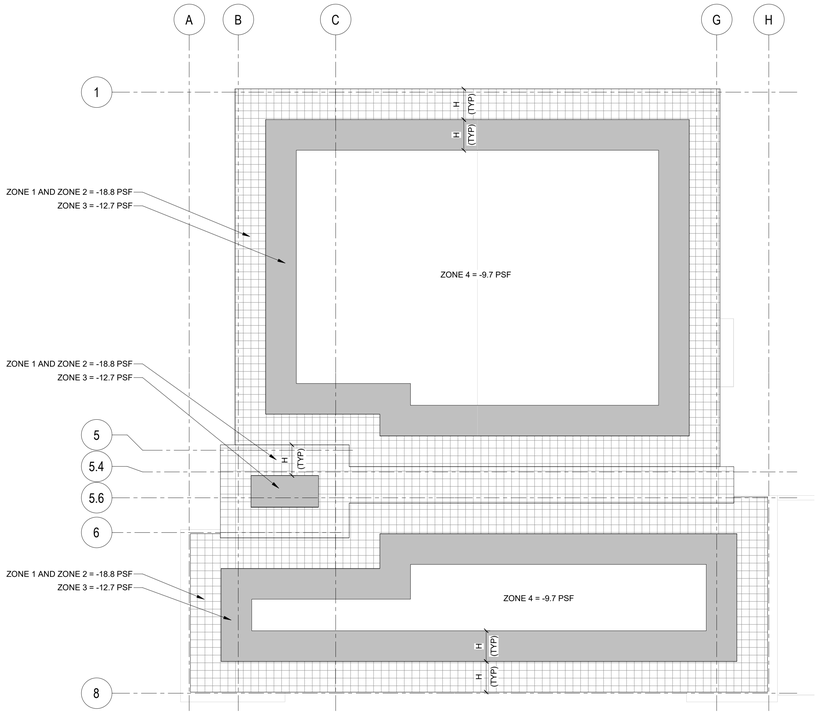
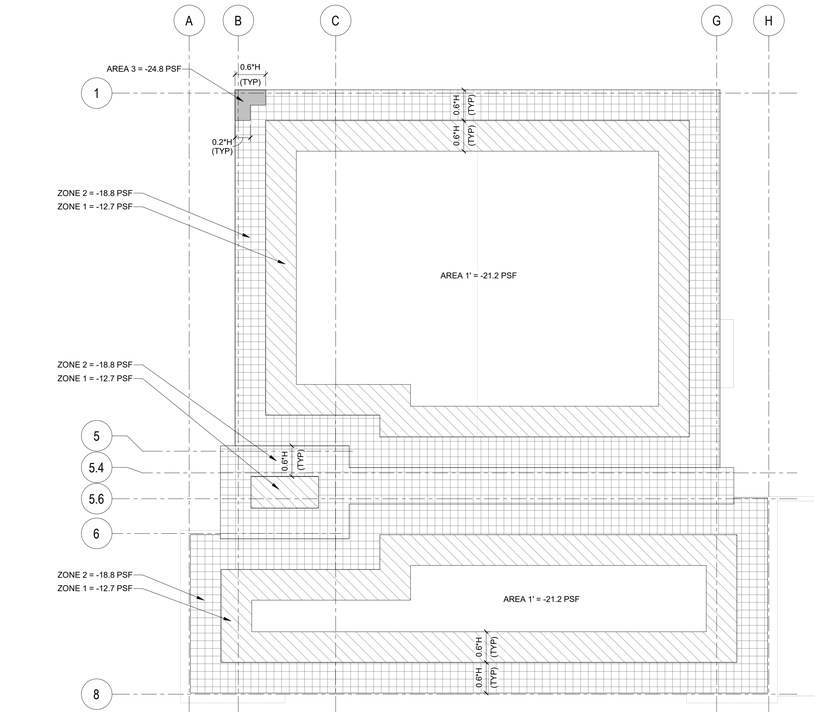


1 S0.02 SCALE: 1" = 20'-0"

NOTES:
1. H = X' - X"
2. GIRDERS ARE PART OF MAIN WIND FORCE RESISTING SYSTEM.
3. SUSTAINED DEAD LOAD OF 8 PSF USED FOR NET UPLIFT.
4. NO INCREASE IN ALLOWABLE STRESS IS PERMITTED.
5. ALL LOADS ARE SERVICE LOADS (0.6Dmin+0.6W).
6. SEE SHEET S-101 FOR MWFRS WIND PRESSURES.



2 S0.02 SCALE: 1" = 20'-0"

NOTES:
1. 0.2"H = X' - X"; 0.6"H = X' - X"
2. JOISTS ARE CONSIDERED COMPONENTS AND CLADDING.
3. SUSTAINED DEAD LOAD OF 8 PSF USED FOR NET UPLIFT.
4. NO INCREASE IN ALLOWABLE STRESS IS PERMITTED.
5. ALL LOADS ARE SERVICE LOADS (0.6Dmin+0.6W).
6. SEE SHEET S-101 FOR COMPONENTS AND CLADDING WIND PRESSURES.

GRAVITY LOADS:

SLAB ON GRADE LIVE LOAD	150 PSF
ROOF DEAD LOAD	
ROOF MEMBRANE AND INSULATION	6 PSF
METAL DECK	2 PSF
JOIST FRAMING	3 PSF
SPRINKLERS	1 PSF
DUCTS, LIGHTING, MISC	7 PSF
TOTAL ROOF DEAD LOAD	15 PSF
ROOF LIVE LOAD (REDUCIBLE)*	20 PSF*

*NOTE: COMBINED UNFACTORED DEAD LOAD + REDUCED ROOF LIVE LOAD SHALL BE 28 PSF MINIMUM

ROOF SNOW LOAD	
GROUND SNOW LOAD	5 PSF
FLAT SNOW LOAD	3.5 PSF (PLUS DRIFT)
MINIMUM SNOW	5 PSF
SNOW LOAD WITH RAIN ON SNOW SURCHARGE	8.5 PSF
ICE THICKNESS	1.0 INCH
DOWNWARD (POSITIVE) C&C WIND LOAD	16 PSF (ULTIMATE)

SPECIAL JOIST LOAD DIAGRAM NOTES:
1. RAIN LOAD DIAGRAM ONLY REQUIRED AT PARAPET CONDITION
2. ALL LOADS SHOWN ARE UNFACTORED
3. ALL CODE LOAD COMBINATIONS AND LIMIT STATES SHOULD BE ACCOUNTED FOR BY JOIST DESIGNER

SEISMIC LOADS

ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE FOR SEISMIC DESIGN OF BUILDINGS - IBC 2018 SECTION 1613/ASCE 7-16 SECTION 12.8

MAXIMUM GROUND MOTION 0.2 sec response	Ss = 0.165g
MAXIMUM GROUND MOTION 1.0 sec response	S1 = 0.074g
SHORT PERIOD MAPPED SPECTRAL RESPONSE ACCELERATION	Sms = 0.264g
1.0 SECOND PERIOD MAPPED SPECTRAL RESPONSE ACCELERATION	Sm1 = 0.178g
SHORT PERIOD SPECTRAL RESPONSE COEFFICIENT	Sds = 0.176g
1.0 SECOND PERIOD SPECTRAL RESPONSE COEFFICIENT	Sd1 = 0.118g
RISK CATEGORY	II
SEISMIC IMPORTANCE FACTOR, Ie	1.0
SITE CLASS	D
SEISMIC DESIGN CATEGORY	B

WIND LOADS:

ANALYSIS PROCEDURE:
ANALYTICAL METHOD - ASCE 7-10 DIRECTIONAL METHOD

ULTIMATE WIND SPEED (3-SECOND GUST)	115 MPH (FIG. 1609.3 (1) - IBC 2018)
NOMINAL WIND SPEED	89 MPH (T.1609.3.1 - IBC 2018)
RISK CATEGORY	II (TABLE 1604.5 - IBC 2018)
WIND EXPOSURE	C (SECT. 1609.4.3 - IBC 2018)

DESIGN FOR MAIN WIND-FORCE RESISTING SYSTEM (MWFRS) AND COMPONENTS AND CLADDING (C & C) BASED ON ULTIMATE WIND SPEED Vult = 115 MPH. WIND SPEED CONVERSION FOR NOMINAL DESIGN WIND SPEED BASED ON EQUATION 16-33 (IBC 2018).

Vasd = Vult x $\sqrt{0.6}$

INTERNAL PRESSURE COEFFICIENT	+0.18/-0.18 (ENCLOSED)

COEFFICIENTS AND PRESSURES (LRFD LOADS):

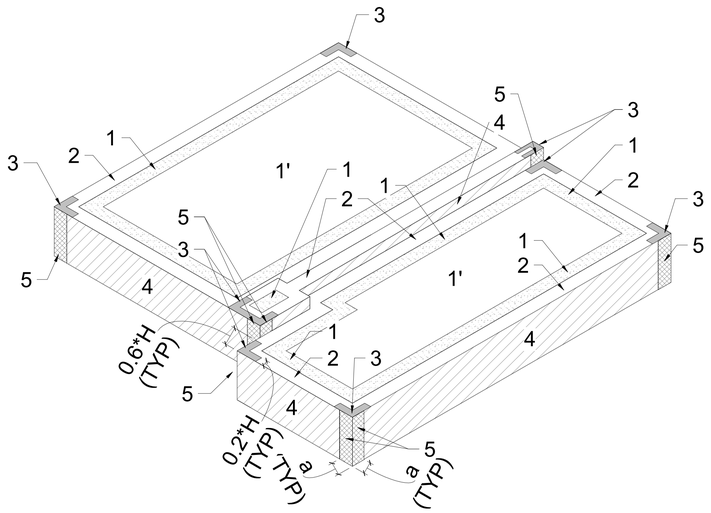
VELOCITY PRESSURE @ HEIGHT z=H, Qh	25.7 PSF
VELOCITY PRESSURE @ HEIGHT z, Qz	26.2 PSF
GUST FACTOR, G	0.85
TOPOGRAPHIC FACTOR, Kzt	1.00 (FIG 26.8-1 ASCE)
WIND DIRECTIONALITY FACTOR, Kd	0.85 (TABLE 26.6-1 ASCE)
V. PRESSURE EXPOSURE COEF. @ HEIGHT z=H, Kh	0.89
V. PRESSURE EXPOSURE COEF. @ HEIGHT z, Kz	0.91

MAIN WIND FORCE RESISTING SYSTEM (ULTIMATE):

WALL (MWFRS - WINDWARD)	+22.08 PSF
WALL (MWFRS - LEEWARD)	-16.0 PSF
WALL (MWFRS - SIDE)	-19.90 PSF
ROOF (MWFRS - ZONE1*)	-24.26/+8.00 PSF
ROOF (MWFRS - ZONE2*)	-24.26/+8.00 PSF
ROOF (MWFRS - ZONE3*)	-15.53/+8.00 PSF
ROOF (MWFRS - ZONE4*)	-11.17/+8.00 PSF

*ROOF ZONE1 IS APPLIED FOR HORIZONTAL DISTANCE OF 0 TO H/2 FROM WINDWARD EDGE
*ROOF ZONE2 IS APPLIED FOR HORIZONTAL DISTANCE OF H/2 TO H FROM WINDWARD EDGE
*ROOF ZONE3 IS APPLIED FOR HORIZONTAL DISTANCE OF H TO 2H FROM WINDWARD EDGE
*ROOF ZONE4 IS APPLIED FOR HORIZONTAL DISTANCE OF > 2H FROM WINDWARD EDGE

a = 8' - 0"
H = 20' - 0"
0.2*H = 4' - 0"
0.6*H = 12' - 0"



THIS BUILDING IS DESIGNED TO MEET REQUIREMENTS OF FM-GLOBAL

		DESIGNED SEISMIC RESISTANCE SYSTEMS	
		TRANSVERSE	LONGITUDINAL
		STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE	STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
RESPONSE MODIFICATION FACTOR	R	3.0	3.0
SYSTEM OVERSTRENGTH FACTOR	Ωo	3.0	3.0
DEFLECTION AMPLIFCATION FACTOR	Cd	3.0	3.0
SEISMIC RESPONSE COEFFICIENT	Cs	0.059	0.059
SEISMIC BASE SHEAR, kips (ASD)	V	80	80

POSITIVE/NEGATIVE WIND PRESSURE ON GLAZING AND WALL COMPONENT (SERVICE)

BUILDING	LOCATION ON BUILDING	WIND PRESSURE			
		<20 FT²	<50 FT²	<100 FT²	<200 FT²
MAIN	FIELD [4]	-18.1/+16.7 PSF	-17.3/+16.0 PSF	-16.4/+15.0 PSF	-15.6/+14.2 PSF
	CORNER [5]	-22.2/+16.7 PSF	-20.8/+16.0 PSF	-18.8/+15.0 PSF	-17.3/+14.2 PSF

ROOF WIND UPLIFT/DOWNWARD PRESSURES (SERVICE)

BUILDING	LOCATION ON BUILDING	WIND PRESSURE			
		<20 FT²	<50 FT²	<100 FT²	<200 FT²
MAIN	[1]	-29.0/+9.6 PSF	-27.1/+9.6 PSF	-24.6/+9.6 PSF	-22.7/+9.6 PSF
	[2]	-38.3/+9.6 PSF	-35.8/+9.6 PSF	-32.6/+9.6 PSF	-30.1/+9.6 PSF
	[3]	-52.1/+9.6 PSF	-47.8/+9.6 PSF	-41.3/+9.6 PSF	-36.3/+9.6 PSF
	[1*]	-16.7/+9.6 PSF	-16.7/+9.6 PSF	-16.7/+9.6 PSF	-16.7/+9.6 PSF

POSITIVE/NEGATIVE WIND PRESSURE ON GLAZING AND WALL COMPONENT (ULTIMATE)

BUILDING	LOCATION ON BUILDING	WIND PRESSURE			
		<20 FT²	<50 FT²	<100 FT²	<200 FT²
MAIN	FIELD [4]	-30.1/+27.8 PSF	-28.9/+26.6 PSF	-27.2/+24.9 PSF	-26.0/+23.7 PSF
	CORNER [5]	-37.0/+27.8 PSF	-34.6/+26.6 PSF	-31.3/+24.9 PSF	-28.9/+23.7 PSF

ROOF WIND UPLIFT/DOWNWARD PRESSURES (ULTIMATE)

BUILDING	LOCATION ON BUILDING	WIND PRESSURE			
		<20 FT²	<50 FT²	<100 FT²	<200 FT²
MAIN	[1]	-48.3/+16.0 PSF	-45.1/+16.0 PSF	-40.9/+16.0 PSF	-37.7/+16.0 PSF
	[2]	-63.7/+16.0 PSF	-59.6/+16.0 PSF	-54.2/+16.0 PSF	-50.1/+16.0 PSF
	[3]	-86.8/+16.0 PSF	-79.6/+16.0 PSF	-68.7/+16.0 PSF	-60.5/+16.0 PSF
	[1*]	-27.8/+16.0 PSF	-27.8/+16.0 PSF	-27.8/+16.0 PSF	-27.8/+16.0 PSF

ROOF DESIGN REQUIREMENTS (PER FM GLOBAL)

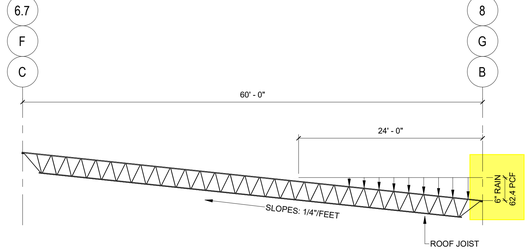
ROOF LEVEL	FM GLOBAL UPLIFT DESIGN PRESSURES			FM GLOBAL WIND RATING NEEDED				HEIGHT
	ZONE 1' (PSF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	ZONE 1' (PSF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	h (FT)
MAIN	19	34	45	45	1-60	1-75	1-105	1-105	20
CLERESTORY	21	36	48	66	1-60	1-75	1-105	1-135	28

WALL DESIGN REQUIREMENTS (PER FM GLOBAL)

AREA	LOCATION	A (FT)	ZONE 4 (PSF)	ZONE 5 (PSF)
WINDOW AND DOOR GLASS, DOOR OPENINGS, LOUVERS, ROLL-UP DOORS	MAIN	8	+21.5/-23.3	+21.5/-28.7

NOTES:
1. FM GLOBAL SPECIFIED WIND PRESSURES AND WIND RATINGS PER FM GLOBAL PLAN REVIEW:

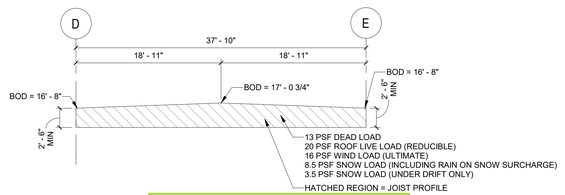
   INDEX-REC NO: 100189.85-01
   ACCOUNT NO: 01-07044
   DATE: MARCH 7, 2022
2. DESIGNER IS TO COMPARE ALLOWABLE PRESSURES FROM THE ASCE 7-10 TABLE AND THE FM GLOBAL TABLES AND DESIGN FOR THE WORST CASE.
3. SAFETY FACTOR HAS NOT BEEN APPLIED.



NOTES:
1. PER THE ARCHITECT ALL JOISTS WITH A PARAPET CONDITION SHOULD BE DESIGNED FOR MINIMUM OF 6" INCHES OF PONDING WATER AT FACE OF WALL.
2. RAIN INTENSITY= 7.43 IN/H FOR 15 MIN, 3.78 IN/H FOR 60 MIN

1 S0.03 DIAGRAM AT RAIN LOADING

SCALE: 1/8" = 1'-0"



NOTES:
1. MINIMUM MOMENT OF INERTIA (I_{MIN}) SHALL BE 500 IN^4

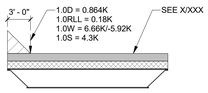
2 S0.03 DIAGRAM AT 20KSP LOADING

SCALE: 1/8" = 1'-0"

SPECIAL JOIST LOADING LEGEND:

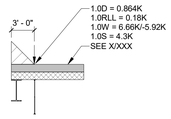
- SNOW DRIFT LOAD (SEE LOADING DIAGRAMS)
- S = 8.5 PSF SNOW LOAD (INCLUDING RAIN ON SNOW SURCHARGE)
  S = 3.5 PSF SNOW LOAD (WHEN COMBINED WITH DRIFT)
- D = 15 PSF DEAD LOAD
  Lr = 20 PSF (REDUCIBLE)*
  W = 16 PSF (ULTIMATE)

*NOTE: COMBINED UNFACTORED DEAD LOAD + REDUCED ROOF LIVE SHALL BE 28 PSF MINIMUM.



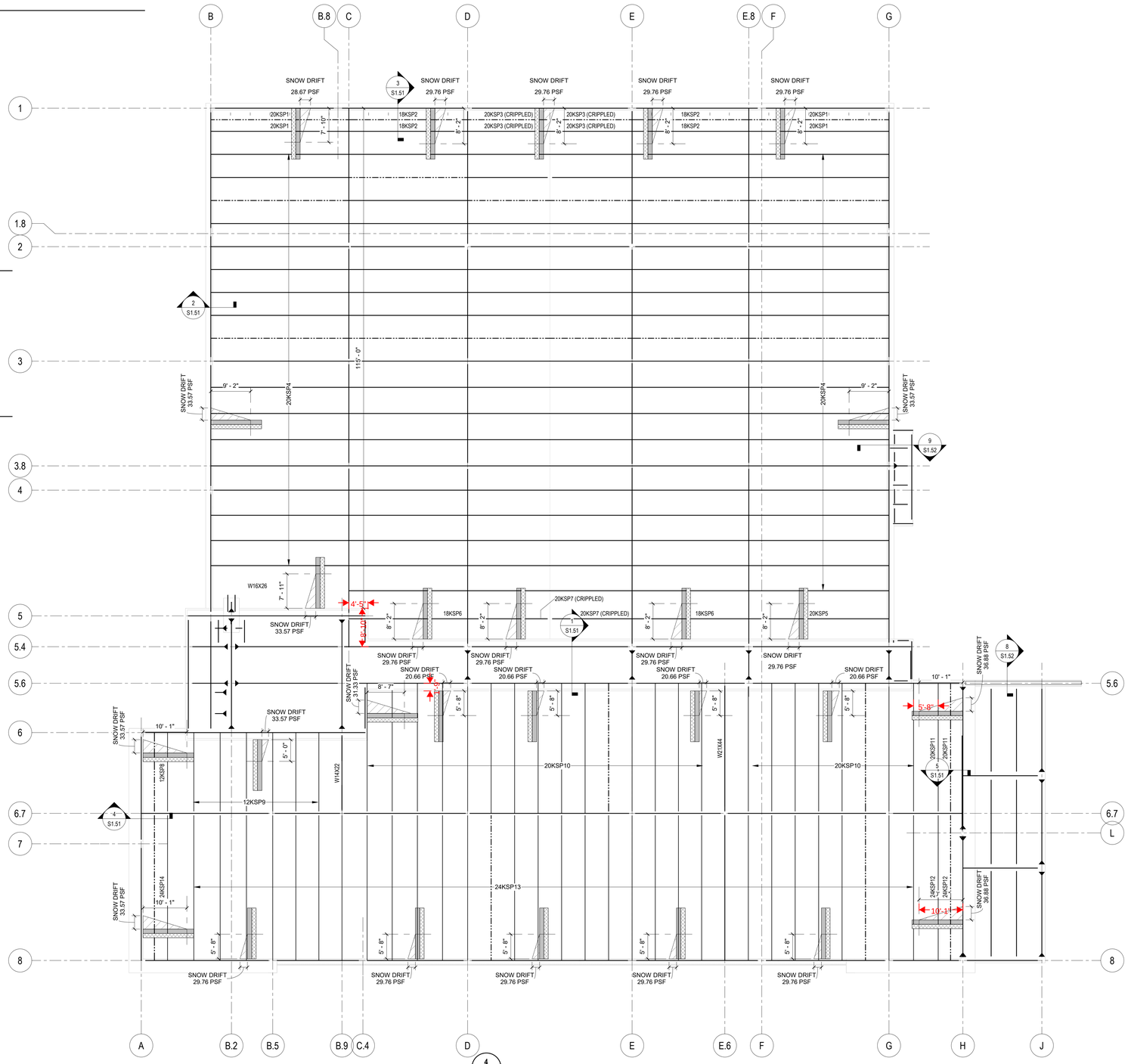
5 S0.03 DIAGRAM AT CFMF LOADING PERPENDICULAR

SCALE: 1/8" = 1'-0"

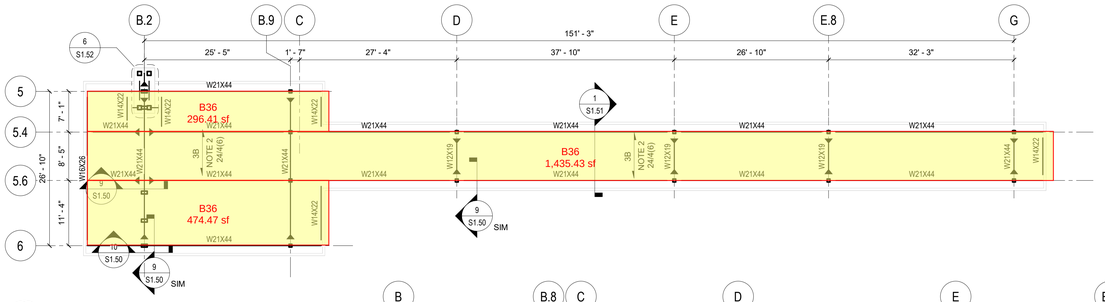


6 S0.03 DIAGRAM AT CFMF LOADING PARALLEL

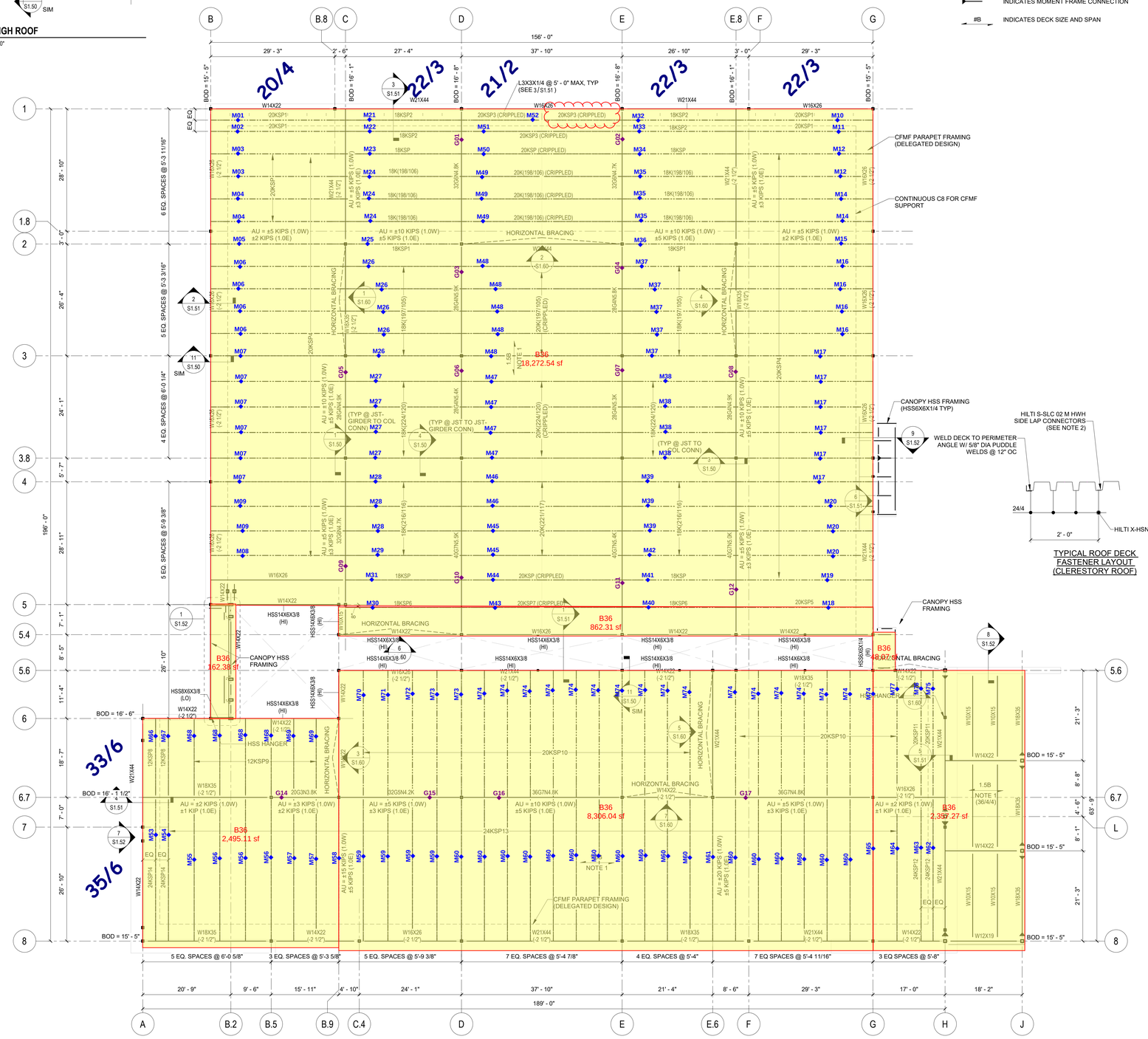
SCALE: 1/8" = 1'-0"



4 S0.03 SCALE: 3/32" = 1'-0"



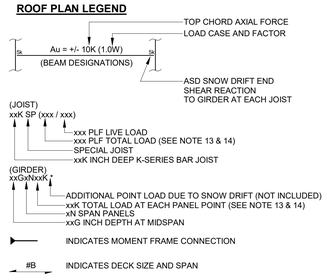
2 S1.20 **PLAN AT HIGH ROOF**
SCALE: 3/32" = 1'-0"



1 S1.20 **PLAN AT ROOF**
SCALE: 3/32" = 1'-0"

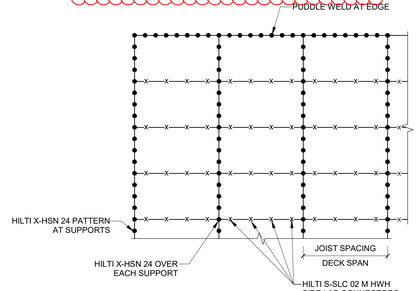
Joist Description	Quantity
G01	1
G02	1
G03	1
G04	1
G05	1
G06	1
G07	1
G08	1
G09	1
G10	1
G11	1
G12	1
G14	1
G15	1
G16	1
G17	1
M01	1
M02	1
M03	2
M04	2
M05	1
M06	4
M07	6
M08	1
M09	2
M10	1
M11	1
M12	2
M14	2
M15	1
M16	4
M17	6
M18	1
M19	1
M20	3
M21	1
M22	1
M23	1
M24	3
M25	1
M26	5
M27	4
M28	3
M29	1
M30	1
M31	1
M32	1
M33	1
M34	1
M35	3
M36	1
M37	5
M38	4
M39	3
M40	1
M41	1
M42	1
M43	1
M44	1
M45	2
M46	2
M47	4
M48	5
M49	3
M50	1
M51	1
M52	1
M53	1
M54	1
M55	1
M56	3
M57	2
M58	1
M59	4
M60	17
M61	1
M62	1
M63	1
M64	1
M65	1
M66	1
M67	1
M68	4
M69	2
M70	1
M71	1

ROOF PLAN LEGEND

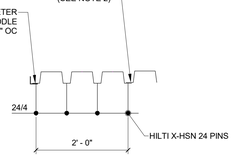


ROOF PLAN NOTES:

1. ROOF DECK WILL BE 1-1/2 INCH DEEP, 22 GAGE, TYPE B (80 KSI), WIDE RIB PRIMED WHITE (BOTTOM) (MINIMUM 3 SPANS).
2. CLERESTORY ROOF DECK WILL BE 3 INCH DEEP, 22 GA, TYPE B (80KSI) WIDE RIB PRIMED WHITE (BOTTOM) (MINIMUM 3 SPANS).
3. STEEL JOISTS SHALL BE BRACED BY HORIZONTAL AND/OR DIAGONAL BRIDGING AS REQUIRED BY THE STEEL JOIST INSTITUTE.
4. STEEL JOIST SEATS SHALL BE 1/4 INCH MINIMUM AT WALLS.
5. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.
6. ELEVATIONS SHOWN ON PLAN ARE BOTTOM OF DECK.
7. SEE TYPICAL ROOF OPENING DETAIL FOR FRAMING OF THE OPENINGS THROUGH THE ROOF. CONTRACTOR TO SUPPLY STEEL FABRICATOR WITH EXACT DIMENSIONS AND LOCATIONS OF OPENINGS THROUGH THE ROOF.
8. JOIST SHOP DRAWINGS SHALL INDICATE WHERE THE BOLTED DIAGONAL BRIDGING IS REQUIRED FOR THE JOISTS. THE JOIST SHOP DRAWINGS SHALL ALSO INDICATE WHERE HOISTING CABLES SHALL NOT BE RELEASED UNTIL THE ROW OF BOLTED DIAGONAL BRIDGING IS COMPLETELY INSTALLED.
9. ROOF SLOPE BASED ON 1/4 INCH PER FOOT.
10. JOISTS AND GIRDERS SHALL BE CAMBERED PER SJI SPECIFICATIONS.
11. GIRDER SELF WEIGHT IS NOT INCLUDED IN POINT LOADS SHOWN. POINT LOADS SHOWN ARE SERVICE (ASD).
12. SEE S-103 FOR ALL LOADINGS RELATED TO SPECIAL JOIST.
13. BAR JOISTS AND GIRDERS SHALL BE DESIGNED FOR ADDITIONAL LOADS DUE TO SPRINKLER MAINS. GENERAL CONTRACTOR AND JOIST MANUFACTURER SHALL COORDINATE LOCATIONS OF SPRINKLER MAINS. JOIST LOADING INFORMATION SHOWN DOES NOT INCLUDE FIRE PROJECTION LINES GREATER THAN 4 INCHES DIAMETER (SEE S-102 FOR ADDITIONAL INFORMATION).
14. BAR JOISTS AND GIRDERS SHALL BE DESIGNED FOR ADDITIONAL LOADS DUE TO ROOF TOP EQUIPMENT. GENERAL CONTRACTOR AND JOIST MANUFACTURER SHALL COORDINATE LOCATIONS AND WEIGHTS OF ROOF TOP EQUIPMENT WITH FINAL MECHANICAL DRAWINGS. LOCATIONS, GEOMETRY AND LOADING SHOWN ON PLANS ARE APPROXIMATE.
15. FOR BIDDING PURPOSES ASSUME 10% OF JOISTS WILL REQUIRE ADDITIONAL 30 PLF CAPACITY FOR SPRINKLER MAINS AND GIRDERS WILL REQUIRE ADDITIONAL 1 KIP JOIST REACTION.
16. ALLOWANCE TO BE MADE FOR FUTURE RTU IMPACT WILL BE MINIMAL IF ALIGNED ALONG GIRDERS NEAR COLUMNS.
17. JOIST MANUFACTURER TO DESIGN JOIST FOR ADDITIONAL 1.3 KIP CONCENTRATED LOAD ANYWHERE INSIDE THE INDICATED REGION. JOIST GIRDERS TO BE DESIGNED FOR ADDITIONAL 2.6 KIP LOAD AT EACH LOCATION SHOWN ON PLAN.



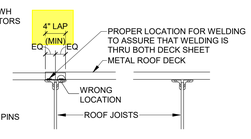
3 S1.20 **DETAIL AT DECK ATTACHMENT**
SCALE: 3/4" = 1'-0"



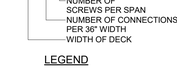
TYPICAL ROOF DECK FASTENER LAYOUT (CLERESTORY ROOF)

TYPICAL ROOF DECK FASTENER LAYOUT (MAIN ROOF)

NOTES:
1. CONNECTION OF ROOF DECK TO JOISTS AND BEAMS SHALL SATISFY THE ULTIMATE LOAD FOR THE ROOFING SYSTEM IN THE CORNER, PERIMETER AND INTERIOR AREAS (SEE ROOFING SPECIFICATIONS).
2. DECK SIDE LAPS SHALL BE NESTABLE.



TYPICAL ROOF DECK LAP



LEGEND

4 S1.20 **DETAIL AT DECK CONNECTION PATTERN**
SCALE: 3/4" = 1'-0"

Qualifications:

Roof deck quoted with Painted Gray/White finish.
Considered 36" deck coverage instead of 24" deck coverage.
All axial to be transferred through weld plate

Exclusions:

Hanger Tabs, Flexible Rubber Closure
Architectural drawing.
Sump pans, weld washer, Weld Plate.
Load from L3 x 3 per section 2/S1.51 & similar.
Additional load per note no 17/S1.20 (location not found).
Loading & Special web geometry for Sprinkler line.

TOTAL DECK:

1.5B, 22Ga, PTD (80ksi) = 361 SQ

ACCESSORIES
#10TEK SCREW = 13 BOX

J=175/27
G=16/16

N

JOISTS

NOTES : **0**

LL DEFL **L/240** TL DEFL _____ JOIST SPACING **0**

DWG	MARK	QTY	BCX	DEPTH	LOAD	SPAN	SPACE	NU PSF	TCX L	TCX R	COMMENTS
	M01	1		20K		31'-9"	2.666	14			1, 2, 3
	M02	1		20K		31'-9"	4	14			3, 4, 5
	M03	2		20K		31'-9"	5.33	14			6, 7, 8
	M04	2		20K		31'-9"	5.33	7.9			9, 6, 7
	M05	1	1	20K		31'-9"	5.33	7.9			10, 6, 7, 11
	M06	4		20K		31'-9"	5.33	7.9			6, 7, 11
	M07	6	3	20K		31'-9"	6	7.9			11, 12, 13
	M08	1		20K		31'-9"	5.75	14			15, 16
	M09	2		20K		31'-9"	5.75	7.9			15, 16, 9
	M10	1		20K		32'-3"	2.666	14			1, 2, 3
	M11	1		20K		32'-3"	4	14			3, 4, 5
	M12	2		20K		32'-3"	5.33	14			6, 7, 8
	M14	2		20K		32'-3"	5.33	7.9			9, 6, 7
	M15	1	1	20K		32'-3"	5.33	7.9			10, 6, 7, 11
	M16	4		20K		32'-3"	5.33	7.9			6, 7, 11
	M17	6	2	20K		32'-3"	6	7.9			11, 12, 13
	M18	1		20K		32'-3"	7.5	14			17, 18
	M19	1		20K		32'-3"	6.25	14			20, 21
	M20	3		20K		32'-3"	5.75	7.9			15, 16, 9
	M21	1		18K		27'-4"	2.66	14			19, 22
	M22	1		18K		27'-4"	4	14			23, 24
	M23	1		18K		27'-4"	5.33	14			25
	M24	3		18K		27'-4"	5.33	7.9			26
	M25	1	1	18K		27'-4"	5.33	16.4			26, 27
	M26	5	1	18K		27'-4"	5.33	16.4			28
	M27	4	1	18K		27'-4"	6	16.4			29
	M28	3		18K		27'-4"	5.75	7.9			30, 31
	TOTAL	61	10								

JOISTS

NOTES : **0**

LL DEFL **L/240** TL DEFL _____ JOIST SPACING **0**

DWG	MARK	QTY	BCX	DEPTH	LOAD	SPAN	SPACE	NU PSF	TCX L	TCX R	COMMENTS
	M29	1		18K		27'-4"	5.75	7.9			30
	M30	1		18K		27'-4"	7.5	14			32
	M31	1		18K		27'-4"	6.125	14			33, 34
	M32	1		18K		26'-10"	2.66	14			19, 22
	M33	1		18K		26'-10"	4	14			23, 24
	M34	1		18K		26'-10"	5.33	14			25
	M35	3		18K		26'-10"	5.33	7.9			26
	M36	1	1	18K		26'-10"	5.33	16.4			26, 27
	M37	5	1	18K		26'-10"	5.33	16.4			28
	M38	4	1	18K		26'-10"	6	16.4			29
	M39	3		18K		26'-10"	5.75	7.9			30
	M40	1		18K		26'-10"	7.5	14			34
	M41	1		18K		26'-10"	6.125	14			35
	M42	1		18K		26'-10"	5.75	7.9			30
	M43	1		20K		37'-10"	7.5	7.9			36, 34
	M44	1		20K		37'-10"	6.125	14			35, 36, 72
	M45	2		20K		37'-10"	5.75	7.9			37, 36
	M46	2		20K		37'-10"	5.75	16.4			36, 37, 72
	M47	4	1	20K		37'-10"	6	16.4			29, 36, 72
	M48	5	1	20K		37'-10"	5.33	16.4			28, 36, 72
	M49	3		20K		37'-10"	5.33	7.9			26, 36, 72
	M50	1		20K		37'-10"	5.33	14			25, 36, 72
	M51	1		20K		37'-10"	4	14			23, 24, 36, 72
	M52	1		20K		37'-10"	2.66	14			19, 22, 36, 72
	TOTAL	46	5								

JOISTS

NOTES : **0**

LL DEFL **L/240** TL DEFL _____ JOIST SPACING **0**

DWG	MARK	QTY	BCX	DEPTH	LOAD	SPAN	SPACE	NU PSF	TCX L	TCX R	COMMENTS
	M53	1		24K		33'-10"	3	14			38, 39
	M54	1		24K		33'-10"	4.5	14			40, 41
	M55	1		24K		33'-10"	6	14			42, 43
	M56	3	1	24K		33'-10"	6	7.9			42, 43, 49
	M57	2		24K		33'-10"	5.33	7.9			44, 45, 49
	M58	1	1	24K		33'-10"	5.33	7.9			44, 45, 46, 49
	M59	4		24K		33'-10"	5.84	7.9			47, 48, 49
	M60	17	2	24K		33'-10"	5.5	7.9			50, 51, 52
	M61	1	1	24K		33'-10"	5.5	7.9			50, 51, 52, 53
	M62	1		24K		33'-10"	2.83	14			54, 55
	M63	1		24K		33'-10"	4.25	14			56, 57
	M64	1		24K		33'-10"	5.75	14			15, 58
	M65	1	1	24K		33'-10"	5.75	7.9			15, 58
	M66	1		12K		18'-7"	3	14			59, 60
	M67	1		12K		18'-7"	4.55	14			61, 62
	M68	4	1	12K		18'-7"	6	14			63
	M69	2		12K		18'-7"	5.33	14			64
	M70	1		20K		29'-11"	5.666	14			65
	M71	1		20K		29'-11"	5.666	14			66
	M72	1		20K		29'-11"	5.666	7.9			67, 49
	M73	2	1	20K		29'-11"	5.666	7.9			50, 67
	M74	17	4	20K		29'-11"	5.33	7.9			50, 68
	M75	1		20K		29'-11"	2.83	14			54, 69
	M76	1		20K		29'-11"	4.25	14			56, 70
	M77	1		20K		29'-11"	5.75	14			15, 71
	TOTAL	68	12								

OJECT: 0 0

GIRDER

DWG	MARK	QTY	BCX	DESIGNATION	SPAN	NU	TCX L	TCX R	COMMENTS
	G01	1	1	32G6N4.8	31'-10"				73, 74, 75, 93, 94, 103
	G02	1	1	32G6N4.7	31'-10"				73, 74, 76, 93, 94, 103
	G03	1	1	28G5N5.9	26'-4"				73, 74, 77, 93, 95, 103
	G04	1	1	28G5N5.8	26'-4"				73, 74, 78, 93, 95, 103
	G05	1	1	28G4N4.9	24'-1"				73, 74, 79, 90, 97, 103
	G06	1	1	28G4N5.4	24'-1"				73, 80, 93, 96, 103
	G07	1	1	28G4N5.3	24'-1"				73, 81, 93, 96, 103
	G08	1	1	28G4N4.9	24'-1"				73, 74, 82, 90, 97, 103
	G09	1	1	32G6N4.7	34'-6"				73, 74, 83, 91, 99, 103
	G10	1	1	40G7N5.5	41'-7"				73, 74, 84, 93, 98, 103
	G11	1	1	40G7N5.4	41'-7"				73, 74, 85, 93, 98, 103
	G12	1	1	40G7N5	41'-7"				73, 74, 86, 91, 99, 103
	G14	1	1	20G3N3.8	15'-11"				73, 74, 87, 92, 100, 103
	G15	1	1	32G5N4.2	28'-11"				73, 74, 88, 91, 101, 103
	G16	1	1	36G7N4.8	37'-10"				73, 74, 89, 90, 102, 103
	G17	1	1	36G7N4.8	37'-9"				73, 74, 89, 91, 102, 103
TOTAL		16	16						

PROJECT 0 0

NOTES

40	CASE1: JOIST DESIGNATION = 171/102 PLF, ADD'L 145 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
41	CASE2: JOIST DESIGNATION = 115/46 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 63 PLF THROUGH OUT THE TC, DRIFT LOAD 74 PLF @ 0' TO 3.06' FTE.
42	CASE1: JOIST DESIGNATION = 224/134 PLF, ADD'L 188 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
43	CASE2: JOIST DESIGNATION = 149/59 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 181 PLF @ 0' TO 5'-8" FTE.
44	CASE1: JOIST DESIGNATION = 199/119 PLF, ADD'L 167 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
45	CASE2: JOIST DESIGNATION = 133/53 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 181 PLF @ 0' TO 5'-8" FTE.
46	AXIAL LOAD 9K(W) & 3.5K(S) @ TC TRANSFER THRU WELD PLATE
47	CASE1: JOIST DESIGNATION = 218/130 PLF, ADD'L 183 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
48	CASE2: JOIST DESIGNATION = 146/58 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 174 PLF @ 0' TO 5'-8" FTE.
49	ADD'L NU = 6.1 PSF TE TO 12'-0" @ TC
50	ADD'L NU = 6.1 PSF TE TO 12'-0" & 8.5 PSF FROM 24' TO REST @ TC
51	CASE1: JOIST DESIGNATION = 203/121 PLF, ADD'L 172 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
52	CASE2: JOIST DESIGNATION = 136/54 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 164 PLF @ 0' TO 5'-8" FTE.
53	AXIAL LOAD 12K(W) & 3.5K(S) @ TC TRANSFER THRU WELD PLATE
54	CASE1: JOIST DESIGNATION = 107/64 PLF, ADD'L 89 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
55	CASE2: JOIST DESIGNATION = 71/28 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 76 PLF THROUGH OUT THE TC, DRIFT LOAD 10 PLF @ 0' TO 1' FTE.

56	CASE1: JOIST DESIGNATION = 159/95 PLF, ADD'L 133 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
57	CASE2: JOIST DESIGNATION = 106/42 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 70 PLF THROUGH OUT THE TC, DRIFT LOAD 58 PLF @ 0' TO 2.57' FTE.
58	CASE2: JOIST DESIGNATION = 145/58 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 169 PLF @ 0' TO 5'-8" FTE. 81 PLF THRU OUT TC
59	CASE1: JOIST DESIGNATION = 112/67 PLF, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
60	CASE2: JOIST DESIGNATION = 75/30 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 78 PLF THROUGH OUT THE TC, DRIFT LOAD 23 PLF @ 0' TO 1.2' FTE.
61	CASE1: JOIST DESIGNATION = 171/102 PLF, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
62	CASE2: JOIST DESIGNATION = 115/46 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 69 PLF THROUGH OUT THE TC, DRIFT LOAD 85 PLF @ 0' TO 2.77' FTE.
63	CASE1: JOIST DESIGNATION = 227/135 PLF, CASE2: JOIST DESIGNATION = 153/61 PLF, ADD'L LL = 69 PLF THROUGH OUT THE TC, DRIFT LOAD 205 PLF @ 0' TO 6'-7" FTE.
64	CASE1: JOIST DESIGNATION = 199/119 PLF, CASE2: JOIST DESIGNATION = 133/53 PLF, ADD'L LL = 69 PLF THROUGH OUT THE TC, DRIFT LOAD 179 PLF @ 0' TO 6'-7" FTE.
65	CASE1: JOIST DESIGNATION = 218/130 PLF, CASE2: JOIST DESIGNATION = 146/58 PLF, ADD'L LL = 178 PLF THROUGH OUT THE TC
66	CASE1: JOIST DESIGNATION = 218/130 PLF, CASE2: JOIST DESIGNATION = 146/58 PLF, ADD'L LL = 60 PLF THROUGH OUT THE TC, DRIFT LOAD 60 PLF @ 0' TO 4.57" FTE.
67	CASE1: JOIST DESIGNATION = 218/130 PLF, CASE2: JOIST DESIGNATION = 146/58 PLF, DRIFT LOAD 119 PLF @ 0' TO 7.41" FTE.
68	CASE1: JOIST DESIGNATION = 199/119 PLF, CASE2: JOIST DESIGNATION = 133/53 PLF, DRIFT LOAD 111 PLF @ 0' TO 7.41" FTE.
69	CASE2: JOIST DESIGNATION = 71/28 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 76 PLF THROUGH OUT THE TC
70	CASE2: JOIST DESIGNATION = 106/42 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 70 PLF THROUGH OUT THE TC, DRIFT LOAD 20 PLF @ 0' TO 1.23' FTE.

NOTES

1	CASE1: JOIST DESIGNATION = 100/60 PLF, ADD'L 83 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
2	CASE2: JOIST DESIGNATION = 67/27 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 51 PLF THROUGH OUT THE TC, DRIFT LOAD 40 PLF @ 0' TO 4' FTE.
3	ADD'L NU = 7 PSF TE TO 12'-0" @ TC
4	CASE1: JOIST DESIGNATION = 149/89 PLF, ADD'L 125 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
5	CASE2: JOIST DESIGNATION = 100/40 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 37 PLF THROUGH OUT THE TC, DRIFT LOAD 97 PLF @ 0' TO 6.67' FTE.
6	CASE1: JOIST DESIGNATION = 199/119 PLF, ADD'L 167 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
7	CASE2: JOIST DESIGNATION = 133/53 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 180 PLF @ 0' TO 9'-2" FTE.
8	ADD'L NU = 7 PSF TE TO 4'-0" @ TC
9	ADD'L NU = 6.1 PSF TE TO 12'-0" @ TC
10	AXIAL LOAD 3K(W) & 1.4K(S) @ TC TRANSFER THRU WELD PLATE
11	ADD'L NU = 6.1 PSF 0' TO 12'-0" & 8.5 PSF 24' TO REST @ TC
12	CASE1: JOIST DESIGNATION = 224/134 PLF, ADD'L 188 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
13	CASE2: JOIST DESIGNATION = 149/59 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 202 PLF @ 0' TO 9'-2" FTE.
15	CASE1: JOIST DESIGNATION = 215/128 PLF, ADD'L 188 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
16	CASE2: JOIST DESIGNATION = 145/58 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 113 PLF @ 0' TO 7'-6" FTE. 81 PLF THRU OUT TC
17	CASE1: JOIST DESIGNATION = 276/163 PLF, ADD'L 234 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
18	CASE2: JOIST DESIGNATION = 188/75 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 166 PLF @ 0' TO 6'-0" FTE, 88 PLF LL THRU OUT JOIST TC
19	CASE1: JOIST DESIGNATION = 100/60 PLF, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
20	CASE1: JOIST DESIGNATION = 233/139 PLF, ADD'L 195 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE
21	CASE2: JOIST DESIGNATION = 156/62 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 210 PLF @ 0' TO 9'-2" FTE
22	CASE2: JOIST DESIGNATION = 67/27 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 54 PLF THROUGH OUT THE TC
23	CASE1: JOIST DESIGNATION = 149/89 PLF, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
24	CASE2: JOIST DESIGNATION = 100/40 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 42 PLF THROUGH OUT THE TC
25	JOIST DESIGNATION = 199/119 PLF
26	JOIST DESIGNATION = 198/106 PLF
27	AXIAL LOAD 6K(W) & 3.5K(S) @ TC TRANSFER THRU WELD PLATE
28	JOIST DESIGNATION = 197/105 PLF
29	JOIST DESIGNATION = 224/120 PLF
30	JOIST DESIGNATION = 216/116 PLF
31	ADD'L NU = 8.5 PSF TE TO 12'-3" @ TC
32	CASE1: JOIST DESIGNATION = 276/163 PLF, CASE 2: JOIST DESIGNATION = 188/75 PLF, 40 PLF @ THRU OUT TC & 179 PLF FROM TE TO 6.55'.
33	CASE1: JOIST DESIGNATION = 233/139 PLF, CASE 2: JOIST DESIGNATION = 156/62 PLF, 20 PLF FROM TE TO 9.5'
34	CASE1: JOIST DESIGNATION = 276/163 PLF, CASE2: JOIST DESIGNATION = 188/75 PLF, 88 PLF LL THRU OUT JOIST TC
35	CASE1: JOIST DESIGNATION = 233/139 PLF, CASE2: JOIST DESIGNATION = 156/62 PLF, 20 PLF LL THRU OUT JOIST TC
36	FOR JOIST PROFILE SEE 2/S0.03, I_{MIN} = 500 IN_4
37	JOIST DESIGNATION = 221/117 PLF
38	CASE1: JOIST DESIGNATION = 112/67 PLF, ADD'L 94 PLF RAINLOAD FROM NON TE TO 24' @ TC, ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 4K/3.2K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C
39	CASE2: JOIST DESIGNATION = 75/30 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE & ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K ANYWHERE THROUGH OUT TC WITH 4'-6" O/C, ADD'L LL = 71 PLF THROUGH OUT THE TC, DRIFT LOAD 19 PLF @ 0' TO 1.2' FTE.

PROJECT 0 0

NOTES

71	CASE2: JOIST DESIGNATION = 145/58 PLF, ADD'L PL TL/LL = 7K/6.3K WITH NU = 3.6K @ 4'-0" FROM TE, DRIFT LOAD 117 PLF @ 0' TO 5'-8" FTE	94	NU: (1) 2.21K, (3) 3.28K, (1) 2.46K, (1) 1.64K FTE
		95	NU: (2) 2.2K, 1.7K FOR THE REST FTE
72	30 PLF SPRINKLER LOAD @ TC	96	NU: 1.91K FOR ALL PP
73	GIRDER SELF WEIGHT NEED TO ADDED.	97	NU: 2.26K FOR ALL PP
74	ADD'L PL NEED TO BE ADDED FROM JOIST@ GIRDER PP DUE TO SNOW DRIFT AND CFMF LOADING	98	NU: (3) 2.41K, (2) 3.56K, (1) 3.97K FTE
		99	NU: (3) 2.51K, (2) 3.38K, (1) 3.67K FTE
75	Girder designation 32G6N4.8, EQUAL SPACING, ADD'L JOIST @ 29'-2" FTE @ NTE END	100	NU: 2.27K FOR ALL PP
		101	NU: 3.11K FOR ALL PP
76	Girder designation 32G6N4.7, EQUAL SPACING, ADD'L JOIST @ 29'-2" FTE @ NTE END	102	NU: 2.89K FOR ALL PP
		103	GIRDER DEFLECTION = L/240
77	Girder designation 28G5N5.9, EQUAL SPACING		
78	Girder designation 28G5N5.8, EQUAL SPACING		
79	Girder designation 28G4N4.9, EQUAL SPACING		
80	Girder designation 28G4N5.4, EQUAL SPACING		
81	Girder designation 28G4N5.3, EQUAL SPACING		
82	Girder designation 28G4N4.9, EQUAL SPACING		
83	Girder designation 32G6N4.7, JOIST SPACING: (1) 5'-7", (5) 5'-9 3/8" FTE		
84	Girder designation 40G7N5.5, JOIST SPACING: (1) 5'-7", (5) 5'-9 3/8", (1) 7'-1" FTE		
85	Girder designation 40G7N5.4, JOIST SPACING: (1) 5'-7", (5) 5'-9 3/8", (1) 7'-1" FTE		
86	Girder designation 40G7N5, JOIST SPACING: (1) 5'-7", (5) 5'-9 3/8", (1) 7'-1" FTE		
87	Girder designation 20G3N3.8, EQUAL SPACING		
88	Girder designation 32G5N4.2, EQUAL SPACING		
89	Girder designation 36G7N4.8, EQUAL SPACING		
90	AXIAL LOAD 6K(W) & 3.5K(S) @ TC TRANSFER THRU WELD PLATE		
91	AXIAL LOAD 3K(W) & 2.1K(S) @ TC TRANSFER THRU WELD PLATE		
92	AXIAL LOAD 1.8K(W) & 1.4K(S) @ TC TRANSFER THRU WELD PLATE		
93	ADD'L 1K PL @ EACH PP @ TC		