

General Notes

1. Specifications, codes, and standards
 - a. ASCE 37-14 Design Loads on Structures during Construction
 - b. ASCE 7-16 Minimum Design Loads and Associated Criteria for Buildings and Other Structures
 - c. ANSI/AWC NDS National Design Specification for Wood Construction ASD/LRFD
 - d. Cal/OSHA - Title Regulations Sub-chapter 4, Cl. 1717
2. Reference Documents
 - a. NDS 2018
 - b. Structural Drawings (Plan Check Response 2 Drawing Set, Dated 2020-05-08)
 - c. MTC Structural Screw Design Guide (US), 2020
 - d. ASCE 37-14 Design Loads on Structures during Construction
 - e. ASCE SEI 7-16 Minimum Loads and Associated Criteria for Buildings and Other Structures
3. Design Criteria
 - a. Site Location: 1265 Borregas Ave, Sunnyvale, CA
 - b. Risk Category: II (ASCE 7-16)
4. Design Loads

Design conforms to the more stringent of ASCE 37-14 and Cal/OSHA - Title Regulations Sub-chapter 4, Cl. 1717 design loads.

a. Dead Loads
 - i. CLT wall & floor panels = 26pcf
 - ii. Glulam = 30pcf

b. Live Loads (ASCE 37-14, Table 4-4)
 - i. Very Light Duty = 20psf
 - ii. Light Duty = 25psf
 - ii. Medium Duty = 50psf

* If these loads are to be locally exceeded due to material staging or other construction sequencing requirements, shoring design is to be provided by others.

c. Wind Loads
 - i. Design as per Cal/OSHA - Title Regulations Sub-chapter 4, Cl. 1717 design loads
 - The lateral loads to be resisted at each floor in both directions were taken as the maximum of 100lb/ft of floor edge or 2% of the total dead load.
 - ii. Work from structures shall be discontinued when adverse weather such as high winds makes the work unsafe
 - iii. The temporary lateral support of the structure designed by ASPECT is governed by the stability requirements of ASCE 37-14 Cl. 4.4. The temporary lateral support of the structure is not designed to sustain wind loads when the façade is installed. Ensure the structural system is complete before installing the façade (ie. concrete diaphragms are cast and EOR confirms that façade system can be installed).

d. Seismic Loads
 - i. Not considered per Cal/OSHA - Title Regulations Sub-chapter 4, Cl. 1717 design loads

e. Horizontal Construction Loads (max. structural effects of i to iv.) (ASCE 37-14 Cl. 4.4)
 - i. For wheeled vehicles transporting materials, 20% for a single vehicle or 10% for two or more vehicles of fully loaded vehicle weight. Said force shall be applied in any direction of possible travel, at the running surface,
 - ii. For equipment reactions as described in ASCE 37-14 Section 4.6, the calculated or rated horizontal load, whichever is greater.
 - iii. 50lb/person applied at the level of the platform in any direction
 - iv. 2% of total vertical load.

5. Materials
 - a. Glulam
 - i. Single Span = 24f-V4 DF/DF
 - ii. Multi Span = 24f-V8 DF/DF
 - iii. Compression Members – L2D DF/DF
 - b. CLT – min V2M1.1 or V2M2.1
 - c. Sawn Timber – SPF No.1/No.2
 - d. ASTM A325 Through bolts
 - e. ASTM F1554, Grade 36 Anchor Bolts
 - f. Wood Screws according to details

6. Construction Notes
 - a. All concrete substructures to have minimum F'c=3000psi prior to starting erection of wood elements
 - b. Erection details for all structural steel items are by others
 - c. All anchor bolts have been surveyed and are within acceptable tolerance
 - d. All base plates to be grouted prior to starting erection of wood elements
 - e. Plumbing bracing details by others.
 - f. All column and panel bases are to be attached and temporary braces installed prior to releasing columns and panels from crane.
7. Scope Limitation and Scope of Field Review
 - a. Specification of crane type, boom configuration, hook block and rigging, counterweights, outrigger arrangement and associated loads, bearing pads, and all aspects related to the capacity or suitability of the crane are by others
 - b. Aspect Structural Engineers provides field reviews for the structure as shown on this drawing set. These reviews are not a "continuous" review but as a general review to ascertain that the structure has been erected in substantial conformity to the erection drawings and supporting documents.
 - c. The field reviews by Aspect Structural Engineers LP is specifically for the review of the completed structure and does not imply conformance with all the regulations of Cal/OSHA. Aspect Structural Engineers LP will not be responsible for construction safety other than structural stability during erection.
 - d. Erection review by Aspect Structural Engineers LP is not carried out for the contractor's benefit, nor does it make Aspect guarantors of the contractor's work. It remains the contractor's responsibility to build the structure in conformance with the erection drawings and supporting documents.
8. Field Review Requirements
 - a. The erected timber structure must be inspected and approved in writing by a professional engineer from Aspect Structural Engineers LP prior to allowing workers access. Aspect Structural Engineers LP may choose to undertake these reviews by photo, video call, or by engagement of a local professional.
9. Site Conditions
 - a. These erection drawings have been detailed by Aspect Structural Engineers from the latest information possible. It is the responsibility of the contractor to check and verify all dimensions, elevations, etc. prior to starting construction.
 - b. Aspect Structural Engineers LP shall be immediately notified of any discrepancies or inconsistencies between these drawings and actual site conditions. The Contractor must notify Aspect Structural Engineers LP of any layout modification at least 72 hours prior to field review to allow time to revise drawings where necessary.
- | DRAWING LIST | |
|--------------|--|
| DWG SERIES | DRAWING TITLE |
| K000s | General Notes, Temporary Bracing Details, and Lifting Plans |
| K100s | Level 2 - installation |
| K200s | Level 2 - conversion to medium deck |
| K300s | Level 3 - installation |
| K400s | Level 3 - conversion to medium deck and Level 4 installation |
| K500s | Level 4 - conversion to medium deck |
| K600s | Level 5 - installation |
| K700s | Level 5 - conversion to medium deck and Roof installation |
| K800s | Level 2 - concrete pour and temporary brace removal |
| K900s | Level 3 & 4 - concrete pour and temporary brace removal |
| K1000s | Level 5 & roof - concrete pour and temporary brace removal |
| K1100s | Glulam Beam Camber Approach |
- Erection Sequence
- | Erection Step | Reference Drawing | Procedure |
|---------------|-------------------|---|
| E1 | K100 series | E1.1: Place anchors/embeds in slab
E1.2: Install steel frame. Brace steel per installer.
E1.3: Install timber columns per sequencing drawings. Brace columns per 15' timber brace detail.
E1.4: Block out gap between glulam columns & steel brace frame columns. Wrap truck straps around columns per drawings.
E1.5: Install level 2 deck. Install all splines and CLT deck connections per structural drawings and temporary strapping plan on level 2.
<i>* Note: Level 2 is now considered a "Very Light Duty" deck. No scissor lifts or material staging are permitted on this deck.</i> |
| E2 | K200 series | E2.1: Replace level 1 timber temporary bracing with cable bracing per typical detail.
<i>* Note: Level 2 deck can now be classified as "Medium Duty". Therefore, scissor lifts can now be driven on this deck and material can be staged.</i> |
| E3 | K300 series | E3.1: Install 15', 30', and 60' Glulam columns on level 2 per sequencing drawings. Brace columns per 15' Timber bracing & 30' cable bracing typical details. Brace 60' column per 30' cable brace detail.
E3.2: Block out gap between glulam columns & steel brace frame columns. Wrap truck straps around columns per drawings.
E3.2: Install level 3 deck along with all required strapping per structural drawings.
<i>* Note: Level 3 is now considered a "Very Light Duty" deck. No scissor lifts or material staging are permitted on this deck.</i> |
| E4 | K400 series | E4.1: Replace level 2 timber temporary bracing with cable bracing per typical detail.
<i>* Note: Level 2 permanent steel braces are now fully engaged and Level 3 deck can now be classified as "Medium Duty", therefore, scissor lifts can be driven on this deck and material can be staged.</i>
E4.2: Install 15' columns on level 3 per sequencing drawings. Brace columns per 15' timber bracing typical detail.
E4.3: Install Level 4 deck along with all required strapping per structural drawings and temporary strapping plan.
<i>* Note: Level 4 is now a "Very Light Duty" deck, therefore no scissor lifts or material staging are permitted on this deck.</i>
E4.4: Once Level 4 deck installed, replace 30' column cable bracing with cable cross bracing per typical detail. Ensure all reinforcing screws in column to column connection, per structural drawing S401, installed prior to installation of temporary cable cross bracing. |
| E5 | K500 series | E5.1: Block out gap between glulam columns & steel brace frame columns on level 3. Wrap truck straps around columns per drawings.
E5.2: Remove timber bracing on level 3.
<i>* Note: Level 3 permanent steel braces are now fully engaged and Level 4 deck can now be classified as "Medium Duty", therefore, scissor lifts can now be driven on this deck and material can be staged.</i> |
| E6 | K600 series | E6.1: Install 15' and 30' Glulam columns on level 4 per sequencing drawings. Brace columns per 15' timber bracing & 30' cable bracing details, respectively. Ensure all reinforcing screws in column to column connection, per structural drawing S401 installed prior to installation of 30' temporary cable cross bracing.
E6.2: Install Level 5 deck along with all required strapping per structural drawings.
<i>* Note: Level 5 is now considered a "Very Light Duty" deck. No scissor lifts or material staging are permitted on this deck.</i> |
| E7 | K700 series | E7.1: Block out gap between glulam columns & steel brace frame columns on level 4. Wrap truck straps around columns. Remove timber bracing on level 4.
<i>* Note: Level 4 permanent steel braces are now fully engaged and level 5 deck can now be classified as "Medium Duty", therefore, scissor lifts can now be driven on deck and material can be staged.</i>
E7.2: Install 15' columns on level 5 per sequencing drawings. Brace columns per 15' timber bracing typical detail.
E7.3: Install roof deck along with all required strapping per structural drawings.
<i>* Note: The roof is now a "Light Duty" deck, therefore no scissor lifts or material staging are permitted on this deck.</i>
E7.4: Once roof deck installed, replace 30' column cable bracing with cable cross bracing per typical detail. Ensure all reinforcing screws in column to deck connection, per structural drawing S401, installed prior to installation of temporary cable cross bracing. |
| E8 | K800 series | E8.1: Block out gap between glulam columns & steel brace frame columns on level 5. Wrap truck straps around columns.
E8.2: Replace level 5 timber temporary bracing with cable bracing per typical detail.
<i>* Note: Scissor lifts or material staging are not permitted on the roof deck at any time.</i>
E8.3: Pour concrete topping on level 2 per structural drawings prior to removing temporary cable cross bracing on level 1. |
| E9 | K900 series | E9.1: Pour concrete topping on level 3 and 4 per structural drawings prior to removing temporary bracing on level 2. |
| E10 | K1000 series | E10.1: Pour concrete topping on level 5 and roof per structural drawings prior to removing temporary bracing on level 4. |
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- This drawing is not to be used for construction purposes until noted and dated "Issued for Construction". All measurements must be checked on site and be verified by the Contractor. Do not scale off hard copy drawings or any electronic/computer files. Written dimensions always have precedent. Hard copy drawings are the official documents for the project and always take precedent over all electronic/computer files.
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- | Date: | Revision / Issue: | No.: |
|------------|-------------------------|------|
| 2020-09-22 | Issued for Coordination | - |
| 2020-09-29 | Issued for Coordination | - |
| 2020-10-06 | Issued for Coordination | - |
| 2020-10-19 | Issued for Construction | - |
| 2020-12-18 | Issued for Construction | 1 |
| 2021-02-09 | Issued for Construction | 2 |
- Plot Date:
- 2020-10-16
- Drawing Title:
- General Notes and
Erection Sequence
- | | | |
|--------|-----------|------|
| Scale: | Drawn: | ME |
| NTS | Designed: | ME |
| | Checked: | AGTD |
- Drawing No.: Revision No.: -
- K001

CLT LIFT GENERAL NOTES

- 1.0 CENTRE OF GRAVITY**
- 1.1 C.O.G MAY VARY FROM PANEL TO PANEL AND SHALL BE CONFIRMED BY THE CONTRACTOR.
- 2.0 FASTENER LOADING:**
- 2.1 FASTENER DESIGN IS IN ACCORDANCE WITH NDS 2018
- 2.2 PANEL WEIGHTS ARE BASED ON SHOP DRAWINGS AND ARE TO BE CONFIRMED BY CONTRACTOR
- 2.3 MAXIMUM WEIGHT OF PANEL ASSUMED TO BE PER PANEL LIFT SCHEDULE. CONTRACTOR TO NOTIFY ASPECT STRUCTURAL ENGINEERS IMMEDIATELY IF PANEL WEIGHT IS TO BE EXCEEDED.
- 2.4 TOTAL FACTORED LOAD [W] FOR LIFTING HAS BEEN DETERMINED AS FOLLOWS (PER MTC RIGGING DESIGN GUIDE, PUBLISHED IN 2020):
- $$P = p \times K_{OS} \times K_v$$
- p = UNFACTORED WEIGHT OF PANEL = PER PANEL LIFT SCHEDULE
K_{OS} = OPTIONAL SAFETY FACTOR TO ACCOUNT FOR SITE BASED LIFTING HAZARDS = 1.2
K_v = DYNAMIC ACCELERATION FACTOR = 1.4 [BASED ON STATIONARY MOBILE CRANE]

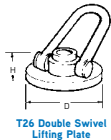
- 3.0 FASTENERS**
- 3.1 ALL FASTENERS SHALL BE ASSY KOMBI SCREWS PER PANEL LIFT SCHEDULE
- 3.2 FASTENER CAPACITIES HAVE BEEN DETERMINED FOR USE IN SPF CLT PANELS AS PER EQUILIBRIUM CONSULTING INC STRUCTURAL ENGINEERS "PLAN CHECK RESPONSE 2" DRAWING SET, DATED AUGUST 5, 2020
- 3.3 ASSY KOMBI FASTENER CAPACITY BASED ON ALLOWABLE STRESS DESIGN PRINCIPALS BASED IN ACCORDANCE WITH NDS 2018
- 3.4 **TO ENSURE SAFEY AND PROPER CAPACITY FASTENERS SHALL ONLY BE USED ONCE, AND DISPOSED OF AFTER EACH PANEL LIFT.** THIS SHALL BE CARRIED OUT IN CONJUNCTION WITH REGULAR INSPECTIONS OF RIGGING AND ANCHORING DEVICES TO ENSURE STRUCTURAL INTEGRITY OF ALL LIFTING COMPONENTS
- 4.0 LIFTING DEVICES**
- 4.1 THE FOLLOWING LIFTING DEVICES ARE PERMITTED, THE USE OF ALTERNATIVES SHALL NOT BE ACCEPTED WITHOUT THE EXPRESS WRITTEN PERMISSION OF ASPECT STRUCTURAL ENGINEERS
- 4.1.1 CROSBY HR-1000 HEAVY LIFT SWIVEL HOIST RINGS (WLL = 15000lbf)
- 4.1.2 DAYTON SUPERIOR T-26 (WLL = 13500lbf)
- 4.1.3 1 1/4" EYEBOLT (WLL = 15000lbf)
- 5.0 RIGGING DETAILS**
- 5.1 RIGGING DESIGN REMAINS THE RESPONSIBILITY OF RIGGING ENGINEER - ANY RIGGING INFORMATION SHOWN ON THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY
- 5.2 THE RIGGING ARRANGEMENT SHALL BE PROVIDED TO ENSURE AN EVEN LOAD DISTRIBUTION ACROSS ALL LIFTING POINTS.
- 5.3 SLINGS AND ASSOCIATED RIGGING SHALL BE POSITIONED TO PRODUCE AN ANGLE NO LESS THAN 65 DEGREES FROM THE HORIZONTAL AT ALL LIFTING POINTS.

15ft & 30ft GLULAM COLUMN LIFT GENERAL NOTES

- 1.0 FASTENER LOADING:**
- 1.1 FASTENER DESIGN IS IN ACCORDANCE WITH NDS 2018
- 1.2 COLUMN WEIGHTS ARE BASED ON SHOP DRAWINGS AND ARE TO BE CONFIRMED BY CONTRACTOR
- 1.3 MAXIMUM WEIGHT OF COLUMN ASSUMED TO BE 3,600 LBS. CONTRACTOR TO NOTIFY ASPECT STRUCTURAL ENGINEERS IMMEDIATELY IF COLUMN WEIGHT IS TO BE EXCEEDED.
- 1.4 TOTAL FACTORED LOAD [W] FOR LIFTING HAS BEEN DETERMINED AS FOLLOWS (PER MTC RIGGING DESIGN GUIDE, PUBLISHED IN 2020):
- $$P = p \times K_{OS} \times K_v$$
- p = UNFACTORED WEIGHT OF BEAM = 3,600lbf
K_{OS} = OPTIONAL SAFETY FACTOR TO ACCOUNT FOR SITE BASED LIFTING HAZARDS = 1.2
K_v = DYNAMIC ACCELERATION FACTOR = 1.4 [BASED ON STATIONARY MOBILE CRANE]
- 2.0 FASTENERS**
- 2.1 ALL FASTENERS SHALL BE ASSY KOMBI SCREWS PER GLULAM COLUMN LIFTING PLATE DETAIL.
- 2.2 FASTENER CAPACITIES HAVE BEEN DETERMINED FOR USE IN D.FIR GLULAM AS PER EQUILIBRIUM CONSULTING INC STRUCTURAL ENGINEERS BP DRAWING SET, DATED FEBRUARY 26, 2020
- 2.3 ASSY KOMBI FASTENER CAPACITY BASED ON ALLOWABLE STRESS DESIGN PRINCIPALS BASED IN ACCORDANCE WITH NDS 2018
- 2.4 **TO ENSURE SAFEY AND PROPER CAPACITY FASTENERS SHALL ONLY BE USED ONCE, AND DISPOSED OF AFTER EACH COLUMN LIFT.** THIS SHALL BE CARRIED OUT IN CONJUNCTION WITH REGULAR INSPECTIONS OF RIGGING AND ANCHORING DEVICES TO ENSURE STRUCTURAL INTEGRITY OF ALL LIFTING COMPONENTS
- 3.0 LIFTING DEVICES**
- 3.1 THE FOLLOWING LIFTING DEVICES ARE PERMITTED. THE USE OF ALTERNATIVES SHALL NOT BE ACCEPTED WITHOUT THE EXPRESS WRITTEN PERMISSION OF ASPECT STRUCTURAL ENGINEERS
- 3.1.1 CROSBY HR-1000 HEAVY LIFT SWIVEL HOIST RINGS (WLL = 15000lbf)
- 3.1.2 DAYTON SUPERIOR T-26 (WLL = 13500lbf)
- 3.1.3 1 1/4" EYEBOLT (WLL = 15000lbf)
- 4.0 RIGGING DETAILS**
- 4.1 RIGGING DESIGN REMAINS THE RESPONSIBILITY OF RIGGING ENGINEER - ANY RIGGING INFORMATION SHOWN ON THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY
- 4.2 THE RIGGING ARRANGEMENT SHALL BE PROVIDED TO ENSURE AN EVEN LOAD DISTRIBUTION ACROSS ALL LIFTING POINTS.

T26 Double Swivel Lifting Plate

- Designed for use with 1", 1-1/4" and 1-1/2" diameter coil bolts.
- Rotates 360° in horizontal plane and 180° in vertical plane.
- Round bearing plate provides maximum safety when used with any coil bolt lifting system.
- Heavy forged ball is made of high-strength material.
- Double swivel action allows ball to rotate in direction of applied load.
- Safe Working Load is 9,000lbs. for 1" diameter.
- Safe Working Load is 13,500 lbs. for 1-1/4" and 1-1/2" diameter.



Type	Bolt Diameter	H	D	Safe Working Load
T26	1"	2-11/16"	5"	9000
T26	1-1/4"	2-3/4"	7"	13500
T26	1-1/2"	2-3/4"	7"	13500

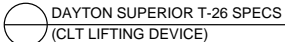
Safe Working Load provides a factor of safety of approximately 5 to 1.

To Order:

Specify: (1) quantity, (2) name, (3) bolt diameter.

Example:

10, T26 Double Swivel Lifting Plate, 1-1/4" bolt diameter.



60ft GLULAM COLUMN LIFT GENERAL NOTES

- 1.0 CENTRE OF GRAVITY**
- 1.1 C.O.G MAY VARY FROM BEAM TO BEAM AND SHALL BE CONFIRMED BY THE CONTRACTOR.
- 2.0 FASTENER LOADING:**
- 2.1 FASTENER DESIGN IS IN ACCORDANCE WITH NDS 2018
- 2.2 COLUMN WEIGHTS ARE BASED ON SHOP DRAWINGS AND ARE TO BE CONFIRMED BY CONTRACTOR
- 2.3 MAXIMUM WEIGHT OF COLUMN ASSUMED TO BE 5,800LBS. CONTRACTOR TO NOTIFY ASPECT STRUCTURAL ENGINEERS IMMEDIATELY IF BEAM WEIGHT IS TO BE EXCEEDED.
- 2.4 TOTAL FACTORED LOAD [W] FOR LIFTING HAS BEEN DETERMINED AS FOLLOWS (PER MTC RIGGING DESIGN GUIDE, PUBLISHED IN 2020):
- $$P = p \times K_{OS} \times K_v$$
- p = UNFACTORED WEIGHT OF BEAM = 5,800lbf
K_{OS} = OPTIONAL SAFETY FACTOR TO ACCOUNT FOR SITE BASED LIFTING HAZARDS = 1.2
K_v = DYNAMIC ACCELERATION FACTOR = 1.4 [BASED ON STATIONARY MOBILE CRANE]

- 3.0 RIGGING DETAILS**
- 3.1 RIGGING DESIGN REMAINS THE RESPONSIBILITY OF RIGGING ENGINEER - ANY RIGGING INFORMATION SHOWN ON THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY
- 3.2 THE RIGGING ARRANGEMENT SHALL BE PROVIDED TO ENSURE AN EVEN LOAD DISTRIBUTION ACROSS ALL LIFTING POINTS.
- 3.3 SLINGS AND ASSOCIATED RIGGING SHALL BE POSITIONED TO PRODUCE AN ANGLE NO LESS THAN 60 DEGREES FROM THE HORIZONTAL AT ALL LIFTING POINTS.

GLULAM BEAM LIFT GENERAL NOTES

- 1.0 CENTRE OF GRAVITY**
- 1.1 C.O.G MAY VARY FROM BEAM TO BEAM AND SHALL BE CONFIRMED BY THE CONTRACTOR.
- 2.0 FASTENER LOADING:**
- 2.1 FASTENER DESIGN IS IN ACCORDANCE WITH NDS 2018
- 2.2 BEAM WEIGHTS ARE BASED ON SHOP DRAWINGS AND ARE TO BE CONFIRMED BY CONTRACTOR
- 2.3 MAXIMUM WEIGHT OF BEAM ASSUMED TO BE 7,000 LBS. CONTRACTOR TO NOTIFY ASPECT STRUCTURAL ENGINEERS IMMEDIATELY IF BEAM WEIGHT IS TO BE EXCEEDED.
- 2.4 TOTAL FACTORED LOAD [W] FOR LIFTING HAS BEEN DETERMINED AS FOLLOWS (PER MTC RIGGING DESIGN GUIDE, PUBLISHED IN 2020):
- $$P = p \times K_{OS} \times K_v$$
- p = UNFACTORED WEIGHT OF BEAM = 7,000lbf
K_{OS} = OPTIONAL SAFETY FACTOR TO ACCOUNT FOR SITE BASED LIFTING HAZARDS = 1.2
K_v = DYNAMIC ACCELERATION FACTOR = 1.4 [BASED ON STATIONARY MOBILE CRANE]
- 3.0 RIGGING DETAILS**
- 3.1 RIGGING DESIGN REMAINS THE RESPONSIBILITY OF RIGGING ENGINEER - ANY RIGGING INFORMATION SHOWN ON THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY
- 3.2 THE RIGGING ARRANGEMENT SHALL BE PROVIDED TO ENSURE AN EVEN LOAD DISTRIBUTION ACROSS ALL LIFTING POINTS.
- 3.3 SLINGS AND ASSOCIATED RIGGING SHALL BE POSITIONED TO PRODUCE AN ANGLE NO LESS THAN 60 DEGREES FROM THE HORIZONTAL AT ALL LIFTING POINTS.

Heavy Lift Swivel Hoist Rings



HR-1000

- Forged ball provides the following:
 - Easily readable "Raised Lettering" showing the name Crosby or "OG" and PIC Code for material traceability.
 - Greater durability providing the increased "Toughness" desired in potentially abusive field conditions
 - Larger opening than standard Hoist Ring ball.
- Top washer is color coded for easy identification (Red for UNC threads and Silver for Metric threads)
- The Working Load Limit and Recommended Torque value are permanently stamped into each washer.
- Individuality Proof Tested to 2-1/2 times Working Load Limit.
- Available in both UNC Thread and Metric Thread style.
- BOLT SIZE IDENTIFICATION:** The size of the bolt will be stated as in the drawing below. Illustration shows meaning of each dimension given.
- NOTE:** For Special Applications, see page 457.
- Frame 2 and larger are RFID EQUIPPED.



HR-1000 UNC Threads

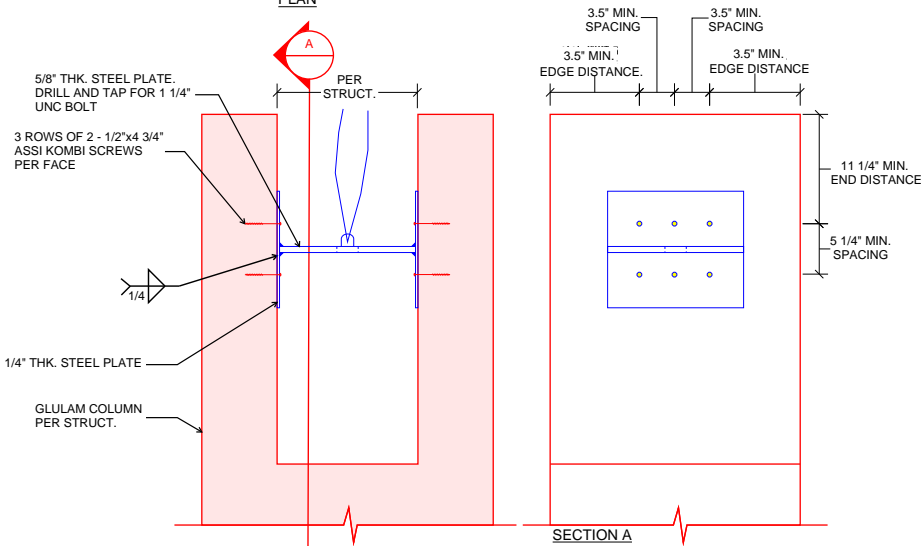
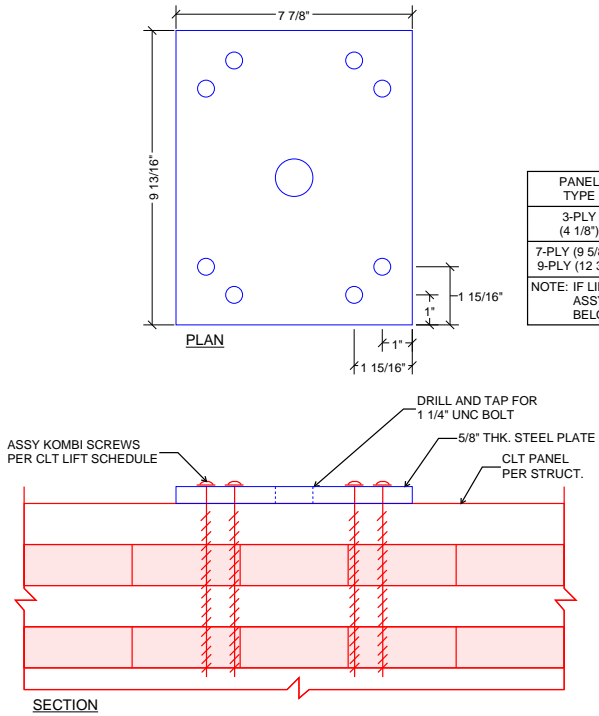
Frame Size No.	HR-1000 Stock No.	Working Load Limit (lb)*	Torque in (ft+lb)	Bolt Size	Dimensions (in)								Weight Each (lb)
					Eff. Thread Projection Length B	C	D	Radius E	F	G	H		
1	1068002	800	7	5/16 - 18 x 1.50	52	3.69	.87	.62	.44	2.27	1.38	.60	
1	1068006	1000	12	3/8 - 16 x 1.50	52	3.69	.87	.62	.44	2.27	1.38	.60	
2	1068010	2500	28	1/2 - 13 x 2.25	69	6.26	1.96	1.25	.75	4.20	2.50	3.05	
2	1068014	2500	28	1/2 - 13 x 2.75	119	6.26	1.96	1.25	.75	4.20	2.50	3.07	
2	1068018	4000	60	5/8 - 11 x 2.25	69	6.26	1.96	1.25	.75	4.20	2.50	3.11	
2	1068022	4000	60	5/8 - 11 x 3.00	144	6.26	1.96	1.25	.75	4.20	2.50	3.18	
2	1068026	5000	100	3/4 - 10 x 2.50	94	6.26	1.96	1.25	.75	4.20	2.50	3.24	
2	1068030	5000	100	3/4 - 10 x 3.00	144	6.26	1.96	1.25	.75	4.20	2.50	3.30	
3	1068034	7000**	100	3/4 - 10 x 3.00	85	8.66	2.96	1.63	1.00	6.24	3.25	10.09	
3	1068038	7000**	100	3/4 - 10 x 3.50	135	8.66	2.96	1.63	1.00	6.24	3.25	10.21	
3	1068042	8000	160	7/8 - 9 x 3.00	85	8.66	2.96	1.63	1.00	6.24	3.25	10.21	
3	1068046	8000	160	7/8 - 9 x 3.50	135	8.66	2.96	1.63	1.00	6.24	3.25	10.40	
3	1068050	10000	230	1 - 8 x 3.50	135	8.66	2.96	1.63	1.00	6.24	3.25	10.50	
3	1068054	10000	230	1 - 8 x 4.50	236	8.66	2.96	1.63	1.00	6.24	3.25	10.72	
4	1068058	15000	470	1-1/4 - 7 x 5.00	209	11.21	3.71	2.00	1.25	7.82	4.00	21.90	
4	1068062	24000	800	1-1/2 - 8 x 5.50	259	11.21	3.71	2.00	1.44	7.82	4.00	23.00	

HR-1000M Metric Threads

Frame Size No.	HR-1000M Stock No.	Working Load Limit (kg)*	Torque in (Nm)	Bolt Size	Dimensions (mm)								Weight Each (kg)
					Eff. Thread Projection Length B	C	D	Radius E	F	G	H		
1	1068307	400	500	M8 x 1.25 x 40	15.2	93.7	24.6	15.7	11.2	57.7	35.1	3	
1	1068316	450	550	M10 x 1.50 x 40	15.2	93.7	24.6	15.7	11.2	57.7	35.1	3	
2	1068325	1050	1300	M12 x 1.75 x 55	15.5	162	49.8	31.8	19.1	107	63.5	1.5	
2	1068334	1900	2400	M16 x 2.00 x 65	25.5	162	49.8	31.8	19.1	107	63.5	1.5	
2	1068343	2150	2700	M20 x 2.50 x 70	30.5	162	49.8	31.8	19.1	107	63.5	1.6	
3	1068352	3600	3750	M20 x 2.50 x 80	25.4	220	75.2	41.4	25.4	159	82.6	4.8	
3	1068361	4200	3250	M24 x 3.00 x 90	35.4	220	75.2	41.4	25.4	159	82.6	4.8	
4	1068370	7000**	8750	M30 x 3.50 x 140	66.2	285	94.2	50.8	31.8	199	102	9.7	
4	1068389	11000	13750	M36 x 4.00 x 130	56.2	285	94.2	50.8	31.8	199	102	10.2	

*Ultimate Load is 5 times the Working Load Limit. **Ultimate Load is 4.5 times the Working Load Limit for 1000M Hoist Rings when tested in 90 degree orientation. Individually proof loaded to 2-1/2 times the Working Load Limit based on the 4:1 design factor. 1 Long Bolts are designed to be used with soft metal (i.e., aluminum) workpiece. While the long bolts may also be used with ferrous metal (i.e., steel & cast iron) workpieces, short bolts are designed for ferrous workpieces only. 2 Bolt specification is an Alloy socket head cap screw to ASTM A193 A19. 3 Bolt specification is a Grade 12.9 Alloy socket head cap screw to DIN 912. NOTE: The tightening torque values shown are based upon threads being clean, dry and free of lubrication.

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PANEL TYPE	MAX. WEIGHT	FASTENERS
3-PLY (4 1/8")	4500lbf	8 - 1/2"Øx4" ASSY PT KOMBI SCREWS
7-PLY (9 5/8") / 9-PLY (12 3/8")	12500lbf	8 - 1/2"Øx6 1/2" ASSY FT KOMBI SCREWS

NOTE: IF LIFTING BETWEEN 12500lb-15000lb, USE 8 - 1/2"Øx6 1/2" ASSY FT KOMBI SCREWS AND ENSURE STRAPS DO NOT FALL BELOW 75° WHEN LIFTING (USE SPREADER BAR IF REQUIRED)

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Seal:



Project No.: 1535

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2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:

2020-10-19

Drawing Title:

Lift Plan General Notes and Details

Scale: Drawn: ME
Designed: ME
Checked: AG/ID

Drawing No.:

Revision No.:

K002



Date:	Revision / Issue:	No.:
2020-09-22	Issued for Coordination	-
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2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
CLT Calculation Example
(In response to RFI #50
from Katerra)

Scale:	Drawn:	ME
NTS	Designed:	ME
	Checked:	AG/ID

Drawing No.: Revision No.: -

K003

SAMPLE LOAD CALCULATION FOR STAGED CONSTRUCTION OF RIB IN 7 PLY AREA:

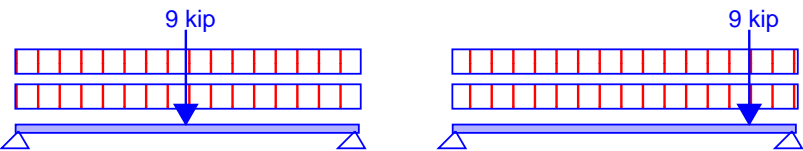
DISTRIBUTED LOADS:

DL = 28 psf (CLT) + 5 psf (RIB) = 33 psf --> **35 psf** (ASSUMED DL)
LL = 50 psf (MEDIUM DUTY)

CONCENTRATED LOADS:

DL = N/A
LL = 4500 lbf per lift x 2 = 9000 lbf for side by side lifts (worst case)

Trib = 10'
W_{DL} = 350 plf
W_{LL} = 500 plf
LL = 9 kip



$M_{f_{max}} = (W_{DL} + W_{LL}) * 30^2 / 8 + 9000 * 30 / 4 = 163 \text{ kip-ft}$
 $V_f = (W_{DL} + W_{LL}) * 30 / 2 + 9000 / 2 = 17.3 \text{ kip}$

Governing loads on ribs to LRFD during
current stage of construction

$V_{f_{max}} = (W_{DL} + W_{LL}) * 30 / 2 + 9000 = 21.8 \text{ kip}$

ASD LOAD COMBOS PER ASCE-SEI 7-16

2.3.1 Additive Combinations When using load values provided in this standard for ASD, sufficient additive load combinations shall be considered to obtain the maximum design load effects for members and systems.

The following basic combinations shall be investigated as a minimum:

$D + C_D + C_{FML} + C_{VML} + L \quad (2-8)$

$D + C_D + C_{FML} + C_{VML} + C_P + C_H + L \quad (2-9)$

$D + C_D + C_{FML} + C_{VML} + 0.6W + C_P + L \quad (2-10)$

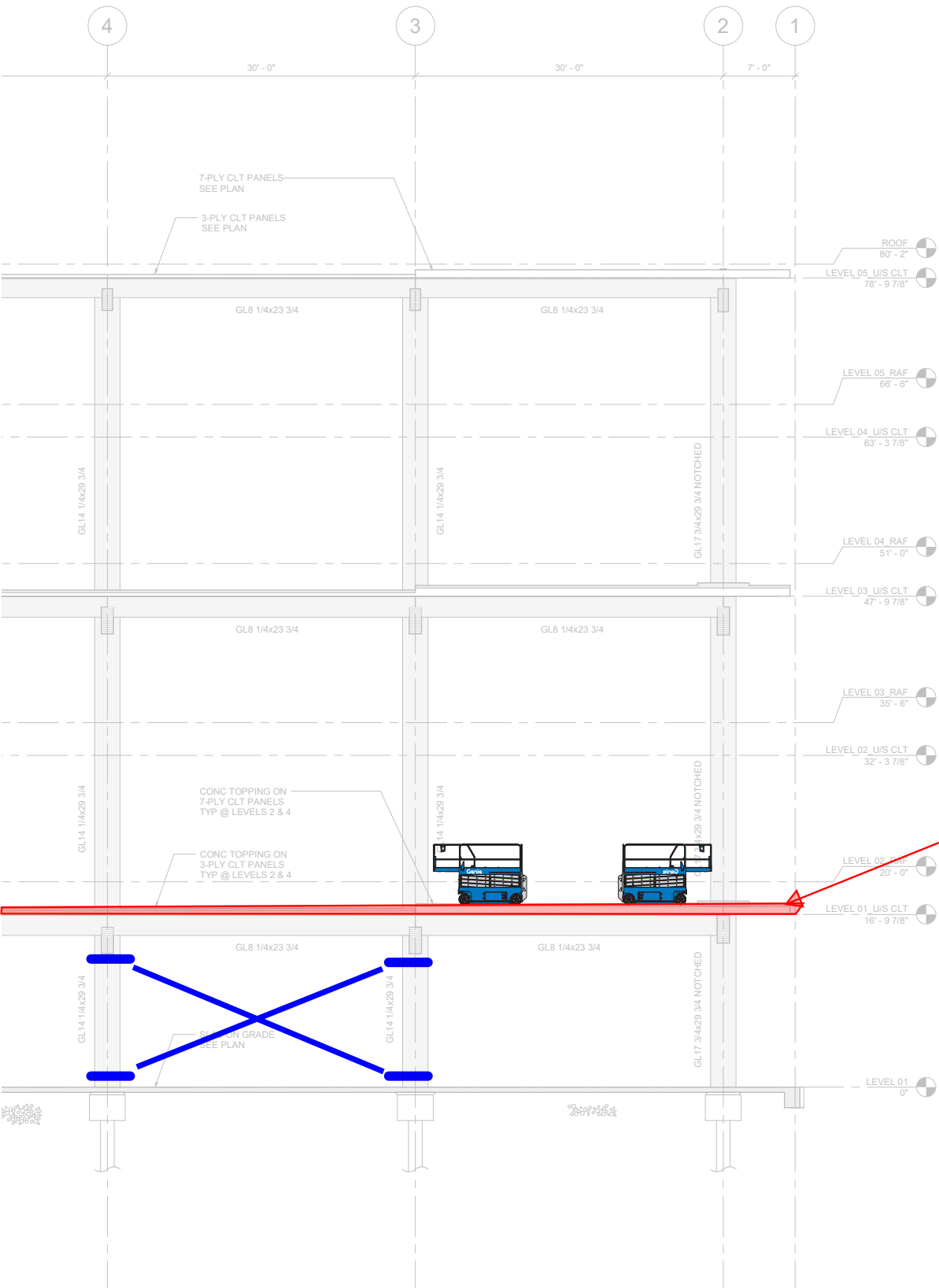
$D + C_D + C_{FML} + C_{VML} + 0.7E + C_P + L \quad (2-11)$

$0.6D + C_D + (0.6W \text{ or } 0.7E) \quad (2-12)$

this is the MD 50 psf deck load
(C_P = Personnel and Equipment
Load C_{VML} = Variable Material Load)

this is the self-weight of permanent
structure at this stage of
construction

MEDIUM DUTY WORK DECK.
DL = panel and beam SW
LL = 50psf (MEDIUM DUTY) + Scissor Lift





Self-Propelled Scissor Lifts

GS² -2032, GS-2632 & GS-3232

Specifications

Models	GS-2032		GS-2632		GS-3232	
Measurements	US	Metric	US	Metric	US	Metric
Working height maximum	26 ft	8.10 m	32 ft	9.92 m	38 ft	11.75 m
▲ Platform height maximum	20 ft	6.10 m	26 ft	7.92 m	32 ft	9.75 m
▲ Platform height stowed	3 ft 5 in	1.03 m	3 ft 10 in	1.16 m	4 ft 3 in	1.29 m
▲ Platform length outside	7 ft 5 in	2.26 m	7 ft 5 in	2.26 m	7 ft 5 in	2.26 m
extended	10 ft 5 in	3.18 m	10 ft 5 in	3.18 m	10 ft 5 in	3.18 m
Slide-out platform extension deck	3 ft	0.91 m	3 ft	0.91 m	3 ft	0.91 m
▲ Platform width - outside	2 ft 8 in	0.81 m	2 ft 8 in	0.81 m	2 ft 8 in	0.81 m
Guardrail height: fixed rails	3 ft 3 in	0.99 m	\$\$\$	\$\$\$	\$\$\$	\$\$\$
folding rails	3 ft 7 in	1.10 m	3 ft 7 in	1.10 m	3 ft 7 in	1.10 m
Toeboard height	6 in	0.15 m	6 in	0.15 m	6 in	0.15 m
▲ Height stowed						
fixed rails	6 ft 8 in	2.03 m	\$\$\$	\$\$\$	\$\$\$	\$\$\$
folding rails	7 ft	2.13 m	7 ft 5 in	2.5 m	8 ft	2.43 m
rails folded	5 ft 9 in	1.75 m	6 ft 3 in	1.91 m	6 ft 8 in	2.03 m
▲ Length - stowed	8 ft	2.44 m	8 ft	2.44 m	8 ft	2.43 m
Length - extended	10 ft 11 in	3.33 m	10 ft 11 in	3.33 m	10 ft 11 in	3.33 m
▲ Width	2 ft 8 in	0.81 m	2 ft 8 in	0.81 m	2 ft 8 in	0.81 m
▲ Wheelbase	6 ft 1 in	1.85 m	6 ft 1 in	1.85 m	6 ft 1 in	1.85 m
▲ Ground clearance - center	3.5 in	8.9 cm	3.5 in	8.9 cm	3.5 in	8.9 cm
- with pothole guards deployed	8 in	2.2 cm	0.88 in	2.2 cm	0.88 in	2.2 cm

Productivity

Maximum platform occupancy	2	2	2
Lift capacity	800 lbs 363 kg	500 lbs 227 kg	500 lbs 227 kg
Extension deck capacity	250 lbs 113 kg	250 lbs 113 kg	250 lbs 113 kg
Drive height	full height	full height	22 ft 6.71 m
Drive speed - stowed	2.2 mph 3.5 km/h	2.2 mph 3.5 km/h	2.2 mph 3.5 km/h
Drive speed - raised	0.5 mph 0.8 km/h	0.5 mph 0.8 km/h	0.5 mph 0.8 km/h
Gradeability - stowed	30%	25%	25%
Maximum outrigger leveling: front to back	\$\$\$ \$\$\$	\$\$\$ \$\$\$	3°
Maximum outrigger leveling: side to side	\$\$\$ \$\$\$	\$\$\$ \$\$\$	5°
Turning radius - inside	zero	zero	zero
Turning radius - outside	7 ft 2.13 m	7 ft 2.13 m	7 ft 2.13 m
Raise / lower speed	28 / 24 sec	28 / 24 sec	55 / 28 sec
Controls	proportional	proportional	proportional
Drive	dual front wheel	dual front wheel	dual front wheel
Multiple disc brakes	dual rear wheel	dual rear wheel	dual rear wheel
Tires - solid non-marking	15 x 5 in 38 x 13 cm	15 x 5 in 38 x 13 cm	15 x 5 in 38 x 13 cm

Power

Power source	24 V DC (four 6V 225 Ah batteries)	24 V DC (four 6V 225 Ah batteries)	24 V DC (four 6V 225 Ah batteries)
Hydraulic system capacity	4.5 gal 17 L	4.5 gal 17 L	4.5 gal 17 L

Weight³ / Floor Loading⁴

Weight - ANSI, CSA	4,435 lbs 2,012 kg	4,413 lbs 2,002 kg	5,185 lbs 2,352 kg
Tire load, maximum	1,699 lb 771 kg	1,773 lb 804 kg	1,700 lb 771 kg
Tire contact pressure	113 psi 781 kPa	118 psi 815 kPa	113 psi 781 kPa
Occupied floor pressure	223 psf 10.66 kPa	251 psf 12.01 kPa	291 psf 13.92 kPa

Standards Compliance ANSI A92.6, CSA B354.2, CE Compliance, AS 1418.10

ASSUMED SCISSOR LIFT

¹ The metric equivalent of working height adds 2 m to platform height. U.S. adds 6 ft to platform height.
² Gradeability applies to driving on slopes, see operator's manual for details regarding slope ratings.
³ Weight will vary depending on options and/or country standards.
⁴ Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.



Self-Propelled Scissor Lifts

GS² -2032, GS-2632 & GS-3232

Features

Standard Features	Options & Accessories
Measurements GS-2032 └ 26 ft (8.10 m) working height └ Up to 800 lbs (363 kg) lift capacity GS-2632 └ 32 ft (9.92 m) working height └ Up to 500 lbs (227 kg) lift capacity GS-3232 └ 38 ft (11.75 m) working height └ Up to 500 lbs (227 kg) lift capacity Productivity └ 89 x 32 in (2.26 x .81 m) steel platform └ 3 ft (.91 m) extension deck └ Fixed rail with chain entry gate (standard GS ² -2032) └ Folding rails with half-height swing gate (standard on GS ² -2632, GS ² -3232) └ Automatic leveling outriggers (GS ² -3232 only) └ Dual front wheel drive └ Universal 27A smart charger └ Rear recessed charger receptacle └ SmartLink ² - proportional lift and drive └ Platform control with battery charge indicator and diagnostic display └ On-board diagnostic system └ AC power to platform └ Lanyard attachment points └ Manual platform lowering valve └ Emergency stop at both platform and ground controls └ Rear wheel multiple disc brakes └ Front wheel hydraulic dynamic braking └ Manual hydraulic brake release └ Swing-out component trays └ Solid non-marking tires └ Pothole guards └ Tilt level sensor with audible alarm └ Dual flashing LED beacons └ Descent alarm └ Electronic horn └ Hour meter └ Motion alarm Power └ 24 V DC (four 6 V 225 Ah batteries)	Productivity Options └ Folding rails with half-height swing gate (GS ² -2032) └ Platform swing gate, half-height (GS ² -2032) └ Air line to platform └ Automotive horn* └ Biodegradable hydraulic fluid └ Platform control guard Power Options └ Power Inverter (120 V/60 Hz) └ EE rating └ AGM maintenance-free batteries └ Drive cutout while charging

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GS32 02101. Part No. 109378

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2021-02-09	Issued for Construction	2

Plot Date:

2020-10-19

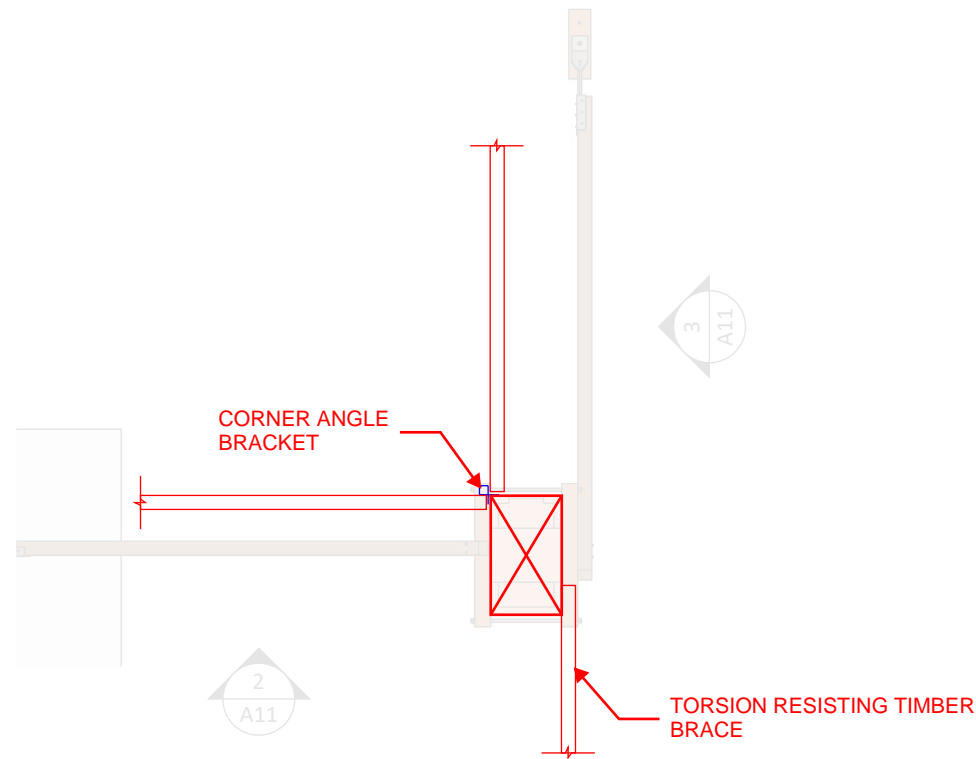
Drawing Title:

Genie Self-Propelled
Scissor Lift Assumption

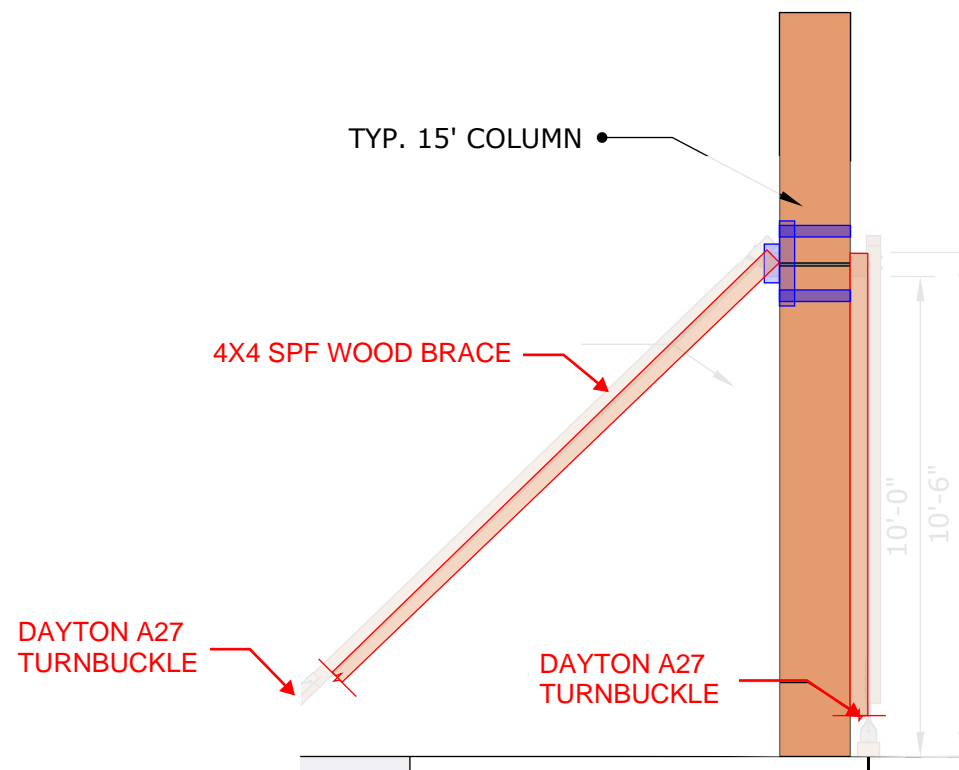
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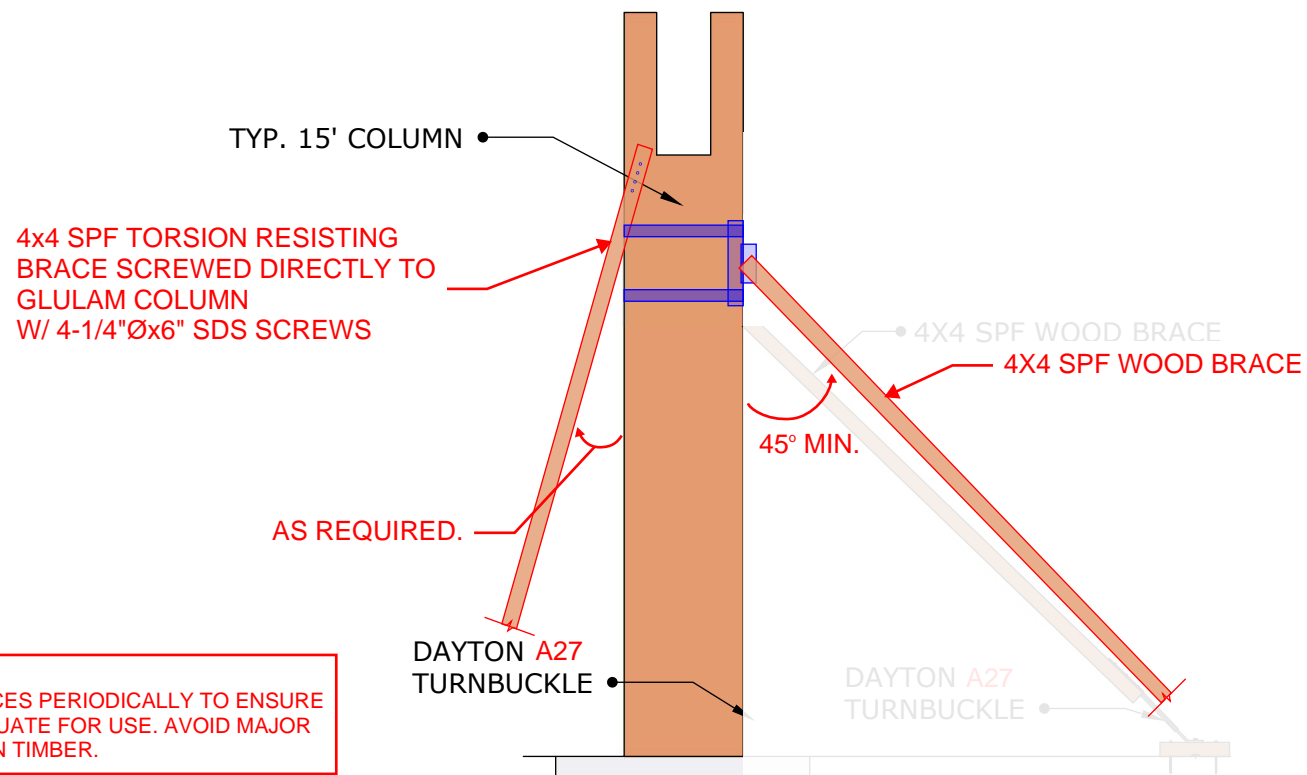
K004



1 15' COLUMN BRACE PLAN
A11 Scale: 1/4" = 1'-0"



2 15' COLUMN BRACE FRONT ELEVATION
A11 Scale: 1/4" = 1'-0"



3 15' COLUMN BRACE RIGHT ELEVATION
A11 Scale: 1/4" = 1'-0"

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File Name:
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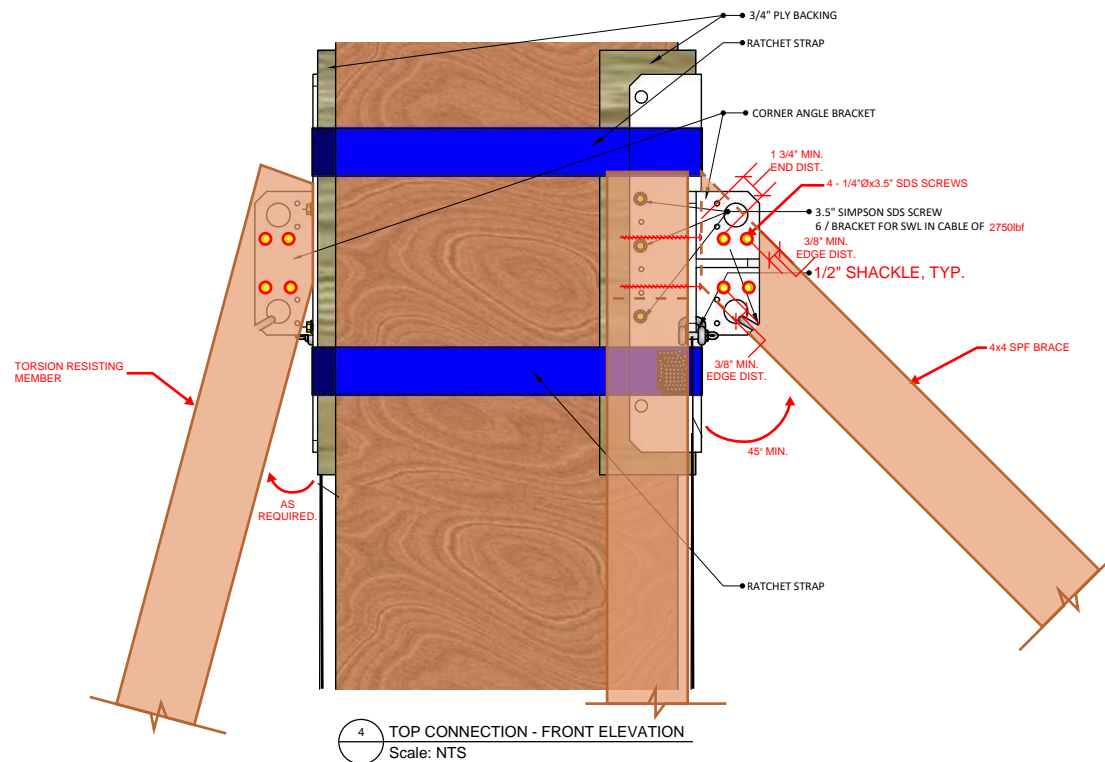
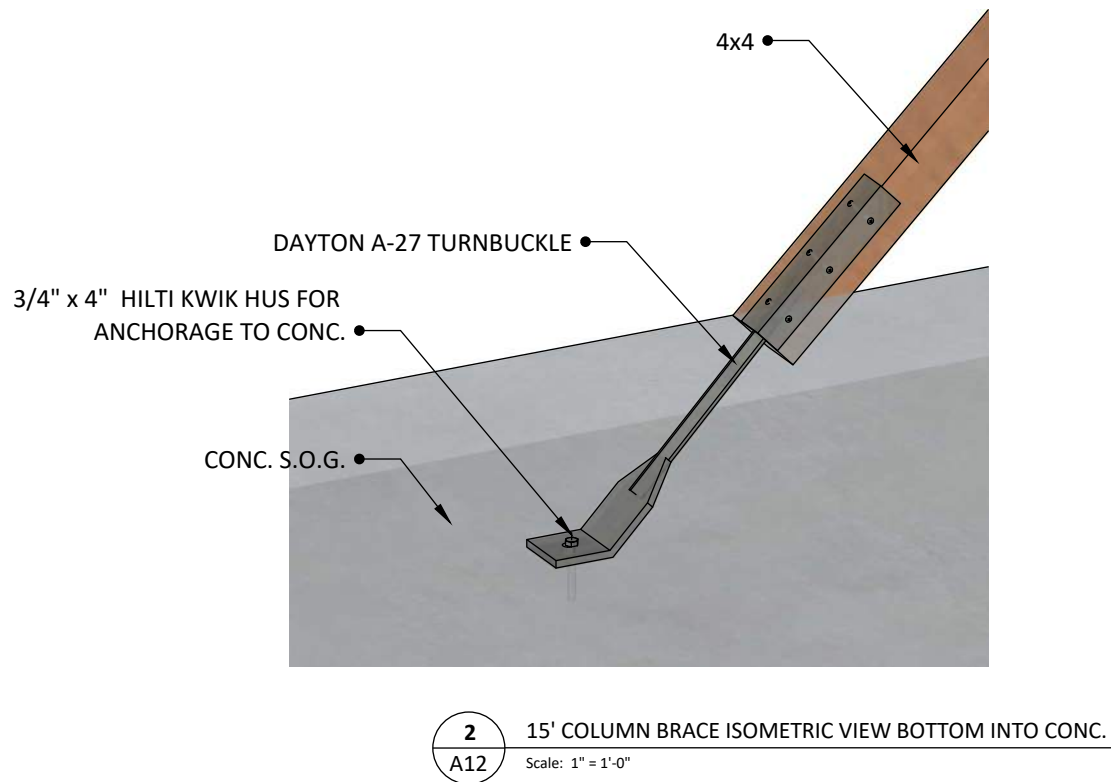
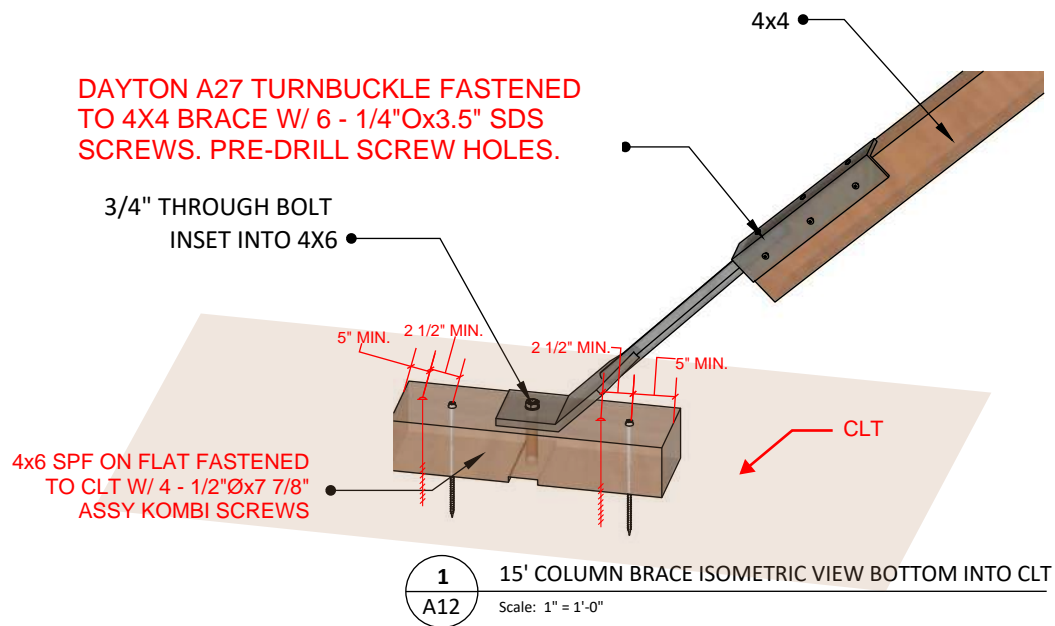
DESIGNED BY
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DESCRIPTION
15 FOOT BRACE
DETAIL 1

K005



NOTE:
1. IF MOVING BLOCK WITHOUT DAYTON TURNBUCKLE ATTACHED, ADD ADDITIONAL NUT AND WASHER TO SECURE BOLT IN PLACE.
2. DAYTON TO 4X4 SDS SCREWS MUST BE PRE DRILLED



NOTE:
NO MATERIAL STAGING OR SCISSOR LIFTS ON DECK PRIOR TO CABLE BRACING. THIS BRACING IS ONLY SUITABLE TO SUPPORT A LIGHT DUTY DECK ABOVE.

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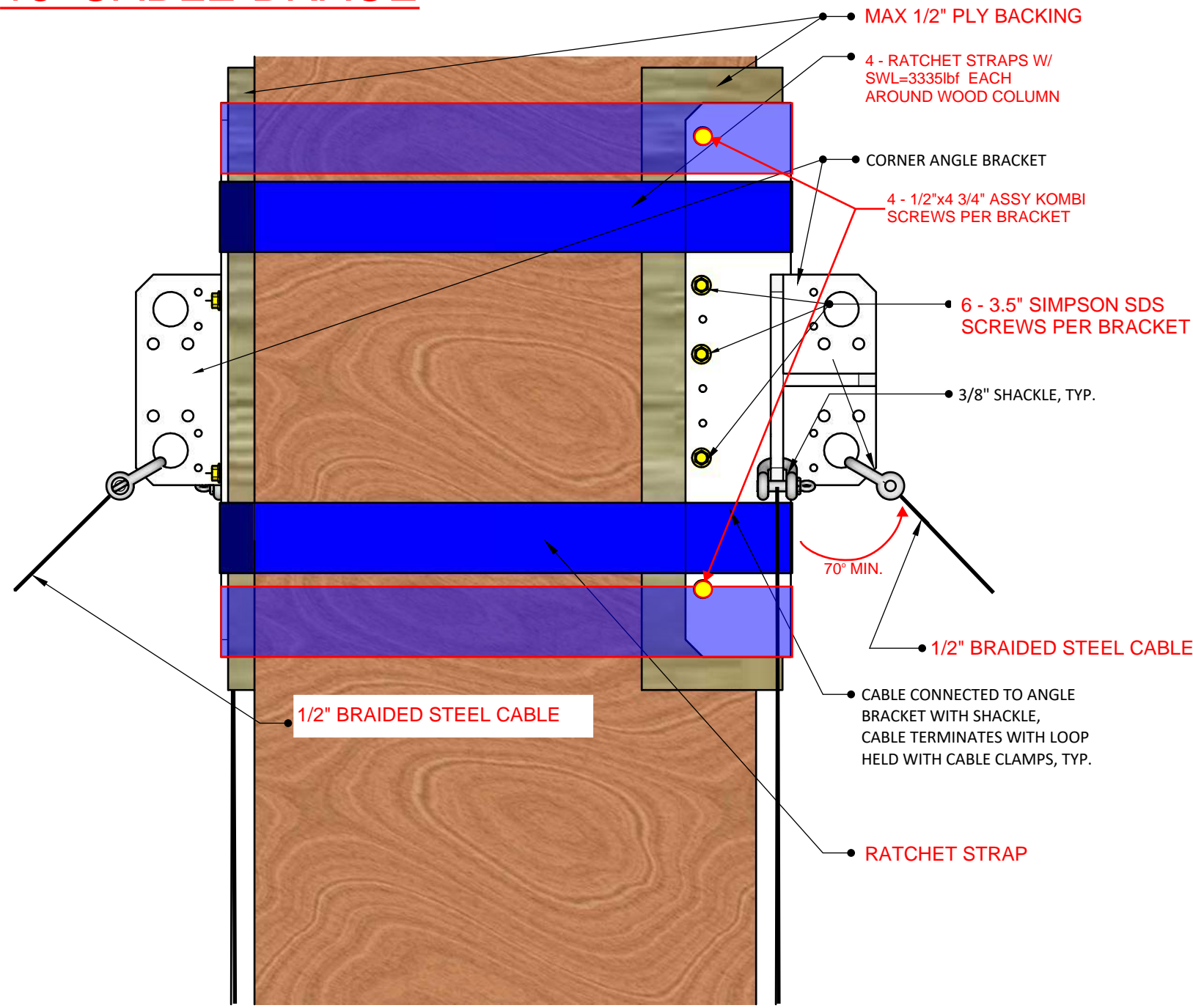
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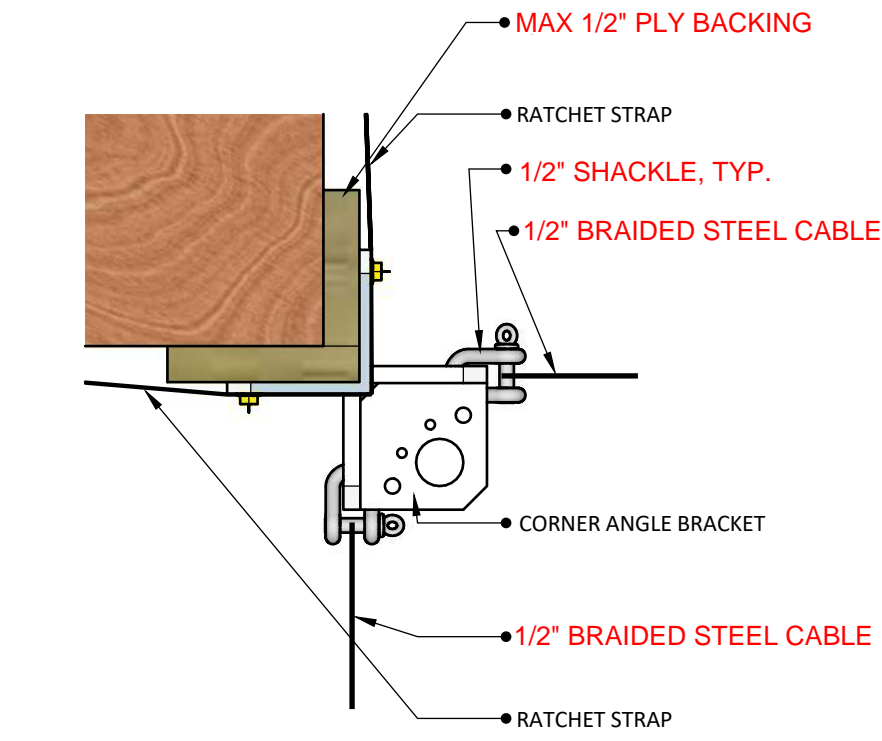
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DESCRIPTION
15 FOOT BRACE
DETAIL 2

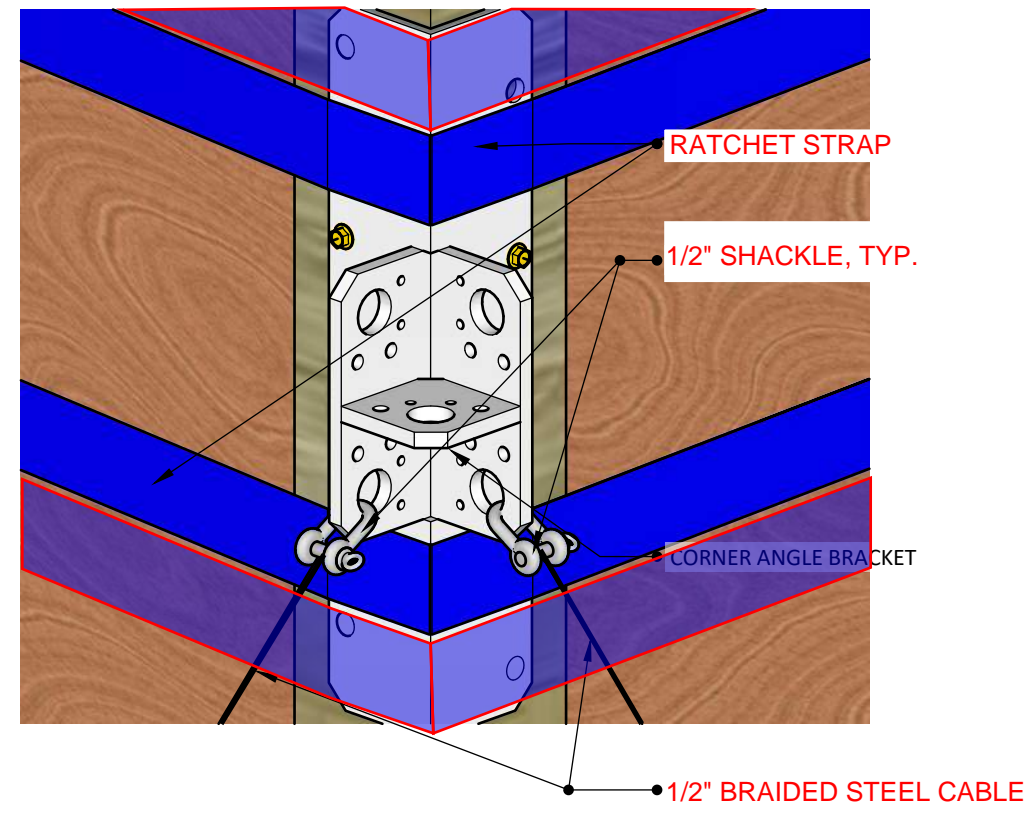
15' CABLE BRACE



1 TOP CONNECTION - PRELIMINARY - FRONT ELEVATION
A17 Scale: 3" = 1'-0"



2 TOP CONNECTION - PRELIMINARY - TOP PLAN
A17 Scale: 3" = 1'-0"



3 TOP CONNECTION - PRELIMINARY - ISO
A17 Scale: 3" = 1'-0"

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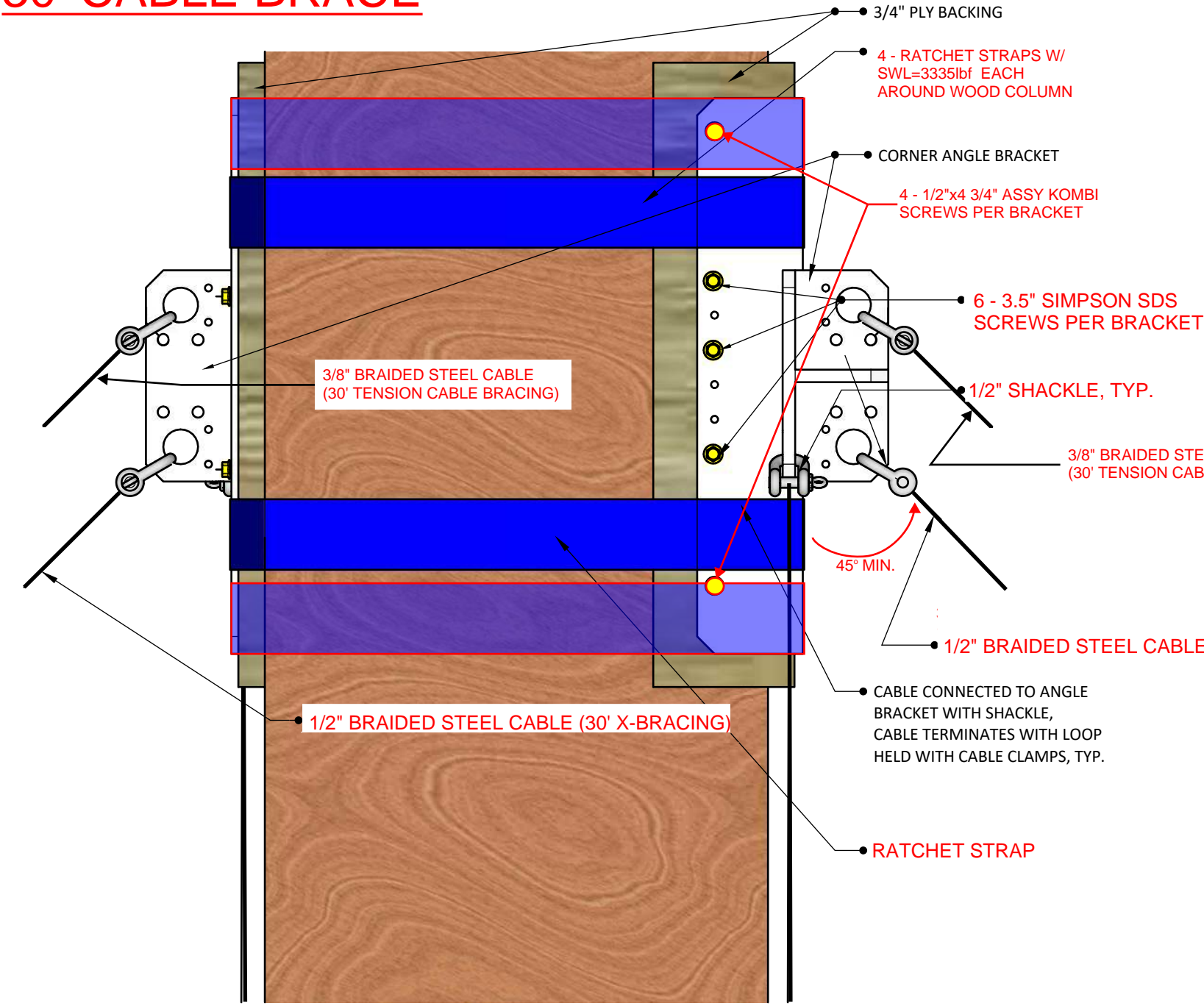
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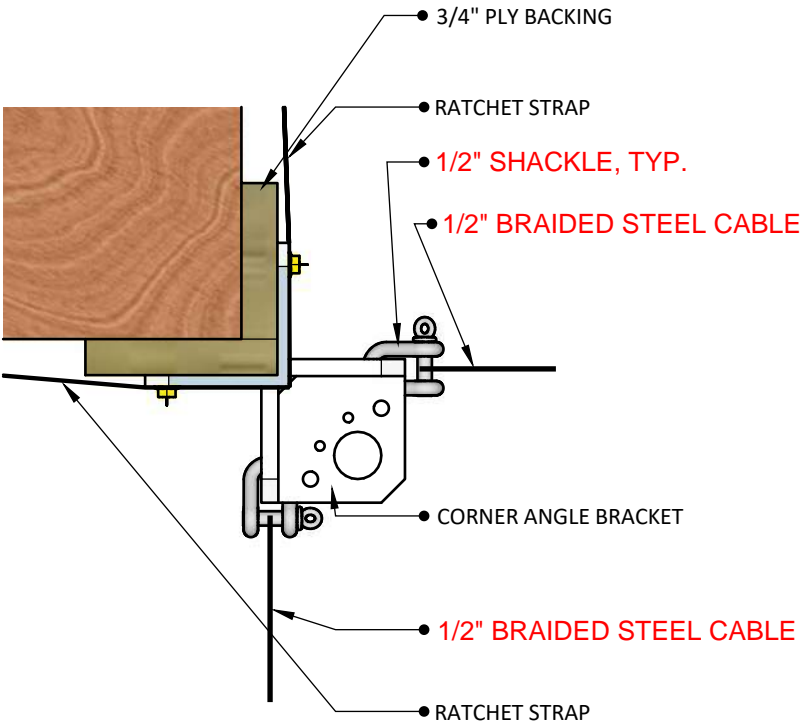
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DESCRIPTION
15' CABLE BRACE
TOP DETAIL

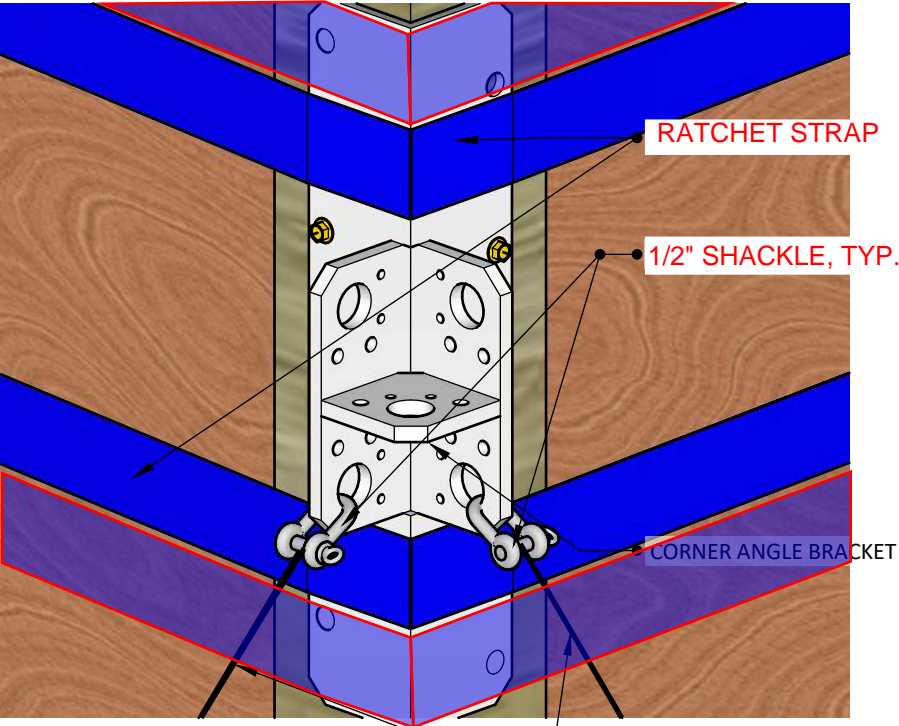
30' CABLE BRACE



1 TOP CONNECTION - PRELIMINARY - FRONT ELEVATION
A17 Scale: 3" = 1'-0"



2 TOP CONNECTION - PRELIMINARY - TOP PLAN
A17 Scale: 3" = 1'-0"



3 TOP CONNECTION - PRELIMINARY - ISO
A17 Scale: 3" = 1'-0"

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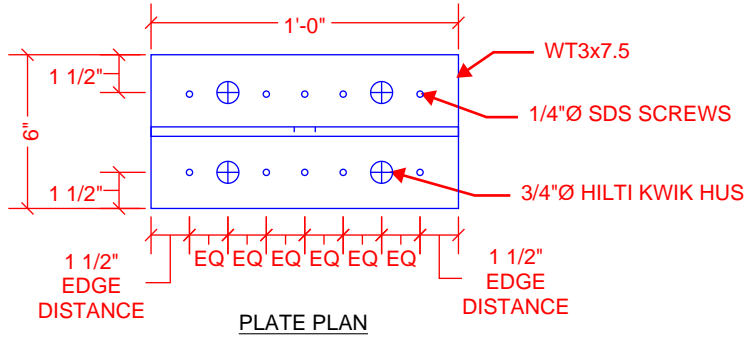
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DESCRIPTION
30' CABLE BRACE
TOP DETAIL

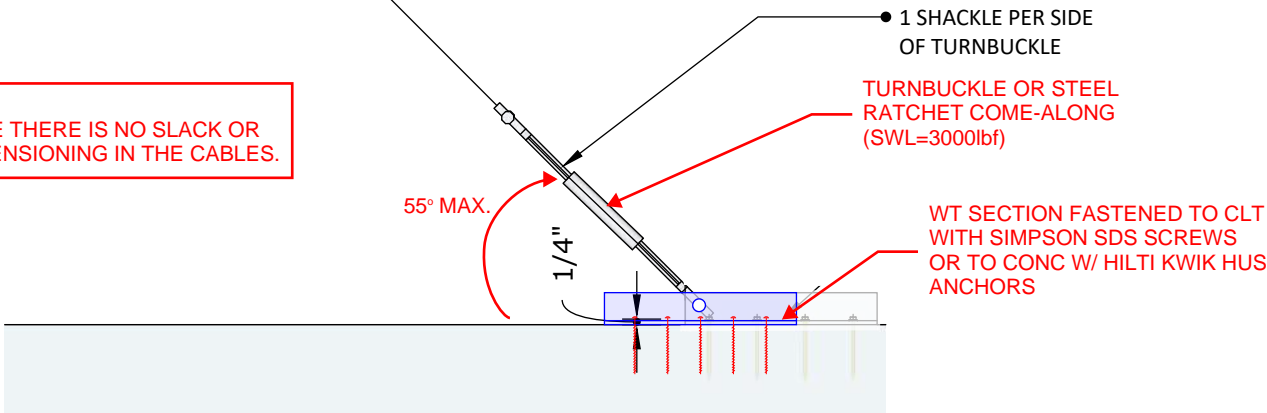
30' CABLE BRACE

CONNECTION TO CLT:
10 - 1/4"Øx3.5" SDS SCREWS

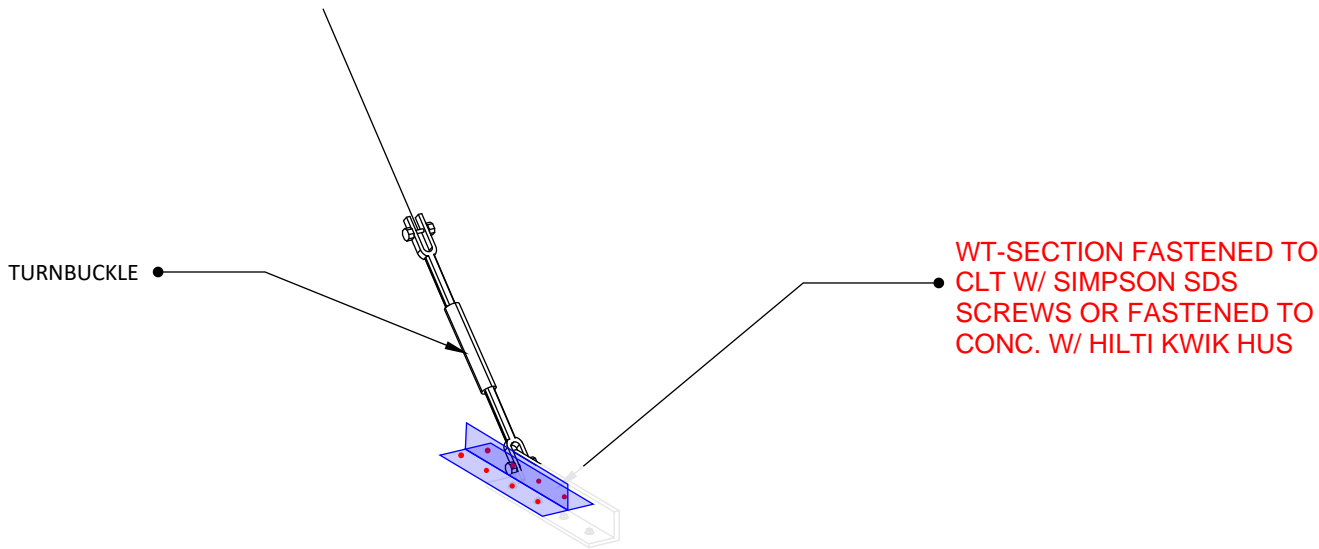
CONNECTION TO CONC.:
2 - 3/4"Øx4" HILTI KWIK HUS



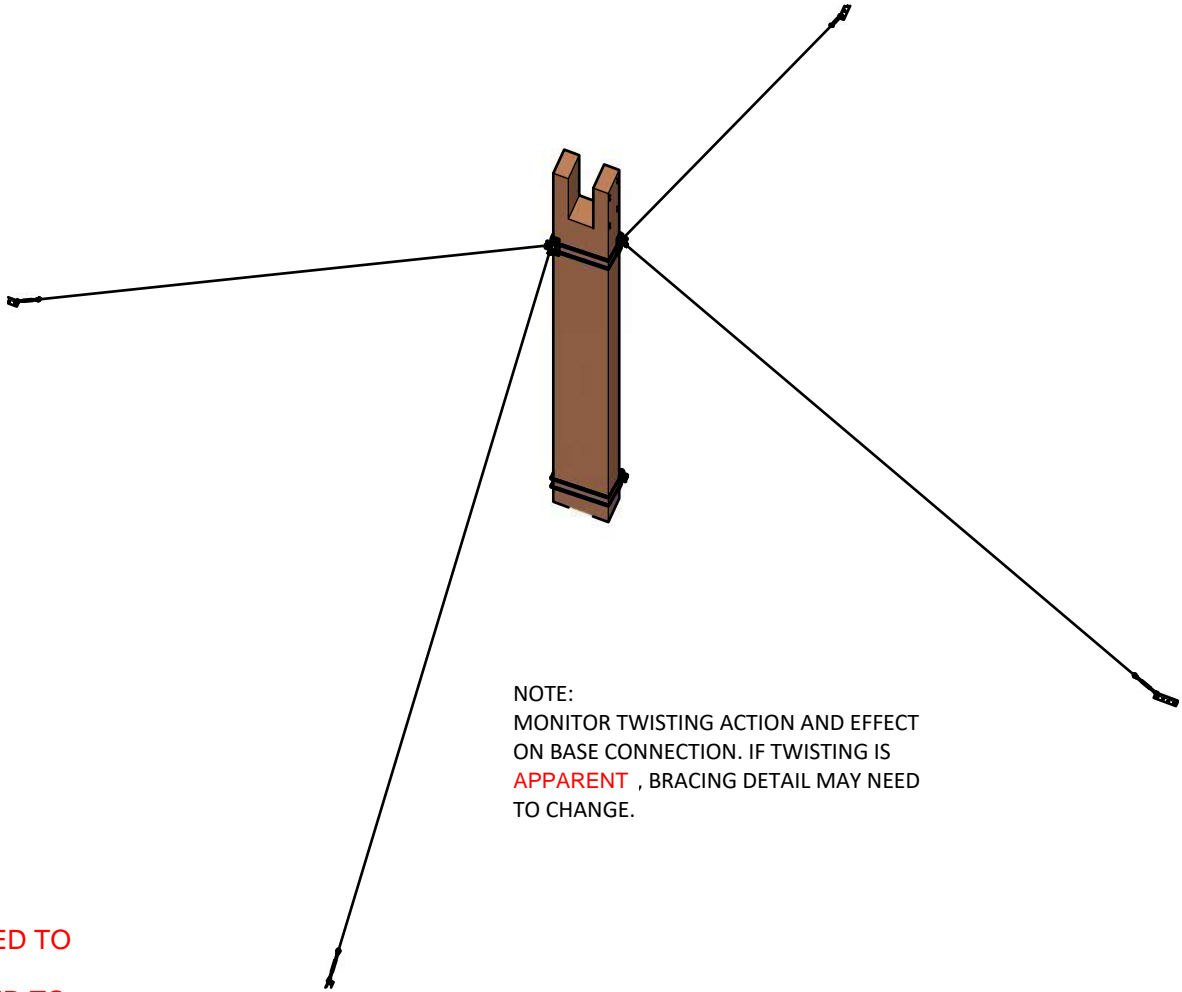
NOTE:
ENSURE THERE IS NO SLACK OR
OVERTENSIONING IN THE CABLES.



1 PRELIMINARY BTM. CONNECTION - PRELIMINARY - FRONT
A18 Scale: 1" = 1'-0"



2 PRELIMINARY BTM. CONNECTION - ISOMETRIC -
A18 Scale: 1" = 1'-0"



3 GUY LINE CONNECTION - EACH 30' COLUMN - PRELIMINARY
A18 Scale: 1/8" = 1'-0"

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DESIGNED BY
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DESCRIPTION
30' TENSION CABLE
BRACE BOTTOM
DETAIL



Project No.: 1535

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2020-10-19

Drawing Title:

30' Cable X-Brace Detail

Scale:

NTS

Drawn:

ME

Designed:

ME

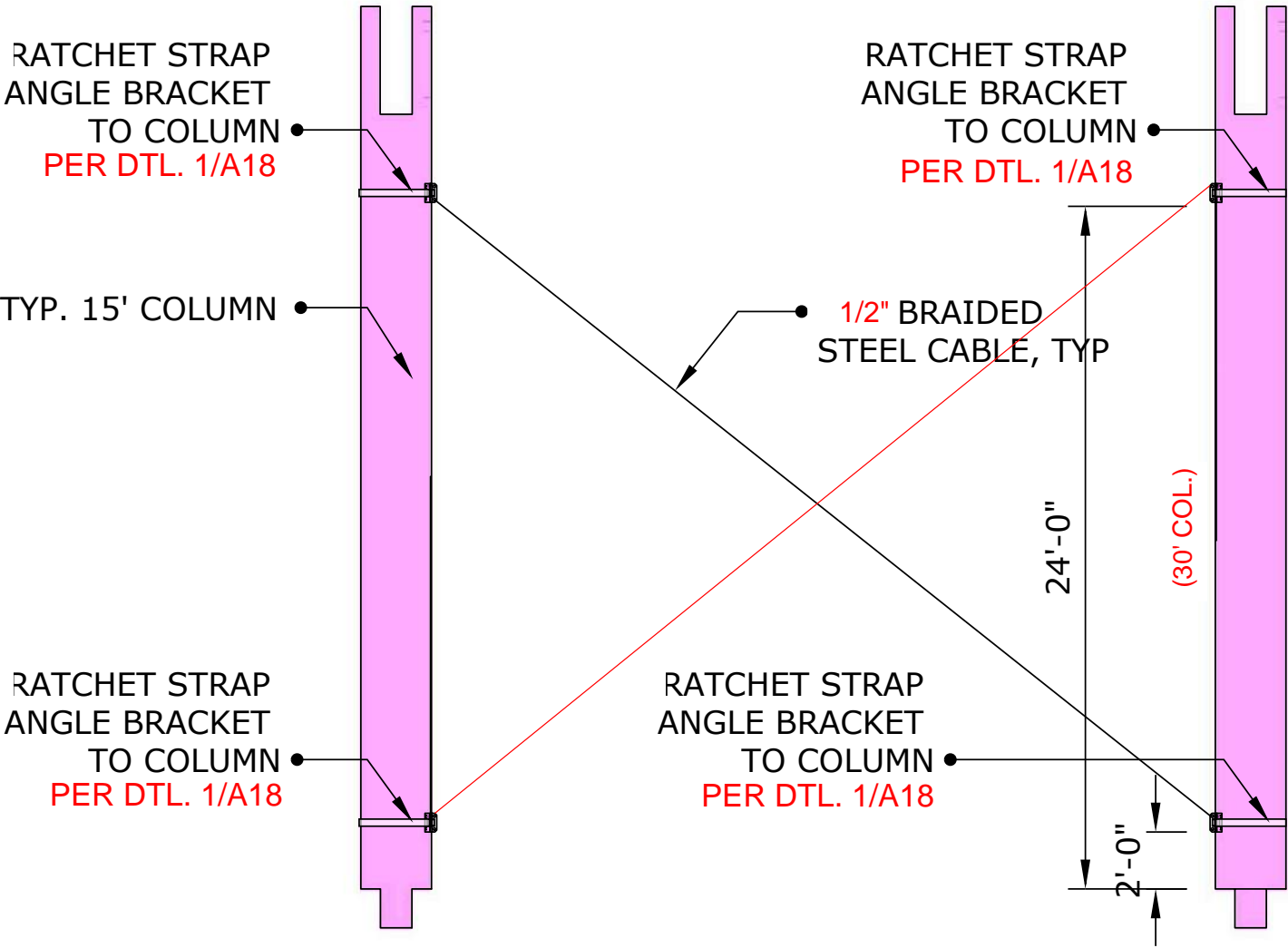
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AG/ID

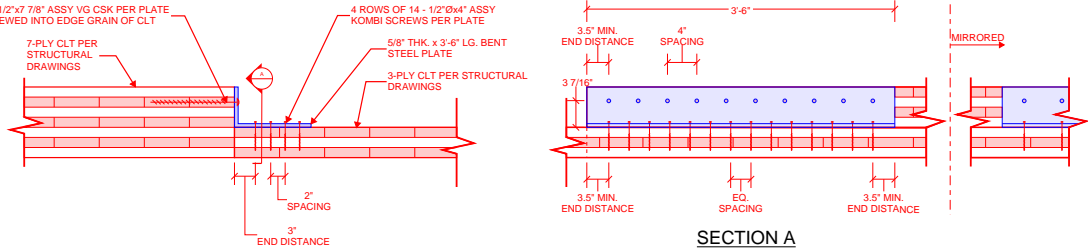
Drawing No.:

Revision No.: -

K010

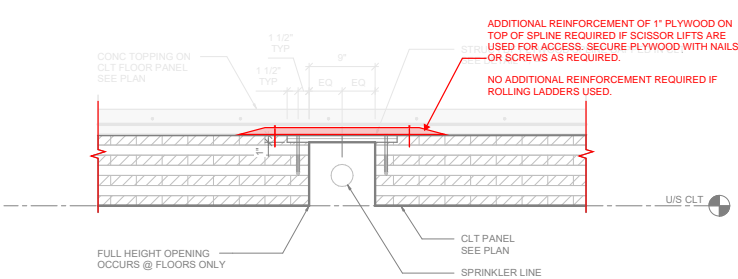


1 15' and 30' COLUMN CROSS BRACE ELEVATION
Scale: NTS



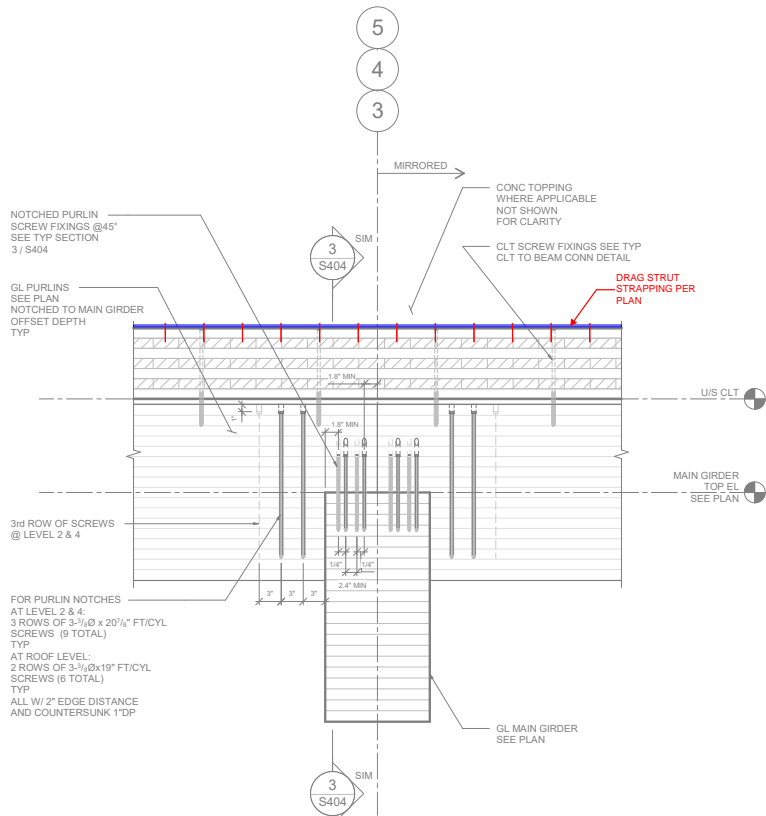
1 7-PLY TO 3-PLY DRAG CONNECTION
Scale: 1" = 1'-0"

NOTE:
ALL SCREW HOLES MUST BE
PREDRILLED



5 TYPICAL FLOOR CLT PANEL JOINT CONN @
SPRINKLER RECESS
1" = 1'-0"

2 TEMPORARY PLYWOOD SPLINE REINFORCEMENT
PRIOR TO CONCRETE POUR
Scale: 1" = 1'-0"



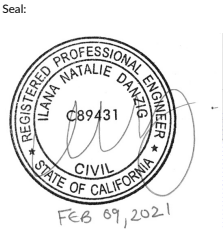
3 TEMPORARY DRAG STRAP DETAIL
Scale: 1" = 1'-0"

7 TYPICAL NOTCHED PURLIN
TO MAIN GIRDER CONNECTION
1" = 1'-0"

Kinsol

ASPECT
STRUCTURAL ENGINEERS

604-762-7844
hello@aspectengineers.com
101-190 West 3rd Ave.
Vancouver, BC V5Y 1E9
aspectengineers.com



Project No.: 1535
Google FONE

1265 Borregas Ave.
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Date:	Revision / Issue:	No.:
2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

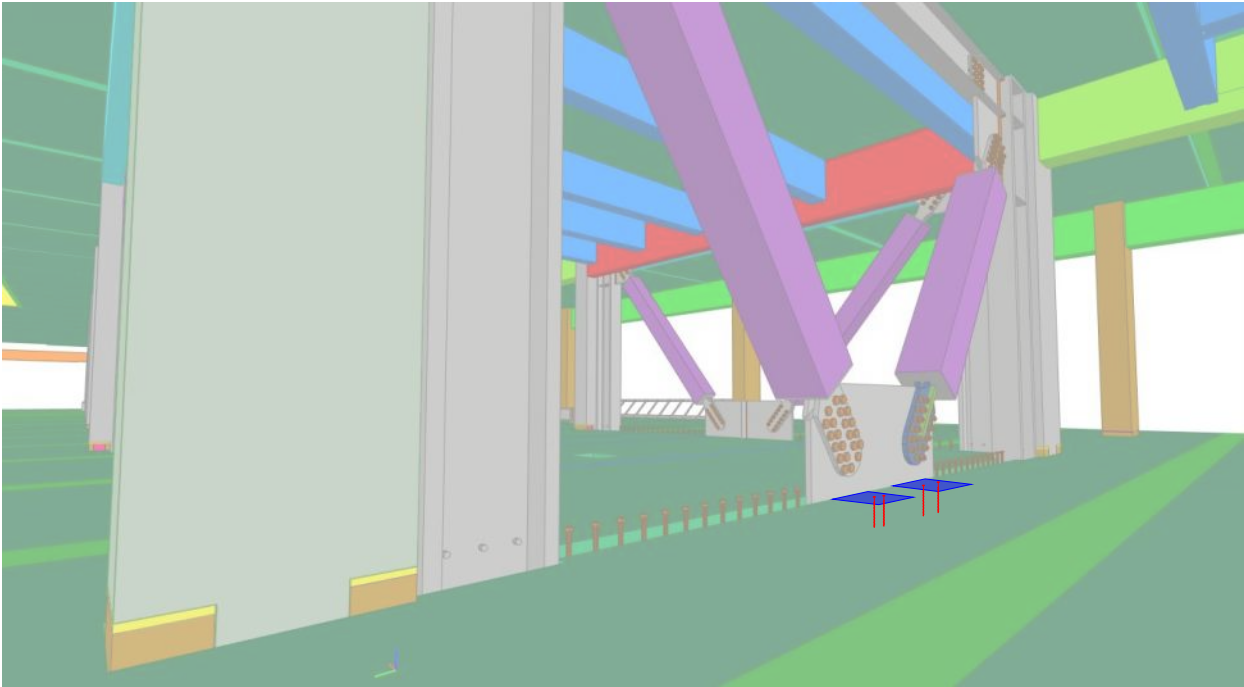
Plot Date:
2020-10-19

Drawing Title:
Temporary Diaphragm
Details

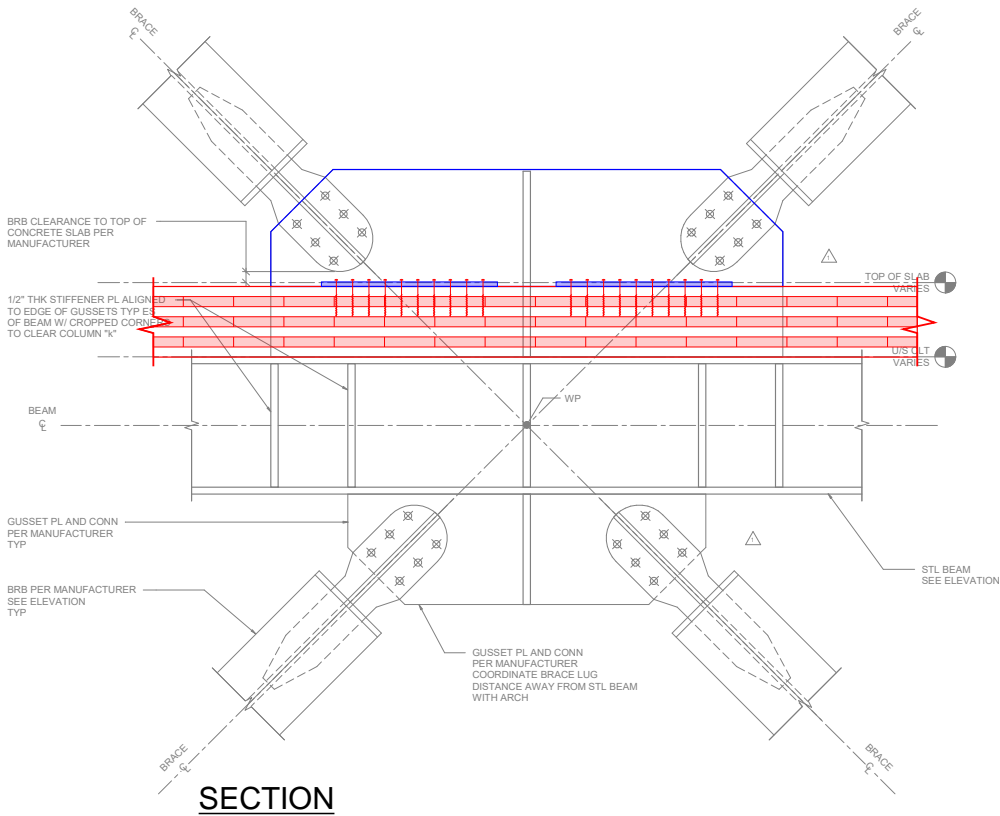
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Drawn: ME
Designed: ME
Checked: AG/ID

Drawing No.:
Revision No.: -

K011

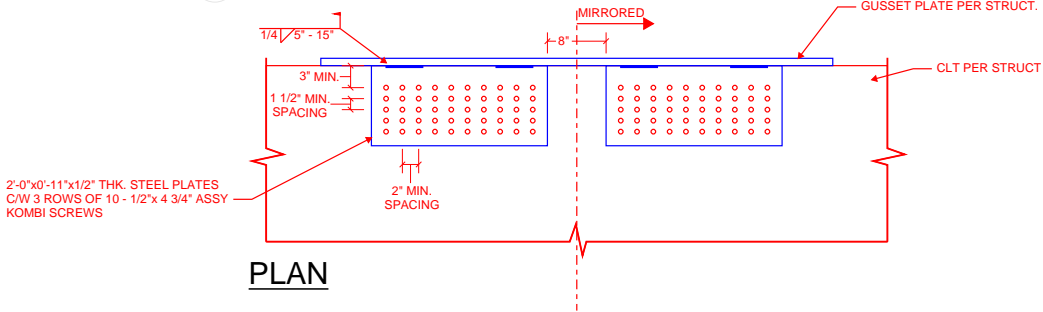


1 CONNECTION TO PERMANENT BRACING SCHEMATIC
Scale: NTS



SECTION

5 BRBF CONN AT BEAM INTERSECTION
1\"/>



PLAN

1 CONNECTION TO PERMANENT BRACING
Scale: NTS

Plates welded to BRB gusset to remain in place permanently



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Seal:



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2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:

2020-10-19

Drawing Title:

Temporary Diaphragm to
Permanent Bracing
Detail

Scale:

NTS

Drawn:

ME

Designed:

ME

Checked:

AG/ID

Drawing No.:

Revision No.: -

K012

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DATE (THIS VERSION)
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REV	DATE
1	2020 12 18
2	2021-02-09

DATE CREATED
April 16, 2020

CLIENT
<ClientName>

PROJECT NO.
<ProjectNumber>

PROJECT
Google FONE

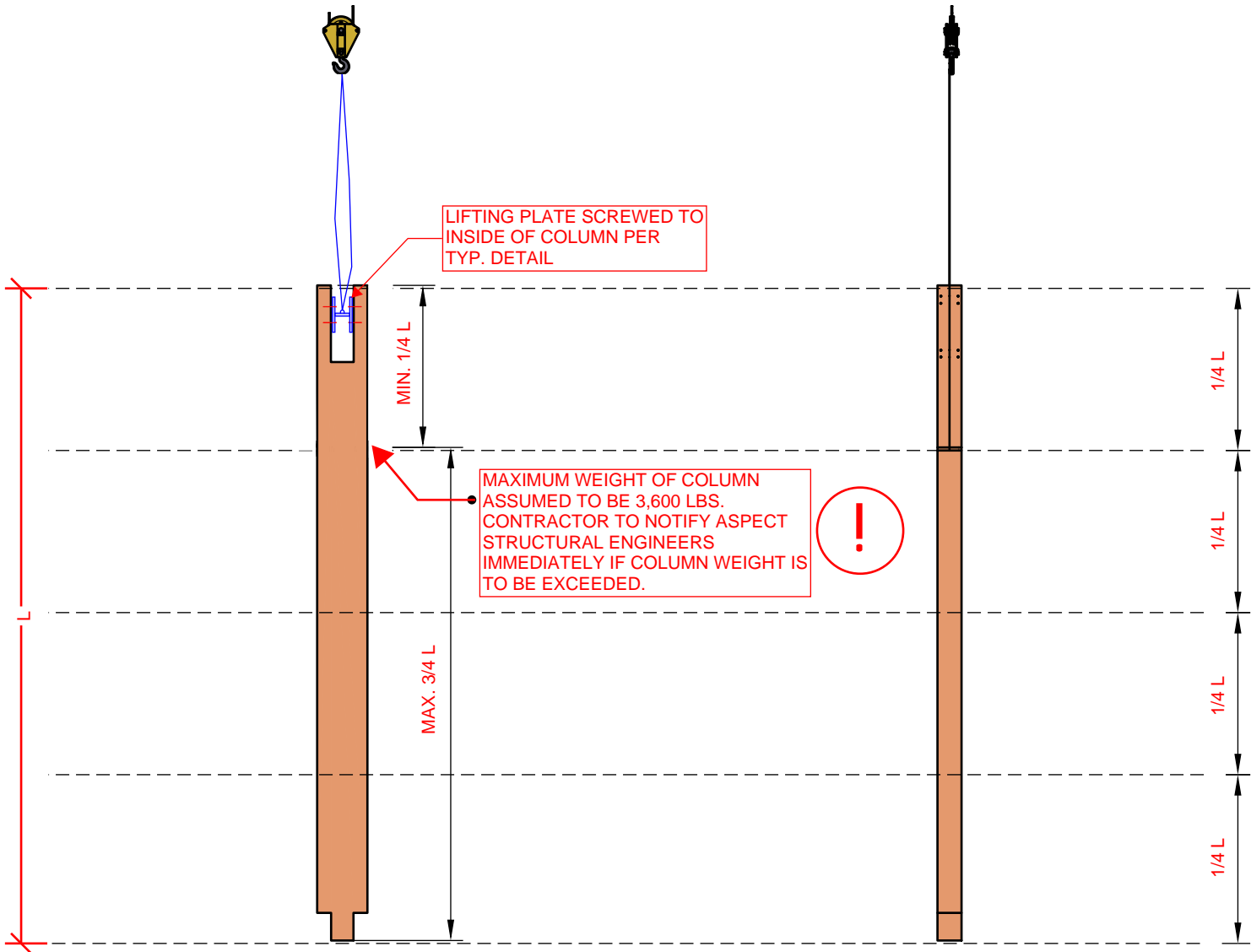
File Name:
google layout

DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
COLUMN HOIST PLAN

Name	Crane	Distance from Pivot	Weight	Length
TYP 30'	A,B	47'-180'	3600lbf	32'



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2	2021-02-09

DATE CREATED
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CLIENT
<ClientName>

PROJECT NO.
<ProjectNumber>

PROJECT
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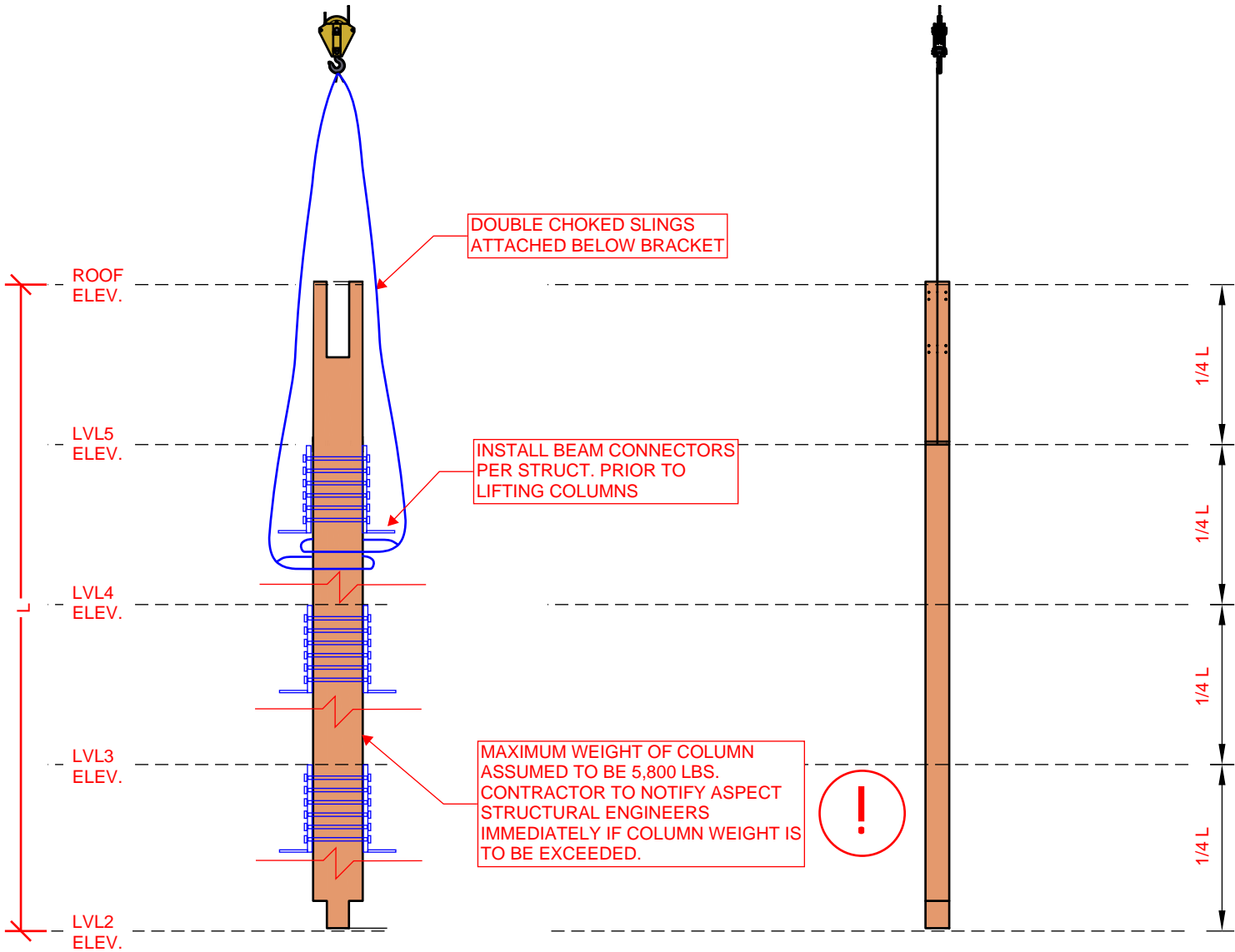
File Name:
google layout

DRAWN BY
JZ

DESIGNED BY
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DESCRIPTION
COLUMN HOIST PLAN
(60FT COLUMN)

Name	Crane	Distance from Pivot	Weight	Length
TYP 60'			6800lbf	



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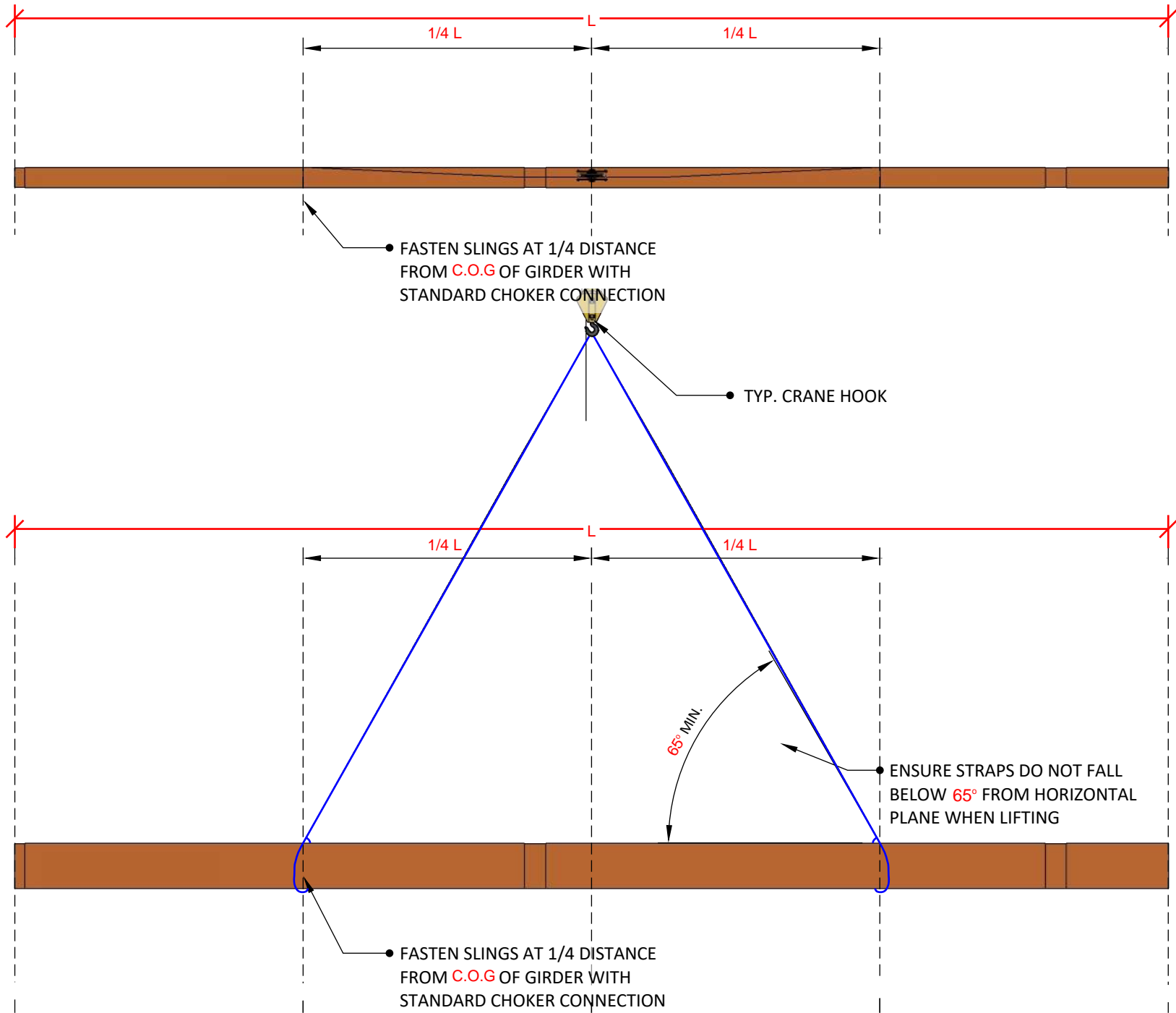
PROJECT
Google FONE

File Name:
google layout

DRAWN BY
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DESIGNED BY
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DESCRIPTION
GIRDER HOIST PLAN



Name	Crane	Distance from Pivot	Weight	Length
B2-42	B	149'-0"	6557	66'-5 7/8"

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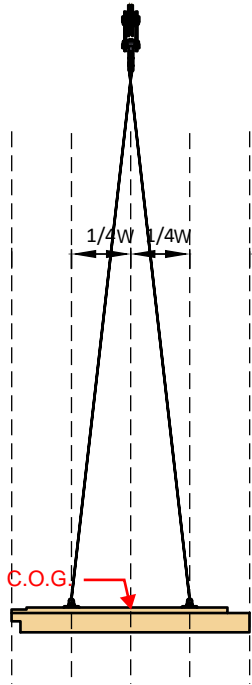
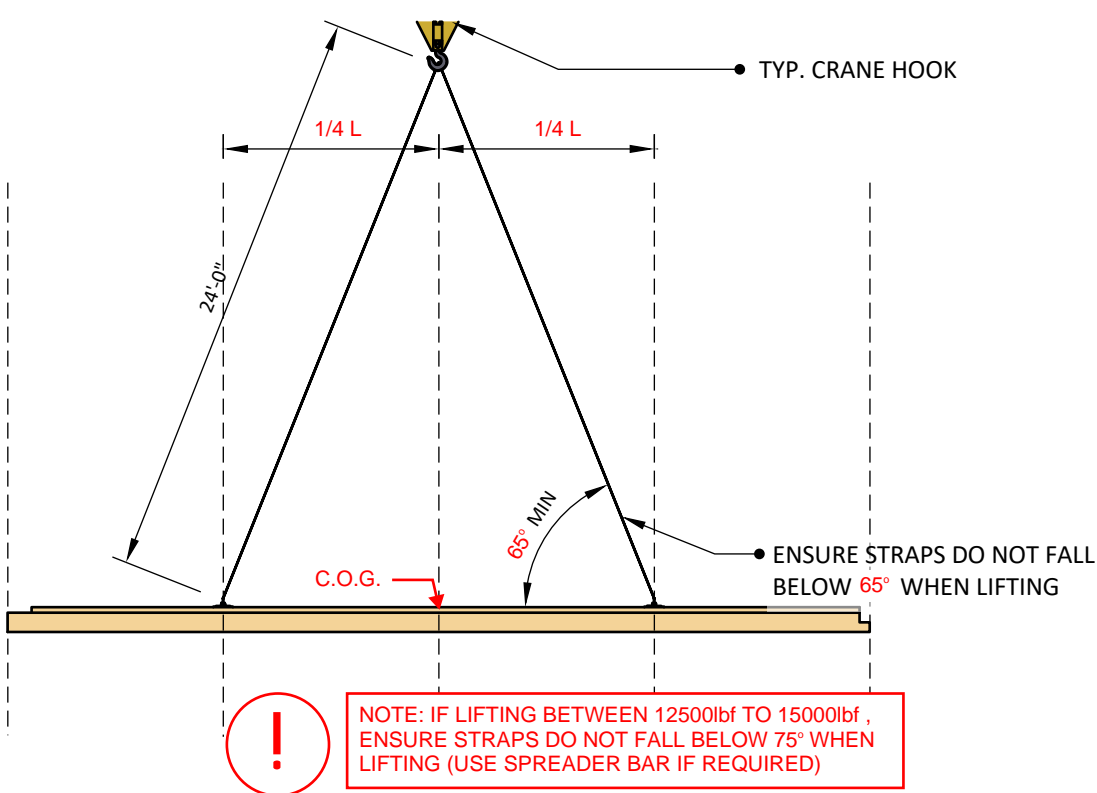
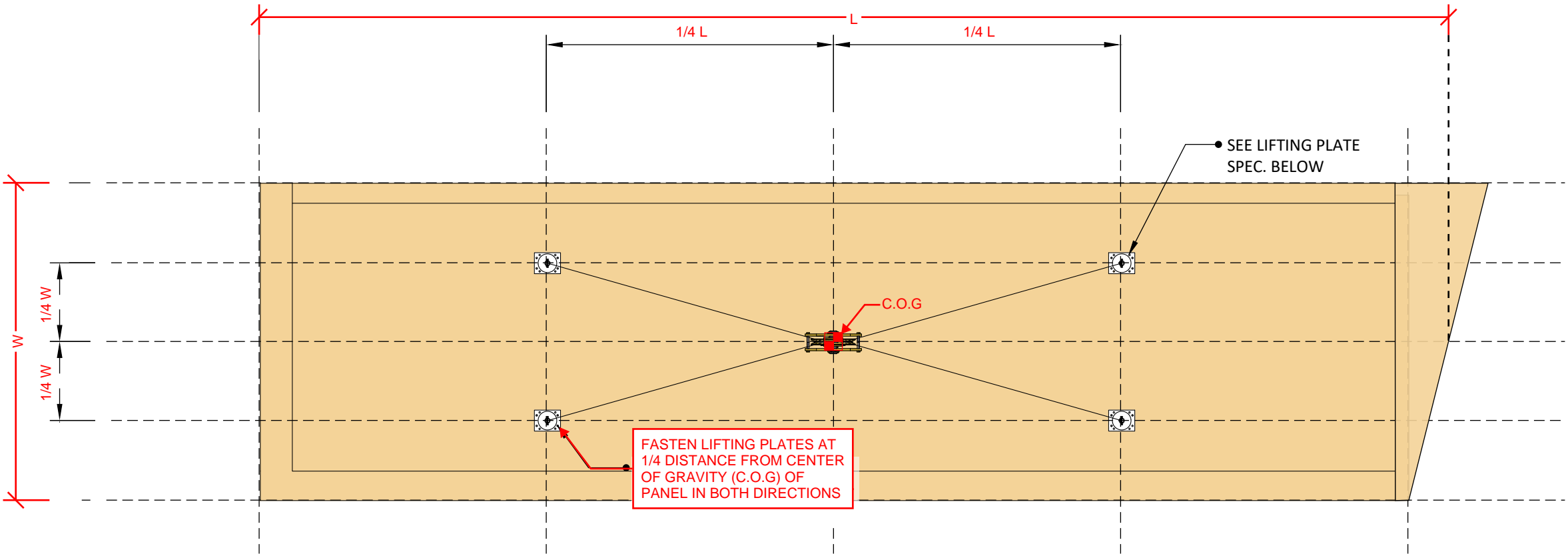
PROJECT
Google FONE

File Name:
google layout

DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
CLT HOIST PLAN



COLUMN BRACING NOT SHOWN ON EVERY PAGE FOR CLARITY. ALL BRACING TO REMAIN IN PLACE UNTIL ENTIRE STOREY IS TRANSITIONED TO TEMPORARY CABLE-BRACED BAYS

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REV 3	DATE 09/30/20
REV 4	DATE 10/06/20
REV 5	DATE 10/14/20

DATE CREATED
August 24, 2020

CLIENT
Google FONE

PROJECT NO.
<ProjectNumber>

PROJECT
BORREGAS

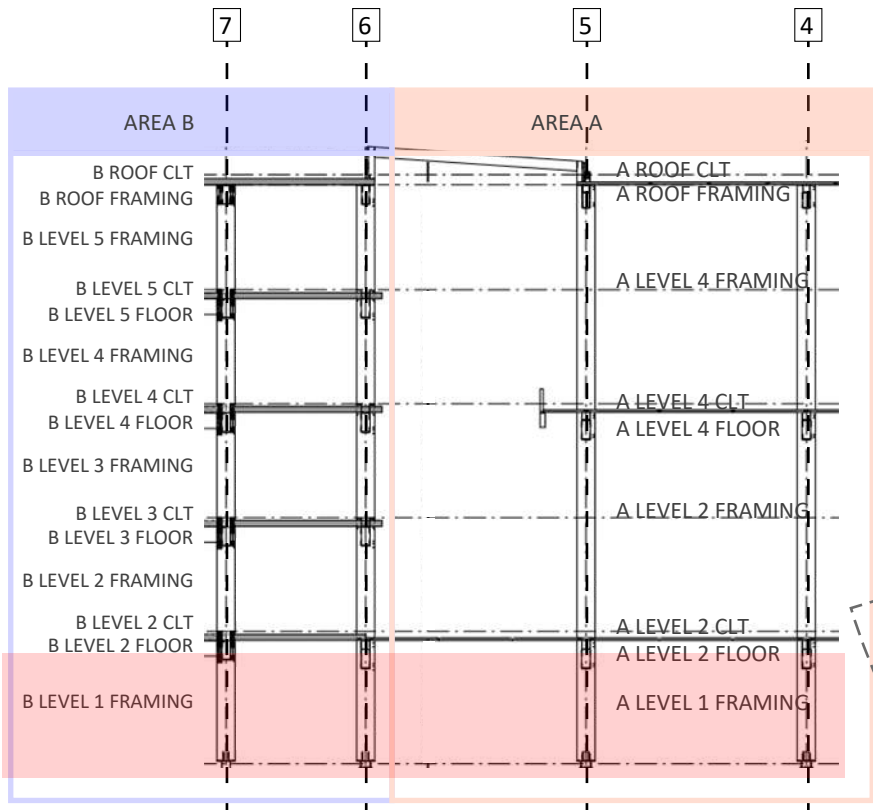
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ONE sequence to

DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
A-LVL 1 FRM / B-LVL 1
FRM

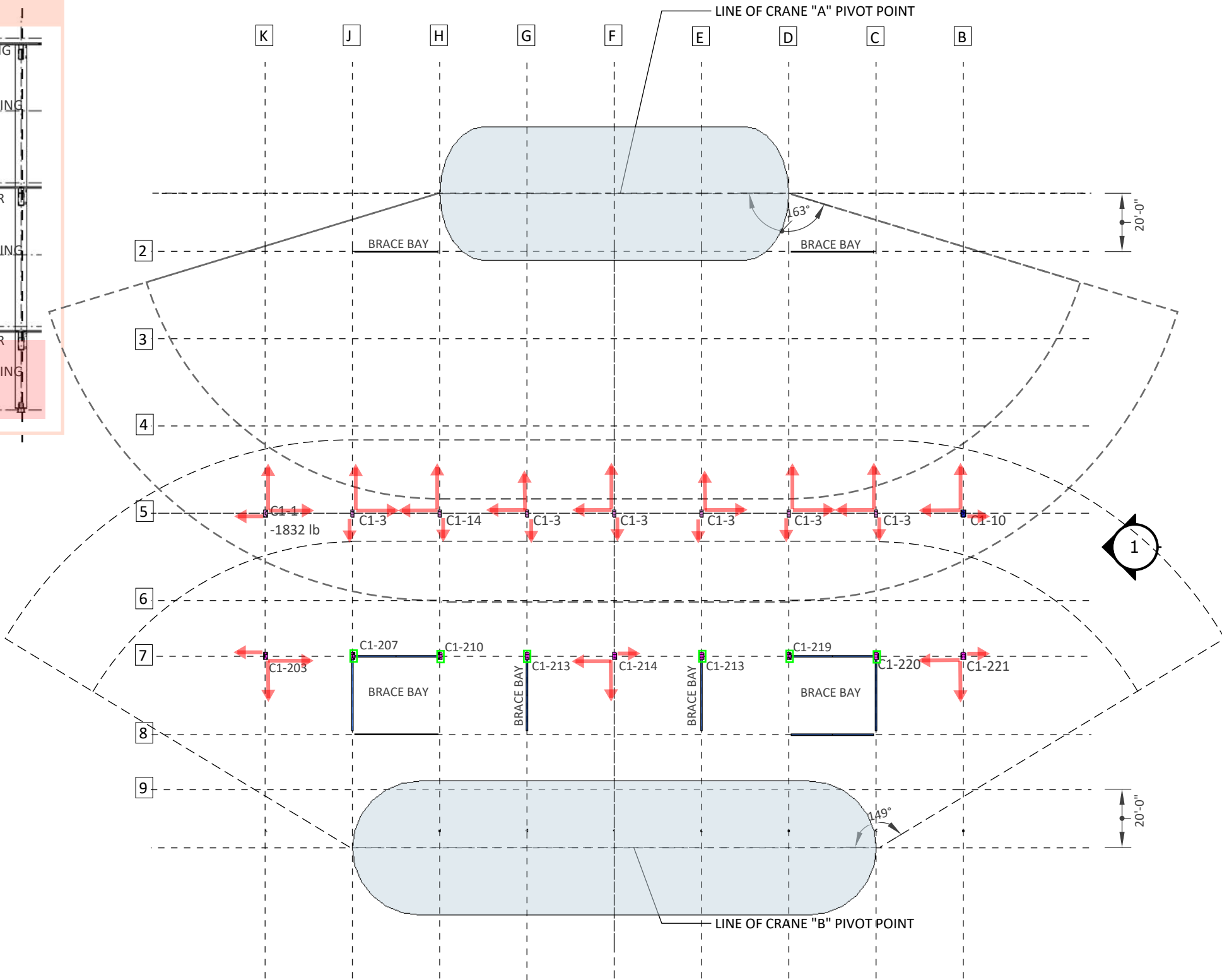
K100



1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
C1-1	1832
C1-3	1390
C1-4	1599
C1-14	1390
C1-10	1832

B - MEMBER NAME	WEIGHT LB
C1-203	1865
C1-207	1910
C1-210	1910
C1-213	1854
C1-214	1854
C1-219	1910
C1-220	1823
C1-221	1823

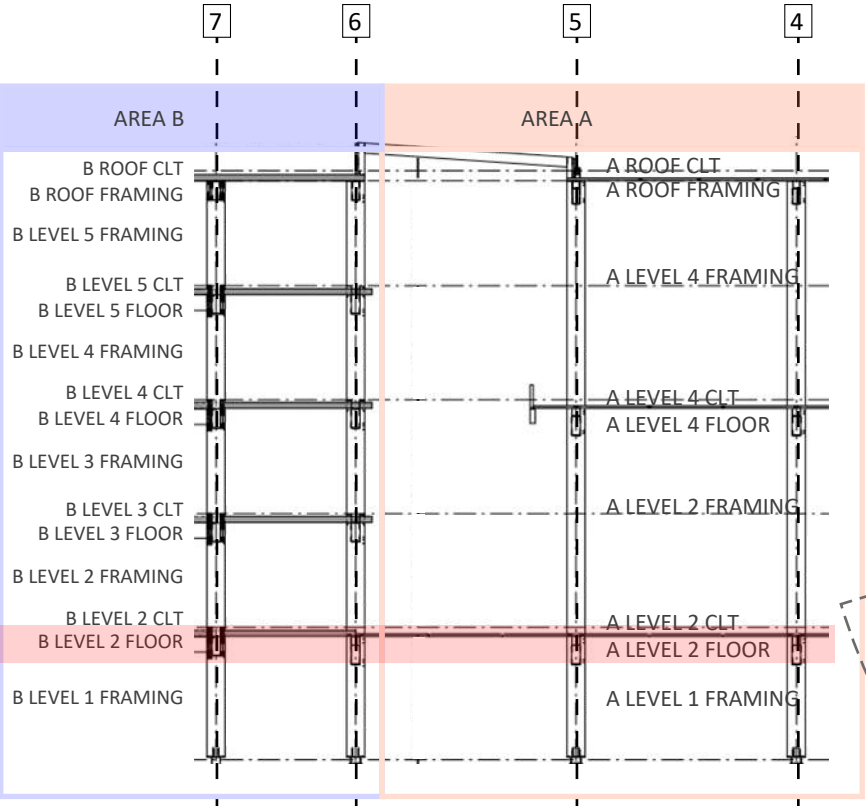


2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

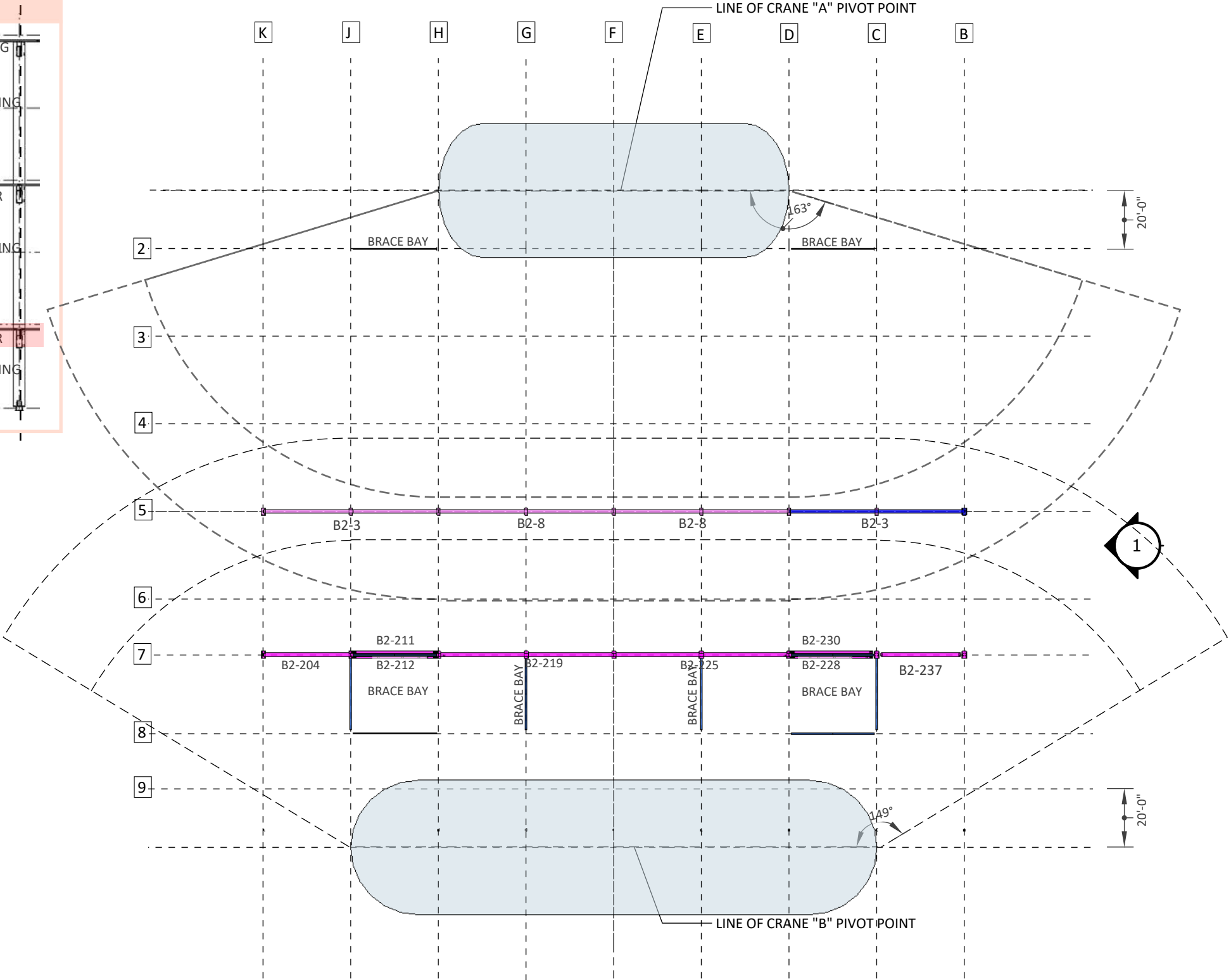
COLUMN BRACING NOT SHOWN ON EVERY PAGE FOR CLARITY. ALL BRACING TO REMAIN IN PLACE UNTIL ENTIRE STOREY IS TRANSITIONED TO TEMPORARY CABLE-BRACED BAYS



1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-3	5915
B2-8	5918

B - MEMBER NAME	WEIGHT LB
B2-204	2952
B2-211	1624
B2-212	1853
B2-219	5911
B2-225	5910
B2-230	1589
B2-228	1814
B2-237	2683



2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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REV 3	DATE 09/30/20
REV 4	DATE 10/06/20
REV 5	DATE 10/14/20

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Google FONE

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<ProjectNumber>

PROJECT
BORREGAS

File Name:
20200825_GoogleF
ONE sequence to

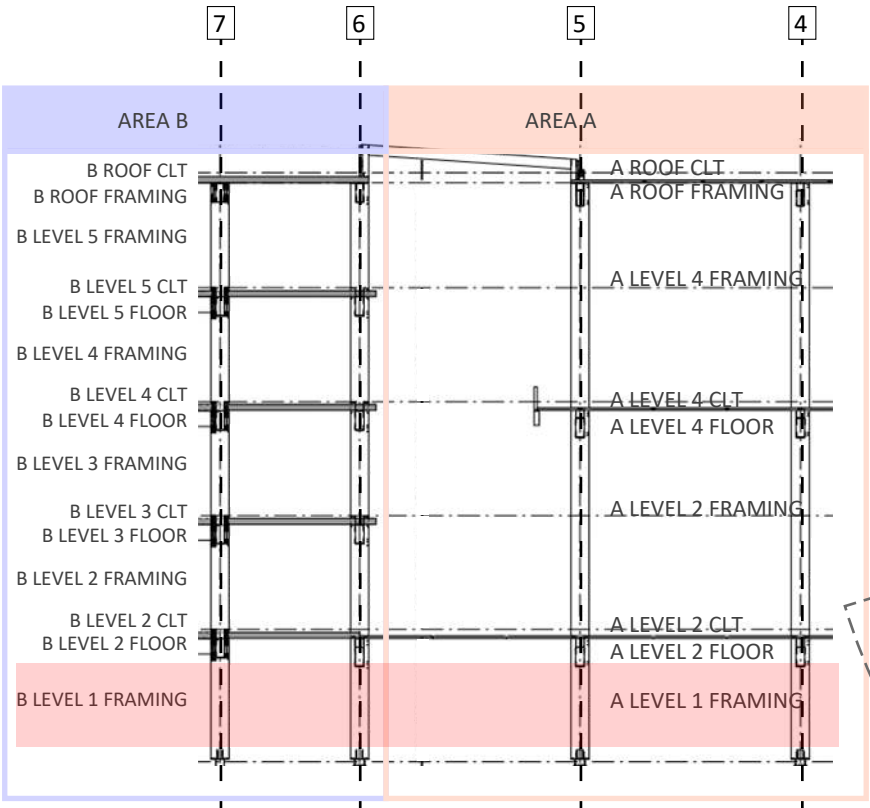
DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
A-LVL 2 FLR / B-LVL 2
FLR

K101

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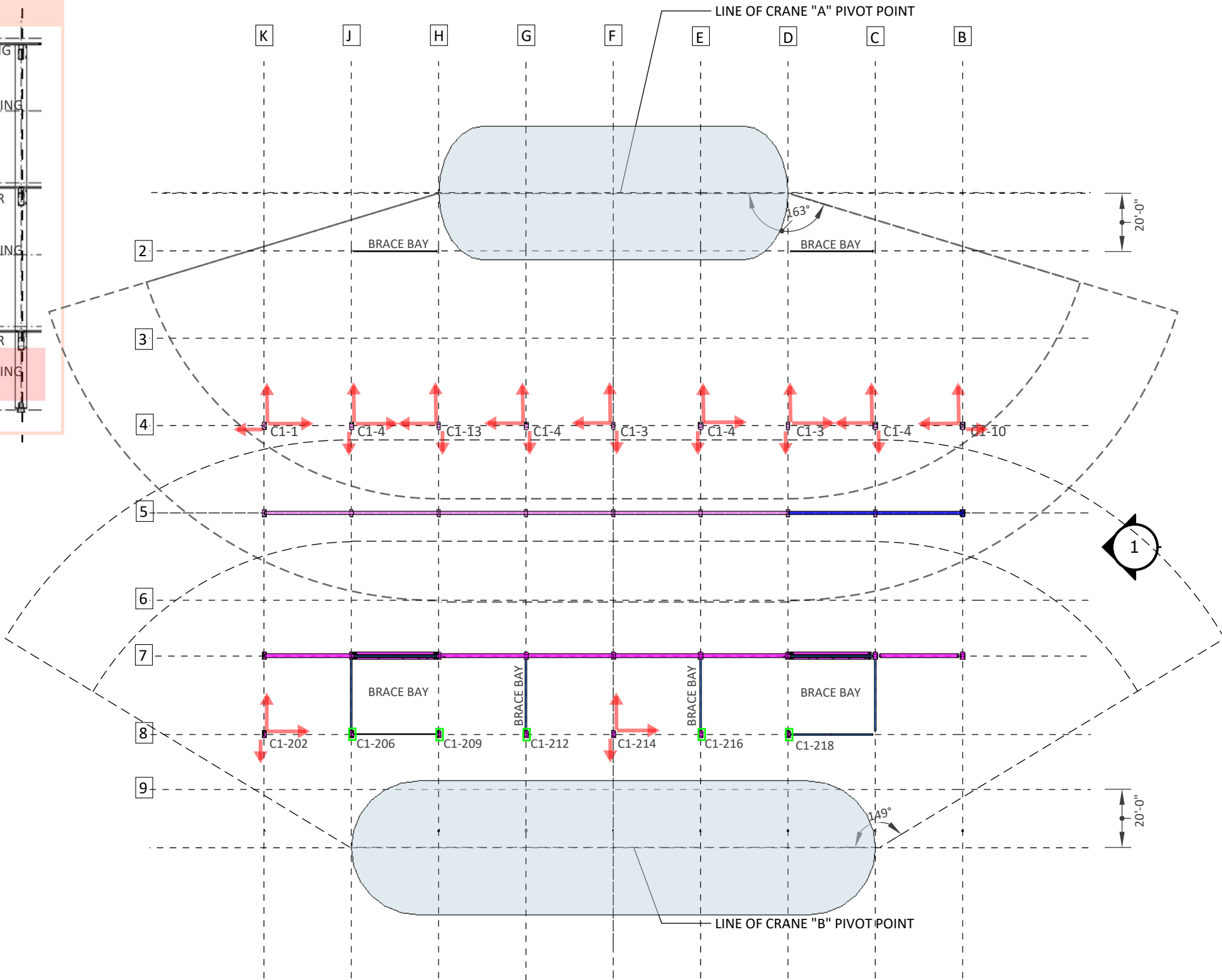


1

BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
C1-1	1832
C1-4	1599
C1-13	1390
C1-3	1390
C1-10	1832

B - MEMBER NAME	WEIGHT LB
C1-202	1865
C1-206	1910
C1-209	1910
C1-212	1854
C1-214	1854
C1-216	1854
C1-218	1910



2

BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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REV 5	DATE 10/14/20

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CLIENT
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<ProjectNumber>

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BORREGAS

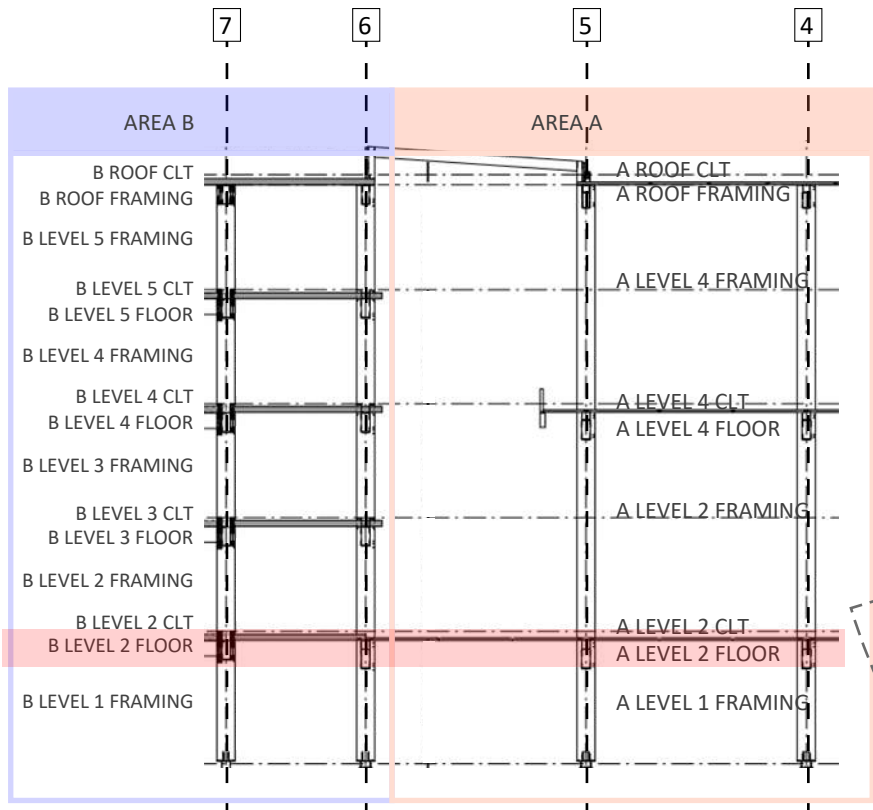
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DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
A-LVL 1 FRM / B-LVL 1
FRM

K102

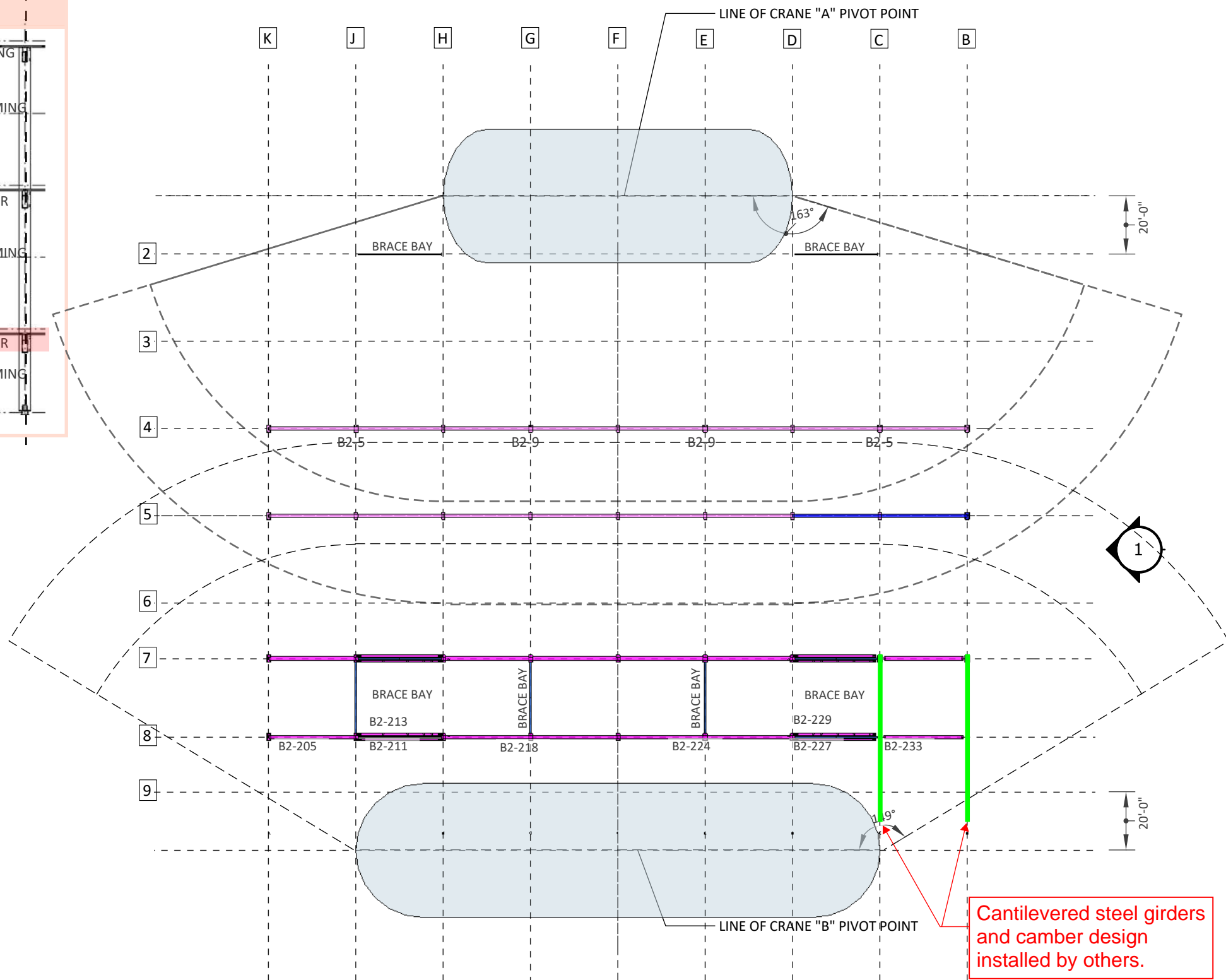


1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-5	5912
B2-9	5915

B - MEMBER NAME	WEIGHT LB
B2-205	2952
B2-211	1624
B2-213	1853
B2-218	5911
B2-224	5910
B2-229	1814
B2-227	1589
B2-223	2683

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2 BUILDING PLAN

LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

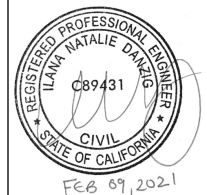
□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009



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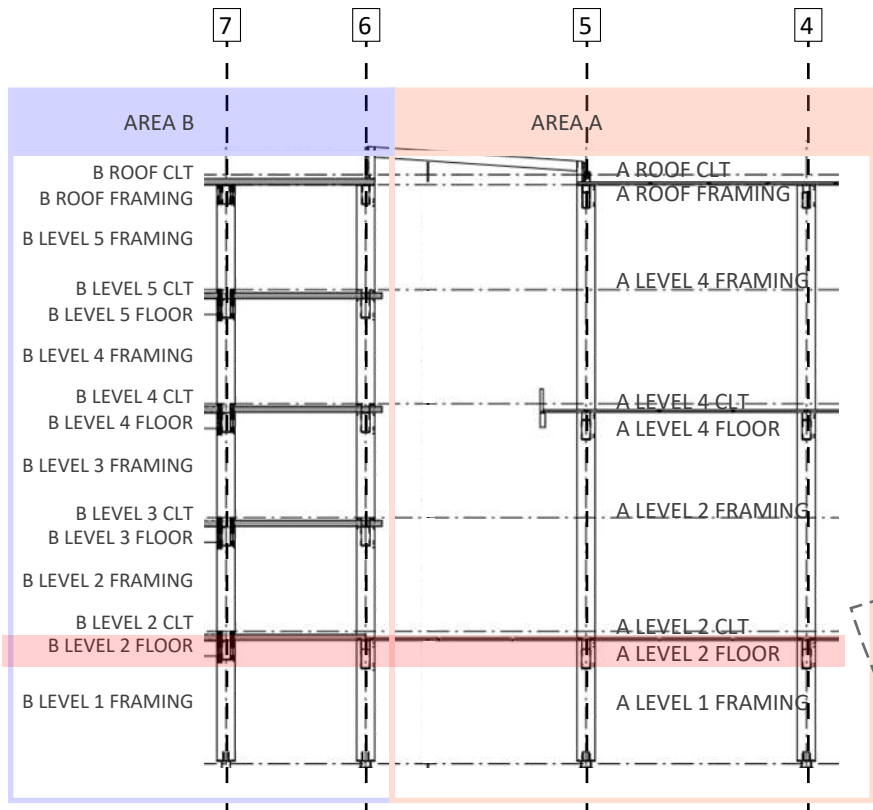
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JZ

DESCRIPTION
A-LVL 2 FLR / B-LVL 2
FLR

K103

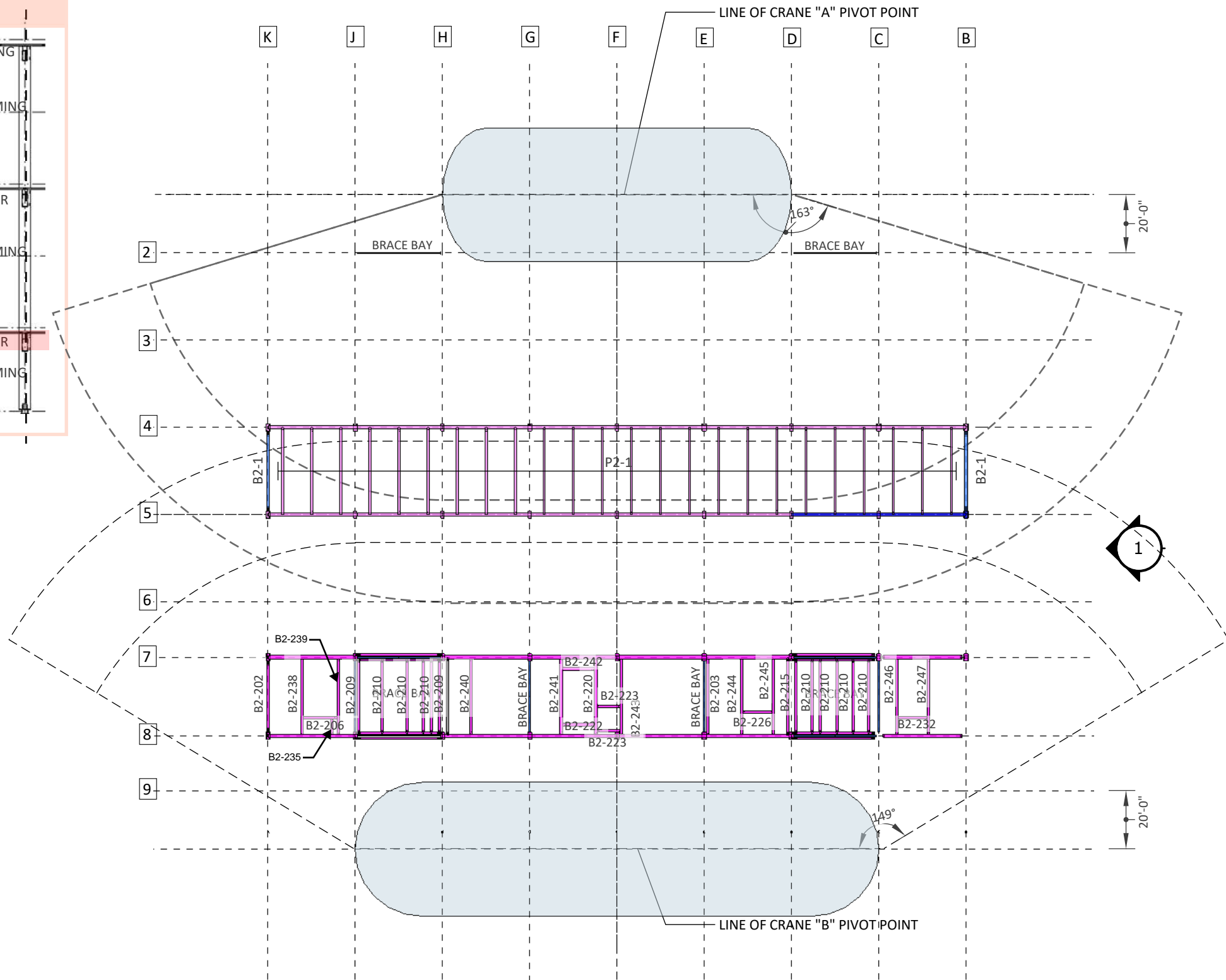


1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-1	2087
P2-1	1286

B - MEMBER NAME	WEIGHT LB
B2-202	1854
B2-238	1479
B2-206	675
B2-209	1396
B2-210	1396
B2-240	1479
B2-241	1770
B2-242	742
B2-222	742
B2-220	1770
B2-223	453
B2-243	1479
B2-203	1479
B2-244	1479
B2-226	562
B2-245	1479
B2-215	1470
B2-246	1479
B2-247	1479
B2-232	567

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2 BUILDING PLAN

LEGEND	
	= TIMBER BRACING AS PER K005/K006
	= SCISSOR LIFT DRIVE AISLE
	= RATCHET STRAP CONNECTION
	= CABLE BRACING AS PER K008/K009

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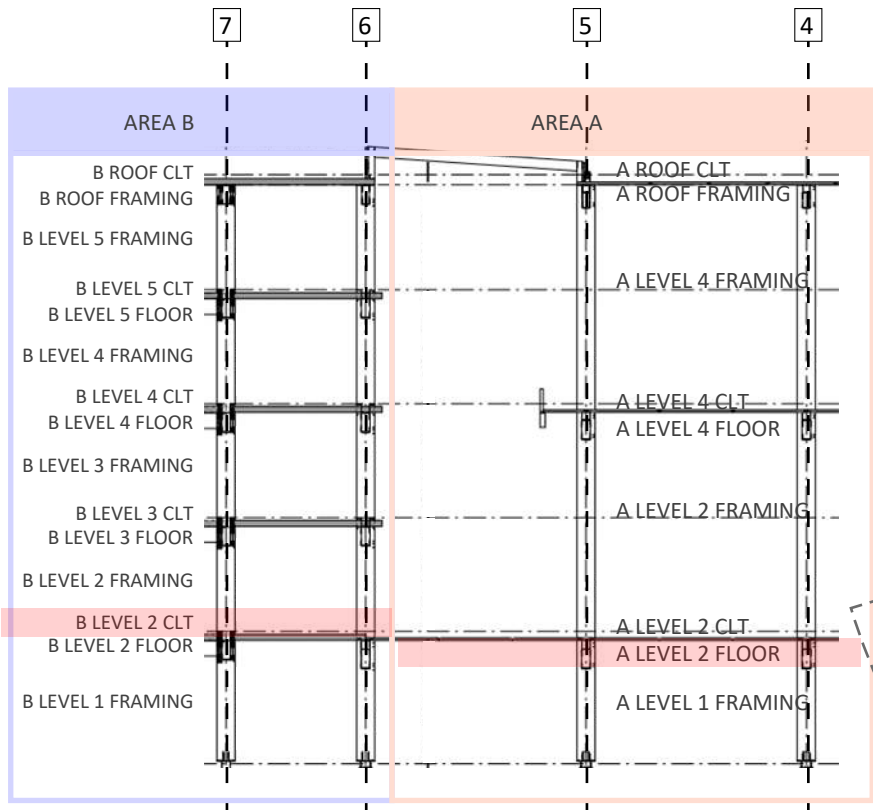
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DESCRIPTION
A-LVL 2 FLR / B-LVL 2
FLR

K104

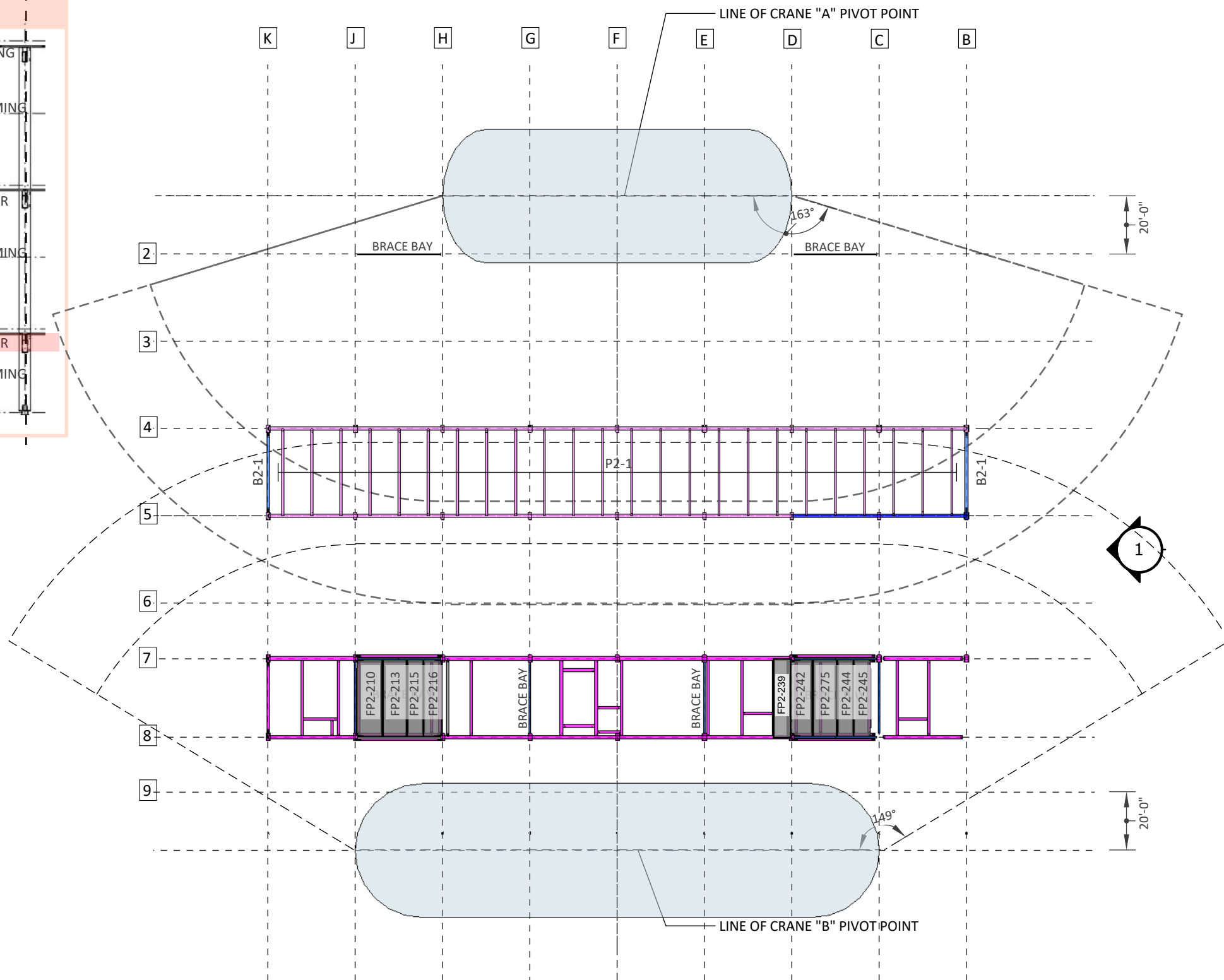


1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-1	2087
P2-1	1286

B - MEMBER NAME	WEIGHT LB
FP2-210	5897
FP2-213	5503
FP2-215	3774
FP2-216	4581
FP2-242	3896
FP2-275	3755
FP2-244	5581
FP2-245	5813

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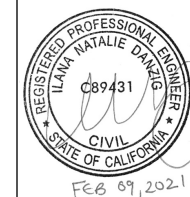
2 BUILDING PLAN

LEGEND	
	= TIMBER BRACING AS PER K005/K006
	= SCISSOR LIFT DRIVE AISLE
	= RATCHET STRAP CONNECTION
	= CABLE BRACING AS PER K008/K009

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ONE sequence to

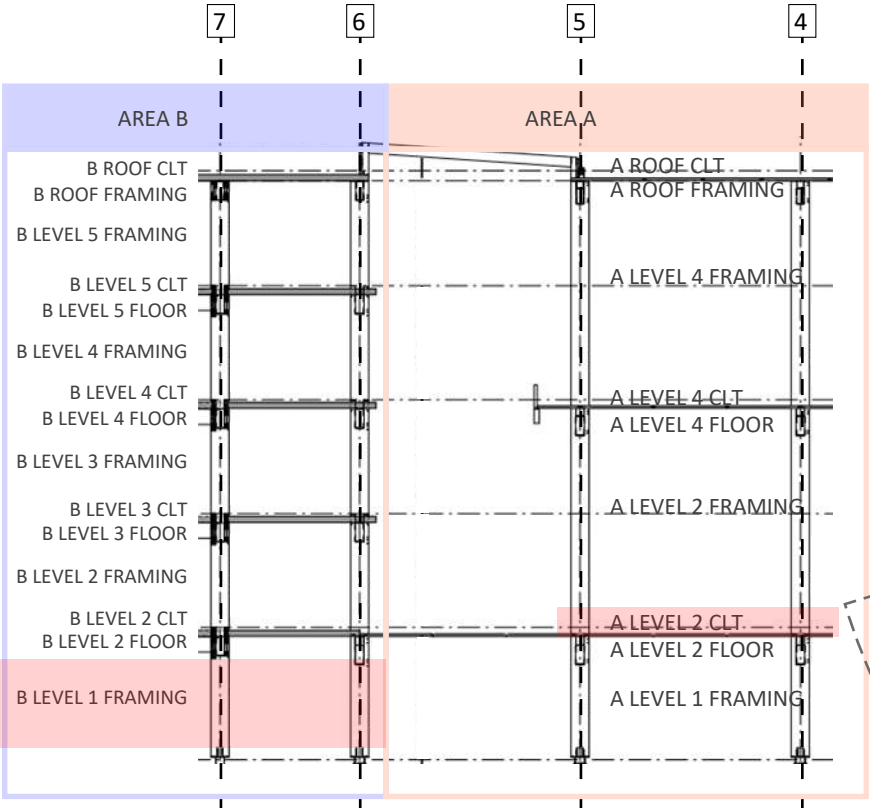
DRAWN BY
JZ

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JZ

DESCRIPTION
B-LVL 2 CLT BRACE
BAY

K105

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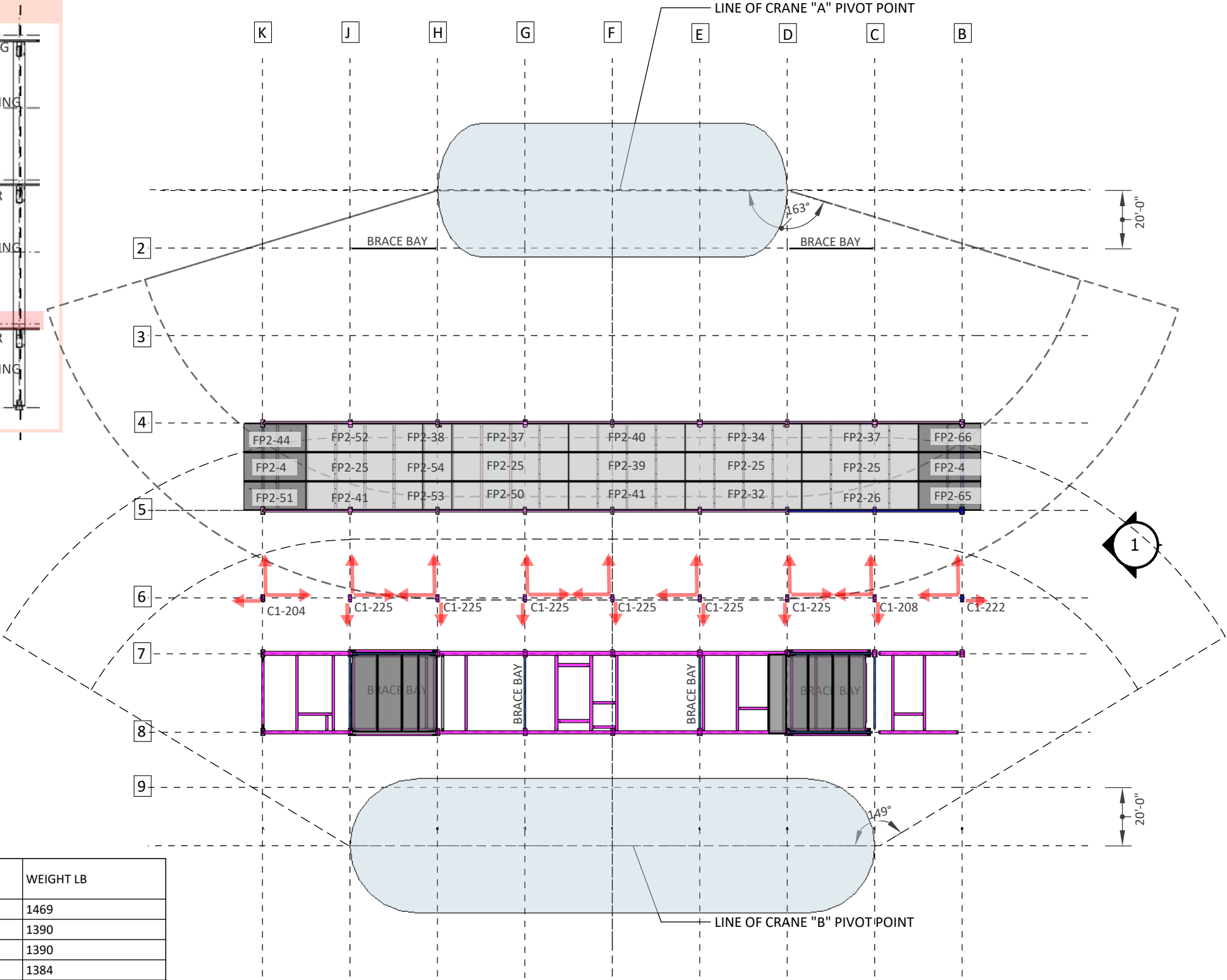


1

BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
FP2-44	5451
FP2-4	5499
FP2-51	5450
FP2-52	4337
FP2-25	4357
FP2-41	4341
FP2-38	1069
FP2-54	1089
FP2-53	1073
FP2-37	4337
FP2-25	4357
FP2-50	4351
FP2-40	4341
FP2-39	4355
FP2-41	4341
FP2-34	4317
FP2-25	4357
FP2-32	4325
FP2-37	4337
FP2-25	4357
FP2-26	4341
FP2-66	5451
FP2-4	5499
FP2-65	5450

B - MEMBER NAME	WEIGHT LB
C1-204	1469
C1-225	1390
C1-208	1390
C1-222	1384



2

BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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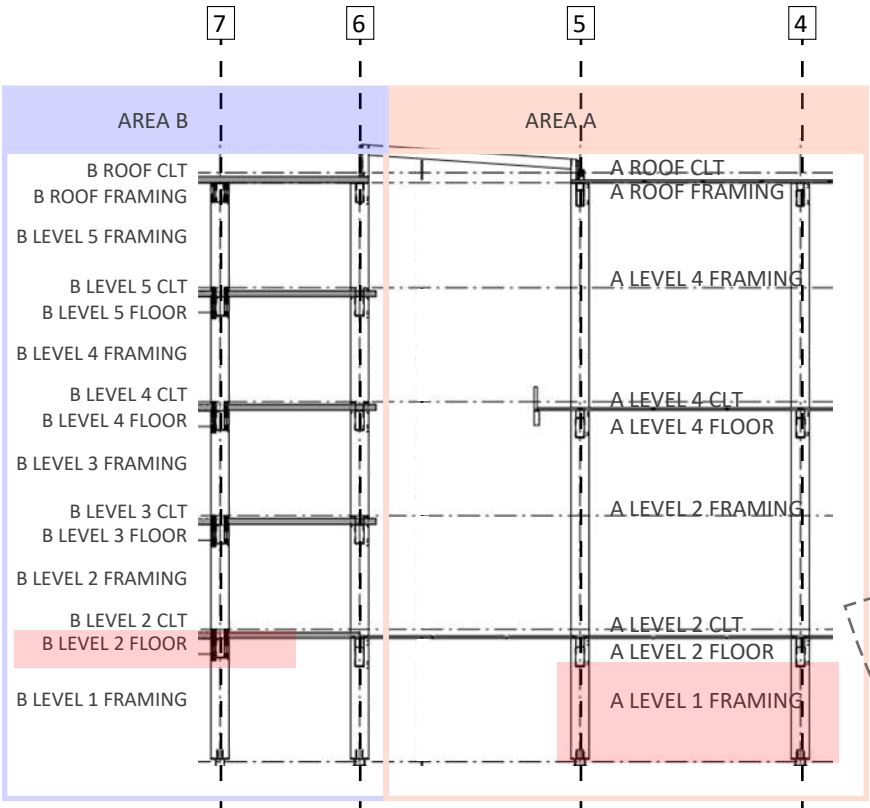
DRAWN BY
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DESIGNED BY
JZ

DESCRIPTION
A-LVL 2 CLT / B-LVL 1
FRM

K106

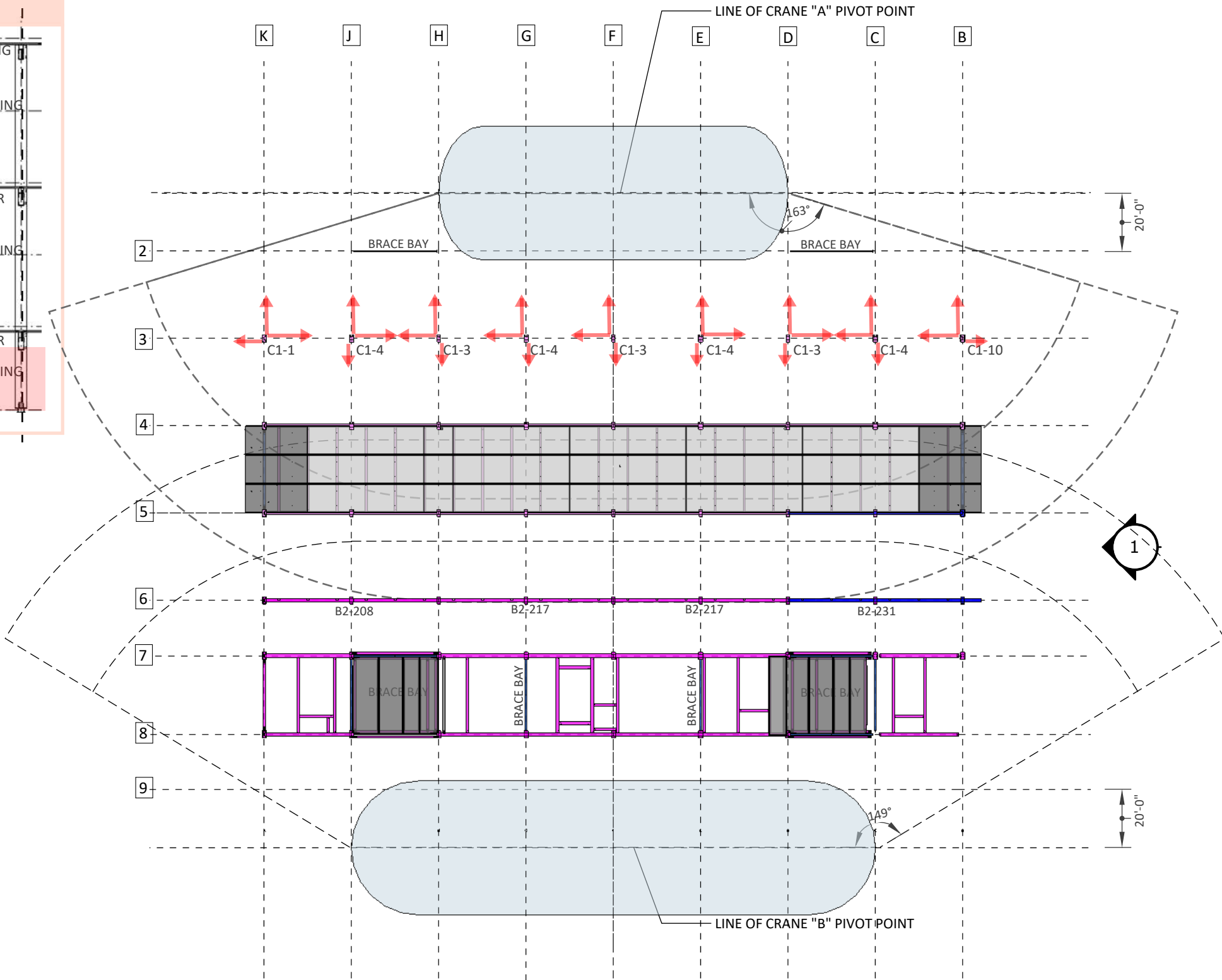
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1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
C1-1	1832
C1-4	1599
C1-13	1390
C1-3	1390
C1-10	1832

B - MEMBER NAME	WEIGHT LB
B2-208	5916
B2-217	5918
B2-231	6557



2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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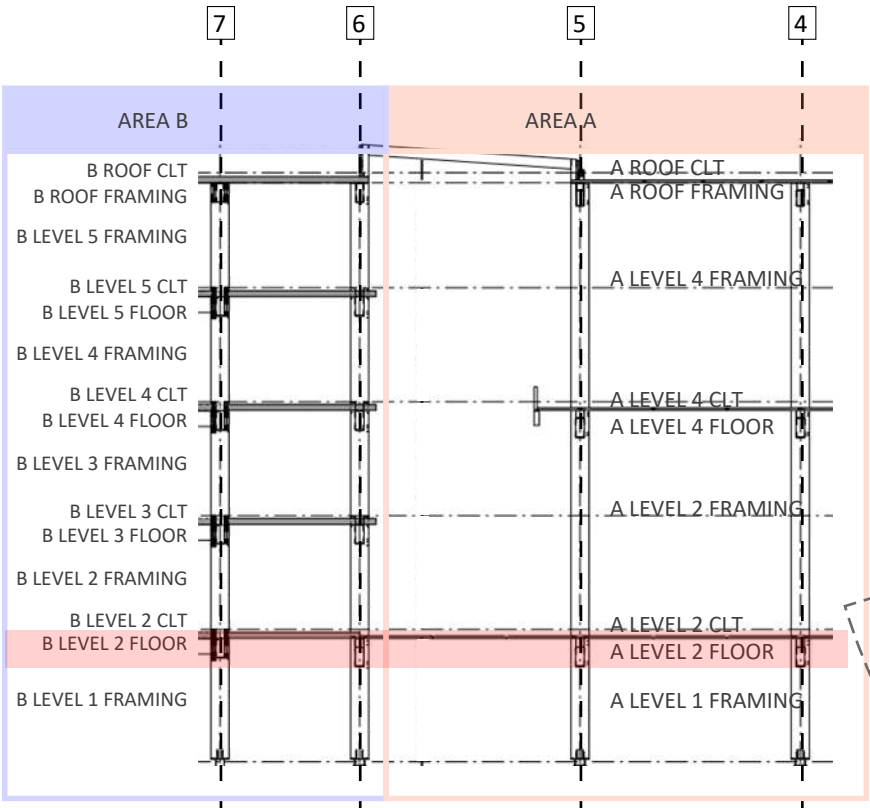
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DESCRIPTION
A-LVL 1 FRM / B-LVL 2
FLR

K107

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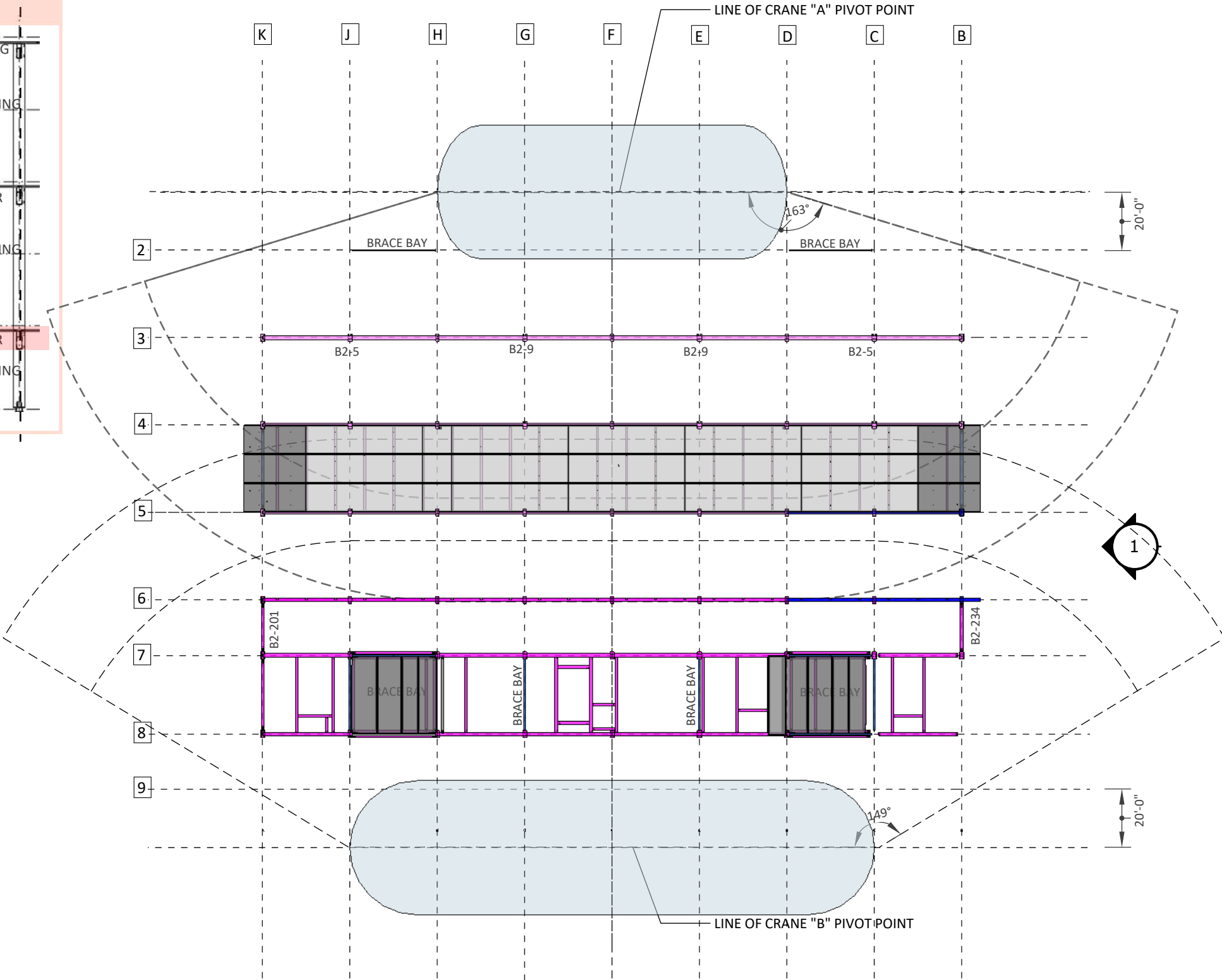


1

BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-5	5912
B2-9	5915

B - MEMBER NAME	WEIGHT LB
B2-201	1240
B2-234	1213



2

BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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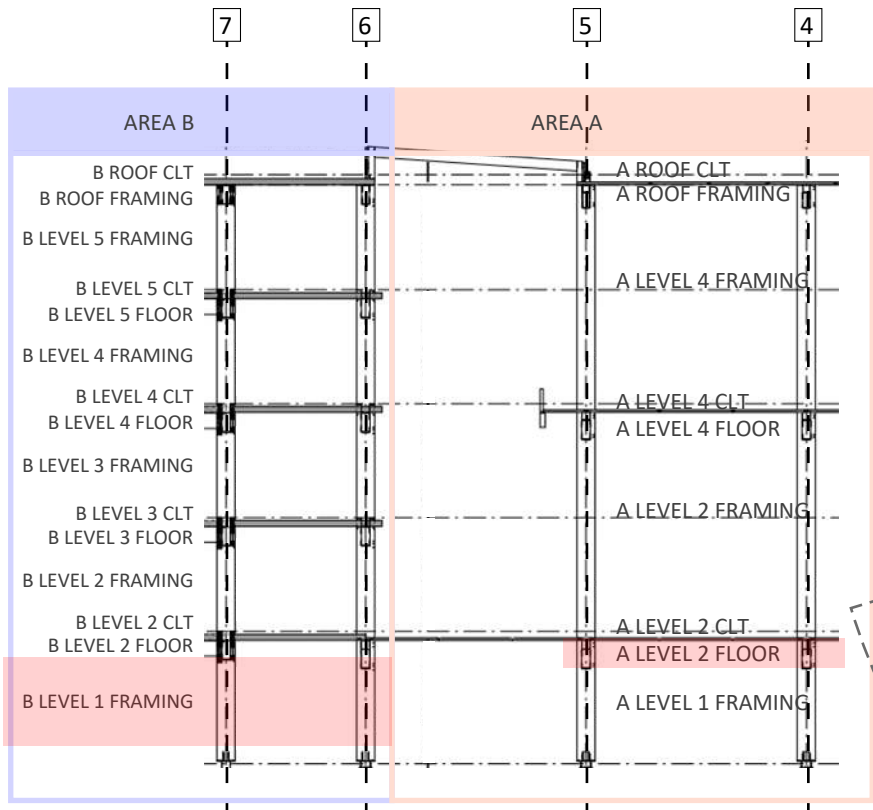
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DESIGNED BY
JZ

DESCRIPTION
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FLR

K108

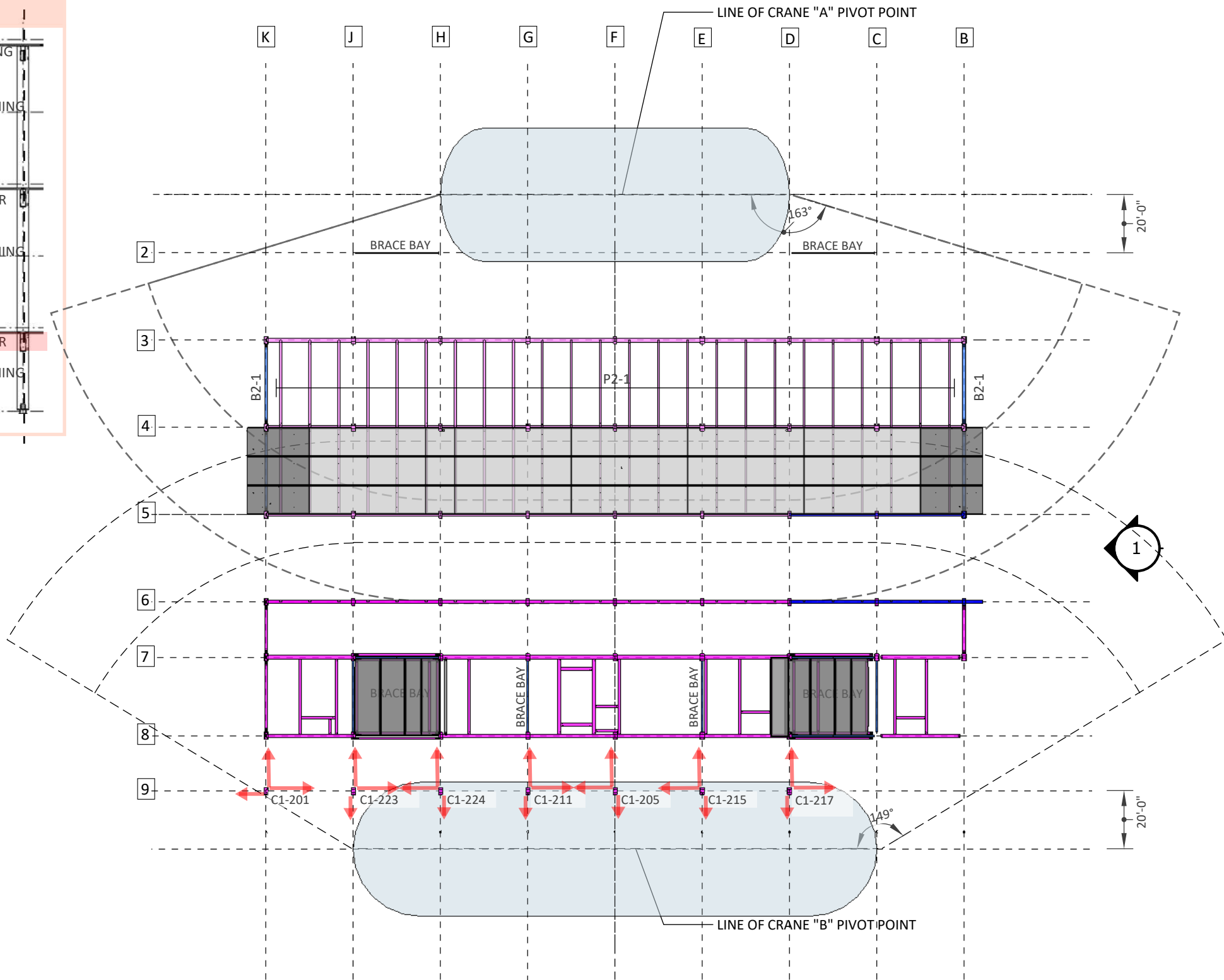
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1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-1	2087
P2-1	1286

B - MEMBER NAME	WEIGHT LB
C1-201	1863
C1-223	1847
C1-224	1847
C1-211	1847
C1-205	1847
C1-215	1847
C1-217	1949



2 BUILDING PLAN

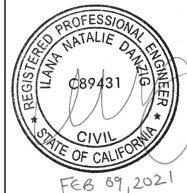
LEGEND

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- = RATCHET STRAP CONNECTION
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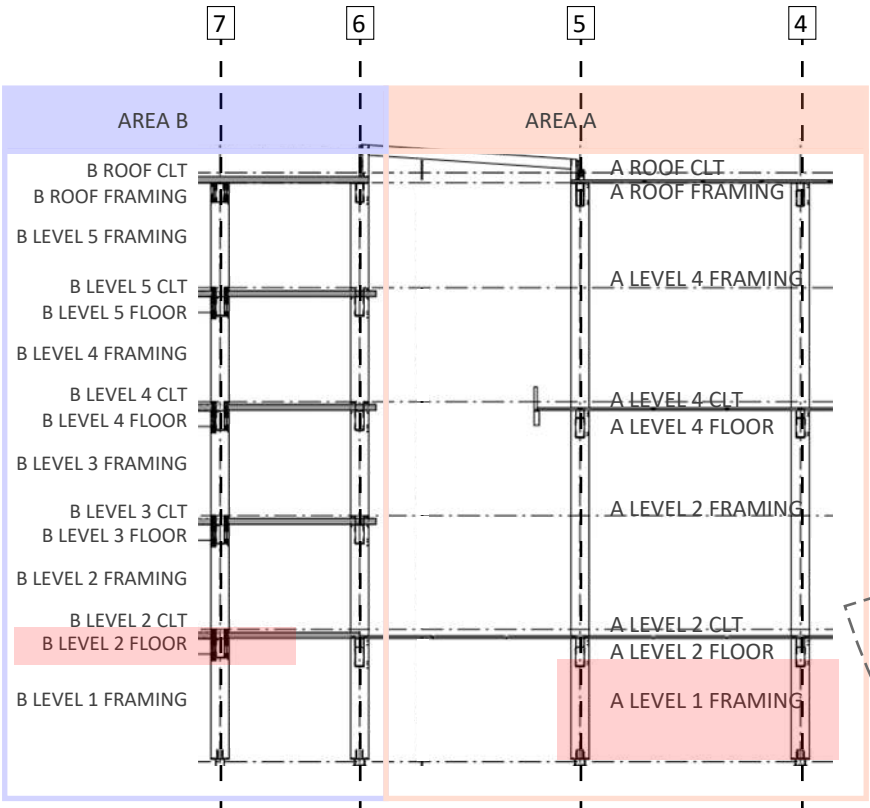
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FRM

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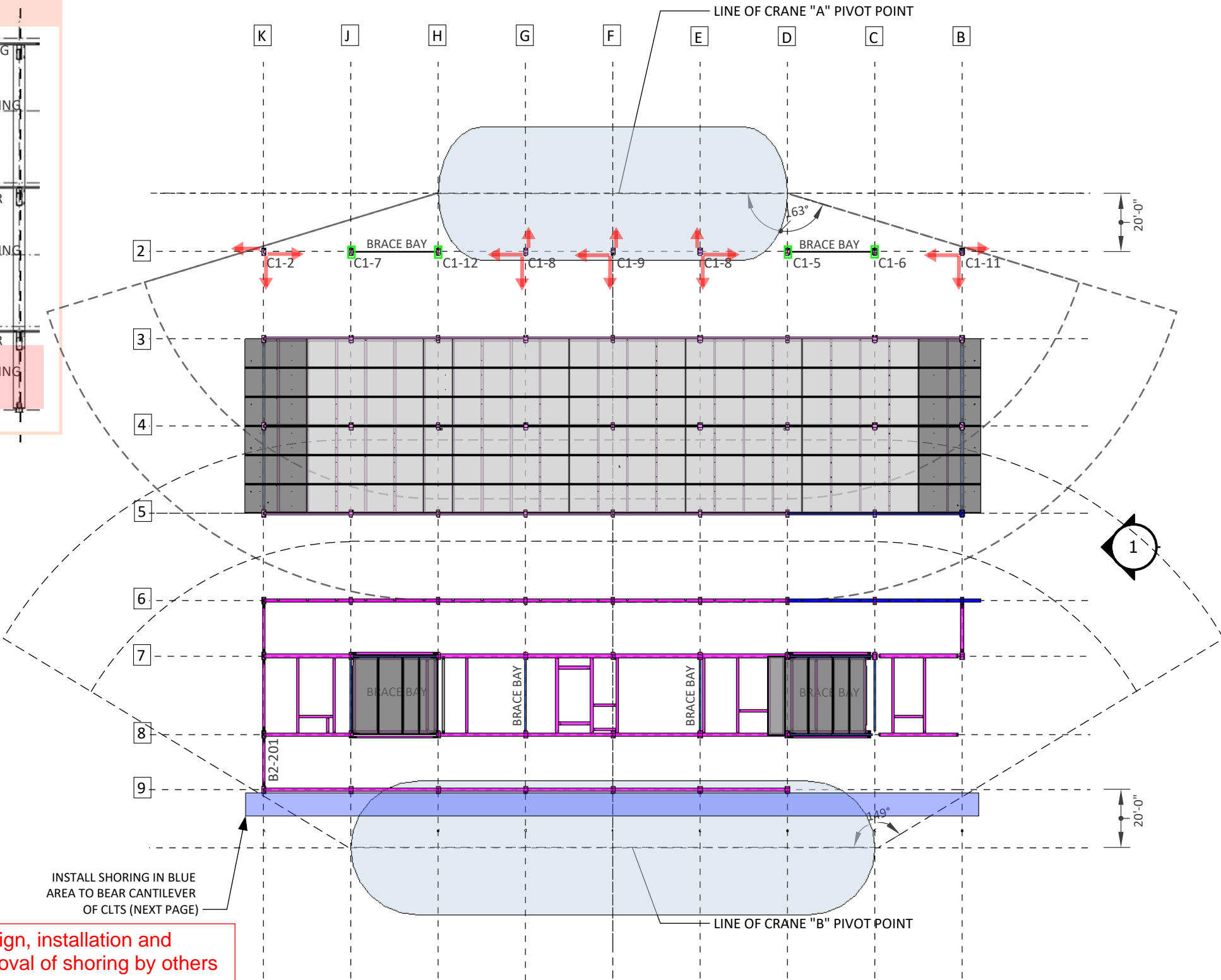
1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
C1-2	1863
C1-7	1906
C1-12	1906
C1-8	1847
C1-9	1707
C1-5	1906
C1-6	1906
C1-11	1863

B - MEMBER NAME	WEIGHT LB
B2-201	1240

INSTALL SHORING IN BLUE AREA TO BEAR CANTILEVER OF CLTS (NEXT PAGE)

Design, installation and removal of shoring by others



2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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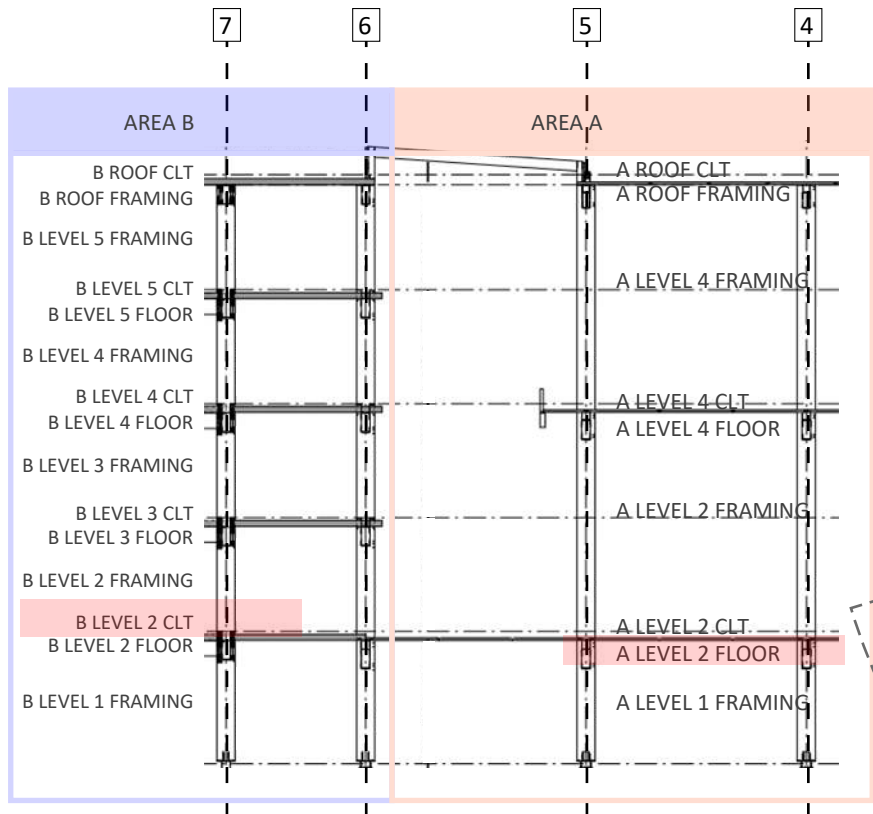
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FLR

K111

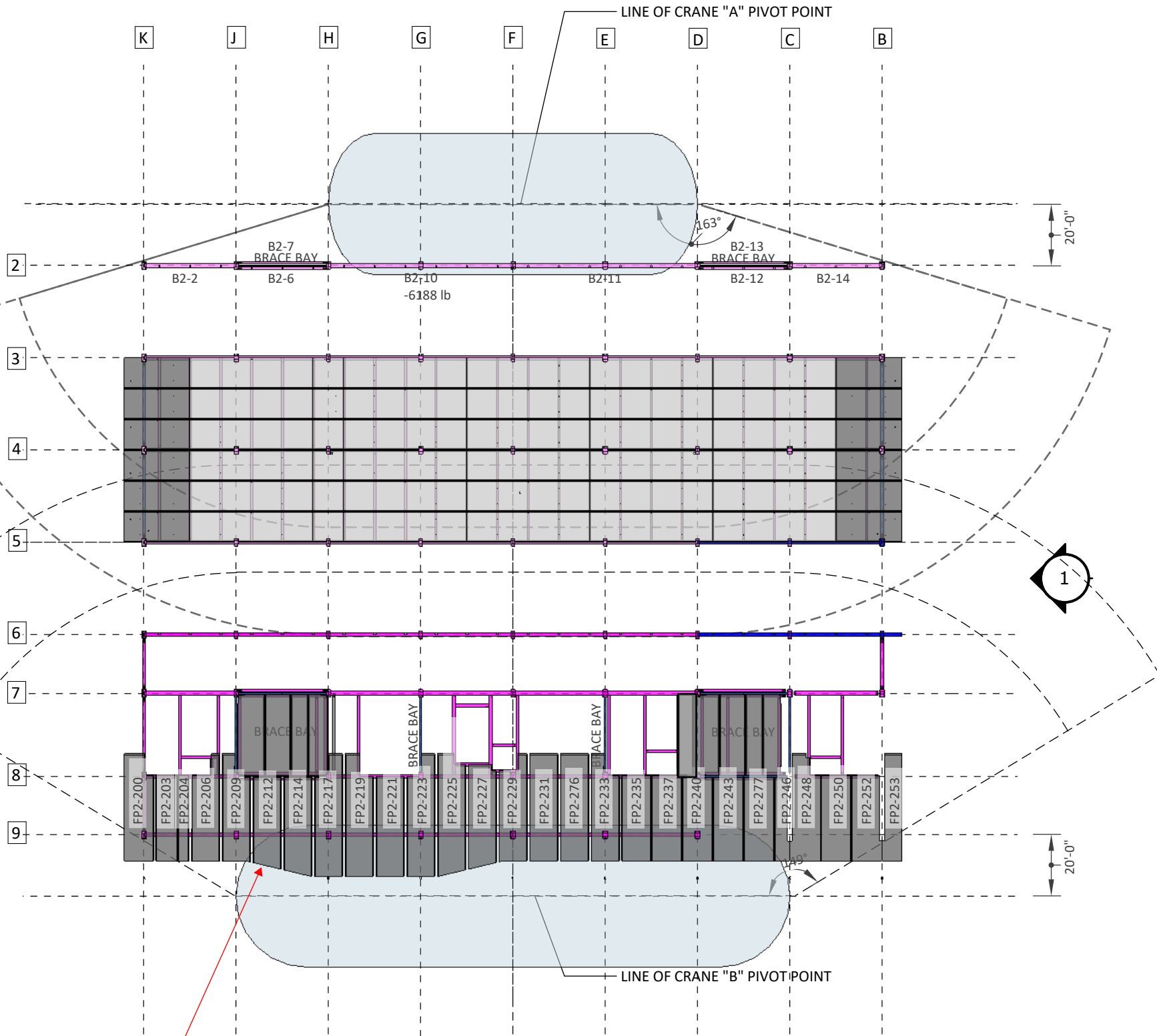


1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-2	3090
B2-6	1776
B2-7	1779
B2-10	6188
B2-11	6188
B2-12	1776
B2-13	1779
B2-14	3090

B - MEMBER NAME	WEIGHT LB
FP2-200	7753
FP2-203	5034
FP2-204	2542
FP2-206	7040
FP2-209	7067
FP2-212	6790
FP2-214	7351
FP2-217	8290
FP2-219	8541
FP2-221	7661
FP2-223	8273
FP2-225	8798
FP2-227	7666
FP2-229	7142
FP2-231	8196
FP2-276	8196
FP2-233	8273
FP2-235	6819
FP2-237	7080
FP2-240	6836
FP2-243	6934
FP2-277	6937
FP2-246	3001
FP2-248	7677
FP2-250	6939
FP2-252	6718
FP2-253	5094

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2 BUILDING PLAN

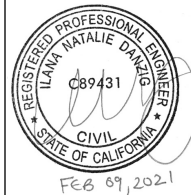
Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

- LEGEND**
- = TIMBER BRACING AS PER K005/K006
 - ← → = SCISSOR LIFT DRIVE AISLE
 - = RATCHET STRAP CONNECTION
 - = CABLE BRACING AS PER K008/K009

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REV 5	DATE 10/14/20

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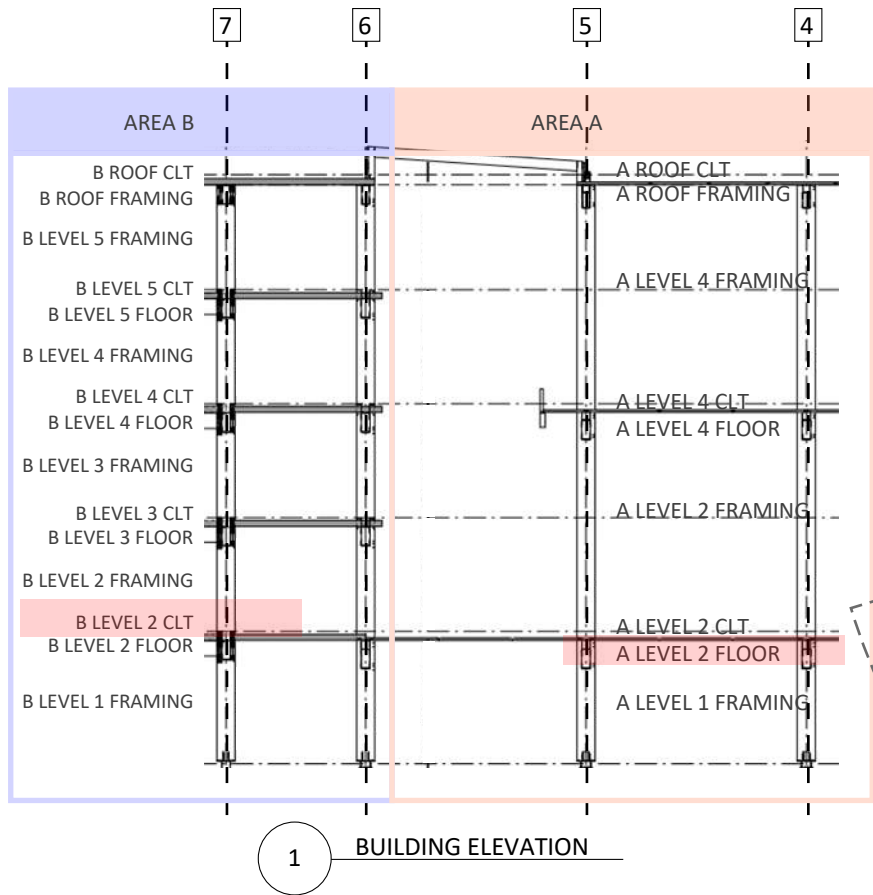
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K112



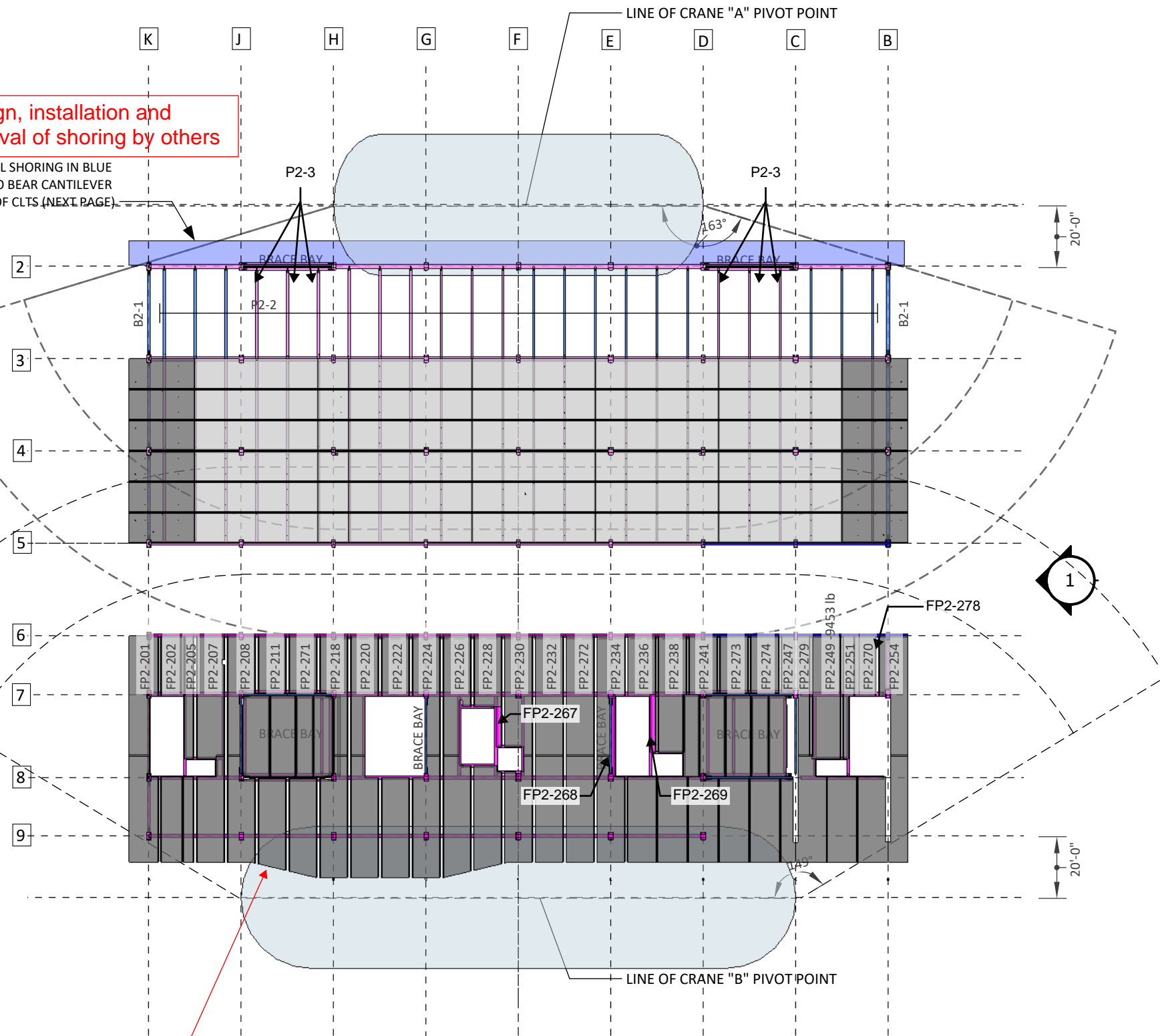
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B2-1	2087
P2-1	1267

B - MEMBER NAME	WEIGHT LB
FP2-201	7893
FP2-202	3814
FP2-205	3174
FP2-207	9240
FP2-208	6502
FP2-211	4415
FP2-271	4415
FP2-218	6481
FP2-220	6991
FP2-222	4634
FP2-224	6598
FP2-226	7589
FP2-228	5397
FP2-230	8599
FP2-232	9121
FP2-272	9167
FP2-234	6597
FP2-236	4606
FP2-238	8415
FP2-241	4359
FP2-273	4415
FP2-274	4415
FP2-247	2126
FP2-279	4105
FP2-249	9453
FP2-251	2700
FP2-270	3564
FP2-254	5914

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Design, installation and removal of shoring by others

INSTALL SHORING IN BLUE AREA TO BEAR CANTILEVER OF CLTS (NEXT PAGE)



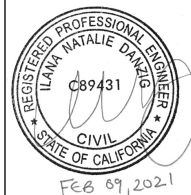
Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND	
	= TIMBER BRACING AS PER K005/K006
	= SCISSOR LIFT DRIVE AISLE
	= RATCHET STRAP CONNECTION
	= CABLE BRACING AS PER K008/K009

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REV 5	DATE 10/14/20

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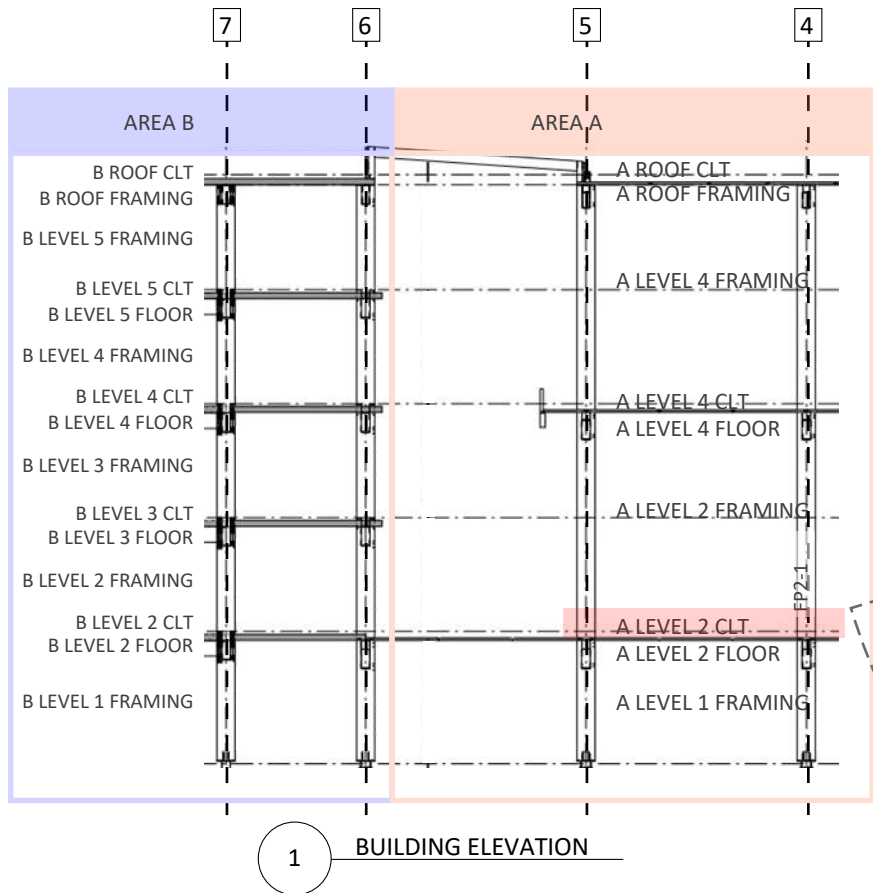
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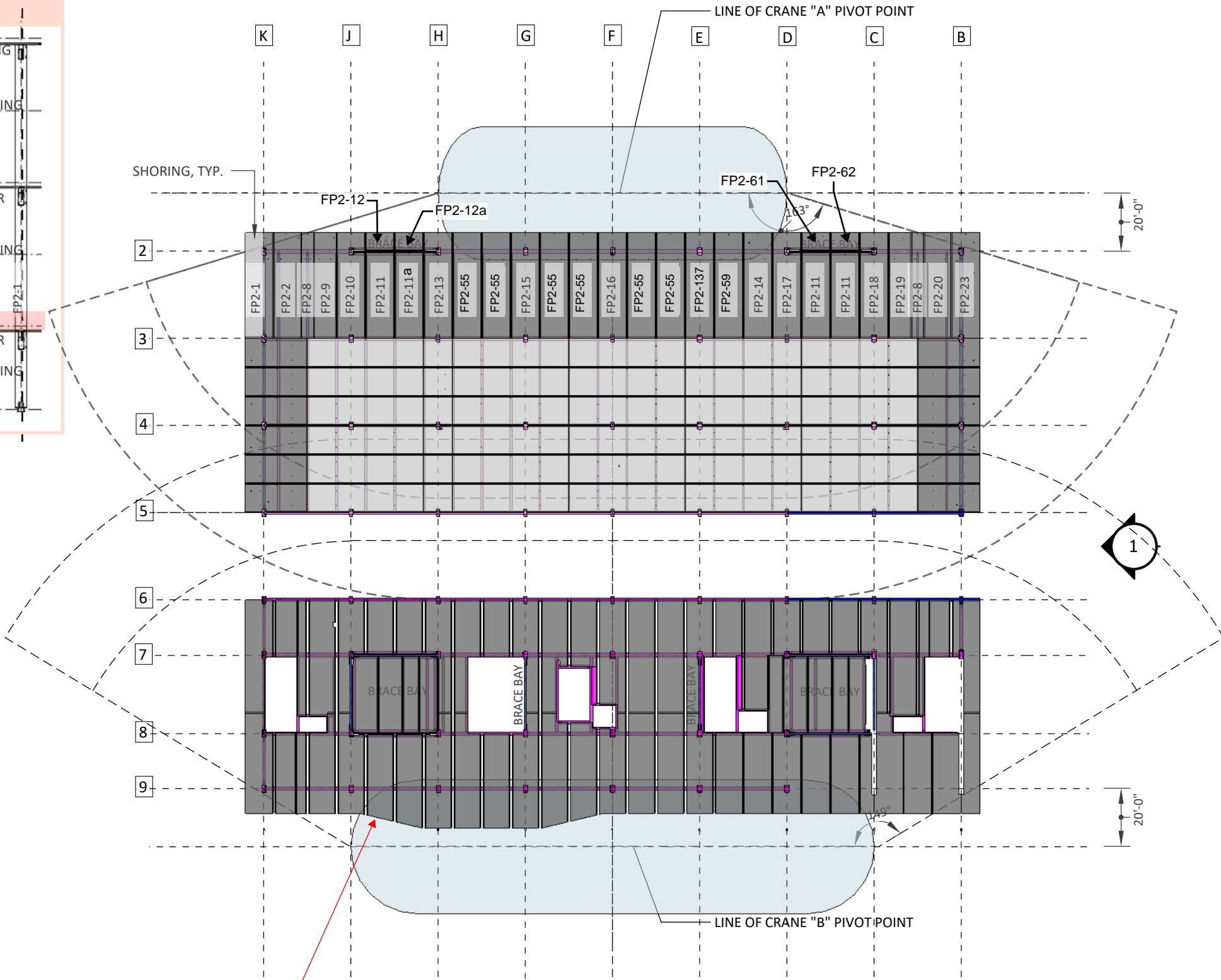
DESCRIPTION
A-LVL 2 FLR / B-LVL 2
CLT

K113



A - MEMBER NAME	WEIGHT LB
FP2-1	9040
FP2-2	8909
FP2-8	4140
FP2-9	7288
FP2-10	9088
FP2-11	7588
FP2-13	9099
FP2-14	9335
FP2-15	9192
FP2-16	9201
FP2-17	9098
FP2-18	9089
FP2-19	7287
FP2-20	8911
FP2-23	9040

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LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

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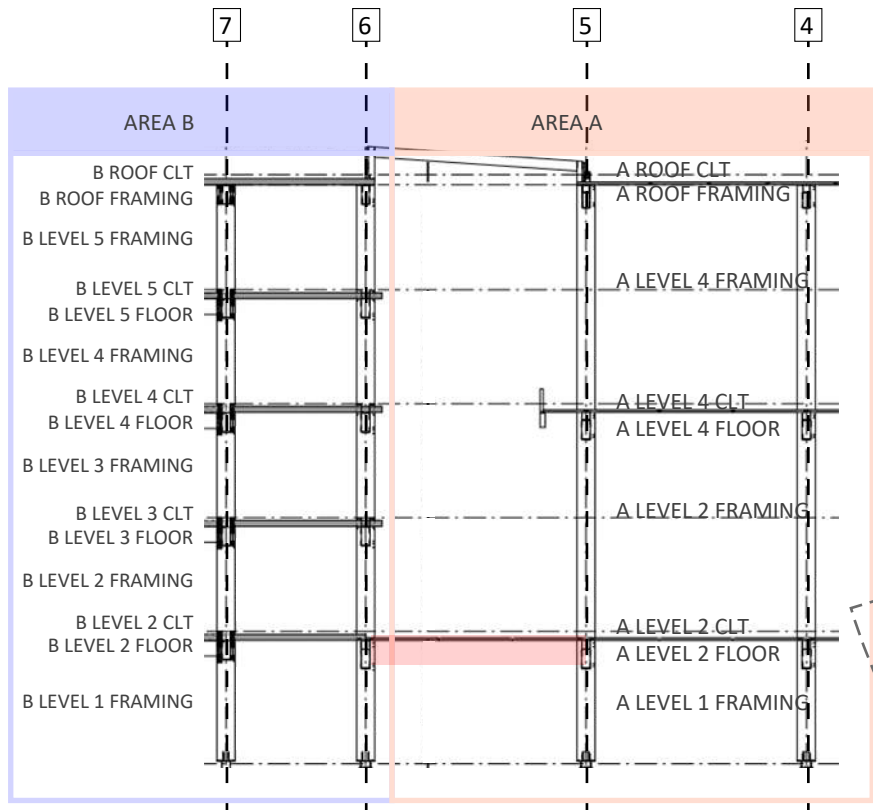
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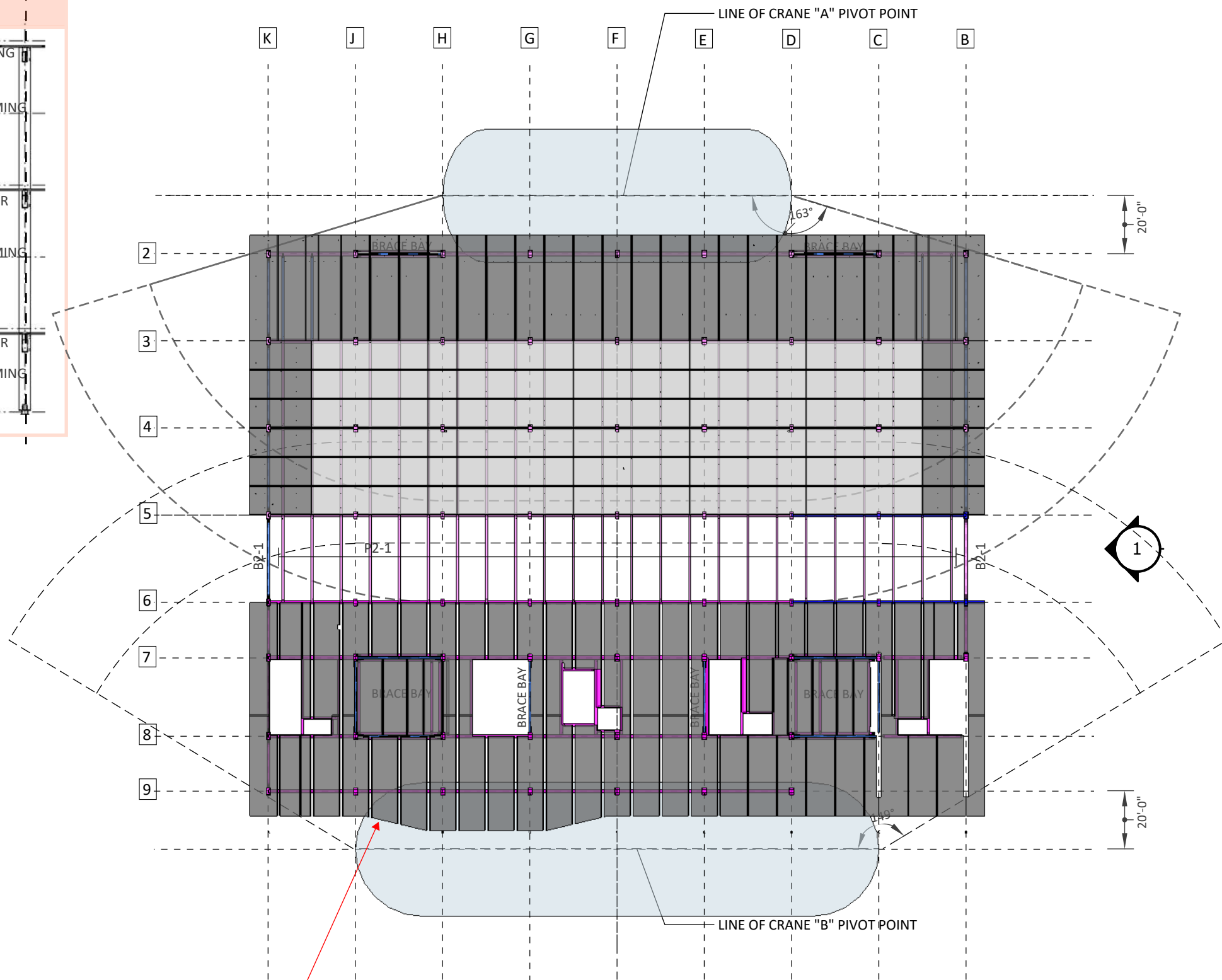
K114



1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
B2-1	2087
P2-1	1267

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2 BUILDING PLAN

Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND	
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	= SCISSOR LIFT DRIVE AISLE
	= RATCHET STRAP CONNECTION
	= CABLE BRACING AS PER K008/K009

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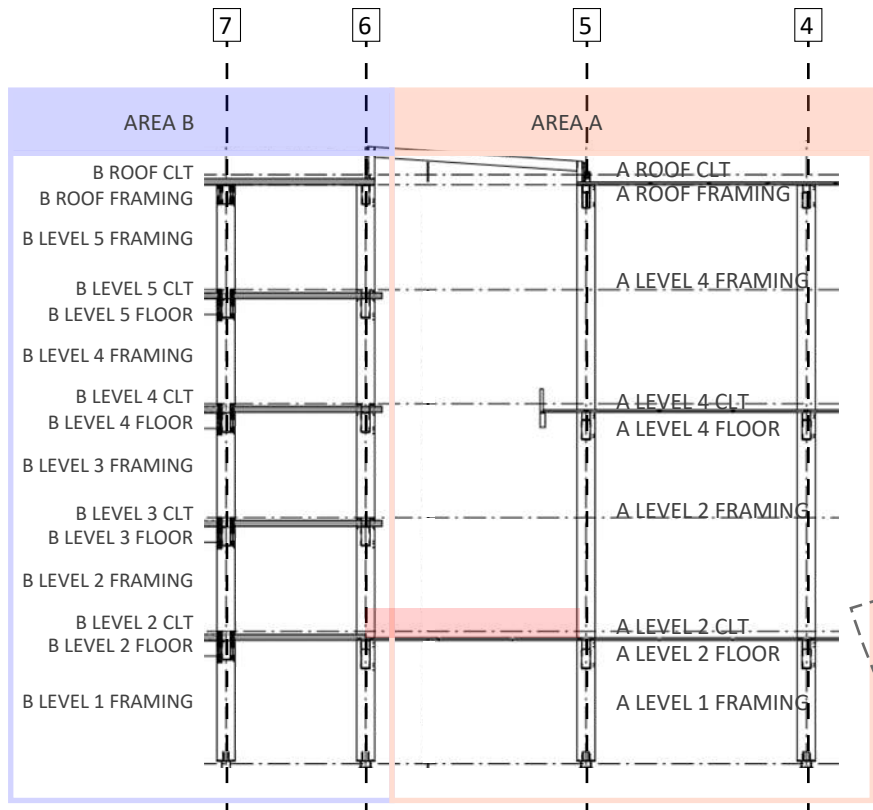
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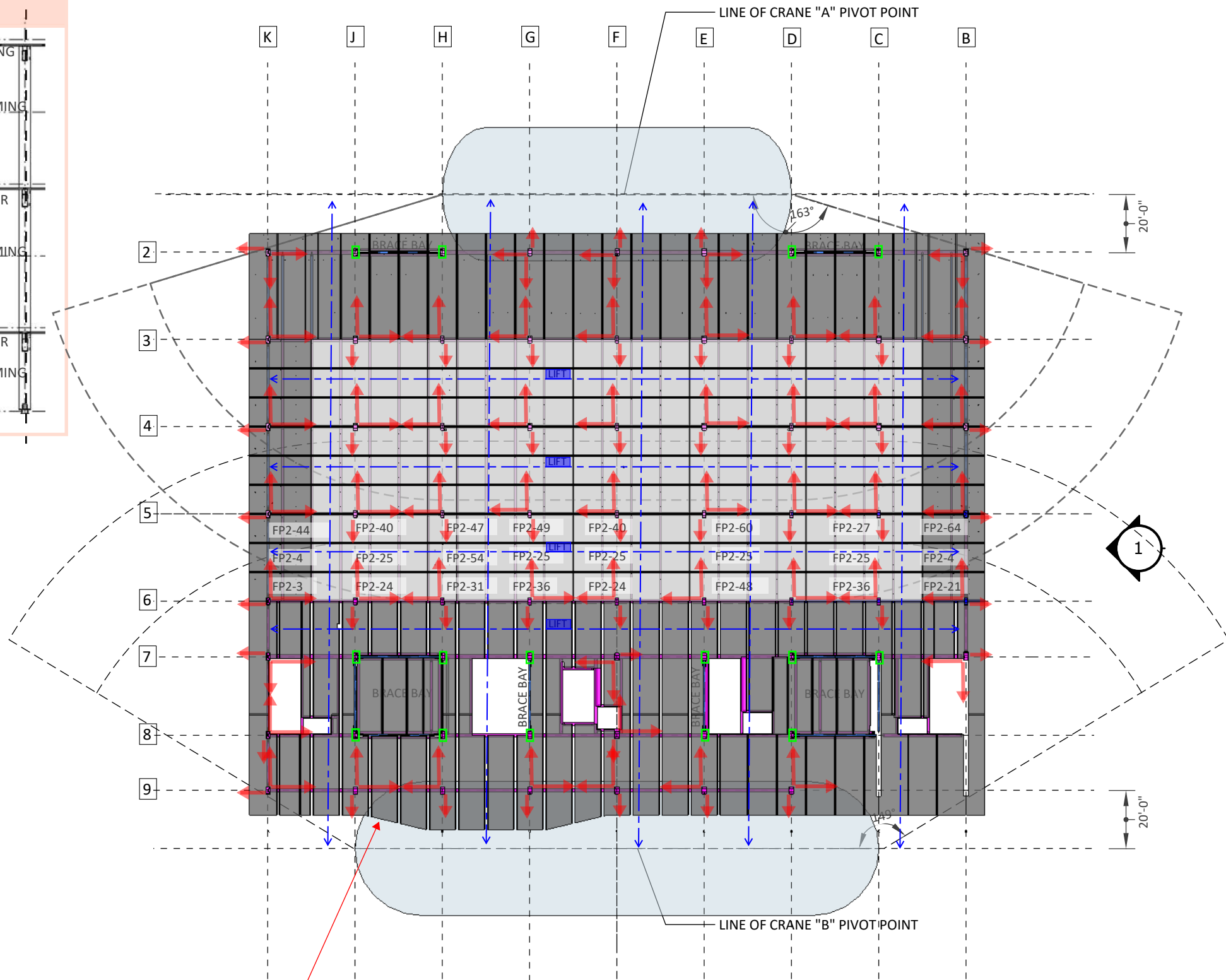
K115



1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
FP2-44	5451
FP2-4	5499
FP2-3	5473
FP2-40	4341
FP2-25	4357
FP2-24	4365
FP2-47	1073
FP2-54	1089
FP2-31	1078
FP2-49	4341
FP2-36	4365
FP2-60	4325
FP2-48	4348
FP2-27	4341
FP2-64	5451
FP2-21	5474

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K116



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Date:	Revision / Issue:	No.:
2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step 1 Bracing

Scale:	Drawn:	ME
NTS	Designed:	ME
	Checked:	AGID

Drawing No.: Revision No.: -

LOADING PER ASCE 37-14

Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads	
Operational Class	Uniform Load ^a [psf (kN/m ²)]
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
^b Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
^b Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
^b Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)
^c Loads do not include dead load, D; construction dead load, C _D , or fixed material loads, C _{FML} . ^d OSHA categories.	

Examples of construction operations that have traditionally been designed for the loads given in the table are:

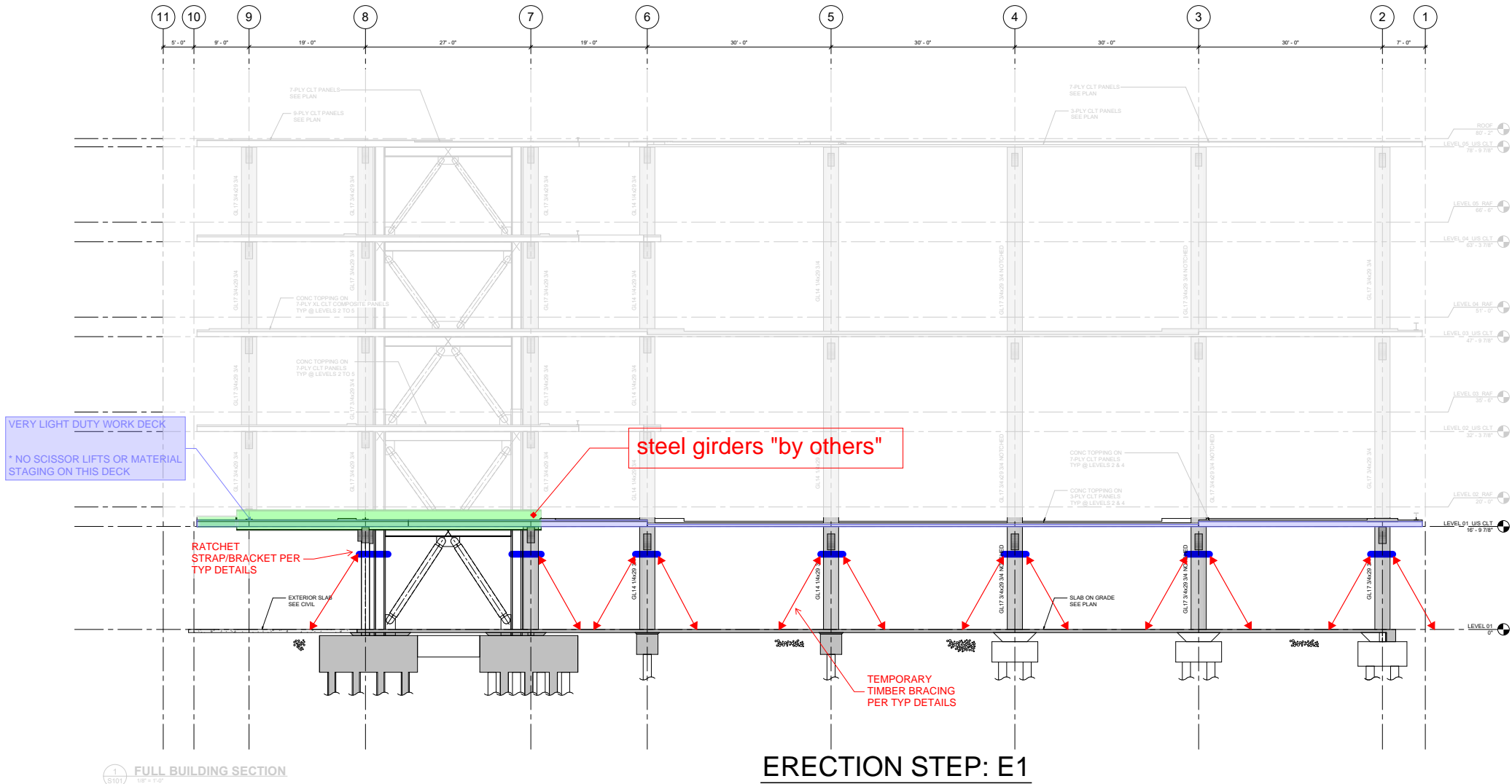
Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

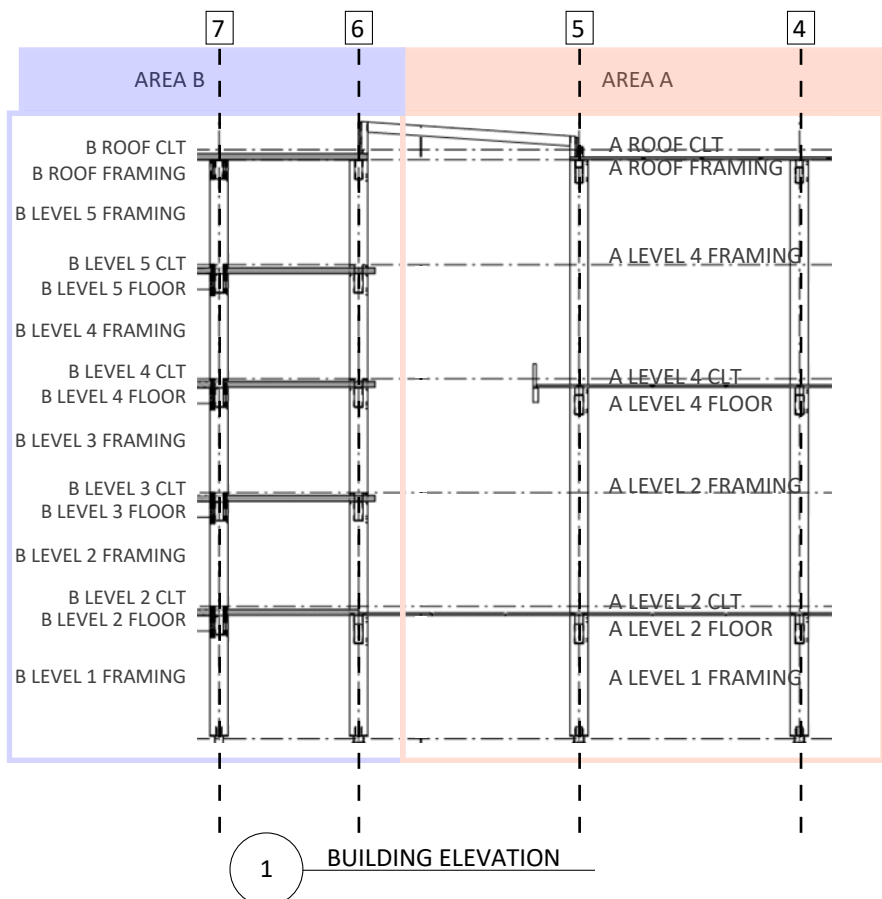
Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Concrete transport and placement by buckets, chutes, or handcars
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement

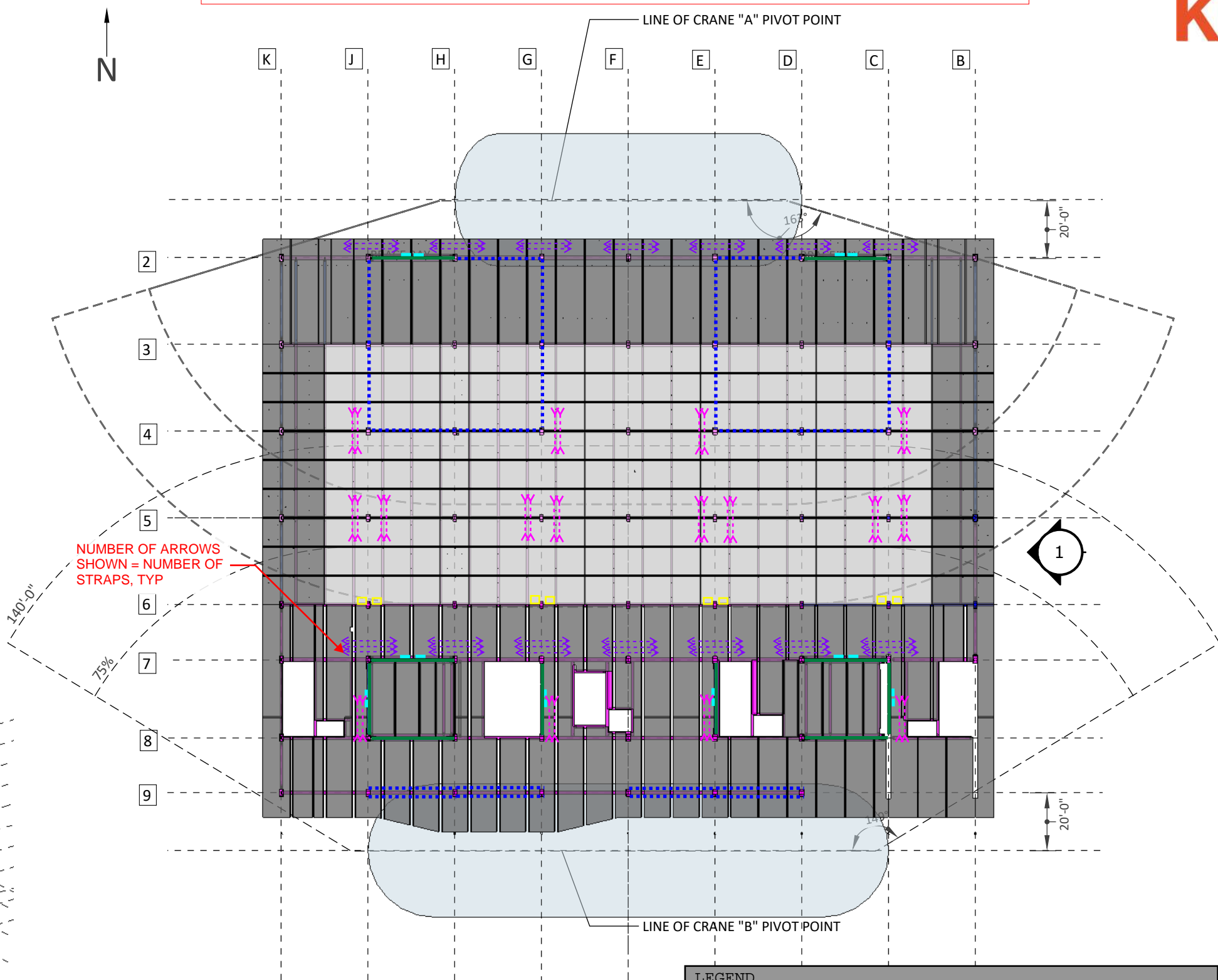
Erection Sequence

Erection Step	Procedure
E1	E1.1: Place anchors/embeds in slab E1.2: Install steel frame. Brace steel per installer. E1.3: Install timber columns per sequencing drawings. Brace columns per 15' timber brace detail. E1.4: Block out gap between glulam columns & steel brace frame columns. Wrap truck straps around columns per drawings. E1.5: Install level 2 deck. Install all splines and CLT deck connections per structural drawings and temporary strapping plan on level 2. <i>* Note: Level 2 is now considered a "Very Light Duty" deck. No scissor lifts or material staging are permitted on this deck.</i>





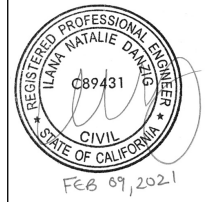
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LEGEND	
—	= PERMANENT BRB BRACING
- - - - -	= TEMPORARY X-BRACE BAYS
< - - - - - >	= CMST12 DRAG STRAP (3/K011)
> - - - - - <	= CMST14 DRAG STRAP (3/K011)
□	= ANGLE BRACKET (1/K011)
—	= DRAG PLATE CONNECTION (K012)

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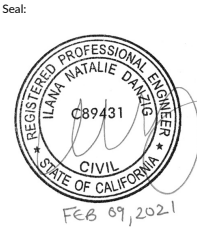


February 9, 2021	
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REV 3	DATE 10/14/20
REV	DATE
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PROJECT	Borregas
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DESCRIPTION	START LEVEL 2 PAGE

K200



Project No.: 1535
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Sunnyvale, CA 94089

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Date:	Revision / Issue:	No.:
2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step 2 Bracing

Scale:	Drawn:	ME
NTS	Designed:	ME
	Checked:	AGTD

Drawing No.: Revision No.: -

K201

LOADING PER ASCE 37-14

Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads	
Operational Class	Uniform Load ^a [psf (kN/m ²)]
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
^b Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
^b Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
^b Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)
^a Loads do not include dead load, D; construction dead load, C _D , or fixed material loads, C _{FM} . ^b OSHA categories.	

Examples of construction operations that have traditionally been designed for the loads given in the table are:

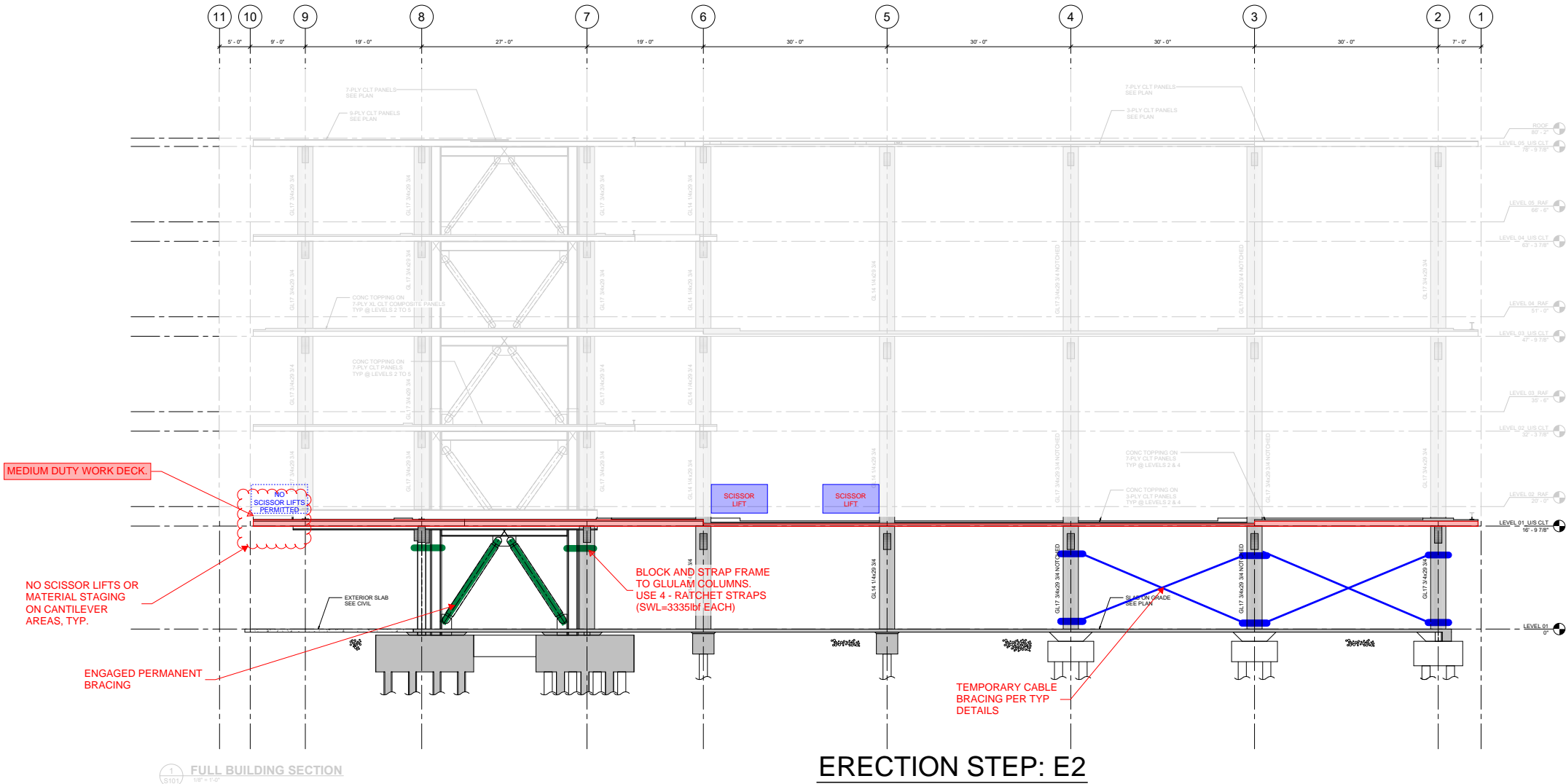
Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

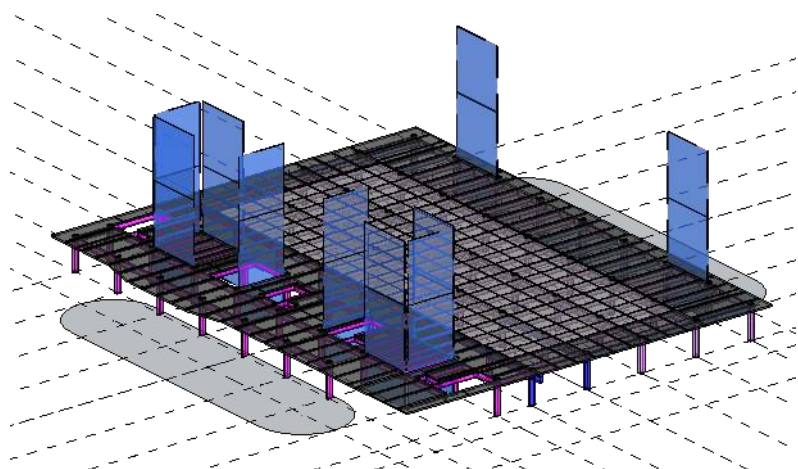
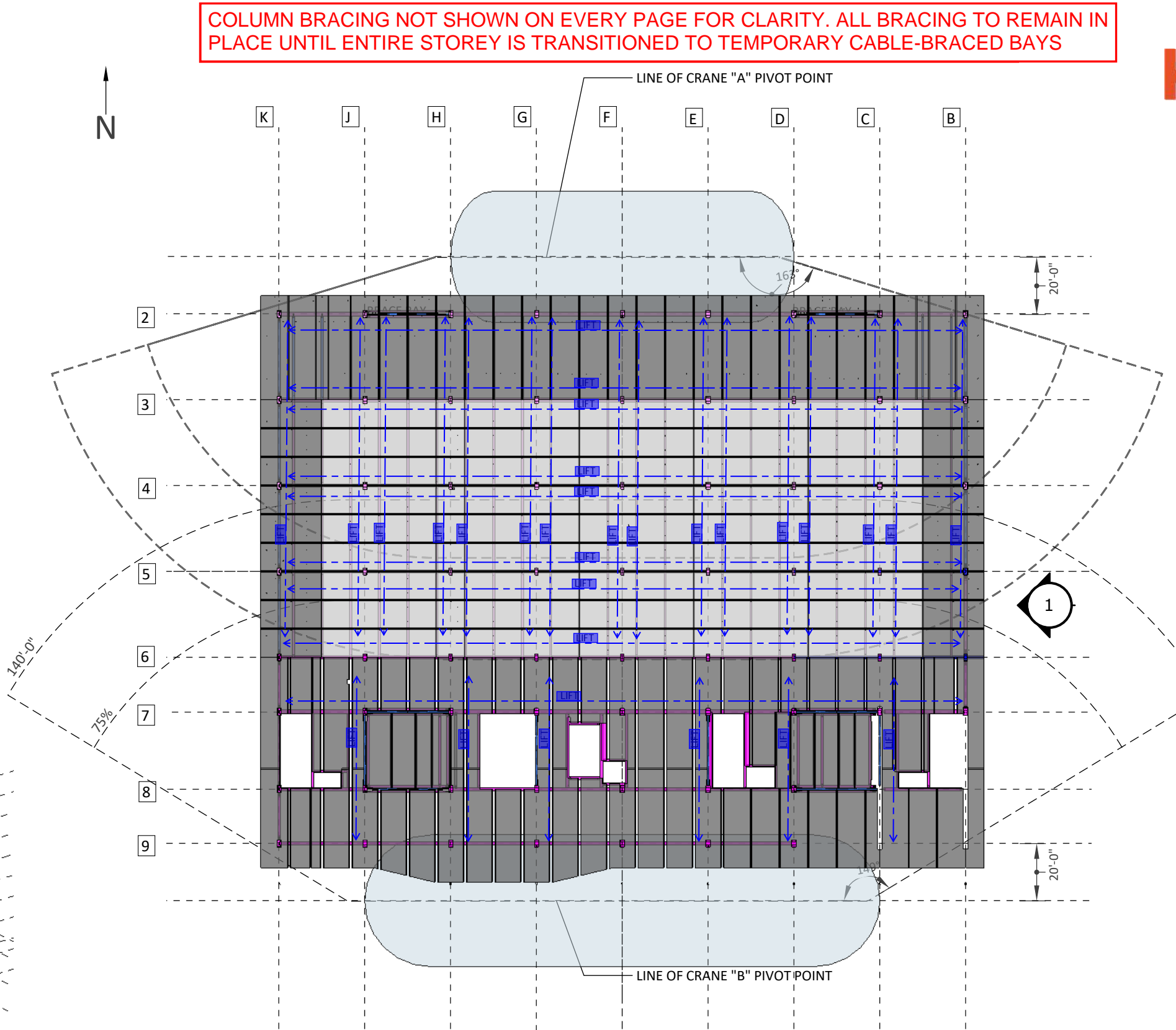
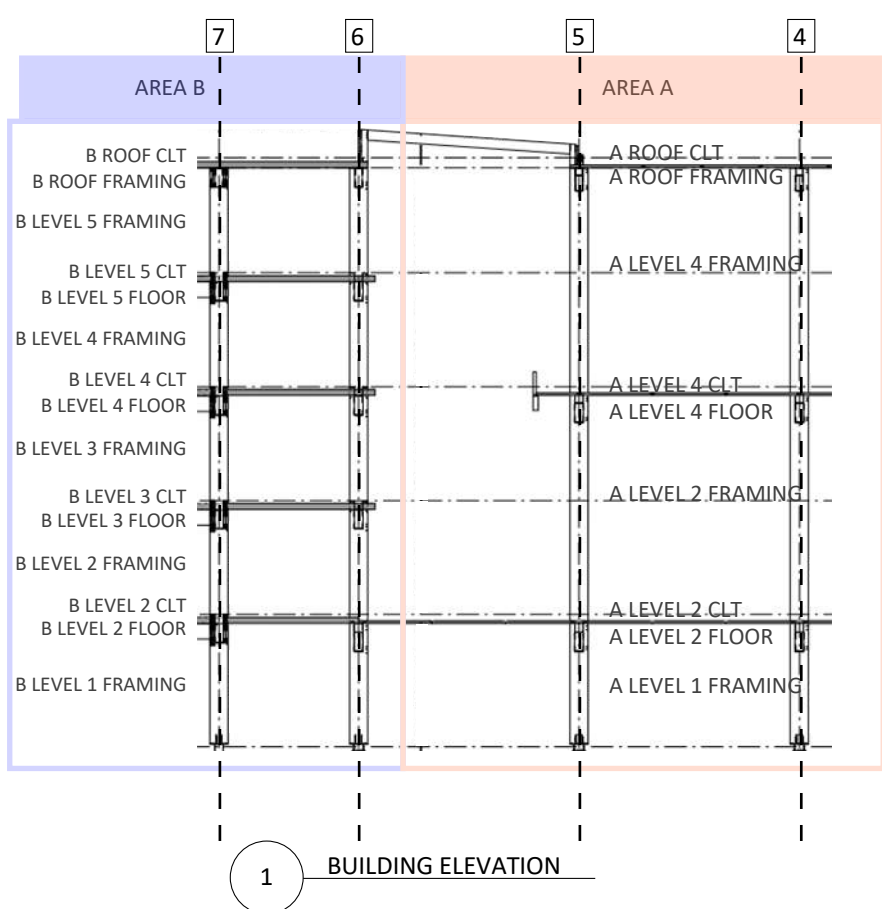
Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Concrete transport and placement by buckets, chutes, or handcarts
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement

Erection Sequence

Erection Step	Procedure
E2	E2.1: Replace level 1 timber temporary bracing with cable bracing per typical detail. <i>* Note: Level 2 deck can now be classified as "Medium Duty". Therefore, scissor lifts can now be driven on this deck and material can be staged.</i>





LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

COLUMN BRACING NOT SHOWN ON EVERY PAGE FOR CLARITY. ALL BRACING TO REMAIN IN PLACE UNTIL ENTIRE STOREY IS TRANSITIONED TO TEMPORARY CABLE-BRACED BAYS

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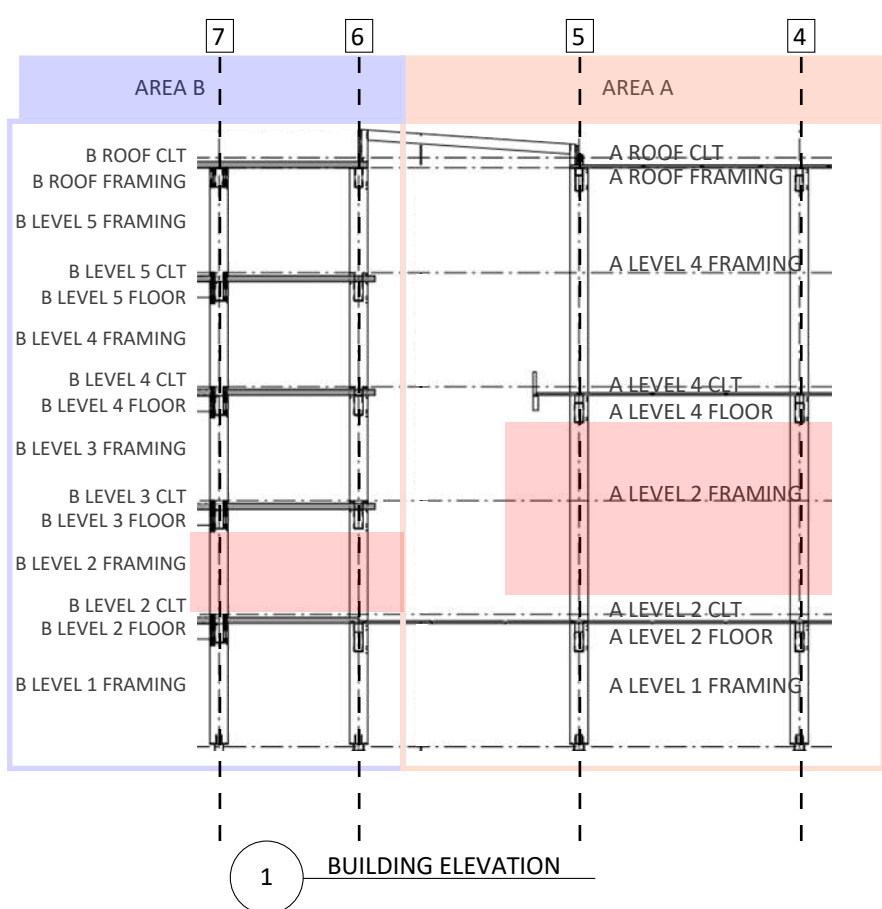
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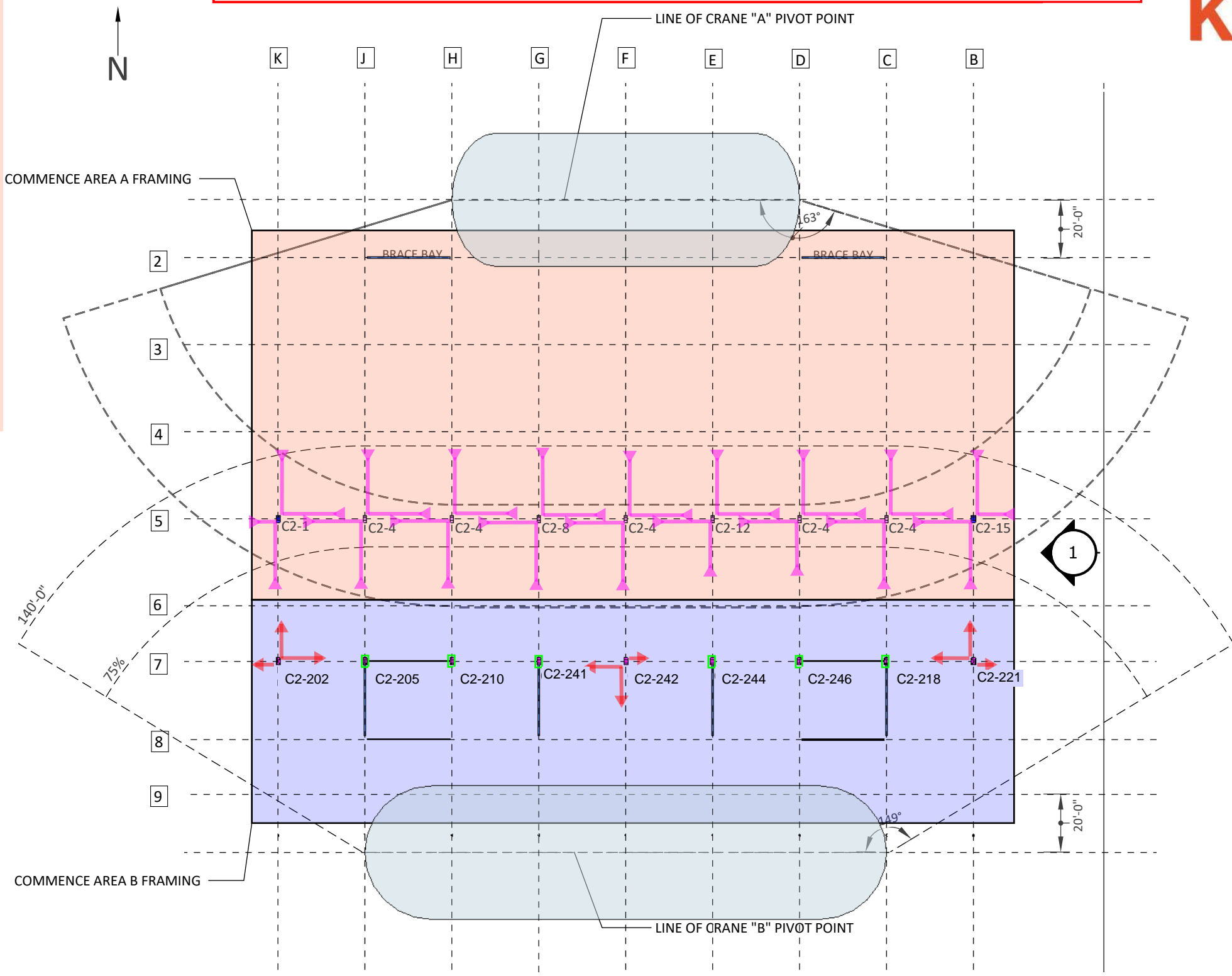
K300



A - MEMBER NAME	WEIGHT LB
C2-1	3326
C2-4	2816
C2-8	2711
C2-12	2711
C2-15	3326

B - MEMBER NAME	WEIGHT LB
C3-203	1734
C3-237	1732
C3-210	1731
C3-213	1677
C3-238	1677
C3-207	1346
C3-219	1731
C3-222	1734

COLUMN BRACING NOT SHOWN ON EVERY PAGE FOR CLARITY. ALL BRACING TO REMAIN IN PLACE UNTIL ENTIRE STOREY IS TRANSITIONED TO TEMPORARY CABLE-BRACED BAYS



LEGEND

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- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009



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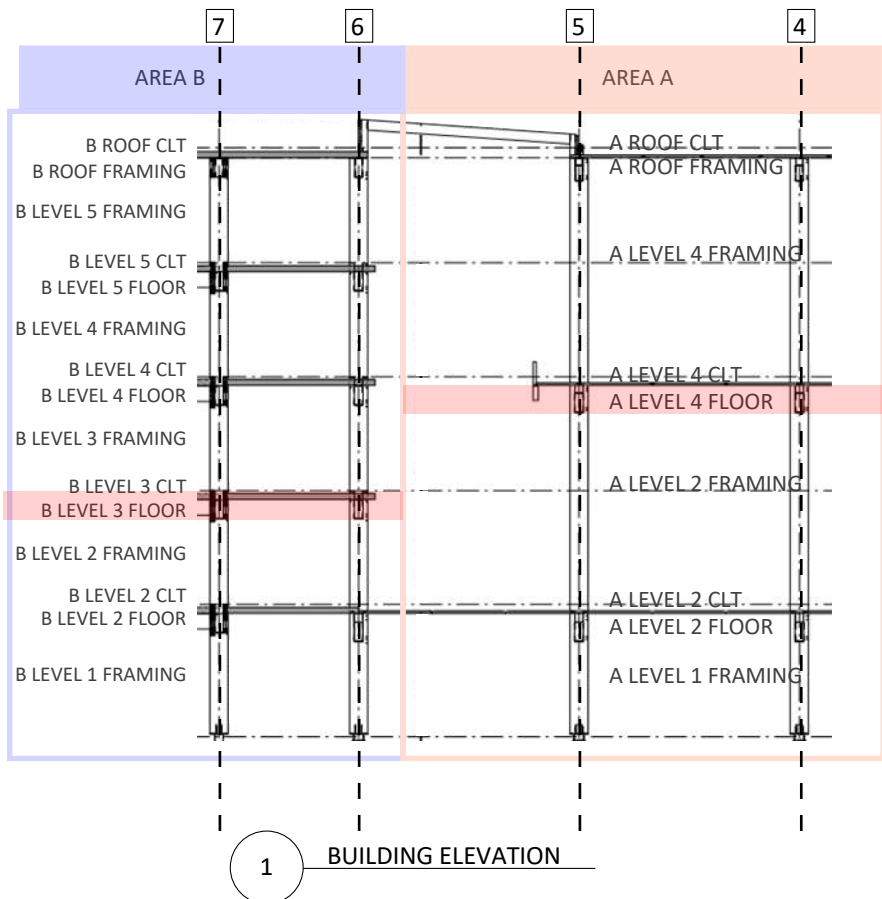
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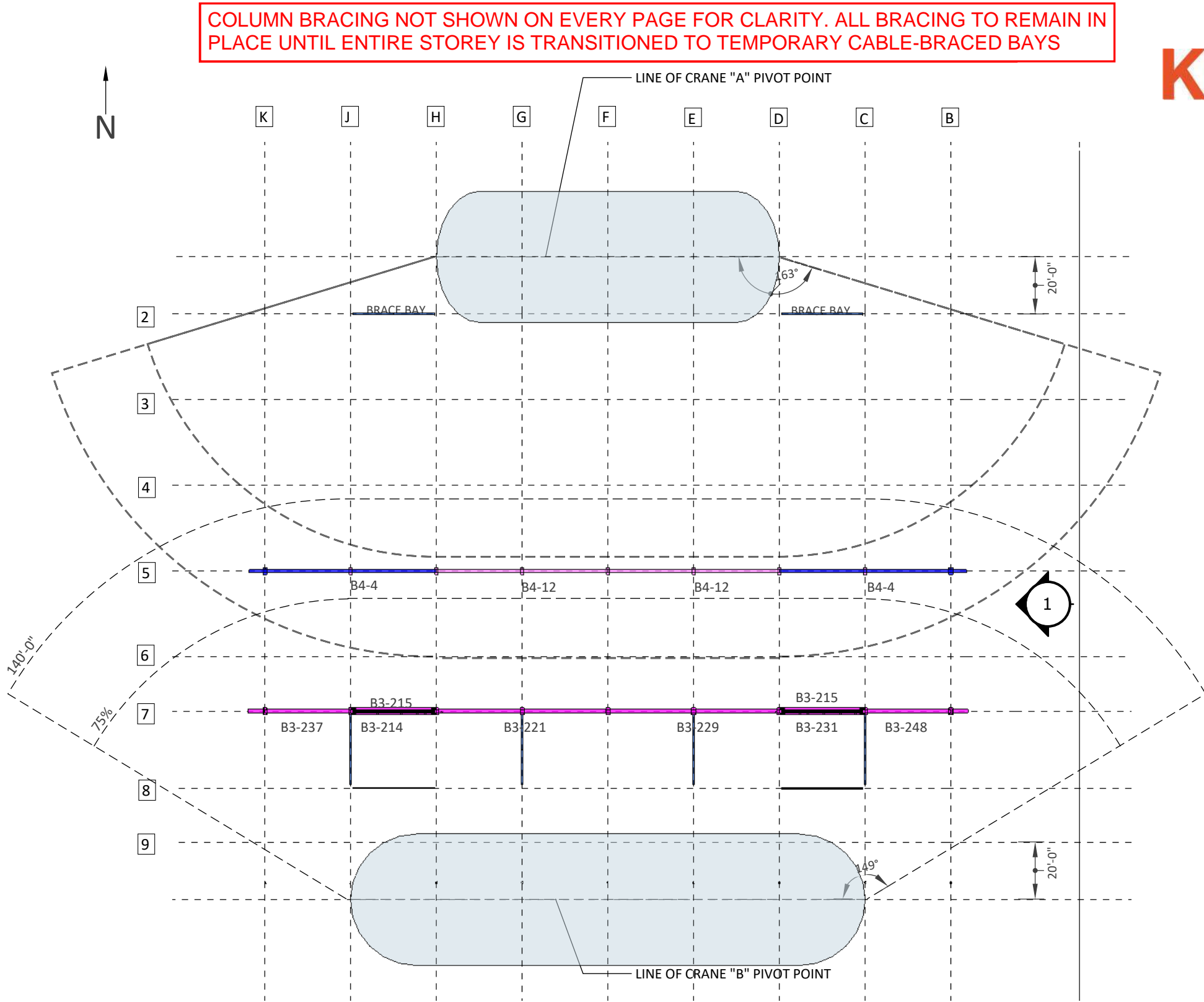
DESCRIPTION
A-LVL 2 FRM / B-LVL 2
FRM

K301



A - MEMBER NAME	WEIGHT LB
B4-4	6457
B4-12	5918

B - MEMBER NAME	WEIGHT LB
B3-237	3542
B3-215	1624
B3-214	1853
B3-221	5911
B3-229	5910
B3-215	1624
B3-231	1853
B3-248	3542



LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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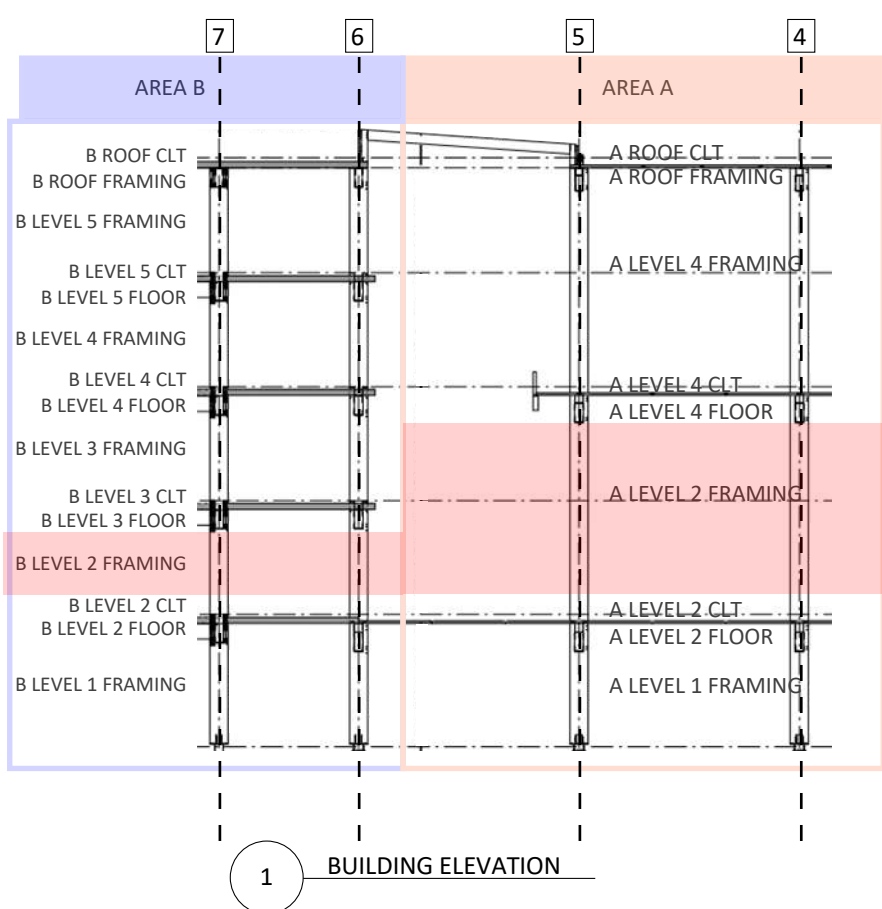
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E_Sequence to Level 4

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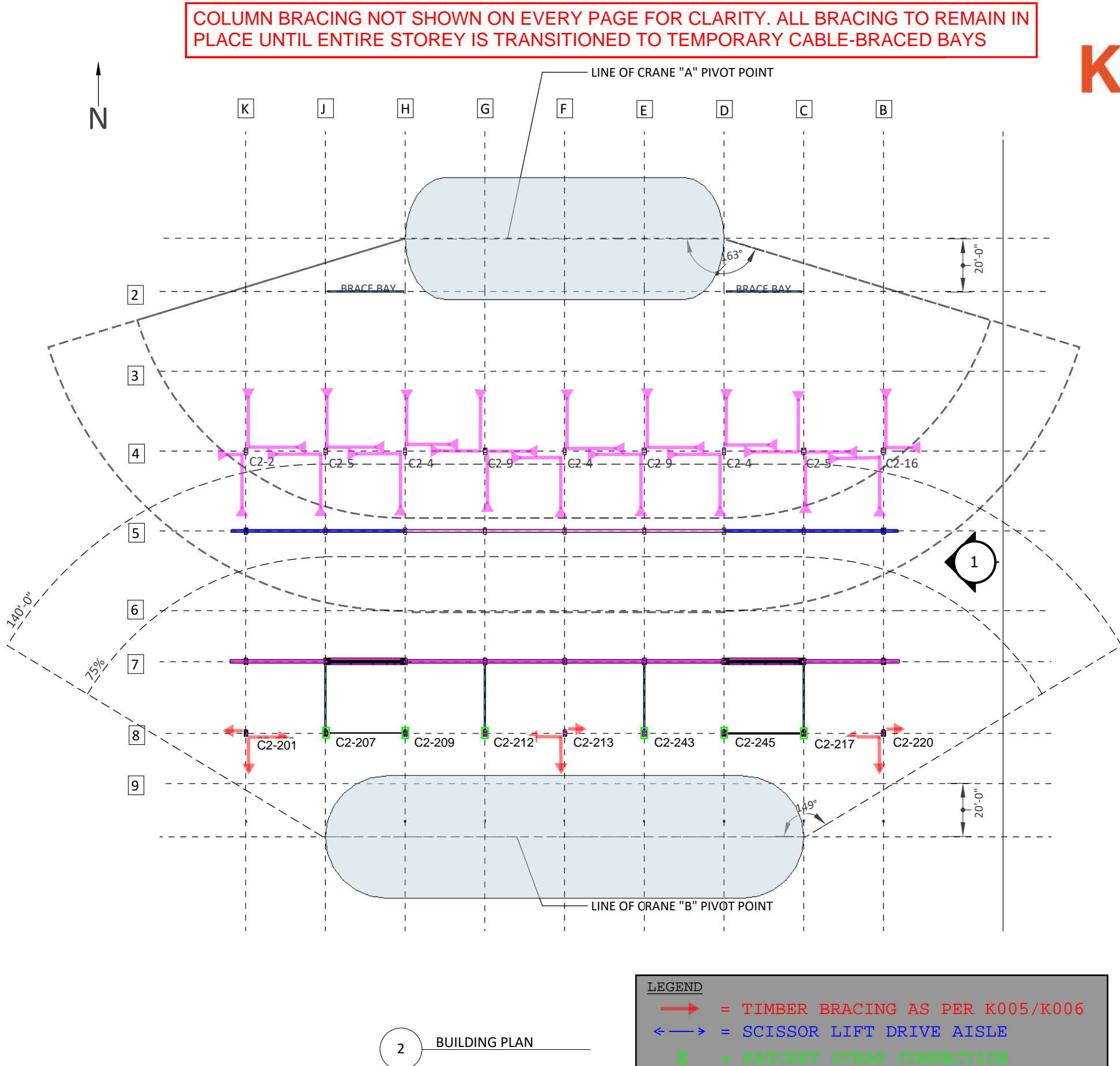
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FLR

K302



A - MEMBER NAME	WEIGHT LB
C2-2	3429
C2-5	3157
C2-4	2816
C2-9	3260
C2-16	3429

B - MEMBER NAME	WEIGHT LB
C3-202	1734
C3-236	1732
C3-209	1731
C3-212	1677
C3-213	1677
C3-239	1677
C3-206	1731
C3-218	1731
C3-221	1734



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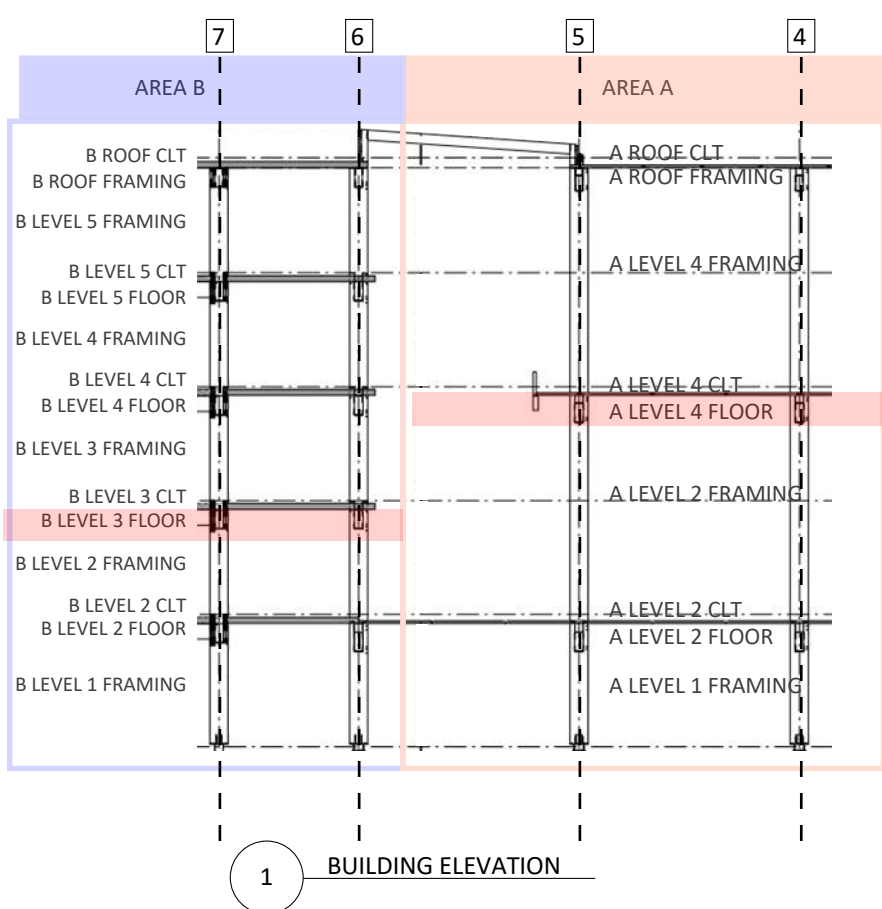


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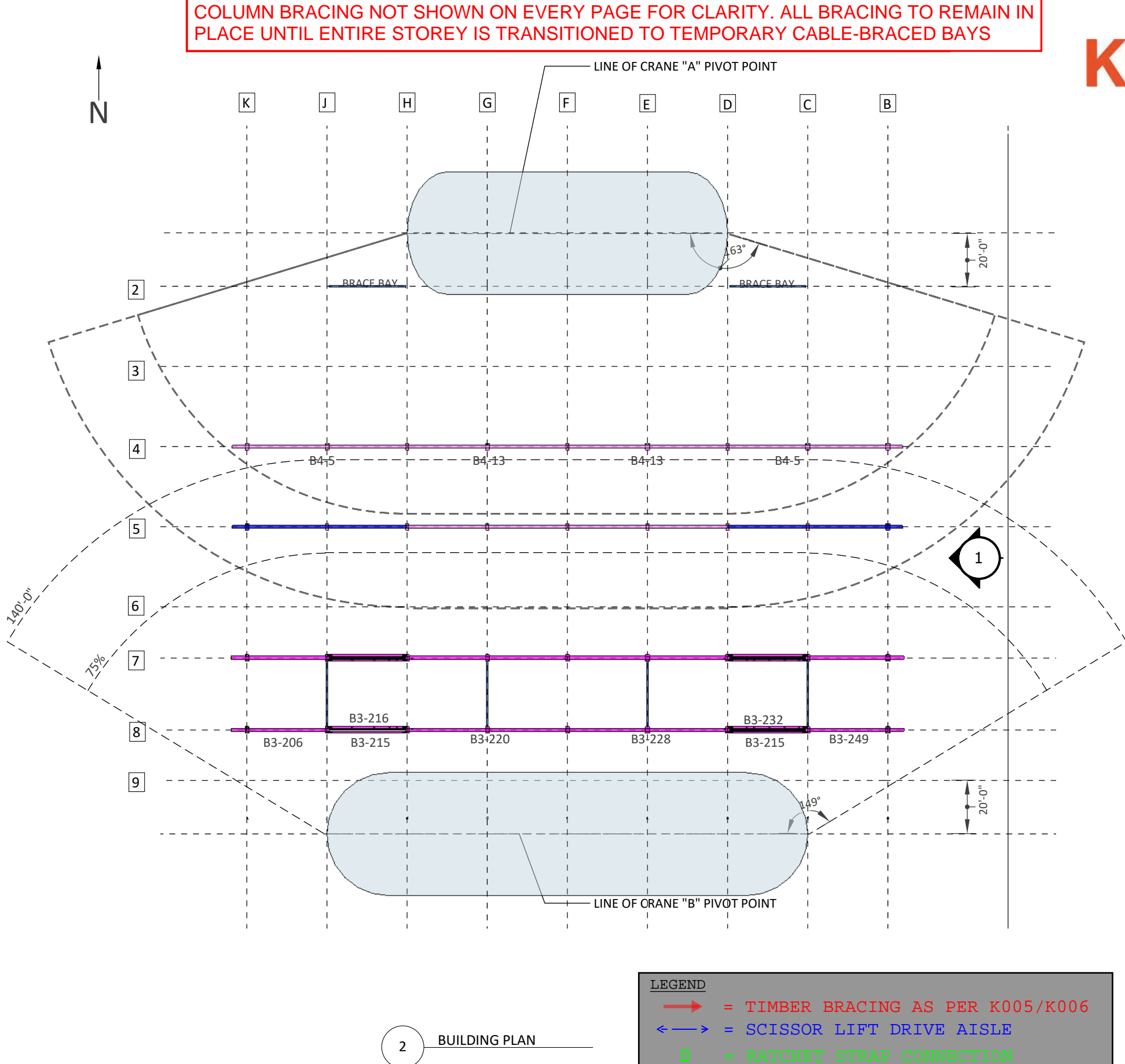
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DESCRIPTION A-LVL 2 FRM / B-LVL 2 FRM

K303



A - MEMBER NAME	WEIGHT LB
B4-5	6454
B4-13	5915

B - MEMBER NAME	WEIGHT LB
B3-206	3542
B3-216	1853
B3-215	1624
B3-220	5911
B3-228	5910
B3-232	1853
B3-249	3542



LEGEND

→ = TIMBER BRACING AS PER K005/K006

↔ = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

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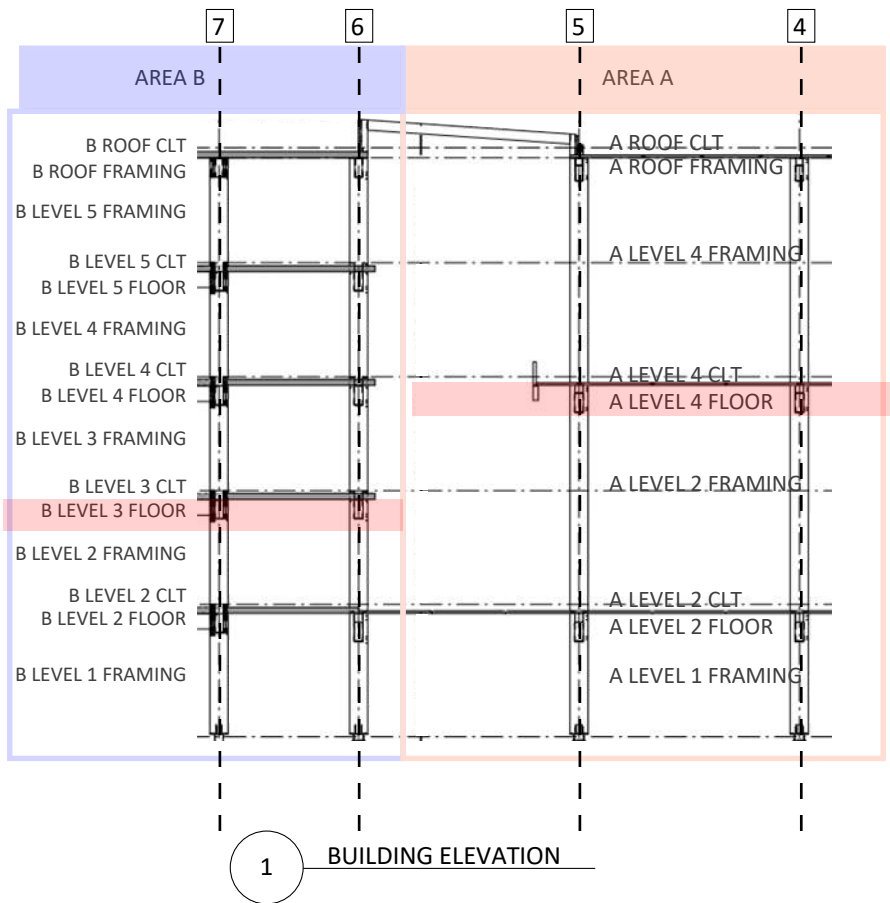


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REV	DATE
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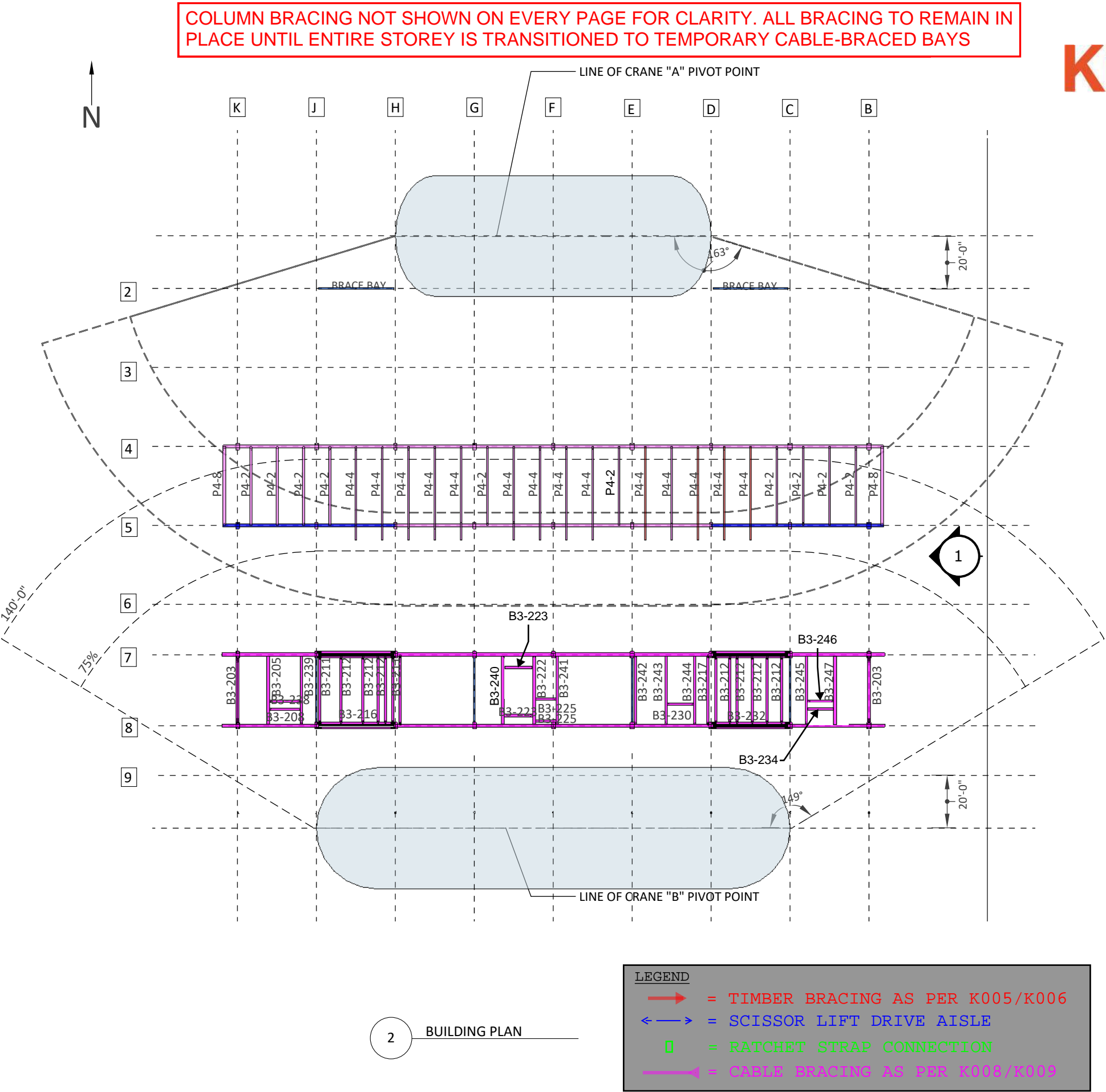
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PROJECT Borregas
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DESIGNED BY JZ
DESCRIPTION A-LVL 4 FLR / B-LVL 3 FLR

K304



A - MEMBER NAME	WEIGHT LB
P4-8	2253
P4-2	1282
B - MEMBER NAME	WEIGHT LB
B3-203	1854
B3-205	1479
B3-238	675
B3-208	675
B3-211	1396
B3-212	1396
B3-240	1770
B3-223	741
B3-222	1770
B3-241	1479
B3-225	453
B3-242	1479
B3-243	1479
B3-230	562
B3-244	1479
B3-217	1470
B3-245	1479
B3-247	1479
B3-236	80
B3-234	566



LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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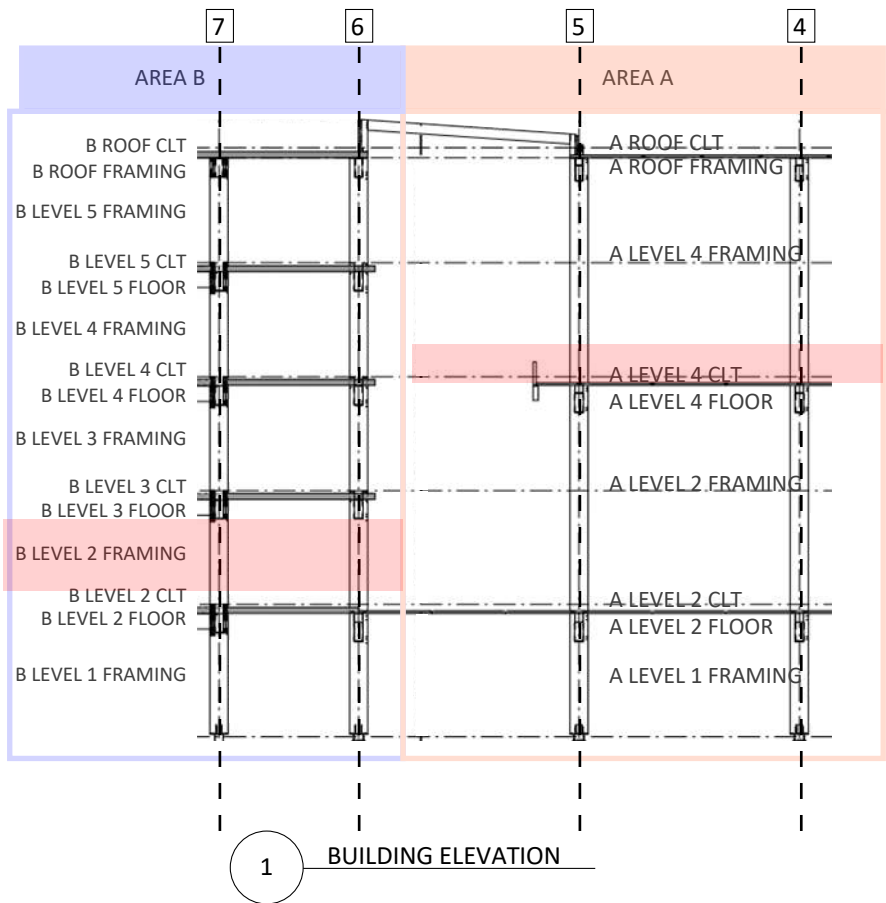
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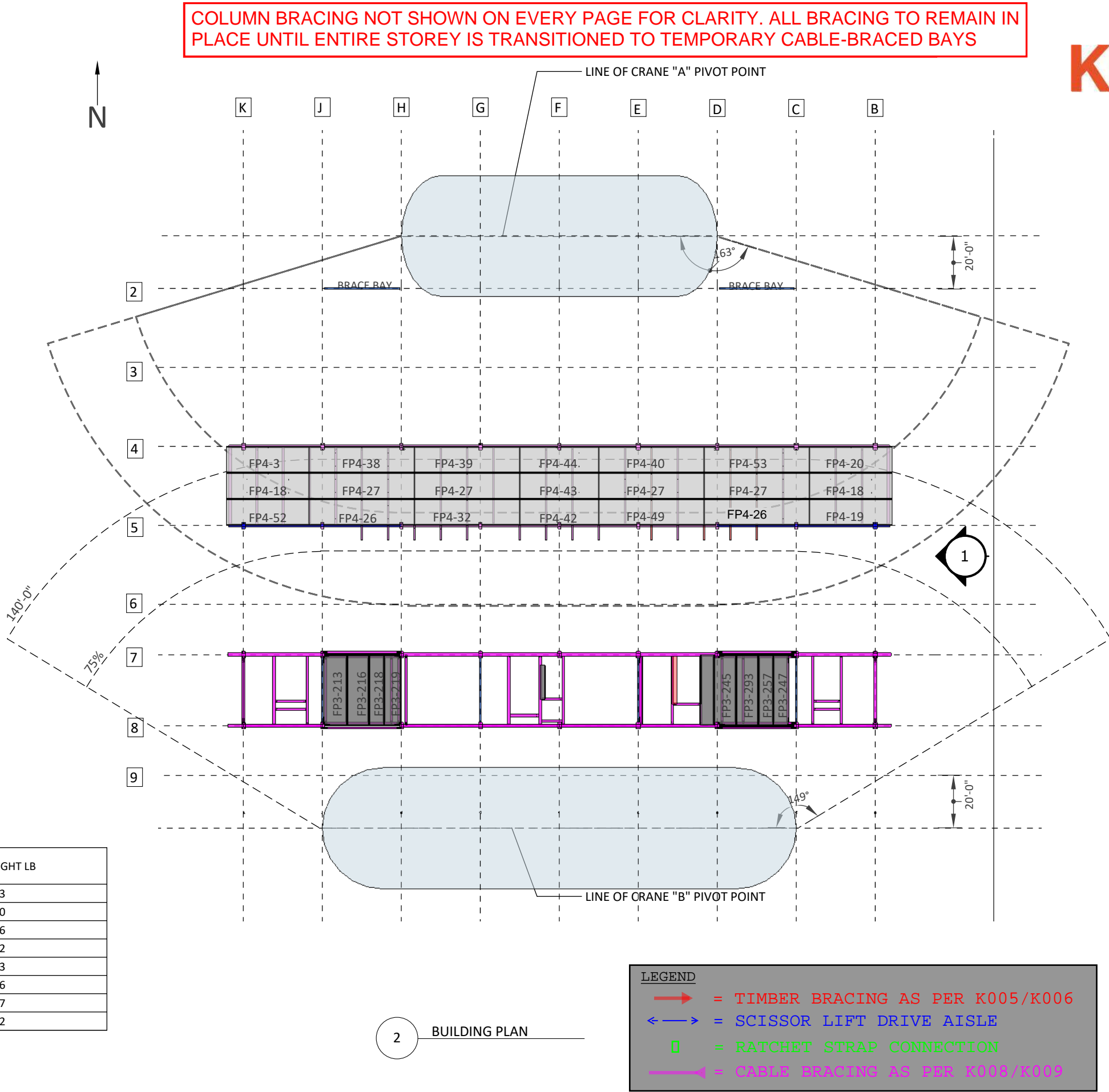
DESCRIPTION
A-LVL 4 FLR / B-LVL 3
FLR

K305



A - MEMBER NAME	WEIGHT LB
FP4-3	3411
FP4-18	3431
FP4-52	3411
FP4-38	4318
FP4-27	4357
FP4-26	4325
FP4-39	4337
FP4-27	4357
FP4-32	4341
FP4-44	3251
FP4-43	3267
FP4-42	3251
FP4-40	4337
FP4-27	4357
FP4-49	4341
FP4-53	4318
FP4-27	4357
FP4-52	3411
FP4-20	3411
FP4-18	3431
FP4-19	3411

B - MEMBER NAME	WEIGHT LB
FP3-213	5883
FP3-216	5570
FP3-218	3766
FP3-219	4562
FP3-245	3893
FP3-293	3746
FP3-257	5577
FP3-247	5782



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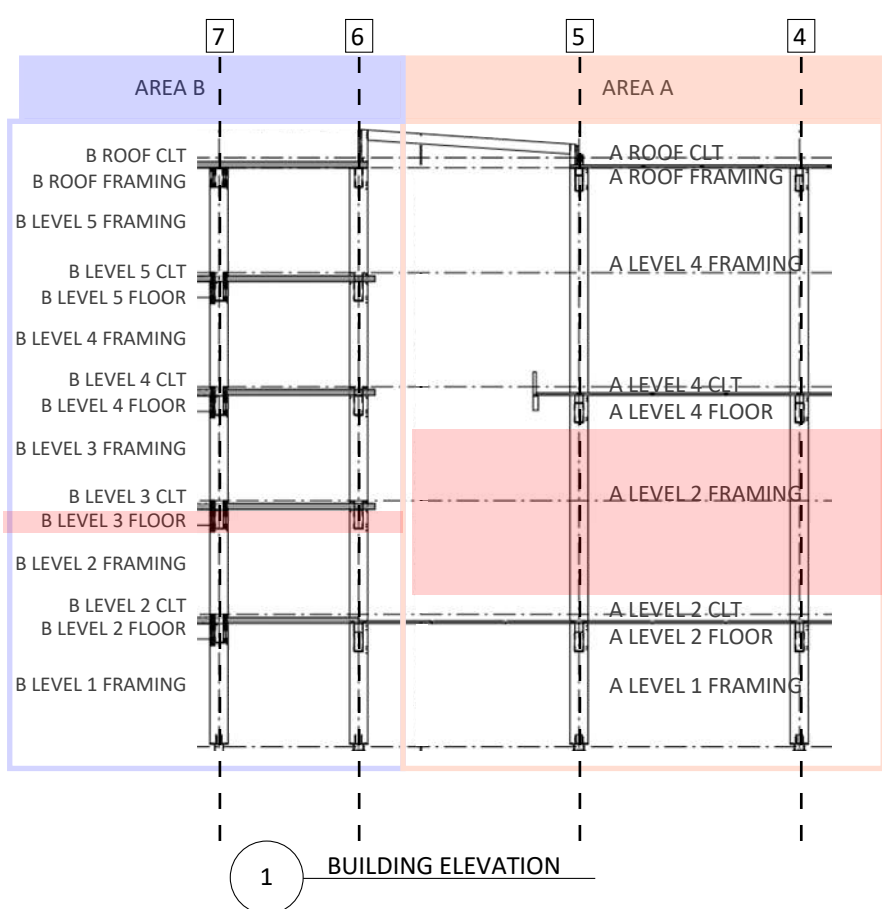
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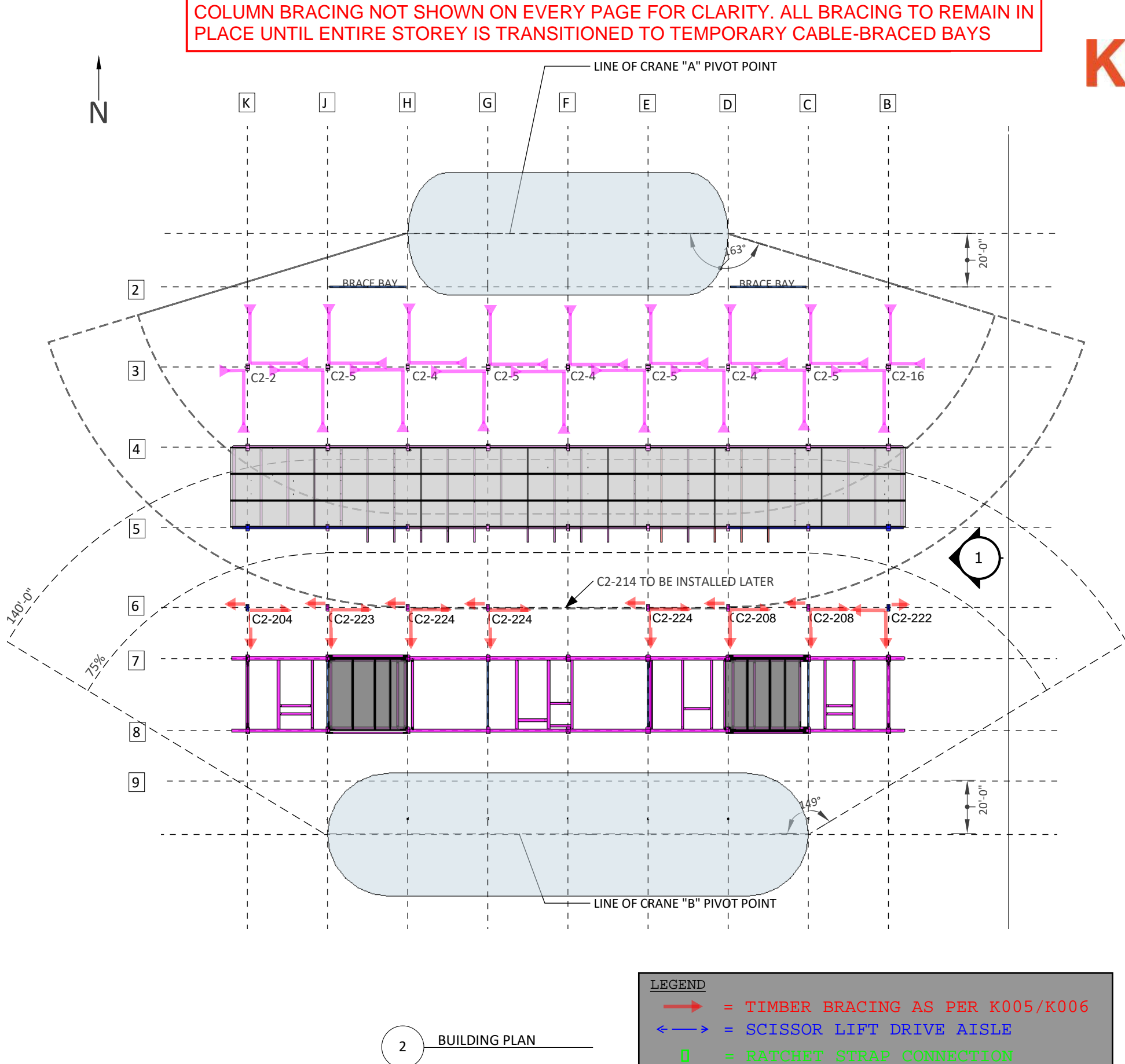
DESCRIPTION
A-LVL 4 CLT / B-LVL 3
CLT

K306



A - MEMBER NAME	WEIGHT LB
C2-2	3429
C2-5	3157
C2-4	2816
C2-16	3429

B - MEMBER NAME	WEIGHT LB
C3-204	1332
C3-225	1346
C3-226	1346
C3-214	1297
C3-217	1297
C3-208	1346
C3-223	1332



LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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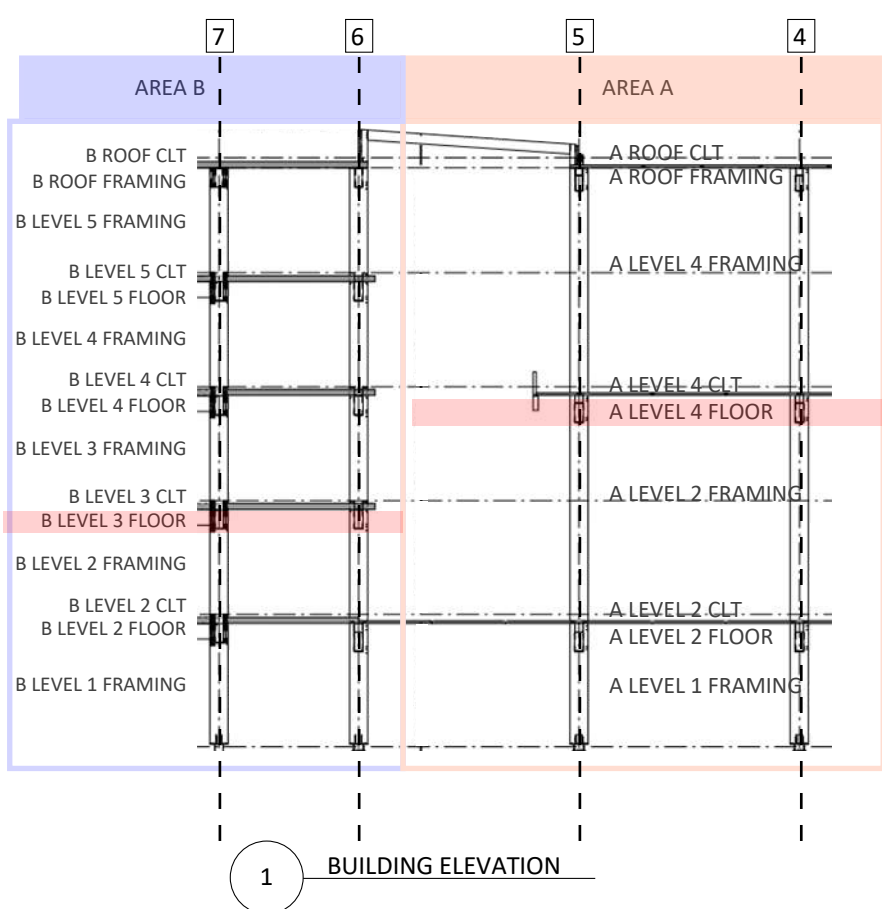


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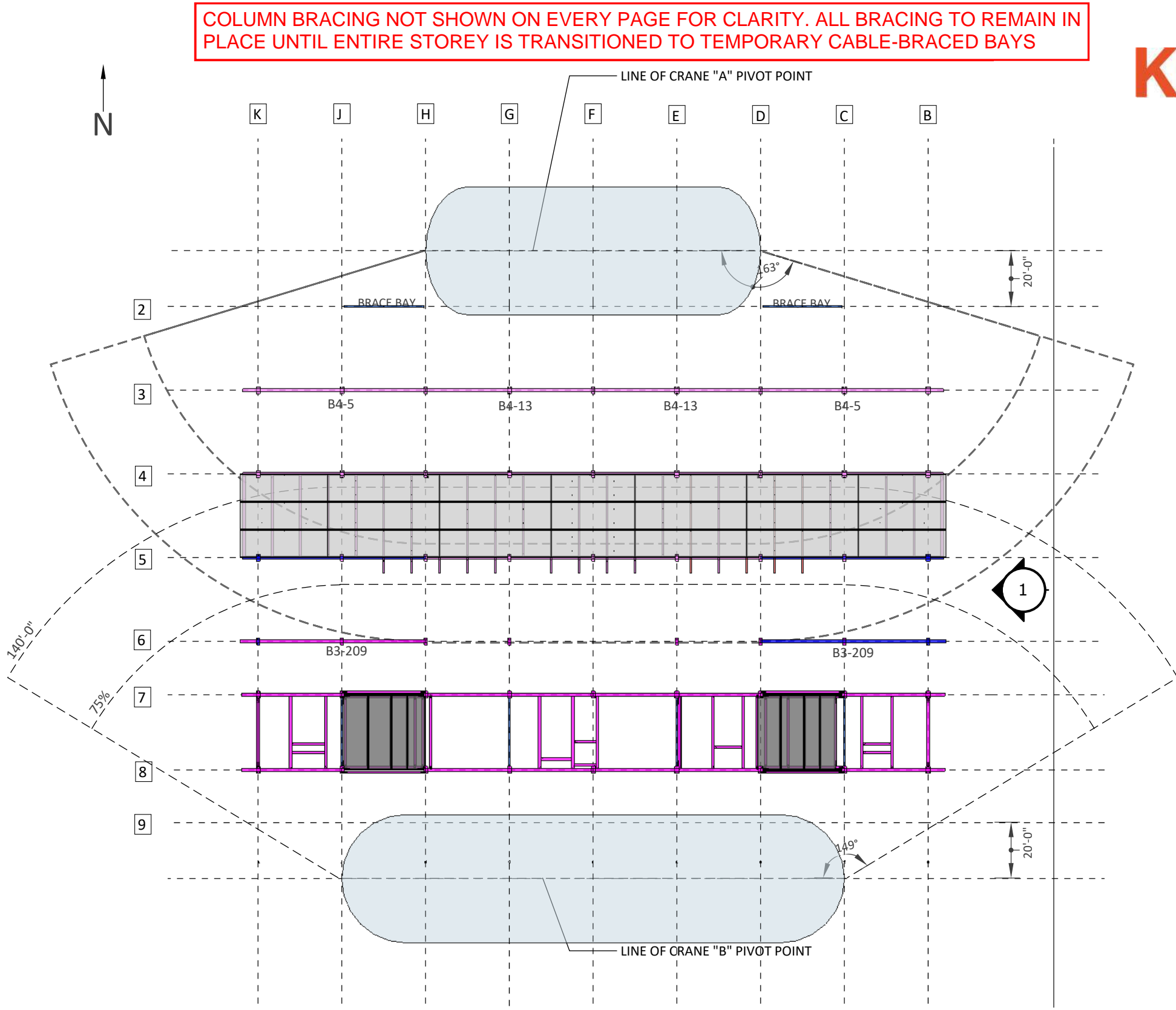
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DESIGNED BY JZ
DESCRIPTION A-LVL 2 FRM / B-LVL 2 FRM

K307



A - MEMBER NAME	WEIGHT LB
B4-5	6454
B4-13	5915

B - MEMBER NAME	WEIGHT LB
B3-209	6557



LEGEND

- = TIMBER BRACING AS PER K005/K006
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- = CABLE BRACING AS PER K008/K009

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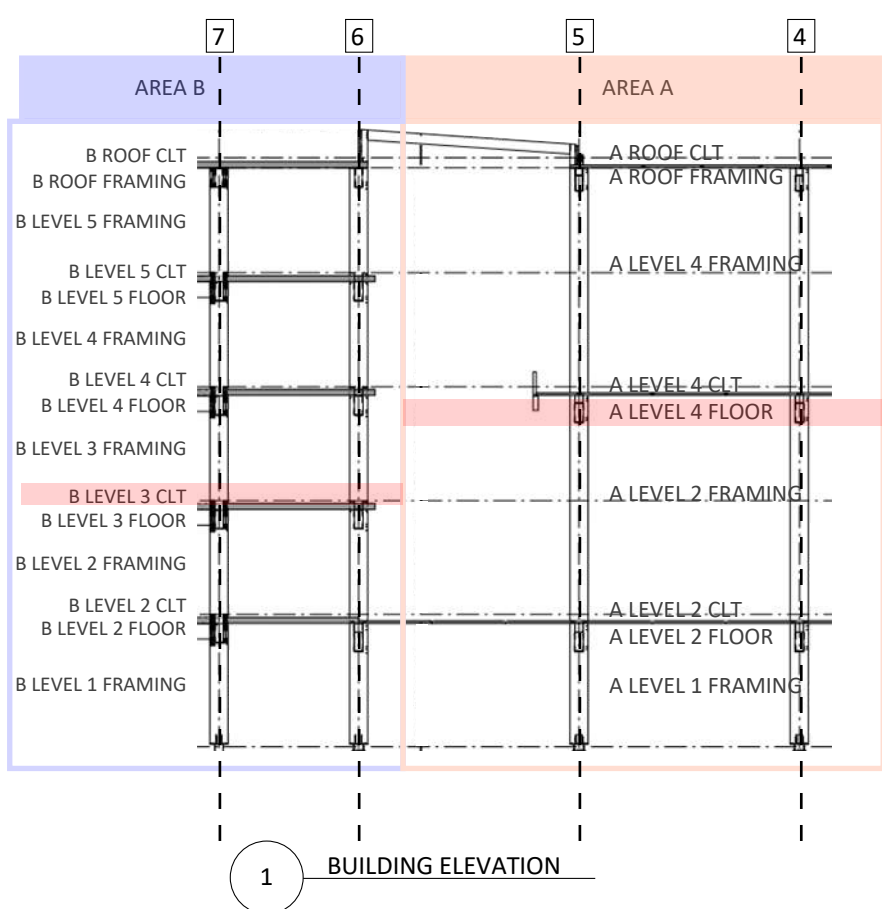


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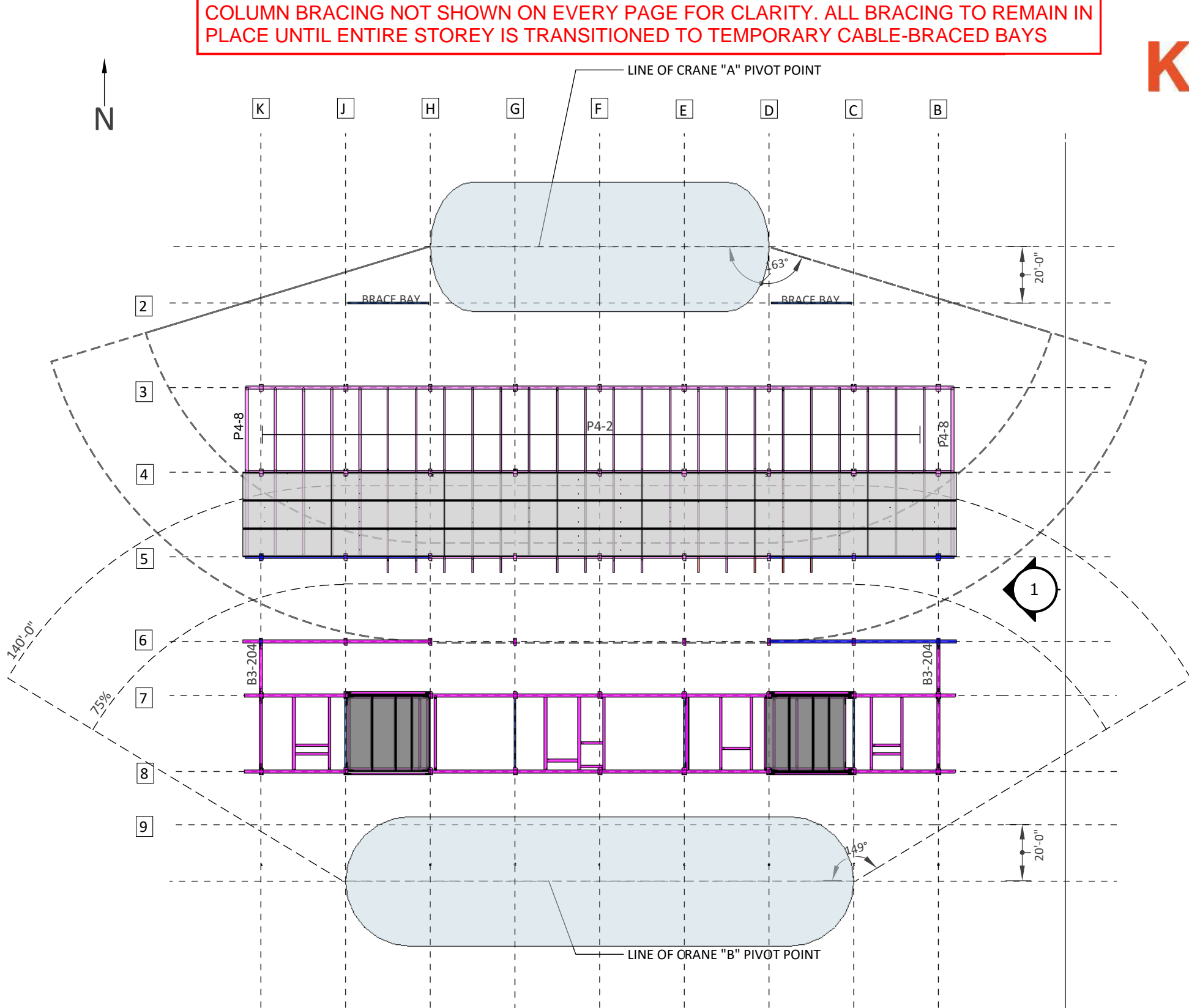
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K308



A - MEMBER NAME	WEIGHT LB
P4-8	2253
P4-2	1282
P4-4	1511

B - MEMBER NAME	WEIGHT LB
B3-204	1240



2 BUILDING PLAN

LEGEND

= TIMBER BRACING AS PER K005/K006

= SCISSOR LIFT DRIVE AISLE

= RATCHET STRAP CONNECTION

= CABLE BRACING AS PER K008/K009

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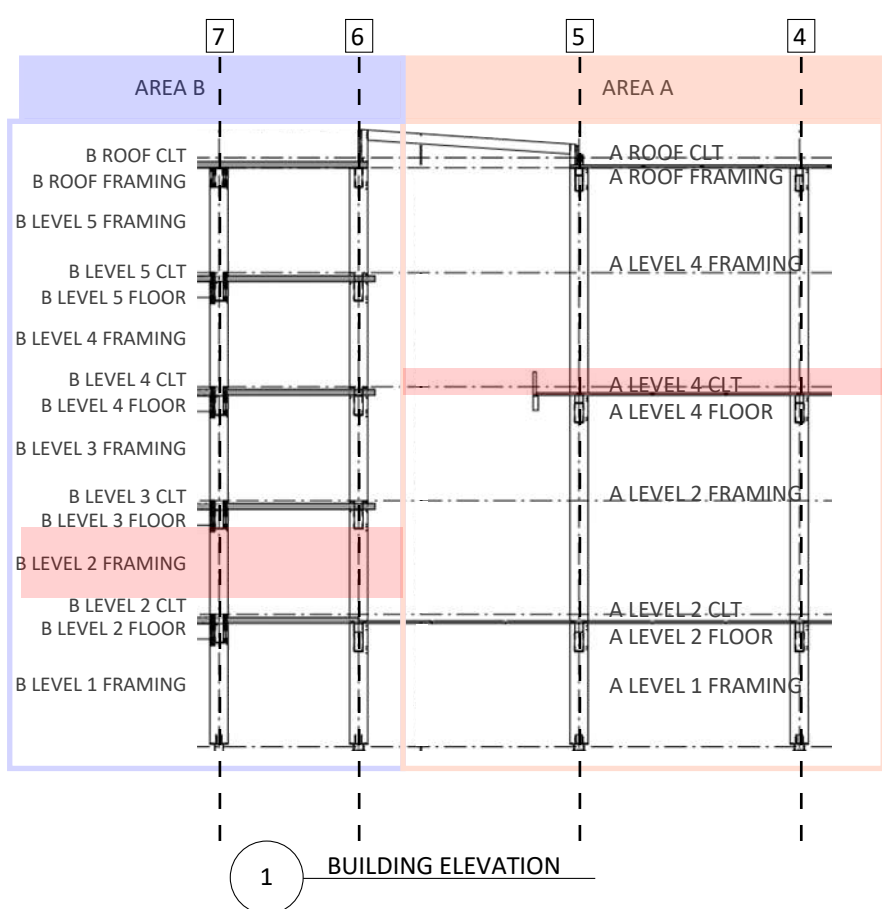
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DESCRIPTION
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FLR



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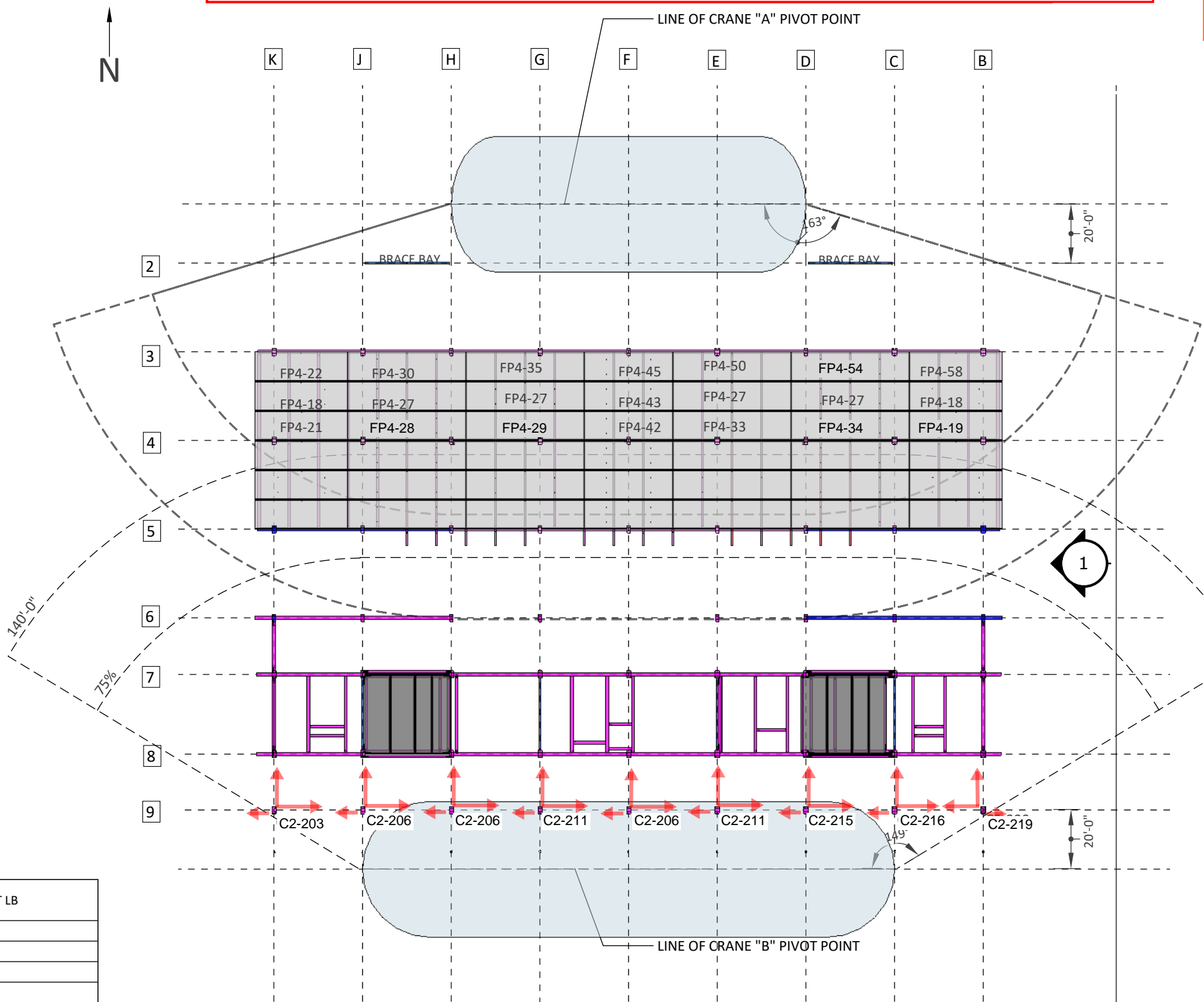
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DESIGNED BY
JZ

DESCRIPTION
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FRM

A - MEMBER NAME	WEIGHT LB
FP4-22	3430
FP4-18	3431
FP4-21	3411
FP4-30	4344
FP4-27	4357
FP4-29	4337
FP4-35	4361
FP4-34	4321
FP4-45	3269
FP4-43	3267
FP4-42	3251
FP4-50	4361
FP4-33	4337
FP4-53	4318
FP4-28	4321
FP4-58	3430
FP4-57	3434

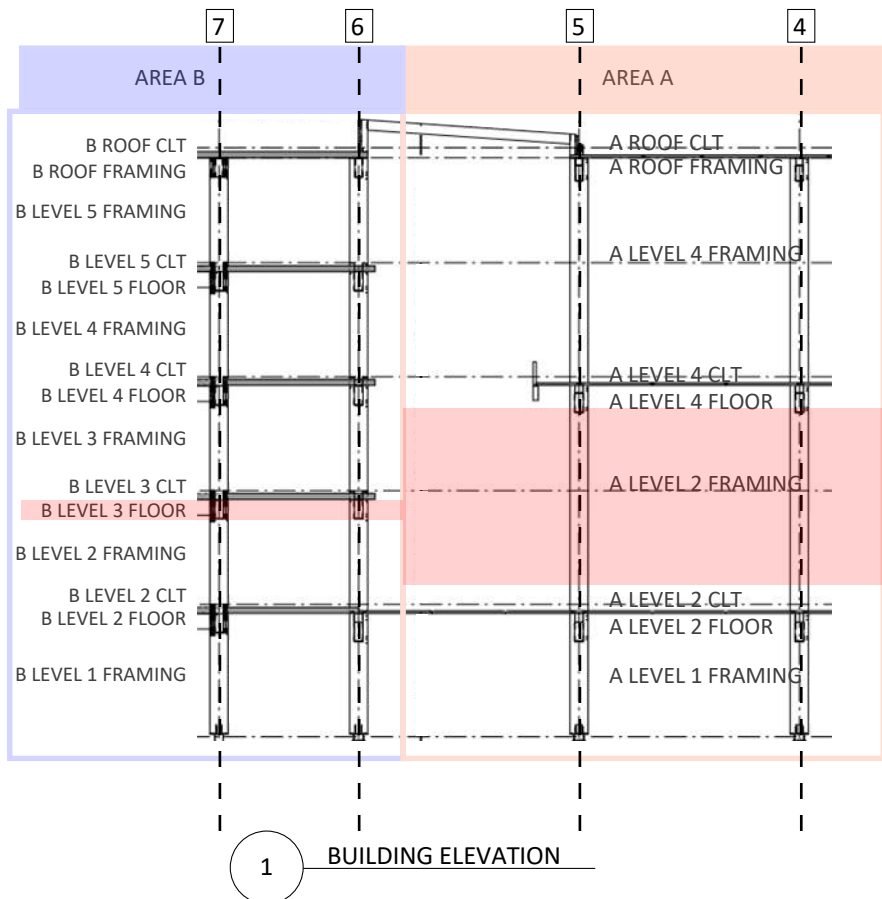
B - MEMBER NAME	WEIGHT LB
C3-201	1732
C3-224	1671
C3-205	1671
C3-211	1671
C3-227	1671
C3-216	1671
C3-215	1671
C3-220	1732



LEGEND

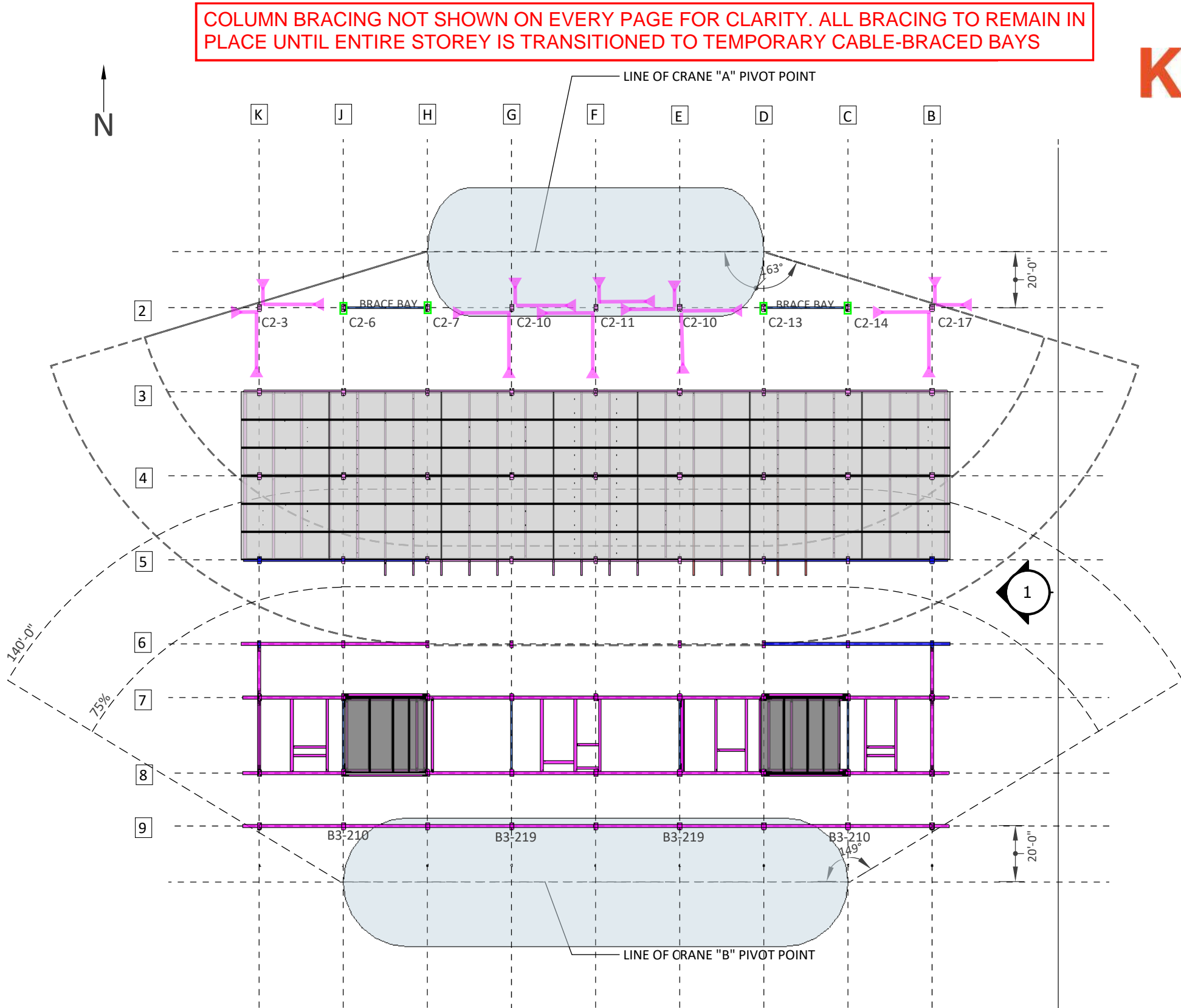
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- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

K310



A - MEMBER NAME	WEIGHT LB
C2-3	3422
C2-6	3433
C2-7	3433
C2-10	3277
C2-11	3137
C2-13	3433
C2-14	3433
C2-17	3422

B - MEMBER NAME	WEIGHT LB
B3-210	6813
B3-219	6196



LEGEND

= TIMBER BRACING AS PER K005/K006

= SCISSOR LIFT DRIVE AISLE

= RATCHET STRAP CONNECTION

= CABLE BRACING AS PER K008/K009

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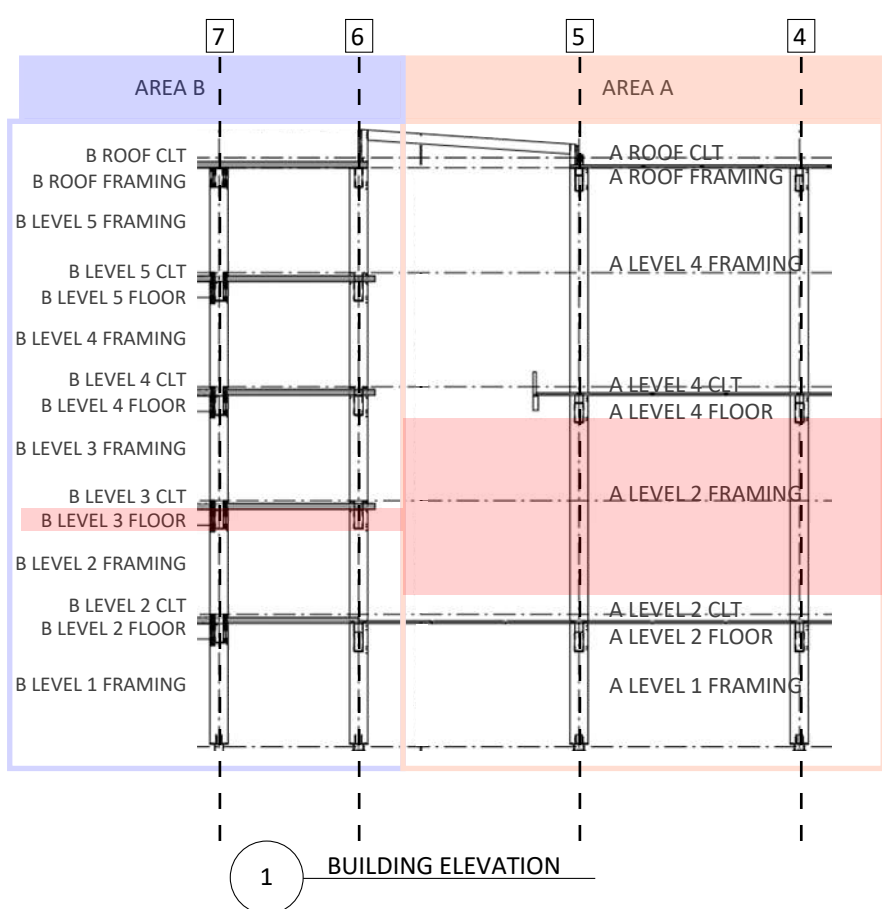
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DESCRIPTION
A-LVL 2 FRM / B-LVL 3
FLR

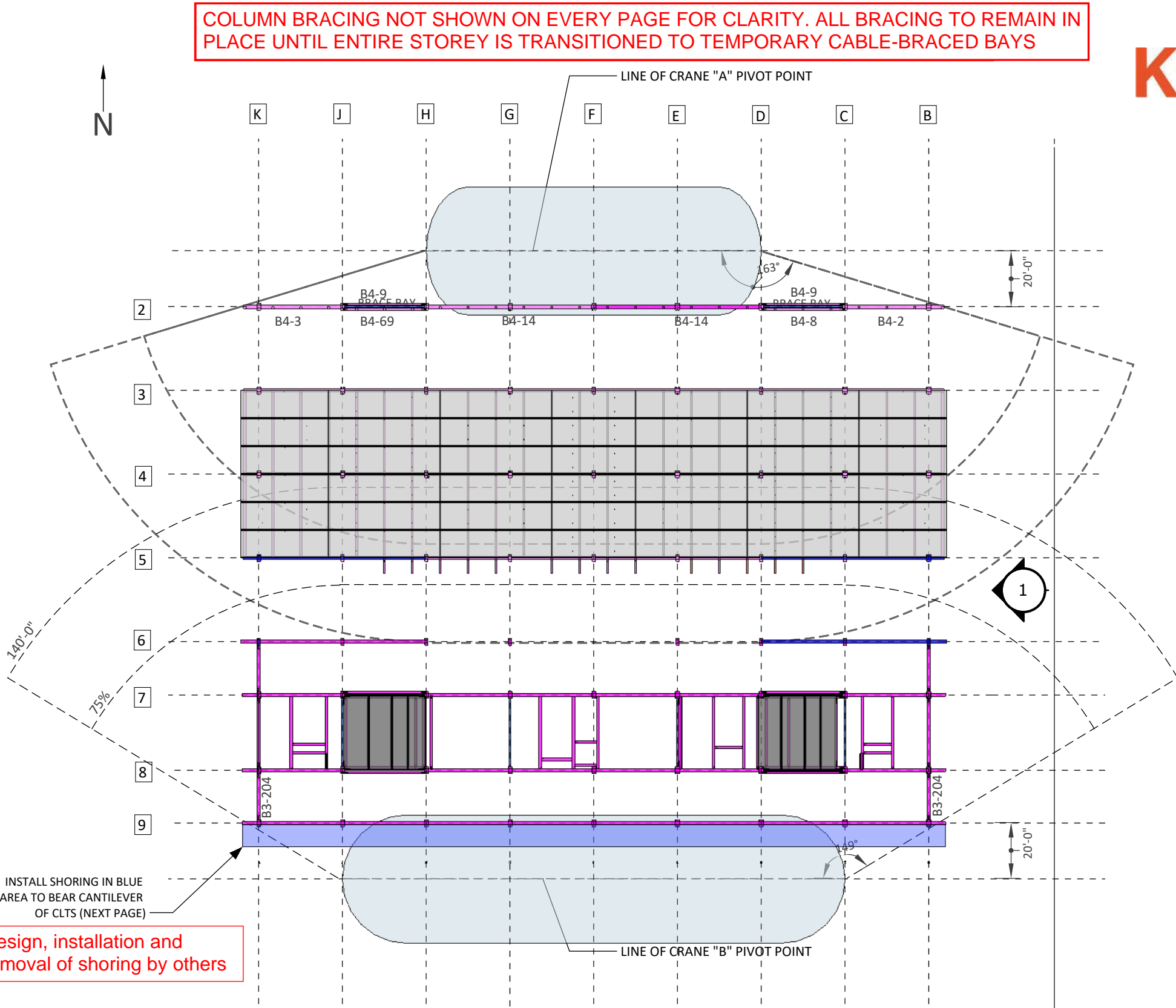
K311



A - MEMBER NAME	WEIGHT LB
B4-3	3661
B4-9	2404
B4-69	1779
B4-14	6194
B4-8	1779
B4-2	3661

B - MEMBER NAME	WEIGHT LB
B3-204	1240

Design, installation and removal of shoring by others



LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

Kinsol

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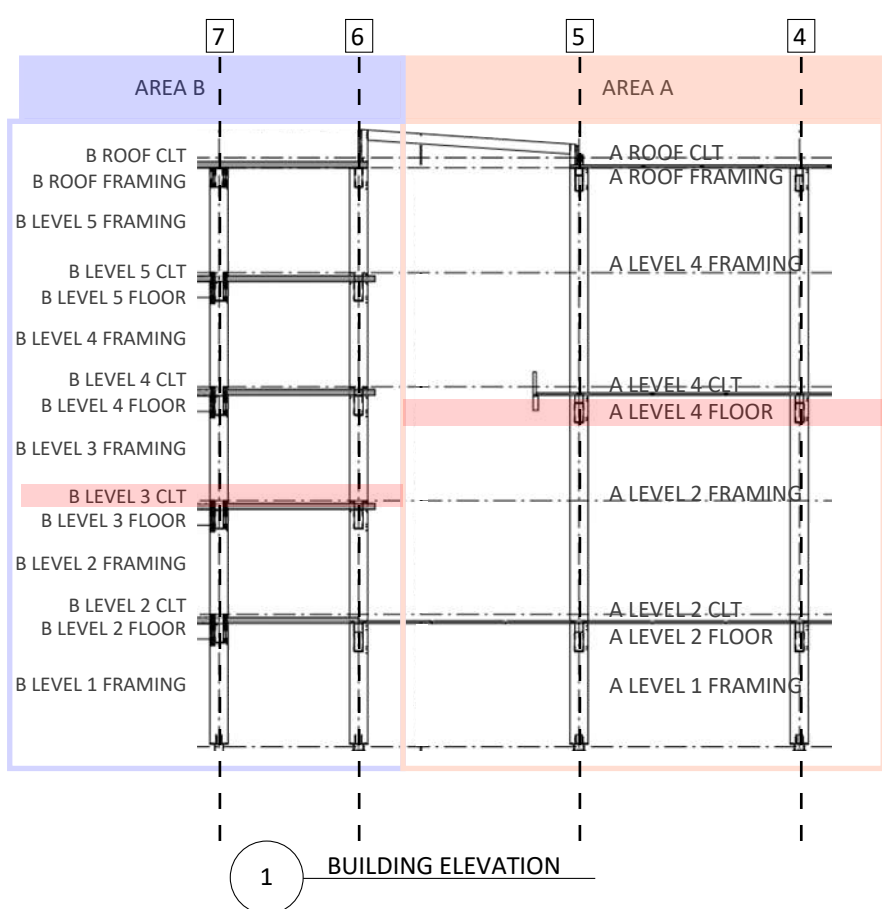


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PROJECT Borregas
File Name: 20200827_GoogleFON E_Sequence to Level 4

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DESIGNED BY JZ
DESCRIPTION A-LVL 4 FLR / B-LVL 3 FLR

K312

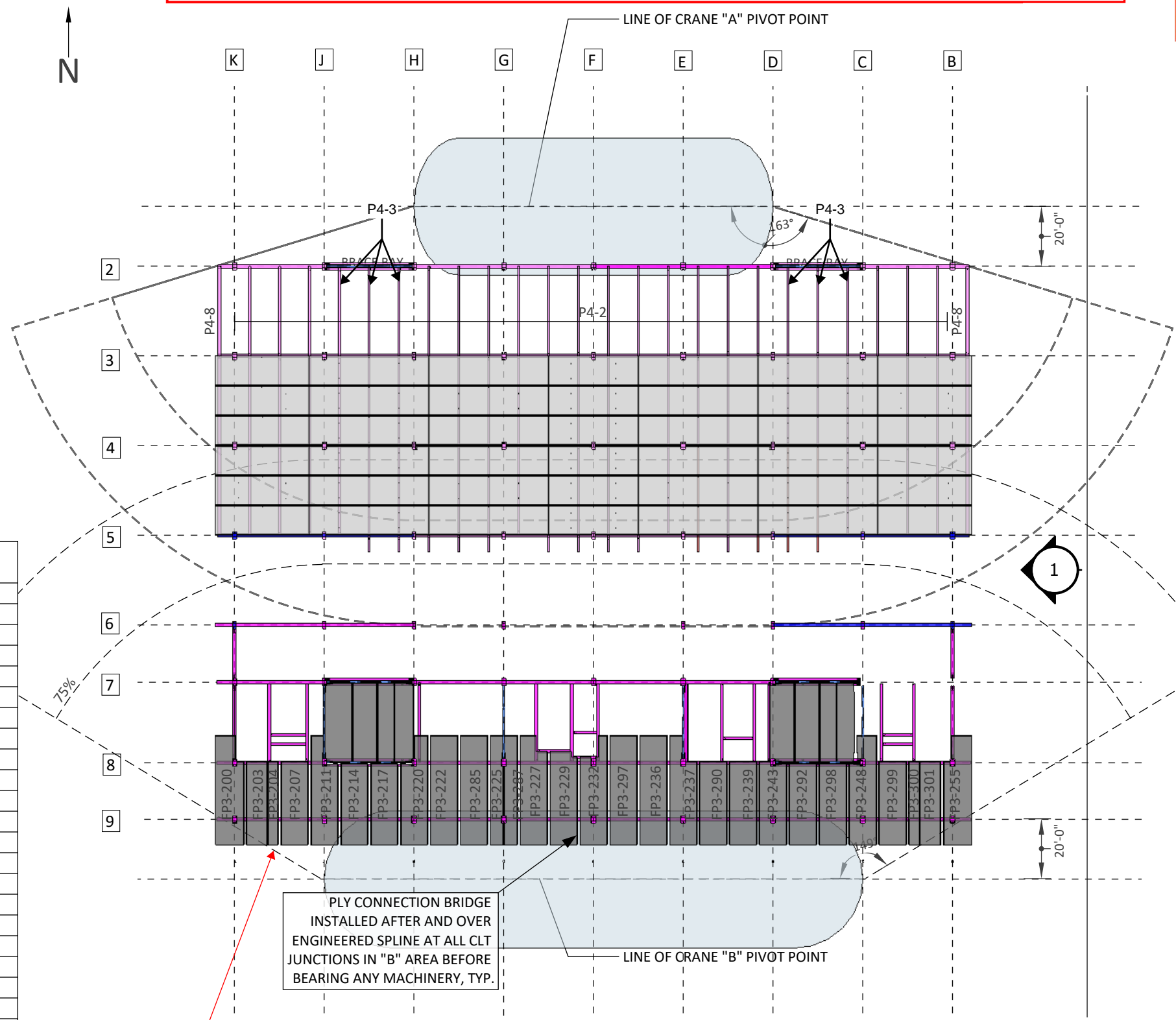


A - MEMBER NAME	WEIGHT LB
P4-8	2253
P4-2	1282
P4-4	1511

B - MEMBER NAME	WEIGHT LB
FP3-200	8121
FP3-203	5040
FP3-204	2545
FP3-207	6553
FP3-211	7299
FP3-214	6412
FP3-217	6414
FP3-220	7378
FP3-222	8703
FP3-285	8701
FP3-225	4153
FP3-287	4154
FP3-227	8172
FP3-229	7247
FP3-232	7308
FP3-297	8707
FP3-236	8707
FP3-237	7371
FP3-290	6554
FP3-239	6553
FP3-243	6325
FP3-292	6414
FP3-298	6414
FP3-248	7794
FP3-299	6553
FP3-300	2546
FP3-301	5040
FP3-255	8121

Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

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LEGEND

= TIMBER BRACING AS PER K005/K006

= SCISSOR LIFT DRIVE AISLE

= RATCHET STRAP CONNECTION

= CABLE BRACING AS PER K008/K009

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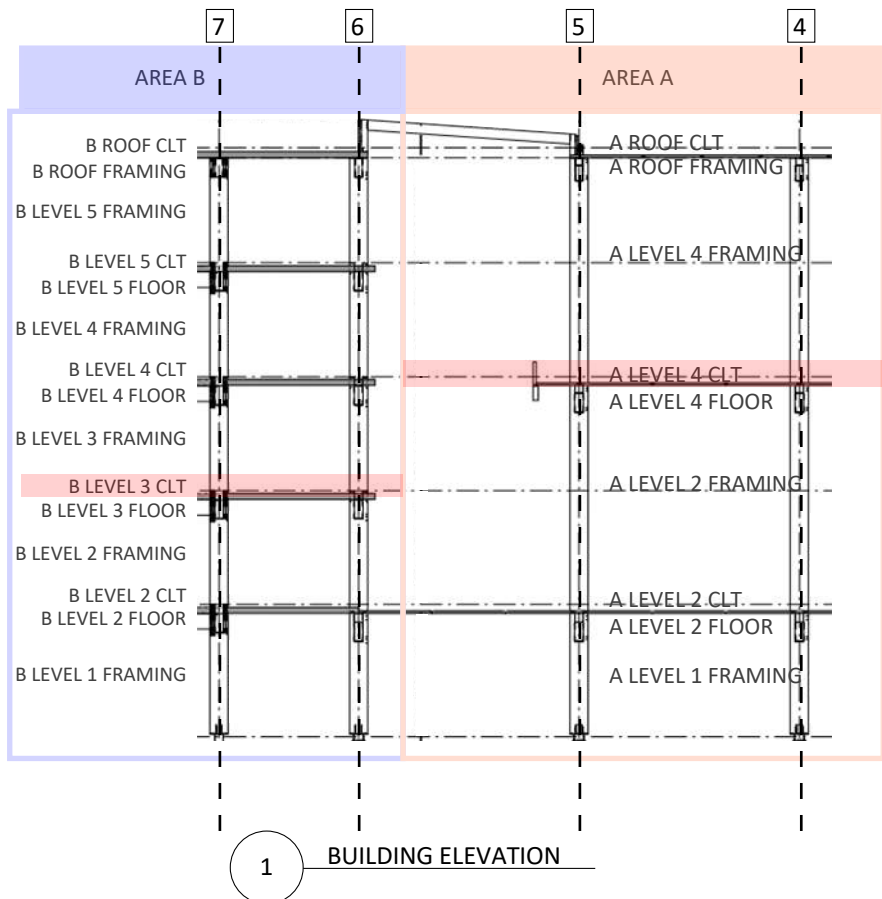


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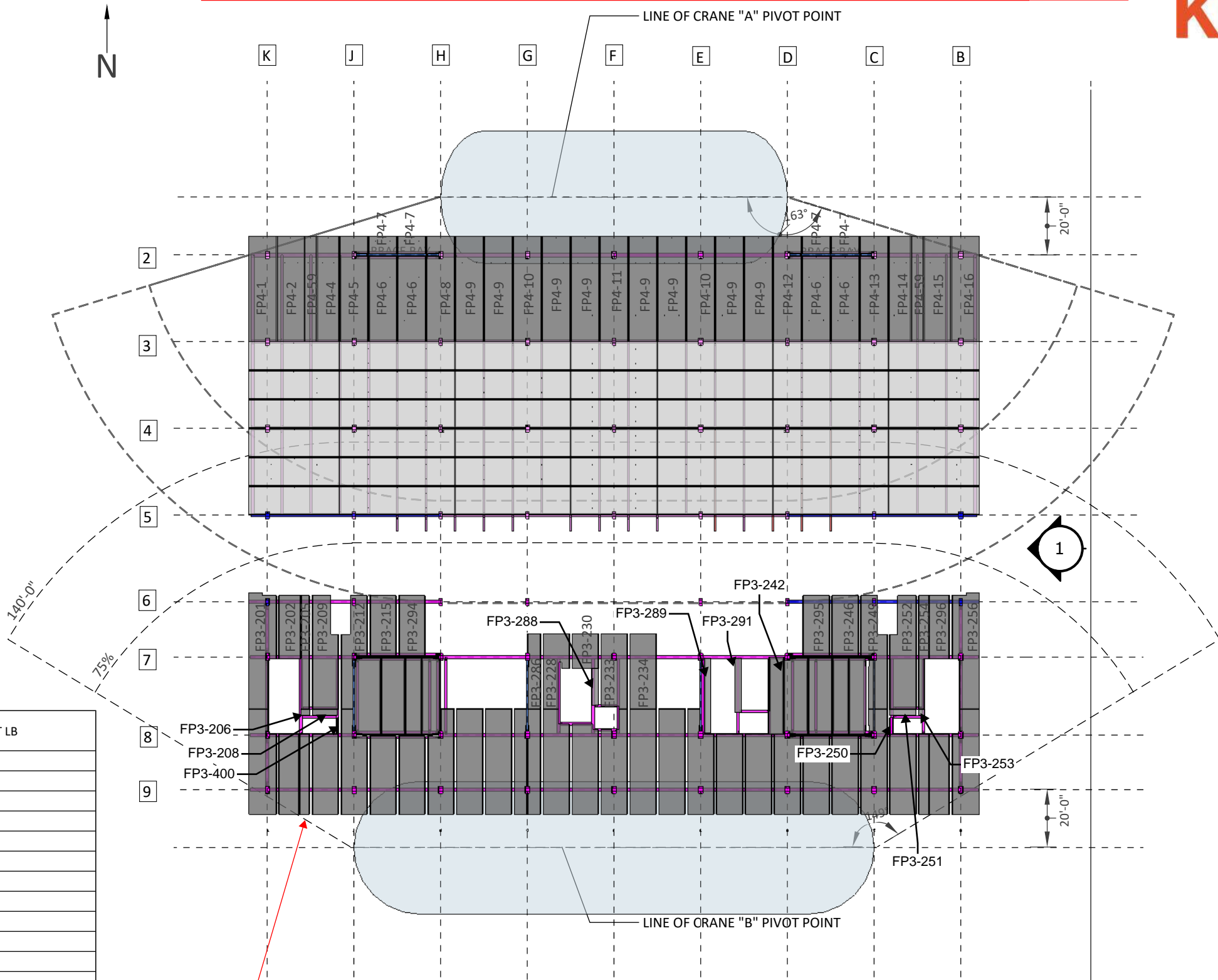
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DESIGNED BY	JZ
DESCRIPTION	A-LVL 4 FLR / B-LVL 3 CLT

K313



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A - MEMBER NAME	WEIGHT LB
FP4-1	9044
FP4-2	8910
FP4-59	4140
FP4-4	7289
FP4-5	9086
FP4-6	7588
FP4-8	9099
FP4-9	9336
FP4-10	9192
FP4-11	9201
FP4-12	9095
FP4-13	9089
FP4-14	7287
FP4-15	8913
FP4-16	9046

B - MEMBER NAME	WEIGHT LB
FP3-201	1732
FP3-202	1671
FP3-205	1671
FP3-209	1671
FP3-212	1671
FP3-215	1671
FP3-294	1671
FP3-295	1732
FP3-246	4939
FP3-249	6755
FP3-252	8207
FP3-254	2743
FP3-296	3966
FP3-256	8144
FP3-286	2763
FP3-228	4638
FP3-230	2740
FP3-233	5809
FP3-234	6001

Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ←→ = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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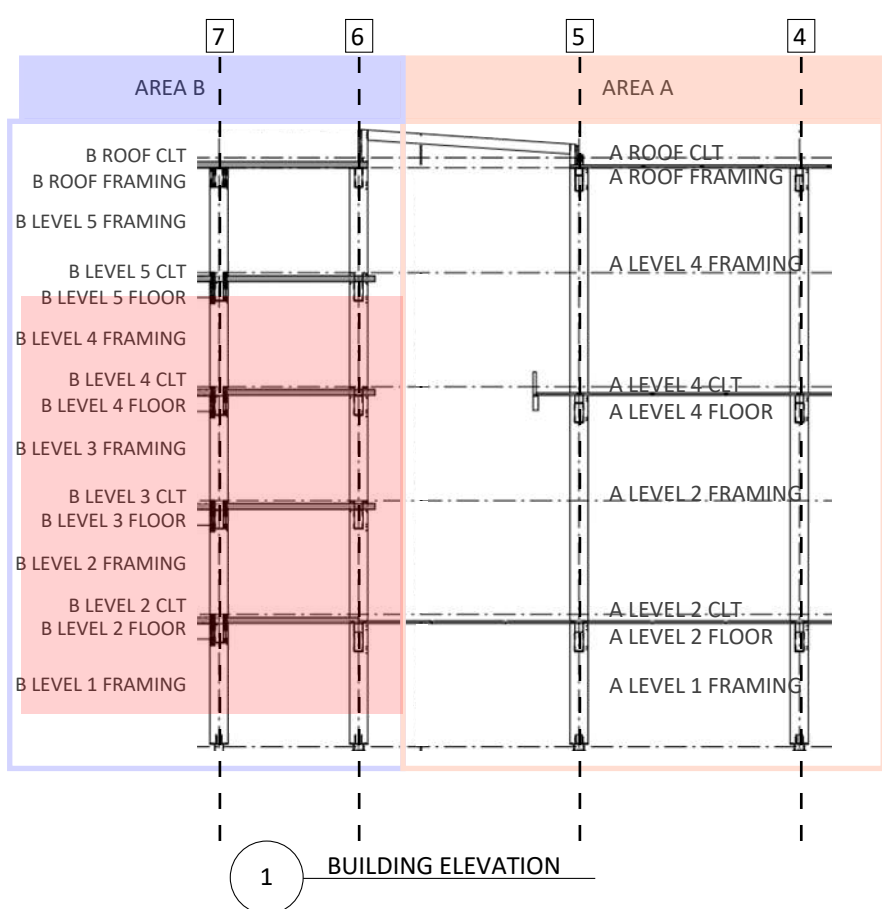
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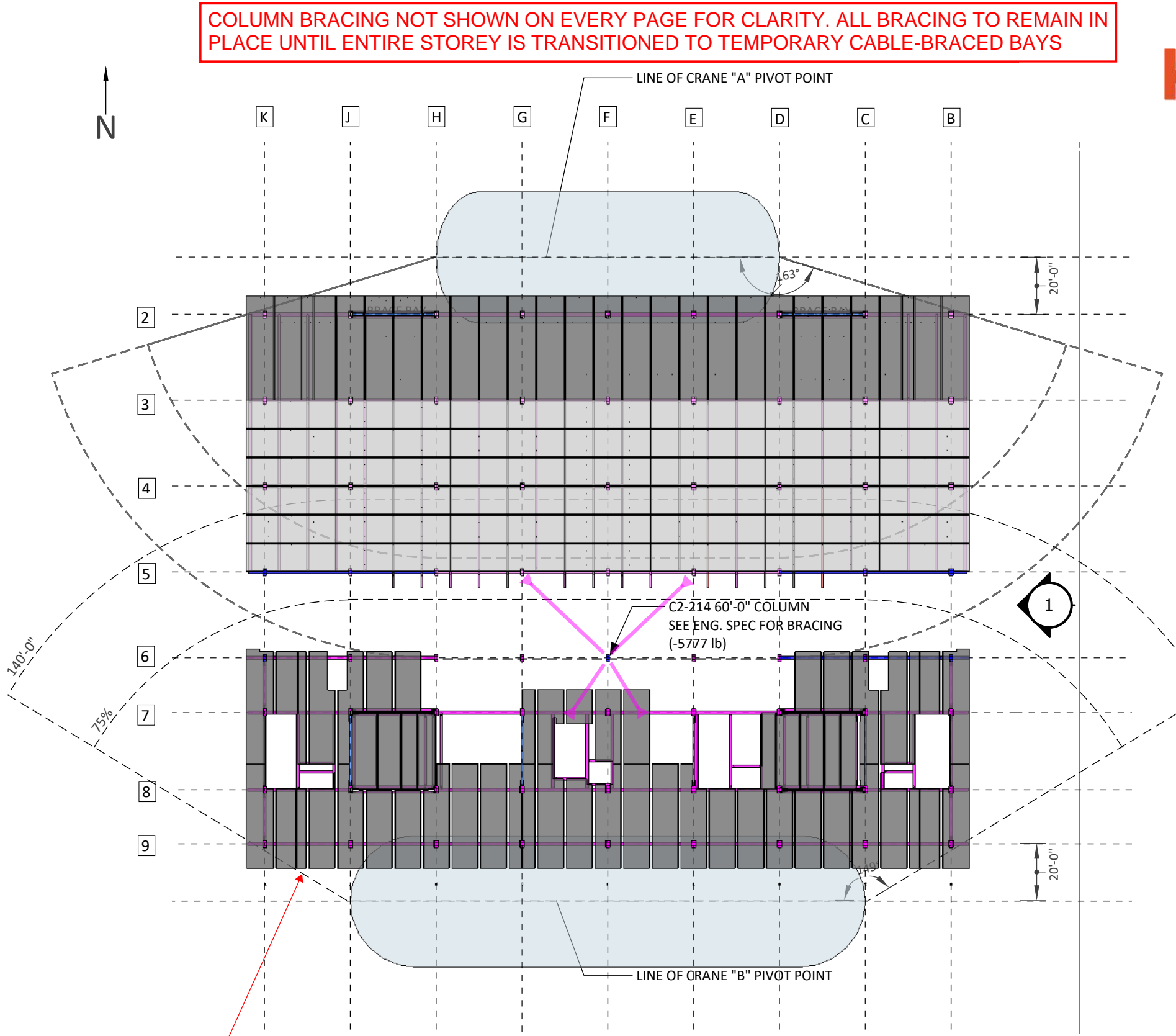
DESIGNED BY
JZ

DESCRIPTION
A-LVL 4 CLT / B-LVL 3
CLT

K314



B - MEMBER NAME	WEIGHT LB
C2-214	5777



Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

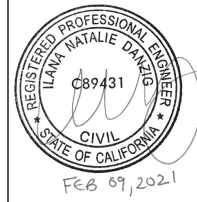
□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

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PROJECT Borregas
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DESIGNED BY JZ
DESCRIPTION B-LVL 1-4 COLUMN

K315



Project No.: 1535
Google FONE

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2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step 3 Bracing

Scale:	Drawn:	ME
NTS	Designed:	ME
	Checked:	AG/ID

Drawing No.: Revision No.: -

K316

Erection Sequence

Erection Step	Procedure
E3	<p>E3.1: Install 15', 30', and 60' Glulam columns on level 2 per sequencing drawings. Brace columns per 15' Timber bracing & 30' cable bracing typical details. Brace 60' column per 30' cable brace detail.</p> <p>E3.2: Block out gap between glulam columns & steel brace frame columns. Wrap truck straps around columns per drawings.</p> <p>E3.2: Install level 3 deck along with all required strapping per structural drawings.</p> <p><i>* Note: Level 3 is now considered a "Very Light Duty" deck. No scissor lifts or material staging are permitted on this deck.</i></p>

LOADING PER ASCE 37-14

Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads

Operational Class	Uniform Load* (psf (kN/m ²))
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
*Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
*Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
*Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)

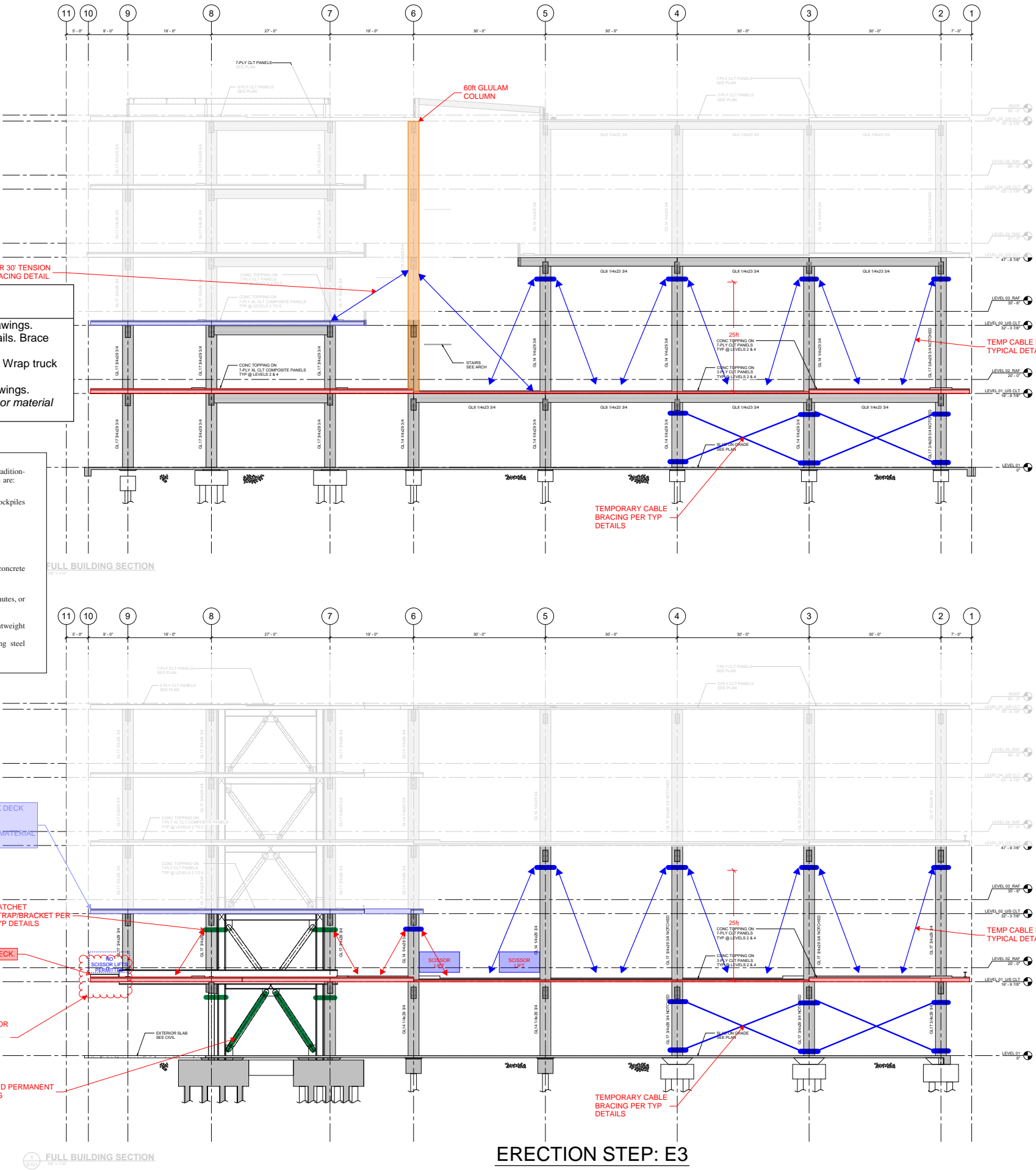
*Loads do not include dead load, D; construction dead load, C_{dc}, or fixed material loads, C_{fm}.
*OSHA categories.

Examples of construction operations that have traditionally been designed for the loads given in the table are:

Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

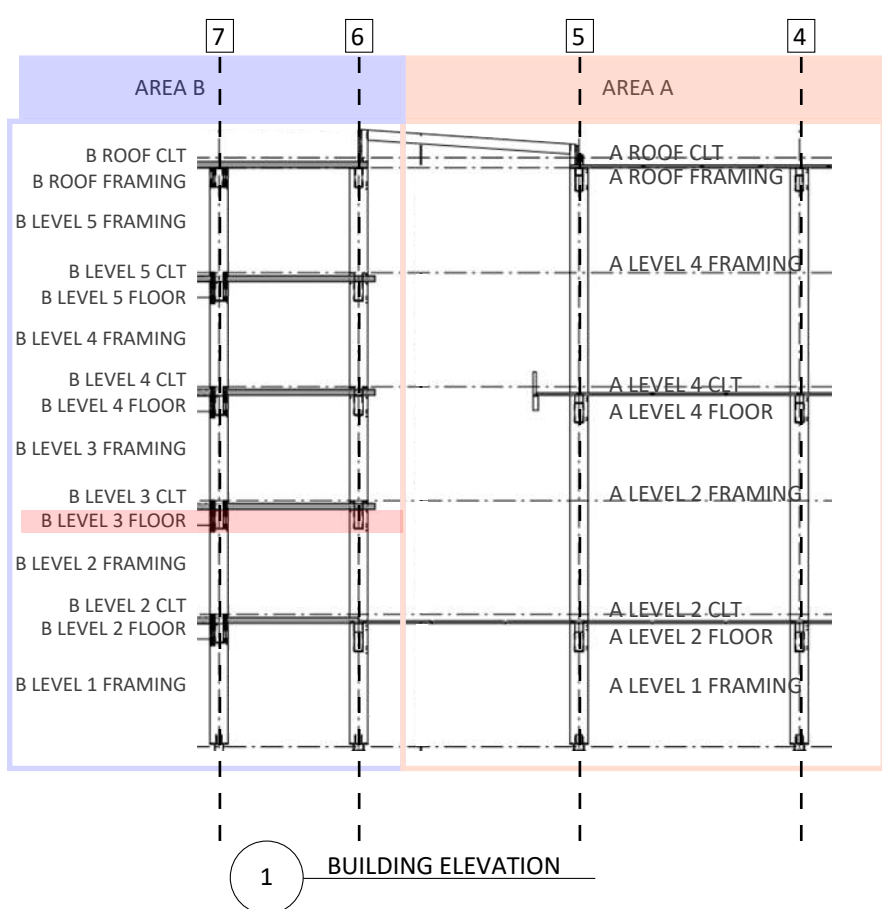
Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Concrete transport and placement by buckets, chutes, or handcrats
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement



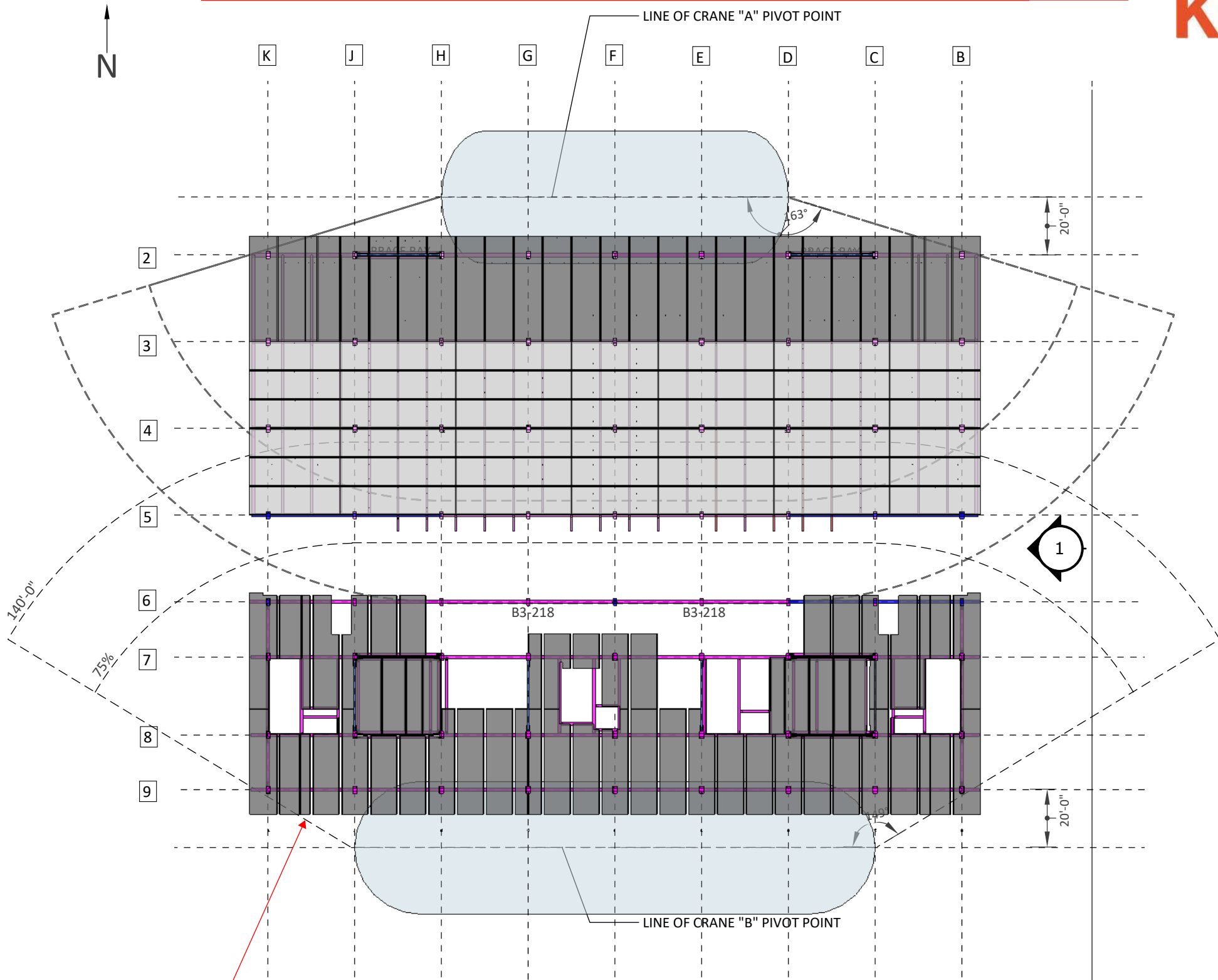
1 FULL BUILDING SECTION
18'-1 1/2"

ERECTION STEP: E3



A - MEMBER NAME	WEIGHT LB
B3-218	5850

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Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

- = TIMBER BRACING AS PER K005/K006
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- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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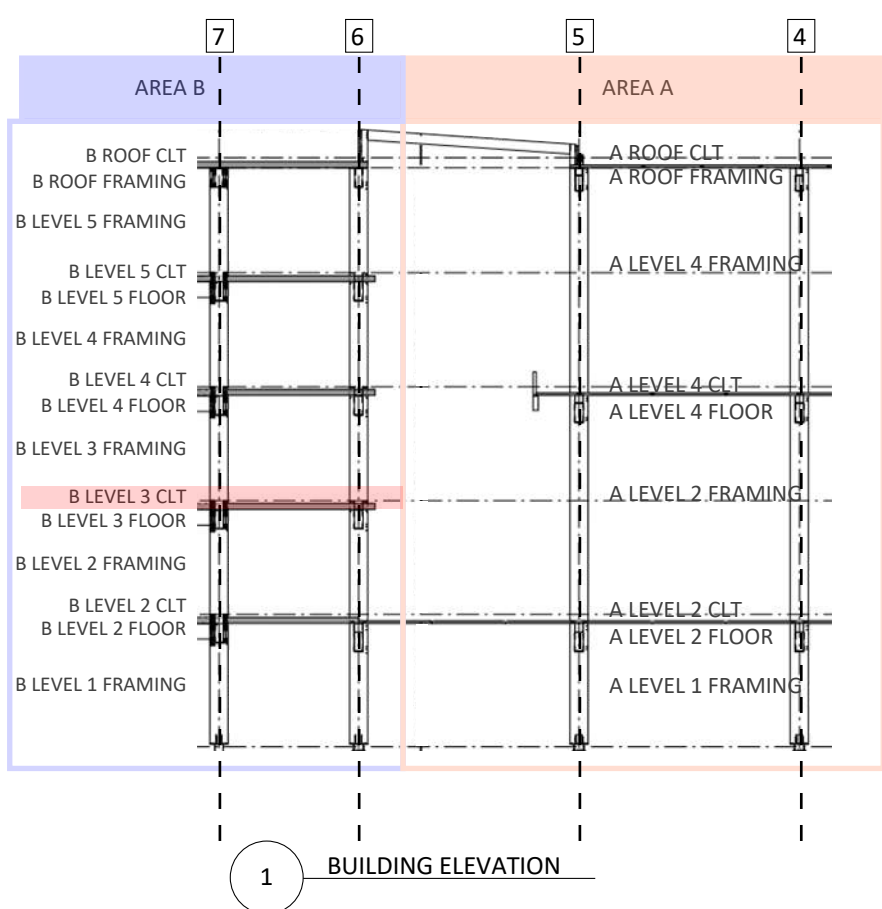
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JZ

DESIGNED BY
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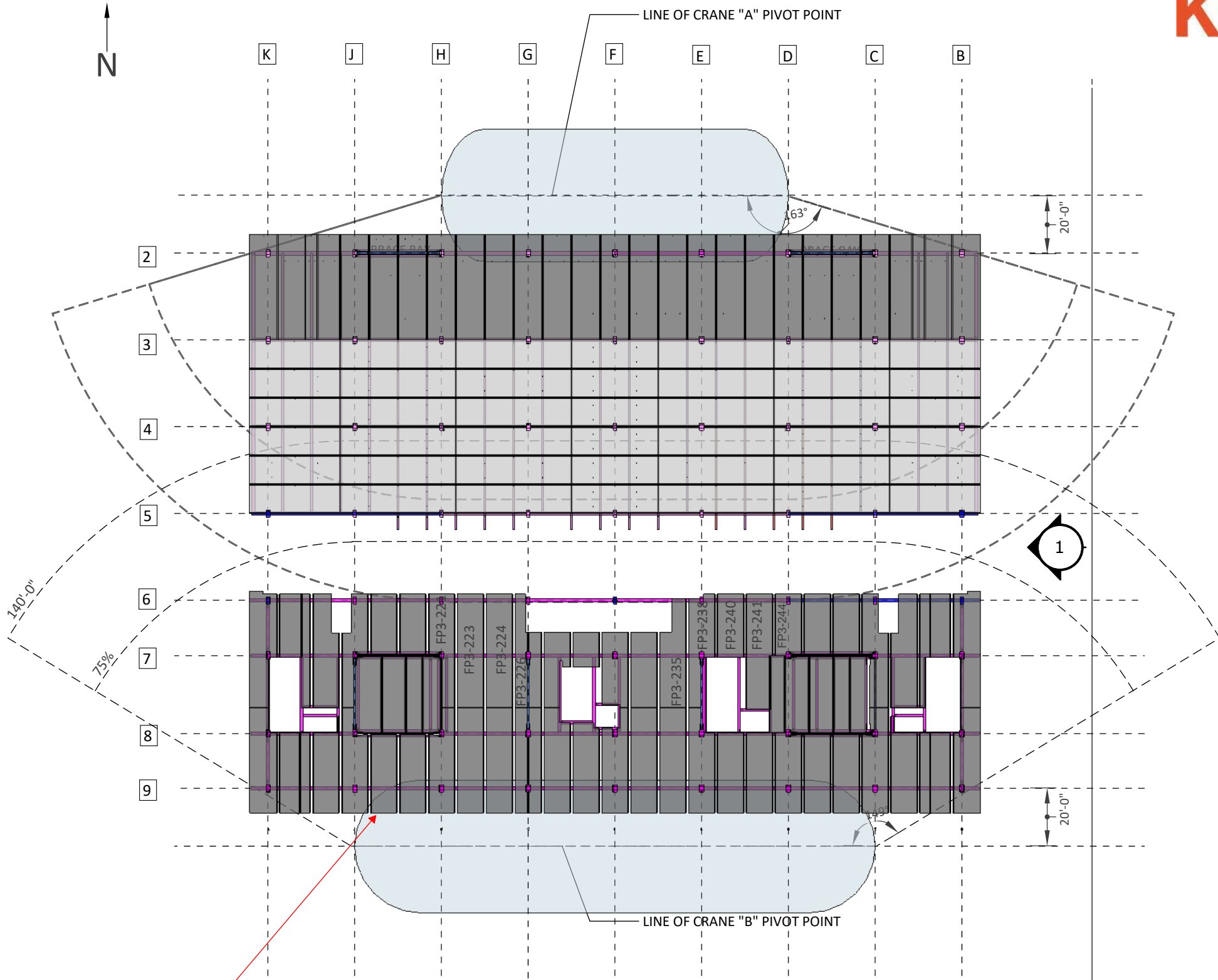
DESCRIPTION
B-LVL 3 FLR

K317



B - MEMBER NAME	WEIGHT LB
FP3-221	6885
FP3-223	9185
FP3-224	9185
FP3-226	4068
FP3-286	2763
FP3-228	4638
FP3-230	2740
FP3-233	5809
FP3-234	6001
FP3-235	7515
FP3-238	6657
FP3-240	5158
FP3-241	8917

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Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

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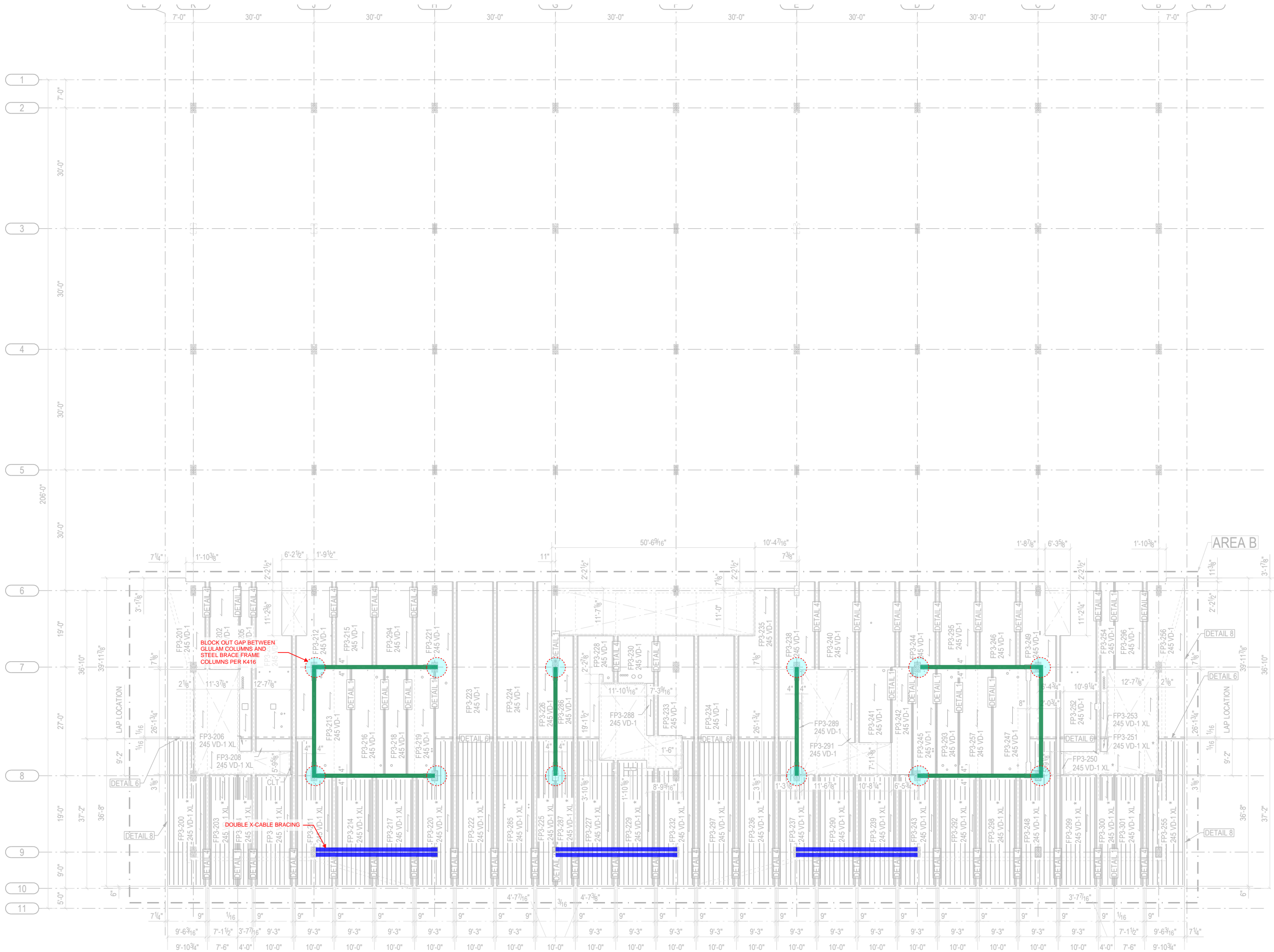
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DESCRIPTION
B-LVL 3 CLT

K318



Kinsol

ASPECT
STRUCTURAL ENGINEERS

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hello@aspectengineers.com
101-190 West 3rd Ave.
Vancouver, BC V5Y 1E9
aspectengineers.com

Seal:



Project No.: 1535

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Plot Date:

2020-10-16

Drawing Title:

LVL 3 Bracing Layout Plan
(Medium Duty Deck)

Scale:

NTS

Drawn:

ME

Designed:

ME

Checked:

AG/ID

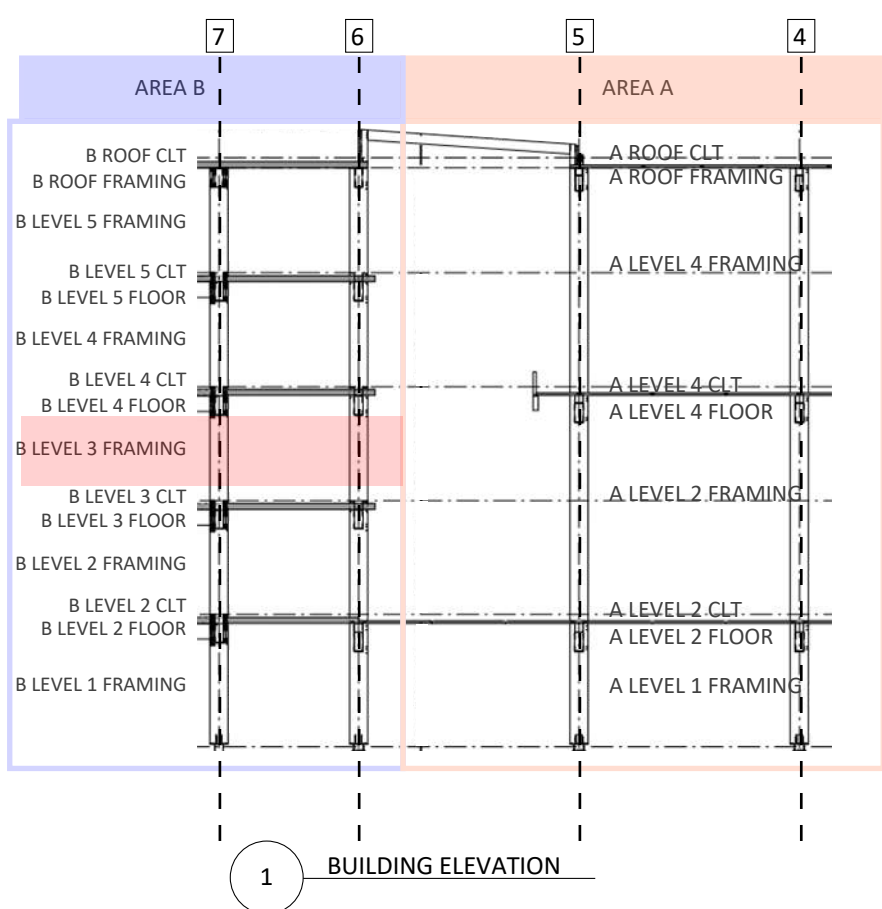
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Revision No.:

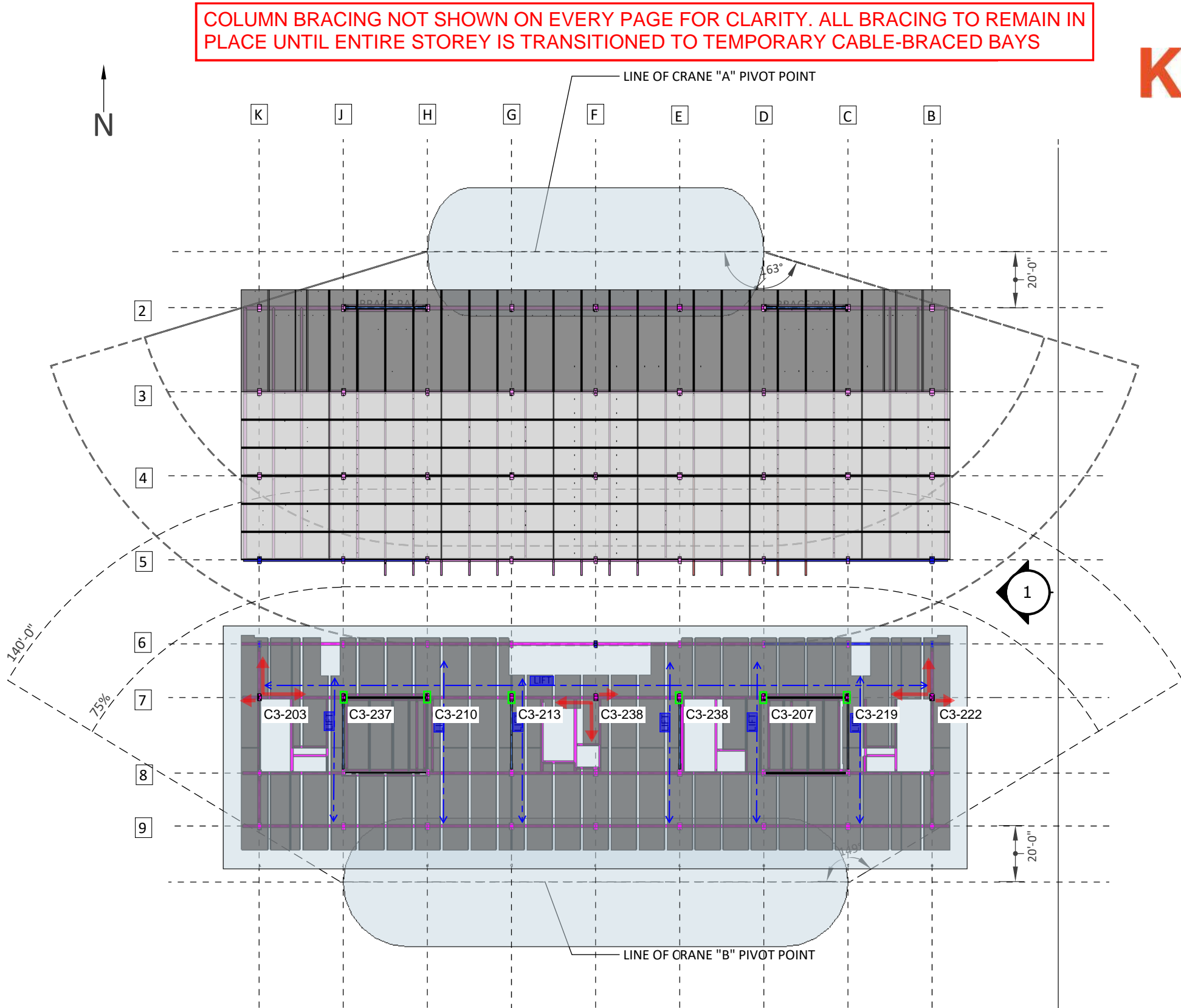
K319

LVL 3 BRACING LAYOUT PLAN (MEDIUM DUTY DECK)

Scale: NTS



B - MEMBER NAME	WEIGHT LB
C4-203	1659
C4-207	1732
C4-210	1732
C4-213	1677
C4-226	1677
C4-230	1677
C4-216	1732
C4-218	1732
C4-221	1659



LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

2 BUILDING PLAN

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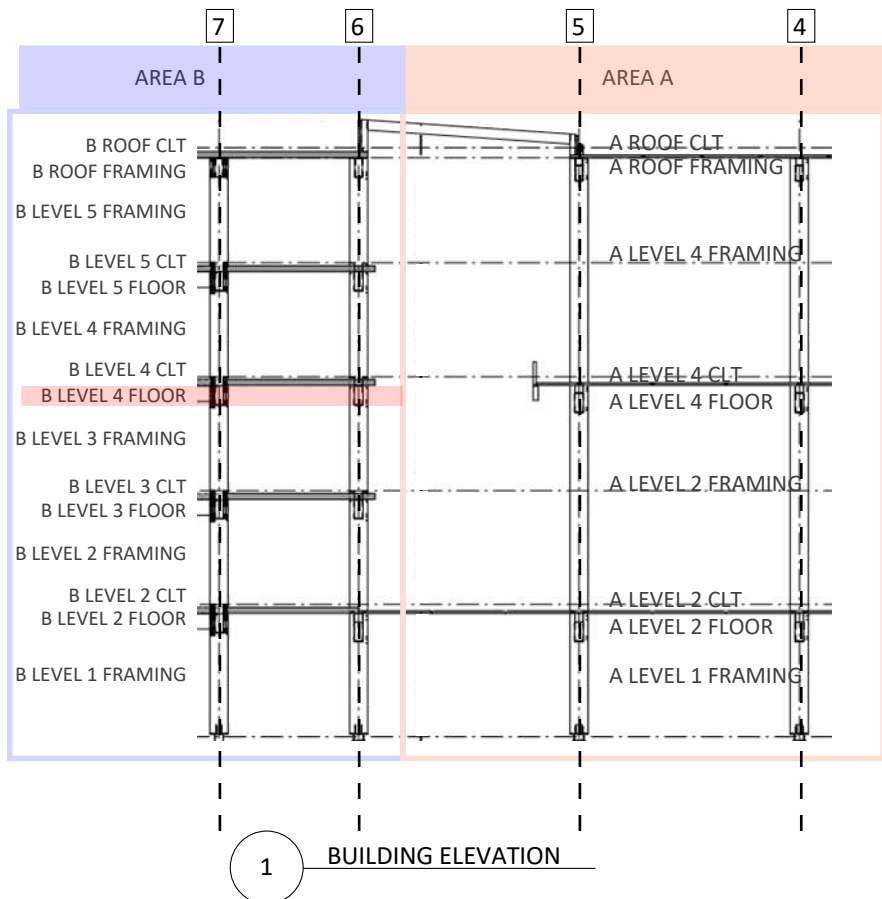
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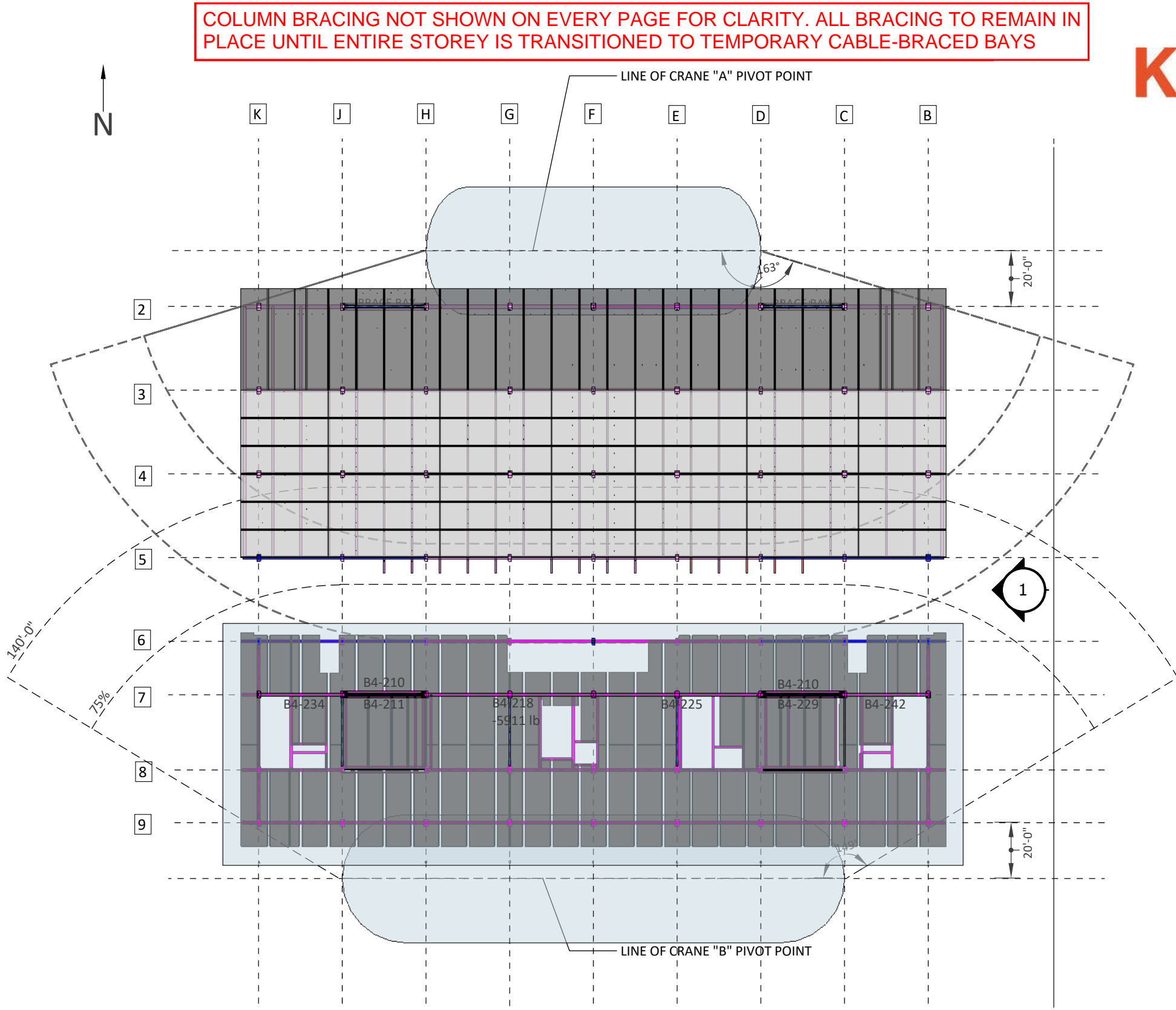
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DESCRIPTION
B-LVL 3 FRM

K400



B - MEMBER NAME	WEIGHT LB
B4-234	2952
B4-210	1624
B4-211	1853
B4-218	5911
B4-225	5910
B4-229	1853
B4-242	2952



LEGEND

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- = CABLE BRACING AS PER K008/K009

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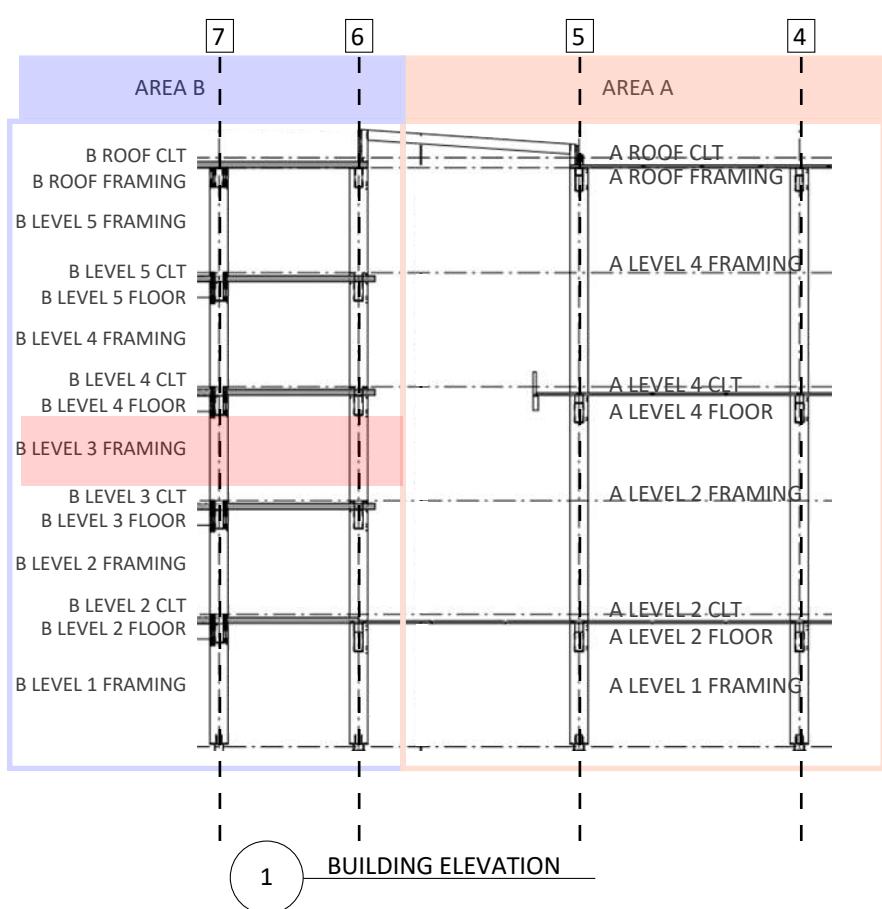


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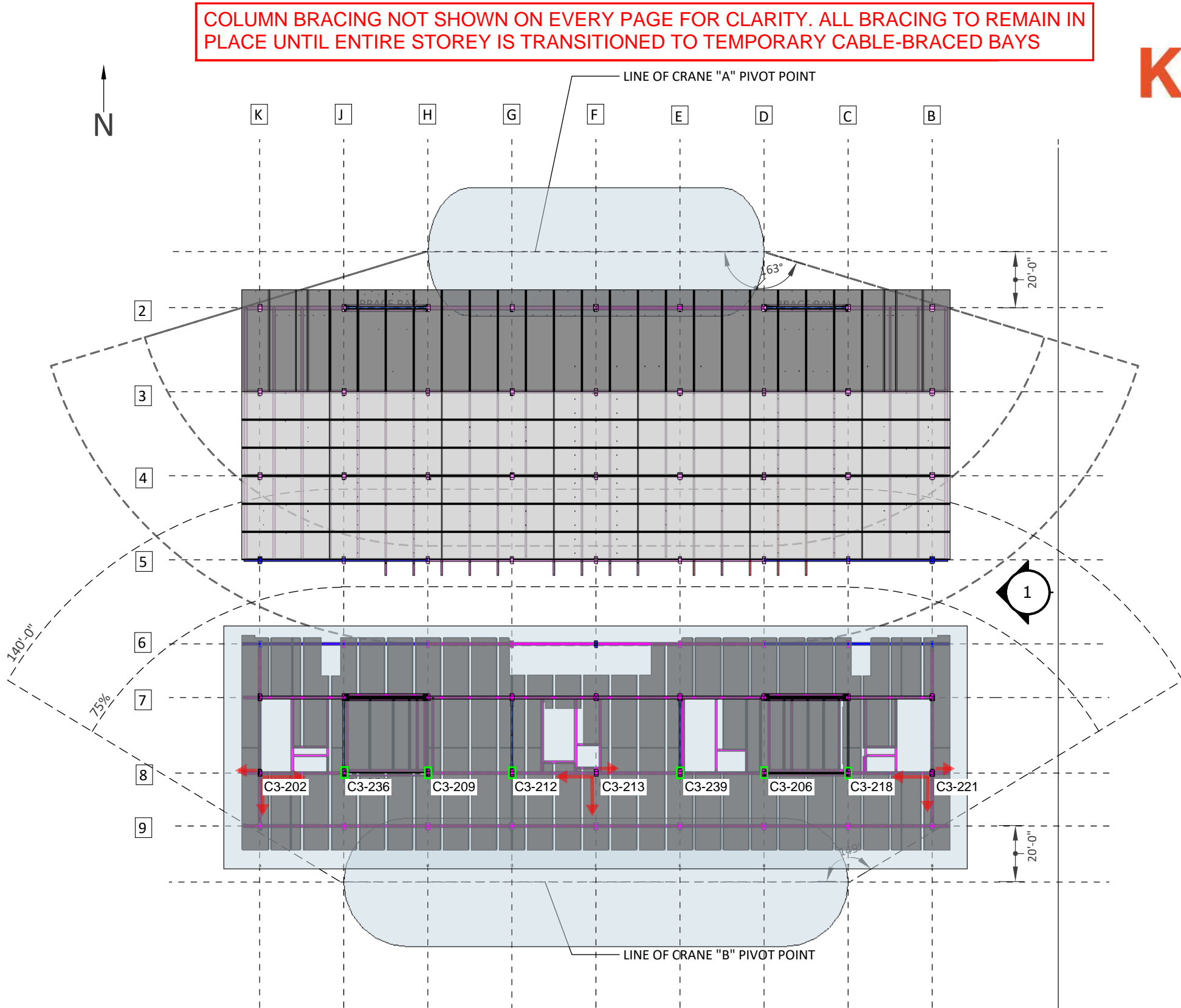
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K401



B - MEMBER NAME	WEIGHT LB
C4-202	1659
C4-224	1732
C4-209	1732
C4-212	1677
C4-213	1677
C4-215	1677
C4-206	1732
C4-217	1732
C4-220	1659



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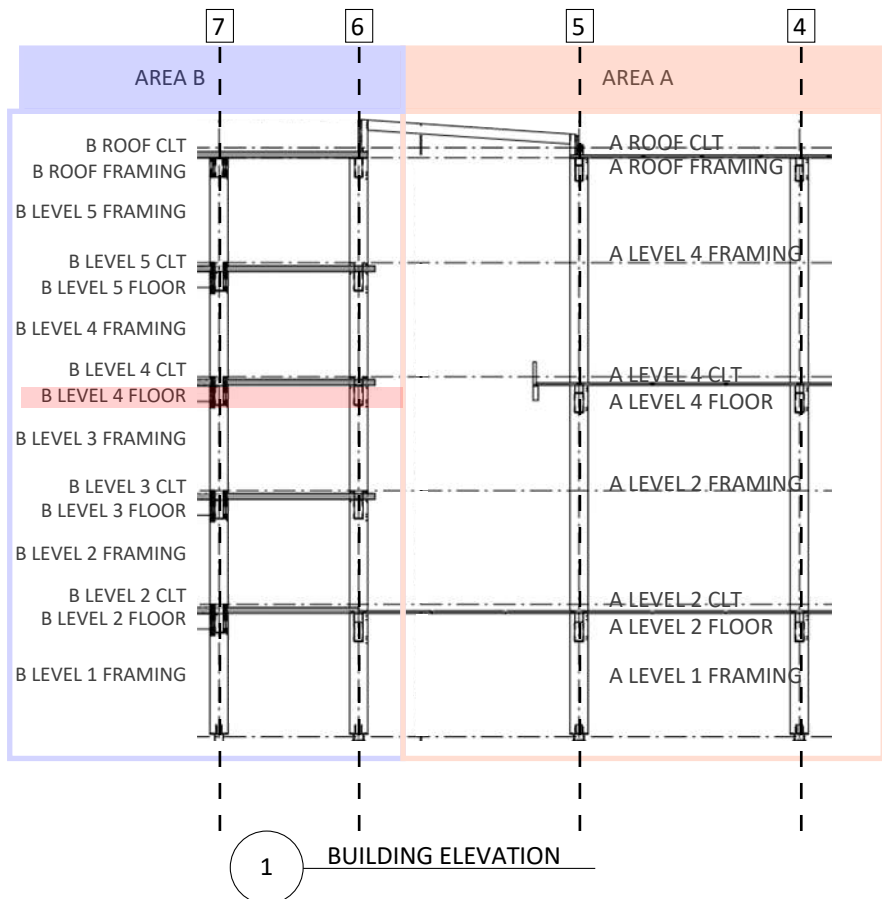


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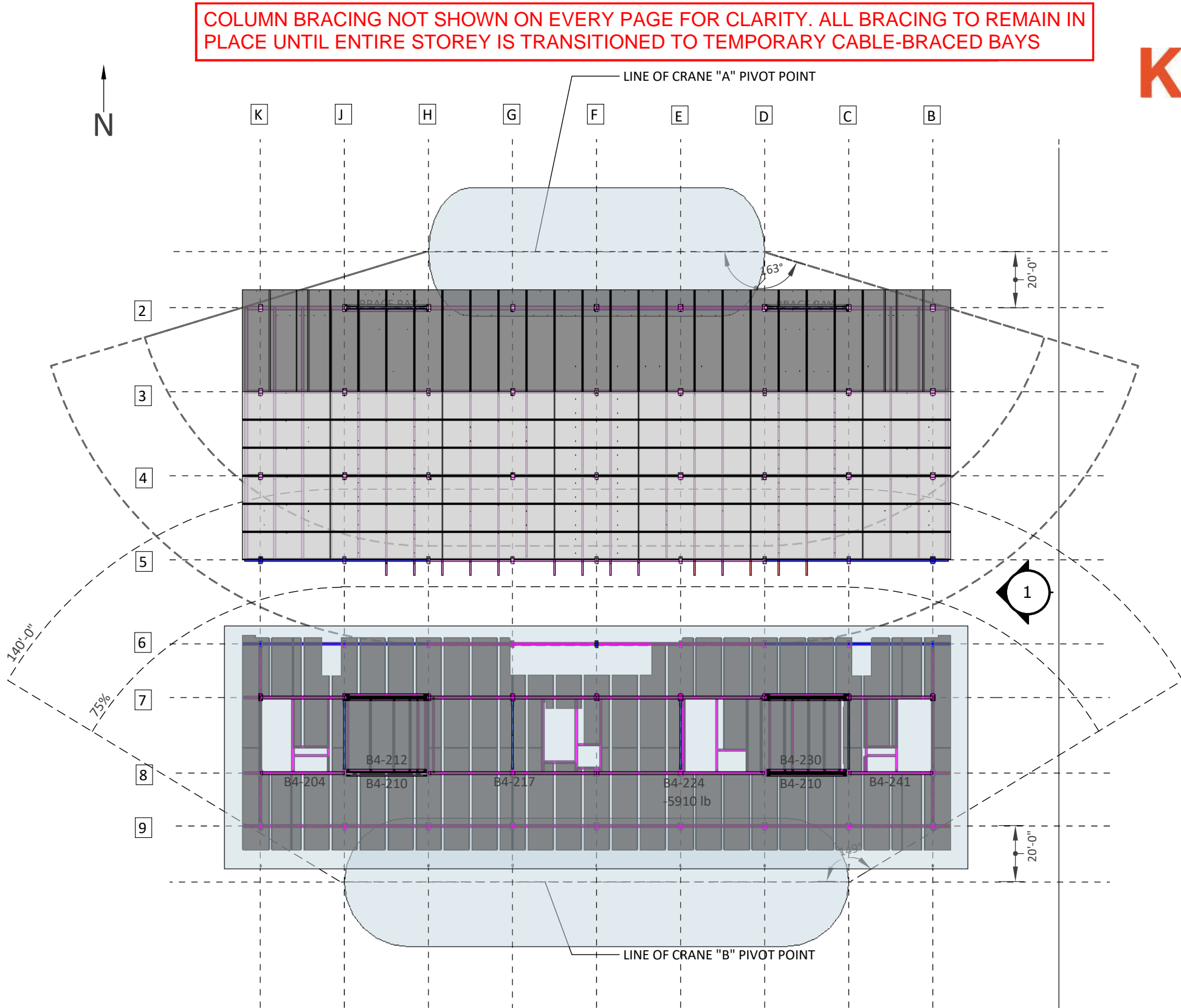
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DESCRIPTION B-LVL 3 FRM

K402



B - MEMBER NAME	WEIGHT LB
B4-204	2952
B4-210	1624
B4-212	1853
B4-217	5911
B4-224	5910
B4-230	1853
B4-241	2952



LEGEND

=

TIMBER BRACING AS PER K005/K006

=

SCISSOR LIFT DRIVE AISLE

=

RATCHET STRAP CONNECTION

=

CABLE BRACING AS PER K008/K009

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REGISTERED PROFESSIONAL ENGINEER
ILIANA NATALIE DARRIGO
C89431
CIVIL
STATE OF CALIFORNIA
FEB 09, 2021

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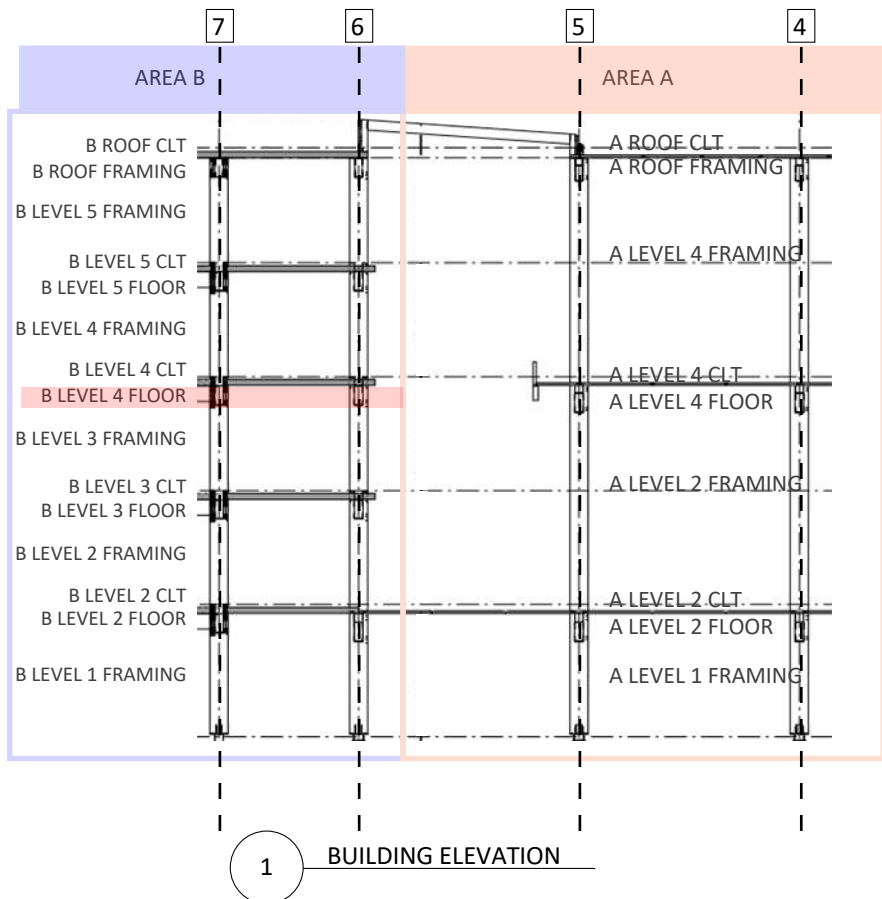
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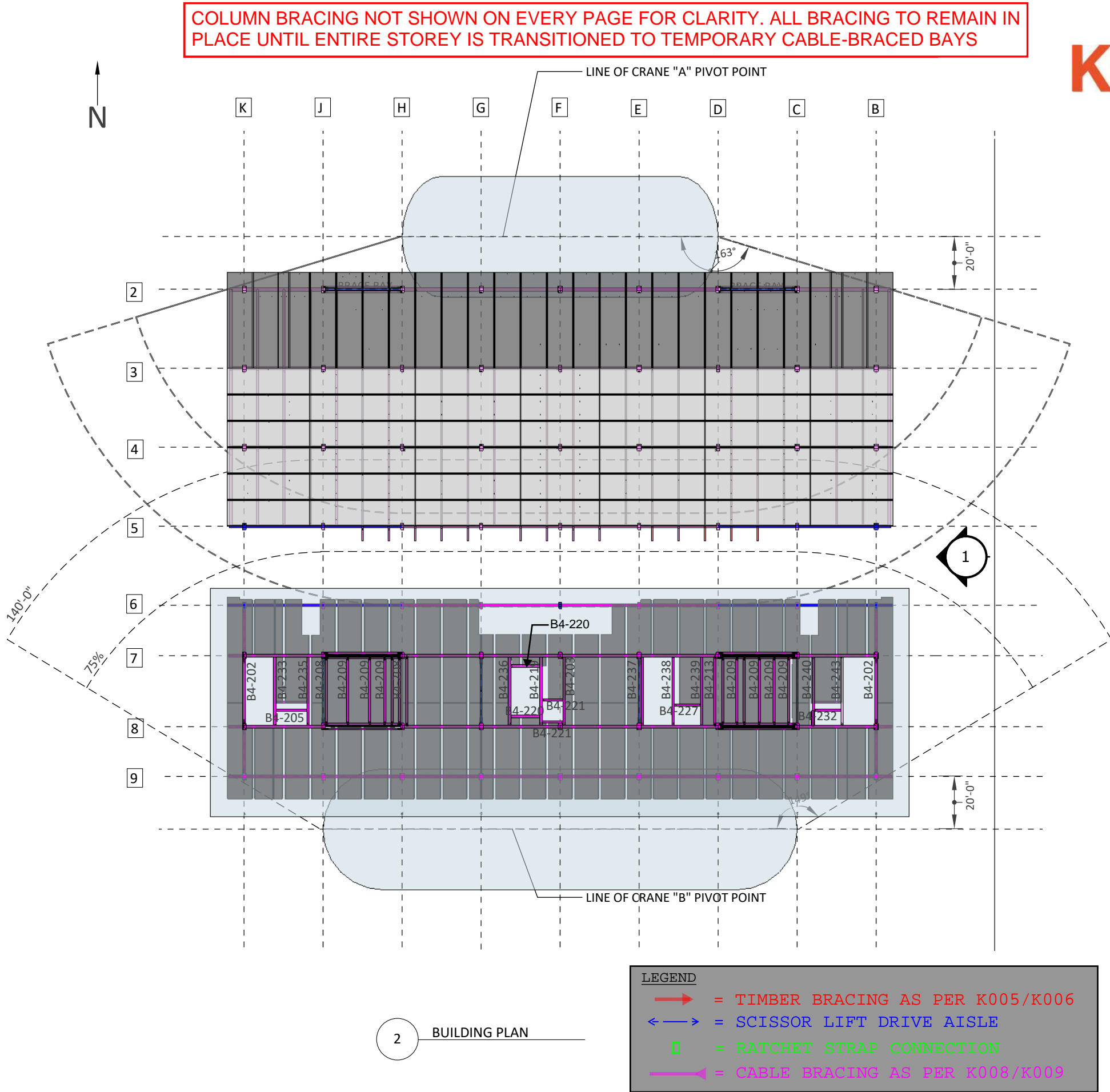
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JZ

DESCRIPTION
B-LVL 4 FLR

K403



B - MEMBER NAME	WEIGHT LB
B4-202	1854
B4-205	675
B4-233	1479
B4-235	1479
B4-208	1396
B4-209	1396
B4-236	1770
B4-220	742
B4-219	1770
B4-220	742
B4-221	453
B4-203	1479
B4-237	1479
B4-238	1479
B4-227	562
B4-239	1479
B4-213	1470
B4-240	1479
B4-232	567
B4-243	1479



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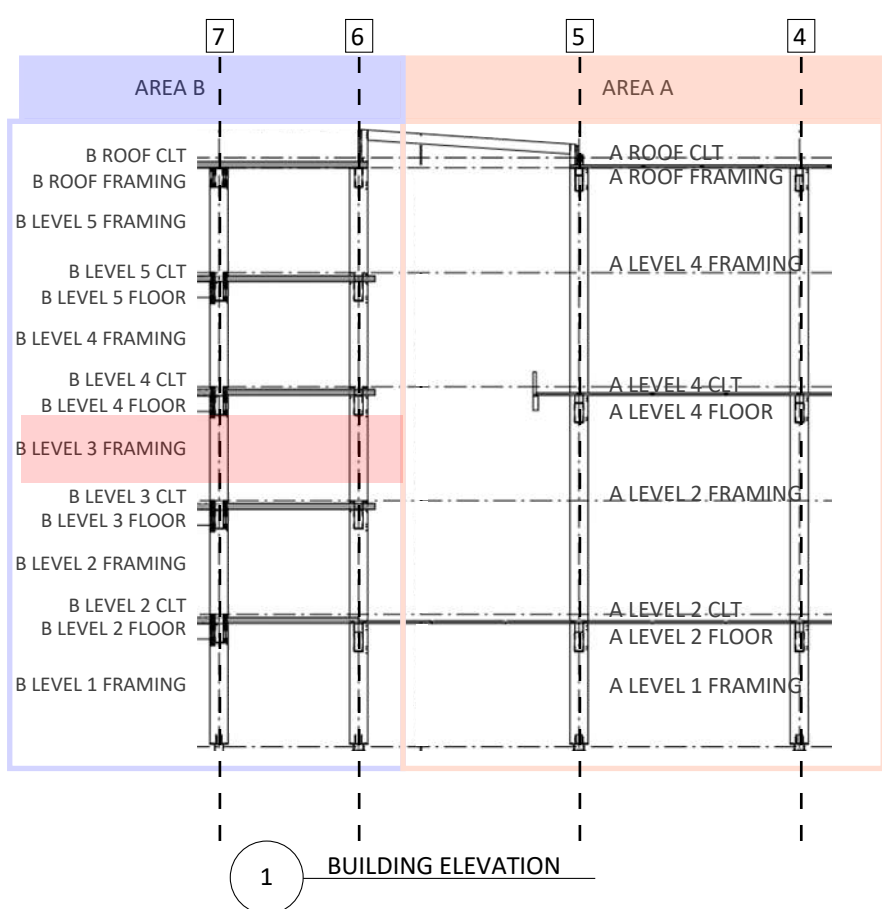
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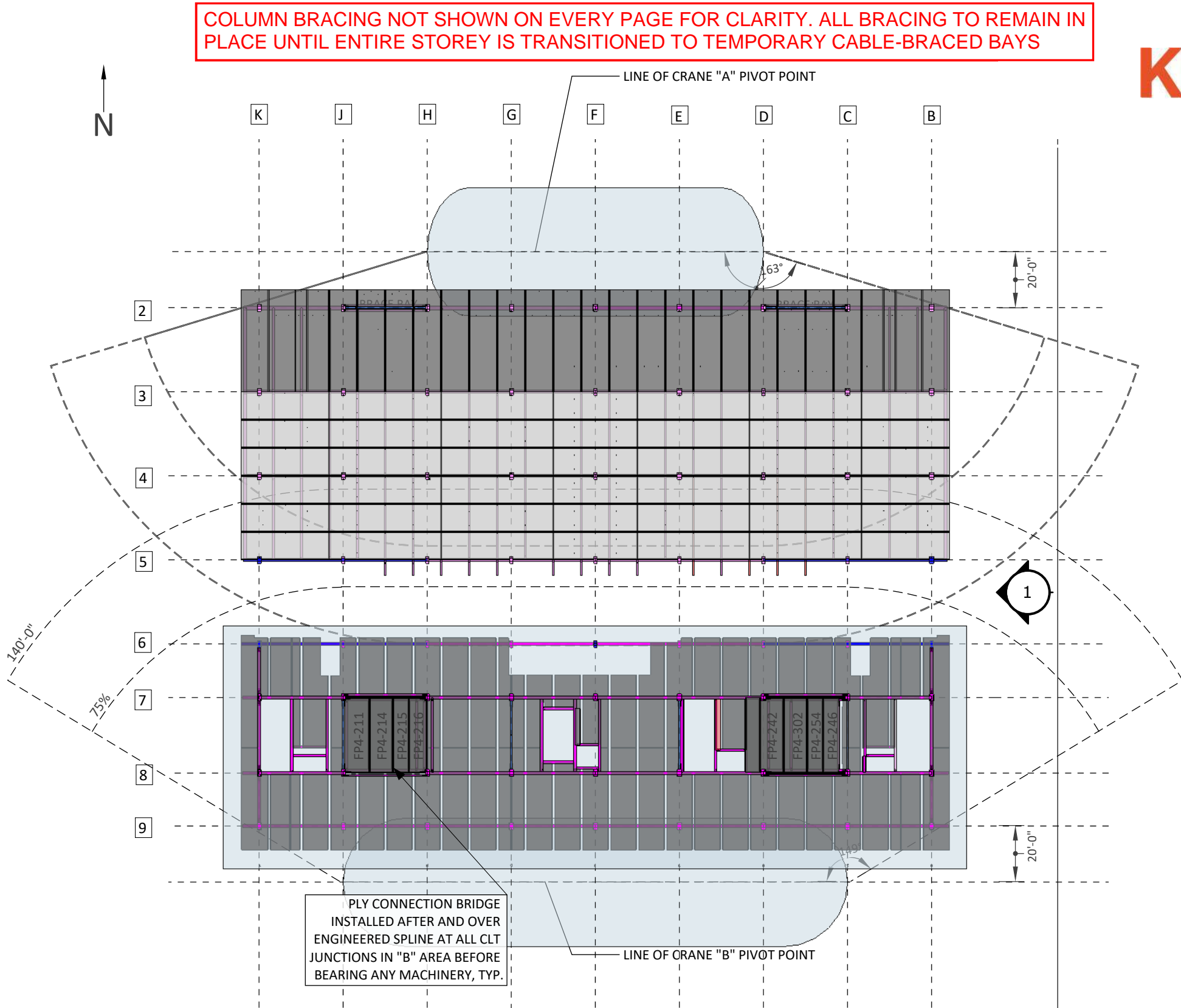
DESIGNED BY
JZ

DESCRIPTION
B-LVL 4 FLR

K404



B - MEMBER NAME	WEIGHT LB
FP4-211	5889
FP4-214	5570
FP4-215	3766
FP4-216	4569
FP4-242	3895
FP4-302	3752
FP4-254	5577
FP4-246	5788



LEGEND

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- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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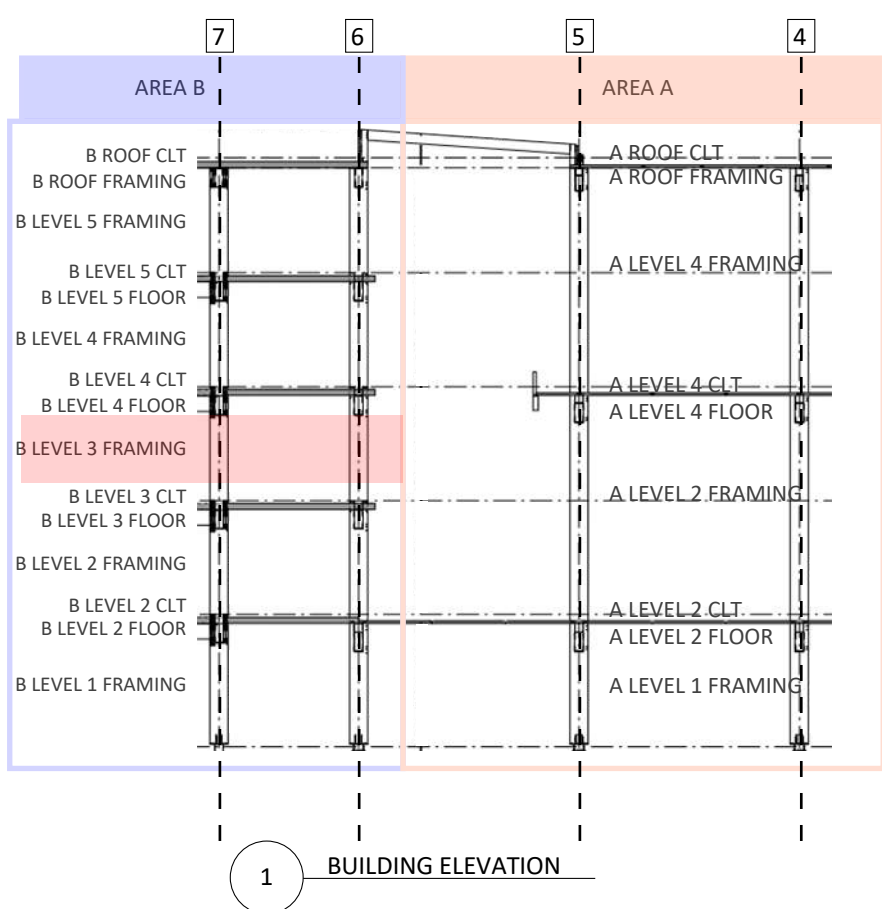
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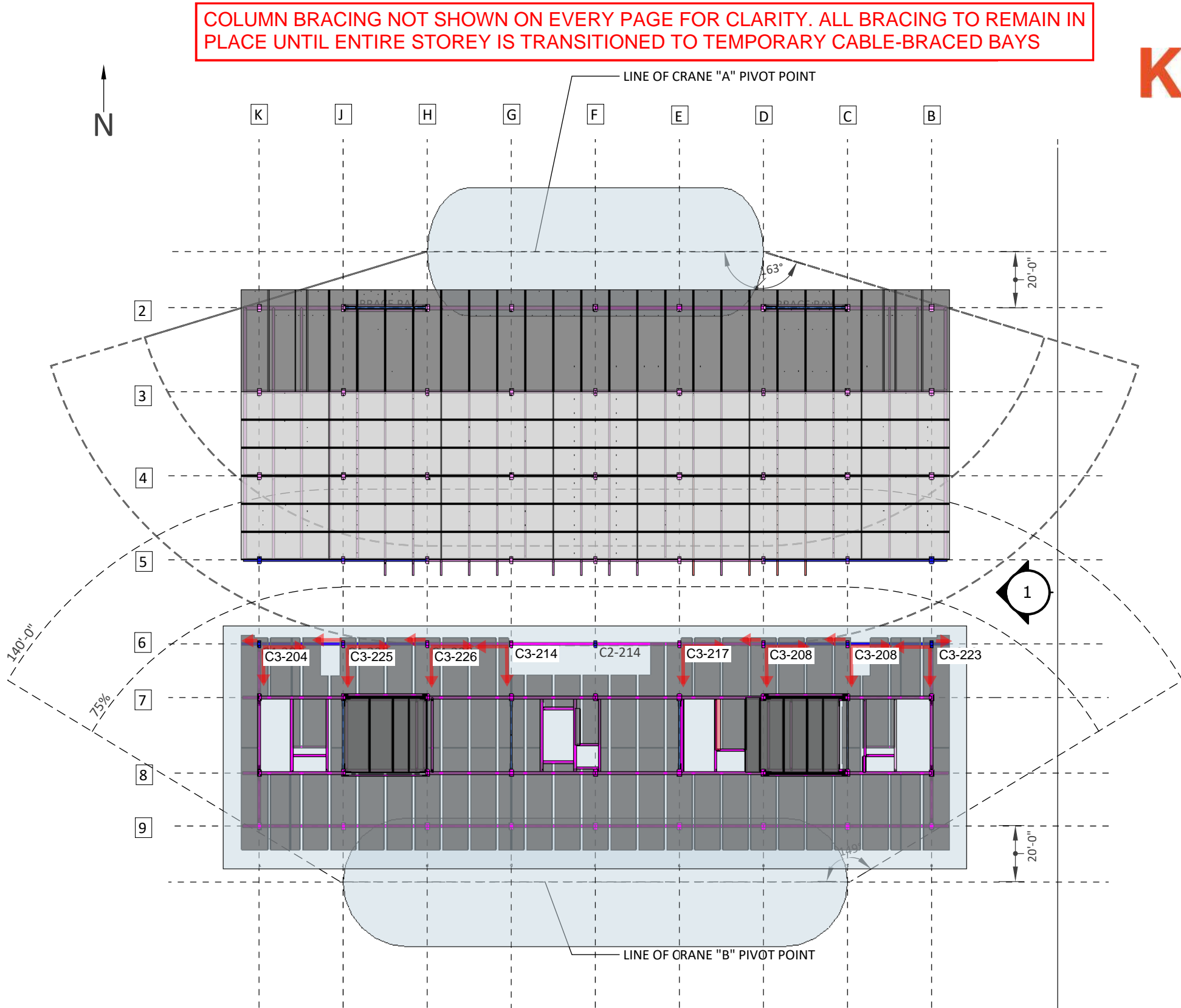
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B - MEMBER NAME	WEIGHT LB
C4-204	1332
C4-225	1346
C4-228	1346
C4-214	1382
C4-208	1346
C4-222	1332



LEGEND

=

TIMBER BRACING AS PER K005/K006

=

SCISSOR LIFT DRIVE AISLE

=

RATCHET STRAP CONNECTION

=

CABLE BRACING AS PER K008/K009

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ILIANA NATALIE DANCIG
C89431
CIVIL
STATE OF CALIFORNIA
FEB 09, 2021

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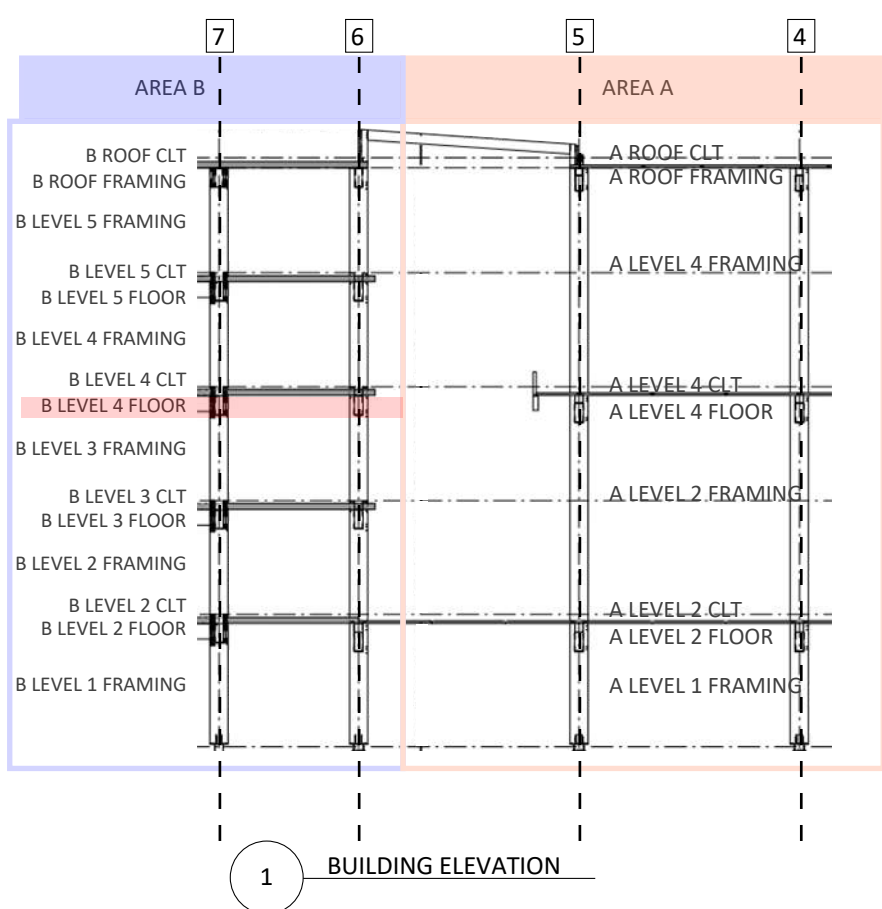
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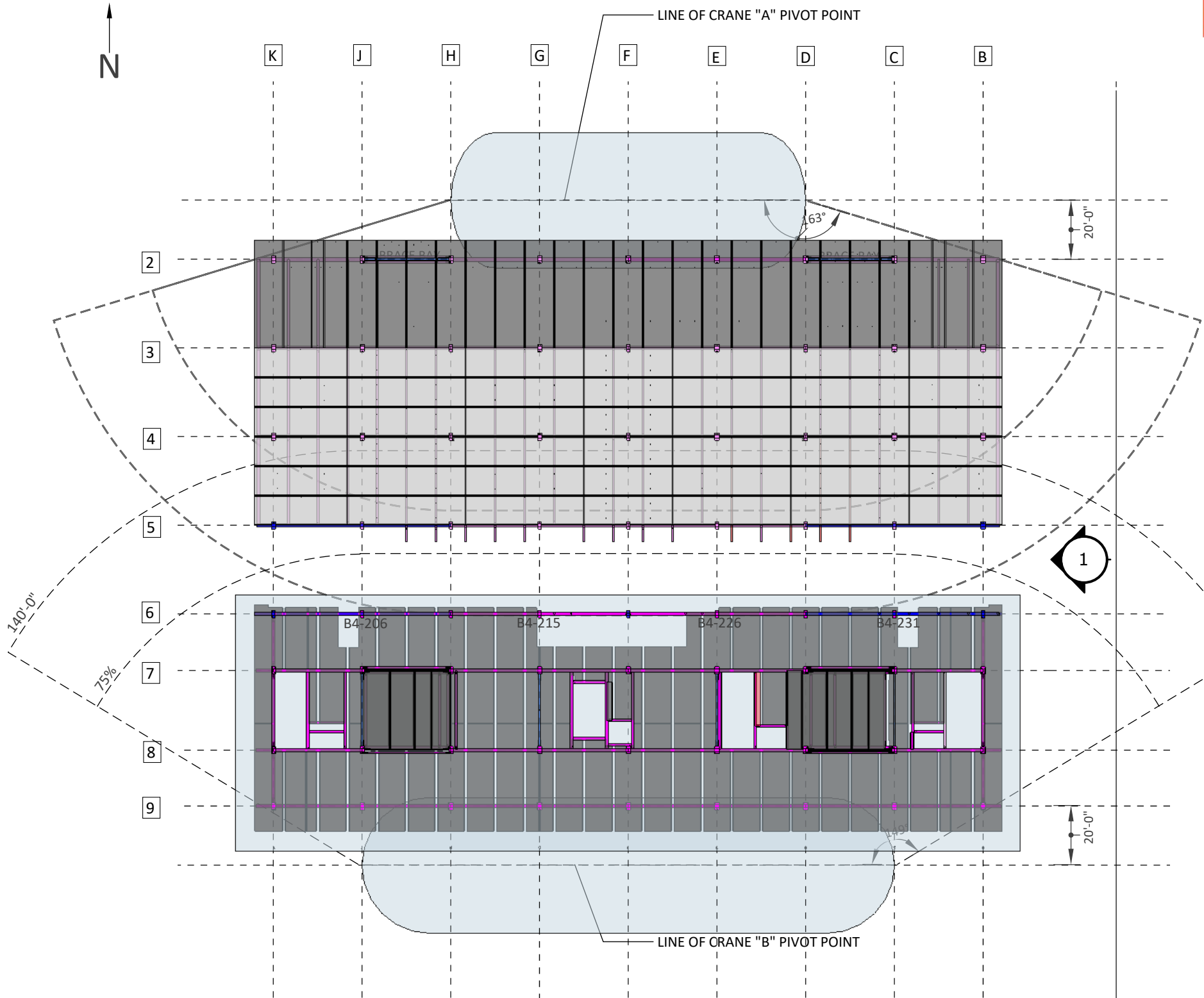
K406



BUILDING ELEVATION

B - MEMBER NAME	WEIGHT LB
B4-206	6455
B4-226	5848
B4-231	6455
B4-215	5848

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BUILDING PLAN

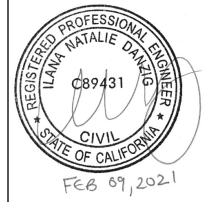
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- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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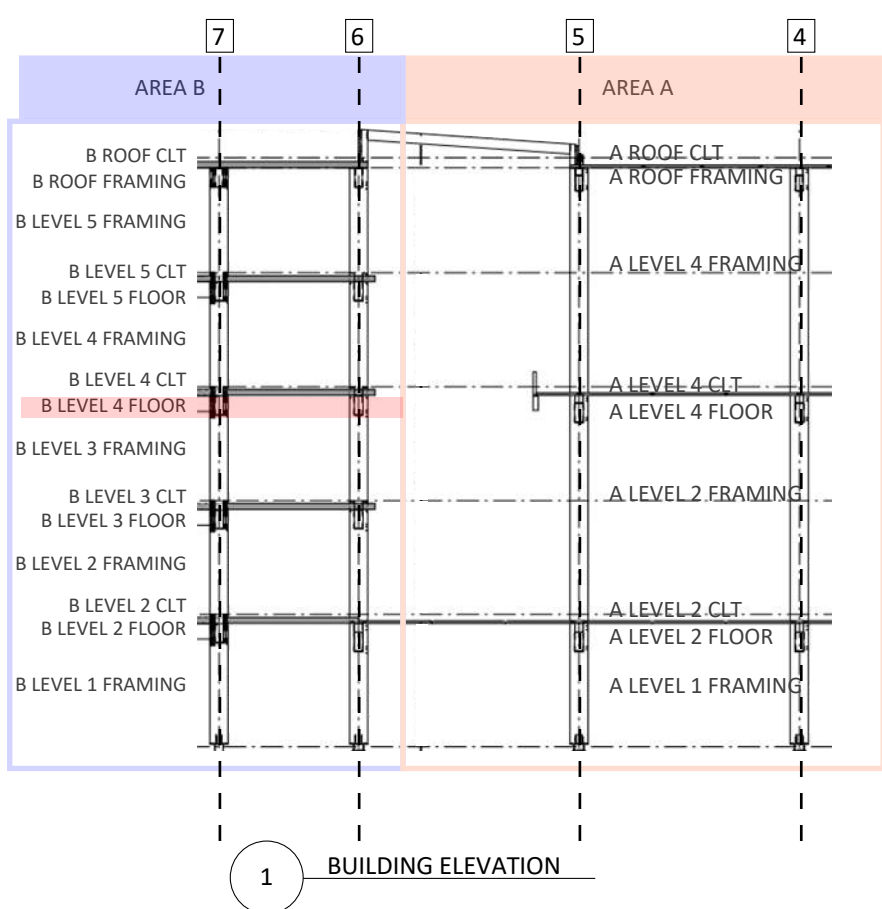


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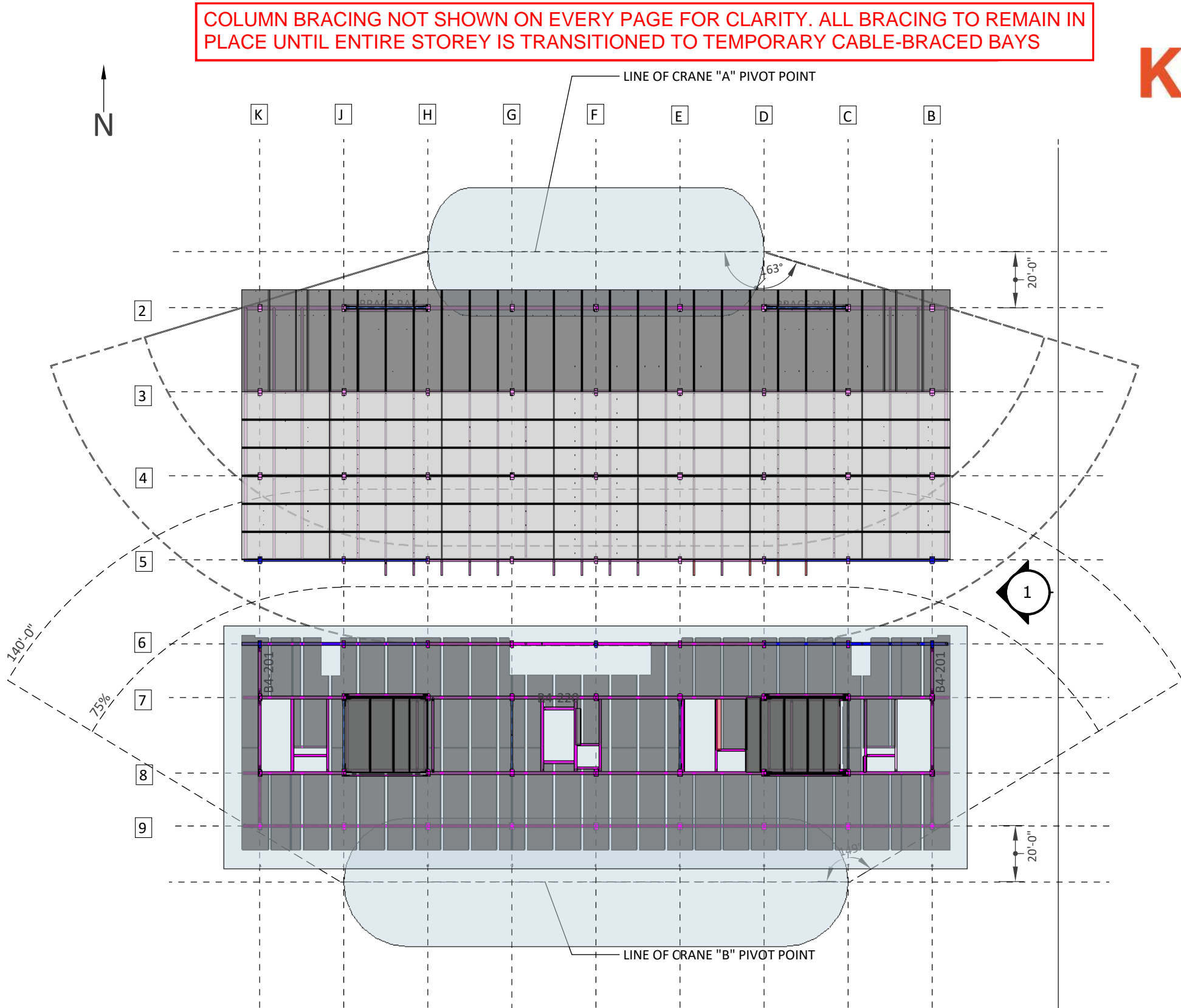
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DESCRIPTION	B-LVL 4 FLR

K407



B - MEMBER NAME	WEIGHT LB
B4-201	1240



2 BUILDING PLAN

LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

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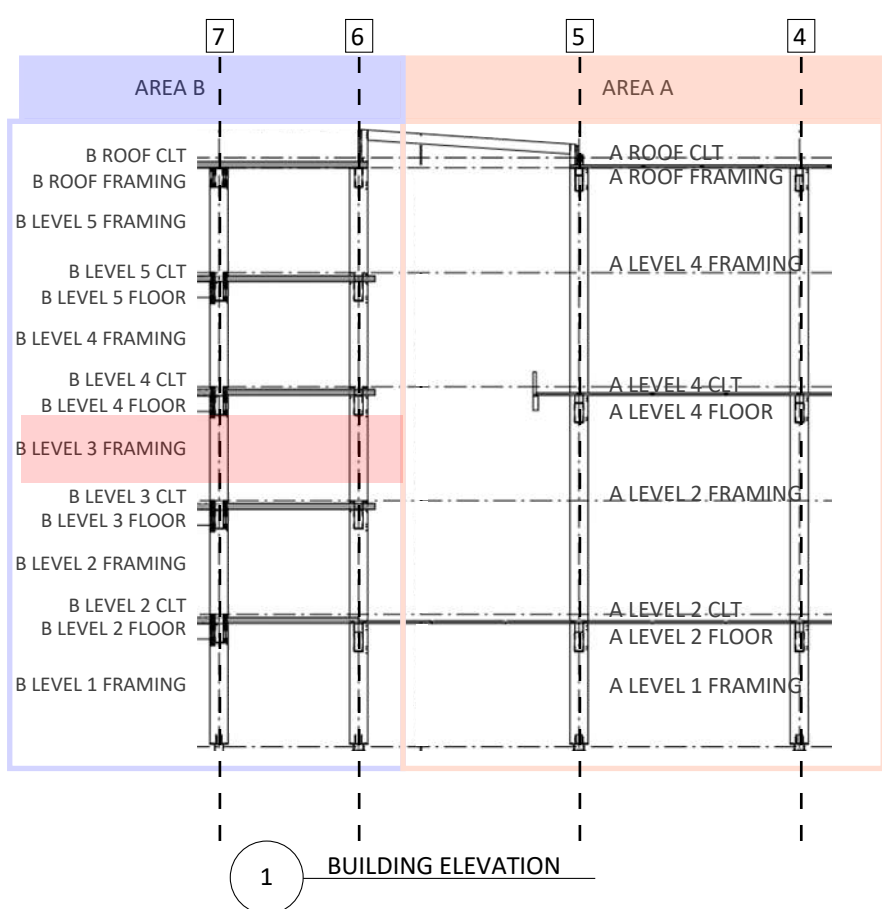


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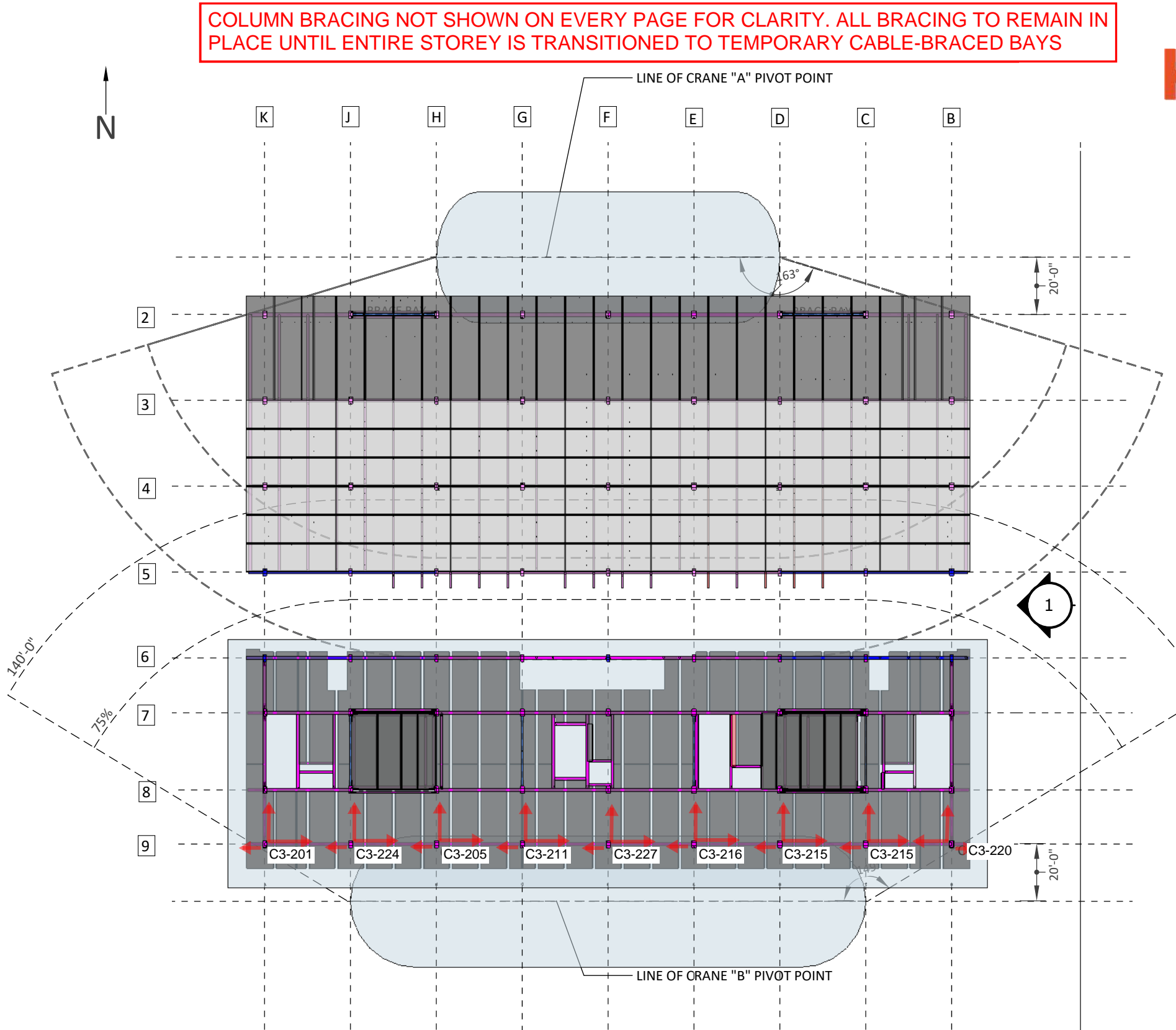
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DESIGNED BY JZ
DESCRIPTION B-LVL 4 FLR

K408



B - MEMBER NAME	WEIGHT LB
C4-201	1654
C4-223	1671
C4-227	1671
C4-211	1671
C4-229	1671
C4-205	1671
C4-219	1654



LEGEND

→ = TIMBER BRACING AS PER K005/K006

← → = SCISSOR LIFT DRIVE AISLE

□ = RATCHET STRAP CONNECTION

— = CABLE BRACING AS PER K008/K009

2 BUILDING PLAN

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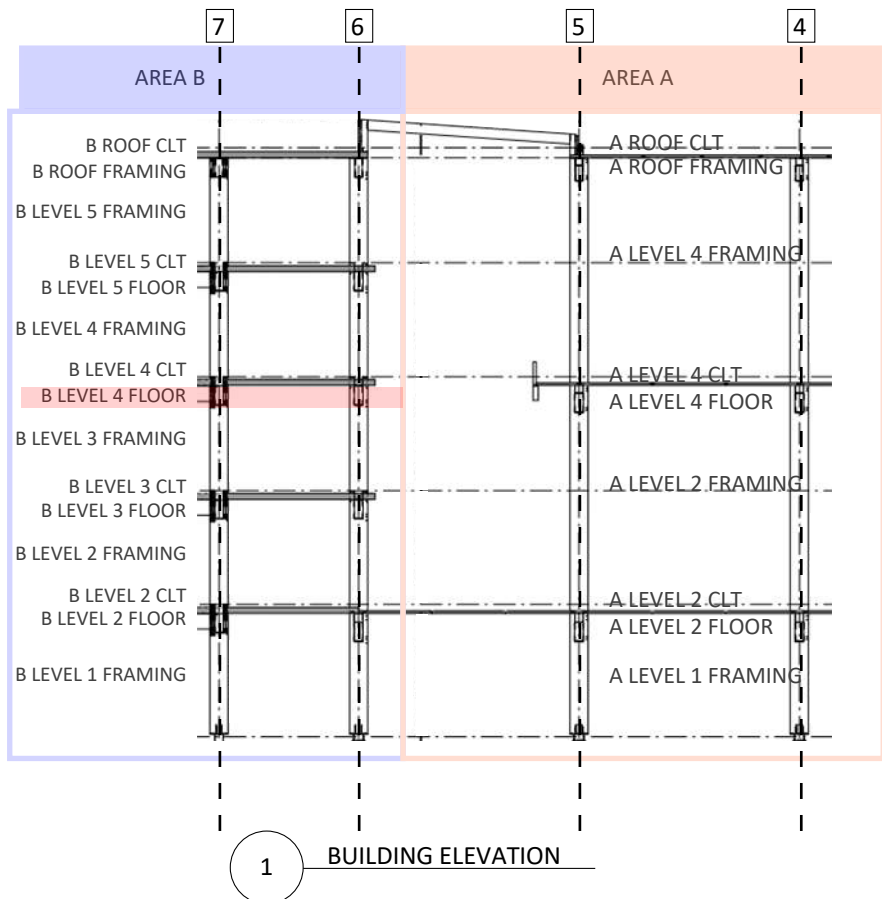


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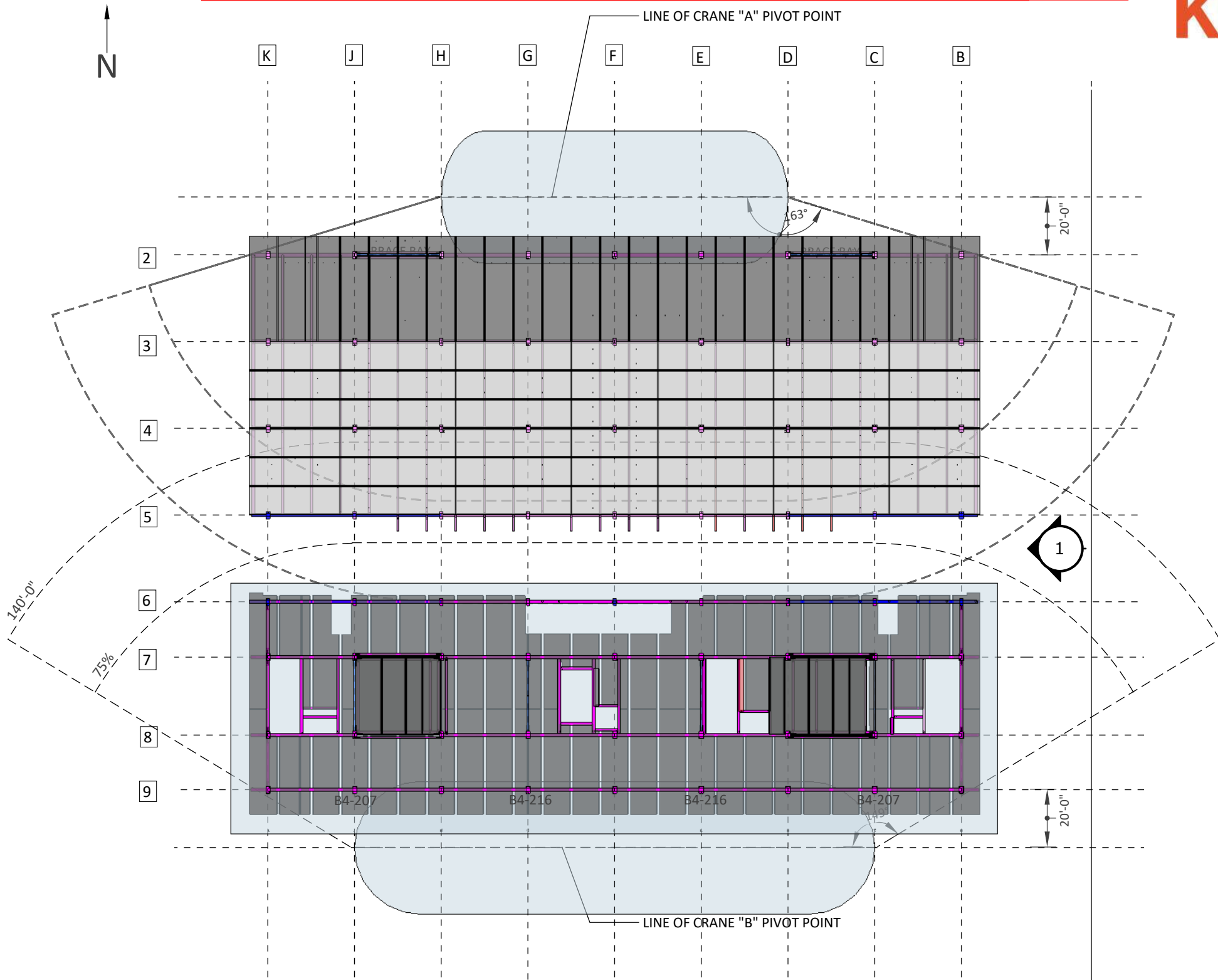
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K409



B - MEMBER NAME	WEIGHT LB
B4-207	6194
B4-216	6196

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LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
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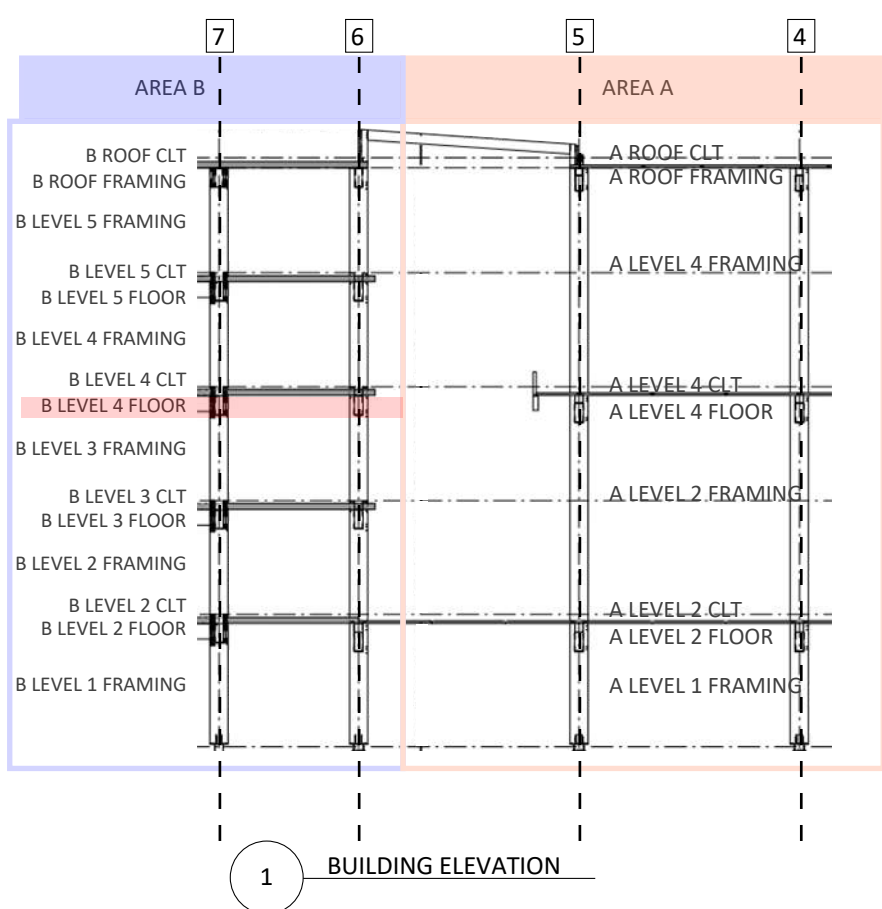
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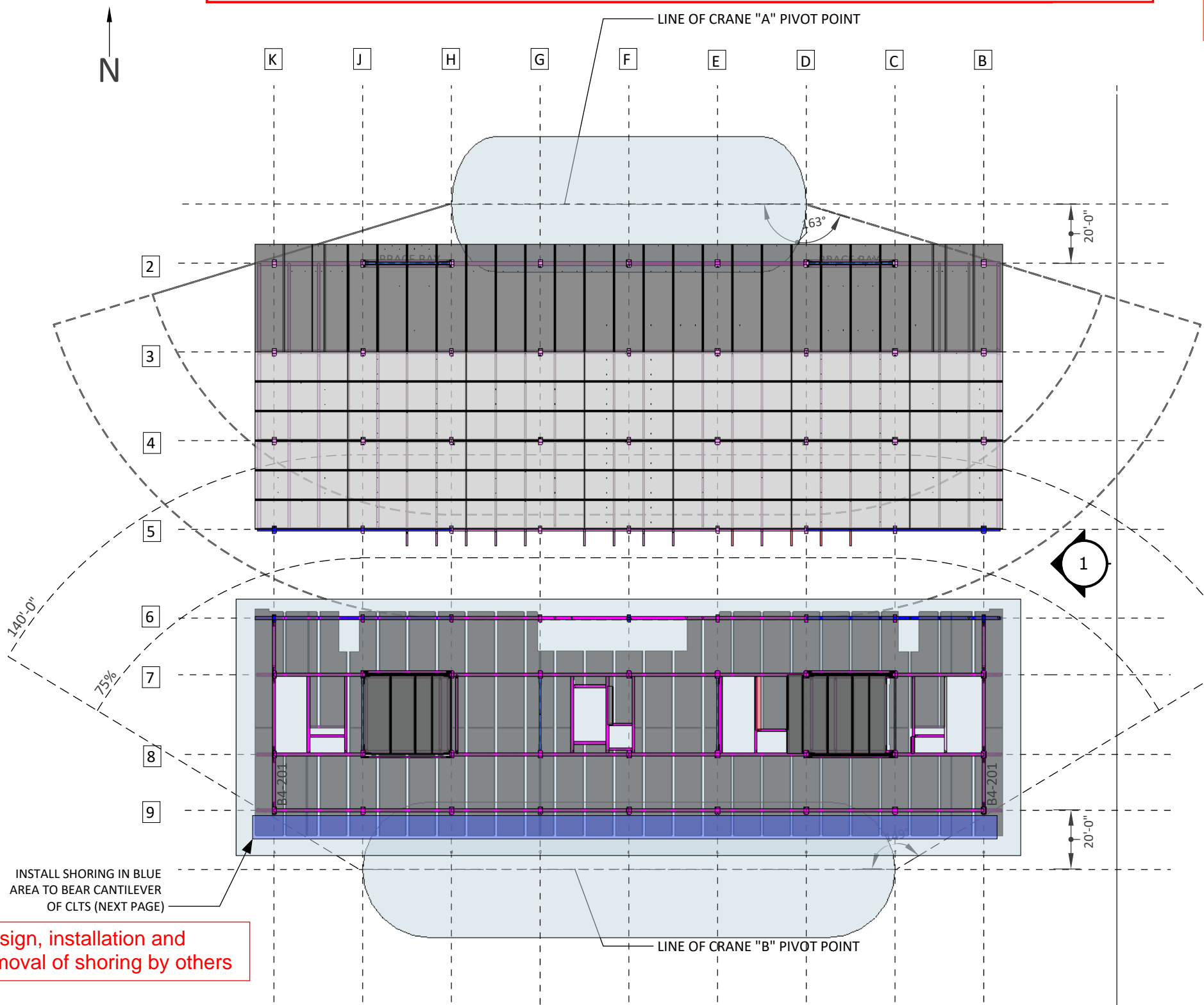
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B-LVL 4 FLR

K410



B - MEMBER NAME	WEIGHT LB
B4-201	1240

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Design, installation and removal of shoring by others

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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Google FONE

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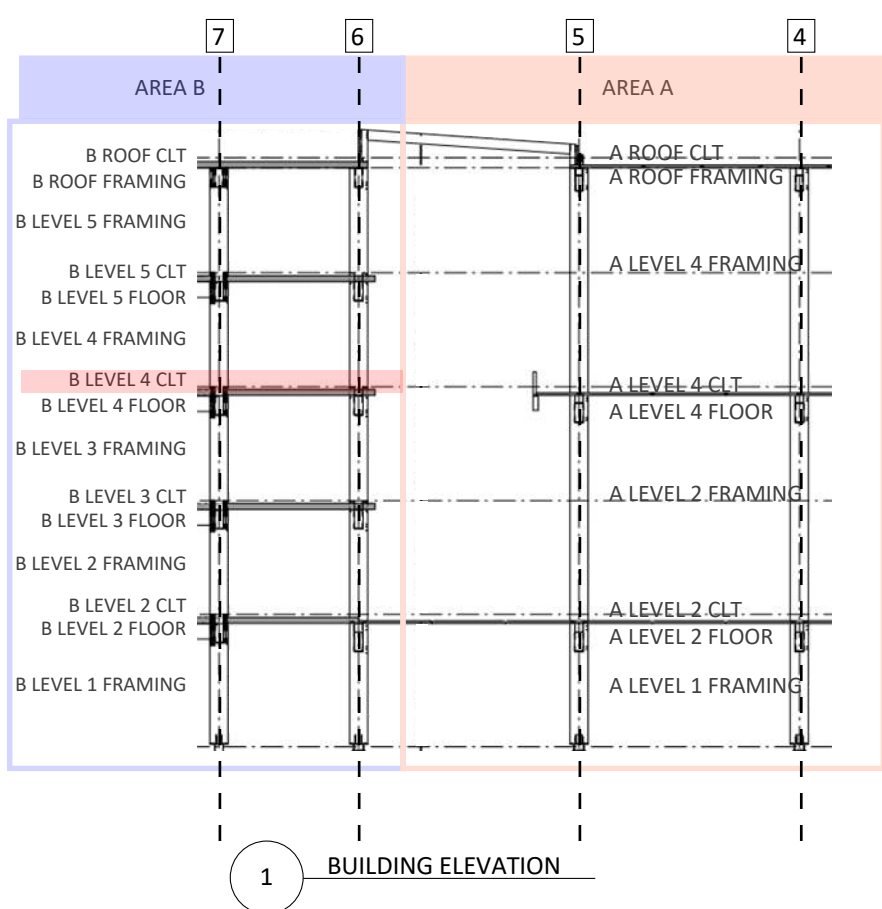
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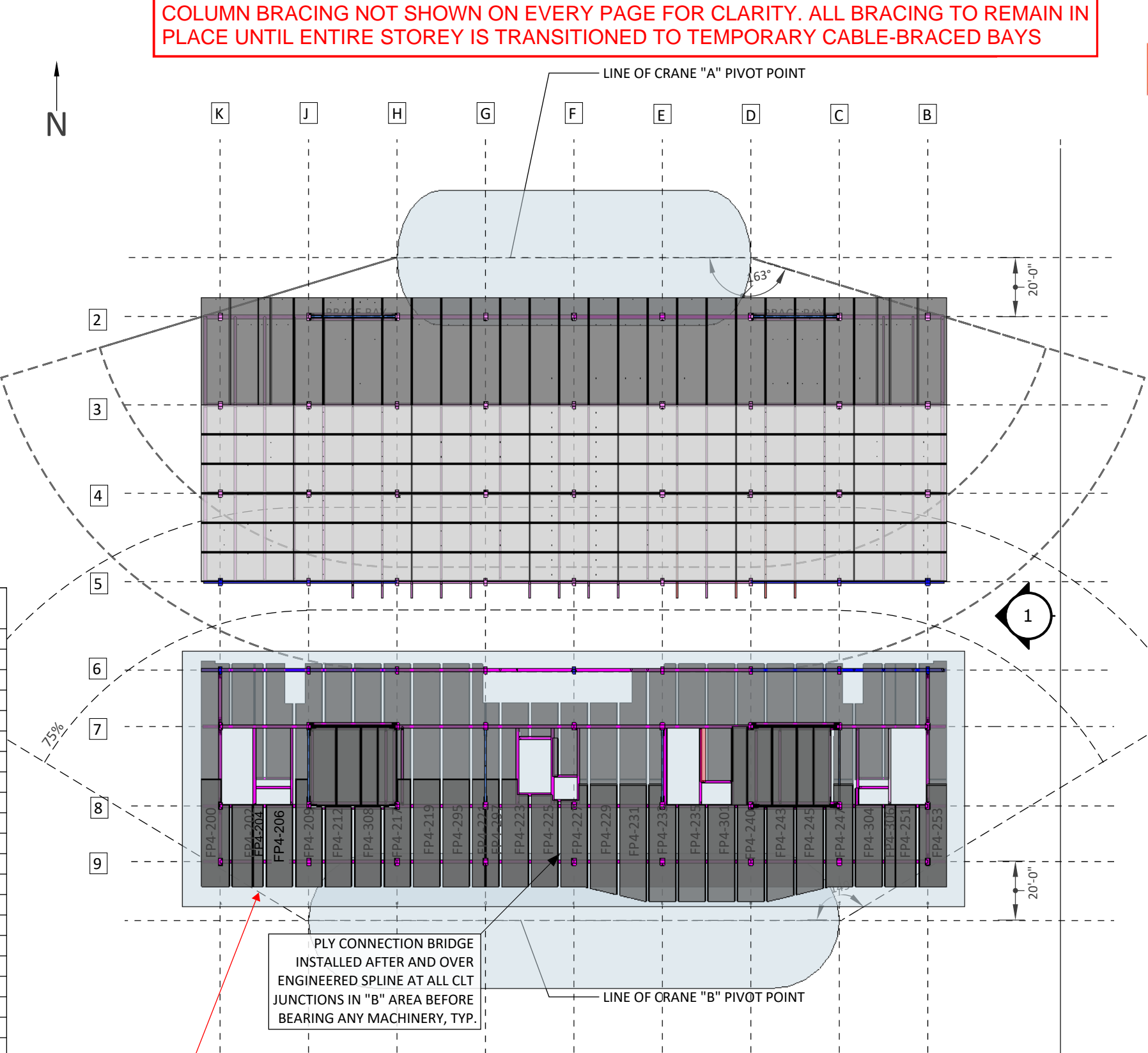
K411



BUILDING ELEVATION

B - MEMBER NAME	WEIGHT LB
FP4-200	8063
FP4-202	5039
FP4-204	2544
FP4-209	7268
FP4-212	6414
FP4-308	6416
FP4-217	7342
FP4-219	8630
FP4-295	8630
FP4-221	4123
FP4-297	4123
FP4-223	8127
FP4-225	7249
FP4-227	7167
FP4-229	8569
FP4-231	9130
FP4-233	8304
FP4-235	7725
FP4-301	7725
FP4-240	7499
FP4-243	7351
FP4-245	6790
FP4-247	7434
FP4-304	6556
FP4-306	2544
FP4-251	5038
FP4-253	7755

Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others



BUILDING PLAN

LEGEND

→

= TIMBER BRACING AS PER K005/K006

←→

= SCISSOR LIFT DRIVE AISLE

□

= RATCHET STRAP CONNECTION

—

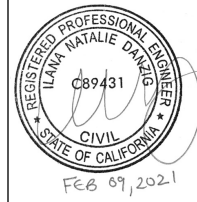
= CABLE BRACING AS PER K008/K009

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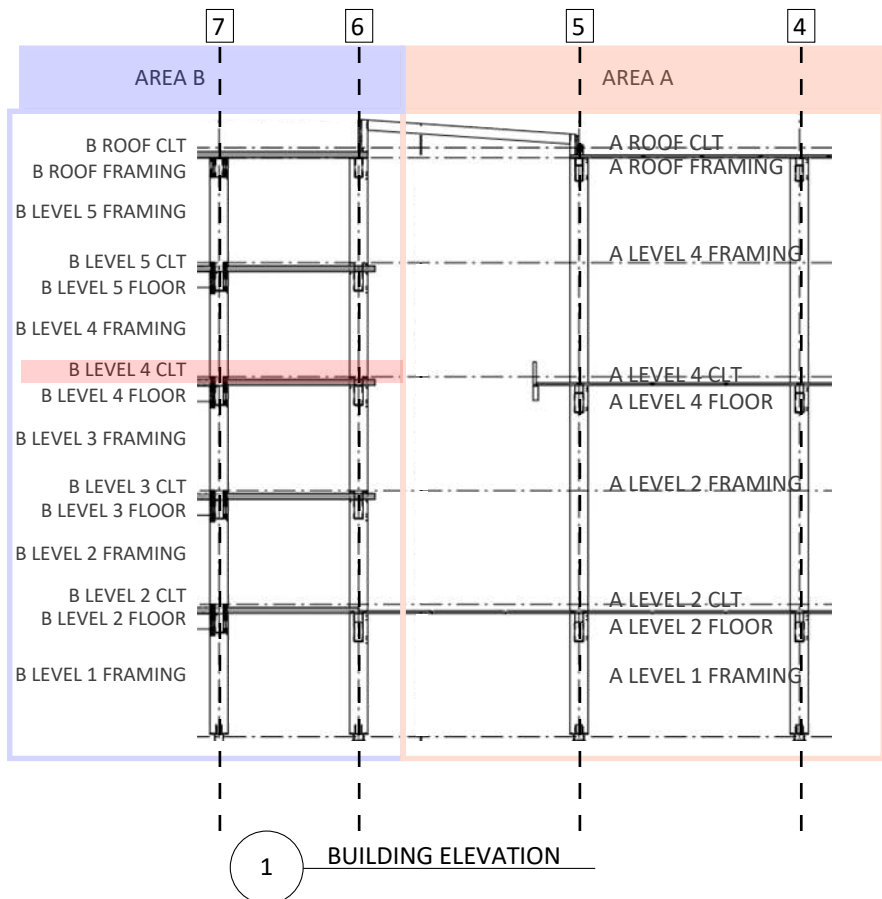
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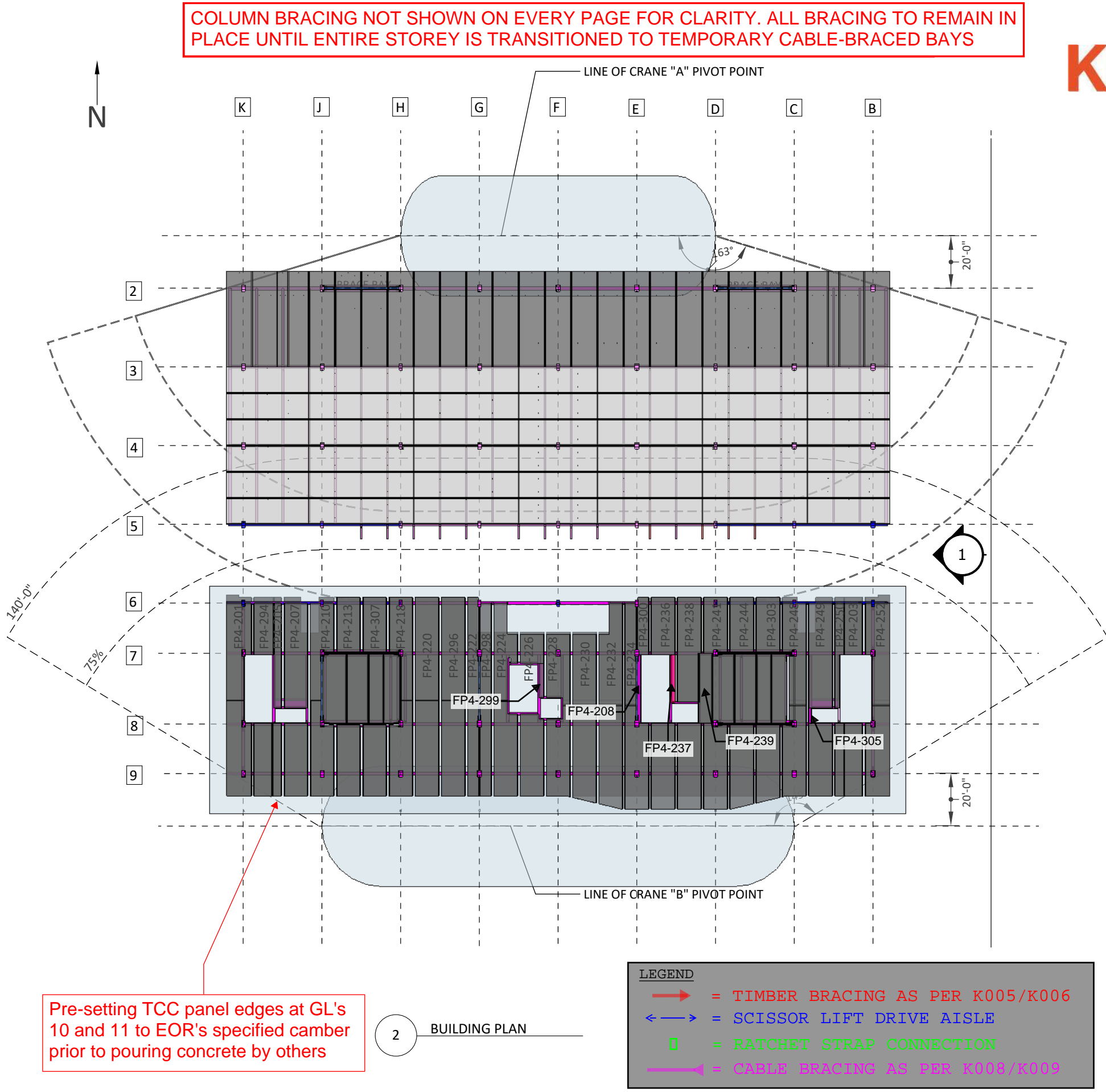
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K412



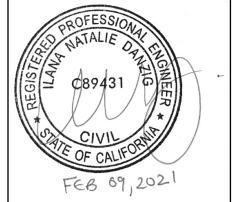
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FP4-201	7581
FP4-294	3814
FP4-205	3146
FP4-207	9196
FP4-210	6280
FP4-213	4939
FP4-307	4939
FP4-218	6924
FP4-220	9266
FP4-296	9265
FP4-222	4370
FP4-298	4135
FP4-224	6244
FP4-226	2854
FP4-228	6097
FP4-230	6628
FP4-232	8057
FP4-234	4337
FP4-300	2484
FP4-236	5159
FP4-238	8920
FP4-241	4846
FP4-244	4940
FP4-303	4933
FP4-248	7620
FP4-249	9289
FP4-250	2695
FP4-203	3562
FP4-252	7894



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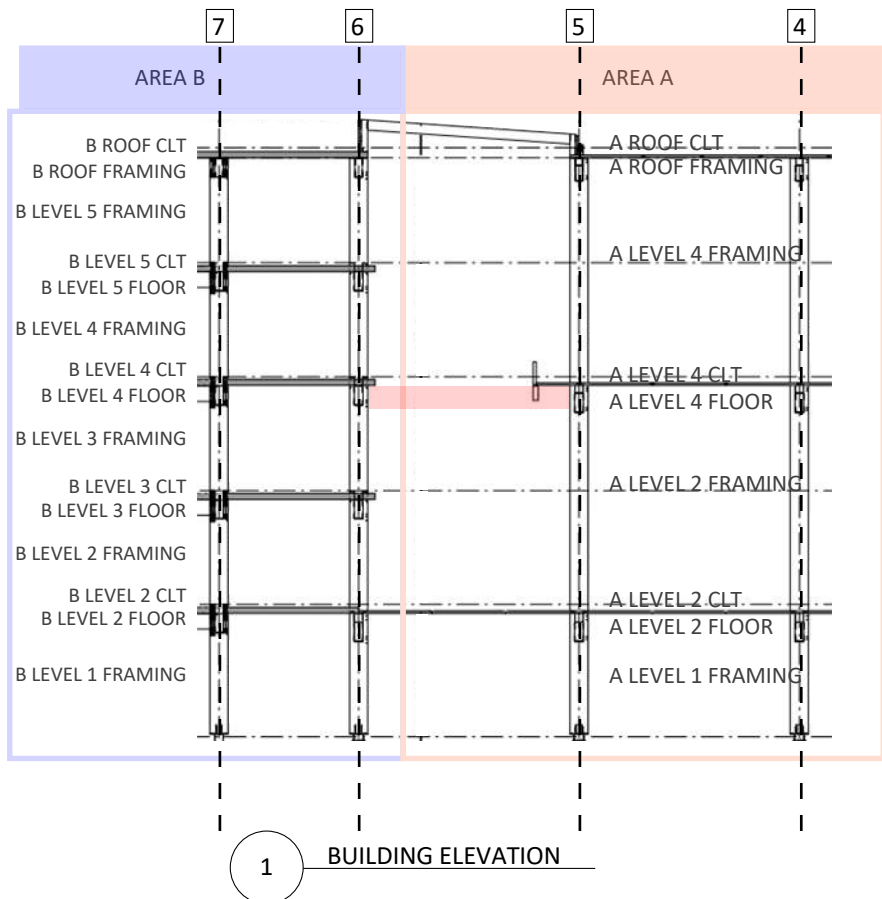


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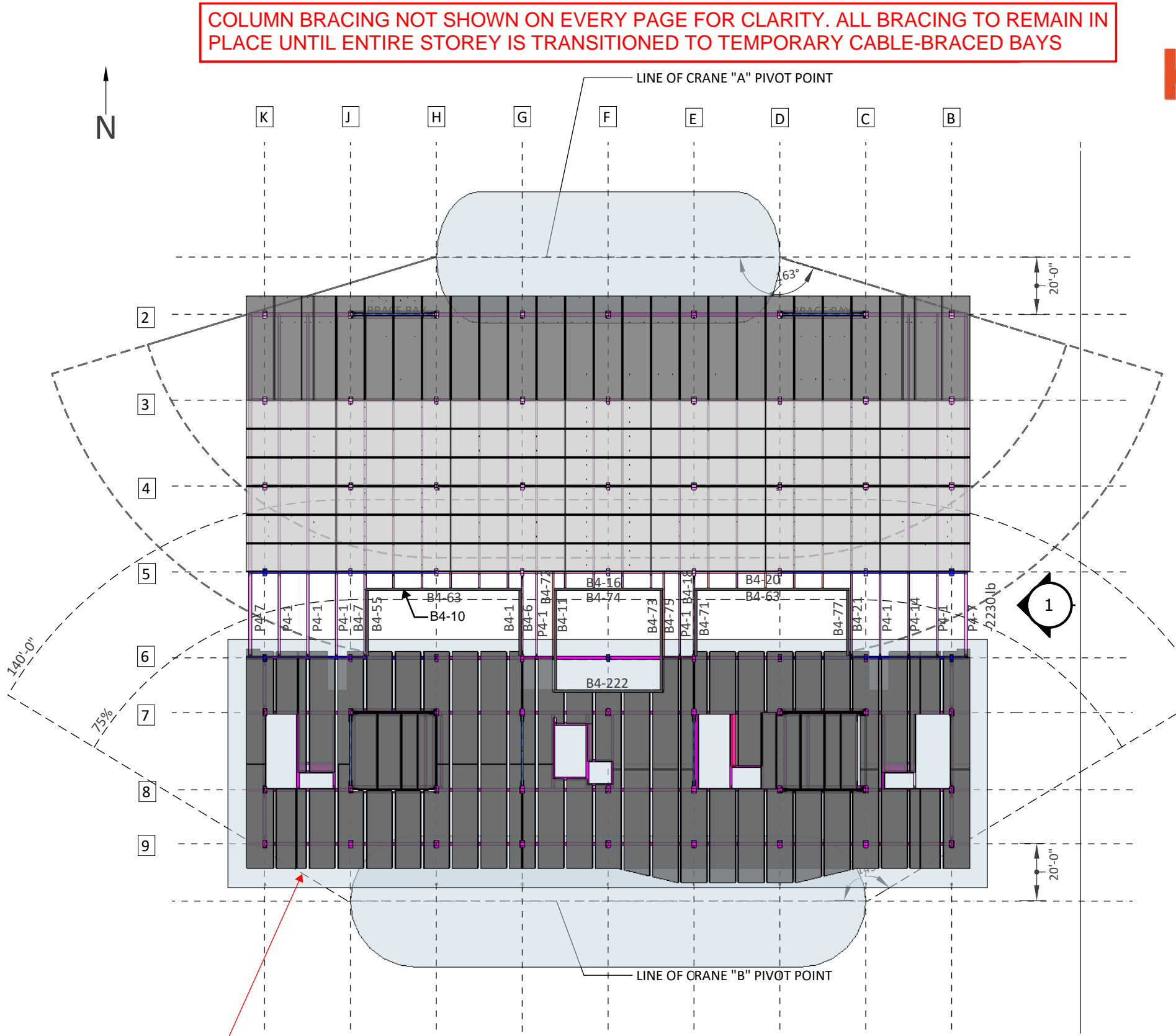
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K413



B - MEMBER NAME	WEIGHT LB
P4-7	2230
P4-1	1265
B4-7	1264
B4-55	974
B4-63	2407
B4-1	1178
B4-6	1017
B4-72	1277
B4-11	1550
B4-74	1682
B4-16	1653
B4-73	1550
B4-75	1277
B4-18	1178
B4-71	1017
B4-20	2367
B4-63	2407
B4-77	1072
B4-21	1264
P4-14	1265
B4-222	1682



Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

→

=

TIMBER BRACING AS PER K005/K006

←→

=

SCISSOR LIFT DRIVE AISLE

□

=

RATCHET STRAP CONNECTION

—

=

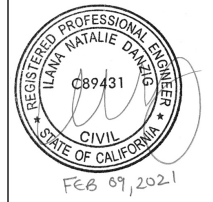
CABLE BRACING AS PER K008/K009

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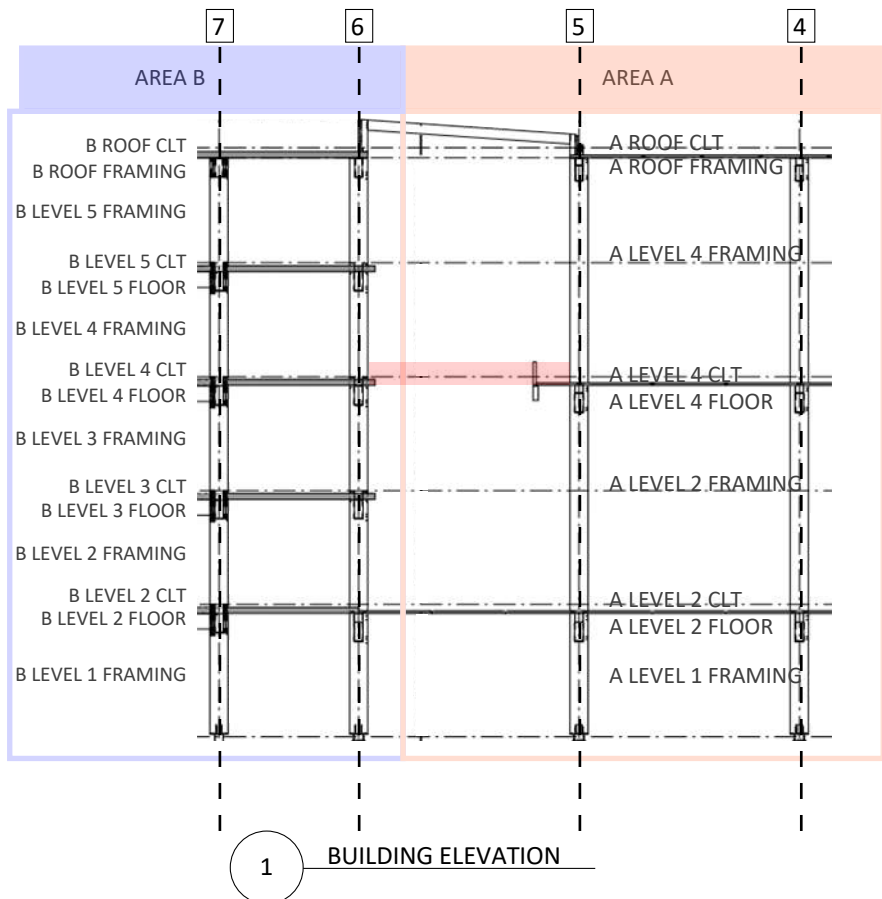
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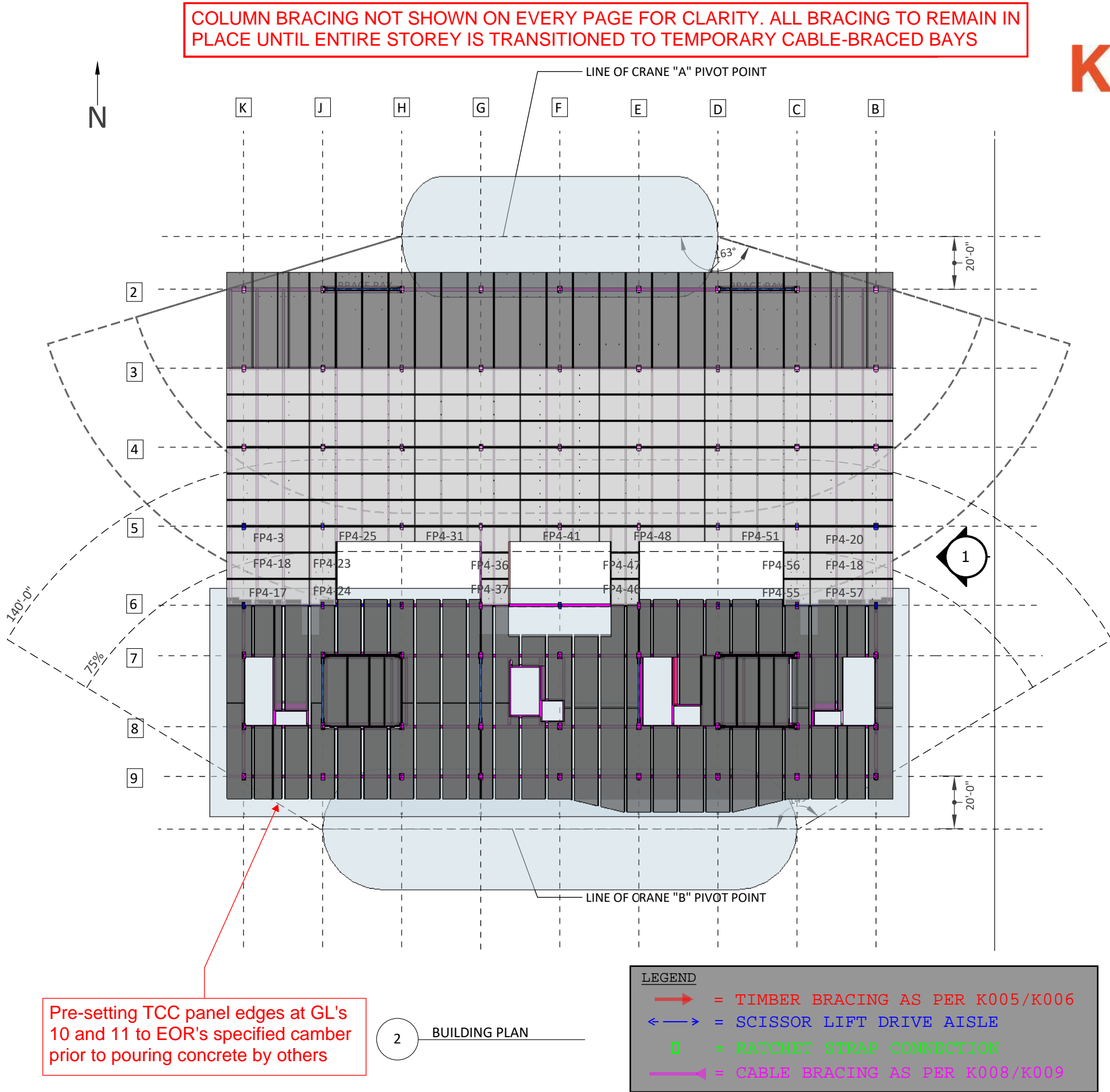
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B - MEMBER NAME	WEIGHT LB
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FP4-18	3431
FP4-17	3433
FP4-25	2955
FP4-23	1079
FP4-24	1069
FP4-31	2999
FP4-36	1149
FP4-37	1148
FP4-41	1887
FP4-48	2996
FP4-47	1141
FP4-46	1140
FP4-51	2955
FP4-56	1079
FP4-55	1069
FP4-20	3411
FP4-18	3431
FP4-57	3434



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K415



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2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step 4 Bracing

Scale: NTS
Drawn: ME
Designed: ME
Checked: AG/ID

Drawing No.:
Revision No.: -

K416

Erection Sequence

Erection Step	Procedure
E4	<p>E4.1: Replace level 2 timber temporary bracing with cable bracing per typical detail. * Note: Level 2 permanent steel braces are now fully engaged and Level 3 deck can now be classified as "Medium Duty", therefore, scissor lifts can be driven on this deck and material can be staged.</p> <p>E4.2: Install 15' columns on level 3 per sequencing drawings. Brace columns per 15' timber bracing typical detail.</p> <p>E4.3: Install Level 4 deck along with all required strapping per structural drawings and temporary strapping plan.</p> <p>* Note: Level 4 is now a "Very Light Duty" deck, therefore no scissor lifts or material staging are permitted on this deck.</p> <p>E4.4: Once Level 4 deck installed, replace 30' column cable bracing with cable cross bracing per typical detail. Ensure all reinforcing screws in column to column connection, per structural drawing S401, installed prior to installation of temporary cable cross bracing.</p>

LOADING PER ASCE 37-14

Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads

Operational Class	Uniform Load* (psf (kN/m ²))
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
*Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
*Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
*Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)

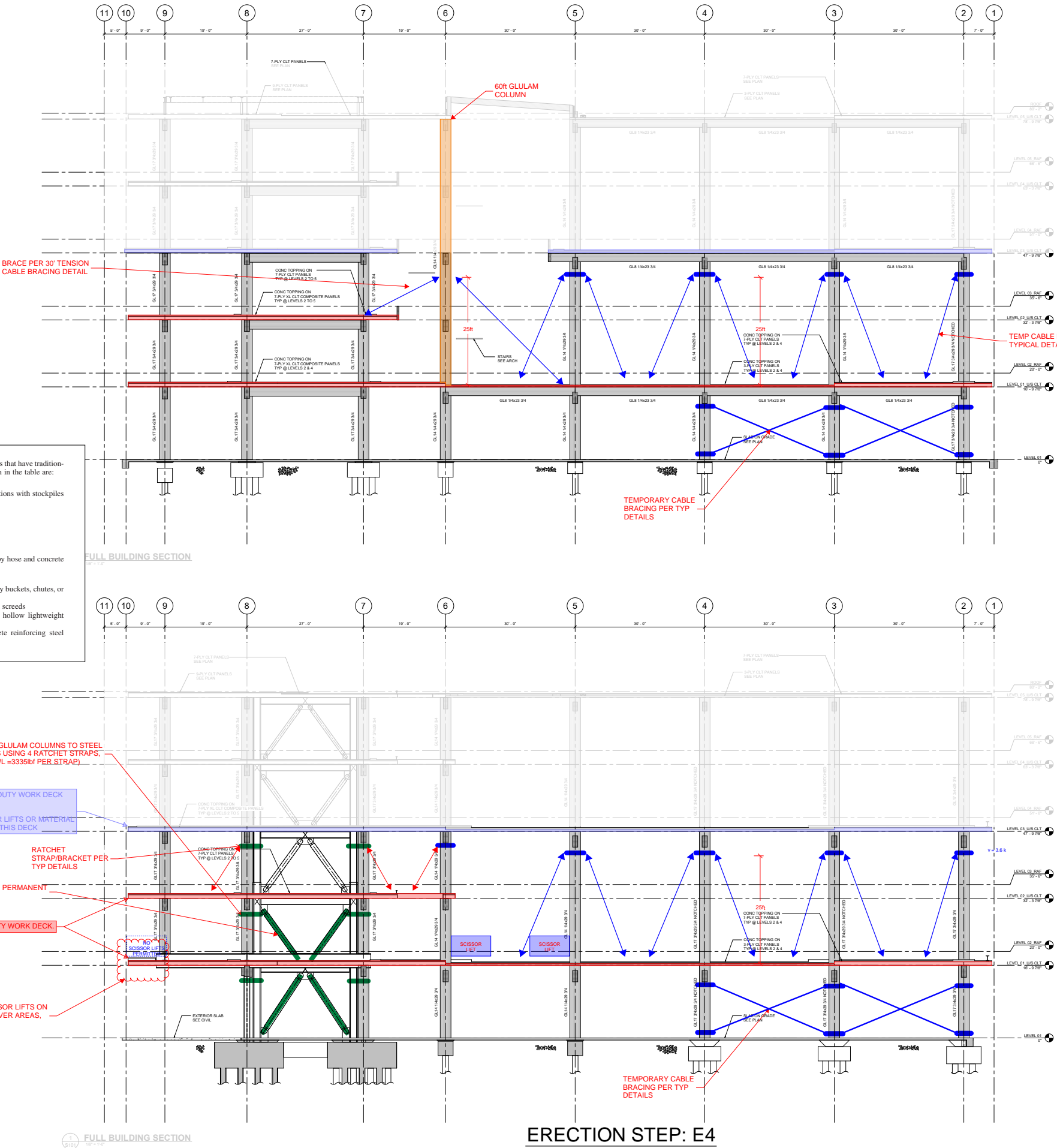
*Loads do not include dead load, D; construction dead load, C_{dc}, or fixed material loads, C_{fm}.
*OSHA categories.

Examples of construction operations that have traditionally been designed for the loads given in the table are:

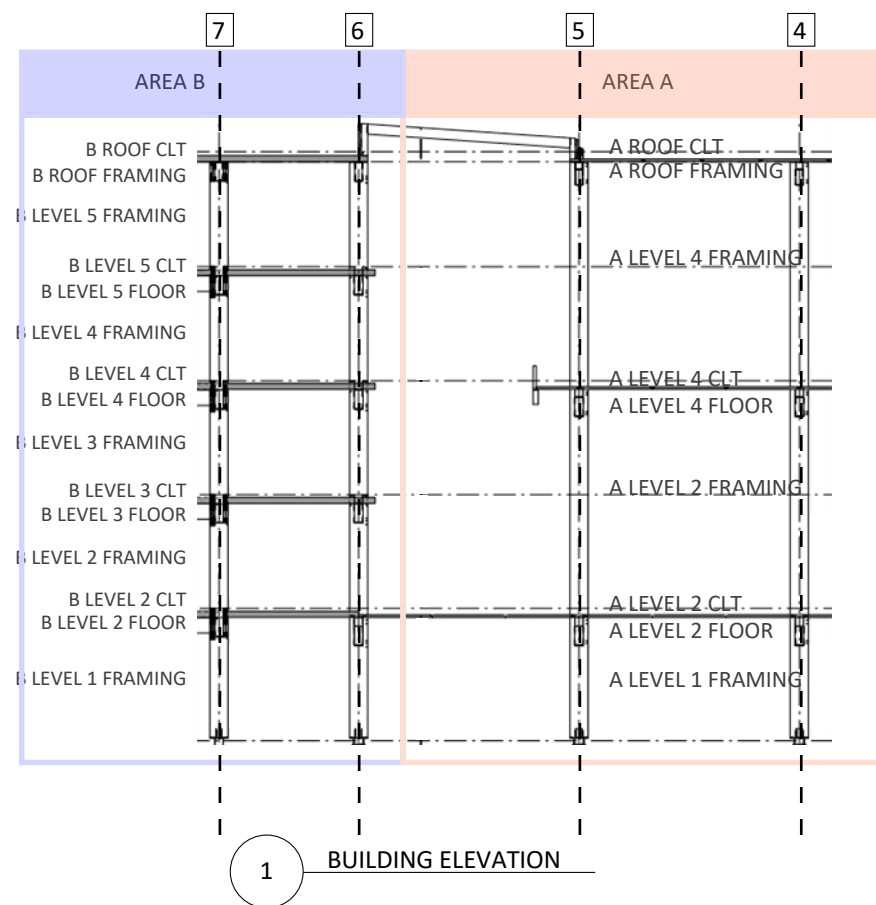
Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

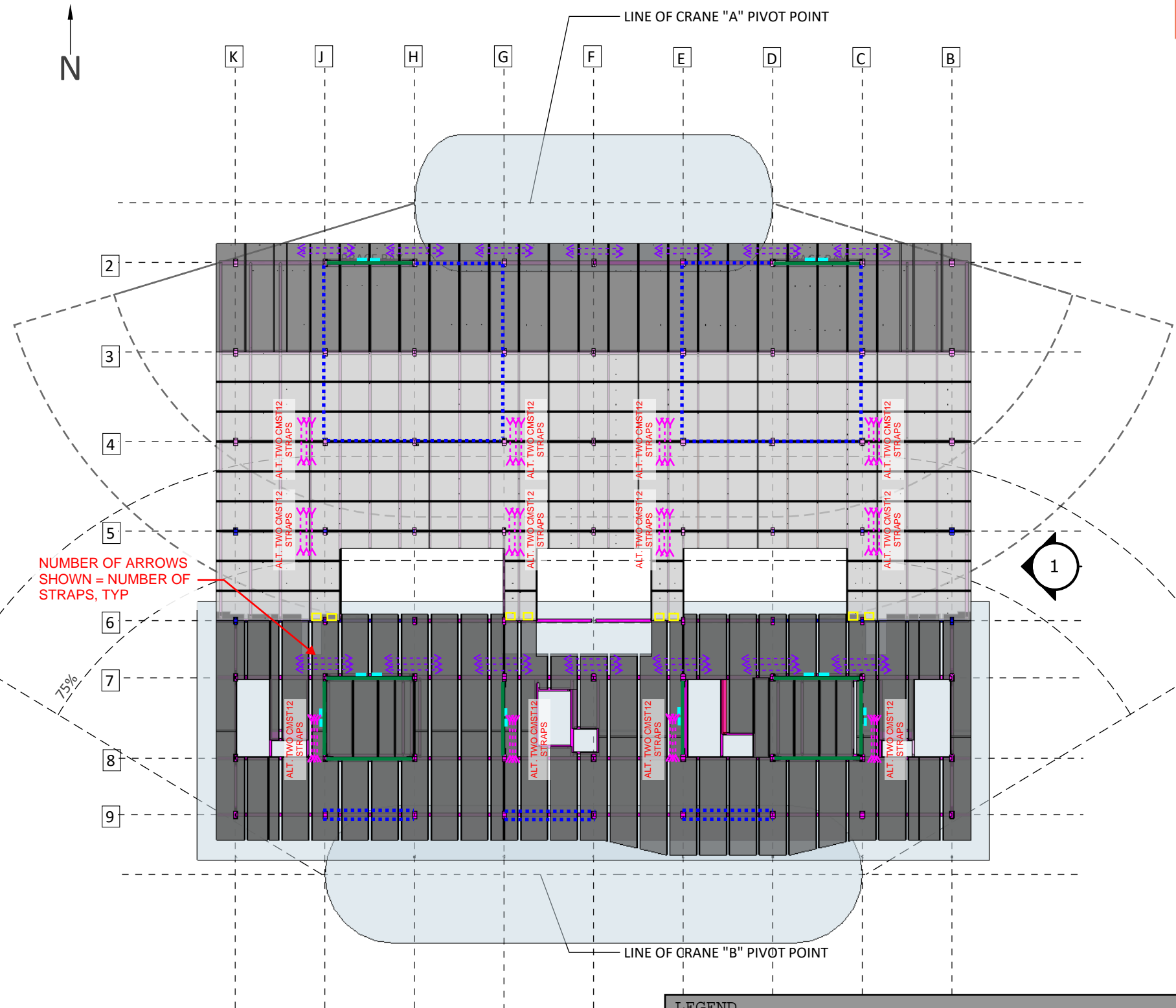
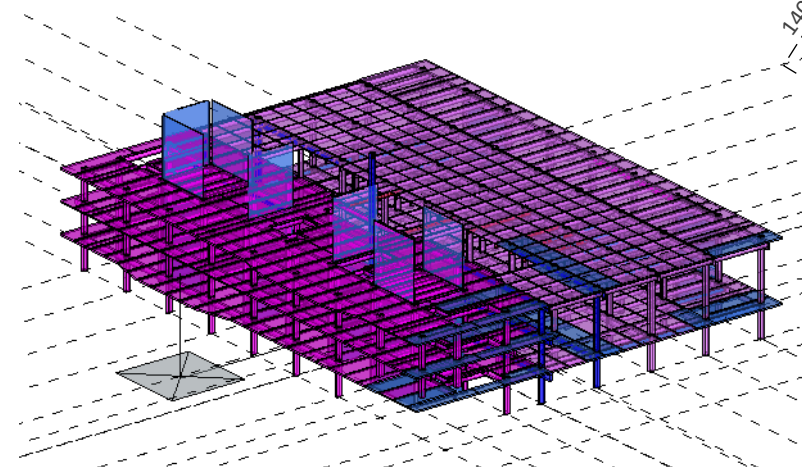
Medium Duty:
Concrete transport and placement by buckets, chutes, or handcars
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement



ERECTION STEP: E4



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SHOWN ON THIS PAGE IS THE DECK OF L4. ALL FOLLOWING PAGES ARE THIS LEVEL AND ABOVE BUT NOT SHOWN FOR CLARITY.

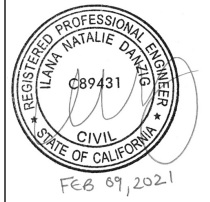
2 BUILDING PLAN

LEGEND	
	= PERMANENT BRB BRACING
	= TEMPORARY X-BRACE BAYS
	= CMST12 DRAG STRAP (3/K011)
	= CMST14 DRAG STRAP (3/K011)
	= ANGLE BRACKET (1/K011)
	= DRAG PLATE CONNECTION (K012)

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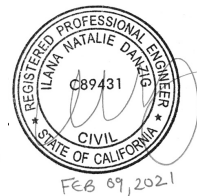
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POINT

K500

Seal:



Project No.: 1535

Google FONE

1265 Borregas Ave.
Sunnyvale, CA 94089

This drawing is not to be used for construction purposes until noted and dated "Issued for Construction". All measurements must be checked on site and be verified by the Contractor. Do not scale off hard copy drawings or any electronic/computer files. Written dimensions always have precedent. Hard copy drawings are the official documents for the project and always take precedent over all electronic/computer files.

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Date:	Revision / Issue:	No.:
2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:

2020-10-19

Drawing Title:

Erection Step 5 Bracing

Scale:

NTS

Drawn:

ME

Designed:

ME

Checked:

AGID

Drawing No.:

Revision No.:

K501

Erection Sequence

Erection Step	Procedure
E5	E5.1: Block out gap between glulam columns & steel brace frame columns on level 3. Wrap truck straps around columns per drawings. E5.2: Remove timber bracing on level 3. * Note: Level 3 permanent steel braces are now fully engaged and Level 4 deck can now be classified as "Medium Duty", therefore, scissor lifts can now be driven on this deck and material can be staged.

LOADING PER ASCE 37-14

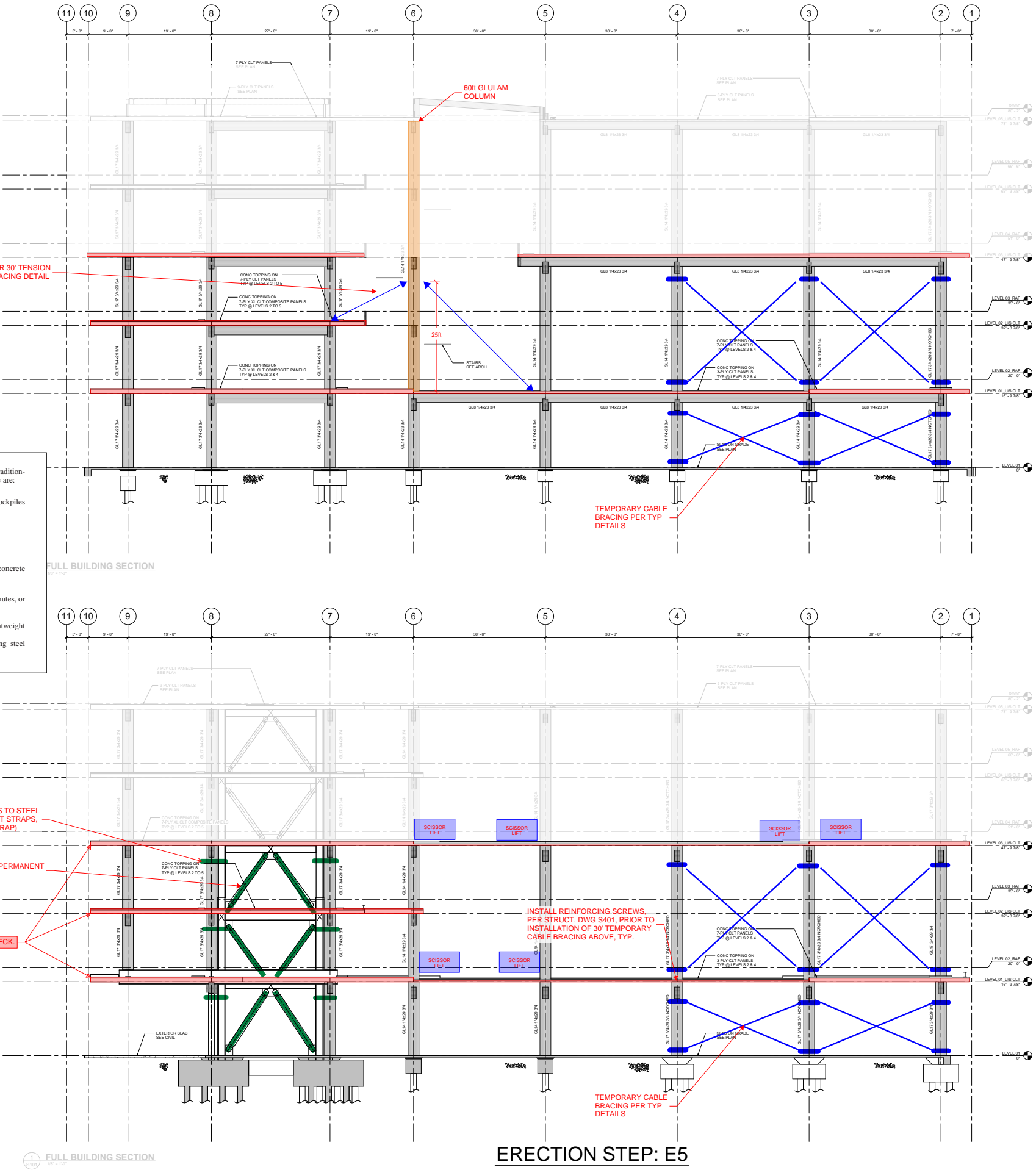
Operational Class	Uniform Load* (psf (kN/m ²))
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
*Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
*Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
*Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)
*Loads do not include dead load, D; construction dead load, C _{dc} , or fixed material loads, C _{fm} . *OSHA categories.	

Examples of construction operations that have traditionally been designed for the loads given in the table are:

Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Concrete transport and placement by buckets, chutes, or handcarts
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement



ERECTION STEP: E5

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February 9, 2021

REV 1	DATE 10/7/20
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REV	DATE

DATE CREATED
August 27, 2020

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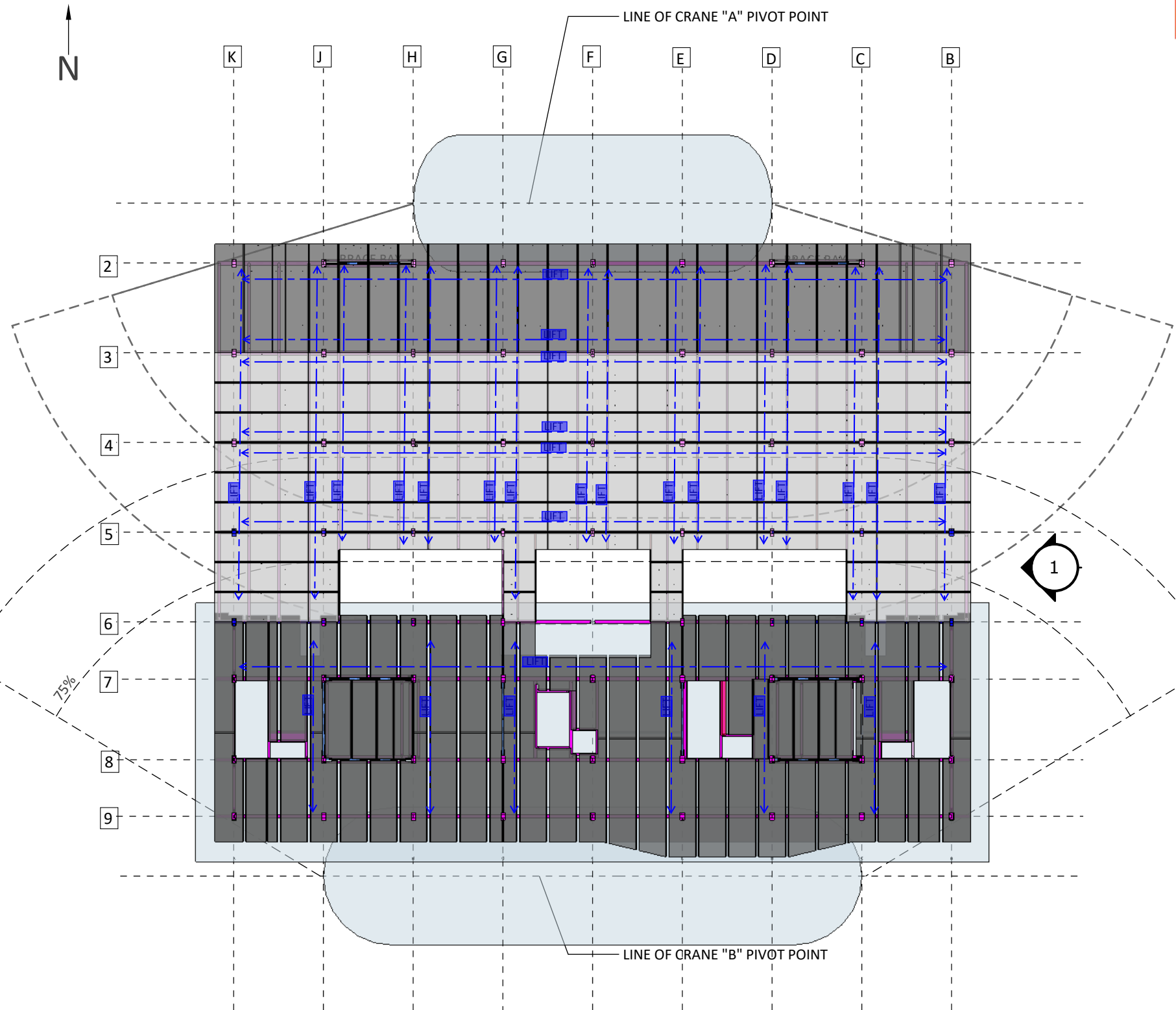
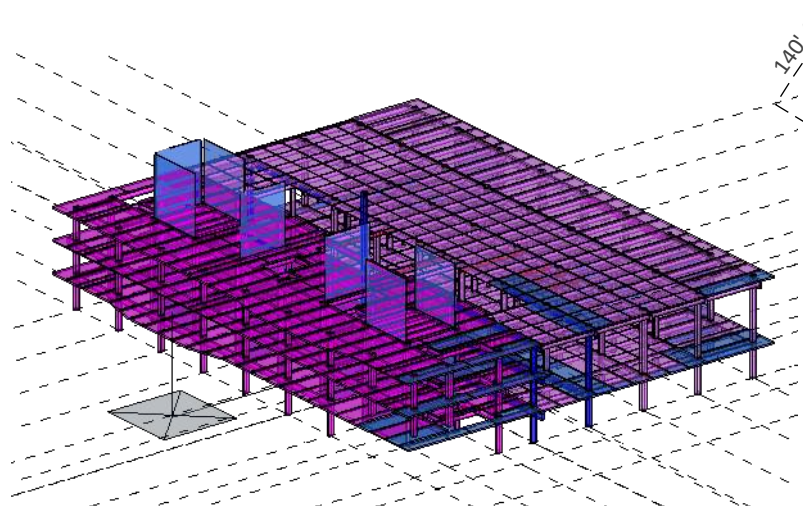
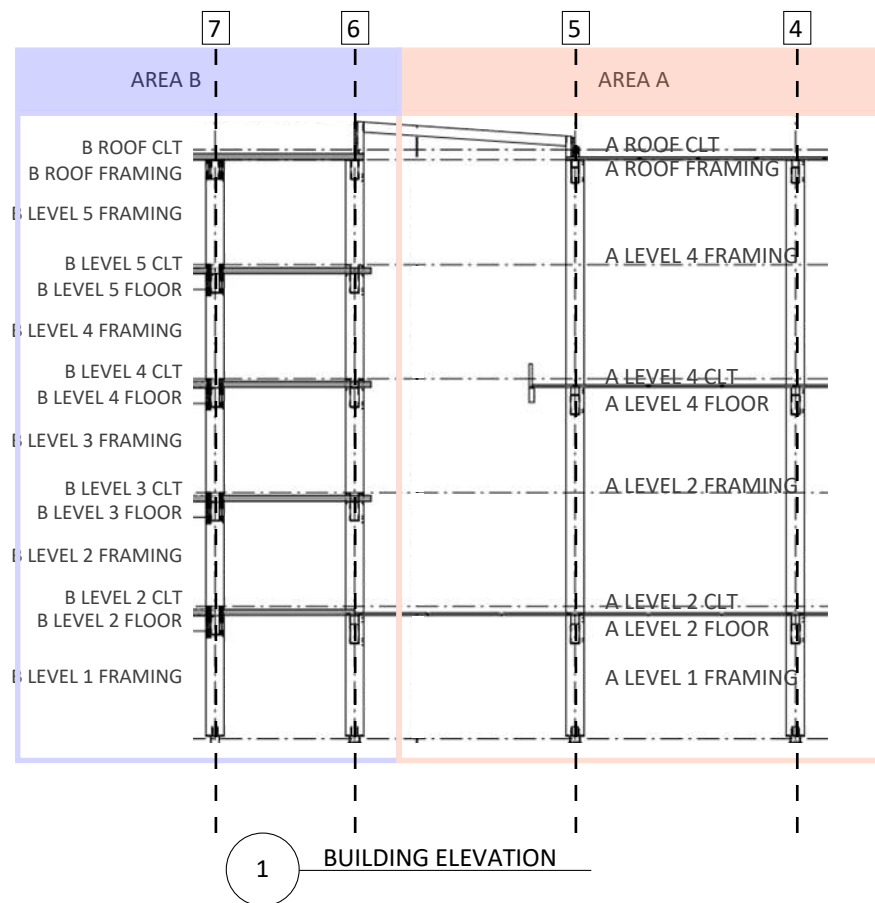
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DESCRIPTION
PAGE 1 STARTING
POINT

K600



SHOWN ON THIS PAGE IS THE DECK OF L4. ALL FOLLOWING PAGES
ARE THIS LEVEL AND ABOVE BUT NOT SHOWN FOR CLARITY.

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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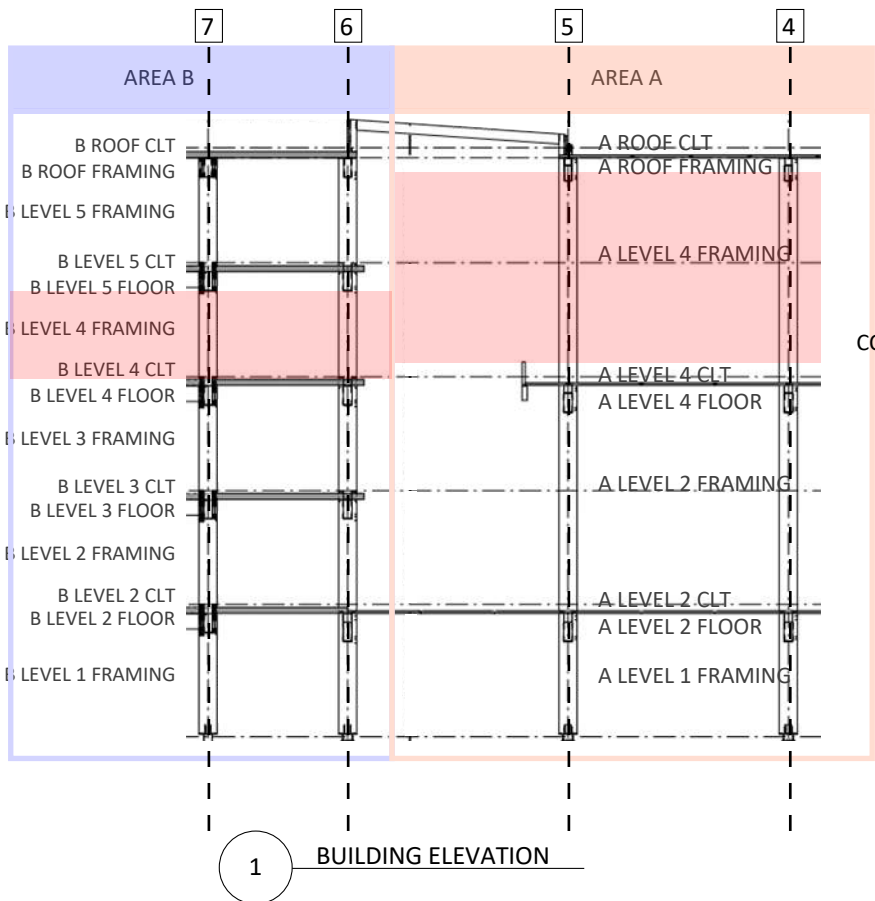
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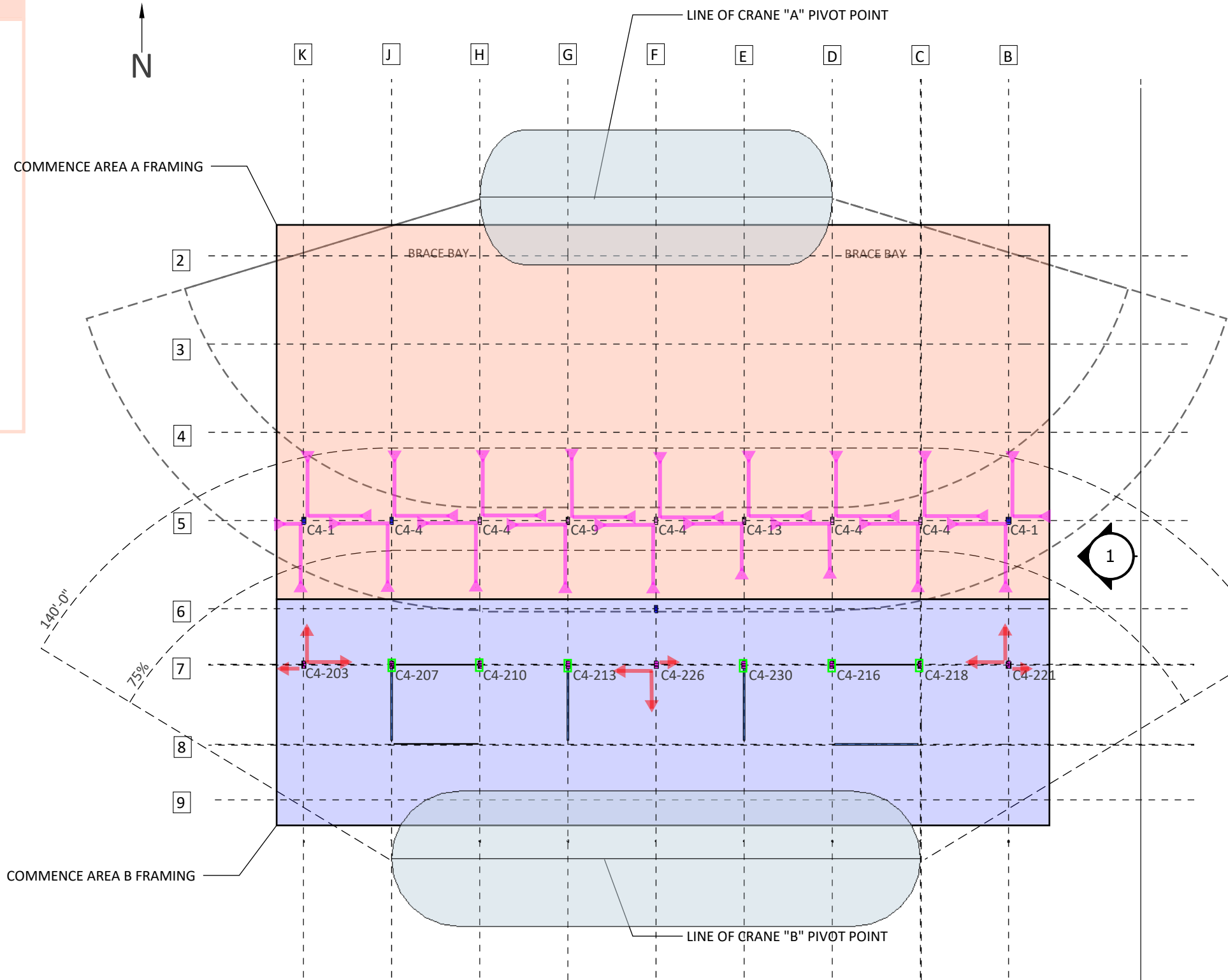
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A-LVL 4 FRM / B-LVL 4
FRM

K601



A - MEMBER NAME	WEIGHT LB
C4-1	3433
C4-4	2838
C4-9	2675
C4-13	2675

B - MEMBER NAME	WEIGHT LB
C4-203	1719
C4-207	1666
C4-210	1666
C4-213	1720
C4-226	1677
C4-230	1677
C4-216	1334
C4-218	1666
C4-221	1303



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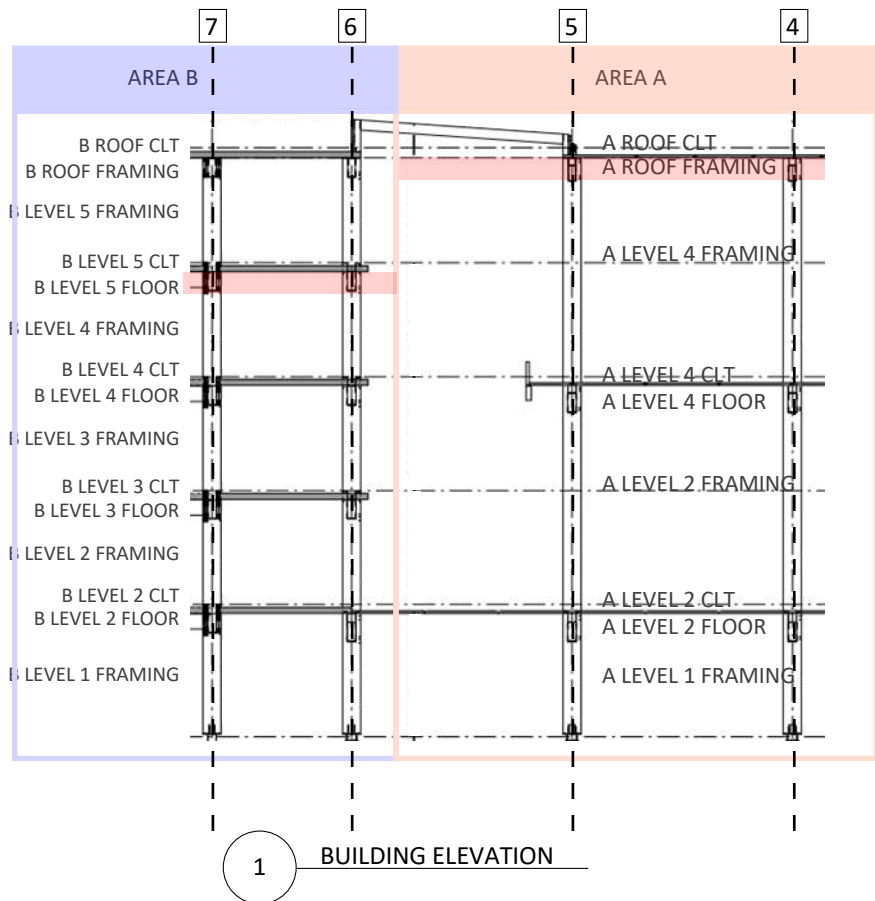
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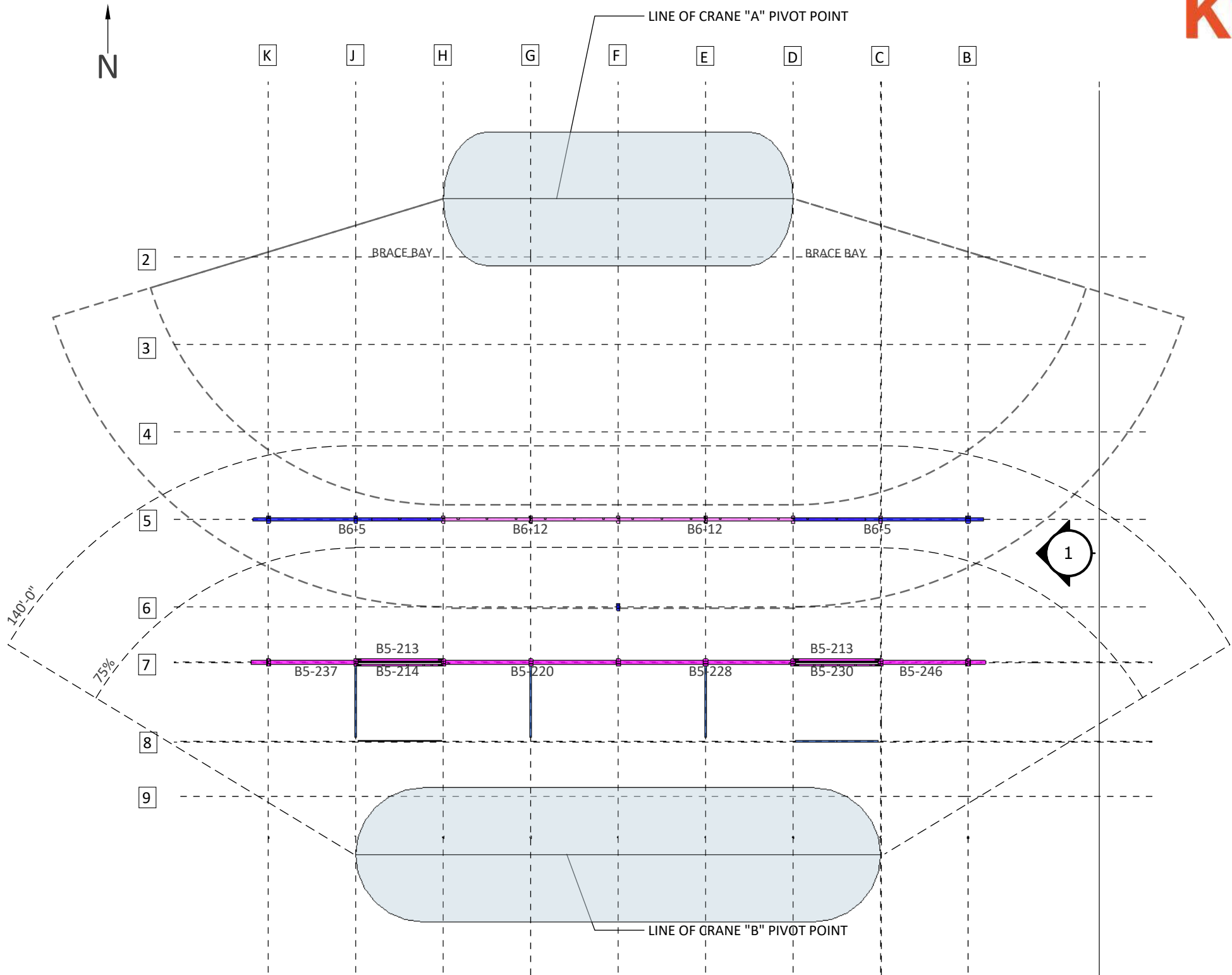
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FLR

K602



A - MEMBER NAME	WEIGHT LB
B6-5	4466
B6-12	4104

B - MEMBER NAME	WEIGHT LB
B5-237	3542
B5-213	1624
B5-214	1853
B5-220	5911
B5-228	5910
B5-213	1624
B5-230	1853
B5-246	3542



2 BUILDING PLAN

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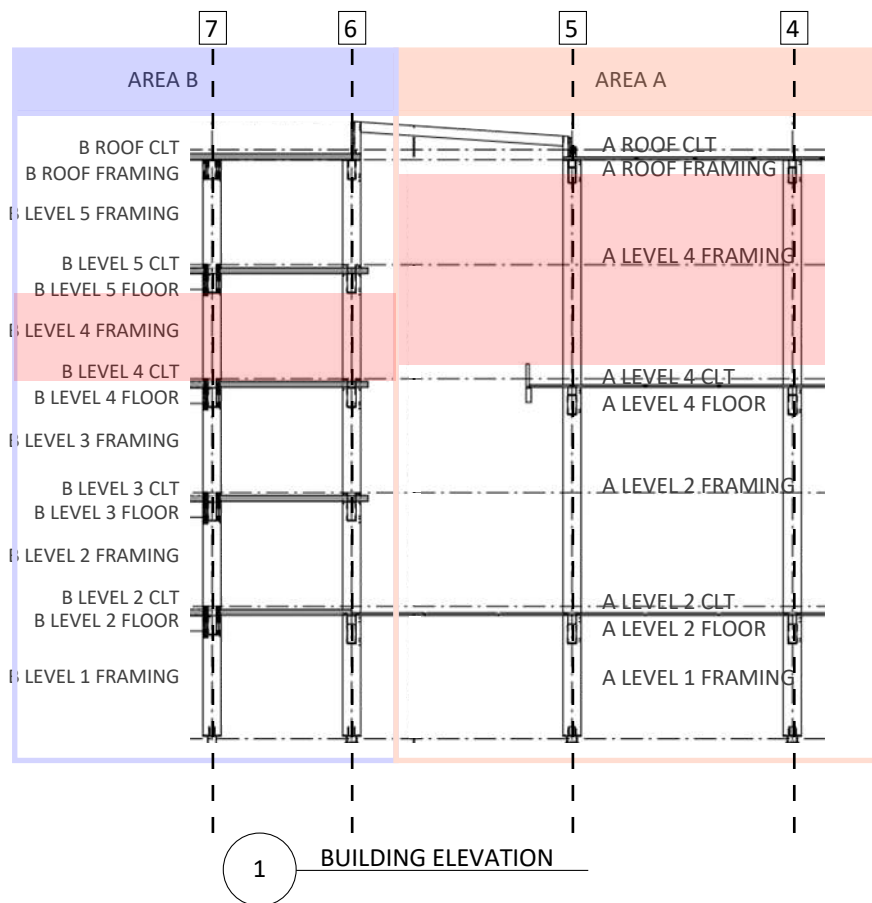
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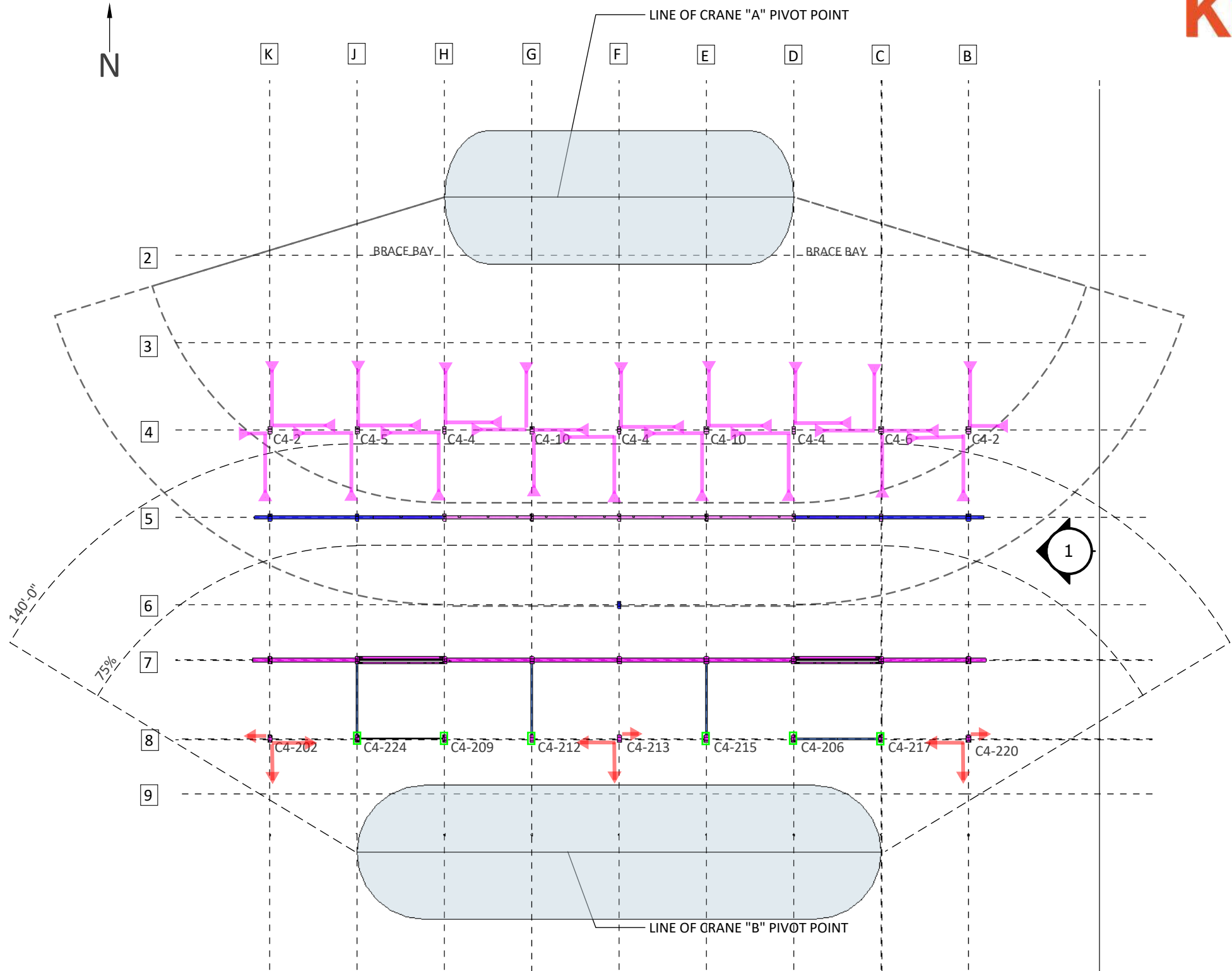
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FRM

K603



A - MEMBER NAME	WEIGHT LB
C4-2	3536
C4-5	3172
C4-4	2838
C4-10	3290
C4-6	3187

B - MEMBER NAME	WEIGHT LB
C4-202	1719
C4-224	1666
C4-209	1666
C4-212	1720
C4-213	1677
C4-215	1677
C4-206	1334
C4-217	1666
C4-220	1719



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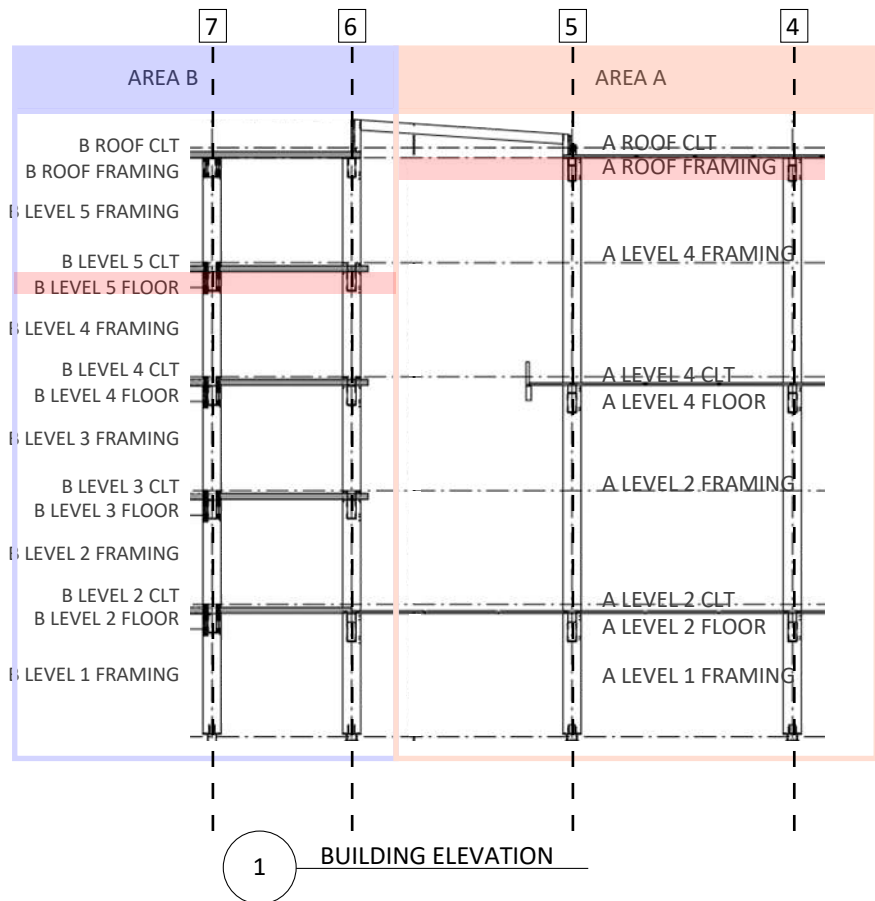
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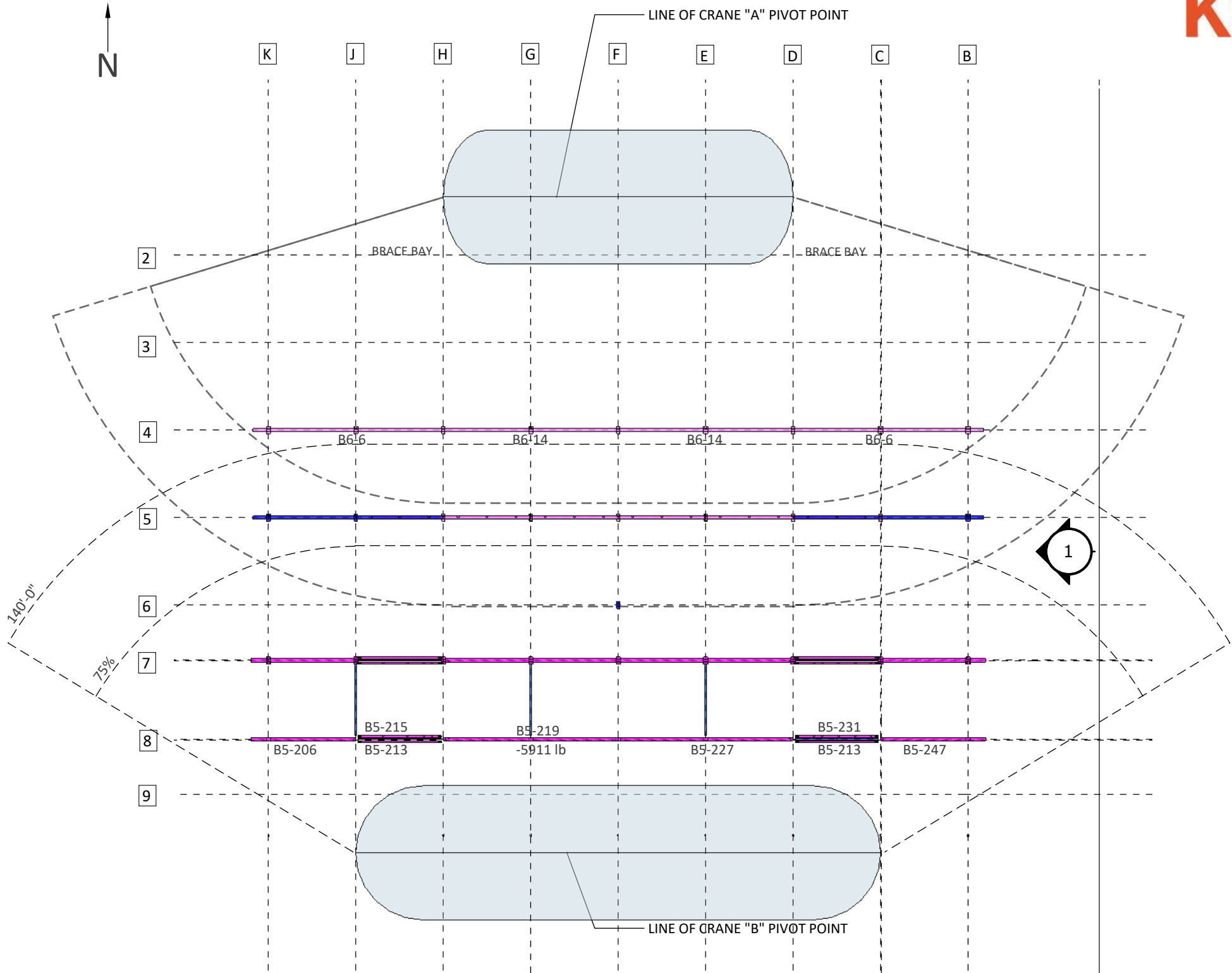
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5 FLR

K604



A - MEMBER NAME	WEIGHT LB
B6-6	4464
B6-14	4102

B - MEMBER NAME	WEIGHT LB
B5-206	3542
B5-215	1853
B5-213	1624
B5-219	5911
B5-227	5910
B5-231	1853
B5-247	3542



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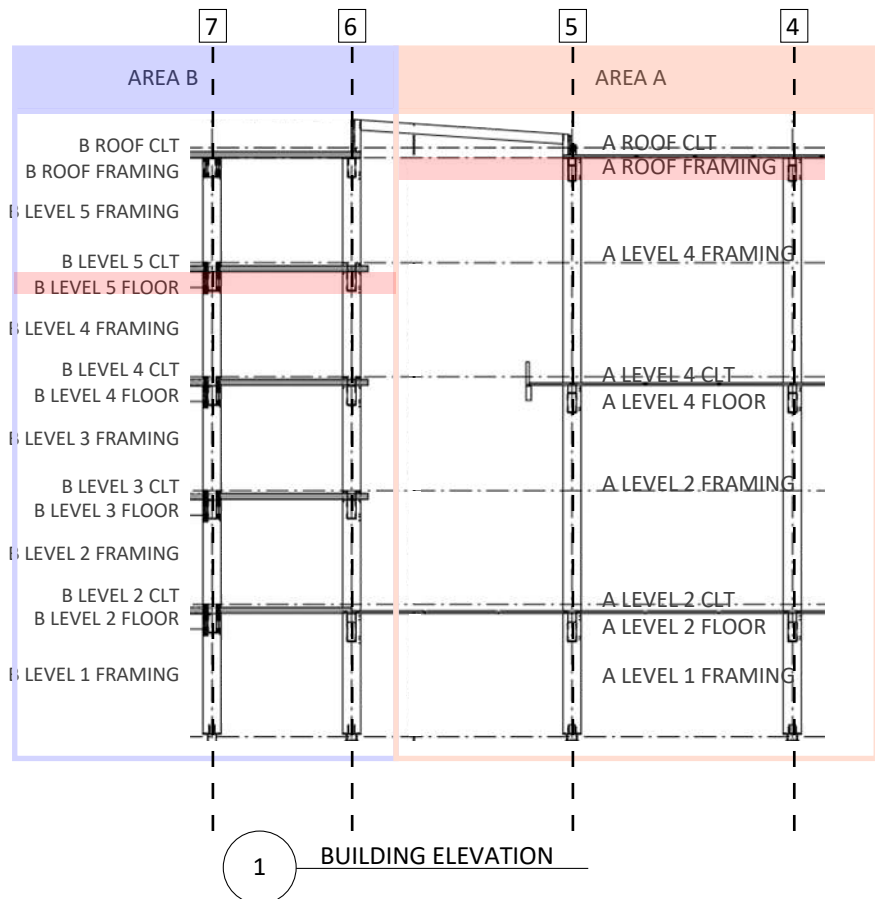
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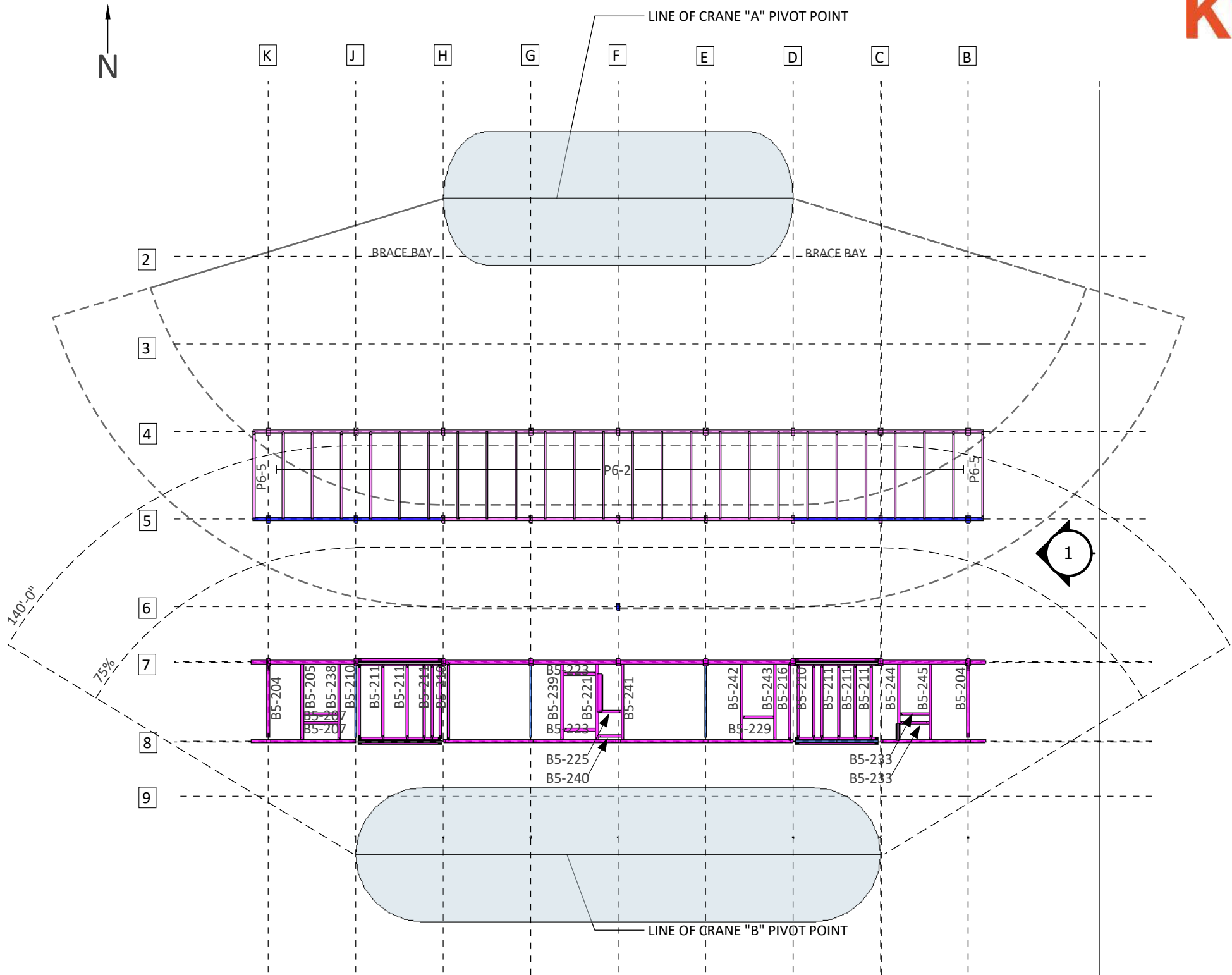
K605



BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
P6-5	1285
P6-2	1206

B - MEMBER NAME	WEIGHT LB
B5-204	1854
B5-205	1479
B5-207	675
B5-238	1479
B5-210	1396
B5-211	1396
B5-239	1770
B5-223	742
B5-221	1770
B5-225	453
B5-240	453
B5-241	1479
B5-242	1479
B5-229	592
B5-243	1479
B5-216	1470
B5-244	1479
B5-245	1479
B5-233	566



BUILDING PLAN

LEGEND

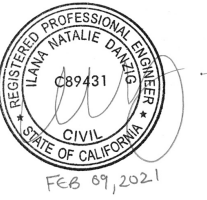
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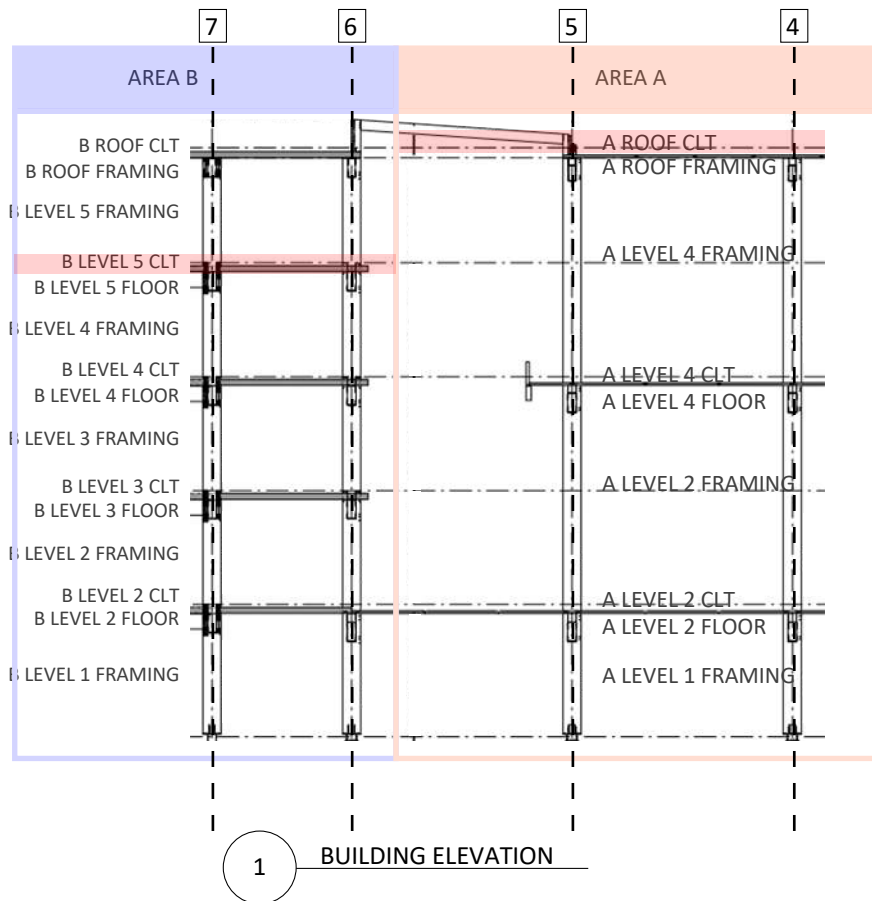
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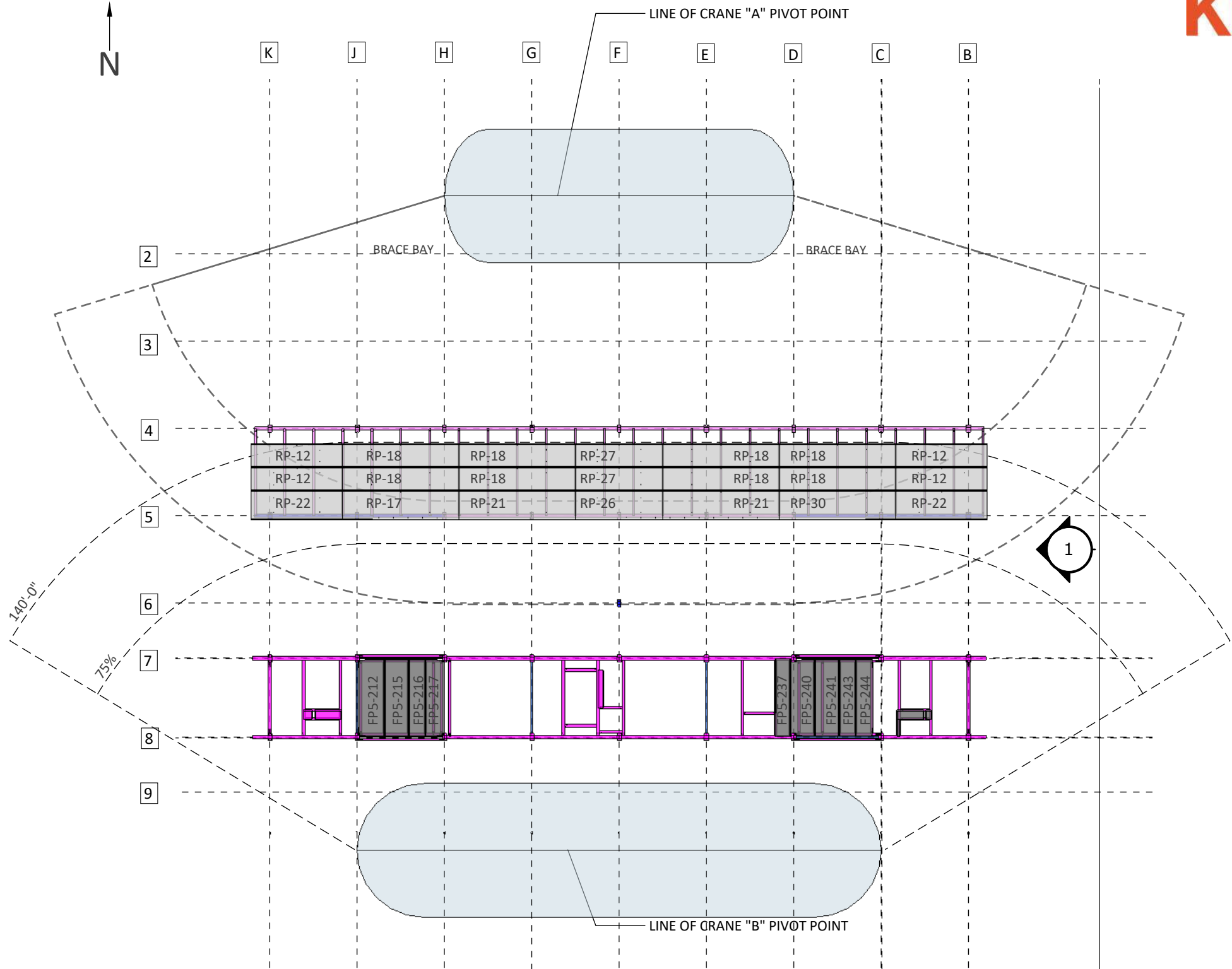
K606



1 BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
RP-12	2736
RP-18	3474
RP-22	3431
RP-17	4375
RP-21	4378
RP-27	2606
RP-26	3284
RP-30	4372

B - MEMBER NAME	WEIGHT LB
FP5-212	5890
FP5-215	5571
FP5-216	3766
FP5-217	4566
FP5-237	3566
FP5-240	3896
FP5-241	3752
FP5-243	5577
FP5-244	5789



2 BUILDING PLAN

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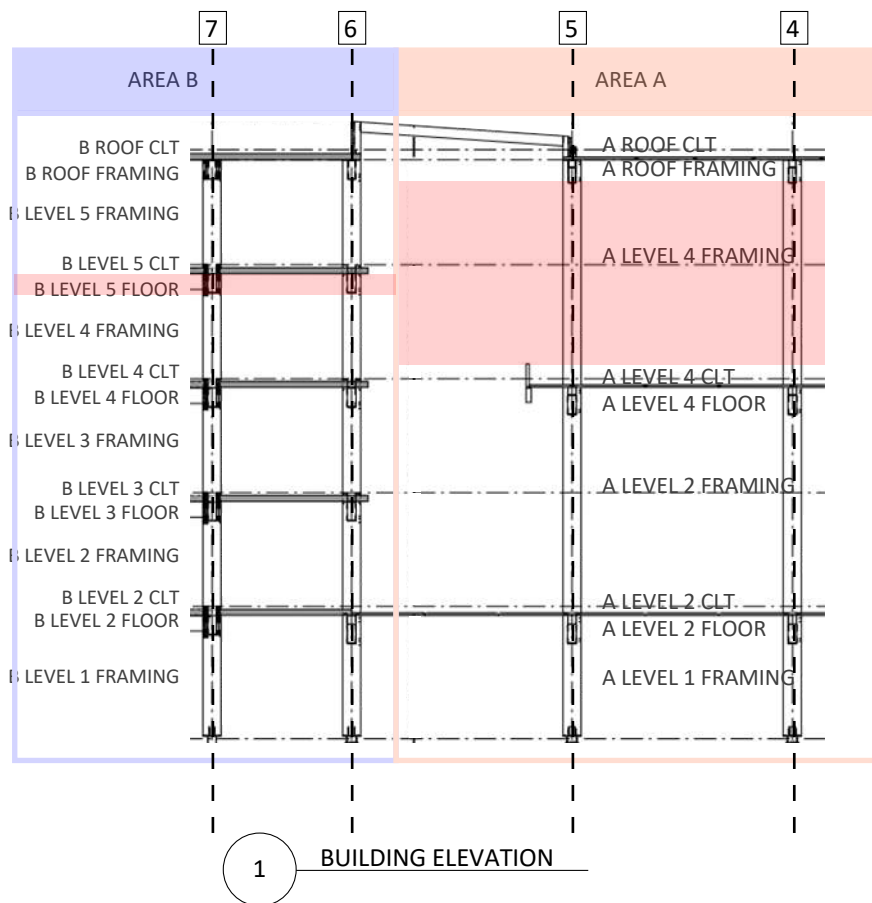
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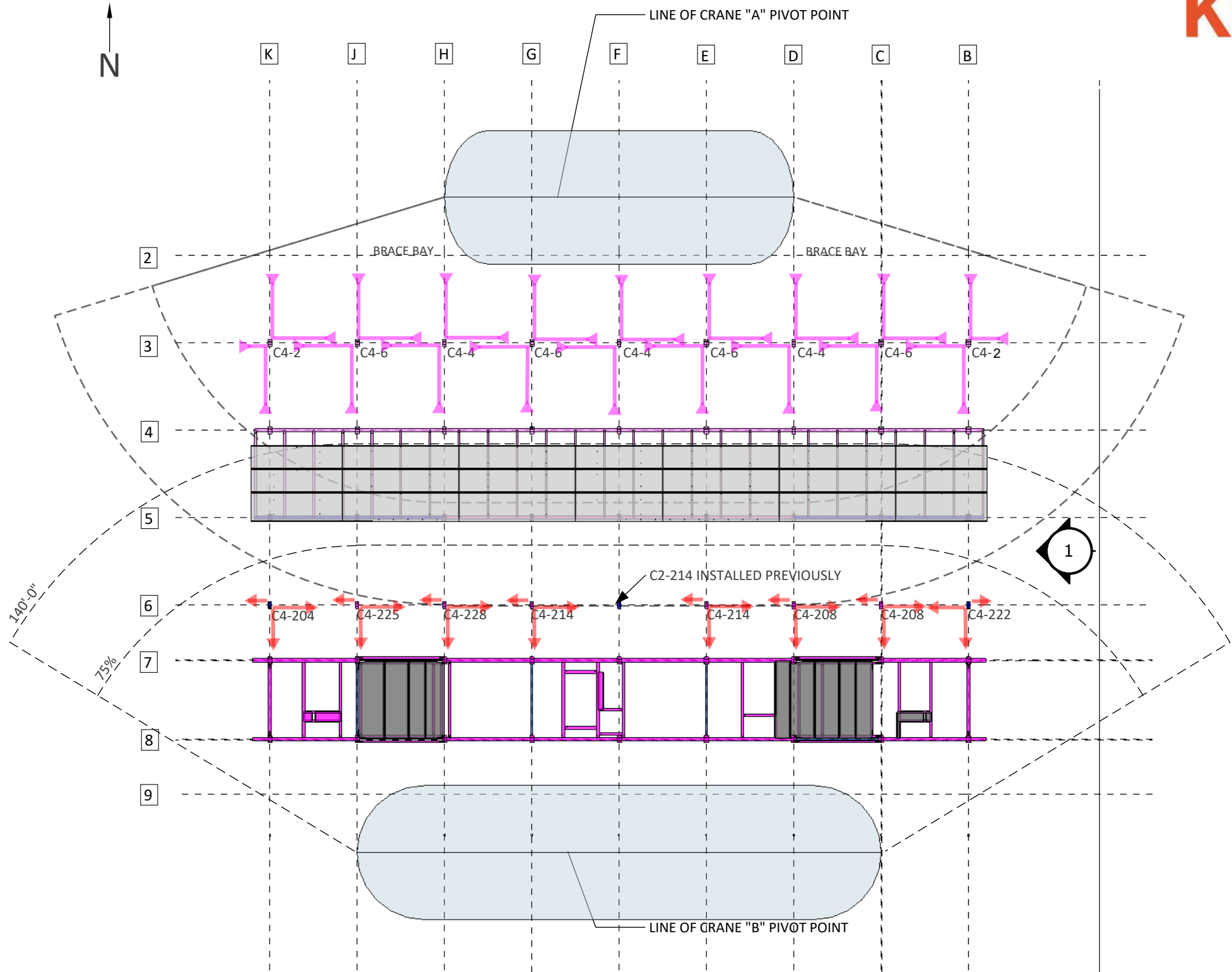
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FLR

K607



A - MEMBER NAME	WEIGHT LB
C4-2	3536
C4-6	3187
C4-4	2838

B - MEMBER NAME	WEIGHT LB
C4-204	1332
C4-225	1346
C4-228	1346
C4-214	1382
C4-208	1346
C4-222	1332



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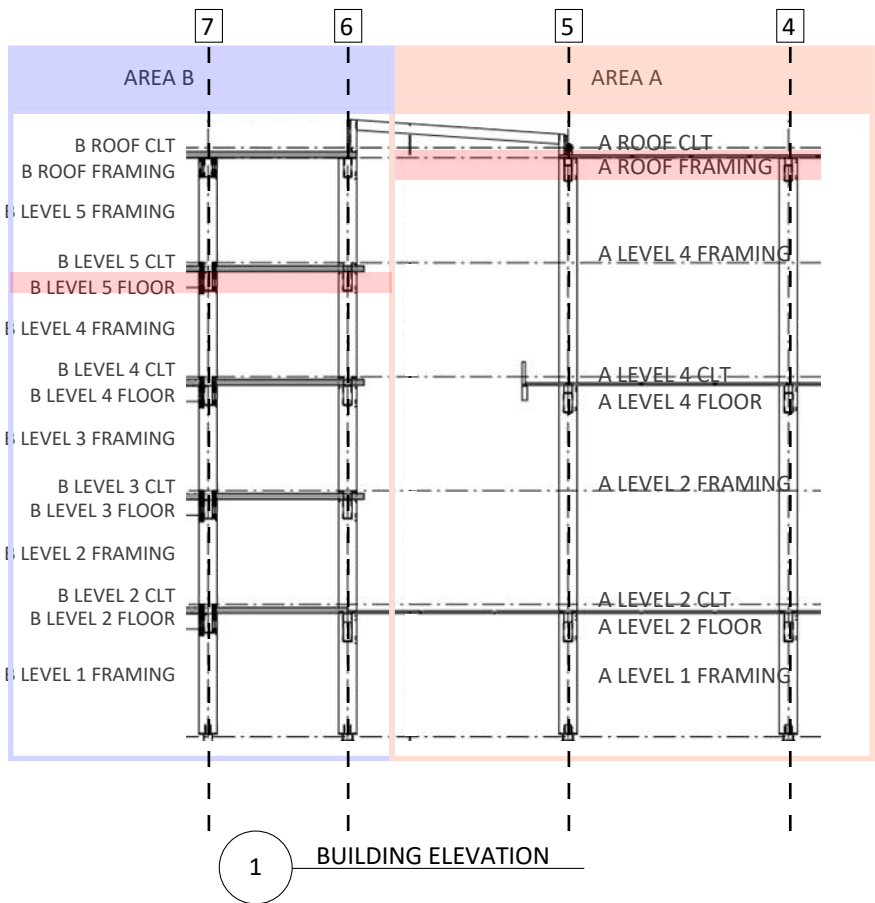
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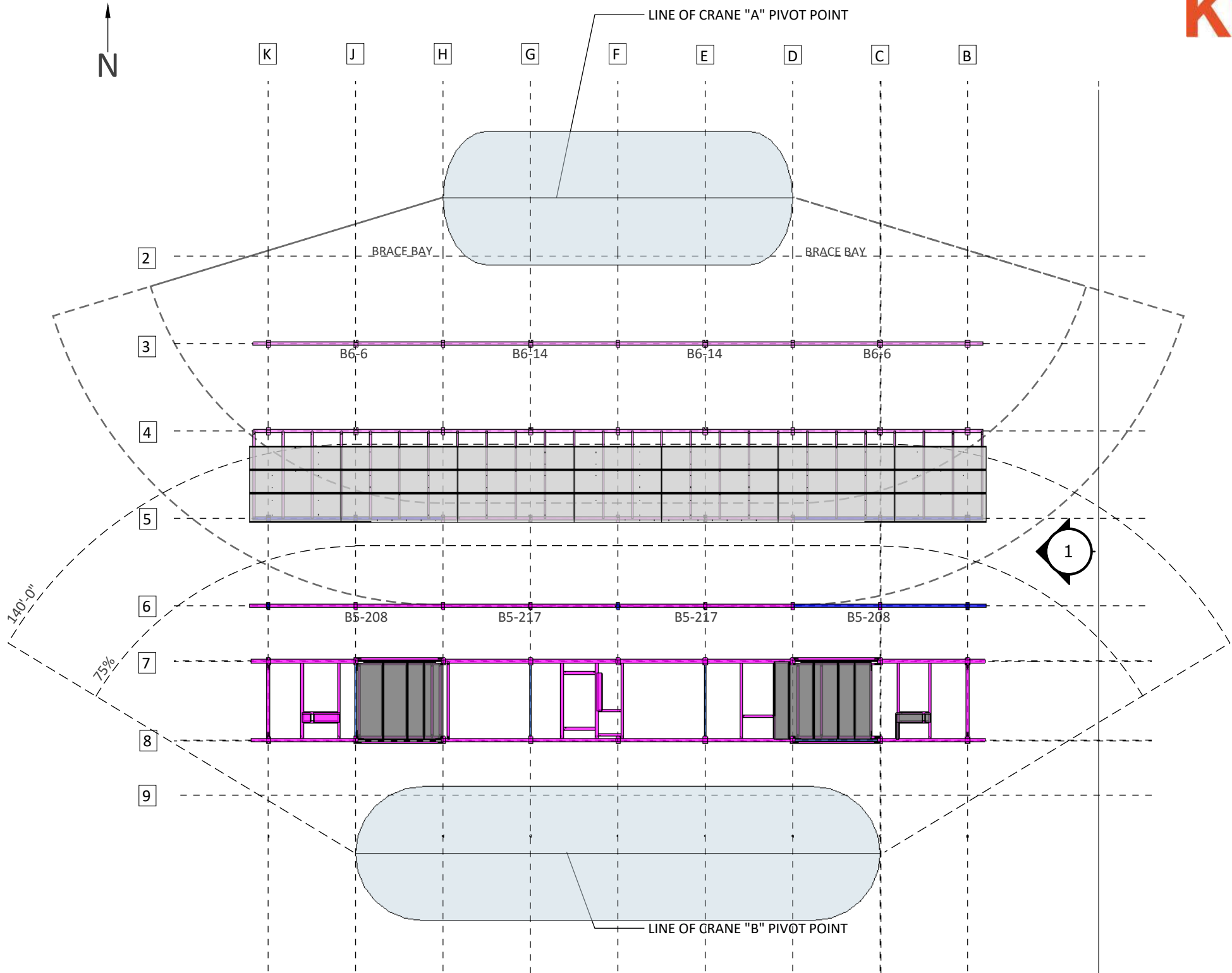
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K608



A - MEMBER NAME	WEIGHT LB
B6-6	4464
B6-14	4102

B - MEMBER NAME	WEIGHT LB
B5-208	6557
B5-217	5850



BUILDING PLAN

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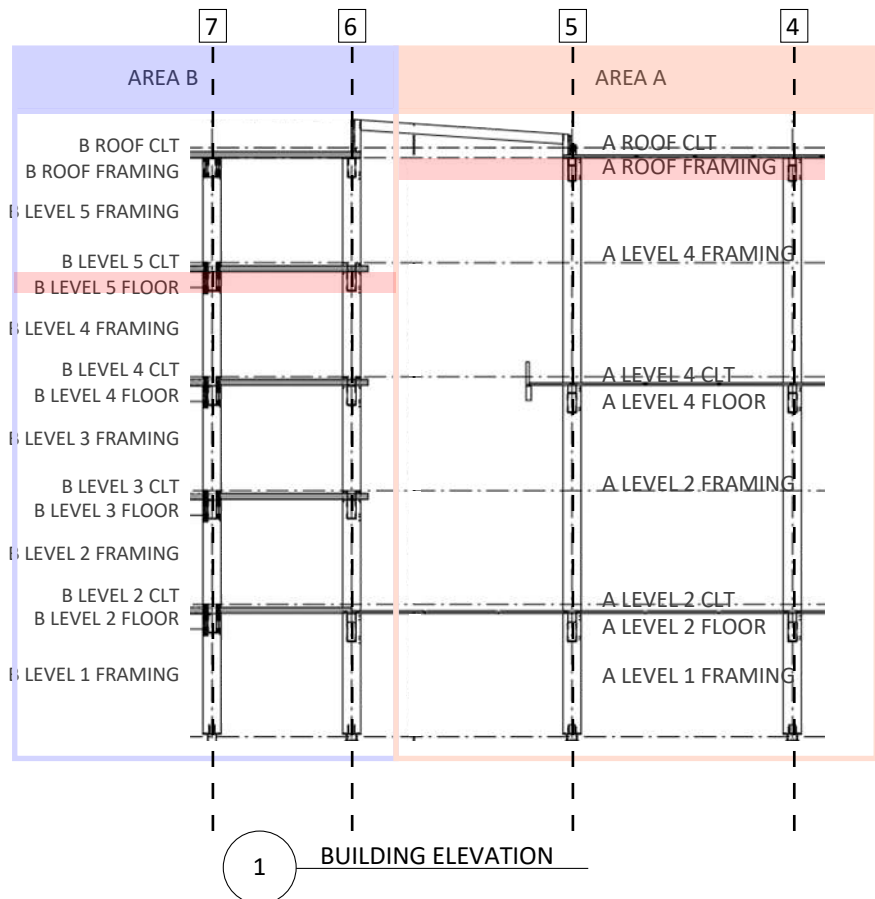
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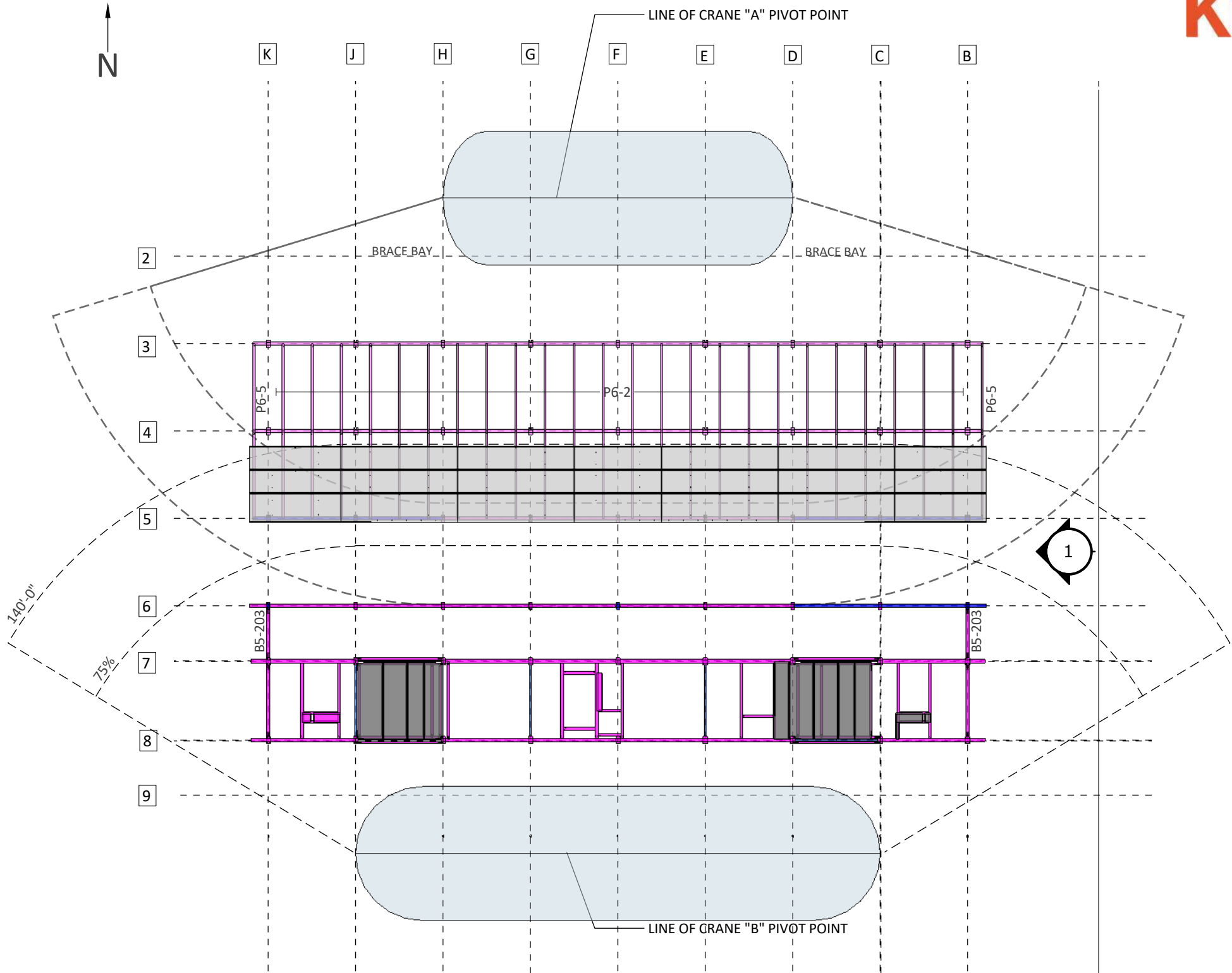
K609



BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
P6-5	1285
P6-2	1206

B - MEMBER NAME	WEIGHT LB
B5-203	1240



BUILDING PLAN

LEGEND

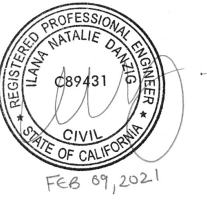
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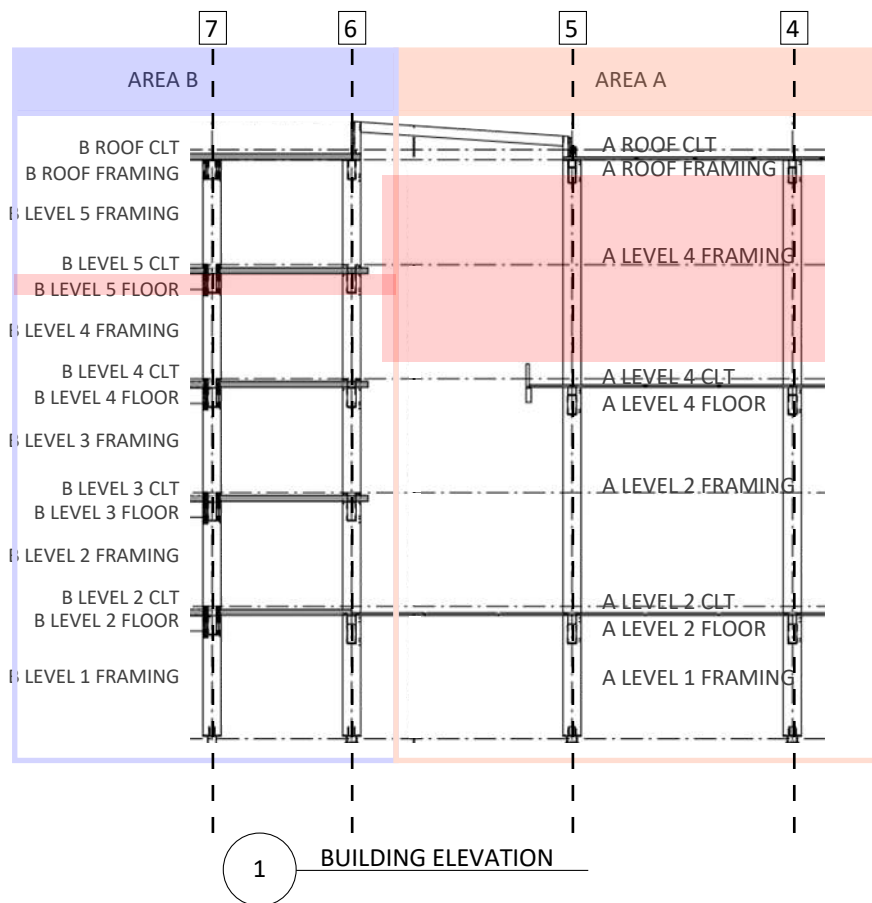
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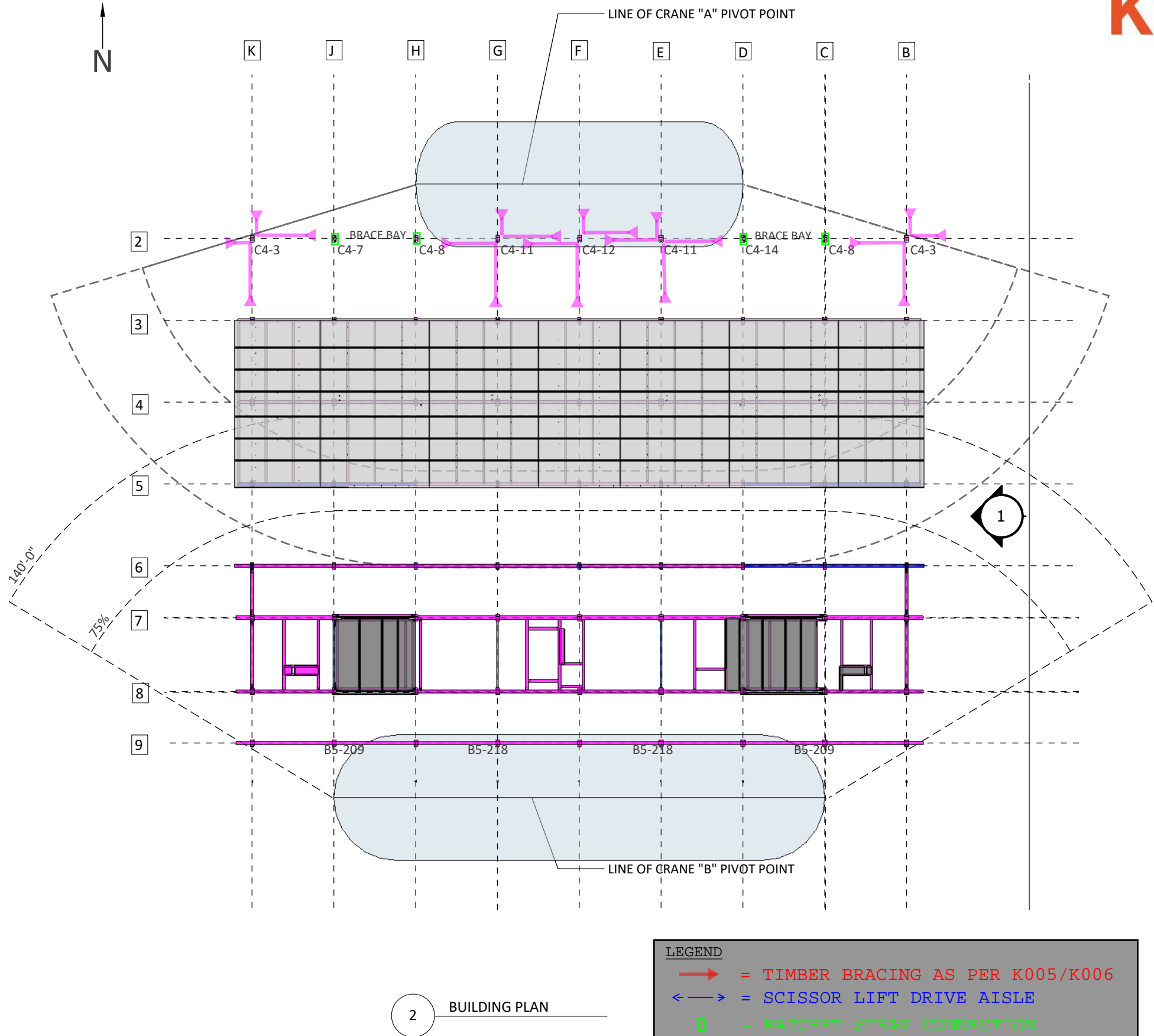
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K611



A - MEMBER NAME	WEIGHT LB
C4-3	3530
C4-7	3561
C4-8	3561
C4-11	3428
C4-12	3284
C4-14	3561

B - MEMBER NAME	WEIGHT LB
B5-209	6813
B5-218	6196



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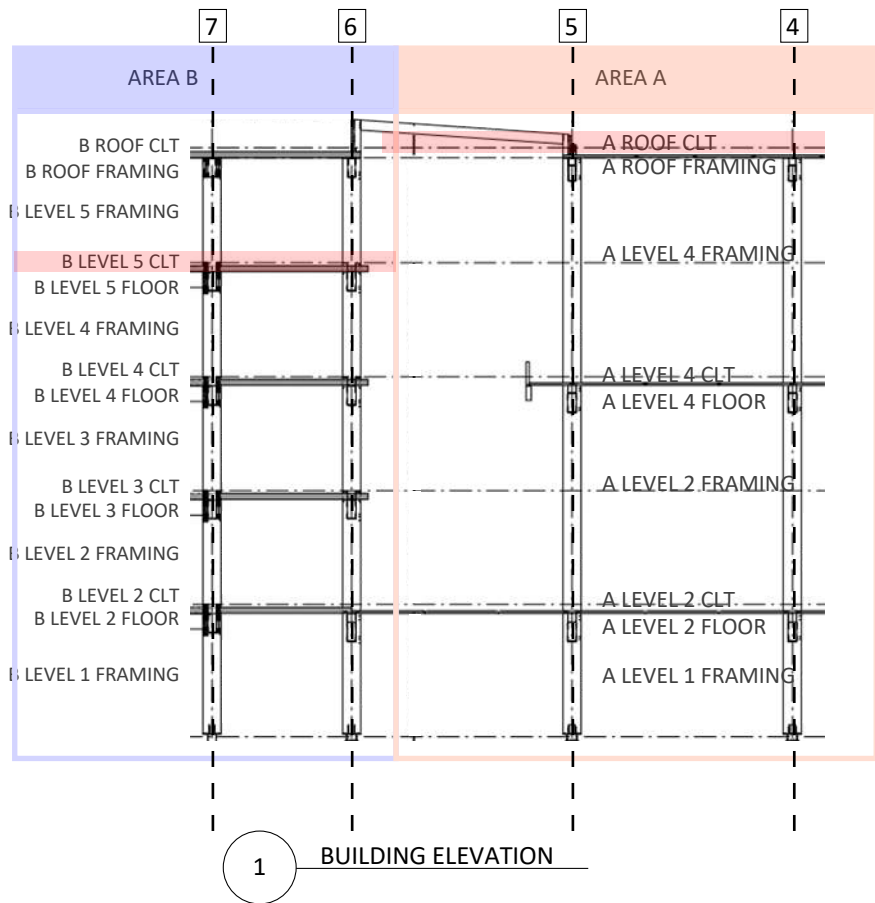
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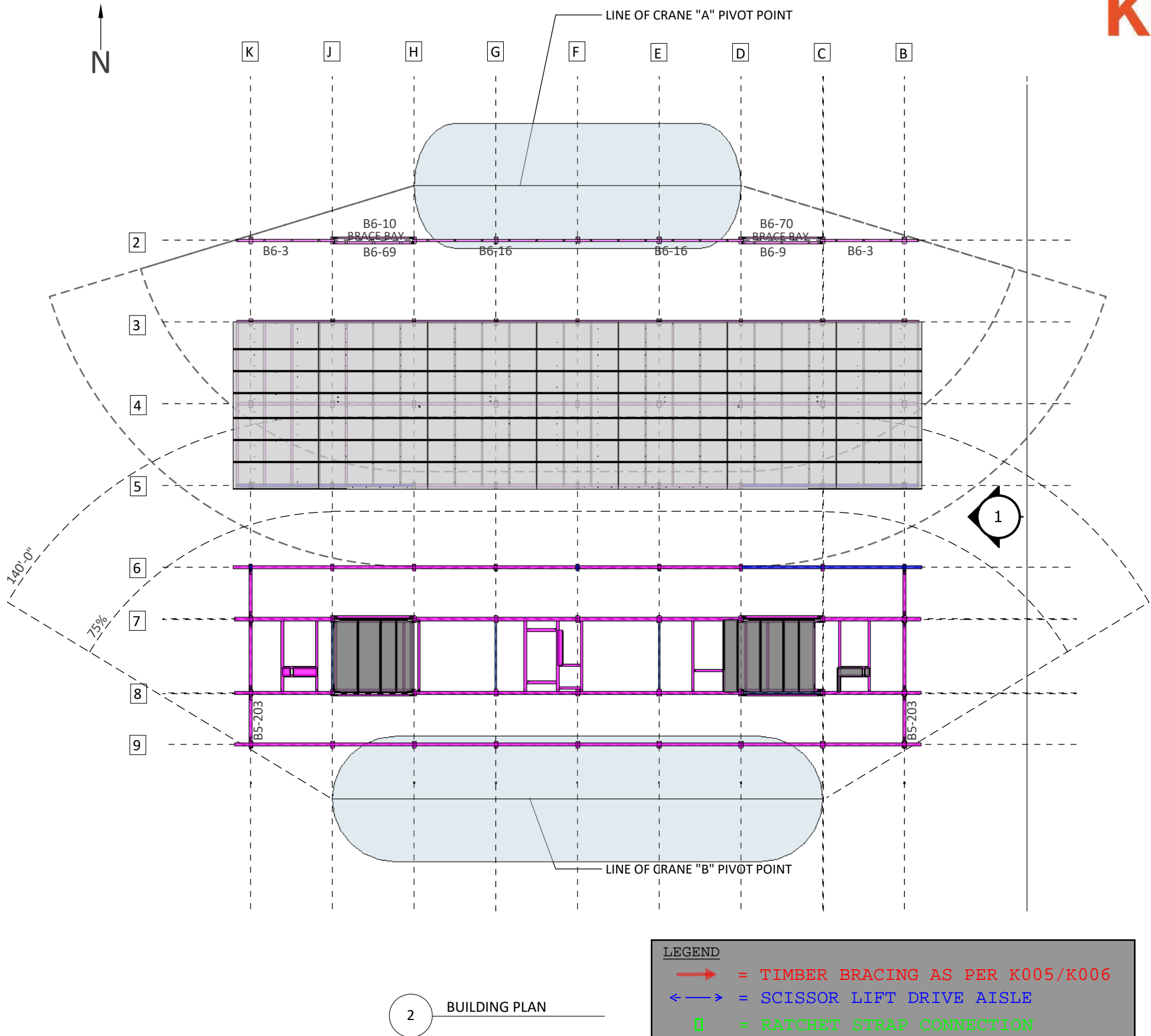
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A-LVL RF FRM / B-LVL
5 FLR

K612



A - MEMBER NAME	WEIGHT LB
B6-3	2552
B6-10	2012
B6-69	1388
B6-16	4340
B6-70	2012
B6-9	1388

B - MEMBER NAME	WEIGHT LB
B5-203	1240



LEGEND

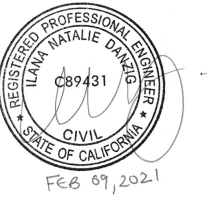
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- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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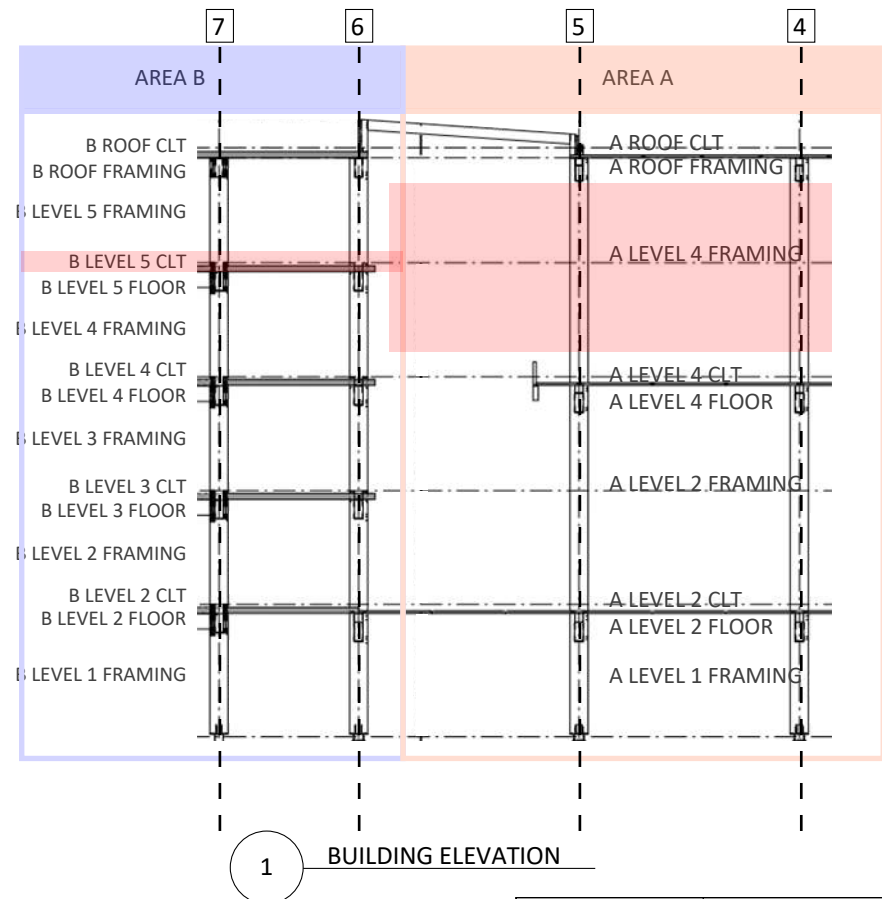
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DESCRIPTION
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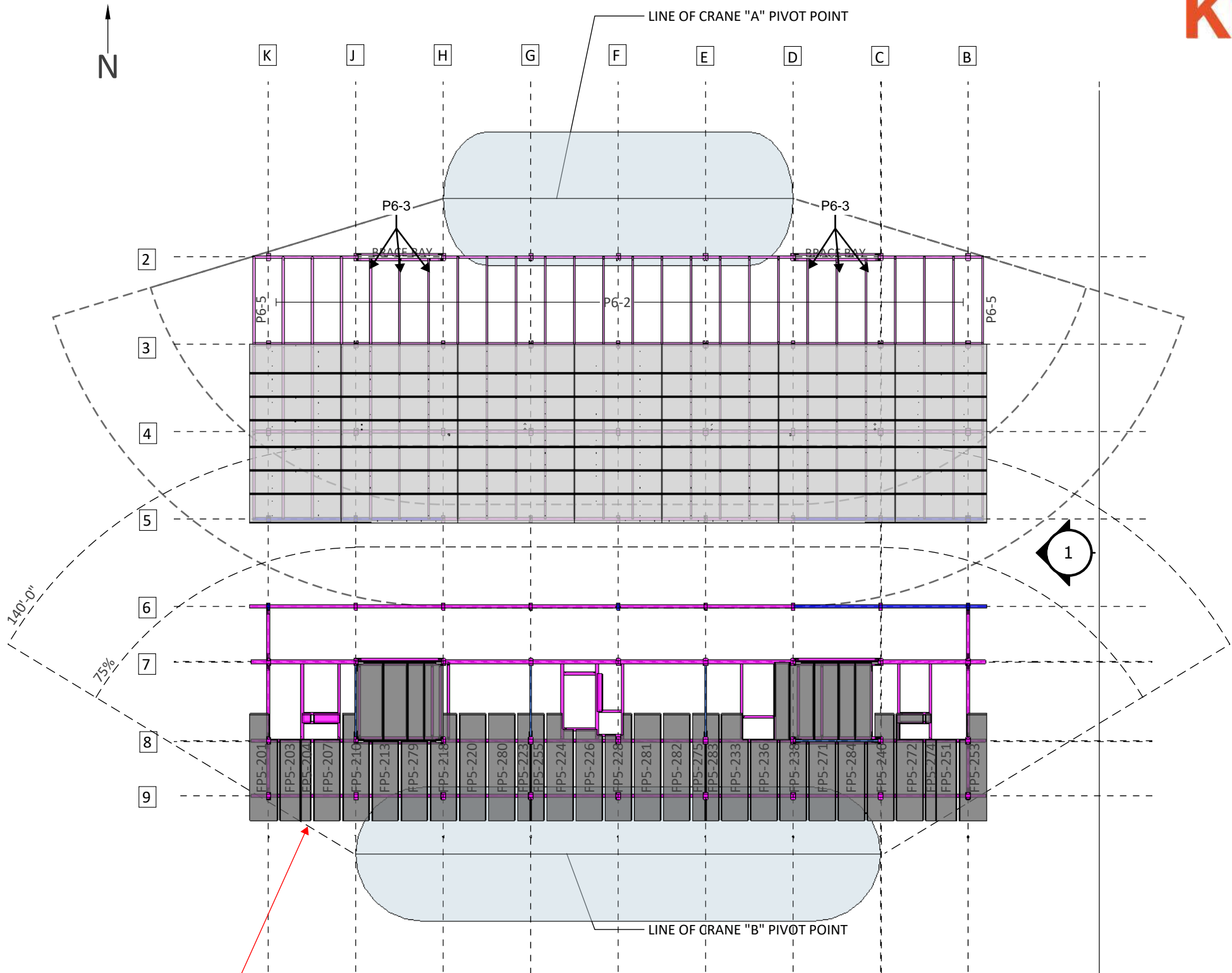
K613



BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
P6-5	1285
P6-2	1206

B - MEMBER NAME	WEIGHT LB
FP5-201	8119
FP5-203	5039
FP5-204	2544
FP5-207	6554
FP5-210	7303
FP5-213	6412
FP5-279	6412
FP5-218	7380
FP5-220	8707
FP5-280	8706
FP5-223	4158
FP5-255	4159
FP5-224	8169
FP5-226	7246
FP5-228	7311
FP5-281	8706
FP5-282	8705
FP5-275	4156
FP5-283	4159
FP5-233	8212
FP5-236	6553
FP5-238	6327
FP5-271	6414
FP5-284	6414
FP5-246	7802
FP5-272	6554
FP5-274	2546
FP5-251	5043
FP5-253	8121



BUILDING PLAN

Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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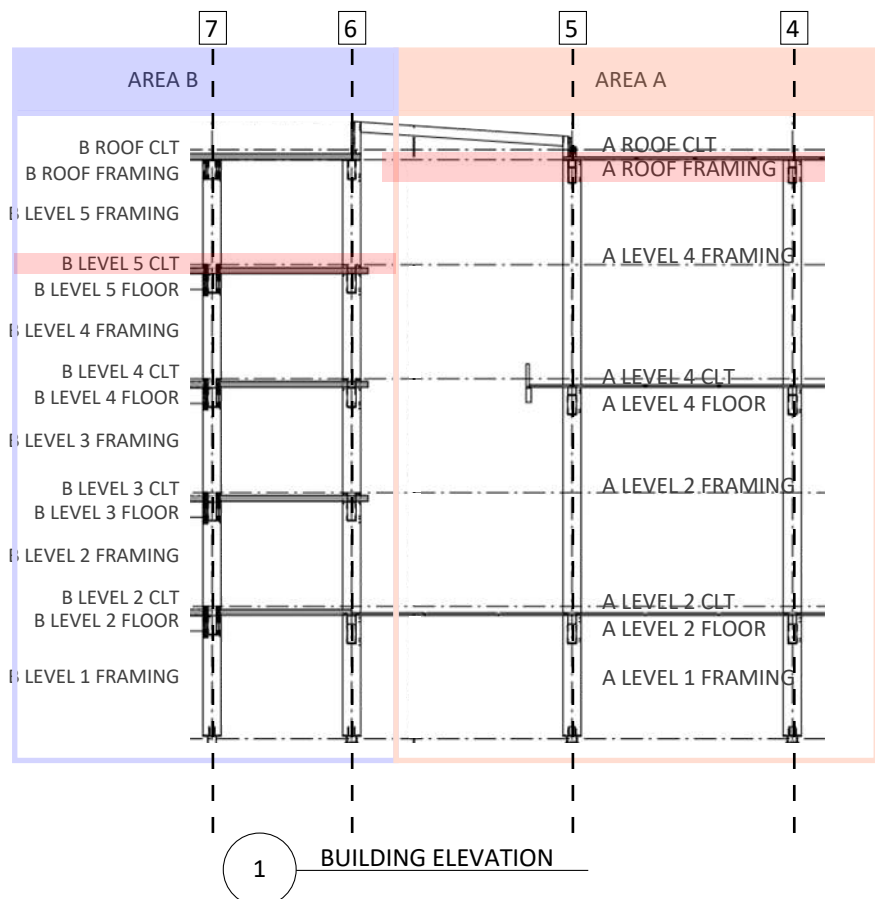
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E_Sequence to Roof

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DESCRIPTION
A-LVL RF FRM / B-LVL
5 CLT

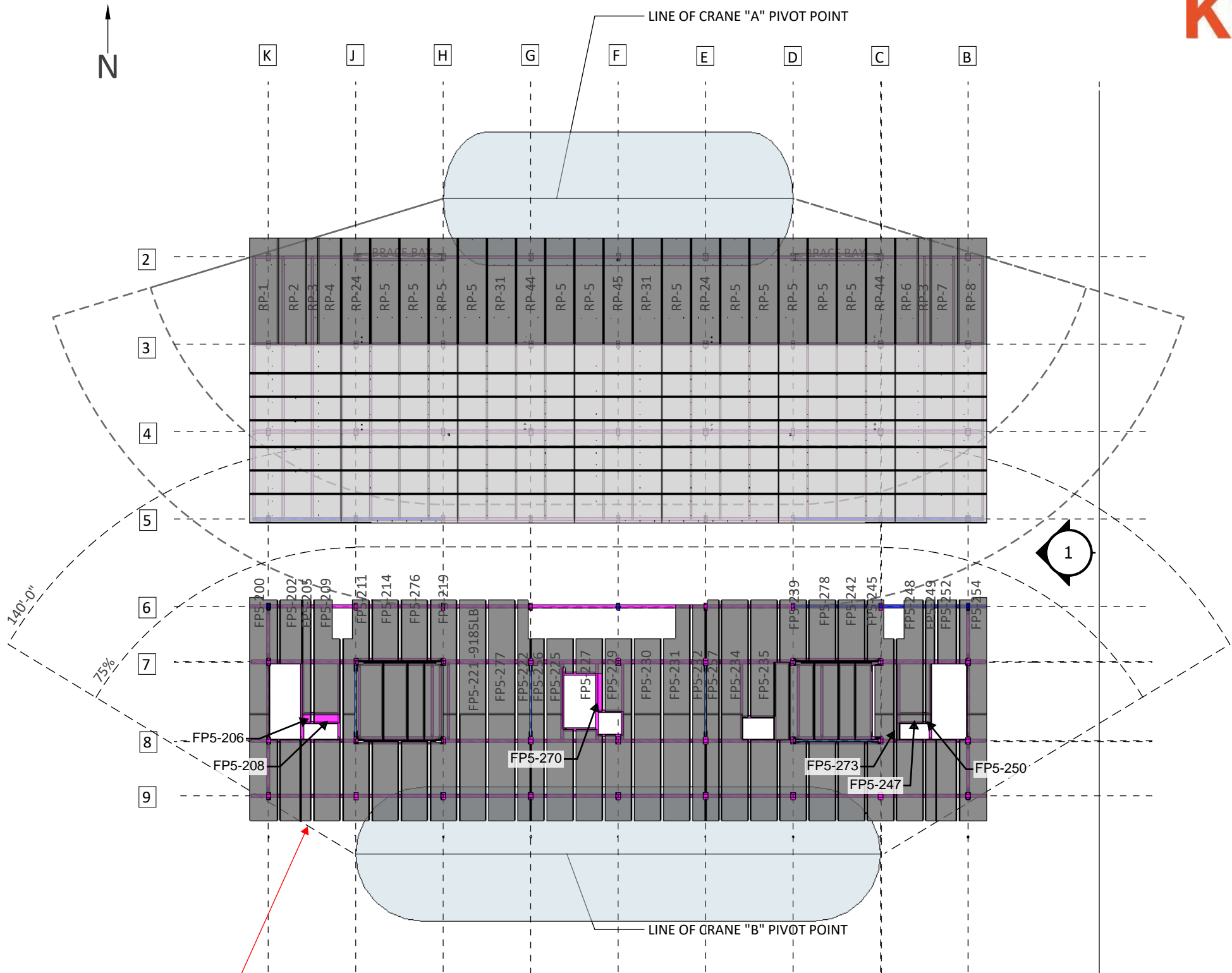
K614



BUILDING ELEVATION

A - MEMBER NAME	WEIGHT LB
RP-1	9189
RP-2	8910
RP-3	4141
RP-4	7289
RP-24	9327
RP-5	9336
RP-31	9336
RP-44	9327
RP-45	9325
RP-6	7290
RP-7	8913
RP-8	9190

B - MEMBER NAME	WEIGHT LB
FP5-200	8142
FP5-202	4243
FP5-205	3002
FP5-209	8233
FP5-211	5729
FP5-214	4936
FP5-276	4938
FP5-219	6882
FP5-221	9185
FP5-277	9184
FP5-222	4052
FP5-256	2796
FP5-225	4633
FP5-227	2739
FP5-229	5813
FP5-230	6000
FP5-231	7516
FP5-232	4162
FP5-257	4327
FP5-234	9248
FP5-235	8916
FP5-239	4844
FP5-278	4938
FP5-242	4933
FP5-245	6764
FP5-248	8208
FP5-249	2533
FP5-252	3757
FP5-254	8142



Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009



Project No.: 1535
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2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step 6 Bracing

Scale: NTS
Drawn: ME
Designed: ME
Checked: AG/ID

Drawing No.:
Revision No.: -

K615

Erection Sequence

Erection Step	Procedure
E6	E6.1: Install 15' and 30' Glulam columns on level 4 per sequencing drawings. Brace columns per 15' timber bracing & 30' cable bracing details, respectively. Ensure all reinforcing screws in column to column connection, per structural drawing S401 installed prior to installation of 30' temporary cable cross bracing. E6.2: Install Level 5 deck along with all required strapping per structural drawings. * Note: Level 5 is now considered a "Very Light Duty" deck. No scissor lifts or material staging are permitted on this deck.

LOADING PER ASCE 37-14

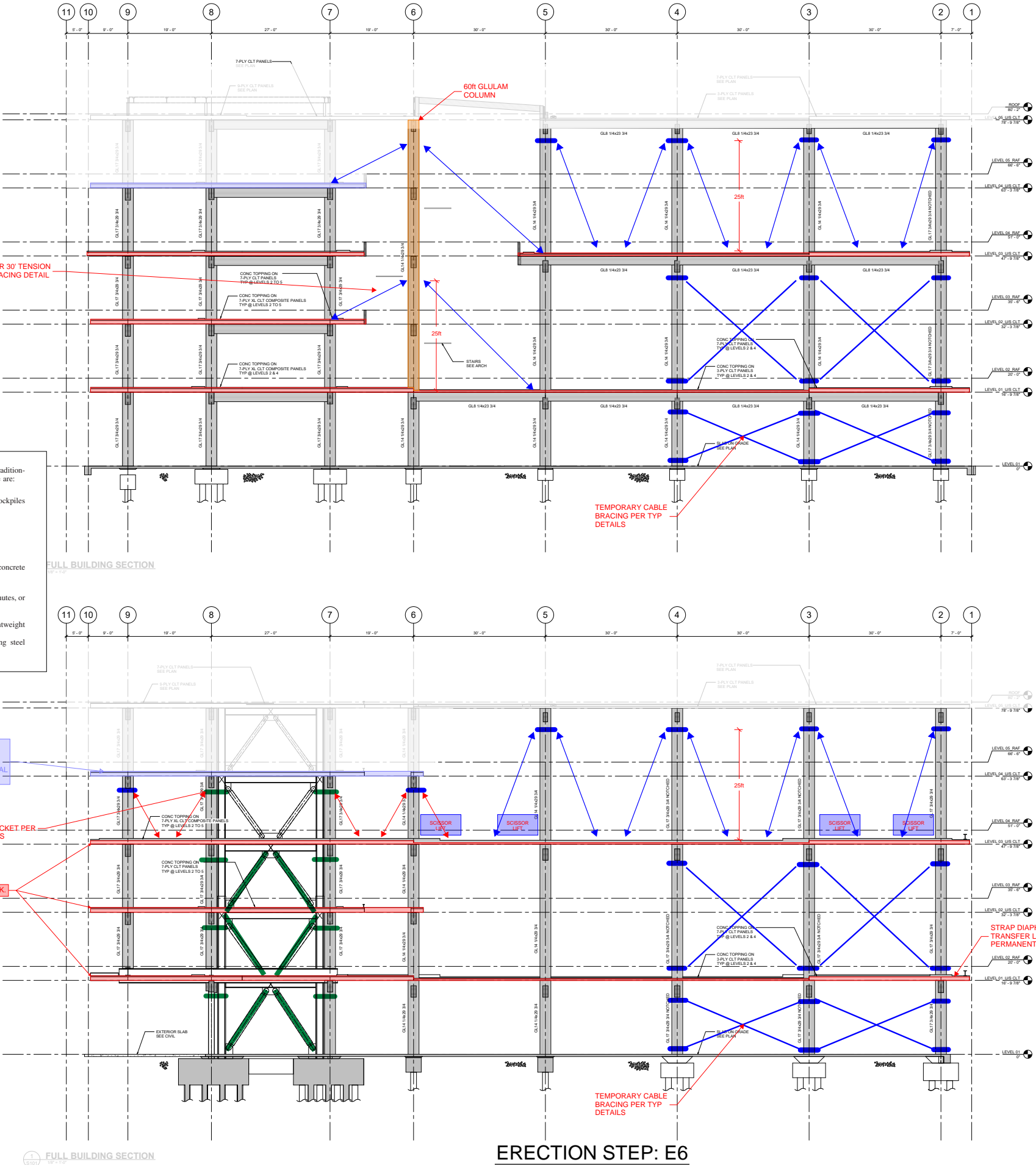
Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads	
Operational Class	Uniform Load* (psf (kN/m ²))
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
*Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
*Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
*Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)
*Loads do not include dead load, D; construction dead load, C _D , or fixed material loads, C _{FD} . *OSHA categories.	

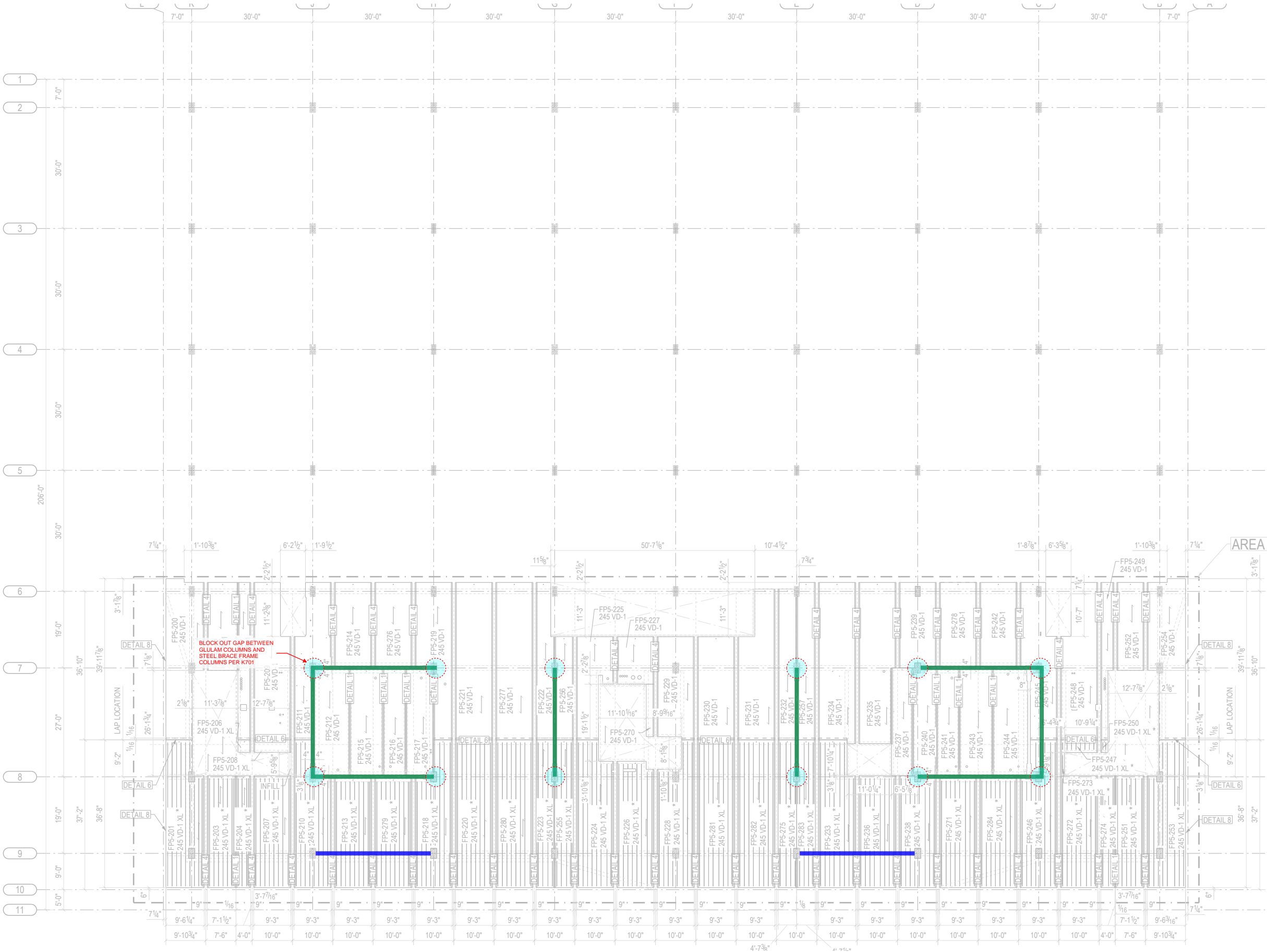
Examples of construction operations that have traditionally been designed for the loads given in the table are:

Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Light frame construction
Concrete transport and placement by buckets, chutes, or handcarts
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement





LEGEND

— = PERMANENT BRACING

— = PROPOSED TEMPORARY BRACED BAYS



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Seal:



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2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:

2020-10-19

Drawing Title:

LVL 5 Bracing Layout
(Medium Duty Deck)

Scale:

NTS

Drawn:

ME

Designed:

ME

Checked:

AG/ID

Drawing No.:

Revision No.: -

LVL 5 BRACING LAYOUT PLAN (MEDIUM DUTY DECK)

Scale: NTS

K700

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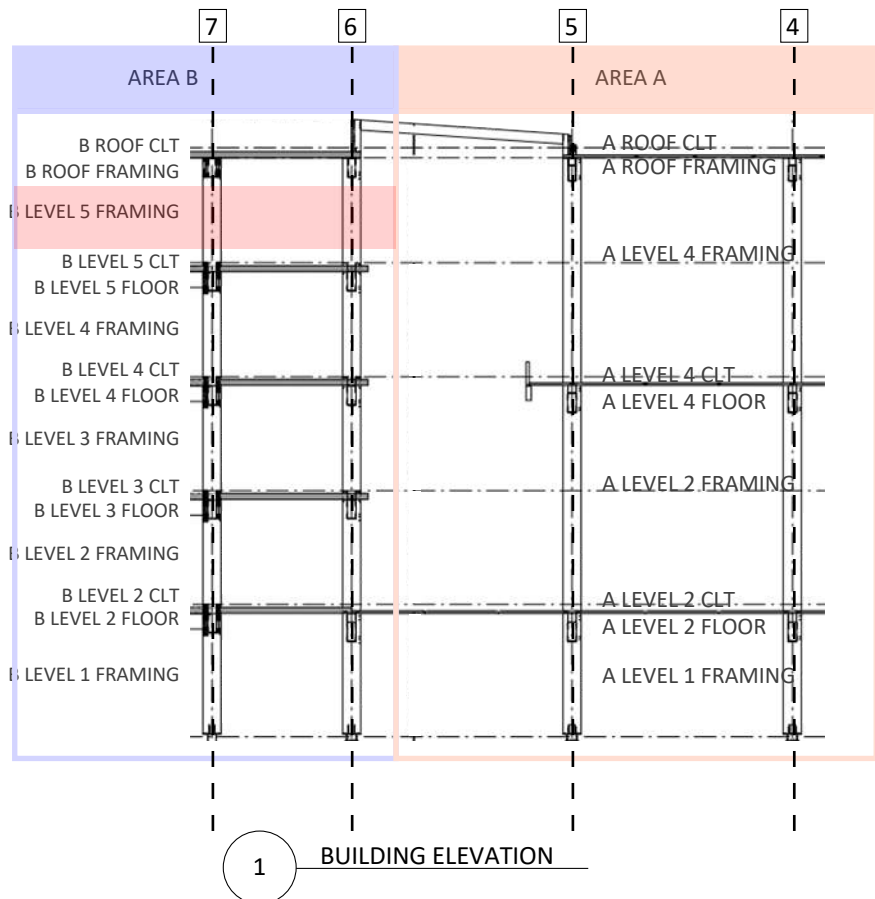
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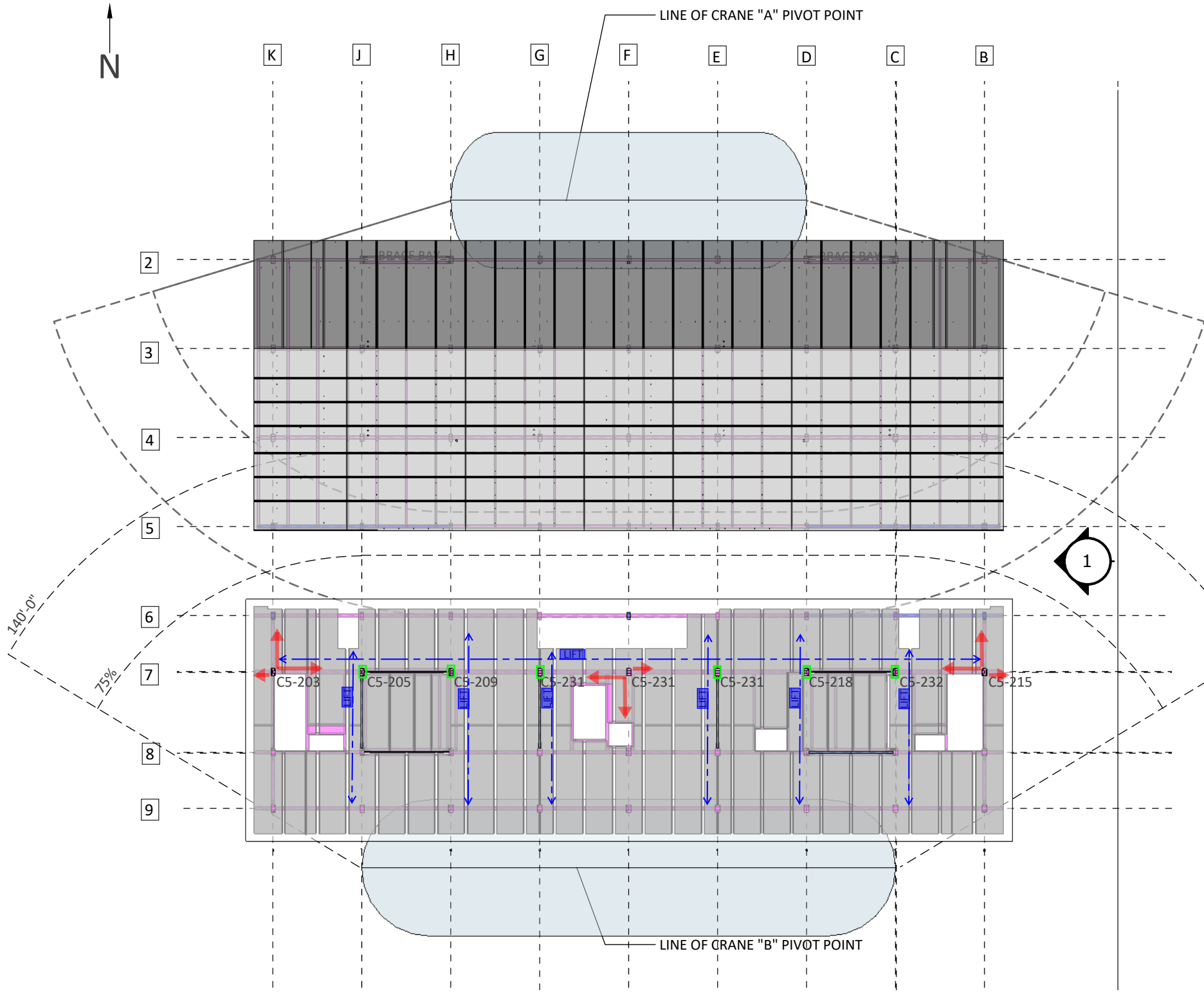
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DESCRIPTION
B-LVL 5 FRM

K701



B - MEMBER NAME	WEIGHT LB
C5-203	1719
C5-205	1666
C5-209	1666
C5-231	1623
C5-218	1666
C5-232	1666
C5-215	1719



LEGEND	
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	= CABLE BRACING AS PER K008/K009

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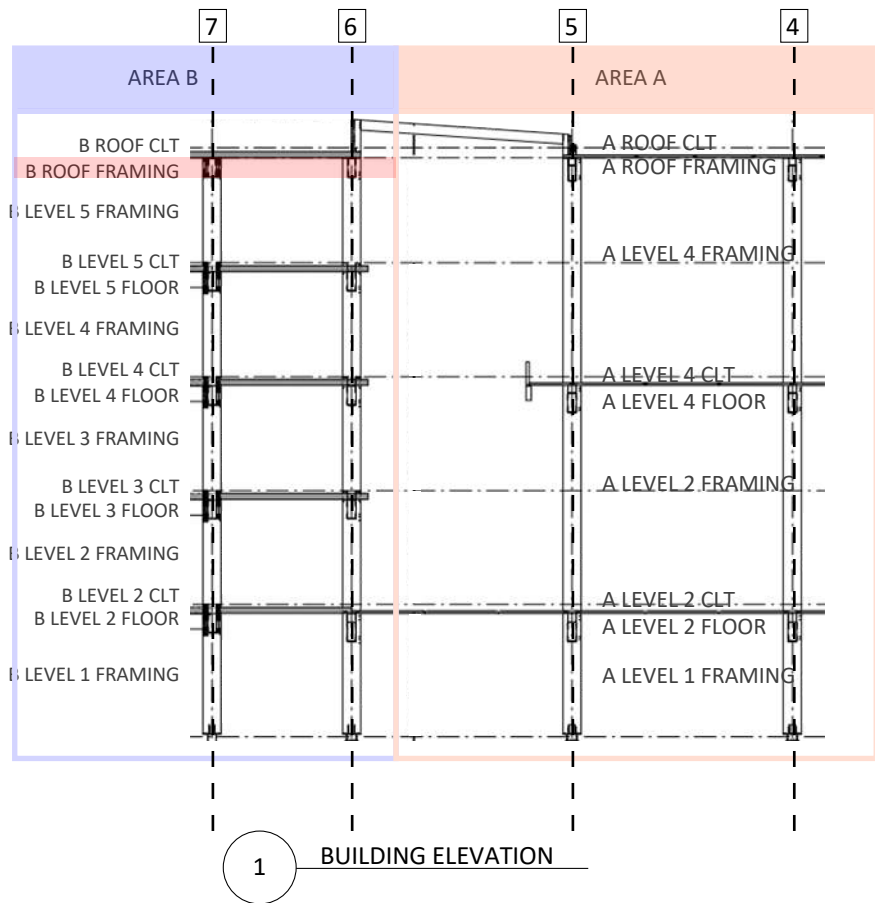
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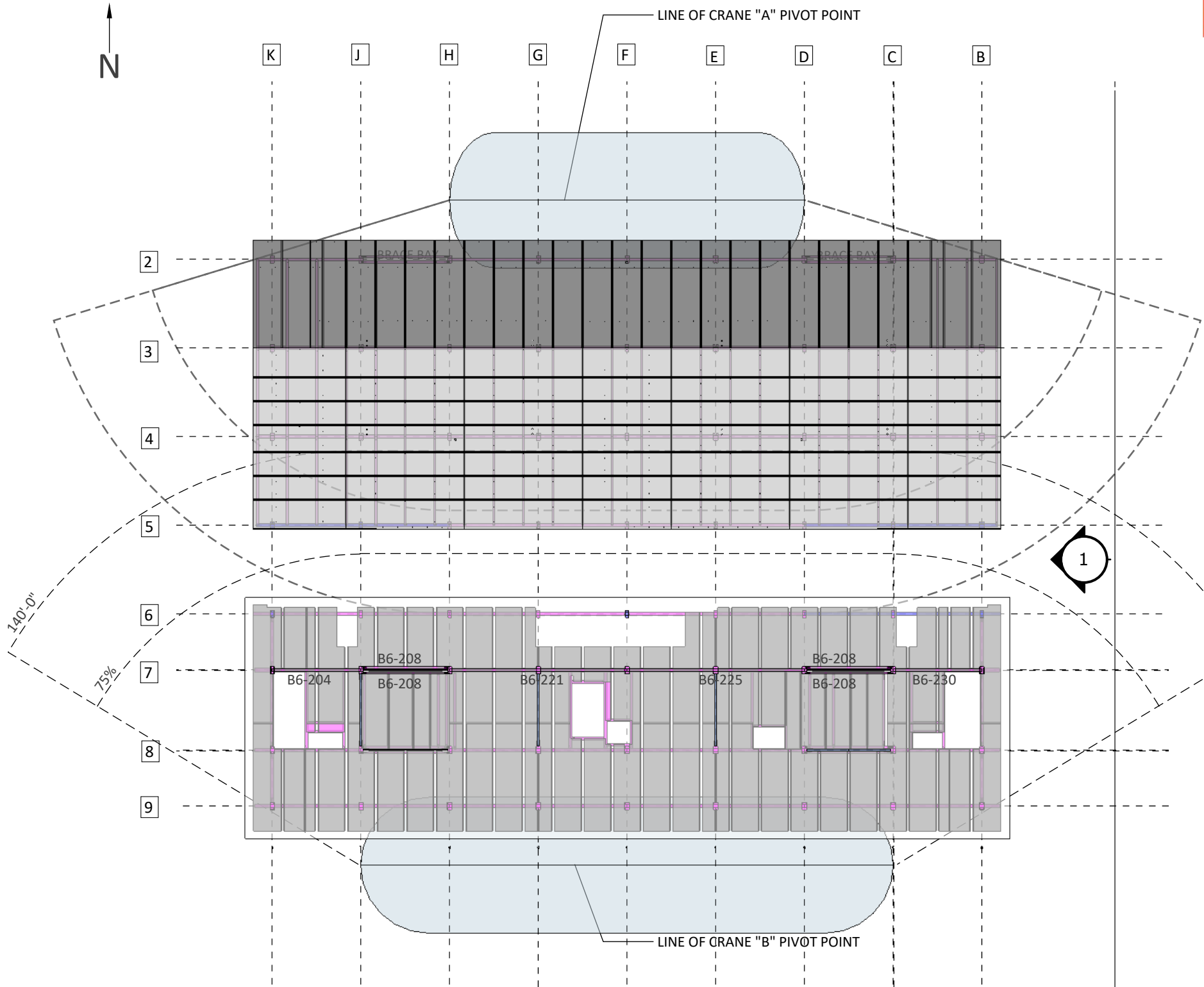
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DESCRIPTION
B-LVL 6 RF FRM

K702



B - MEMBER NAME	WEIGHT LB
B6-204	2535
B6-208	1623
B6-221	5078
B6-225	5078
B6-230	2535



LEGEND

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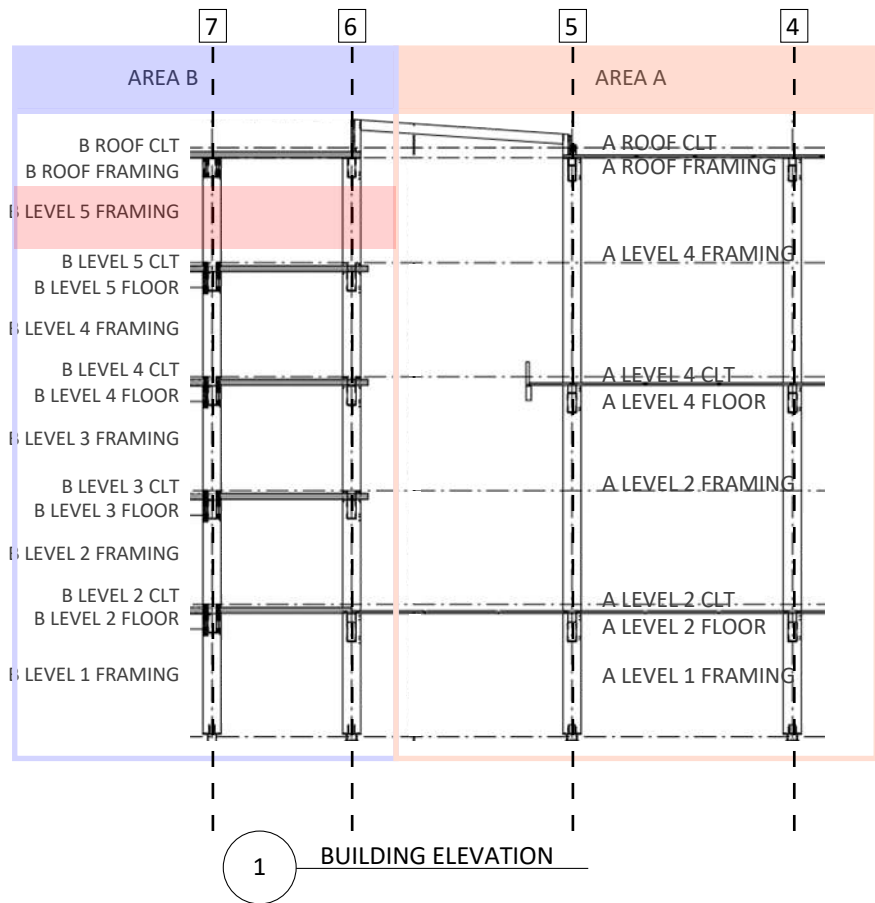
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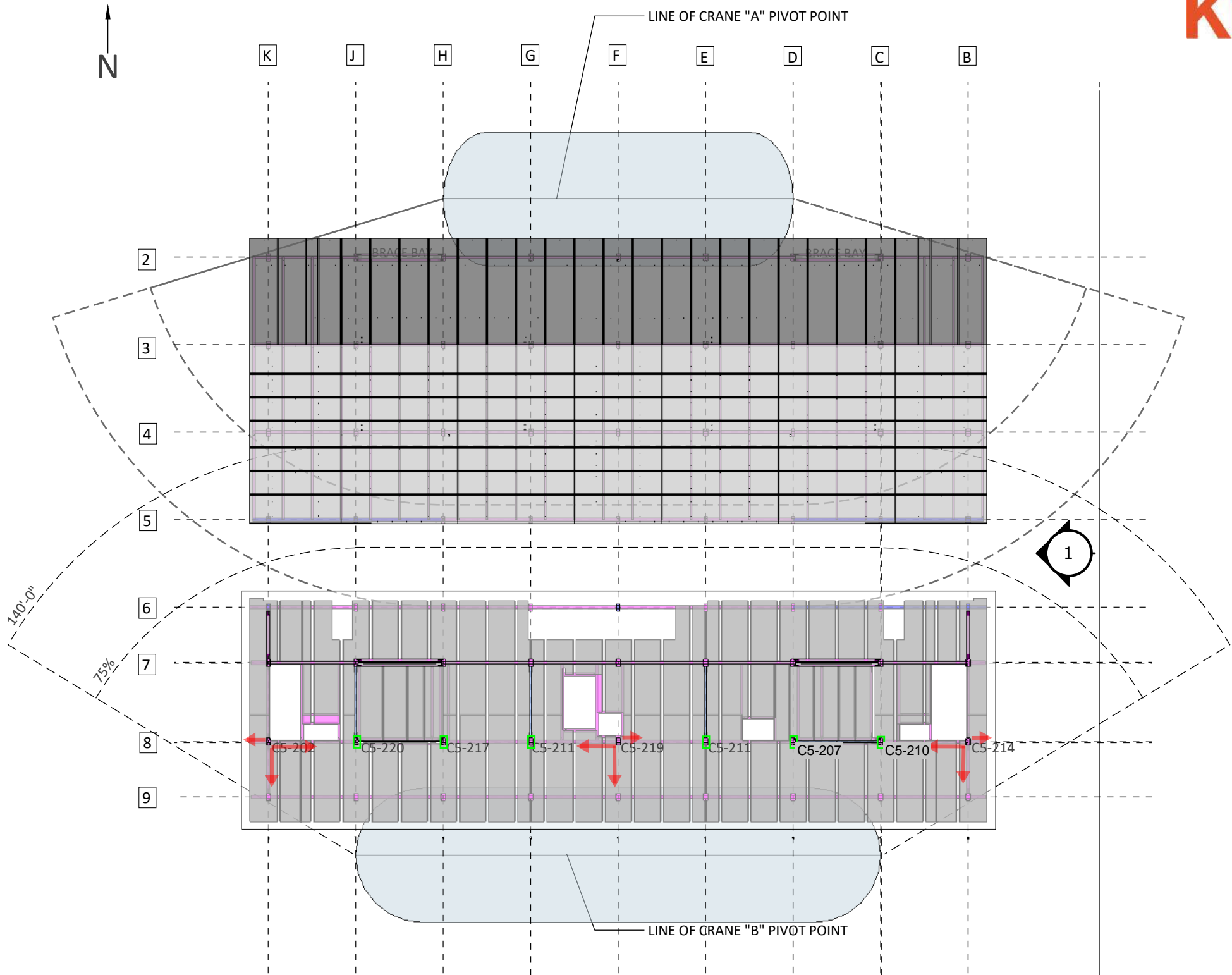
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DESCRIPTION
B-LVL 5 FRM

K703



B - MEMBER NAME	WEIGHT LB
C5-202	1661
C5-220	1666
C5-217	1666
C5-211	1623
C5-219	1623
C5-210	1666
C5-232	1666
C5-214	1719



LEGEND

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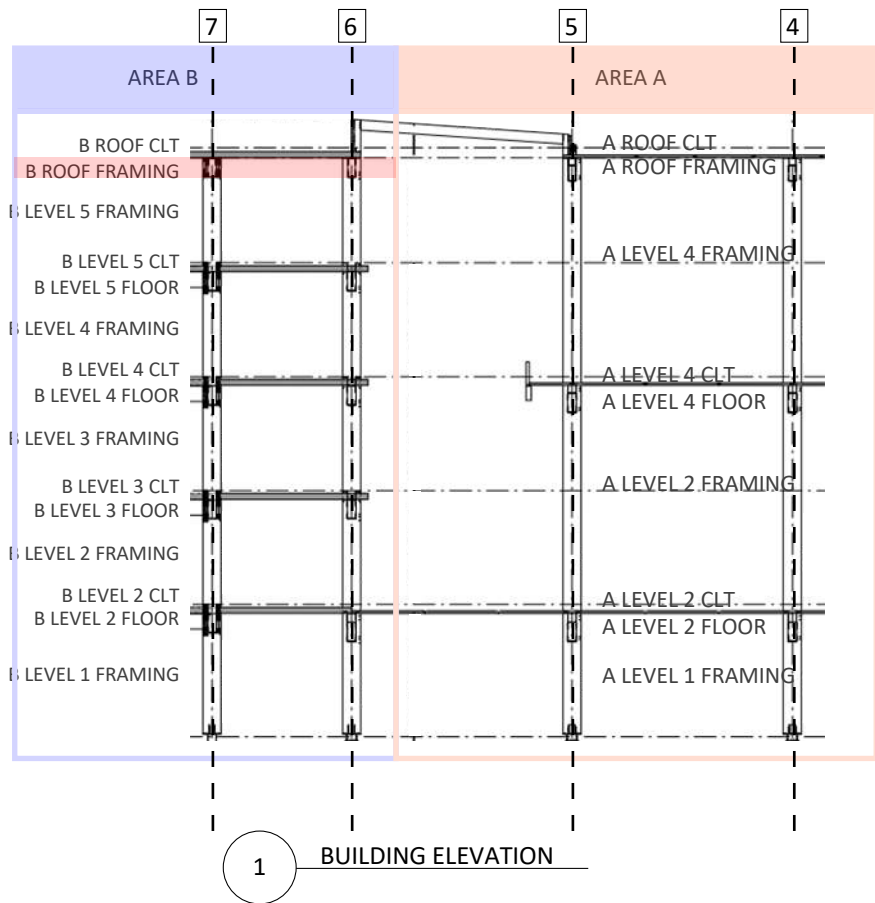
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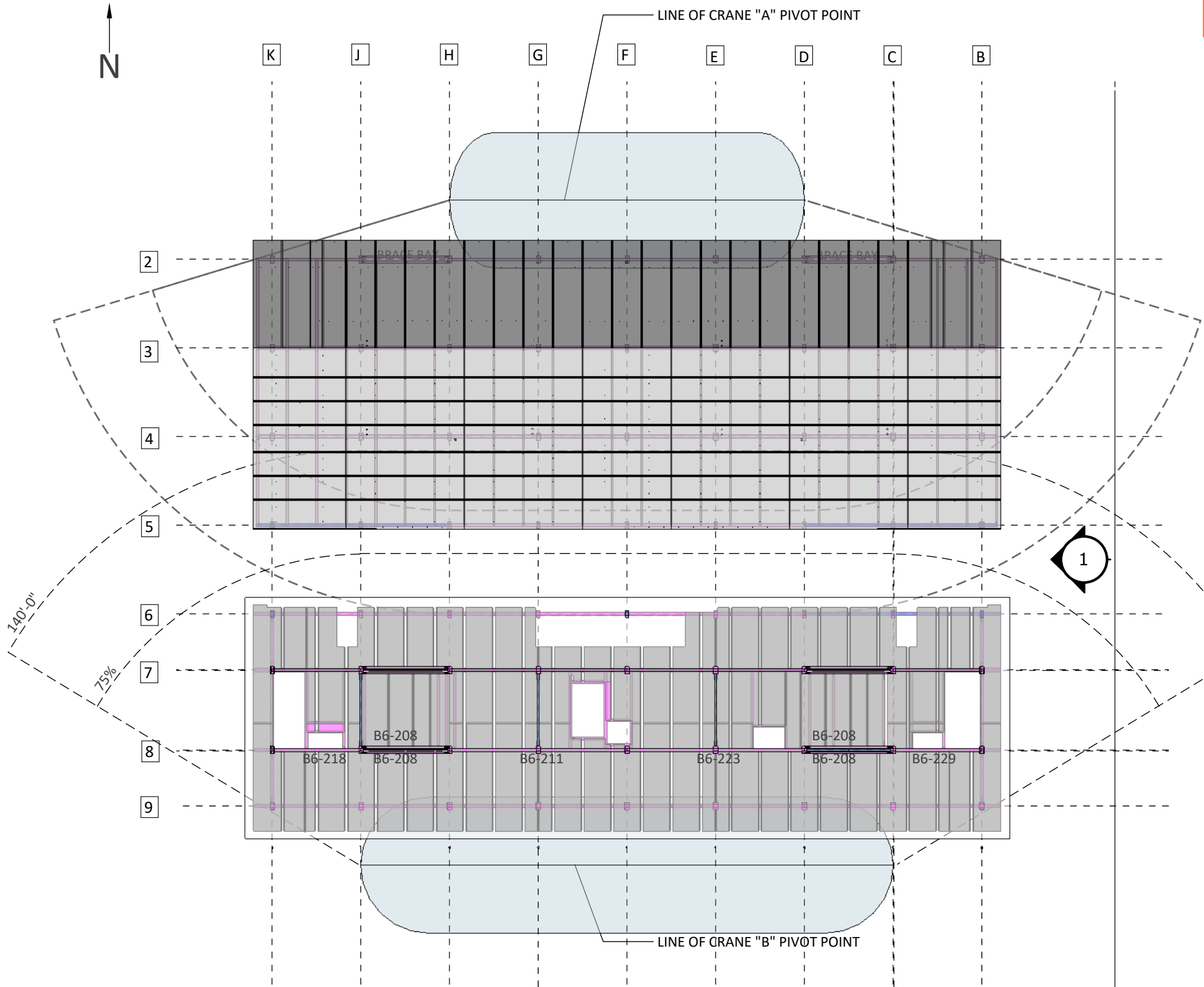
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DESCRIPTION
B-LVL 6 RF FRM

K704



B - MEMBER NAME	WEIGHT LB
B6-218	2535
B6-208	1623
B6-211	5078
B6-223	5078
B6-229	2535



LEGEND

- = TIMBER BRACING AS PER K005/K006
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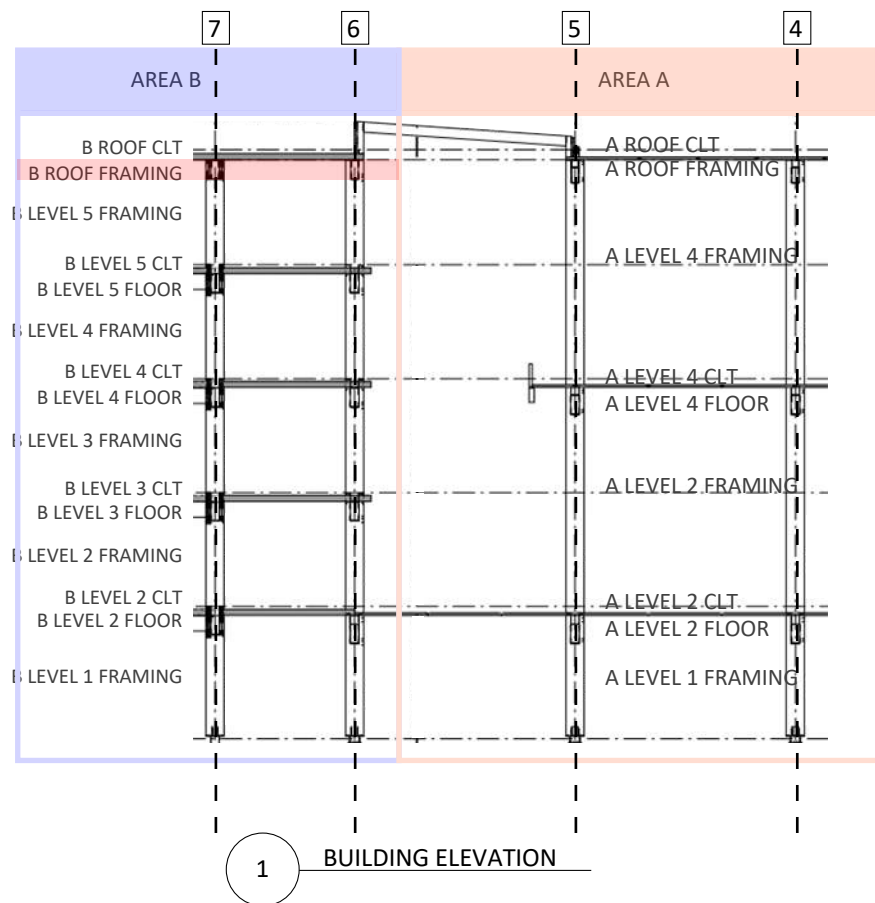
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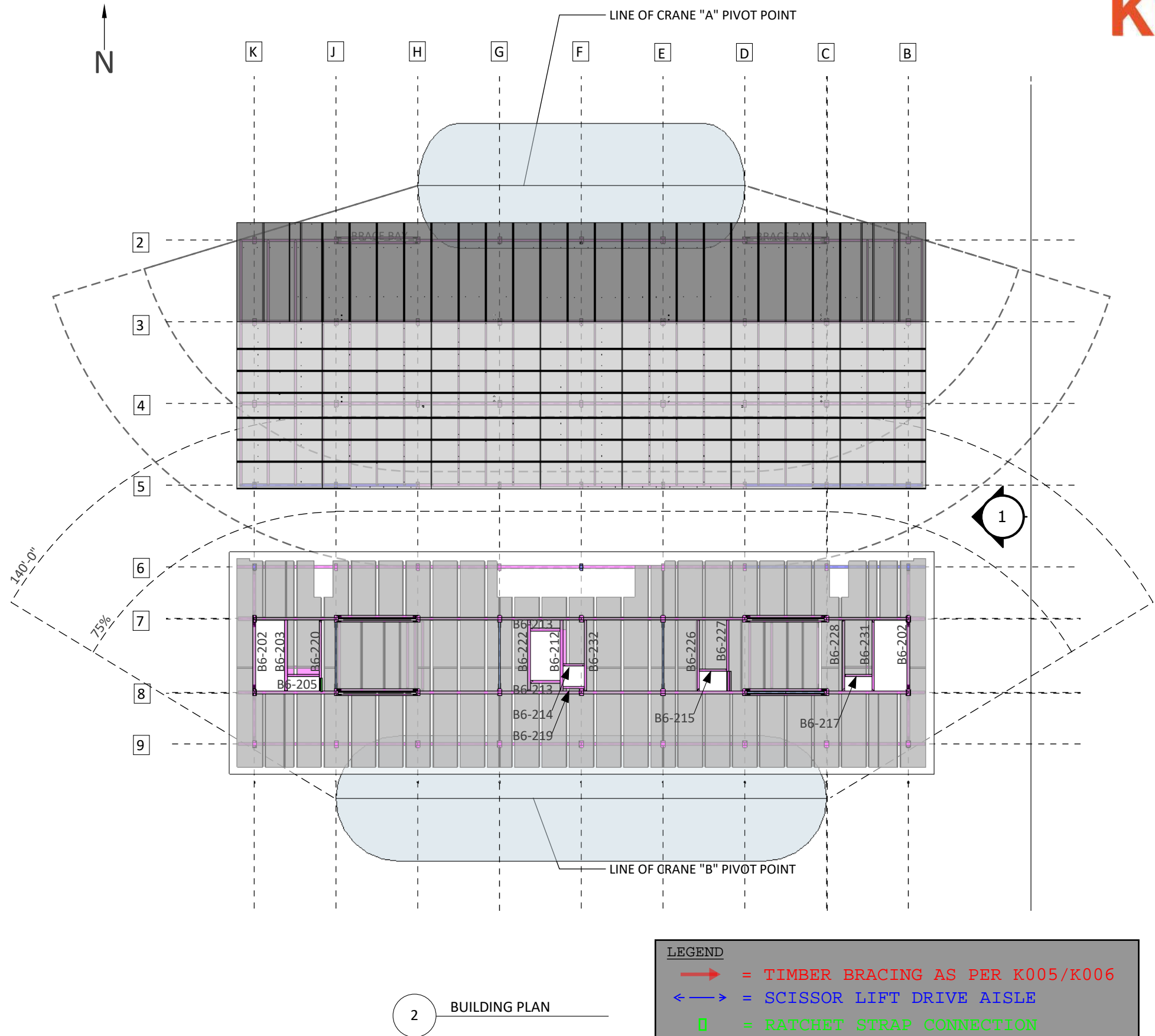
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DESCRIPTION
B-LVL 6 RF FRM

K705



B - MEMBER NAME	WEIGHT LB
B6-202	1854
B6-203	1489
B6-205	655
B6-220	1489
B6-222	1782
B6-203	1489
B6-213	742
B6-212	1782
B6-214	453
B6-232	4189
B6-226	1489
B6-215	572
B6-227	1489
B6-217	518
B6-228	1489
B6-231	1489



LEGEND

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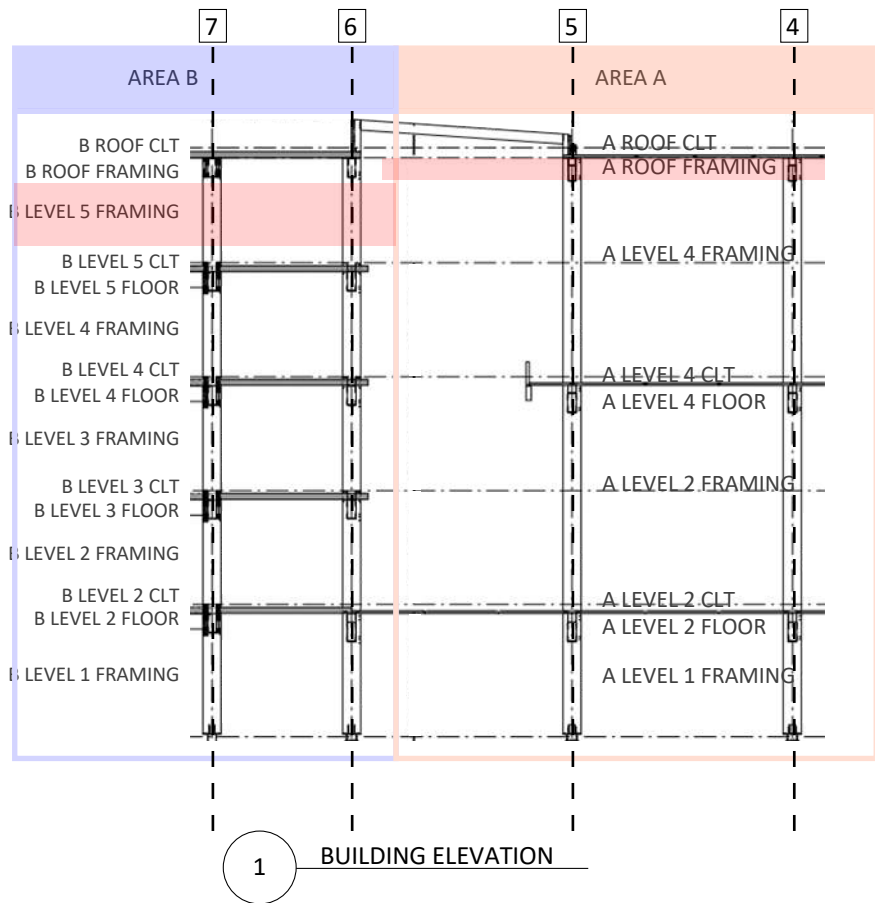
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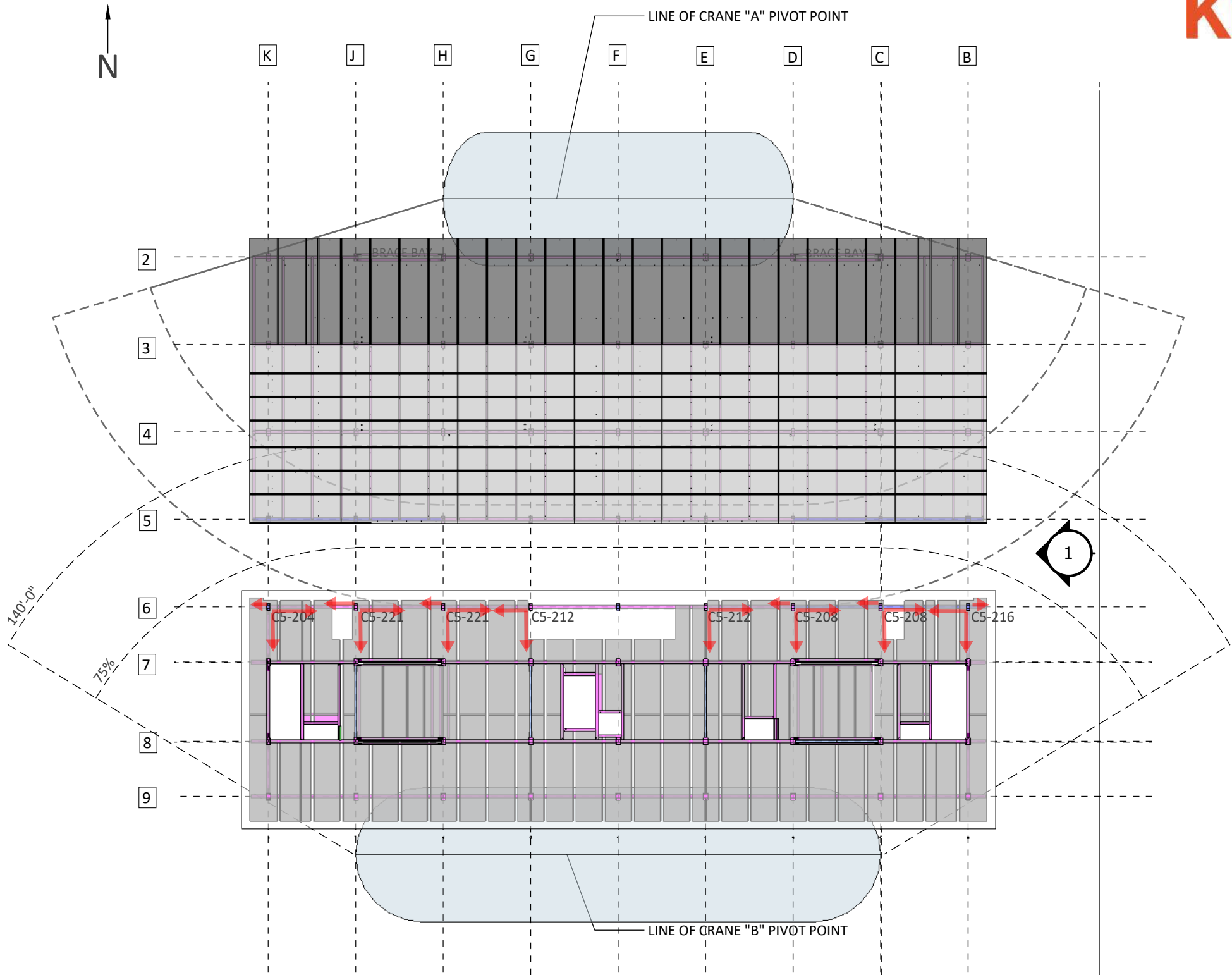
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DESCRIPTION
B-LVL 5 FRM

K706



B - MEMBER NAME	WEIGHT LB
C5-204	1334
C5-221	1303
C5-212	1299
C5-214	1719
C5-208	1303
C5-216	1334



2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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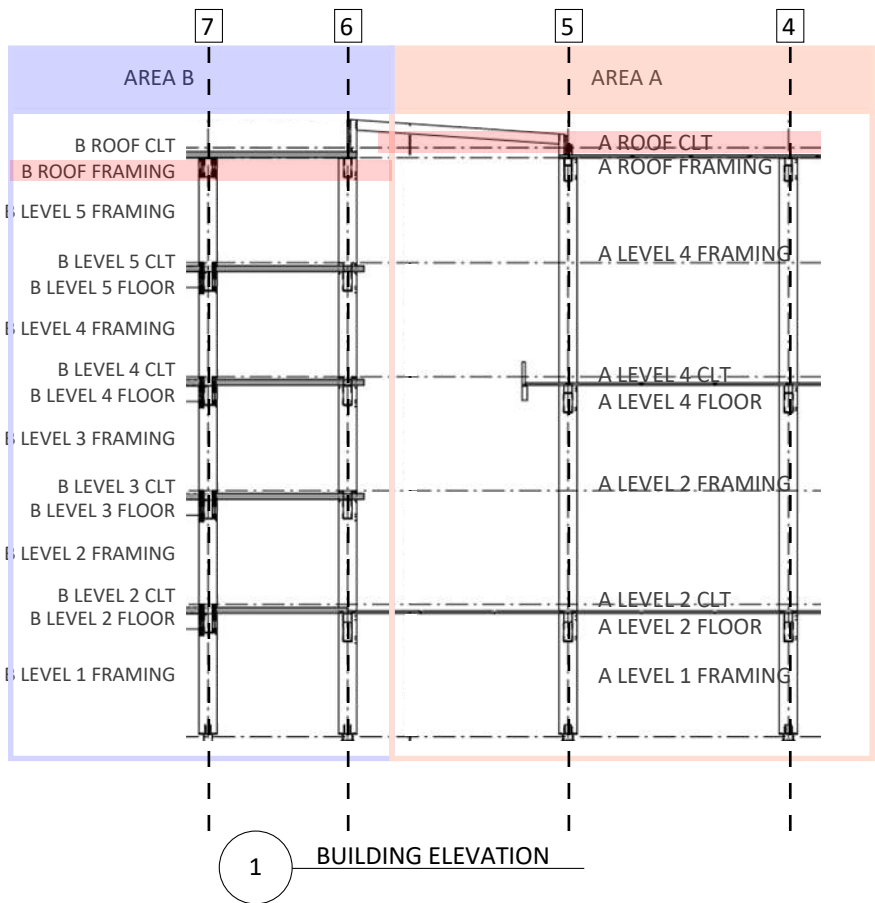
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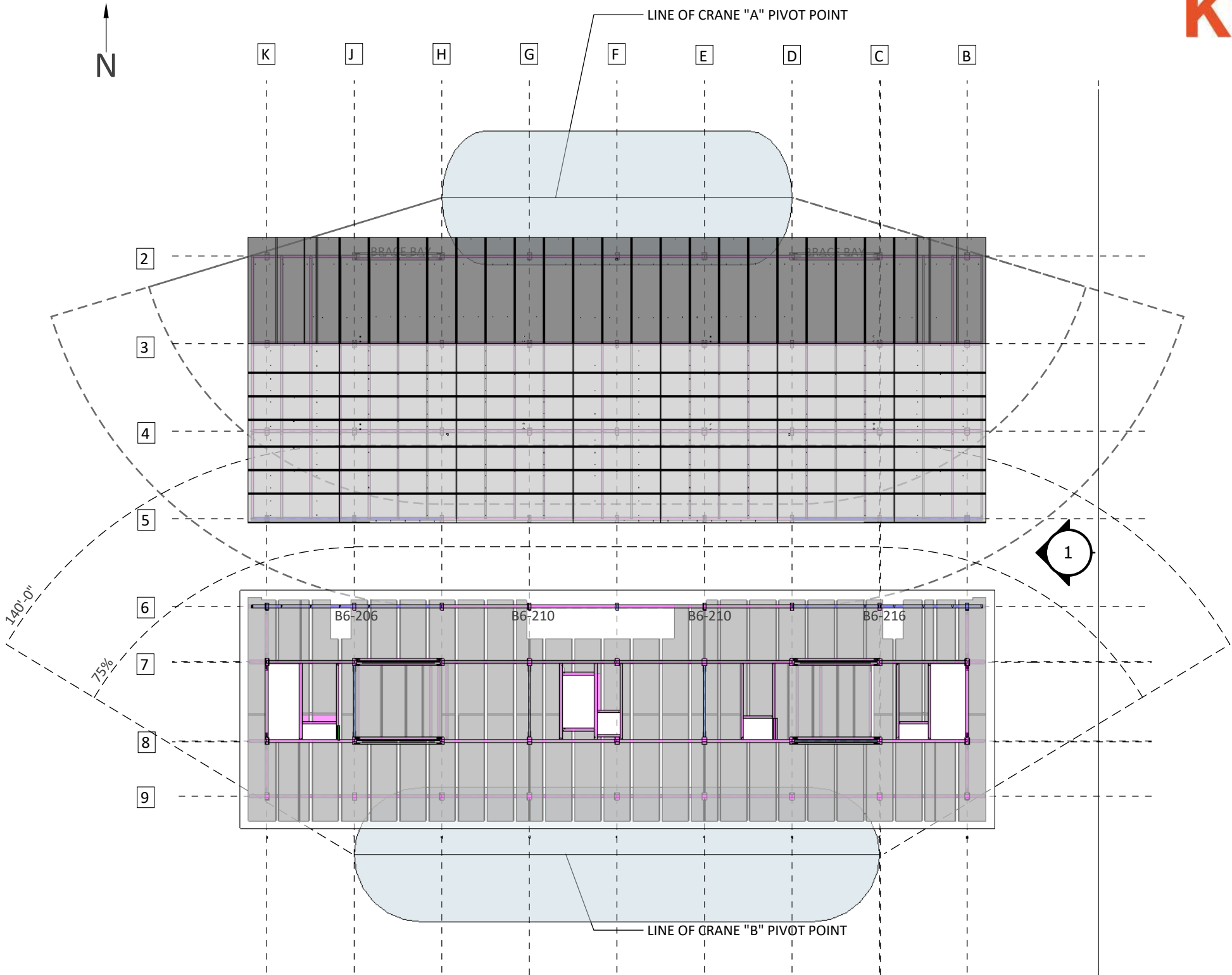
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JZ

DESCRIPTION
B-LVL RF FRM



B - MEMBER NAME	WEIGHT LB
B6-206	5529
B6-210	5083
B6-216	5528



LEGEND

- = TIMBER BRACING AS PER K005/K006
- ←→ = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

K707

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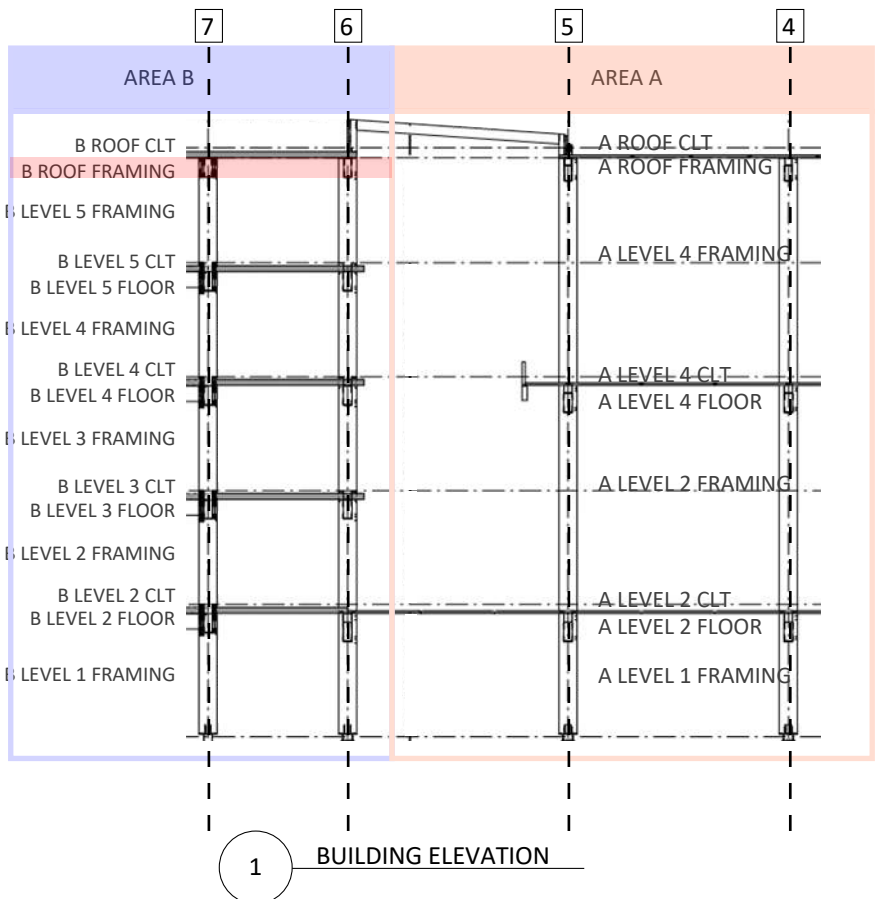
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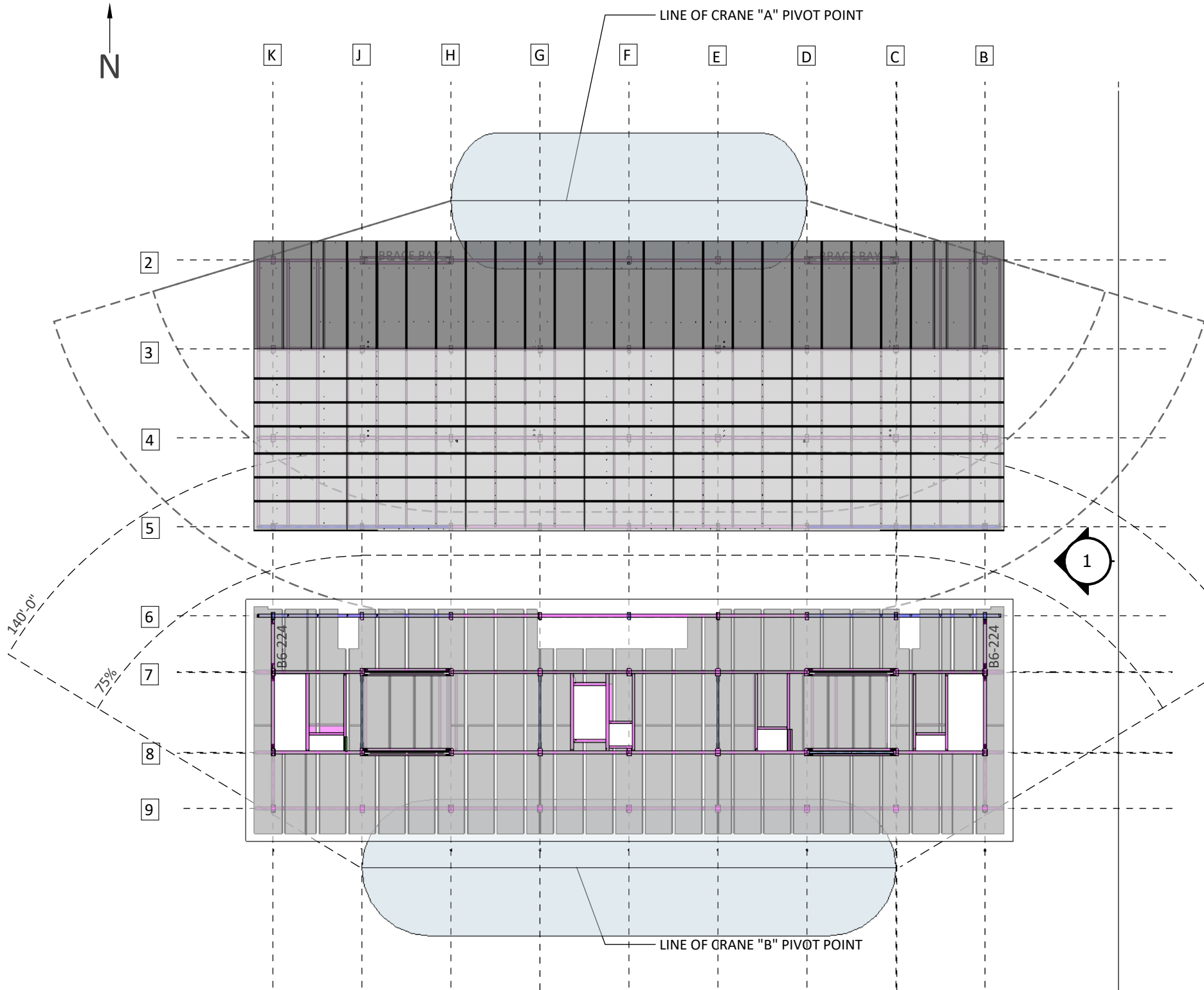
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DESCRIPTION
B-LVL 6 RF FRM

K708



B - MEMBER NAME	WEIGHT LB
B6-224	1239



2 BUILDING PLAN

- LEGEND
- = TIMBER BRACING AS PER K005/K006
 - ←→ = SCISSOR LIFT DRIVE AISLE
 - = RATCHET STRAP CONNECTION
 - = CABLE BRACING AS PER K008/K009

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REV	DATE
REV	DATE

DATE CREATED
August 27, 2020

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PROJECT NO.
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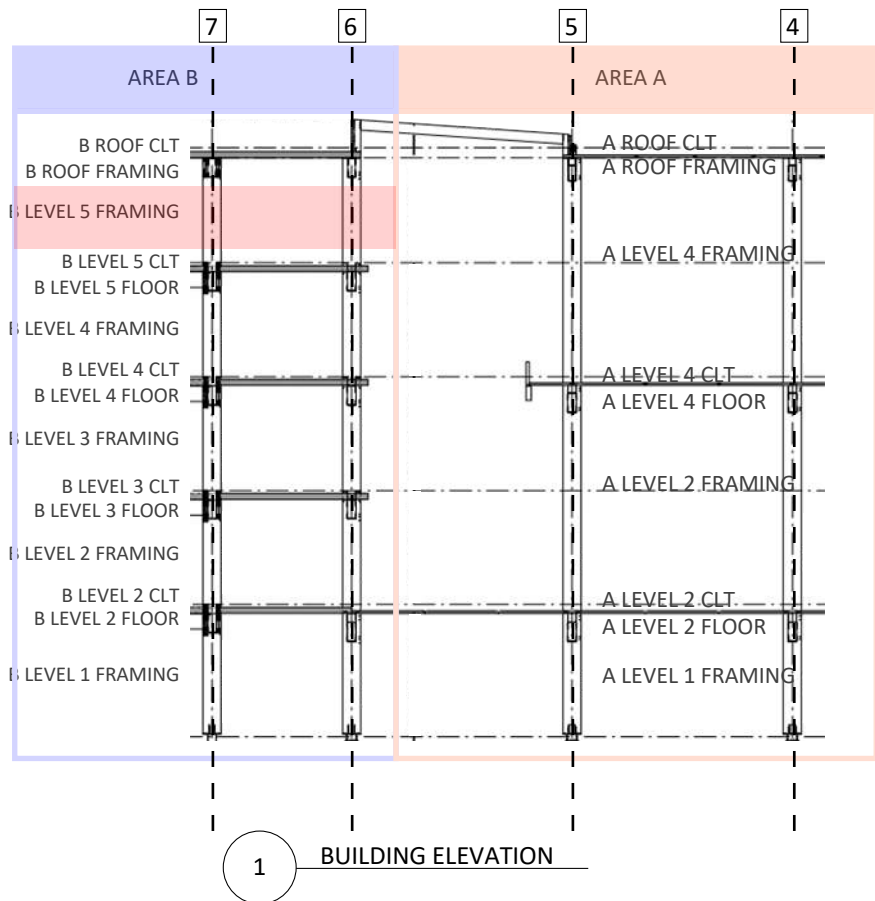
PROJECT
Borregas

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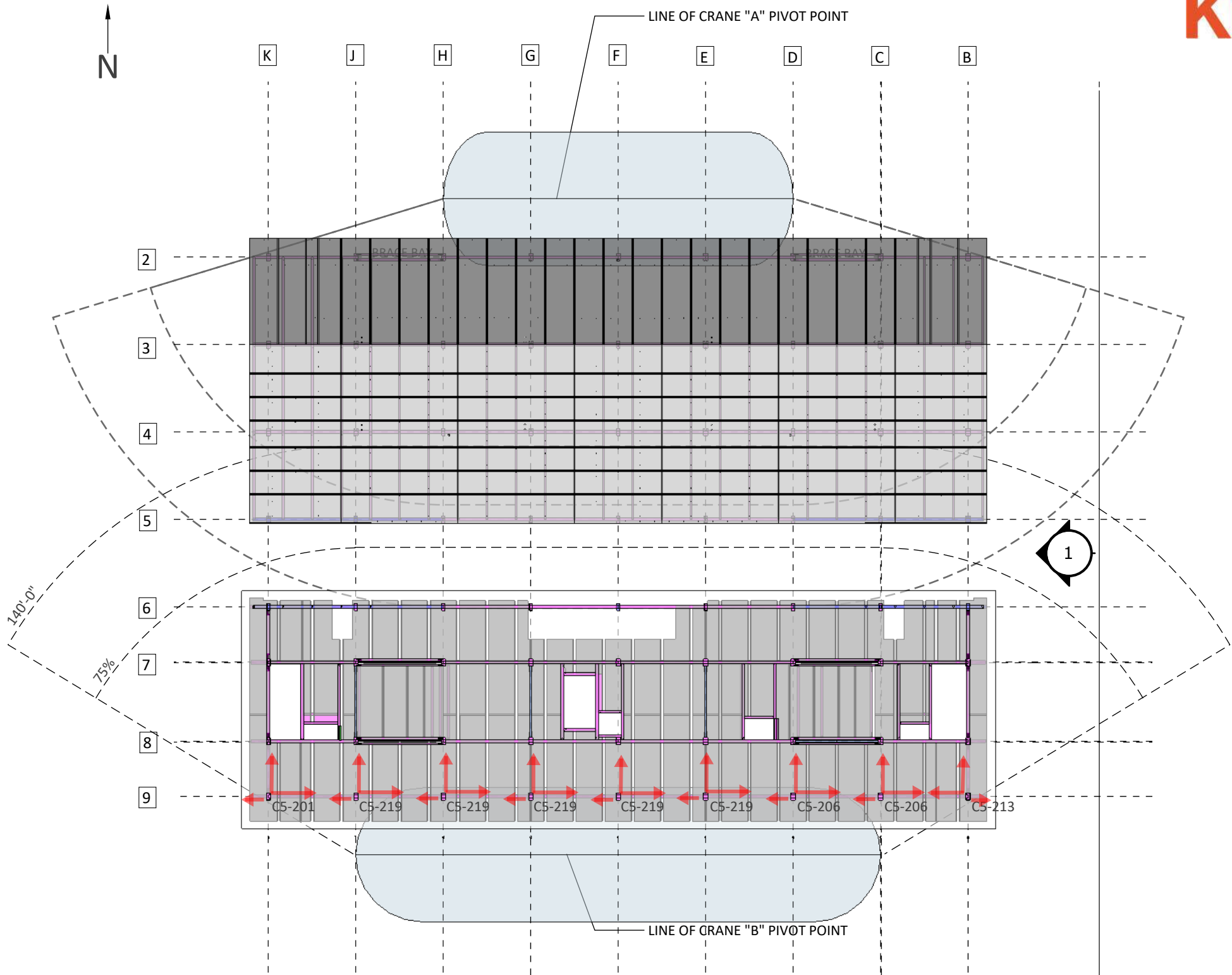
DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
B-LVL 5 FRM



B - MEMBER NAME	WEIGHT LB
C5-201	1720
C5-219	1623
C5-206	1623
C5-213	1720



2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ←→ = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

K709

COLUMN BRACING NOT SHOWN ON EVERY PAGE FOR CLARITY. ALL BRACING TO REMAIN IN PLACE UNTIL ENTIRE STOREY IS TRANSITIONED TO TEMPORARY CABLE-BRACED BAYS

Kinsol

Timber Systems

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DATE (THIS VERSION)
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REV 2	DATE 10/14/20
REV	DATE
REV	DATE

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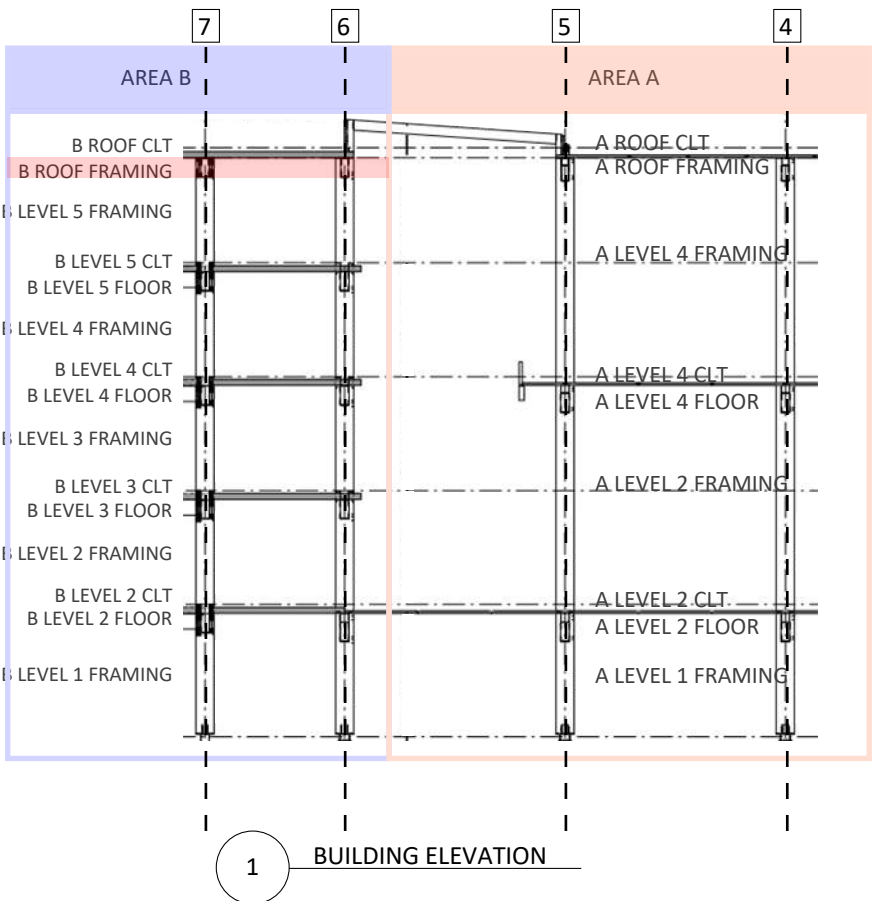
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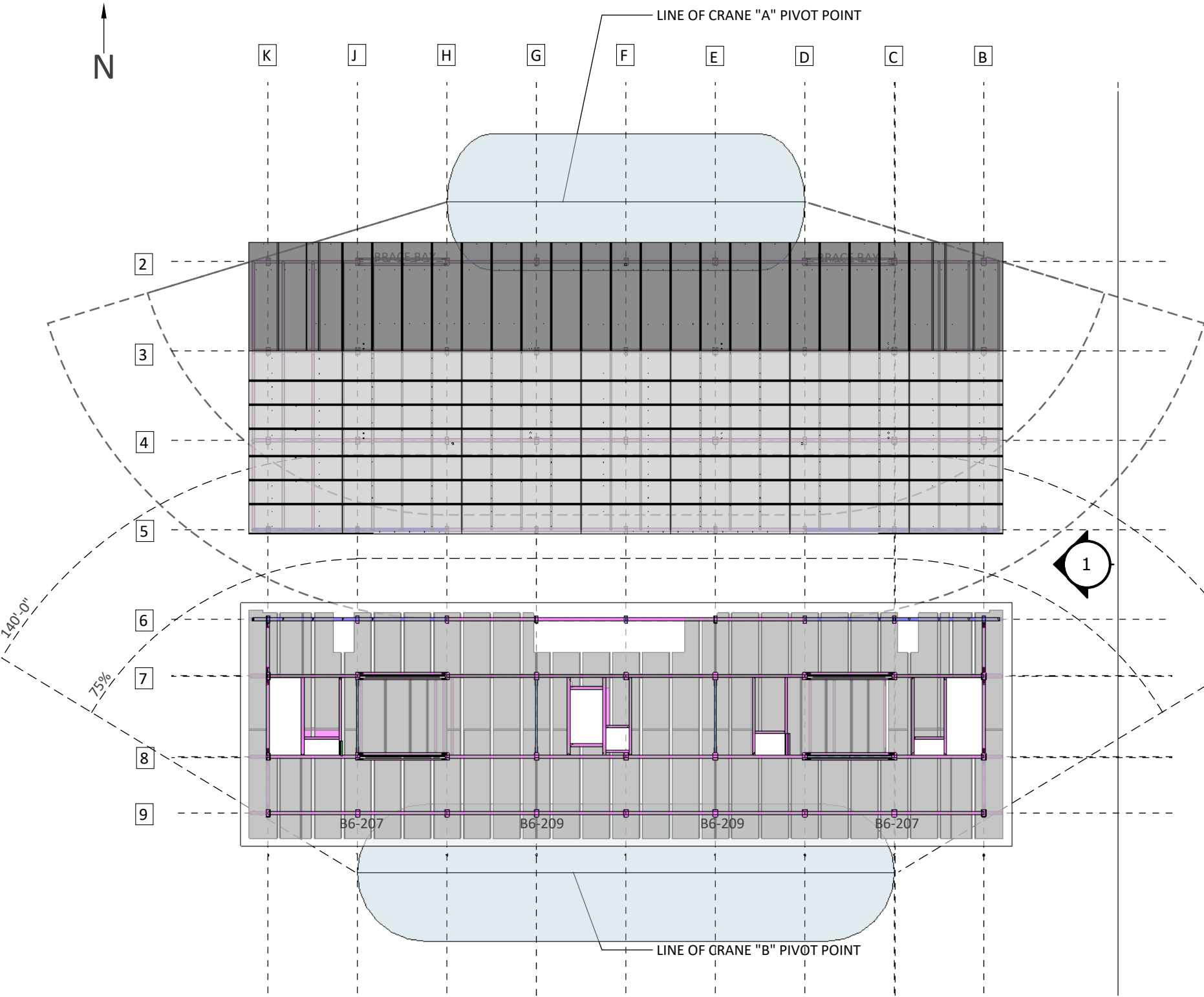
DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
B-LVL 6 RF FRM



B - MEMBER NAME	WEIGHT LB
B6-207	5077
B6-209	5080



- LEGEND
- = TIMBER BRACING AS PER K005/K006
 - ←→ = SCISSOR LIFT DRIVE AISLE
 - = RATCHET STRAP CONNECTION
 - = CABLE BRACING AS PER K008/K009

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REV	DATE
REV	DATE

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PROJECT
Borregas

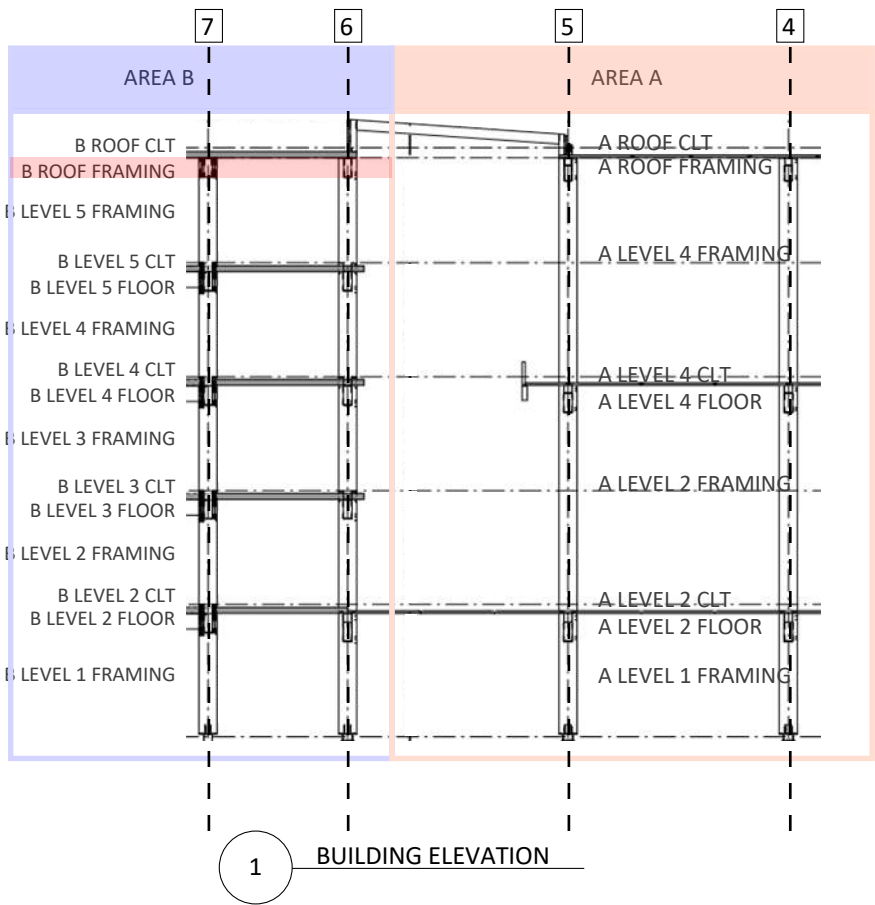
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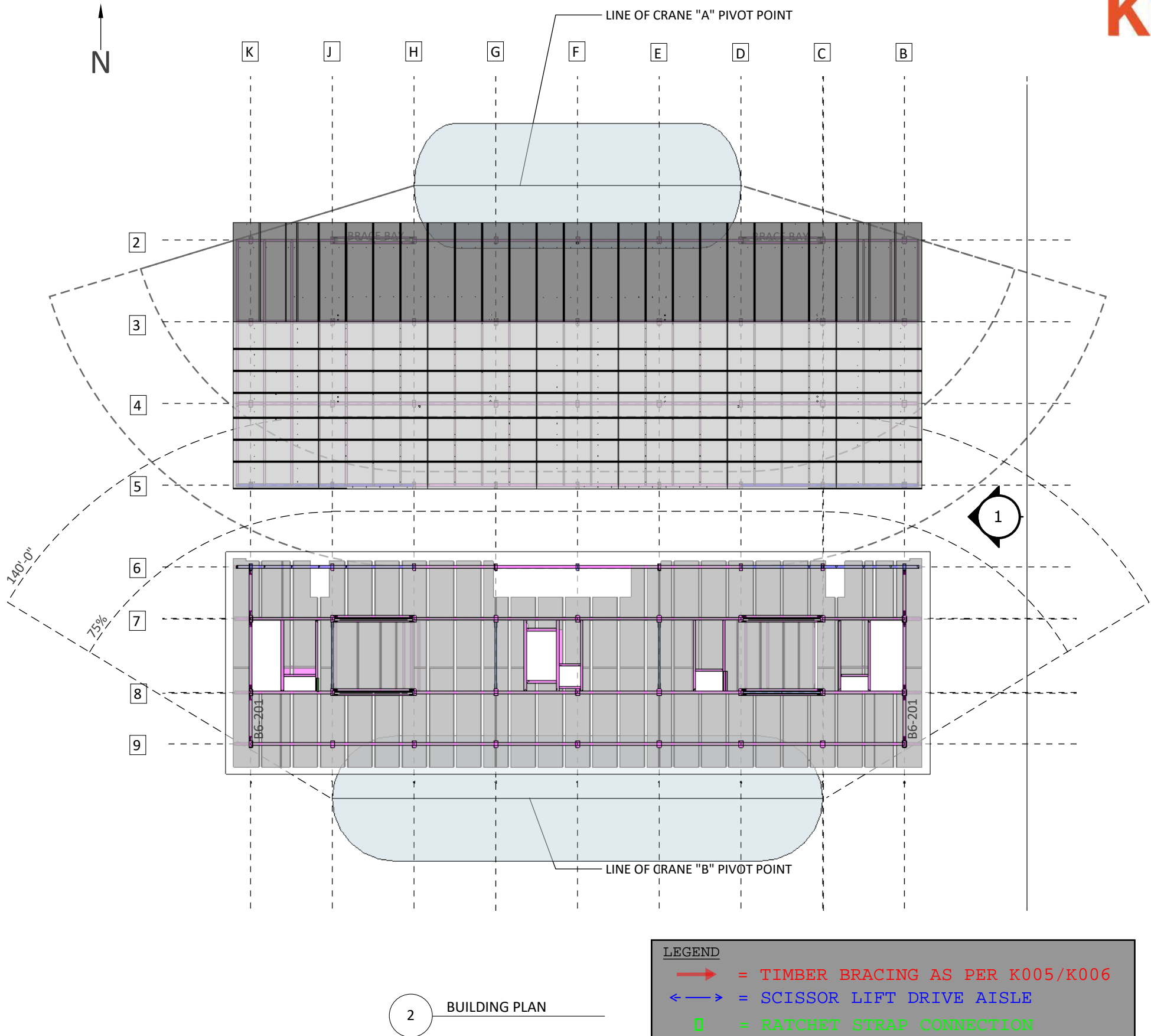
DESIGNED BY
JZ

DESCRIPTION
B-LVL 6 RF FRM

K711



B - MEMBER NAME	WEIGHT LB
B6-201	1240



LEGEND

- = TIMBER BRACING AS PER K005/K006
- ←→ = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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REV 2	DATE 10/14/20
REV	DATE
REV	DATE

DATE CREATED
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CLIENT
Google FONE

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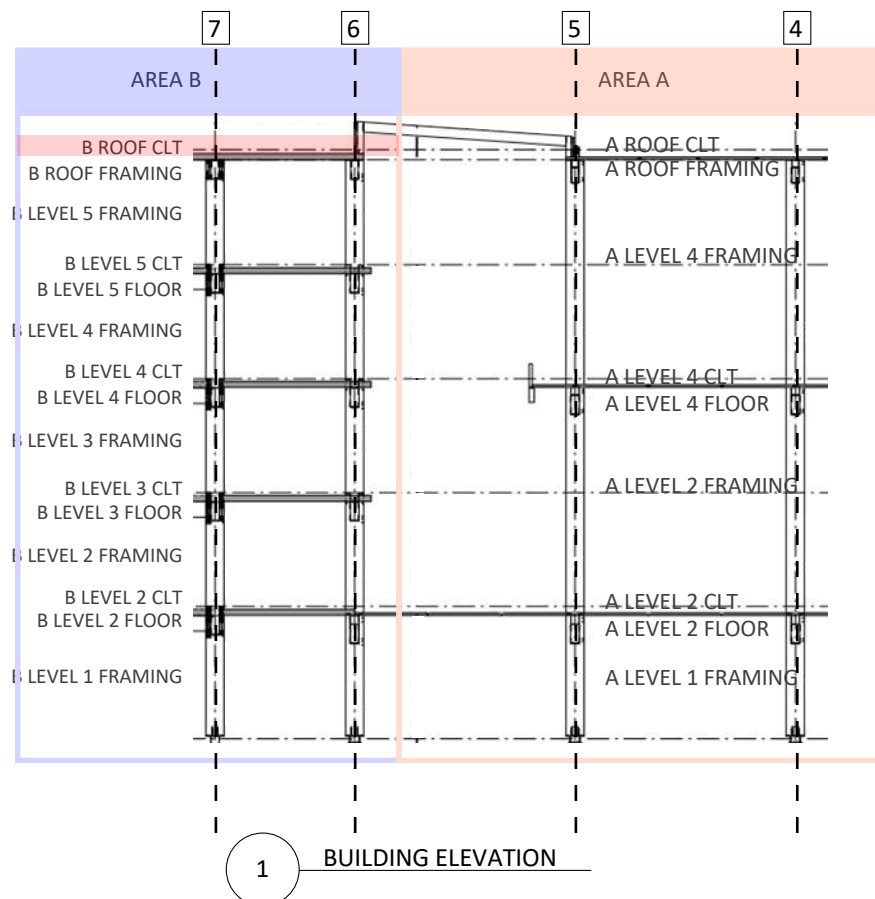
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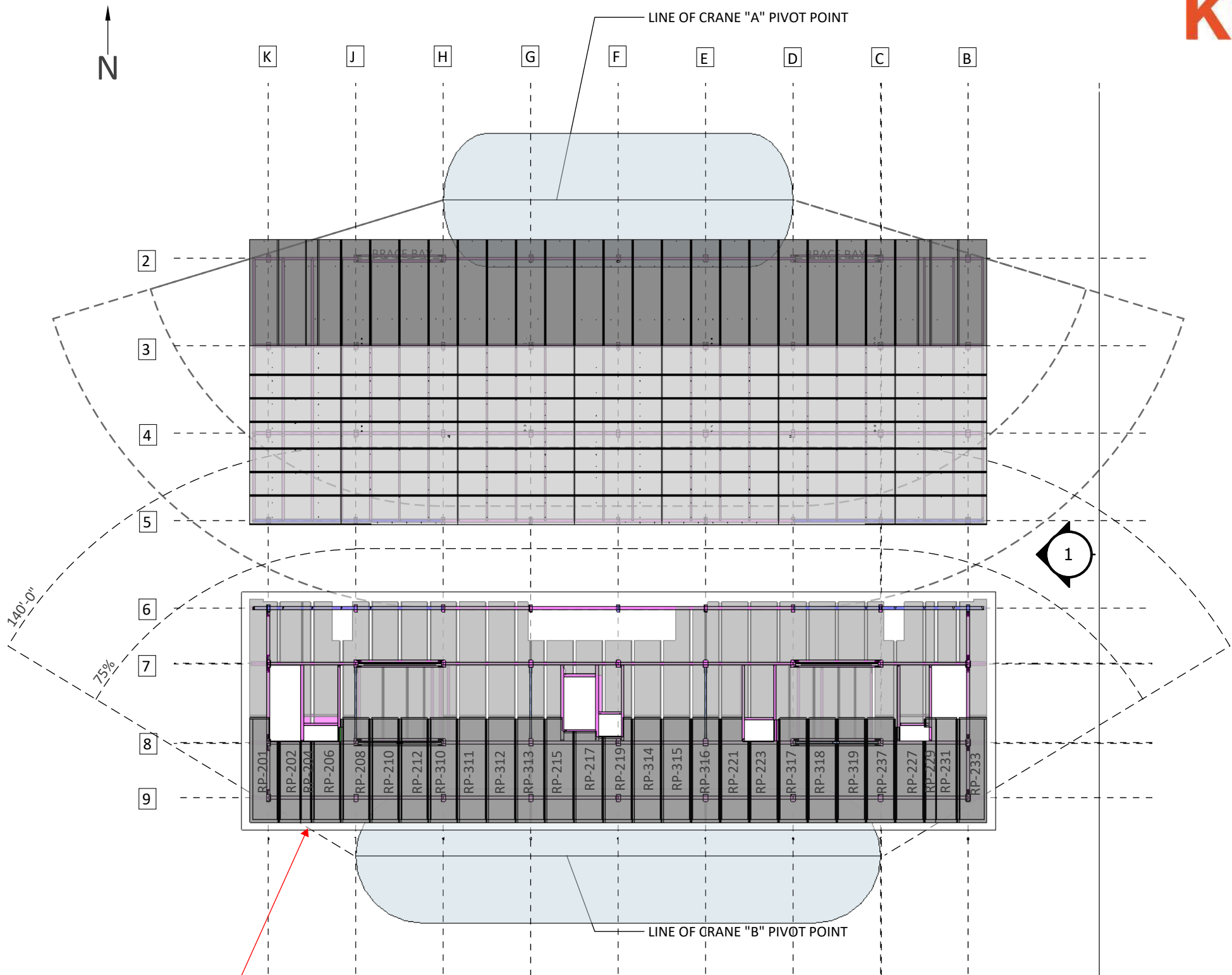
DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
B-LVL RF CLT



B - MEMBER NAME	WEIGHT LB
RP-201	10,504
RP-202	6651
RP-204	3449
RP-206	9032
RP-208	11,252
RP-210	11,243
RP-212	11,254
RP-310	11,270
RP-311	11,273
RP-312	11,273
RP-313	11,270
RP-215	10,689
RP-217	9750
RP-219	9956
RP-314	11,247
RP-315	11,273
RP-316	11,258
RP-221	10,853
RP-223	8910
RP-317	11,270
RP-318	11,248
RP-319	11,248
RP-237	11,245
RP-227	9511
RP-229	4045
RP-231	8549
RP-233	11,324



Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

2 BUILDING PLAN

LEGEND	
	= TIMBER BRACING AS PER K005/K006
	= SCISSOR LIFT DRIVE AISLE
	= RATCHET STRAP CONNECTION
	= CABLE BRACING AS PER K008/K009

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REV DATE

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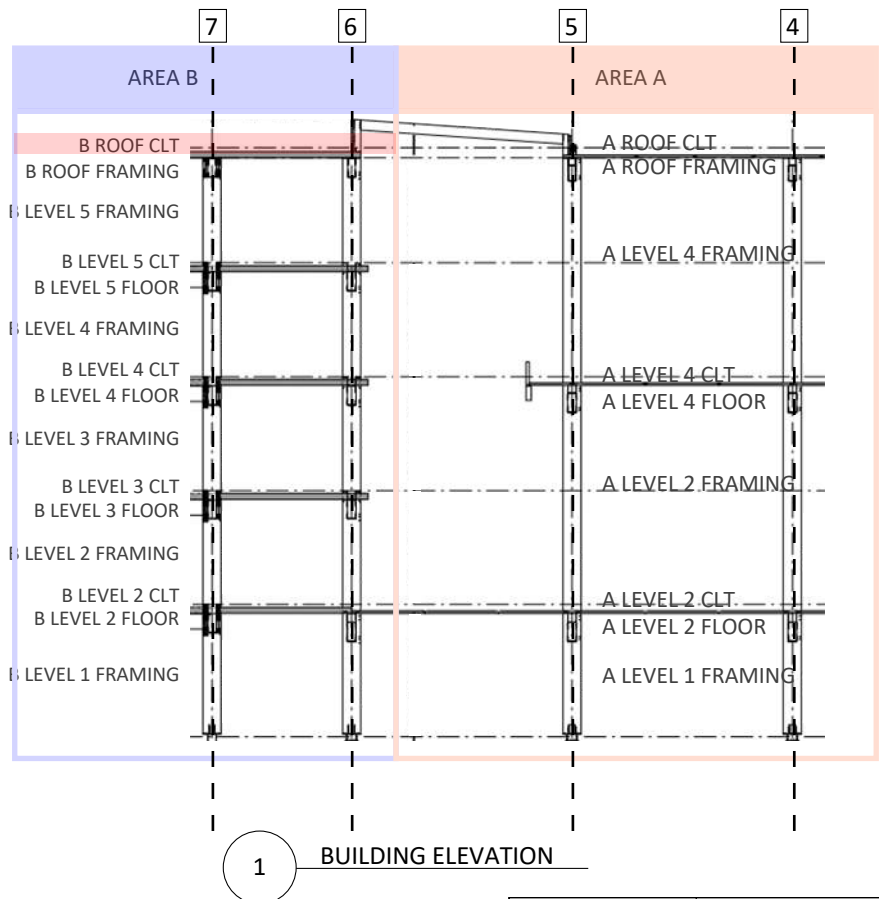
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DRAWN BY
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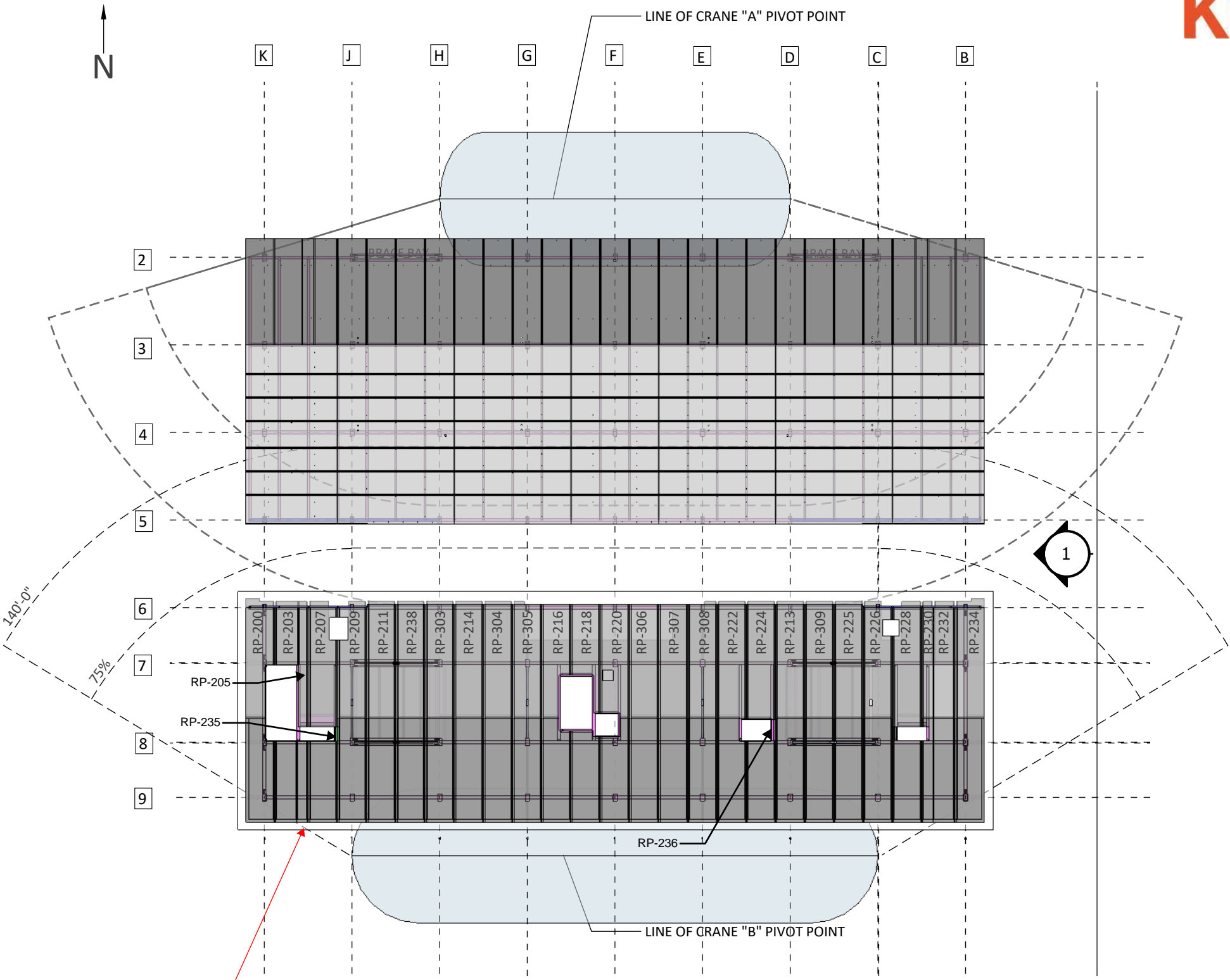
DESIGNED BY
JZ

DESCRIPTION
B-LVL RF CLT

K713



B - MEMBER NAME	WEIGHT LB
RP-200	7925
RP-203	3882
RP-207	9222
RP-209	8509
RP-211	9467
RP-238	9484
RP-303	9497
RP-214	9493
RP-304	9498
RP-305	9461
RP-216	8024
RP-218	6535
RP-220	8883
RP-306	9498
RP-307	9498
RP-308	9451
RP-222	9518
RP-224	9618
RP-213	9495
RP-309	9474
RP-225	9482
RP-226	8698
RP-228	9429
RP-230	3599
RP-232	6992
RP-234	9192



Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

2 BUILDING PLAN

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ← → = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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REV	DATE
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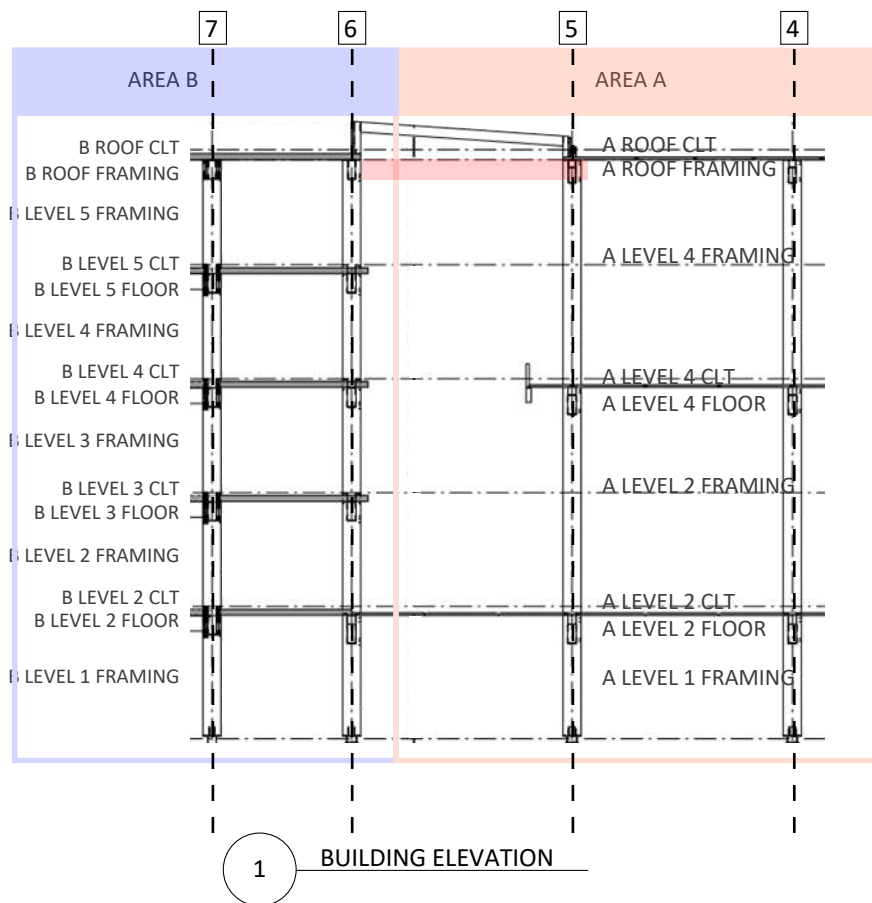
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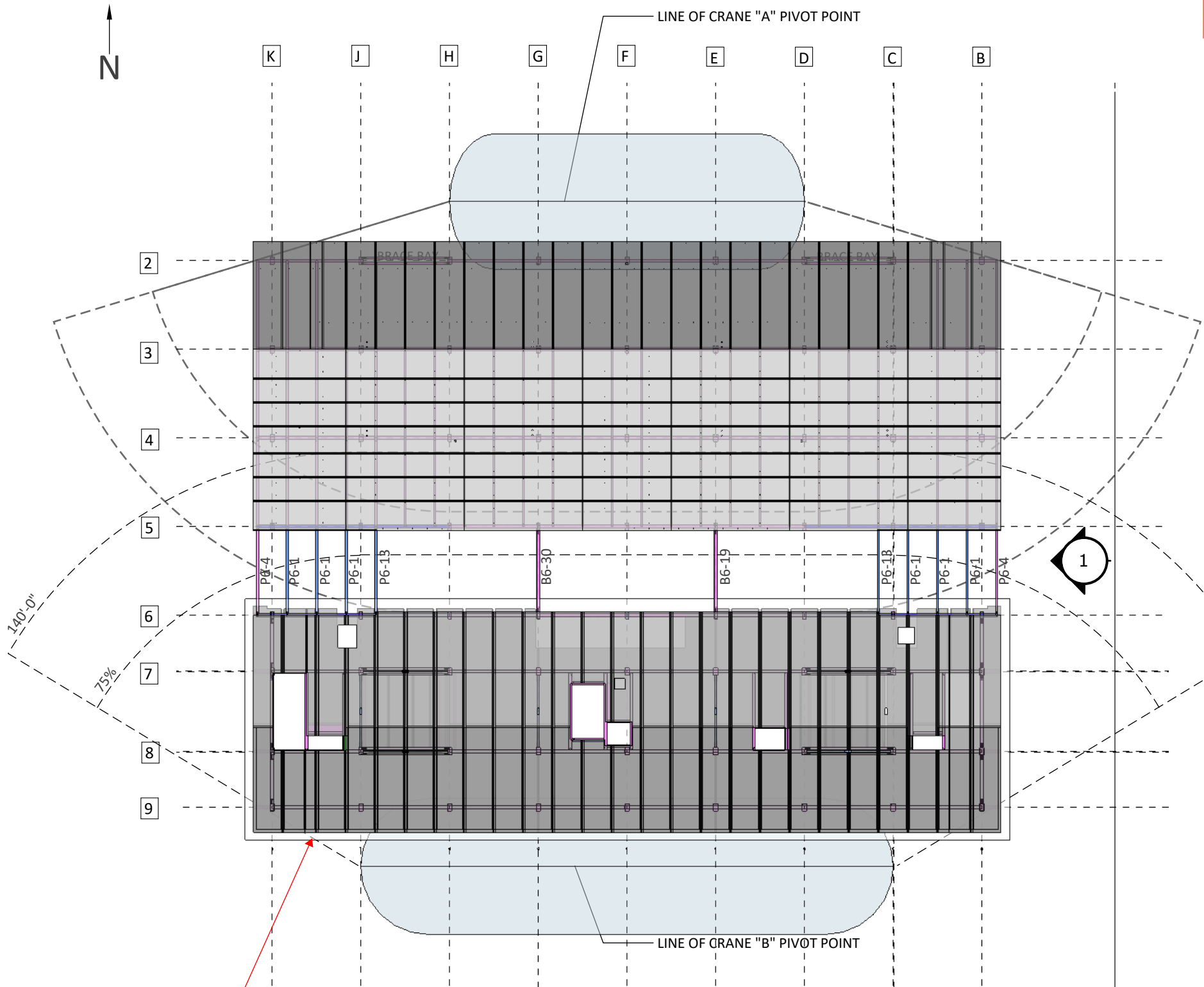
DRAWN BY
JZ

DESIGNED BY
JZ

DESCRIPTION
A/B LVL RF FRM



B - MEMBER NAME	WEIGHT LB
P6-4	1270
P6-1	1191
P6-13	1191
B6-30	2248
B6-19	2248



Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ←→ = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009

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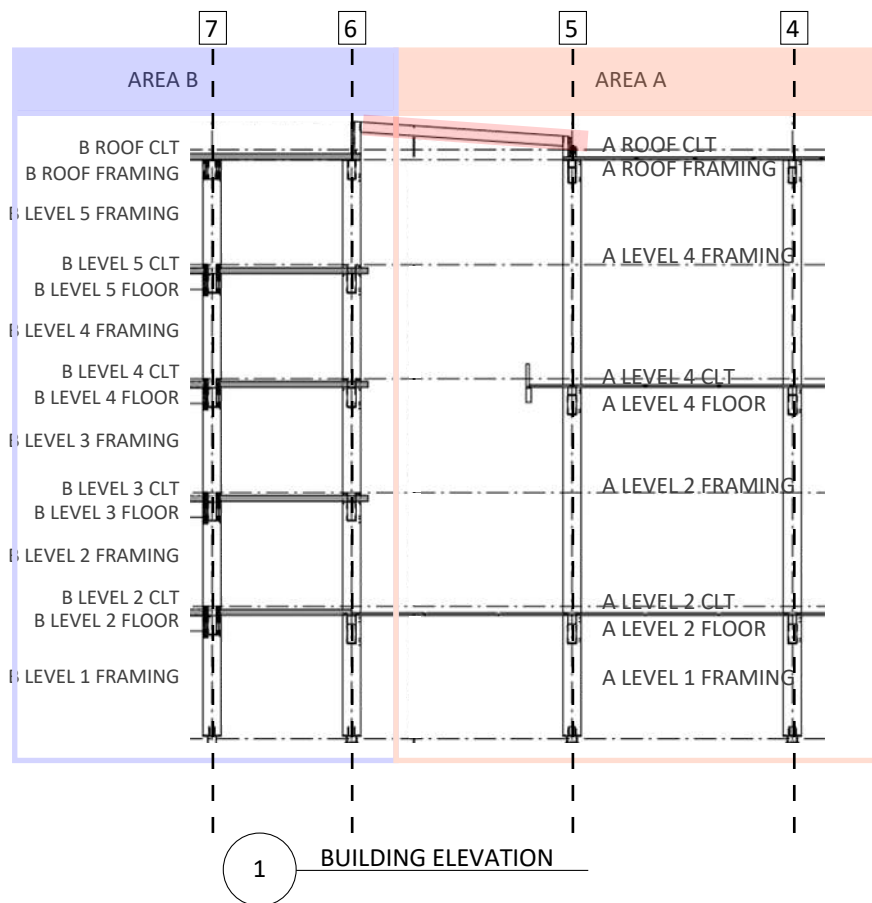
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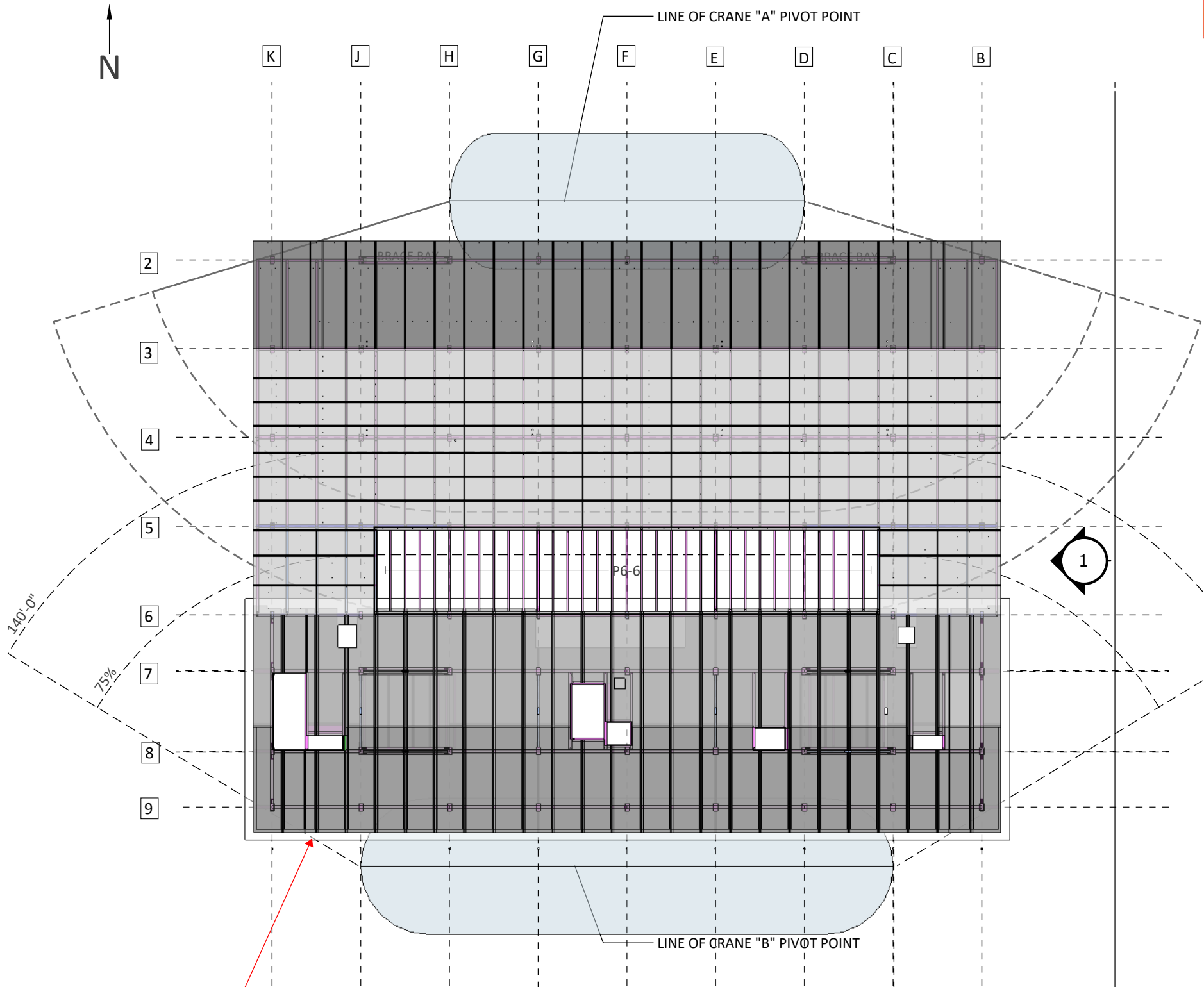
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JZ

DESCRIPTION
A/B SKYLIGHT
RAFTERS



1 BUILDING ELEVATION

B - MEMBER NAME	WEIGHT LB
P6-6	696

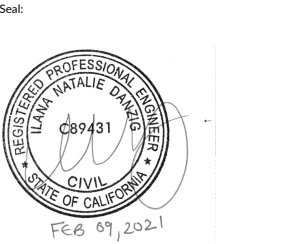


2 BUILDING PLAN

Pre-setting TCC panel edges at GL's 10 and 11 to EOR's specified camber prior to pouring concrete by others

LEGEND

- = TIMBER BRACING AS PER K005/K006
- ←→ = SCISSOR LIFT DRIVE AISLE
- = RATCHET STRAP CONNECTION
- = CABLE BRACING AS PER K008/K009



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2020-09-22	Issued for Coordination	-
2020-09-29	Issued for Coordination	-
2020-10-06	Issued for Coordination	-
2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step 7 Bracing

Scale:
NTS

Drawn:
Designed:
Checked:

ME
ME
AG/ID

Drawing No.:
Revision No.:

Erection Sequence

Erection Step	Procedure
E7	<p>E7.1: Block out gap between glulam columns & steel brace frame columns on level 4. Wrap truck straps around columns. Remove timber bracing on level 4. * Note: Level 4 permanent steel braces are now fully engaged and level 5 deck can now be classified as "Medium Duty", therefore, scissor lifts can now be driven on deck and material can be staged.</p> <p>E7.2: Install 15' columns on level 5 per sequencing drawings. Brace columns per 15' timber bracing typical detail.</p> <p>E7.3: Install roof deck along with all required strapping per structural drawings. * Note: The roof is now a "Light Duty" deck, therefore no scissor lifts or material staging are permitted on this deck.</p> <p>E7.4: Once roof deck installed, replace 30' column cable bracing with cable cross bracing per typical detail. Ensure all reinforcing screws in column to deck connection, per structural drawing S401, installed prior to installation of temporary cable cross bracing.</p>

LOADING PER ASCE 37-14

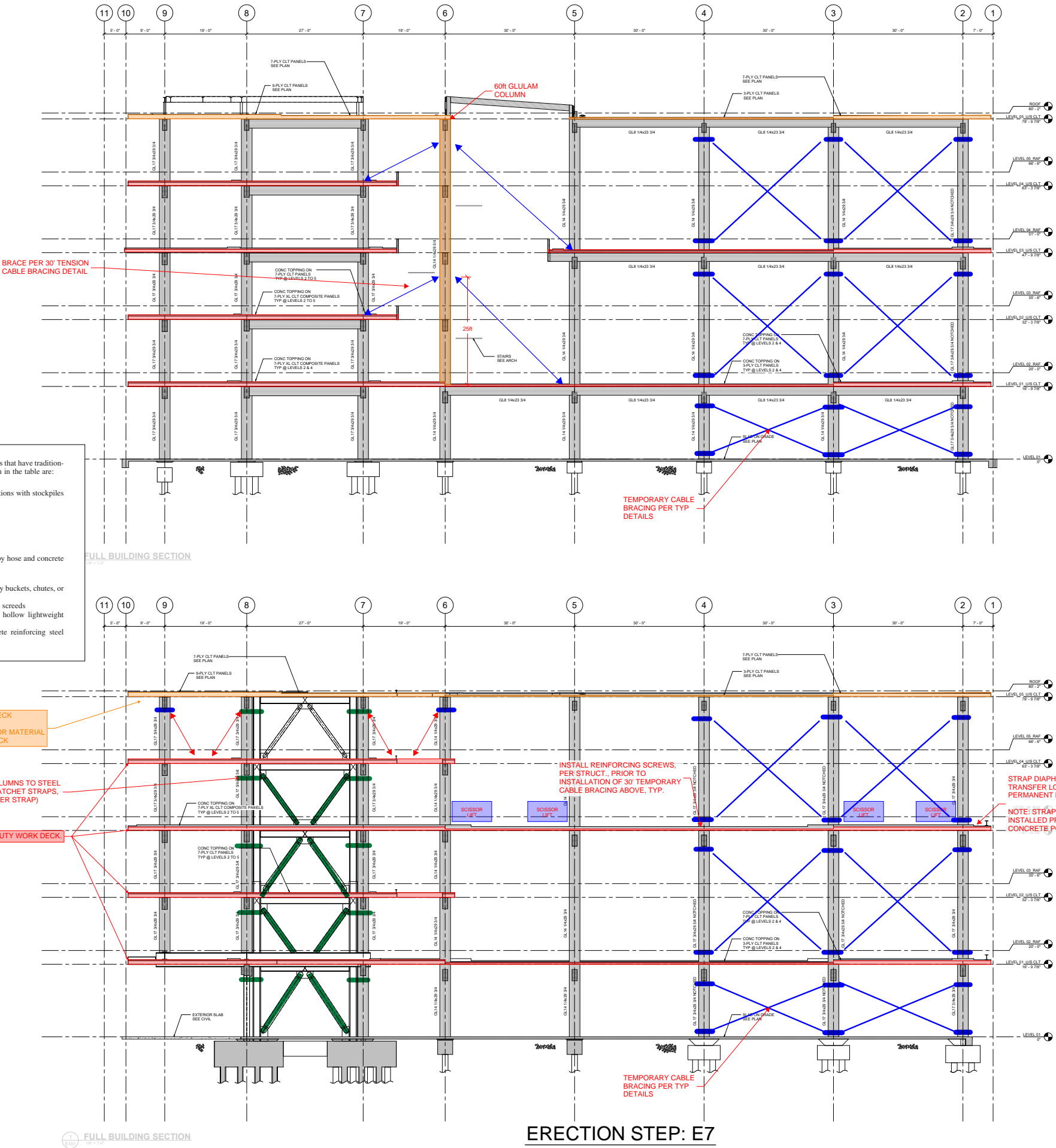
Operational Class	Uniform Load* (psf (kN/m ²))
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
*Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
*Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
*Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)
*Loads do not include dead load, D; construction dead load, C _{dc} , or fixed material loads, C _{fm} . *OSHA categories.	

Examples of construction operations that have traditionally been designed for the loads given in the table are:

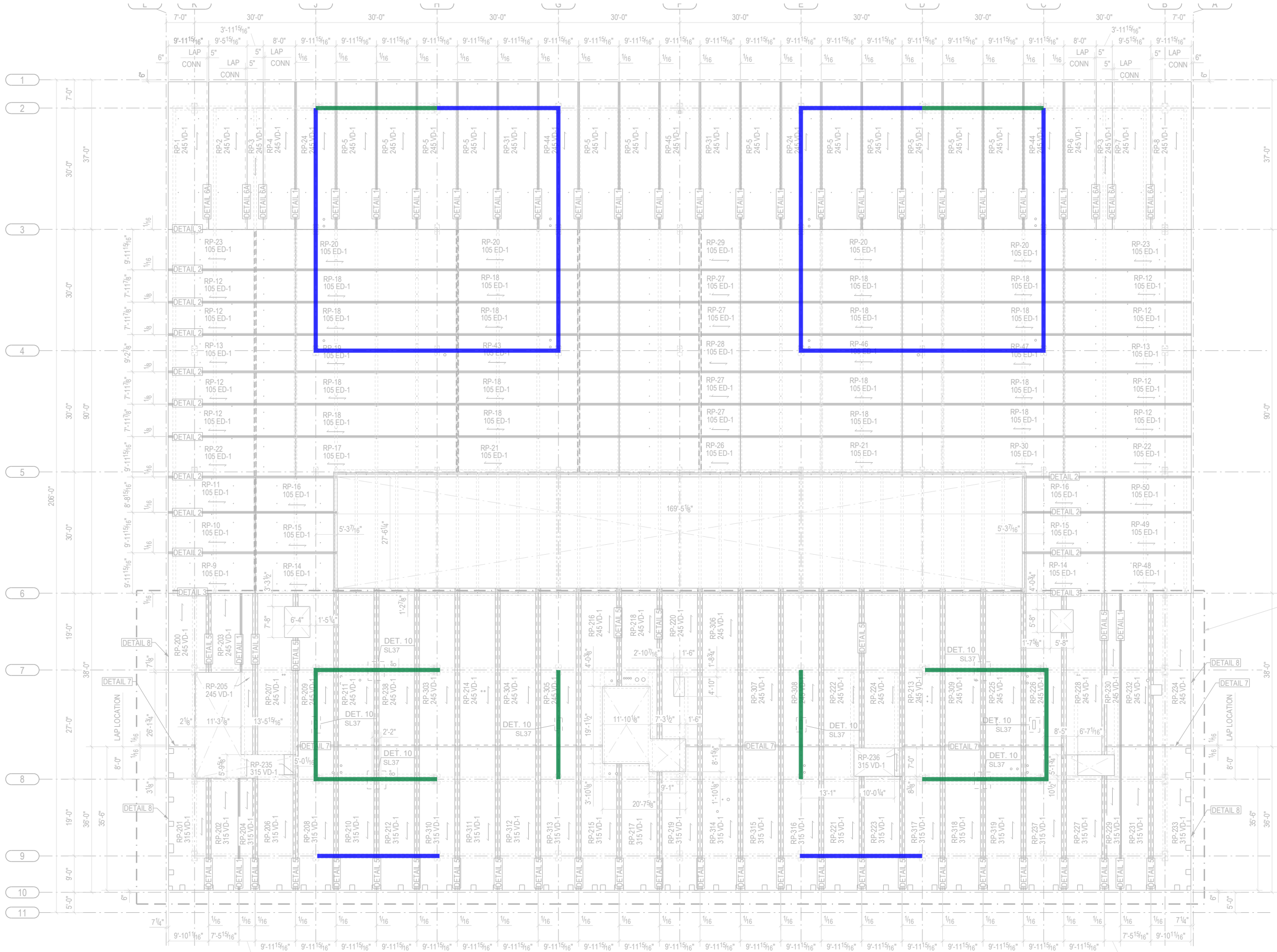
Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Concrete transport and placement by buckets, chutes, or handcrats
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement



ERECTION STEP: E7



LEGEND

— = PERMANENT BRACING

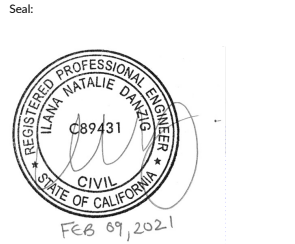
— = PROPOSED TEMPORARY BRACED BAYS



ASPECT

STRUCTURAL ENGINEERS

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hello@aspectengineers.com
101-190 West 3rd Ave.
Vancouver, BC V5Y 1E9
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2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
**Roof Bracing Layout
(Light Duty Deck)**

Scale:
NTS

Drawn:
Designed:
Checked:

ME
ME
AGTD

Drawing No.:
Revision No.:

ROOF BRACING LAYOUT PLAN (LIGHT DUTY DECK)
Scale: NTS

K718

Seal:



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2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:

2020-10-19

Drawing Title:

Erection Step E8 Bracing

Scale:

NTS

Drawn: ME

Designed: ME

Checked: AGID

Drawing No.:

Revision No.: -

K800

LOADING PER ASCE 37-14

Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads

Operational Class	Uniform Load* [psf (kN/m²)]
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
^b Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
^b Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
^b Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)

*Loads do not include dead load, D; construction dead load, C_D, or fixed material loads, C_{FML}.
^bOSHA categories.

Examples of construction operations that have traditionally been designed for the loads given in the table are:

Very Light Duty:

Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

Light Duty:

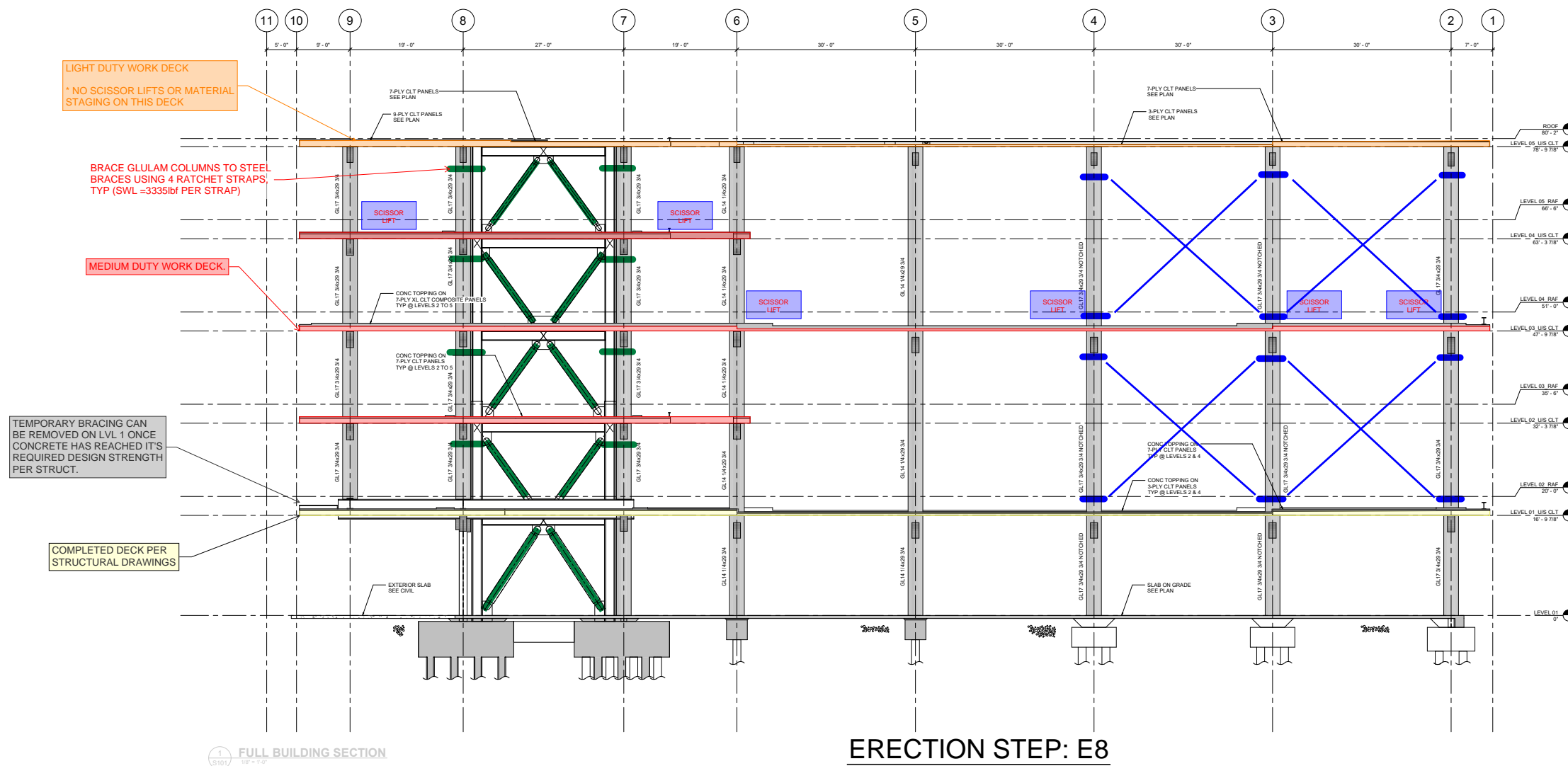
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

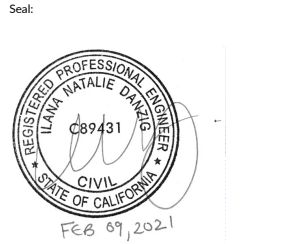
Medium Duty:

Concrete transport and placement by buckets, chutes, or handcars
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement

Erection Sequence

Erection Step	Procedure
E8	E8.1: Block out gap between glulam columns & steel brace frame columns on level 5. Wrap truck straps around columns. E8.2: Replace level 5 timber temporary bracing with cable bracing per typical detail. * Note: Scissor lifts or material staging are not permitted on the roof deck at any time. E8.3: Pour concrete topping on level 2 per structural drawings prior to removing temporary cable cross bracing on level 1.





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2020-10-19	Issued for Construction	-
2020-12-18	Issued for Construction	1
2021-02-09	Issued for Construction	2

Plot Date:
2020-10-19

Drawing Title:
Erection Step E9 Bracing

Scale:
NTS

Drawn: ME
Designed: ME
Checked: AGID

Drawing No.:
Revision No.: -

K900

LOADING PER ASCE 37-14

Table 4-4. Classes of Working Surfaces for Combined Uniformly Distributed Loads	
Operational Class	Uniform Load* [psf (kN/m²)]
Very Light Duty: sparsely populated with personnel, hand tools, very small amounts of construction materials.	20 (0.96)
^b Light Duty: sparsely populated with personnel, hand-operated equipment, staging of materials for lightweight construction.	25 (1.20)
^b Medium Duty: concentrations of personnel, staging of materials for average construction.	50 (2.40)
^b Heavy Duty: material placement by motorized buggies, staging of materials for heavy construction.	75 (3.59)
*Loads do not include dead load, D; construction dead load, C _D , or fixed material loads, C _{FML} . ^b OSHA categories.	

Examples of construction operations that have traditionally been designed for the loads given in the table are:

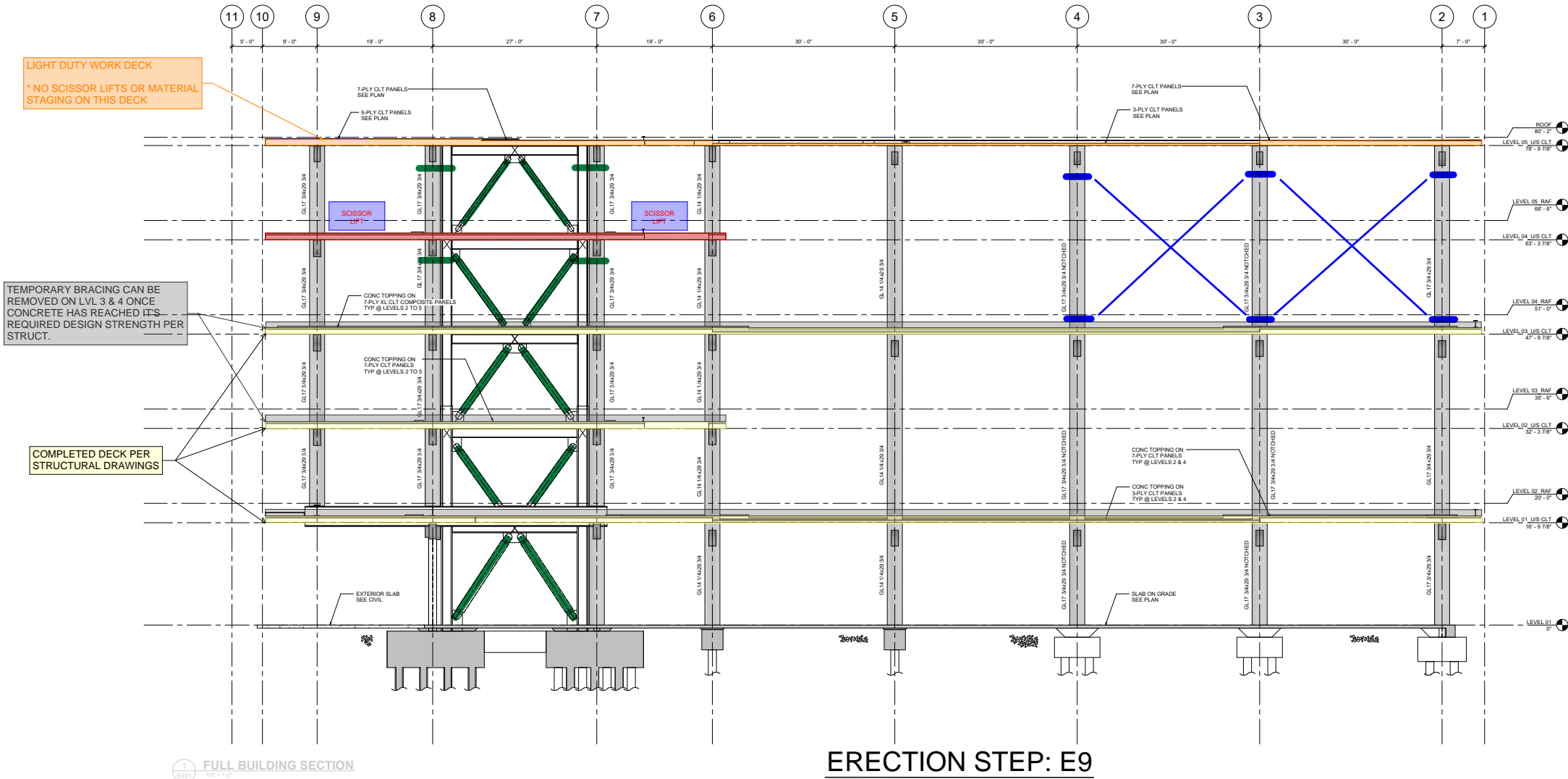
Very Light Duty:
Roofing, reroofing, excepting situations with stockpiles of ballast
Access catwalks
Painting, caulking
Maintenance using hand tools

Light Duty:
Light frame construction
Concrete transport and placement by hose and concrete finishing with hand tools

Medium Duty:
Concrete transport and placement by buckets, chutes, or handcars
Concrete finishing using motorized screeds
Masonry construction with tile or hollow lightweight concrete units
Structural steel erection or concrete reinforcing steel placement

Erection Sequence

Erection Step	Procedure
E9	E9.1: Pour concrete topping on level 3 and 4 per structural drawings prior to removing temporary bracing on level 2.



ERECTION STEP: E9



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Plot Date:
2020-10-19

Drawing Title:
Erection Step E10
Bracing

Scale:
NTS

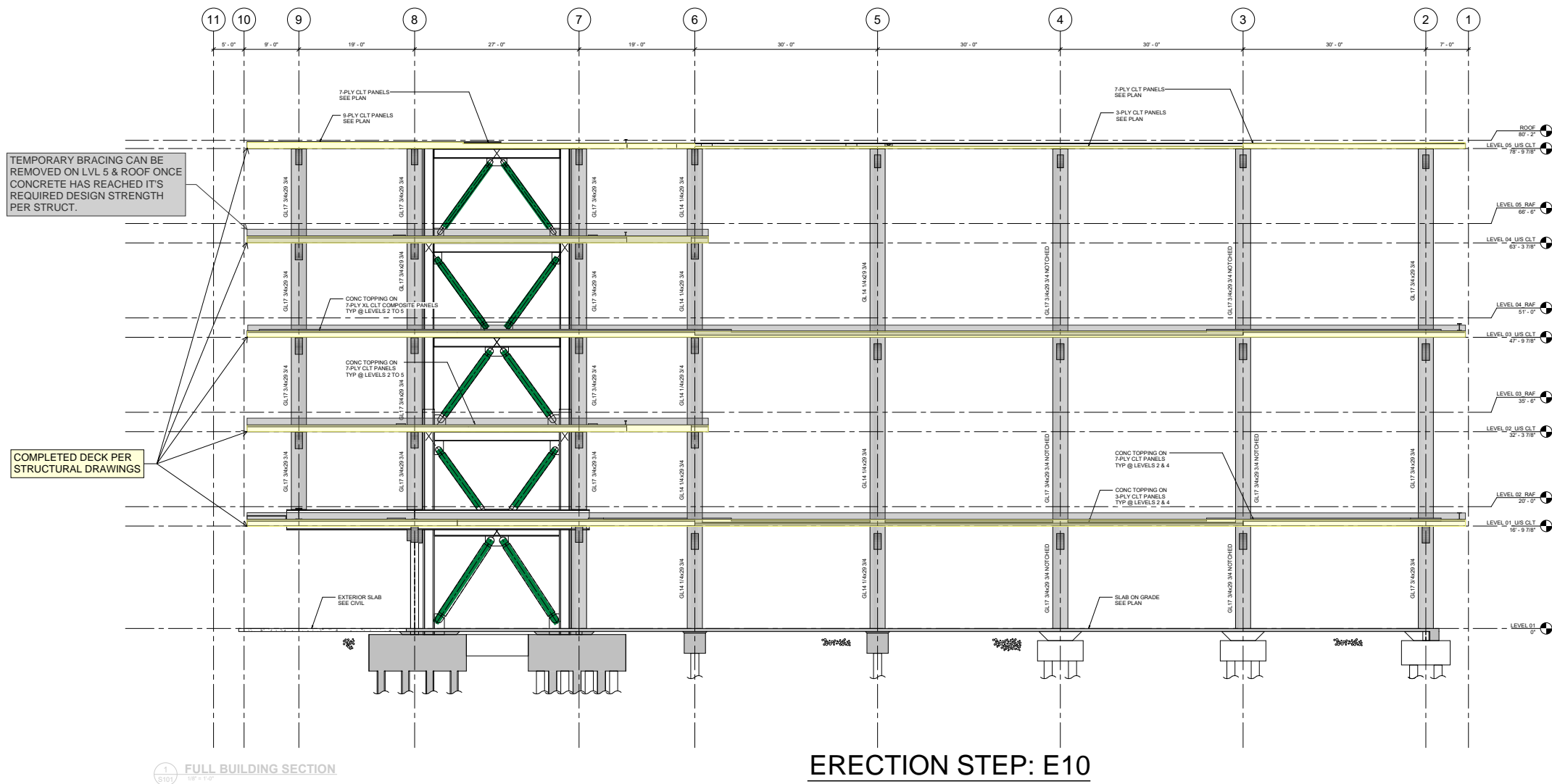
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Designed: ME
Checked: AGID

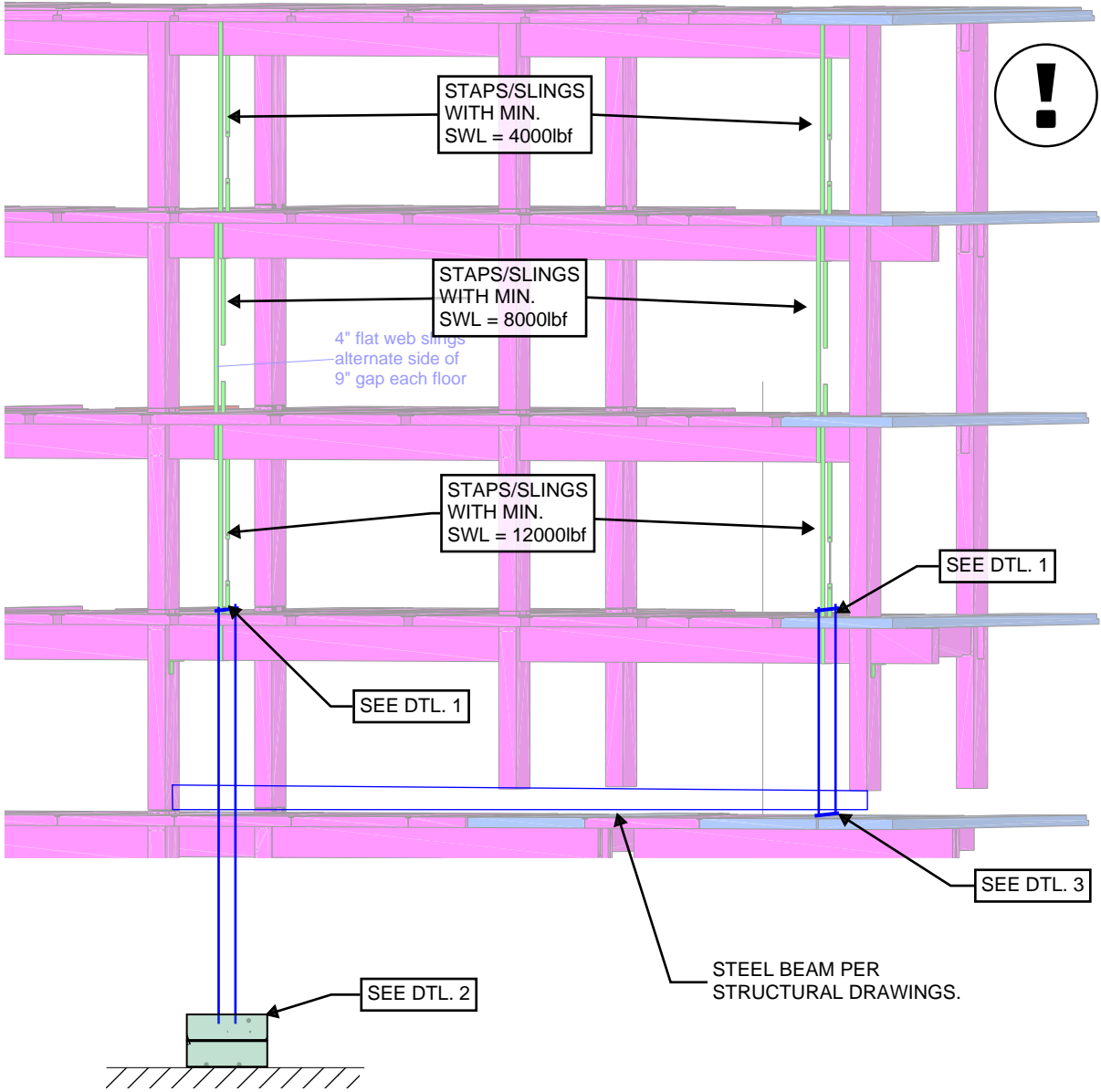
Drawing No.:
Revision No.: -

K1000

Erection Sequence

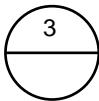
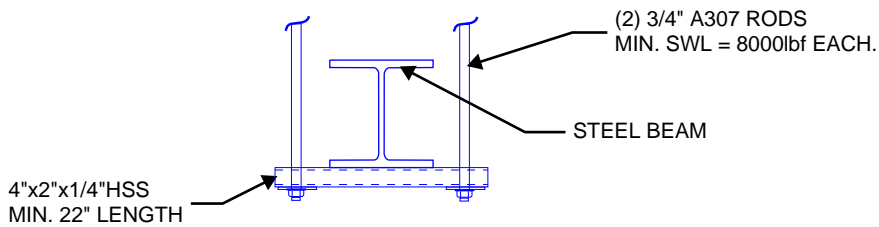
Erection Step	Procedure
E10	E10.1: Pour concrete topping on level 5 and roof per structural drawings prior to removing temporary bracing on level 4. Confirm with EOR prior to removal of temporary bracing.





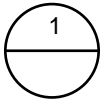
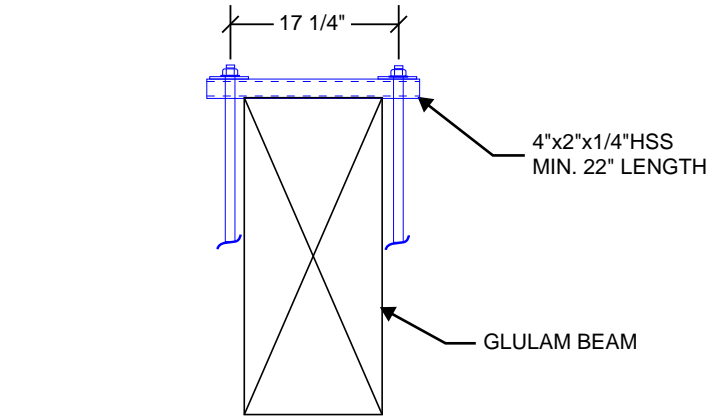
NOTE:

1. THE APPROACH TO RESOLVING THE CAMBER INDUCED IN THE STEEL STRUCTURE IS TO CONFORM THE TIMBER FRAME TO THE INITIAL GEOMETRY OF THE STEEL TO ALLOW INSTALLATION TO PROCEED PRIOR TO THE CONCRETE BEING POURED.
2. THIS APPROACH ALLOWS THE CAMBER TO COME OUT AS MORE DEAD LOAD IS APPLIED TO THE STRUCTURE.
3. AS THE CAMBER COMES DOWN, ALL TEMPORARY LOADS SHOULD GO TO ZERO AND THE RIGGING CAN BE REMOVED.
4. SURVEY ELEVATIONS OF CAMBERED STEEL BEAMS TO CONFIRM TARGET CAMBERS ARE ACHIEVED. NOTIFY ASPECT OF DEVIATIONS > 1/16" ABOVE OR BELOW TARGET DEFLECTION
5. MONITOR FOR GAPS BETWEEN ELEMENTS DURING INSTALLATION AND NOTIFY ASPECT IF OBSERVED.
6. NOTIFY ASPECT WHEN TEMPORARY RIGGING GOES SLACK OR PRIOR TO REMOVAL OF TEMPORARY BRACING.



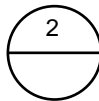
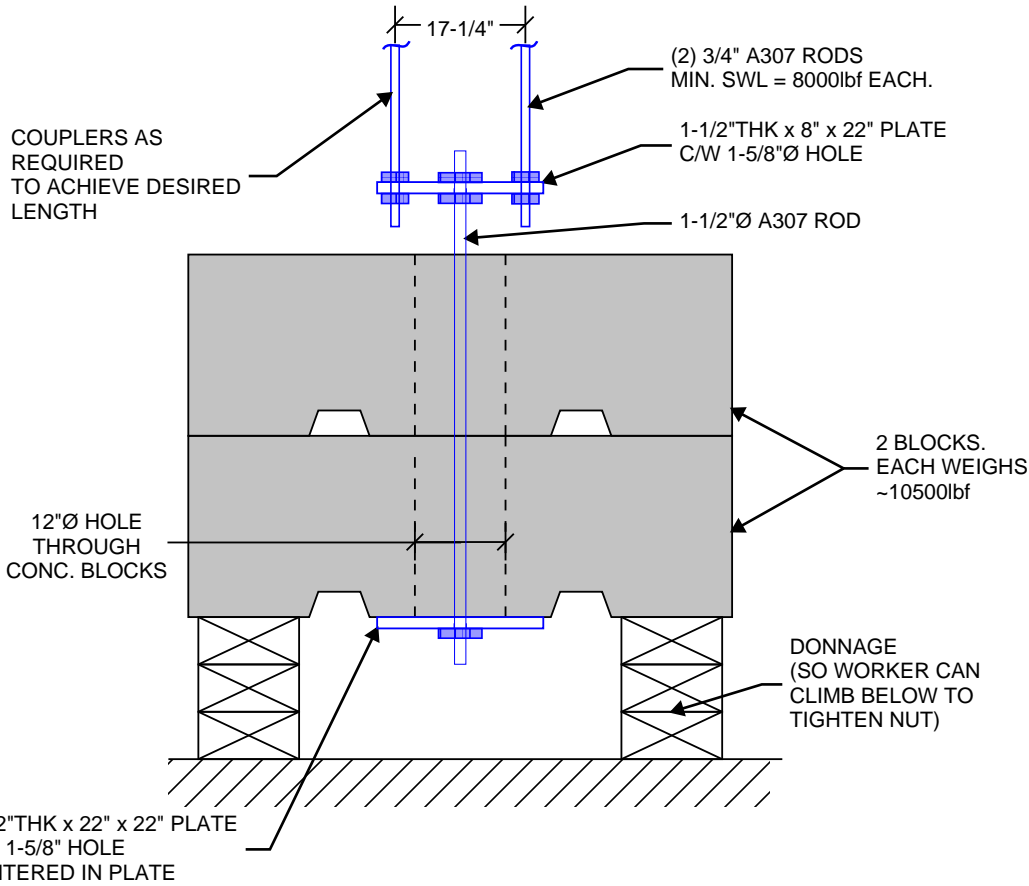
RODS TO STEEL BEAM STRAP AT GL. B-9

Scale: NTS



RODS TO GLULAM BEAM STRAP

Scale: NTS



CONCRETE BLOCK WEIGHT DETAIL AT GL. D-9

Scale: NTS

Kinsol

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Seal:



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Date: 2021-02-09 Revision / Issue: Issued for Construction No.: 2

Plot Date:
2021-02-12

Drawing Title:
Beam Camber Approach

Scale: NTS Drawn: ME Designed: ME Checked: AGID

Drawing No.: Revision No.: -

K1100