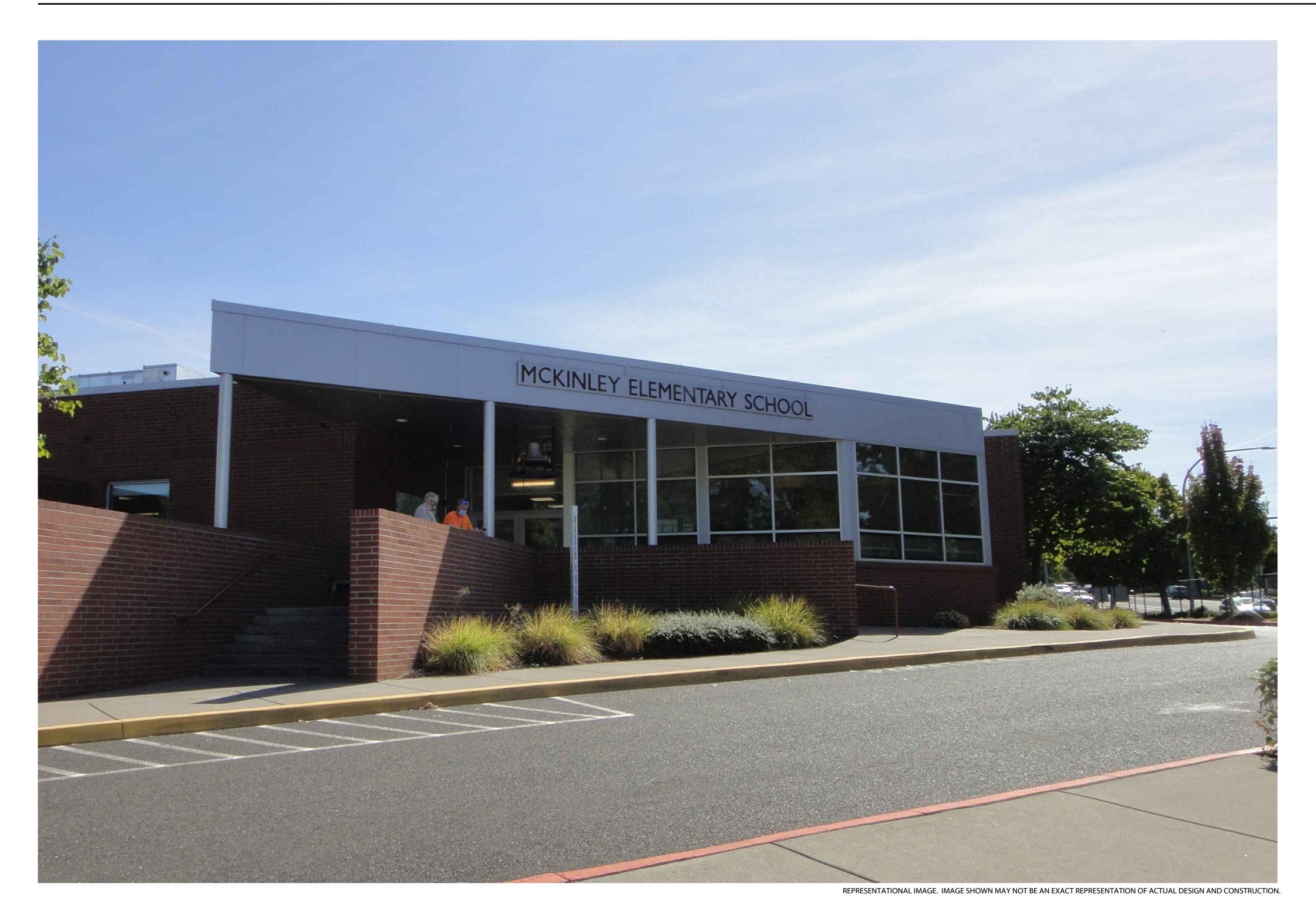
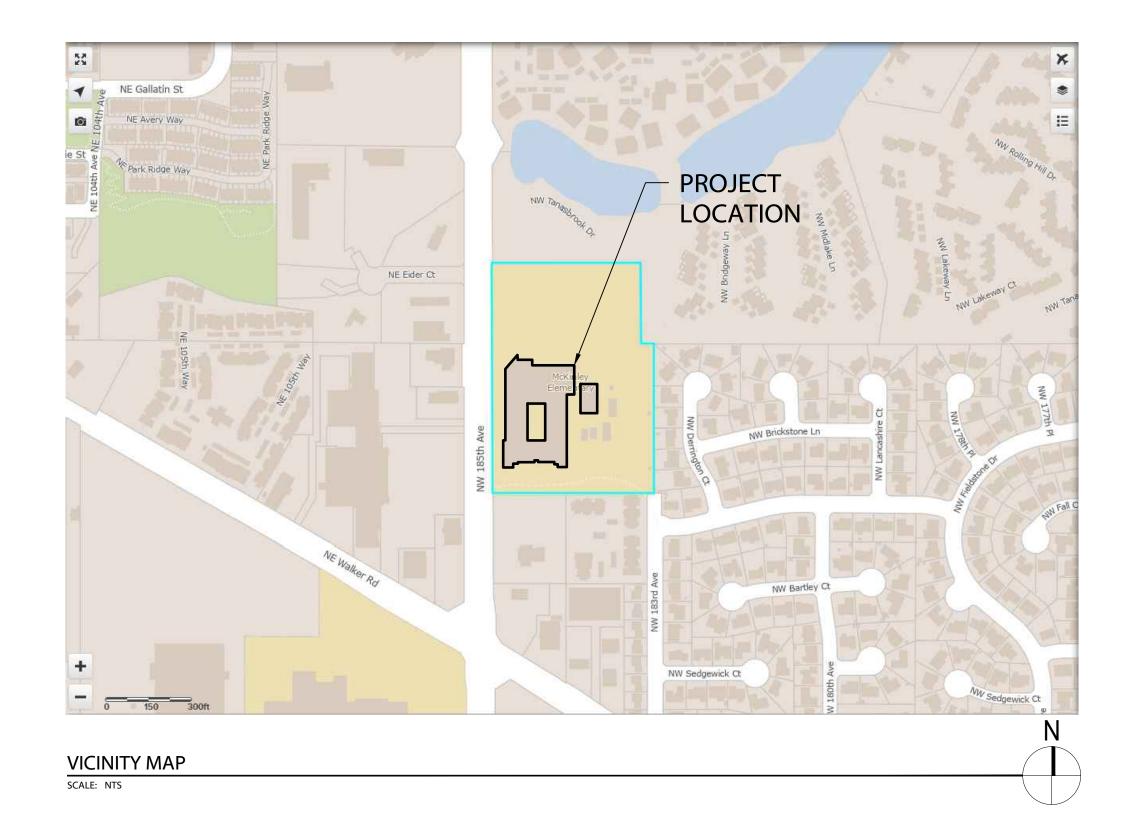
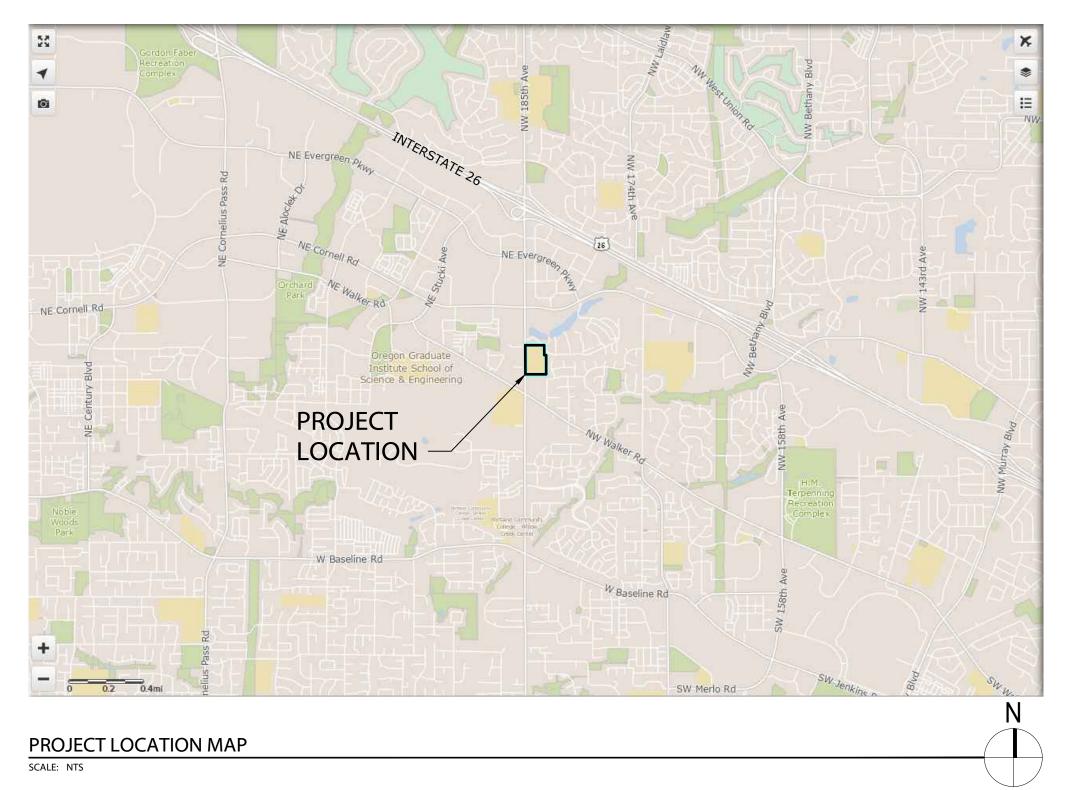
# ROOFING REPLACEMENT BEAVERTON SCHOOL DISTRICT MCKINLEY ELEMENTARY SCHOOL

1500 NW 185TH AVE., BEAVERTON, OR 97006







## PROJECT DESCRIPTION

ARCHITECTURAL SERVICES ASSOCIATED WITH GENERAL BUILDING CONSTRUCTION PROJECTS; RENOVATIONS AND REPAIRS AS ASSIGNED BY THE BEAVERTON SCHOOL DISTRICT IN RESPONSE TO THE VOTER APPROVED BOND MEASURE.

SEISMIC IMPROVEMENTS TO ADDRESS THE SEISMIC PERFORMANCE OF BOTH THE PRIMARY STRUCTURAL SYSTEM AND NON-STRUCTURAL ELEMENTS SUCH AS WALLS, ROOFS, AND CEILINGS. IN ADDITION TO INTERIOR WORK, THERE WILL BE A COMPLETE RE-ROOF AND ROOF-LEVEL SEISMIC STRENGTHENING. WHERE DEVICES, FURNISHINGS, AND OTHER EQUIPMENT MUST BE REMOVED TO PROVIDE ACCESS TO THE WORK, THOSE ITEMS WILL BE SALVAGED AND PROTECTED FOR REINSTALLATION WHENEVER POSSIBLE. ALL NEW FINISHES WILL BE SELECTED TO MATCH OR COMPLEMENT THE EXISTING ADJACENT FINISHES. ADDITIONALLY, THERE WILL BE NONSTRUCTURAL SEISMIC UPGRADES IN BRACING TALL NARROW AND FALL PRONE CONTENTS, CEILINGS, PIPES, DUCTS, LIGHTS, AND EQUIPMENT IN THE BUILDING.

REMOVAL AND REPLACE THE EXISTING LOW-SLOPE BUILT UP ROOF ASSEMBLY PER ROOFING ASSESSMENT RECOMMENDATIONS WITH NEW BUILT UP ROOF ASSEMBLY WITH ADDED INSULATION. WORK INCLUDES NEW ASSOCIATED FLASHINGS, GUTTERS, DOWNSPOUTS, FASCIA'S, CURBS AND COUNTER-FLASHING FOR MECH. EQUIPMENT, NEW SKYLIGHTS, ROOF ACCESS LADDER, ROOF HATCH GUARDRAIL AND FALL RESTRAINT SYSTEM IDENTIFIED ON PLANS. CONTRACTOR TO REPLACE EXISTING ROOF SYSTEMS DAMAGED FROM WATER INTRUSION AS REQUIRED FOR NEW SCOPE OF WORK INCLUDING, BUT NOT LIMITED, TO SHEATHING, INSULATION, CURBS, BLOCKING, ROOF FLASHING, ETC.

#### **PROJECT INFORMATION**

ADDRESS:	1500 NW 185TH AVE. BEAVERTON, OR 97006
PROPERTY ID:	W341960
STATE ID:	1N131BC - 07900
COUNTY:	WASHINGTON
JURISDICTION:	CITY OF BEAVERTON
FIRE DISTRICT:	TUALATIN VALLEY FIRE & RESCUE
DESCRIPTION OF USE:	ELEMENTARY SCHOOL
OCCUPANCY CLASSIFICATION:	EDUCATION (E)
AREA (APPROX.):	PROPERTY: 9.94 ACRES (PORTLAND MAPS) BUILDING: 61,265 S.F. (PORTLAND MAPS)
YEAR BUILT:	1956, 1962, 1964, 1970, 1974, 2008, 1992

#### DEFERRED PERMIT (DESIGN BUILD) ITEMS

FOR DEFERRED PERMIT ITEMS, SEE No. 20 UNDER GENERAL NOTES ON SHEET G-001.

PROJECT TEAM		
OWNER:	BEAVERTON SCHOOL DISTRICT 48 16550 SW MERLO ROAD BEAVERTON, OR 97003 PHONE: (503) 356-4500	
PROJECT MANAGER:	BEAVERTON SCHOOL DISTRICT 48 FACILITIES DEVELOPMENT 16550 SW MERLO ROAD BEAVERTON, OR 97003 PHONE: (503) 356-4500 CONTACT: CHRISTOPHER HANSEN	
ARCHITECT:	AXIS DESIGN GROUP ARCHITECTURE & ENGINEERING, INC. 11104 S.E. STARK STREET PORTLAND, OR 97216 PHONE: (503) 284-0988 CONTACT: STEVEN EGGLESTON	
ROOFING CONSULTANT:	CERTA BUILDING SOLUTIONS, INC. 1510 SE 44TH AVE, STE 102 PORTLAND, OR 97215 PHONE: (206) 941-6953 CONTACT: DAN RUNDLE	
STRUCTURAL ENGINEER:	HOLMES 555 SE MLK JR BOULEVARD, STE 602 PORTLAND, OR 97214 PHONE: (503)673-9323 CONTACT: JENNIFER EGGERS	
MEP ENGINEER:	PAE ENGINEERS 522 SW 5TH AVE, SUITE 1500 PORTLAND, OREGON 97204 PHONE: (503) 542-0540 CONTACT: ROBERT SMITH	

### APPLICABLE CODES

WORK TO COMPLY WITH CURRENT FEDERAL, STATE, COUNTY, CITY BUILDING & ADA CODES & REGULATIONS.

OREGON BUILDING CODES:

- 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
   2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)
- 3. 2019 OREGON FIRE CODE (OFC)
- 4. 2019 OREGON MECHANICAL SPECIALTY CODE (OMSC)
- 5. 2021 OREGON PLUMBING SPECIALTY CODE (OPSC)
- 6. 2021 OREGON ELECTRICAL SPECIALTY CODE (OESC)

#### SEPARATE PERMITS (DESIGN BUILD) ITEMS

FOR SEPARATE PERMITS PROCEDURE, SEE NO. 20 UNDER GENERAL NOTES ON SHEET G-001.

- 1. ROOFTOP CABLE FALL PROTECTION SYSTEM: DESIGN OF FALL PROTECTION SYSTEM, INCLUDING ANALYSIS OF ALL COMPONENTS INCLUDING BUT NOT LIMITED TO BRACKETS, SUPPORTS AND ANCHORS.
- DESIGN OF SEISMIC COMPONENT OF STRUCTURAL SUPPORTS AND ANCHORS FOR:
   3.1. EQUIPMENT, DUCTWORK, POWER & SIGNAL RACEWAYS & BOXES, LIGHTING, COMMUNICATION PATHWAYS AND OTHER ITEMS INDICATED ON THE DRAWINGS.
- SEISMIC CONTROLS: HVAC PIPING AND EQUIPMENT.
   SEISMIC CONTROLS: RACEWAYS AND ELECTRICAL EQUIPMENT

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SHEET I		00% SD
SHEET NO.	SHEET TITLE	
GENERAL		
G-000	SHEET INDEX, PROJECT DESCRIPTION AND PROJECT INFO.	
G-001	GENERAL NOTES	
STRUCTURA		
S-001 S-002	GENERAL STRUCTURAL NOTES GENERAL STRUCTURAL NOTES, CONTINUED	
S-010	SPECIAL INSPECTIONS AND TESTING REQUIREMENTS	
S-101	BUILDING YEAR PLAN	
S-102	PERFORMANCE OBJECTIVE PLAN	
S-121.1	FOUNDATION / FLOOR FRAMING PLAN - SECTOR 1	
S-121.2	FOUNDATION / FLOOR FRAMING PLAN - SECTOR 2	
S-121.3	FOUNDATION / FLOOR FRAMING PLAN - SECTOR 3	
S-121.4	FOUNDATION / FLOOR FRAMING PLAN - SECTOR 4	
S-161.1	ROOF FRAMING PLAN - SECTOR 1	
S-161.2	ROOF FRAMING PLAN - SECTOR 2	
S-161.3	ROOF FRAMING PLAN - SECTOR 3	
S-161.4	ROOF FRAMING PLAN - SECTOR 4	
S-501	CONCRETE DETAILS	
S-701	STEEL FRAMING DETAILS	
S-801	WOOD FRAMING DETAILS	
S-802	WOOD FRAMING DETAILS	
ARCHITECTU	IRΔI	
A-011	ABBREVIATIONS, SYMBOLS & MAT HATCHES	
A-121	OVERALL FLOOR PLAN	
A-121.1	ENLARGED FLOOR PLAN - SECTOR 1	
A-121.2	ENLARGED FLOOR PLAN - SECTOR 2	
A-121.3	ENLARGED FLOOR PLAN - SECTOR 3	
A-121.4	ENLARGED FLOOR PLAN - SECTOR 4	
A-151	OVERALL RCP	
A-151.1	ENLARGED RCP - SECTOR 1	
A-151.2	ENLARGED RCP - SECTOR 2	
A-151.3	ENLARGED RCP - SECTOR 3	
A-151.4	ENLARGED RCP - SECTOR 4	
A-161 A-161.1	OVERALL ROOF PLAN ENLARGED ROOF PLAN - SECTOR 1	
A-161.2	ENLARGED ROOF PLAN - SECTOR 2	
A-161.3	ENLARGED ROOF PLAN - SECTOR 3	
A-161.4	ENLARGED ROOF PLAN - SECTOR 4	
A-221	EXTERIOR ELEVATIONS	
A-222	INTERIOR ELEVATIONS	
A-223	INTERIOR ELEVATIONS	
MECHANICA	NL	
M-121	OVERALL FLOOR PLAN	
M-161	OVERALL ROOF PLAN	
PLUMBING		
ELECTRICAL		
E-121	OVERALL FLOOR PLAN	
E-151.4	ENLARGED RCP - SECTOR 4	
E-161	OVERALL ROOF PLAN	
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#### **GENERAL NOTES**

1. GENERAL

- A. DRAWINGS INDICATE THE GENERAL SCOPE OF THE PROJECT IN TERMS OF ARCHITECTURAL DESIGN CONCEPT, DIMENSIONS, AND MAJOR ELEMENTS OF STRUCTURAL SYSTEMS. AS SUCH, THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ON THE BASIS OF GENERAL SCOPE INDICATED OR DESCRIBED, THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.
- B. IN PERFORMING PROFESSIONAL SERVICES FOR THIS PROJECT, AXIS DESIGN GROUP ARCHITECTURE AND ENGINEERING INC. NEITHER ISSUES, EXPRESSES, OR IMPLIES ANY WARRANTIES OR CERTIFICATIONS EXCEPT AS REQUIRED FOR BY GOVERNING JURISDICTIONS.
- C. ALL WORK TO CONFORM WITH CONTRACT DOCUMENTS. NO CHANGES SHALL BE MADE WITHOUT REVIEW BY THE ARCHITECT. WHEN MORE INFORMATION OR AN INTERPRETATION OF THE CONTRACT DOCUMENTS IS NEEDED, THE CONTRACTOR WILL REFER THE MATTER TO THE ARCHITECT WHO WILL FURNISH INFORMATION OR INTERPRETATION IN THE FORM OF SUPPLEMENTAL INFORMATION OR OTHER WRITTEN FORM OR DRAWING.
- D. THE CONTRACTOR SHALL COORDINATE ALL TRADES RELATED TO HIS OR HER WORK. E. INFORMATION RELATING TO THE EXISTING BUILDING IS BASED ON LIMITED EXISTING BUILDING DOCUMENTS AND LIMITED FIELD MEASUREMENTS. ACTUAL CONDITIONS MAY VARY. CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD.
- F. SYSTEMS AND CONDITIONS HIDDEN FROM VIEW ARE BASED ON OWNER PROVIDED AS BUILT DOCUMENTS, HAVE NOT BEEN VERIFIED BY THE ARCHITECT, AND ARE PROVIDED FOR REFERENCE PURPOSES ONLY. ALL SYSTEMS AND CONDITIONS TO BE VERIFIED BY THE GENERAL CONTRACTOR.
- G. ALL WORK SHALL BE PREFORMED WITH PROCEDURES SET FORTH BY PRODUCT MANUFACTURERS STANDARD SPECIFICATIONS OR STANDARD PRACTICE PROCEDURES PUBLISHED BY TRADE ASSOCIATIONS. WHEN SEPARATELY BOUND SPECIFICATIONS ACCOMPANY THESE DRAWINGS THEY SHALL BE CONSIDERED PART OF THESE CONSTRUCTION DOCUMENTS.
- H. LARGE SCALE PLANS OR DETAILS TAKE PRECEDENCE OVER SMALL SCALE PLANS OR DETAILS. I. IF AN ITEM IS INDICATED ON THE DRAWINGS AS (NIC) IT IS "NOT IN THE CONTRACT". SUBSEQUENT DRAWINGS AND SPECIFICATIONS WILL BE SUBMITTED BY OTHERS FOR SEPARATE APPROVAL AND
- PERMITS. J. ANY DETAIL THAT APPLIES TO A SPECIFIC SITUATION SHALL APPLY TO ALL SIMILAR SITUATIONS UNLESS OTHERWISE NOTED.
- K. "TYP" OR "TYPICAL" AS USED IN THESE DOCUMENTS, SHALL MEAN THAT THE CONDITION IS THE SAME THROUGHOUT, UNLESS OTHERWISE NOTED.
- L. ANY SUBCONTRACTOR DESIGNED ITEMS TO BE SUBMITTED TO AND APPROVED BY THE OWNER AND ARCHITECT PRIOR TO CONSTRUCTION.
- M. SPOT ELEVATIONS ARE FROM FLOOR TO FINISH CEILING AND ARE ROUNDED TO NEAREST INCH (TYP).
- N. CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND SHALL COORDINATE ALL CONSTRUCTION EFFORTS WITH OWNER'S REQUIREMENTS.
- O. CONTRACTOR SHALL PROVIDE FOR DUST CONTROL THROUGHOUT. PROVIDE TEMPORARY MEASURES TO VENTILATE ARES DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION TO ERADICATE BUILDUP OF FUMES FROM FINISH MATERIALS AND CONSTRUCTION ACTIVITIES. CONTRACTOR TO MAINTAIN SIX (6) AIR EXCHANGES PER HOUR UNLESS MORE STRINGENT OSHA, STATE OR LOCAL STANDARDS ARE TO BE ADHERED TO.
- P. CONTRACTOR TO NOTIFY THE OWNER UPON DISCOVERY OF ASBESTOS OR ANY OTHER HAZARDOUS MATERIAL DURING THE COURSE OF WORK. ALL WORK SHALL STOP IMMEDIATELY IN AFFECTED AREA UNTIL THE CONDITION IS CORRECTED.
- O. PROVIDE BLOCKING SECURED TO WALL FRAMING FOR ALL CASEWORK, RESTROOM ACCESSORIES, HANDRAIL BRACKETS AND ANY OTHER WALL-MOUNTED ACCESSORIES REQUIRING SUPPORT.

2. CODES

- A. ALL WORK TO COMPLY WITH THE LATEST EDITION OF ALL APPLICABLE CODES AS ADOPTED BY LOCAL AUTHORITIES HAVING JURISDICTION FOR THIS PROJECT ARE AS FOLLOWS: 1. 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC)
- 2. 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC) 3. 2019 OREGON FIRE CODE (OFC)
- 4. ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES 5. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
- 6. 2019 OREGON MECHANICAL SPECIALTY CODE (OMSC) 7. 2021 OREGON PLUMBING SPECIALTY CODE (OPSC)
- 8. 2021 OREGON ELECTRICAL SPECIALTY CODE (OESC)

THE WORK.

- 3. PERMITS A. OTHER THAN THE BUILDING PERMIT, THE GENERAL CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, LICENSES, AND INSPECTIONS REQUIRED FOR THE COMPLETION OF
- 4. COORDINATION AND VERIFICATION
- A. ALL FIELD DIMENSIONS TAKE PRECEDENCE OVER DIMENSIONS ON DRAWINGS.
- B. THE DRAWINGS ARE DIVIDED INTO SEPARATE SHEETS FOR GENERAL CONVENIENCE ONLY. SHEET DESIGNATION OR NUMBERS ARE TO BE CONSIDERED SD LIMITATIONS OF AREAS OF WORK, RESPONSIBILITY OR TRADES. COORDINATE THE WORK SHOWN IN THE DRAWINGS AND IN THE PROJECT MANUAL IN ORDER TO COMPLETE THE PROJECT AS DESIGNED.
- C. LOCATIONS AND SIZES OF EQUIPMENT ARE BASED ON AVAILABLE INFORMATION. PROVIDE AND COORDINATE THE EXACT DIMENSIONS, SIZES AND POSITIONS OF ALL EQUIPMENT, PADS, BASES, MOUNTINGS, ATTACHMENTS AND CONDUIT RELATING TO THE WORK.
- D. PROVIDE AND COORDINATE THE EXACT DIMENSIONS, SIZES AND POSITIONS OF OPENINGS IN SLABS AND WALLS NECESSARY FOR THE INSTALLATION OF THE WORK.
- E. POSITION ALL VALVES CONTROLS AND TERMINATIONS TO BE POSITIONED FOR SAFE, DIRECT AND EASY ACCESS. ALL PIPING AND DUCTWORK TO BE INSTALLED FOR CONVENIENT FUTURE ADDITIONS AND MODIFICATIONS. ITEMS TO BE LABELED PER OWNER REQUIREMENTS.
- F. QUANTITIES LISTED ON THE DRAWINGS ARE APPROXIMATE. CONTRACTOR TO VERIFY QUANTITIES AND INCLUDE ACCURATE QUANTITIES AS PART OF THE WORK.
- G. SPECIFIC NOTES OR KEYNOTES ON DETAILS APPLY TO SIMILAR CONDITIONS ON OTHER DETAILS ON ALL DRAWINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
- H. CONTRACTOR TO REVIEW ADDITIONAL GENERAL REQUIREMENTS IN SPECIFICATION. I. CONTRACTOR TO COORDINATE SCHEDULING OF ALL TENANT RELATED WORK OCCURRING IN ADJACENT SUITES WITH OWNERS REPRESENTATIVE, SECURITY OFFICE, AND ADJACENT TENANTS
- WELL IN ADVANCE OF ACTUAL WORK. J. CONTRACTOR TO COORDINATE WITH THE TENANT AND/OR VENDOR WHEN INSTALLING ITEMS
- SUPPLIED BY THAN THE CONTRACTOR. K. CONTRACTOR SHALL COORDINATE ALL WORK WITH OWNER AS REOUIRED TO IMPLEMENT SCOPE
- 5. UTILITIES AND DEMOLITION

OF WORK, INCLUDING ANY OWNER PROVIDED CONTRACTORS.

- A. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITY LINES INCLUDING ELECTRICAL, SEWER, WATER, GAS, TELEPHONE, ETC. IN ADDITION THE CONTRACTOR SHALL CAUTION ALL SUBCONTRACTORS THAT THE SITE CONTAINS UNDERGROUND UTILITY LINES. THE DRAWINGS SHOW DIAGRAMMATICALLY THE APPROXIMATE LOCATION OF UNDERGROUND UTILITIES WHERE INFORMATION IS AVAILABLE. BUT THE DRAWINGS ARE NOT EXACT AS TO THE QUANTITY, EXTENT OR LOCATION.
- B. THE CONTRACTOR IS REQUIRED TO EXERCISE EXTREME CAUTION DURING ALL PHASES OF THE WORK TO LOCATE, IDENTIFY AND PROTECT EXISTING UTILITIES TO BE MODIFIED OR TO REMAIN. THE CONTRACTOR SHALL RECORD LOCATION OF, DISCONNECT, AND CAP AS NECESSARY, AND REPAIR DAMAGE TO EXISTING UTILITIES WHICH ARE ENCOUNTERED AS A RESULT OF WORK UNDER THIS CONTRACT.
- C. IF REQUIRED BY THE PROJECT, THE CONTRACTOR IS REQUIRED TO PROVIDE OUTSIDE GAS SHUT-OFF VALVE CONSPICUOUSLY MARKED PER OWNER REQUIREMENTS.
- D. CONTRACTOR TO COORDINATE ALL NEW SERVICE REQUIREMENTS WITH LOCAL UTILITY AGENCIES AND OWNER.
- E. THE CONTRACTOR TO ARRANGE AND PAY FOR TEMPORARY POWER, UTILITIES EXCEPT AS PREARRANGED WITH OWNER.
- F. IN PERFORMING PROFESSIONAL SERVICES FOR THIS PROJECT, CONTRACTOR SHALL PROVIDE SHORING, BRACING, SUPPORT, AND PROTECTION AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF THE PROJECT, ADJACENT PROPERTIES, AND PUBLIC SAFETY.

#### 6. GENERAL DEMOLITION

- A. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
- B. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTION OF ACCIDENTS.
- C. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORT, INSULATION, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.
- D. INFORMATION RELATING TO THE EXISTING BUILDING IS BASED ON FIELD MEASUREMENTS. ACTUAL CONDITIONS MAY VARY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- E. VERIFY LIMITS OF DEMOLITION REQUIRED TO COMPLETE WORK PRIOR TO COMMENCEMENT. GRAPHIC REPRESENTATION OF AFFECTED AREAS ON DRAWINGS MAY BE SMALLER OR LARGER THAN INDICATED.
- F. IN THE EVENT OF DAMAGE TO EXISTING CONSTRUCTION, CONTRACTOR SHALL REPAIR AND RESTORE THE DAMAGE TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER. G. ONLY MAJOR ITEMS OF DEMOLITION ARE SHOWN. REMOVE MISCELLANEOUS MINOR ITEMS AS APPROPRIATE FOR PROPER COMPLETION OF THE WORK.
- H. THE DEMOLITION NOTES IN THE DRAWINGS REQUIRE THE REMOVAL OF A BUILDING ELEMENT OR SYSTEM OR A COMPLETE COMPONENT COMPRISED OF MULTIPLE ELEMENTS. THE CONTRACTOR SHALL DISASSEMBLE AND REMOVE FORM THE SITE EACH ITEM IN ITS ENTIRETY AS REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE NEW WORK TO FOLLOW
- I. REMOVE ALL MISCELLANEOUS TRIM, CASEWORK, EQUIPMENT, CONDUIT, BASES, AND OTHER SURFACE MOUNTED ITEMS WHETHER SHOWN OR NOT ON PARTITIONS TO BE DEMOLISHED.
- J. REMOVE ALL MISCELLANEOUS PIPE AND DUCT SUPPORTS, PARTITION TRACKS AND CLIPS NO LONGER FUNCTIONAL IN EXISTING CEILING CAVITIES OF ROOMS TO BE DEMOLISHED.
- K. CUT AND PATCH WALL, CEILING AND FLOOR ASSEMBLIES AND REPAIR FINISHES AS NECESSARY AT MECH., PLUM., AND ELECT. DEMOLITION LOCATIONS; SEE MECH., PLUMB., AND ELECT. DEMOLITION PLANS FOR ADDITIONAL INFORMATION.
- L. THE CONTRACTOR SHALL PATCH AND REPAIR ELEMENTS WHERE ITEMS WERE REMOVED AND IN AREAS DAMAGED DURING DEMOLITION. M. THE CONTRACTOR SHALL CLEAN, PLUG, PATCH AND REPAIR ALL MATERIALS AND SURFACES
- AND PREPARE THEM FOR NEW WORK. N. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR LOCATING, IDENTIFYING, OR SPECIFYING
- MEANS OF REMOVAL OF ANY HAZARDOUS MATERIALS. HAZARDOUS MATERIAL TESTING BY OWNER CONTRACTED CONSULTANT.

## 7. DISCREPANCIES

- A. VERIFY ALL DIMENSIONS, ELEVATIONS, AND ALL EXISTING CONDITIONS AT THE SITE BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT AND THE OWNER.
- B. IF ANY ERRORS, INCONSISTENCIES, OR OMISSIONS IN THE CONTRACT DOCUMENTS ARE RECOGNIZED BY THE CONTRACTOR OR ANY MEMBER OF HIS ORGANIZATION, THE CONTRACTOR IS REQUIRED TO NOTIFY THE ARCHITECT IN WRITING OF SUCH ERROR, INCONSISTENCY OR OMISSION BEFORE PROCEEDING WITH THE WORK.
- C. SHOULD THE SPECIFICATIONS FAIL TO DESCRIBE THE MATERIAL OR KIND OF GOODS TO BE USED, SUBMIT AN INQUIRY OF THE ARCHITECT FOR CLARIFICATION.
- D. ALL WORK TO CONFORM TO THE CONTRACT DOCUMENTS. NO SUBSTITUTIONS PERMITTED WITHOUT REVIEW AND APPROVAL BY THE ARCHITECT AND OWNER.
- E. IN THE EVENT OF A CONFLICT BETWEEN DRAWINGS AND THE PROJECT MANUAL, THE CONTRACTOR IS TO PRICE THE MORE EXPENSIVE, OR MORE ELABORATE METHOD, MATERIALS, AND EQUIPMENT DESCRIBED OR SHOWN. SHOULD THE OWNER, AT THE OWNER'S DISCRETION, APPROVE TO UTILIZE THE LESS EXPENSIVE, OR LESS ELABORATE METHOD, MATERIALS, OR EQUIPMENT, AN APPROPRIATE CREDIT NEGOTIATED BETWEEN THE CONTRACTOR AND OWNER SHALL BE DUE TO THE OWNER.
- F. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE INDIVIDUAL CONTRACT DOCUMENTS AND REPORT AT ONCE IN WRITING TO THE ARCHITECT ANY DEFICIENCIES PRIOR TO BIDDING. THE CONTRACTOR SHALL REQUIRE EACH SUBCONTRACTOR TO LIKEWISE STUDY THE DOCUMENTS AND IMMEDIATELY REPORT ANY DEFICIENCIES.

## 8. MODIFICATIONS

A. MODIFICATIONS TO DETAILS MAY BE REQUIRED TO SUIT THE JOB DIMENSIONS OR CONDITIONS AND WILL BE MADE PART OF THE WORK.

## 9. ACCESS PANELS

A. AT ALL WALL AND CEILING LOCATIONS PROVIDE ACCESS PANELS FOR ELECTRICAL, PLUMBING AND AIR CONDITIONING CONTROLS, VALVES, DAMPERS, COUNTER FIRE SHUTTERS OR OTHER DEVICESAS REQUIRED BY THE WORK AND APPLICABLE EVEN IF ACCESS PANEL IS NOT SHOWN ON CONTRACT DOCUMENTS. AT NON-ACCESSIBLE CEILINGS, ACCESS PANELS SHALL BE 24"x24" FLUSH MOUNTED AND FIT WITHIN THE CEILING PATTERN. SUBMIT SHOP DRAWINGS INDICATING THE EXACT LOCATIONS OF ALL ACCESS PANELS. NO INSTALLATION OF ACCESS PANELS TO BE MADE UNTIL THE ARCHITECT HAS APPROVED THE LOCATIONS. ACCESS PANELS TO BE LABELED AS REQUIRED BY OWNER.

#### 10. EXITS

- A. EVERY EXIT DOOR TO BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
- 11. PENETRATION OF RATED ASSEMBLIES
- A. MECHANICAL DUCTS, ETC. PENETRATING FIRE-RATED CEILINGS AND FIRE WALLS TO BE CORRESPONDINGLY RATED OR DAMPERED. CABINETS, ELECTRICAL PANELS, LIGHTS, ETC. RECESSED INTO FIRE-RATED WALLS OR CEILINGS TO BE BACKED WITH CORRESPONDING FIRE-RESISTIVE CONSTRUCTION AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE FIRE PROTECTION.
- B. FIRE RESISTIVE ASSEMBLIES FOR PROTECTION OF OPENINGS TO COMPLY WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- C. PENETRATION OF FIRE-RATED ASSEMBLIES WHICH REQUIRE OPENING PROTECTION TO BE FIRE STOPPED. FIRE RATING FOR FIRE STOP SYSTEMS TO BE EQUAL TO THE ASSEMBLY PENETRATED.

#### **12. DISSIMILAR METALS**

A. ALL DISSIMILAR METALS TO BE EFFECTIVELY ISOLATED FROM EACH OTHER WITH NEOPRENE ISOLATOR OR SIMILAR MATERIAL TO PREVENT MOLECULAR BREAKDOWN.

#### 13. ELECTRICAL BACKBOARDS

A. REFER TO ELECTRICAL, TELEPHONE/DATA AND SECURITY ELECTRONICS DRAWINGS FOR LOCATION OF AND SPECIFICATIONS FOR THE INSTALLATION OF FIRE RETARDANT TREATED PLYWOOD BACKBOARDS REQUIRED IN ELECTRICAL AND COMMUNICATION ROOMS. THESE REQUIRED PLYWOOD BACKBOARDS HAVE NOT BEEN SHOWN ON THE ARCHITECTURAL DRAWINGS, BUT MUST BE FURNISHED AND INSTALLED AS A PART OF THE OVERALL CONTRACT. BACKBOARDS TO BE PAINTED TO MATCH THE SURFACE UPON WHICH THEY ARE MOUNTED. ALL REQUIRED BLOCKING IN WALLS TO ACCEPT PLYWOOD SHOULD BE VERIFIED AND APPROVED WITH THE ELECTRICAL TEAM REPRESENTATIVE. COORDINATE LOCATIONS WITH OWNER PRIOR TO INSTALLATION.

#### 14. SIGNAGE

A. FURNISH AND INSTALL SUPPORTS AND OTHER NECESSARY FINISH MATERIALS FOR A COMPLETE CODE REQUIRED SIGNAGE INSTALLATION. REMOVE AND REINSTALL EXISTING SIGNAGE.

## 15. COORDINATION OF DEVICES

A. EXACT LOCATIONS AND HEIGHTS OF ELECTRICAL, LOW VOLTAGE, MECHANICAL AND PLUMBING DEVICES, INCLUDING BUT NOT LIMITED TO SMOKE DETECTORS, PULL STATIONS, SWITCHES, OUTLETS, PHONE JACKS, AND THERMOSTATS, TO BE COORDINATED BY THE CONTRACTOR FOR ALIGNMENT, COORDINATION WITH EACH OTHER AND OTHER BUILDING FEATURES PRIOR TO INSTALLATION AS APPROVED BY ARCHITECT AND OWNER.

## 16. FIRE ALARM COORDINATION

- A. FIRE DETECTION ENGINEERING SERVICES, DOCUMENTS, AND PERMIT ACQUISITION TO BE PROVIDED ON A DESIGN-BUILD BASIS WITH THE SELECTED FIRE SYSTEM SUBCONTRACTOR PROVIDING THE REQUIRED DESIGN WORK WORK AND INSTALLATION BASED ON DIAGRAMS AND PERFORMANCE SPECIFICATIONS PROVIDED BY OWNER AND AND EXISTING CONDITIONS.
- B. CONTRACTOR TO VERIFY ALL UTILITIES AND COORDINATE EQUIPMENT AND UTILITY REQUIREMENTS AND LOCATIONS WITH FIRE SYSTEM ENGINEER PRIOR TO PROCEEDING AND REVIEW WITH ARCHITECT PRIOR TO FINAL ROUGH-IN.

## 17. ELECTRICAL COORDINATION

- A. ELECTRICAL CONTRACTOR TO EXAMINE EXISTING CONDITIONS, VERIFY ALL UTILITIES, AND COORDINATE POWER REQUIREMENTS WITH BUILDING OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING. REVIEW AND VERIFY LIGHTING, CONTROLS, OUTLETS, AND OWNER EQUIPMENT POWER LOCATIONS WITH THE ARCHITECT PRIOR TO APPROVAL AND FINAL ROUGH-IN.
- B. ALL LIGHT FIXTURES SHALL MEET CURRENT CODES AND BE PRE-APPROVED BY THE ARCHITECT AND OWNER.
- C. PROPOSALS AND DOCUMENTS PERTAINING TO THIS WORK TO BE PROVIDED TO THE ARCHITECT FOR REVIEW PRIOR TO PROCEEDING. ALL ELECTRICAL AND FIRE ALARM FIXTURES. COMPONENTS, AND ANY OTHER EXPOSED EQUIPMENT, ALONG WITH THEIR LOCATIONS TO BE SUBMITTED FOR REVIEW.
- D. ELECTRICAL AND COMMUNICATIONS SYSTEM RECEPTACLES TO BE MOUNTED AT 15" A.F.F. UNLESS OTHERWISE NOTED.
- E. ELECTRICAL OUTLETS AT OPPOSITE SIDES OF FIRE RATED AND/OR ACOUSTICALLY RATED WALLS ARE TO BE SEPARATED BY A MINIMUM OF 24" MINIMUM HORIZONTAL SPACING AND SEPARATE STUD SPACES OR AS INDICATED IN THE DRAWINGS.

## 18. MECHANICAL COORDINATION

A. CONTRACTOR TO VERIFY ALL UTILITIES AND COORDINATE EQUIPMENT POWER REQUIREMENTS AND LOCATIONS WITH MECHANICAL SPECIFICATIONS AND MECHANICAL ENGINEER PRIOR TO PROCEEDING AND REVIEW WITH ARCHITECT PRIOR TO FINAL ROUGH-IN.

### 19. PROJECT CLOSEOUT

- A. CONTRACTOR TO WARRANTEE ALL PARTS, LABOR, EQUIPMENT, AND MATERIAL PROVIDED UNDER THIS CONTRACT, UNLESS OTHERWISE NOTED, FOR A PERIOD OF (1) YEAR, UPON COMPLETION OF CONTRACT.
- B. WHEN REQUESTING THE ARCHITECT'S INSPECTION FOR SUBSTANTIAL COMPLETION: 1. KNOWN EXEMPTIONS MUST BE LISTED IN THE REQUEST. 2. ALL WARRANTIES AND CERTIFICATES MUST BE SUBMITTED TO THE ARCHITECT. 3. THE CONTRACTOR'S PUNCH LIST MUST BE SUBMITTED WITH THE REQUEST.
- C. THE ARCHITECT WILL VERIFY THE CONTRACTOR'S PUNCH LIST AND INDICATE ADDITIONAL PUNCH LIST ITEMS AS NEEDED. RESULTS OF THE ARCHITECT COMPLETED INSPECTION WILL FORM THE "PUNCH LIST" FOR FINAL ACCEPTANCE. ONE RE-INSPECTION WILL BE PERFORMED BY THE ARCHITECT TO ESTABLISH CERTIFICATION OF FINAL ACCEPTANCE; FURTHER RE-INSPECTIONS BY THE ARCHITECT TO BE AT THE CONTRACTOR'S EXPENSE.
- D. ALL MAINTENANCE AND OPERATIONS MANUALS FOR ALL EQUIPMENT AND MATERIALS PROVIDED TO BE ORGANIZED AND PREPARED AS INDICATED IN THE PROJECT MANUAL.

### 20. SEPARATE PERMIT (DESIGN BUILD) ITEMS

- A. THIS PROJECT WILL HAVE THE FOLLOWING SEPARATE PERMIT ITEMS WHICH MAY UTILIZE A DESIGN/BUILD APPROACH. THE INFORMATION CONTAINED IN THESE DOCUMENTS ARE PRELIMINARY, PROVIDING A BASIS FOR BIDDING AND PLANNING. ACTUAL ENGINEERING AND INSTALLATION DRAWINGS ARE TO BE PROVIDED UNDER A SEPARATE PERMIT AND REQUIRE THE WILL APPROVAL OF BOTH THE THE ARCHITECT/ THE ENGINEERS AND THE AUTHORITY HAVING JURISDICTION.
- SEE G-000 FOR LIST OF SEPARATE PERMIT ITEMS.
- B. THE PROCEDURE FOR "SEPARATE PERMIT APPROVAL DOCUMENTS" TO BE AS FOLLOWS: 1. THE DESIGN/BUILD CONTRACTOR TO PROVIDE (4) SETS OF (PDF) SUBMITTAL DOCUMENTS TO THE ARCHITECT FOR INITIAL REVIEW AND COORDINATION WITH THE DESIGN INTENT OF THE PROJECT.
- 2. IF THE SUBMITTAL DOCUMENTS ARE FOUND TO BE ACCEPTABLE THE ARCHITECT WILL ADD A NOTATION INDICATING THAT THE SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND FOUND IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING.
- 3. FOLLOWING THE ARCHITECT'S APPROVAL, THE DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR SUBMITTING, TRACKING, AND OBTAINING APPROVAL FROM THE AUTHORITY HAVING JURISDICTION.
- 4. UPON APPROVAL BY THE AUTHORITY HAVING JURISDICTION, THE DESIGN/BUILD CONTRACTOR IS REQUIRED TO PROVIDE A COPY OF THE DRAWINGS TO THE ARCHITECT AND OWNER FOR REFERENCE.

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DRAWN BY: SEE CHECKED BY: SEE JOB NO: 22-002 BSD MKES DATE: 04/22/2022

ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE

GENERAL NOTES

SHEET NO.

G-00'

#### **GENERAL STRUCTURAL NOTES**

THE FOLLOWING IS INTENDED AS A SUMMARY SPECIFICATION. REFER TO THE PROJECT SPECIFICATION FOR FULL DETAILS. NOTIFY THE ARCHITECT WHERE THERE IS A CONFLICT BETWEEN THE PROJECT SPECIFICATION AND THE STRUCTURAL GENERAL NOTES.

SCOPE OF WORK: THIS PROJECT INVOLVES A VOLUNTARY STRENGTHENING OF BUILDING SYSTEM. SEISMIC STRENGTHENING IS IN ACCORDANCE WITH ASCE 41-17 BPOE (RC:III AND IV: BSE-1E & BSE-2E, USING 75% CAP FROM BSE-1N AND BSE-2N PER SEISMIC REHABILITATION GRANT PROGRAM REQUIREMENTS.

#### GOVERNING CODE:

THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH ASCE 41-17 AS NOTED ABOVE AND PER THE 2019 OREGON STRUCTURAL SPECIALTY CODE (OSSC) REQUIREMENTS.

LIMITATIONS:

THE LATERAL FORCE RESISTING SYSTEM SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE. AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

#### 1. GENERAL

MATERIALS AND WORKMANSHIP TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE ENGINEER FOR CLARIFICATION.
- B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES IN A REASONABLE AND TIMELY MANNER. DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES ARE RESOLVED. DO NOT SCALE DRAWINGS.
- C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
- D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
- E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.
- F. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE AT ALL TIMES FOR THE CONDITIONS OF THE JOB SITE, INCLUDING, BUT NOT LIMITED TO: a) SAFETY OF PERSONS, PROPERTY AND STRUCTURES, b) MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION. c) COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES. d) ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES

#### 2. SUBMITTALS

- A. SUBMIT (1) HARDCOPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. SUBMIT IN ACCORDANCE WITH DIVISION 1 OF THE SPECIFICATIONS. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
- B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
- C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION, FOR THE ITEMS LISTED BELOW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SHOP DRAWINGS WITH ALL TRADES AND FIELD CONDITIONS.

NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION. WHERE NEW STRUCTURAL ELEMENTS ARE LOCATED WITHIN AN EXISTING STRUCTURE, SHOP DRAWINGS SHALL INCLUDE THE COORDINATION OF THE NEW STRUCTURAL ELEMENTS WITH THE EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS. ALL SHOP DRAWING SUBMITTALS SHALL CLEARLY IDENTIFY THE SET-OUT OF NEW STRUCTURAL ELEMENTS RELATIVE TO THE RELEVANT PORTIONS OF THE EXISTING STRUCTURE, EXTENT OF ANY REQUIRED DEMOLITION, AND SHALL COORDINATE ALL OF THE RELEVANT TRADES.

- STRUCTURAL AND MISCELLANEOUS STEEL
- MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS. b. SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS SIZES AND TYPES OF BOLTS, AND DIMENSIONS.
- c. WELD PROCEDURE SPECIFICATIONS FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
- d. MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT INCLUDING COLOR CHARTS. e. CONTRACTOR SHALL ESTABLISH AND VERIFY REQUIRED TOP OF STEEL
- (T.O.S.) ELEVATIONS, WHETHER INDICATED ON THE DRAWINGS OR NOT AGAINST ARCHITECTURAL FINISHED FLOOR AND ROOF ELEVATIONS, AND THE STRUCTURAL DETAILS, INCLUDING ANY SPECIFIED OFFSET OR PRE-CAMBER. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES

2) REINFORCING STEEL

- a. MATERIAL CERTIFICATES FOR REINFORCING STEEL b. DRAWINGS FOR FABRICATION, BENDING, AND PLACEMENT OF **REINFORCING STEEL IN ACCORDANCE WITH ACI 315**
- CAST-IN-PLACE CONCRETE AND SHOTCRETE
- a. MIX DESIGNS FOR EACH TYPE OF CONCRETE ON THE PROJECT INCLUDING RESULTS OF SLUMP, COMPRESSION, AND SHRINKAGE TESTS AND OTHER PROJECT SPECIFIC CRITERIA b. MATERIAL CERTIFICATES
- c. PROPOSED CONSTRUCTION AND CONTROL JOINT LOCATIONS
- d. CURING MATERIALS AND METHODS
- e. PRODUCT DATA FOR NON-SHRINK GROUT f. FORMWORK TYPE, FORMWORK, JOINT LOCATIONS, CHAIRS,
- FORM TIES. ETC.
- g. PROPOSED ROUGHENING METHODS AND TECHNIQUES TO PREPARE EXISTING SURFACES TO RECEIVE NEW CONCRETE, IN ACCORDANCE WITH AMPLITUDE NOTED IN THE CONCRETE SECTION OF THESE NOTES.
- 4) MECHANICAL ANCHORS AND EPOXY ANCHORS
- a. PRODUCT DATA FOR EACH TYPE OF SYSTEM INCLUDING ANCHOR TESTING IN ACCORDANCE WITH ACI 355.2 FOR MECHANICAL ANCHORS AND ACI 355.4 FOR EPOXY ANCHORS.
- b. CERTIFICATION OF ANCHOR INSTALLERS PER ACI/CRSI WHERE ANCHORS ARE INSTALLED IN HORIZONTAL OR VERTICAL CONDITIONS WITH SUSTAINED TENSION.

- D. DEFERRED DE AND ARCHITE AUTHORITY H THE DESIGN S AND PROJEC
- 1. SEISMIC R CONNECT BE DESIGN SHALL BE 2. FALL PRO
- 3. METAL LA 4. SKYLIGHT

#### 3. SPECIAL INSPEC

- A. PROVIDE SPE BY THE GOVE
- B. THE OWNER QUALIFIED INS **TESTING AND**
- C. IF INITIAL TES **REVEAL THAT** DOCUMENTS BE MADE AT 1 THE ENGINEE NOTIFICATION AND SHALL BE
- D. SPECIAL INSP OF COMPLETI STRUCTURAL
- E. THE CONTRAC PRIOR TO TIM

#### F. THE FOLLOWI THE TESTING

1) CONCRET a. SAMPL

- 1. FAE 2. PE 3. DE b. REINFO STRES 1. PL/ 2. OB 3. WE c. CONCF d. CAST-I e. CURIN f. REVIE g. REVIE
- 2) ALL STRUC FOLLOWIN a. CONTI PARTI INCLUE b. CONTI COMPL MOME
- MATER MAGN BEAMc. CONTI d. PERIO SIN 2. FLC
- 3. WE OF 4. WE JO 5. WE
- 3) POST INST TENSION, FOR LOCA
- a. BRICK MASONRY b. CONCRETE
- 4) STRUCTURAL WOOD

#### 4. STRUCTURAL OBSERVATIONS

- ABOVE.

- 4) WOOD FRAMING

## 5. DESIGN BASIS

- B. DESIGN LIVE LOADS (PSF):
- ROOF

DESIGN SUBMITTALS SHALL BE SUBMITTED TO THE ENGINEER	C. DESIGN DEAD LOADS
ECT FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE HAVING JURISDICTION FOR PLAN CHECK AND BUILDING PERMIT.	1) SUPERIMPOSED DEAD LOADS PER STRUCTURAL CALCULATIONS
I SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE CT-SPECIFIC DESIGN CRITERIA LISTED IN SECTION 5:	D. EARTHQUAKE DESIGN DATA
RESISTANCE OF MEP EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING. TIONS TO STRUCTURE SHALL CONFORM TO ASCE 7-16 CHAPTER 13, SHALL	1) RISK CATEGORY: BUILDING A: IV BUILDINGS B & C: III
GNED BY AN ENGINEER REGISTERED IN THE STATE OF OREGON, AND E SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.	1. ASCE 41 PERFORMANCE OBJECTIVE: BPOE
OTECTION SYSTEMS. ADDERS, SHIPS LADDERS, AND SAFETY CAGES ITS (AS APPLICABLE)	a. DAMAGE CONTROL (RC III) & IMMEDIATE OCCUPANCY (RC IV) @ BSE-1E B. LIMITED SAFETY (RC III) & LIFE SAFETY (RC IV) @ BSE-2E
	3) SITE CLASS: D (DEFAULT)
CTION REQUIREMENTS AND TESTING	4) ASCE 41 BSE-2E SPECTRAL RESPONSE ACCELERATIONS:
ECIAL INSPECTIONS AND TESTING FOR ALL ITEMS AS REQUIRED ERNING JURISDICTION IN ADDITION TO THE TABLES ON S-010.	a. $SXS = 0.820 \text{ g}$ b. $SX1 = 0.587 \text{ g}$
SHALL BE RESPONSIBLE FOR RETAINING AN INDEPENDENT,	<ul> <li>5) ASCE 41 BSE-1E SPECTRAL RESPONSE ACCELERATIONS:</li> <li>a. SXS = 0.381 g</li> <li>b. SX4 = 0.200 r</li> </ul>
NSPECTOR AND/OR TESTING LAB TO PERFORM ALL REQUIRED D SPECIAL INSPECTIONS.	<ul> <li>b. SX1 = 0.206 g</li> <li>6) BASIC SEISMIC-FORCE RESISTING SYSTEM: WOOD FRAMED SHEAR</li> </ul>
STS OR INSPECTIONS MADE BY THE OWNER'S TESTING AGENCY	WALLS 7) ANALYSIS PROCEDURE USED: LINEAR STATIC PROCEDURE
S, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS WILL THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL IMMEDIATELY NOTIFY	E. WIND:
ER AND OWNER OF NON-CONFORMING WORK. THIS ON SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK BE SEPARATE FROM THE SPECIAL INSPECTION REPORTS.	1) RISK CATEGORY: IV (BUILDING A) 2) BASIC WIND SPEED: 107 MPH
PECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME	<ul> <li>3) WIND DIRECTIONALITY FACTOR, Kd: 0.85</li> <li>4) EXPOSURE CATEGORY TYPE: B</li> </ul>
TION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE L DRAWINGS.	<ul> <li>5) TOPOGRAPHIC FACTOR, Kzt:</li> <li>6) ENCLOSURE CLASSIFICATION:</li> <li>ENCLOSED</li> </ul>
ACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS	F. FOUNDATIONS:
ME OF INSPECTION.	1) SPREAD AND STRIP FOOTINGS: 1500 PSF (ASSUMED)
VING SPECIFIC ITEMS SHALL BE INSPECTED AND/OR TESTED BY	G. DESIGN SNOW LOADS
G LAB:	1) GROUND SNOW LOAD, Pg: 11 PSF
TE: PLE AND TEST CONCRETE AS FOLLOWS:	<ul> <li>2) FLAT-ROOF SNOW LOAD, Pf: 20 PSF MIN.</li> <li>3) SNOW EXPOSURE FACTOR, Ce: 1.0</li> <li>4) SNOW LOAD, MEROPITANICE FACTOR, to 4.2 (PLUE DINIC A)</li> </ul>
ABRICATE SPECIMENS FOR STRENGTH TESTS PER ACI 318. ERFORM SLUMP AND AIR CONTENT TESTS.	<ul> <li>4) SNOW LOAD IMPORTANCE FACTOR, I: 1.2 (BUILDING A)</li> <li>5) THERMAL FACTOR, Ci: 1.0</li> </ul>
ETERMINE TEMPERATURE OF THE CONCRETE. FORCING STEEL AND WELDED WIRE MESH (INCLUDING PRE	6. FOUNDATION, FILL, AND SITE WORK
ESSING TENDONS). LACEMENT (CONTINUOUS INSPECTION FOR SPECIAL MOMENT FRAMES) BTAIN AND REVIEW MILL TEST REPORTS.	FOUNDATION DESIGN IS BASED ON MINIMUM VALUES PER OSSC TABLE 1806.2
/ELDING. CRETE PLACEMENT (CONTINUOUS INSPECTION).	A. EXCEPT WHERE OTHERWISE SHOWN, EXCAVATIONS SHALL BE MADE AS NEAR AS POSSIBLE TO THE NEAT LINES REQUIRED BY THE SIZE AND SHAPE OF THE
-IN-PLACE ANCHOR BOLTS. NG TEMPERATURE AND TECHNIQUES AND DURATION.	STRUCTURE. ALL FOUNDATIONS SHALL BE POURED WITHOUT THE USE OF SIDE FORMS WHEREVER POSSIBLE. IF THE TRENCHES CANNOT STAND, FULLY
EW MIX DESIGN FOR EACH CLASS OF CONCRETE. EW THE TICKET OF EACH BATCH OF CONCRETE DELIVERED.	FORM SIDES TO DIMENSIONS SHOWN.
UCTURAL WELDING INCLUDING, BUT NOT LIMITED TO THE ING:	B. DO NOT ALLOW WATER TO STAND IN TRENCHES. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO RAIN OR SLURRY OR OTHER WATER BEFORE CONCRETE IS CAST, EXCAVATE SOFTENED MATERIAL AND REPLACE WITH
TINUOUS INSPECTION FOR ALL BUTT WELDS, COMPLETE AND TIAL PENETRATION WELDS, GROOVE WELDS AND PLUG WELDS,	PROPERLY COMPACTED BACKFILL OR CONCRETE AT NO COST TO OWNER.
UDING WELDING OF REINFORCEMENT. TINUOUS INSPECTION AND 100% ULTRASONIC TESTING FOR ALL	C. WHERE SITEWORK IS REQUIRED, COMPLY WITH THE FOLLOWING:
PLETE PENETRATION WELDS BETWEEN THE PRIMARY MEMBERS OF ENT-RESISTING FRAMES, EXCEPT WHEN THE THICKNESS OF THE	<ol> <li>STRIP THE AREA TO BE BUILT OVER OF ALL ORGANIC MATERIAL AND TOP SOIL.</li> </ol>
ERIALS TO BE WELDED IS LESS THAN 5/16". IN ADDITION, NETIC PARTICLE TESTING SHALL BE PERFORMED ON 25% OF ALL	<ul> <li>2) SCARIFY THE TOP 6 INCHES OF STRIPPED SURFACE; BRING TO CORRECT MOISTURE CONTENT; THEN RE-COMPACT TO AT LEAST 95% UNDER FOOTINGS</li> </ul>
A-TO-COLUMN COMPLETE PENETRATION WELDS. TINUOUS INSPECTION OF ALL FILLET WELDS EXCEEDING 5/16".	AND 90% ELSEWHERE. 3) FILL MATERIAL TO BE PLACED IN 6 INCH LAYERS AND COMPACTED.
ODIC VISUAL INSPECTION OF THE FOLLOWING ITEMS: INGLE-PASS FILLET WELDS NOT EXCEEDING 5/16".	<ul> <li>4) FILL MATERIAL SHALL BE FREE OF PLASTIC CLAYS, VEGETATION, AND OTHER DELETERIOUS MATERIAL; IT SHALL BE OF SUCH QUALITY THAT IT</li> </ul>
LOOR AND ROOF DECK WELDING. /ELDED STUDS WHEN USED FOR THE STRUCTURAL DIAPHRAGM	WILL COMPACT THOROUGHLY WHEN WATERED AND ROLLED. THE FILL SHALL NOT CONTAIN ROCKS OR LUMPS OVER 2 INCHES IN GREATEST DIMENSION.
R COMPOSITE CONNECTIONS. /ELDED SHEET METAL STEEL FOR COLD-FORMED STUDS AND	D. PLACE BACKFILL BEHIND RETAINING WALLS AFTER CONCRETE HAS ATTAINED
VELDED SHEET METAL STEEL FOR COLD-FORMED STUDS AND OISTS. VELDING OF STAIRS AND RAILING SYSTEMS.	FULL DESIGN STRENGTH. BRACE BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHED FLOORS AND SLABS ON GRADE HAVE
STALLED ANCHORS. WHERE ANCHORS ARE LOADED IN SUSTAINED	ATTAINED FULL DESIGN STRENGTH.
I, INSPECTION SHALL BE CONTINUOUS. REFER TO THE DRAWINGS CATIONS.	E. FOR SHALLOW FOUNDATIONS, THE TOP SURFACE OF FOOTINGS SHALL BE LEVEL. THE BOTTOM SURFACE OF FOOTINGS SHALL BE PERMITTED TO HAVE A SLOPE NOT
K MASONRY	EXCEEDING ONE UNIT VERTICAL IN 10 UNITS HORIZONTAL (10-PERCENT

1. EPOXY THREADED RODS SHALL BE TESTED PER TESTING

SCHEDULE IN TYPICAL DETAILS.

1. EPOXY REBAR AND THREADED RODS 2. MECHANICAL ANCHORS

 PERIODIC SPECIAL INSPECTION FOR NAILING, BOLTING. ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS.

ALL EXCAVATIONS AND EARTH FORMS SHALL BE INSPECTED BY THE LOCAL BUILDING INSPECTOR AND INSPECTED BY THE GEOTECHNICAL ENGINEER AND/OR ENGINEER PRIOR TO PLACING CONCRETE.

A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED

B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE.

C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:

1) FOUNDATION REINFORCEMENT AND CONSTRUCTION STRUCTURAL STEEL FRAMING 3) LATERAL FORCE RESISTING ELEMENTS

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.

D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.

E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.

20

G. NO WATER SHALL BE ADDED AT THE TIME OF INSTALLATION WITHOUT WRITTEN APPROVAL OF THE ENGINEER OF RECORD AND SHALL BE REVIEWED AND APPROVED BY THE CONCRETE MIX SUPPLIER.

ADMIXTURES WITH CHLORIDE IONS:

MAX. WATER/CEMENTITIOUS (W/CM) RATIO:

MIN. FLY ASH OR SLAG REPLACEMENT:

MIN. STRENGTH AT 28 DAYS (f'c):

MIN. STRENGTH AT 56 DAYS:

MAX. AGGREGATE SIZE:

MIN. SLUMP:

MAX. SLUMP:

POUNDS/CU. YD.

7. UNDER-SLAB VAPOR BARRIER

B. ACCEPTABLE PRODUCTS:

8. CONCRETE

2) ASTM (E) 1745 CLASS A (PLASTICS).

OF FOOTINGS SHALL BE LEVEL. ERMITTED TO HAVE A SLOPE NOT EXCEEDING ONE UNIT VERTICAL IN 10 UNITS HORIZONTAL (10-PERCENT SLOPE). FOOTINGS SHALL BE STEPPED WHERE IT IS NECESSARY TO CHANGE THE ELEVATION OF THE TOP SURFACE OF THE FOOTING OR WHERE THE SURFACE OF THE GROUND SLOPES MORE THAN ONE UNIT VERTICAL IN 10 UNITS HORIZONTAL

A. VAPOR BARRIER MUST HAVE THE FOLLOWING MATERIAL QUALITIES: 1) WVTR LESS THAN 0.008 AS TESTED BY ASTM E96.

1) STEGO WRAP (15 MIL) VAPOR BARRIER BY STEGO INDUSTRIES.

W.R. MEADOWS PREMOULDED MEMBRANE WITH PLASMATIC CORE. C. INSTALLATION & PREPARATION OF SUBSOIL FOR VAPOR BARRIER SHALL BE

IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND ASTM E1643-11.

A. EXCEPT WHERE NOTED OTHERWISE, ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS. UNLESS OTHERWISE NOTED, COMPLY WITH CONSTRUCTION TOLERANCES AS SPECIFIED IN ACI 117 "SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".

B. REINFORCE ALL CONCRETE. INSTALL ALL INSERTS, BOLTS, ANCHORS, AND REINFORCING AND SECURELY TIE PRIOR TO PLACING CONCRETE.

C. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150 TYPE I OR II.

D. CONCRETE SHALL BE HARDROCK CONCRETE AND CONFORM TO ALL REQUIREMENTS OF ASTM C-33, UNLESS OTHERWISE NOTED. WHERE LIGHTWEIGHT CONCRETE IS SPECIFIED, IT SHALL CONFORM TO ASTM C-330. FLY ASH SHALL COMPLY WITH ASTM C618; SLAG SHALL COMPLY WITH ASTM C989. PROPORTION CONCRETE IN ACCORDANCE WITH ACI 211.1, INCLUDING ANY REQUIRED ADMIXTURES. CONCRETE SHALL SATISFY THE FOLLOWING PROPERTIES:

> NOT PERMITTED 4000 PSI

4000 PSI

2½"

0.50 20%

E. THE ACTUAL SLUMP AND TOLERANCE SHALL BE ESTABLISHED BY THE CONTRACTOR AND CONCRETE SUPPLIER, AS REQUIRED TO SATISFY THE CONTRACTOR'S MEANS AND-METHODS FOR PLACEMENT, FIELD AND INSTALLATION CONDITIONS (INCLUDING REINFORCING CONGESTION), FINISH REQUIREMENTS, AND AS REQUIRED TO SATISFY THE PERFORMANCE CRITERIA SPECIFIED ABOVE.

F. IN AREAS OF HEAVY REINFORCING AND CONGESTION. CONTRACTOR SHALL PROVIDE ADEQUATE MEANS AND METHODS TO PROPERLY INSTALL CONCRETE (I.E., HIGH-RANGE WATER-REDUCING ADMIXTURE, FORM VIBRATORS, ETC.) AT SUCH LOCATIONS, THE CONTRACTOR MAY USE 3/8" MINIMUM CRUSHED ROCK OF NOT LESS THAN 1500

- H. ALL CONCRETE WITH EXPOSED SURFACES SHALL HAVE HIGH-RANGE WATER-REDUCING ADMIXTURE (SUPERPLASTICIZER).
- I. HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL COMPLY WITH ASTM C494, TYPE F OR TYPE G. PRODUCTS INCLUDE THE FOLLOWING:

1) EUCON 37/1037 OR PLASTOLSERIES, EUCLID CHEMICAL COMPANY. 2) DARACEM, W.R. GRACE COMPANY, OR SIKAMENT 300, SIKA CORP.

J. WHEN PLACING NEW CONCRETE OR SHOTCRETE AGAINST EXISTING CONCRETE, AND/OR CONCRETE MASONRY. ROUGHEN EXISTING MATERIAL TO 1/4" AMPLITUDE. REMOVE ALL LOOSE CEMENTITIOUS MATERIALS AND AGGREGATES. PRESSURE WASH SURFACE AND REMOVE STANDING WATER IMMEDIATELY PRIOR TO PLACING NEW CONCRETE. AT EXISTING BRICK, ROUGHENING IS NOT REQUIRED IF EXISTING BRICK HAS A NATURAL ROUGH SURFACE (APPROXIMATELY 1/4" AMPLITUDE). THE ROUGHENED SURFACE IS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

K. CONTRACTOR SHALL CONSTRUCT CONCRETE FLOORS AND SLABS PER RECOMMENDATIONS OF ACI 302.1R. CONTRACTOR SHALL SUBMIT LOCATIONS OF ANY PROPOSED CONSTRUCTION JOINTS FOR ENGINEERS REVIEW AND APPROVAL

L. FINISH SCHEDULE: COORDINATE WITH ARCHITECT

#### FORMWORK

- A. DESIGN AND CONSTRUCT FORMWORK IN ACCORDANCE WITH ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE". UNLESS OTHERWISE NOTED.
- B. AS REQUIRED. PROVIDE POUR POCKETS IN FORMS AND UNDER EXISTING MEMBERS TO PREVENT AIR POCKETS OR "HONEYCOMBS". CONCRETE CAST WITH AIR POCKETS OR HONEYCOMBS IS NOT ACCEPTABLE.
- D. REMOVE FORMS AND SHORES IN ACCORDANCE WITH THE FOLLOWING:
- FOOTINGS AND GRADE BEAMS REMOVE FORMS AND SHORES NO SOONER THAN 48 HOURS.
- E. CONCRETE SHALL BE CONTINUOUSLY CURED FOR 10 DAYS AFTER PLACING IN ANY APPROVED MANNER IN ACCORDANCE WITH ACI 301, INCLUDING CURING COMPOUND, CURING PAPER, WATER SPRAY, FLOODING WITH WATER (FOR SLABS), ETC. PROVIDE CURING WHERE FORMS ARE REMOVED IN LESS THAN 7 DAYS. NOTE: FOOTINGS ARE EXEMPTED FROM THIS REQUIREMENT

#### 10. REINFORCING STEEL

- A. ALL REINFORCING STEEL BARS, UNLESS OTHERWISE NOTED, SHALL CONFORM WITH THE LATEST STANDARD SPECIFICATIONS FOR DEFORMED BILLET STEEL FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A615 OR A706 AND SHALL BE MINIMUM GRADE 60. HEADED SHEAR STUD REINFORCING SHALL COMPLY WITH ASTM A1044
- B. ALL REINFORCING STEEL THAT IS TO BE WELDED, OR USED IN SEISMIC FRAME MEMBERS AND SHEARWALL BOUNDARY ELEMENTS. SHALL CONFORM TO THE LATEST STANDARD FOR LOW-ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT ASTM A706 (GRADE 60 ONLY). BILLET STEEL ASTM A615 REINFORCEMENT MAY BE SUBSTITUTED FOR LOW ALLOY ASTM A706 IF (1) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI, (2) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25, AND (3) MINIMUM ELONGATION IN 8 INCHES SHALL BE AT LEAST 14 PERCENT FOR BAR SIZES #3 THROUGH #6. AT LEAST 12 PERCENT FOR BAR SIZES #7 THROUGH #11, AND AT LEAST 10 PERCENT FOR BAR SIZES #14 AND #18.
- C. WELDED WIRE MESH SHALL CONFORM TO LATEST EDITION OF ASTM A1064.
- D. SUITABLE DEVICES (DOBIES, CHAIRS, ETC.) OF SOME STANDARD MANUFACTURE SHALL BE USED TO HOLD REINFORCEMENTS IN ITS TRUE HORIZONTAL AND VERTICAL POSITIONS. THESE DEVICES SHALL BE SUFFICIENTLY RIGID AND NUMEROUS TO PREVENT DISPLACEMENT OF THE REINFORCING DURING PLACING OF CONCRETE. ALL SUCH DEVICES HAVE PRIOR APPROVAL FROM THE ARCHITECT AND ENGINEER.
- E. LAP SPLICE ALL BARS IN CONCRETE PER STANDARD DETAILS SCHEDULE. USING LAP TYPE "TOP" UNLESS OTHERWISE NOTED. WHEN LAPPING BARS OF DIFFERENT SIZES, USE THE LAP LENGTH OF THE LARGER BAR.
- F. UNLESS OTHERWISE DEMONSTRATED BY SUCCESSFUL PLACEMENT OF A REPRESENTATIVE TEST PANEL, LAP SPLICES FOR SHOTCRETE WALLS SHALL BE PER NON-CONTACT SPLICE METHOD. THE LAPPED BARS SHALL BE SPACED A MINIMUM OF 2 INCHES BETWEEN THEM AND THE LAP LENGTH SHALL BE PER THE SCHEDULE USING LAP CLASS B, "TOP".
- G. IN LIEU OF LAP SPLICES, REBAR COUPLERS MAY BE USED. ERICO'S AND/ OR ERICO'S CADWELD LENTON. DAYTON BAR-LOCKS AND SIMILAR DEVICES MAY BE USED ONLY IF REINFORCING DETAILER ACCOUNTS FOR COUPLER SIZE, 24 INCH STAGGERING OF COUPLERS AND REINFORCING BAR SPACING. ALTERNATES WILL BE CONSIDERED UPON SUBMITTAL OF MANUFACTURER'S TESTING REPORT FOR APPLICATIONS IN SEISMIC FRAME MEMBERS AND BOUNDARY ELEMENTS OF SHEAR WALLS, THE COUPLERS SHALL DEVELOP THE LARGER OF 100% OF THE ULTIMATE TENSILE STRENGTH OR 125% OF THE SPECIFIED YIELD STRENGTH OF THE REBAR. FOR ALL OTHER APPLICATIONS, THE COUPLERS SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE REBAR.
- H. IN LIEU OF COUPLERS, MAIN LONGITUDINAL REINFORCING BARS OF ASTM A706 STEEL MAY BE WELDED PER AWS D1.4. WELDED SPLICES SHALL NOT BE USED WITHIN A JOINT OF THE SEISMIC FRAME, OR WITHIN A DISTANCE OF ONE BEAM/COLUMN DEPTH FROM A JOINT.
- HOOK DISCONTINUOUS ENDS OF REINFORCING STEEL PER TYPICAL DETAIL. UNLESS OTHERWISE NOTED. WHERE SPECIFIED OR WHERE REINFORCING IS IN A CONGESTED ZONE SO AS NOT TO PERMIT HOOK BARS, PROVED A "T-HEAD" TERMINATOR: LENTON "D6" OR "D16" TERMINATOR OR APPROVED EQUAL.
- J. DETAIL ACCORDING TO THE LATEST ACI STANDARD 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES PLACE REINFORCEMENT PER ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE". UNLESS OTHERWISE NOTED.
- K. REBAR PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.
- L. REBAR SHALL ONLY BE BENT ONCE. REBAR SHALL NOT BE BENT AND STRAIGHTENED FOR CONSTRUCTION UNLESS EXPLICITLY NOTED ON THE CONSTRUCTION DOCUMENTS.
- M. MAINTAIN COVERAGE TO FACE OF BARS, INCLUDING SLEEVES AND PENETRATIONS. AS FOLLOWS, UNLESS OTHERWISE NOTED:
- 1) CAST-IN-PLACE CONCRETE
- a. 3 INCHES WHERE CONCRETE IS DEPOSITED AGAINST EARTH EXCEPT SLAB-ON-GRADE.
- b. 2-1/2 INCHES FOR CAST-IN-PLACE DEEP FOUNDATION ELEMENTS NOT ENCLOSED BY A STEEL PIPE. TUBE OR PERMANENT CASING
- c. 2 INCHES FOR FORMED CONCRETE WHICH IS EXPOSED TO EARTH OR WEATHER FOR #6 BAR THROUGH #18 BAR. REDUCED TO 1-1/2 FOR #5 BAR, W31 OR D31 WIRE AND SMALLER.
- d. 1-1/2 INCHES FOR INTERIOR BEAMS AND COLUMNS. e. 1-1/2 INCHES FOR INTERIOR SLABS AND WALLS FOR #14 AND
- #18 BAR. REDUCED TO 3/4 INCH FOR #11 BAR AND SMALLER. f. 1-1/2 INCHES FOR SLAB-ON-GRADE.
- N. PROVIDE FIBER-REINFORCING WHERE INDICATED ON THE DRAWINGS. COMPLY WITH ASTM C1116 . FIBER-REINFORCING SHALL BE FIBERMESH 300 BY PROPEX (MINIMUM DOSAGE OF 1.5 LBS/YD<sup>3</sup> U.O.N.) OR APPROVED EQUIVALENT.



#### 11. NON-SHRINK GROU

- A. NON-SHRINK GROUT SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (F'c) OF 7,000 PSI.
- B. NON-SHRINK GROUT SHALL COMPLY WITH ONE OF THE FOLLOWING.
- 1) DRY PACK NON-SHRINK GROUT SHALL BE EUCLID CHEMICAL COMPANY'S "EUCO-NS", L&M CRYSTEX, MASTER BUILDERS' "MASTERFLOW 713", SIMPSON'S "FX-228", FIVE STAR GROUT, OR SIKAGROUT-212. 2) WHERE HIGH FLUIDITY OR INCREASED PLACING TIME IS REQUIRED, USE
- EUCLID CHEMICAL COMPANY'S "EUCO HI-FLOW GROUT", MASTER BUILDERS' "MASTERFLOW 928", OR SIKAGROUT-212.
- C. COMPLY WITH MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND REQUIREMENTS.

#### **12. PATCHING OF CONCRETE**

- A. ALL INSERT HOLES, SHE-BOLTS, ETC., AND OTHER IMPERFECTIONS ON THE SURFACES OF THE CONCRETE SHALL BE FILLED WITH GROUT, BRUSHED AND SACKED TO A UNIFORM FINISH. ALL HOLES THROUGH TO THE OUTSIDE OF THE BUILDING MUST BE MADE WATERTIGHT.
- B. MATERIALS AND METHODS USED FOR PATCHING OF CONCRETE IN THE EVENT OF SPALLING, HONEYCOMBING, LARGE CRACKS, ETC., SHALL BE BY MASTER BUILDERS, SIKA, OR EQUIVALENT. FINAL FINISHED APPEARANCE SUBJECT TO APPROVAL. SUBSTITUTES WILL BE CONSIDERED UPON SUBMITTAL OF MANUFACTURER'S TESTING REPORT.

#### 13. FRAMING LUMBER

- A. ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 17.
- B. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.
- C. ALL POSTS AND BEAMS SHALL BE DOUGLAS FIR, #1
- D. ALL FLOOR AND ROOF JOISTS SHALL BE DOUGLAS FIR, #1
- E. ALL STUDS, PLATES, ETC., SHALL BE DOUGLAS FIR, CONSTRUCTION GRADE.
- F. ENGINEERED WOOD PRODUCTS MAY BE USED AS SUBSTITUTES FOR SAWN LUMBER UPON REQUEST BY THE CONTRACTOR AND APPROVAL FROM THE ARCHITECT AND ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TESTING REPORTS FOR APPROVAL

#### 14. PLYWOOD (PW) OR ORIENTED STRAND BOARD (OSB)

- A. EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE, TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCT STANDARD PS-1. PLYWOOD GRADE SHALL CONFORM TO CD-X FOR PLYWOOD OR TYPE 2-M-W FOR ORIENTED STRAND BOARD, UNLESS OTHERWISE NOTED.
- B. WHERE PLYWOOD IS PERMANENTLY EXPOSED TO WEATHER, IT SHALL BE EXTERIOR TYPE. OTHERWISE, PANEL SHEATHING SHALL BE EXPOSURE 1. PLYWOOD TO BE CC GRADE AT LOCATIONS EXPOSED TO WEATHER; CC OR CD GRADE ELSEWHERE.
- C. PANELS TO BE 5-PLY MINIMUM, EXCEPT 3/8" PANELS TO BE 3-PLY MINIMUM.
- D. PLYWOOD SHEETS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS. PLYWOOD AT FLOORS SHALL BE GLUED TO FRAMING BELOW (USE SOLVENT BASED GLUE COMPLYING WITH ASTM D3498 AND VOLATILE ORGANIC COMPOUND (VOC) LIMITS PER CALGREEN). LN-950 BY LIQUID NAILS OR APPROVED EQUIVALENT, UNLESS OTHERWISE SPECIFIED BY THE ARCHTIECT. PROVIDE RING-SHANK NAILS AT FLOOR AND ROOF SHEATHING.
- E. PLYWOOD SHEETS ON WALLS SHALL BE LAID WITH LONG DIMENSION VERTICAL. BLOCK ALL EDGES WITH A MINIMUM OF 3X BLOCK AND/MEMBERS. ALL NAILING SHALL HAVE 3/8 INCH EDGE DISTANCE FOR FRAMING. BLOCKING AND PLYWOOD EDGES. USE SMOOTH-SHANK NAILS FOR PLYWOOD WALL SHEATHING.
- F. STAPLES FOR PLYWOOD DIAPHRAGMS SHALL BE 14 GAGE ROUND SEMI-FLATTENED OR FLATTENED, PLAIN OR ZINC-COATED STEEL WIRE WITH A NOMINAL CROWN WIDTH OF 7/16", DRIVEN BY PNEUMATIC OR MECHANICAL DEVICE.
- G. PROVIDE 1/8" GAP BETWEEN PANELS UNLESS OTHERWISE NOTED.
- H. PANELS SHALL HAVE THE FOLLOWING PROPERTIES UNLESS OTHERWISE NOTED.
- 1) 3/8 INCH NOMINAL SHALL BE 3/8 INCH ACTUAL THICKNESS WITH 24/0 SPAN RATING
- 2) 1/2 INCH NOMINAL SHALL BE 15/32 INCH ACTUAL THICKNESS WITH 32/16
- SPAN RATING 3) 5/8 INCH NOMINAL SHALL BE 19/32 INCH ACTUAL THICKNESS WITH 40/20
- SPAN RATING 4) 3/4 INCH NOMINAL SHALL BE 23/32 INCH ACTUAL THICKNESS WITH 48/24
- SPAN RATING 5) 1-1/8 INCH NOMINAL SHALL BE 1-1/8 INCH ACTUAL THICKNESS WITH 48 O.C. FLOOR SPAN RATING.

#### 15. ROUGH CARPENTRY

A. FOR SCHEDULE OF MINIMUM NAILING TABLE 2304.10.1 OF THE 2019 OREGON STRUCTURAL SPECIALTY CODE. 16d VINYL COATED SINKERS MAY BE SUBSTITUTED FOR 16d BOX OR COMMON NAILS FOR ROUGH FRAMING. SINKERS SHALL NOT BE USED WITH METAL CONNECTORS.

- B. SILLS AND LEDGERS ON CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED DOUGLAS FIR. SILLS AND LEDGERS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE AND A FASTENER NO FURTHER THAN 9 INCHES FROM END OF EACH PIECE, UNLESS OTHERWISE NOTED.
- C. PLACE JOISTS WITH CROWN UP.
- D. RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.
- E. WHEN METAL CONNECTORS, ANCHORS OR FASTENERS ITEMS ARE EXPOSED TO WEATHER AND/OR PRESSURE TREATED LUMBER THE METAL ITEMS ARE TO BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. SEE ADDITIONAL COATING REQUIREMENTS AS NOTED IN THE PRESSURE TREATMENT SECTION.
- F. DOUBLE ALL JOISTS UNDER ALL PARALLEL PARTITIONS UNLESS NOTED OTHERWISE
- G. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2x SOLID BLOCKING. BLOCK AND BRIDGE ROOF JOISTS AT 10 FEET AND FLOOR JOISTS AT 8 FEET UNLESS OTHERWISE NOTED.
- H. 2x JOISTS SHALL BE SISTERED (VERTICAL NAIL LAMINATED) WITH SDWS 0.220x3 MIN. LENGTH AT 6" O.C. IN (2) ROWS STAGGERED UNLESS OTHERWISE NOTED.
- I. ALL POSTS LOCATED OVER WOOD WALLS SHALL HAVE A POST OF EQUAL OR GREATER SIZE LOCATED IN THE WALL DIRECTLY BELOW UNLESS OTHERWISE NOTED.
- J. THE STRUCTURAL DESIGN ASSUMES THAT ALL FLOORS AND ROOFS ARE CONSTRUCTED AND LOADED WITH FINISHES (OR EQUIVALENT WEIGHT) FOR A MINIMUM OF SEVEN (7) DAY PRIOR TO THE TIME OF DOOR AND WINDOW INSTALLATION.
- K. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON STRONG-TIE'S STANDARD FASTENERS OR APPROVED EQUIVALENT INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. USP LUMBER CONNECTORS WITH REFERENCE NUMBERS FOR SUBSTITUTION MAY BE USED IN LIEU OF SIMPSON HARDWARE. ENGINEER MAY APPROVE OF OTHER SUBSTITUTIONS UPON THE FOLLOWING:

1) WRITTEN REQUEST FOR OTHER BRANDS SUBMISSION OF MANUFACTURER'S TESTING REPORTS REFERENCES TO PERTINENT DETAILS WHERE SUBSTITUTIONS ARE TO BE APPLIED.

**16. PRESSURE TREATMENT** 

AL: CO TH	ITABLE FO SO BE FIE NTRACTO OSE SHOV E FOLLOW
1) 2) 3) 4) 5) 6) 7) 8)	UC1 – INT UC2 – INT UC3A – E UC3B – E UC4A – G UC4B – G UC4C – G UC5A – N
PR	EXTERIC

C. ALL PLYWOOD EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.

D. WHEN METAL CONNECTOR, ANCHOR OR FASTENER ITEMS ARE IN CONTACT WITH PRESSURE TREATED LUMBER AND/OR CORROSIVE ENVIRONMENTS THE CONTRACTOR SHALL USE CORROSION RESISTANT METAL ITEMS AS NOTED:

1) WHEN LUMBER IS TREATED WITH CHROMATED COPPER ARSENATE (CCA-C) OR DOT SODIUM ARSENATE (SBX) THE METAL ITEMS SHALL HAVE A MINIMUM G90 (0.90 OZ/SQFT) ZINC COATING OR ENGINEER APPROVED EQUIVALENT

2) WHEN LUMBER IS TREATED WITH ALKALINE COPPER QUAT (ACQ-C OR ACQ-D), COPPER AZOLE (CBA-A OR CA-B) OR OTHER BORATE (NON-DOT) TREATMENT THE METAL ITEMS SHALL HAVE A MINIMUM G185 (1.85 OZ/SQFT) ZINC COATING OR ENGINEER APPROVED EQUIVALENT. WHEN LUMBER IS TREATED WITH OTHER TREATMENTS (NOT AMMONIACAL COPPER ZINC ARSENATE (ACZA) SEE 4 BELOW) OR IS EXPOSED TO CORROSIVE ENVIRONMENTS NOT LIST ABOVE THE METAL ITEMS SHALL BE TYPE 316L STAINLESS STEEL OR ENGINEER APPROVED EQUIVALENT. 4) AMMONIACAL COPPER ZINC ARSENATE (ACZA) IS NOT PERMITTED UNLESS APPROVED BY THE ENGINEER. 5) CONTRACTOR IS TO CONFIRM LUMBER PRESSURE TREATMENT TYPE PRIOR

#### 17. STRUCTURAL STEEL

- OTHERWISE NOTED.
- 1) PLATES AND BARS, INCLUDING DOUBLER PLATES, CONTINUITY PLATES, BASE PLATES, GUSSET PLATES, AND SHEAR TABS: ASTM A572 GRADE 50. WIDE FLANGES (W): ASTM A992 (Fy = 50 KSI). 3) MISCELLANEOUS (M), AMERICAN STANDARD (S), CHANNEL (C) MISCELLANEOUS CHANNEL (MC), AND ANGLES (L): ASTM A36 (Fy = 36 KSI). 4) BEARING PILES (HP): ASTM A572 GRADE 50 (Fy = 50 KSI).

- NOTED.

D. ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.

- SPECIFICATIONS.

L. ALL STRUCTURAL WOOD WALLS SHALL BE FRAMED WITH 2x4 MINIMUM STUDS AT 16" ON CENTER UNLESS OTHERWISE NOTED.

M. PRE-DRILL HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD.

A. ALL LUMBER EXPOSED TO WEATHER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH A.W.P.A. STANDARD U1. WITH A PRESERVATIVE AND RETENTION OR THE APPLICATION (SEE BELOW). ALL CUT ENDS SHALL LD TREATED WITH A PRESERVATIVE. AS AN ALTERNATE. OR MAY USE REDWOOD OF EQUIVALENT STRENGTH PROPERTIES AS WN ABOVE, AND AN APPROVED PRIMER. VING USE CATEGORIES SHALL BE REQUIRED BASED ON THE APPLICATION:

> TERIOR DRY TERIOR DAMP EXTERIOR ABOVE GROUND – PROTECTED EXTERIOR ABOVE GROUND - UNPROTECTED ROUND CONTACT, GENERAL USE ROUND CONTACT, HEAVY DUTY USE ROUND CONTACT, EXTREME DUTY MARINE USE, NORTHERN WATERS

OR GLUED LAMINATED BEAMS EXPOSED TO WEATHER SHALL BE REATED WITH A PRESERVATIVE, PENTACHLOROPHENOL WITH A T RETENTION OF 0.40#/CU. FT. FOR BOTH GROUND USE. ALL CUT ENDS SHALL ALSO BE TREATED WITH A PRESERVATIVE. AS AN ALTERNATE, GLU-LAM BEAMS MAY BE FABRICATED OF ALASKAN, OR PORT ORFORD CEDAR, AND FIELD PAINTED WITH AN APPROVED PRIMER.

TO PURCHASE OF METAL ITEMS. 6) AS AN ALTERNATIVE, FOR THE SITUATION WHEN THE BASE OF A HOLDOWN IS IN CONTACT WITH A PRESSURE TREATED SILL PLATE THE CONTRACTOR CAN PROVIDE A PRESSURE TREATMENT BARRIER BETWEEN THE BASE OF THE HOLDOWN AND THE SILL PLATE.

A. STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS

RECTANGULAR AND ROUND HSS (HSS): A1085 GR. 50 (Fy = 50 KSI) RECTANGULAR AND ROUND HSS (HSS): ASTM A500 Gr. C (Fy = 46 KSI). PIPE (P): ASTM A53 GRADE B (Fy = 35 KSI) 3) STRUCTURAL TEES (WT, MT, AND ST) SHALL CONFORM TO THE ASTM SPECIFICATION OF THE CORRESPONDING FULL DEPTH SHAPE (WT SHALL CONFORM TO ASTM SPECIFICATION FOR W, ETC.)

B. STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS. UNLESS OTHERWISE

1) ERECTION, GROUTED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A. HIGH STRENGTH BOLTS: ASTM F3125 A325; WHERE TWIST-OFF TYPE BOLTS ARE SPECIFIED, PROVIDE ASTM F3125 F1852.

3) THREADED RODS: ASTM A36. HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.

STEEL HEADED STUD ANCHORS: ASTM A108. 6) ANCHOR RODS AND ANCHOR BOLTS: ASTM F1554 WITH WELDABILITY SUPPLEMENT S1 GRADE 55.

C. WHEN PRETENSIONED ASTM F3125 A490 BOLTS ARE SPECIFIED F436 WASHERS SHALL BE USED UNDER BOTH THE BOLT HEAD AND NUT.

E. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A 123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.

F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE) WITH ONE COAT OF PRIMER STANDARD TNEMEC V10 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S

G. ALL CONCRETE ENCASED STEEL SHALL BE CLEAN OF GREASE, PAINT AND OTHER CONTAMINANTS.

H. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3, USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E), WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED.

J. LOCATE AND INSTALL ALL ANCHOR BOLTS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS.

K. STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO VIEW IN THE COMPLETED BUILDING ARE DESIGNATED ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) AND ARE SUBJECT TO THE AISC AESS REQUIREMENTS. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

#### 18. SEISMIC MOMENT FRAME CONNECTIONS

A. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.8 STRUCTURAL WELDING CODE SEISMIC SUPPLEMENT. USE E70XX ELECTRODES.

#### **19. MECHANICAL ANCHORS**

- A. EXPANSION ANCHORS INTO CONCRETE SHALL BE
- 1. HILTI KB-TZ INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. SCREW ANCHORS INTO CONCRETE SHALL BE:
- 1. HILTI KH-EZ INSTALL SCREWS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- C. PROVIDE STAINLESS (AISI 316) STEEL FASTENERS FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER OR IN CHEMICALLY CORROSIVE ENVIRONMENTS. PROVIDE ZINC COATED OR GALVANIZED CARBON STEEL ANCHORS AT OTHER LOCATIONS, UNLESS OTHERWISE NOTED. WHERE STAINLESS STEEL FASTENERS ARE USED IN CONJUNCTION WITH GALVANIZED OR OTHER DISSIMILAR BASE METALS, PROVIDE ELECTRICAL ISOLATION AS NOTED ON THE DRAWINGS. NOTIFY THE ENGINEER FOR CLARIFICATION IF NO ELECTRICAL ISOLATION IS SPECIFIED.
- D. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. DO NOT CUT EXISTING REINFORCEMENT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.
- E. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS.

#### 20. EPOXY GROUTING OF DOWELS, REBAR AND ANCHOR BOLTS

- A. INSTALLATION OF POST-INSTALLED DOWELS, REBAR AND ANCHOR BOLTS (EPOXY ANCHORS) SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). WHERE THERE IS A CONFLICT BETWEEN THESE NOTES AND THE MPII, SEE MPII FOR CLARIFICATION. EPOXY ANCHORS EXPOSED TO WEATHER TO BE GALVANIZED. EPOXY ANCHORS IN BRICK (URM) REQUIRE SCREEN TUBES PER MANUFACTURER.
- EPOXY ANCHORS SHALL MEET THE REQUIREMENTS OF ACI 355.4 AND THE FOLLOWING INSTALLATION REQUIREMENTS, UNLESS OTHERWISE NOTED.
- 1) MINIMUM AGE OF CONCRETE: 21 DAYS CONCRETE TEMPERATURE RANGE: 50-80 DEGREES FAHRENHEIT
- MOISTURE CONDITION OF CONCRETE: DRY
- C. EPOXY GROUTING WILL BE USED IN ALL LOCATIONS WHERE EITHER ALL-THREAD ROD OR REBAR ARE BEING EMBEDDED INTO EXISTING CONCRETE. CMU, OR BRICK.
- D. IN CONCRETE, HOLES SHALL BE DRILLED WITH ROTARY HAMMER UNLESS NOTED OTHERWISE.
- IN BRICK, HOLES SHALL BE DRILLED WITH NON-IMPACT TOOLS. NO ROTARY HAMMERS
- EPOXY GROUT FOR DOWNWARD HOLES SHALL BE EITHER NON-SAG OR LIQUID TYPE, NORMAL SET, HORIZONTAL OR OVERHEAD HOLES SHALL BE NON-SAG TYPE. FOR OVERHEAD APPLICATIONS A PISTON PLUG SHALL BE USED.
- G. UNLESS OTHERWISE NOTED, EPOXY TYPES SHALL BE AS FOLLOWS: FOR DOWELS AND REBAR IN CONCRETE, EPOXY SHALL BE: a. HILTI HIT-RE 500 V3
- FOR ANCHOR BOLTS IN CONCRETE, EPOXY SHALL BE a. HILTI HIT-HY 200

FOR UNREINFORCED MASONRY (URM), EPOXY SHALL BE: a. HILTI HIT-HY 270

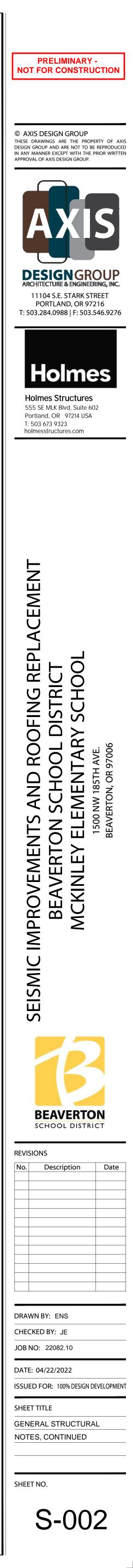
FOR CONCRETE MASONRY UNITS(CMU), EPOXY SHALL BE: a. HILTI HIT-HY 270

ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF PRODUCT EVALUATION REPORT IN ACCORDANCE WITH ACI 355.4.

- H. WHEN INSTALLING ANCHORS, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.
- IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED, THE ENGINEER WILL DETERMINE A NEW LOCATION.
- LOCATE EXISTING REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH ANCHORS.

#### 21. FINISHES - FOR WORK ON EXISTING BUILDINGS

A. REPLACE ALL DAMAGED FINISH MATERIALS WITH NEW MATERIALS OF EQUIVALENT QUALITY AND KIND. SUBMIT SAMPLES AND/OR PRESENT SAMPLE INSTALLATION TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.



TYPE	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	х
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	х
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	х
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	x	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	х

AINTENANCE OF SPECIFIED EMPERATURE AND TECHNIQUES.	-	x	ACI 318: 26.5.3-26.5.5	1908.9	
PLICABLE, SEE ALSO SECTION 1705.12 (SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE). EQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR AN APPROVED SOURCE IN ACCORDANCE WITH ACI 318-19 SECTION 17.8.2, OR OTHER QUALIFICATION RES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO ENCEMENT OF THE WORK. SPECIAL INSPECTIONS FOR EPOXY ADHESIVE ANCHORS SHALL BE CONTINUOUS OTED OTHERWISE.					
INIMUM TEST AN			PECTIONS OF	N.T.S.	

1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	×	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	-	x	AWS D1.4	
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	-	x	ACI 318: 26.6.4	-
c. INSPECT ALL OTHER WELDS.	x	-		
3. INSPECT ANCHORS CAST IN CONCRETE.	-	x	ACI 318: 17.8.2	-
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	x	-	ACI 318: 17.8.2.4	-
b.MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	-	x	ACI 318: 17.8.2	-
5. VERIFY USE OF REQUIRED MIX DESIGN.	-	x	ACI 318: CH.19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	x	-	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	x	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	x	ACI 318: 26.5.3-26.5.5	1908.9

1	STATEMENT OF SPECIAL INSPECTIONS	
S-010		

	SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
11.	STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360-10, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANC OF INSPECTION NOTES #8 AND #9.
12	CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED

STATEMENT OF SPECIAL INSPECTIONS

TESTS.

VERIFICATION AND INSPECTION

1. INSPECT REINFORCEMENT, INCLUDING

THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.

SEPARATE FROM THE SPECIAL INSPECTION REPORTS.

CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS.

a. DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: "N/A".

a. MAIN WIND FORCE RESISTING SYSTEM/WIND RESISTING COMPONENT: "N/A".

RESISTING COMPONENTS WHEN APPLICABLE AND AS PER SECTION 1705.11 OF THE CODE.

AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.

FOR SEISMIC AND WIND RESISTANCE INC OF 12. CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:

1. SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY

3. THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS

5. THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND

BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF

EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR

6. IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS SHALL

NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE

8. SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC

SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR

STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC

9. SPECIAL INSPECTIONS FOR WIND RESISTANCE SHALL BE PERFORMED FOR THE MAIN WIND FORCE RESISTING SYSTEM AND WIND

10. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED

SYSTEMS, ARCHITECTURAL COMPONENTS, MEP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS,

SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, AND WIND-RESISTING COMPONENTS.

TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF

APPROVED BY THE JURISDICTION FOR SUCH WORK, AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL

INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.

2. THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.

4. THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.

7. SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF

FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.

- a. ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK. b. NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, WHERE THE EFFECTIVE PRESTRESS IN THE
- CONCRETE IS LESS THAN 150 PSI.
- 13. WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.

- 14. SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

(2019 OSSC TABLE 1705.3)<sup>a</sup>

CONTINUOUS | PERIODIC | REFERENCED STANDARD | IBC REFERENCE

N.T.S.

S-010

VERIFICATION AND INSPECTION 1. STRUCTURAL STEEL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:

INSPECTION OF STRUCTURAL STEEL IN ACCORDANCE WI AISC 341. 2. STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:

a. INSPECTION OF FIELD GLUING OPERATIONS OF ELEMENTS OF THE SEISMIC-FORCE RESISTING SYSTEM. b. INSPECTION OF NAILING, BOLTING, ANCHORING AND

OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS\*, WOOD SHEAR PANELS\*, WOOD DIAPHRAGMS\*, DRAG STRUTS, AND HOLD-DOWNS.

3. DESIGNATED SEISMIC SYSTEMS VERIFICATIONS: INSPECT AND VERIFY THAT THE COMPONENT LABEL, ANCHORAGE OR MOUNTING CONFORMS TO THE CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH SECTION 1705.12.4.

4. ARCHITECTURAL COMPONENTS SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE: a. INSPECTION DURING ERECTION AND FASTENING OF

EXTERIOR CLADDING. b. INSPECTION DURING ERECTION AND FASTENING OF INTERIOR AND EXTERIOR VENEER.

c. INSPECTION DURING THE ERECTION AND FASTENING OF INTERIOR AND EXTERIOR NONBEARING WALLS. d. INSPECTION DURING ANCHORAGE OF ACCESS FLOORS.

5. PLUMBING, MECHANICAL AND ELECTRICAL COMPONENTS SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE: a. INSPECTION DURING THE ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS.

b. INSPECTION DURING THE ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT. c. INSPECTION DURING INSTALLATION AND ANCHORAGE

OF PIPING SYSTEMS DESIGNED TO CARRY HAZARDOUS MATERIALS, AND THEIR ASSOCIATED MECHANICAL UNITS. d. INSPECTION DURING THE INSTALLATION AND ANCHORAGE OF HVAC DUCTWORK THAT WILL CONTAIN

HAZARDOUS MATERIALS. e. INSPECTION DURING THE INSTALLATION AND ANCHORAGE OF VIBRATION ISOLATION SYSTEMS. f. INSPECTION OF MECHANICAL AND ELECTRICAL

EQUIPMENT, INCLUDING DUCT WORK, PIPING SYSTEMS AND THEIR STRUCTURAL SYSTEMS, WHERE AUTOMATIC FIRE SPRINKLER SYSTEMS ARE INSTALLED IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F FOR MINIMUM CLEARANCES. 6. STORAGE RACKS SPECIAL INSPECTIONS FOR SEISMIC

RESISTANCE: INSPECTION DURING THE ANCHORAGE OF STORAGE RACKS 8 FEET OR GREATER IN HEIGHT. 7. SEISMIC ISOLATION SYSTEMS: INSPECTION DURING THE FABRICATION AND INSTALLATION

OF ISOLATOR UNITS AND ENERGY DISSIPATION DEVICES USED AS PART OF THE SEISMIC ISOLATION SYSTEM.

a."O" INDICATES AN ACTIVITY THAT IS EITHER A ONE-TIME ACTIVITY OR ONE WHOSE FREQUENCY IS ON A RANDOM BASIS OR IS DEFINED IN SOME OTHER MANNER (SEE REFERENCED CODE SECTION). MINIMUM INSPECTION FOR SEISMIC RESISTANCE

 $3 \rightarrow MINIMUM IESTS AND SPECIAL INSPECTIONS OF$ 

SOILS

a. WHERE API b. SPECIFIC RE ISSUED BY PROCEDUR SPECIFIED THE COMME UNLESS NO

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TESTING FOR SEISMIC RESISTANCE (2014 OSSC SECTION 1705.13)			
TESTING			
1. STRUCTURAL STEEL TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE: TEST IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341.	OSSC SEC. 1705.13.1, AISC 341-16		
2. NONSTRUCTURAL COMPONENTS: REVIEW CERTIFICATE OF COMPLIANCE FOR NONSTRUCTURAL COMPONENT, SUPPORT, OR ATTACHMENT FOR CONFORMANCE WITH ASCE 7-16 SECTION 13.2.1 WHERE QUALIFICATION IS ACHIEVED THROUGH ANALYSIS, TESTING, OR EXPERIENCE DATA.	OSSC SEC. 1705.13.2		
3. DESIGNATED SEISMIC SYSTEMS: REVIEW CERTIFICATE OF COMPLIANCE FOR ELEMENTS OF THE DESIGNATED SEISMIC SYSTEM (WHERE NOTED ON THESE DRAWINGS) FOR CONFORMANCE WITH ASCE 7-16 SECTION 13.2.2.	OSSC SEC. 1705.13.3		
4. SEISMIC ISOLATION SYSTEMS: TEST SEISMIC ISOLATION SYSTEM IN ACCORDANCE WITH ASCE 7-16 SECTION 17.8.	OSSC SEC. 1705.13.4, ASCE 7-16 SEC. 17.8		

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(2014 OSSC SECTION 1705.13)	
TESTING	
RAL STEEL TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE: CORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341.	OSSC SEC. 1705.13.1, AISC 341-16
CTURAL COMPONENTS: ERTIFICATE OF COMPLIANCE FOR NONSTRUCTURAL COMPONENT, SUPPORT, HMENT FOR CONFORMANCE WITH ASCE 7-16 SECTION 13.2.1 WHERE TION IS ACHIEVED THROUGH ANALYSIS, TESTING, OR EXPERIENCE DATA.	OSSC SEC. 1705.13.2
ED SEISMIC SYSTEMS: ERTIFICATE OF COMPLIANCE FOR ELEMENTS OF THE DESIGNATED SEISMIC VHERE NOTED ON THESE DRAWINGS) FOR CONFORMANCE WITH ASCE 7-16 3.2.2.	OSSC SEC. 1705.13.3
OLATION SYSTEMS: MIC ISOLATION SYSTEM IN ACCORDANCE WITH ASCE 7-16 SECTION 17.8.	OSSC SEC. 1705.13.4, ASCE 7-16 SEC. 17.8
	-

MINIMUM	TEST	FOR	SEISMIC	RESISTANCE	
					ī

CONTINUOUS PERIODIC<sup>a</sup> REFERENCED STANDARD

OSSC SEC. 1705.12.1

AISC 341

OSSC SEC. 1705.12.2

\* NOT REQUIRED WHERE

FASTENER SPACING OF

OSSC SEC. 1705.12.4

OSSC SEC. 1705.12.5

OSSC SEC. 1705.12.6

OSSC SEC. 1705.12.7

OSSC SEC. 1705.12.8

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REQUIRED VERIFICATION AND INSPECTION OF STEEL CON (2014 OSSC SECTION 1705.2.1 AND AISC 360-16 CHAPT	ER N) <sup>a</sup>	-	1
VERIFICATION AND INSPECTION	PERFORM <sup>b</sup>	OBSERVEC	REF. STANDARD
1. FABRICATOR AND ERECTOR DOCUMENTS: VERIFY REPORTS, CERTIFICATIONS, SPECIFICATIONS AND QUALIFICATIONS LISTED IN AISC 360-16 SECTION N3 FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS.	-	х	AISC 360 N3
2. MATERIAL VERIFICATION OF STRUCTURAL STEEL.	-	Х	
3. VERIFY MEMBER LOCATIONS, BRACES, STIFFENERS, AND APPLICATION OF JOINT DETAILS AT EACH CONNECTION COMPLY WITH CONSTRUCTION DOCUMENTS.	-	х	AISC 360 N5.8
4. WELDING			AISC 360 N5.4
A. INSPECTION TASKS PRIOR TO WELDING			AISC TABLE N5.4-
1. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	x	-	
2. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	x	-	
3. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	x	-	
4. MATERIAL IDENTIFICATION (TYPE/GRADE).	-	х	
5. WELDER IDENTIFICATION SYSTEM (THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDER A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.).	-	х	
6. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): JOINT PREPARATIONS, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), AND BACKING TYPE AND FIT (IF APPLICABLE).	-	x	
<ol> <li>FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY): JOINT PREPARATIONS, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES) AND TACKING (TACK WELD QUALITY AND LOCATION).</li> </ol>	x	-	
8. CONFIGURATION AND FINISH OF ACCESS HOLES.	-	х	
9. FIT-UP OF FILLET WELDS: DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), AND TACKING (TACK WELD QUALITY AND LOCATION).	-	x	
10. CHECK WELDING EQUIPMENT.	-	x	
B. INSPECTION TASKS DURING WELDING			AISC TABLE N5.4-2
1. CONTROL AND HANDLING OF WELDING CONSUMABLES: PACKAGING,	-	x	
AND EXPOSURE CONTROL. 2. NO WELDING OVER CRACKED TACK WELDS.		~	
3. ENVIRONMENTAL CONDITIONS: WIND SPEED WITHIN LIMITS, AND	-	x	
4. WPS FOLLOWED: SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN/MAX), AND PROPER POSITION (F,V,H,OH).	-	x	
5. WELDING TECHNIQUES: INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, AND EACH PASS MEETS QUALITY REQUIREMENTS.	-	x	
6. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS.	x	-	
C. INSPECTION TASKS AFTER WELDING			AISC TABLE N5.4-3
1. WELDS CLEANED.	-	х	
2. SIZE, LENGTH, AND LOCATION OF WELDS.	x	-	
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, AND POROSITY.	x	-	
4. ARC STRIKES.	x	-	
5. k-AREA (WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, VISUALLY INSPECT THE WEB k-AREA FOR CRACKS WITHIN 3" OF THE WELD).	x	-	
6. WELD ACCESS HOLE IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES (AFTER ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLE FOR CRACKS.	x	-	
7. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	x	-	
8. REPAIR ACTIVITIES.	x	-	
9. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR	x	-	
10. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL	-	x	
OF THE EOR. D. NONDESTRUCTIVE TESTING OF WELDED JOINTS (EXCEPTION NDT OF			
WELDS COMPLETED IN AN APPROVED FABRICATOR'S SHOP. SEE AISC 360-16 N7): 1. COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK	x	-	AISC 360 N5.5
CATEGORY III OR IV. UT ON 100% MAY BE REDUCED TO 25% PER AISC 360-10 N5e.			
2. COMPLETE PENETRATION GROOVE WELDS 5/16" OR GREATER IN RISK CATEGORY II. UT ON 10%, MAY INCREASE TO 100% PER AISC 360-10 N5f.	×	-	
3. THERMALLY CUT SURFACES OF ACCESS HOLES WHEN MATERIAL t>2".	x	-	
4. WELDED JOINTS SUBJECT TO FATIGUE WHEN REQUIRED BY AISC 360, APPENDIX 3, TABLE A-3.1.	x	-	
	x		1

MINIMUM TESTS AND SPECIAL INSPECTION OF **∖**S-010 STEEL CONSTRUCTION N.T.S.

	VERIFICATION AND INSPECTION	PERFORM <sup>b</sup>	OBSERVE <sup>C</sup>	
.BOLT	ING			
A.	INSPECTION TASKS BEFORE BOLTING			
	1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS.	x	-	
	2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	-	x	
	3. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	-	x	
	4. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	-	x	
	5. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	-	x	
	6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENT FOR FASTENER ASSEMBLIES AND METHODS USED.	x	-	
	7. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS.	-	х	
В.	INSPECTION TASKS DURING BOLTING			
	1. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED.	-	x	
	2. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	-	x	
	3. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING.	-	x	
	4. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES.	-	x	
	INSPECTION TASKS AFTER BOLTING: DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	x	-	
STRU	EMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING ICTURAL STEEL. VERIFY DIAMETER, GRADE, TYPE, AND ITH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR I'H OF EMBEDMENT INTO THE CONCRETE.	x	-	

a.SEE AISC 360-10 CHAPTER N FOR ADDITIONAL INFORMATION NOT SHOWN HEREIN.

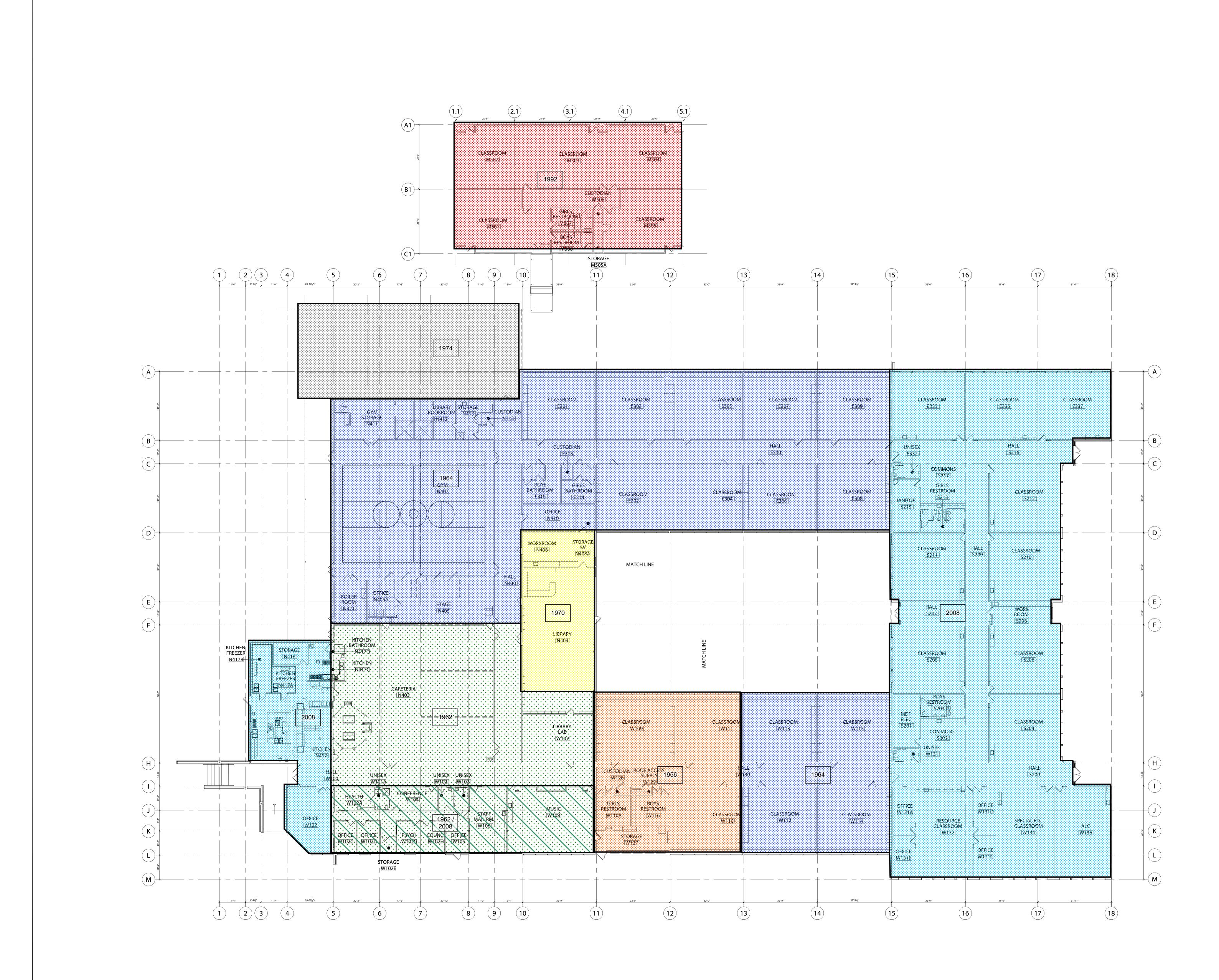
b. "PERFORM" INDICATES PERFORMANCE OF THE TASK FOR EACH STEEL ELEMENT, MEMBER, WELDED JOINT, OR BOLTED CONNECTION.

c. "OBSERVE" INDICATES OBSERVATION OF ITEM ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. THIS REQUIRES PURPOSEFUL, REGULAR, RANDOM INSPECTION WITH FREQUENCY THAT IS APPROPRIATE TO ASSURE THAT THE PROCESS IS BEING PERFORMED CORRECTLY.

REF. STANDARD
AISC 360 N5.6
AISC TABLE N5.6-1
AISC TABLE N5.6-2
AISC TABLE N5.6-3
AISC 260 NE 7
AISC 360 N5.7







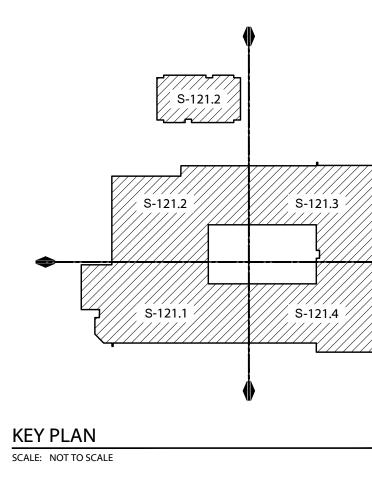
## LEGEND:

#### <u>BUILDING YEAR /</u> CONSTRUCTION

1956	1956 BUILDING PORTION TYPE: WOOD FRAMED (W2)
1962	1962 BUILDING PORTION TYPE: WOOD FRAMED (W2)
1964	1964 BUILDING PORTION TYPE: WOOD FRAMED (W2)
1970	1970 BUILDING PORTION TYPE: WOOD FRAMED (W2)
1974	1974 BUILDING PORTION TYPE: WOOD FRAMED (W2)
1992	1992 BUILDING PORTION TYPE: WOOD FRAMED (W2)
2008	2008 BUILDING PORTION TYPE: WOOD FRAMED (W2)
1962/ 2008	1962 BUILDING PORTION, MO TYPE: WOOD FRAMED (W2)

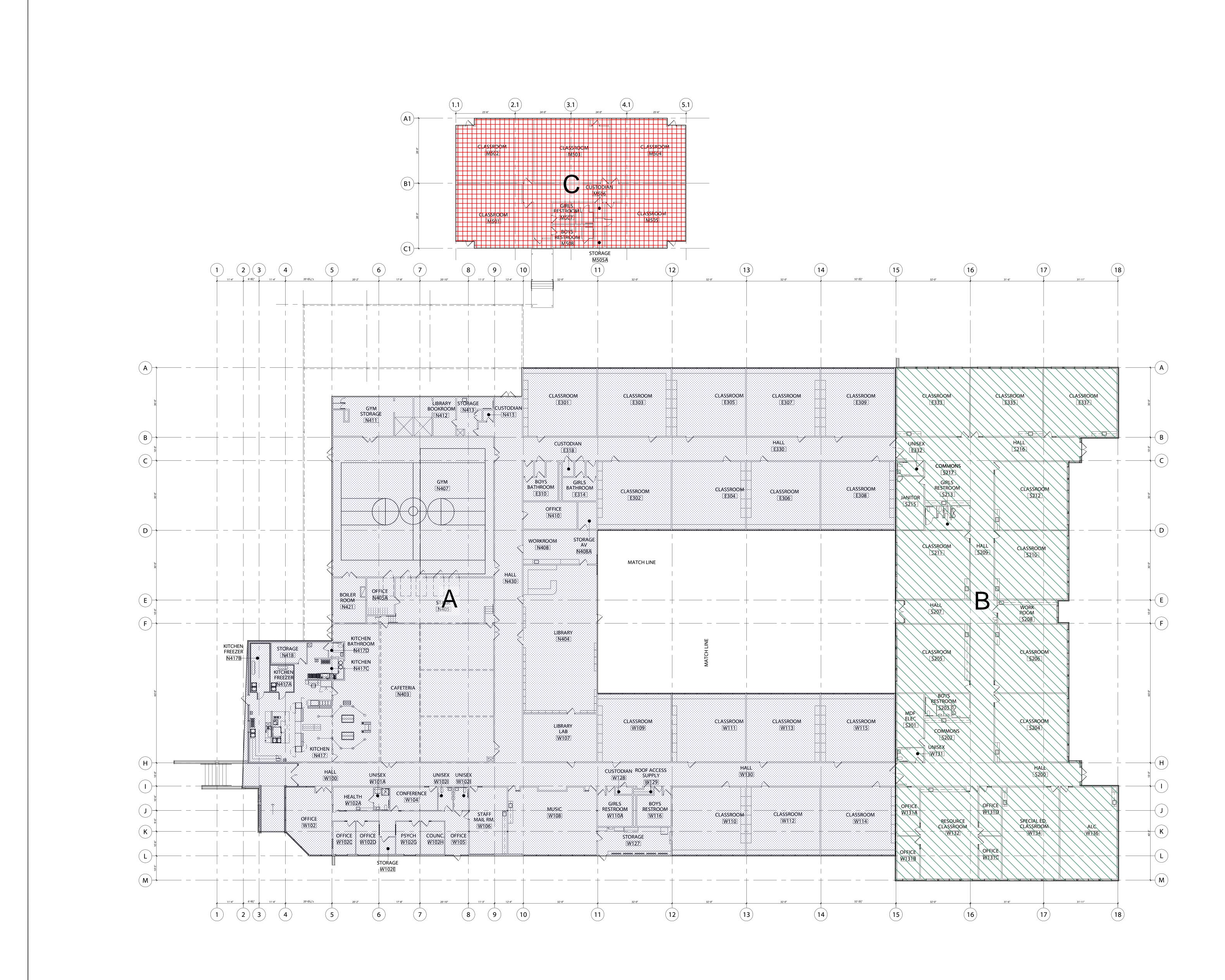
NOTE:

1) W2: WOOD FRAMES, COMMERCIAL OR INDUSTRIAL

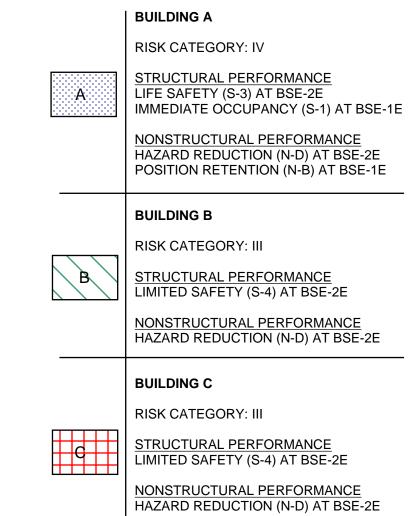


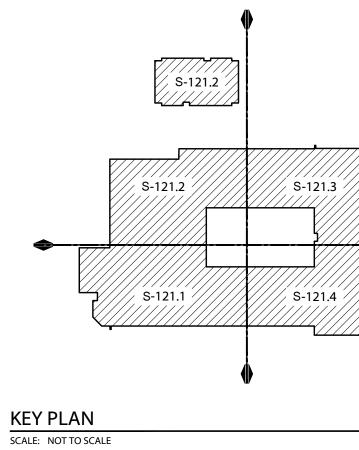


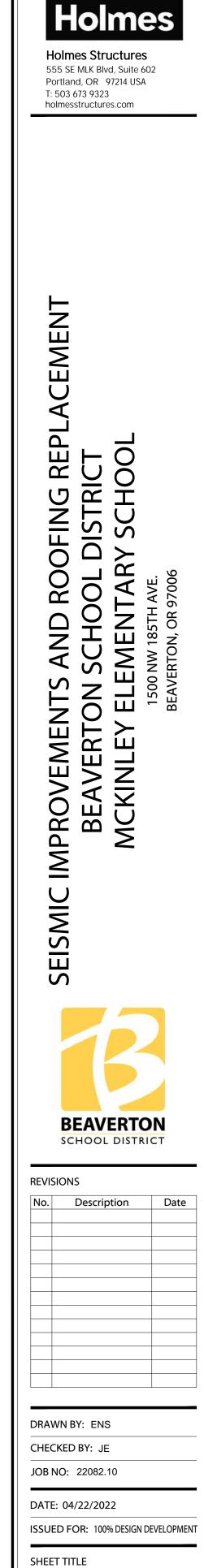
S-101



## LEGEND:







PRELIMINARY -NOT FOR CONSTRUCTION

© AXIS DESIGN GROUP THESE DRAWINGS ARE THE PROPERTY OF AXIS DESIGN GROUP AND ARE NOT TO BE REPRODUCED IN ANY MANNER EXCEPT WITH THE PRIOR WRITTEN

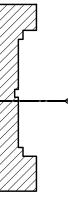
**DESIGN**GROUP

ARCHITECTURE & ENGINEERING, INC.

11104 S.E. STARK STREET PORTLAND, OR 97216

T: 503.284.0988 | F: 503.546.9276

APPROVAL OF AXIS DESIGN GROUP.

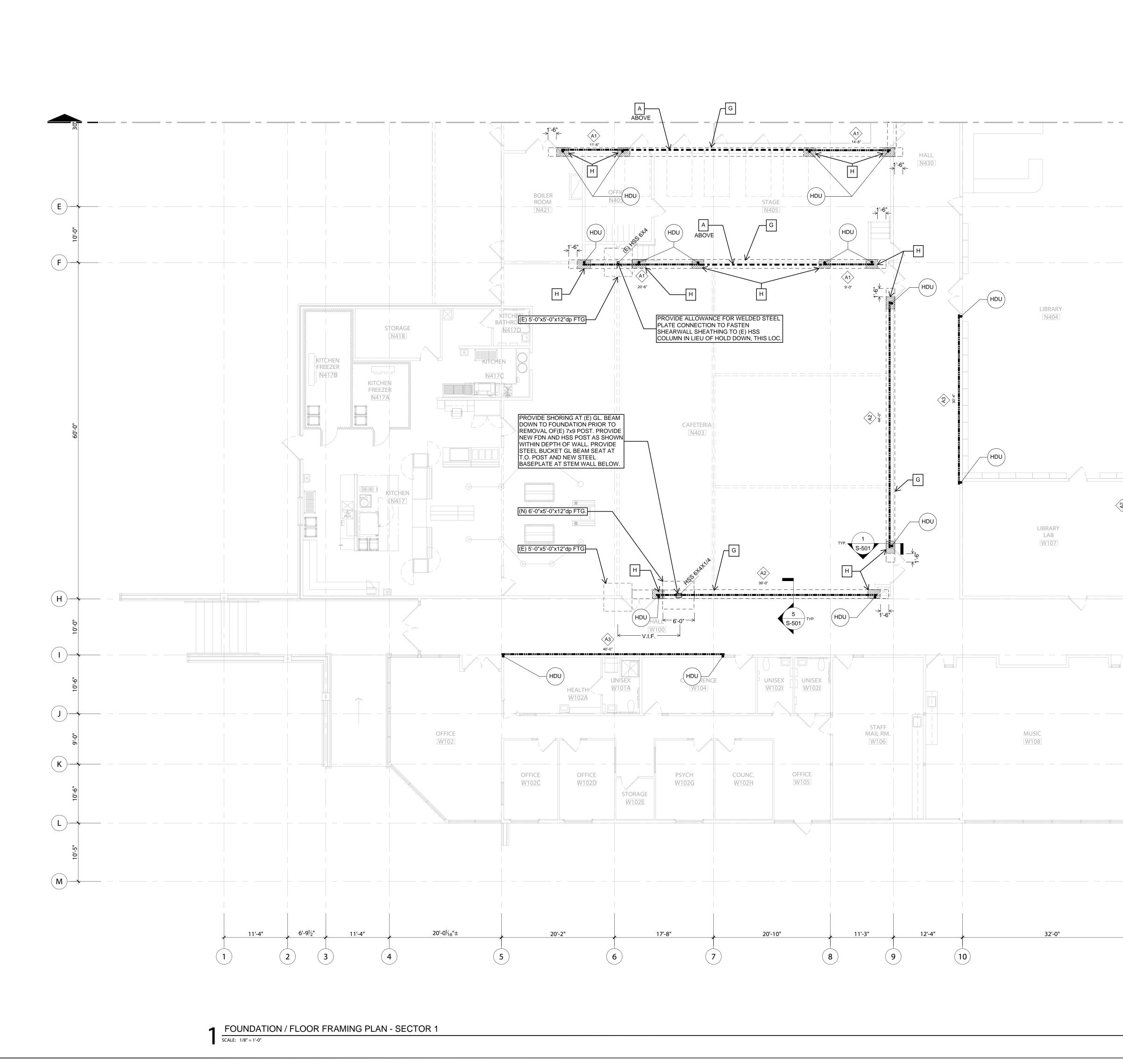


SHEET NO.

PLAN



PERFORMANCE OBJECTIVE



### **SHEET NOTES:**

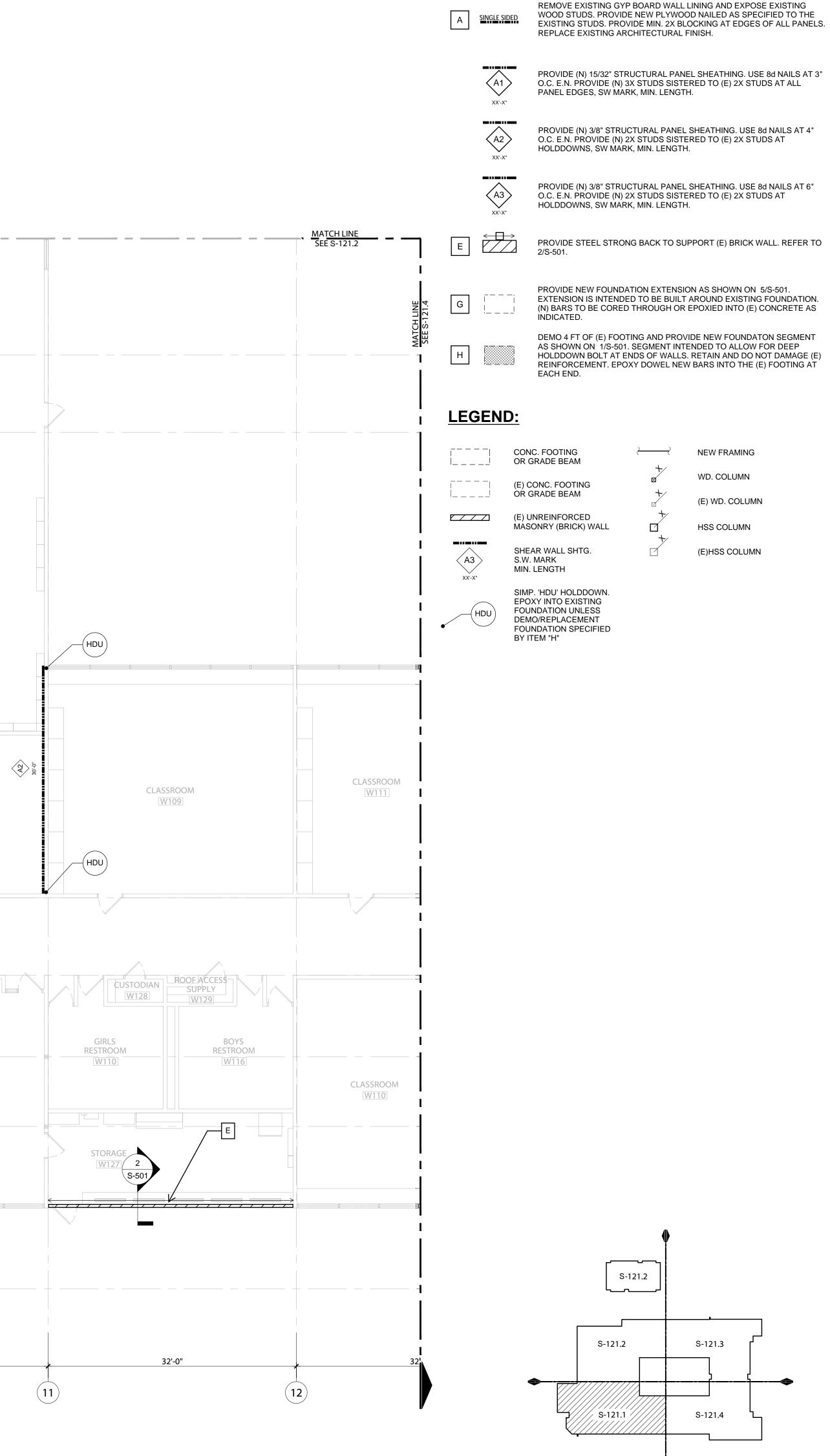
1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND INFORMATION NOT SHOWN. 2. SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR RELATED NON-STRUCTURAL ELEMENTS EMBEDDED OR CONNECTED TO THE STRUCTURE.

3. FIELD VERIFY ALL EXISTING STRUCTURAL CONDITIONS. 4. FIELD VERIFY ALL FINISHES AND SERVICES TO BE REPLACED FOR CONSTRUCTION. 5. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR

NON-STRUCTURAL ITEMS REQUIRING RETROFIT. 6.  $\overleftrightarrow$  INDICATES SHEAR WALL, SEE KEY NOTES BELOW FOR SHEAR WALL SCHEDULE

INFORMATION. 2. STRENGTHENING MEASURES ARE SHOWN HERE SUPERIMPOSED OVER ARCHITECTURAL DRAWINGS BY AXIS DESIGN GROUP.

## **KEY NOTES**



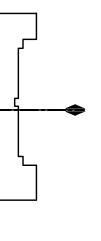
SCALE: 1/8" = 1'-0"

S Ш



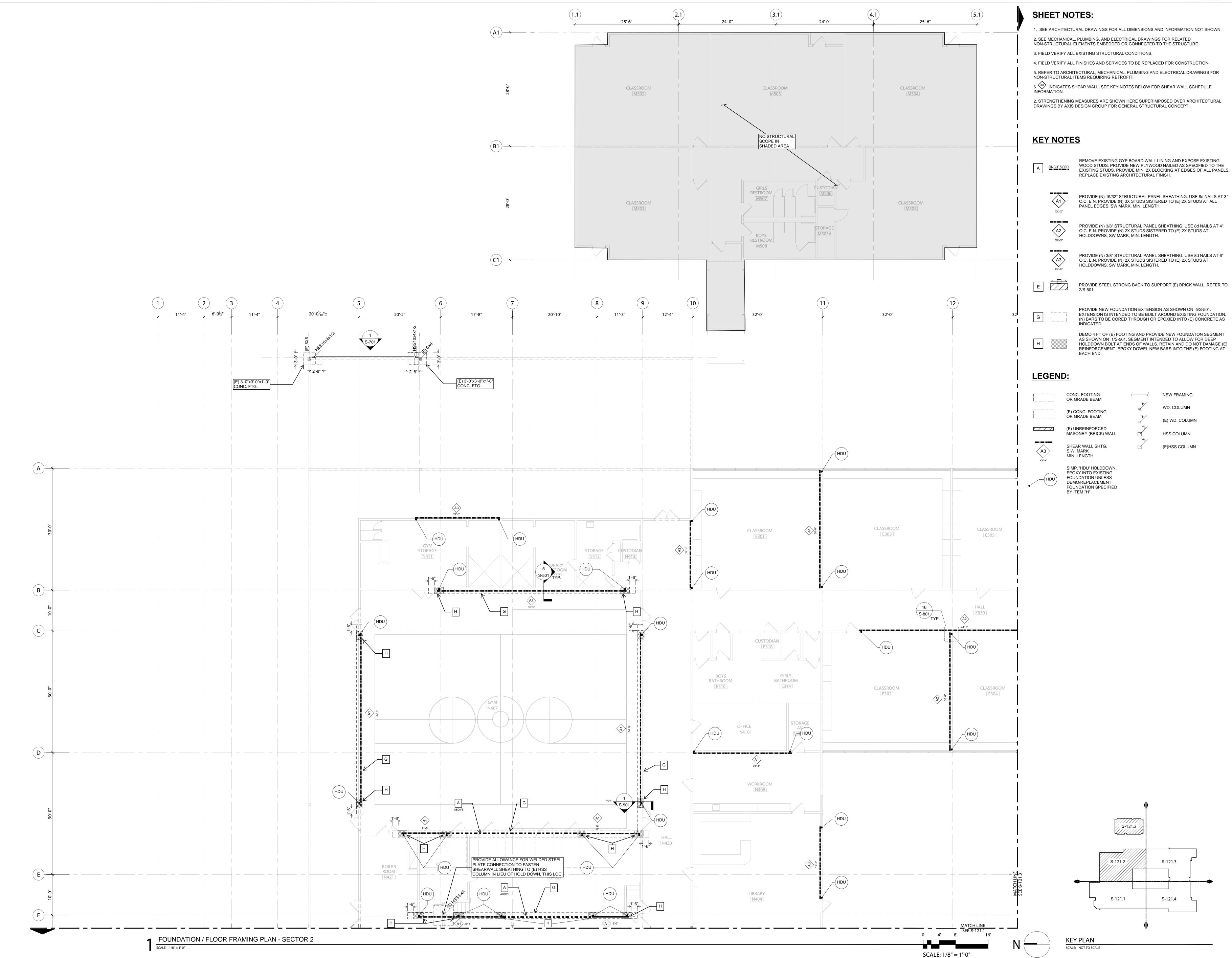
PRELIMINARY -NOT FOR CONSTRUCTION





KEY PLAN SCALE: NOT TO SCALE

S-121.1

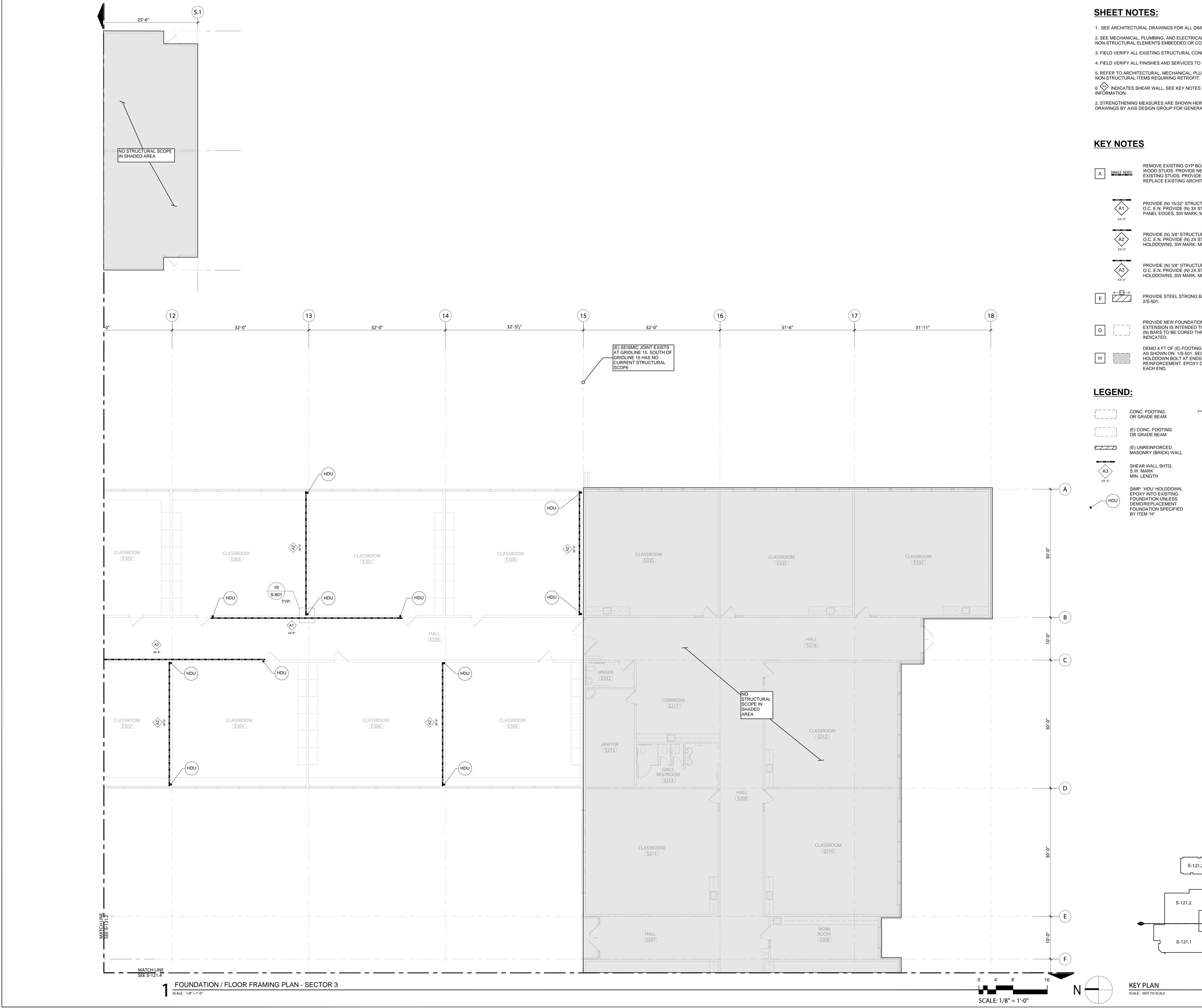


S ш S REVISIONS

© AXIS DESIGN GROUP THESE DRAWINGS ARE THE PROPERTY OF AXIS DESIGN GROUP AND ARE NOT TO BE REPRODUCED IN ANY MANNER EXCEPT WITH THE PRIOR WRITTEN APPROVAL OF AXIS DESIGN GROUP. **DESIGNGROUP** ARCHITECTURE & ENGINEERING, INC. 11104 S.E. STARK STREET PORTLAND, OR 97216 T: 503.284.0988 | F: 503.546.9276 Holmes Holmes Structures 555 SE MLK Blvd, Suite 602 Portland, OR 97214 USA T: 503 673 9323 holmesstructures.com

PRELIMINARY -NOT FOR CONSTRUCTION





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6.  $\bigotimes$  INDICATES SHEAR WALL, SEE KEY NOTES BELOW FOR SHEAR WALL SCHEDULE

2. STRENGTHENING MEASURES ARE SHOWN HERE SUPERIMPOSED OVER ARCHITECTURAL DRAWINGS BY AXIS DESIGN GROUP FOR GENERAL STRUCTURAL CONCEPT.

A	SINGLE SIDED	REMOVE EXISTING GYP BOARD WALL LINING AND E WOOD STUDS. PROVIDE NEW PLYWOOD NAILED AS EXISTING STUDS. PROVIDE MIN. 2X BLOCKING AT EI REPLACE EXISTING ARCHITECTURAL FINISH.
	A1 XX'-X"	PROVIDE (N) 15/32" STRUCTURAL PANEL SHEATHING O.C. E.N. PROVIDE (N) 3X STUDS SISTERED TO (E) 2 PANEL EDGES, SW MARK, MIN. LENGTH.
	A2 XX'-X"	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING. O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
	A3 XX'-X"	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING. O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
E		PROVIDE STEEL STRONG BACK TO SUPPORT (E) BR 2/S-501.
G	 	PROVIDE NEW FOUNDATION EXTENSION AS SHOWN EXTENSION IS INTENDED TO BE BUILT AROUND EXIS (N) BARS TO BE CORED THROUGH OR EPOXIED INTO INDICATED.
Н		DEMO 4 FT OF (E) FOOTING AND PROVIDE NEW FOU AS SHOWN ON 1/S-501. SEGMENT INTENDED TO AL HOLDDOWN BOLT AT ENDS OF WALLS. RETAIN AND REINFORCEMENT. EPOXY DOWEL NEW BARS INTO EACH END.

	CONC. FOOTING OR GRADE BEAM	<u>کے ج</u>
	(E) CONC. FOOTING OR GRADE BEAM	
	(E) UNREINFORCED MASONRY (BRICK) WALL	
(A3) XX'-X"	SHEAR WALL SHTG. S.W. MARK MIN. LENGTH	
HDU	SIMP. 'HDU' HOLDDOWN. EPOXY INTO EXISTING FOUNDATION UNLESS DEMO/REPLACEMENT	

S-121.2

S-121.3

S-121.4

~\_\_\_\_

S-121.2

S-121.1

#### EXPOSE EXISTING AS SPECIFIED TO THE EDGES OF ALL PANELS.

HING. USE 8d NAILS AT 3" E) 2X STUDS AT ALL

. USE 8d NAILS AT 4" ) 2X STUDS AT

. USE 8d NAILS AT 6" ) 2X STUDS AT

BRICK WALL. REFER TO

WN ON 5/S-501. EXISTING FOUNDATION. NTO (E) CONCRETE AS

OUNDATON SEGMENT ALLOW FOR DEEP ND DO NOT DAMAGE (E) THE (E) FOOTING AT

NEW FRAMING

WD. COLUMN

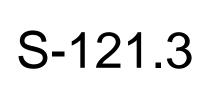
(E) WD. COLUMN

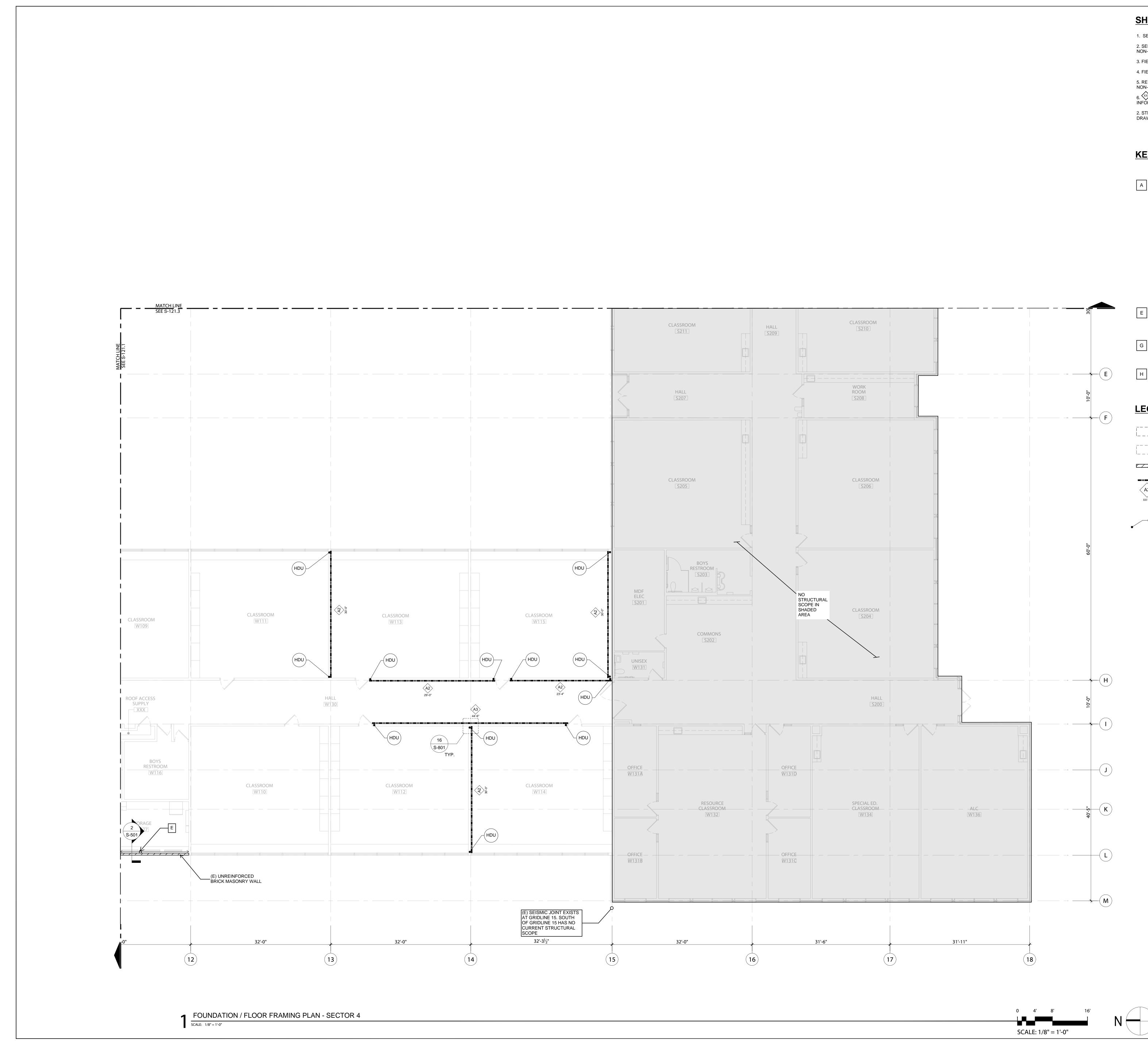
HSS COLUMN

(E)HSS COLUMN









### **SHEET NOTES:**

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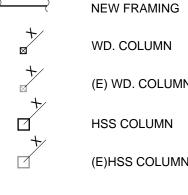
## KEY NOTES

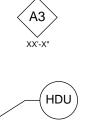
]	SINGLE SIDED	REMOVE EXISTING GYP BOARD WALL LINING AND E WOOD STUDS. PROVIDE NEW PLYWOOD NAILED AS EXISTING STUDS. PROVIDE MIN. 2X BLOCKING AT EI REPLACE EXISTING ARCHITECTURAL FINISH.
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	(A3) XX'-X"	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING. O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
]		PROVIDE STEEL STRONG BACK TO SUPPORT (E) BR 2/S-501.
]	; 	PROVIDE NEW FOUNDATION EXTENSION AS SHOWN EXTENSION IS INTENDED TO BE BUILT AROUND EXIS (N) BARS TO BE CORED THROUGH OR EPOXIED INTO INDICATED.
]		DEMO 4 FT OF (E) FOOTING AND PROVIDE NEW FOU AS SHOWN ON 1/S-501. SEGMENT INTENDED TO AL HOLDDOWN BOLT AT ENDS OF WALLS. RETAIN AND REINFORCEMENT. EPOXY DOWEL NEW BARS INTO EACH END.

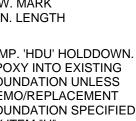
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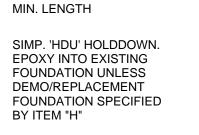
G

 	CONC. FOOTING OR GRADE BEAM	ح
 	(E) CONC. FOOTING OR GRADE BEAM	
	(E) UNREINFORCED MASONRY (BRICK) WALL	
(A3) XX'-X"	SHEAR WALL SHTG. S.W. MARK MIN. LENGTH	
HDU	SIMP. 'HDU' HOLDDOWN. EPOXY INTO EXISTING FOUNDATION UNLESS DEMO/REPLACEMENT FOUNDATION SPECIFIED	

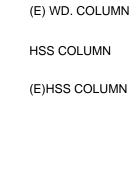


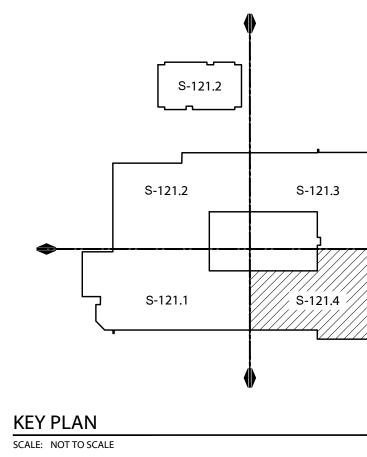








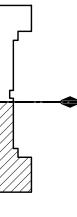




#### EXPOSE EXISTING AS SPECIFIED TO THE EDGES OF ALL PANELS.

- HING. USE 8d NAILS AT 3" E) 2X STUDS AT ALL
- . USE 8d NAILS AT 4" ) 2X STUDS AT
- . USE 8d NAILS AT 6" ) 2X STUDS AT
- BRICK WALL. REFER TO
- WN ON 5/S-501. EXISTING FOUNDATION. NTO (E) CONCRETE AS
- OUNDATON SEGMENT ALLOW FOR DEEP ND DO NOT DAMAGE (E) D THE (E) FOOTING AT

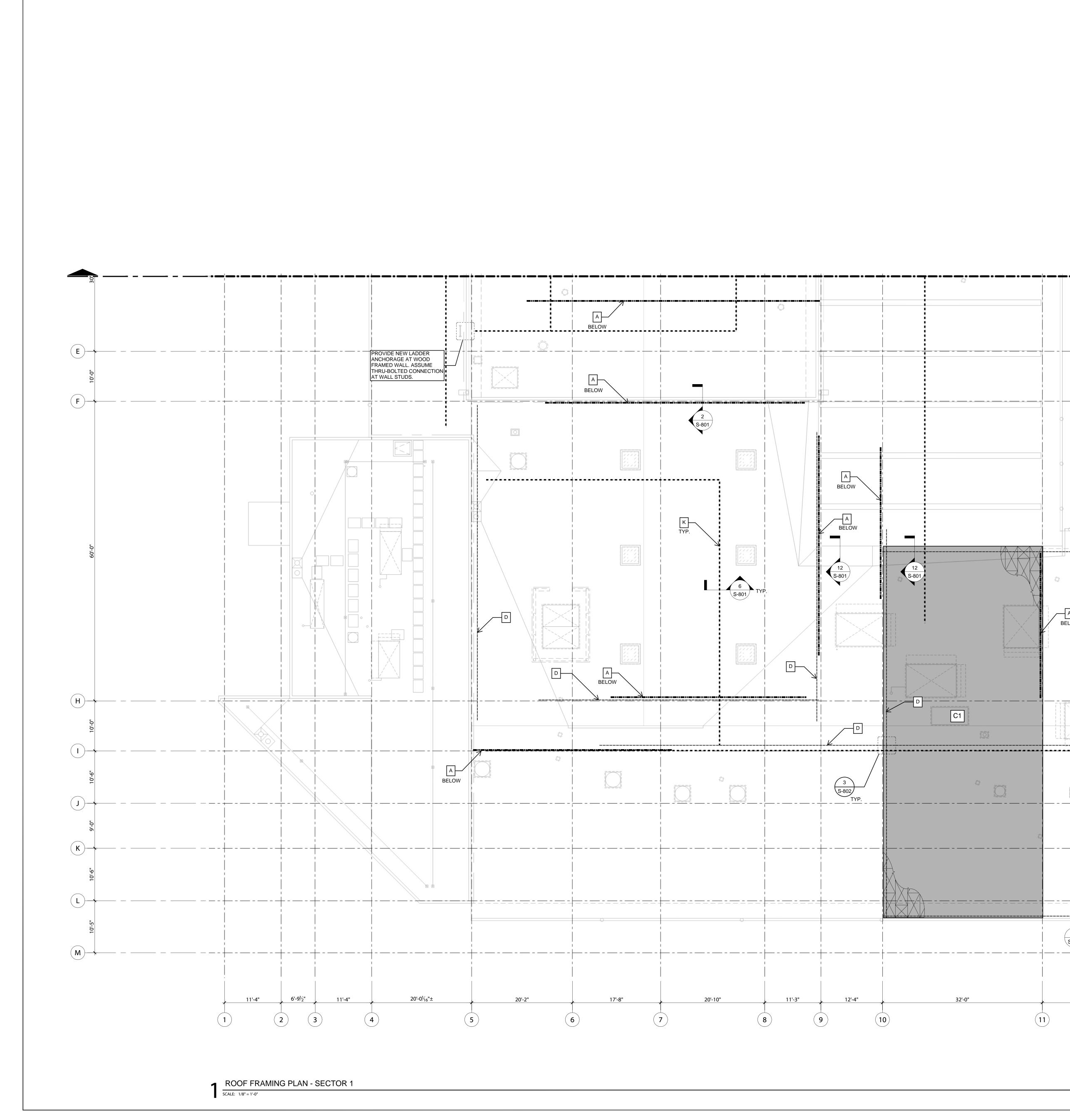












### **SHEET NOTES:**

1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND INFORMATION NOT SHOWN. 2. SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR RELATED NON-STRUCTURAL ELEMENTS EMBEDDED OR CONNECTED TO THE STRUCTURE.

3. FIELD VERIFY ALL EXISTING STRUCTURAL CONDITIONS. 4. FIELD VERIFY ALL FINISHES AND SERVICES TO BE REPLACED FOR CONSTRUCTION.

5. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS REQUIRING RETROFIT. 6.  $\overleftrightarrow$  INDICATES SHEAR WALL, SEE KEY NOTES BELOW FOR SHEAR WALL SCHEDULE

INFORMATION. 2. STRENGTHENING MEASURES ARE SHOWN HERE SUPERIMPOSED OVER ARCHITECTURAL DRAWINGS BY AXIS DESIGN GROUP FOR GENERAL STRUCTURAL CONCEPT.

## KEY NOTES

		A	<u>Single sid</u>	FD WOOD STUDS. PROV	VIDE NEW PLYWOO ROVIDE MIN. 2X BL	LINING AND EXPOSE EXISTIN OD NAILED AS SPECIFIED TO .OCKING AT EDGES OF ALL P/ FINISH.
			A1 XX'-X"	PROVIDE (N) 15/32" \$	N) 3X STUDS SISTE	EL SHEATHING. USE 8d NAILS ERED TO (E) 2X STUDS AT ALL H.
			A2 XX'-X"	PROVIDE (N) 3/8" ST	N) 2X STUDS SISTE	. SHEATHING. USE 8d NAILS A ERED TO (E) 2X STUDS AT I.
			A3 XX'-X"	PROVIDE (N) 3/8" ST	N) 2X STUDS SISTE	. SHEATHING. USE 8d NAILS A ERED TO (E) 2X STUDS AT I.
• — — • — • — • — • — • — • — • — • — •	MATCHLINE SEE S-161.2	c	RE PL`	MOVE AND REPLACE EXIST	ING ROOFING AS F ADJACENT DIAPHR	EXISTING WOOD SHEATHING. REQUIRED. INTEGRATE NEW AGMS. ADJUST (E) MECHANIC
	MATCHLINE	5-161 S		STRAIGHT SHEATHI	NG. PROVIDE 8d NA ARIES AND ALL SU	JPPORTED PANEL EDGES.
				<ul> <li>INTO (E) WALL TOP (</li> </ul>	CHORD PER MANU NNECT TO (N) WAL	EW PLYWOOD DIAPHRAGM NA IFACTURER REQUIREMENTS. L PER DETAIL 4/S-801. SPLICE
		F		PROVIDE NEW STRA BEAMS. REFER TO S		ETWEEN EXISTING GLULAM 3-801.
· · · · · · · · · · · · · · · · · · ·		К		<ul> <li>SEE TYPICAL DETAIL</li> </ul>	L 6/S-801 FOR ATT/ ATION SHOWN - SE	ARREST ANCHOR LOCATION ACHMENT TO STRUCTURE. E ARCHITECTURAL PLANS DNS.
		LEC	SEND	<u>):</u>		
				PLYWOOD OVERLAY PER KEY NOTE C1	<i>⊱</i> {	NEW METAL STRAP OVER DIAPHRAGM, SEE KEY NO
		A3		SHEAR WALL SHTG. S.W. MARK	<i>⊱</i> <del>`</del>	SIMPSON STRAP CONNEC SEE KEY NOTE F
		XX-X	"	MIN. LENGTH	÷	LINE OF FALL PROTECTION ANCHORS, SEE KEY NOTE
					<u> </u>	
						STEEL COLUMN (B)
	Ø					WD. COLUMN (B)
A						
BELOW						
©						
	┍╴╴╱══╹┚╴╴╴╴╴					
4 S-801 TYP.					S-161.2	
				S-16	1.2	S-161.3
32'-0" 1)	2 2			◆	1.1	S-161.4

4' 8' SCALE: 1/8" = 1'-0"



KEY PLAN

SCALE: NOT TO SCALE

#### OSE EXISTING ECIFIED TO THE ES OF ALL PANELS.

- JSE 8d NAILS AT 3" TUDS AT ALL
- E 8d NAILS AT 4" TUDS AT
- E 8d NAILS AT 6" TUDS AT
- SHEATHING. GRATE NEW E) MECHANICAL
- ON (E) L EDGES.
- APHRAGM NAILED JIREMENTS. -801. SPLICE
- G GLULAM
- R LOCATIONS, RUCTURE. RAL PLANS

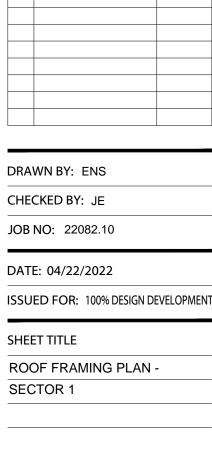
## STRAP OVER PLYWOOD SEE KEY NOTE D AP CONNECTION,

- PROTECTION
- MN (B)
- (B)



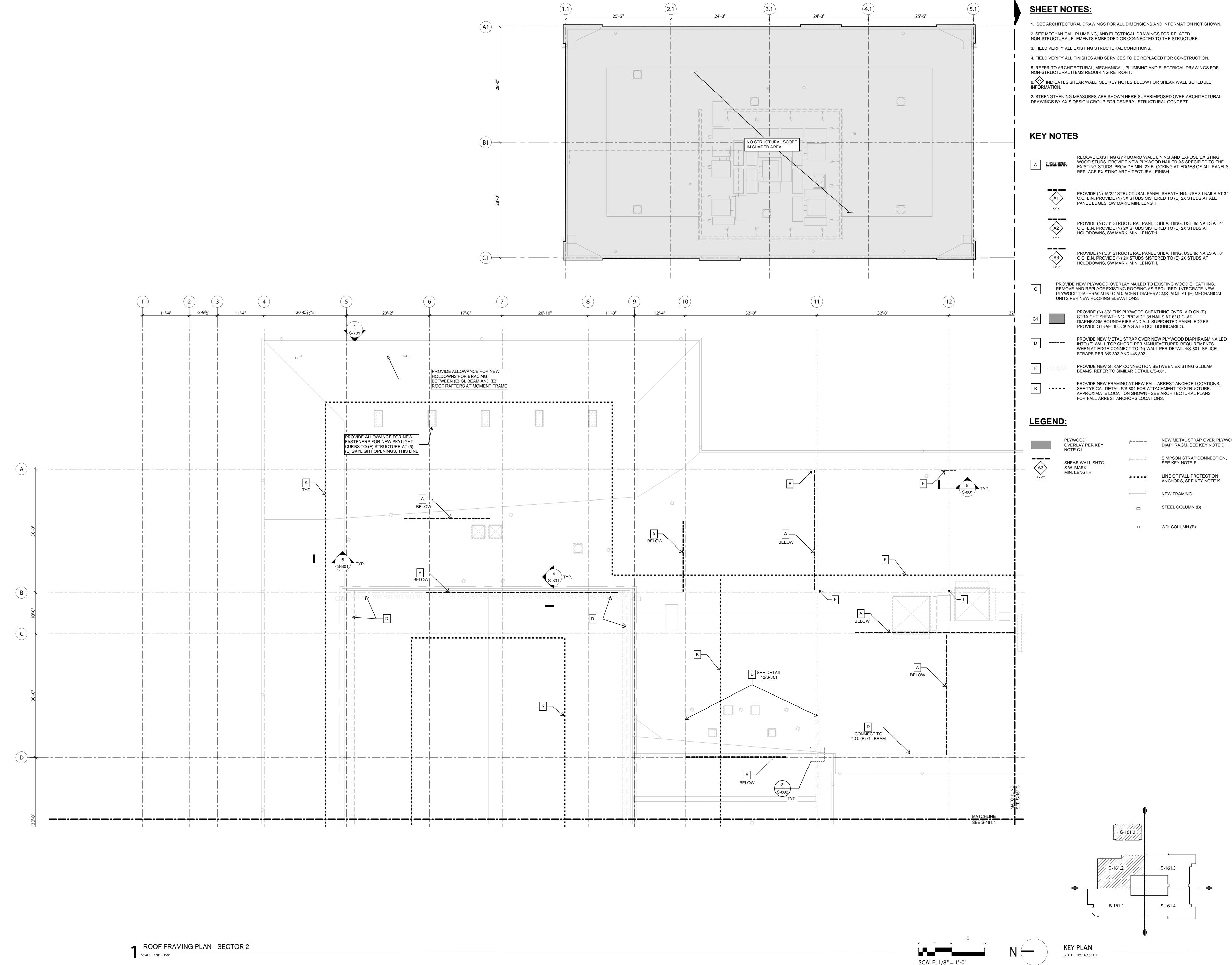
PRELIMINARY -











## NEW METAL STRAP OVER PLYWOOD DIAPHRAGM, SEE KEY NOTE D

- SIMPSON STRAP CONNECTION,
- LINE OF FALL PROTECTION ANCHORS, SEE KEY NOTE K



PRELIMINARY -





DATE: 04/22/2022

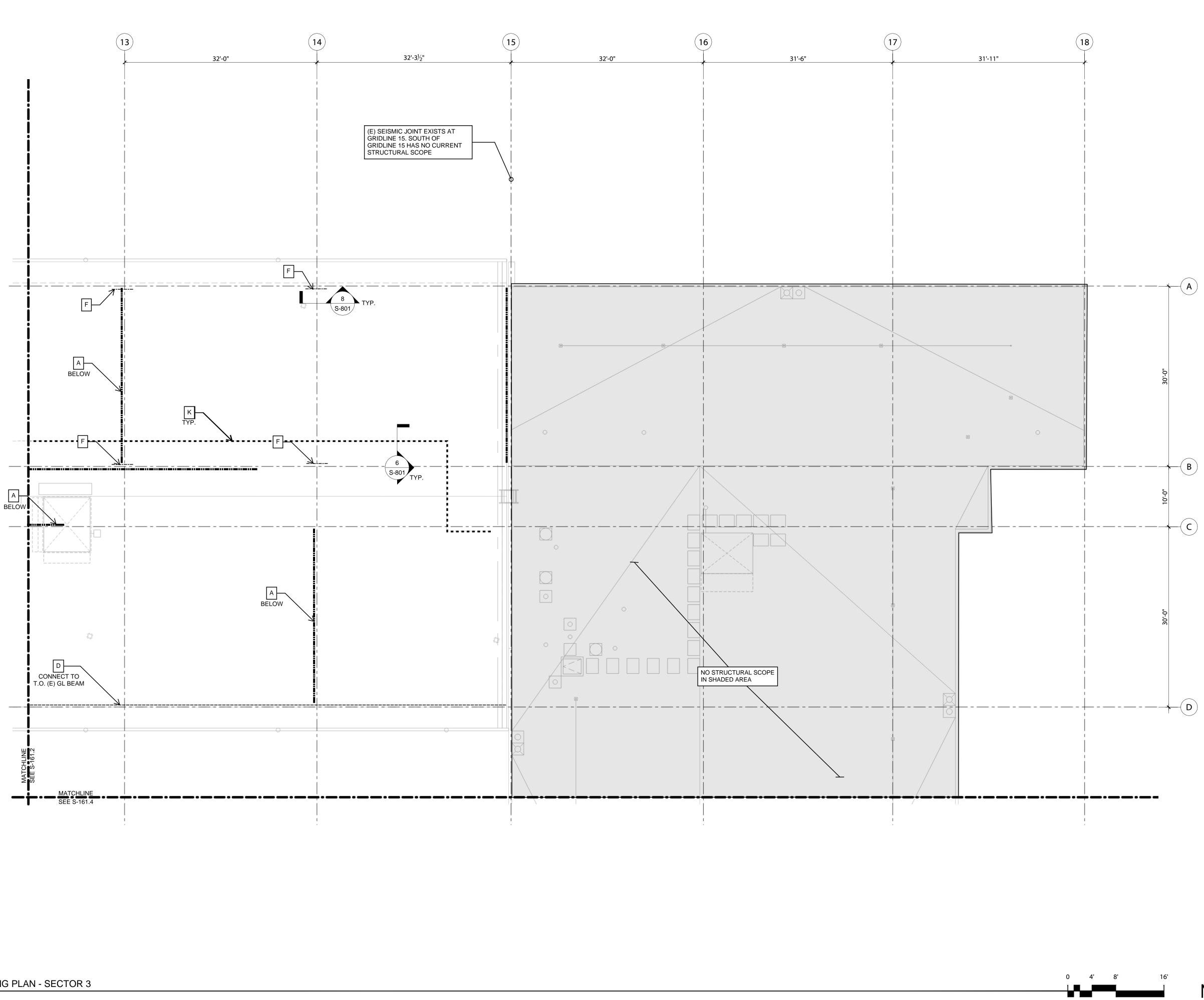
ROOF FRAMING PLAN -

SHEET TITLE

SECTOR 2

SHEET NO.

ISSUED FOR: 100% DESIGN DEVELOPMENT



ROOF FRAMING PLAN - SECTOR 3 SCALE: 1/8" = 1'-0"

### **SHEET NOTES:**

1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND INFORMATION NOT SHOWN. 2. SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR RELATED NON-STRUCTURAL ELEMENTS EMBEDDED OR CONNECTED TO THE STRUCTURE.

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2. STRENGTHENING MEASURES ARE SHOWN HERE SUPERIMPOSED OVER ARCHITECTURAL DRAWINGS BY AXIS DESIGN GROUP FOR GENERAL STRUCTURAL CONCEPT.

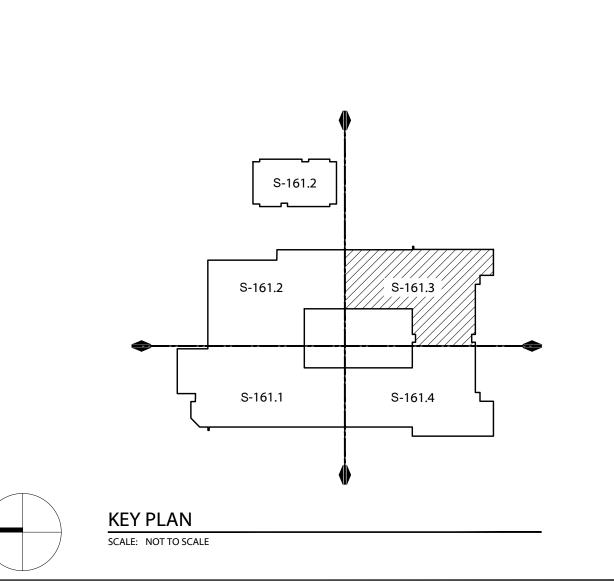
## KEY NOTES

SINGLE SIDED	REMOVE EXISTING GYP BOARD WALL LINING AND E WOOD STUDS. PROVIDE NEW PLYWOOD NAILED AS EXISTING STUDS. PROVIDE MIN. 2X BLOCKING AT E REPLACE EXISTING ARCHITECTURAL FINISH.
(A1) XX'-X*	PROVIDE (N) 15/32" STRUCTURAL PANEL SHEATHIN O.C. E.N. PROVIDE (N) 3X STUDS SISTERED TO (E) 2 PANEL EDGES, SW MARK, MIN. LENGTH.
A2 XX'-X*	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
A3 XX-X*	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING. O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
REMOVE PLYWOC	E NEW PLYWOOD OVERLAY NAILED TO EXISTING WO AND REPLACE EXISTING ROOFING AS REQUIRED. IN D DIAPHRAGM INTO ADJACENT DIAPHRAGMS. ADJUS ER NEW ROOFING ELEVATIONS.
	PROVIDE (N) 3/8" THK PLYWOOD SHEATHING OVER STRAIGHT SHEATHING. PROVIDE 8d NAILS AT 6" 0.0 DIAPHRAGM BOUNDARIES AND ALL SUPPORTED P/ PROVIDE STRAP BLOCKING AT ROOF BOUNDARIES
	PROVIDE NEW METAL STRAP OVER NEW PLYWOOD INTO (E) WALL TOP CHORD PER MANUFACTURER R WHEN AT EDGE CONNECT TO (N) WALL PER DETAIL STRAPS PER 3/S-802 AND 4/S-802.
	PROVIDE NEW STRAP CONNECTION BETWEEN EXIS BEAMS. REFER TO SIMILAR DETAIL 8/S-801.
	PROVIDE NEW FRAMING AT NEW FALL ARREST AND SEE TYPICAL DETAIL 6/S-801 FOR ATTACHMENT TO APPROXIMATE LOCATION SHOWN - SEE ARCHITEC FOR FALL ARREST ANCHORS LOCATIONS.
	$A1$ $XX^{-}X^{*}$ $A2$ $XX^{-}X^{*}$ $A3$ $XX^{-}X^{*}$ PROVIDE REMOVE PLYWOO

## LEGEND:

	PLYWOOD OVERLAY PER KEY NOTE C1	<u>,</u>
A3	SHEAR WALL SHTG. S.W. MARK	<u>}</u> }
XX'-X"	MIN. LENGTH	÷••••

{	SIMPSON STRAP ( SEE KEY NOTE F
<b></b> (	LINE OF FALL PRC ANCHORS, SEE KE
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NEW FRAMING
	STEEL COLUMN (E
	WD. COLUMN (B)



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

#### ID EXPOSE EXISTING AS SPECIFIED TO THE T EDGES OF ALL PANELS.

- HING. USE 8d NAILS AT 3" E) 2X STUDS AT ALL
- G. USE 8d NAILS AT 4" E) 2X STUDS AT
- G. USE 8d NAILS AT 6" E) 2X STUDS AT
- VOOD SHEATHING. . INTEGRATE NEW JUST (E) MECHANICAL
- ERLAID ON (E) O.C. AT PANEL EDGES.
- OOD DIAPHRAGM NAILED R REQUIREMENTS. AIL 4/S-801. SPLICE
- XISTING GLULAM
- NCHOR LOCATIONS, TO STRUCTURE. CTURAL PLANS

## NEW METAL STRAP OVER PLYWOOD DIAPHRAGM, SEE KEY NOTE D ON STRAP CONNECTION, EY NOTE F

- F FALL PROTECTION DRS, SEE KEY NOTE K
- AMING
- COLUMN (B)

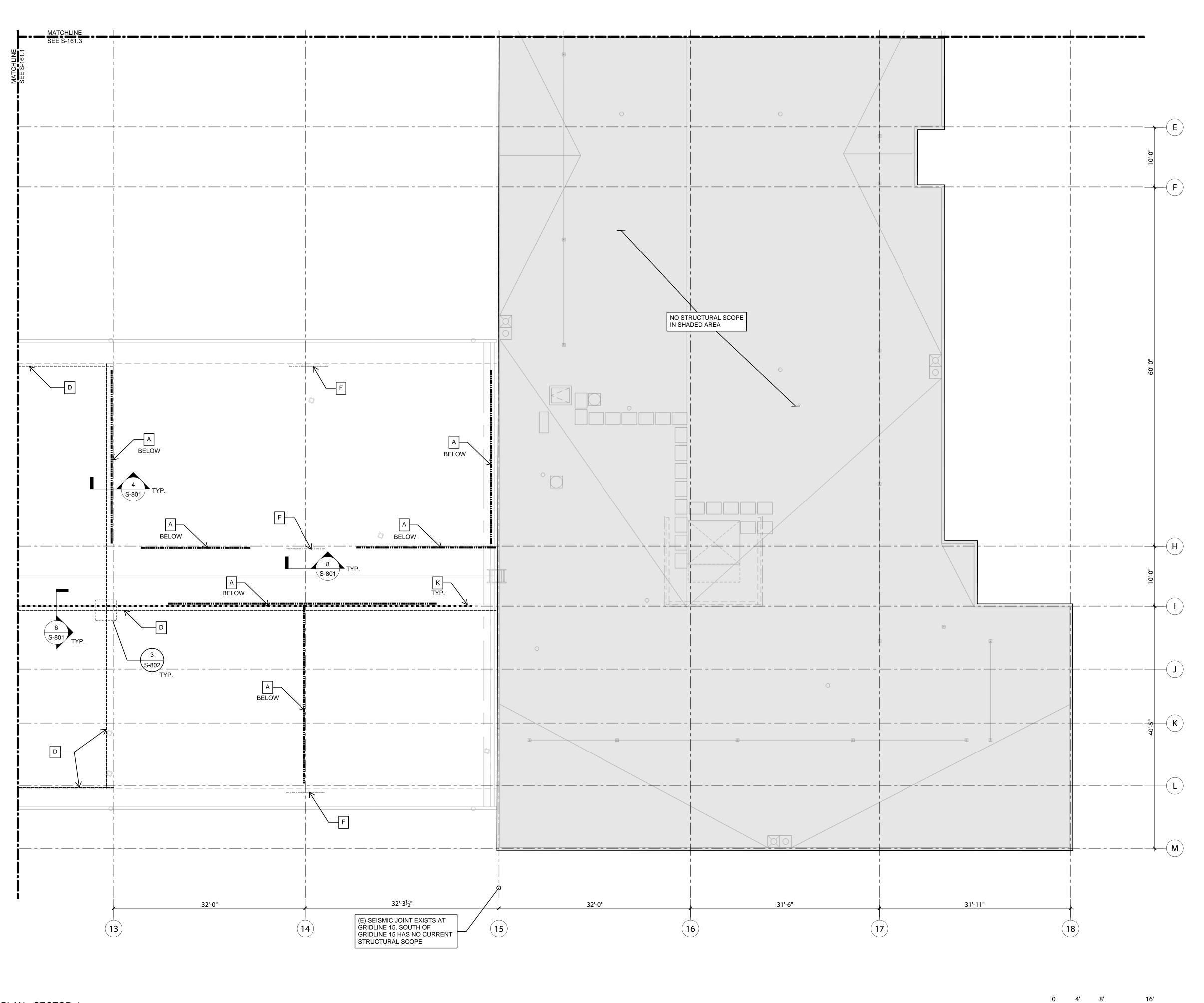




CHECKED BY: JE JOB NO: 22082.10 DATE: 04/22/2022

ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE ROOF FRAMING PLAN -SECTOR 3





ROOF FRAMING PLAN - SECTOR 4 SCALE: 1/8" = 1'-0"

### **SHEET NOTES:**

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INFORMATION. 2. STRENGTHENING MEASURES ARE SHOWN HERE SUPERIMPOSED OVER ARCHITECTURAL DRAWINGS BY AXIS DESIGN GROUP FOR GENERAL STRUCTURAL CONCEPT.

## KEY NOTES

A	SINGLE SIDED	REMOVE EXISTING GYP BOARD WALL LINING AND E WOOD STUDS. PROVIDE NEW PLYWOOD NAILED AS EXISTING STUDS. PROVIDE MIN. 2X BLOCKING AT E REPLACE EXISTING ARCHITECTURAL FINISH.
	A1 XX'-X"	PROVIDE (N) 15/32" STRUCTURAL PANEL SHEATHIN O.C. E.N. PROVIDE (N) 3X STUDS SISTERED TO (E) 2 PANEL EDGES, SW MARK, MIN. LENGTH.
	A2 XX'-X"	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING. O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
	A3 XX'-X"	PROVIDE (N) 3/8" STRUCTURAL PANEL SHEATHING. O.C. E.N. PROVIDE (N) 2X STUDS SISTERED TO (E) 2 HOLDDOWNS, SW MARK, MIN. LENGTH.
С	REMOVE PLYWOO	E NEW PLYWOOD OVERLAY NAILED TO EXISTING WOO AND REPLACE EXISTING ROOFING AS REQUIRED. IN D DIAPHRAGM INTO ADJACENT DIAPHRAGMS. ADJUS ER NEW ROOFING ELEVATIONS.
C1		PROVIDE (N) 3/8" THK PLYWOOD SHEATHING OVERI STRAIGHT SHEATHING. PROVIDE 8d NAILS AT 6" O.O DIAPHRAGM BOUNDARIES AND ALL SUPPORTED PA PROVIDE STRAP BLOCKING AT ROOF BOUNDARIES.
D		PROVIDE NEW METAL STRAP OVER NEW PLYWOOD INTO (E) WALL TOP CHORD PER MANUFACTURER R WHEN AT EDGE CONNECT TO (N) WALL PER DETAIL STRAPS PER 3/S-802 AND 4/S-802.
F		PROVIDE NEW STRAP CONNECTION BETWEEN EXIS BEAMS. REFER TO SIMILAR DETAIL 8/S-801.
К		PROVIDE NEW FRAMING AT NEW FALL ARREST AND SEE TYPICAL DETAIL 6/S-801 FOR ATTACHMENT TO APPROXIMATE LOCATION SHOWN - SEE ARCHITECT FOR FALL ARREST ANCHORS LOCATIONS.

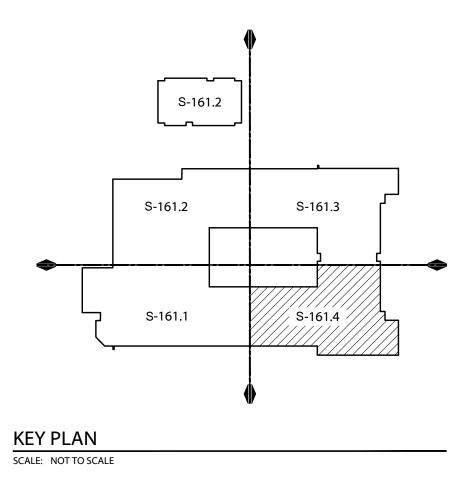
## LEGEND:

(A3) XX'-X"

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

PLYWOOD OVERLAY PER KEY NOTE C1 SHEAR WALL SHTG. S.W. MARK MIN. LENGTH ┢╺╺╸╸┥

STEEL COLUMN (B) WD. COLUMN (B) 



#### EXPOSE EXISTING AS SPECIFIED TO THE EDGES OF ALL PANELS.

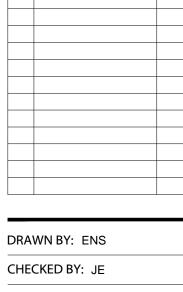
- HING. USE 8d NAILS AT 3" E) 2X STUDS AT ALL
- G. USE 8d NAILS AT 4" ) 2X STUDS AT
- . USE 8d NAILS AT 6" ) 2X STUDS AT
- VOOD SHEATHING. INTEGRATE NEW JUST (E) MECHANICAL
- ERLAID ON (E) O.C. AT PANEL EDGES.
- OD DIAPHRAGM NAILED R REQUIREMENTS. AIL 4/S-801. SPLICE
- XISTING GLULAM
- NCHOR LOCATIONS, TO STRUCTURE. CTURAL PLANS

## NEW METAL STRAP OVER PLYWOOD DIAPHRAGM, SEE KEY NOTE D SIMPSON STRAP CONNECTION, SEE KEY NOTE F

- LINE OF FALL PROTECTION ANCHORS, SEE KEY NOTE K
- NEW FRAMING

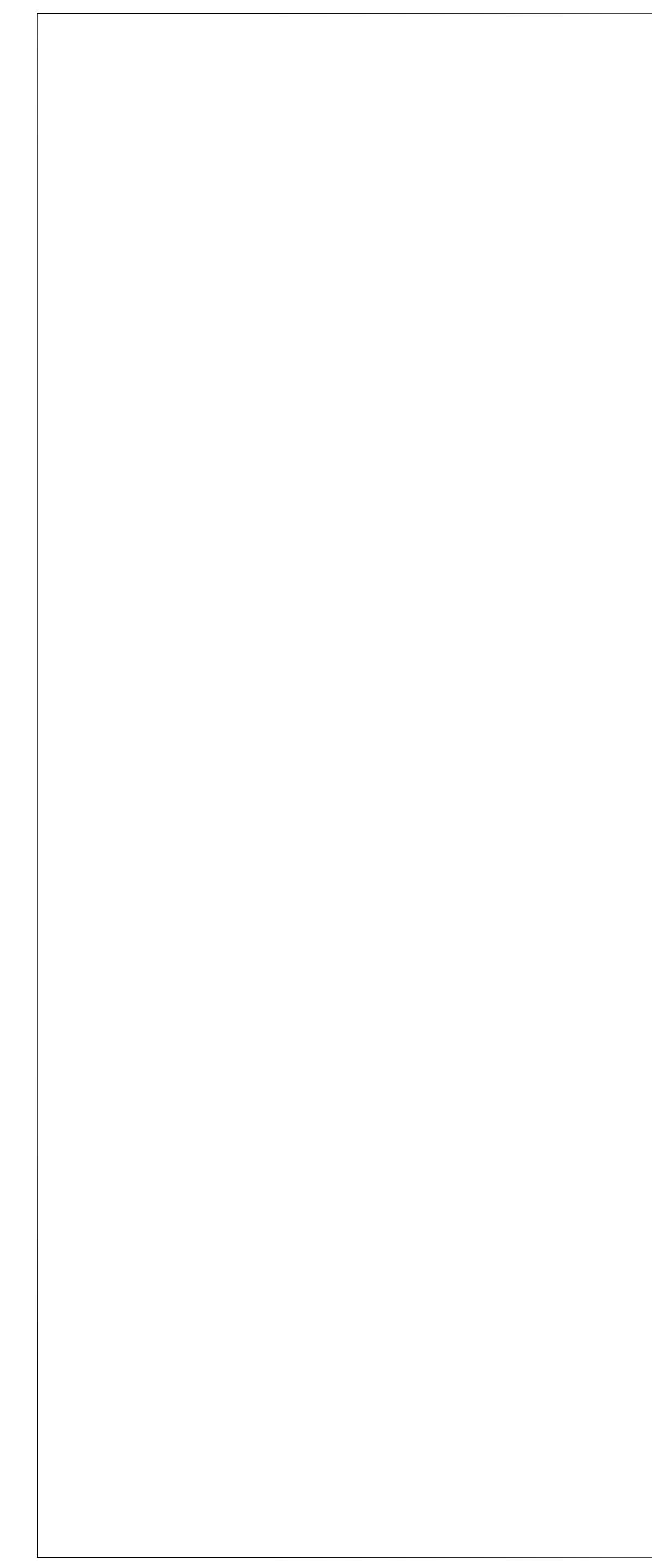


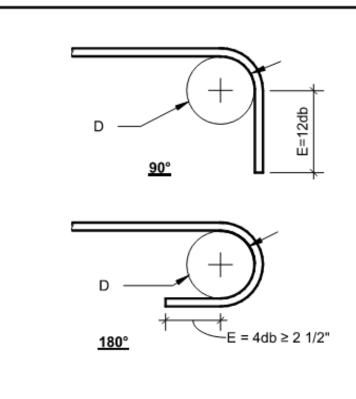




JOB NO: 22082.10 DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMENT

SHEET TITLE ROOF FRAMING PLAN -SECTOR 4





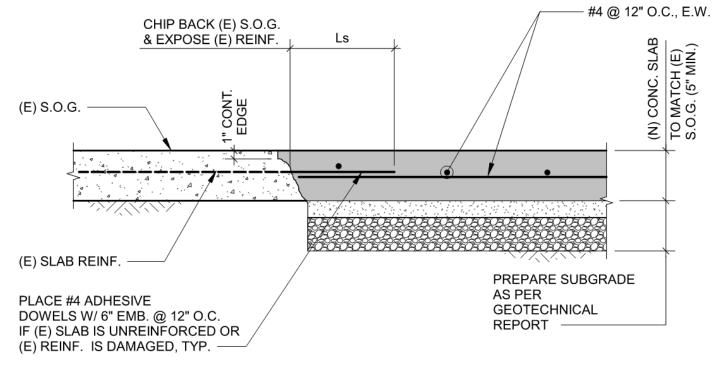
BAR SIZE	D (BEND Ø)	E (HOOK EXTENSION)		Ldh (HOOK DEVELOPMENT LENGTH)		
		90° BEND 180° BEND		f'c=3000psi	f'c=4000psi	f'c≥5000psi
#3	2 1/4"	4 1/2"	2 1/2"	6"	6"	6"
#4	3"	6"	2 1/2"	8"	7"	6"
#5	3 3/4"	7 1/2"	2 1/2"	10"	9"	8"
#6	4 1/2"	9"	3"	12"	10"	9"
#7	5 1/4"	10 1/2"	3 1/2"	14"	12"	11"
#8	6"	12"	4"	16"	14"	12"
#9	9 1/2"	14"	5"	18"	15"	14"
#10	10 1/4"	15 1/2"	5 1/2"	20"	17	16"
#11	11 1/2"	17"	6"	22"	19"	17"
#14	17"	20 1/2"	7"	38"	33"	29"
#18	22 3/4"	27 1/2"	9 1/2"	50"	43"	39"

NOTES: 1. db = BAR DIAMETER.

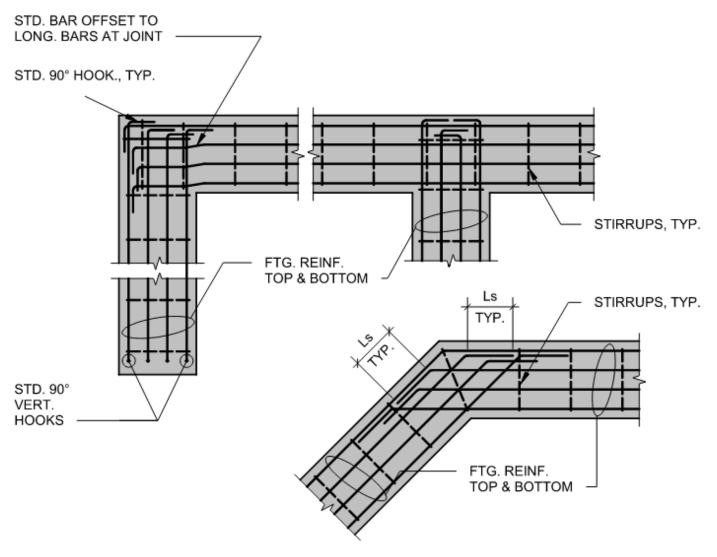
2. UNCOATED BARS. 3. NORMAL WEIGHT CONCRETE.

4. MULTIPLY HOOK DEVELOPMENT LENGTH BY 1.33 FOR LIGHTWEIGHT CONCRETE. 5. DO NOT FIELD BEND REINFORCEMENT PARTALLY EMBEDDED IN CONCRETE.



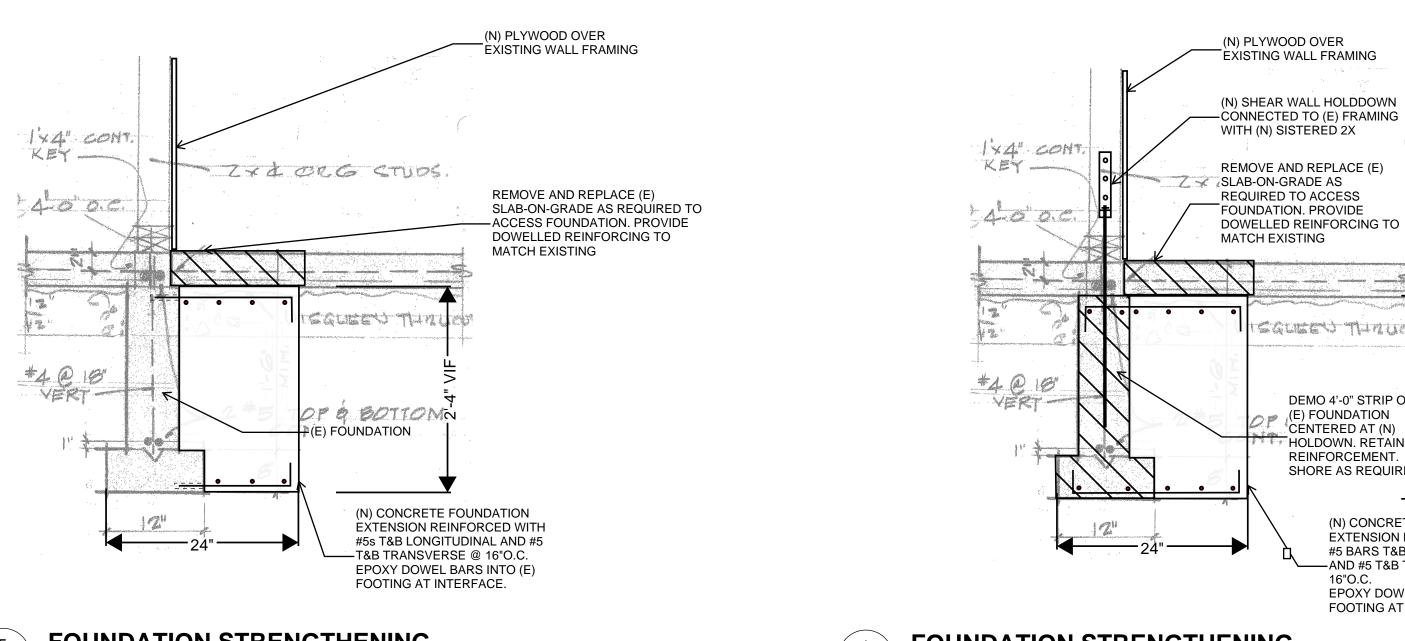


NEW SLAB ON GRADE TO EXISTING (10 **SLAB ON GRADE** N.T.S. \S-501



NOTE: 1. SEE TYP. WALL REINF. DETAIL FOR REINF. IN STEM WALL.

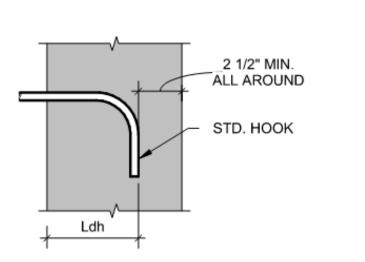




N.T.S.



N.T.S.



6 MIN Ls Ls OFFSET LAP STRAIGHT LAP

	Ls = SPLICE LENGTH								
BAR	D f'c=3000 PSI			f	"c=4000 PS	f'c≥5000 PS			
SIZE	(BEND Ø)	тор	OTHER	MAX. 'S'	тор	OTHER	MAX. 'S'	тор	OTHER
#3	2 1/4"	28"	22"	4"	25"	19"	3"	22"	17"
#4	3"	38"	29"	5"	33"	25"	4"	29"	23"
#5	3 3/4"	47"	36"	6"	41"	31"	6"	36"	28"
#6	4 1/2"	56"	43"	6"	49"	37"	6"	44"	34"
#7	5 1/4"	81"	63"	6"	71"	54"	6"	63"	49"
#8	6"	93"	72"	6"	81"	62"	6"	72"	56"
#9	9 1/2"	105"	81"	6"	91"	70"	6"	81"	63"
#10	10 3/4"	118"	91"	6"	102"	79"	6"	92"	71"
#11	12"	131"	101"	6"	114"	87"	6"	102"	78"
#14	18 1/4"	157"	121"	6"	136"	105"	6"	122"	94"
#18	24"	209"	161"	6"	181"	140"	6"	162"	125"

#### NOTES:

1. THIS TABLE CONTAINS MIN. LENGTHS FOR LAP SPLICES & BAR DEVELOPMENT NOT OTHERWISE SPECIFIEDON THESE DRAWINGS THESE LENGTHS MAY BE REDUCED IN CERTAIN SITUATIONS, SUBJECT TO PRIOR REVIEW & APPROVAL OF THE ENGINEER.

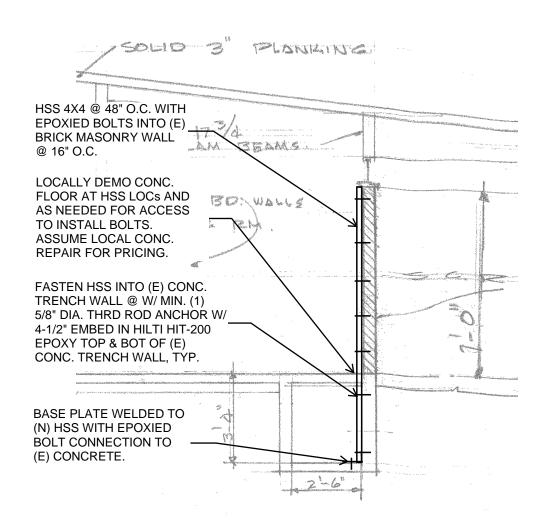
2. SPLICE LENGTHS ARE FOR NORMAL WEIGHT CONC. W/ GRADE 60 REINF. 3. MULTIPLY SPLICE LENGTHS BY 1.33 FOR LIGHTWEIGHT CONC.

4. SPLICE LENGTHS ARE FOR UNCOATED BARS. 5. DIVIDE LENGTHS IN TABLE BY 1.3 TO OBTAIN SINGLE STRAIGHT BAR, DEVELOPMENT LENGTHS IN CONCRETE 6. USE "TOP" FOR WALL BOUNDARIES & WHEN MORE THAN 12" OF FRESH CONC. IS PLACED BELOW SPLICE, "OTHER" FOR ALL OTHER SITUATIONS.

 'S' = SPACING. 8. PROVIDE MIN. COVER PER GENERAL NOTES, BUT NOT LESS THAN 1x BAR DIAMETER.

N.T.S.

#### **STANDARD LAP SPLICE SCHEDULE** 3 S-501







(N) CONCRETE FOUNDATION EXTENSION REINFORCED WITH #5 BARS T&B LONGITUDINAL —AND #5 T&B TRANSVERSE @ 16"O.C. EPOXY DOWEL BARS INTO (E) FOOTING AT INTERFACE.

Analysical and a second s

COURT COMPANY 

DEMO 4'-0" STRIP OF

SHORE AS REQUIRED.

HOLDOWN. RETAIN (E) REINFORCEMENT.

(E) FOUNDATION

CENTERED AT (N)

EXISTING WALL FRAMING

S-501

FOUNDATION STRENGTHENING

	TYP.
;	I
	MAX. 'S'
	3"
	4"
	5"
	6"
	6"
	6"
	6"
	6"
	6"
	6"
	6"

N.T.S.

N.T.S.

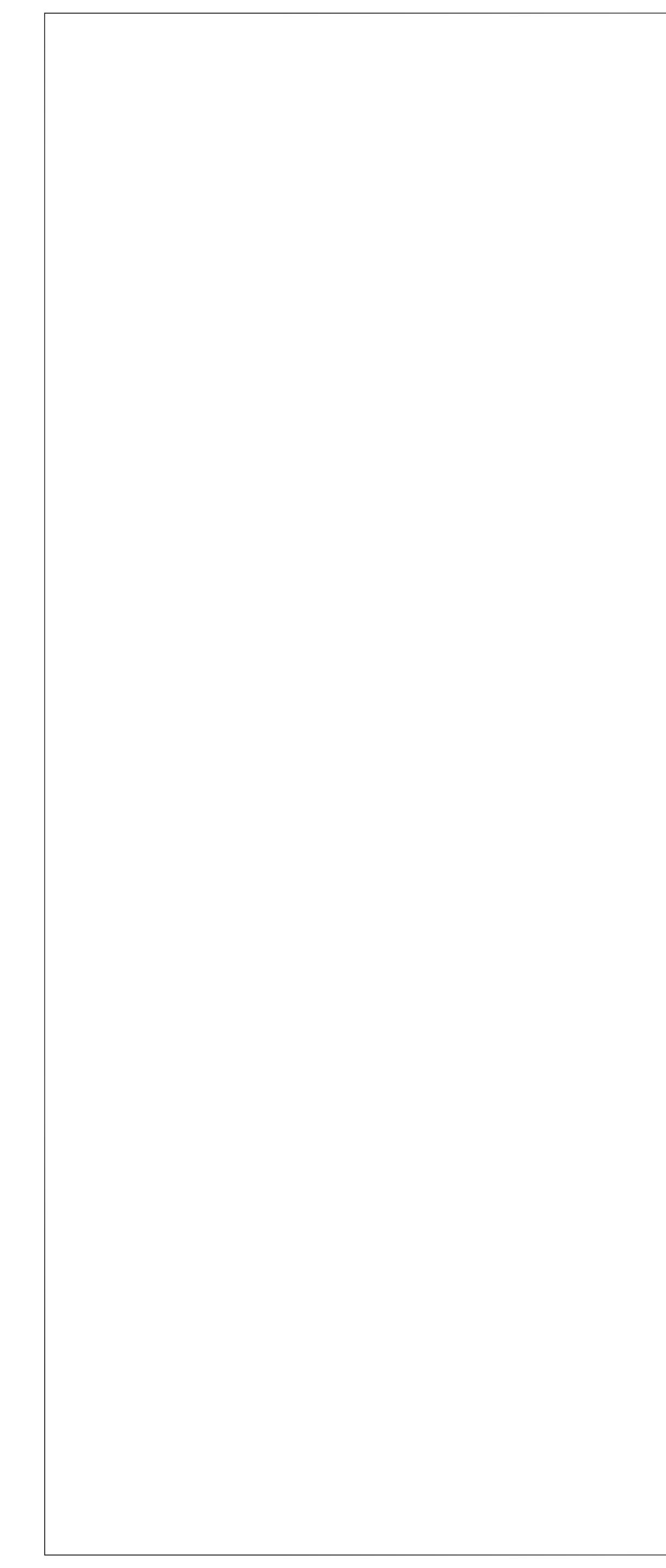
N.T.S.





SHEET NO.

S-501

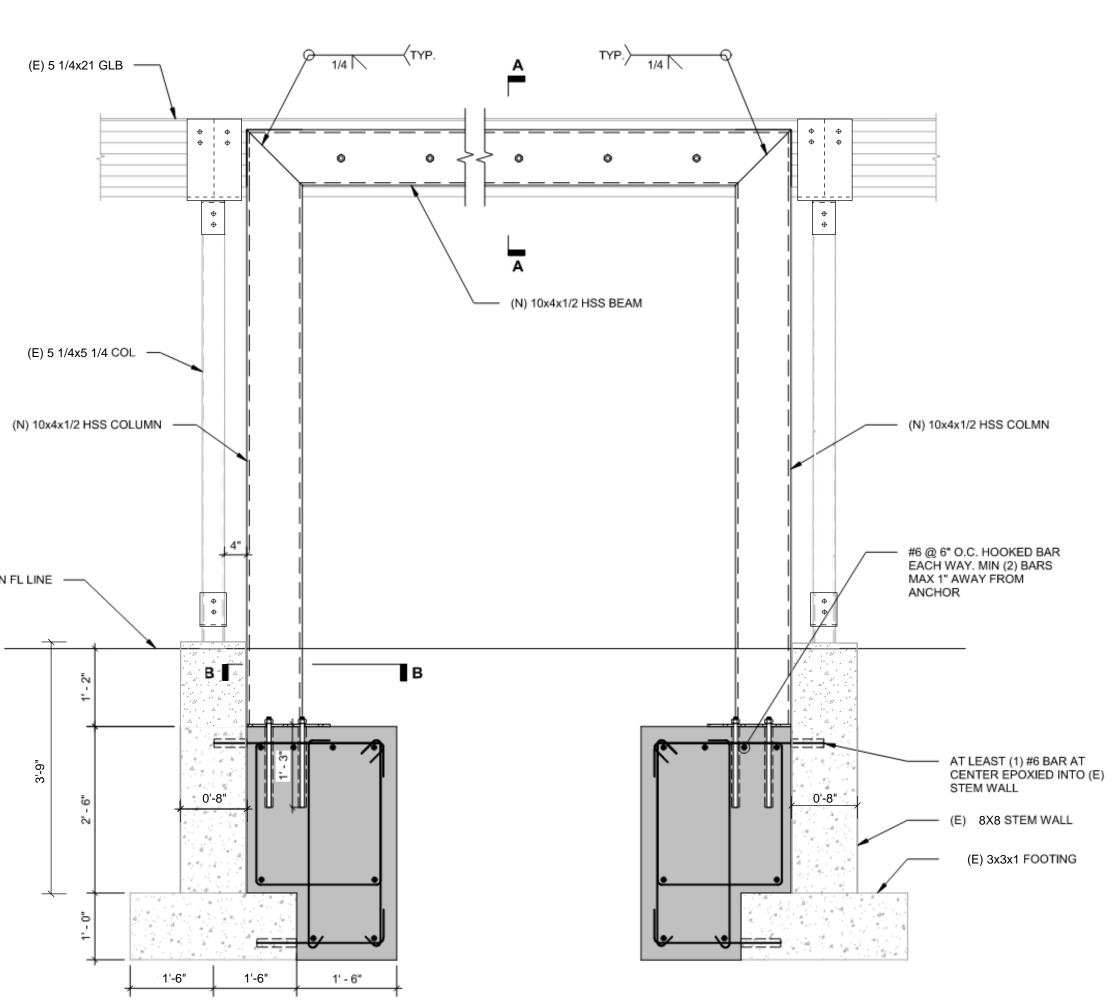


MAIN FL LINE

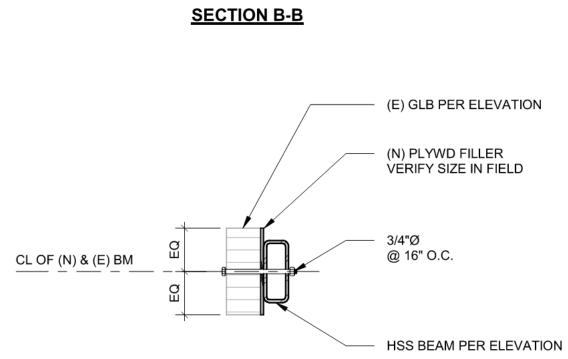
1 (N) MOMENT FRAME

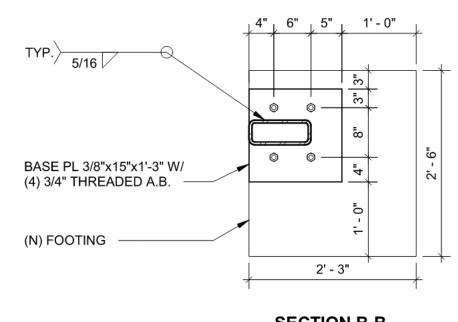


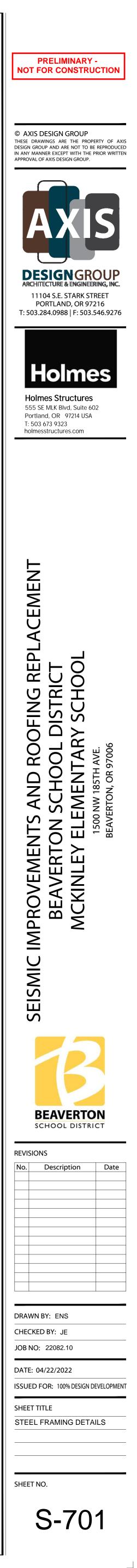




SECTION A-A

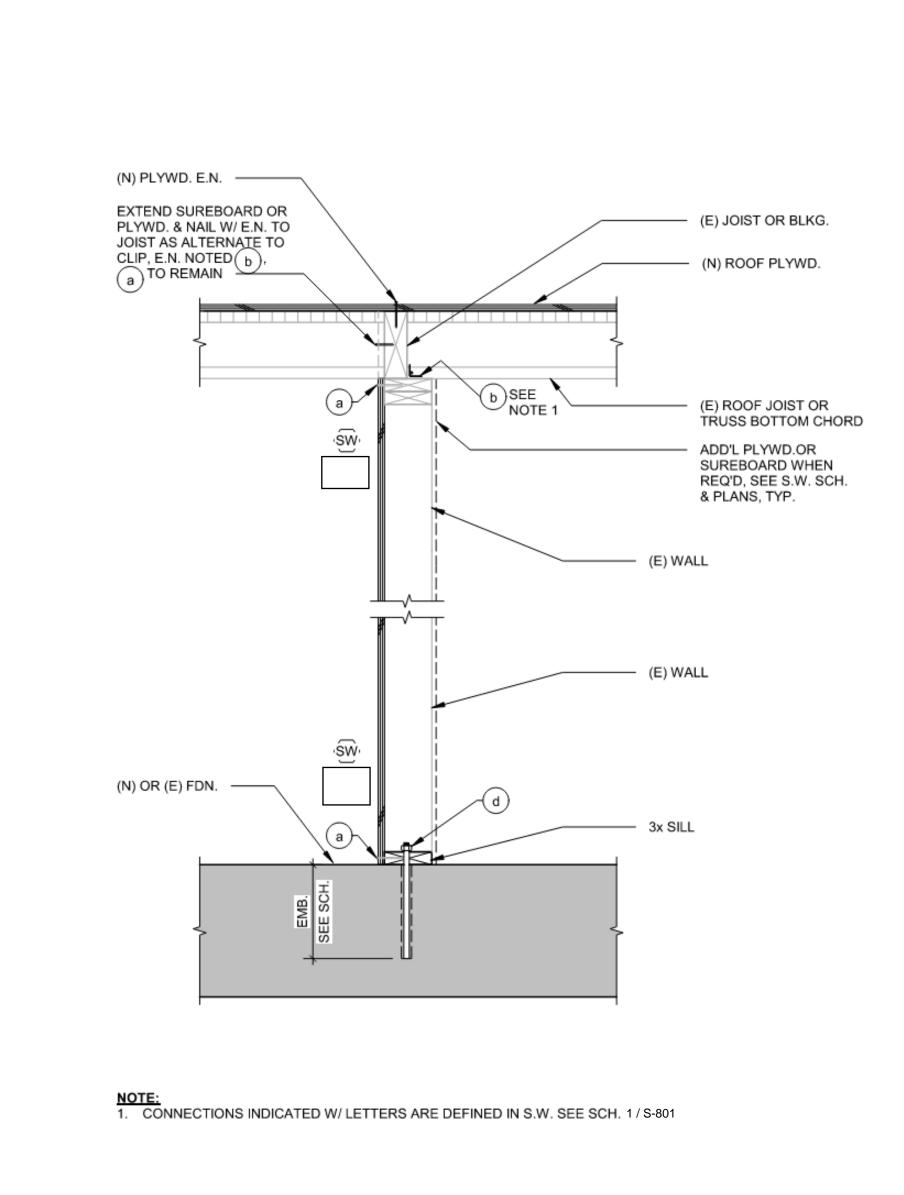




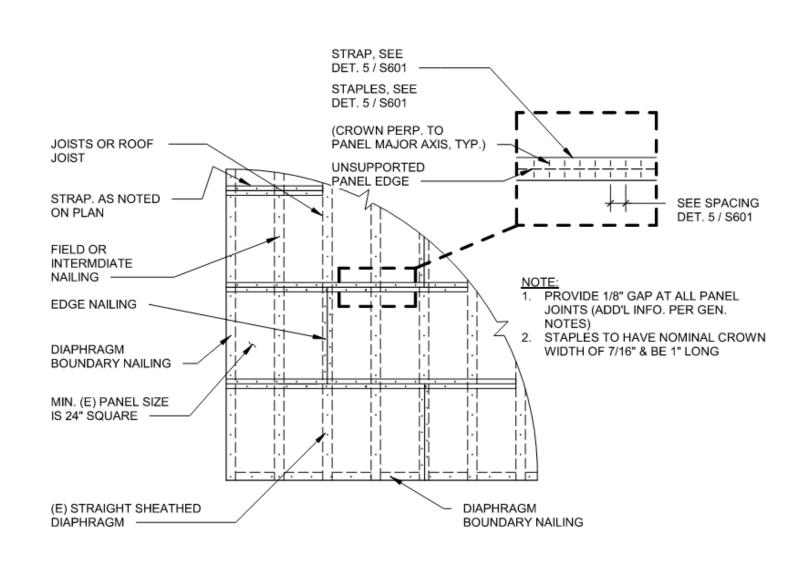


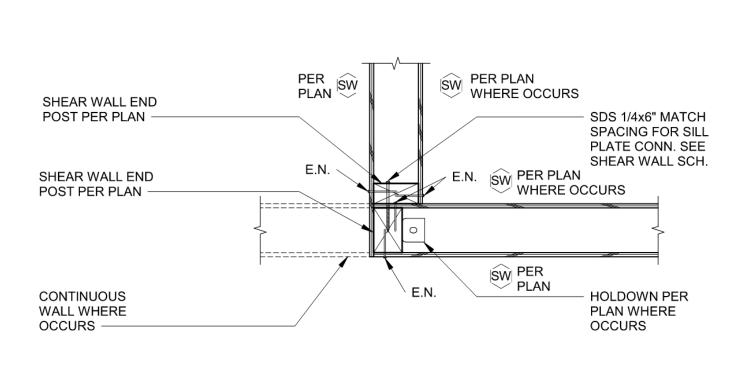


## TYPICAL (N) SHEAR WALL OVERLAY







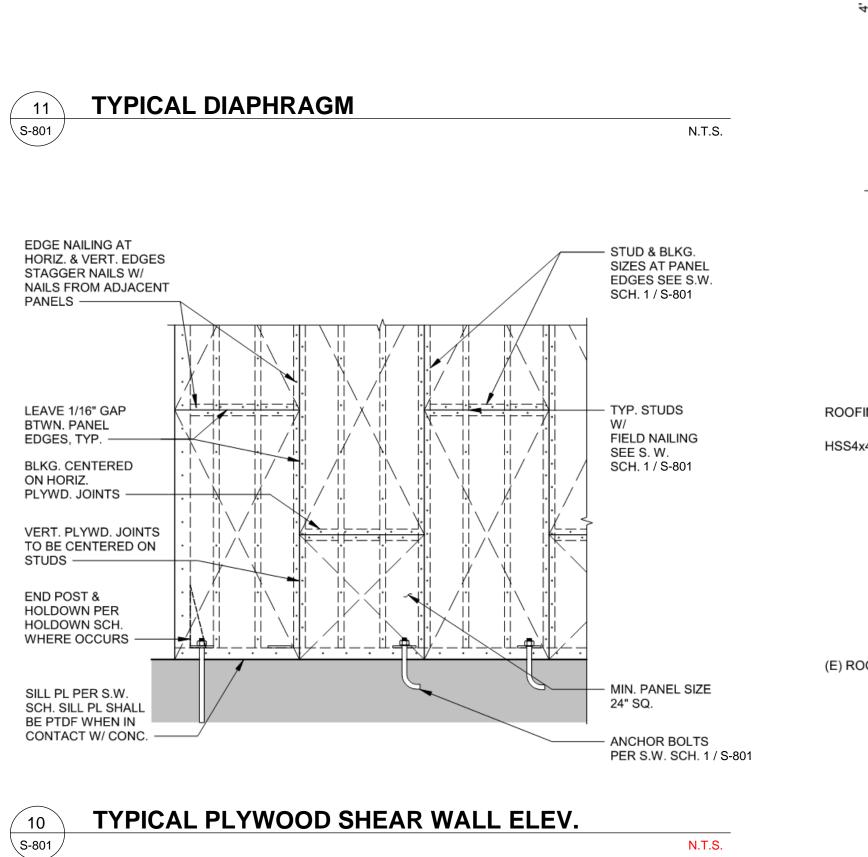


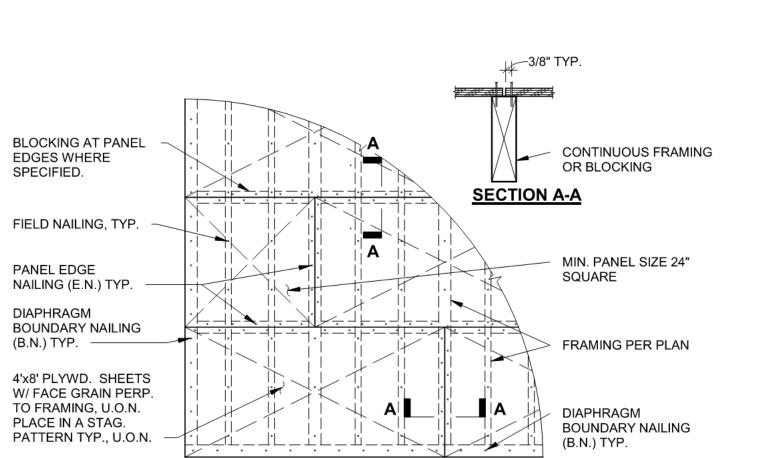
SHEAR WALL INTERSECTION

( 16

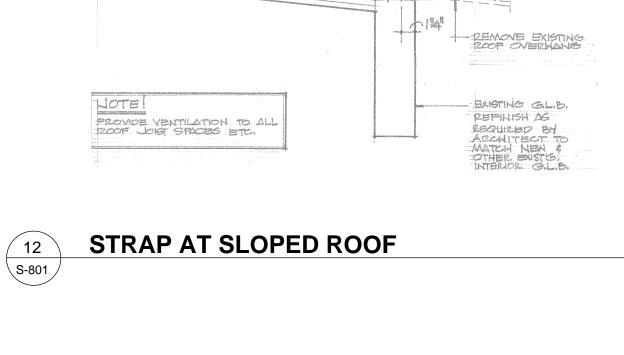
S-801

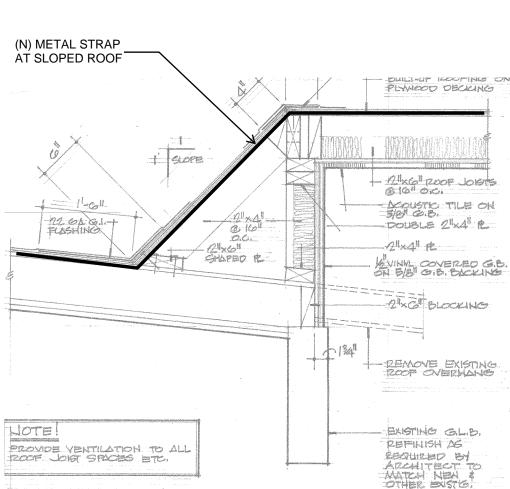
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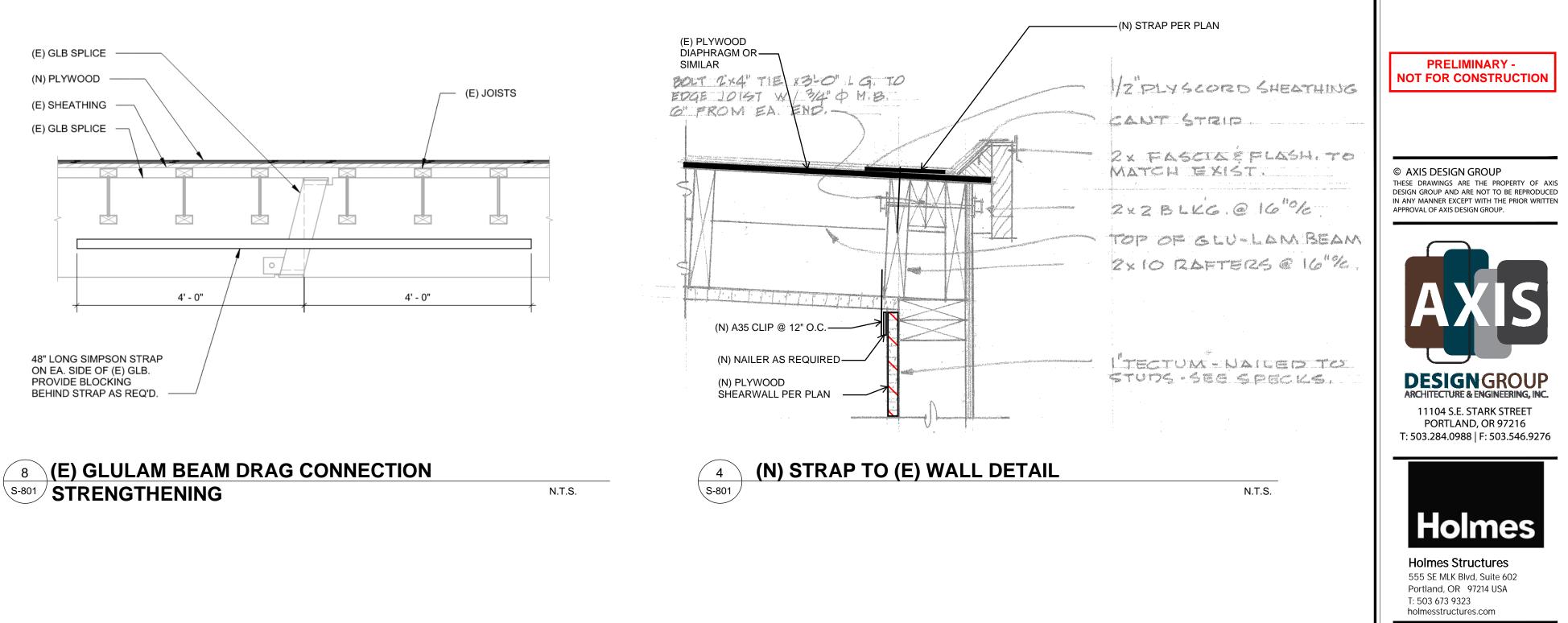


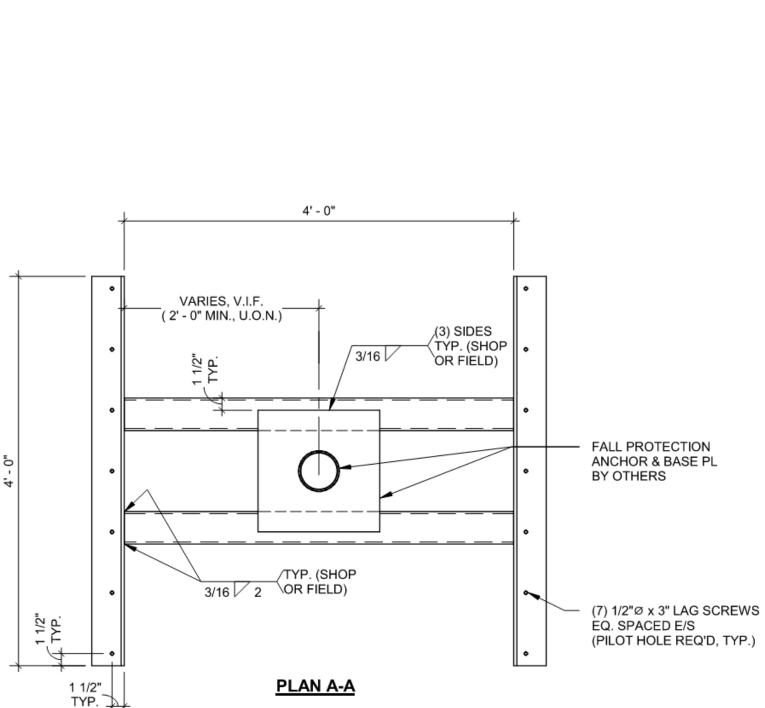


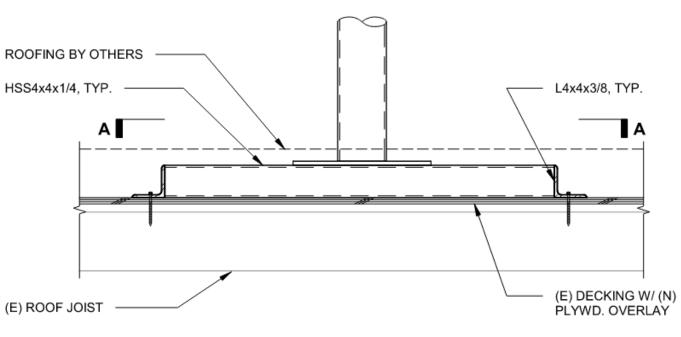
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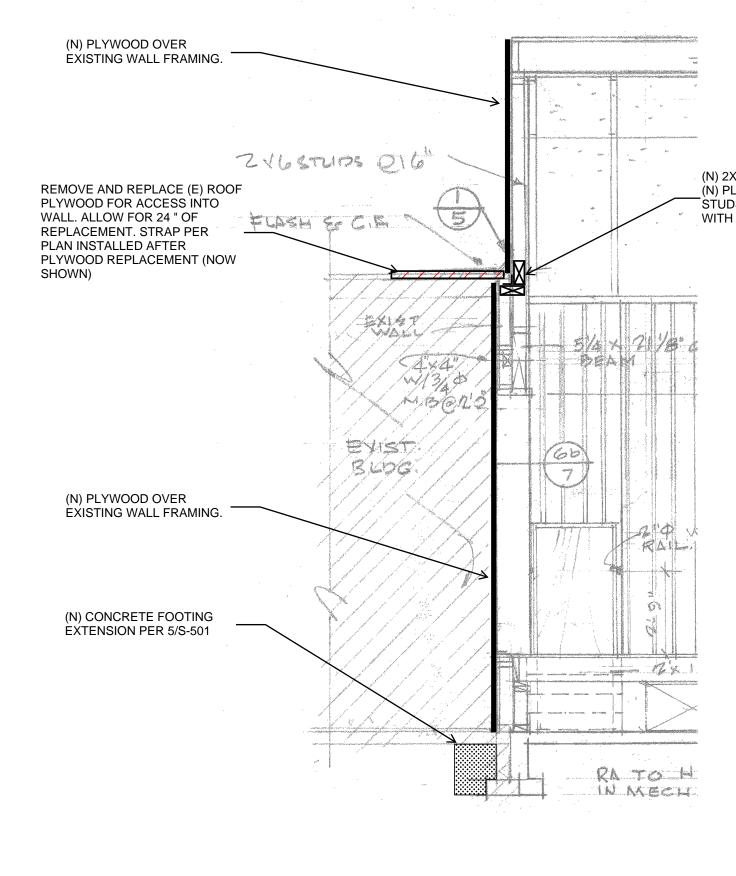












N.T.S.

#### **GYMNASIUM / CAFETERIA WALL STRENGTHENING \S-801**

MARK	EDGE NAILING (E.N.) SEE NOTE 2	CAPACITY (PLF)	RIM CONN. SPACING (SIMP. A35, LTP4 OR b LS50)	SILL PL CONN. SPACING (SIMP. SDWS 0.220 x 6) C SEE NOTE 5	FDN. ANC SPACING d NOTE
6	10d @ 6" O.C.	310	24" O.C.	16" O.C.	48" O.0
4	10d @ 4" O.C.	460	16" O.C.	12" O.C.	48" O.0
3	10d @ 3" O.C.	600	12" O.C.	8" O.C.	32" O.(
2	10d @ 2" O.C.	770	8" O.C.	8" O.C.	24" O.

#### NOTES: 1. USE ½" CDX PLYWD.

- 2. E.N. ACROSS ALL PANEL EDGES, FIELD NAILING IS 12" O.C. ALL NAILS ARE COMMON WIRE NAILS, MAY USE 10d SHORTS (2 1/8" MIN. LENGTH) W/ FULL HEADS. ALL MEMBERS RECEIVING E.N. INCLUDING SILL PLATE SHALL BE 3x AS A MIN. NAILING SHALL BE STAGGERED.
- EXCEPTION: WHERE PLYWOOD IS APPLIED TO ONLY ONE SIDE OF WALL AND NAIL SPACING IS 6" O.C. MEMBERS RECEIVING EDGE NAILING CAN BE 2x. 4. ALL FDN. ANCHOR BOLTS ARE 5/8"Ø L-BOLTS W/ A 2" HOOK OR ALL THREAD ROD WITH A NUT, WASHER AND NUT ON THE EMBEDDED END. WHEN SHEAR WALLS ARE LOCATED ON (E) CONCRETE %"Ø ALL THREAD ROD WITH SIMPSON SET-XP EPOXY MAY BE USED. ANCHORS SHALL HAVE A MIN. EMBEDMENT OF 7", A MIN. EDGE DISTANCE OF 1%" AND SHALL HAVE A 3" SQ. x 3 GA. PLATE WASHER AT THE SILL. CONTRACTOR MAY USE
- BP%-3 OR BPS%-3 SIMPSON WASHERS. PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING. WHERE WALL IS GREATER THAN 2x4 AND SHEATHING OCCURS ON BOTH SIDES, ANCHOR BOLTS SHALL BE STAGGERED. A.B. & WASHER SHALL BE HOT DIPPED GALVANIZED. 5. SILL CONNECTION IS FOR WOOD TO WOOD CONNECTION ONLY, TYP. BTWN. FLOORS. WHERE SPACING IS
- CLOSER THAN 8" O.C. RIM OR RIM BLOCKING SHALL BE 3½" MIN. WIDTH AND FASTENERS SHALL BE STAGGERED. SDS 1/4 x 6 MAY BE USED IN LIEU OF SDWS 0.220 x 6 AT CONTRACTOR'S DISCRETION.



#### SHEAR WALL SCHEDULE

(N) 2X BLOCKING CONNECTED TO (N) PLYWOOD AND NAILED TO (E) STUDS AT EACH END. CONNECT

القفائية سنتوجى والمروم مرودوني

WITH A35 CLIP AT 12" O.C.

N.T.S.



N.T.S.



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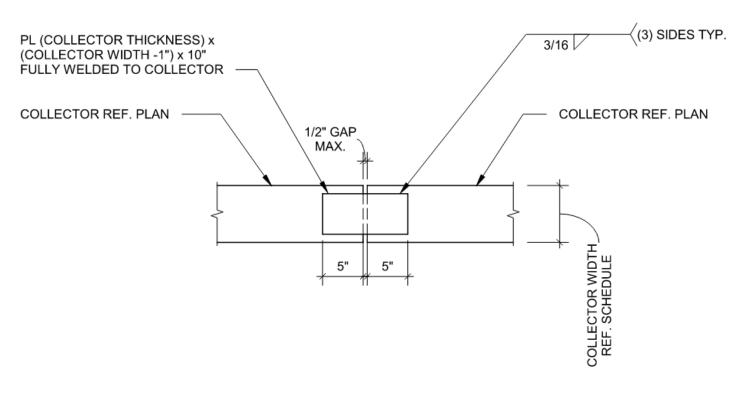
DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE

WOOD FRAMING DETAILS

SHEET NO.

S-801

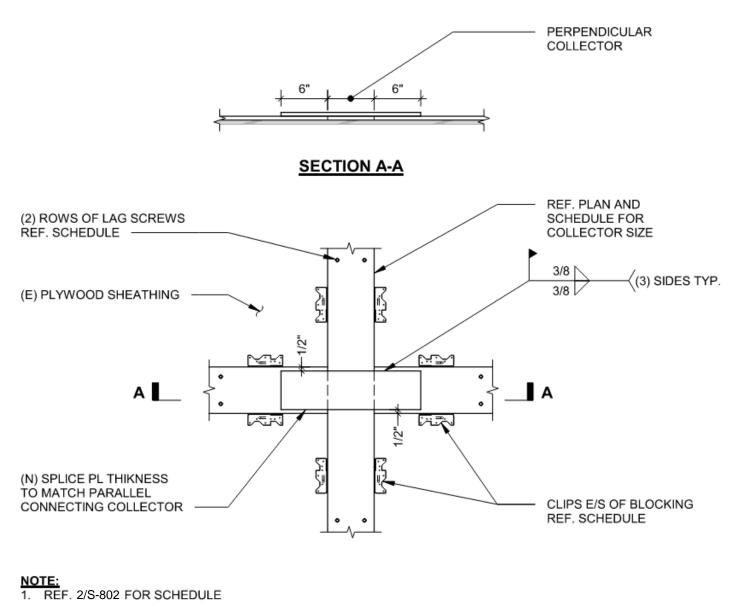




NOTE: 1. CONTRACTOR OPTION TO USE SPLICE PLATE OR FULL PEN WELD.



## **4** TYPICAL COLLECTOR SPLICE DETAIL



3 COLLECTOR SPLICE AT INTERSECTION S-802

N.T.S.

N.T.S.

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BEAVERTON

REVISIONS No. Description Date

DRAWN BY: ENS CHECKED BY: JE JOB NO: 22082.10

DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE

WOOD FRAMING DETAILS



SYMBOLS:	
#	BUILDING GRI
1 A1.0	BUILDING SEC
1 TITLE SCALE: X/X.X	DRAWING IDE
	DETAIL IDENT
1 A1.0	EXTERIOR ELE
	INTERIOR ELEV
MATCH LINE SEE Ax.x	MATCH LINE II
N	NORTH ARRON
	REVISION IDEN
1 A1.0	WALL SECTION

			ABBREVIATIONS:		
BUILDING GRID IDENTIFICATION	0'-0"	CEILING HEIGHT TAG (AFF)	ACOUS ACOUSTICAL ACT ACOUSTICAL CEILING TILE AD AREA DRAIN	GA GAUGE GALV GALVANIZED GB GRAB BAR	R RISER RAD RADIUS RAF RUBBERIZED ASPHALT FLASHING
BUILDING SECTION IDENTIFICATION		DATUM TAG	AFFABOVE FINISHED FLOORALTALTERNATEALUMALUMINUMANODANODIZEDARCHARCHITECTURALAWPACOUSTICAL WALL PANEL	GL GLASS/GLAZING GWB GYPSUM WALL BOARD HB HOSE BIB HC HOLLOW CORE HDWR HARDWARE	RF RESINOUS FLOORING RFG REFRIGERATOR RB RUBBER BASE RD ROOF DRAIN RD/OD ROOF DRAIN/OVERFLOW DRAIN REF REFERENCE
DRAWING IDENTIFICATION	(101A)	DOOR NUMBER	BD BOARD BETW BETWEEN BLD'G BUILDING BLK'G BLOCKING BO BOTTOM OF	HM HOLLOW METAL HORIZ HORIZONTAL HSS HOLLOW STRUCTURAL STEEL TUBE HT HEIGHT	REINF REINFORCE(D) REQ'D REQUIRED RESIL RESILIENT RM ROOM RO ROUGH OPENING
DETAIL IDENTIFICATION	$\begin{pmatrix} 1 \\ A \end{pmatrix}$	EXTERIOR FINISH MATERIAL/COLORS	BOT/BTM BOTTOM CFCI CONTRACTOR FURNISHED CONTRACTOR INSTALLED	ID INSIDE DIAMETER INSUL INSULATION INT INTERIOR JAN JANITOR	RT RUBBER TILE RW RESINOUS WALL SAM SELF-ADHERED MEMBRANE SC SEALED CONCRETE
EXTERIOR ELEVATION IDENTIFICATION	A	EXTERIOR WALL TYPE	CG CORNER GUARD CH COAT HOOK CI CONTINUOUS INSULATION CIP CAST IN PLACE CONCRETE CJ CONTROL JOINT	JT JOINT KD KNOCK DOWN FRAME L LINOLEUM	SCD       .       .       SEAT COVER DISPENSER         SCHED       .       .       SCHEDULE         SCS       .       .       .         SD       .       .       .         SECT       .       .       .         SECT       .       .       .         SECT       .       .       .
INTERIOR ELEVATION IDENTIFICATION	<u>(XX-1</u> )	FURNITURE TAG	CL CENTERLINE CLG CEILING CLR CLEAR CMU CONCRETE MASONRY UNIT CONC CONCRETE	LAM LAMINATES LAV LAVATORY LT LIGHT M MIRROR	SHT SHEET SHTHG SHEATHING SIM SIMILAR SN STAIN SND SANITARY NAPKIN DISPENSER
MATCH LINE IDENTIFICATION	X-X	INTERIOR FINISH MATERIAL	COL COLUMN CONT CONTINUOUS CPT CARPET CT CERAMIC TILE	MANUF MANUFACTURER MAX MAXIMUM MB MARKER BOARD MCM METAL COMPOSITE MATERIAL MCP METAL CEILING PANEL	SNR.       .       .       SANITARY NAPKIN RECEPTACLE         SR       .       .       SHOWER ROD         SQ       .       .       .         SS       .       .       .         SST       .       .       .         ST       .       .       .         ST       .       .       .
NORTH ARROW	A	KEY NOTES	D DRYER DBL DOUBLE DBRON DARK BRONZE DEMO DEMOLISHED DET DETAIL DF DRINKING FOUNTAIN	MDO MEDIUM DENSITY OVERLAY ME MATCH EXISTING MFR MANUFACTURE MIN MINIMUM, MINUTE MISC MISCELLANEOUS MO MASONRY OPENING	SSG.       .       .       STRUCTURAL SILICONE GLAZING         STD.       .       .       STANDARD         ST       .       .       STONE         STL.       .       .       STEEL         STOR       .       .       STRUCTURAL
REVISION IDENTIFICATION	ROOM NAME	ROOM NAME AND NUMBER	DIA DIAMETER DIM DIMENSION DIM PT DIMENSION POINT DIST DISTANCE DN DOWN	MP METAL PANEL MR MOP RACK MRP METAL ROOF PANEL MTD MOUNTED MTL METAL	SUSP SUSPENDED SV SHEET VINYL SVB SHEET VINYL BASE SYM SYMMETRICAL
WALL SECTION IDENTIFICATION	À	WINDOW TYPE	DO DOOR OPENING DS DOWNSPOUT DWG DRAWING(S) (E) EXIST EXISTING	MUL MULLION MWP METAL WALL PANEL NTS NOT TO SCALE (N) NEW	T TREAD TB TACK BOARD TBF TACK BOARD FABRIC T/G TOUNGE AND GROOVE THK THICK
	#	EQUIPMENT NUMBER	EA EACH EJ EXPANSION JOINT ELECT ELECTRICAL EL/ELEV ELEVATION EP EPOXY PAINT	NIC NOT IN CONTRACT NO./# NUMBER OA OVERALL OC ON CENTER	THRU       THROUGH         T.O       TOP OF         TOB       TOP OF BEAM/BRICK/BLOCK         TOC       TOP OF CURB         TOD       TOP OF DECK
•			EQ EQUAL EQUIP EQUIPMENT ES EACH SIDE EX EXIT EXIST EXISTING EXP EXPANSION EXT EXTERIOR	OD OUTSIDE DIAMETER OFCI OWNER FURNISHED CONTRACTOR INSTALLED OFOI OWNER FURNISHED OWNER INSTALLED OPNG OPENING OPP OPPOSITE HAND	TOP TOP OF PARAPETTOW TOP OF WALLTPD TOILET PAPER DISPENSERTR TRANSPARENT FINISHTS TUBE STEELTSC TOILET SEAT COVER DISPENSERTYP
• ACOUSTICAL CEILING TILE		GROUT	(F) FUTURE FAA FIRE ALARM ANNUNCIATOR FACP FIRE ALARM CONTROL PANEL FAC FACTORY FINISH FD FLOOR DRAIN	P PAINTED PAF POWER ACTUATED FASTENER PL/PLAM PLASTIC LAMINATE PLAS PLASTIC PNL PANEL	UON UNLESS OTHERWISE NOTED VB VINYL BASE VBX VIEW BOX VCT VINYL COMPOSITE TILE
BATT INSULATION		GYPSUM BOARD IN SECTION	FE FIRE EXTINGUISHER FEC FIRE EXTINGUISHER CABINET FF FINISHED FLOOR FIN FINISH FLASH FLASHING	PR PAIR PS PROJECTOR SCREEN PT PRESSURE TREATED PTD PAPER TOWEL DISPENSER PTDR PAPER TOWEL DISPENSER	VER VERIFY VERT VERIFY VERT VERIFY IN FIELD VF VERIFY IN FIELD VP VENEER PLASTER
CONCRETE IN SECTION		INTERMITTENT BLOCKING	FLR       FLOOR         FOB       FACE OF BRICK/BLOCK         FOC       FACE OF CONCRETE         FOF       FACE OF FINISH         FOS       FACE OF STUDS OR STEEL	& RECEPTACLE PLYWD PLYWOOD QT QUARRY TILE	W/ WITH         W/O WITHOUT         WB WEATHER BARRIER         WC WINDOW COVERING         WD WOOD
CONTINUOUS LUMBER		MASONRY IN SECTION	FRT FIRE RETARDANT TREATED FT FOOT, FEET FTG FOOTING FURR FURRING FV FIELD VERIFY		WG WALL GUARD WM WALK-OFF MAT WP WORK POINT WPRF WATERPROOF WSV WELDED SHEET VINYL WSVB WELDED SHEET VINYL BASE

## MATERIAL HATCHES:

	ACOUSTICAL CEILING TILE	
	BATT INSULATION	The second secon
р 	CONCRETE IN SECTION	
	CONTINUOUS LUMBER	
	EARTH	
	FINSHED LUMBER	
	GRAVEL	

METAL IN SECTION

PLYWOOD IN SECTION

RIGID INSULATION IN SECTION

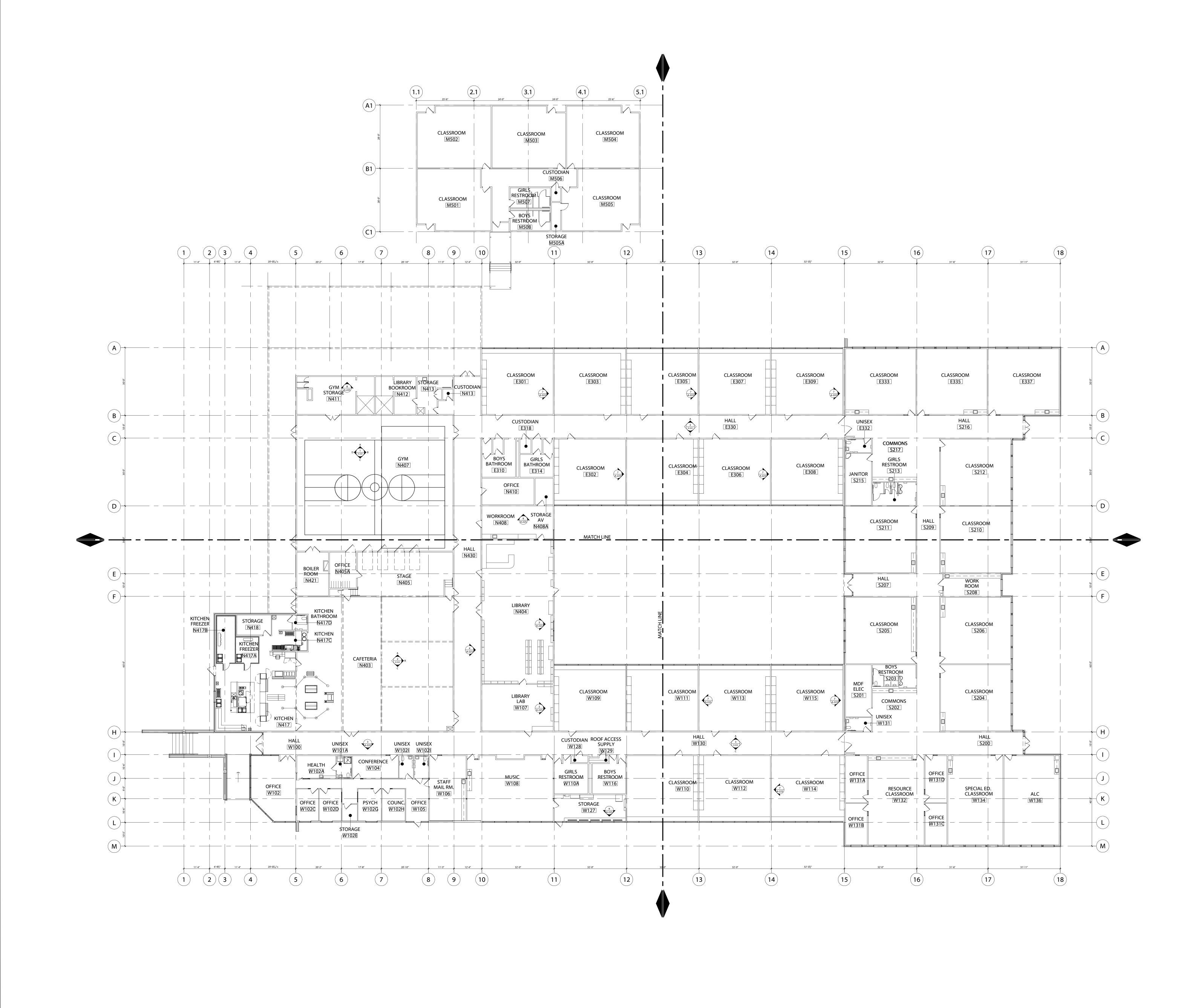
WPT. . . . . WORK FOINT WPRF. . . . . WATERPROOF WSV . . . . WELDED SHEET VINYL WSVB. . . . WELDED SHEET VINYL BASE WWF. . . . WELDED WIRE FABRIC

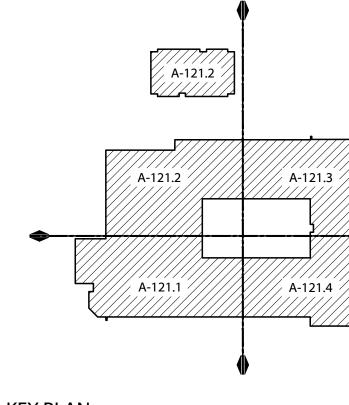
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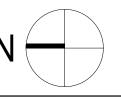
# -LACEMI C IMPROVEMENTS AND ROOFING REPLA BEAVERTON SCHOOL DISTRICT MCKINLEY ELEMENTARY SCHOOL 1500 NW 185TH AVE. BEAVERTON, OR 97006 SEISMIC BEAVERTON SCHOOL DISTRICT REVISIONS No. Description Date DRAWN BY: SES CHECKED BY: SEE JOB NO: 22-002 BSD MKES DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE ABBREVIATIONS, SYMBOLS & MATERIAL HATCHES

SHEET NO.

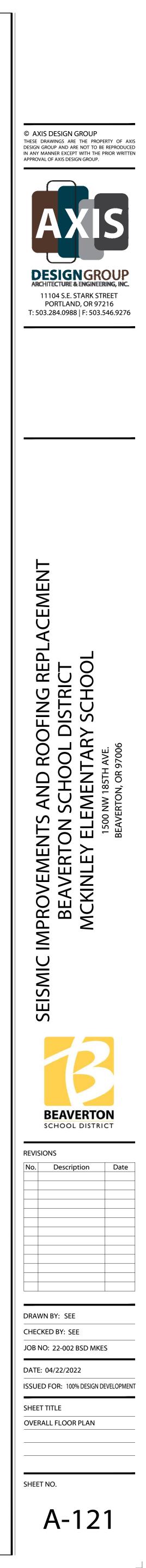
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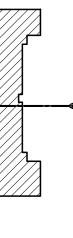


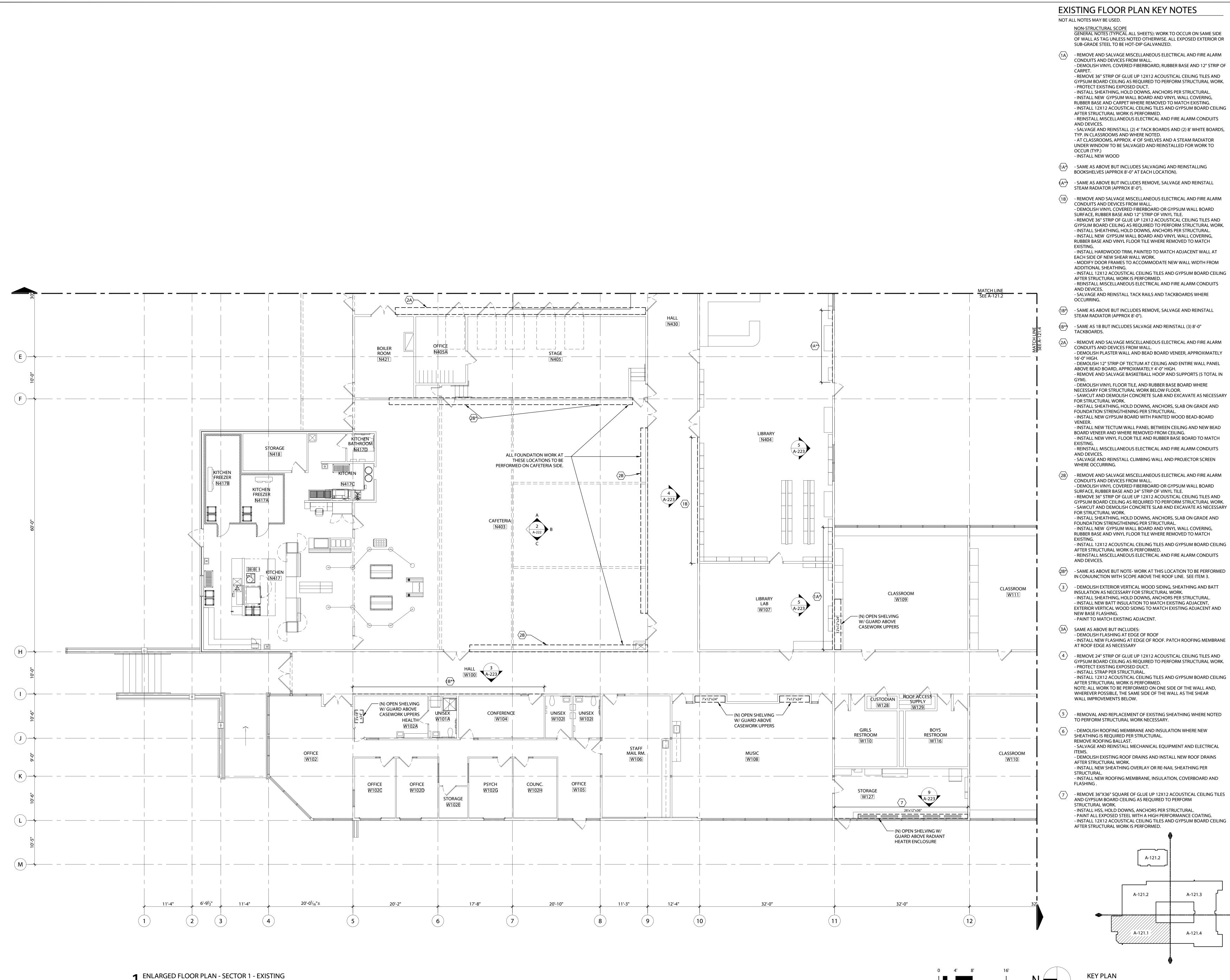










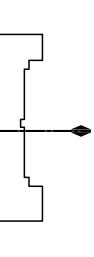


SCALE: 1/8" = 1'-0"

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



KEY PLAN SCALE: NOT TO SCALE



A-121.3

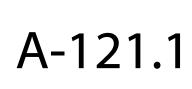
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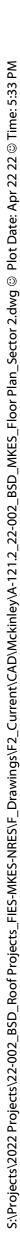
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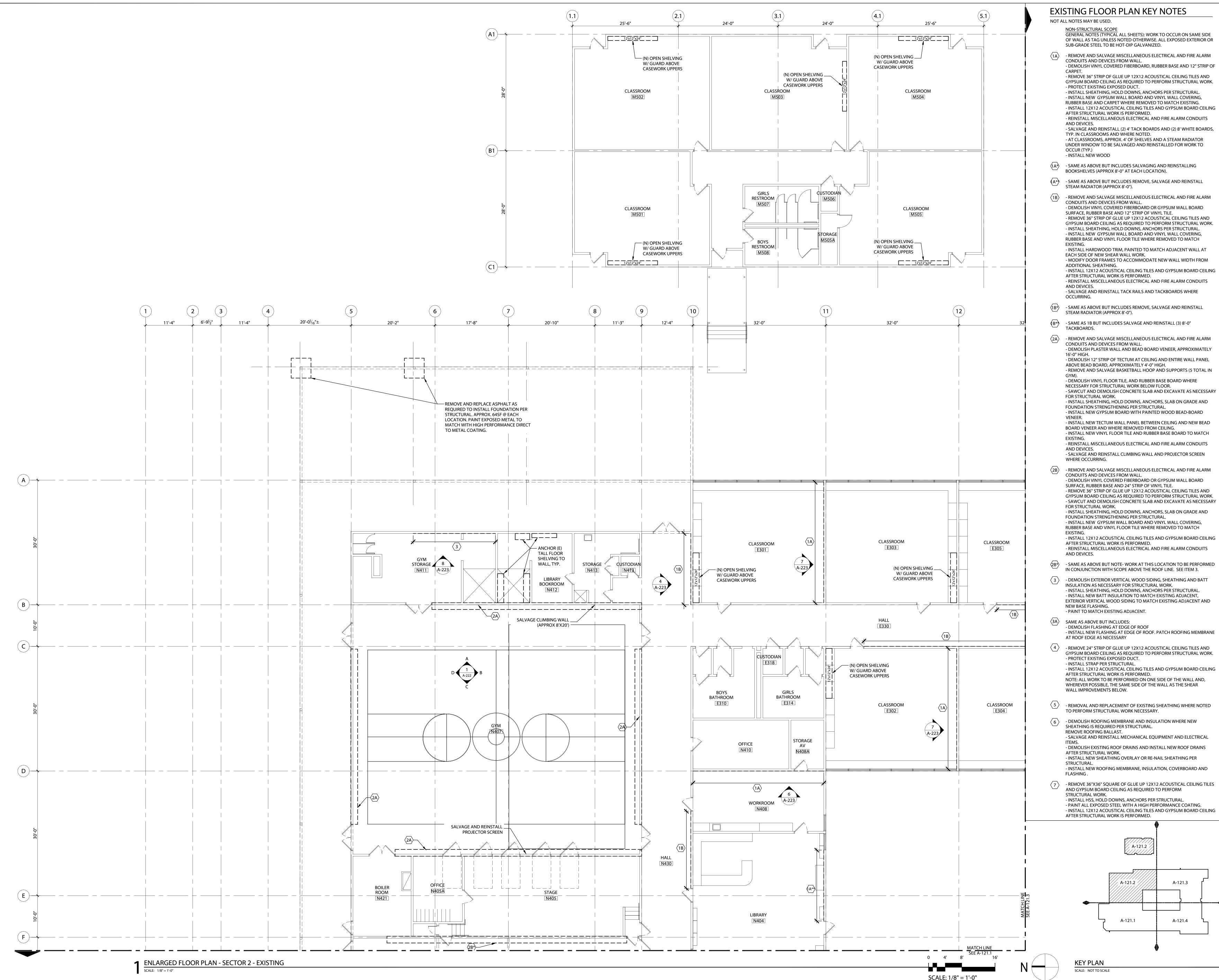


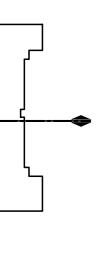
# OFING REPL DISTRICT RY SCHOOL RÕ AND Sr' S APROVEMENT BEAVERTON MCKINLEY EI ſ S S **BEAVERTON** SCHOOL DISTRICT REVISIONS No. Description Date

DRAWN BY: SEE CHECKED BY: SEE JOB NO: 22-002 BSD MKE DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMEN SHEET TITLE **ENLARGED FLOOR PLAN - SECTOR 1** 







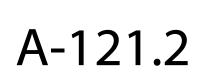


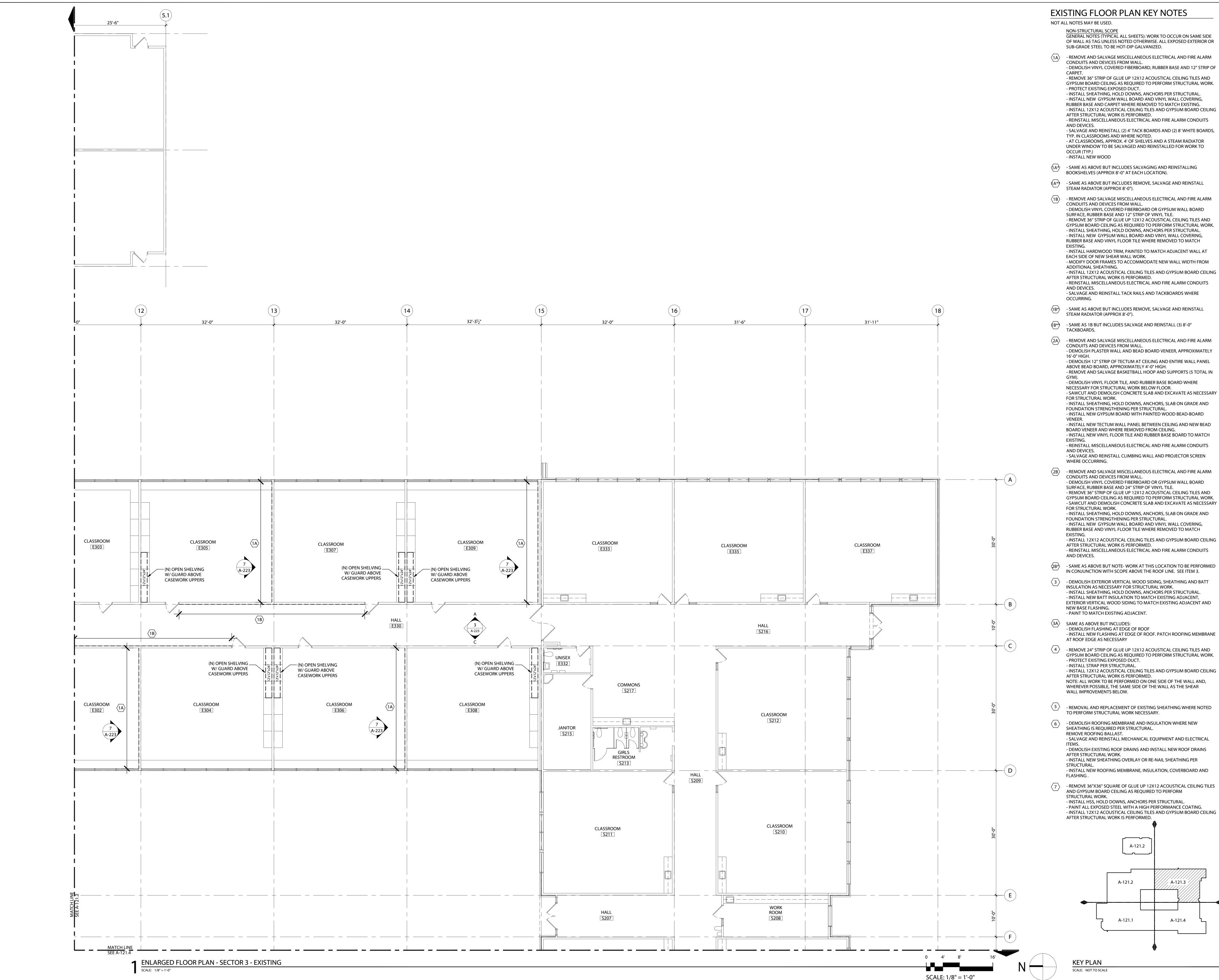
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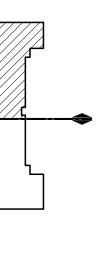


# Δ OFING REF DISTRICT RY SCHOOI RÕ AND S IPROVEMENT BEAVERTOI MCKINLEY E ſ S S **BEAVERTON** SCHOOL DISTRICT REVISIONS No. Description Date

DRAWN BY: SEE CHECKED BY: SEE JOB NO: 22-002 BSD MKE DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMEN SHEET TITLE **ENLARGED FLOOR PLAN - SECTOR 2** 







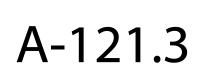
© AXIS DESIGN GROUP THESE DRAWINGS ARE THE PROPERTY OF AXIS DESIGN GROUP AND ARE NOT TO BE REPRODUCED IN ANY MANNER EXCEPT WITH THE PRIOR WRITTEN APPROVAL OF AXIS DESIGN GROUP.

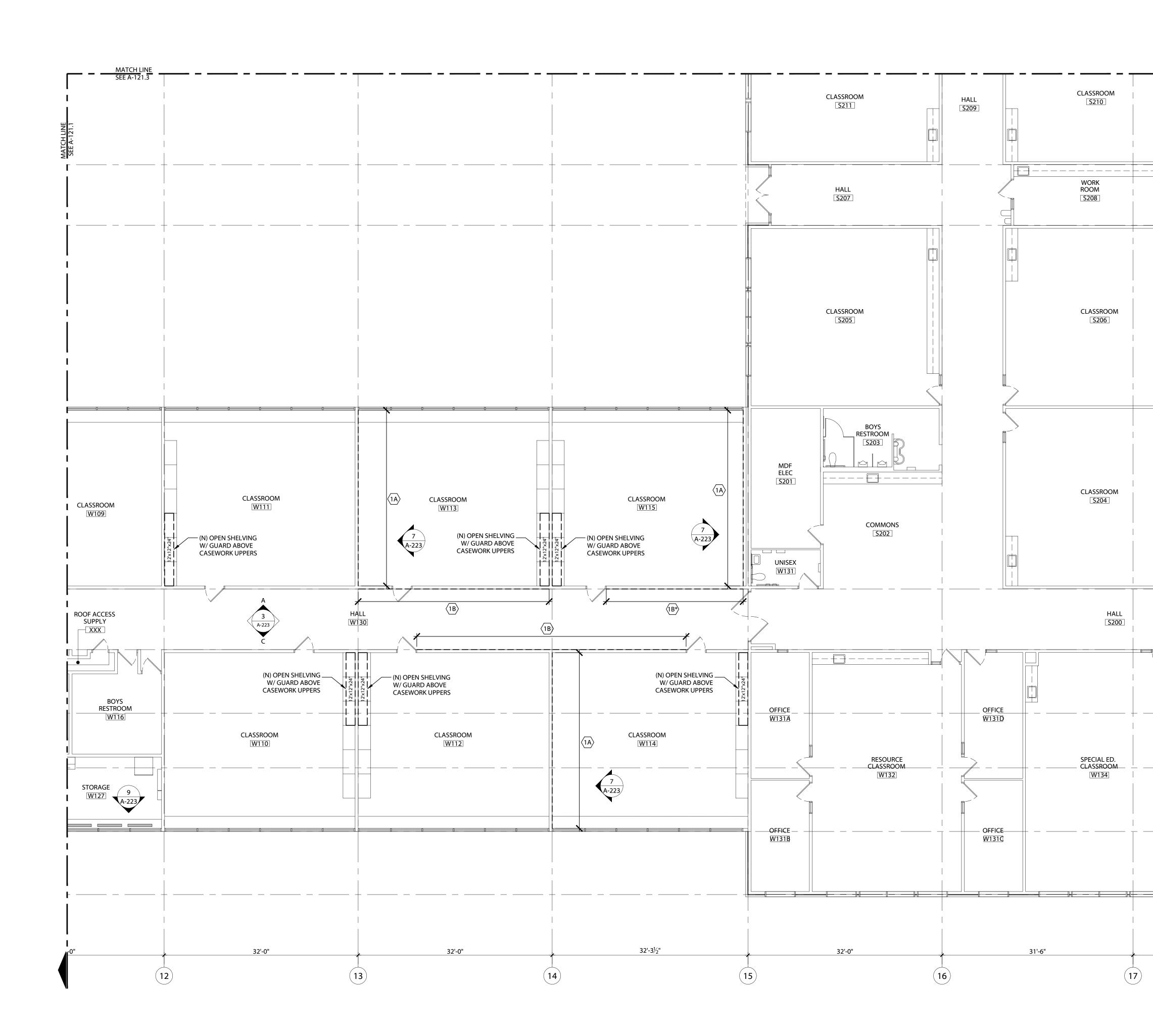


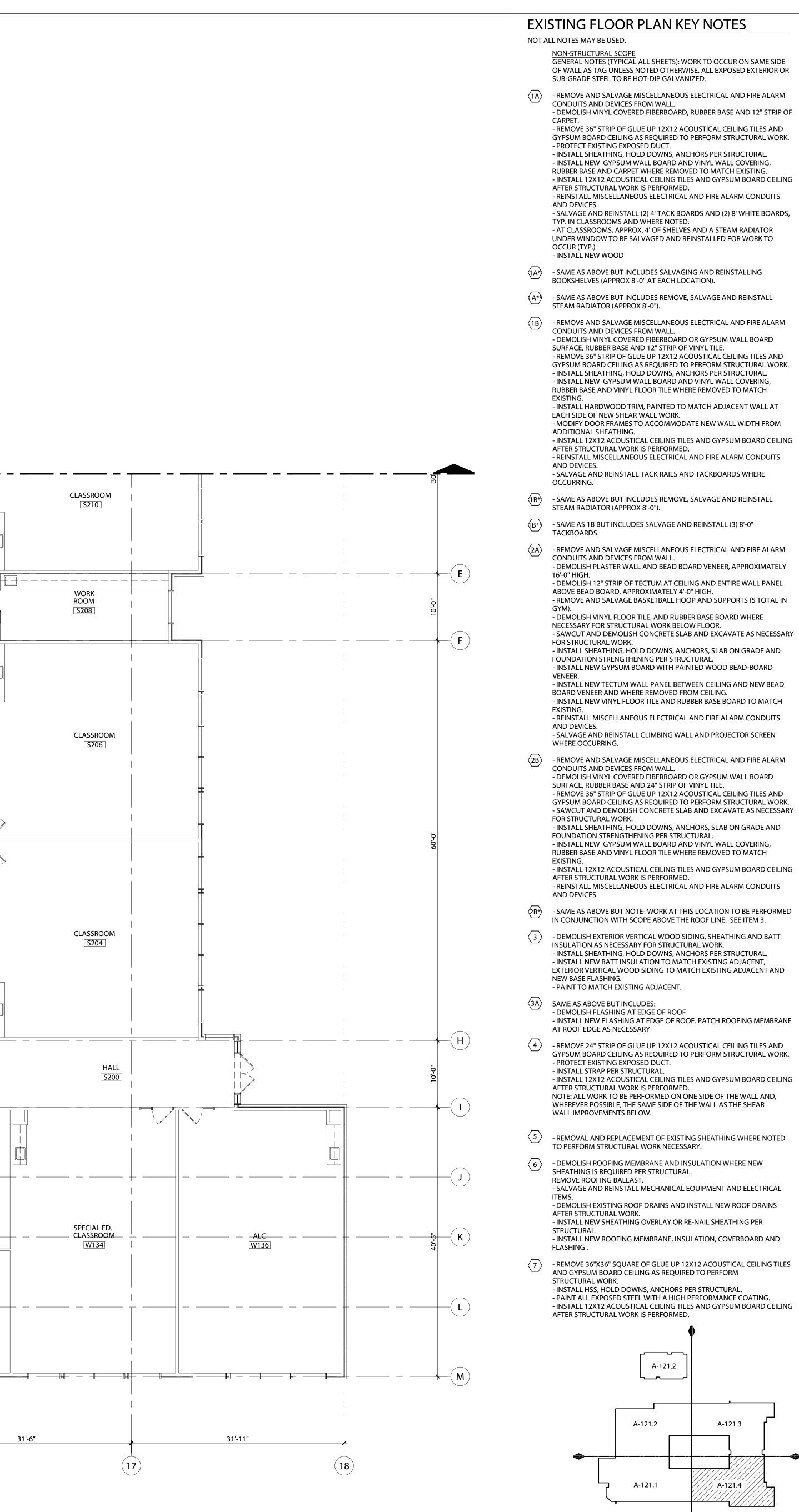
# ш 1 ROOFING REPL DOL DISTRICT TARY SCHOOL AND SCIT ᆂᄔ S $\vdash$ Ż ш IPROVEME BEAVER<sup>-</sup> MCKINLE<sup>\*</sup> ſ S S **BEAVERTON** SCHOOL DISTRICT REVISIONS No. Description Date

DRAWN BY: SEE CHECKED BY: SEE JOB NO: 22-002 BSD MKE DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPME SHEET TITLE

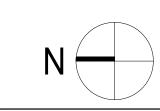
**ENLARGED FLOOR PLAN - SECTOR 3** 



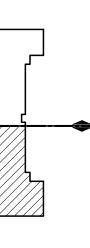


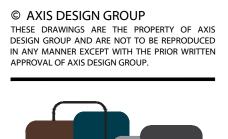


SCALE: 1/8" = 1'-0"



KEY PLAN SCALE: NOT TO SCALE





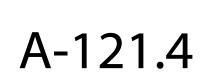


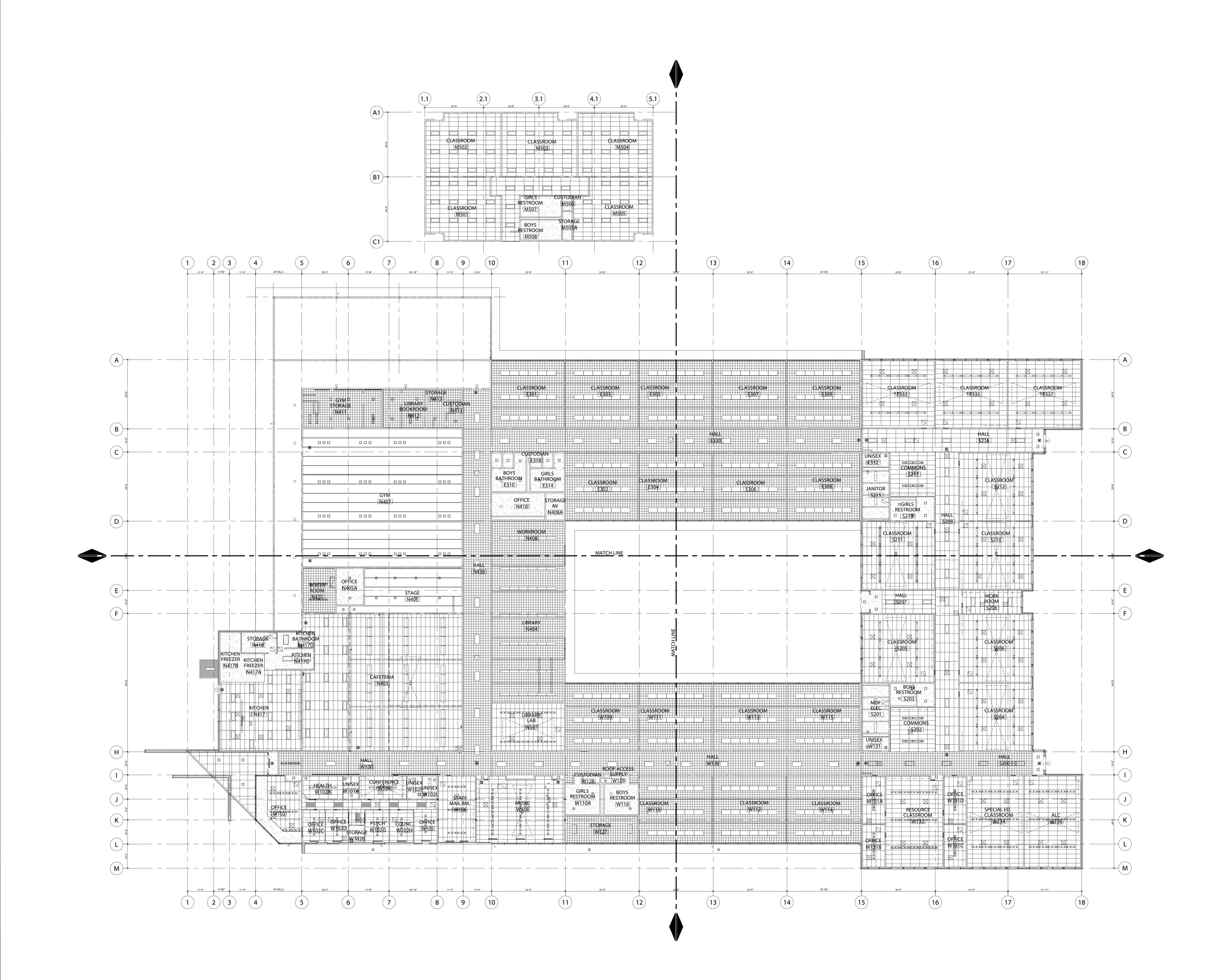
# ROOFING REPL DOL DISTRICT ITARY SCHOOL AND SCI ᆂᄔ T Z APROVEMENT BEAVERTON MCKINLEY EI ſ S S **BEAVERTON** SCHOOL DISTRICT REVISIONS

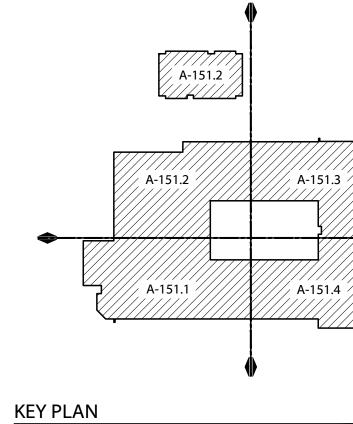
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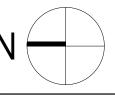
DRAWN BY: SEE CHECKED BY: SEE JOB NO: 22-002 BSD MKE

DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMEN SHEET TITLE **ENLARGED FLOOR PLAN - SECTOR 4** 

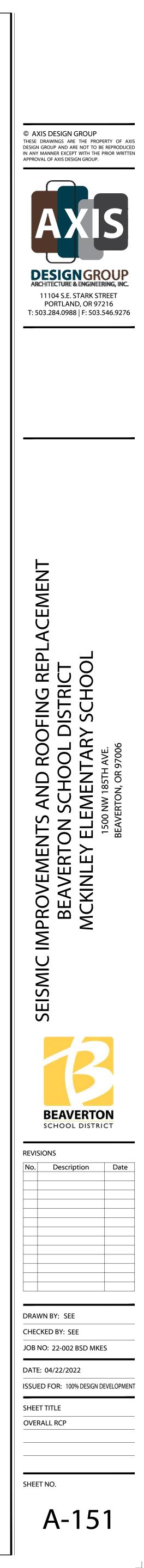


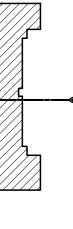


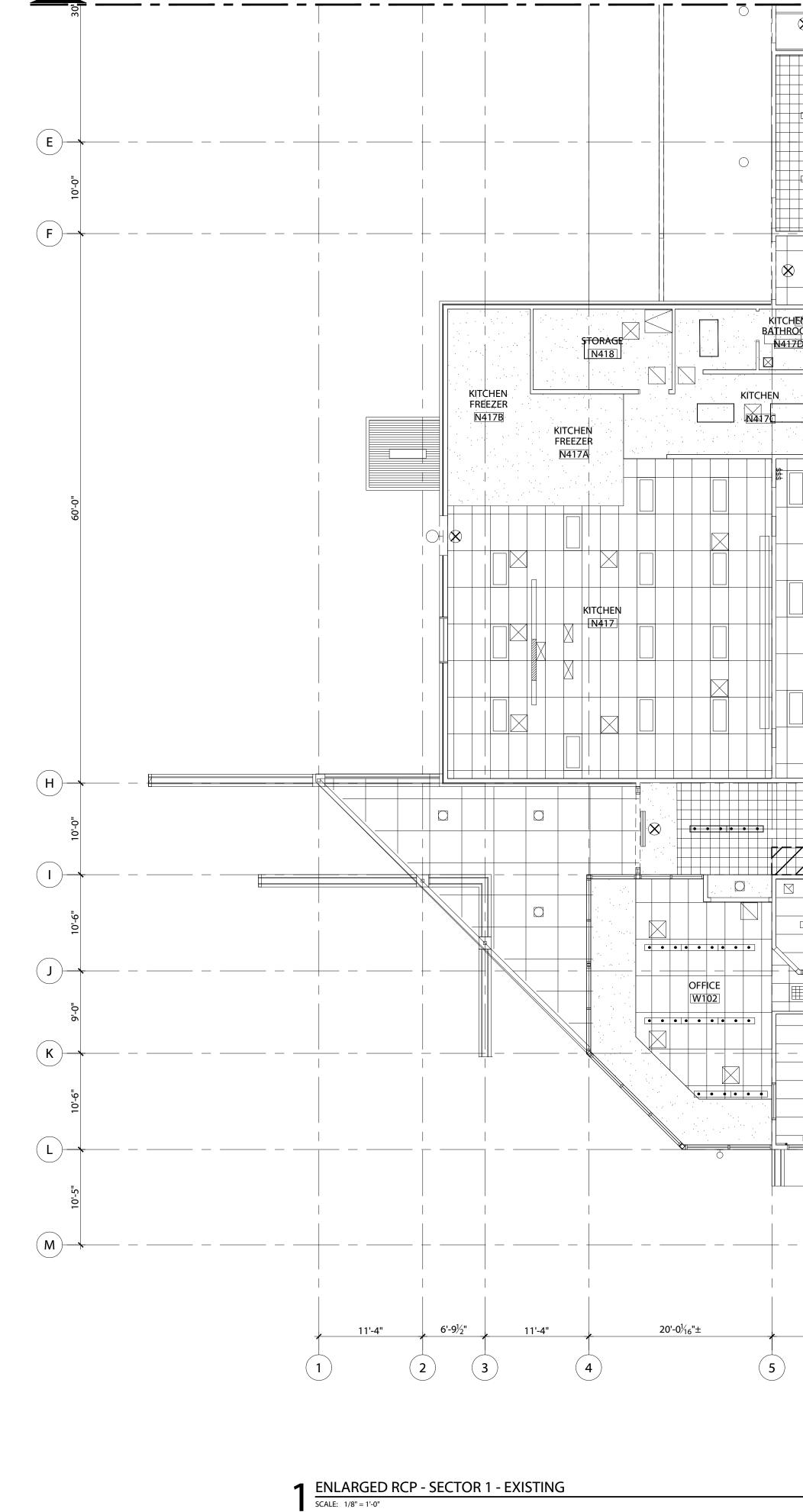




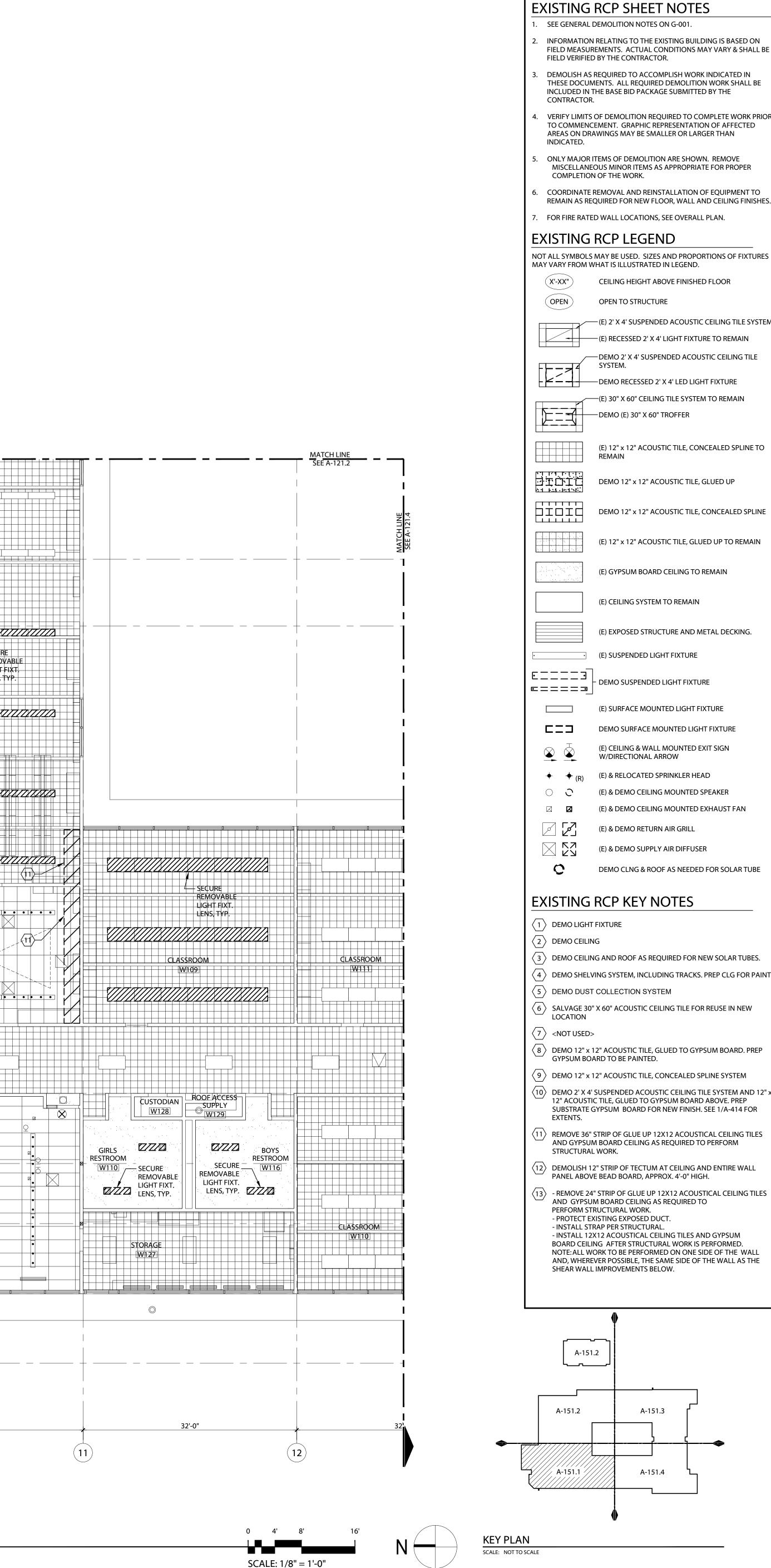








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DESIGNGROUP

**ARCHITECTURE & ENGINEERING, INC.** 

11104 S.E. STARK STREET PORTLAND, OR 97216

T: 503.284.0988 | F: 503.546.9276

------ (E) 2' X 4' SUSPENDED ACOUSTIC CEILING TILE SYSTEM

(E) 12" x 12" ACOUSTIC TILE, CONCEALED SPLINE TO

DEMO 12" x 12" ACOUSTIC TILE, CONCEALED SPLINE

(E) 12" x 12" ACOUSTIC TILE, GLUED UP TO REMAIN

N ROOFING REPL DOL DISTRICT JTARY SCHOOL

J SCH

MPROVEMENTS / BEAVERTON S MCKINLEY ELEI

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REVISIONS

DRAWN BY: SEE

CHECKED BY: SEE

DATE: 04/22/2022

SHEET TITLE

SHEET NO.

JOB NO: 22-002 BSD MKES

**ENLARGED RCP - SECTOR 1** 

ISSUED FOR: 100% DESIGN DEVELOPMEN

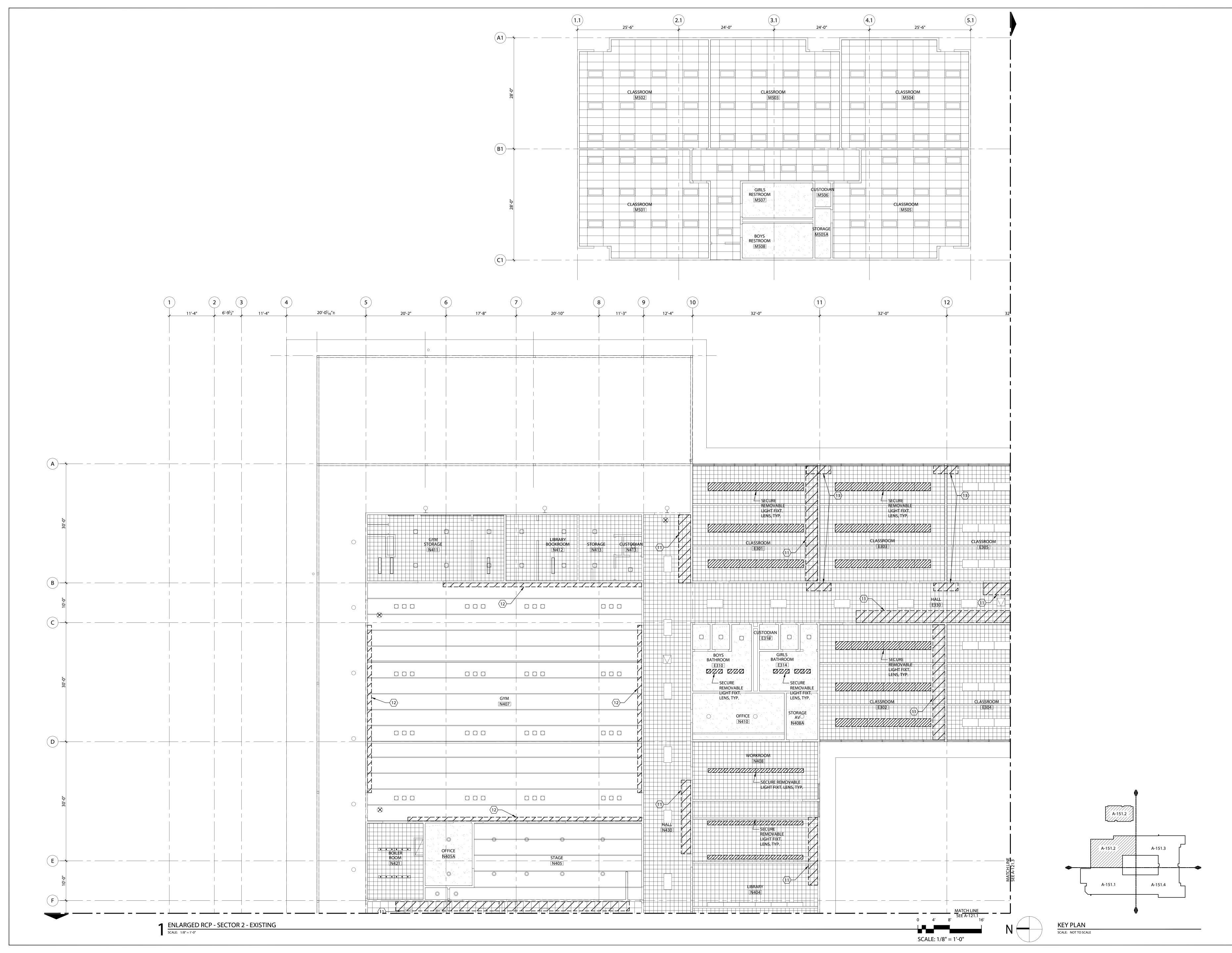
A-151.1

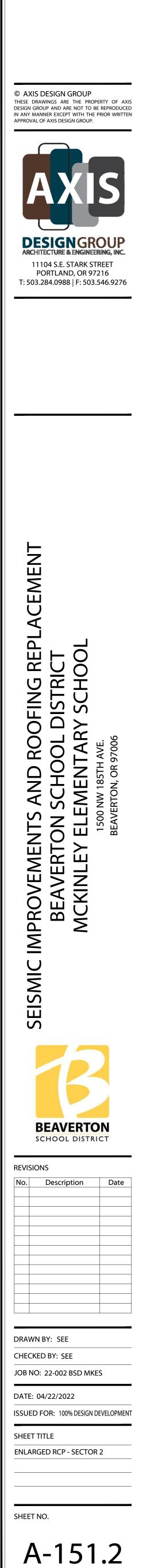
**BEAVERTON** 

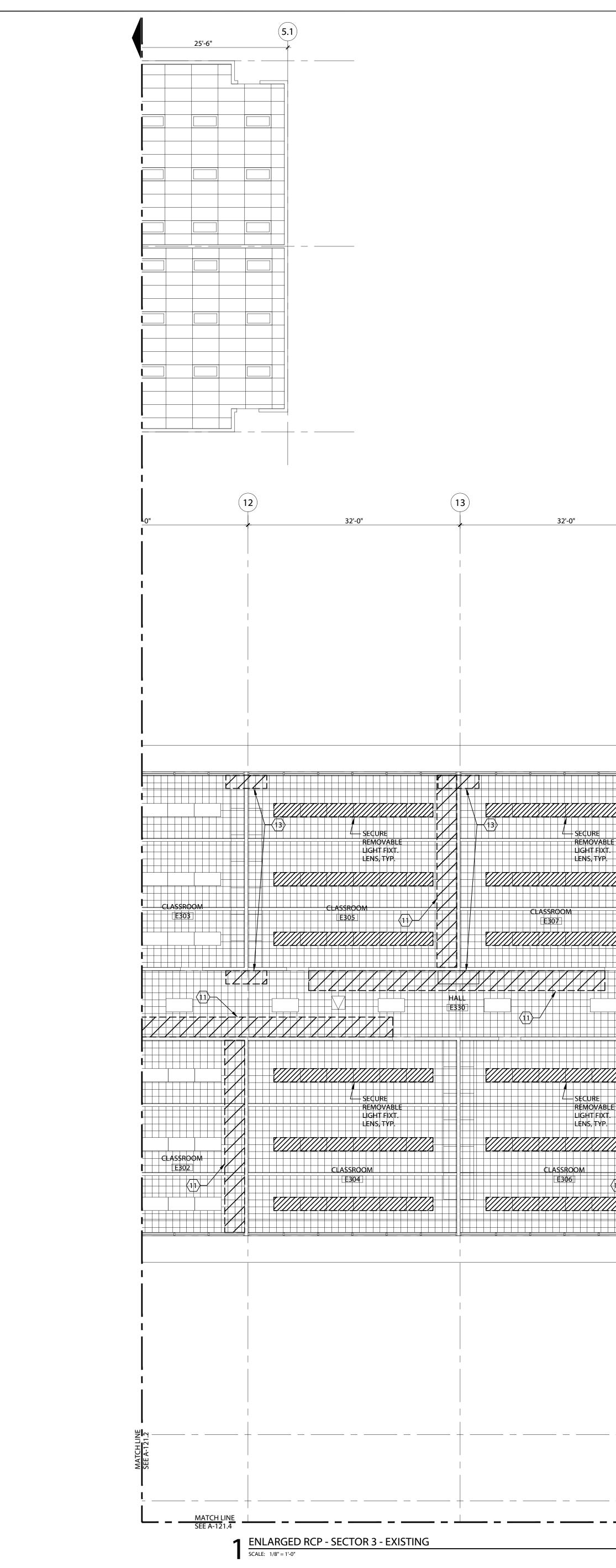
SCHOOL DISTRICT

No. Description Date

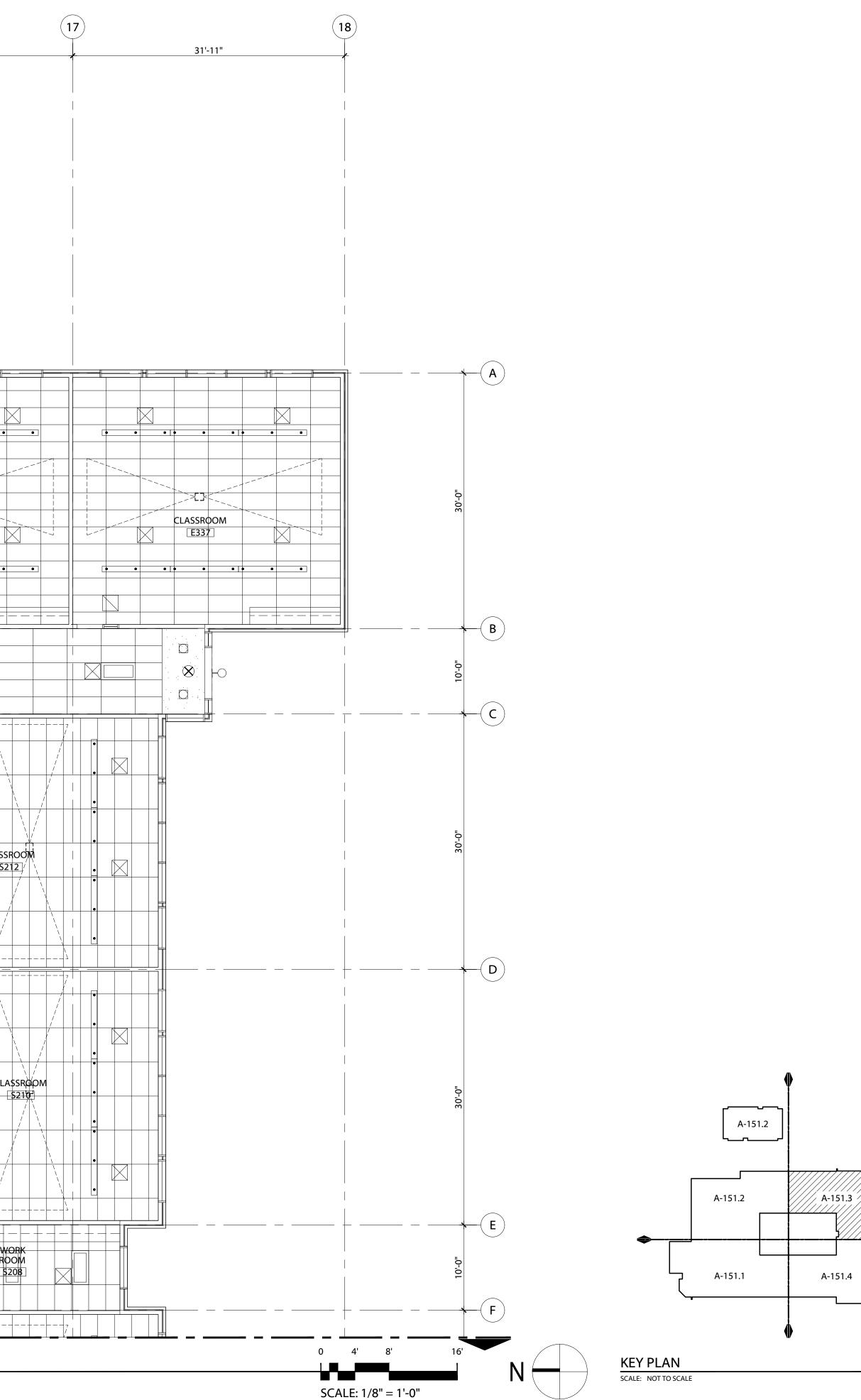


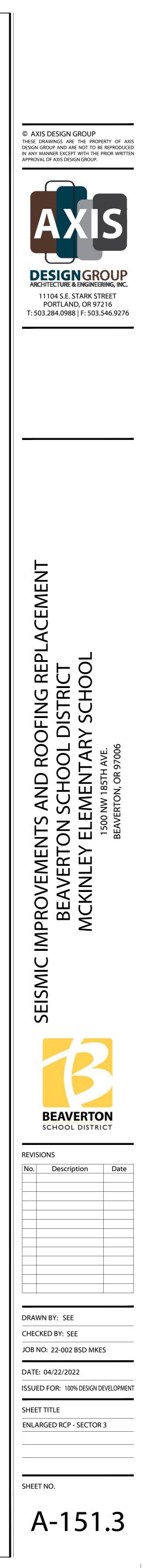


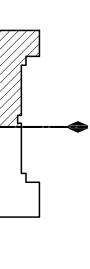


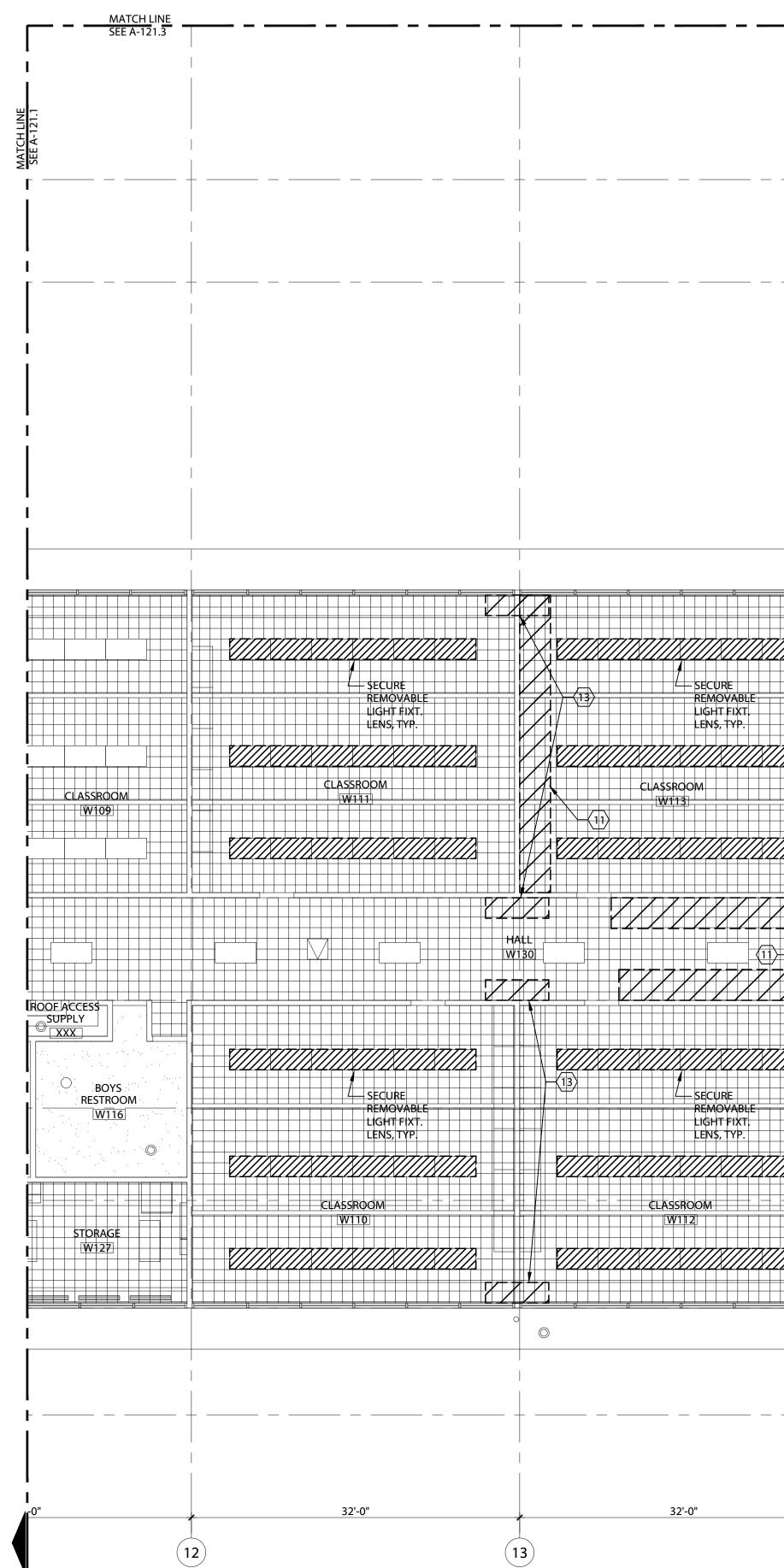


14	32'-3 <sup>1</sup> ⁄2"	(15)	32'-0"	5 31'-6"
	CLASSROOM			
	Image: Class ROOM         Image: Class ROOM		Image: Constraint of the second of the se	HALL S216



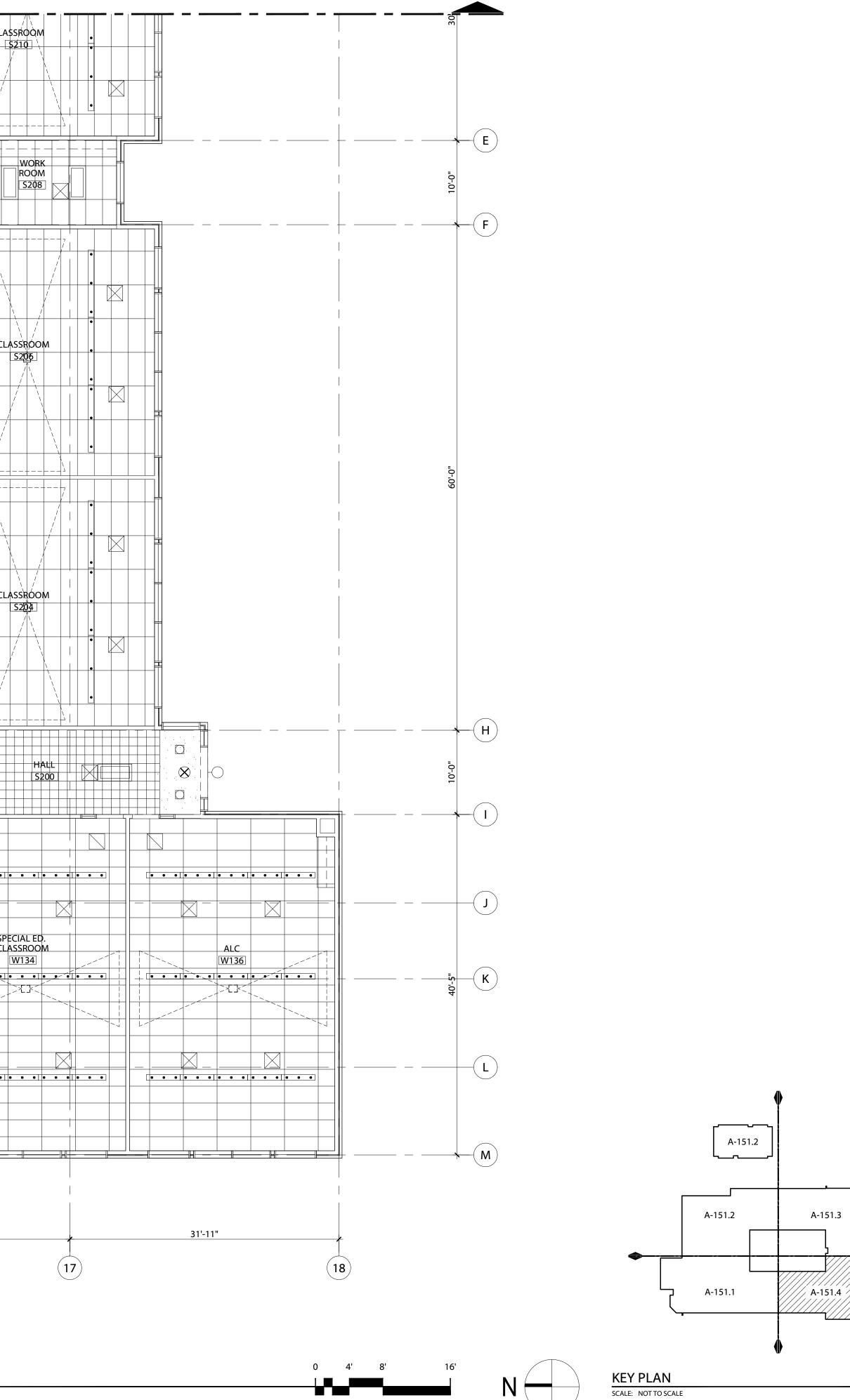




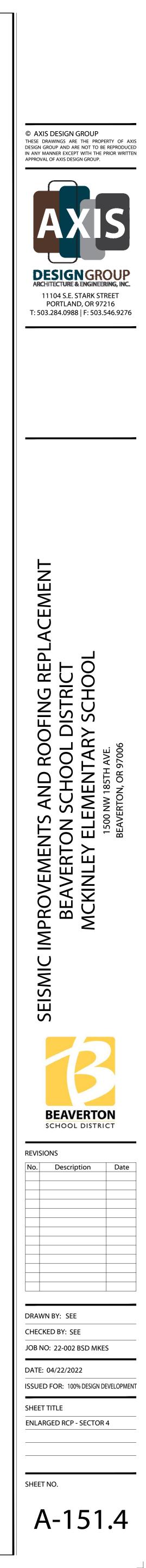


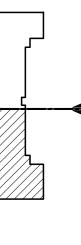
ENLARGED RCP - SECTOR 4 - EXISTING

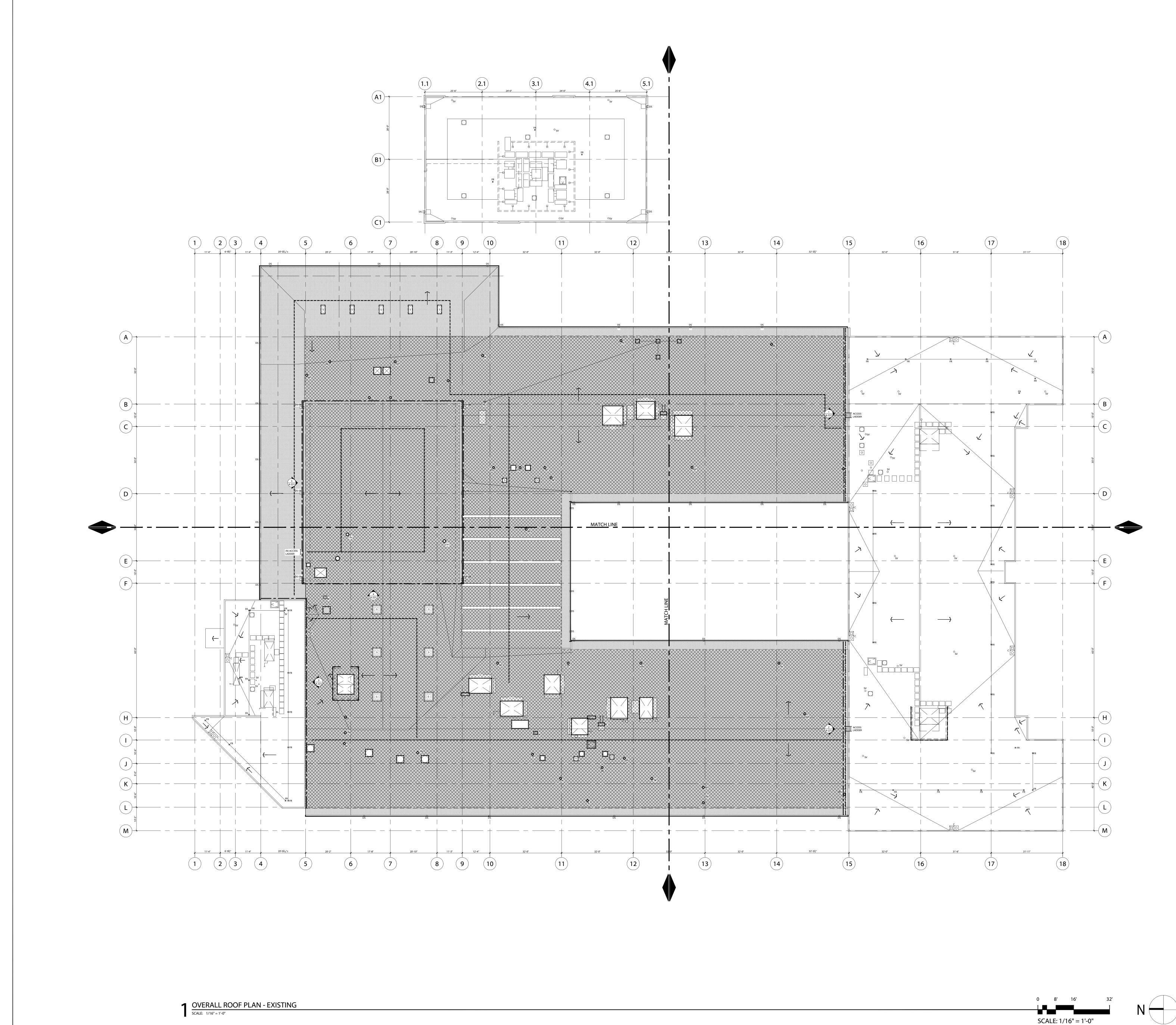
	Image: state of the state	OFFICE W131D SPEC CLAS W OFFICE
32'-3½" 14	<u>32'-0"</u>	31'-6"



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







## GENERAL PROJECT DESCRIPTION

PROJECT SCOPE: REMOVE AND REPLACE THE EXISTING LOW-SLOPE BUILT UP ROOF ASSEMBLY PER ROOFING ASSESSMENT RECOMMENDATIONS WITH NEW BUILT UP ROOF ASSEMBLY WITH ADDED INSULATION. WORK INCLUDES NEW ASSOCIATED FLASHINGS, GUTTERS, DOWNSPOUTS, FASCIAS, CURBS AND COUNTER-FLASHING FOR MECH. EQUIPMENT AND ROOF ACCESS LADDERS. CONTRACTOR TO REPLACE EXISTING ROOF SYSTEMS DAMAGED FROM WATER INTRUSION AS REQUIRED FOR NEW SCOPE OF WORK INCLUDING, BUT NOT LIMITED, TO SHEATHING, INSULATION, CURBS, BLOCKING, ROOF FLASHING, ETC. CONTRACTOR DESIGN AND INSTALL NEW FALL RESTRAINT SYSTEM FOR LOW-SLOPE ROOF ASSEMBLIES IDENTIFIED ON PLANS.

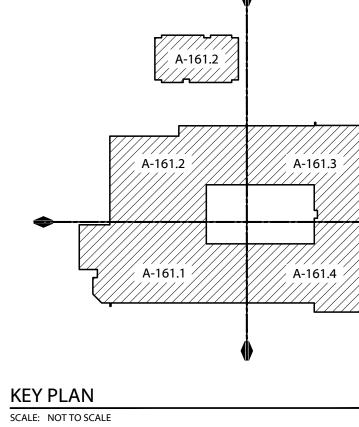
## **ROOF PLAN SHEET NOTES**

- 1. ROOF PLAN FOR GENERAL PURPOSE ONLY. 2. INFORMATION RELATING TO THE EXISTING BUILDING IS BASE ON CASUAL OBSERVATION ACTUAL CONDITIONS VERY AND SHELL BE FIELD VERIFIED BY THE CONTRACTOR.
- 3. GRAPHIC PRESENTATION OF THE AFFECTED AREAS ON DRAWINGS MAY BE SMALLER OR LARGER THAN INDICATED.
- 4. ONLY MAJOR ELEMENTS ARE SHOWN. 5. ROOF AREA SHOWN ARE APPROXIMATE, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF AREAS FOR BIDDING AND CONSTRUCTION PURPOSES.
- 6. PROVIDE CRICKETS AT MECHANICAL EQUIPMENT, CURBS AND ROOF PENETRATIONS AS REQUIRED.
- 7. CONTRACTOR RESPONSIBLE FOR THE DISCONNECTION AND RECONNECTION OF ALL UTILITY CONNECTIONS AS REQ'D TO COMPLETE WORK. THIS INCLUDES ANY WORK REQ'D TO EXTEND PIPES, WIRES, ETC. TO MEET MIN. CLEARANCES.
- 9. THE VENT AND PIPE SIZES NOTED ON THE DRAWINGS ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY WORK.
- 10. ROOF CANNOT BE LEFT UNPROTECTED FROM THE ELEMENTS FOR A WEEKEND OR HOLIDAY PERIOD. CONTRACTOR MAY LEAVE ROOF UNPROTECTED OVERNIGHT AND ASSUMES ALL RISK FOR ANY DAMAGE CAUSED.
- 11. CONTRACTOR TO PROVIDE SITE CLEANUP AT THE END OF EACH WORK DAY. CLEANUP SHALL INCLUDE A MAGNET/METAL DETECTOR FOR ALL HARD SURFACES WITHIN 15 FEET OF BUILDING AND ALL LANDSCAPED AREAS.
- 12. REMOVE EXISTING ROOFING DOWN TO EXISTING SHEATHING UNLESS OTHERWISE NOTED IN ASSEMBLY. REMOVE AND DISPOSE OF ROOFING AS REQ'D. BY GOVERNING AUTHORITIES.
- 11. REPLACE EXISTING ROOF SYSTEM DAMAGED FROM WATER INTRUSION AS REQ'D FOR NEW SCOPE OF WORK INCLUDING, BUT NOT LIMITED TO, SHEATHING, CURBS, BLOCKING, FLASHING, ETC. 12. FOR ADDITIONAL GENERAL DEMOLITION INFORMATION SEE NO. 6 UNDER
- GENERAL NOTES ON SHEET G-001.

ROOF PLAN LEGEND (MCKINLEY ES) NOT ALL SYMBOLS MAY BE USED. SIZES AND PROPORTIONS OF ELEMENTS

	MBOLS MAY BE USED. SIZES AND PROPORTIONS FROM WHAT IS ILLUSTRATED IN LEGEND.
	(N) LOW-SLOPE ROOF - BUILT-UP ROOF ASSEMB WITH 2.5" RIGID INSULATION
	(N) LOW-SLOPE ROOF - BUILT-UP ROOF ASSEMB WITH 5" RIGID INSULATION
	(N) TAPER INSULATION, SLOPE AS INDICATED
	(E) ROOF ACCESS HATCH. PROVIDE AND INSTALI GUARDRAIL WITH GATE.
S	(N) PRE-FAB INSUL METAL CURB MOUNTED FIXE WITH THERMALLY BROKEN ALUM FRAME, CAST AND FALL PROTECTION CAGE
 FR	(N) FALL RESTRAINT HLL SYSTEM WITH HORIZON
	(E) ROOFTOP MECHANICAL UNITS. PROVIDE (N) FLASHING SYSTEM AND COUNTER-FLASHING AT ACCOMMODATE 3" OF ADDED INSULATION - IN ALLOWANCE FOR (N) CURBS, LIFTING OF UNIT, N
$\square \bigcirc$	(E) MECHANICAL. PROVIDE (N) CURBS AND COUL ACCOMMODATE 3" OF ADDED INSULATION
🗘 SV	(E) STACK VENT. PROVIDE EXTENSIONS AND COU ACCOMMODATE 3" OF ADDED INSULATION
○ RD	(E) ROOF DRAIN
	(E) OVERFLOW DRAIN
• 🛛 C	(E) COMBINATION MAIN ROOF & OVERFLOW DRA
	(N) GUTTER WITH DOWNSPOUT
DS-SB	(N) GUTTER WITH DOWNSPOUT. PROVIDE (N) SP
	(N) COPING
EL	(E) ELECTRICAL. PROVIDE (N) CURBS AND COUNT PENETRATIONS TO ACCOMMODATE 3" OF ADDE
🗆 LF	(E) LIGHT FIXTURE
<u> </u>	(E) ROOF SLOPE DIRECTION
	(N) PRE-FINISHED SHEET METAL COUNTERFLASH
	(E) PRE-FINISHED SHEET METAL SEISMIC JT FLAS AND PAINT

(E) GALV STEEL MECH SCREEN FRAME W/ PRE-FINISHED METAL PANEL - CLEAN, RESEAL AND PAINT



**ABLY** 

MBLY

ALL (N) SAFETY

## XED DOME SKYLIGHT, ST ACRYLIC GLAZING,

ONTAL LIFELINE. I) PMMA LIQUID AT CURBS TO INCLUDE AN MEP CONNECTIONS JNTER-FLASHING TO

DUNTER-FLASHING TO

RAIN

SPLASH BLOCK

## NTER-FLASHING AT DED INSULATION.

HING

SHING - CLEAN, RESEAL



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. И Ш

No.	Description	Date

DRAWN BY: SEE CHECKED BY: SEE JOB NO: 22-002 BSD MKES

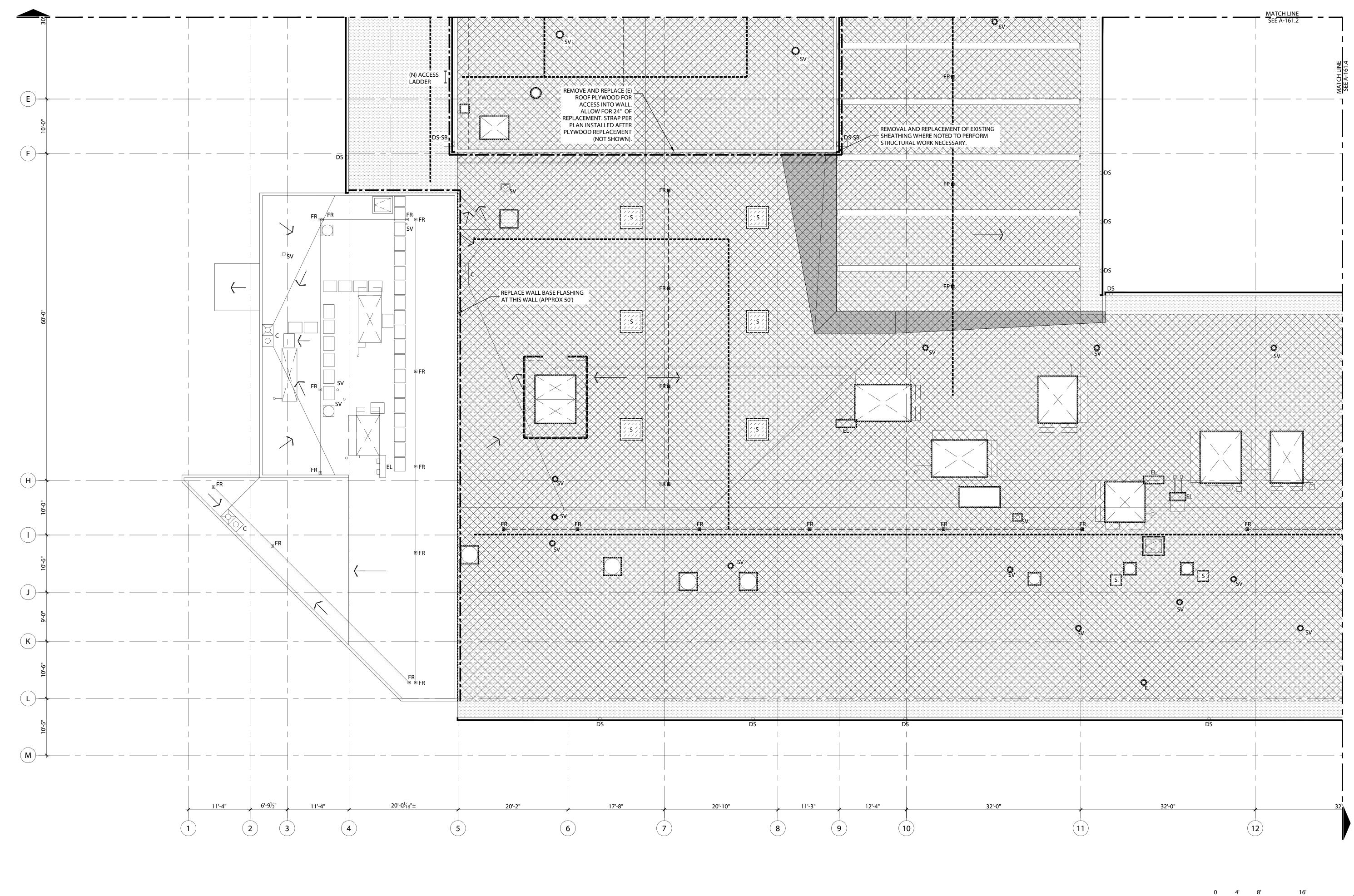
DATE: 04/22/2022

ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE

OVERALL ROOF PLAN

A-161





ENLARGED ROOF PLAN - SECTOR 1 - EXISTING SCALE: 1/8" = 1'-0"



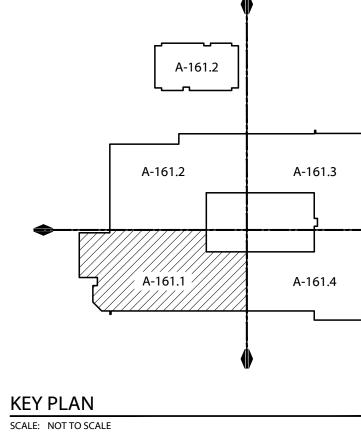
PROJECT SCOPE: REMOVE AND REPLACE THE EXISTING LOW-SLOPE BUILT UP ROOF ASSEMBLY PER ROOFING ASSESSMENT RECOMMENDATIONS WITH NEW BUILT UP ROOF ASSEMBLY WITH ADDED INSULATION. WORK INCLUDES NEW ASSOCIATED FLASHINGS, GUTTERS, DOWNSPOUTS, FASCIAS, CURBS AND COUNTER-FLASHING FOR MECH. EQUIPMENT AND ROOF ACCESS LADDERS. CONTRACTOR TO REPLACE EXISTING ROOF SYSTEMS DAMAGED FROM WATER INTRUSION AS REQUIRED FOR NEW SCOPE OF WORK INCLUDING, BUT NOT LIMITED, TO SHEATHING, INSULATION, CURBS, BLOCKING, ROOF FLASHING, ETC. CONTRACTOR DESIGN AND INSTALL NEW FALL RESTRAINT SYSTEM FOR LOW-SLOPE ROOF ASSEMBLIES IDENTIFIED ON PLANS.

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- 11. CONTRACTOR TO PROVIDE SITE CLEANUP AT THE END OF EACH WORK DAY. CLEANUP SHALL INCLUDE A MAGNET/METAL DETECTOR FOR ALL HARD SURFACES WITHIN 15 FEET OF BUILDING AND ALL LANDSCAPED AREAS.
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- GENERAL NOTES ON SHEET G-001.

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	MBOLS MAY BE USED. SIZES AND PROPORTIONS OF ROM WHAT IS ILLUSTRATED IN LEGEND.
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	(N) LOW-SLOPE ROOF - BUILT-UP ROOF ASSEMBLY WITH 5" RIGID INSULATION
	(N) TAPER INSULATION, SLOPE AS INDICATED
	(E) ROOF ACCESS HATCH. PROVIDE AND INSTALL ( GUARDRAIL WITH GATE.
S	(N) PRE-FAB INSUL METAL CURB MOUNTED FIXED WITH THERMALLY BROKEN ALUM FRAME, CAST AC AND FALL PROTECTION CAGE
 FR	(N) FALL RESTRAINT HLL SYSTEM WITH HORIZONT
	(E) ROOFTOP MECHANICAL UNITS. PROVIDE (N) PM FLASHING SYSTEM AND COUNTER-FLASHING AT C ACCOMMODATE 3" OF ADDED INSULATION - INCL ALLOWANCE FOR (N) CURBS, LIFTING OF UNIT, ME
	(E) MECHANICAL. PROVIDE (N) CURBS AND COUNT ACCOMMODATE 3" OF ADDED INSULATION
۵ SV	(E) STACK VENT. PROVIDE EXTENSIONS AND COUN ACCOMMODATE 3" OF ADDED INSULATION
<ul> <li>○ RD</li> </ul>	(E) ROOF DRAIN
🖂 OD	(E) OVERFLOW DRAIN
• 🔀 C	(E) COMBINATION MAIN ROOF & OVERFLOW DRAIL
DS	(N) GUTTER WITH DOWNSPOUT
DS-SB	(N) GUTTER WITH DOWNSPOUT. PROVIDE (N) SPL/
	(N) COPING
EL	(E) ELECTRICAL. PROVIDE (N) CURBS AND COUNTE PENETRATIONS TO ACCOMMODATE 3" OF ADDED
□ LF	(E) LIGHT FIXTURE
<u> </u>	(E) ROOF SLOPE DIRECTION
	(N) PRE-FINISHED SHEET METAL COUNTERFLASHIN
	(E) PRE-FINISHED SHEET METAL SEISMIC JT FLASHI AND PAINT
	(E) GALV STEEL MECH SCREEN FRAME W/ PRE-FINIS - CLEAN, RESEAL AND PAINT



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

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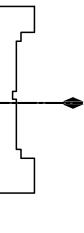
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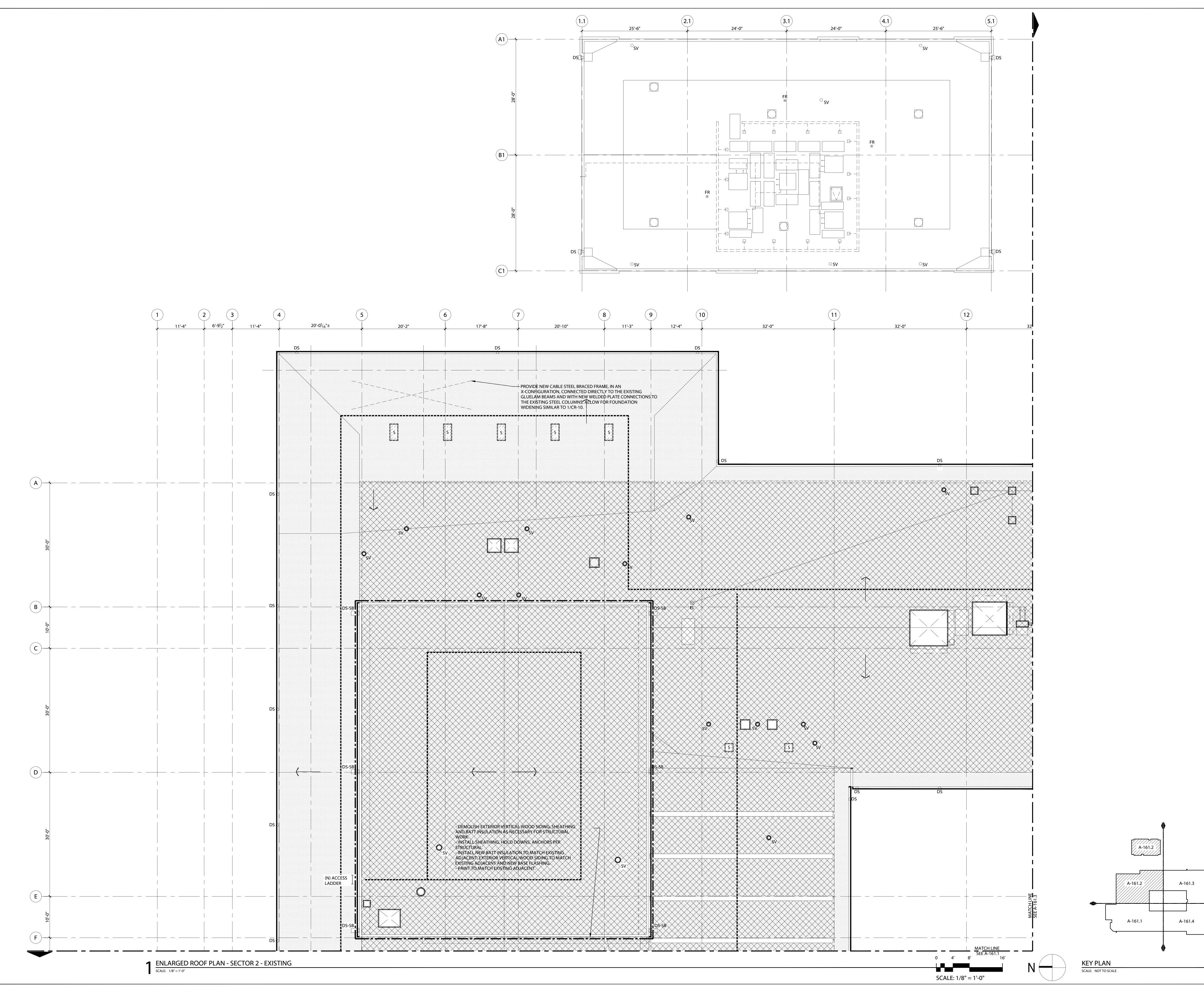
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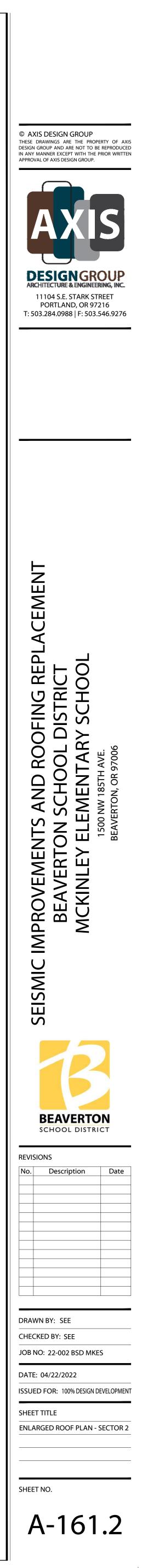
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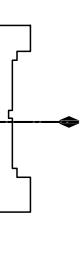
DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMENT SHEET TITLE

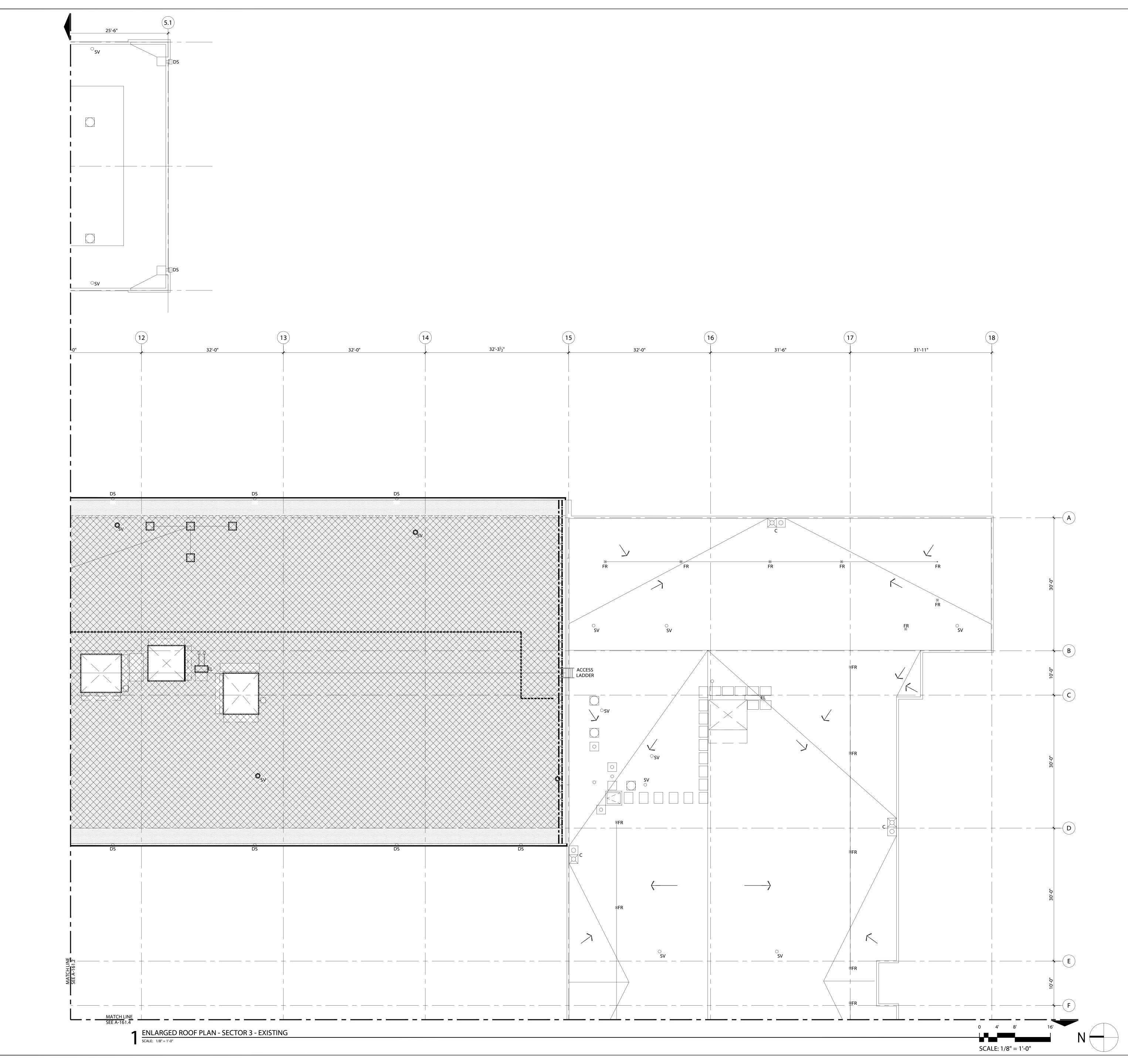
ENLARGED ROOF PLAN - SECTOR 1











## GENERAL PROJECT DESCRIPTION

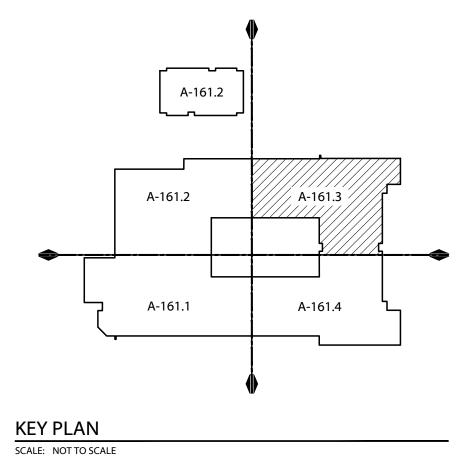
PROJECT SCOPE: REMOVE AND REPLACE THE EXISTING LOW-SLOPE BUILT UP ROOF ASSEMBLY PER ROOFING ASSESSMENT RECOMMENDATIONS WITH NEW BUILT UP ROOF ASSEMBLY WITH ADDED INSULATION. WORK INCLUDES NEW ASSOCIATED FLASHINGS, GUTTERS, DOWNSPOUTS, FASCIAS, CURBS AND COUNTER-FLASHING FOR MECH. EQUIPMENT AND ROOF ACCESS LADDERS. CONTRACTOR TO REPLACE EXISTING ROOF SYSTEMS DAMAGED FROM WATER INTRUSION AS REQUIRED FOR NEW SCOPE OF WORK INCLUDING, BUT NOT LIMITED, TO SHEATHING, INSULATION, CURBS, BLOCKING, ROOF FLASHING, ETC. CONTRACTOR DESIGN AND INSTALL NEW FALL RESTRAINT SYSTEM FOR LOW-SLOPE ROOF ASSEMBLIES IDENTIFIED ON PLANS.

## **ROOF PLAN SHEET NOTES**

- 1. ROOF PLAN FOR GENERAL PURPOSE ONLY. 2. INFORMATION RELATING TO THE EXISTING BUILDING IS BASE ON CASUAL OBSERVATION ACTUAL CONDITIONS VERY AND SHELL BE FIELD VERIFIED BY THE CONTRACTOR.
- 3. GRAPHIC PRESENTATION OF THE AFFECTED AREAS ON DRAWINGS MAY BE SMALLER OR LARGER THAN INDICATED.
- 4. ONLY MAJOR ELEMENTS ARE SHOWN. 5. ROOF AREA SHOWN ARE APPROXIMATE, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF AREAS FOR BIDDING AND CONSTRUCTION PURPOSES.
- 6. PROVIDE CRICKETS AT MECHANICAL EQUIPMENT, CURBS AND ROOF PENETRATIONS AS REQUIRED.
- 7. CONTRACTOR RESPONSIBLE FOR THE DISCONNECTION AND RECONNECTION OF ALL UTILITY CONNECTIONS AS REQ'D TO COMPLETE WORK. THIS INCLUDES ANY WORK REQ'D TO EXTEND PIPES, WIRES, ETC. TO MEET MIN. CLEARANCES.
- 9. THE VENT AND PIPE SIZES NOTED ON THE DRAWINGS ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY WORK.
- 10. ROOF CANNOT BE LEFT UNPROTECTED FROM THE ELEMENTS FOR A WEEKEND OR HOLIDAY PERIOD. CONTRACTOR MAY LEAVE ROOF UNPROTECTED OVERNIGHT AND ASSUMES ALL RISK FOR ANY DAMAGE CAUSED.
- 11. CONTRACTOR TO PROVIDE SITE CLEANUP AT THE END OF EACH WORK DAY. CLEANUP SHALL INCLUDE A MAGNET/METAL DETECTOR FOR ALL HARD SURFACES WITHIN 15 FEET OF BUILDING AND ALL LANDSCAPED AREAS.
- 12. REMOVE EXISTING ROOFING DOWN TO EXISTING SHEATHING UNLESS OTHERWISE NOTED IN ASSEMBLY. REMOVE AND DISPOSE OF ROOFING AS REQ'D. BY GOVERNING AUTHORITIES.
- 11. REPLACE EXISTING ROOF SYSTEM DAMAGED FROM WATER INTRUSION AS REQ'D FOR NEW SCOPE OF WORK INCLUDING, BUT NOT LIMITED TO, SHEATHING, CURBS, BLOCKING, FLASHING, ETC.
- 12. FOR ADDITIONAL GENERAL DEMOLITION INFORMATION SEE NO. 6 UNDER GENERAL NOTES ON SHEET G-001.

#### ROOF PLAN LEGEND (MCKINLEY ES) NOT ALL SYMBOLS MAY BE USED. SIZES AND PROPORTIONS OF ELEMENTS

MBOLS MAY BE USED. SIZES AND PROPORTIONS OF E FROM WHAT IS ILLUSTRATED IN LEGEND.
(N) LOW-SLOPE ROOF - BUILT-UP ROOF ASSEMBLY WITH 2.5" RIGID INSULATION
(N) LOW-SLOPE ROOF - BUILT-UP ROOF ASSEMBLY WITH 5" RIGID INSULATION
(N) TAPER INSULATION, SLOPE AS INDICATED
(E) ROOF ACCESS HATCH. PROVIDE AND INSTALL (N) GUARDRAIL WITH GATE.
(N) PRE-FAB INSUL METAL CURB MOUNTED FIXED DO WITH THERMALLY BROKEN ALUM FRAME, CAST ACR AND FALL PROTECTION CAGE
(N) FALL RESTRAINT HLL SYSTEM WITH HORIZONTAL
(E) ROOFTOP MECHANICAL UNITS. PROVIDE (N) PMM FLASHING SYSTEM AND COUNTER-FLASHING AT CUI ACCOMMODATE 3" OF ADDED INSULATION - INCLUI ALLOWANCE FOR (N) CURBS, LIFTING OF UNIT, MEP (
(E) MECHANICAL. PROVIDE (N) CURBS AND COUNTER ACCOMMODATE 3" OF ADDED INSULATION
(E) STACK VENT. PROVIDE EXTENSIONS AND COUNTE ACCOMMODATE 3" OF ADDED INSULATION
(E) ROOF DRAIN
(E) OVERFLOW DRAIN
(E) COMBINATION MAIN ROOF & OVERFLOW DRAIN
(N) GUTTER WITH DOWNSPOUT
(N) GUTTER WITH DOWNSPOUT. PROVIDE (N) SPLAS
(N) COPING
(E) ELECTRICAL. PROVIDE (N) CURBS AND COUNTER- PENETRATIONS TO ACCOMMODATE 3" OF ADDED IN
(E) LIGHT FIXTURE
(E) ROOF SLOPE DIRECTION
(N) PRE-FINISHED SHEET METAL COUNTERFLASHING
(E) PRE-FINISHED SHEET METAL SEISMIC JT FLASHING AND PAINT
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SHING - CLEAN, RESEAL

INISHED METAL PANEL

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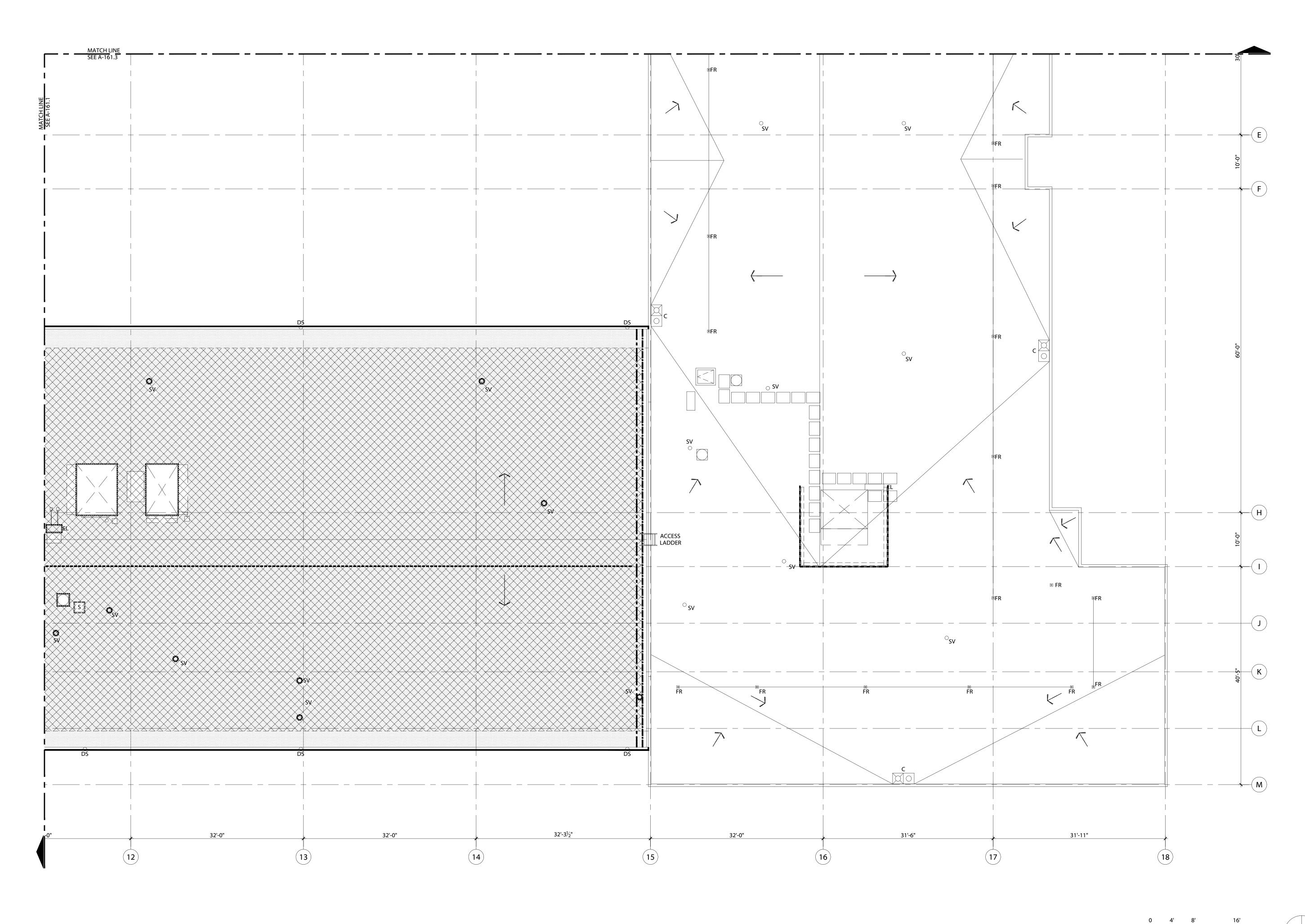
No.	Description	Date

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DATE: 04/22/2022 ISSUED FOR: 100% DESIGN DEVELOPMEN SHEET TITLE

ENLARGED ROOF PLAN - SECTOR 3

A-161.3



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

## GENERAL PROJECT DESCRIPTION

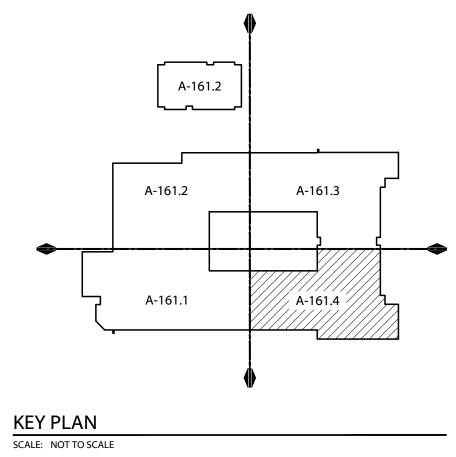
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## **ROOF PLAN SHEET NOTES**

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- 10. ROOF CANNOT BE LEFT UNPROTECTED FROM THE ELEMENTS FOR A WEEKEND OR HOLIDAY PERIOD. CONTRACTOR MAY LEAVE ROOF UNPROTECTED OVERNIGHT AND ASSUMES ALL RISK FOR ANY DAMAGE CAUSED.
- 11. CONTRACTOR TO PROVIDE SITE CLEANUP AT THE END OF EACH WORK DAY. CLEANUP SHALL INCLUDE A MAGNET/METAL DETECTOR FOR ALL HARD SURFACES WITHIN 15 FEET OF BUILDING AND ALL LANDSCAPED AREAS.
- 12. REMOVE EXISTING ROOFING DOWN TO EXISTING SHEATHING UNLESS OTHERWISE NOTED IN ASSEMBLY. REMOVE AND DISPOSE OF ROOFING AS REQ'D. BY GOVERNING AUTHORITIES.
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S	(N) PRE-FAB INSUL METAL CURB MOUNTED FIXED WITH THERMALLY BROKEN ALUM FRAME, CAST A AND FALL PROTECTION CAGE
<del>0</del> FR	(N) FALL RESTRAINT HLL SYSTEM WITH HORIZON
	(E) ROOFTOP MECHANICAL UNITS. PROVIDE (N) P FLASHING SYSTEM AND COUNTER-FLASHING AT ACCOMMODATE 3" OF ADDED INSULATION - INC ALLOWANCE FOR (N) CURBS, LIFTING OF UNIT, M
	(E) MECHANICAL. PROVIDE (N) CURBS AND COUN ACCOMMODATE 3" OF ADDED INSULATION
🗘 SV	(E) STACK VENT. PROVIDE EXTENSIONS AND COU ACCOMMODATE 3" OF ADDED INSULATION
○ RD	(E) ROOF DRAIN
🕅 OD	(E) OVERFLOW DRAIN
• 🖂 C	(E) COMBINATION MAIN ROOF & OVERFLOW DRA
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DS-SB	(N) GUTTER WITH DOWNSPOUT. PROVIDE (N) SPI
	(N) COPING
[]EL	(E) ELECTRICAL. PROVIDE (N) CURBS AND COUNT PENETRATIONS TO ACCOMMODATE 3" OF ADDE
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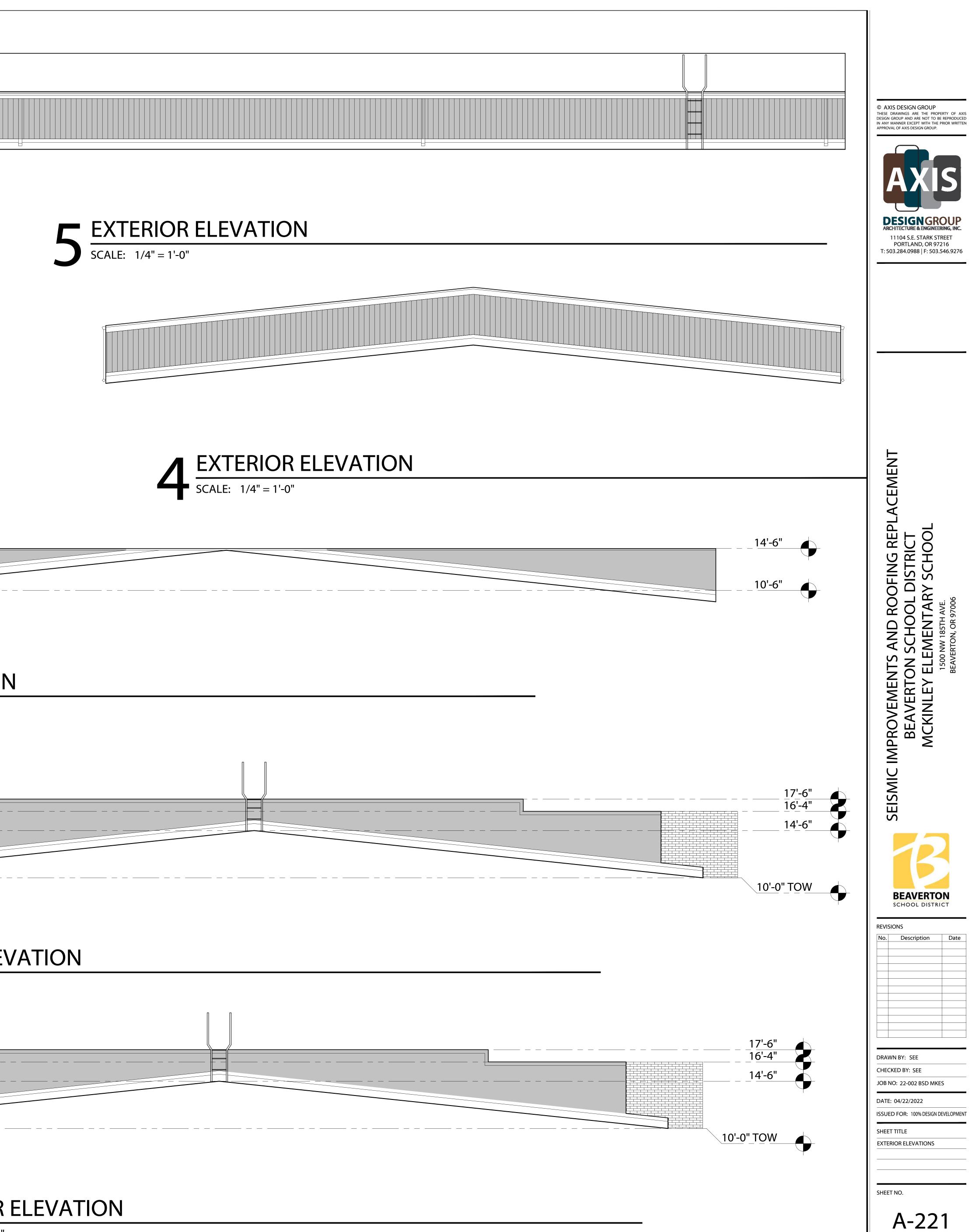
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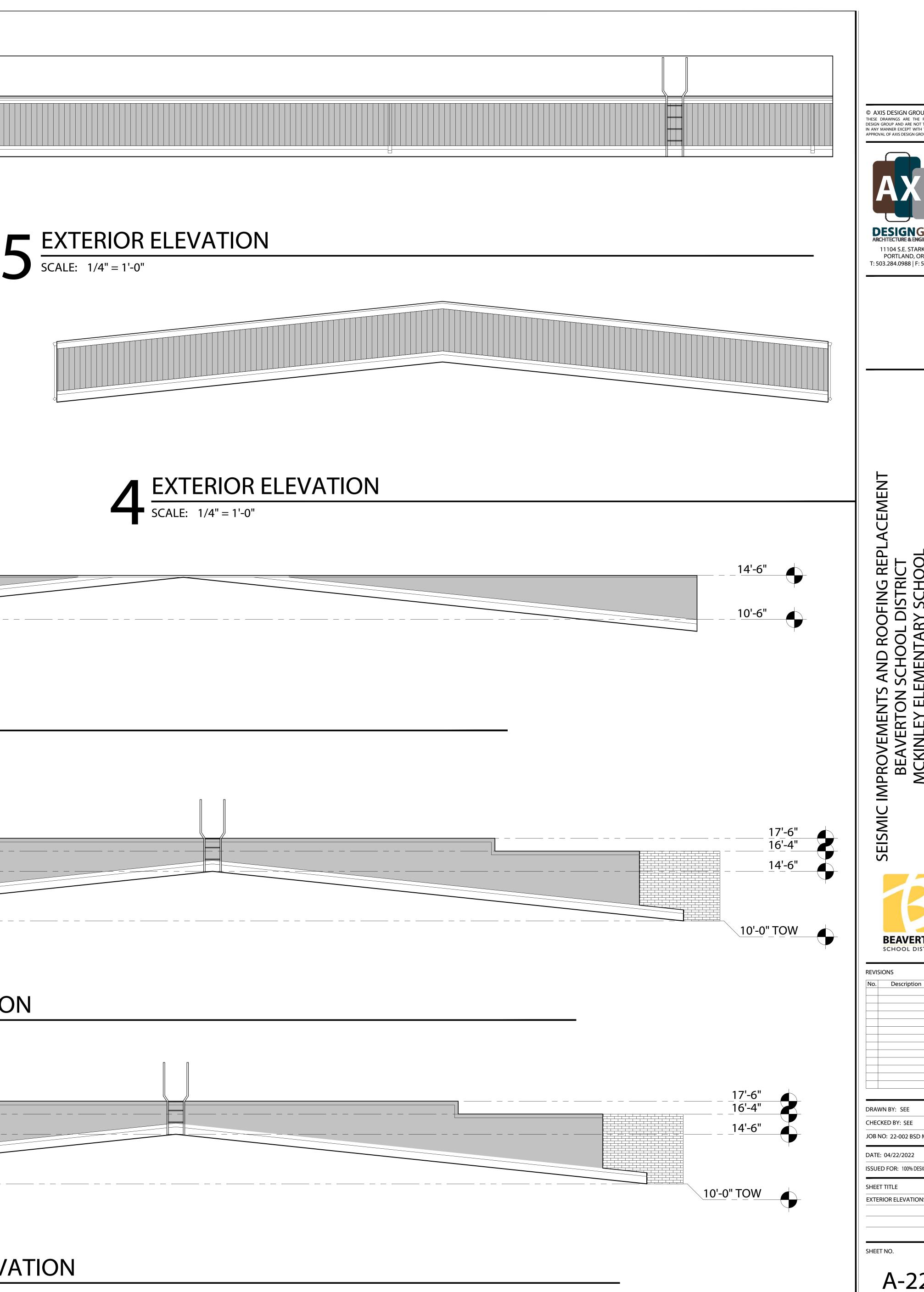
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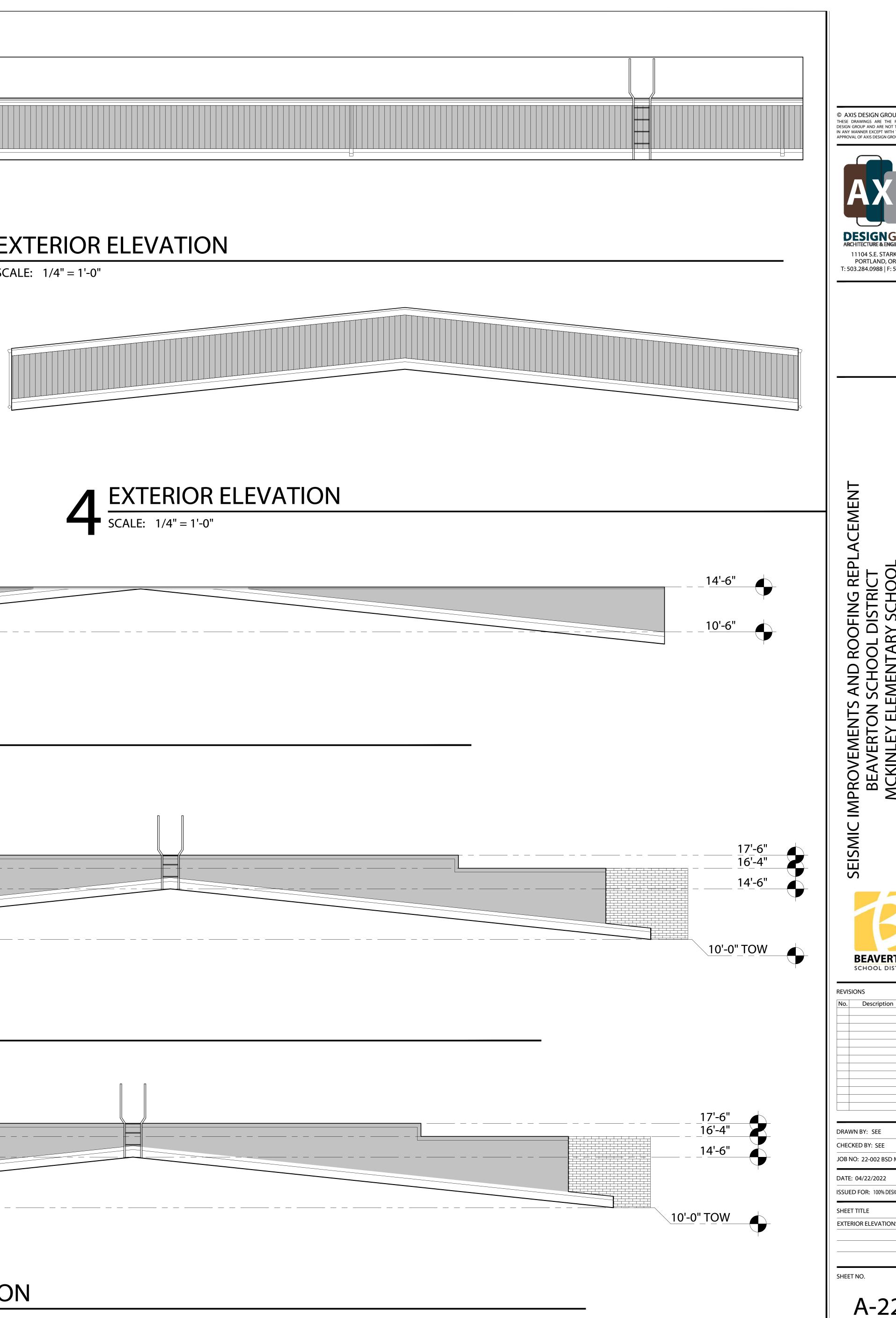
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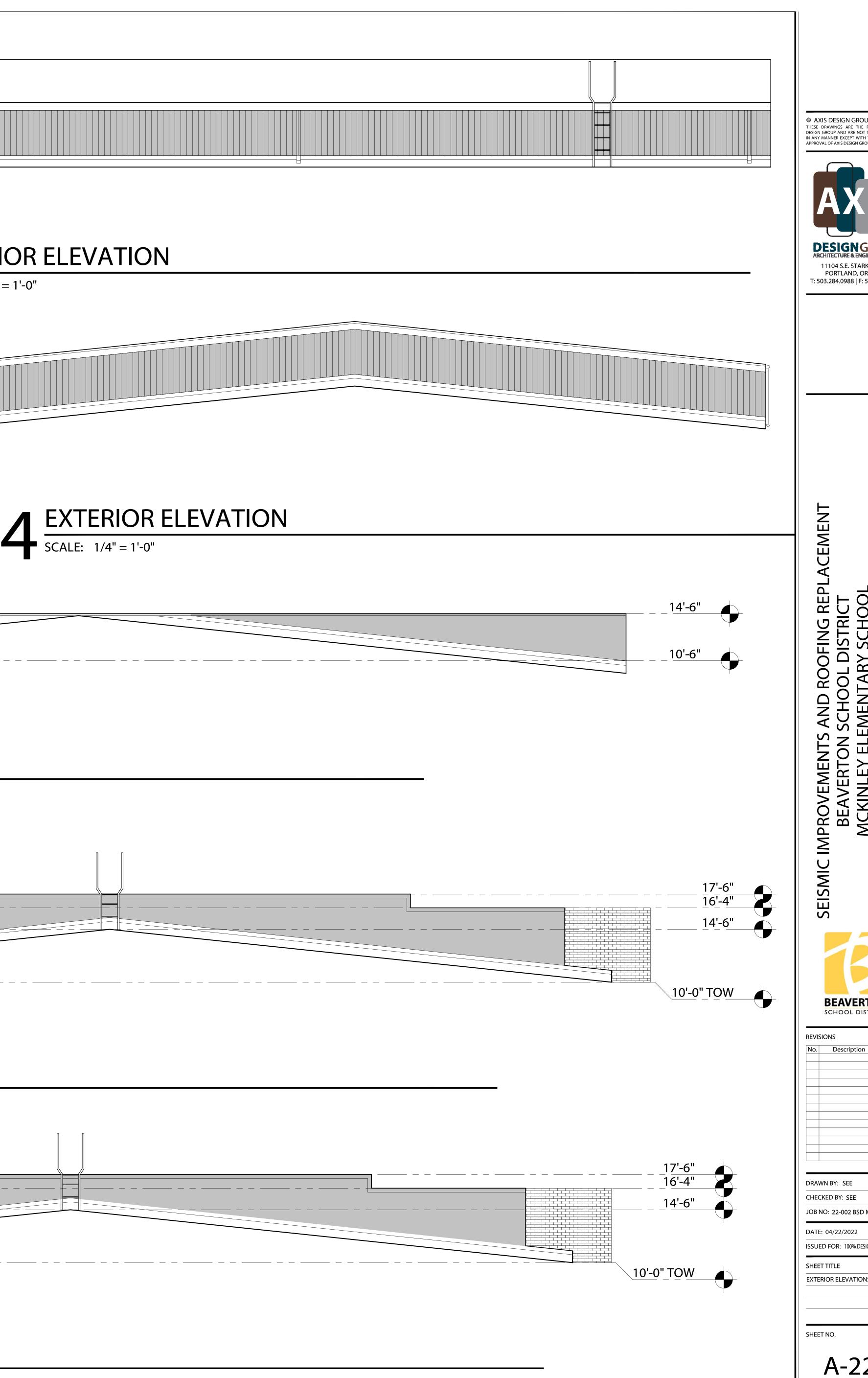
ENLARGED ROOF PLAN - SECTOR 4

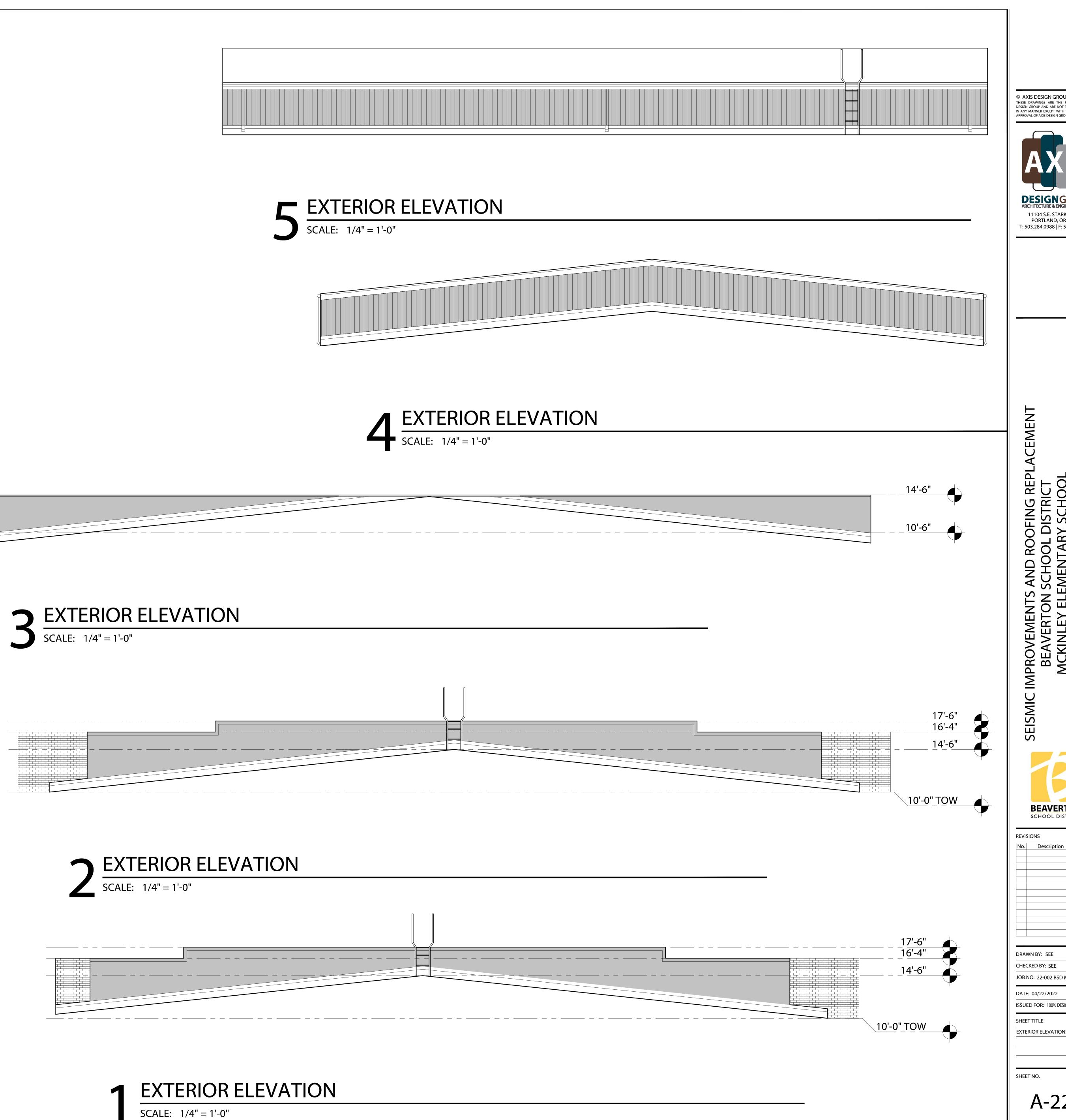


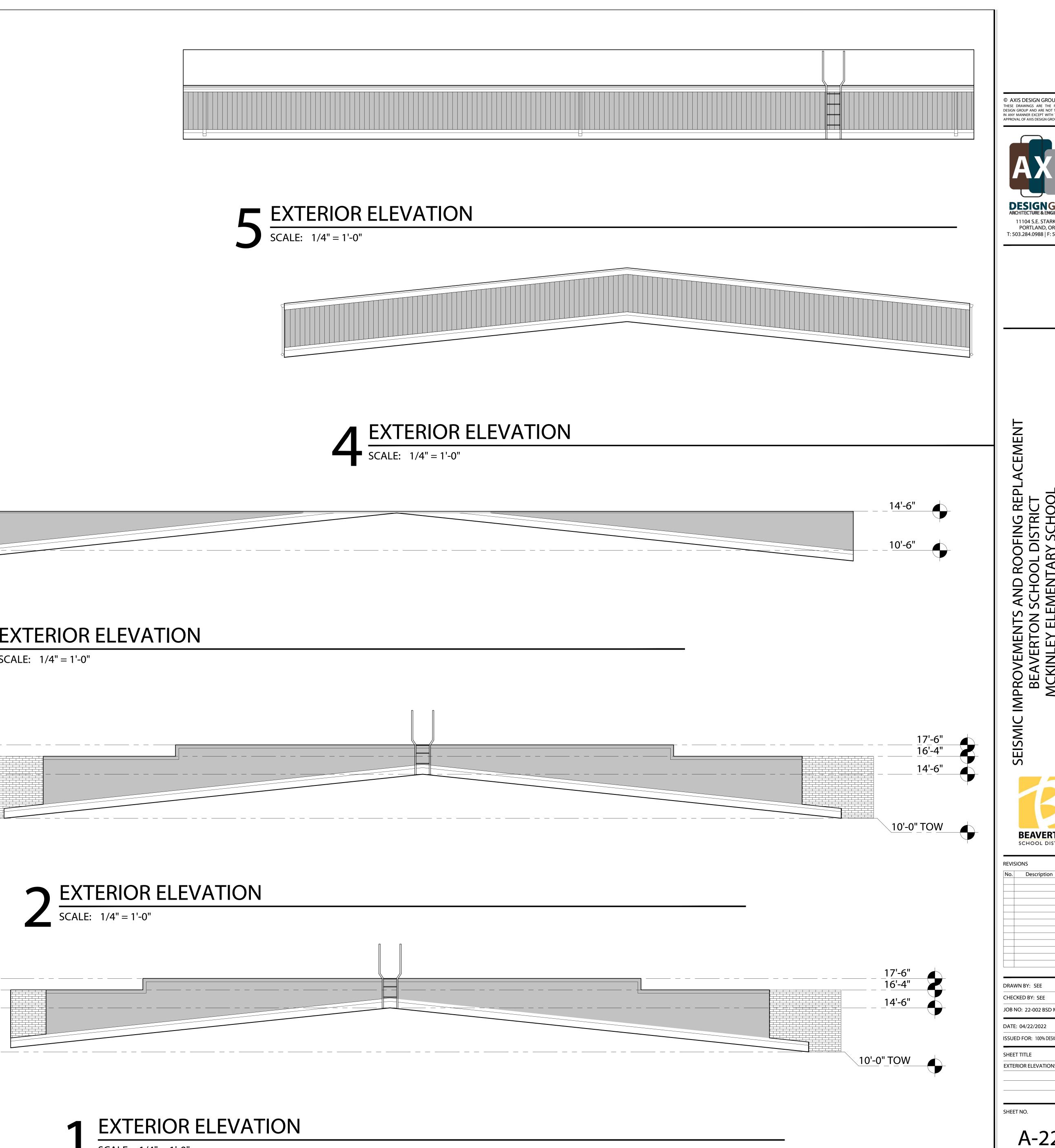






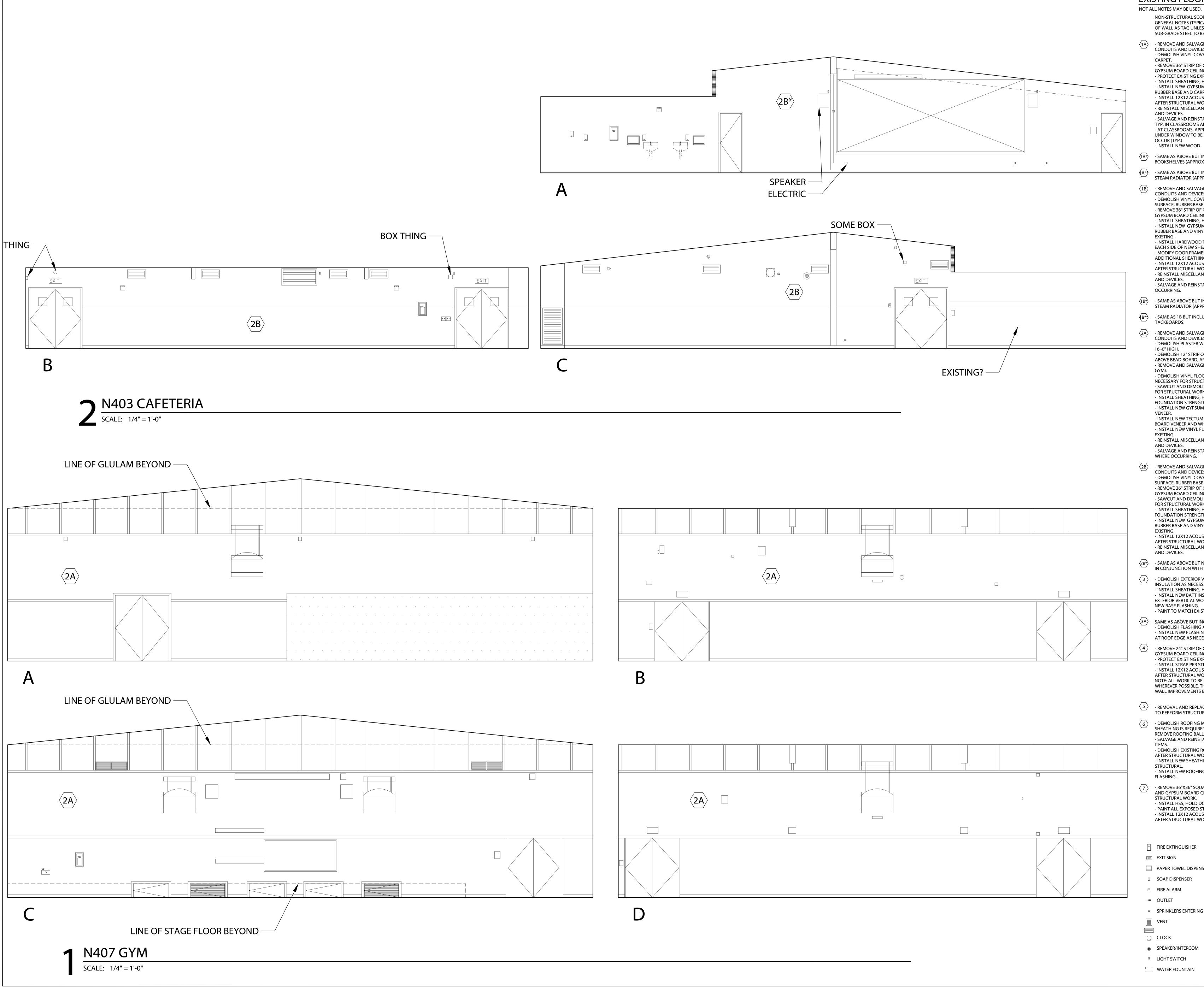








Date



## EXISTING FLOOR PLAN KEY NOTES

NON-STRUCTURAL SCOPE GENERAL NOTES (TYPICAL ALL SHEETS): WORK TO OCCUR ON SAME SIDE OF WALL AS TAG UNLESS NOTED OTHERWISE. ALL EXPOSED EXTERIOR OR SUB-GRADE STEEL TO BE HOT-DIP GALVANIZED.

- $\langle 1A \rangle$ - REMOVE AND SALVAGE MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES FROM WALL. - DEMOLISH VINYL COVERED FIBERBOARD, RUBBER BASE AND 12" STRIP C CARPET. - REMOVE 36" STRIP OF GLUE UP 12X12 ACOUSTICAL CEILING TILES AND
- GYPSUM BOARD CEILING AS REQUIRED TO PERFORM STRUCTURAL WORK. - PROTECT EXISTING EXPOSED DUCT. - INSTALL SHEATHING, HOLD DOWNS, ANCHORS PER STRUCTURAL. - INSTALL NEW GYPSUM WALL BOARD AND VINYL WALL COVERING, RUBBER BASE AND CARPET WHERE REMOVED TO MATCH EXISTING. - INSTALL 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILING AFTER STRUCTURAL WORK IS PERFORMED. - REINSTALL MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS
- AND DEVICES. - SALVAGE AND REINSTALL (2) 4' TACK BOARDS AND (2) 8' WHITE BOARDS TYP. IN CLASSROOMS AND WHERE NOTED. - AT CLASSROOMS, APPROX. 4' OF SHELVES AND A STEAM RADIATOR UNDER WINDOW TO BE SALVAGED AND REINSTALLED FOR WORK TO OCCUR (TYP.) - INSTALL NEW WOOD
- (IA\*) SAME AS ABOVE BUT INCLUDES SALVAGING AND REINSTALLING BOOKSHELVES (APPROX 8'-0" AT EACH LOCATION).
- (A\*) SAME AS ABOVE BUT INCLUDES REMOVE, SALVAGE AND REINSTALL STEAM RADIATOR (APPROX 8'-0").
- REMOVE AND SALVAGE MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES FROM WALL. - DEMOLISH VINYL COVERED FIBERBOARD OR GYPSUM WALL BOARD SURFACE, RUBBER BASE AND 12" STRIP OF VINYL TILE. - REMOVE 36" STRIP OF GLUE UP 12X12 ACOUSTICAL CEILING TILES AND
- INSTALL SHEATHING, HOLD DOWNS, ANCHORS PER STRUCTURAL. - INSTALL NEW GYPSUM WALL BOARD AND VINYL WALL COVERING. RUBBER BASE AND VINYL FLOOR TILE WHERE REMOVED TO MATCH EXISTING.
- INSTALL HARDWOOD TRIM, PAINTED TO MATCH ADJACENT WALL AT EACH SIDE OF NEW SHEAR WALL WORK. - MODIFY DOOR FRAMES TO ACCOMMODATE NEW WALL WIDTH FROM ADDITIONAL SHEATHING.
- INSTALL 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILIN AFTER STRUCTURAL WORK IS PERFORMED. - REINSTALL MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES. - SALVAGE AND REINSTALL TACK RAILS AND TACKBOARDS WHERE OCCURRING.
- (1B\*) - SAME AS ABOVE BUT INCLUDES REMOVE, SALVAGE AND REINSTALL STEAM RADIATOR (APPROX 8'-0").
- B\* SAME AS 1B BUT INCLUDES SALVAGE AND REINSTALL (3) 8'-0" TACKBOARDS.  $\langle 2A \rangle$ 
  - REMOVE AND SALVAGE MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES FROM WALL. - DEMOLISH PLASTER WALL AND BEAD BOARD VENEER, APPROXIMATELY 16'-0" HIGH. - DEMOLISH 12" STRIP OF TECTUM AT CEILING AND ENTIRE WALL PANEL ABOVE BEAD BOARD, APPROXIMATELY 4'-0" HIGH.
  - REMOVE AND SALVAGE BASKETBALL HOOP AND SUPPORTS (5 TOTAL IN GYM). - DEMOLISH VINYL FLOOR TILE, AND RUBBER BASE BOARD WHERE NECESSARY FOR STRUCTURAL WORK BELOW FLOOR. - SAWCUT AND DEMOLISH CONCRETE SLAB AND EXCAVATE AS NECESSARY FOR STRUCTURAL WORK.
  - INSTALL SHEATHING, HOLD DOWNS, ANCHORS, SLAB ON GRADE AND FOUNDATION STRENGTHENING PER STRUCTURAL. - INSTALL NEW GYPSUM BOARD WITH PAINTED WOOD BEAD-BOARD VENEER. - INSTALL NEW TECTUM WALL PANEL BETWEEN CEILING AND NEW BEAD
  - BOARD VENEER AND WHERE REMOVED FROM CEILING. - INSTALL NEW VINYL FLOOR TILE AND RUBBER BASE BOARD TO MATCH EXISTING. - REINSTALL MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES. - SALVAGE AND REINSTALL CLIMBING WALL AND PROJECTOR SCREEN
  - WHERE OCCURRING. - REMOVE AND SALVAGE MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES FROM WALL. - DEMOLISH VINYL COVERED FIBERBOARD OR GYPSUM WALL BOARD SURFACE, RUBBER BASE AND 24" STRIP OF VINYL TILE. - REMOVE 36" STRIP OF GLUE UP 12X12 ACOUSTICAL CEILING TILES AND
  - GYPSUM BOARD CEILING AS REQUIRED TO PERFORM STRUCTURAL WORK - SAWCUT AND DEMOLISH CONCRETE SLAB AND EXCAVATE AS NECESSAR FOR STRUCTURAL WORK. - INSTALL SHEATHING, HOLD DOWNS, ANCHORS, SLAB ON GRADE AND FOUNDATION STRENGTHENING PER STRUCTURAL. - INSTALL NEW GYPSUM WALL BOARD AND VINYL WALL COVERING, RUBBER BASE AND VINYL FLOOR TILE WHERE REMOVED TO MATCH
  - EXISTING. - INSTALL 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILIN AFTER STRUCTURAL WORK IS PERFORMED. - REINSTALL MISCELLANEOUS ELECTRICAL AND FIRE ALARM CONDUITS AND DEVICES.
- 2B\* SAME AS ABOVE BUT NOTE- WORK AT THIS LOCATION TO BE PERFORMED IN CONJUNCTION WITH SCOPE ABOVE THE ROOF LINE. SEE ITEM 3.
- $\langle 3 \rangle$ - DEMOLISH EXTERIOR VERTICAL WOOD SIDING, SHEATHING AND BATT INSULATION AS NECESSARY FOR STRUCTURAL WORK. - INSTALL SHEATHING, HOLD DOWNS, ANCHORS PER STRUCTURAL. - INSTALL NEW BATT INSULATION TO MATCH EXISTING ADJACENT, EXTERIOR VERTICAL WOOD SIDING TO MATCH EXISTING ADJACENT AND NEW BASE FLASHING. - PAINT TO MATCH EXISTING ADJACENT.
- (3A) SAME AS ABOVE BUT INCLUDES: - DEMOLISH FLASHING AT EDGE OF ROOF - INSTALL NEW FLASHING AT EDGE OF ROOF. PATCH ROOFING MEMBRANE AT ROOF EDGE AS NECESSARY
- $\langle 4 \rangle$ - REMOVE 24" STRIP OF GLUE UP 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILING AS REQUIRED TO PERFORM STRUCTURAL WORK. - PROTECT EXISTING EXPOSED DUCT. - INSTALL STRAP PER STRUCTURAL. - INSTALL 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILING AFTER STRUCTURAL WORK IS PERFORMED. NOTE: ALL WORK TO BE PERFORMED ON ONE SIDE OF THE WALL AND, WHEREVER POSSIBLE, THE SAME SIDE OF THE WALL AS THE SHEAR WALL IMPROVEMENTS BELOW.
- $\langle 5 \rangle$ - REMOVAL AND REPLACEMENT OF EXISTING SHEATHING WHERE NOTED TO PERFORM STRUCTURAL WORK NECESSARY.
- $\langle 6 \rangle$  DEMOLISH ROOFING MEMBRANE AND INSULATION WHERE NEW SHEATHING IS REQUIRED PER STRUCTURAL. REMOVE ROOFING BALLAST. - SALVAGE AND REINSTALL MECHANICAL EQUIPMENT AND ELECTRICAL ITEMS. - DEMOLISH EXISTING ROOF DRAINS AND INSTALL NEW ROOF DRAINS AFTER STRUCTURAL WORK. - INSTALL NEW SHEATHING OVERLAY OR RE-NAIL SHEATHING PER STRUCTURAL. - INSTALL NEW ROOFING MEMBRANE, INSULATION, COVERBOARD AND FLASHING .
- REMOVE 36"X36" SQUARE OF GLUE UP 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILING AS REQUIRED TO PERFORM STRUCTURAL WORK. - INSTALL HSS, HOLD DOWNS, ANCHORS PER STRUCTURAL. - PAINT ALL EXPOSED STEEL WITH A HIGH PERFORMANCE COATING. - INSTALL 12X12 ACOUSTICAL CEILING TILES AND GYPSUM BOARD CEILING AFTER STRUCTURAL WORK IS PERFORMED.
- FIRE EXTINGUISHER
- EXIT EXIT SIGN
- PAPER TOWEL DISPENSER
- SOAP DISPENSER
- FIRE ALARM
- OUTLET
- SPRINKLERS ENTERING WALL
- VENT

- SPEAKER/INTERCOM LIGHT SWITCH
- WATER FOUNTAIN

GYPSUM BOARD CEILING AS REQUIRED TO PERFORM STRUCTURAL WORK.

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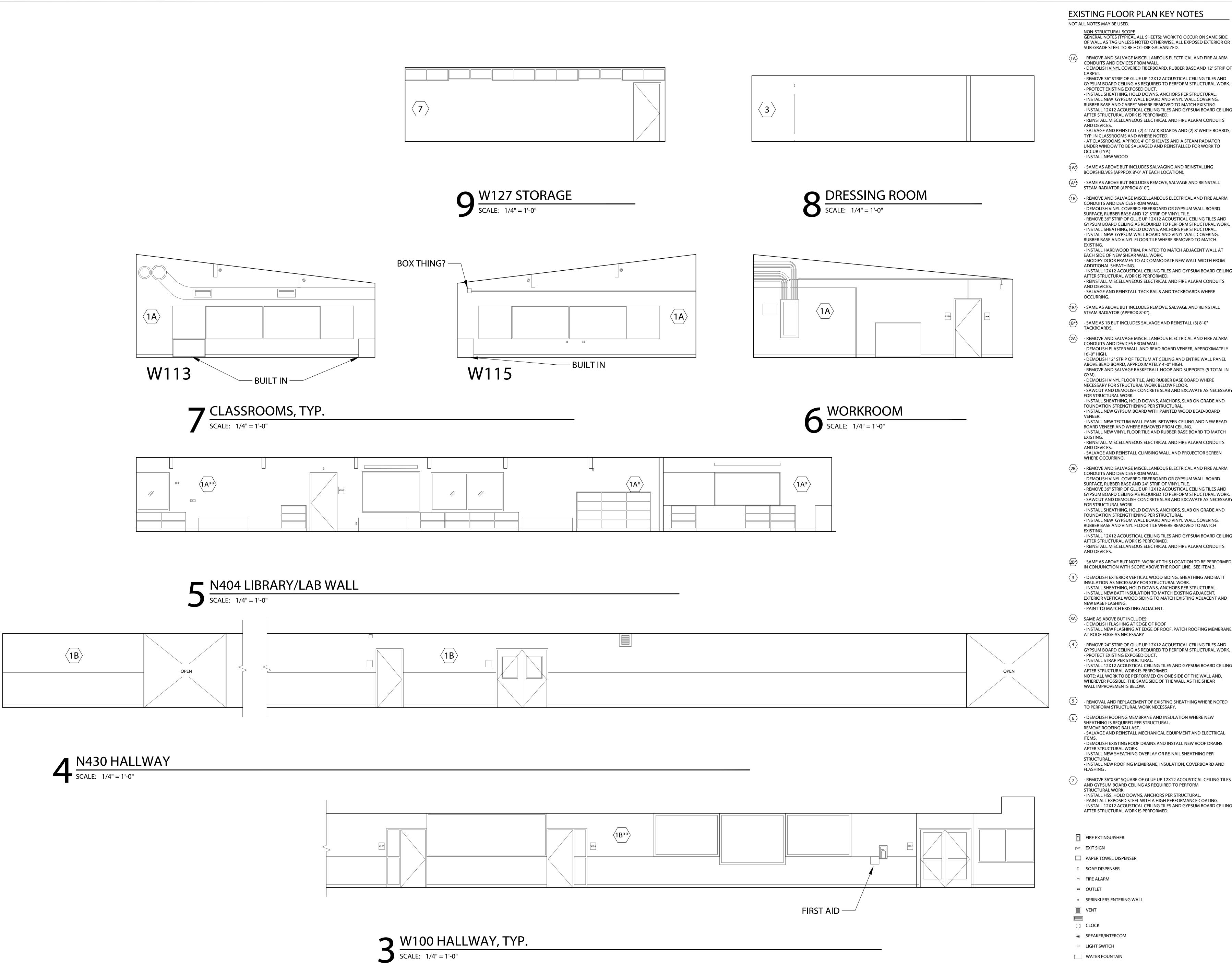
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ISSUED FOR: 100% DESIGN DEVELOPMEN

SHEET TITLE INTERIOR ELEVATIONS





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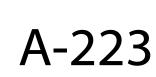
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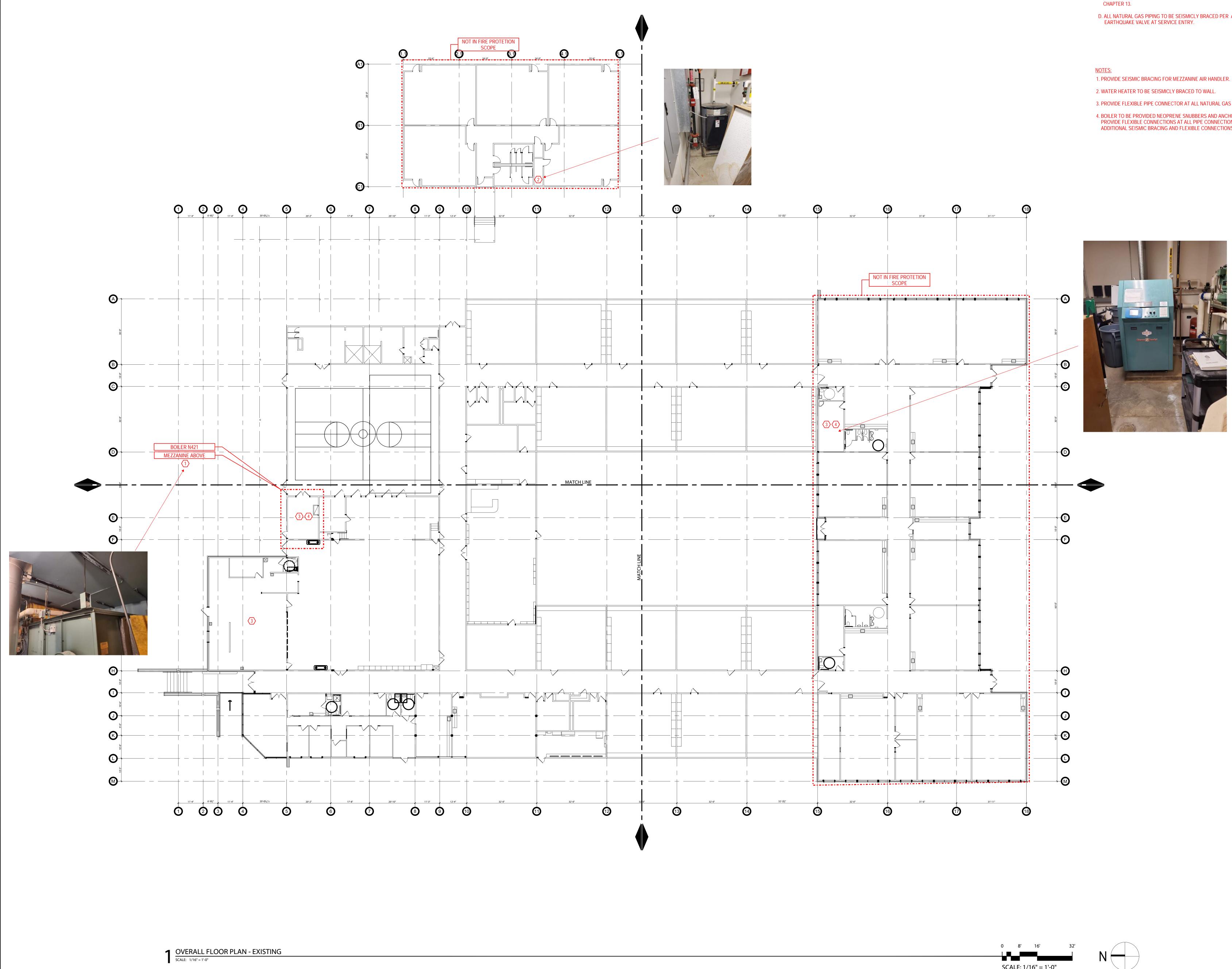
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ISSUED FOR: 100% DESIGN DEVELOPMEN

SHEET TITLE INTERIOR ELEVATIONS





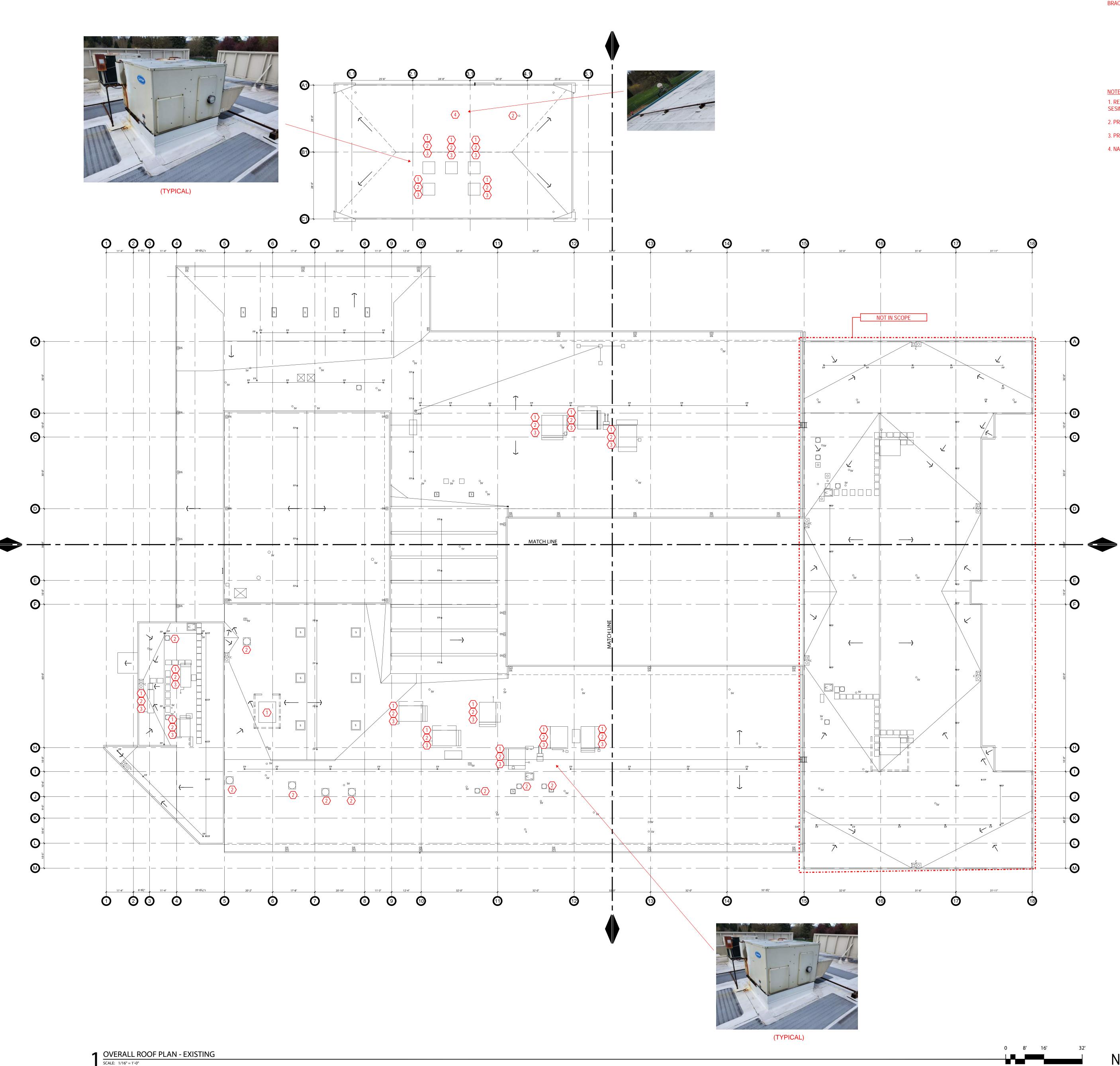
- GENERAL NOTES: A. CONTRACTOR TO PROVIDE ADEQUATE SEISMIC BRACING PER ASCE 7 CHAPTER 13 TO EQUIPMENT INDICATED ON THESE DRAWINGS.
- B. CONTRACTOR TO REFER TO ASCE 7 CHAPTER 13 FOR ADDITIONAL MECHANICAL SYSTEMS BRACING CRITERIA.
- C. ADDITIONAL DIAGONAL BRACING REQUIRED FOR ALL FIRE SUPPRESSION PIPING PER ASCE 7
- D. ALL NATURAL GAS PIPING TO BE SEISMICLY BRACED PER ASCE 7 CHAPTER 13. PROVIDE

- 3. PROVIDE FLEXIBLE PIPE CONNECTOR AT ALL NATURAL GAS EQUIPMENT CONNECTIONS. 4. BOILER TO BE PROVIDED NEOPRENE SNUBBERS AND ANCHORED TO HOUSE KEEPING PAD, PROVIDE FLEXIBLE CONNECTIONS AT ALL PIPE CONNECTIONS. BOILER PUMPS TO BE PROVIDED ADDITIONAL SEISMIC BRACING AND FLEXIBLE CONNECTIONS.









**GENERAL NOTES:** 

A. CONTRACTOR TO PROVIDE ADEQUATE SEISMIC BRACING PER ASCE 7 CHAPTER 13 TO EQUIPMENT INDICATED ON THESE DRAWINGS.

B. CONTRACTOR TO REFER TO ASCE 7 CHAPTER 13 FOR ADDITIONAL MECHANICAL SYSTEMS BRACING CRITERIA.

<u>NOTES:</u>

1. REMOVE EXISTING ROOFTOP UNIT TIE DOWNS AND REPLACE WITH TIE DOWNS RATED FOR SESIMIC DESIGN CATEGORY 1.

2. PROVIDE FLEXIBLE DUCT CONNECTION AT ALL DUCT CONNECTION TO ROOFTOP EQUIPMENT. 3. PROVIDE FEXIBLE PIPE CONNECTOR AT ALL NATURAL GAS CONNECTIONS.

4. NATURAL GAS PIPING ROUTED EXPOSED ON ROOF WILL REQUIRE SEISMIC RETRAINT.

SCALE: 1/16" = 1'-0"



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M-161



## GENERAL NOTES:

A. CONTRACTOR TO PROVIDE ADEQUATE SEISMIC BRACING PER ASCE 7 CHAPTER 13 TO EQUIPMENT INDICATED ON THESE DRAWINGS.

B. CONTRACTOR TO REFER TO ASCE 7 CHAPTER 13 FOR ADDITIONAL ELECTRICAL SYSTEMS BRACING CRITERIA.

C. SEISMIC BRACING CRITERIA SHOWN FOR A SINGLE TYPICAL CLASSROOM. THIS CRITERIA APPLIES FOR ALL CLASSROOMS WITHIN

D. AREA SOUTH OF GRIDLINE 15 WAS CONSTRUCTED IN 2008 AND APPEARS TO MEET SEISMIC CODE/CRITERIA FOR BRACING. PROVIDE SCOPE AS NOTED WITHIN THIS AREA.

#### <u>NOTES:</u>

1. BRACE ELECTRICAL CONDUIT SERVING VFDS PER ASCE. PROVIDE FLEXIBLE COUPLING AT MOUNT LOCATION TO ALLOW CONDUIT TO MOVE INDEPENDENTLY FROM STRUCTURE.

2. BRACE MAIN DISTRIBUTION PANEL (MDP) TO PREVENT OVERTURN DURING SEISMIC EVENT. 3. PROVIDE FLEXIBLE COUPLING WHERE CONDUIT ENTERING PANEL H IS 2.5" AND LARGER IN DIAMETER.

4. PROVIDE FLEXIBLE COUPLING WHERE CONDUIT ENTERING/EXISTING PANEL MDP IS LARGER THAN 2.5" DIAMETER. 5. REMOVE AND SALVAGE EXISTING PANEL CBP FOR REINSTALLATION AFTER STRUCTURAL

REINFORCEMENT WORK IS COMPLETE IN THIS AREA. RETAIN AND REMOVE EXISTING BRANCH CIRCUIT CONDUIT MOUNTED TO EAST WALL OF THIS ROOM TO ALLOW FOR STRUCTURAL REINFORCEMENT WORK ALONG THE EAST SIDE OF THIS ROOM. BRANCH CIRCUITS WILL BE RETERMINATED AT PANEL CBP WHEN PANEL IS REINSTALLED AFTER STRUCTURAL REINFORCEMENT WORK IS COMPLETE. REFER TO THE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION ON AREA OF WORK AND STRUCTURAL UPGRADE REQUIREMENTS.

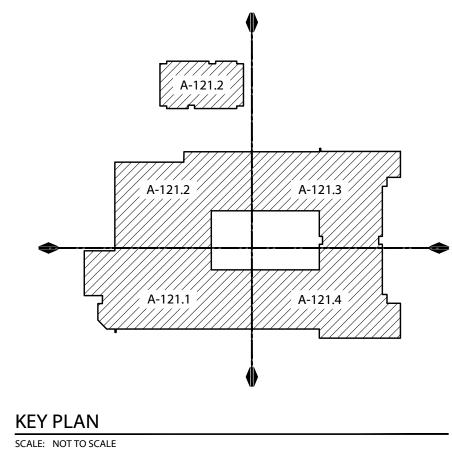
6. BRACE EXISTING NETWORK RACK TO MINIMZE SWAY/OVERTURN DURING SEISMIC EVENT. 7. BRACE OVERHEAD FLUORESCENT LIGHTING AND LENSES TO PREVENT SWAY AND DISCONNECT FROM CEILING DURING SEISMIC EVENT. SEE ENLARGED PLANS FOR DETAIL OF EXISTING LIGHTING.

8. BRACE ELECTRICAL PANEL TO PREVENT OVERTURN DURING SEISMIC EVENT.

9. BRACE LINEAR CABLE MOUNTED PENDANT LIGHTING IN THIS AREA TO PREVENT SWAY AND DISCONNECT DURING SEISMIC EVENT. 10. BRACE EXISTING HIGH-BAY FLUORESCENT LIGHTING AND LENSES TO PREVENT SWAY AND DISCONNECT

FROM CEILING DURING SEISMIC EVENT.

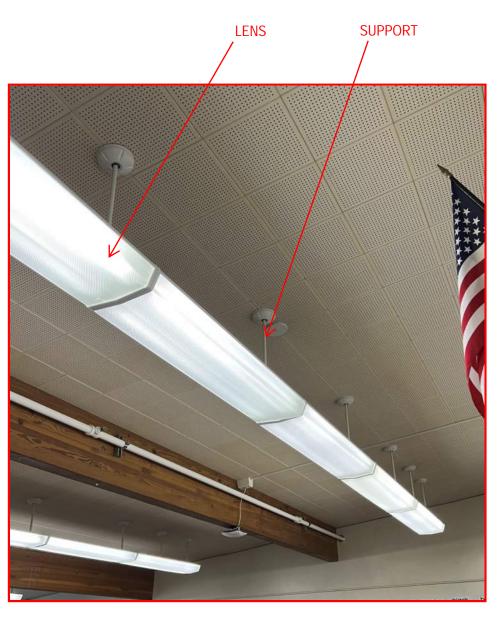
11. PROVIDE FLEXIBLE COUPLING AT CONDUITS AS THEY TRANSITION TO EXTERIOR IN THIS LOCATION. 12. PROVIDE FLEXIBLE COUPLING FOR CONDUITS 2.5" AND GREATER AT WALL ABOVE STAGE STAIRS.





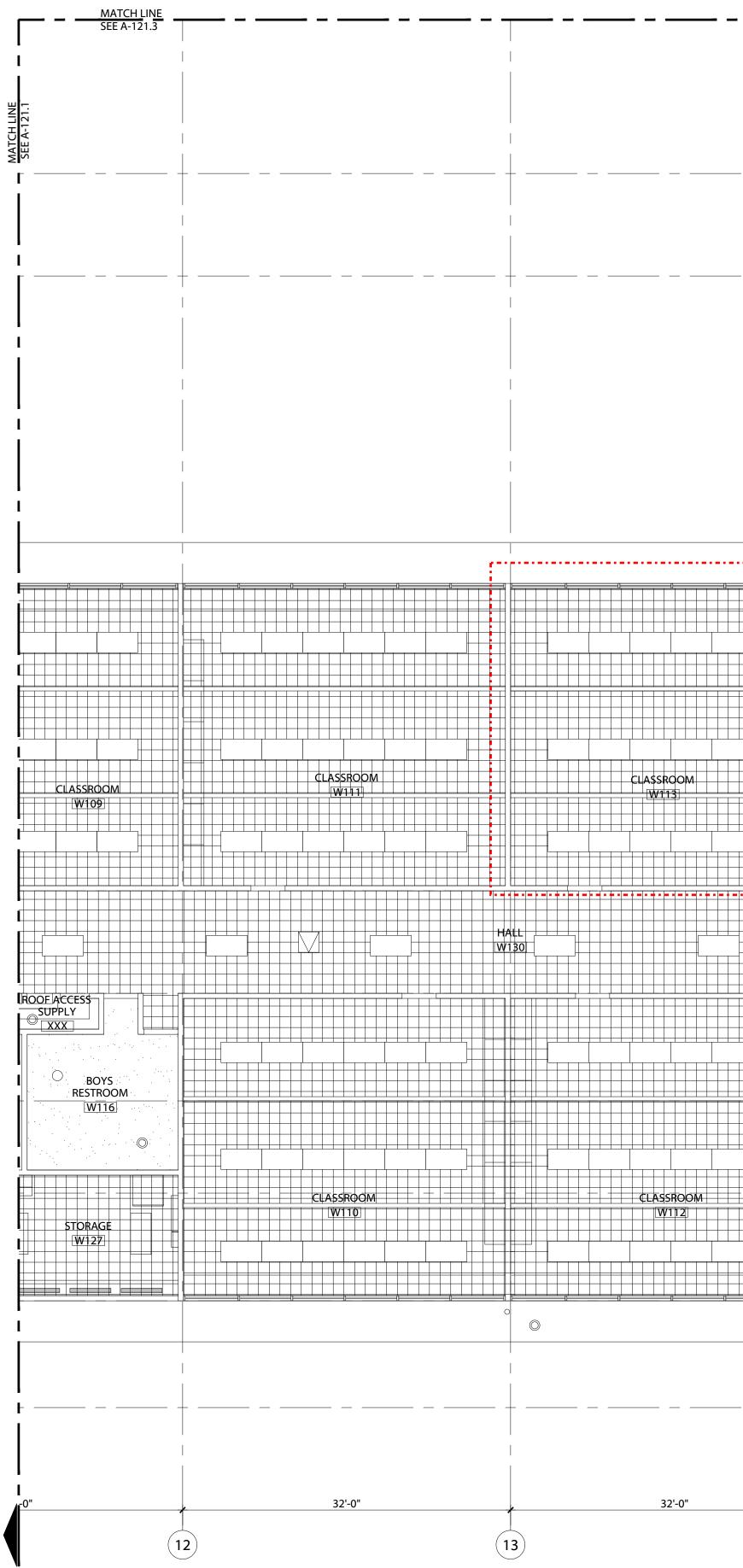






TYPICAL CLASSROOM LIGHTING

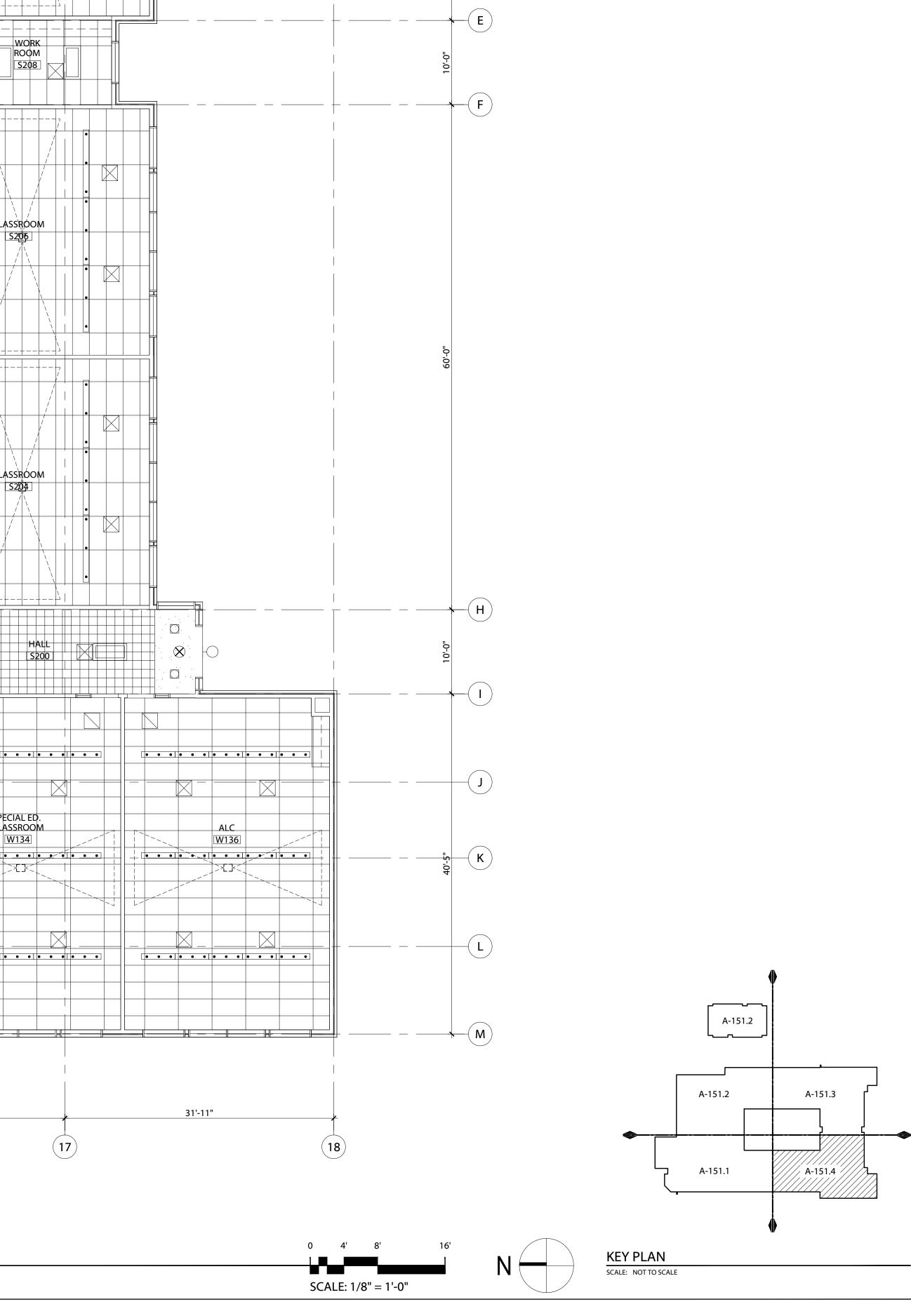
TYPICAL C

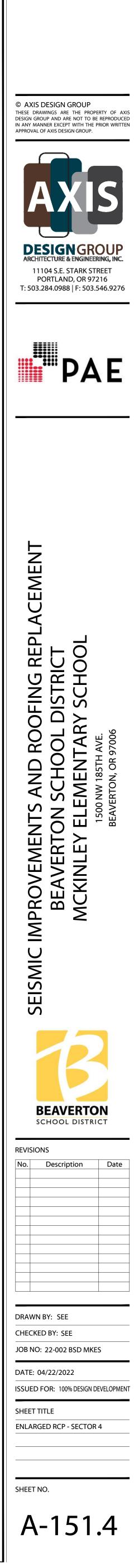


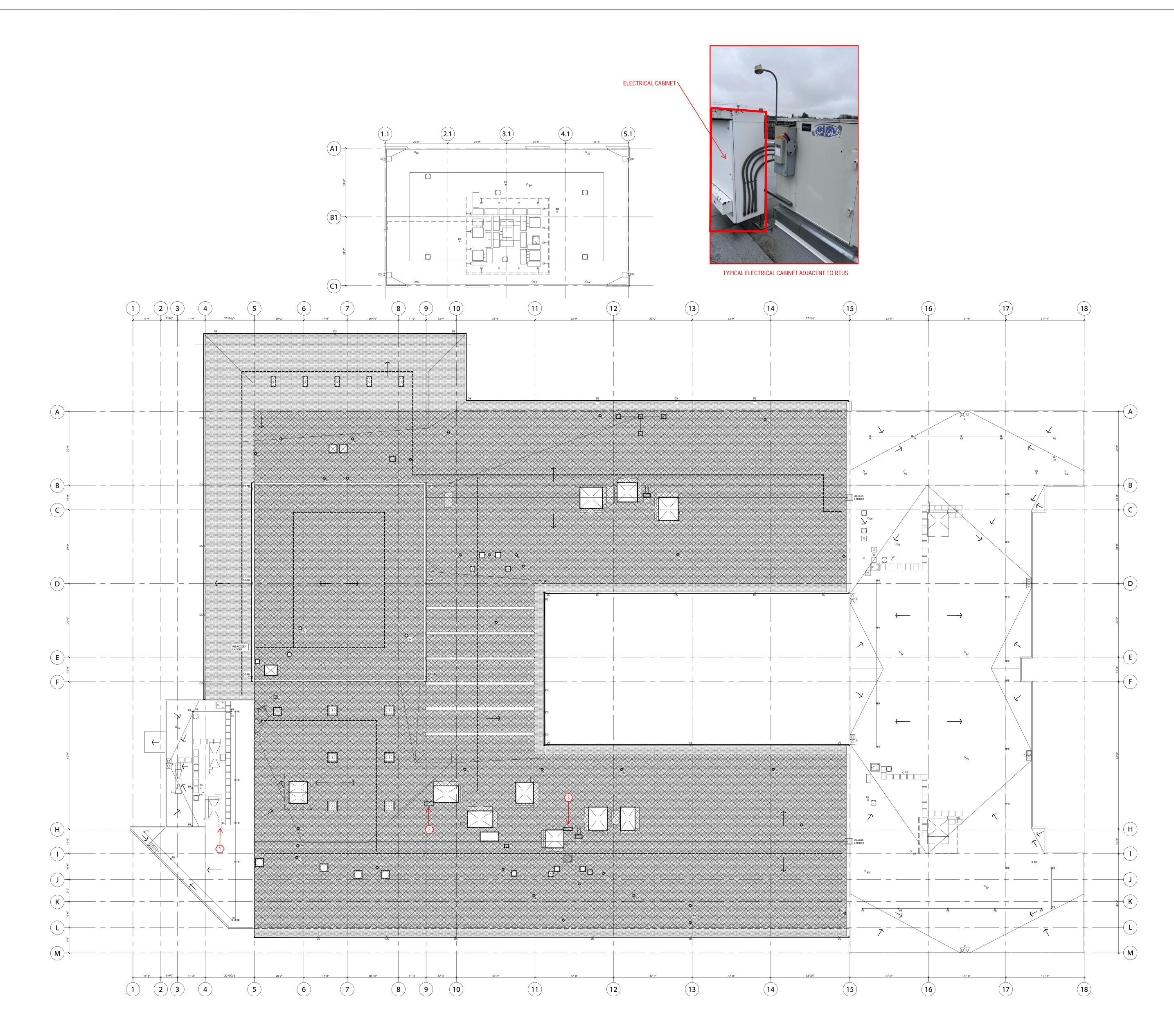
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1 TYPICAL CLASSROOM		
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SUPPORT DETAIL









GENERAL NOTES:

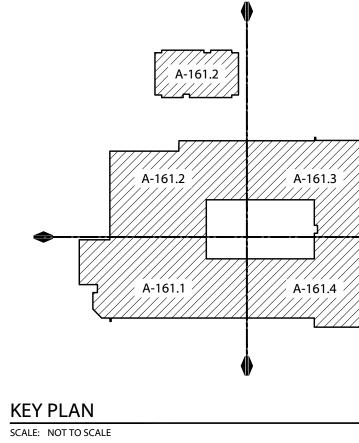
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NOTES:

1. BRACE ELECTRICAL CABINET ADJACENT TO RTU-3 TO PREVENT CABINET OVERTURN DURING SEISMIC EVENT.

2. BRACE ELECTRICAL CABINET ADJACENT TO RTU-1 TO PREVENT CABINET OVERTURN DURING SEISMIC EVENT.

3. BRACE ELECTRICAL CABINET ADJACENT TO RTU-9 TO PREVENT CABINET OVERTURN DURING SEISMIC EVENT.



AL

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