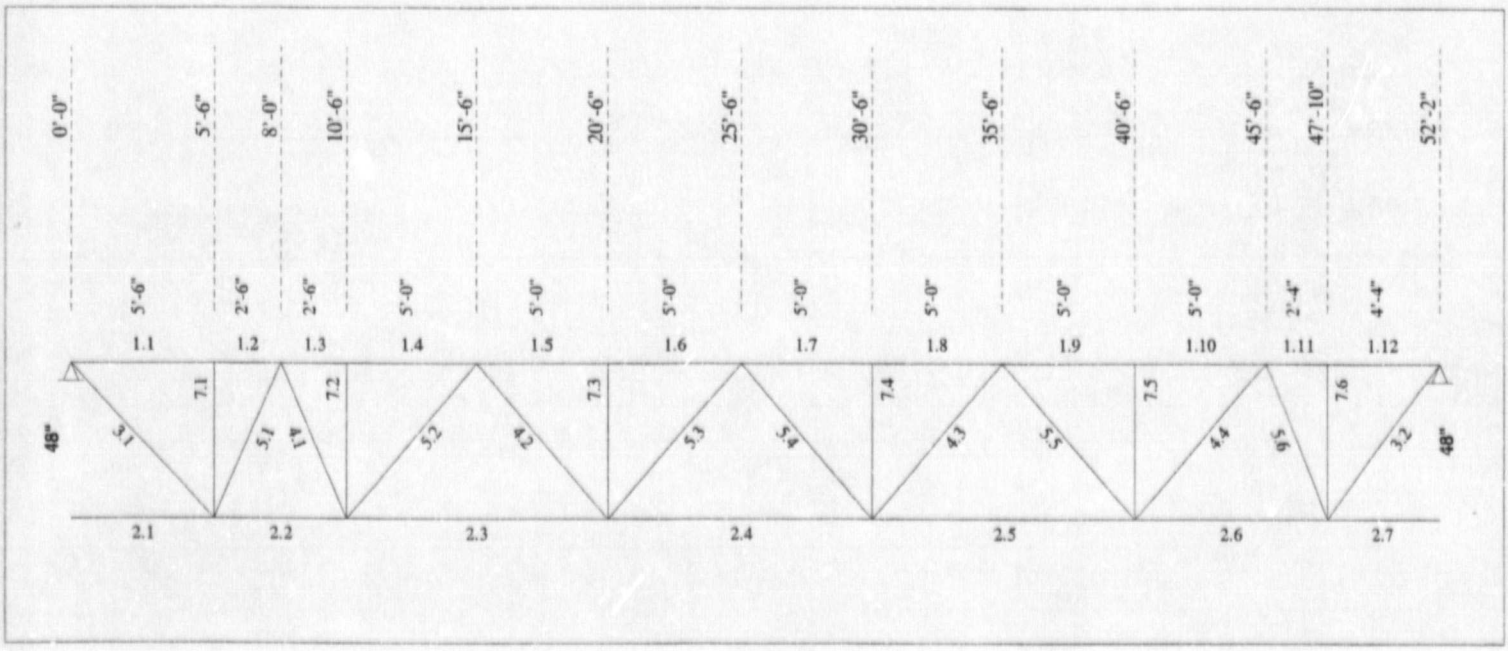
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

2139 (313.37) / 2249 (329.95)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G8 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	5'-6"	5'-6"	5	1	90	0
2	1	Near	17.50	12.25	4.80	15'-6"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	25'-6"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	35'-6"	10'-0"	5	1	90	0
5	1	Near	17.50	12.25	4.80	45'-6"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G8

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 17:37:28

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.24 in (L/ 500)
Joist inertia ..... = 6428.75 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.70 in)

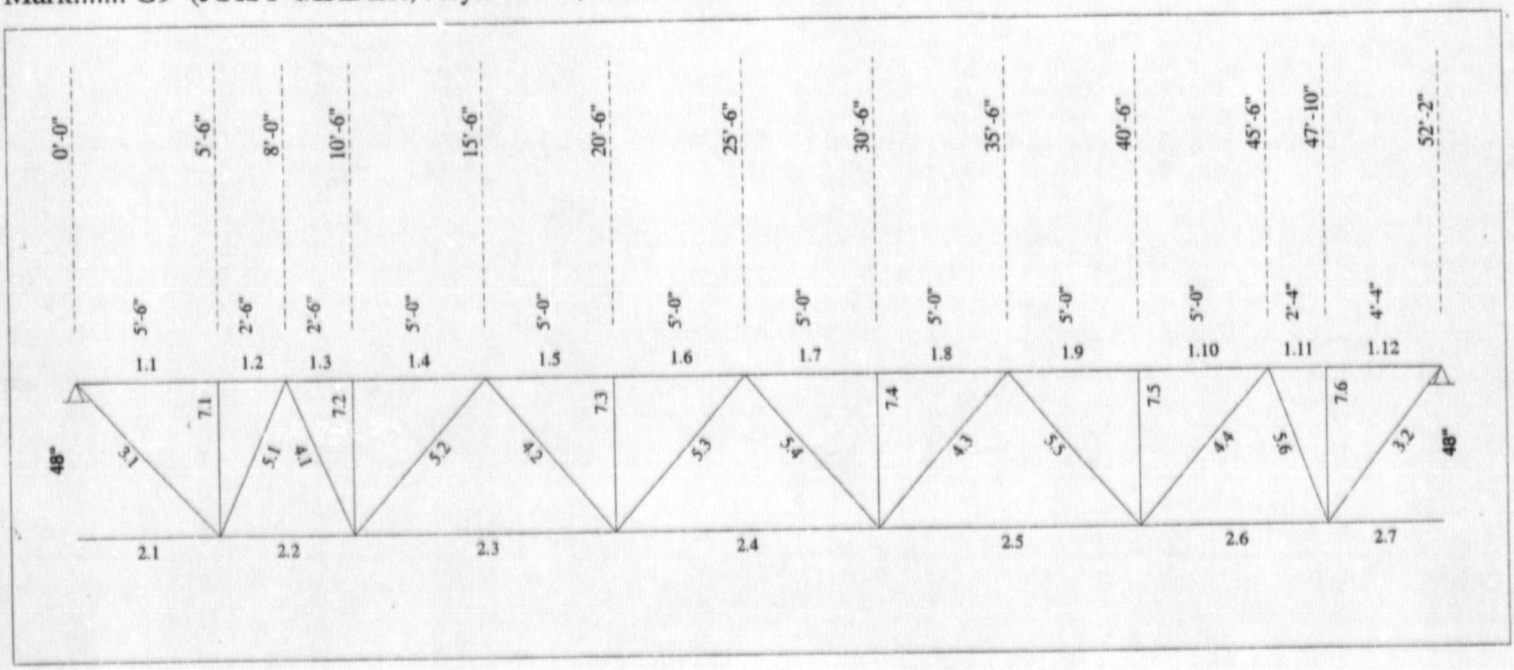
Left Reaction = 44.77/ -9.17 kips Right Reaction = 42.81/ -8.77 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	43.58	-62.69		LL 4 X .438	z 82	0.506	5'-6"		
1.2	43.58	-62.69		do	z 38	0.645	2'-6"		
1.3	50.91	-98.48		do	z 38	0.645	2'-6"		
1.4	50.91	-98.48		do	z 76	0.754	5'-0"		
1.5	60.87	-147.04	x	do	yy 58	0.964	do		
1.6	60.87	-147.04	x	do	yy 58	0.964	do		
1.7	61.41	-149.63	x	do	yy 58	0.981	do		
1.8	61.41	-149.63	x	do	yy 58	0.981	do		
1.9	52.51	-106.23		do	z 76	0.814	do		
1.10	52.51	-106.23		do	z 76	0.814	5'-0"		
1.11	40.32	-46.82		do	z 36	0.535	2'-4"		
1.12	40.32	-46.82		LL 4 X .438	z 64	0.320	4'-4"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .375	z 81	0.425	5'-6"		
2.2	80.59	-16.52		do	z 76	0.708	5'-0"		
2.3	134.25	-27.53		do	z 152	0.843	10'-0"		
2.4	159.82	-32.78		do	z 152	0.932	do		
2.5	139.42	-28.60		do	z 152	0.922	10'-0"		
2.6	73.04	-14.98		do	z 112	0.805	7'-4"		
2.7	0.00	0.00		LL 4 X .375	z 63	0.422	4'-4"		
End Diagonal									
3.1	77.03	-19.26		LL 3 X .281	z 133	0.799	6'-8"	.281 - 9 1/4"	T45
3.2	63.43	-15.86		LL 2.5 X .230	z 138	0.964	5'-9 1/4"	.230 - 9 3/8"	T45
Diagonal Towards End									
4.1	32.60	-8.15	x	LL 2 X .142	xx 88	0.992	4'-8 5/8"	.142 - 7 3/4"	T45
4.2	18.47	-4.62	x	LL 1.5 X .156	xx164	0.933	6'-4 7/8"	.156 - 4"	
4.3	18.47	-4.62	x	LL 1.5 X .156	xx164	0.933	do	.156 - 4"	
4.4	41.73	-10.43	x	LL 2 X .188	xx122	0.970	6'-4 7/8"	.188 - 7 1/2"	
Diagonal Towards Center									
5.1	6.68	-32.61	x	LL 2.5 X .188	xx 70	0.915	4'-8 5/8"	.188 - 5 7/8"	
5.2	9.23	-44.96	x	LL 3 X .224	xx 81	0.969	6'-4 7/8"	.224 - 6 3/4"	
5.3	3.31	-18.47	x	LL 2.5 X .188	xx 97	0.681	do	.188 - 3 1/4"	
5.4	2.64	-18.47	x	LL 2.5 X .188	xx 97	0.681	do	.188 - 3 1/4"	
5.5	8.56	-41.71	x	LL 3 X .224	xx 81	0.899	6'-4 7/8"	.224 - 6 1/4"	
5.6	10.30	-50.18	x	LL 2.5 X .250	xx 70	1.006	4'-7 5/8"	.250 - 6 3/4"	
Secondary Web Member									
7.1	3.60	-17.50		LL 2 X .216	z 116	0.972	4'-0"	.216 - 2 3/4"	
7.2	0.00	-2.06	d	U 1 3/8 x 0.118	z 106	0.471	do	.118 - 1 1/2"	
7.3	0.00	-3.08	d	do	z 106	0.703	do	do	
7.4	0.00	-3.13	d	do	z 106	0.716	do	do	
7.5	0.00	-2.23	d	U 1 3/8 x 0.118	z 106	0.508	do	.118 - 1 1/2"	

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G9 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N25.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	25.00	17.50	6.84	5'-6"	5'-6"	5	1	90	0
2	1	Near	25.00	17.50	6.84	15'-6"	10'-0"	5	1	90	0
3	1	Near	25.00	17.50	6.84	25'-6"	10'-0"	5	1	90	0
4	1	Near	25.00	17.50	6.84	35'-6"	10'-0"	5	1	90	0
5	1	Near	25.00	17.50	6.84	45'-6"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-55.00	55.00	0.00	0.00
(case 2)..:	0.00	0.00	55.00	-55.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	0.00	-1.40	LL 2.5 X .188	z 91	0.048	4'-0"	.188 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging

@ Top Chord:	49'-5 1/4" ==>	0 Row(s) Minimum	Laterals supports Concentrated loads Acc. to the force
@ Bottom Chord:	49'-2 1/4" ==>	1 Row(s) Minimum	

POSITION @ Top Chord @ Bottom Chord

KB 25'-6"

v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

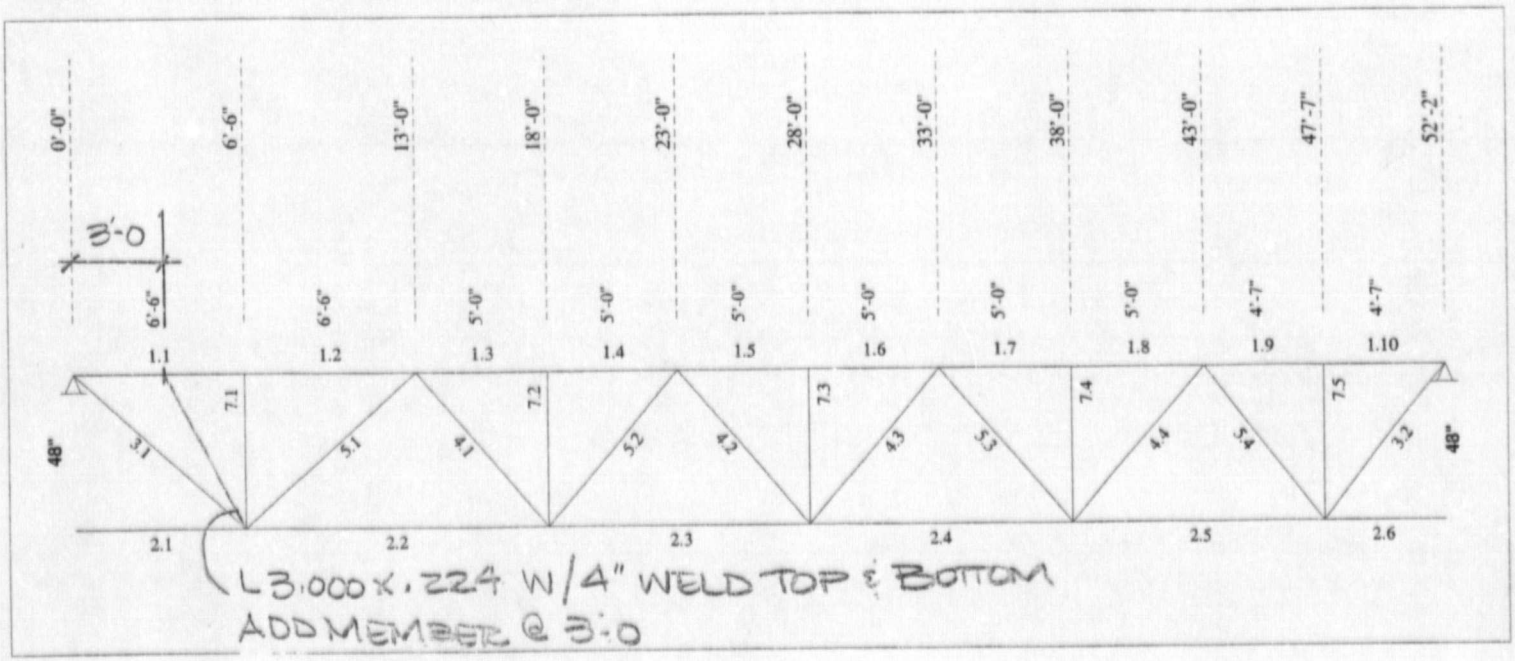
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
3742 (606.74) / 3932 (637.26)

Project: COLUMBIA DISTRIBUTION A04061

ADD MEMBER

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G10 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



LOADING CONDITIONS

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N13.0 LIVE LOAD ..: 0.00 lb/ft

CONCENTRATED LOADS

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	13.00	9.10	2.76	13'-0"	13'-0"	5	1	90	0
2	1	Near	13.00	9.10	2.76	23'-0"	10'-0"	5	1	90	0
3	1	Near	13.00	9.10	2.76	33'-0"	10'-0"	5	1	90	0
4	1	Near	13.00	9.10	2.76	43'-0"	10'-0"	5	1	90	0
5	1	Far	13.00	13.00	0.00	3'-0"*	3'-0"	5	1	90	0
6	1	Far	1.20	1.20	0.00	13'-0"	10'-0"	5	1	90	0

END MOMENTS [ft-kip] & AXIAL LOADS [kips]

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-87.00	87.00	0.00	0.00
(case 2)..:	0.00	0.00	87.00	-87.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G10

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 18:21:23

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.21 in (L/ 516)
Joist inertia ..... = 5099.19 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.87 in)

Left Reaction = 37.30/ -3.81 kips Right Reaction = 28.97/ -4.42 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	74.60	-94.35	x	LL 4 X .375	xx 62	0.735	6'-6"		
1.2	74.60	-90.36	x	do	xx 63	0.718	6'-6"		
1.3	83.40	-109.92		do	z 76	0.973	5'-0"		
1.4	83.40	-109.92		do	z 76	0.973	do		
1.5	85.30	-113.71		do	z 76	1.006	do		
1.6	85.30	-113.71		do	z 76	1.006	do		
1.7	81.80	-102.29		do	z 76	0.905	do		
1.8	81.80	-102.29		do	z 76	0.905	5'-0"		
1.9	73.39	-80.97		do	z 70	0.675	4'-7"		
1.10	73.39	-80.97		LL 4 X .375	z 67	0.661	4'-7"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 110	0.622	6'-6"		
2.2	91.17	-12.82		do	z 200	0.821	11'-6"		
2.3	117.54	-17.42		do	z 174	0.995	10'-0"		
2.4	109.87	-16.62		do	z 174	0.995	10'-0"		
2.5	68.16	-10.43		do	z 167	0.949	9'-7"		
2.6	0.00	0.00		LL 3.5 X .313	z 77	0.596	4'-7"		
End Diagonal									
3.1	72.17	-18.04		LL 3 X .281	z 150	0.849	7'-5 7/8"	.281 - 8 5/8"	
3.2	44.25	-11.06	x	LL 2 X .216	xx114	0.902	5'-11 1/2"	.216 - 6 7/8"	
Diagonal Towards End									
4.1	16.60	-4.15	x	LLV 1.75 x .143	xx139	0.576	6'-4 7/8"	.143 - 3 7/8"	
4.2	0.51	-15.35	x	LL 2 X .216	xx123	0.953	do	.216 - 2 3/8"	
4.3	15.35	-3.84	x	LL 2 X .216	xx123	0.313	do	.216 - 2 3/8"	
4.4	26.26	-6.56	x	LLV 1.75 x .143	xx139	0.912	6'-4 7/8"	.143 - 6 1/4"	
Diagonal Towards Center									
5.1	7.54	-47.90	x	LL 3 X .281	xx 98	0.979	7'-7 5/8"	.281 - 5 3/4"	
5.2	2.90	-16.59	x	LL 2.5 X .188	xx 97	0.612	6'-4 7/8"	.188 - 3"	
5.3	3.90	-26.24	x	LL 2.5 X .188	xx 97	0.969	6'-4 7/8"	.188 - 4 3/4"	
5.4	6.92	-45.19	x	LL 3 X .224	xx 77	0.938	6'-1"	.224 - 6 3/4"	
Secondary Web Member									
7.1	0.00	-1.98	d	U 1 3/8 x 0.118	z 106	0.456	4'-0"	.118 - 1 1/2"	
7.2	0.00	-2.31	d	do	z 106	0.531	do	do	
7.3	0.00	-2.39	d	do	z 106	0.550	do	do	
7.4	0.00	-2.15	d	do	z 106	0.494	do	do	
7.5	0.00	-1.70	d	U 1 3/8 x 0.118	z 106	0.391	4'-0"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 41'-0 3/8" ==> 0 Row(s) Minimum Concentrated loads

@ Bottom Chord: 36'-10 1/8" ==> 1 Row(s) Minimum Acc. to the force

POSITION @ Top Chord @ Bottom Chord

KB 23'-0"

---

v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member 1 = within a panel with no reinforcement

2 = anywhere within a panel 3 = at any panel point along the joist

4 = anywhere along the joist 5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

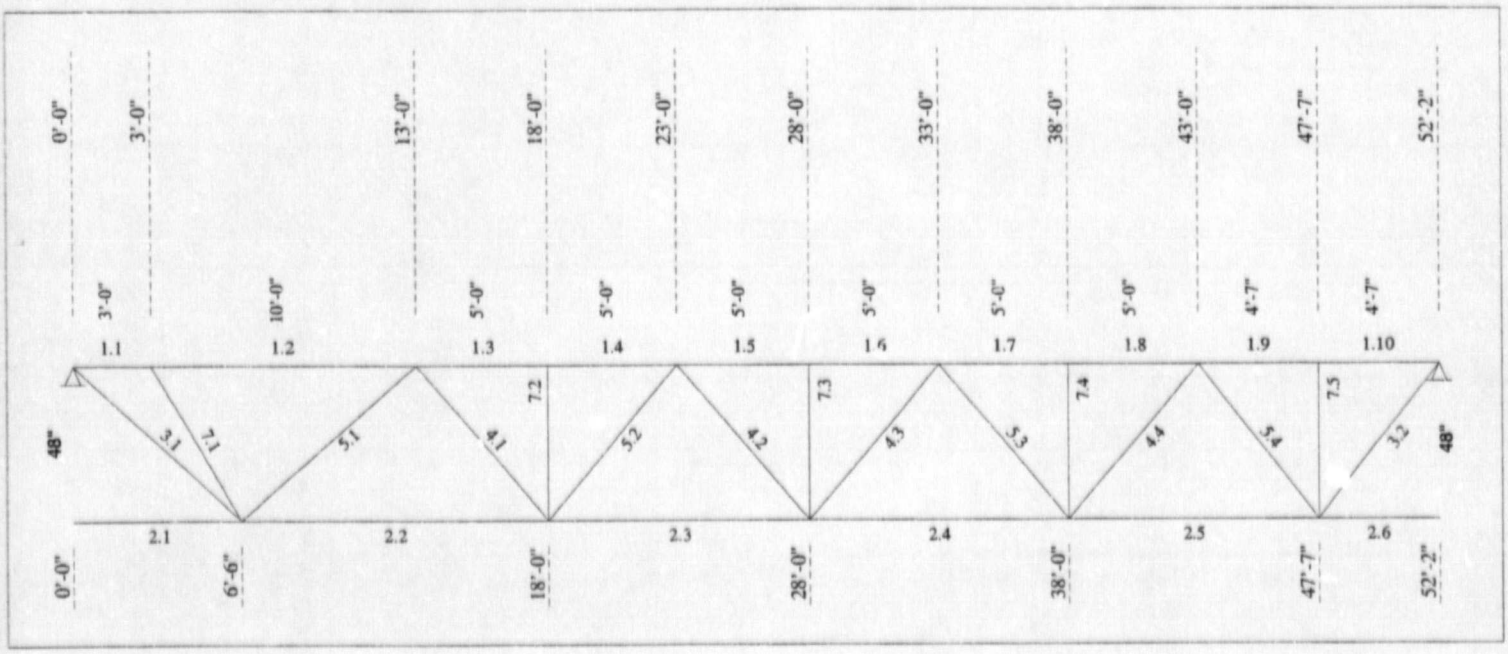
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

2164 (317.32) / 2293 (336.66)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G11 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	13'-0"	13'-0"	5	1	90	0
2	1	Near	17.50	12.25	4.80	23'-0"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	33'-0"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	43'-0"	10'-0"	5	1	90	0
5	1	Far	17.50	17.50	0.00	3'-0"	3'-0"	5	1	90	0
6	1	Far	2.00	2.00	0.00	13'-0"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

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Mark: G11

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:28:26

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.23 in (L/ 507)
Joist inertia ..... = 6789.90 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.68 in)

Left Reaction = 50.48/ -6.65 kips Right Reaction = 39.08/ -7.71 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	41.81	-83.98		LL 4 X .500	z 43	0.442	3'-0"		
1.2	41.81	-67.89	x	do	xx 99	0.631	10'-0"		
1.3	57.19	-141.90		do	z 77	0.962	5'-0"		
1.4	57.19	-141.90		do	z 77	0.962	do		
1.5	60.51	-154.28	x	do	yy 58	0.891	do		
1.6	60.51	-154.28	x	do	yy 58	0.891	do		
1.7	54.40	-120.67		do	z 77	0.818	do		
1.8	54.40	-120.67		do	z 77	0.818	5'-0"		
1.9	39.69	-45.95		do	z 70	0.536	4'-7"		
1.10	39.69	-45.95		LL 4 X .500	z 68	0.287	4'-7"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .375	z 96	0.621	6'-6"		
2.2	124.20	-22.44		do	z 175	0.807	11'-6"		
2.3	159.58	-30.48		do	z 152	0.930	10'-0"		
2.4	148.97	-29.08		do	z 152	0.868	10'-0"		
2.5	92.35	-18.25		do	z 146	0.744	9'-7"		
2.6	0.00	0.00		LL 4 X .375	z 67	0.461	4'-7"		
End Diagonal									
3.1	97.95	-24.49	x	LL 3 X .313	xx 96	0.917	7'-5 7/8"	.313 - 10 5/8"	T45
3.2	59.82	-14.96		LL 2.5 X .230	z 142	0.921	5'-11 1/2"	.230 - 8 3/4"	T45
Diagonal Towards End									
4.1	22.24	-5.56	x	LL 2 X .163	xx121	0.593	6'-4 7/8"	.163 - 4 5/8"	
4.2	0.88	-20.83	x	LL 2.5 X .188	xx 97	0.768	do	.188 - 3 3/4"	
4.3	20.83	-5.21	x	LL 2.5 X .188	xx 97	0.384	do	.188 - 3 3/4"	
4.4	35.57	-8.89	x	LL 2 X .163	xx121	0.948	6'-4 7/8"	.163 - 7 3/8"	
Diagonal Towards Center									
5.1	13.17	-65.23	x	LL 3.5 X .313	xx 84	0.857	7'-7 5/8"	.313 - 7"	
5.2	5.06	-22.22	x	LL 2.5 X .250	xx 98	0.617	6'-4 7/8"	.250 - 3"	
5.3	6.81	-35.56	x	LL 2.5 X .250	xx 98	0.987	6'-4 7/8"	.250 - 4 3/4"	
5.4	12.08	-61.11	x	LL 3 X .281	xx 77	0.972	6'-1"	.281 - 7 3/8"	
Secondary Web Member									
7.1	0.00	-23.77		LL 3 X .224	z 104	0.682	5'-3 3/4"	.224 - 3 5/8"	
7.2	0.00	-2.97	d	U 1 3/8 x 0.118	z 106	0.678	4'-0"	.118 - 1 1/2"	
7.3	0.00	-3.23	d	do	z 106	0.737	do	do	
7.4	0.00	-2.53	d	U 1 3/8 x 0.118	z 106	0.576	do	.118 - 1 1/2"	
7.5	0.00	-0.96		U 1 x 1 x 0.090	z 160	0.724	4'-0"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 41'-5 1/8" ==> 0 Row(s) Minimum Concentrated loads

Mark: G11

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Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:28:26

@ Bottom Chord: 41'-0 3/8" ==> 2 Row(s) Minimum Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 23'-0"
		KB 33'-0"

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v3.6 12/06/00

Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

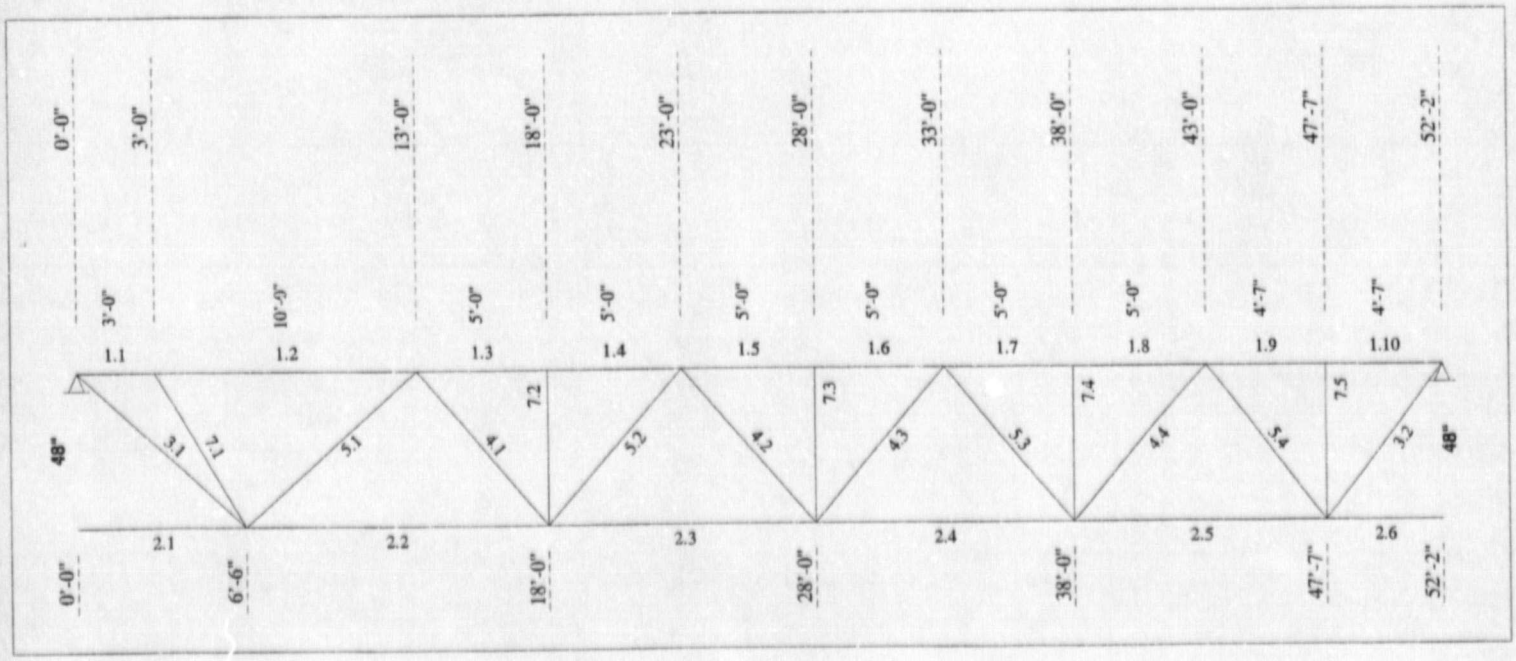
CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:
0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support
Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
2868 (416.57) / 3036 (440.29)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G12 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



LOADING CONDITIONS

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N25.0 LIVE LOAD ..: 0.00 lb/ft

CONCENTRATED LOADS

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	25.00	17.50	6.84	13'-0"	13'-0"	5	1	90	0
2	1	Near	25.00	17.50	6.84	23'-0"	10'-0"	5	1	90	0
3	1	Near	25.00	17.50	6.84	33'-0"	10'-0"	5	1	90	0
4	1	Near	25.00	17.50	6.84	43'-0"	10'-0"	5	1	90	0
5	1	Far	25.00	25.00	0.00	3'-0"	3'-0"	5	1	90	0
6	1	Far	2.90	2.90	0.00	13'-0"	10'-0"	5	1	90	0

END MOMENTS [ft-kip] & AXIAL LOADS [kips]

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-55.00	55.00	0.00	0.00
(case 2)..:	0.00	0.00	55.00	-55.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G12

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:28:43

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.31 in (L/ 476)
Joist inertia ..... = 9118.51 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.15 in)

Left Reaction = 72.14/ -9.48 kips Right Reaction = 55.82/ -10.99 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	59.82	-121.41		LL 5 X .5	z 35	0.481	3'-0"		
1.2	59.82	-98.15	x	do	xx 78	0.720	10'-0"		
1.3	82.01	-205.13		do	z 61	0.958	5'-0"		
1.4	82.01	-205.13		do	z 61	0.958	do		
1.5	86.80	-222.99	x	do	yy 49	0.955	do		
1.6	86.80	-222.99	x	do	yy 49	0.955	do		
1.7	77.98	-174.39		do	z 61	0.814	do		
1.8	77.98	-174.39		do	z 61	0.814	5'-0"		
1.9	56.76	-65.86		do	z 56	0.612	4'-7"		
1.10	56.76	-65.86		LL 5 X .5	z 54	0.292	4'-7"		
Bottom Chord									
2.1	0.00	0.00		LL 5 X .438	z 77	0.613	6'-6"		
2.2	179.57	-32.37		do	z 140	0.787	11'-6"		
2.3	230.67	-43.96		do	z 122	0.918	10'-0"		
2.4	215.30	-41.95		do	z 122	0.857	10'-0"		
2.5	133.47	-26.32		do	z 117	0.734	9'-7"		
2.6	0.00	0.00		LL 5 X .438	z 54	0.455	4'-7"		
End Diagonal									
3.1	141.22	-35.30		LL 3.5 X .375	z 129	0.947	7'-5 7/8"	.313 - 15 1/4"	T45
3.2	86.05	-21.51		LL 3 X .25	z 118	0.998	5'-11 1/2"	.250 - 11 5/8"	T45
Diagonal Towards End									
4.1	31.98	-8.00	x	LL 2.5 X .188	xx 96	0.589	6'-4 7/8"	.188 - 5 3/4"	
4.2	1.27	-29.99	x	LL 2.5 X .230	xx 97	0.892	do	.230 - 4 3/8"	
4.3	29.99	-7.50	x	LL 2.5 X .230	xx 97	0.456	do	.230 - 4 3/8"	
4.4	51.22	-12.80	x	LL 2.5 X .188	xx 96	0.944	6'-4 7/8"	.188 - 9 1/4"	
Diagonal Towards Center									
5.1	18.94	-94.08	x	LL 4 X .375	xx 73	0.807	7'-7 5/8"	.313 - 10 1/8"	
5.2	7.26	-31.97	x	LL 3 X .25	xx 81	0.603	6'-4 7/8"	.250 - 4 3/8"	
5.3	9.79	-51.20	x	LL 3 X .25	xx 81	0.966	6'-4 7/8"	.250 - 6 7/8"	
5.4	17.35	-87.93	x	LL 3.5 X .313	xx 66	0.977	6'-1"	.313 - 9 1/2"	
Secondary Web Member									
7.1	0.00	-34.14		LL 3 X .224	z 104	0.970	5'-3 3/4"	.224 - 5 1/8"	
7.2	0.00	-4.25	d	U 1 3/8 x 0.118	z 104	0.949	4'-0"	.118 - 1 1/2"	
7.3	0.00	-4.61	d	U 1 3/8 x 0.157	z 102	0.562	do	.158 - 1 1/2"	
7.4	0.00	-3.61	d	U 1 3/8 x 0.118	z 104	0.807	do	.118 - 1 1/2"	
7.5	0.00	-1.36		U 1 x 1 x 0.090	z 158	1.003	4'-0"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 49'-3 3/4" ==> 0 Row(s) Minimum Concentrated loads

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Mark: G12

Project: COLUMBIA DISTRIBUTION A04061

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@ Bottom Chord: 49'-2 1/4" ==> 1 Row(s) Minimum Acc. to the force

POSITION @ Top Chord @ Bottom Chord

KB 23'-0"

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v3.6 12/06/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member 1 = within a panel with no reinforcement

2 = anywhere within a panel 3 = at any panel point along the joist

4 = anywhere along the joist 5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

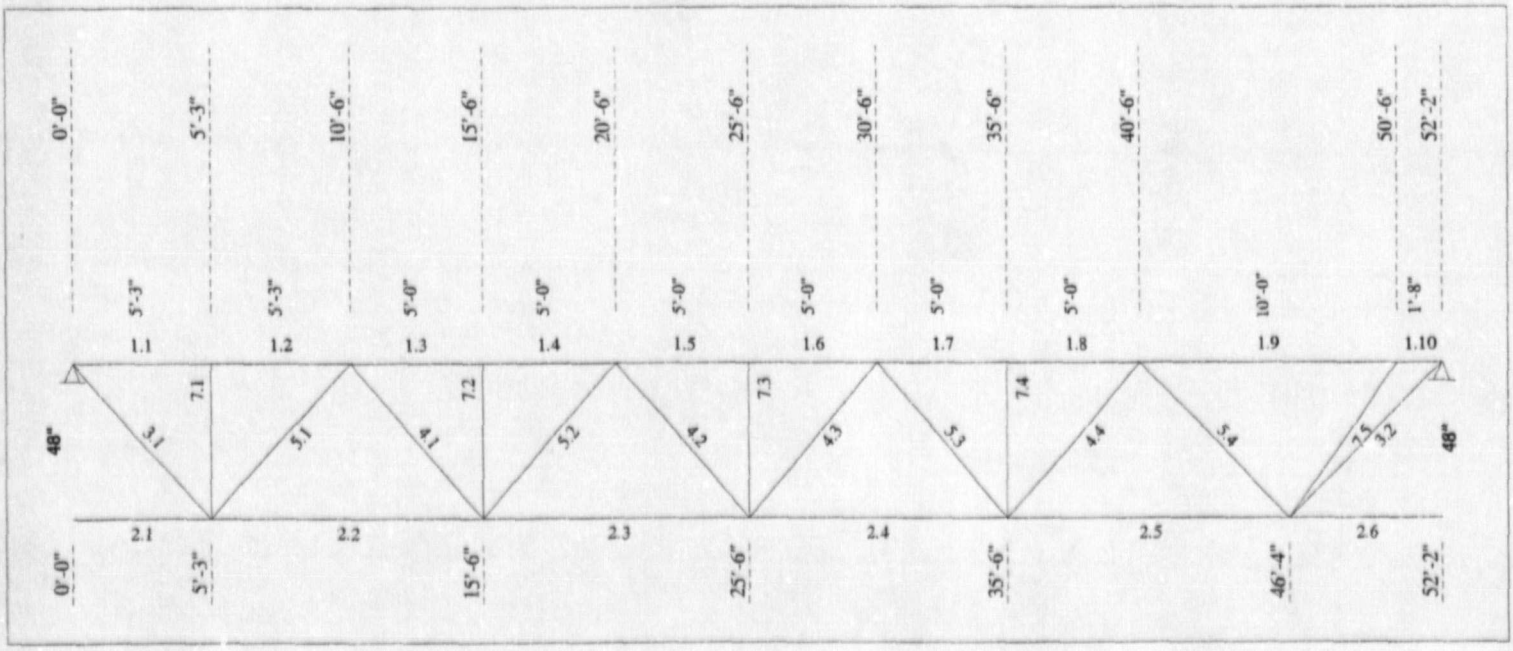
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

3828 (618.16) / 4054 (654.55)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G13 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	10'-6"	10'-6"	5	1	90	0
2	1	Near	17.50	12.25	4.80	20'-6"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	30'-6"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	40'-6"	10'-0"	5	1	90	0
5	1	Far	17.50	17.50	0.00	0'-6 1/4"*	0'-6 1/4"	6	1	90	0
6	1	Far	1.20	12.00	0.00	10'-6"	9'-11 3/4"	5	1	90	0
7	1	Far	17.50	17.50	0.00	50'-6"	40'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

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Mark: G13

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:30:03

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.44 in (L/ 432)
Joist inertia ..... = 6428.75 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.70 in)

Left Reaction = 54.65/ -7.35 kips Right Reaction = 51.59/ -7.02 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	40.53	-57.22		LL 4 X .438	z 78	0.850	5'-3"		
1.2	40.53	-57.22		do	z 80	0.658	5'-3"		
1.3	55.59	-126.66		do	z 76	0.980	5'-0"		
1.4	55.59	-126.66		do	z 76	0.976	do		
1.5	60.73	-152.10	x	do	yy 58	0.998	do		
1.6	60.73	-152.10	x	do	yy 58	0.998	do		
1.7	56.44	-131.57		do	z 76	1.008	do		
1.8	56.44	-131.57		do	z 76	1.008	5'-0"		
1.9	41.18	-57.60	x	do	xx 98	0.662	10'-0"		
1.10	41.18	-76.75		LL 4 X .438	z 23	0.414	1'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .375	z 77	0.512	5'-3"		
2.2	102.43	-19.94		do	z 156	0.754	10'-3"		
2.3	150.87	-29.80		do	z 152	0.879	10'-0"		
2.4	153.32	-30.23		do	z 152	0.894	10'-0"		
2.5	109.80	-21.22		do	z 165	0.766	10'-10"		
2.6	0.00	0.00		LL 4 X .375	z 86	0.549	5'-10"		
End Diagonal									
3.1	64.00	-16.00	x	LL 2.5 X .230	xx 99	0.972	6'-5 5/8"	.230 - 9 3/8"	T45
3.2	92.47	-23.12		LL 3 X .313	z 139	0.866	6'-11 1/4"	.313 - 10"	T45
Diagonal Towards End									
4.1	30.45	-7.61	x	LL 1.75 X .155	xx139	0.979	6'-4 7/8"	.155 - 6 5/8"	
4.2	22.55	-5.64	x	LL 2.5 X .188	xx 97	0.415	do	.188 - 4"	
4.3	2.07	-22.55	x	LL 2.5 X .188	xx 97	0.831	do	.188 - 4"	
4.4	27.36	-6.84	x	LL 1.75 X .155	xx139	0.880	6'-4 7/8"	.155 - 6"	
Diagonal Towards Center									
5.1	12.52	-63.27	x	LL 3 X .313	xx 84	0.981	6'-7 1/4"	.313 - 6 7/8"	
5.2	6.20	-30.43	x	LL 2.5 X .230	xx 98	0.911	6'-4 7/8"	.230 - 4 1/2"	
5.3	5.67	-27.35	x	LL 2.5 X .230	xx 98	0.818	6'-4 7/8"	.230 - 4"	
5.4	12.85	-62.34	x	LL 3.5 X .313	xx 77	0.767	7'-0 7/8"	.313 - 6 3/4"	
Secondary Web Member									
7.1	0.00	-1.22		U 1 x 1 x 0.090	z 160	0.921	4'-0"	.091 - 1 1/2"	
7.2	0.00	-2.65	d	U 1 3/8 x 0.118	z 106	0.606	do	.118 - 1 1/2"	
7.3	0.00	-3.19	d	do	z 106	0.728	do	do	
7.4	0.00	-2.76	d	U 1 3/8 x 0.118	z 106	0.629	4'-0"	.118 - 1 1/2"	
7.5	0.00	-25.94		LL 3 X .224	z 114	0.873	5'-9 1/4"	.224 - 3 7/8"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 41'-2" ==> 0 Row(s) Minimum Concentrated loads

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Mark: G13

Project: COLUMBIA DISTRIBUTION A04061

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@ Bottom Chord: 41'-0 3/8" ==> 2 Row(s) Minimum Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 20'-6"
		KB 30'-6"

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v3.6 12/06/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member

1 = within a panel with no reinforcement

2 = anywhere within a panel

3 = at any panel point along the joist

4 = anywhere along the joist

5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

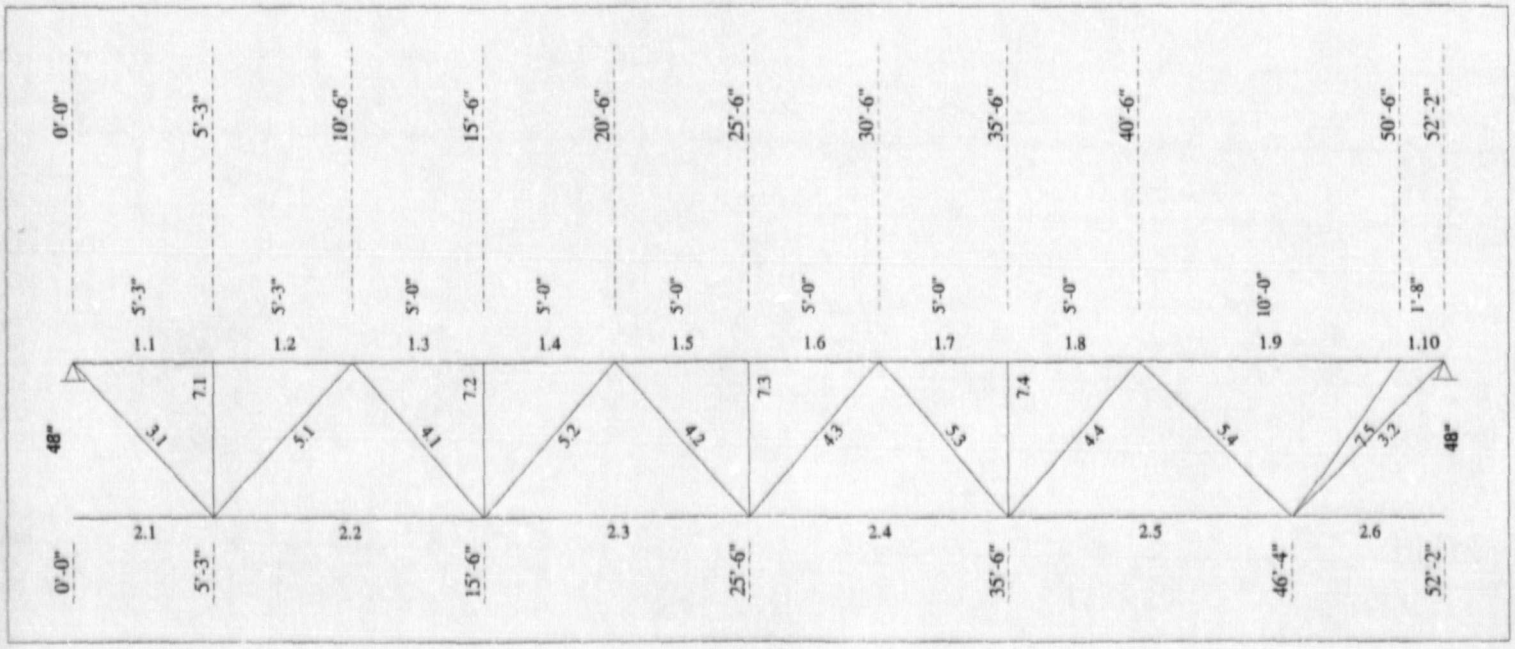
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

2696 (389.32) / 2864 (413.05)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G14 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N25.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	25.00	17.50	6.84	10'-6"	10'-6"	5	1	90	0
2	1	Near	25.00	17.50	6.84	20'-6"	10'-0"	5	1	90	0
3	1	Near	25.00	17.50	6.84	30'-6"	10'-0"	5	1	90	0
4	1	Near	25.00	17.50	6.84	40'-6"	10'-0"	5	1	90	0
5	1	Far	25.00	25.00	0.00	0'-6 1/4"*	0'-6 1/4"	6	1	90	0
6	1	Far	1.80	1.80	0.00	10'-6"	9'-11 3/4"	5	1	90	0
7	1	Far	25.00	25.00	0.00	50'-6"	40'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-55.00	55.00	0.00	0.00
(case 2)..:	0.00	0.00	55.00	-55.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G14

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 13:30:34

DEFLECTION

Allowed deflection under live load ..... = 1.73 in (L/ 360)
Calculated deflection under service live load .... = 1.26 in (L/ 495)
Joist inertia ..... = 9118.51 in^4
Required camber ..... = 1.11 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.15 in)

Left Reaction = 78.13/ -10.48 kips Right Reaction = 73.71/ -10.01 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	58.01	-74.14		LL 5 X .5	z 62	0.716	5'-3"		
1.2	58.01	-74.14		do	z 64	0.659	5'-3"		
1.3	79.74	-183.27		do	z 61	0.863	5'-0"		
1.4	79.74	-183.27		do	z 61	0.860	do		
1.5	87.16	-220.00	x	do	yy 49	0.943	do		
1.6	87.16	-220.00	x	do	yy 49	0.943	do		
1.7	80.96	-190.28		do	z 61	0.889	do		
1.8	80.96	-190.28		do	z 61	0.889	5'-0"		
1.9	58.94	-83.30	x	do	xx 78	0.668	10'-0"		
1.10	58.94	-110.98		LL 5 X .5	z 18	0.410	1'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 5 X .438	z 62	0.506	5'-3"		
2.2	148.27	-28.78		do	z 125	0.753	10'-3"		
2.3	218.24	-43.00		do	z 122	0.869	10'-0"		
2.4	221.75	-43.62		do	z 122	0.882	10'-0"		
2.5	158.79	-30.62		do	z 132	0.756	10'-10"		
2.6	0.00	0.00		LL 5 X .438	z 69	0.542	5'-10"		
End Diagonal									
3.1	92.24	-23.06		LL 3 X .281	z 128	0.957	6'-5 5/8"	.281 - 11 1/8"	T45
3.2	133.22	-33.31		LL 3.5 X .375	z 119	0.894	6'-11 1/4"	.313 - 14 3/8"	T45
Diagonal Towards End									
4.1	43.79	-10.95	x	LL 2 X .216	xx122	0.893	6'-4 7/8"	.216 - 6 7/8"	
4.2	32.48	-8.12	x	LL 2.5 X .230	xx 97	0.493	do	.230 - 4 3/4"	
4.3	0.39	-32.48	x	LL 2.5 X .230	xx 97	0.966	do	.230 - 4 3/4"	
4.4	39.41	-9.85	x	LL 2 X .216	xx122	0.804	6'-4 7/8"	.216 - 6 1/8"	
Diagonal Towards Center									
5.1	17.99	-91.21	x	LL 3.5 X .344	xx 72	0.968	6'-7 1/4"	.313 - 9 7/8"	
5.2	8.91	-43.78	x	LL 3 X .224	xx 80	0.941	6'-4 7/8"	.224 - 6 5/8"	
5.3	8.14	-39.39	x	LL 3 X .224	xx 80	0.846	6'-4 7/8"	.224 - 6"	
5.4	18.48	-89.83	x	LL 3.5 X .344	xx 77	1.003	7'-0 7/8"	.313 - 9 3/4"	
Secondary Web Member									
7.1	0.00	-1.75		U 1 x 1 x 0.118	z 153	0.924	4'-0"	.118 - 1 1/2"	
7.2	0.00	-3.79	d	U 1 3/8 x 0.118	z 104	0.848	do	.118 - 1 1/2"	
7.3	0.00	-4.55	d	U 1 3/8 x 0.157	z 102	0.555	do	.158 - 1 1/2"	
7.4	0.00	-3.94	d	U 1 3/8 x 0.118	z 104	0.880	4'-0"	.118 - 1 1/2"	
7.5	0.00	-37.30		LL 3 X .313	z 114	0.917	5'-9 1/4"	.313 - 4"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 49'-3 3/4" ==> 0 Row(s) Minimum Concentrated loads

@ Bottom Chord: 49'-2 1/4" ==> 1 Row(s) Minimum Acc. to the force

POSITION @ Top Chord @ Bottom Chord

KB 30'-6"

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v3.6 12/06/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member 1 = within a panel with no reinforcement

2 = anywhere within a panel 3 = at any panel point along the joist

4 = anywhere along the joist 5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

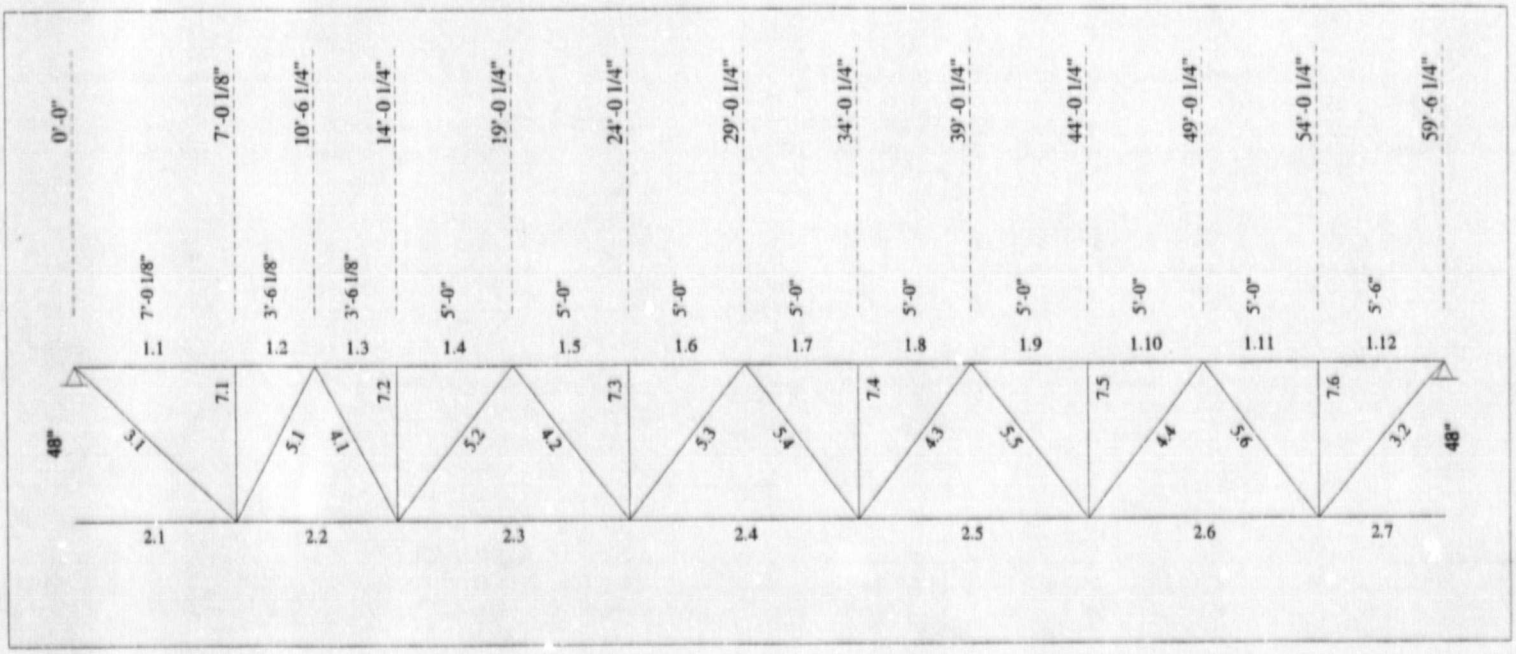
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

3811 (618.39) / 4037 (654.78)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G15 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	14'-0 1/4"	14'-0 1/4"	5	1	90	0
2	1	Near	17.50	12.25	4.80	24'-0 1/4"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	34'-0 1/4"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	44'-0 1/4"	10'-0"	5	1	90	0
5	1	Near	17.50	12.25	4.80	54'-0 1/4"	10'-0"	5	1	90	0
6	1	Far	8.80	8.80	0.00	4'-0 1/4"*	4'-0 1/4"	6	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G15

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 18:21:24

DEFLECTION

Allowed deflection under live load ..... = 1.97 in (L/ 360)
Calculated deflection under service live load .... = 1.74 in (L/ 408)
Joist inertia ..... = 7663.38 in^4
Required camber ..... = 1.48 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.43 in)

Left Reaction = 45.70/ -7.69 kips Right Reaction = 50.66/ -10.27 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	44.80	-75.68		LL 5 X .438	z 83	0.942	7'-0 1/8"		
1.2	44.80	-75.68		do	z 43	0.942	3'-6 1/8"		
1.3	59.04	-144.02		do	z 43	0.760	3'-6 1/8"		
1.4	59.04	-144.02		do	z 61	0.953	5'-0"		
1.5	69.86	-195.24	x	do	yy 49	0.968	do		
1.6	69.86	-195.24	x	do	yy 49	0.974	do		
1.7	71.19	-200.20	x	do	yy 49	0.991	do		
1.8	71.19	-200.20	x	do	yy 49	0.991	do		
1.9	63.03	-158.90		do	z 61	0.974	do		
1.10	63.03	-158.90		do	z 61	0.854	do		
1.11	45.39	-71.35		do	z 61	0.773	5'-0"		
1.12	45.39	-71.35		LL 5 X .438	z 65	0.396	5'-6"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .438	z 105	0.474	7'-0 1/8"		
2.2	109.86	-21.01		do	z 107	0.732	7'-0 1/8"		
2.3	169.64	-33.54		do	z 153	0.854	10'-0"		
2.4	197.72	-39.62		do	z 153	0.995	do		
2.5	179.56	-36.20		do	z 153	0.904	do		
2.6	115.14	-23.30		do	z 153	0.794	10'-0"		
2.7	0.00	0.00		LL 4 X .438	z 82	0.511	5'-6"		
End Diagonal									
3.1	86.49	-21.62	x	LL 3 X .281	xx101	0.897	7'-11 1/8"	.281 - 10 3/8"	
3.2	87.50	-21.88		LL 3 X .313	z 133	0.819	6'-8"	.313 - 9 1/2"	
Diagonal Towards End									
4.1	50.28	-12.57	x	LL 2.5 X .188	xx 80	0.926	5'-3 7/8"	.188 - 9"	
4.2	32.11	-8.03	x	LL 2 X .142	xx121	0.977	6'-4 7/8"	.142 - 7 5/8"	
4.3	25.89	-6.47	x	LL 2 X .142	xx121	0.788	do	.142 - 6 1/8"	
4.4	54.90	-13.72	x	LL 2 X .250	xx124	0.976	6'-4 7/8"	.250 - 7 3/8"	
Diagonal Towards Center									
5.1	10.47	-50.30	x	LL 3 X .224	xx 66	0.958	5'-3 7/8"	.224 - 7 5/8"	
5.2	6.78	-32.13	x	LL 2.5 X .230	xx 97	0.958	6'-4 7/8"	.230 - 4 3/4"	
5.3	0.83	-20.98	x	LL 2.5 X .188	xx 97	0.771	do	.188 - 3 3/4"	
5.4	20.98	-5.25	x	LL 2.5 X .188	xx 97	0.387	do	.188 - 3 3/4"	
5.5	5.11	-25.91	x	LL 2.5 X .230	xx 97	0.773	do	.230 - 3 7/8"	
5.6	11.06	-54.91	x	LL 3 X .281	xx 81	0.911	6'-4 7/8"	.281 - 6 5/8"	
Secondary Web Member									
7.1	0.00	-4.96		LL 2 X .216	z 116	0.272	4'-0"	.216 - 1 1/2"	
7.2	3.30	-17.50		do	z 116	0.961	do	.216 - 2 3/4"	
7.3	3.60	-17.50		do	z 116	0.961	do	do	
7.4	3.60	-17.50		do	z 116	0.961	do	do	
7.5	3.60	-17.50		do	z 116	0.961	do	do	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	3.60	-17.50	LL 2 X .216	z 116	0.961	4'-0"	.216 - 2 3/4"	

BRIDGING

Maximum spacing between rows of bridging

				Laterals supports
@ Top Chord:	49'-2 1/4"	==>	0 Row(s) Minimum	Concentrated loads
@ Bottom Chord:	41'-3 1/2"	==>	2 Row(s) Minimum	Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 24'-0 1/4"
		KB 34'-0 1/4"

v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

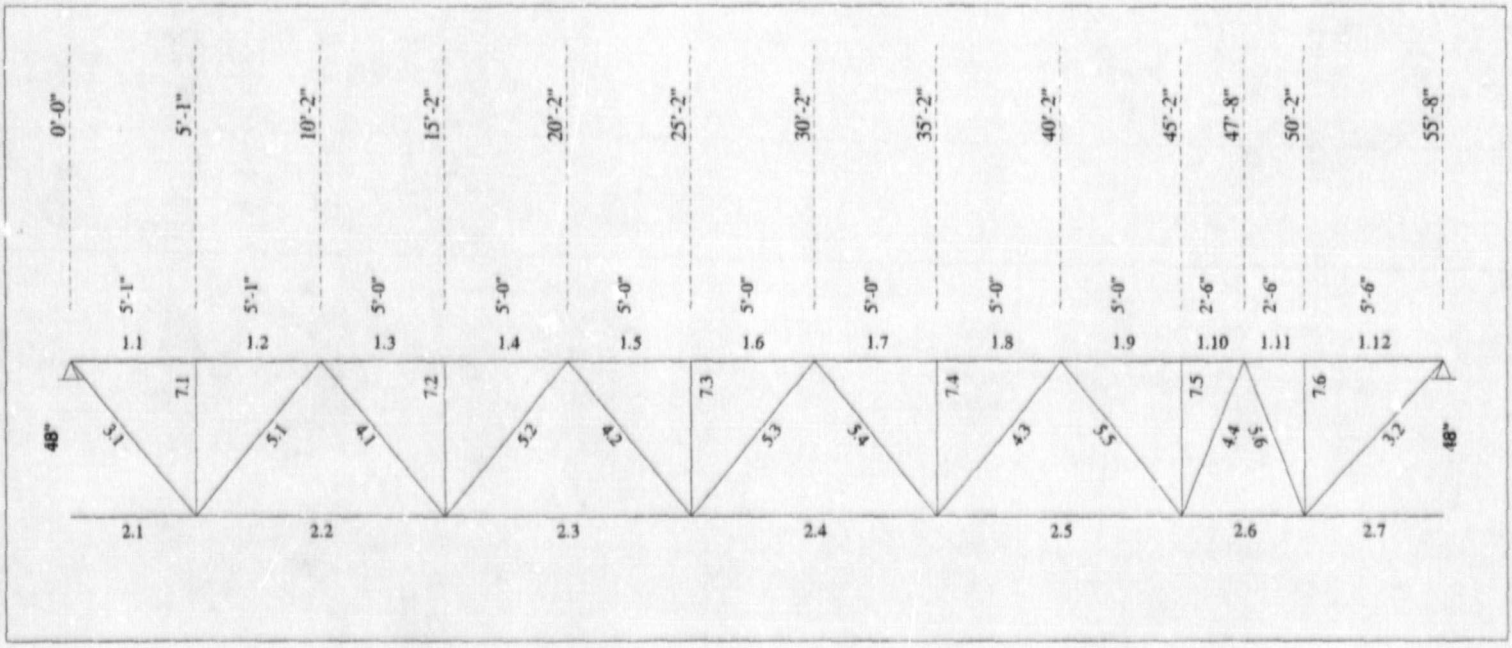
Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
3609 (548.39) / 3836 (580.73)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G16 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	10'-2"	10'-2"	5	1	90	0
2	1	Near	17.50	12.25	4.80	20'-2"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	30'-2"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	40'-2"	10'-0"	5	1	90	0
5	1	Near	17.50	12.25	4.80	50'-2"	10'-0"	5	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.0(	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G16

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 18:38:28

DEFLECTION

Allowed deflection under live load ..... = 1.84 in (L/ 360)
Calculated deflection under service live load .... = 1.38 in (L/ 480)
Joist inertia ..... = 7353.08 in^4
Required camber ..... = 1.28 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.66 in)

Left Reaction = 40.10/ -8.21 kips Right Reaction = 47.48/ -9.73 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	41.37	-51.81		LL 4 X .500	z 75	0.347	5'-1"		
1.2	41.37	-51.81		do	z 78	0.600	5'-1"		
1.3	58.45	-135.03		do	z 77	0.916	5'-0"		
1.4	58.45	-135.03		do	z 77	0.916	do		
1.5	65.90	-171.35	x	do	yy 58	0.989	do		
1.6	65.90	-171.35	x	do	yy 58	0.989	do		
1.7	63.90	-161.65	x	do	yy 58	0.933	do		
1.8	63.90	-161.65	x	do	yy 58	0.933	do		
1.9	52.47	-105.93		do	z 77	0.718	5'-0"		
1.10	52.47	-105.93		do	z 38	0.612	2'-6"		
1.11	44.40	-66.54		do	z 38	0.612	2'-6"		
1.12	44.40	-66.54		LL 4 X .500	z 82	0.476	5'-6"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .438	z 75	0.454	5'-1"		
2.2	105.36	-21.61		do	z 154	0.710	10'-1"		
2.3	164.69	-33.78		do	z 153	0.829	10'-0"		
2.4	178.00	-36.51		do	z 153	0.896	do		
2.5	145.29	-29.80		do	z 153	0.800	10'-0"		
2.6	86.24	-17.68		do	z 76	0.653	5'-0"		
2.7	0.00	0.00		LL 4 X .438	z 82	0.388	5'-6"		
End Diagonal									
3.1	65.51	-16.38	x	LL 2.5 X .230	xx 97	0.995	6'-4"	.230 - 9 5/8"	T45
3.2	81.74	-20.44		LL 3 X .313	z 133	0.765	6'-8"	.313 - 8 7/8"	T45
Diagonal Towards End									
4.1	37.29	-9.32	x	LL 2 X .163	xx121	0.994	6'-4 7/8"	.163 - 7 3/4"	
4.2	19.60	-4.90	x	LLV 1.75 x .143	xx139	0.681	do	.143 - 4 5/8"	
4.3	20.56	-5.14	x	LLV 1.75 x .143	xx139	0.714	6'-4 7/8"	.143 - 4 7/8"	
4.4	35.85	-8.96	x	LL 2 X .163	xx 88	0.955	4'-8 5/8"	.163 - 7 1/2"	
Diagonal Towards Center									
5.1	13.73	-66.89	x	LL 3.5 X .313	xx 70	0.773	6'-5 5/8"	.313 - 7 1/4"	
5.2	7.65	-37.27	x	LL 3 X .25	xx 81	0.705	6'-4 7/8"	.250 - 5"	
5.3	1.72	-19.60	x	LL 2.5 X .188	xx 97	0.722	do	.188 - 3 1/2"	
5.4	4.22	-20.54	x	LL 2.5 X .188	xx 97	0.757	do	.188 - 3 3/4"	
5.5	10.16	-49.46	x	LL 3 X .25	xx 81	0.936	6'-4 7/8"	.250 - 6 3/4"	
5.6	7.34	-35.86	x	LL 2.5 X .188	xx 70	1.005	4'-8 5/8"	.188 - 6 1/2"	
Secondary Web Member									
7.1	0.00	-1.08		LL 2 X .216	z 116	0.060	4'-0"	.216 - 1 1/2"	
7.2	0.00	-2.83	d	U 1 3/8 x 0.118	z 106	0.644	do	.118 - 1 1/2"	
7.3	0.00	-3.59	d	do	z 106	0.817	do	do	
7.4	0.00	-3.38	d	do	z 106	0.771	do	do	
7.5	0.00	-2.22	d	U 1 3/8 x 0.118	z 106	0.505	do	.118 - 1 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.	REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
7.6	3.60	-17.50	LL 2 X .216	z 116	0.970	4'-0"	.216 - 2 3/4"	

BRIDGING

Maximum spacing between rows of bridging

			Laterals supports
@ Top Chord:	41'-6 5/8" ==>	0 Row(s) Minimum	Concentrated loads
@ Bottom Chord:	41'-3 1/2" ==>	2 Row(s) Minimum	Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 20'-2"
		KE 30'-2"

v3.6 12/05/00

Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

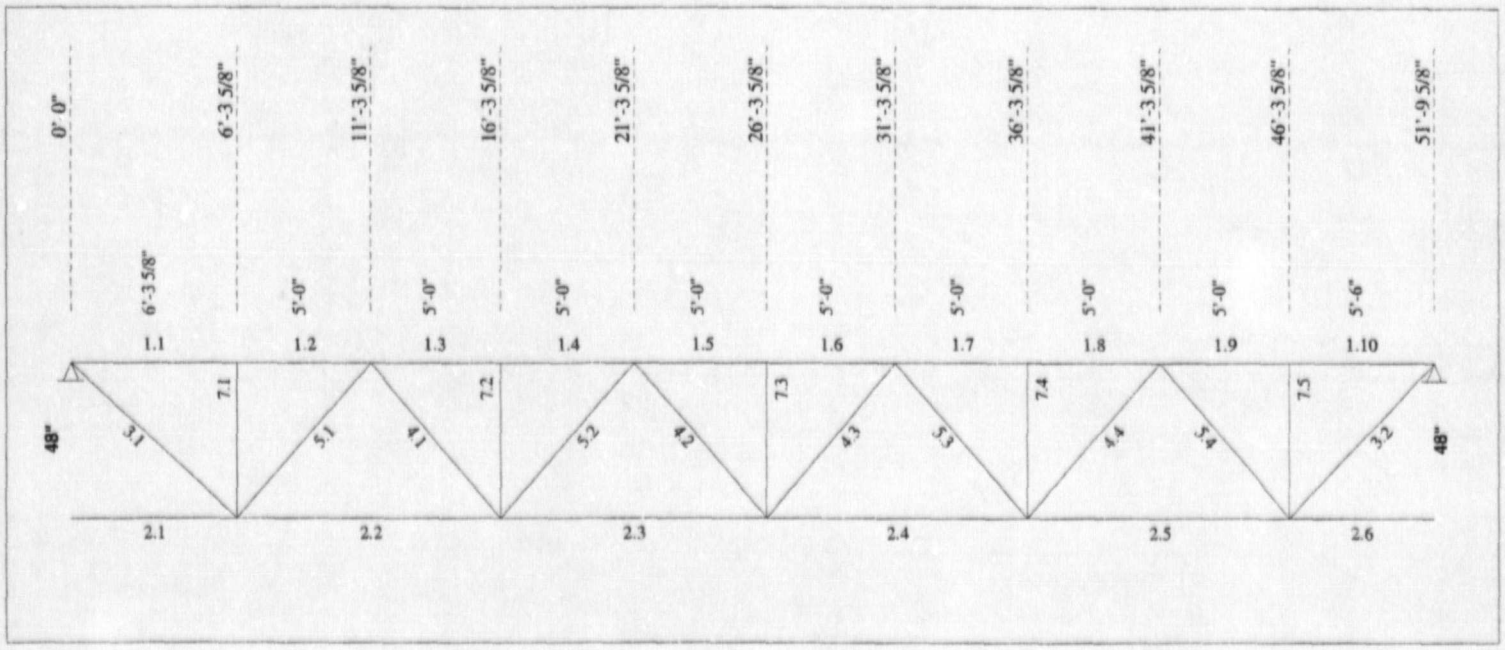
CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension
Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:
0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support
Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
3179 (461.05) / 3361 (487.05)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G17 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G6N17.5 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	17.50	12.25	4.80	6'-3 5/8"	6'-3 5/8"	5	1	90	0
2	1	Near	17.50	12.25	4.80	16'-3 5/8"	10'-0"	5	1	90	0
3	1	Near	17.50	12.25	4.80	26'-3 5/8"	10'-0"	5	1	90	0
4	1	Near	17.50	12.25	4.80	36'-3 5/8"	10'-0"	5	1	90	0
5	1	Near	17.50	12.25	4.80	46'-3 5/8"	10'-0"	5	1	90	0

---------- ***END MOMENTS [ft-kip] & AXIAL LOADS [kips]*** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-39.00	39.00	0.00	0.00
(case 2)..:	0.00	0.00	39.00	-39.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

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Mark: G17

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 18:39:57

DEFLECTION

Allowed deflection under live load ..... = 1.72 in (L/ 360)
Calculated deflection under service live load .... = 1.24 in (L/ 499)
Joist inertia ..... = 6287.13 in^4
Required camber ..... = 1.09 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.80 in)

Left Reaction = 43.10/ -8.84 kips Right Reaction = 44.46/ -9.12 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	44.87	-69.26		LL 4 X .500	z 94	0.576	6'-3 5/8"		
1.2	44.87	-69.26		do	z 77	0.787	5'-0"		
1.3	58.62	-136.28		do	z 77	0.924	do		
1.4	58.62	-136.28		do	z 77	0.924	do		
1.5	62.96	-157.43	x	do	yy 58	0.909	do		
1.6	62.96	-157.43	x	do	yy 58	0.909	do		
1.7	57.89	-132.71		do	z 77	0.909	do		
1.8	57.89	-132.71		do	z 77	0.900	do		
1.9	43.40	-62.11		do	z 77	0.766	5'-0"		
1.10	43.40	-62.11		LL 4 X .500	z 82	0.444	5'-6"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .375	z 107	0.591	6'-3 5/8"		
2.2	102.77	-21.09		do	z 175	0.867	10'-0"		
2.3	146.86	-30.13	x	do	yy129	0.985	do		
2.4	145.08	-29.77	x	do	yy129	0.973	do		
2.5	97.42	-19.99		do	z 175	0.834	10'-0"		
2.6	0.00	0.00		LL 3.5 X .375	z 93	0.560	5'-6"		
End Diagonal									
3.1	81.57	-20.39		LL 3.5 X .375	z 126	0.547	7'-3 7/8"	.313 - 8 7/8"	T45
3.2	76.38	-19.09		LL 3 X .313	z 134	0.715	6'-8"	.313 - 8 1/4"	T45
Diagonal Towards End									
4.1	42.15	-10.54	x	LL 2 X .216	xx123	0.860	6'-4 7/8"	.216 - 6 5/8"	
4.2	18.32	-4.58	x	LL 1.5 X .156	xx164	0.927	do	.156 - 4"	
4.3	18.32	-4.58	x	LL 1.5 X .156	xx164	0.927	do	.156 - 4"	
4.4	44.40	-11.10	x	LL 2 X .216	xx123	0.905	6'-4 7/8"	.216 - 6 7/8"	
Diagonal Towards Center									
5.1	8.64	-42.17	x	LL 3 X .224	xx 81	0.910	6'-4 7/8"	.224 - 6 3/8"	
5.2	2.72	-18.32	x	LL 2.5 X .188	xx 97	0.676	do	.188 - 3 1/4"	
5.3	3.18	-18.32	x	LL 2.5 X .188	xx 97	0.676	do	.188 - 3 1/4"	
5.4	9.11	-44.42	x	LL 3 X .224	xx 81	0.958	6'-4 7/8"	.224 - 6 3/4"	
Secondary Web Member									
7.1	3.60	-17.50		LL 2 X .216	z 117	0.977	4'-0"	.216 - 2 3/4"	
7.2	3.60	-17.50		do	z 117	0.977	do	do	
7.3	3.60	-17.50		do	z 117	0.977	do	do	
7.4	3.60	-17.50		do	z 117	0.977	do	do	
7.5	3.60	-17.50		LL 2 X .216	z 117	0.977	4'-0"	.216 - 2 3/4"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 41'-6 5/8" ==> 0 Row(s) Minimum Concentrated loads

canamsteel Corporation

Mark: G17

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 18:39:57

@ Bottom Chord: 37'-1 1/4" ==> 2 Row(s) Minimum Acc. to the force

POSITION	@ Top Chord	@ Bottom Chord
		KB 16'-3 5/8"
		KB 36'-3 5/8"

---

v3.6 12/05/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member

1 = within a panel with no reinforcement

2 = anywhere within a panel

3 = at any panel point along the joist

4 = anywhere along the joist

5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

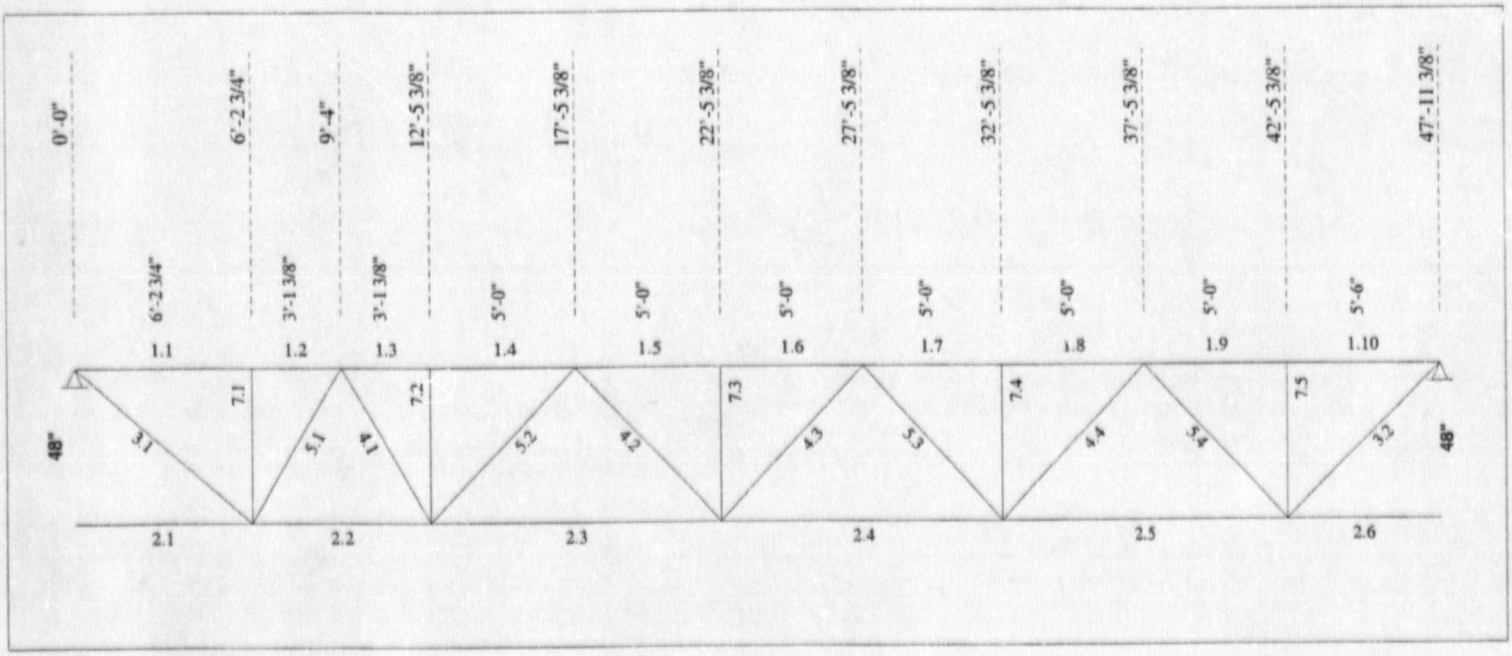
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

2717 (399.88) / 2881 (424.26)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: G18 (JOIST GIRDER, Asymetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 0.00 lb/ft 48G5N25.0 LIVE LOAD ..: 0.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	25.00	17.50	6.84	12'-5 3/8"	12'-5 3/8"	5	1	90	0
2	1	Near	25.00	17.50	6.84	22'-5 3/8"	10'-0"	5	1	90	0
3	1	Near	25.00	17.50	6.84	32'-5 3/8"	10'-0"	5	1	90	0
4	1	Near	25.00	17.50	6.84	42'-5 3/8"	10'-0"	5	1	90	0
5	1	Far	8.80	8.80	0.00	2'-5 3/8"*	2'-5 3/8"	6	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-55.00	55.00	0.00	0.00
(case 2)..:	0.00	0.00	55.00	-55.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 7 1/2" at right: 7 1/2"

canamsteel Corporation

Mark: G18

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 11:48:49

DEFLECTION

Allowed deflection under live load ..... = 1.59 in (L/ 360)
Calculated deflection under service live load .... = 1.03 in (L/ 554)
Joist inertia ..... = 7663.38 in^4
Required camber ..... = 0.92 in

F O R C E S I N M E M B E R S [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 45.43 in)

Left Reaction = 51.10/ -8.75 kips Right Reaction = 57.75/ -11.74 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	57.58	-72.99		LL 5 X .438	z 74	0.964	6'-2 3/4"		
1.2	57.58	-72.99		do	z 38	0.781	3'-1 3/8"		
1.3	71.97	-142.54		do	z 38	0.738	3'-1 3/8"		
1.4	71.97	-142.54		do	z 61	0.918	5'-0"		
1.5	81.56	-188.21	x	do	yy 49	0.933	do		
1.6	81.56	-188.21	x	do	yy 49	0.933	do		
1.7	77.61	-167.81		do	z 61	0.916	do		
1.8	77.61	-167.81		do	z 61	0.902	do		
1.9	60.13	-81.34		do	z 61	0.816	5'-0"		
1.10	60.13	-81.34		LL 5 X .438	z 65	0.451	5'-6"		
Bottom Chord									
2.1	0.00	0.00		LL 4 X .438	z 93	0.465	6'-2 3/4"		
2.2	107.77	-21.19		do	z 95	0.713	6'-2 3/4"		
2.3	165.38	-33.17		do	z 153	0.832	10'-0"		
2.4	178.02	-35.99		do	z 153	0.896	do		
2.5	124.58	-25.28		do	z 153	0.789	10'-0"		
2.6	0.00	0.00		LL 4 X .438	z 82	0.554	5'-6"		
End Diagonal									
3.1	86.07	-21.52		LL 3 X .313	z 145	0.857	7'-3 1/8"	.313 - 9 1/4"	
3.2	99.75	-24.94		LL 3.5 X .375	z 114	0.669	6'-8"	.313 - 10 3/4"	
Diagonal Towards End									
4.1	54.75	-13.69	x	LL 2 X .250	xx 97	0.973	5'-0 7/8"	.250 - 7 3/8"	
4.2	28.63	-7.16	x	LLV 1.75 x .143	xx139	0.994	6'-4 7/8"	.143 - 6 3/4"	
4.3	23.92	-5.98	x	LLV 1.75 x .143	xx139	0.830	do	.143 - 5 5/8"	
4.4	54.22	-13.55	x	LL 2.5 X .188	xx 97	0.999	6'-4 7/8"	.188 - 9 3/4"	
Diagonal Towards Center									
5.1	11.32	-54.76	x	LL 3 X .25	xx 63	0.886	5'-0 7/8"	.250 - 7 3/8"	
5.2	6.00	-28.65	x	LL 2.5 X .230	xx 97	0.855	6'-4 7/8"	.230 - 4 1/4"	
5.3	2.47	-23.92	x	LL 2.5 X .230	xx 97	0.713	do	.230 - 3 1/2"	
5.4	10.96	-54.24	x	LL 3 X .281	xx 81	0.900	6'-4 7/8"	.281 - 6 1/2"	
Secondary Web Member									
7.1	0.00	-3.31		LL 2.5 X .188	z 92	0.115	4'-0"	.188 - 1 1/2"	
7.2	5.13	-25.00		do	z 92	0.865	do	.188 - 4 1/2"	
7.3	5.13	-25.00		do	z 92	0.865	do	do	
7.4	5.13	-25.00		do	z 92	0.865	do	do	
7.5	5.13	-25.00		LL 2.5 X .188	z 92	0.865	4'-0"	.188 - 4 1/2"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 49'-2 1/4" ==> 0 Row(s) Minimum Concentrated loads

canamsteel Corporation

Mark: G18

Project: COLUMBIA DISTRIBUTION A04061

12/06/00 11:48:49

@ Bottom Chord: 41'-3 1/2" ==> 1 Row(s) Minimum Acc. to the force

POSITION @ Top Chord @ Bottom Chord

KB 22'-5 3/8"

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v3.6 12/06/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member

1 = within a panel with no reinforcement

2 = anywhere within a panel

3 = at any panel point along the joist

4 = anywhere along the joist

5 = transferred by an additional member and lateral support

6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

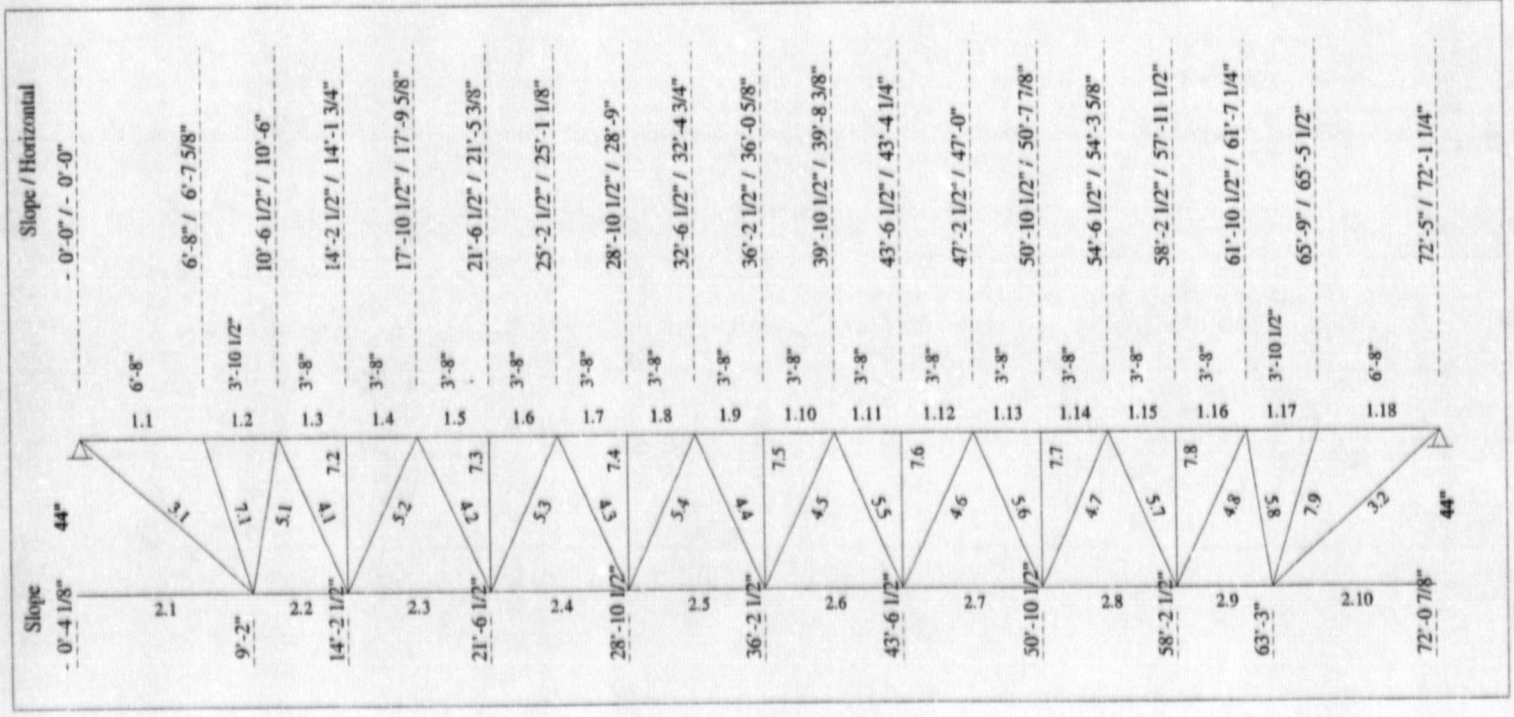
2961 (450.39) / 3170 (480.15)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C1 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 | 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 652.02 lb/ft 44LH15 LIVE LOAD ..: 382.29 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)

Calculated deflection under service live load .... = 2.27 in (L/ 379)

Joist inertia ..... = 4017.73 in^4

Required camber ..... = 2.18 in

canamsteel Corporation

Mark: C1

Project: COLUMBIA DISTRIBUTION A04061

12/08/00 15:03:19

---------- **F O R C E S I N M E M B E R S [kips]** ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 42.00 in)

Left Reaction = 23.60/ -4.00 kips Right Reaction = 23.60/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.49	-57.07	x	LL 3.5 X .375	xx 73	0.827	6'-8"		
1.2	16.11	-54.32		do	z 68	0.827	3'-10 1/2"		
1.3	19.28	-77.43		do	z 48	0.673	3'-8"		
1.4	19.24	-77.19		do	z 48	0.806	do		
1.5	22.64	-102.00		do	z 48	0.862	do		
1.6	22.61	-101.77		do	z 48	0.908	do		
1.7	24.63	-116.56		do	z 48	0.980	do		
1.8	24.60	-116.33		do	z 48	0.978	do		
1.9	25.25	-121.10	x	do	zz 32	0.939	do		
1.10	25.22	-120.86	x	do	zz 32	0.939	do		
1.11	24.50	-115.62		do	z 48	0.972	do		
1.12	24.47	-115.39		do	z 48	0.971	do		
1.13	22.38	-100.13		do	z 48	0.900	do		
1.14	22.35	-99.89		do	z 48	0.844	do		
1.15	18.89	-74.61		do	z 48	0.792	do		
1.16	18.86	-74.38		do	z 48	0.648	3'-8"		
1.17	15.63	-50.79		do	z 68	0.799	3'-10 1/2"		
1.18	15.92	-52.87	x	LL 3.5 X .375	xx 73	0.799	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 163	0.407	9'-6 1/8"		
2.2	59.62	-8.16		do	z 88	0.612	5'-0 1/2"		
2.3	89.68	-12.27		do	z 128	0.749	7'-4"		
2.4	109.71	-15.01		do	z 128	0.874	do		
2.5	119.73	-16.38		do	z 128	0.953	do		
2.6	119.73	-16.38		do	z 128	0.953	do		
2.7	109.71	-15.01		do	z 128	0.874	do		
2.8	89.68	-12.27		do	z 128	0.749	7'-4"		
2.9	59.62	-8.16		do	z 88	0.612	5'-0 1/2"		
2.10	0.00	0.00		LL 3.5 X .313	z 151	0.407	8'-9 7/8"		
End Diagonal									
3.1	58.98	-8.07	x	LL 2.5 X .230	zz118	0.896	9'-8 5/8"	.230 - 8 5/8"	
3.2	58.98	-8.07	x	LL 2.5 X .230	zz118	0.896	9'-8 5/8"	.230 - 8 5/8"	
Diagonal Towards End									
4.1	22.50	-3.08	x	LL 1.5 X .156	zz103	0.845	5'-2 1/4"	.156 - 4 7/8"	
4.2	15.58	-2.13	d	U 1 3/8 x 0.157	yy113	0.895	do	.158 - 3 3/8"	
4.3	8.66	-1.18		U 1 x 1 x 0.118	yy161	0.977	do	.118 - 2 1/2"	
4.4	8.54	-0.24		do	yy161	0.965	do	do	
4.5	8.54	-0.24		do	yy161	0.965	do	do	
4.6	8.66	-1.18		U 1 x 1 x 0.118	yy161	0.977	do	.118 - 2 1/2"	
4.7	15.58	-2.13	d	U 1 3/8 x 0.157	yy113	0.895	do	.158 - 3 3/8"	
4.8	22.50	-3.08	x	LL 1.5 X .156	zz103	0.845	5'-2 1/4"	.156 - 4 7/8"	
Diagonal Towards Center									
5.1	2.65	-19.33	x	LLV 1.75 x .143	zz 65	0.957	3'-11"	.143 - 4 5/8"	
5.2	2.61	-19.04	x	LL 2 X .142	zz 77	0.949	5'-2 1/4"	.142 - 4 1/2"	
5.3	1.66	-12.12	x	LL 1.5 X .156	zz103	0.579	do	.156 - 2 5/8"	
5.4	0.71	-8.54	x	do	zz103	0.590	do	.156 - 1 7/8"	
5.5	0.71	-8.54	x	do	zz103	0.590	do	.156 - 1 7/8"	
5.6	1.66	-12.12	x	LL 1.5 X .156	zz103	0.579	do	.156 - 2 5/8"	
5.7	2.61	-19.04	x	LL 2 X .142	zz 77	0.949	5'-2 1/4"	.142 - 4 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
5.8	2.65	-19.33	x	LLV 1.75 x .143	zz 65	0.957	3'-11"	.143 - 4 5/8"	
Secondary Web Member									
7.1	0.57	-4.46	d	U 1 3/8 x 0.118	z 119	0.807	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.80		U 1 x 1 x 0.090	z 147	1.001	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.93		U 1 x 1 x 0.118	yy111	0.815	do	.118 - 1 1/2"	
7.4	0.33	-3.00		do	yy111	0.836	do	do	
7.5	0.33	-3.03		do	yy111	0.843	do	do	
7.6	0.33	-3.00		do	yy111	0.835	do	do	
7.7	0.33	-2.92		U 1 x 1 x 0.118	yy111	0.812	do	.118 - 1 1/2"	
7.8	0.33	-2.78		U 1 x 1 x 0.090	z 147	0.996	3'-8"	.091 - 1 1/2"	
7.9	0.57	-4.44	d	U 1 3/8 x 0.118	z 119	0.803	4'-5 1/4"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord:	26'-2 3/8"	==>	3 Row(s) Minimum	Deck (36")
@ Bottom Chord:	36'-8 5/8"	==>	5 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord		@ Bottom Chord		
	XB	18'-1 1/4" (18'-0 1/4")		9'-2" (9'-1 1/2")	
	XB	36'-2 1/2" (36'-0 5/8")	XB	18'-1 1/4" (18'-0 1/4")	
	XB	54'-3 3/4" (54'-0 7/8")	XB	36'-2 1/2" (36'-0 5/8")	
			XB	54'-3 3/4" (54'-0 7/8")	
				63'-3" (62'-11 3/4")	

v3.6 12/08/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

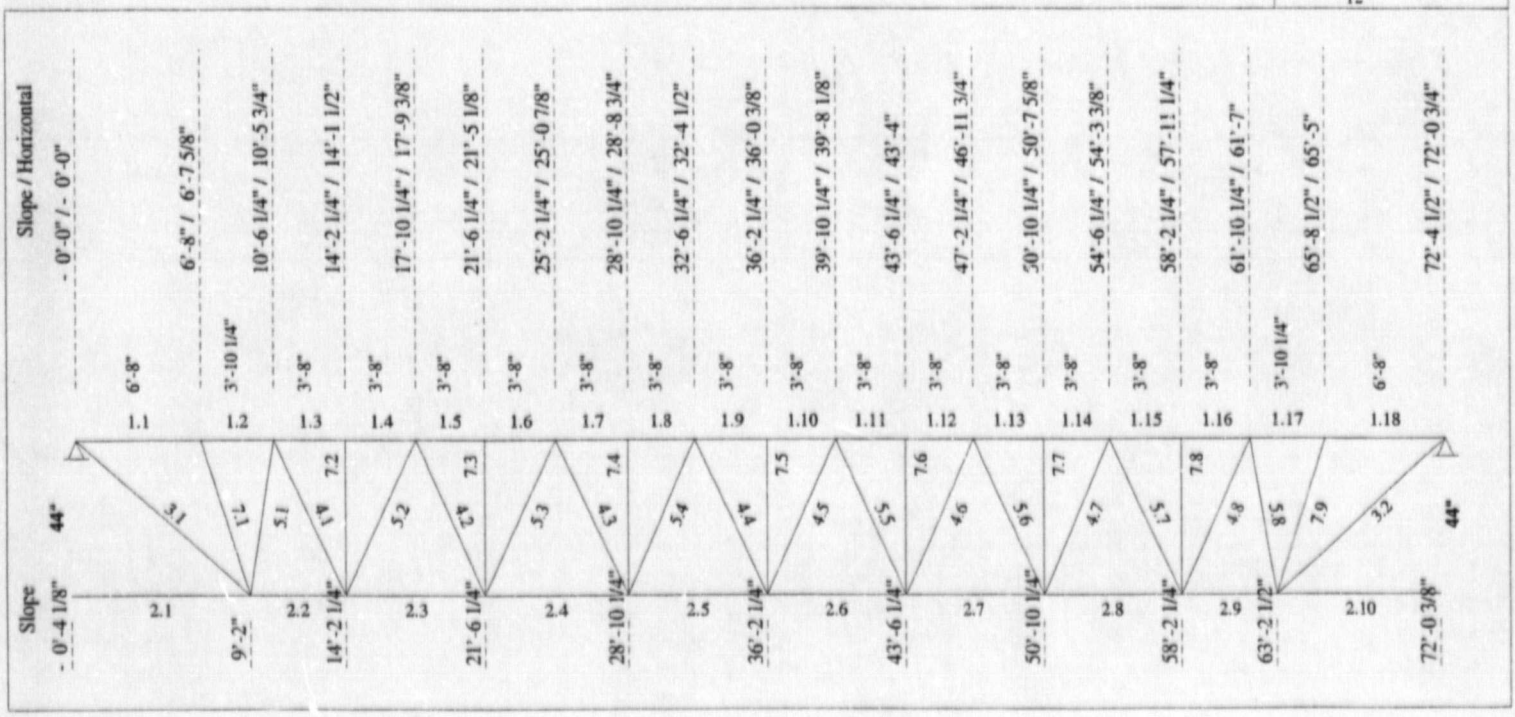
2477 (378.17) / 2712 (413.53)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C2 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 | 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 652.40 lb/ft 44LH15 LIVE LOAD ..: 382.73 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)

Calculated deflection under service live load .... = 2.27 in (L/ 380)

Joist inertia ..... = 4017.73 in^4

Required camber ..... = 2.18 in

canamsteel Corporation

Mark: C2

Project: COLUMBIA DISTRIBUTION A04061

12/08/00 15:03:20

---------- F O R C E S I N M E M B E R S [kips] ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 42.00 in)

Left Reaction = 23.60/ -4.00 kips Right Reaction = 23.60/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.49	-57.07	x	LL 3.5 X .375	xx 73	0.827	6'-8"		
1.2	16.11	-54.32		do	z 67	0.827	3'-10 1/4"		
1.3	19.26	-77.33		do	z 48	0.672	3'-8"		
1.4	19.22	-77.10		do	z 48	0.805	do		
1.5	22.62	-101.92		do	z 48	0.861	do		
1.6	22.59	-101.69		do	z 48	0.908	do		
1.7	24.61	-116.49		do	z 48	0.980	do		
1.8	24.58	-116.25		do	z 48	0.978	do		
1.9	25.23	-121.03	x	do	zz 32	0.939	do		
1.10	25.20	-120.79	x	do	zz 32	0.939	do		
1.11	24.48	-115.55		do	z 48	0.972	do		
1.12	24.45	-115.31		do	z 48	0.970	do		
1.13	22.36	-100.04		do	z 48	0.900	do		
1.14	22.33	-99.81		do	z 48	0.844	do		
1.15	18.87	-74.51		do	z 48	0.791	do		
1.16	18.84	-74.28		do	z 48	0.647	3'-8"		
1.17	15.63	-50.79		do	z 67	0.799	3'-10 1/4"		
1.18	15.91	-52.87	x	LL 3.5 X .375	xx 73	0.799	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 163	0.406	9'-6 1/8"		
2.2	59.52	-8.14		do	z 87	0.611	5'-0 1/4"		
2.3	89.59	-12.25		do	z 128	0.748	7'-4"		
2.4	109.64	-14.99		do	z 128	0.873	do		
2.5	119.66	-16.36		do	z 128	0.953	do		
2.6	119.66	-16.36		do	z 128	0.953	do		
2.7	109.64	-14.99		do	z 128	0.873	do		
2.8	89.59	-12.25		do	z 128	0.748	7'-4"		
2.9	59.52	-8.14		do	z 87	0.611	5'-0 1/4"		
2.10	0.00	0.00		LL 3.5 X .313	z 151	0.406	8'-9 7/8"		
End Diagonal									
3.1	58.98	-8.07	x	LL 2.5 X .230	zz118	0.896	9'-8 5/8"	.230 - 8 5/8"	
3.2	58.98	-8.07	x	LL 2.5 X .230	zz118	0.896	9'-8 5/8"	.230 - 8 5/8"	
Diagonal Towards End									
4.1	22.52	-3.08	x	LL 1.5 X .156	zz103	0.846	5'-2 1/4"	.156 - 4 7/8"	
4.2	15.59	-2.13	d	U 1 3/8 x 0.157	yy113	0.895	do	.158 - 3 3/8"	
4.3	8.66	-1.18		U 1 x 1 x 0.118	yy161	0.978	do	.118 - 2 1/2"	
4.4	8.54	-0.24		do	yy161	0.965	do	do	
4.5	8.54	-0.24		do	yy161	0.965	do	do	
4.6	8.66	-1.18		U 1 x 1 x 0.118	yy161	0.978	do	.118 - 2 1/2"	
4.7	15.59	-2.13	d	U 1 3/8 x 0.157	yy113	0.895	do	.158 - 3 3/8"	
4.8	22.52	-3.08	x	LL 1.5 X .156	zz103	0.846	5'-2 1/4"	.156 - 4 7/8"	
Diagonal Towards Center									
5.1	2.64	-19.30	x	LLV 1.75 x .143	zz 65	0.954	3'-10 7/8"	.143 - 4 5/8"	
5.2	2.61	-19.05	x	LL 2 X .142	zz 77	0.949	5'-2 1/4"	.142 - 4 1/2"	
5.3	1.66	-12.12	x	LL 1.5 X .156	zz103	0.980	do	.156 - 2 5/8"	
5.4	0.71	-8.54	x	do	zz103	0.690	do	.156 - 1 7/8"	
5.5	0.71	-8.54	x	do	zz103	0.690	do	.156 - 1 7/8"	
5.6	1.66	-12.12	x	LL 1.5 X .156	zz103	0.980	do	.156 - 2 5/8"	
5.7	2.61	-19.05	x	LL 2 X .142	zz 77	0.949	5'-2 1/4"	.142 - 4 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
5.8	2.64	-19.30	x	LLV 1.75 x .143	zz 65	0.954	3'-10 7/8"	.143 - 4 5/8"	
Secondary Web Member									
7.1	0.57	-4.45	d	U 1 3/8 x 0.118	z 119	0.806	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.80		U 1 x 1 x 0.090	z 147	1.001	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.93		U 1 x 1 x 0.118	yy111	0.815	do	.118 - 1 1/2"	
7.4	0.33	-3.00		do	yy111	0.837	do	do	
7.5	0.33	-3.03		do	yy111	0.843	do	do	
7.6	0.33	-3.00		do	yy111	0.835	do	do	
7.7	0.33	-2.92		U 1 x 1 x 0.118	yy111	0.813	do	.118 - 1 1/2"	
7.8	0.33	-2.78		U 1 x 1 x 0.090	z 147	0.996	3'-8"	.091 - 1 1/2"	
7.9	0.57	-4.43	d	U 1 3/8 x 0.118	z 119	0.802	4'-5 1/4"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging

			Laterals supports
@ Top Chord:	26'-2 3/8" ==>	3 Row(s) Minimum	Deck (36")
@ Bottom Chord:	36'-8 5/8" ==>	5 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord		@ Bottom Chord	
	XB 18'-1 1/8"	(18'-0 1/8")	9'-2"	(9'-1 1/2")
	XB 36'-2 1/4"	(36'-0 3/8")	XB 18'-1 1/8"	(18'-0 1/8")
	XB 54'-3 3/8"	(54'-0 1/2")	XB 36'-2 1/4"	(36'-0 3/8")
			XB 54'-3 3/8"	(54'-0 1/2")
			63'-2 1/2"	(62'-11 1/4")

v3.6 12/08/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

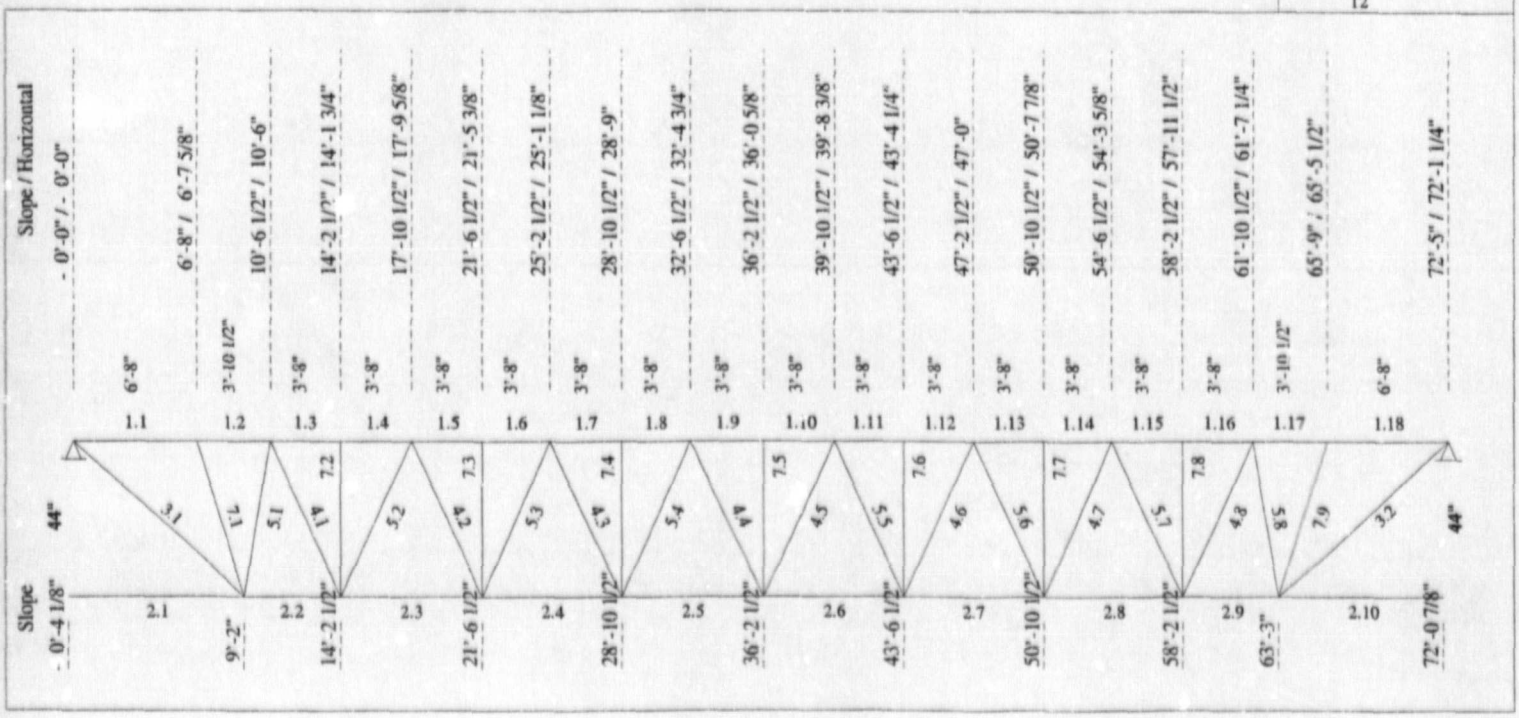
2475 (377.96) / 2710 (413.32)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C3 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 | 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 652.02 lb/ft 44LH15 LIVE LOAD ..: 382.29 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)

Calculated deflection under service live load .... = 2.27 in (L/ 379)

Joist inertia ..... = 4017.73 in^4

Required camber ..... = 2.18 in

canamsteel Corporation

Mark: C3

Project: COLUMBIA DISTRIBUTION A04061

12/08/00 15:03:21

---------- **F O R C E S I N M E M B E R S [kips]** ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 42.00 in)

Left Reaction = 23.60/ -4.00 kips Right Reaction = 23.60/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.49	-57.07	x	LL 3.5 X .375	xx 73	0.827	6'-8"		
1.2	16.11	-54.32		do	z 68	0.827	3'-10 1/2"		
1.3	19.28	-77.43		do	z 48	0.673	3'-8"		
1.4	19.24	-77.19		do	z 48	0.806	do		
1.5	22.64	-102.00		do	z 48	0.862	do		
1.6	22.61	-101.77		do	z 48	0.908	do		
1.7	24.63	-116.56		do	z 48	0.980	do		
1.8	24.60	-116.33		do	z 48	0.978	do		
1.9	25.25	-121.10	x	do	zz 32	0.939	do		
1.10	25.22	-120.86	x	do	zz 32	0.939	do		
1.11	24.50	-115.62		do	z 48	0.972	do		
1.12	24.47	-115.39		do	z 48	0.971	do		
1.13	22.38	-100.13		do	z 48	0.900	do		
1.14	22.35	-99.89		do	z 48	0.844	do		
1.15	18.89	-74.61		do	z 48	0.792	do		
1.16	18.86	-74.38		do	z 48	0.648	3'-8"		
1.17	15.63	-50.79		do	z 68	0.799	3'-10 1/2"		
1.18	15.92	-52.87	x	LL 3.5 X .375	xx 73	0.799	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .313	z 163	0.407	9'-6 1/8"		
2.2	59.62	-8.16		do	z 88	0.612	5'-0 1/2"		
2.3	89.68	-12.27		do	z 128	0.749	7'-4"		
2.4	109.71	-15.01		do	z 128	0.874	do		
2.5	119.73	-16.38		do	z 128	0.953	do		
2.6	119.73	-16.38		do	z 128	0.953	do		
2.7	109.71	-15.01		do	z 128	0.874	do		
2.8	89.68	-12.27		do	z 128	0.749	7'-4"		
2.9	59.62	-8.16		do	z 88	0.612	5'-0 1/2"		
2.10	0.00	0.00		LL 3.5 X .313	z 151	0.407	8'-9 7/8"		
End Diagonal									
3.1	58.98	-8.07	x	LL 2.5 X .230	zz118	0.896	9'-8 5/8"	.230 - 8 5/8"	
3.2	58.98	-8.07	x	LL 2.5 X .230	zz118	0.896	9'-8 5/8"	.230 - 8 5/8"	
Diagonal Towards End									
4.1	22.50	-3.08	x	LL 1.5 X .156	zz103	0.845	5'-2 1/4"	.156 - 4 7/8"	
4.2	15.58	-2.13	d	U 1 3/8 x 0.157	yy113	0.895	do	.158 - 3 3/8"	
4.3	8.66	-1.18		U 1 x 1 x 0.118	yy161	0.977	do	.118 - 2 1/2"	
4.4	8.54	-0.24		do	yy161	0.965	do	do	
4.5	8.54	-0.24		do	yy161	0.965	do	do	
4.6	8.66	-1.18		U 1 x 1 x 0.118	yy161	0.977	do	.118 - 2 1/2"	
4.7	15.58	-2.13	d	U 1 3/8 x 0.157	yy113	0.895	do	.15[illegible] 3 3/8"	
4.8	22.50	-3.08	x	LL 1.5 X .156	zz103	0.845	5'-2 1/4"	.156 - 4 7/8"	
Diagonal Towards Center									
5.1	2.65	-19.33	x	LLV 1.75 x .143	zz 65	0.957	3'-11"	.143 - 4 5/8"	
5.2	2.61	-19.04	x	LL 2 X .142	zz 77	0.949	5'-2 1/4"	.142 - 4 1/2"	
5.3	1.66	-12.12	x	LL 1.5 X .156	zz103	0.979	do	.156 - 2 5/8"	
5.4	0.71	-8.54	x	do	zz103	0.690	do	.156 - 1 7/8"	
5.5	0.71	-8.54	x	do	zz103	0.690	do	.156 - 1 7/8"	
5.6	1.66	-12.12	x	LL 1.5 X .156	zz103	0.979	do	.156 - 2 5/8"	
5.7	2.61	-19.04	x	LL 2 X .142	zz 77	0.949	5'-2 1/4"	.142 - 4 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
5.8	2.65	-19.33	x	LLV 1.75 x .143	zz 65	0.957	3'-11"	.143 - 4 5/8"	
Secondary Web Member									
7.1	0.57	-4.46	d	U 1 3/8 x 0.118	z 119	0.807	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.80		U 1 x 1 x 0.090	z 147	1.001	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.93		U 1 x 1 x 0.118	yy111	0.815	do	.118 - 1 1/2"	
7.4	0.33	-3.00		do	yy111	0.836	do	do	
7.5	0.33	-3.03		do	yy111	0.843	do	do	
7.6	0.33	-3.00		do	yy111	0.835	do	do	
7.7	0.33	-2.92		U 1 x 1 x 0.118	yy111	0.812	do	.118 - 1 1/2"	
7.8	0.33	-2.78		U 1 x 1 x 0.090	z 147	0.996	3'-8"	.091 - 1 1/2"	
7.9	0.57	-4.44	d	U 1 3/8 x 0.118	z 119	0.803	4'-5 1/4"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord:	26'-2 3/8"	==>	3 Row(s) Minimum	Deck (36")
@ Bottom Chord:	36'-8 5/8"	==>	5 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord		@ Bottom Chord	
XB	18'-1 1/4"	(18'-0 1/4")	9'-2"	(9'-1 1/2")
XB	36'-2 1/2"	(36'-0 5/8")	XB 18'-1 1/4"	(18'-0 1/4")
XB	54'-3 3/4"	(54'-0 7/8")	XB 36'-2 1/2"	(36'-0 5/8")
			XB 54'-3 3/4"	(54'-0 7/8")
			63'-3"	(62'-11 3/4")

v3.6 12/08/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

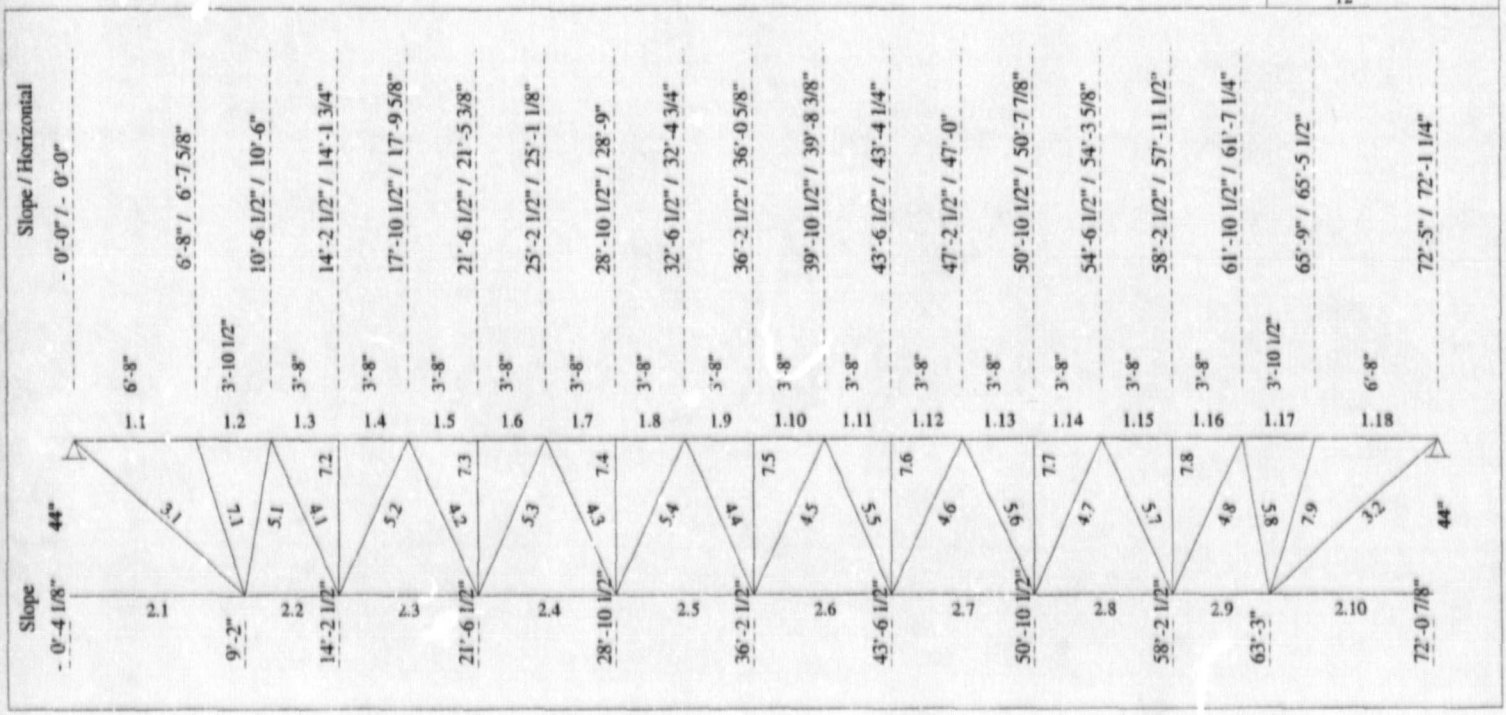
2477 (378.17) / 2712 (413.53)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C4 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 — 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 542.00 lb/ft 44LHSP542/291 LIVE LOAD ..: 291.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)

Calculated deflection under service live load .... = 2.01 in (L/ 429)

Joist inertia ..... = 3425.01 in^4

Required camber ..... = 2.18 in

canamsteel Corporation

Mark: C4

Project: COLUMBIA DISTRIBUTION A04061

12/08/00 15:03:22

---------- F O R C E S I N M E M B E R S [kips] ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 42.14 in)

Left Reaction = 19.45/ -4.00 kips Right Reaction = 19.45/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.43	-46.86	x	LL 3.5 X .313	xx 72	0.805	6'-8"		
1.2	16.06	-44.61		do	z 67	0.805	3'-10 1/2"		
1.3	19.21	-63.58		do	z 48	0.661	3'-8"		
1.4	19.18	-63.39		do	z 48	0.785	do		
1.5	22.56	-83.76		do	z 48	0.847	do		
1.6	22.53	-83.57		do	z 48	0.885	do		
1.7	24.54	-95.71		do	z 48	0.964	do		
1.8	24.51	-95.52		do	z 48	0.962	do		
1.9	25.16	-99.44		do	z 48	1.000	do		
1.10	25.13	-99.25		do	z 48	0.998	do		
1.11	24.42	-94.94		do	z 48	0.956	do		
1.12	24.38	-94.75		do	z 48	0.954	do		
1.13	22.30	-82.22		do	z 48	0.877	do		
1.14	22.27	-82.02		do	z 48	0.830	do		
1.15	18.82	-61.27		do	z 48	0.771	do		
1.16	18.79	-61.07		do	z 48	0.636	3'-8"		
1.17	15.58	-41.70		do	z 67	0.777	3'-10 1/2"		
1.18	15.86	-43.41	x	LL 3.5 X .313	xx 72	0.777	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3 X .313	z 190	0.393	9'-6 1/8"		
2.2	48.96	-8.13		do	z 103	0.591	5'-0 1/2"		
2.3	73.64	-12.23		do	z 149	0.723	7'-4"		
2.4	90.09	-14.96		do	z 149	0.950	do		
2.5	98.31	-16.33		do	z 149	0.967	do		
2.6	98.31	-16.33		do	z 149	0.967	do		
2.7	90.09	-14.96		do	z 149	0.950	do		
2.8	73.64	-12.23		do	z 149	0.723	7'-4"		
2.9	48.96	-8.13		do	z 103	0.591	5'-0 1/2"		
2.10	0.00	0.00		LL 3 X .313	z 176	0.393	8'-9 7/8"		
End Diagonal									
3.1	48.45	-8.05	x	LL 2 X .216	zz148	0.988	9'-8 5/8"	.216 - 7 5/8"	
3.2	48.45	-8.05	x	LL 2 X .216	zz148	0.988	9'-8 5/8"	.216 - 7 5/8"	
Diagonal Towards End									
4.1	18.51	-3.07	d	U 1 3/8 X 0.176	yy115	0.959	5'-2 1/4"	.176 - 3 1/2"	
4.2	12.81	-2.13	d	U 1 3/8 x 0.118	z 141	0.975	do	.118 - 3 5/8"	
4.3	7.12	-1.18		U 1 x 1 x 0.118	yy161	0.804	do	.118 - 2"	
4.4	7.03	-0.24		do	yy161	0.793	do	do	
4.5	7.03	-0.24		do	yy161	0.793	do	do	
4.6	7.12	-1.18		U 1 x 1 x 0.118	yy161	0.804	do	.118 - 2"	
4.7	12.81	-2.13	d	U 1 3/8 x 0.118	z 141	0.975	do	.118 - 3 5/8"	
4.8	18.51	-3.07	d	U 1 3/8 X 0.176	yy115	0.959	5'-2 1/4"	.176 - 3 1/2"	
Diagonal Towards Center									
5.1	2.64	-15.92	x	LL 1.5 X .156	zz 77	0.914	3'-11"	.156 - 3 1/2"	
5.2	2.60	-15.66	x	LLV 1.75 x .143	zz 88	0.962	5'-2 1/4"	.143 - 3 3/4"	
5.3	1.65	-9.97	x	LL 1.5 X .156	zz103	0.808	do	.156 - 2 1/8"	
5.4	0.71	-7.03	d	U 1 3/8 X 0.176	yy115	0.973	do	.176 - 1 1/2"	
5.5	0.71	-7.03	d	U 1 3/8 X 0.176	yy115	0.973	do	.176 - 1 1/2"	
5.6	1.65	-9.97	x	LL 1.5 X .156	zz103	0.808	do	.156 - 2 1/8"	
5.7	2.60	-15.66	x	LLV 1.75 x .143	zz 88	0.962	5'-2 1/4"	.143 - 3 3/4"	

canamsteel Corporation

Mark: C4

Project: COLUMBIA DISTRIBUTION A04061

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F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
5.8	2.64	-15.92	x	LL 1.5 X .156	zz 77	0.914	3'-11"	.156 - 3 1/2"	
Secondary Web Member									
7.1	0.57	-3.67	d	U 1 3/8 x 0.118	z 120	0.666	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.30		U 1 x 1 x 0.090	z 147	0.831	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.41		do	z 147	0.869	do	do	
7.4	0.33	-2.47		do	z 147	0.892	do	do	
7.5	0.33	-2.49		do	z 147	0.899	do	do	
7.6	0.33	-2.47		do	z 147	0.890	do	do	
7.7	0.33	-2.40		do	z 147	0.866	do	do	
7.8	0.33	-2.29		U 1 x 1 x 0.090	z 147	0.826	3'-8"	.091 - 1 1/2"	
7.9	0.57	-3.65	d	U 1 3/8 x 0.118	z 120	0.663	4'-5 1/4"	.118 - 1 1/2"	

---------- **BRIDGING** ----------

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord:	26'-0 1/8" ==>	2 Row(s) Minimum	Deck (36")
@ Bottom Chord:	32'-9 3/4" ==>	4 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	XB 24'-1 5/8" (24'-0 3/8")	9'-2" (9'-1 1/2")
	48'-3 3/8" (48'-0 3/4")	XB 24'-1 5/8" (24'-0 3/8")
		48'-3 3/8" (48'-0 3/4")
		63'-3" (62'-11 3/4")

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v3.6 12/08/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

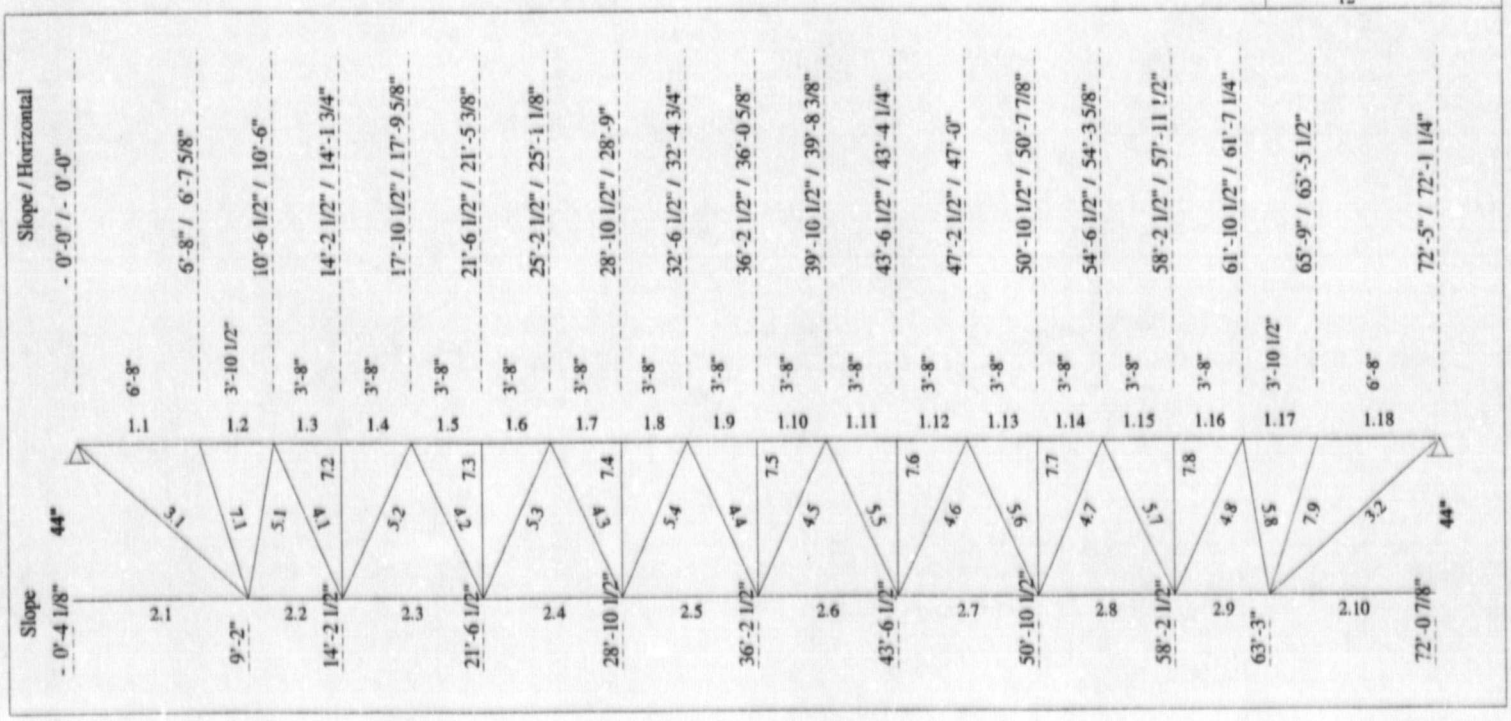
2082 (317.96) / 2285 (346.92)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C5 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 | 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 562.00 lb/ft 44LHSP562/311 LIVE LOAD ..: 311.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)
Calculated deflection under service live load .... = 2.15 in (L/ 401)
Joist inertia ..... = 3425.01 in^4
Required camber ..... = 2.18 in

canamsteel Corporation

Mark: C5

Project: COLUMBIA DISTRIBUTION A04061

12/08/00 15:03:22

---------- **F O R C E S I N M E M B E R S [kips]** ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 42.14 in)

Left Reaction = 20.16/ -4.00 kips Right Reaction = 20.16/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.43	-48.59	x	LL 3.5 X .313	xx 72	0.834	6'-8"		
1.2	16.06	-46.25		do	z 67	0.834	3'-10 1/2"		
1.3	19.21	-65.93		do	z 48	0.685	3'-8"		
1.4	19.18	-65.73		do	z 48	0.814	do		
1.5	22.56	-86.85		do	z 48	0.879	do		
1.6	22.53	-86.65		do	z 48	0.918	do		
1.7	24.54	-99.24		do	z 48	0.999	do		
1.8	24.51	-99.04		do	z 48	0.997	do		
1.9	25.16	-103.11	x	do	zz 32	0.955	do		
1.10	25.13	-102.91	x	do	zz 32	0.953	do		
1.11	24.42	-98.44		do	z 48	0.991	do		
1.12	24.38	-98.24		do	z 48	0.990	do		
1.13	22.30	-85.25		do	z 48	0.910	do		
1.14	22.27	-85.05		do	z 48	0.861	do		
1.15	18.82	-63.53		do	z 48	0.800	do		
1.16	18.79	-63.33		do	z 48	0.660	3'-8"		
1.17	15.58	-43.24		do	z 67	0.806	3'-10 1/2"		
1.18	15.86	-45.02	x	LL 3.5 X .313	xx 72	0.806	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3 X .313	z 190	0.407	9'-6 1/8"		
2.2	50.77	-8.13		do	z 103	0.613	5'-0 1/2"		
2.3	76.35	-12.23		do	z 149	0.750	7'-4"		
2.4	93.41	-14.96		do	z 149	0.950	do		
2.5	101.94	-16.33		do	z 149	0.967	do		
2.6	101.94	-16.33		do	z 149	0.967	do		
2.7	93.41	-14.96		do	z 149	0.950	do		
2.8	76.35	-12.23		do	z 149	0.750	7'-4"		
2.9	50.77	-8.13		do	z 103	0.613	5'-0 1/2"		
2.10	0.00	0.00		LL 3 X .313	z 176	0.407	8'-9 7/8"		
End Diagonal									
3.1	50.24	-8.05	x	LL 2.5 X .188	zz117	0.926	9'-8 5/8"	.188 - 9"	
3.2	50.24	-8.05	x	LL 2.5 X .188	zz117	0.926	9'-8 5/8"	.188 - 9"	
Diagonal Towards End									
4.1	19.19	-3.07	d	U 1 3/8 X 0.176	yy115	0.994	5'-2 1/4"	.176 - 3 3/4"	
4.2	13.29	-2.13	d	U 1 3/8 x 0.157	yy113	0.763	do	.158 - 2 7/8"	
4.3	7.38	-1.18		U 1 x 1 x 0.118	yy161	0.833	do	.118 - 2 1/8"	
4.4	7.29	-0.24		do	yy161	0.823	do	do	
4.5	7.29	-0.24		do	yy161	0.823	do	do	
4.6	7.38	-1.18		U 1 x 1 x 0.118	yy161	0.833	do	.118 - 2 1/8"	
4.7	13.29	-2.13	d	U 1 3/8 x 0.157	yy113	0.763	do	.158 - 2 7/8"	
4.8	19.19	-3.07	d	U 1 3/8 X 0.176	yy115	0.994	5'-2 1/4"	.176 - 3 3/4"	
Diagonal Towards Center									
5.1	2.64	-16.51	x	LL 1.5 X .156	zz 77	0.947	3'-11"	.156 - 3 5/8"	
5.2	2.60	-16.24	x	LLV 1.75 x .143	zz 88	0.998	5'-2 1/4"	.143 - 3 7/8"	
5.3	1.65	-10.33	x	LL 1.5 X .156	zz103	0.837	do	.156 - 2 1/4"	
5.4	0.71	-7.29	d	U 1 3/8 X 0.176	yy115	1.009	do	.176 - 1 1/2"	
5.5	0.71	-7.29	d	U 1 3/8 X 0.176	yy115	1.009	do	.176 - 1 1/2"	
5.6	1.65	-10.33	x	LL 1.5 X .156	zz103	0.837	do	.156 - 2 1/4"	
5.7	2.60	-16.24	x	LLV 1.75 x .143	zz 88	0.998	5'-2 1/4"	.143 - 3 7/8"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
5.8	2.64	-16.51	x	LL 1.5 X .156	zz 77	0.947	3'-11"	.156 - 3 5/8"	
Secondary Web Member									
7.1	0.57	-3.81	d	U 1 3/8 x 0.118	z 120	0.690	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.39		U 1 x 1 x 0.090	z 147	0.861	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.50		do	z 147	0.901	do	do	
7.4	0.33	-2.57		do	z 147	0.924	do	do	
7.5	0.33	-2.59		do	z 147	0.932	do	do	
7.6	0.33	-2.56		do	z 147	0.923	do	do	
7.7	0.33	-2.49		do	z 147	0.898	do	do	
7.8	0.33	-2.38		U 1 x 1 x 0.090	z 147	0.857	3'-8"	.091 - 1 1/2"	
7.9	0.57	-3.79	d	U 1 3/8 x 0.118	z 120	0.687	4'-5 1/4"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord:	26'-0 1/8"	==>	2 Row(s) Minimum	Deck (36")
@ Bottom Chord:	32'-9 3/4"	==>	4 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
XB	24'-1 5/8" (24'-0 3/8")	9'-2" (9'-1 1/2")
	48'-3 3/8" (48'-0 3/4") XB	24'-1 5/8" (24'-0 3/8")
		48'-3 3/8" (48'-0 3/4")
		63'-3" (62'-11 3/4")

v3.6 12/08/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

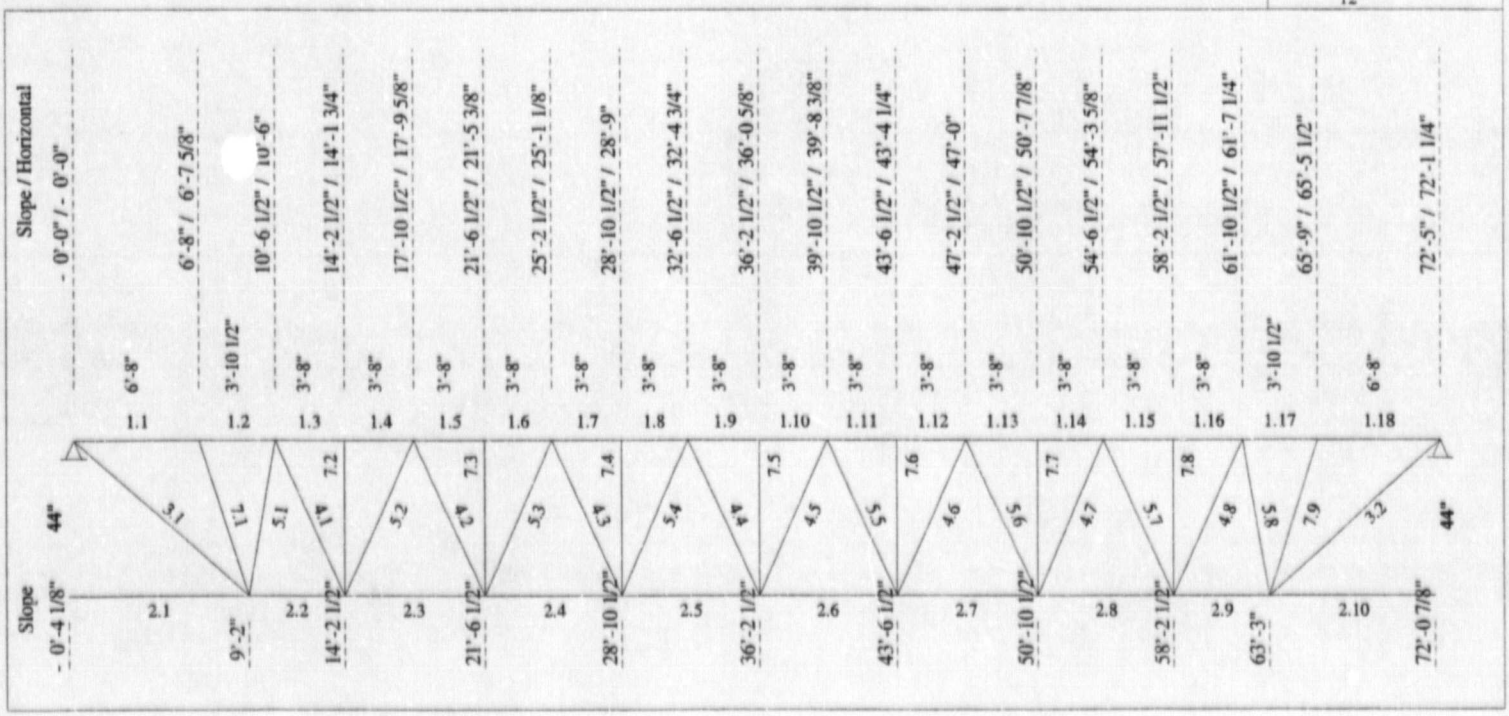
2099 (322.26) / 2302 (351.22)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C6 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 | 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 652.02 lb/ft 44LH15 LIVE LOAD ..: 382.29 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	0.58	0.58	0.00	21'-0"*	21'-0"	0	1	90	0
2	1	Near	0.58	0.58	0.00	29'-0"*	8'-0"	0	1	90	0
3	1	Near	0.58	0.58	0.00	37'-0"*	8'-0"	0	1	90	0
4	1	Near	0.58	0.58	0.00	45'-0"*	8'-0"	0	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)
Calculated deflection under service live load .... = 2.40 in (L/ 360)
Joist inertia ..... = 4211.80 in^4
Required camber ..... = 2.18 in

---------- **F O R C E S I N M E M B E R S [kips]** ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 41.99 in)

Left Reaction = 24.86/ -4.00 kips Right Reaction = 24.66/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.49	-60.43	x	LL 3.5 X .375	xx 73	0.849	6'-8"		
1.2	16.12	-57.68		do	z 68	0.849	3'-10 1/2"		
1.3	19.28	-82.60		do	z 48	0.715	3'-8"		
1.4	19.25	-82.37		do	z 48	0.858	do		
1.5	22.64	-109.79		do	z 48	0.926	do		
1.6	22.61	-109.44		do	z 48	0.969	do		
1.7	24.64	-125.65	x	do	zz 32	0.970	do		
1.8	24.60	-125.41	x	do	zz 32	1.001	do		
1.9	25.26	-130.39	x	do	zz 32	1.004	do		
1.10	25.23	-130.22	x	do	zz 32	1.003	do		
1.11	24.51	-124.00	x	do	zz 32	1.000	do		
1.12	24.48	-123.88	x	do	zz 32	0.959	do		
1.13	22.39	-106.50		do	z 48	0.957	do		
1.14	22.36	-106.27		do	z 48	0.897	do		
1.15	18.90	-78.77		do	z 48	0.834	do		
1.16	18.86	-78.53		do	z 48	0.682	3'-8"		
1.17	15.63	-53.41		do	z 68	0.816	3'-10 1/2"		
1.18	15.92	-55.50	x	LL 3.5 X .375	xx 73	0.816	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3.5 X .344	z 163	0.395	9'-6 1/8"		
2.2	63.36	-8.16		do	z 88	0.599	5'-0 1/2"		
2.3	96.04	-12.27		do	z 128	0.736	7'-4"		
2.4	118.03	-15.02		do	z 128	0.859	do		
2.5	128.90	-16.39		do	z 128	0.938	do		
2.6	128.66	-16.39		do	z 128	0.937	do		
2.7	117.30	-15.02		do	z 128	0.854	do		
2.8	95.05	-12.27		do	z 128	0.732	7'-4"		
2.9	62.77	-8.16		do	z 88	0.593	5'-0 1/2"		
2.10	0.00	0.00		LL 3.5 X .344	z 151	.392	8'-9 7/8"		
End Diagonal									
3.1	62.45	-8.07	x	LL 2.5 X .230	zz118	0.949	9'-8 5/8"	.230 - 9 1/8"	

3.2	61.91	-8.07	x	LL 2.5 X .230	zz118	0.940	9'-8 5/8"	.230 -	9 1/8"
Diagonal Towards End									
4.1	24.32	-3.08	x	LL 1.5 X .156	zz103	0.914	5'-2 1/4"	.156 -	5 1/4"
4.2	17.40	-2.13	d	U 1 3/8 x 0.157	yy113	0.999	do	.158 -	3 3/4"
4.3	9.63	-1.18	d	U 1 3/8 x 0.118	z 141	0.733	do	.118 -	2 3/4"
4.4	9.00	-0.24	d	do	z 141	0.685	do	.118 -	2 1/2"
4.5	9.00	-0.24	d	do	z 141	0.685	do	.118 -	2 1/2"
4.6	10.17	-1.18	d	U 1 3/8 x 0.118	z 141	0.774	do	.118 -	2 7/8"
4.7	17.11	-2.13	d	U 1 3/8 x 0.157	yy113	0.983	do	.158 -	3 5/8"
4.8	24.04	-3.08	x	LL 1.5 X .156	zz103	0.903	5'-2 1/4"	.156 -	5 1/4"

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ex.Side	Remarks
Diagonal Towards Center									
5.1	2.65	-20.68	x	LL 1.75 X .155	zz 65	0.927	3'-11"	.155 - 4 1/2"	
5.2	2.61	-20.86	x	LL 2 X .163	zz 77	0.876	5'-2 1/4"	.163 - 4 3/8"	
5.3	1.66	-13.10	x	LLV 1.75 x .143	zz 88	0.803	do	.143 - 3 1/8"	
5.4	0.71	-9.00	x	LL 1.5 X .156	zz103	0.727	do	.156 - 2"	
5.5	0.71	-9.00	x	LL 1.5 X .156	zz103	0.727	do	.156 - 2"	
5.6	1.66	-13.65	x	LLV 1.75 x .143	zz 88	0.837	do	.143 - 3 1/4"	
5.7	2.61	-20.57	x	LL 2 X .163	zz 77	0.864	5'-2 1/4"	.163 - 4 1/4"	
5.8	2.65	-20.47	x	LL 1.75 X .155	zz 65	0.917	3'-11"	.155 - 4 1/2"	
Secondary Web Member									
7.1	0.57	-4.48	d	U 1 3/8 x 0.118	z 119	0.810	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.82		U 1 x 1 x 0.090	z 147	1.010	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.96		U 1 x 1 x 0.118	yy111	0.823	do	.118 - 1 1/2"	
7.4	0.33	-3.05		do	yy111	0.849	do	do	
7.5	0.33	-3.08		do	yy111	0.858	do	do	
7.6	0.33	-3.05		do	yy111	0.850	do	do	
7.7	0.33	-2.95		U 1 x 1 x 0.118	yy111	0.821	do	.118 - 1 1/2"	
7.8	0.33	-2.80		U 1 x 1 x 0.090	z 147	1.003	3'-8"	.091 - 1 1/2"	
7.9	0.57	-4.45	d	U 1 3/8 x 0.118	z 119	0.805	4'-5 1/4"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord:	26'-2 3/8" ==>	3 Row(s) Minimum	Deck (36")	
@ Bottom Chord:	36'-11 5/8" ==>	5 Row(s) Minimum	Acc. to the code	

POSITION	@ Top Chord		@ Bottom Chord	
	XB	18'-1 1/4" (18'-0 1/4")		9'-2" (9'-1 1/2")
	XB	36'-2 1/2" (36'-0 5/8")	XB	18'-1 1/4" (18'-0 1/4")
	XB	54'-3 3/4" (54'-0 7/8")	XB	36'-2 1/2" (36'-0 5/8")
			XB	54'-3 3/4" (54'-0 7/8")
				63'-3" (62'-11 3/4")

v3.6 12/08/00

Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle
Value of the forces reduced by 25% when there are some wind loads

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)
Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Mark: C6

canamsteel Corporation

Project: COLUMBIA DISTRIBUTION A04061

12/08/00 18:00:02

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)
Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom
Inclination (Incl.): 90 = Vertical, 0 = Horizontal Composite (Cmp): 0 = standard, 1 = non-composite

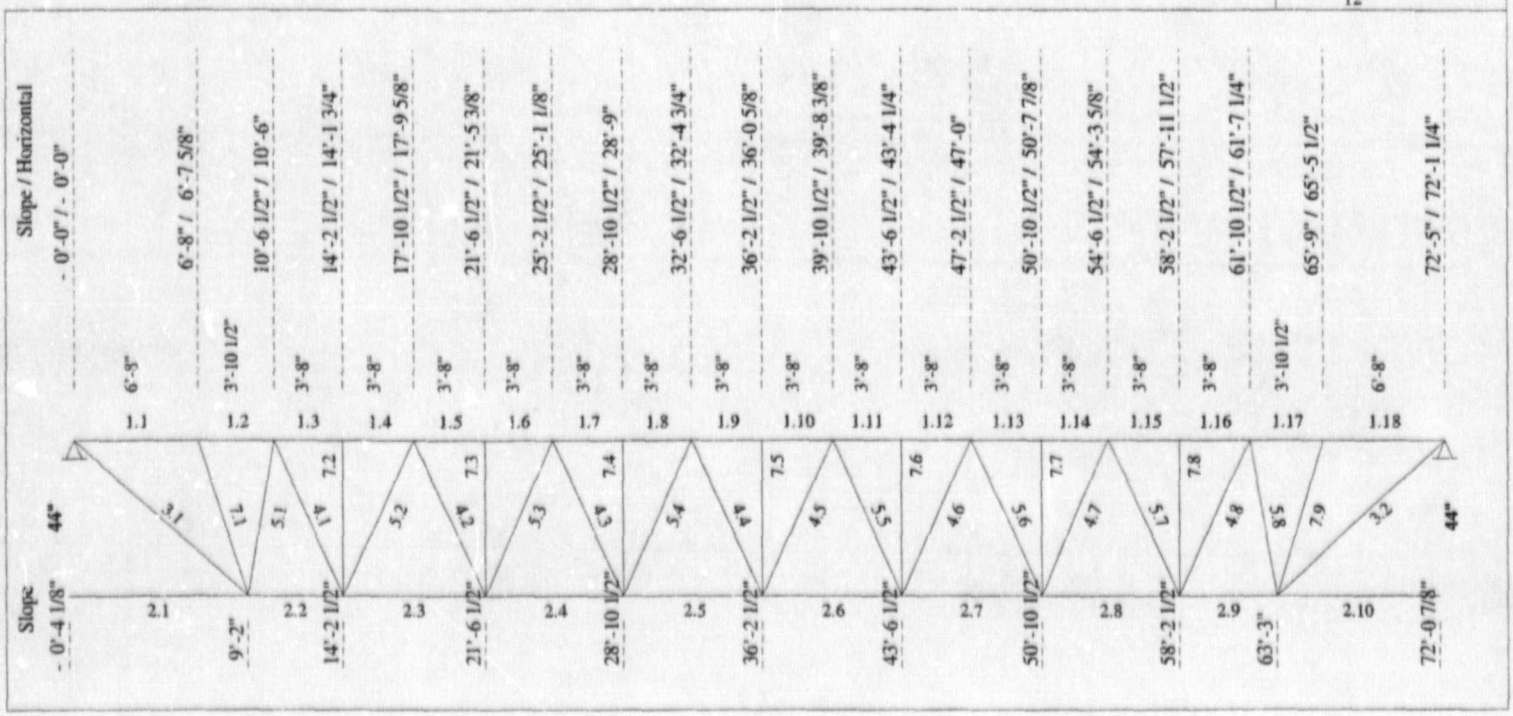
Projets no.: A04061 Designer: Phillppe Theriault Shop: Canam Sunnyside [Production]
2565 (388.69) / 2819 (425.94)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: C7 (W-N LONG SPAN, Symmetrical, Parallel, Free ends)

Δ = 81 1/8 / 12 | 1 1/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 542.00 lb/ft 44LHSP542/291 LIVE LOAD ..: 291.00 lb/ft

---------- **CONCENTRATED LOADS** ----------

No	Sp	Side	Total load [kips]	Live load [kips]	Net uplift [kips]	Position [ft]	Spacing [ft]	Cat. 0-6	Chord 1/2	Incl. [deg]	Cmp
1	1	Near	0.15	0.15	0.00	21'-0"*	21'-0"	1	1	90	0
2	1	Near	0.15	0.15	0.00	29'-0"*	8'-0"	1	1	90	0
3	1	Near	0.15	0.15	0.00	37'-0"*	8'-0"	1	1	90	0
4	1	Near	0.15	0.15	0.00	45'-0"*	8'-0"	1	1	90	0

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 5" at right: 5"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 2.40 in (L/ 360)
Calculated deflection under service live load .... = 2.09 in (L/ 412)
Joist inertia ..... = 3425.01 in^4
Required camber ..... = 2.18 in

---------- **F O R C E S I N M E M B E R S [kips]** ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 42.14 in)

Left Reaction = 19.77/ -4.00 kips Right Reaction = 19.72/ -4.00 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	16.43	-47.72	x	LL 3.5 X .313	xx 72	0.811	6'-8"		
1.2	16.06	-45.47		do	z 67	0.811	3'-10 1/2"		
1.3	19.21	-64.91		do	z 48	0.674	3'-8"		
1.4	19.18	-64.71		do	z 48	0.803	do		
1.5	22.56	-85.74		do	z 48	0.868	do		
1.6	22.53	-85.54		do	z 48	0.901	do		
1.7	24.54	-98.05		do	z 48	0.986	do		
1.8	24.51	-97.84		do	z 48	0.986	do		
1.9	25.16	-101.82	x	do	zz 32	0.943	do		
1.10	25.13	-101.62	x	do	zz 32	0.944	do		
1.11	24.42	-97.09		do	z 48	0.975	do		
1.12	24.38	-96.89		do	z 48	0.983	do		
1.13	22.30	-83.85		do	z 48	0.903	do		
1.14	22.27	-83.66		do	z 48	0.647	do		
1.15	18.82	-62.33		do	z 48	0.785	do		
1.16	18.79	-62.14		do	z 48	0.647	3'-8"		
1.17	15.58	-42.38		do	z 67	0.782	3'-10 1/2"		
1.18	15.86	-44.09	x	LL 3.5 X .313	xx 72	0.782	6'-8"		
Bottom Chord									
2.1	0.00	0.00		LL 3 X .313	z 190	0.401	9'-6 1/8"		
2.2	49.92	-8.13		do	z 103	0.604	5'-0 1/2"		
2.3	75.27	-12.23		do	z 149	0.740	7'-4"		
2.4	92.22	-14.96		do	z 149	0.950	do		
2.5	100.67	-16.33		do	z 149	0.967	do		
2.6	100.61	-16.33		do	z 149	0.967	do		
2.7	92.04	-14.96		do	z 149	0.950	do		
2.8	75.01	-12.23		do	z 149	0.739	7'-4"		
2.9	49.77	-8.13		do	z 103	0.602	5'-0 1/2"		
2.10	0.00	0.00		LL 3 X .313	z 176	0.303	8'-9 7/8"		
End Diagonal									
3.1	49.34	-8.05	x	LL 2 X .216	zz148	1.006	9'-8 5/8"	.216 - 7 3/4"	

3.2	49.20	-8.05	x	LL 2 X .216	zz148	1.003	9'-8 5/8"	.216 - 7 3/4"
Diagonal Towards End								
4.1	18.98	-3.07	d	U 1 3/8 X 0.176	yy115	0.983	5'-2 1/4"	.176 - 3 5/8"
4.2	13.26	-2.13	d	U 1 3/8 x 0.118	z 141	1.008	do	.118 - 3 3/4"
4.3	7.37	-1.18		U 1 x 1 x 0.118	yy161	0.832	do	.118 - 2 1/8"
4.4	7.15	-0.24		do	yy161	0.807	do	.118 - 2"
4.5	7.15	-0.24		do	yy161	0.807	do	.118 - 2"
4.6	7.42	-1.18		U 1 x 1 x 0.118	yy161	0.837	do	.118 - 2 1/8"
4.7	13.21	-2.13	d	U 1 3/8 x 0.118	z 141	1.005	do	.118 - 3 3/4"
4.8	18.90	-3.07	d	U 1 3/8 X 0.176	yy115	0.979	5'-2 1/4"	.176 - 3 5/8"

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Diagonal Towards Center									
5.1	2.64	-16.27	x	LL 1.5 X .156	zz 77	0.934	3'-11"	.156 - 3 1/2"	
5.2	2.60	-16.13	x	LLV 1.75 x .143	zz 88	0.991	5'-2 1/4"	.143 - 3 7/8"	
5.3	1.65	-10.22	x	LL 1.5 X .156	zz103	0.828	do	.156 - 2 1/4"	
5.4	0.71	-7.15	d	U 1 3/8 X 0.176	yy115	0.989	do	.176 - 1 1/2"	
5.5	0.71	-7.15	d	U 1 3/8 X 0.176	yy115	0.989	do	.176 - 1 1/2"	
5.6	1.65	-10.36	x	LL 1.5 X .156	zz103	0.840	do	.156 - 2 1/4"	
5.7	2.60	-16.06	x	LLV 1.75 x .143	zz 88	0.986	5'-2 1/4"	.143 - 3 7/4"	
5.8	2.64	-16.22	x	LL 1.5 X .156	zz 77	0.931	3'-11"	.156 - 3 1/2"	
Secondary Web Member									
7.1	0.57	-3.68	d	U 1 3/8 x 0.118	z 120	0.667	4'-5 1/4"	.118 - 1 1/2"	
7.2	0.33	-2.31		U 1 x 1 x 0.090	z 147	0.833	3'-8"	.091 - 1 1/2"	
7.3	0.33	-2.55		do	z 147	0.920	do	do	
7.4	0.33	-2.63		do	z 147	0.946	do	do	
7.5	0.33	-2.62		do	z 147	0.943	do	do	
7.6	0.33	-2.56		do	z 147	0.924	do	do	
7.7	0.33	-2.41		do	z 147	0.869	do	do	
7.8	0.33	-2.30		U 1 x 1 x 0.090	z 147	0.828	3'-8"	.091 - 1 1/2"	
7.9	0.57	-3.66	d	U 1 3/8 x 0.118	z 120	0.663	4'-5 1/4"	.118 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging

			Laterals supports
@ Top Chord:	26'-0 1/8" ==>	2 Row(s) Minimum	Deck (36")
@ Bottom Chord:	32'-9 3/4" ==>	4 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	XB 24'-1 5/8" (24'-0 3/8")	9'-2" (9'-1 1/2")
	48'-3 3/8" (48'-0 3/4") XB	24'-1 5/8" (24'-0 3/8")
		48'-3 3/8" (48'-0 3/4")
		63'-3" (62'-11 3/4")

v3.6 12/08/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

CONCENTRATED LOADS (* indicates that the conc. load is not directly on the panel point.)

Span: 1 = Main Joist, 2 = Left Extension, 3 = Right Extension

Side: Near Side, Far Side (if the side Far is not present, the side Near is not applicable)

canamsteel Corporation

Mark: C7

Project: COLUMBIA DISTRIBUTION A04061

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Definition of the categories (Cat.) 0 @ 6:

0 = transfered by an additional member
1 = within a panel with no reinforcement
2 = anywhere within a panel
3 = at any panel point along the joist
4 = anywhere along the joist
5 = transferred by an additional member and lateral support
6 = within a panel with no reinforcement and lateral support

Chord: 1 = Top, 2 = Bottom

Inclination (Incl.): 90 = Vertical, 0 = Horizontal

Composite (Cmp): 0 = standard, 1 = non-composite

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

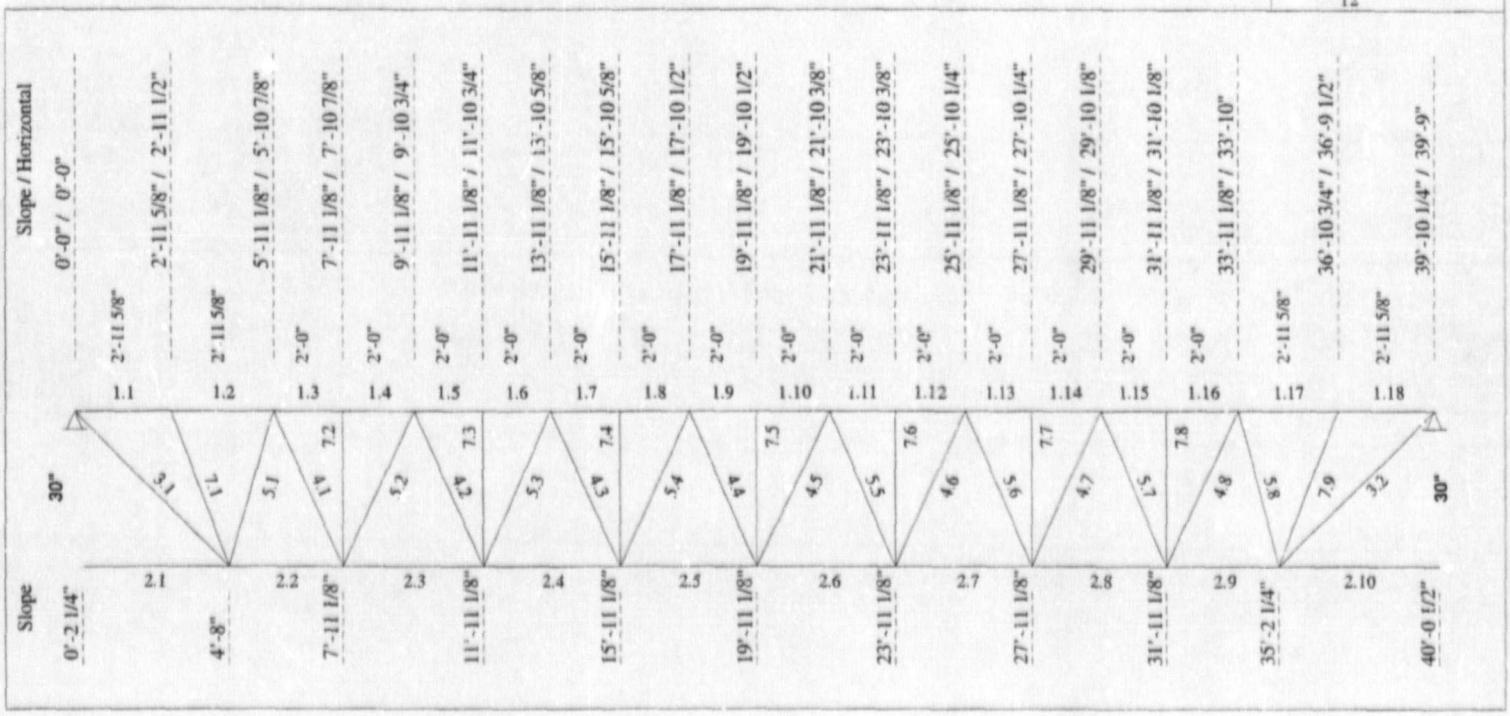
2082 (317.96) / 2285 (346.92)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J1 (W-N MID SPAN, Symmetrical, Parallel, Free ends)

Δ = 35/12 = 0 7/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 439.61 lb/ft 30K10 LIVE LOAD ..: 317.63 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)

Calculated deflection under service live load .... = 1.26 in (L/ 376)

Joist inertia ..... = 545.35 in^4

Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J1

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:18

---------- F O R C E S I N M E M B E R S [kips] ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.71/ -2.38 kips Right Reaction = 8.71/ -2.38 kips

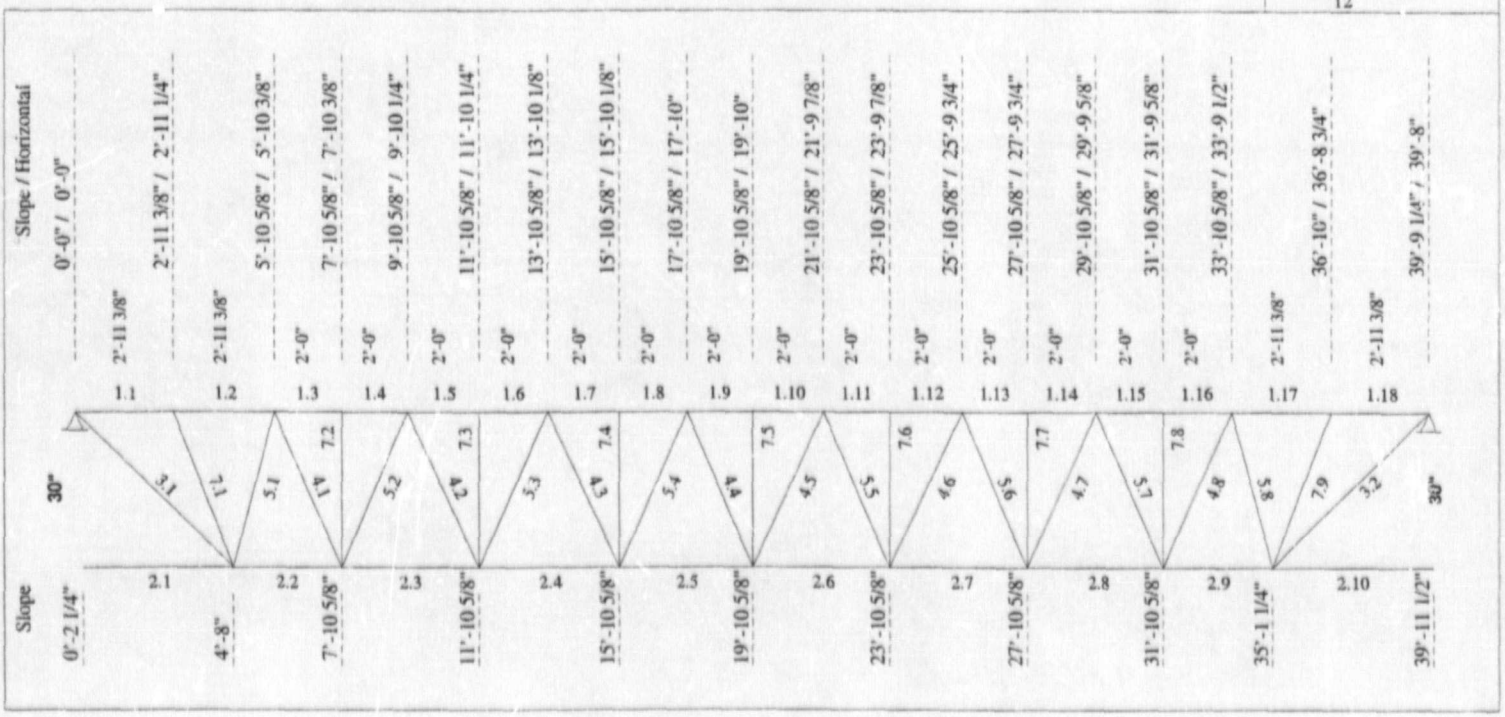
No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.54	-14.48		LL 2 X .188	z 85	0.836	2'-11 1/2"		
1.2	11.38	-13.68		do	z 90	0.842	2'-11 5/8"		
1.3	13.09	-22.08		do	z 61	0.758	2'-0"		
1.4	13.10	-22.14		do	z 61	0.686	do		
1.5	14.61	-29.52		do	z 61	0.913	do		
1.6	14.62	-29.58		do	z 61	0.915	do		
1.7	15.53	-34.04	x	do	xx 39	0.914	do		
1.8	15.54	-34.10	x	do	xx 39	0.916	do		
1.9	15.85	-35.63	x	do	xx 39	0.957	do		
1.10	15.86	-35.70	x	do	xx 39	0.958	do		
1.11	15.58	-34.30	x	do	xx 39	0.921	do		
1.12	15.59	-34.37	x	do	xx 39	0.923	do		
1.13	14.71	-30.05		do	z 61	0.930	do		
1.14	14.73	-30.12		do	z 61	0.932	do		
1.15	13.25	-22.88		do	z 61	0.708	do		
1.16	13.27	-22.95		do	z 61	0.778	2'-0"		
1.17	11.59	-14.71		do	z 90	0.868	2'-11 5/8"		
1.18	11.79	-15.71		LL 2 X .188	z 85	0.868	2'-11 1/2"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 131	0.423	4'-5 7/8"		
2.2	17.76	-3.62		do	z 99	0.632	3'-3 1/8"		
2.3	26.53	-5.40		do	z 121	0.771	4'-0"		
2.4	32.38	-6.59		do	z 121	0.900	do		
2.5	35.30	-7.19		do	z 121	0.981	do		
2.6	35.30	-7.19		do	z 121	0.981	do		
2.7	32.38	-6.59		do	z 121	0.900	do		
2.8	26.53	-5.40		do	z 121	0.771	4'-0"		
2.9	17.76	-3.62		do	z 99	0.632	3'-3 1/8"		
2.10	0.00	0.00		LL 2 X .156	z 142	0.423	4'-10 1/4"		
End Diagonal									
3.1	17.12	-3.49		SQUARE BAR 1" (50 ksi)	z 208	0.649	5'-1 3/4"	.250 - 2 3/8"	
3.2	17.12	-3.49		SQUARE BAR 1" (50 ksi)	z 209	0.652	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.43	-1.51		U 1 x 1 x 0.118	z 124	0.839	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.14	-1.05		U 1 x 1 x 0.090	z 127	0.757	do	.091 - 1 7/8"	
4.3	2.86	-0.58		do	z 127	0.421	do	.091 - 1 1/2"	
4.4	2.83	-0.12		do	z 127	0.417	do	do	
4.5	2.83	-0.12		do	z 128	0.417	do	do	
4.6	2.86	-0.58		do	z 128	0.421	do	.091 - 1 1/2"	
4.7	5.14	-1.05		U 1 x 1 x 0.090	z 128	0.757	do	.091 - 1 7/8"	
4.8	7.43	-1.51		U 1 x 1 x 0.118	z 124	0.839	3'-2 3/8"	.118 - 2 1/8"	
Diagonal Towards Center									
5.1	1.56	-7.68	d	U 1 3/8 x 0.157	z 72	0.642	2'-9 5/8"	.158 - 1 5/8"	
5.2	1.28	-6.29	d	U 1 3/8 x 0.157	z 83	0.589	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.81	-4.00	d	U 1 3/8 x 0.118	z 85	0.684	do	.118 - 1 1/2"	
5.4	0.35	-2.83		U 1 x 1 x 0.118	z 124	0.985	do	do	
5.5	0.35	-2.83		U 1 x 1 x 0.118	z 124	0.979	do	do	
5.6	0.81	-4.00	d	U 1 3/8 x 0.118	z 84	0.682	do	.118 - 1 1/2"	
5.7	1.28	-6.29	d	U 1 3/8 x 0.157	z 83	0.587	3'-2 3/8"	.158 - 1 1/2"	

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J2 (W-N MID SPAN, Symmetrical, Parallel, Free ends)

Δ = -34 7/8 / 12 - 0 7/8"



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 440.52 lb/ft 30K10 LIVE LOAD ..: 319.13 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.31 in (L/ 360)

Calculated deflection under service live load .... = 1.26 in (L/ 376)

Joist inertia ..... = 545.35 in^4

Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J2

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:19

---------- **F O R C E S I N M E M B E R S [kips]** ----------

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.71/ -2.37 kips Right Reaction = 8.71/ -2.37 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.54	-14.48		LL 2 X .188	z 85	0.830	2'-11 3/8"		
1.2	11.37	-13.68		do	z 90	0.837	2'-11 3/8"		
1.3	13.06	-21.97		do	z 61	0.753	2'-0"		
1.4	13.07	-22.04		do	z 61	0.684	do		
1.5	14.58	-29.43		do	z 61	0.910	do		
1.6	14.59	-29.49		do	z 61	0.912	do		
1.7	15.50	-33.95	x	do	xx 39	0.912	do		
1.8	15.51	-34.02	x	do	xx 39	0.913	do		
1.9	15.82	-35.55	x	do	xx 39	0.954	do		
1.10	15.83	-35.62	x	do	xx 39	0.956	do		
1.11	15.55	-34.22	x	do	xx 39	0.919	do		
1.12	15.56	-34.29	x	do	xx 39	0.921	do		
1.13	14.68	-29.96		do	z 61	0.927	do		
1.14	14.70	-30.03		do	z 61	0.929	do		
1.15	13.22	-22.78		do	z 61	0.705	do		
1.16	13.24	-22.84		do	z 61	0.774	2'-0"		
1.17	11.59	-14.71		do	z 90	0.862	2'-11 3/8"		
1.18	11.79	-15.71		LL 2 X .188	z 85	0.862	2'-11 3/8"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 131	0.420	4'-5 7/8"		
2.2	17.65	-3.59		do	z 98	0.630	3'-2 5/8"		
2.3	26.43	-5.37		do	z 121	0.769	4'-0"		
2.4	32.29	-6.56		do	z 121	0.897	do		
2.5	35.22	-7.16		do	z 121	0.979	do		
2.6	35.22	-7.16		do	z 121	0.979	do		
2.7	32.29	-6.56		do	z 121	0.897	do		
2.8	26.43	-5.37		do	z 121	0.769	4'-0"		
2.9	17.65	-3.59		do	z 98	0.630	3'-2 5/8"		
2.10	0.00	0.00		LL 2 X .156	z 142	0.420	4'-10 1/4"		
End Diagonal									
3.1	17.12	-3.48		SQUARE BAR 1" (50 ksi)	z 208	0.648	5'-1 3/4"	.250 - 2 3/8"	
3.2	17.12	-3.48		SQUARE BAR 1" (50 ksi)	z 209	0.651	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.45	-1.51		U 1 x 1 x 0.118	z 124	0.841	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.15	-1.05		U 1 x 1 x 0.090	z 127	0.759	do	.091 - 1 7/8"	
4.3	2.86	-0.58		do	z 127	0.421	do	.091 - 1 1/2"	
4.4	2.83	-0.12		do	z 127	0.417	do	do	
4.5	2.83	-0.12		do	z 128	0.417	do	do	
4.6	2.86	-0.58		do	z 128	0.421	do	.091 - 1 1/2"	
4.7	5.15	-1.05		U 1 x 1 x 0.090	z 128	0.759	do	.091 - 1 7/8"	
4.8	7.45	-1.51		U 1 x 1 x 0.118	z 124	0.841	3'-2 3/8"	.118 - 2 1/8"	
Diagonal Towards Center									
5.1	1.55	-7.64	d	U 1 3/8 x 0.157	z 71	0.636	2'-9 3/8"	.158 - 1 5/8"	
5.2	1.28	-6.30	d	U 1 3/8 x 0.157	z 83	0.590	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.81	-4.01	d	U 1 3/8 x 0.118	z 85	0.686	do	.118 - 1 1/2"	
5.4	0.35	-2.83		U 1 x 1 x 0.118	z 124	0.985	do	do	
5.5	0.35	-2.83		U 1 x 1 x 0.118	z 124	0.979	do	do	
5.6	0.81	-4.01	d	U 1 3/8 x 0.118	z 84	0.684	do	.118 - 1 1/2"	
5.7	1.28	-6.30	d	U 1 3/8 x 0.157	z 83	0.588	3'-2 3/8"	.158 - 1 1/2"	

F O R C E S I N M E M B E R S (Cont.) [kips]

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
5.8	1.55	-7.64	d	U 1 3/8 x 0.157	z 71	0.635	2'-9 3/8"	.158 - 1 5/8"	
Secondary Web Member									
7.1	0.31	-1.63		U 1 x 1 x 0.090	z 120	0.698	3'-0 1/2"	.091 - 1 1/2"	
7.2	0.18	-1.00		do	z 97	0.288	2'-6"	do	
7.3	0.18	-1.04		do	z 97	0.299	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		do	z 97	0.309	do	do	
7.6	0.18	-1.06		do	z 97	0.307	do	do	
7.7	0.18	-1.04		do	z 97	0.300	do	do	
7.8	0.18	-1.00		do	z 97	0.289	2'-6"	do	
7.9	0.31	-1.63		U 1 x 1 x 0.090	z 121	0.704	3'-0 1/2"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord:	14'-10" ==>	3 Row(s) Minimum	Deck (36")
@ Bottom Chord:	24'-4 7/8" ==>	5 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 3/8" (9'-11")	4'-8" (4'-7 7/8")
	19'-10 5/8" (19'-10")	9'-11 3/8" (9'-11")
	29'-9 7/8" (29'-9")	19'-10 5/8" (19'-10")
		29'-9 7/8" (29'-9")
		35'-1 1/4" (35'-0 1/8")

v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

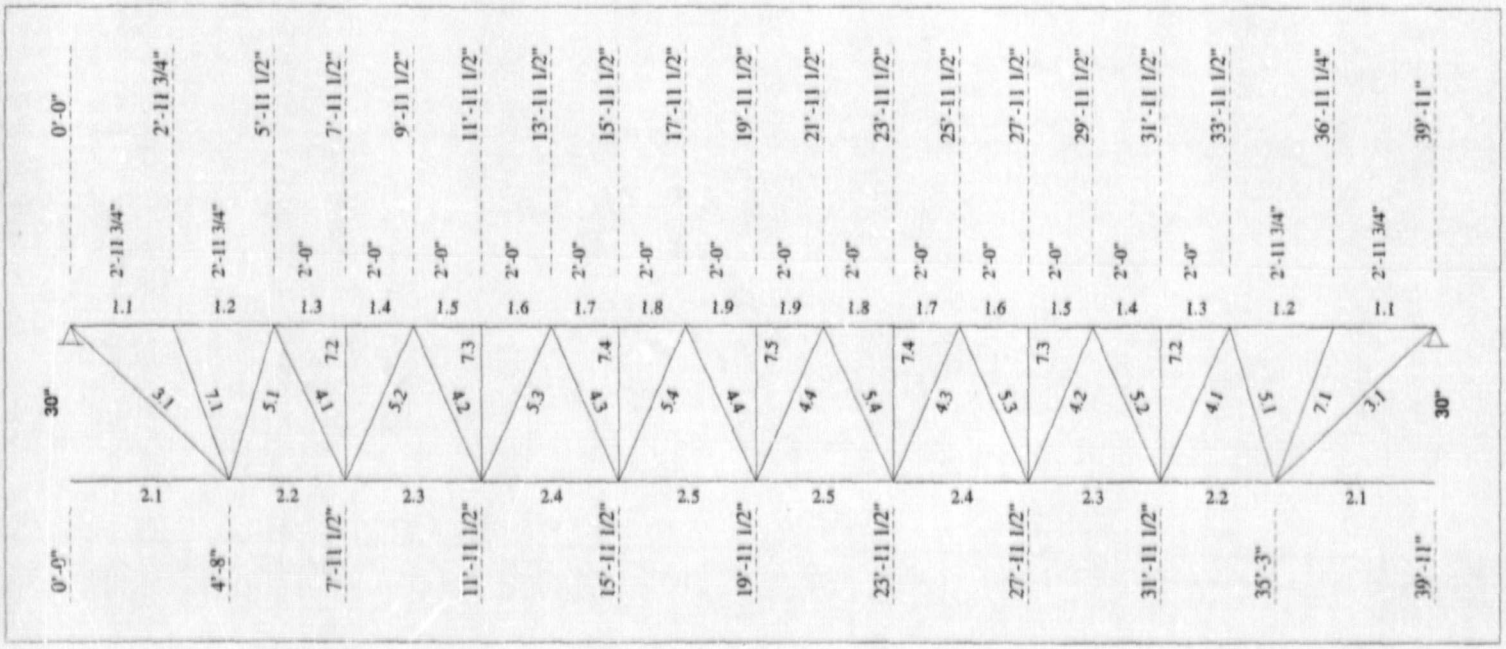
Projets no.: A04061 Designar: Philippe Theriault Shop: Canam Sunnyside [Production]

449 (76.25) / 482 (81.25)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J3 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 438.92 lb/ft 30K10 LIVE LOAD ..: 316.50 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)

Calculated deflection under service live load .... = 1.27 in (L/ 374)

Joist inertia ..... = 545.35 in^4

Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J3

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:20

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.69/ -1.78 kips Right Reaction = 8.69/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.67	-15.09		LL 2 X .188	z 86	0.857	2'-11 3/4"		
1.2	11.48	-14.20		do	z 91	0.857	2'-11 3/4"		
1.3	13.20	-22.59		do	z 61	0.772	2'-0"		
1.4	13.20	-22.59		do	z 61	0.699	do		
1.5	14.70	-29.89		do	z 61	0.924	do		
1.6	14 70	-29.89		do	z 61	0.924	do		
1.7	15.60	-34.26	x	do	xx 39	0.920	do		
1.8	15.60	-34.26	x	do	xx 39	0.920	do		
1.9	15.90	-35.72	x	LL 2 X .188	xx 39	0.959	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 137	0.425	4'-8"		
2.2	17.85	-3.66		do	z 100	0.634	3'-3 1/2"		
2.3	26.60	-5.45		do	z 121	0.773	4'-0"		
2.4	32.44	-6.65		do	z 121	0.902	do		
2.5	35.36	-7.25		LL 2 X .156	z 121	0.983	4'-0"		
End Diagonal									
3.1	17.11	-3.51		SQUARE BAR 1" (50 ksi)	z 209	0.655	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.42	-1.52		U 1 x 1 x 0.118	z 124	0.838	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.14	-1.05		U 1 x 1 x 0.090	z 128	0.756	do	.091 - 1 7/8"	
4.3	2.85	-0.59		do	z 128	0.420	do	.091 - 1 1/2"	
4.4	2.82	-0.12		U 1 x 1 x 0.090	z 128	0.416	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.58	-7.72	d	U 1 3/8 x 0.157	z 72	0.647	2'-9 3/4"	.158 - 1 5/8"	
5.2	1.29	-6.28	d	U 1 3/8 x 0.157	z 83	0.587	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-3.99	d	U 1 3/8 x 0.118	z 85	0.682	do	.118 - 1 1/2"	
5.4	0.35	-2.82		U 1 x 1 x 0.118	z 124	0.979	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.63		U 1 x 1 x 0.090	z 120	0.692	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.00		U 1 x 5/8 x 0.090	z 159	1.007	2'-6"	do	
7.3	0.18	-1.04		U 1 x 1 x 0.090	z 97	0.299	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		U 1 x 1 x 0.090	z 97	0.308	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 14'-10" ==> 3 Row(s) Minimum Deck (36")
@ Bottom Chord: 24'-4 7/8" ==> 5 Row(s) Minimum Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 3/4"	4'-8"
	19'-11 1/2"	9'-11 3/4"
	29'-11 1/4"	19'-11 1/2"
		29'-11 1/4"
		35'-3"

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Mark: J3

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:20

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v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

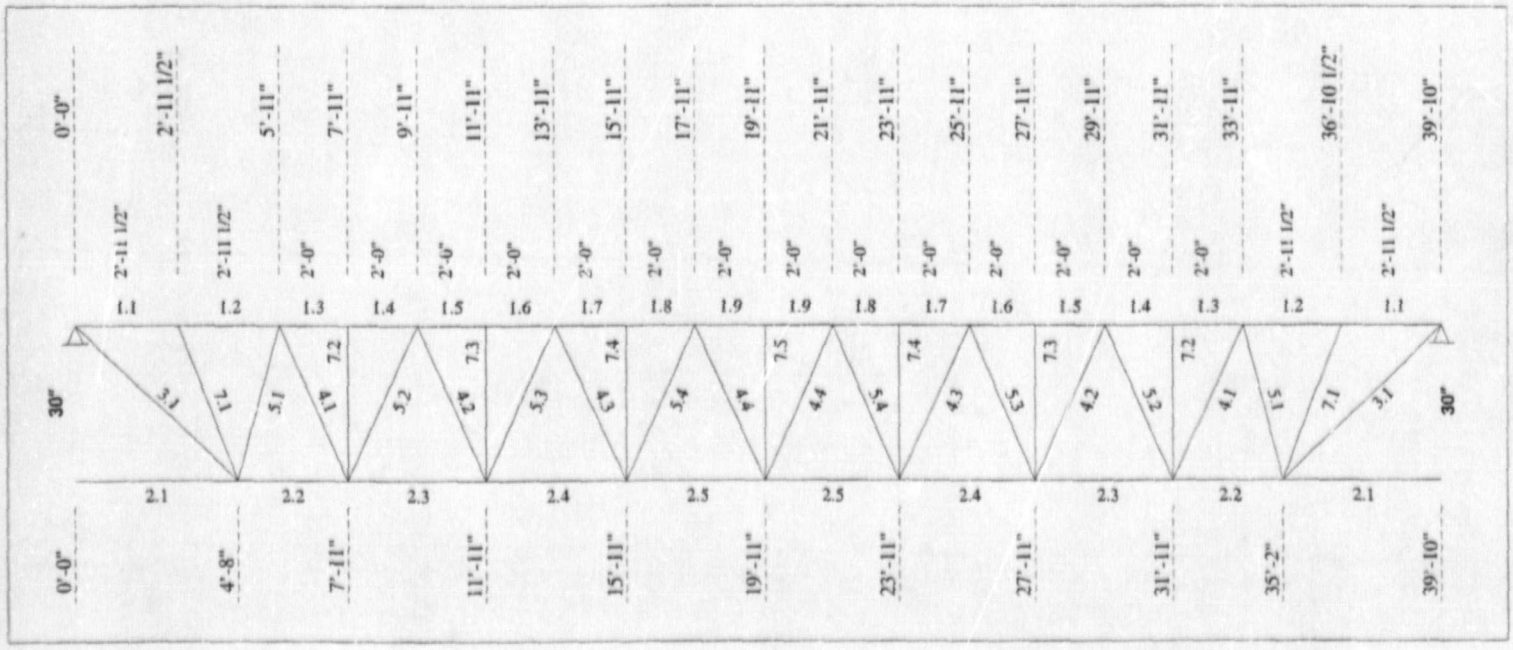
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

450 (76.24) / 483 (81.23)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J4 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 439.83 lb/ft 30K10 LIVE LOAD ..: 318.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.26 in (L/ 375)
Joist inertia ..... = 545.35 in^4
Required camber ..... = 0.62 in

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Mark: J4

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:21

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.69/ -1.78 kips Right Reaction = 8.69/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.66	-15.10		LL 2 X .188	z 85	0.851	2'-11 1/2"		
1.2	11.48	-14.20		do	z 90	0.852	2'-11 1/2"		
1.3	13.17	-22.49		do	z 61	0.767	2'-0"		
1.4	13.17	-22.49		do	z 61	0.696	do		
1.5	14.67	-29.80		do	z 61	0.922	do		
1.6	14.67	-29.80		do	z 61	0.922	do		
1.7	15.57	-34.18	x	do	xx 39	0.918	do		
1.8	15.57	-34.18	x	do	xx 39	0.918	do		
1.9	15.87	-35.65	x	LL 2 X .188	xx 39	0.957	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 137	0.423	4'-8"		
2.2	17.73	-3.63		do	z 99	0.631	3'-3"		
2.3	26.51	-5.42		do	z 121	0.771	4'-0"		
2.4	32.36	-6.62		do	z 121	0.899	do		
2.5	35.28	-7.22		LL 2 X .156	z 121	0.981	4'-0"		
End Diagonal									
3.1	17.12	-3.50		SQUARE BAR 1" (50 ksi)	z 209	0.654	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.43	-1.52		U 1 x 1 x 0.118	z 124	0.839	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.15	-1.05		U 1 x 1 x 0.090	z 128	0.757	do	.091 - 1 7/8"	
4.3	2.86	-0.59		do	z 128	0.421	do	.091 - 1 1/2"	
4.4	2.82	-0.12		U 1 x 1 x 0.090	z 128	0.416	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.57	-7.67	d	U 1 3/8 x 0.157	z 72	0.640	2'-9 1/2"	.158 - 1 5/8"	
5.2	1.29	-6.29	d	U 1 3/8 x 0.157	z 83	0.588	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.00	d	U 1 3/8 x 0.118	z 85	0.684	do	.118 - 1 1/2"	
5.4	0.35	-2.82		U 1 x 1 x 0.118	z 124	0.979	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.63		U 1 x 1 x 0.090	z 120	0.697	3'-0 3/8"	.091 - 1 1/2"	
7.2	0.18	-1.00		U 1 x 5/8 x 0.090	z 159	1.008	2'-6"	do	
7.3	0.18	-1.04		U 1 x 1 x 0.090	z 97	0.299	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		U 1 x 1 x 0.090	z 97	0.308	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging

@ Top Chord:	14'-10" ==>	3 Row(s) Minimum	Laterals supports Deck (36")
@ Bottom Chord:	24'-4 7/8" ==>	5 Row(s) Minimum	Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 1/2"	4'-8"
	19'-11"	9'-11 1/2"
	29'-10 1/2"	19'-11"
		29'-10 1/2"
		35'-2"

canamsteel Corporation

Mark: J4

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:21

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v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

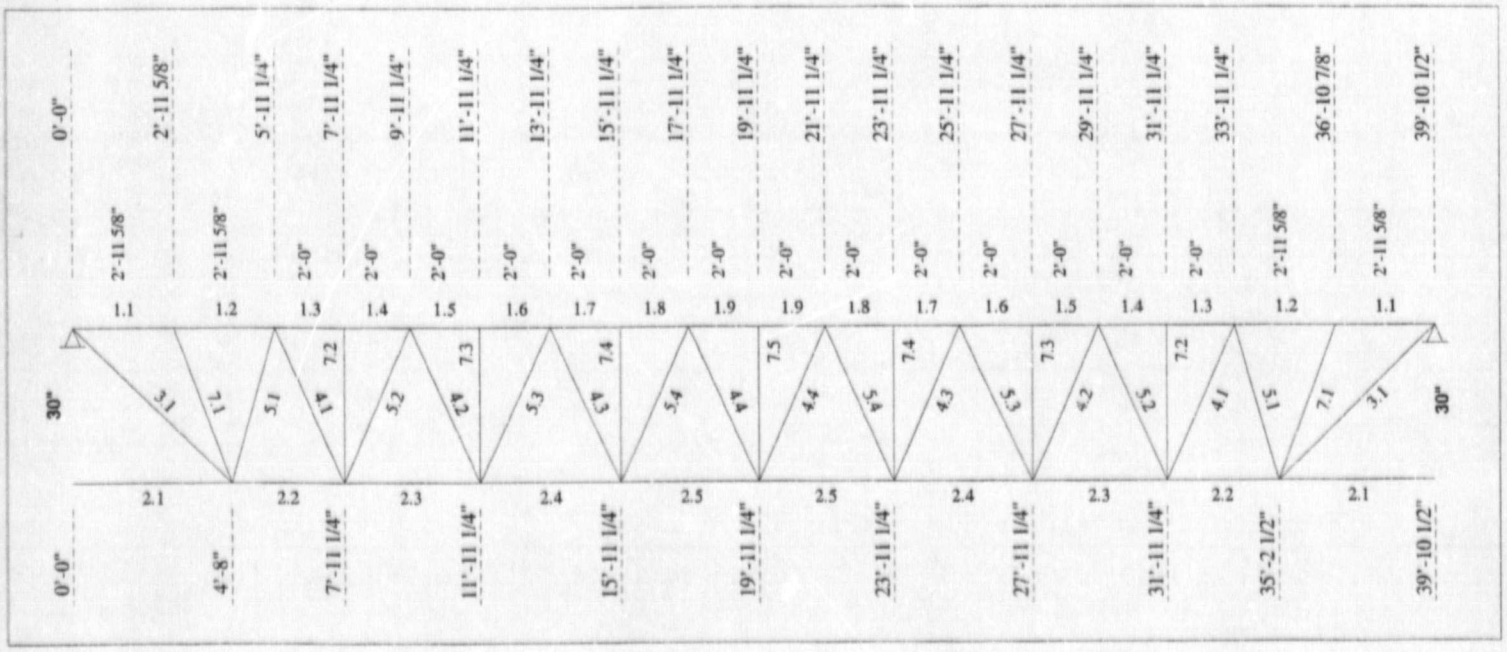
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

449 (76.11) / 482 (81.10)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J5 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 439.38 lb/ft 30K10 LIVE LOAD ..: 317.25 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS			
			<<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.27 in (L/ 374)
Joist inertia ..... = 545.35 in^4
Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J5

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:22

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.69/ -1.78 kips Right Reaction = 8.69/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.66	-15.09		LL 2 X .188	z 85	0.854	2'-11 5/8"		
1.2	11.48	-14.20		do	z 90	0.855	2'-11 5/8"		
1.3	13.19	-22.54		do	z 61	0.769	2'-0"		
1.4	13.19	-22.54		do	z 61	0.697	do		
1.5	14.68	-29.84		do	z 61	0.923	do		
1.6	14.68	-29.84		do	z 61	0.923	do		
1.7	15.58	-34.22	x	do	xx 39	0.919	do		
1.8	15.58	-34.22	x	do	xx 39	0.919	do		
1.9	15.88	-35.68	x	LL 2 X .188	xx 39	0.958	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 137	0.424	4'-8"		
2.2	17.79	-3.64		do	z 99	0.633	3'-3 1/4"		
2.3	26.55	-5.44		do	z 121	0.772	4'-0"		
2.4	32.40	-6.64		do	z 121	0.900	do		
2.5	35.32	-7.23		LL 2 X .156	z 121	0.982	4'-0"		
End Diagonal									
3.1	17.11	-3.51		SQUARE BAR 1" (50 ksi)	z 209	0.654	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.43	-1.52		U 1 x 1 x 0.118	z 124	0.838	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.14	-1.05		U 1 x 1 x 0.090	z 128	0.757	do	.091 - 1 7/8"	
4.3	2.86	-0.59		do	z 128	0.420	do	.091 - 1 1/2"	
4.4	2.82	-0.12		U 1 x 1 x 0.090	z 128	0.416	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.58	-7.69	d	U 1 3/8 x 0.157	z 72	0.643	2'-9 5/8"	.158 - 1 5/8"	
5.2	1.29	-6.28	d	U 1 3/8 x 0.157	z 83	0.587	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.00	d	U 1 3/8 x 0.118	z 85	0.683	do	.118 - 1 1/2"	
5.4	0.35	-2.82		U 1 x 1 x 0.118	z 124	0.979	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.63		U 1 x 1 x 0.090	z 120	0.694	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.00		U 1 x 5/8 x 0.090	z 159	1.007	2'-6"	do	
7.3	0.18	-1.04		U 1 x 1 x 0.090	z 97	0.299	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		U 1 x 1 x 0.090	z 97	0.308	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging
@ Top Chord: 14'-10" ==> 3 Row(s) Minimum
@ Bottom Chord: 24'-4 7/8" ==> 5 Row(s) Minimum

Laterals supports
Deck (36")
Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 5/8"	4'-8"
	19'-11 1/4"	9'-11 5/8"
	29'-10 7/8"	19'-11 1/4"
		29'-10 7/8"
		35'-2 1/2"

canamsteel Corporation

Mark: J5

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:22

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v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

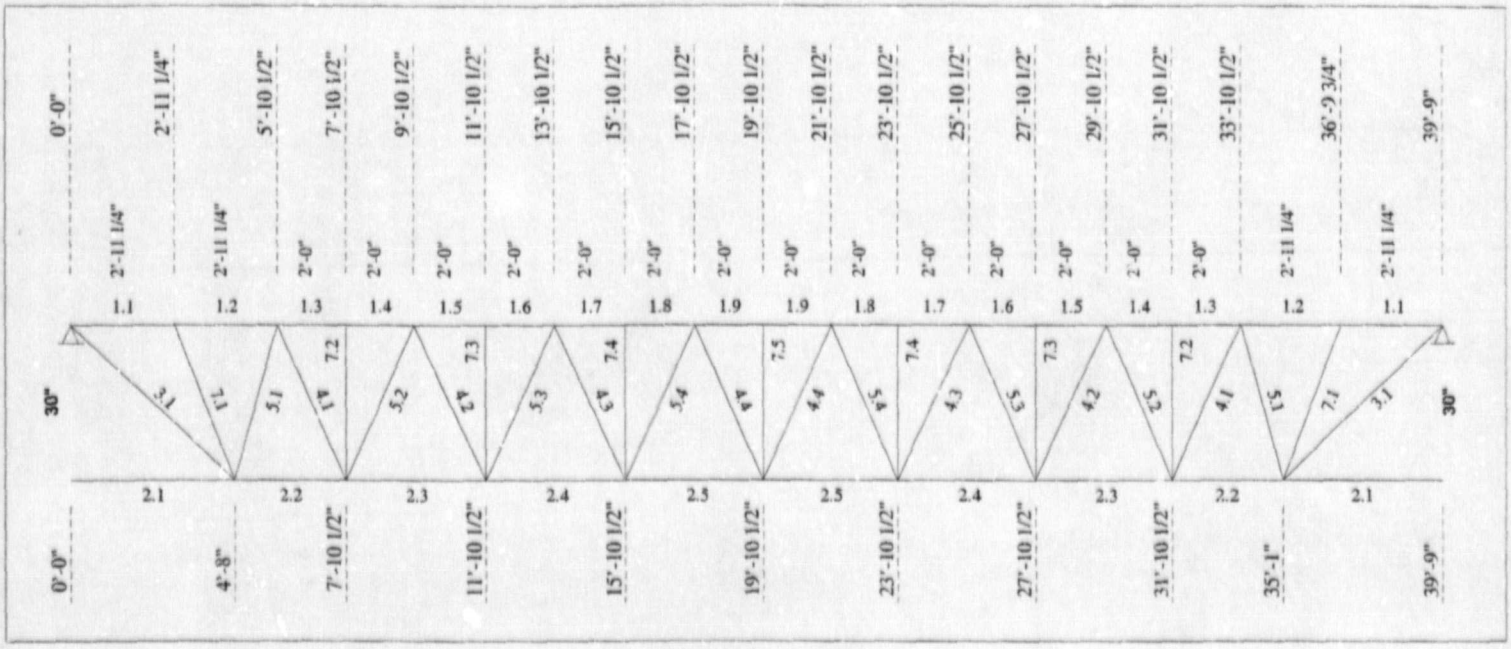
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

449 (76.17) / 482 (81.17)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J6 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 440.75 lb/ft 30K10 LIVE LOAD ..: 319.50 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.31 in (L/ 360)
Calculated deflection under service live load .... = 1.26 in (L/ 375)
Joist inertia ..... = 545.35 in^4
Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J6

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:23

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.68/ -1.77 kips Right Reaction = 8.68/ -1.77 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.66	-15.10		LL 2 X .188	z 84	0.845	2'-11 1/4"		
1.2	11.47	-14.20		do	z 90	0.847	2'-11 1/4"		
1.3	13.14	-22.38		do	z 61	0.762	2'-0"		
1.4	13.14	-22.38		do	z 61	0.692	do		
1.5	14.64	-29.71		do	z 61	0.919	do		
1.6	14.64	-29.71		do	z 61	0.919	do		
1.7	15.54	-34.10	x	do	xx 39	0.916	do		
1.8	15.54	-34.10	x	do	xx 39	0.916	do		
1.9	15.84	-35.57	x	LL 2 X .188	xx 39	0.955	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 137	0.420	4'-8"		
2.2	17.62	-3.60		do	z 97	0.629	3'-2 1/2"		
2.3	26.41	-5.39		do	z 121	0.769	4'-0"		
2.4	32.27	-6.59		do	z 121	0.897	do		
2.5	35.20	-7.19		LL 2 X .156	z 121	0.978	4'-0"		
End Diagonal									
3.1	17.12	-3.50		SQUARE BAR 1" (50 ksi)	z 209	0.652	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.45	-1.52		U 1 x 1 x 0.118	z 124	0.841	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.16	-1.05		U 1 x 1 x 0.090	z 128	0.759	do	.091 - 1 7/8"	
4.3	2.87	-0.59		do	z 128	0.422	do	.091 - 1 1/2"	
4.4	2.82	-0.12		U 1 x 1 x 0.090	z 128	0.415	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.56	-7.63	d	U 1 3/8 x 0.157	z 71	0.633	2'-9 3/8"	.158 - 1 5/8"	
5.2	1.29	-6.30	d	U 1 3/8 x 0.157	z 83	0.589	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.01	d	U 1 3/8 x 0.118	z 85	0.685	do	.118 - 1 1/2"	
5.4	0.35	-2.82		U 1 x 1 x 0.118	z 124	0.979	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.63		U 1 x 1 x 0.090	z 121	0.702	3'-0 1/2"	.091 - 1 1/2"	
7.2	0.18	-1.00		U 1 x 5/8 x 0.090	z 159	1.009	2'-6"	do	
7.3	0.18	-1.04		U 1 x 1 x 0.090	z 97	0.300	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		U 1 x 1 x 0.090	z 97	0.309	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging Laterals supports
@ Top Chord: 14'-10" ==> 3 Row(s) Minimum Deck (36")
@ Bottom Chord: 24'-4 7/8" ==> 5 Row(s) Minimum Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 1/4"	4'-8"
	19'-10 1/2"	9'-11 1/4"
	29'-9 3/4"	19'-10 1/2"
		29'-9 3/4"
		35'-1"

---

v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

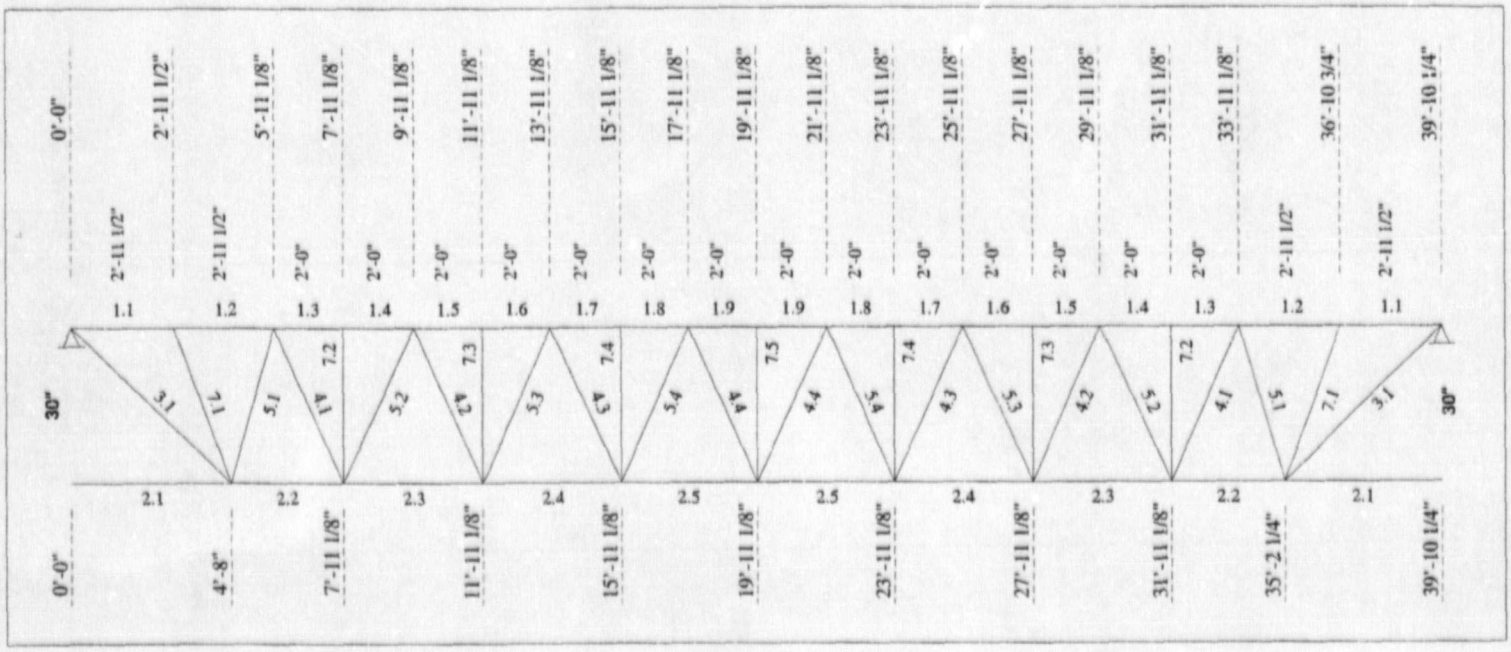
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

448 (75.98) / 481 (80.98)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J7 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 439.60 lb/ft 30K10 LIVE LOAD ..: 317.63 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.26 in (L/ 375)
Joist inertia ..... = 545.35 in^4
Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J7

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:24

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.69/ -1.78 kips Right Reaction = 8.69/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.66	-15.09		LL 2 X .188	z 85	0.852	2'-11 1/2"		
1.2	11.48	-14.20		do	z 90	0.853	2'-11 1/2"		
1.3	13.18	-22.51		do	z 61	0.768	2'-0"		
1.4	13.18	-22.51		do	z 61	0.696	do		
1.5	14.68	-29.82		do	z 61	0.922	do		
1.6	14.68	-29.82		do	z 61	0.922	do		
1.7	15.57	-34.20	x	do	xx 39	0.918	do		
1.8	15.57	-34.20	x	do	xx 39	0.918	do		
1.9	15.87	-35.66	x	LL 2 X .188	xx 39	0.957	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 137	0.423	4'-8"		
2.2	17.76	-3.64		do	z 99	0.632	3'-3 1/8"		
2.3	26.53	-5.43		do	z 121	0.771	4'-0"		
2.4	32.38	-6.63		do	z 121	0.900	do		
2.5	35.30	-7.23		LL 2 X .156	z 121	0.981	4'-0"		
End Diagonal									
3.1	17.12	-3.50		SQUARE BAR 1" (50 ksi)	z 209	0.654	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.43	-1.52		U 1 x 1 x 0.118	z 124	0.839	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.14	-1.05		U 1 x 1 x 0.090	z 128	0.757	do	.091 - 1 7/8"	
4.3	2.86	-0.59		do	z 128	0.421	do	.091 - 1 1/2"	
4.4	2.82	-0.12		U 1 x 1 x 0.090	z 128	0.416	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.57	-7.68	d	U 1 3/8 x 0.157	z 72	0.642	2'-9 5/8"	.158 - 1 5/8"	
5.2	1.29	-6.29	d	U 1 3/8 x 0.157	z 83	0.588	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.00	d	U 1 3/8 x 0.118	z 85	0.683	do	.118 - 1 1/2"	
5.4	0.35	-2.82		U 1 x 1 x 0.118	z 124	0.979	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.63		U 1 x 1 x 0.090	z 120	0.696	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.00		U 1 x 5/8 x 0.090	z 159	1.008	2'-6"	do	
7.3	0.18	-1.04		U 1 x 1 x 0.090	z 97	0.299	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		U 1 x 1 x 0.090	z 97	0.308	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging
@ Top Chord: 14'-10" ==> 3 Row(s) Minimum
@ Bottom Chord: 24'-4 7/8" ==> 5 Row(s) Minimum

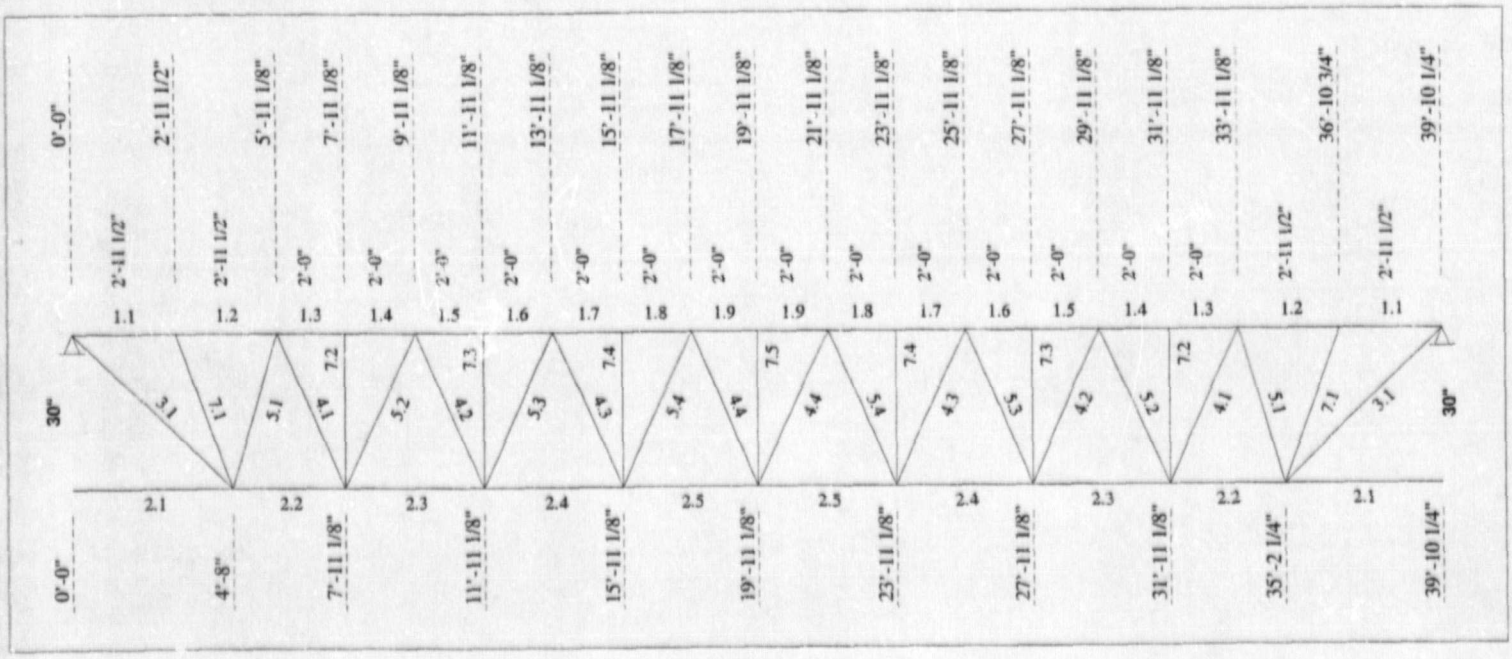
Laterals supports
Deck (36")
Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 5/8"	4'-8"
	19'-11 1/8"	9'-11 5/8"
	29'-10 5/8"	19'-11 1/8"
		29'-10 5/8"
		35'-2 1/4"

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J8 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 468.00 lb/ft 30KSP468/345 LIVE LOAD ..: 345.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.27 in (L/ 374)
Joist inertia ..... = 591.32 in^4
Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J8

Project: COLUMBIA DISTRIBUTION A04061

12/05/00 16:45:58

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.86 in)

Left Reaction = 9.25/ -1.78 kips Right Reaction = 9.25/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.67	-16.08		LL 2 X .216	z 86	0.798	2'-11 1/2"		
1.2	11.48	-15.12		do	z 91	0.798	2'-11 1/2"		
1.3	13.19	-23.98		do	z 61	0.718	2'-0"		
1.4	13.19	-23.98		do	z 61	0.651	do		
1.5	14.68	-31.76		do	z 61	0.863	do		
1.6	14.68	-31.76		do	z 61	0.863	do		
1.7	15.58	-36.43		do	z 61	0.990	do		
1.8	15.58	-36.43		do	z 61	0.990	do		
1.9	15.88	-37.99	x	LL 2 X .216	xx 39	0.895	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .163	z 137	0.432	4'-8"		
2.2	18.92	-3.64		do	z 99	0.645	3'-3 1/8"		
2.3	28.26	-5.43		do	z 121	0.788	4'-0"		
2.4	34.48	-6.63		do	z 121	0.919	do		
2.5	37.60	-7.23		LL 2 X .163	z 121	1.002	4'-0"		
End Diagonal									
3.1	18.23	-3.51		SQUARE BAR 1" (50 ksi)	z 209	0.675	5'-1 3/4"	.250 - 2 1/2"	
Diagonal Towards End									
4.1	7.91	-1.52		U 1 x 1 x 0.118	z 124	0.893	3'-2 3/8"	.118 - 2 1/4"	
4.2	5.48	-1.05		U 1 x 1 x 0.090	z 128	0.806	do	.091 - 2"	
4.3	3.04	-0.59		do	z 128	0.448	do	.091 - 1 1/2"	
4.4	3.01	-0.12		U 1 x 1 x 0.090	z 128	0.442	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.57	-8.18	d	U 1 3/8 x 0.157	z 72	0.683	2'-9 5/8"	.158 - 1 3/4"	
5.2	1.29	-6.69	d	U 1 3/8 x 0.157	z 83	0.626	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.26	d	U 1 3/8 x 0.118	z 85	0.727	do	.118 - 1 1/2"	
5.4	0.35	-3.01	d	U 1 3/8 x 0.118	z 85	0.513	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.74		U 1 x 1 x 0.090	z 120	0.740	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.06		do	z 97	0.306	2'-6"	do	
7.3	0.18	-1.10		do	z 97	0.318	do	do	
7.4	0.18	-1.13		do	z 97	0.325	do	do	
7.5	0.18	-1.14		U 1 x 1 x 0.090	z 97	0.328	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord: 14'-11" ==> 2 Row(s) Minimum — Deck (36")

@ Bottom Chord: 24'-5 1/4" ==> 4 Row(s) Minimum — Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	13'-3 3/8"	4'-8"
	26'-6 7/8"	13'-3 3/8"
		26'-6 7/8"
		35'-2 1/4"

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v3.6 12/05/00

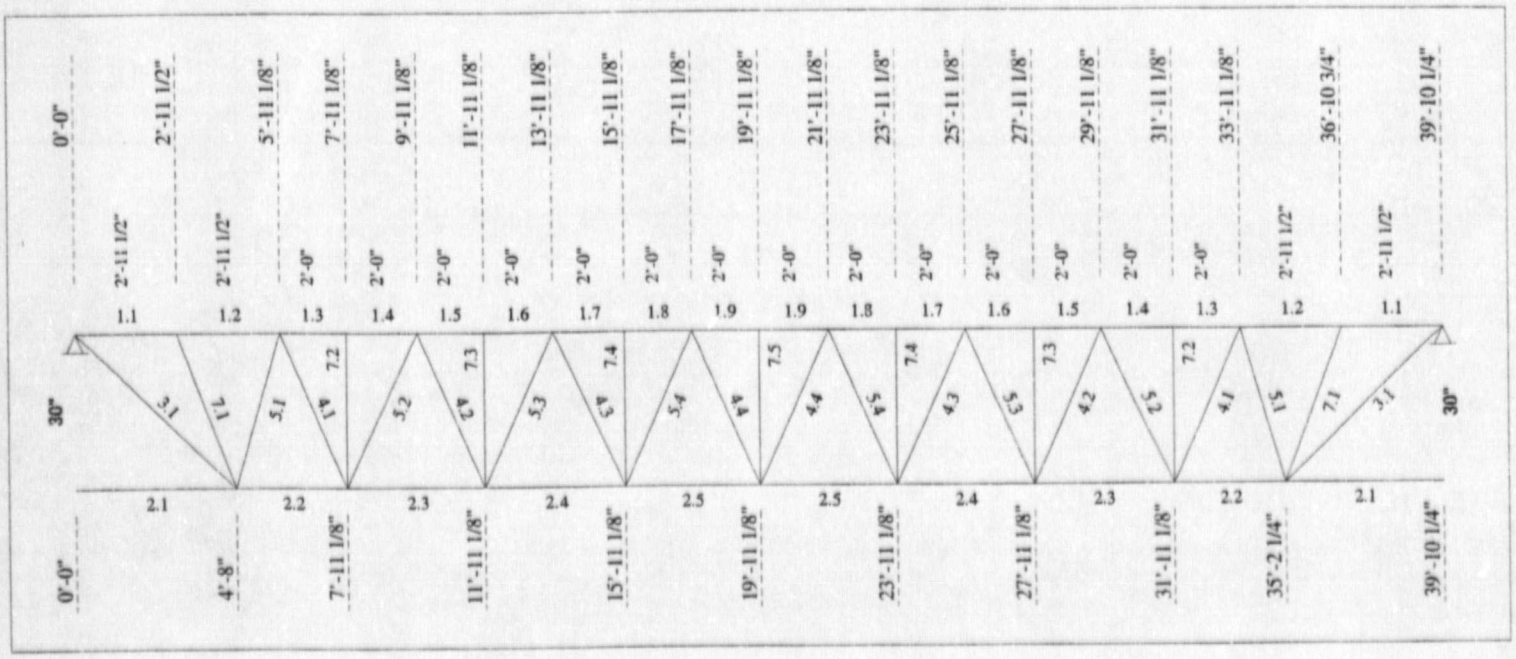
Fabrication code unless noted
-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar
-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle
Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]
486 (79.59) / 521 (84.80)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J9 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 488.00 lb/ft 30KSP488/365 LIVE LOAD ..: 365.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.24 in (L/ 381)
Joist inertia ..... = 636.86 in^4
Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J9

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:25

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.85 in)

Left Reaction = 9.64/ -1.78 kips Right Reaction = 9.64/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.67	-16.77		LL 2 X .216	z 86	0.832	2'-11 1/2"		
1.2	11.49	-15.77		do	z 91	0.833	2'-11 1/2"		
1.3	13.19	-25.01		do	z 61	0.749	2'-0"		
1.4	13.19	-25.01		do	z 61	0.679	do		
1.5	14.69	-33.13		do	z 61	0.900	do		
1.6	14.69	-33.13		do	z 61	0.900	do		
1.7	15.59	-38.00	x	do	xx 39	0.896	do		
1.8	15.59	-38.00	x	do	xx 39	0.896	do		
1.9	15.89	-39.62	x	LL 2 X .216	xx 39	0.934	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .188	z 137	0.393	4'-8"		
2.2	19.73	-3.64		do	z 99	0.588	3'-3 1/8"		
2.3	29.47	-5.44		do	z 122	0.717	4'-0"		
2.4	35.97	-6.63		do	z 122	0.836	do		
2.5	39.22	-7.23		LL 2 X .188	z 122	0.912	4'-0"		
End Diagonal									
3.1	19.01	-3.51		SQUARE BAR 1" (50 ksi)	z 209	0.704	5'-1 3/4"	.250 - 2 1/2"	
Diagonal Towards End									
4.1	8.25	-1.52		U 1 x 1 x 0.118	z 124	0.931	3'-2 3/8"	.118 - 2 3/8"	
4.2	5.71	-1.05		U 1 x 1 x 0.090	z 128	0.841	do	.091 - 2 1/8"	
4.3	3.17	-0.59		do	z 128	0.467	do	.091 - 1 1/2"	
4.4	3.14	-0.12		U 1 x 1 x 0.090	z 128	0.461	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.57	-8.53	d	U 1 3/8 x 0.157	z 72	0.712	2'-9 5/8"	.158 - 1 3/4"	
5.2	1.29	-6.98	d	U 1 3/8 x 0.157	z 83	0.652	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.44	d	U 1 3/8 x 0.118	z 85	0.758	do	.118 - 1 1/2"	
5.4	0.35	-3.14	d	U 1 3/8 x 0.118	z 85	0.535	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.81		U 1 x 1 x 0.090	z 120	0.772	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.11		do	z 97	0.319	2'-6"	do	
7.3	0.18	-1.15		do	z 97	0.332	do	do	
7.4	0.18	-1.18		do	z 97	0.339	do	do	
7.5	0.18	-1.19		U 1 x 1 x 0.090	z 97	0.342	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging
@ Top Chord: 14'-11" ==> 2 Row(s) Minimum
@ Bottom Chord: 24'-6 3/4" ==> 4 Row(s) Minimum

Laterals supports
Deck (36")
Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	13'-3 3/8"	4'-8"
	26'-6 7/8"	13'-3 3/8"
		26'-6 7/8"
		35'-2 1/4"

Mark: J9

canamsteel Corporation

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:25

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v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

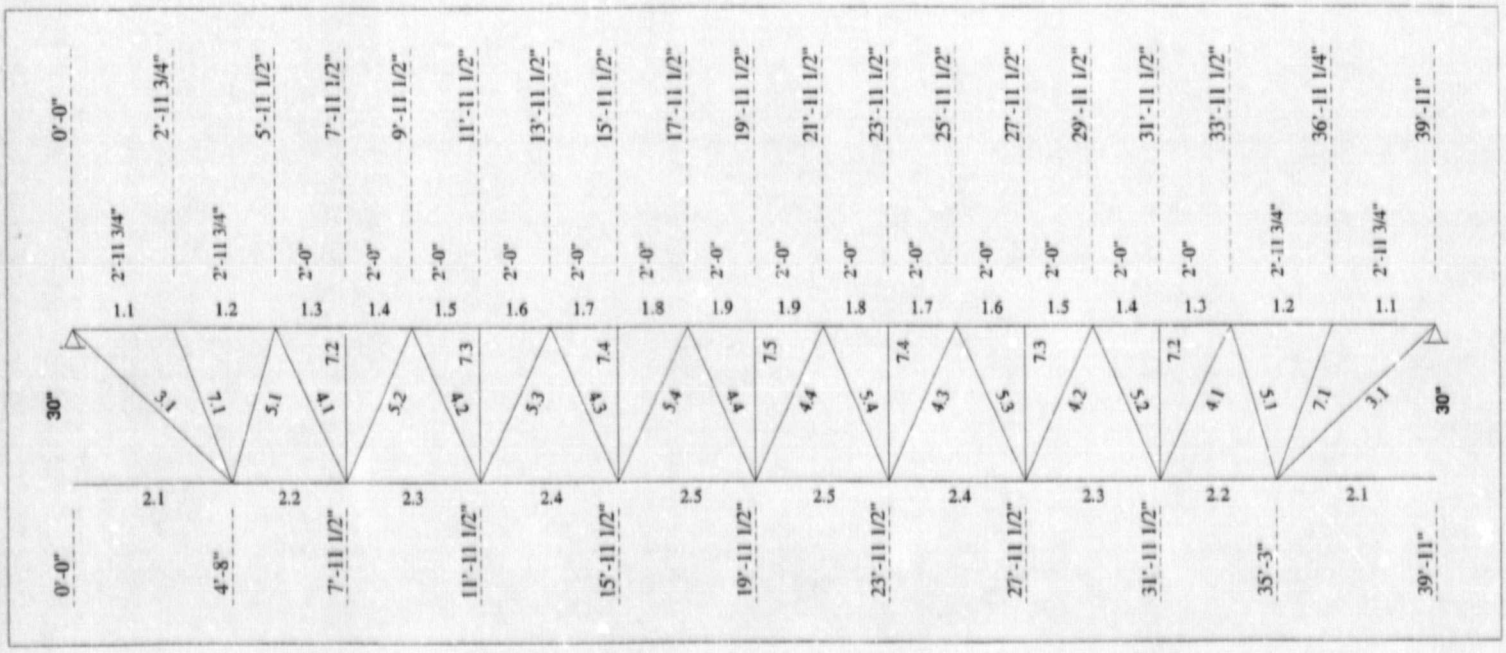
Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

507 (82.41) / 547 (88.32)

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J10 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 438.92 lb/ft 30K10 LIVE LOAD ..: 316.50 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.27 in (L/ 374)
Joist inertia ..... = 545.35 in^4
Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J10

Project: COLUMBIA DISTRIBUTION A04061

12/01/00 19:47:26

FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.87 in)

Left Reaction = 8.69/ -1.78 kips Right Reaction = 8.69/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.67	-15.09		LL 2 X .188	z 86	0.857	2'-11 3/4"		
1.2	11.48	-14.20		do	z 91	0.857	2'-11 3/4"		
1.3	13.20	-22.59		do	z 61	0.772	2'-0"		
1.4	13.20	-22.59		do	z 61	0.699	do		
1.5	14.70	-29.89		do	z 61	0.924	do		
1.6	14.70	-29.89		do	z 61	0.924	do		
1.7	15.60	-34.26	x	do	xx 39	0.920	do		
1.8	15.60	-34.26	x	do	xx 39	0.920	do		
1.9	15.90	-35.72	x	LL 2 X .188	xx 39	0.959	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .156	z 137	0.425	4'-8"		
2.2	17.85	-3.66		do	z 100	0.634	3'-3 1/2"		
2.3	26.60	-5.45		do	z 121	0.773	4'-0"		
2.4	32.44	-6.65		do	z 121	0.902	do		
2.5	35.36	-7.25		LL 2 X .156	z 121	0.983	4'-0"		
End Diagonal									
3.1	17.11	-3.51		SQUARE BAR 1" (50 ksi)	z 209	0.655	5'-1 3/4"	.250 - 2 3/8"	
Diagonal Towards End									
4.1	7.42	-1.52		U 1 x 1 x 0.118	z 124	0.838	3'-2 3/8"	.118 - 2 1/8"	
4.2	5.14	-1.05		U 1 x 1 x 0.090	z 128	0.756	do	.091 - 1 7/8"	
4.3	2.85	-0.59		do	z 128	0.420	do	.091 - 1 1/2"	
4.4	2.82	-0.12		U 1 x 1 x 0.090	z 128	0.416	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.58	-7.72	d	U 1 3/8 x 0.157	z 72	0.647	2'-9 3/4"	.158 - 1 5/8"	
5.2	1.29	-6.28	d	U 1 3/8 x 0.157	z 83	0.587	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-3.99	d	U 1 3/8 x 0.118	z 85	0.682	do	.118 - 1 1/2"	
5.4	0.35	-2.82		U 1 x 1 x 0.118	z 124	0.979	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.63		U 1 x 1 x 0.090	z 120	0.692	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.00		U 1 x 5/8 x 0.090	z 159	1.007	2'-6"	do	
7.3	0.18	-1.04		U 1 x 1 x 0.090	z 97	0.299	do	do	
7.4	0.18	-1.06		do	z 97	0.306	do	do	
7.5	0.18	-1.07		U 1 x 1 x 0.090	z 97	0.308	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging
@ Top Chord: 14'-10" ==> 3 Row(s) Minimum
@ Bottom Chord: 24'-4 7/8" ==> 5 Row(s) Minimum

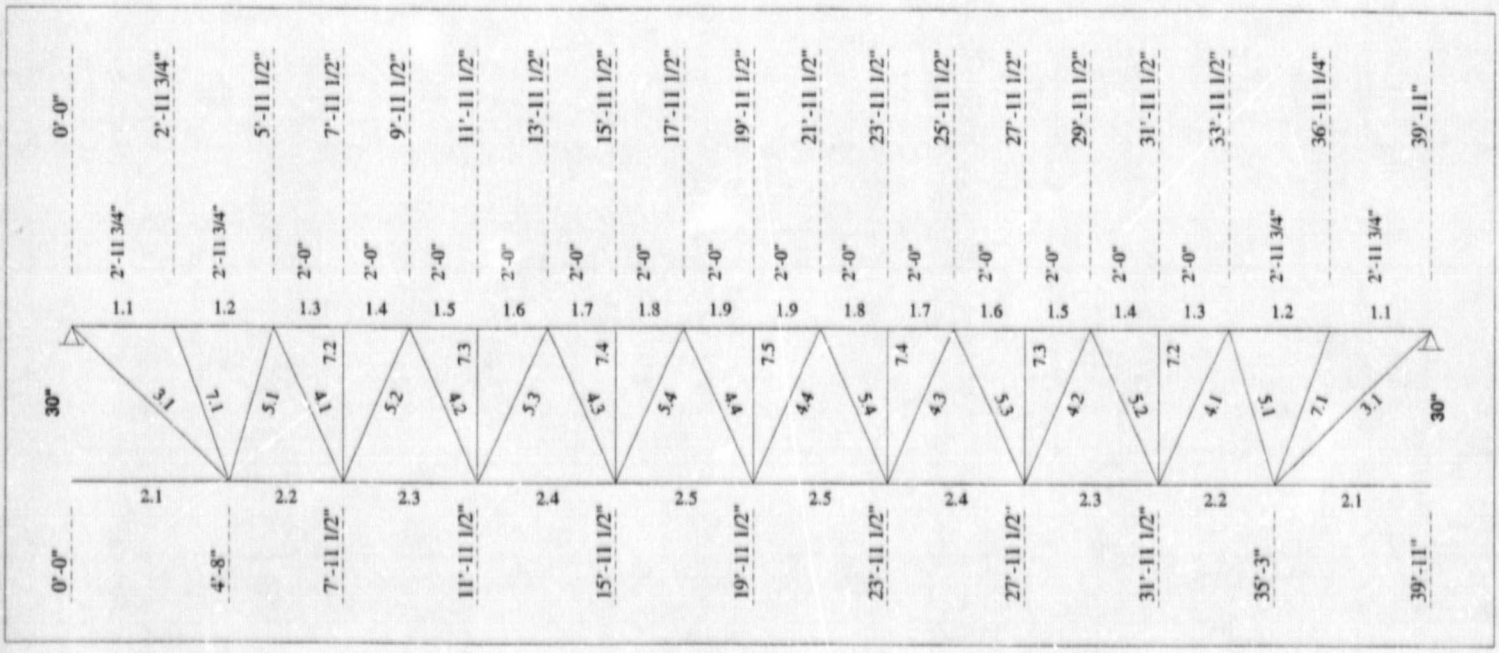
Laterals supports
Deck (36")
Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	9'-11 3/4"	4'-8"
	19'-11 1/2"	9'-11 3/4"
	29'-11 1/4"	19'-11 1/2"
		29'-11 1/4"
		35'-3"

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J11 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 468.00 lb/ft 30KSP468/345 LIVE LOAD ..: 345.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)

Calculated deflection under service live load .... = 1.28 in (L/ 372)

Joist inertia ..... = 591.32 in^4

Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J11

Project: COLUMBIA DISTRIBUTION A04061

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FORCES IN MEMBERS [kips]

(THE SHOWN FORCES ARE REALS)
(Fy = 50 Ksi U/N) (Eff. depth = 28.86 in)

Left Reaction = 9.26/ -1.78 kips Right Reaction = 9.26/ -1.78 kips

No	Tension	Compres.		REQUIRED MATERIAL x = tied at mid-length	Slend.	Util.	Length	REQUIRED WELD Weld-Ea.Side	Remarks
Top Chord									
1.1	11.67	-16.10		LL 2 X .216	z 86	0.803	2'-11 3/4"		
1.2	11.49	-15.15		do	z 91	0.803	2'-11 3/4"		
1.3	13.21	-24.10		do	z 61	0.723	2'-0"		
1.4	13.21	-24.10		do	z 61	0.655	do		
1.5	14.71	-31.88		do	z 61	0.866	do		
1.6	14.71	-31.88		do	z 61	0.866	do		
1.7	15.60	-36.55		do	z 61	0.993	do		
1.8	15.60	-36.55		do	z 61	0.993	do		
1.9	15.90	-38.11	x	LL 2 X .216	xx 39	0.898	2'-0"		
Bottom Chord									
2.1	0.00	0.00		LL 2 X .163	z 137	0.435	4'-8"		
2.2	19.04	-3.66		do	z 100	0.648	3'-3 1/2"		
2.3	28.38	-5.46		do	z 121	0.790	4'-0"		
2.4	34.60	-6.65		do	z 121	0.922	do		
2.5	37.72	-7.25		LL 2 X .163	z 121	1.005	4'-0"		
End Diagonal									
3.1	18.25	-3.51		SQUARE BAR 1" (50 ksi)	z 209	0.676	5'-1 3/4"	.250 - 2 1/2"	
Diagonal Towards End									
4.1	7.91	-1.52		U 1 x 1 x 0.118	z 124	0.893	3'-2 3/8"	.118 - 2 1/4"	
4.2	5.48	-1.05		U 1 x 1 x 0.090	z 128	0.806	do	.091 - 2"	
4.3	3.04	-0.59		do	z 128	0.448	do	.091 - 1 1/2"	
4.4	3.01	-0.12		U 1 x 1 x 0.090	z 128	0.443	3'-2 3/8"	.091 - 1 1/2"	
Diagonal Towards Center									
5.1	1.58	-8.23	d	U 1 3/8 x 0.157	z 72	0.690	2'-9 3/4"	.158 - 1 3/4"	
5.2	1.29	-6.69	d	U 1 3/8 x 0.157	z 83	0.626	3'-2 3/8"	.158 - 1 1/2"	
5.3	0.82	-4.26	d	U 1 3/8 x 0.118	z 85	0.727	do	.118 - 1 1/2"	
5.4	0.35	-3.01	d	U 1 3/8 x 0.118	z 85	0.514	3'-2 3/8"	.118 - 1 1/2"	
Secondary Web Member									
7.1	0.32	-1.74		U 1 x 1 x 0.090	z 120	0.737	3'-0 1/4"	.091 - 1 1/2"	
7.2	0.18	-1.06		do	z 97	0.307	2'-6"	do	
7.3	0.18	-1.10		do	z 97	0.319	do	do	
7.4	0.18	-1.13		do	z 97	0.326	do	do	
7.5	0.18	-1.14		U 1 x 1 x 0.090	z 97	0.328	2'-6"	.091 - 1 1/2"	

BRIDGING

Maximum spacing between rows of bridging — Laterals supports

@ Top Chord: 14'-11" ==> 2 Row(s) Minimum — Deck (36")

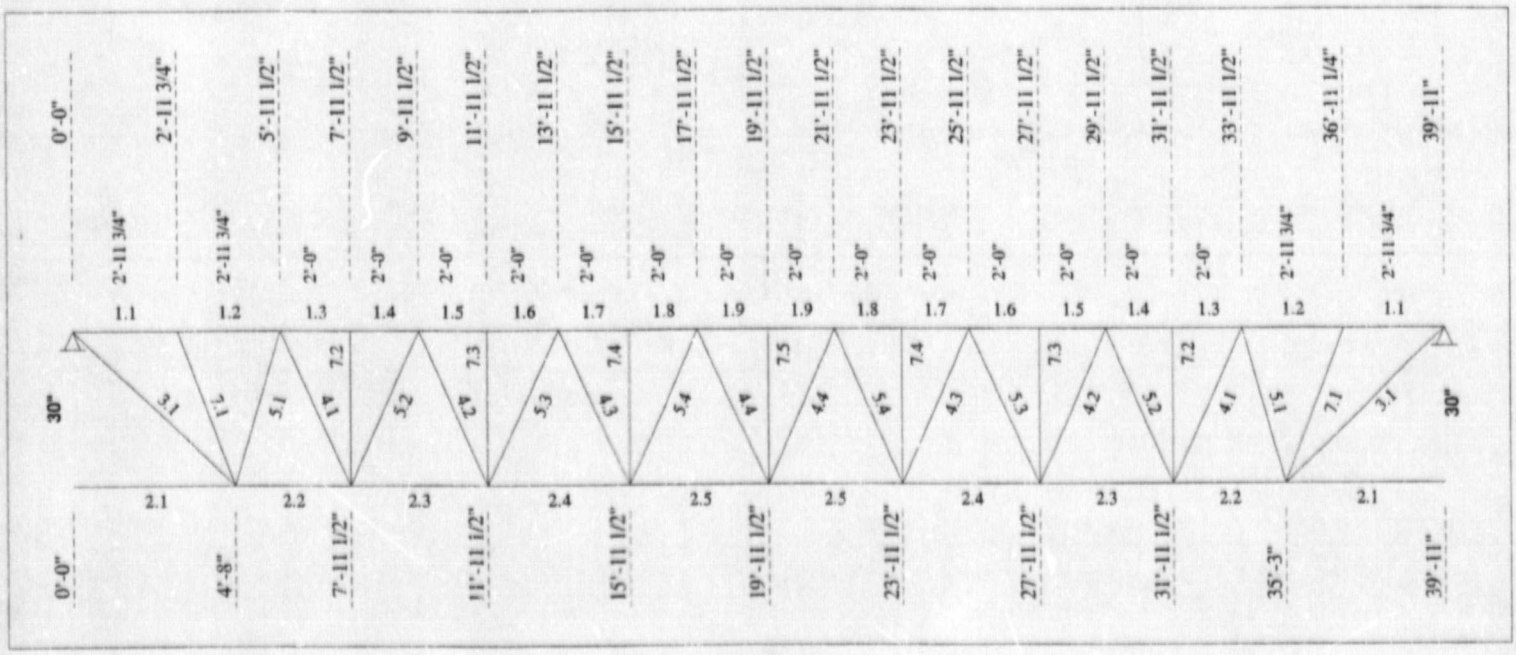
@ Bottom Chord: 24'-5 1/4" ==> 4 Row(s) Minimum — Acc. to the code

POSITION	@ Top Chord	@ Bottom Chord
	13'-3 5/8"	4'-8"
	26'-7 3/8"	13'-3 5/8"
		26'-7 3/8"
		35'-3"

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J12 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 488.00 lb/ft 30KSP488/365 LIVE LOAD ..: 365.00 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		< Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No
Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

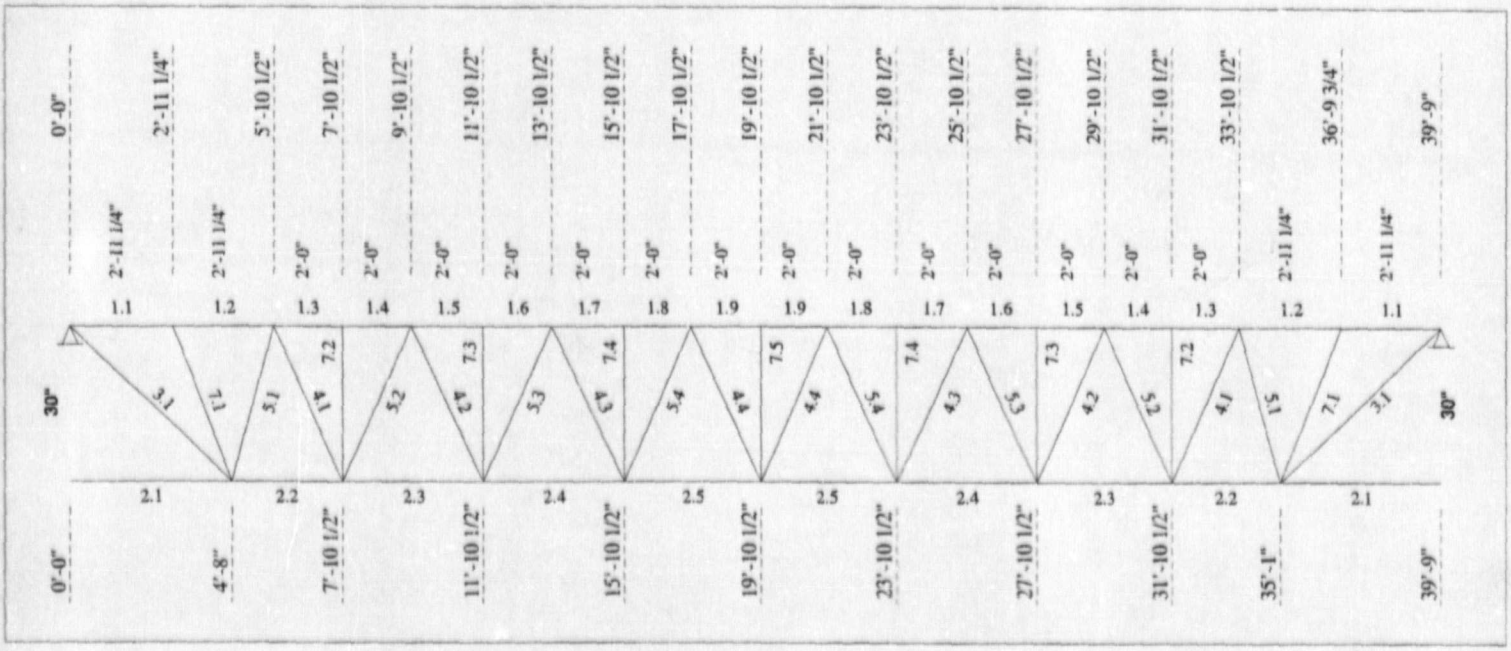
---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.32 in (L/ 360)
Calculated deflection under service live load .... = 1.25 in (L/ 379)
Joist inertia ..... = 636.86 in^4
Required camber ..... = 0.62 in

Project: COLUMBIA DISTRIBUTION A04061

JOIST CALCULATION ACCORDING TO SJI CODE

Mark.....: J13 (W-N MID SPAN, Symmetrical, Parallel, Free ends)



---------- **LOADING CONDITIONS** ----------

(THE SHOWN VALUES ARE REAL)

TOTAL LOAD ...: 440.75 lb/ft 30K10 LIVE LOAD ..: 319.50 lb/ft

---------- **END MOMENTS [ft-kip] & AXIAL LOADS [kips]** ----------

	MOMENTS		AXIAL LOADS <<< Top Chord >>>		AXIAL LOADS < Bottom Chord >	
	---L---	---R---	---L---	---R---	---L---	---R---
(Q) Wind or Seism (case 1)..:	0.00	0.00	-11.00	11.00	0.00	0.00
(case 2)..:	0.00	0.00	11.00	-11.00	0.00	0.00
(L) Live Load.....:	0.00	0.00	0.00	0.00	0.00	0.00
(D) Dead Load.....:	0.00	0.00	0.00	0.00	0.00	0.00

Weld Plate required Y/N.....: Yes Imposed Rows of Bridging Y/N.: No

Bearing Depth... [in]: at left.: 2 1/2" at right: 2 1/2"

---------- **UPLIFT** ----------

Net uplift uniform load : 120.00 lb/ft

---------- **DEFLECTION** ----------

Allowed deflection under live load ..... = 1.31 in (L/ 360)

Calculated deflection under service live load .... = 1.26 in (L/ 375)

Joist inertia ..... = 545.35 in^4

Required camber ..... = 0.62 in

canamsteel Corporation

Mark: J13

Project: COLUMBIA DISTRIBUTION A04061

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v3.6 11/29/00

Fabrication code unless noted

-LL = 2 angles short legs back to back, BL = 2 angles welded in box, BR = Round bar

-U = 1 U profile, UU = 2 U profiles one inside the other, -CL = Crimped angle

Value of the forces reduced by 25% when there are some wind loads

Projets no.: A04061 Designer: Philippe Theriault Shop: Canam Sunnyside [Production]

448 (75.98) / 481 (80.98)