

Aug 16, 2017

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Revision/	Description/Description	Date/Date

Client/Client: **CORRECTIONAL SERVICE OF CANADA**

Project title/Titre du projet: **AGASSIZ, BC KENT MAXIMUM SECURITY INSTITUTION MECHANICAL SYSTEM UPGRADE FOR CELL BLOCKS A through H and J & K**

Consultant Signature Box Only
 Designed by/Concept par: **RM**
 Drawn by/Dessiné par: **JG.**
 PWGSC Project Manager/Administrateur de Projets TPSCG: **MARVIN NG**
 PWGSC Regional Manager, Architectural and Engineering Services/ Gestionnaire Régionale, Services d'architecture et de génie, TPSCG: **PREETIPAL PAUL**

Drawing title/Titre du dessin: **TYPICAL LIVING UNIT A TO H MECHANICAL EQUIPMENT ROOM PLANS AND GENERAL NOTES**

Project No./No. du projet	Sheet/Feuille	Revision no./Lo Révision no.
R.077723.001	S1-01	1

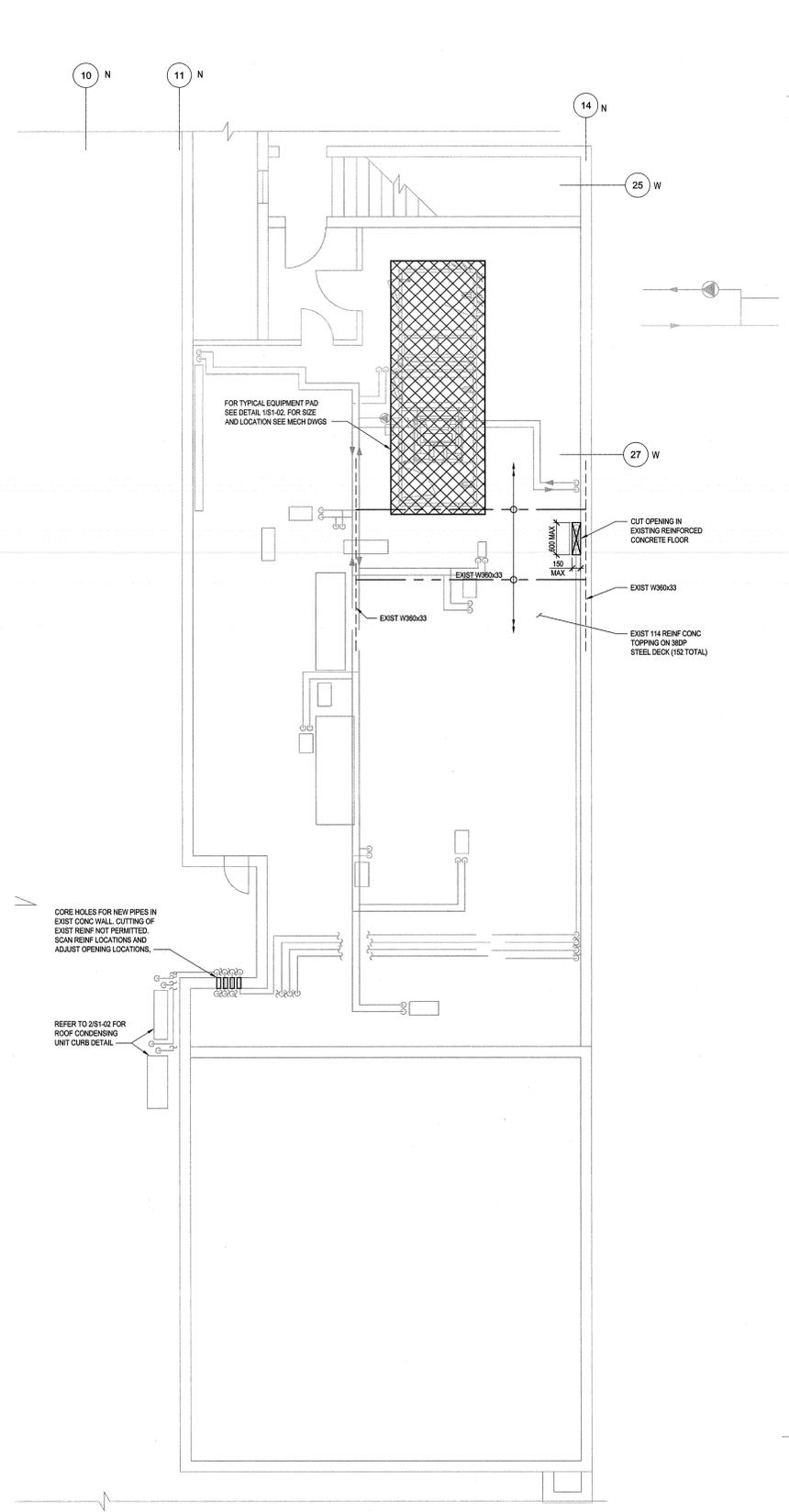


GENERAL NOTES

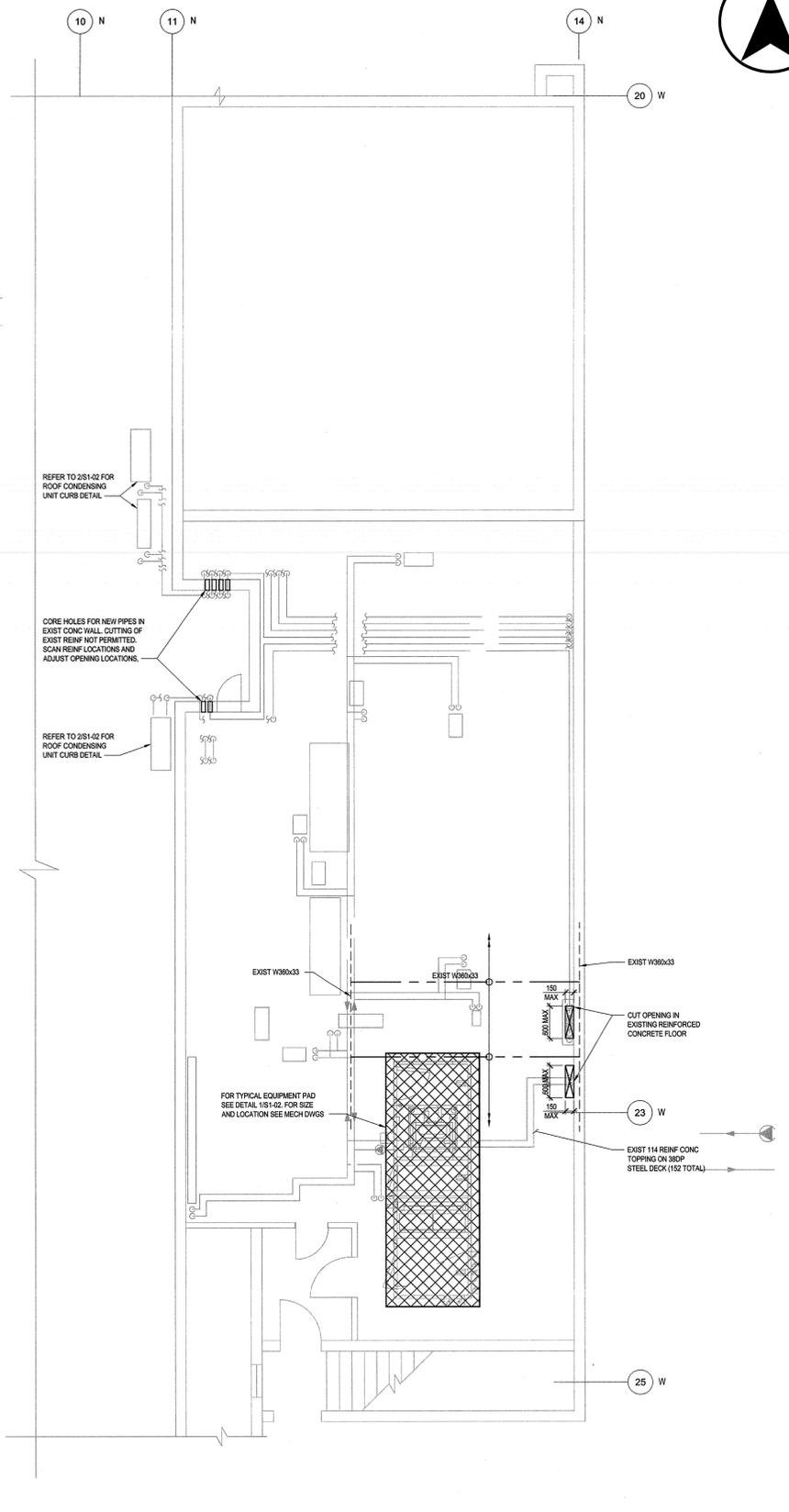
- PRIOR TO CONSTRUCTION, REVIEW STRUCTURAL DRAWINGS IN CONJUNCTION WITH DRAWINGS PROVIDED BY ALL OTHER CONSULTANTS. CONFIRM ALL DIMENSIONS, ELEVATIONS AND HEADROOM CLEARANCES, AND COORDINATE ALL OPENINGS, SLEEVES AND EMBEDDED ITEMS.
- REPORT ANY DISCREPANCIES OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
- DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION FROM DEPARTMENTAL REPRESENTATIVE.
- EXISTING STRUCTURAL INFORMATION IS BASED UPON DRAWINGS PREPARED BY CHOUALOS, WOODBURN, MCKENZIE, MARANDA LTD DATED OCTOBER 4, 1076.
- VERIFY EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO CONSTRUCTION.
- DO NOT SCALE THESE DRAWINGS.
- DRAWINGS SHOW COMPLETED STRUCTURE ONLY. THEY DO NOT SHOW TEMPORARY WORKS FOR WHICH THE CONTRACTOR IS RESPONSIBLE AND WHICH MAY BE REQUIRED FOR EXECUTION OF THE PROJECT, INCLUDING TEMPORARY SHORING, BRACING, GUYS AND TIE DOWNS. THE CONTRACTOR TO ESTABLISH CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE WHOLE STRUCTURE AND ALL ITS COMPONENTS DURING ERECTION.
- DESIGN OF ALL TEMPORARY WORKS TO BE CARRIED OUT BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED.
- ANCHOR BOLTS AND OTHER EMBEDDED ITEMS ARE DESIGNED FOR LOADS ACTING ON THE COMPLETED STRUCTURE ONLY AND ARE NOT TO BE USED OR RELIED UPON FOR TEMPORARY SUPPORT OR BRACING DURING ERECTION UNLESS REVIEWED AND APPROVED BY THE CONTRACTOR'S ENGINEER RESPONSIBLE FOR THE ERECTION PROCEDURES.
- CONSTRUCTION LOADS ON COMPLETED STRUCTURE NOT TO EXCEED DESIGN LOADS INDICATED ON DRAWINGS. FULL DESIGN LOADS MAY ONLY BE APPLIED AFTER THE CONCRETE REACHES ITS DESIGN STRENGTH.
- STRUCTURAL UPGRADING OF THE EXISTING BUILDING IS TO THE GENERAL INTENT OF NATIONAL BUILDING CODE (NBC), SUPPLEMENTED BY THE USER'S GUIDE - NBC 2010 STRUCTURAL COMMENTARIES. THE UPGRADING IS LIMITED TO THE AREA(S) SHOWN ON THESE DRAWINGS. FOR THE REMAINDER OF THE EXISTING BUILDING, THE CURRENT PERFORMANCE LEVEL IS MAINTAINED AND SEISMIC OR OTHER STRUCTURAL EVALUATION AND UPGRADING (INCLUDING UPGRADING TO CARRY GRAVITY LOADS) IS NOT INCLUDED IN THE SCOPE OF THE PROJECT. DEPARTMENTAL REPRESENTATIVE ACCEPTS NO RESPONSIBILITY FOR THE STRUCTURAL ADEQUACY OF THE REMAINDER OF THE EXISTING BUILDING (WHICH REMAINS THE RESPONSIBILITY OF THE ORIGINAL STRUCTURAL ENGINEER), NOR FOR POSSIBLE DETRIMENTAL SEISMIC OR OTHER EFFECTS THE REMAINDER OF THE BUILDING MAY HAVE ON THE RENOVATED AREA(S).
- BASED ON THE USE AND OCCUPANCY, THE BUILDING IS DESIGNED TO THE REQUIREMENTS OF A NORMAL IMPORTANCE CATEGORY.
- SELF WEIGHT (SWT) IS DUE TO THE WEIGHT OF THE STRUCTURE ITSELF. IT VARIES WITH THE STRUCTURAL SYSTEM, AND INCLUDES CONCRETE TOPPING ON STEEL DECK.
- SUPERIMPOSED DEAD LOADS (SDL) ARE NON-STRUCTURAL DEAD LOADS DUE TO NON-STRUCTURAL TOPPING, FINISHES, PARTITIONS, ROOFING MATERIALS, SUSPENDED EQUIPMENT, PAVERS, SOIL, ETC.
- DEAD LOAD (DL) IS THE SELF WEIGHT OF THE STRUCTURE PLUS THE SUPERIMPOSED DEAD LOAD.
- IF ONLY ONE VALUE IS GIVEN FOR A POINT LOAD, CONSIDER IT LIVE LOAD.
- FOR CONNECTION LOADS, "+" SIGN INDICATES TENSION AND "-" SIGN INDICATES COMPRESSION, EXCEPT FOR COLUMN LOADS WHERE "+" SIGN INDICATES COMPRESSION AND "-" SIGN INDICATES TENSION.
- ROOF SNOW LOAD PER EXISTING DRAWINGS: MINIMUM UNFACTORED SNOW LOAD = 2.3 kPa
- WIND LOAD PER EXISTING DRAWINGS: MINIMUM UNFACTORED WIND LOAD = 1.8 kPa
- DESIGN LOADS AS PER EXISTING DRAWINGS ARE AS FOLLOWS:

LOCATION	LL
2ND FLOOR OFFICE	3.6 kPa
LIVING UNITS - CELLS	1.0 kPa
LIVING UNITS - GENERAL	4.8 kPa
OBSERVATION GALLERY	2.4 kPa
SHOPS	28.7 kPa
MECHANICAL ROOMS	4.8 kPa

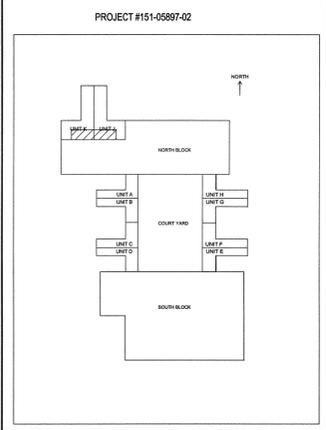
- SEISMIC DATA USED FOR DESIGN OF MECHANICAL UNIT SUPPORTS PER 2015 NBC FOR THE SPECIFIC LOCATION OF AGASSIZ:
 $S_{a1}(0.2) = 0.457$ $PGA = 0.208$
 $S_{a1}(0.5) = 0.384$ $PGV = 0.308$
 $S_{a1}(1.0) = 0.244$ SITE CLASSIFICATION = C (ASSUMED)
 $S_{a1}(2.0) = 0.157$ $I_e = 1.0$
 $S_{a1}(5.0) = 0.057$
 $S_{a1}(10.0) = 0.020$



1 MECHANICAL EQUIPMENT ROOM
 1:50 FOR UNITS B, D, F & H



2 MECHANICAL EQUIPMENT ROOM
 1:50 FOR UNITS A, C, E & G



PROVINCE OF
BRITISH COLUMBIA

R. MASTSCHUCH
2711
SECT. 4111
STRUCTURAL ENGINEER

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KENT MAXIMUM SECURITY
INSTITUTION**

**MECHANICAL SYSTEM
UPGRADE FOR CELL BLOCKS
A through H and J & K**

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Designed by/Concept par
RM

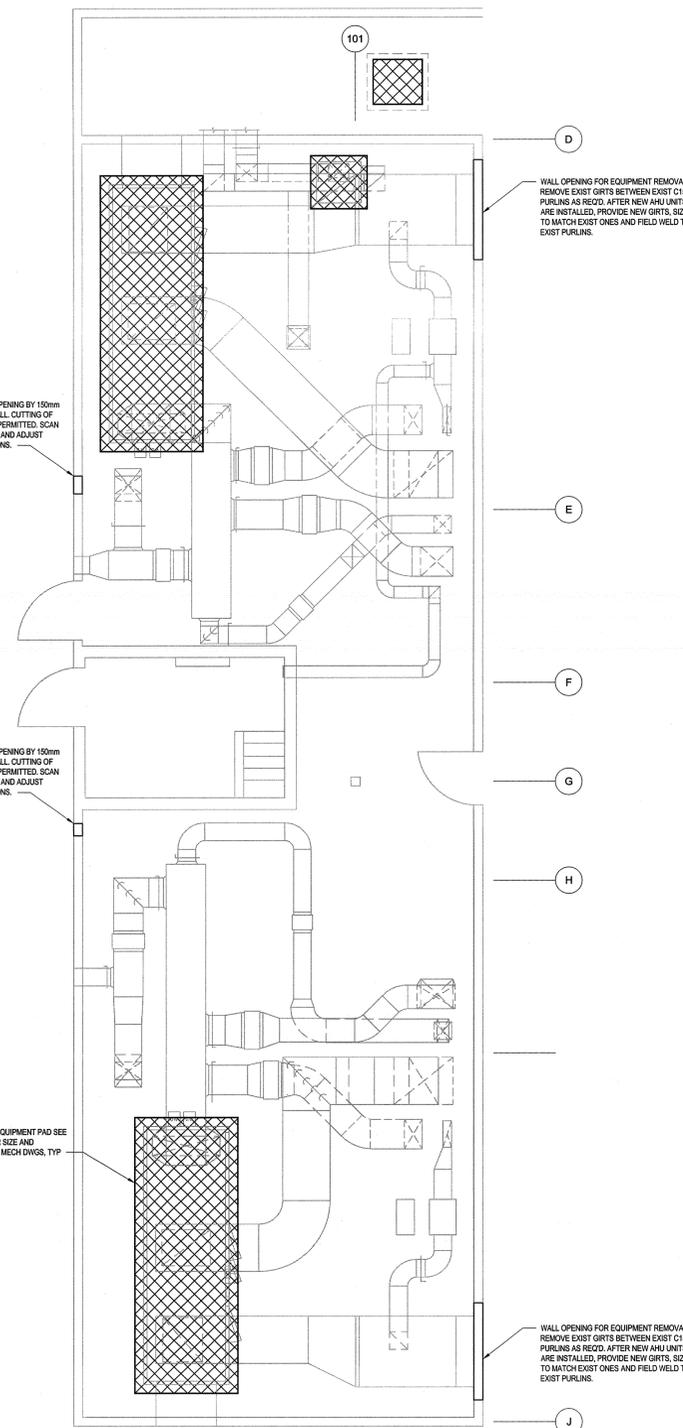
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PWGSC Project Manager/Administrateur de Projets TPSCG
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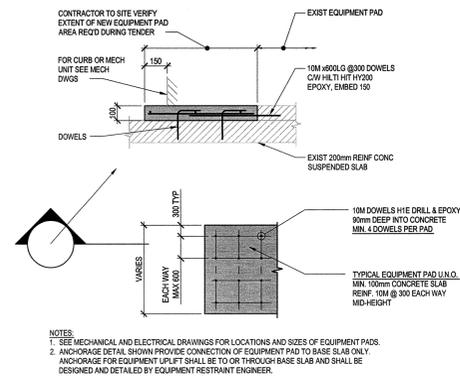
PWGSC Regional Manager, Architectural and Engineering Services/
Gestionnaire régionale, Services d'architecture et de génie, TPSCG
PREETIPAL PAUL

Drawing title/Titre du dessin
**TYPICAL LIVING UNIT J & K
MECHANICAL EQUIPMENT ROOM
PLAN, LIVING UNIT - PARTIAL FLOOR
PLAN & DETAILS**

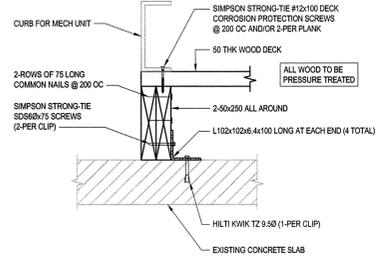
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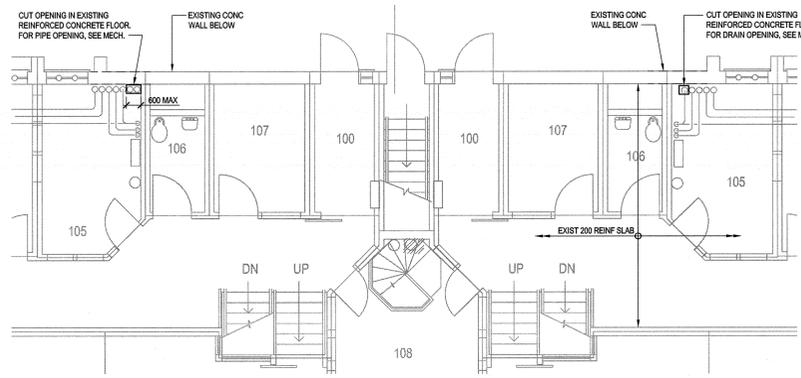
3 MECHANICAL EQUIPMENT ROOM
1:50 FOR UNITS J & K



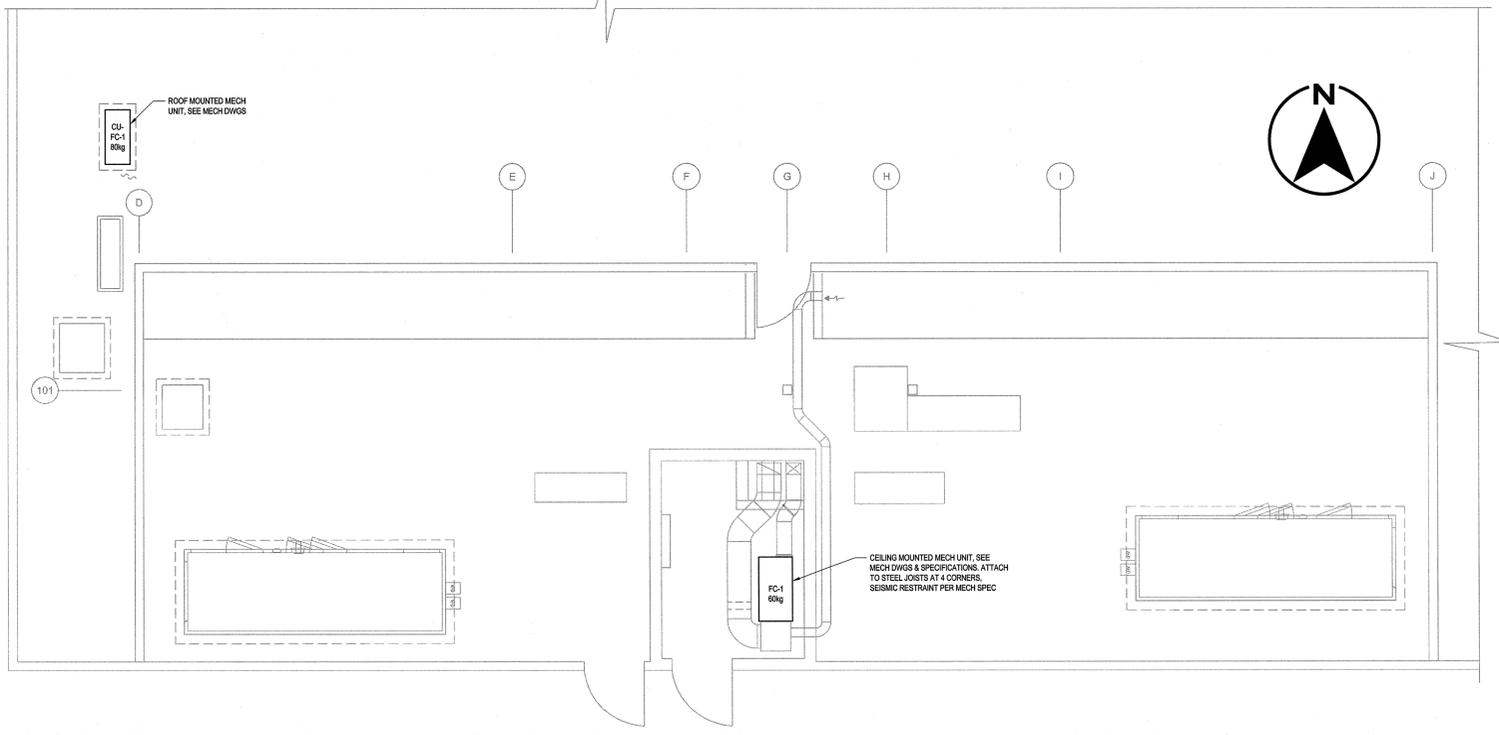
1 TYPICAL EQUIPMENT PAD DETAIL
S1-01 1:20



2 ROOF CONDENSING UNIT CURB DETAIL
S1-01 1:10



4 LIVING UNIT - PARTIAL FLOOR PLAN
1:125 FOR LIVING UNITS A&B, C&D, E&F, G&H



5 UPPER LEVEL CONTROL POST
1:50

