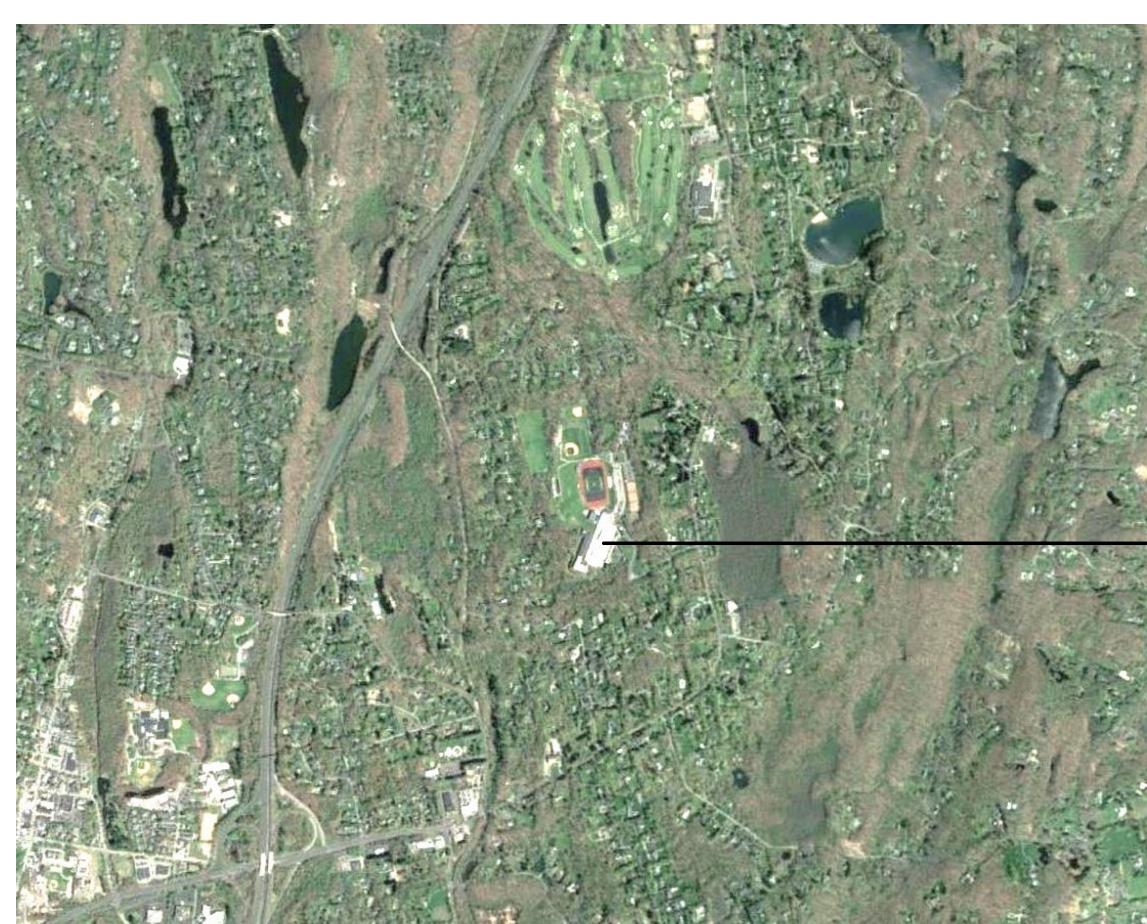
# BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

# BYRAM HILLS CENTRAL SCHOOL DISTRICT

SED# 66-12-01-06-0-007-017



HIGH SCHOOL

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# SED 66-12-01-06-0-007-017 SHEET # SHEET DESCRIPTION

BYRAM HILLS HIGH SCHOOL

GENERAL			
G-000 COVER SHEET			
G-021	021 BUILDING CODE ANALYSIS		
G-031	GENERAL NOTES / ABBREVIATIONS / LEGENDS AND SYMBOLS		
G-041	EXTERIOR WALL ASSEMBLIES & INTERIOR WALL TYPES		
G-051	ACCESSIBILITY COMPLIANCE DIAGRAMS AND STANDARD MOUNTING HEIGHTS		
G-101	OVERALL LIFE SAFETY PLANS		
G-102	LEARNING COMMONS LIFE SAFETY PLAN		
LOGISTICS	PLAN		
PH-001	SITE LOGISTICS PLAN		
PH-002	INTERIOR LOGISTICS PLAN		
ENVIRONM	IENTAL		
H-001	ASBESTOS ABATEMET GENERAL NOTES		
H-002	FIRST FLOOR DEMO REFLECTED CEILING PLAN		
STRUCTUR	RAL		
S-001	STRUCTURAL NOTES		
S-101	STRUCTURAL FRAMING PLAN		
S-301	SECTIONS		
S-501	STRUCTURAL DETAILS		
S-502	STRUCTURAL DETAILS		
ADOLUTEO	TUDAL DEMOLITION		
	TURAL DEMOLITION SITE DEMOLITION PLANS		
AD-011			
AD-101	FIRST FLOOR DEMOLITION PLANS		
AD-111	REFLECTED CEILING DEMOLITION PLANS		
AD-201	EXTERIOR ELEVATION DEMOLITIONS		
ARCHITEC <sup>-</sup>	TURAL EXISTING		
AE-101	FIRST FLOOR EXISTING PLANS		
AE-111	EXISTING REFLECTED CEILING PLAN		
ARCHITEC <sup>-</sup>	TURAL		
A-011	ARCHITECTURAL SITE PLAN & DETAILS		
A-101	FIRST FLOOR PLAN		
A-111	FIRST FLOOR REFLECTED CEILING PLAN		
A-121	ROOF PLAN		
A-201	EXTERIOR ELEVATIONS		
A-301	BUILDING SECTIONS		
A-311	WALL SECTIONS		
A-531	PLAN AND SECTION DETAILS - 1		
A-541	CEILING DETAILS		
A-601	DOOR SCHEDULE, ELEVATIONS & DETAILS		
A-621	INTERIOR WINDOW SCHEDULES & ELEVATION		
A-622	INTERIOR WINDOW ELEVATIONS		
A-623 INTERIOR WINDOW DETAILS			
A-631	EXTERIOR WINDOWS SCHEDULE & ELEVATION		

# BYRAM HILLS HIGH SCHOOL SED 66-12-01-06-0-007-017

SHEET#	SHEET DESCRIPTION		
A-801	INTERIOR FINISH AND FURNITURE SCHEDULES		
A-811	FIRST FLOOR INTERIOR FINISH PLANS		
A-821	FIRST FLOOR FURNITURE PLANS		
A-822	ENLARGED INTERIOR PLANS		
A-823	ENLARGED INTERIOR PLANS		
A-824	ENLARGED INTERIOR PLANS		
A-831	ENLARGED INTERIOR ELEVATIONS		
A-832	ENLARGED INTERIOR ELEVATIONS		
A-833	ENLARGED INTERIOR ELEVATIONS		
A-841	CASEWORK DETAILS - TRANSACTION COUNTER		
A-842	CASEWORK DETAILS - BOOKSHELVES		
A-843	MILLWORK DETAILS - FEATURE WALL		
A-844	MILLWORK DETAILS - ENTRY BENCH		
A-845	MILLWORK DETAILS - STEPPED SEATING		
A-851	SIGNAGE SCHEDULE & DETAILS		
REFERENCE			
R-100	RENDERINGS		
MECHANICAL	DEMOLITION		
MD-101	MECHANICAL FIRST FLOOR DUCTWORK DEMO PLAN		

ECHANICAL DEMOLITION		
ID-101	MECHANICAL FIRST FLOOR DUCTWORK DEMO PLAN	
IECHANICAL		
1-001	MECHANICAL SYMBOLS, ABBREVIATIONS & NOTES	
I-101	MECHANICAL FIRST FLOOR DUCTWORK PLAN	
l-102	MECHANICAL ROOF DUCTWORK PLAN	
1-701	MECHANICAL DETAILS	
1-702	MECHANICAL DETAILS	
1-801	MECHANICAL SCHEDULES	

D-201	ELECTRICAL DEMO RCP
LECTRICAL	
-001	ELECTRICAL SYMBOLS, ABBREVIATIONS & NOTES
-101	ELECTRICAL FIRST FLOOR POWER PLAN
-102	ELECTRICAL ROOF POWER PLAN
-103	ELECTRICAL WIRING TO SWITCHBOARD
-201	ELECTRICAL FIRST FLOOR LIGHTING PLAN
-701	ELECTRICAL DETAILS
-702	ELECTRICAL DETAILS
-801	ELECTRICAL SCHEDULES
-802	ELECTRICAL SCHEDULES

ELECTRICAL FIRST FLOOR POWER DEMO PLAN

L 002	ELECTRICATE CONFEDULES
PLUMBING DE	MOLITION
PD-101	PLUMBING FIRST FLOOR SANITARY DEMO PLAN
PLUMBING	
P-001	PLUMBING SYMBOLS, ABBREVIATIONS & NOTES
P-101	PLUMBING FIRST FLOOR SANITARY PLAN
D =0.4	DI LIMBINIO DETALLO

DESIGN CONFORMS TO APPLICABLE PROVISIONS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, NEW YORK STATE ENERGY CONSERVATION AND CONSTEUCTION CODE AND THE NEW YORK STATEDUICATION DEPARTMENT BUILDING STANDARDS

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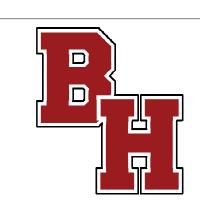
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KSQ Architects PC dba KSQ Design

BID SET UNE 25, 2024





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**APPLICABLE CODES:** 

15

2020 BUILDING CODE OF NEW YORK STATE (BC) 2020 ENERGY CONSERVATION CONSTRUCTION CODE OF

14

13

**NEW YORK STATE (ECC)** 2022 MANUAL OF PLANNING STANDARDS FOR SCHOOL BUILDINGS (SED)

**AUTHORITY HAVING JURISDICTION** 2010 ANSI/ASA S12.60

2010 AMERICAN DISABILITIES ACT ACCESSIBLE GUIDELINE

STATE BUILDING AID FOR PUBLIC SCHOOL DISTRICTS AND BOCES

2020 FIRE CODE OF NEW YORK STATE 2020 MECHANICAL CODE OF NEW YORK STATE 2020 PLUMBING CODE OF NEW YORK STATE

2. 101 AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE) 62

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70.

**FIRE PROTECTION SYSTEMS** 

2017 ICC A117.1

FIRE DISTRICT: ARMONK FIRE DISTRICT FIRE EXTINGUISHING SYSTEM:

#### **BUILDING INFORMATION**

1965 EXISTING BUILDING:
CONSTRUCTION CLASSIFICATION:
MACCAIDY INTEDIOD DADTITIONS

: 2B (ASSUMED) MASONRY INTERIOR PARTITIONS, NON BEARING MASONRY EXTERIOR CAVITY WALL, NON BEARING **BUILDING HEIGHT:** 12'-0" (SINGLE STORY BASEMENT = 25,955 SF **BUILDING AREA:** 1ST FLOOR = SUBTOTAL = 148.950 S

2000 EXISTING BUILDING ADDITION

**CONSTRUCTION CLASSIFICATION: 2A CLASSROOM ADDITION AREA:** 1ST FLOOR = 21.770 SF 13,435 SF 2ND FLOOR = 1,900 SF **CAFETERIA EXTENSION AREA:** LIBRARY EXTENSION AREA: 2,800 SF SUBTOTAL = 39,905 SF

**2005 EXISTING BUILDING ADDITION** CONSTRUCTION CLASSIFICATION: 2A

SCIENCEM TECHNOLOGY AND ART LABS 16,500 SF 1ST FLOOR = GENERAL CLASSROOMS: 2ND FLOOR= 16,011 SF 32,511 SF SUBTOTAL =

THE BUILDING IS OCCUPIED BY A SINGLE TENANT

### **BUILDING ENVELOPE REQS**

**CLIMATE ZONE:** 4A (WESTCHESTER) **(ECC TABLE C301.1)** 

**INSULATION REQUIREMENTS** (ECC TABLE 402.1.3)

SHGC, PF<0.2:

**INSULRATION ENTIRELY** ABOVE ROOF DECK R-30 CI MIN. WALLS, ABOVE GRADE, MASS: R-9.5 CI MIN. R-7.5 CI MIN. WALLS, BELOW GRADE:

SLAB-ON-GRADE FLOORS, UNHEATED: R-10 MIN FOR 24" BELOW **OPAQUE DOORS:** R-4.75 MIN.

**BUILDING ENVELOPE FENESTRATION REQUIREMENTS** 

(ECC TABLE C402.4) FIXED FENESTRATION: U-FACTOR 0.38 MAX. 0.77 MAX. **ENTRANCE DOORS: U-FACTOR** 

AIR LEAKAGE RATE FOR FENESTRATION ASSEMBLIES REQUIREMENTS

0.36 MAX.

13

(ECC TABLE 402.5.2) WINDOWS: 0.20 CFM/FT<sup>2</sup> MAX. 0.06 CFM/FT<sup>2</sup> MAX. STOREFRONT GLAZING:

**COMMERCIAL GLAZED SWINGING ENTRANCE DOORS:** 1.00 CFM/FT<sup>2</sup> MAX.

SED CODE REQS

SED S203-1 LIMITATION OF USE OF INTERIOR FINISHES A. CLASS A INTERIOR FINISHES SHALL BE USED IN CORRIDORS, EXIT ENCLOSURES, EXIT PASSAGEWAYS, EXTERIOR EXIT STAIRS, EXTERIOR EXIT RAMPS AND HORIZONTAL EXITS. CLASS B IS ACCEPTABLE IF THESE SPACES HAVE AN APPROVED NFPA-13 SPRINKLER SYSTEM. B. INTERIOR FINISHES IN SCHOOL CONSTRUCTION SHALL BE CLASS A, B, OR C, PER THE CODE.

#### BUILDING CODE SECTIONS

#### CHAPTER 3 OCCUPANCY CLASSIFICATION AND USE

BC 303.1.3 ASSOCIATED WITH GROUP E OCCUPANCIES:

A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES THAT IS ASSOCIATED WITH A GROUP E OCCUPANCY IS NOT CONSIDERED A SEPARATE OCCUPANCY.

#### **CHAPTER 6 TYPES OF CONSTRUCTION**

BC TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS TYPE IIA TYPE IIB **BUILDING ELEMENTS** PRIMARY STRUCTURAL FRAME 0HR **BEARING WALLS** 0HR EXTERIOR 1HR 1HR 0HR **INTERIOR** NONBEARING WALLS AND PARTITIONS SEE TABLE 602 **EXTERIOR** INTERIOR 0HR FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS 1HR

BC TABLE 602 FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS **BASED ON FIRE SEPARATION DISTANCE** 

FIRE SEPARATION DISTANCE = X (FEET)	TYPE IIA GROUP A&E	TYPE IIB GROUP A,
X < 5 5 ≤ X < 10	1	1
10 ≤ X < 30	1	0
X ≥ 30	0	0

#### **CHAPTER 8 INTERIOR FINISHES**

#### BC TABLE 803.5 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY (NON-SPRINKI FRED)

OCCUPANCI	(NON-SPININKLLIKLD)		
	INTERIOR EXIT	CORRIDORS AND	ROOMS AN
	STAIRWAYS AND	<b>ENCLOSURE FOR EXIT</b>	ENCLOSED
	RAMPS AND EXIT	ACCESS STAIRWAYS	SPACES
GROUP	PASSAGEWAYS	AND RAMPS	
E	A	В	С

#### **CHAPTER 9 FIRE PROTECTION SYSTEMS**

#### BC 903.2.3 GROUP E: AN AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED FOR **GROUP E OCCUPANCIES AS FOLLOWS:**

1. THROUGHOUT ALL GROUP E FIRE AREAS GREATER THAN 12,000 SQUARE FEET (1115 M<sup>2</sup>) IN AREA.

2. THE GROUP E FIRE AREA IS LOCATED ON A FLOOR OTHER THAN A LEVEL OF EXIT DISCHARGE SERVING SUCH OCCUPANCIES

EXCEPTION: IN BUILDINGS WHERE EVERY CLASSROOM HAS NOT FEWER THAN ONE EXTERIOR EXIT DOOR AT GROUND LEVEL, AN AUTOMATIC SPRINKLER SYSTEM IS NOT REQUIRED IN ANY AREA BELOW THE LOWEST LEVEL OF EXIT DISCHARGE SERVING THAT AREA.

3. THE GROUP E FIRE AREA HAS AN OCCUPANT LOAD OF 300 OR MORE.

#### **CHAPTER 10 MEANS OF EGRESS**

#### **BC 1003.2 CEILING HEIGHT**

THE MEANS OF EGRESS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET 6 INCHES (2286 MM) ABOVE THE FINISHED FLOOR.

#### **BC 1003.3.1 HEADROOM**

PROTRUDING OBJECTS ARE PERMITTED TO EXTEND BELOW THE MINIMUM CEILING HEIGHT REQUIRED BY SECTION 1003.2 WHERE A MINIMUM HEADROOM OF 80 INCHES (2032 MM) IS PROVIDED OVER ANY CIRCULATION PATHS, INCLUDING WALKS, CORRIDORS, AISLES AND PASSAGEWAYS. NOT MORE THAN 50 PERCENT OF THE CEILING AREA OF A MEANS OF EGRESS SHALL BE REDUCED IN HEIGHT BY PROTRUDING OBJECTS.

EXCEPTION: DOOR CLOSERS AND STOPS SHALL NOT REDUCE HEADROOM TO LESS THAN 78 INCHES.

A BARRIER SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE ABOVE A CIRCULATION PATH IS LESS THAN 80 INCHES HIGH ABOVE THE FINISHED FLOOR. THE LEADING EDGE OF SUCH A BARRIER SHALL BE LOCATED 27 INCHES MAXIMUM ABOVE THE FINISHED FLOOR.

#### **BC 1003.3.3 HORIZONTAL PROJECTIONS**

OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES AND NOT MORE THAN 80 INCHES ABOVE THE FINISHED FLOOR SHALL NOT PROJECT HORIZONTALLY MORE THAN 4 INCHES INTO THE CIRCULATION PATH.

EXCEPTION: HANDRAILS ARE PERMITTED TO PROTRUDE 41/2 INCHES FROM THE WALL OR GUARD.

#### **BC 1003.3.3 HORIZONTAL PROJECTIONS**

OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES AND NOT MORE THAN 80 INCHES ABOVE THE FINISHED FLOOR SHALL NOT PROJECT HORIZONTALLY MORE THAN 4 INCHES INTO THE CIRCULATION PATH.

EXCEPTION: HANDRAILS ARE PERMITTED TO PROTRUDE 41/2 INCHES FROM THE WALL OR GUARD.

#### BC 1003.6 MEANS OF EGRESS CONTINUITY

THE PATH OF EGRESS TRAVEL ALONG A MEANS OF EGRESS SHALL NOT BE INTERRUPTED BY A BUILDING ELEMENT OTHER THAN A MEANS OF EGRESS COMPONENT AS SPECIFIED IN THIS CHAPTER. OBSTRUCTIONS SHALL NOT BE PLACED IN THE MINIMUM WIDTH OR REQUIRED CAPACITY OF A MEANS OF EGRESS COMPONENT EXCEPT PROJECTIONS PERMITTED BY THIS CHAPTER. THE MINIMUM WIDTH OR REQUIRED CAPACITY OF A MEANS OF EGRESS SYSTEM SHALL NOT BE DIMINISHED ALONG THE PATH OF EGRESS TRAVEL.

#### BC TABLE 1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOMS 300 GROSS

ASSEMBLY WITHOUT FIXED SEATS **UNCONCENTRATED (TABLES AND CHAIRS)** 15 NET **BUSINESS AREAS** 150 GROSS EDUCATIONAL - SHOPS AND OTHER VOCATIONAL ROOM AREAS 50 NET LIBRARY - READING ROOMS 50 NET LIBRARY - STACK AREA 100 GROSS

## **BUILDING CODE SECTIONS (CONT.)**

#### **BC 1004.9 POSTING OF OCCUPANT LOAD**

EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE. NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY FROM THE ROOM OR SPACE, FOR THE INTENDED CONFIGURATIONS. POSTED SIGNS SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN AND SHALL BE MAINTAINED BY THE OWNER OR THE OWNER'S AUTHORIZED AGENT.

#### **BC 1008.2 ILLUMINATION REQUIRED**

THE MEANS OF EGRESS SERVING A ROOM OR SPACE SHALL BE ILLUMINATED AT ALL TIMES THAT THE ROOM OR SPACE IS OCCUPIED.

**EXCEPTIONS:** OCCUPANCIES IN GROUP U.

AISLE ACCESSWAYS IN GROUP A.

DWELLING UNITS AND SLEEPING UNITS IN GROUPS R-1, R-2 AND R-3. SLEEPING UNITS OF GROUP I OCCUPANCIES.

#### BC 1009.1 ACCESSIBLE MEANS OF EGRESS REQUIRED

ACCESSIBLE MEANS OF EGRESS SHALL COMPLY WITH THIS SECTION. ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS. WHERE MORE THAN ONE MEANS OF EGRESS IS REQUIRED BY SECTION 1006.2 OR 1006.3 FROM ANY ACCESSIBLE SPACE, EACH ACCESSIBLE PORTION OF THE SPACE SHALL BE SERVED BY NOT LESS THAN TWO ACCESSIBLE MEANS OF EGRESS.

1. ONE ACCESSIBLE MEANS OF EGRESS IS REQUIRED FROM AN ACCESSIBLE MEZZANINE LEVEL IN ACCORDANCE WITH SECTION 1009.3, 1009.4 OR 1009.5. 2. IN ASSEMBLY AREAS WITH RAMPED AISLES OR STEPPED AISLES, ONE ACCESSIBLE MEANS OF EGRESS IS PERMITTED WHERE THE COMMON PATH OF EGRESS TRAVEL IS ACCESSIBLE AND MEETS THE REQUIREMENTS IN SECTION 1029.8.

#### **BC 1010.1.1 SIZE OF DOORS**

THE REQUIRED CAPACITY OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD THEREOF AND SHALL PROVIDE A MINIMUM CLEAR OPENING WIDTH OF 32 INCHES. THE CLEAR OPENING WIDTH OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES (1.57 RAD). WHERE THIS SECTION REQUIRES A MINIMUM CLEAR OPENING WIDTH OF 32 INCHES AND A DOOR OPENING INCLUDES TWO DOOR LEAVES WITHOUT A MULLION, ONE LEAF SHALL PROVIDE A MINIMUM CLEAR OPENING WIDTH OF 32 INCHES. THE MAXIMUM WIDTH OF A SWINGING DOOR LEAF SHALL BE 48 INCHESNOMINAL. THE MINIMUM CLEAR OPENING HEIGHT OF DOORS SHALL BE NOT LESS THAN 80 INCHES.

#### **BC 1010.1.1.1 PROJECTIONS INTO CLEAR WIDTH**

THERE SHALL NOT BE PROJECTIONS INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34 INCHES ABOVE THE FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34 INCHES AND 80 INCHES BOVE THE FLOOR OR GROUND SHALL NOT EXCEED 4 INCHES.

EXCEPTION: DOOR CLOSERS AND DOOR STOPS SHALL BE PERMITTED TO BE 78 INCHES MINIMUM ABOVE THE FLOOR.

#### **BC 1010.1.2.1 DIRECTION OF SWING**

PIVOT OR SIDE-HINGED SWINGING DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL WHERE SERVING A ROOM OR AREA CONTAINING AN OCCUPANT LOAD OF 50 OR MORE PERSONS OR A GROUP H OCCUPANCY.

#### **BC 1010.1.9.1 HARDWARE**

DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE BY CHAPTER 11 SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.

#### BC 1010.1.9.2 HARDWARE HEIGHT

DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISHED FLOOR, LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT.

#### BC 1010.1.10 PANIC AND FIRE EXIT HARDWARE

SWINGING DOORS SERVING A GROUP H OCCUPANCY AND SWINGING DOORS SERVING ROOMS OR SPACES WITH AN OCCUPANT LOAD OF 50 OR MORE IN A GROUP A OR E OCCUPANCY SHALL NOT BE PROVIDED WITH A LATCH OR LOCK OTHER THAN PANIC HARDWARE OR FIRE EXIT HARDWARE.

#### **EXCEPTIONS:**

A MAIN EXIT OF A GROUP A OCCUPANCY SHALL BE PERMITTED TO HAVE LOCKING DEVICES IN ACCORDANCE WITH SECTION 1010.1.9.4, ITEM 2. DOORS PROVIDED WITH PANIC HARDWARE OR FIRE EXIT HARDWARE AND SERVING A GROUP A OR E OCCUPANCY SHALL BE PERMITTED TO BE ELECTRICALLY LOCKED IN ACCORDANCE WITH SECTION 1010.1.9.9 OR 1010.1.9.10.

#### **BC 1013.1 EXIT SIGNS - REQUIRED LOCATIONS**

EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL IN CASES WHERE THE EXIT OR THE PATH OF EGRESS TRAVEL IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS. INTERVENING MEANS OF EGRESS DOORS WITHIN EXITS SHALL BE MARKED BY EXIT SIGNS. EXIT SIGN PLACEMENT SHALL BE SUCH THAT ANY POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS WITHIN 100 FEET (30 480 MM) OR THE LISTED VIEWING DISTANCE OF THE SIGN, WHICHEVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN.

#### **EXCEPTIONS:**

1. EXIT SIGNS ARE NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS

2. MAIN EXTERIOR EXIT DOORS OR GATES THAT ARE OBVIOUSLY AND CLEARLY IDENTIFIABLE AS EXITS NEED NOT HAVE EXIT SIGNS WHERE APPROVED BY THE BUILDING OFFICIAL.

#### **BC 1028 EXIT DISCHARGE**

EXITS SHALL DISCHARGE DIRECTLY TO THE EXTERIOR OF THE BUILDING. THE EXIT DISCHARGE SHALL BE AT GRADE OR SHALL PROVIDE A DIRECT PATH OF EGRESS TRAVEL TO GRADE. THE EXIT DISCHARGE SHALL NOT REENTER A BUILDING. THE COMBINED USE OF EXCEPTIONS 1 AND 2 SHALL NOT EXCEED 50 PERCENT OF THE NUMBER AND MINIMUM WIDTH OR REQUIRED CAPACITY OF THE REQUIRED EXITS. **EXCEPTIONS**:

## **BUILDING CODE SECTIONS (CONT.)**

1. NOT MORE THAN 50 PERCENT OF THE NUMBER AND MINIMUM WIDTH OR REQUIRED CAPACITY OF INTERIOR EXIT STAIRWAYS AND RAMPS IS PERMITTED TO EGRESS THROUGH AREAS ON THE LEVEL OF DISCHARGE PROVIDED THAT ALL OF THE FOLLOWING CONDITIONS ARE MET

1.1. DISCHARGE OF INTERIOR EXIT STAIRWAYS AND RAMPS SHALL BE PROVIDED WITH A FREE AND UNOBSTRUCTED PATH OF TRAVEL TO AN EXTERIOR EXIT DOOR AND SUCH EXIT IS READILY VISIBLE AND IDENTIFIABLE FROM THE POINT OF TERMINATION OF THE ENCLOSURE

1.2. THE ENTIRE AREA OF THE LEVEL OF EXIT DISCHARGE IS SEPARATED FROM AREAS BELOW BY CONSTRUCTION CONFORMING TO THE FIRE-RESISTANCE RATING FOR THE ENCLOSURE.

1.3. THE EGRESS PATH FROM THE INTERIOR EXIT STAIRWAY AND RAMP ON THE LEVEL OF EXIT DISCHARGE IS PROTECTED THROUGHOUT BY AN APPROVED AUTOMATIC SPRINKLER SYSTEM. PORTIONS OF THE LEVEL OF EXIT DISCHARGE WITH ACCESS TO THE EGRESS PATH SHALL BE EITHER EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2, OR SEPARATED FROM THE EGRESS PATH IN ACCORDANCE WITH THE REQUIREMENTS FOR THE **ENCLOSURE OF INTERIOR EXIT STAIRWAYS OR RAMPS** 

1.4. WHERE A REQUIRED INTERIOR EXIT STAIRWAY OR RAMP AND AN EXIT ACCESS STAIRWAY OR RAMP SERVE THE SAME FLOOR LEVEL AND TERMINATE AT THE SAME LEVEL OF EXIT DISCHARGE, THE TERMINATION OF THE EXIT ACCESS STAIRWAY OR RAMP AND THE EXIT DISCHARGE DOOR OF THE INTERIOR EXIT STAIRWAY OR RAMP SHALL BE SEPARATED BY A DISTANCE OF NOT LESS THAN 30 FEET OR NOT LESS THAN ONE-FOURTH THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING, WHICHEVER IS LESS. THE DISTANCE SHALL BE MEASURED IN A STRAIGHT LINE BETWEEN THE EXIT DISCHARGE DOOR FROM THE INTERIOR EXIT STAIRWAY OR RAMP AND THE LAST TREAD OF THE EXIT ACCESS STAIRWAY OR TERMINATION OF

SLOPE OF THE EXIT ACCESS RAMP. 2. NOT MORE THAN 50 PERCENT OF THE NUMBER AND MINIMUM WIDTH OR REQUIRED CAPACITY OF THE INTERIOR EXIT STAIRWAYS AND RAMPS IS PERMITTED TO EGRESS THROUGH A VESTIBULE PROVIDED THAT ALL OF THE

FOLLOWING CONDITIONS ARE MET: 2.1. THE ENTIRE AREA OF THE VESTIBULE IS SEPARATED FROM AREAS BELOW BY CONSTRUCTION CONFORMING TO THE FIRE-RESISTANCE RATING OF THE INTERIOR EXIT STAIRWAY OR RAMP ENCLOSURE

2.2. THE DEPTH FROM THE EXTERIOR OF THE BUILDING IS NOT GREATER THAN 10 FEET AND THE LENGTH IS NOT GREATER THAN 30 FEET 2.3. THE AREA IS SEPARATED FROM THE REMAINDER OF THE LEVEL OF EXIT DISCHARGE BY A FIRE PARTITION CONSTRUCTED IN ACCORDANCE WITH SECTION 708.

EXCEPTION: THE MAXIMUM TRANSMITTED TEMPERATURE RISE IS NOT REQUIRED 2.4. THE AREA IS USED ONLY FOR MEANS OF EGRESS AND EXITS DIRECTLY TO

THE OUTSIDE. 3. HORIZONTAL EXITS COMPLYING WITH SECTION 1026 SHALL NOT BE

#### REQUIRED TO DISCHARGE DIRECTLY TO THE EXTERIOR OF THE BUILDING.

**BC 1028.2 EXIT DISCHARGE WIDTH OR CAPACITY** THE MINIMUM WIDTH OR REQUIRED CAPACITY OF THE EXIT DISCHARGE SHALL BE NOT LESS THAN THE MINIMUM WIDTH OR REQUIRED CAPACITY OF THE EXITS BEING SERVED.

#### **BC 1028.5 ACCESS TO A PUBLIC WAY**

**BC 1029.7 TRAVEL DISTANCE** 

THE EXIT DISCHARGE SHALL PROVIDE A DIRECT AND UNOBSTRUCTED ACCESS TO A PUBLIC WAY.

#### BC 1029.6 CAPACITY OF AISLE FOR ASSEMBLY

THE REQUIRED CAPACITY OF AISLES SHALL BE NOT LESS THAN THAT DETERMINED IN ACCORDANCE WITH SECTION 1029.6.1 WHERE SMOKE-PROTECTED ASSEMBLY SEATING IS NOT PROVIDED, SECTION 1029.6.2 WHERE SMOKE-PROTECTED ASSEMBLY SEATING IS PROVIDED AND SECTION 1029.6.3 WHERE OPEN-AIR ASSEMBLY SEATING IS PROVIDED.

BC TABLE 1029.6.2 CAPACITY FOR AISLES FOR SMOKE-PROTECTED ASSEMBLY LEVEL AISLES OR RAMPED AISLES TOTAL NUMBER OF SEATS IN THE

#### NOT STEEPER THAN 1 IN 10 IN SLOPE SMOKE-PROTECTEDASSEMBLY SEATING EQUAL TO OR LESS THAN 5.000 0.150

THE EXIT ACCESS TRAVEL DISTANCE SHALL COMPLY WITH SECTION 1017. WHERE AISLES ARE PROVIDED FOR SEATING. THE DISTANCE SHALL BE MEASURED ALONG THE AISLES AND AISLE ACCESSWAYS WITHOUT TRAVEL OVER OR ON THE SEATS.

#### BC 1029.8 COMMON PATH OF EGRESS TRAVEL

THE COMMON PATH OF EGRESS TRAVEL SHALL NOT EXCEED 30 FEET FROM ANY SEAT TO A POINT WHERE AN OCCUPANT HAS A CHOICE OF TWO PATHS OF EGRESS TRAVEL TO TWO EXITS.

#### BC 1029.9 ASSEMBLY AISLES ARE REQUIRED

EVERY OCCUPIED PORTION OF ANY BUILDING, ROOM OR SPACE USED FOR ASSEMBLY PURPOSES THAT CONTAINS SEATS, TABLES, DISPLAYS, SIMILAR FIXTURES OR EQUIPMENT SHALL BE PROVIDED WITH AISLES LEADING TO EXITS OR EXIT ACCESS DOORWAYS IN ACCORDANCE WITH THIS SECTION

#### BC 1029.9.1 MINIMUM AISLE WIDTH

THE MINIMUM CLEAR WIDTH FOR AISLES SHALL COMPLY WITH ONE OF THE

FOLLOWING: 1. 42 INCHES FOR LEVEL OR RAMPED AISLES HAVING SEATING ON BOTH SIDES. **EXCEPTIONS:** 

1. 36 INCHES WHERE THE AISLE SERVES LESS THAN 50 SEATS.

2. 30 INCHES (762 MM) WHERE THE AISLE SERVES LESS THAN 15 SEATS AND DOES NOT SERVE AS PART OF AN ACCESSIBLE ROUTE. 2. 36 INCHES (914 MM) FOR LEVEL OR RAMPED AISLES HAVING SEATING ON ONLY

ONE SIDE. EXCEPTION: 30 INCHES HERE THE AISLE SERVES FEWER THAN 15 SEATS AND DOES NOT SERVE AS PART OF AN ACCESSIBLE ROUTE.

#### **CHAPTER 11 ACCESSIBILITY**

#### **BC 1105.1 PUBLIC ENTRANCES**

IN ADDITION TO ACCESSIBLE ENTRANCES REQUIRED BY SECTIONS 1105.1.1 THROUGH 1105.1.7. AT LEAST 60 PERCENT OF ALL PUBLIC ENTRANCES SHALL BE ACCESSIBLE.

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**ARCHITECT** 

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#### www.fellp.com **Structural Engineer**

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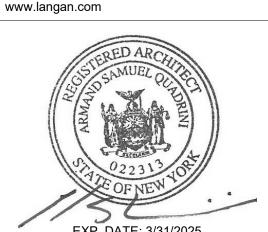
#### Civil Engineer LABELLA ASSOCIATES 300 State Street, Suite 201, Rochester, NY 14614

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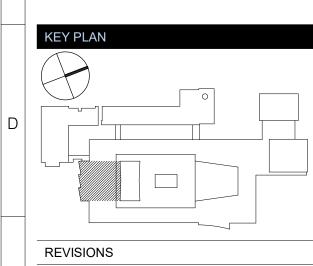




BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

> 12 Tripp Ln, Armonk, NY 10504

SED# 66-12-01-06-0-007-017



Description

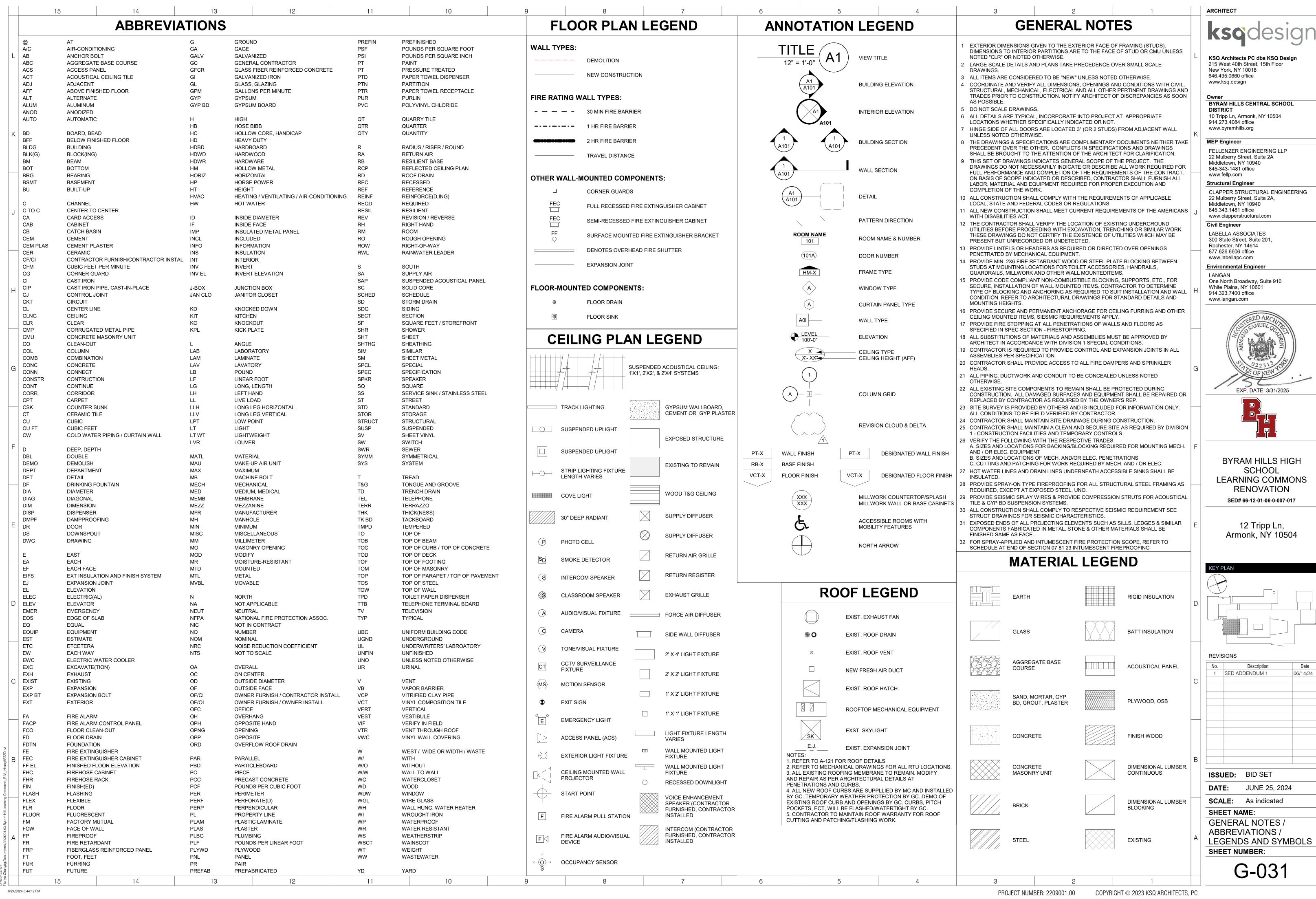
**ISSUED:** BID SET JUNE 25, 2024

**SHEET NAME: BUILDING CODE** 

SCALE:

**ANALYSIS** 

**SHEET NUMBER:** 



KSQ Architects PC dba KSQ Design 215 West 40th Street, 15th Floor

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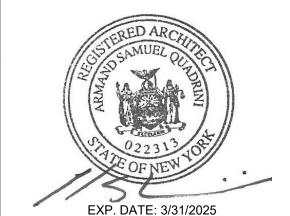
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# www.clapperstructural.com

300 State Street, Suite 201,

One North Broadway, Suite 910



EXP. DATE: 3/31/2025

BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

SED# 66-12-01-06-0-007-017

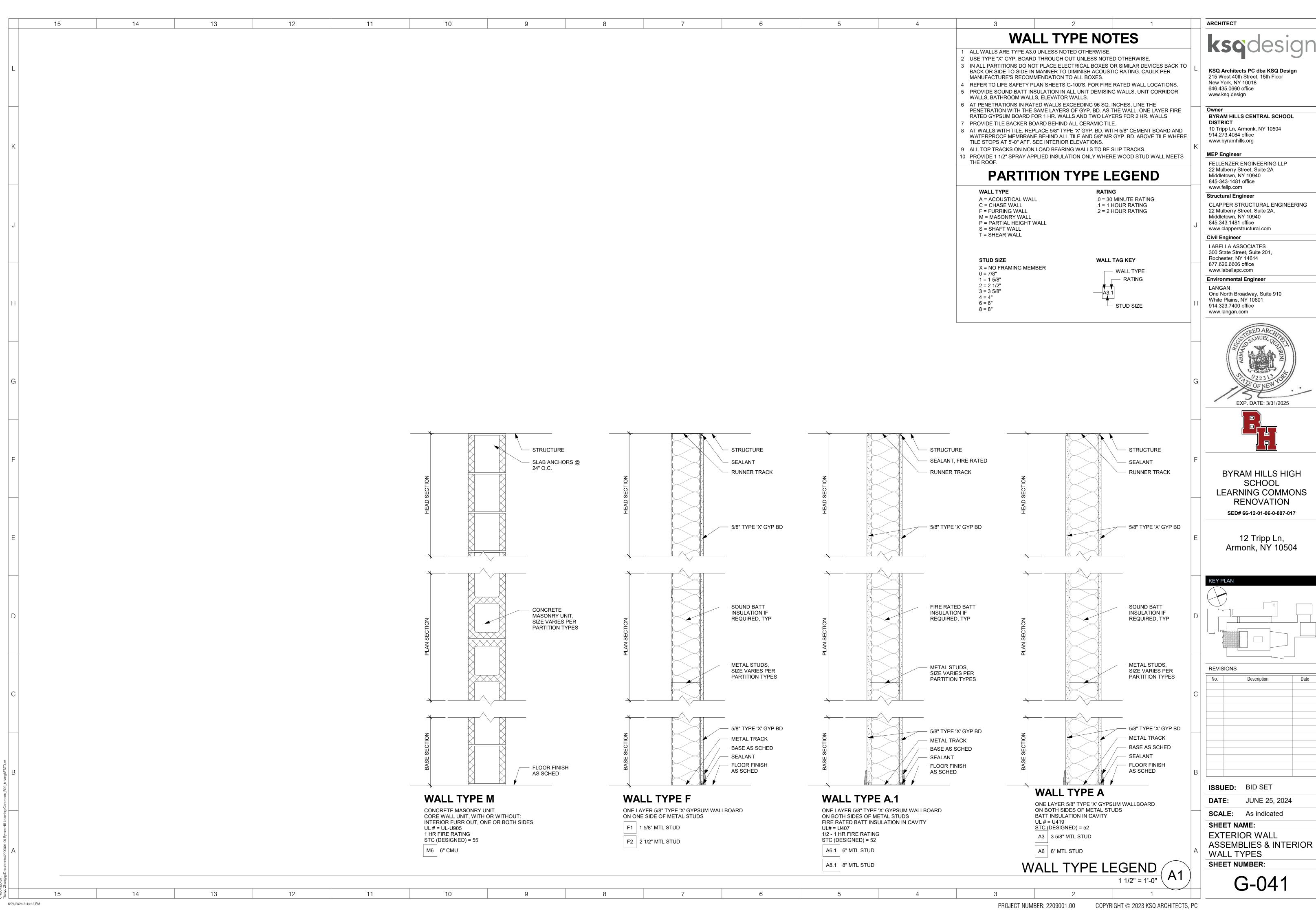
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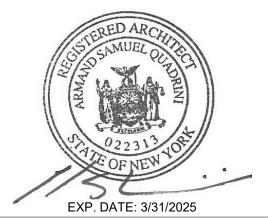
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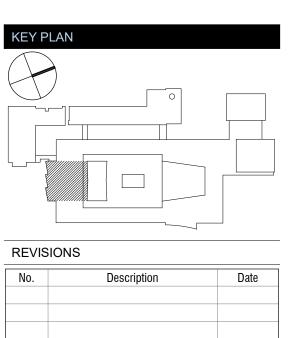
**ISSUED:** BID SET JUNE 25, 2024 **SCALE:** As indicated

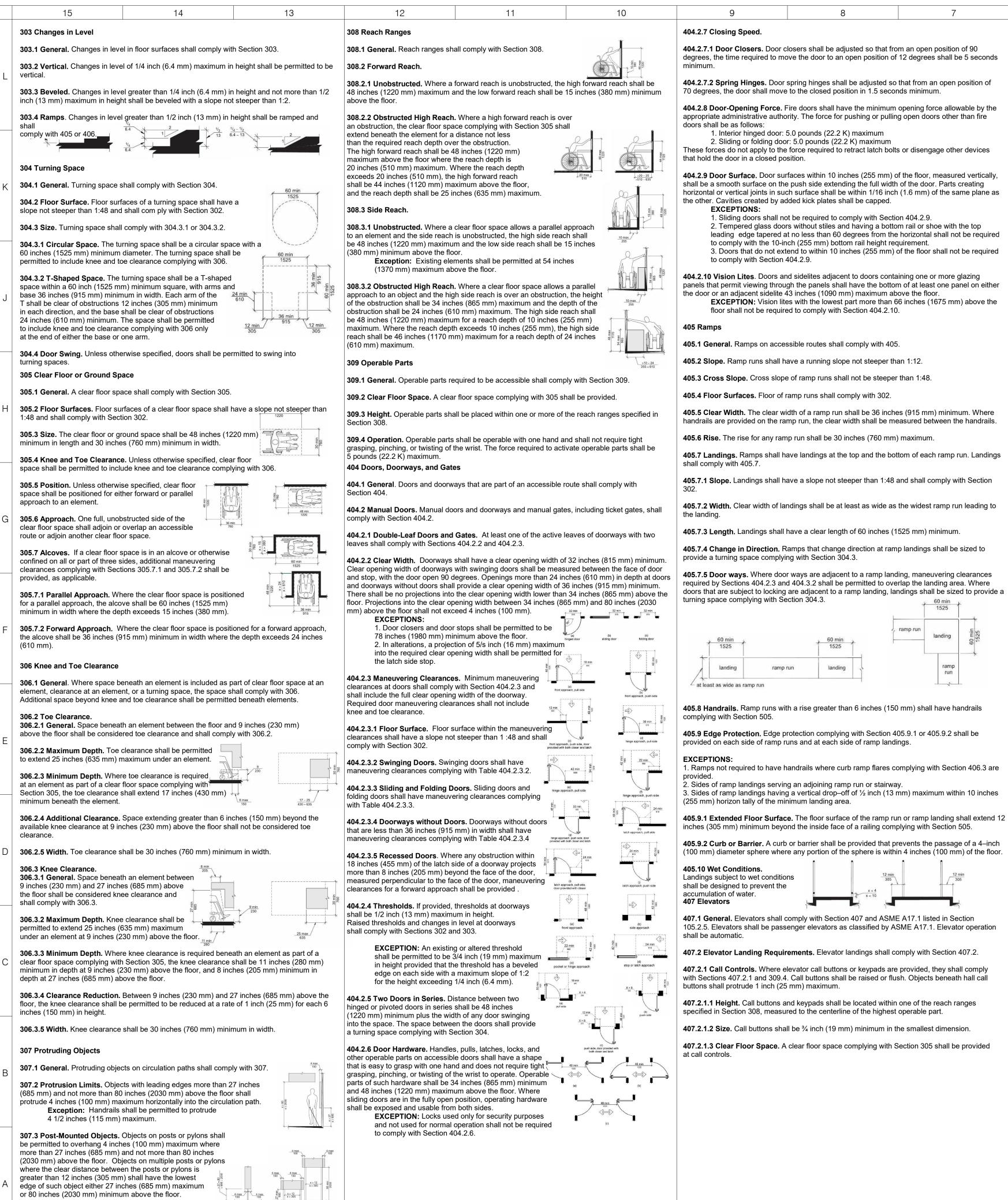
LEGENDS AND SYMBOLS

G-031









**404.2.7.1 Door Closers**. Door closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds

**404.2.7.2 Spring Hinges.** Door spring hinges shall be adjusted so that from an open position of 70 degrees, the door shall move to the closed position in 1.5 seconds minimum.

**404.2.8 Door-Opening Force.** Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire

doors shall be as follows: 1. Interior hinged door: 5.0 pounds (22.2 K) maximum 2. Sliding or folding door: 5.0 pounds (22.2 K) maximum

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

404.2.9 Door Surface. Door surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door. Parts creating horizontal or vertical joints in such surface shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped. **EXCEPTIONS:** 

1. Sliding doors shall not be required to comply with Section 404.2.9. 2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at no less than 60 degrees from the horizontal shall not be required to comply with the 10-inch (255 mm) bottom rail height requirement. 3. Doors that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with Section 404.2.9.

**404.2.10 Vision Lites**. Doors and sidelites adjacent to doors containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one panel on either the door or an adjacent sidelite 43 inches (1090 mm) maximum above the floor. **EXCEPTION:** Vision lites with the lowest part more than 66 inches (1675 mm) above the floor shall not be required to comply with Section 404.2.10.

405.1 General. Ramps on accessible routes shall comply with 405.

**405.2 Slope.** Ramp runs shall have a running slope not steeper than 1:12.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.4 Floor Surfaces. Floor of ramp runs shall comply with 302.

**405.5 Clear Width.** The clear width of a ramp run shall be 36 inches (915 mm) minimum. Where handrails are provided on the ramp run, the clear width shall be measured between the handrails.

**405.6 Rise.** The rise for any ramp run shall be 30 inches (760 mm) maximum.

**405.7 Landings.** Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

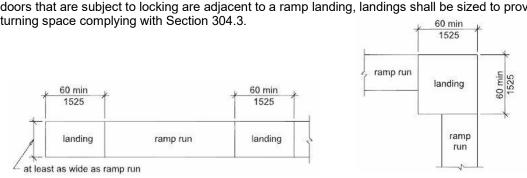
**405.7.1 Slope.** Landings shall have a slope not steeper than 1:48 and shall comply with Section

**405.7.2 Width.** Clear width of landings shall be at least as wide as the widest ramp run leading to

405.7.3 Length. Landings shall have a clear length of 60 inches (1525 mm) minimum.

405.7.4 Change in Direction. Ramps that change direction at ramp landings shall be sized to provide a turning space complying with Section 304.3.

**405.7.5 Door ways.** Where door ways are adjacent to a ramp landing, maneuvering clearances required by Sections 404.2.3 and 404.3.2 shall be permitted to overlap the landing area. Where doors that are subject to locking are adjacent to a ramp landing, landings shall be sized to provide a



405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails

**405.9 Edge Protection.** Edge protection complying with Section 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

I. Ramps not required to have handrails where curb ramp flares complying with Section 406.3 are 2. Sides of ramp landings serving an adjoining ramp run or stairway.

(255 mm) horizon tally of the minimum landing area.

inches (305 mm) minimum beyond the inside face of a railing complying with Section 505.

**405.9.2 Curb or Barrier.** A curb or barrier shall be provided that prevents the passage of a 4–inch (100 mm) diameter sphere where any portion of the sphere is within 4 inches (100 mm) of the floor.

405.10 Wet Conditions. Landings subject to wet conditions shall be designed to prevent the accumulation of water. 407 Elevators

407.1 General. Elevators shall comply with Section 407 and ASME A17.1 listed in Section 105.2.5. Elevators shall be passenger elevators as classified by ASME A17.1. Elevator operation

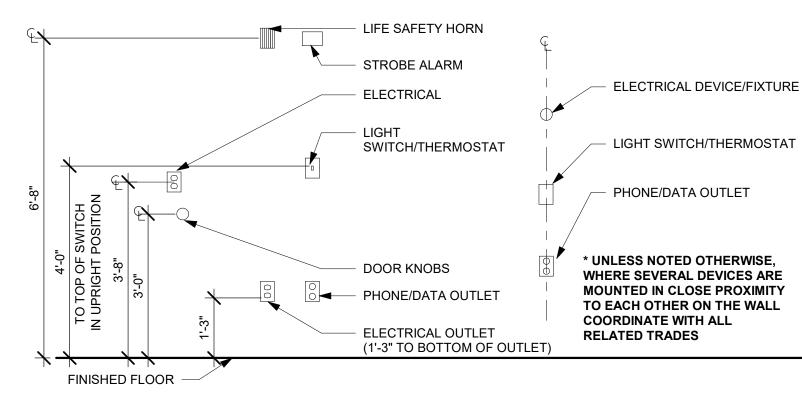
407.2 Elevator Landing Requirements. Elevator landings shall comply with Section 407.2.

**407.2.1 Call Controls.** Where elevator call buttons or keypads are provided, they shall comply with Sections 407.2.1 and 309.4. Call buttons shall be raised or flush. Objects beneath hall call buttons shall protrude 1 inch (25 mm) maximum.

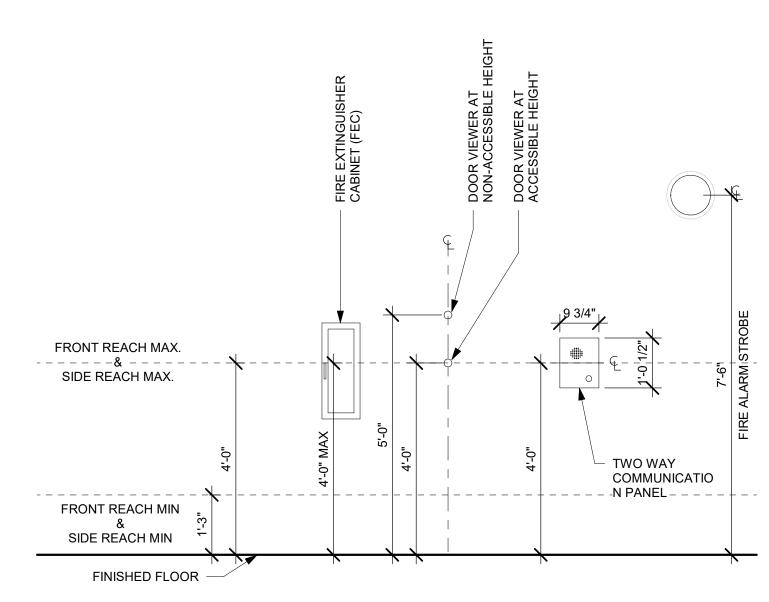
**407.2.1.1 Height.** Call buttons and keypads shall be located within one of the reach ranges specified in Section 308, measured to the centerline of the highest operable part.

407.2.1.2 Size. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension.

407.2.1.3 Clear Floor Space. A clear floor space complying with Section 305 shall be provided



PROVIDE SOLID. IN WALL BLOCKING FOR HANDRAILS, LIGHT FIXTURES, COUNTERTOPS, MIRRORS, AND SIMILAR ITEMS. SEE FINISH SCHEDULE IN SPECIFICATION FOR FINISHES.



STANDARD MOUNTING HEIGHTS 1/2" = 1'-0" \ **A** 1 **ARCHITECT** 

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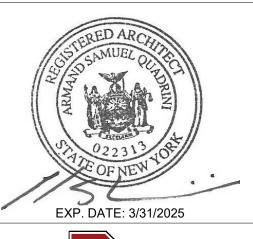
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BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION SED# 66-12-01-06-0-007-017

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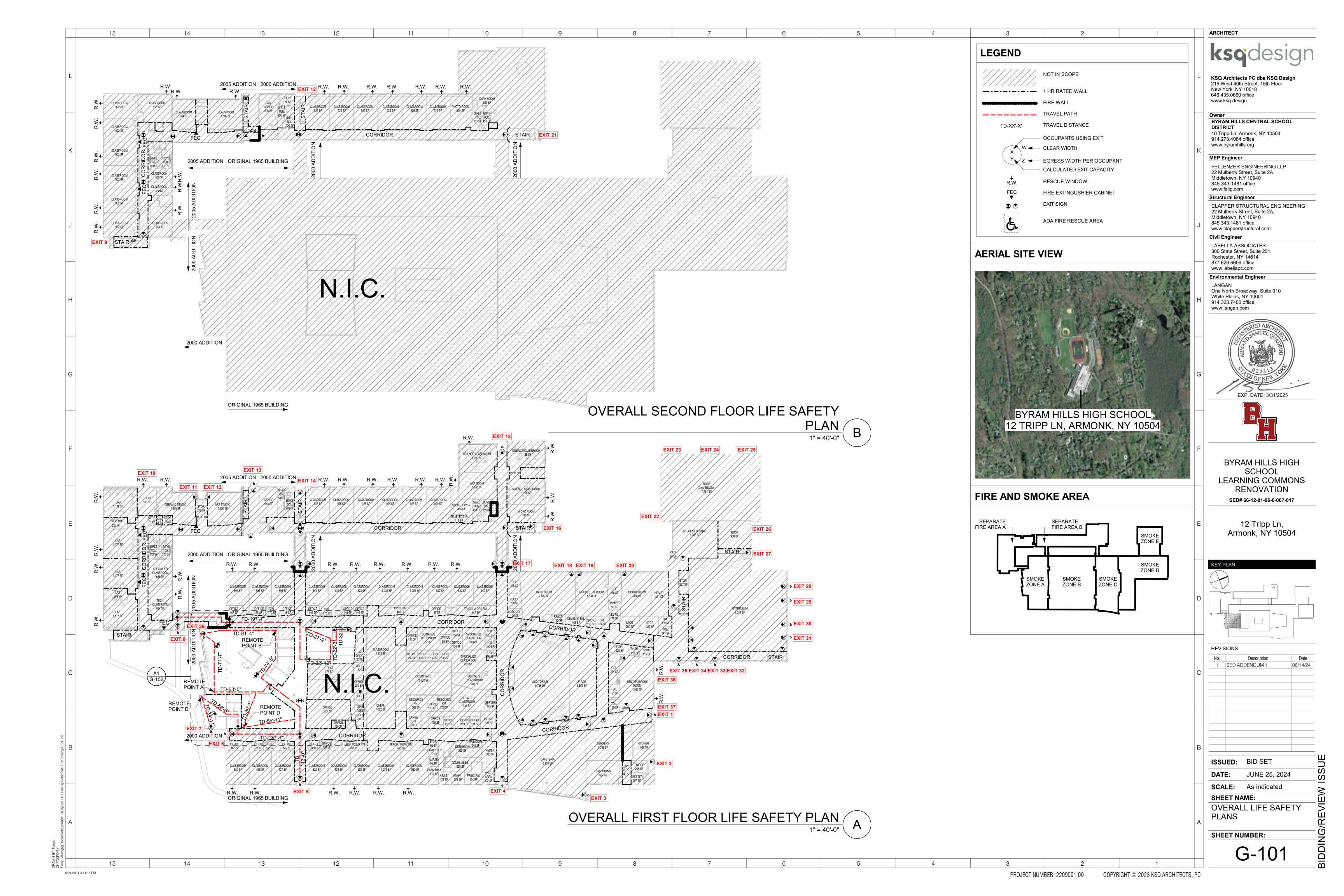
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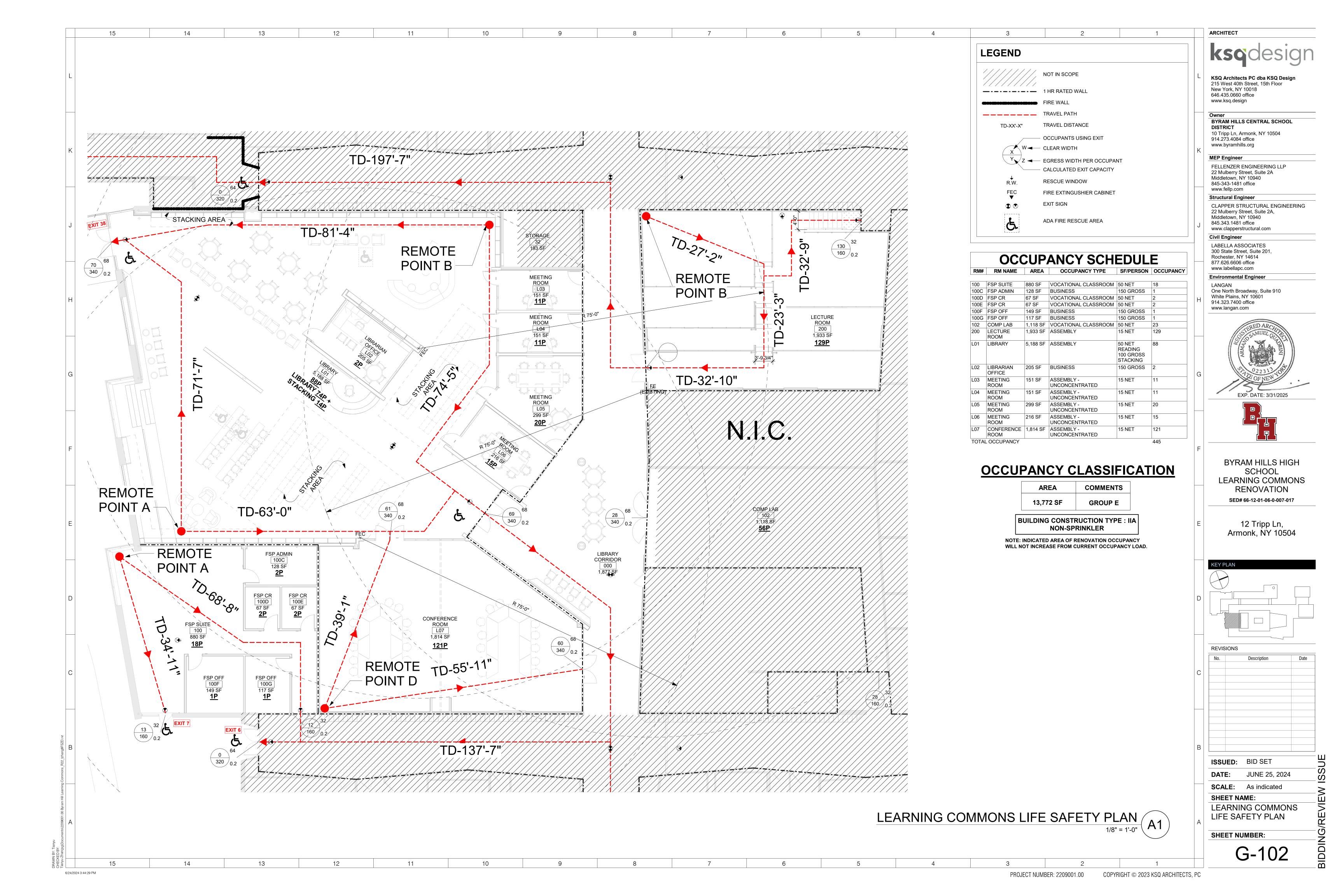
**ISSUED**: BID SET **DATE:** JUNE 25, 2024 **SCALE:** 1/2" = 1'-0" **SHEET NAME:** 

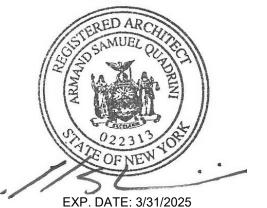
ACCESSIBILITY COMPLIANCE DIAGRAMS AND STANDARD MOUNTING HEIGHTS

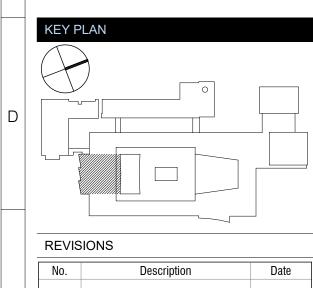
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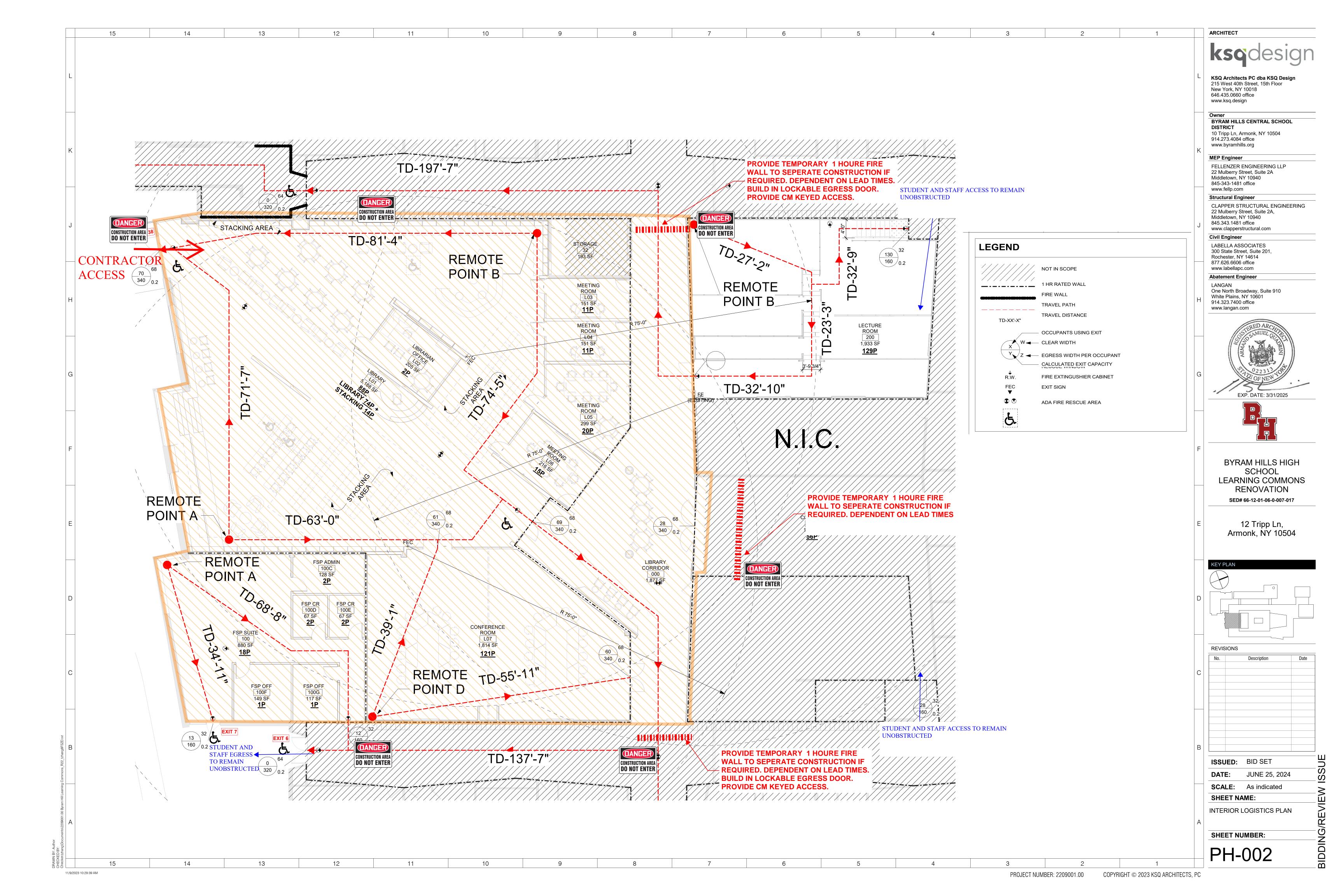
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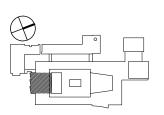
#### **ASBESTOS ABATEMENT GENERAL NOTES**

#### **GENERAL NOTES:**

- 1. ALL ASBESTOS REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAW, GUIDELINES, REGULATIONS, ORDERS AND DIRECTIVES, INCLUDING WITHOUT LIMITATIONS, THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), AND U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH), AND NEW YOK STATE DEPARTMENT OF LABOR (NYSDOL).
- 2. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, SERVICES, ETC., NECESSARY TO PERFORM THE WORK REQUIRED FOR ASBESTOS ABATEMENT IN ACCORDANCE WITH CONTRACT DOCUMENTS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
- 3. CONTRACTOR SHALL DEVELOP AND IMPLEMENT A WRITTEN STANDARD PROCEDURE FOR ABATEMENT WORK TO ENSURE MAXIMUM PROTECTION AND SAFEGUARD FROM ASBESTOS EXPOSURE OF THE WORKERS, VISITORS, EMPLOYEES, GENERAL PUBLIC, AND THE ENVIRONMENT.
- 4. CONTRACTOR SHALL PROVIDE SIGNS, LABELS, WARNINGS, AND POST INSTRUCTIONS THAT ARE NECESSARY TO PROTECT, INFORM AND WARN PEOPLE OF THE HAZARD FROM ASBESTOS EXPOSURE. POST IN A PROMINENT AND CONVENIENT PLACE FOR THE WORKERS A COPY OF THE LATEST APPLICABLE REGULATIONS FROM OSHA, EPA, NIOSH AND NYSDOL.
- 5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATION.
- THE CONTRACTOR SHALL RELOCATE ALL FURNITURE, LOCKERS, DESKS AND OTHER MISC. ITEMS IN AND OUT OF THE WORK AREAS TO ACCOMODATE ASBESTOS ACTIVITIES, IF THE SCHOOL DOES NOT PROVIDE.
- 7. THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL, WATER, AND WASTE CONNECTIONS, TIE-INS. EXTENSIONS, CONSTRUCTION MATERIALS, SUPPLIES, ETC. AS REQUIRED TO FACILITATE ASBESTOS REMOVAL. IF THE SCHOOL DOES NOT PROVIDE.
- 8. CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRIC AND LIGHT THROUGHOUT THE WORK AREA(S) AS REQUIRED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND CODES.
- 9. CONTRACTOR SHALL PROPERLY PROTECT ALL CONTROLS, TUBING, ELECTRICAL PANELS, EQUIPMENT, ETC. WITHIN THE WORK AREA.
- 10. THE CONTRACTOR SHALL BE REQUIRED TO ISSUE NON-WHITE WORK COVERALLS FOR ALL ABATEMENT WORKERS.
- 11. CONTRACTOR SHALL EXERCISE EXTREME CARE AND CAUTION DURING ANY AND ALL DEMOLITION AND ABATEMENT OPERATIONS. CONTRACTOR SHALL CONDUCT REMOVAL OF ALL MATERIALS FROM THE SITE WITH MINIMUM DISTURBANCE: PROVIDE PROPER PROTECTION AND REGULAR MAINTENANCE OF ALL BUILDING PREMISES DIRECTLY OR INDIRECTLY ASSOCIATED WITH ABATEMENT OPERATIONS.
- 12. THE CONTRACTOR SHALL USE A WATER SPRAYER TO WET ASBESTOS CONTAINING MATERIALS INSIDE THE WORK AREA.
- 13. CONTRACTOR SHALL CONSTRUCT A PERSONAL/WASTE DECONTAMINATION ENCLOSURE SYSTEM (P./W.D.E.S.) AS INDICATED. IT SHALL BE OF SUFFICIENT SIZE TO ACCOMMODATE STORAGE OF MATERIALS, EQUIPMENT, ETC.

- 14. IF WATER IS NOT AVAILABLE, THE CONTRACTOR SHALL PROVIDE A 55 GALLON WATER TANK FOR THE DECONTAMINATION UNIT.
- 15. THE CONTRACTOR SHALL UTILIZE GFCI PANEL CONNECTIONS AT THE SOURCE OUTLET WHEN ACCESSING TEMPORARY POWER.
- 16. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE TEMPORARY WATER AND POWER SOURCES PRIOR TO ABATEMENT ACTIVITIES.
- 17. DEBRIS RESULTING FROM ANY DEMOLITION AND/OR ASBESTOS ABATEMENT ACTIVITIES SHALL BE DISPOSED OF AS ASBESTOS CONTAMINATED WASTE.
- 18. NO WASTE SHALL BE STORED ON SITE OR INSIDE THE DECONTAMINATION UNIT BETWEEN SHIFTS. WASTE SHALL BE DOUBLE BAGGED BEFORE PROCEEDING TO THE CONTAINER AND/OR DECON. BAGS WILL BE MOVED FROM WORK AREAS TO THE WASTE DECON AND SUBSEQUENTLY TO THE CONTAINER IN COVERED CARTS, BAGS WILL BE CARRIED BY HAND ONLY WHEN NECESSARY, ALL WASTE SHALL BE CONTAINERIZED AT THE END OF EACH WORK SHIFT BEFORE RELINQUISHING TO WASTE HAULER.
- 19. CONTRACTOR IS RESPONSIBLE TO COORDINATE AND CONFIRM THE EXACT SCOPE OF WORK, AND QUANTITY FOR EACH PHASE OF ABATEMENT WITH THE GENERAL CONTRACTOR AND OTHER TRADES.
- 20. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, TOOLS, TRANSPORTATION AND ANY OTHER EQUIPMENT REQUIRED AND/OR NECESSARY TO COMPLETE ALL WORK DESCRIBED IN THE CONTRACT DOCUMENTS.

KEY PLAN	
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**ENVIRONMENTAL CONSULTANT** 

#### Langan Engineering, Environmental, Surveying One North Broadway, Suite 910

White Plains NY 10601 T: 914.323.7400 F: 914.323.7401 www.langan.com



NUMBER	DESCRIPTION	DATE
1		
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**BRYAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION** 12 TRIPP LANE. ARMONK, NY 10504

DRAWING TITLE

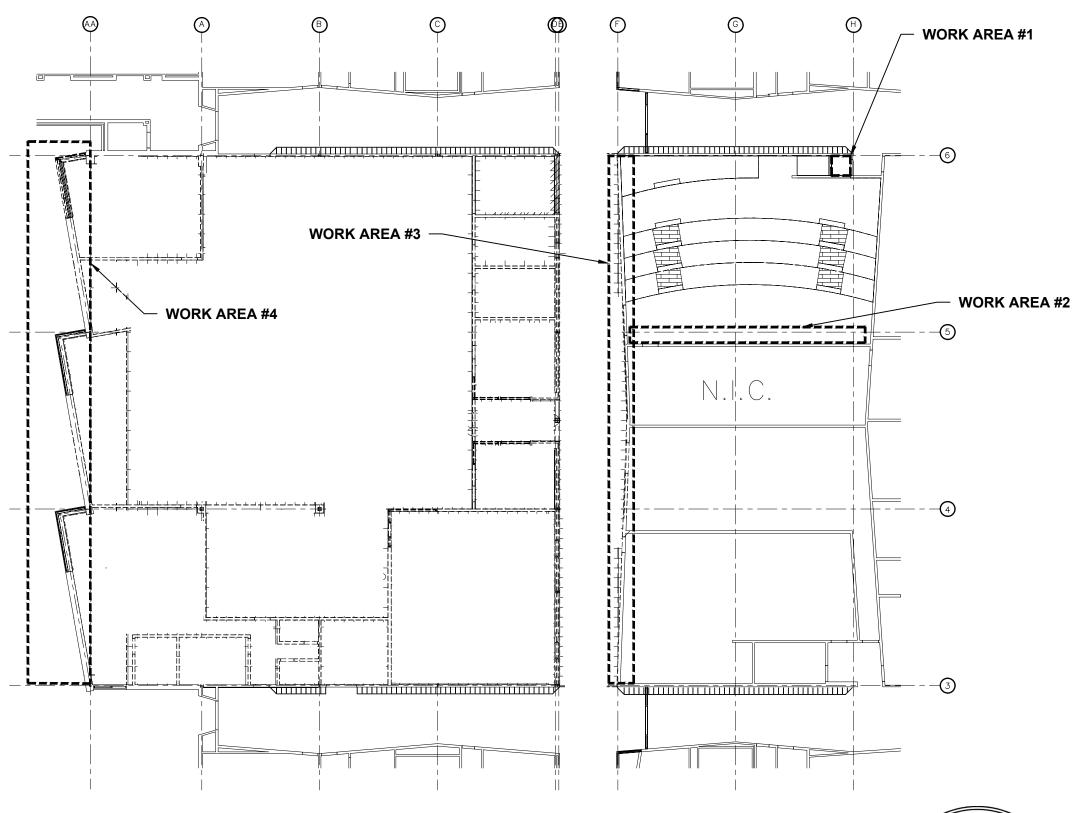
**ASBESTOS ABATEMENT GENERAL NOTES** 

RESTREPO, J. SCALE: NOT TO SCALE RAWN BY: ROJ. DESIGNER: R. MASONE DATE: C. NAPOLITANO DRAWING NUMBER: HECKED BY:

H-001.00

DRAWING **DRAWING NAME** H-001.00 **ASBESTOS ABATEMENT - GENERAL NOTES** H-002.00 ASBESTOS ABATEMENT - FIRST FLOOR PLAN





WORK AREA	LOCATION	ASBESTOS-CONTAINING MATERIAL	APPROXIMATE QUANTITY	REMOVAL PROCEDURES
1	Lecture Hall	9"x9" Floor Tile & Mastic	+/- 15 square feet (or as per the final scope of work)	NYSDOL 12 NYCRR Part 56- 11.7 Non-Friable and/or Mastic Removal
2	Lecture Hall	Beam and Door Caulking	+/- 100 linear feet (or as per the final scope of work)	NYSDOL 12 NYCRR Part 56-
3	Hallway outside Lecture Hall and Tech Labs	Faux Wood Wall Panel Glue	+/- 110 linear feet (or as per the final scope of work)	7.11 (1)(i) NEGATIVE PRESSURE TENT
4	Exterior of Library South Façade	Waterproofing Behind Masonry Brick	+/- 600 square feet (or as per the final scope of work)	NYSDOL 12 NYCRR Part 56- 11.6 Exterior Project Removal of Non-Friable ACM Roofing, Siding, Caulking, Glazing, Transite and other NOB

LEGEND

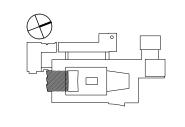
WORK AREA BOUNDARY



DESIGNER: ROBERT S. MASONE, P.E. LIC. # 084951



KEY PLAN



ENVIRONMENTAL CONSULTANT

## LANGAN Langan Engineering, Environmental, Surveying,

angan Engineering, Environmentai, Surveyin Landscape Architecture and Geology, D.P.C One North Broadway, Suite 910 White Plains, NY 10601

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BRYAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION 12 TRIPP LANE, ARMONK, NY 10504

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FIRST FLOOR DEMO REFLECTED
CEILING PLAN

VEIZING I ET III				
DRAWN BY:	RESTREPO, J.	SCALE:	NOT TO SCALE	
PROJ. DESIGNER:	R. MASONE	DATE:	10/27/2023	
CHECKED BY:	C. NAPOLITANO	DRAWIN	G NUMBER:	

H-002.00

2 of 2

#### **DESIGN DATA:**

STRUCTURAL DESIGN HAS BEEN PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS: A) 2020 NEW YORK STATE BUILDING CODE B) ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE C) AISC, MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, 14TH ED.

1. DEAD LOADS

SELF WEIGHT + ROOF: 10 PSF CEILING: 10 PSF FLOOR: 15 PSF

2. LIVE LOADS FLOOR - 100 PSF

3. WIND LOADS BASIC WIND SPEED: 115 MPH (3-second gust) RISK CATEGORY: III **EXPOSURE CATEGORY: B** 

4. SNOW LOADS

**GROUND SNOW LOAD: 30 PSF** DESIGN FLAT ROOF SNOW LOAD: 30 PSF

5. SEISMIC

4/26/2024 11:14:44 AM

RISK CATEGORY: III SITE CLASS: D Sds: 0.295g Sd1: 0.096g SEISMIC DESIGN CATEGORY: B

**GENERAL INFORMATION** 

(UNLESS OTHERWISE NOTED OR SHOWN ON PLAN, THE FOLLOWING SHALL APPLY)

"LOADS" INDICATED ON THIS DRAWING ARE THOSE FOR THE DESIGN OF THE **BUILDING SUPERSTRUCTURE** 

- ALL DETAILS MARKED "TYPICAL" IN THE SET OF STRUCTURAL DRAWINGS SHALL BE APPLIED THROUGHOUT THE PROJECT AS REQUIRED TO SATISFY THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL COORDINATE REQUIREMENTS FOR QUANTITY AND LOCATION WHERE THE "TYPICAL" DETAILS APPLY.
- 2. FAILURE ON THE PART OF THE CONTRACTOR TO REVIEW THE DRAWINGS OF OTHER DISCIPLINES (i.e. ARCHITECTURAL, MECHANICAL, ELECTRICAL PLUMBING, ETC.) TOGETHER WITH THE FULL EXTENT OF THE PROJECT SPECIFICATIONS DOES NOT RELIEVE THEM OF THE RESPONSIBILITY TO FURNISH AND INSTALL ITEMS THAT ARE PART OF THEIR WORK AS INDICATED BY THE DRAWINGS AND SPECIFICATIONS OF OTHER TRADES. ALL STRUCTURAL TRADE CONTRACTORS AND SUB-CONTRACTORS ARE PROHIBITED FROM EXCLUDING STRUCTURAL WORK FROM THEIR CONTRACT NOT SHOWN IN THE STRUCTURAL DRAWINGS.
- ALL CONTRACTORS AND SUBCONTRACTORS WORKING ON THIS PROJECT TO HAVE A MINIMUM OF 5 YEARS VERIFIABLE EXPERIENCE IN THEIR RESPECTIVE FIELDS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO ORDERING AND PRE-FABRICATED ITEMS, INCLUDED BY NOT LIMITED TO: TRUSSES, SIPS, PLANK AND STEEL.
- DRAWINGS MAY NOT BE SCALED. USE NOTES AND DIMENSIONS SPECIFIED ON DRAWINGS AND CONFIRM THESE DIMENSIONS WITHIN FIELD MEASUREMENTS DURING CONSTRUCTION.
- DISCREPANCIES, OMISSIONS OR UNFORESEEN PROBLEMS DISCOVERED AT SITE SHALL BE REPORTED TO THE ENGINEER FOR IMMEDIATE CONSULTATION AND AMENDMENT.
- 7. TEMPORARY SHORING AND SHORING OF EXCAVATION IS BY OTHERS. THESE DRAWINGS SHOW FINAL CONDITIONS ONLY.

STRUCTURAL STEEL GENERAL NOTES (UNLESS OTHERWISE NOTED OR SHOWN ON PLAN, THE FOLLOWING SHALL APPLY)

- STRUCTURAL STEEL SHALL CONFORM TO THE A.I.S.C. STEEL CONSTRUCTION MANUAL 14TH EDITION.
- UNLESS OTHERWISE NOTED, ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS.

MEMBER	A.S.T.M.	MIN. STRENGTH
ROLLED SHAPES	A992	50 KSI
BASE PLATES	A572	42 KSI
PLATES, CHANNELS, & ANGLES	A36	36 KSI
CONNECTION BOLTS	A325	92 KSI
ANCHOR BOLTS	F1554	
THREADED BOLTS	A36	36 KSI
NON-SHRINK GROUT	C1107	8,000

- WELDING SHALL BE IN ACCORDANCE WITH A.W.S. D1.1 USING E70XX ELECTRODES UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS MINIMUM SIZED FILLET WELDS PER A.I.S.C. REQUIREMENTS. FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 58 K.S.I.
- MOMENT CONNECTIONS DENOTED THUS (▶) ON PLAN. SEE TYPICAL DETAILS.
- HOLES IN STEEL BEAMS SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED.
- THE STRUCTURAL STEEL ERECTOR SHALL PROVIDE TEMPORARY GUYING AND BRACING AS REQUIRED. COLUMNS, ANCHOR BOLTS, BASE PLATES, ETC. HAVE BEEN DESIGNED FOR THE FINAL COMPLETE CONDITION, AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND CONSTRUCTION. ANY INVESTIGATION OF THE COLUMNS, ANCHOR BOLTS, FRAMING, ETC. FOR ADEQUACY DURING THE STEEL ERECTION AND CONSTRUCTION PROCESS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

#### COLD FORMED STEEL GENERAL NOTES

PAINT.

(UNLESS OTHERWISE NOTED OR SHOWN ON PLAN, THE FOLLOWING SHALL APPLY)

- ALL COLD FORMED STEEL FRAMING MEMBERS, THEIR DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" OF THE A.I.S.I. (2001 ED., INCLUDING 2004 SUPPLEMENT)
- ALL FRAMING MEMBERS SHALL BE FORMED FROM STEEL CONFORMING TO ASTM A446 WITH A MINIMUM YIELD STRENGTH AS FOLLOWS: 12, 14, & 16 GAUGE MEMBERS: Fy = 50 KSI (GRADE D) 18 & 20 GAUGE MEMBERS: Fy = 33 KSI (GRADE A)
- 3. ALL FRAMING MEMBERS SHALL BE GALVANIZED WITH A G-6D COATING MEETING THE REQUIREMENTS OF ASTM A525.
- MEMBERS SHALL BE THE MANUFACTURERS STANDARD "C" SHAPED STUDS/JOISTS, HAVE A FLANGE LIP RETURN OF 1/2" AND SATISFY THE MINIMUM PROPERTIES AS PER "MARINO/ WARE", OR APPROVED EQUAL PER MINIMUM REQUIREMENTS AND NOTES ON THIS SHEET.
- THE GAUGE OF ALL TRACKS SHALL BE NO LIGHTER THAN THE FRAMING THAT IS BEING CONNECTED. UNLESS OTHERWISE INDICATED, CONNECT TRACKS TO CONCRETE WITH 0.205" DIA. POWER DRIVEN FASTENERS (WITH 1.25" EMBEDMENT) AT 16" ON CENTER.
- ALL WELDING SHALL BE IN CONFORMANCE WITH AMERICAN WELDING SOCIETY SPECIFICATION D1.3. ALL WELDS SHALL BE TOUCHED UP WITH ZINC RICH

#### STEEL DECKS - GENERAL

- ALL STEEL DECK SHALL BE IN CONFORMANCE WITH THE BUILDING CODE AS WELL AS THE STEEL DECK INSTITUTE (SDI) REQUIREMENTS AND SPECIFICATIONS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, MANUFACTURE, TRANSPORTATION, STORAGE, AND INSTALLATION. STEEL FLOOR DECK SHALL BE AS MANUFACTURED BY VULCRAFT (BASIS OF DESIGN) NEW MILLENNIUM BUILDING SYSTEMS. CANAM. OR AN APPROVED EQUAL.
- 2. ALL STEEL DECK AND DECK ACCESSORIES SHALL CONFORM TO ASTM A653 STRUCTURAL QUALITY, WITH A MINIMUM YIELD STRENGTH OF 33 KSI.
- 3. ALL STEEL TO BE USED FOR DECKING SHALL BE GALVANIZED ACCORDING TO ASTM A924, WITH A MINIMUM COATING CLASS OF G60. SEE DRAWINGS FOR ADDITIONAL GALVANIZING REQUIREMENTS AT EXPOSED LOCATIONS.
- DECK SHEETS SHALL BE PLACED IN ACCORDANCE WITH REVIEWED ERECTION LAYOUT DRAWINGS (INCLUDING FASTENING SCHEDULE) SUPPLIED BY THE DECK MANUFACTURER, AND IN CONFORMANCE WITH THE MANUFACTURER'S STANDARDS.
- ALL STEEL DECK SHALL BE INSTALLED IN THE TRIPLE-SPAN CONDITION, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
- UNLESS NOTED OTHERWISE ON DRAWINGS, PROVIDE 1/4" THICK (BOTTOM) AND 20 GA. (TOP) GALVANIZED STEEL PLATES AT ALL LOCATIONS WHERE DECK CHANGES SLOPE (RIDGES, VALLEYS, HIPS, ETC.) AND WHERE DECK CHANGES SPAN DIRECTION FOR CONTINUOUS EVEN SURFACE.

**ARCHITECT** 

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**BYRAM HILLS CENTRAL SCHOOL** DISTRICT

MEP Engineer

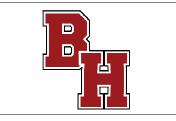
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**Environmental Engineer** 

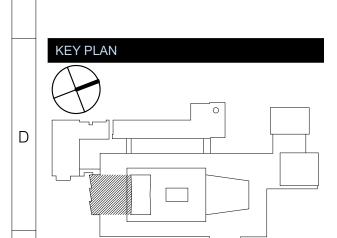
LICENSE EXPIRATION DATE - 02/28/2026



BYRAM HILLS HIGH SCHOOL GLOBAL LEARNING COMMONS

> 12 Tripp Ln, Armonk, NY 10504

SED# 66-12-01-06-0-007-017

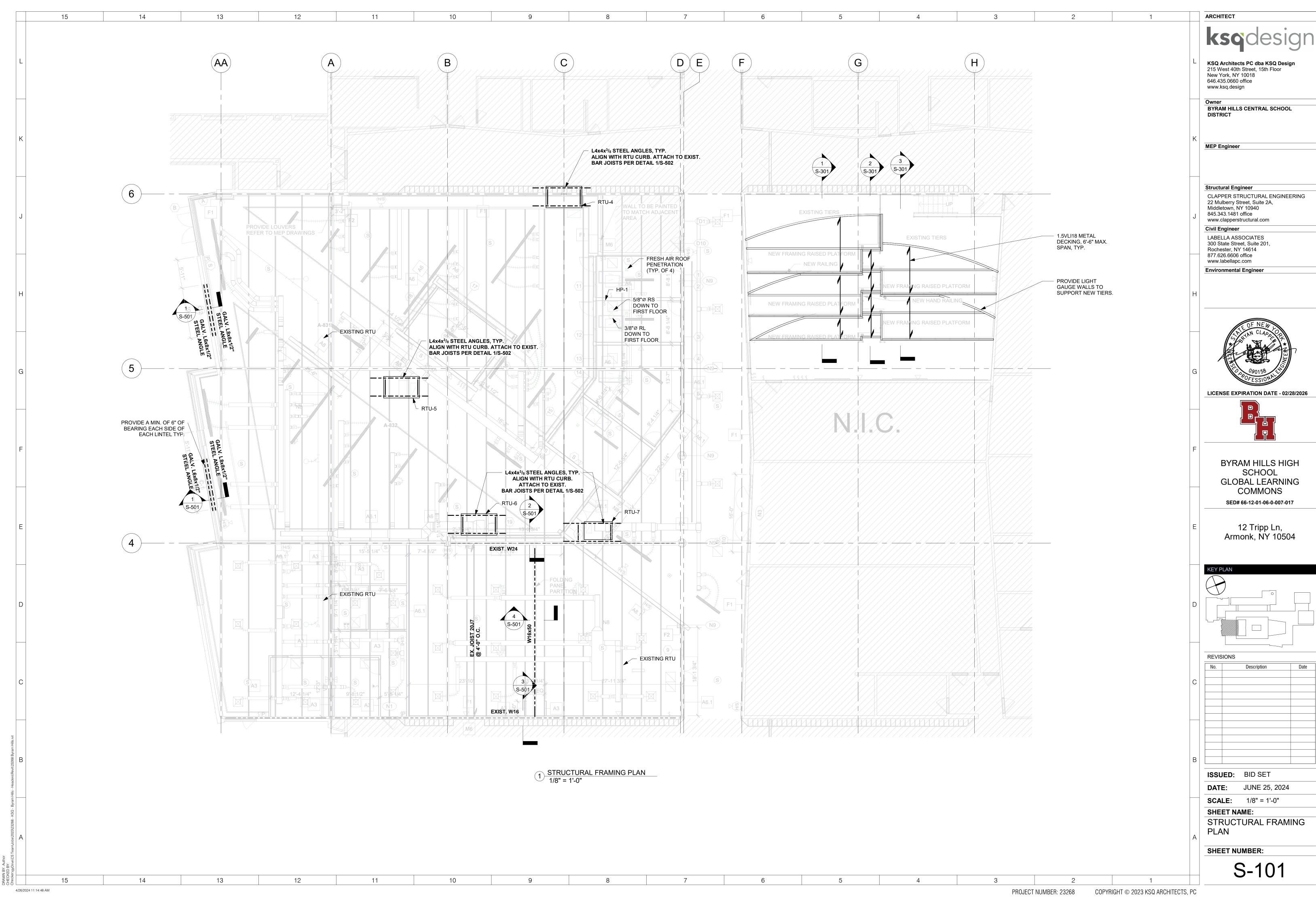


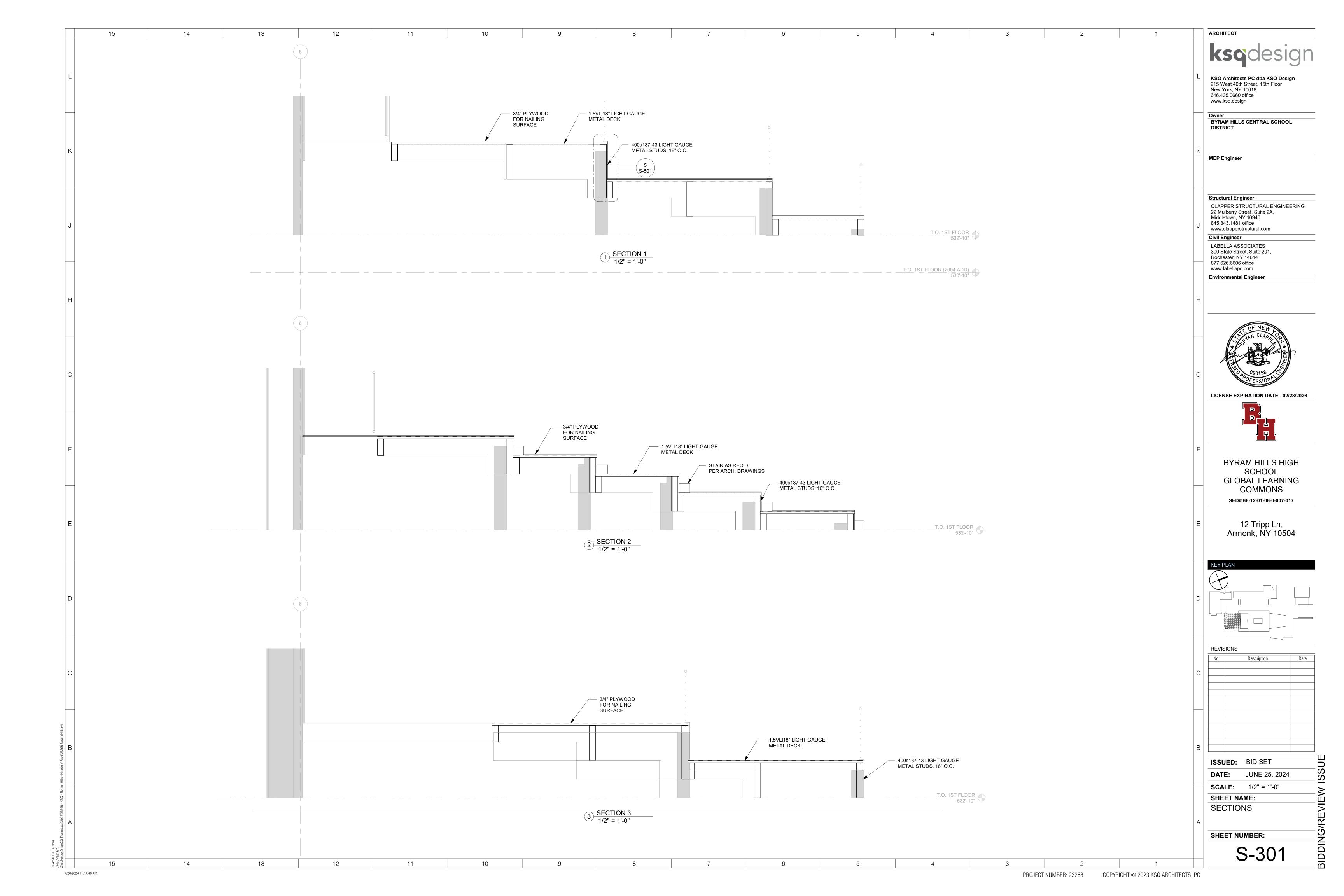
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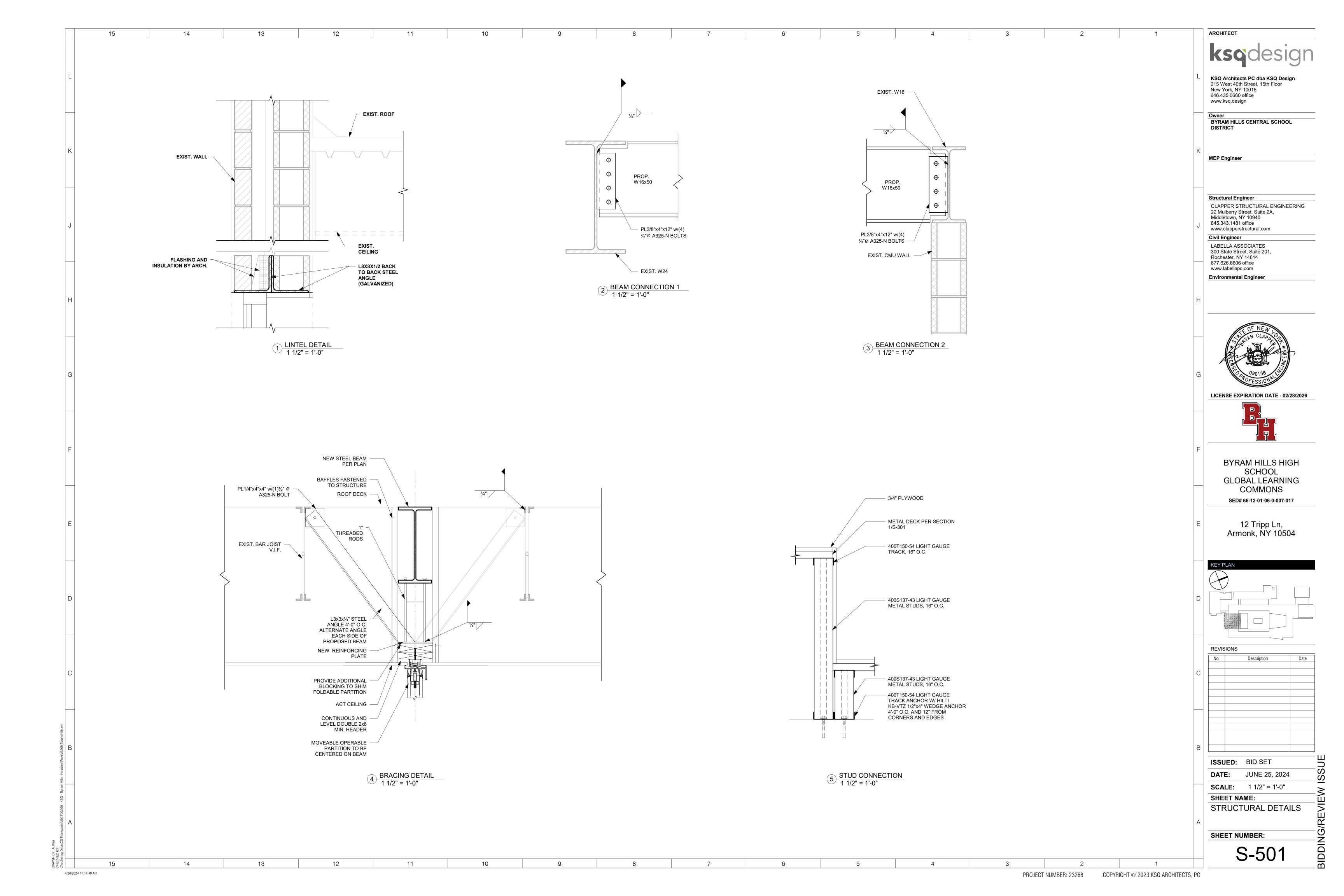
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DATE:	JUNE 25, 2024	
SCALE:		
SHEET NAME:		
STRUCTURAL NOTES		

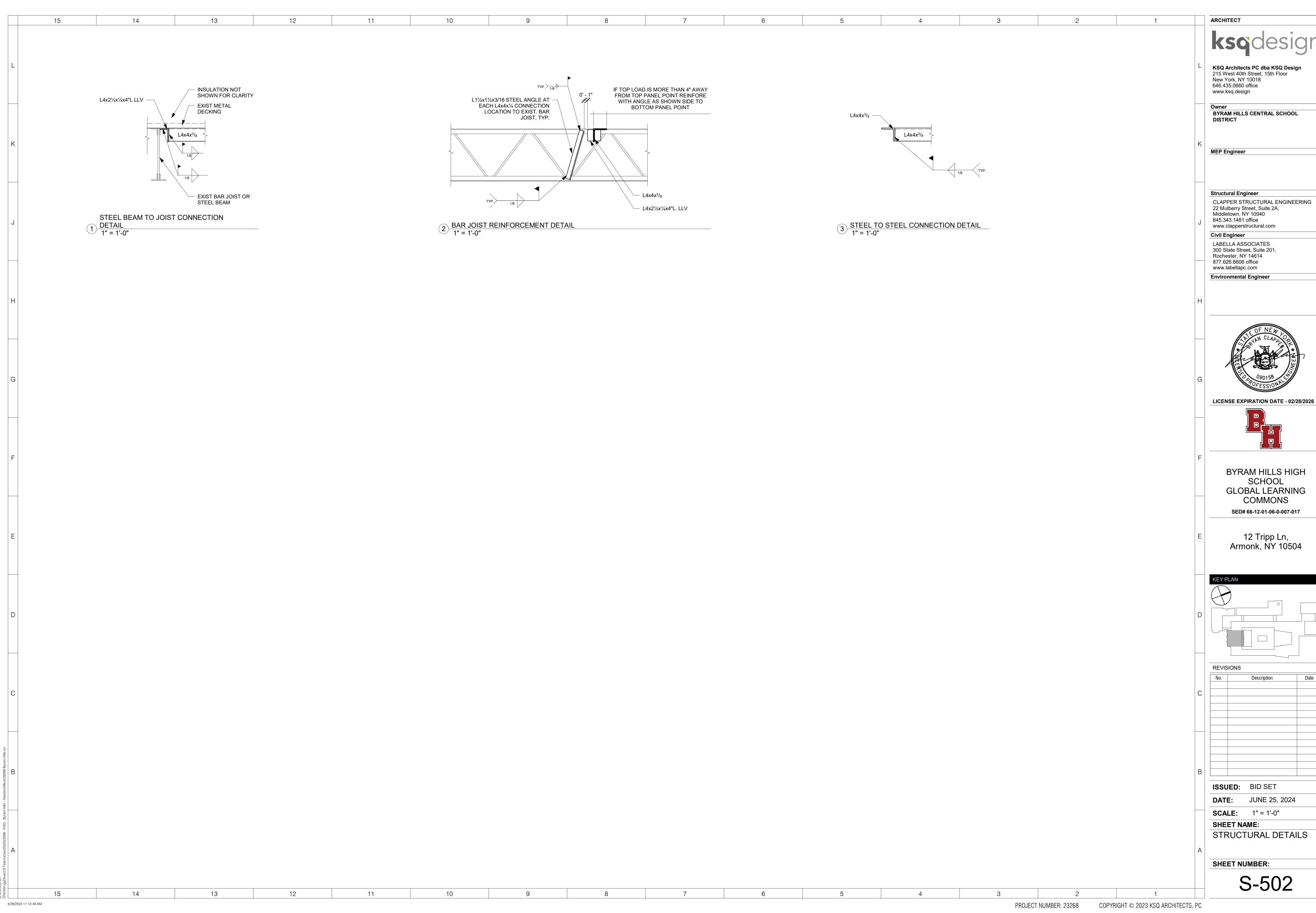
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15 PROJECT NUMBER: 23268 COPYRIGHT © 2023 KSQ ARCHITECTS, PC

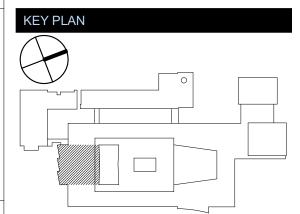


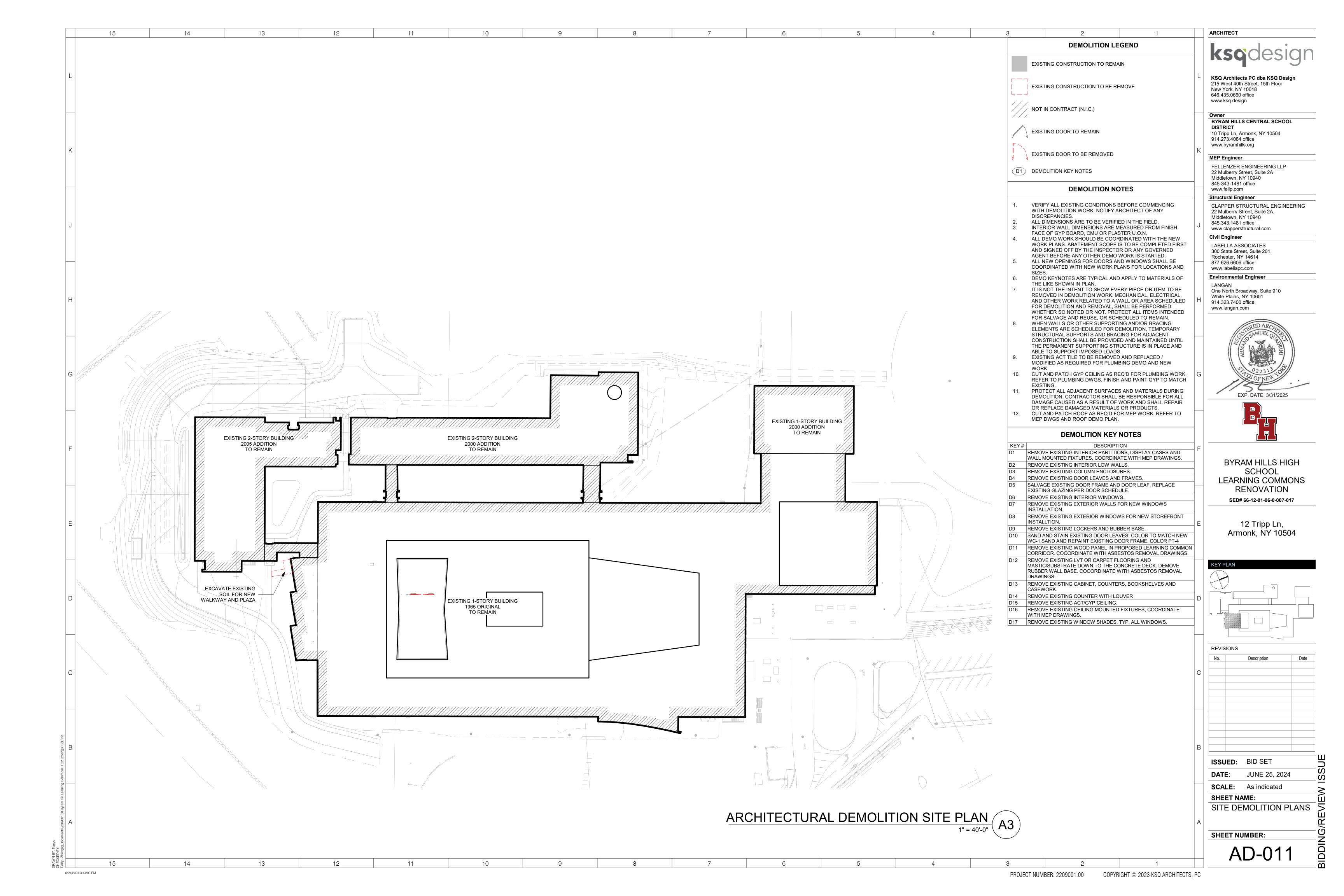


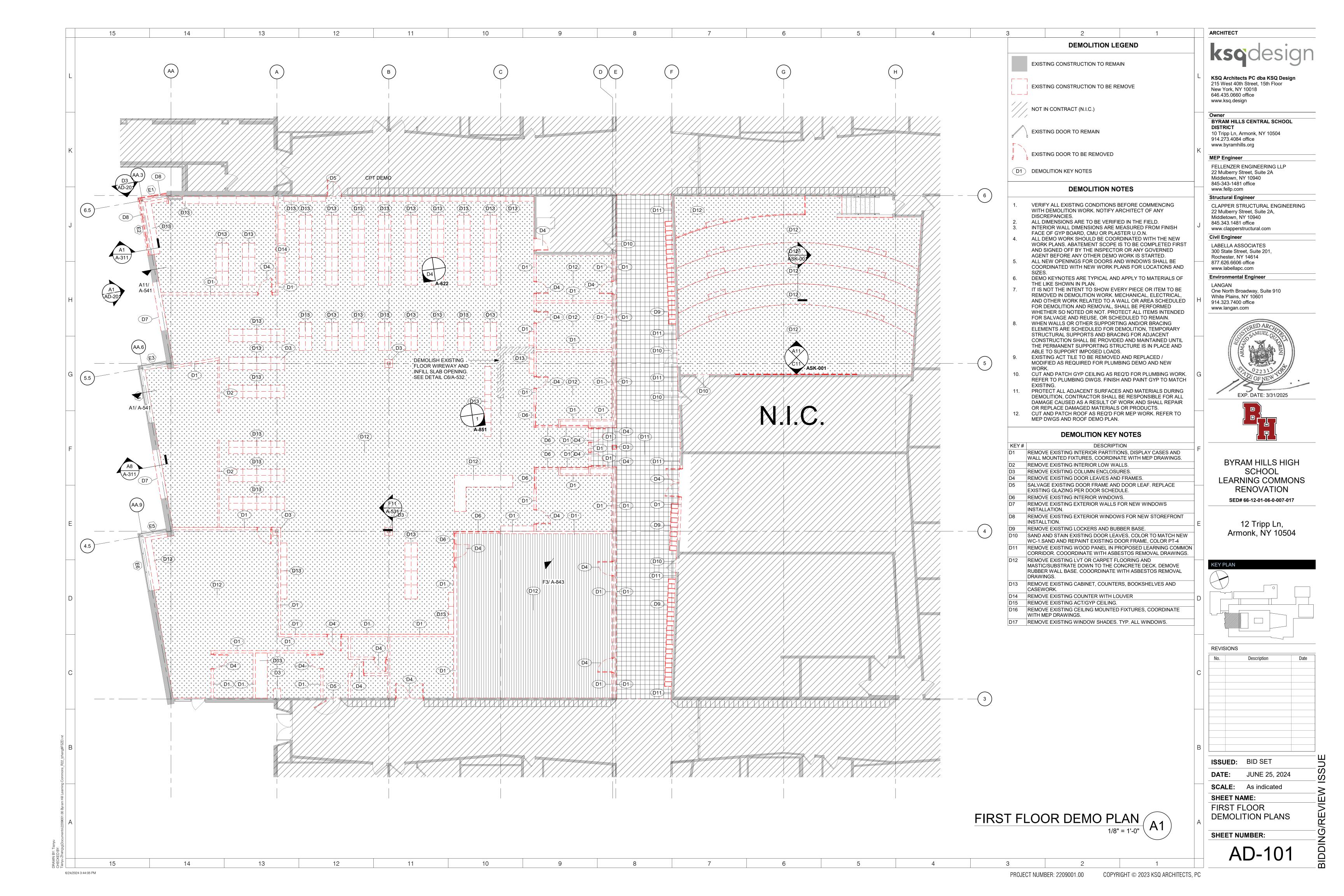


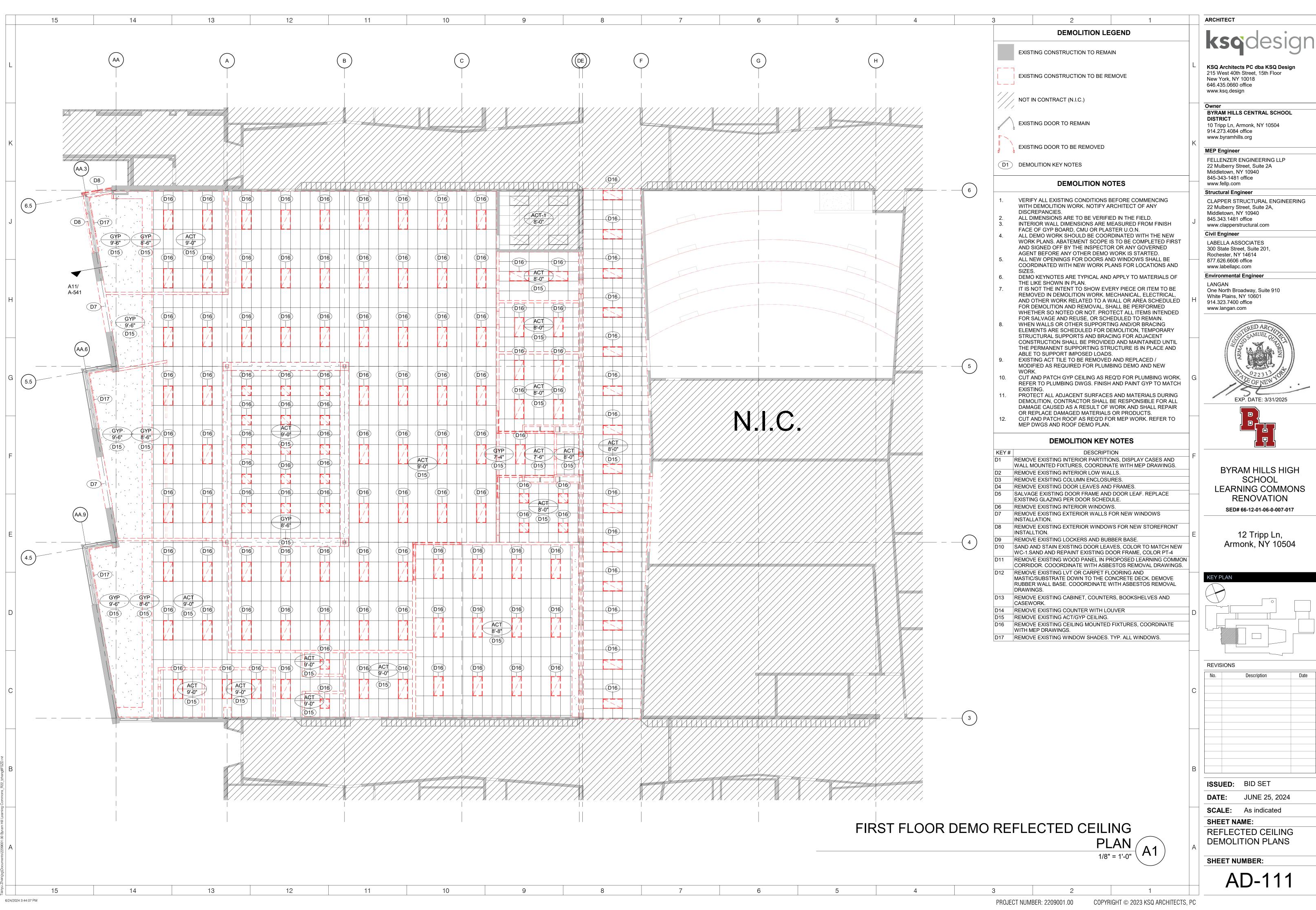


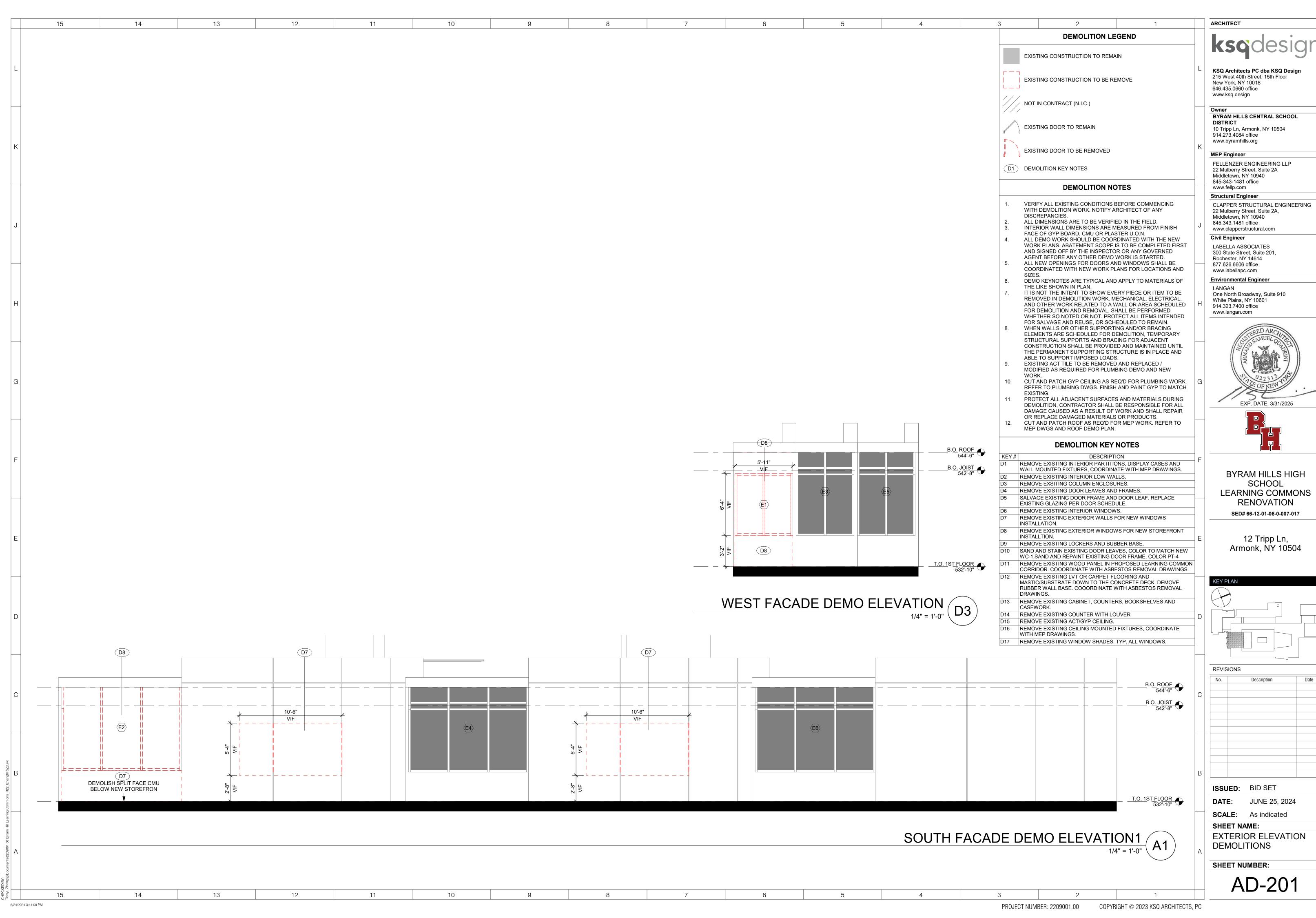
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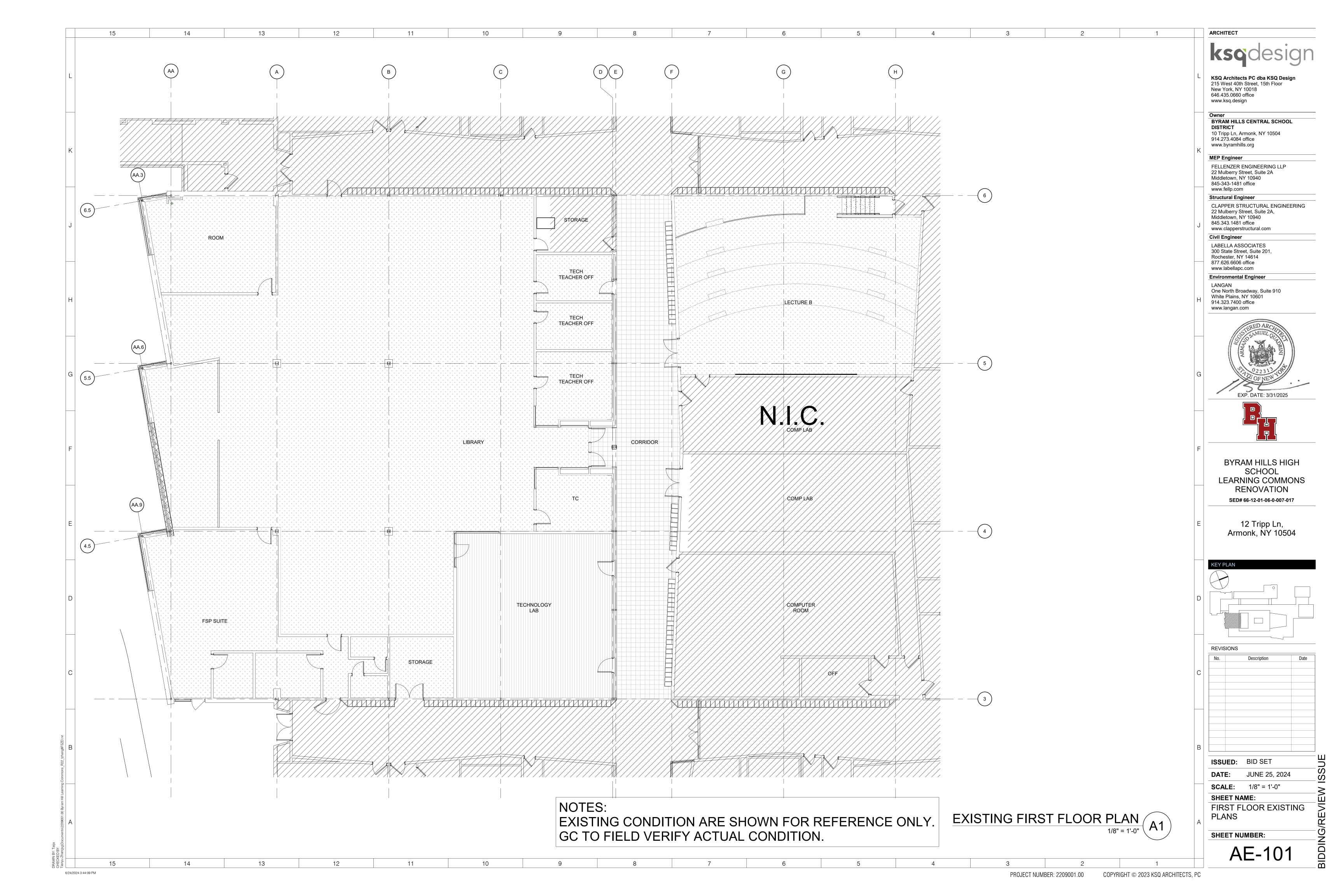


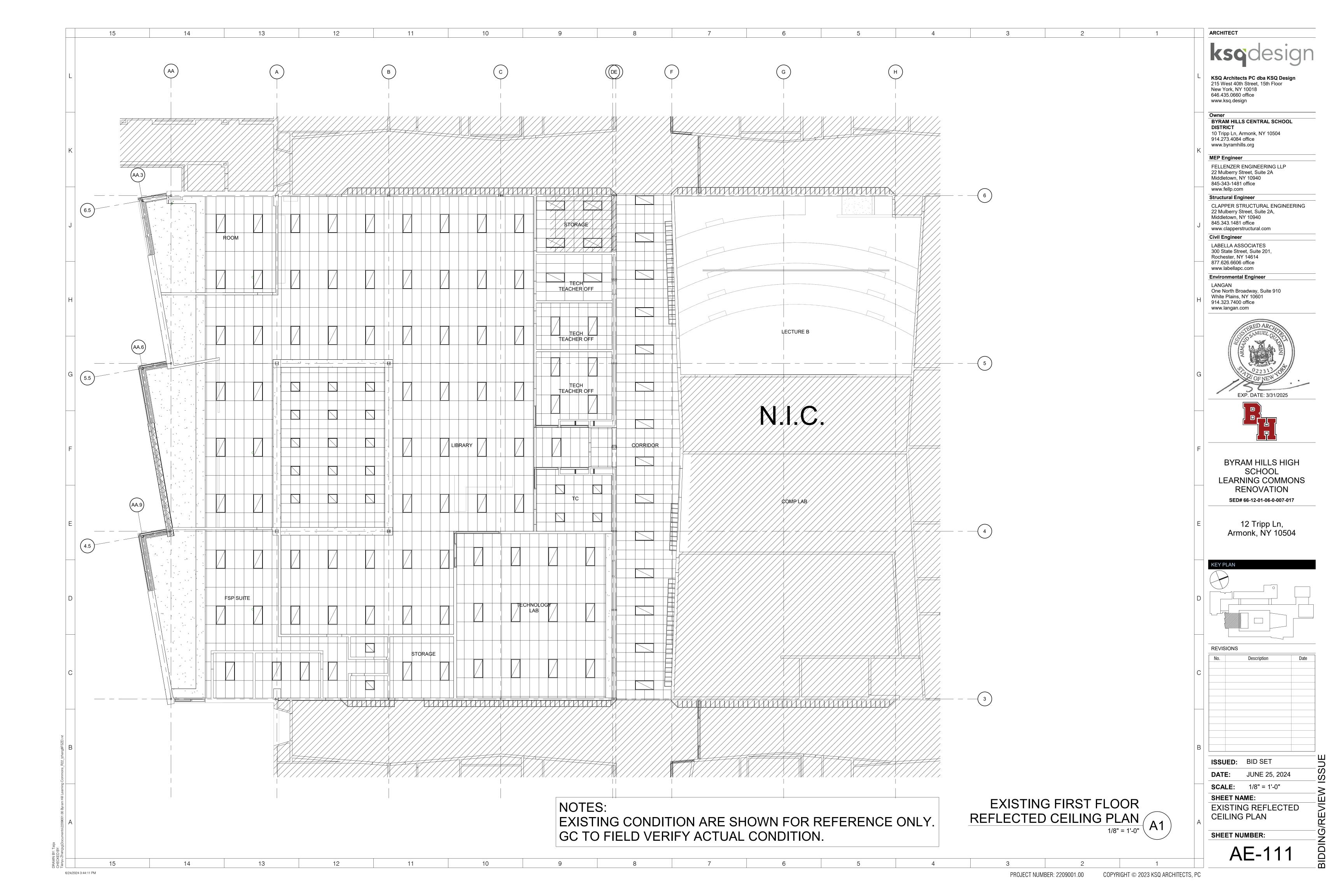


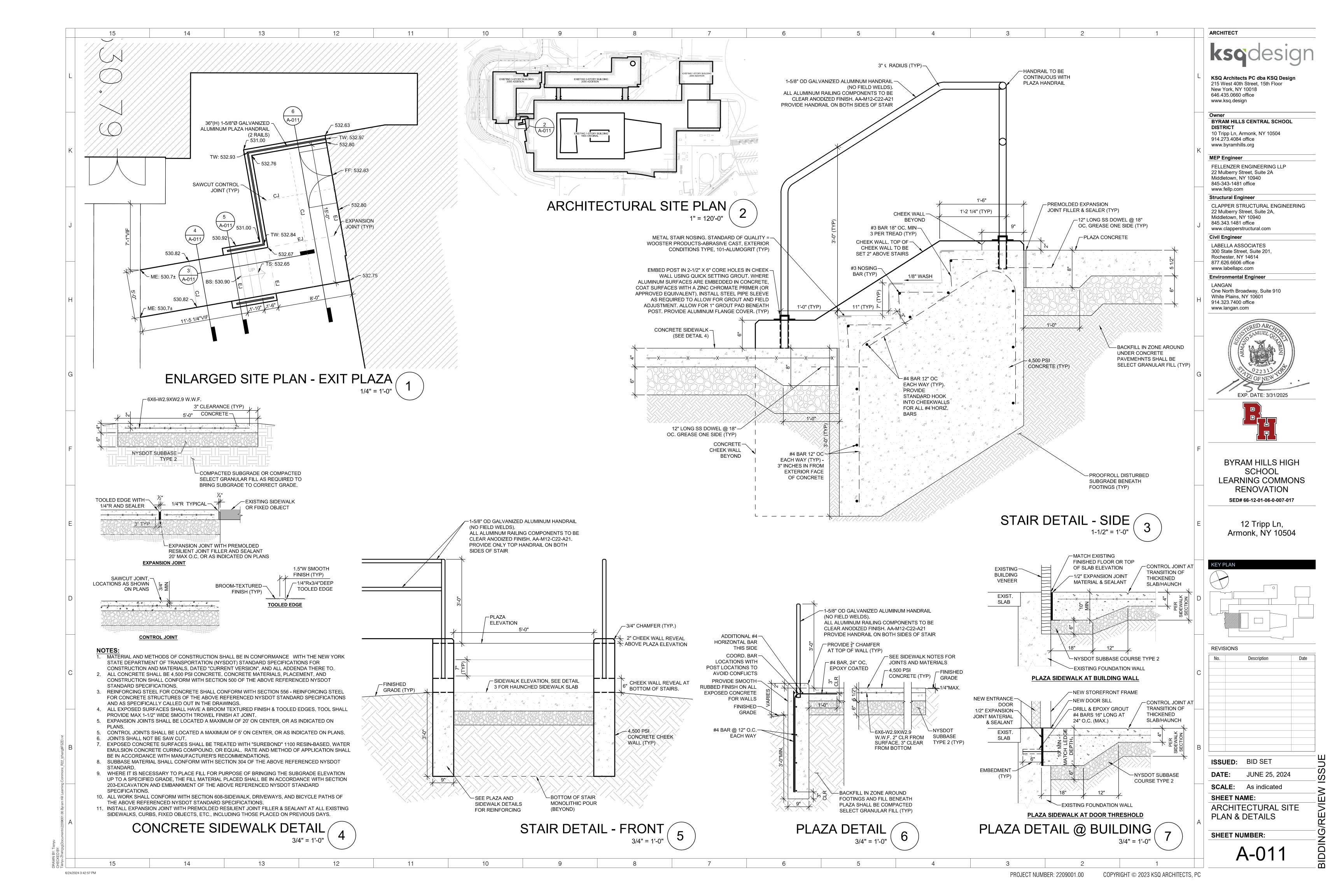


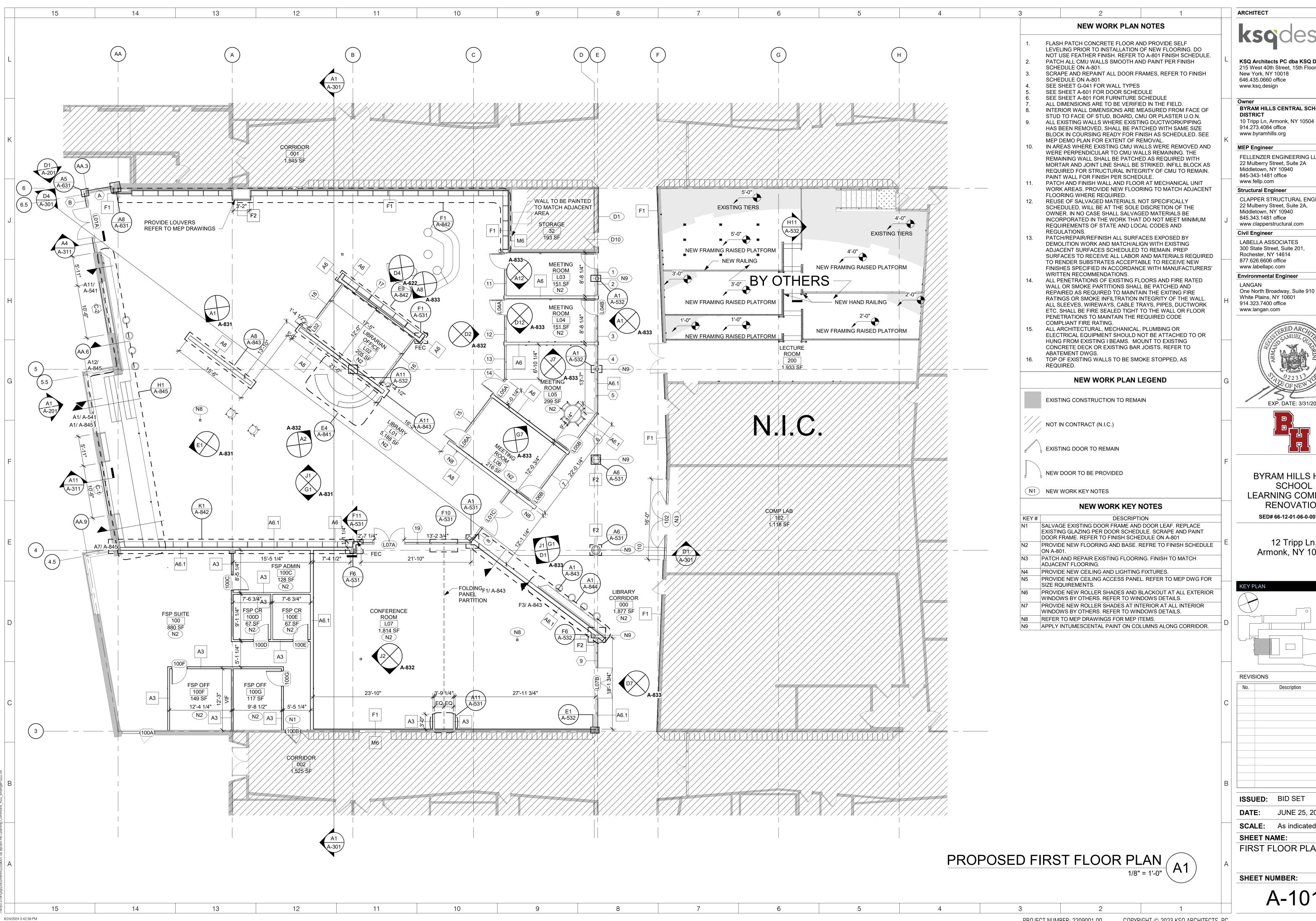












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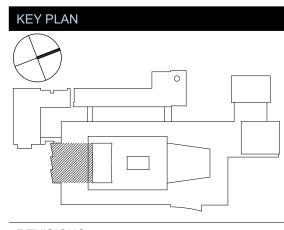
> BYRAM HILLS HIGH SCHOOL LEARNING COMMONS

RENOVATION

EXP. DATE: 3/31/2025

SED# 66-12-01-06-0-007-017

12 Tripp Ln, Armonk, NY 10504



REVISIONS Description

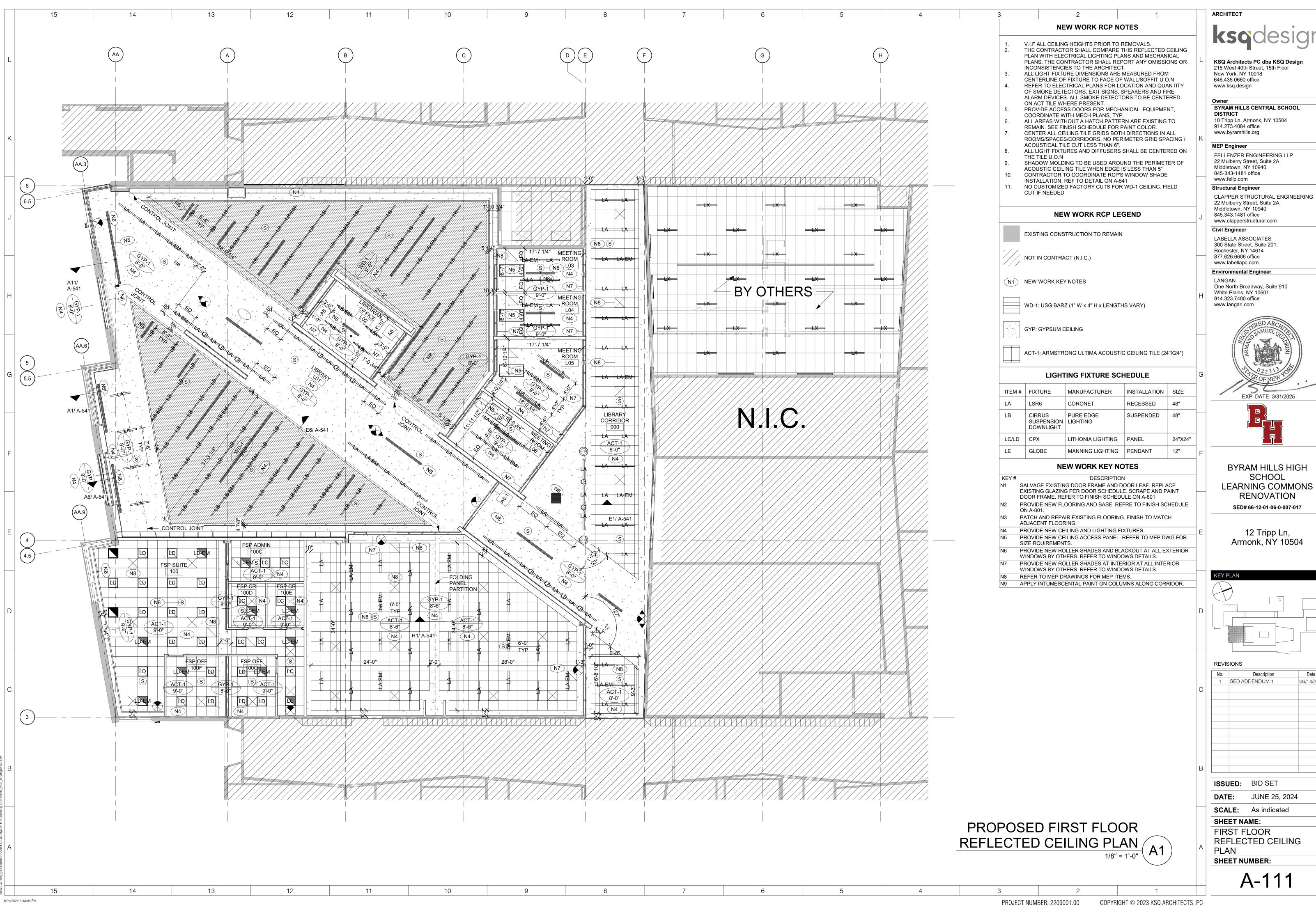
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**SCALE:** As indicated SHEET NAME:

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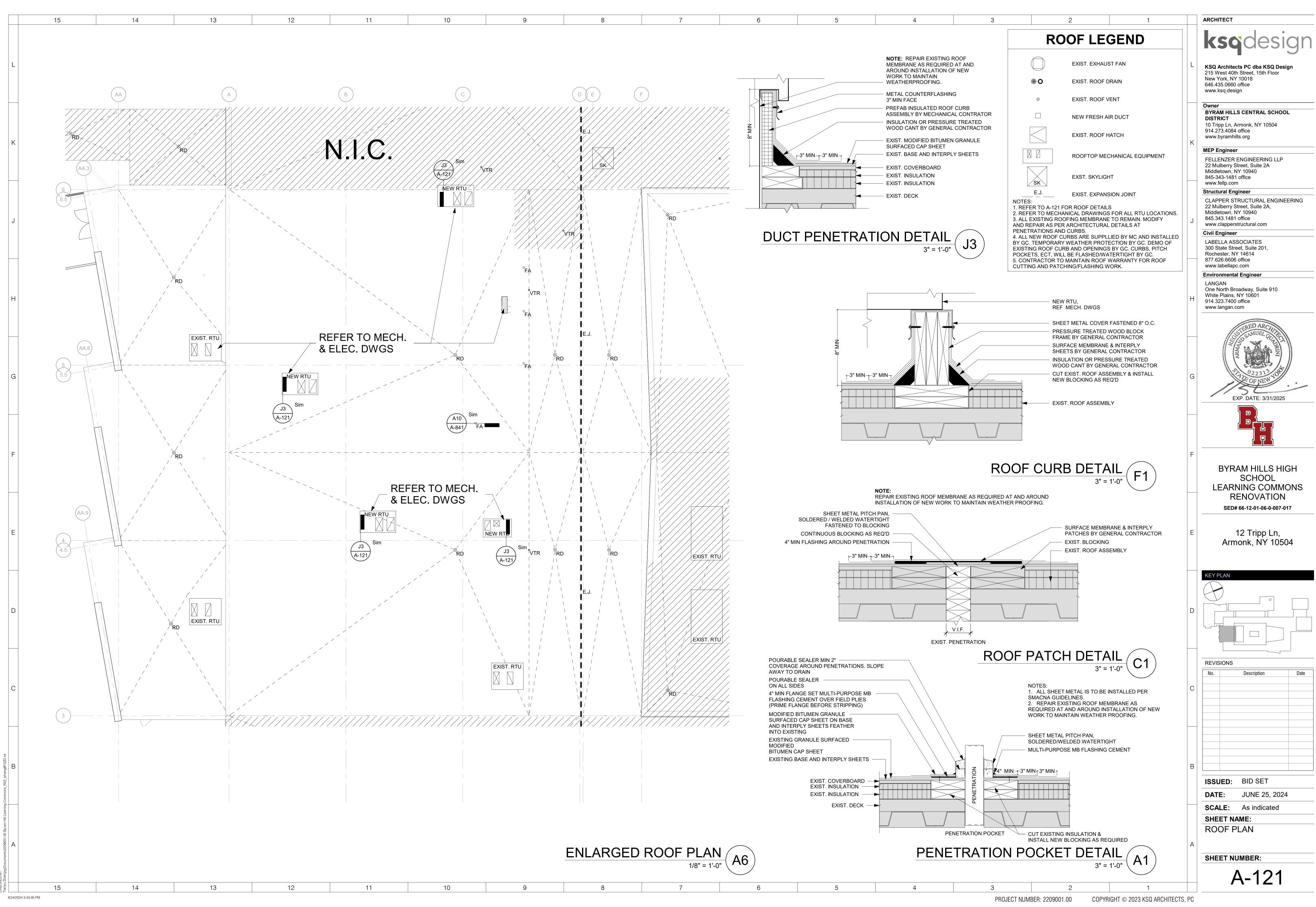
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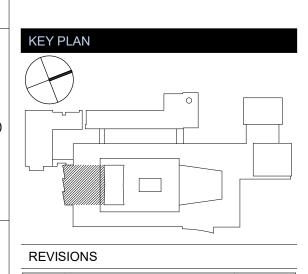
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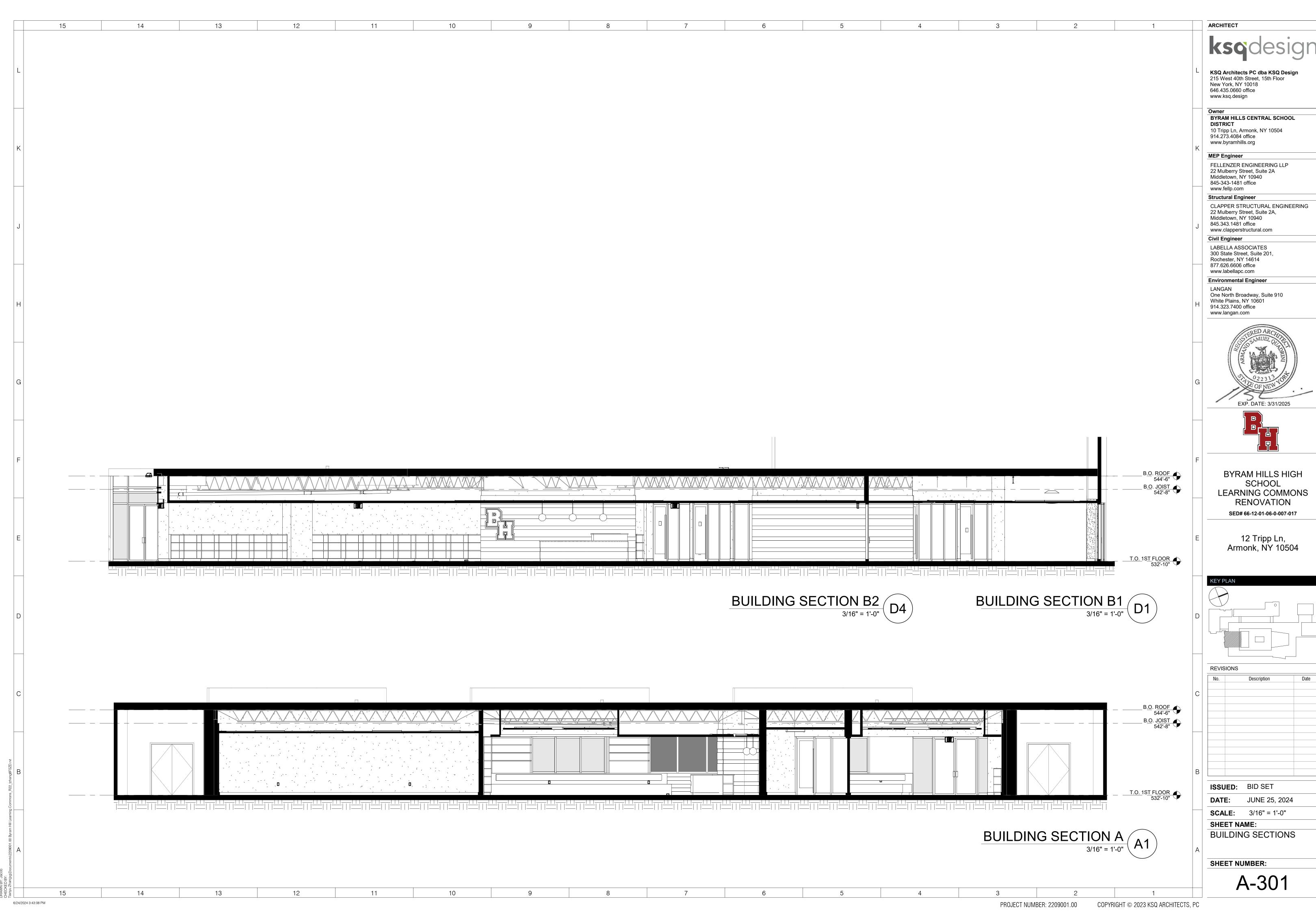


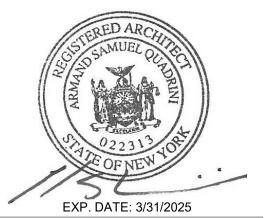
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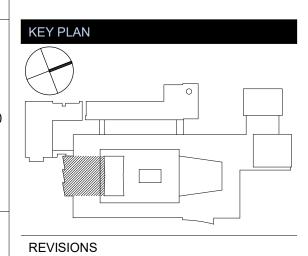




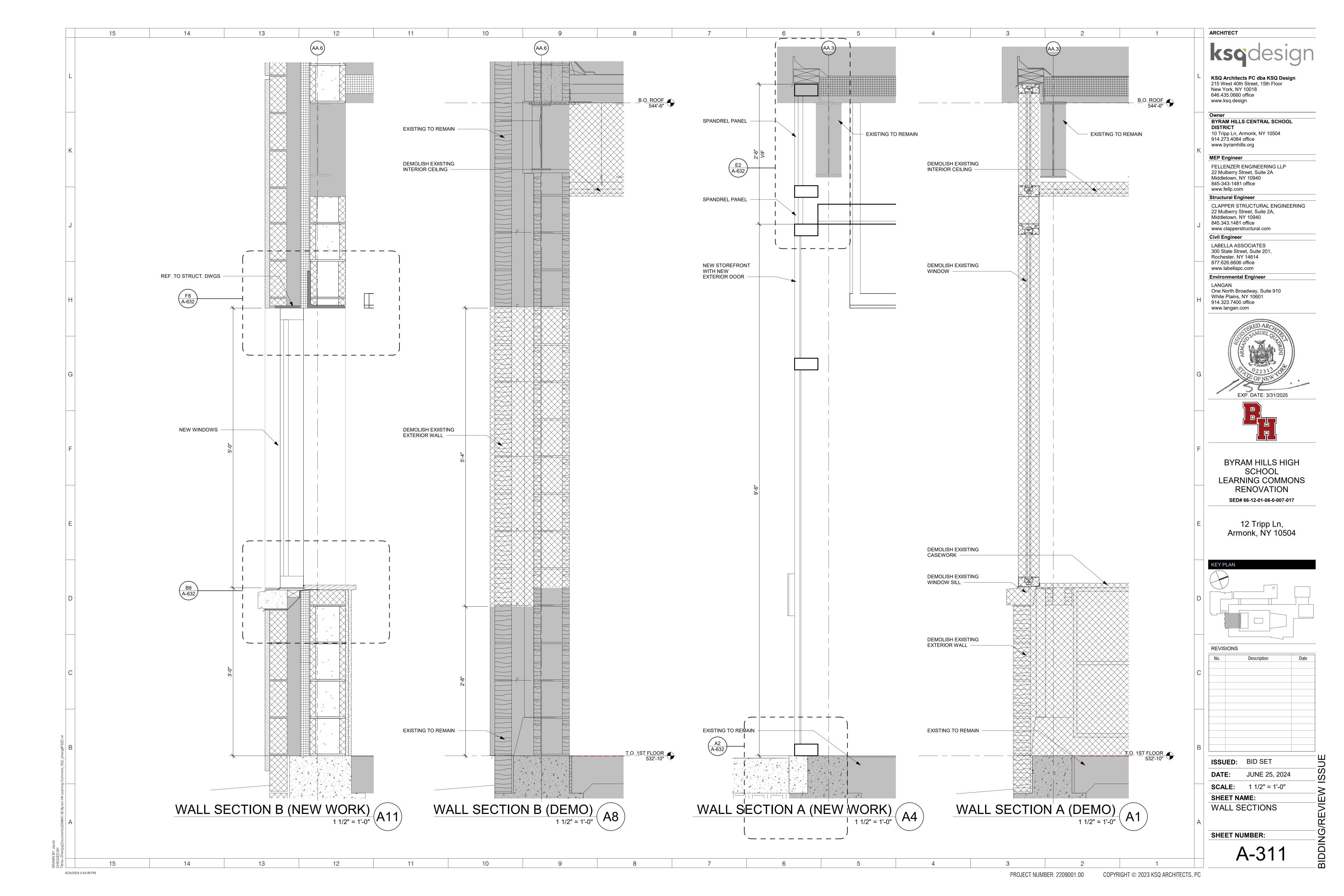


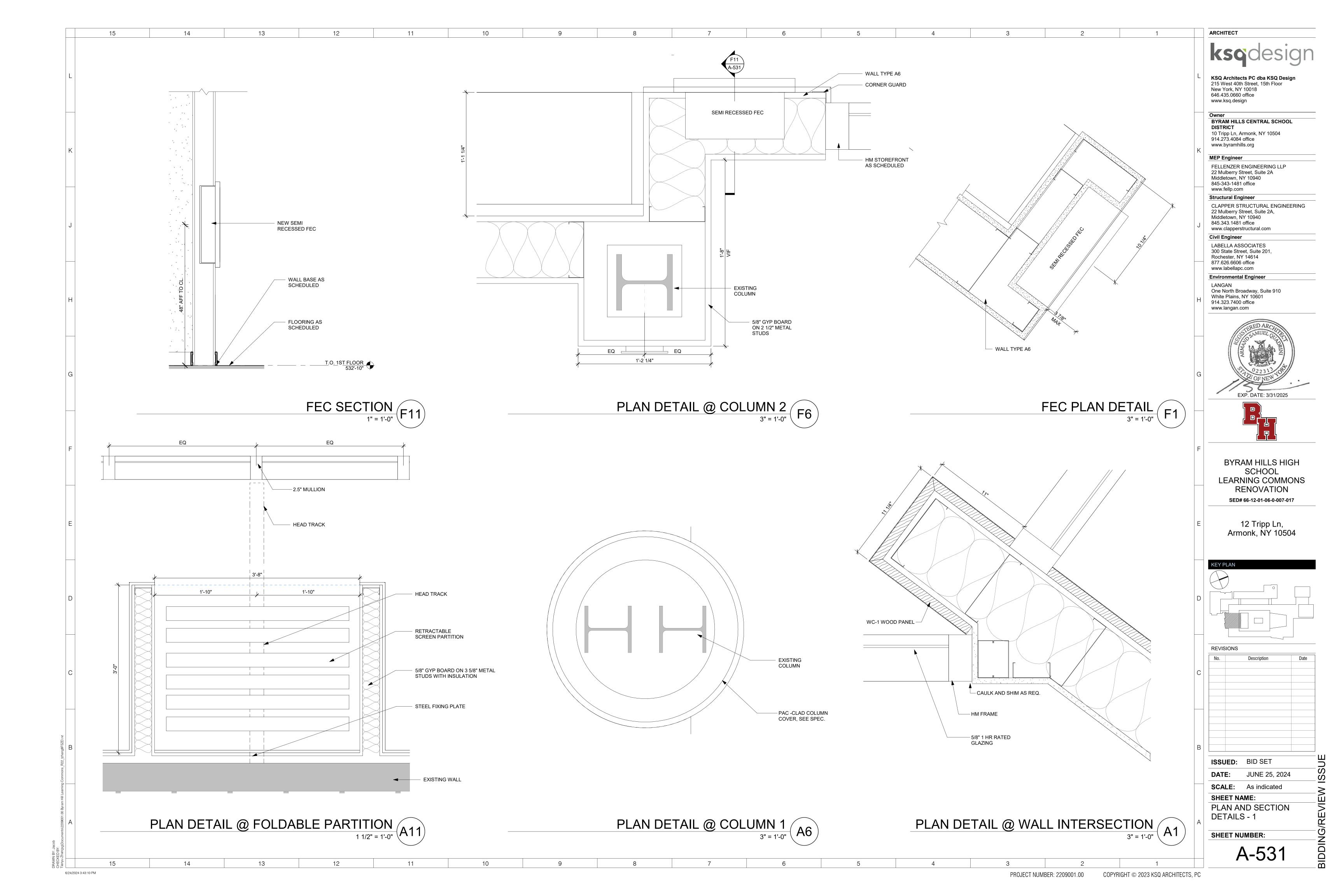


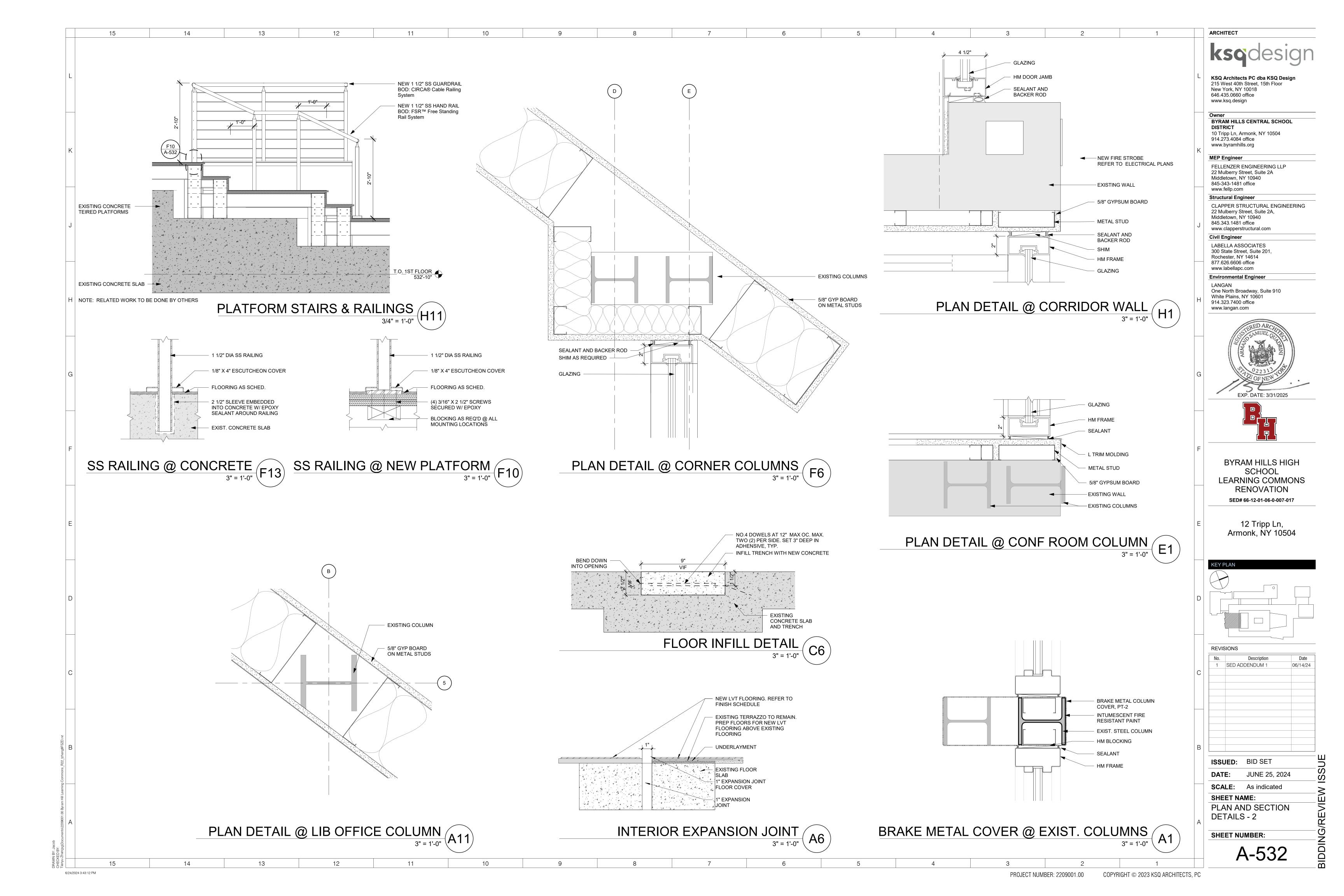


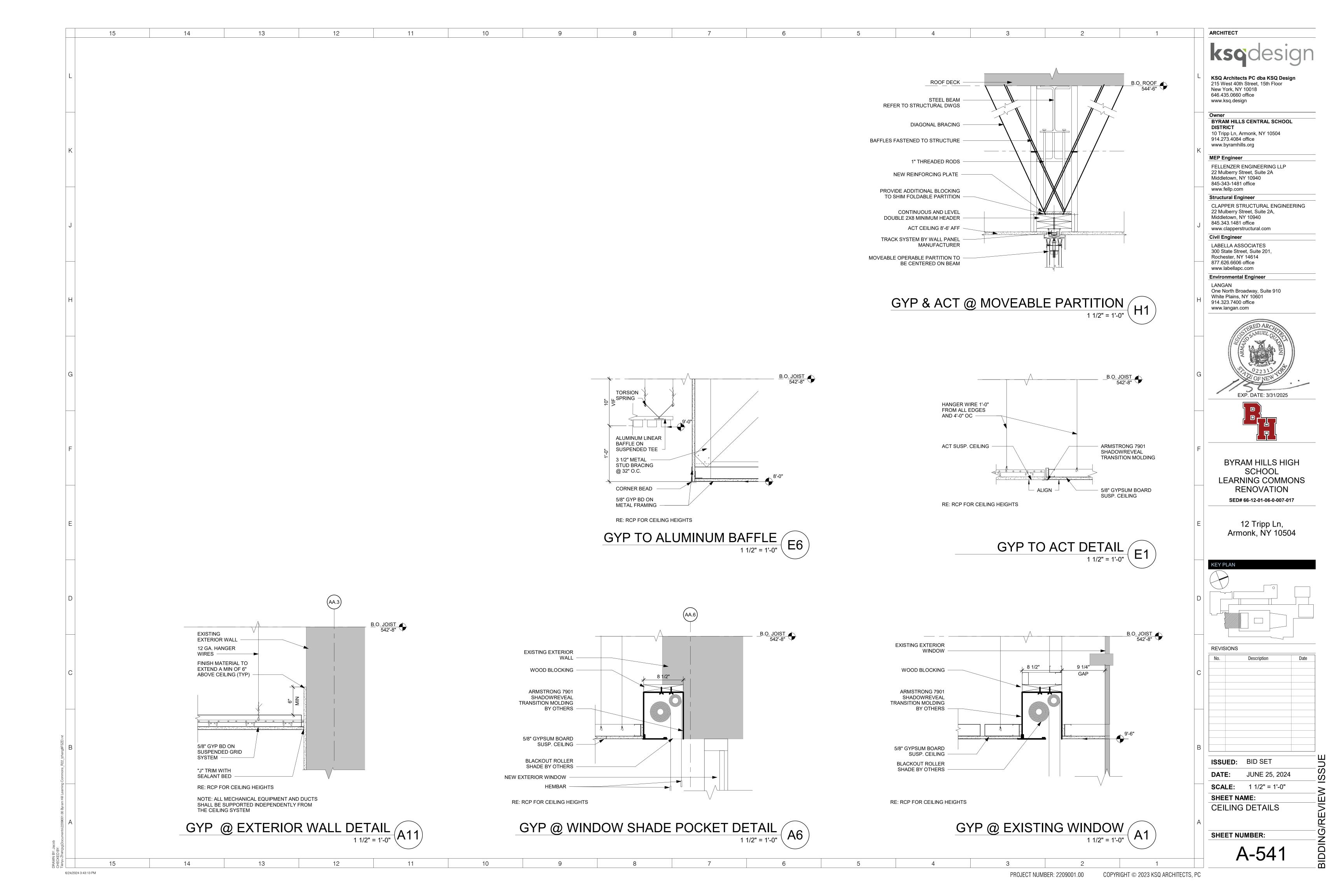


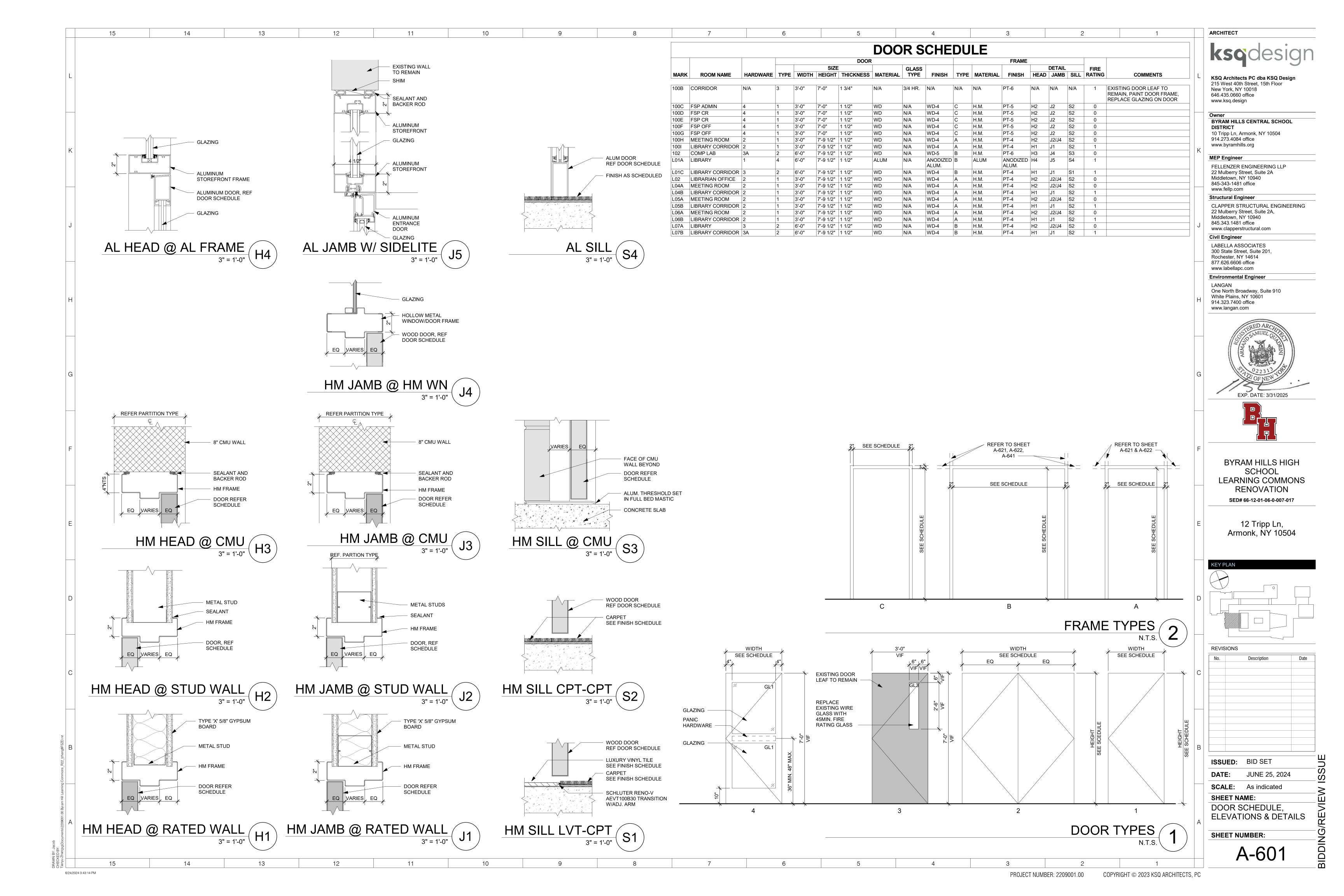
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ISSUED:	BID SET				
DATE:	JUNE 25. 2024				

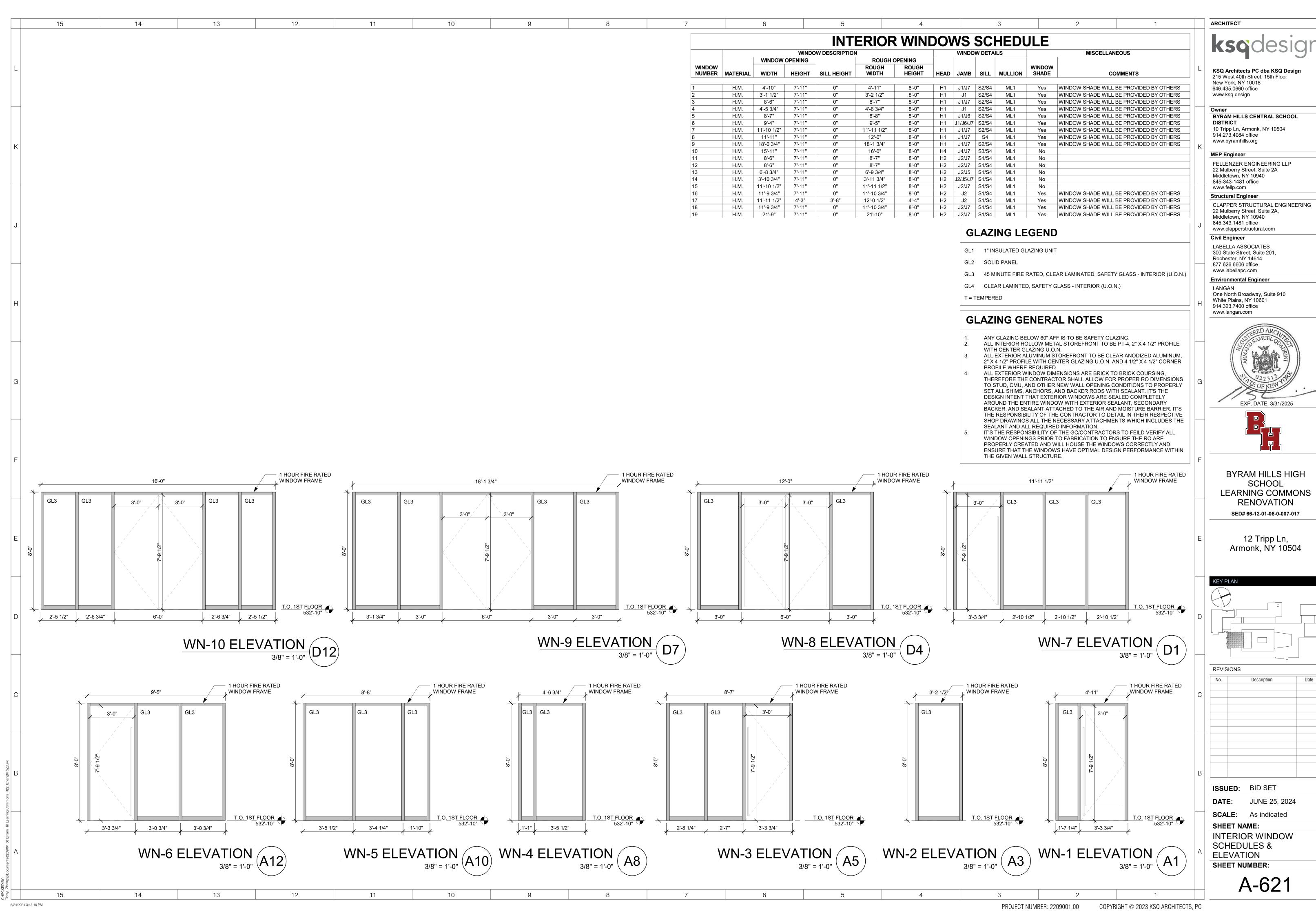


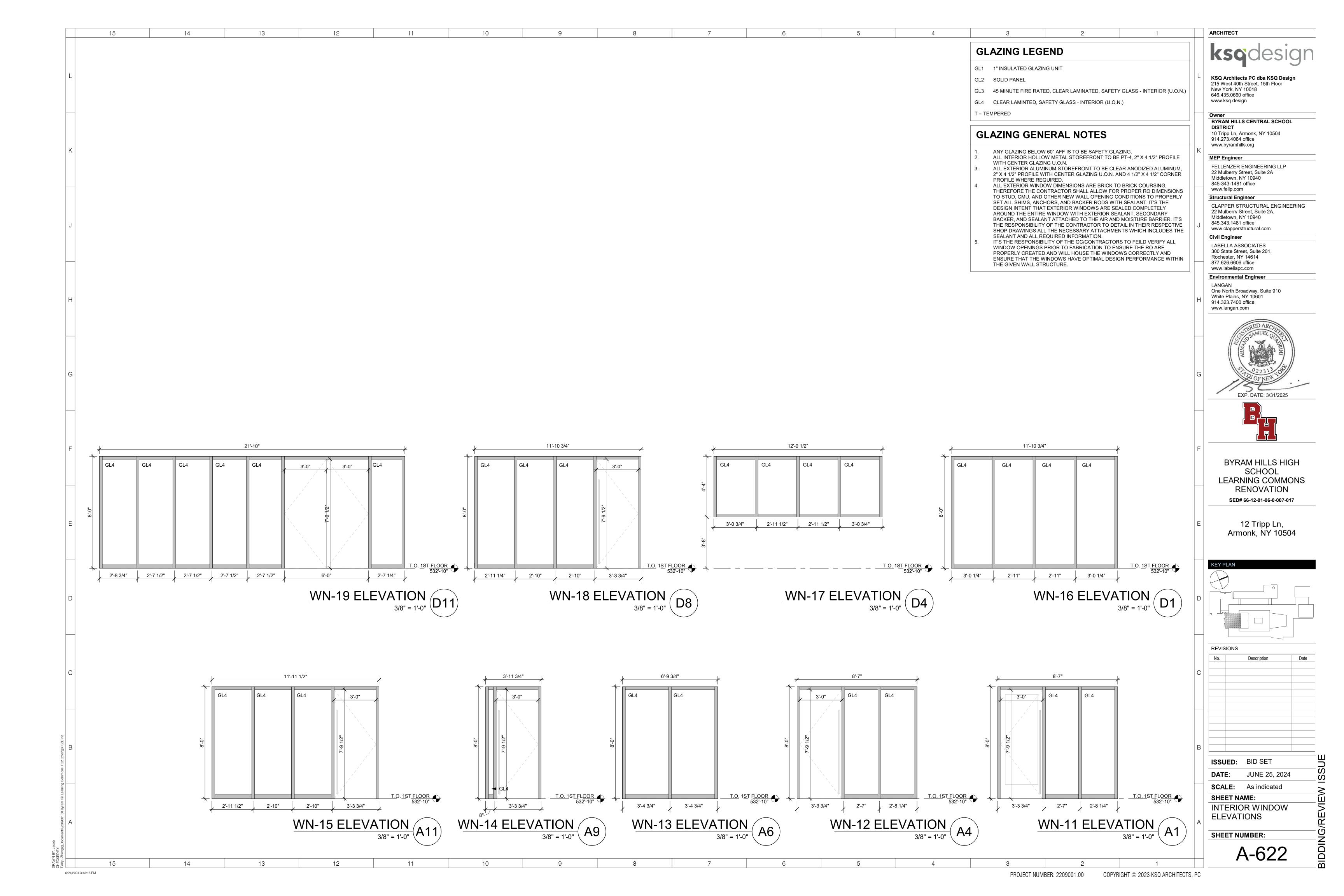


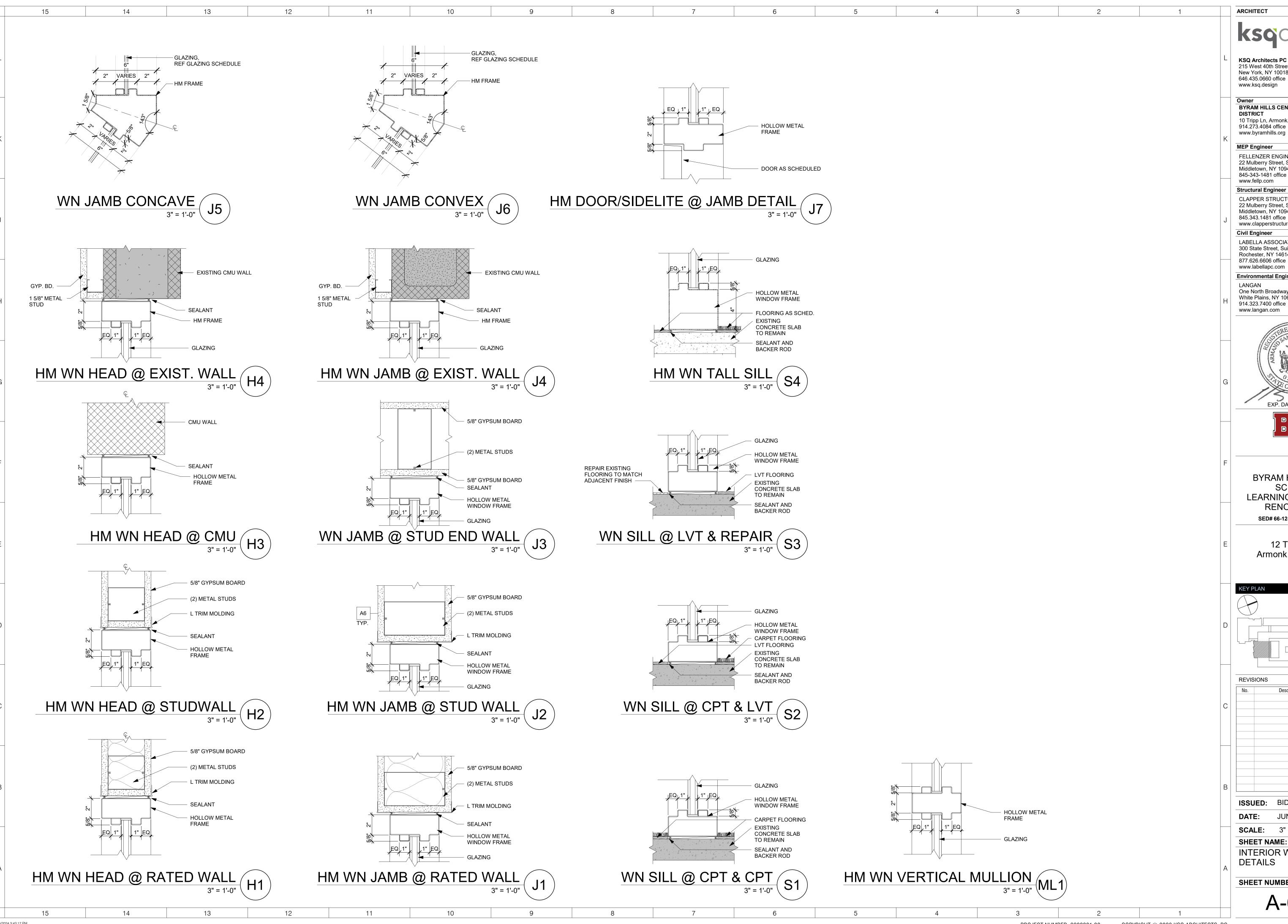












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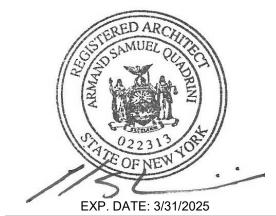
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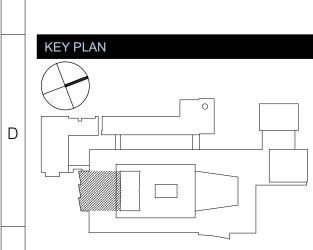




BYRAM HILLS HIGH SCHOOL LEARNING COMMONS **RENOVATION** 

SED# 66-12-01-06-0-007-017

12 Tripp Ln, Armonk, NY 10504



REVISIONS Description

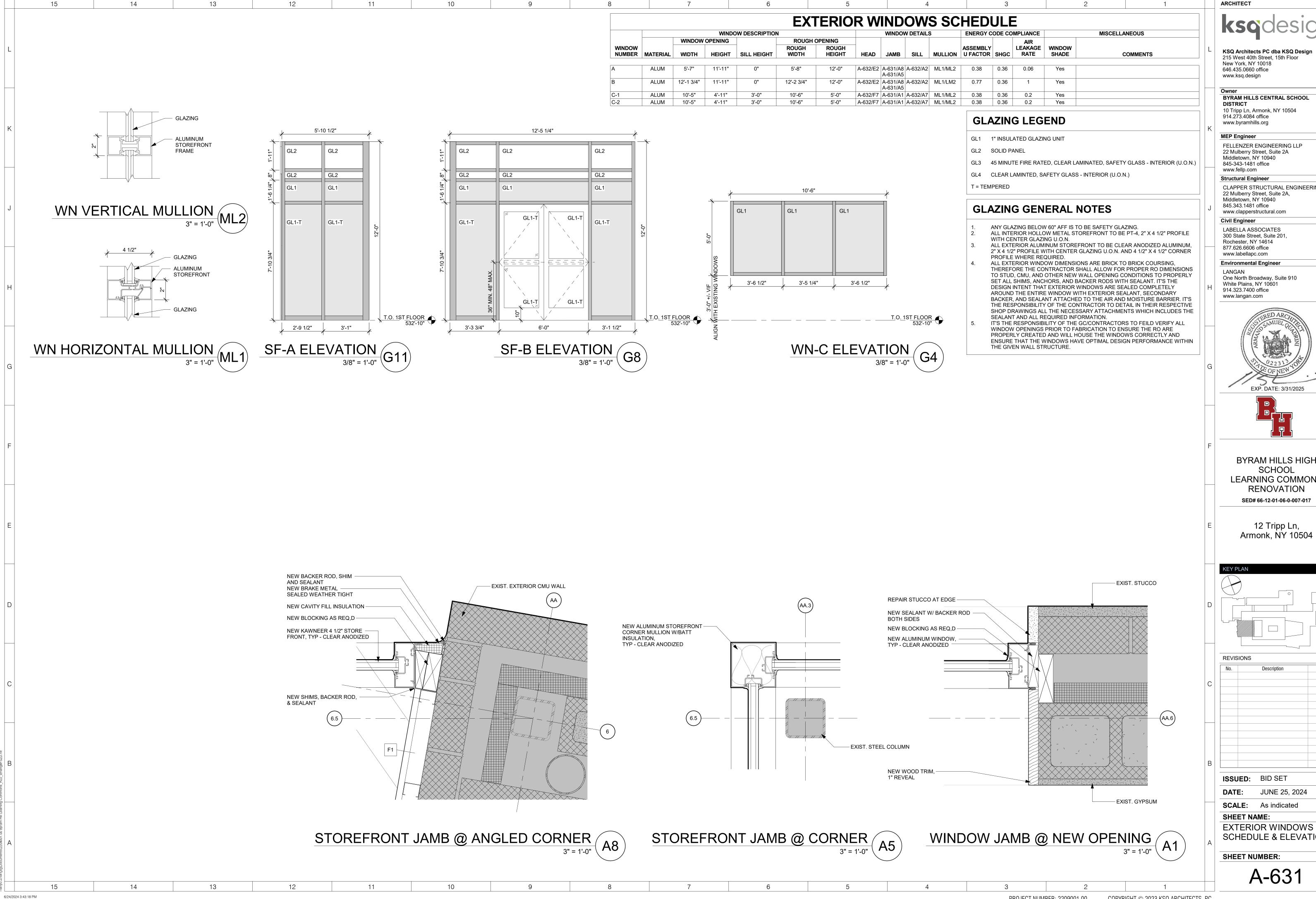
ISSUED: BID SET JUNE 25, 2024

**SCALE**: 3" = 1'-0" SHEET NAME:

INTERIOR WINDOW **DETAILS** 

SHEET NUMBER:

A-623



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BYRAM HILLS HIGH SCHOOL **LEARNING COMMONS** RENOVATION

> 12 Tripp Ln, Armonk, NY 10504

Description

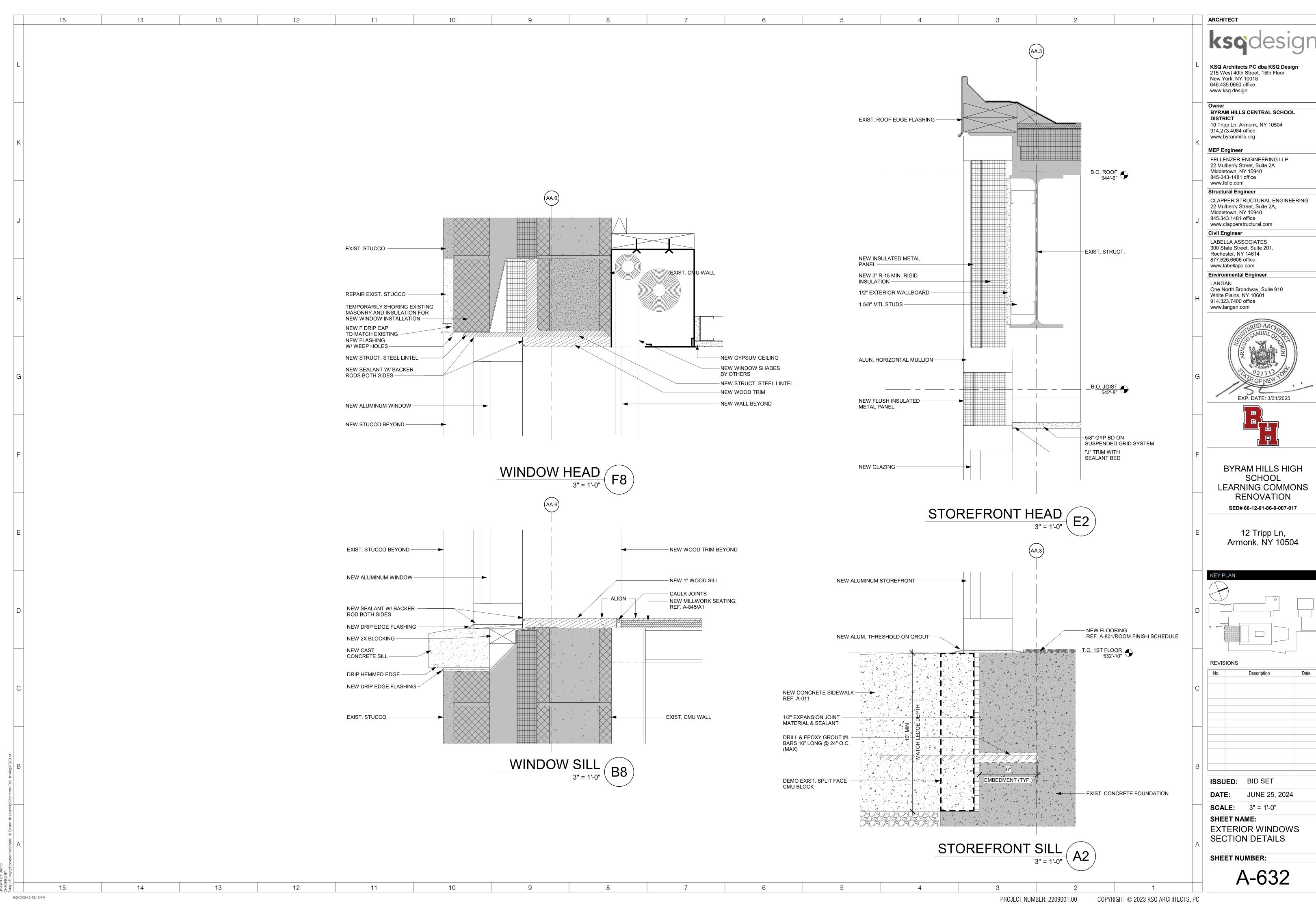
**ISSUED**: BID SET JUNE 25, 2024 **SCALE:** As indicated

SHEET NAME:

**SCHEDULE & ELEVATION** 

SHEET NUMBER:

A-631





		F	INISH LEGEND	
SYMBOL	MATERIAL TYPE	MANUFACTURER	PATTERN	NOTES
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	ULTIMA TEGULAR 24"X24" R062 PERFORATION	COMMONS, MPR
CPT-1	CARPET TILE	INTERFACE	NET EFFECT - 103967 SAND 10"X39"	COMMONS
CPT-2	CARPET TILE	INTERFACE	AGLOW - 107250 IRON AZURE 10"X39"	MEETING ROOMS
CPT-3	CARPET TILE	INTERFACE	INTERFACE - PRIMARY STICH HEM/ACCENT 10"X39"	LECTURE ROOM
CPT-4	CARPET TILE	INTERFACE	DIDDLY DOT - 108107 LAPIS 10"X39"	FSP SUITE
CT-1	SOLID SURFACE COUNTERTOP	CORIAN	LAGUNA	TRANSACTION COUNTER
LVT-1	VINYL TILE	MANNINGTON	GROOVE - WINTER FLEECE	CORRIDORS
LVT-2	VINYL TILE	MANNINGTON	GROOVE - FLANNEL	KIOSK
PT-1	PAINT	SHERWIN WILLIAMS	WESTHIGHLAND WHITE SW7566 - EGGSHELL FINISH	FIELD PAINT - CEILINGS/WALLS
PT-2	PAINT	SHERWIN WILLIAMS	UPWARD 6239 - EGSHELL FINISH	FIELD PAINT - MEETING ROOM WALLS
PT-3	PAINT	SHERWIN WILLIAMS	POSITIVE RED SW6871 - EGSHELL FINISH	FIELD PAINT - FEATURE WALL
PT-4	PAINT	SHERWIN WILLIAMS	COLONY BUFF SW7723 - SEMIGLOSS FINISH	FIELD PAINT - DOOR FRAME
PT-5	PAINT	SHERWIN WILLIAMS	NETWORK GRAY SW7073 - SEMIGLOSS FINISH	FIELD PAINT - DOOR FRAME FSP SUITE
UF-1	VINYL UPHOLSTERY	ULTRAFABRICS	BRISA - RISING TIDE	CUSTOM SEAT WALL - UPHOLSTERED BACK REST
WB-1	WOOD WALL BASE	-	FLAT BASE 4" X 1/4"	STAIN TO MATCH WC-1
WB-2	VINYL WALL BASE	TARKETT	38 PEWTER CG - FLAT BASE 4" X 1/4"	FSB SUITE
WC-1	LAMINATE	FORMICA	HIGH PRESSURE LAMINATE - BIRCH	FEATURE WALL, CUSTOM MILLWORK
WC-2	CORK SHEET	BEST-RITE MANUFACTURING	COLORED CORK SHEET - POTATO SKIN	COMMONS
WD-1	ALUMINUM	USG	B201503 BARZ - SARANTE, RED BIRCH	ALUMINUM WOOD SLAT CEILING
WD-2	WOOD DOOR FINISH	VT INDUSTRIES	CL18, WHITE BIRCH	ARCHITECTURAL WOOD DOORS
WG-1	WALL GRAPHIC	SIGNS INK	KSQ CUSTOM WALL GRAPHIC	CUSTOM

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	ROOM FINISH SCHEDULE													
NUMBER	NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	COMMENTS								
000	LIBRARY CORRIDOR	LVT-1	WB-1	WC-1 & PT-1	PT-1	4" WOOD BASE								
32	STORAGE	-	-	PT-1	-	PAINT AT DOOR INFILL AREA ON STORAGE ROOM SIDE								
100	FSP SUITE	CPT-5	WB-2	PT-1	ACT-1	4" VINYL BASE								
100C	FSP ADMIN	CPT-5	WB-2	PT-1	ACT-1	4" VINYL BASE								
100D	FSP CR	CPT-5	WB-2	PT-1	ACT-1	4" VINYL BASE								
100E	FSP CR	CPT-5	WB-2	PT-1	ACT-1	4" VINYL BASE								
100F	FSP OFF	CPT-5	WB-2	PT-1	ACT-1	4" VINYL BASE								
100G	FSP OFF	CPT-5	WB-2	PT-1	ACT-1	4" VINYL BASE								
102	COMP LAB	MATCH EXISTING	-	-	-	REPLACE DOOR AREA FLOORING ONLY								
200	LECTURE ROOM	CPT-3 & CPT-4	-	-	-	-								
L01	LIBRARY	CPT-1	WB-1	PT-1	WD-1	4" WOOD BASE, LVT-1 NOTED IN LIBRARY ENTRY								
L02	LIBRARIAN OFFICE	CPT-1	WB-1	PT-2	PT-1	4" WOOD BASE								
L03	MEETING ROOM	CPT-2	WB-1	PT-2	PT-1	4" WOOD BASE								
L04	MEETING ROOM	CPT-2	WB-1	PT-2	PT-1	4" WOOD BASE								
L05	MEETING ROOM	CPT-2	WB-1	PT-2	PT-1	4" WOOD BASE								
L06	MEETING ROOM	CPT-2	WB-1	PT-2	PT-1	4" WOOD BASE								
L07	CONFERENCE ROOM	CPT-2	WB-1	PT-1	ACT-1 & PT-1	4" WOOD BASE								

13

14

12

	FURNITURE SCHEDULE											
ITEM												
NO	QTY	TYPE	FURNITURE	FINISHES	MANUFACTURER							
CH01	12	LOUNGE CHAIR	VICINITY LOUNGE CHAIR	SEAT: ALL TERRAIN MESA / BASE: TITANIUM	ALLSTEEL							
CH02	12	BAR HEIGHT STOOL	VICINITY STOOL	SEAT: REGATTA / BASE: TITANIUM	ALLSTEEL							
CH03	22	TASK CHAIR	RETREAT LOW-BACK CONFERENCE CHAIR	SEAT: OXFORD / BASE: BLACK	ALLSTEEL							
CH04	42	CAFE CHAIR	VICINITY CHAIR	SEAT: REGATTA / BASE: TITANIUM	ALLSTEEL							
CH05	4	LOUNGE CHAIR	JETTY MOD	SEAT: OXFORD / BASE: TITANIUM	ALLSTEEL							
CH06	28	SIDE CHAIR	SEEK CHAIR - NESTING	SEAT: REGATTA (NAVY FABRIC) / BASE: TITANIUM	ALLSTEEL							
CH07	16	CAFE CHAIR	HERIT SIDE CHAIR	SEAT: SAND / BASE: OAK	ALLSTEEL							
CH08	2	TASK CHAIR	RETREAT HIGH-BACK CONFERENCE CHAIR	SEAT: OXFORD / BASE: BLACK	ALLSTEEL							
TA01	8	BAR TABLE	HARVEST TABLE 18"W X 60"L	TOP: FAWN CYPRESS / BASE: SILVER	ALLSTEEL							
TA02	4	CONFERENCE TABLE	STRUCTURE TABLE 48"W X 120"L	TOP: DESIGNER WHITE / BASE: DESIGNER WHITE	ALLSTEEL							
TA03	7	MEDIA TABLE	STRUCTURE MEDIA TABLE 36"W X 52"L	TOP: DESIGNER WHITE / BASE: TITANIUM	ALLSTEEL							
TA04	6	CAFE TABLE	STRUCTURE CAFE TABLE 24"DIA X 18"H	TOP: DESIGNER WHITE / BASE: TITANIUM	ALLSTEEL							
TA05	8	CAFE TABLE	STRUCTURE CAFE TABLE 24"DIA X 29"H	TOP: DESIGNER WHITE / BASE: TITANIUM	ALLSTEEL							
TA06	12	CAFE TABLE	STRUCTURE CAFE TABLE 42"DIA X 29"H	TOP: DESIGNER WHITE / BASE: TITANIUM	ALLSTEEL							
TA07	15	TRAINING TABLE	AWARE FOLDABLE TABLES	TOP: DESIGNER WHITE / BASE: TITANIUM	ALLSTEEL							
S01A	2	SECTIONAL SOFA	MODULAR SOFA	SEAT: RED VINYL / BASE: BLACK	ALLSTEEL							
SH01	39	BOOKSHELF	42"H THREE SHELF - DOUBLE SIDED - MAPLE (ENDS) - METAL SHELVES	ENDS: COTTONWOOD / SHELVES: TITANIUM	ALLSTEEL							

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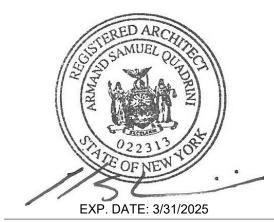
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BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

SED# 66-12-01-06-0-007-017

12 Tripp Ln, Armonk, NY 10504

D	KEYF		
	REVIS	SIONS	
	No.	Description	Date

No.	Description	Date
SSUED	): BID SET	

DATE: JUNE 25, 2024

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

SHEET NAME:

INTERIOR FINISH AND FURNITURE SCHEDULES

SHEET NUMBER:

A-801

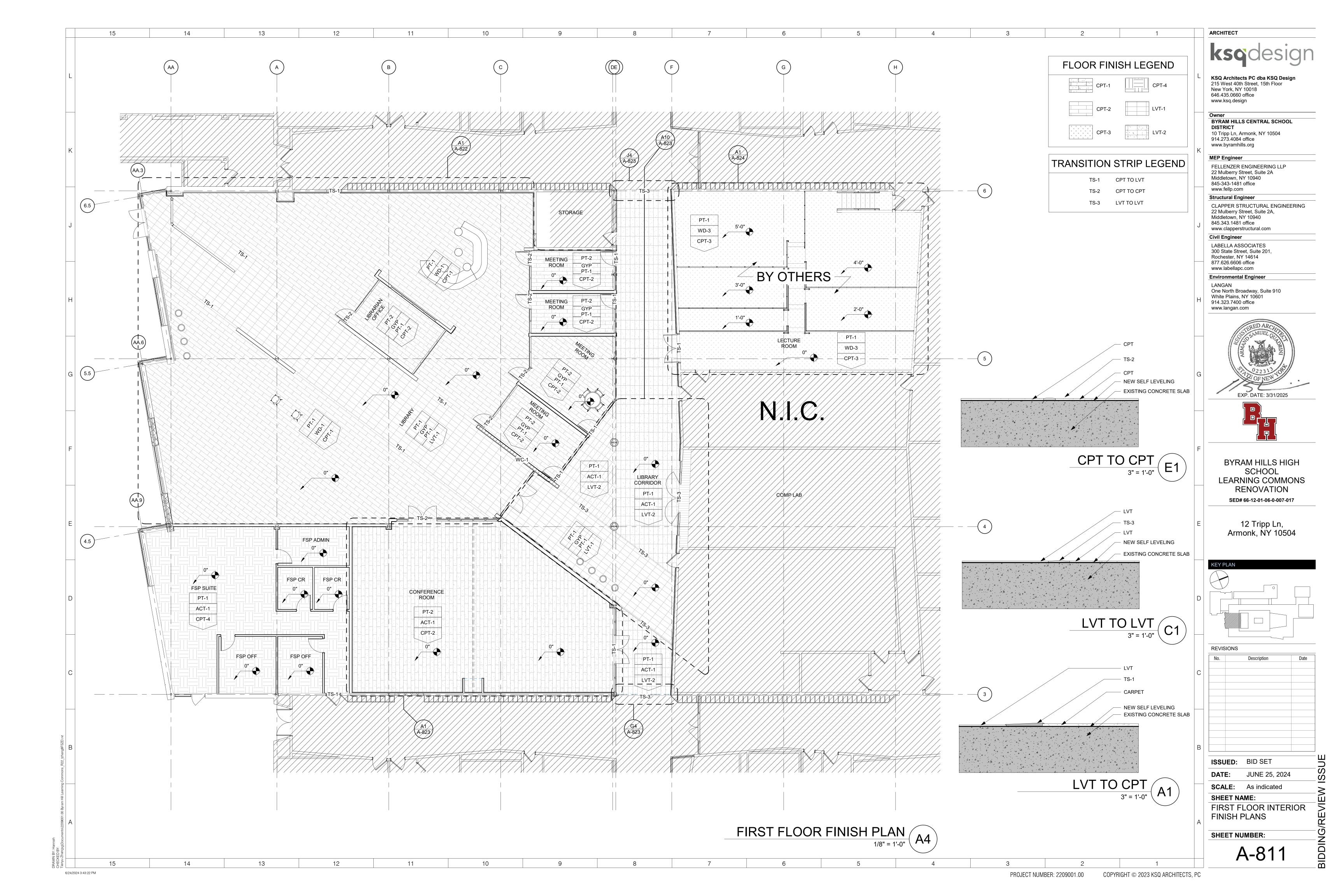
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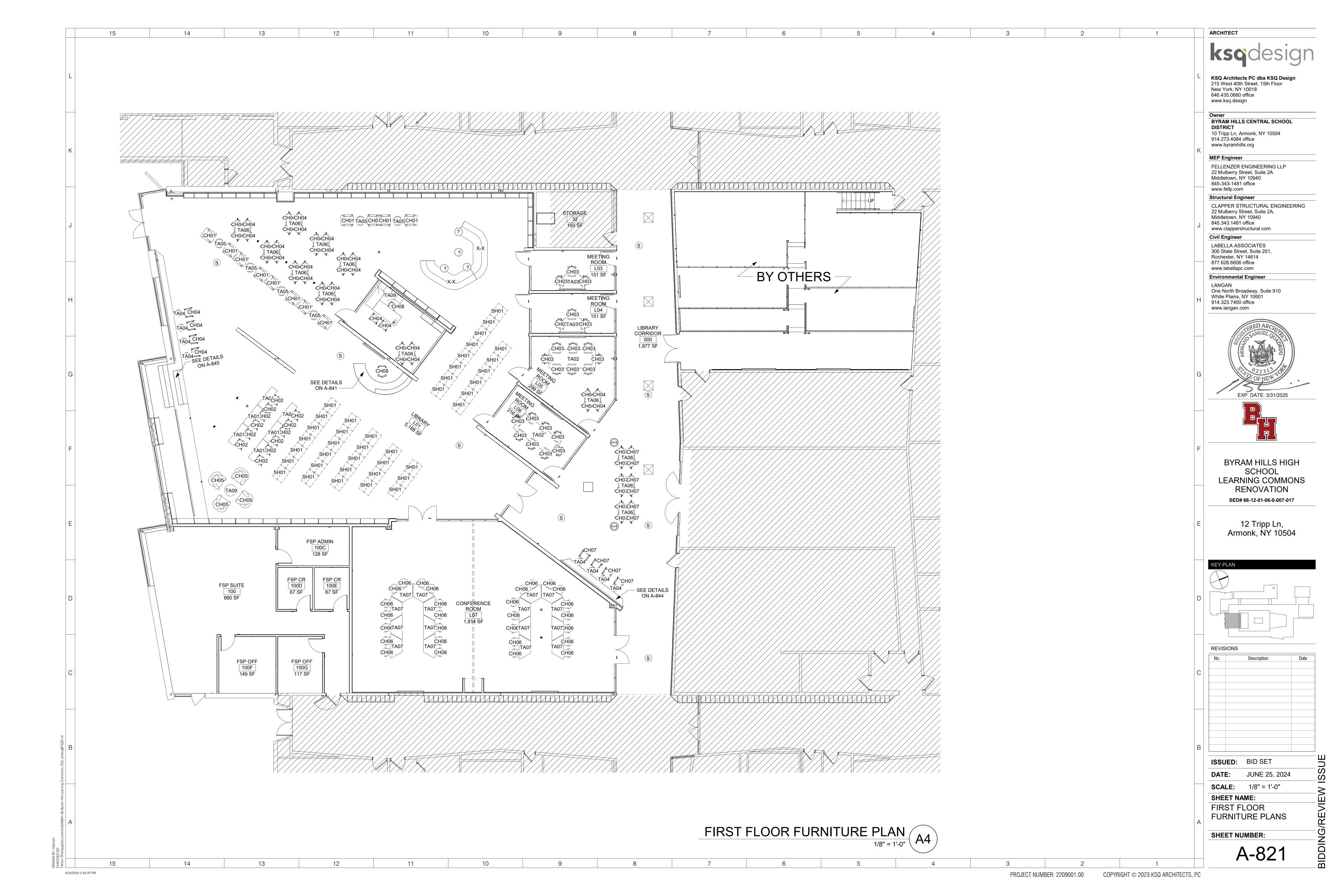
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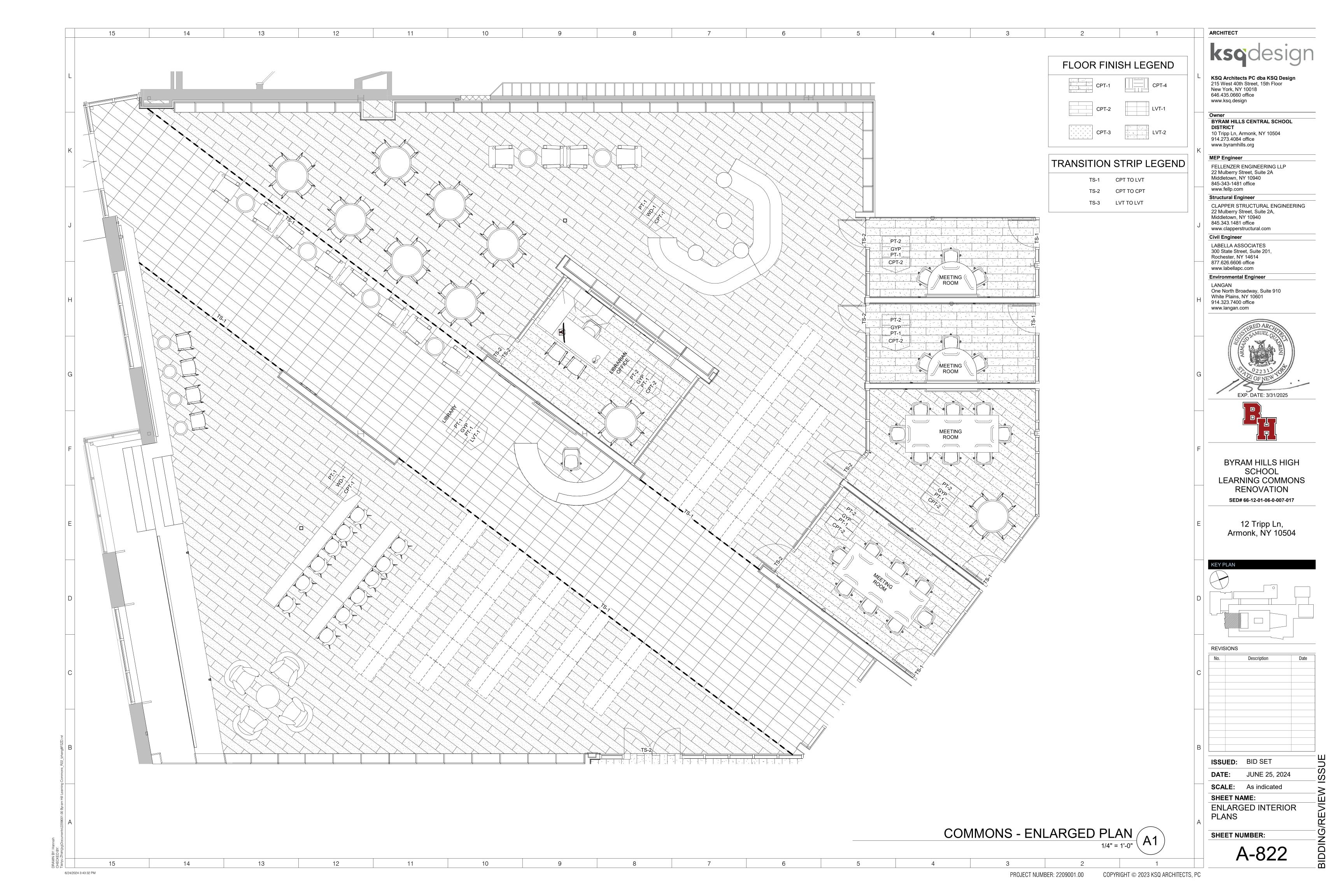
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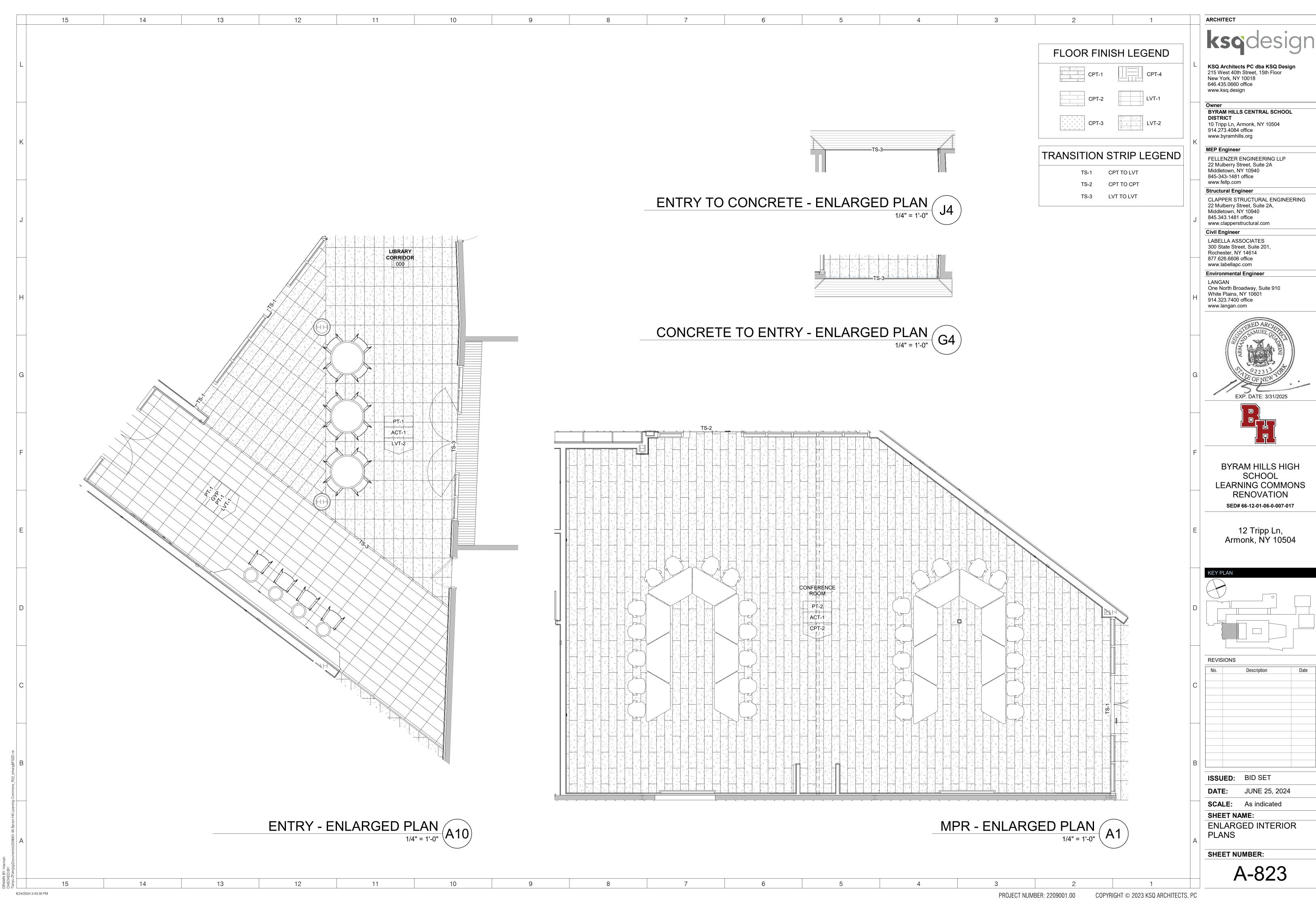
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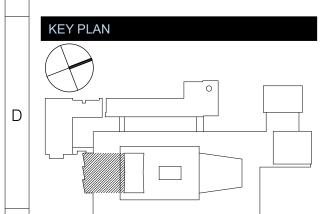
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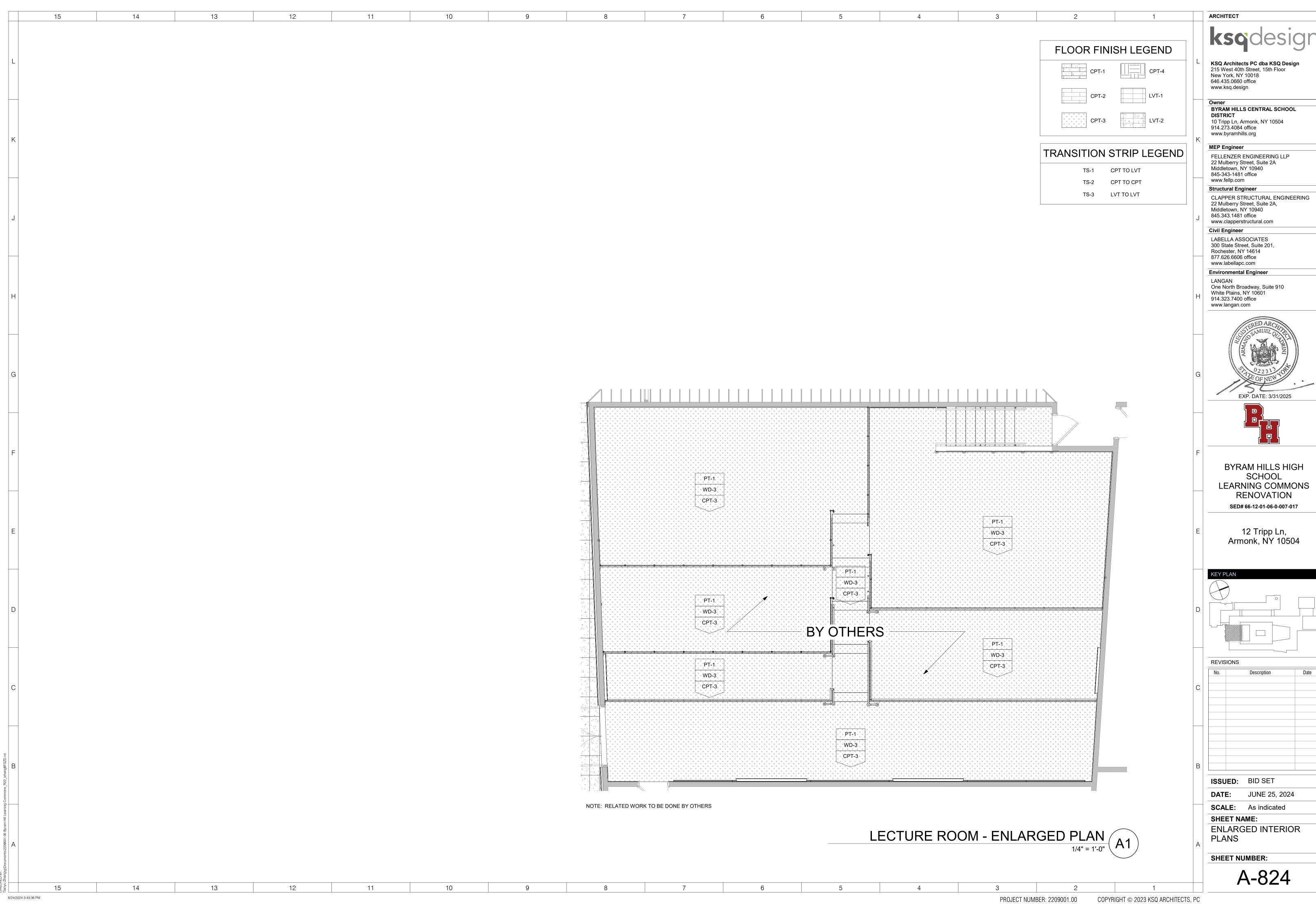




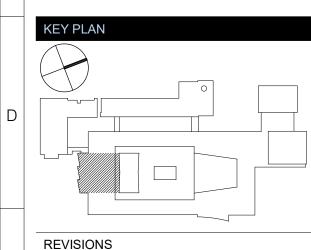




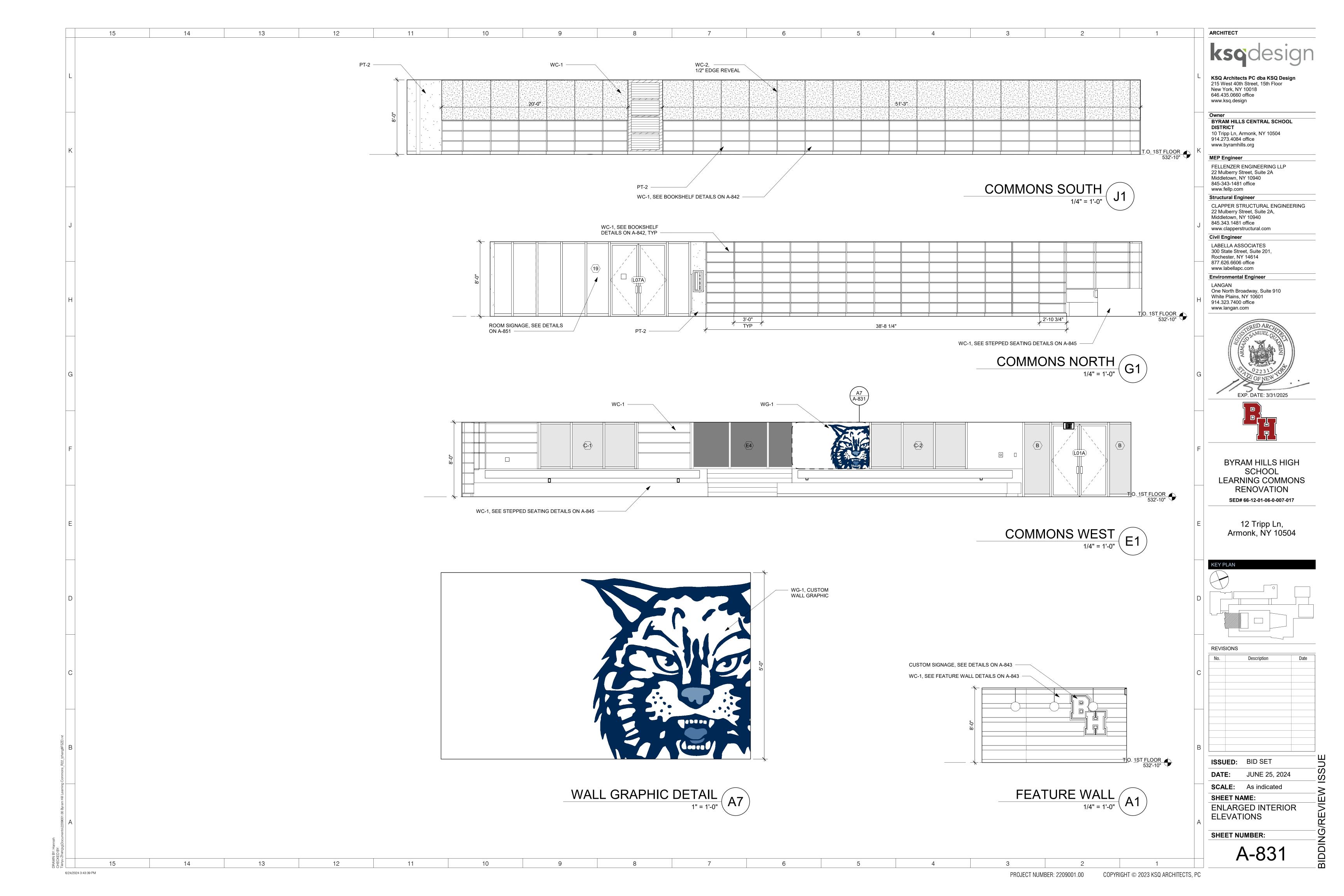


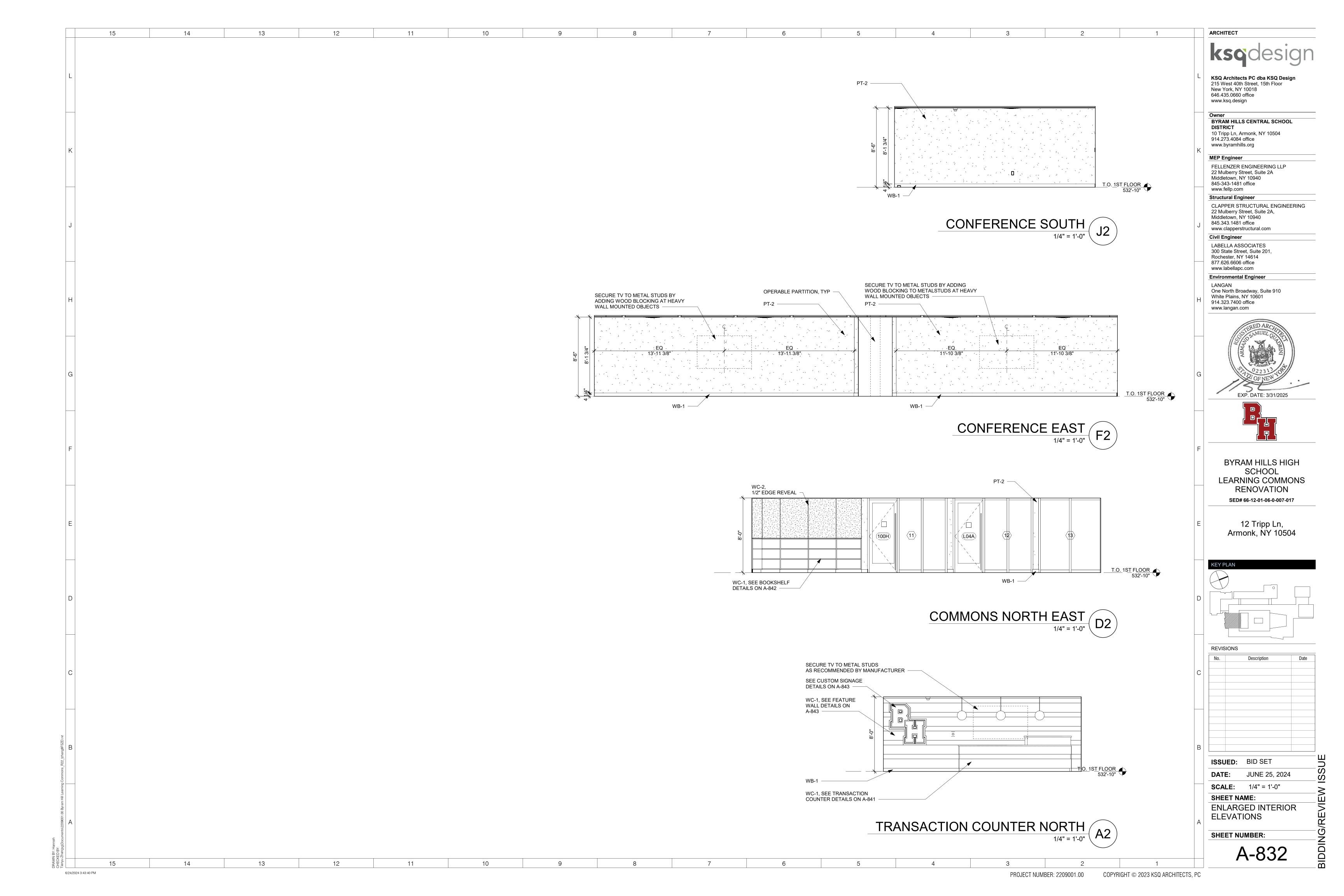


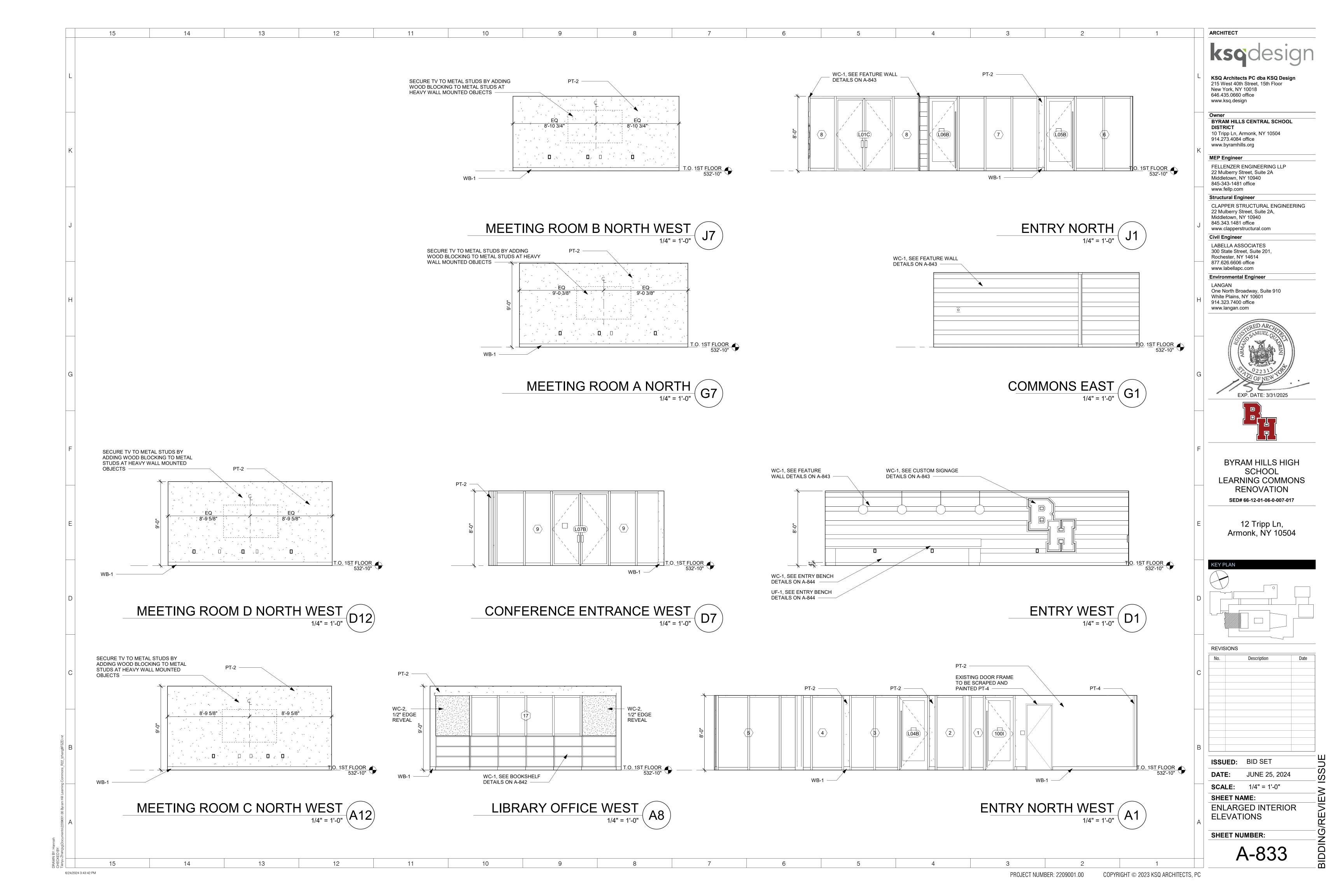


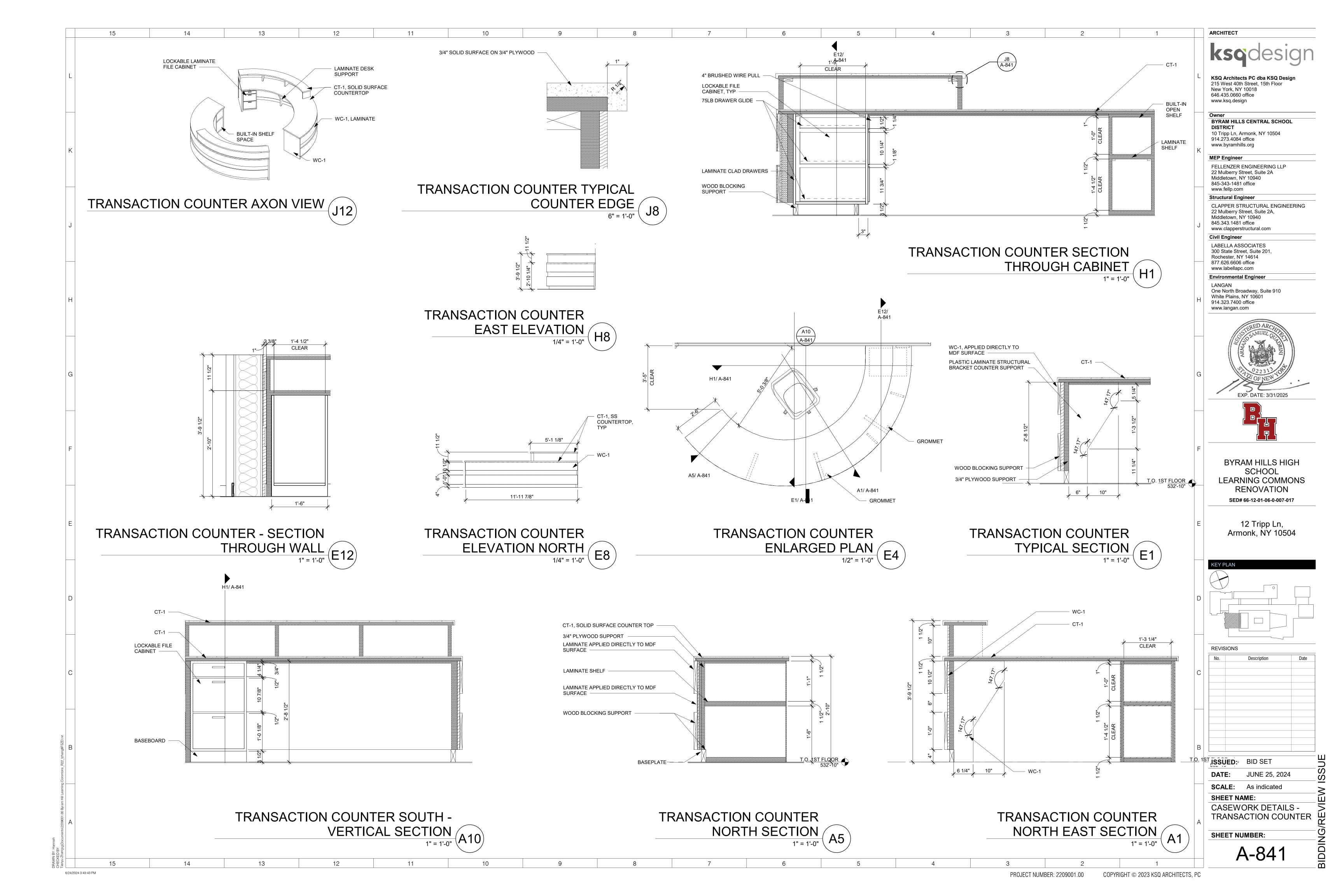


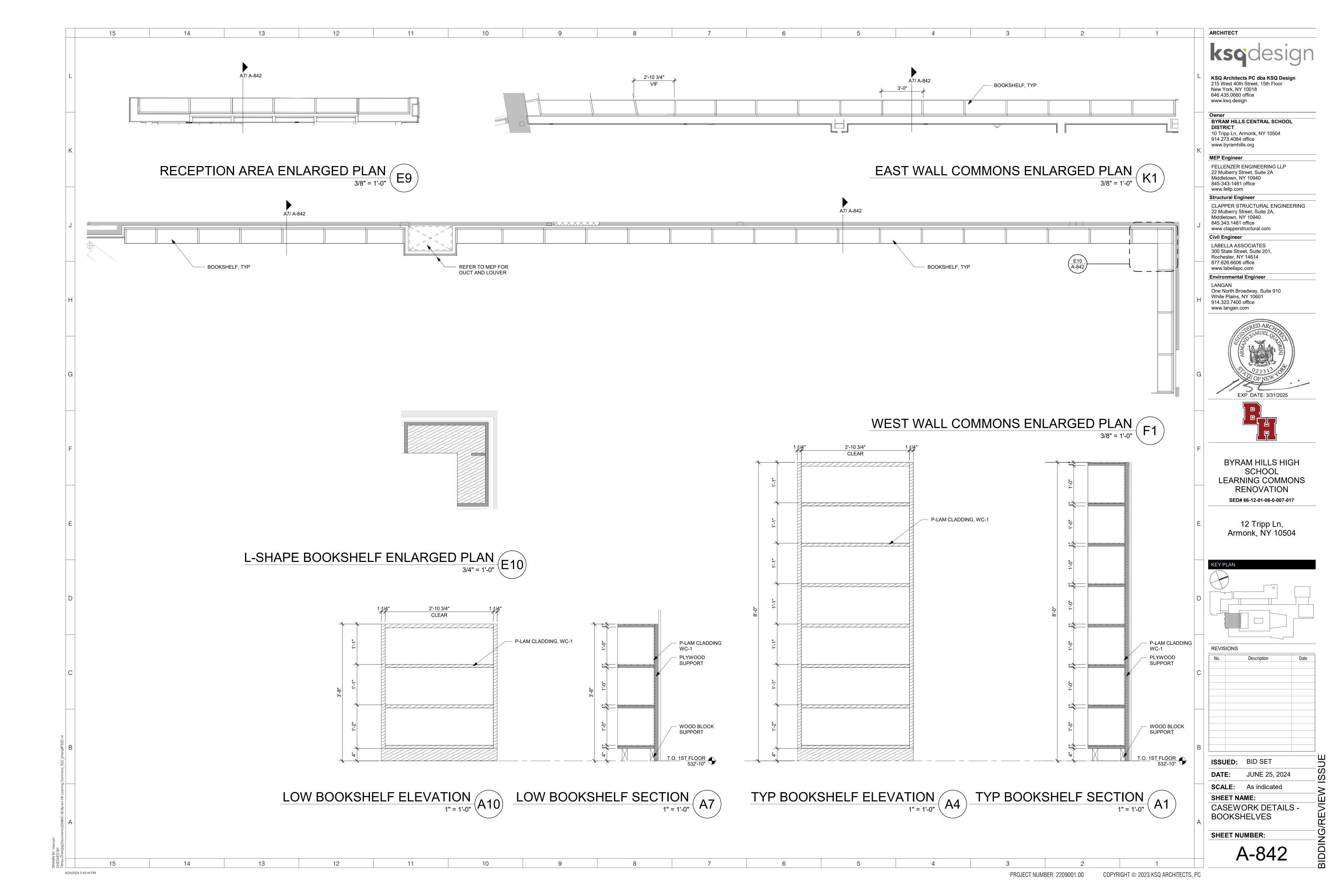
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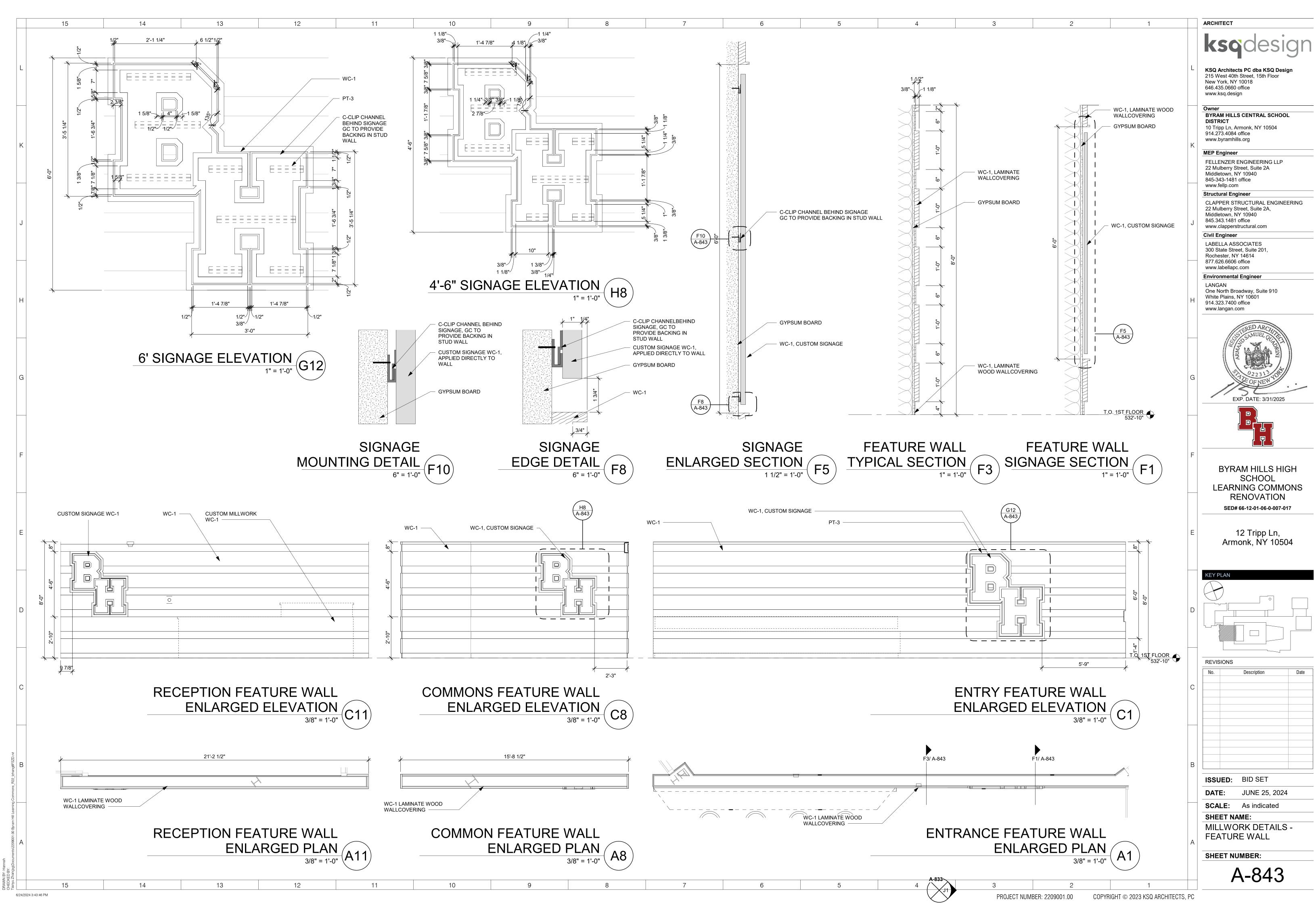


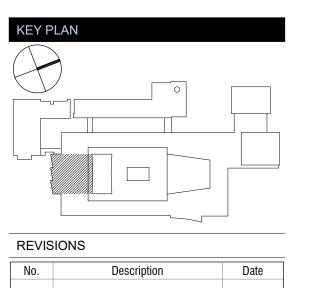


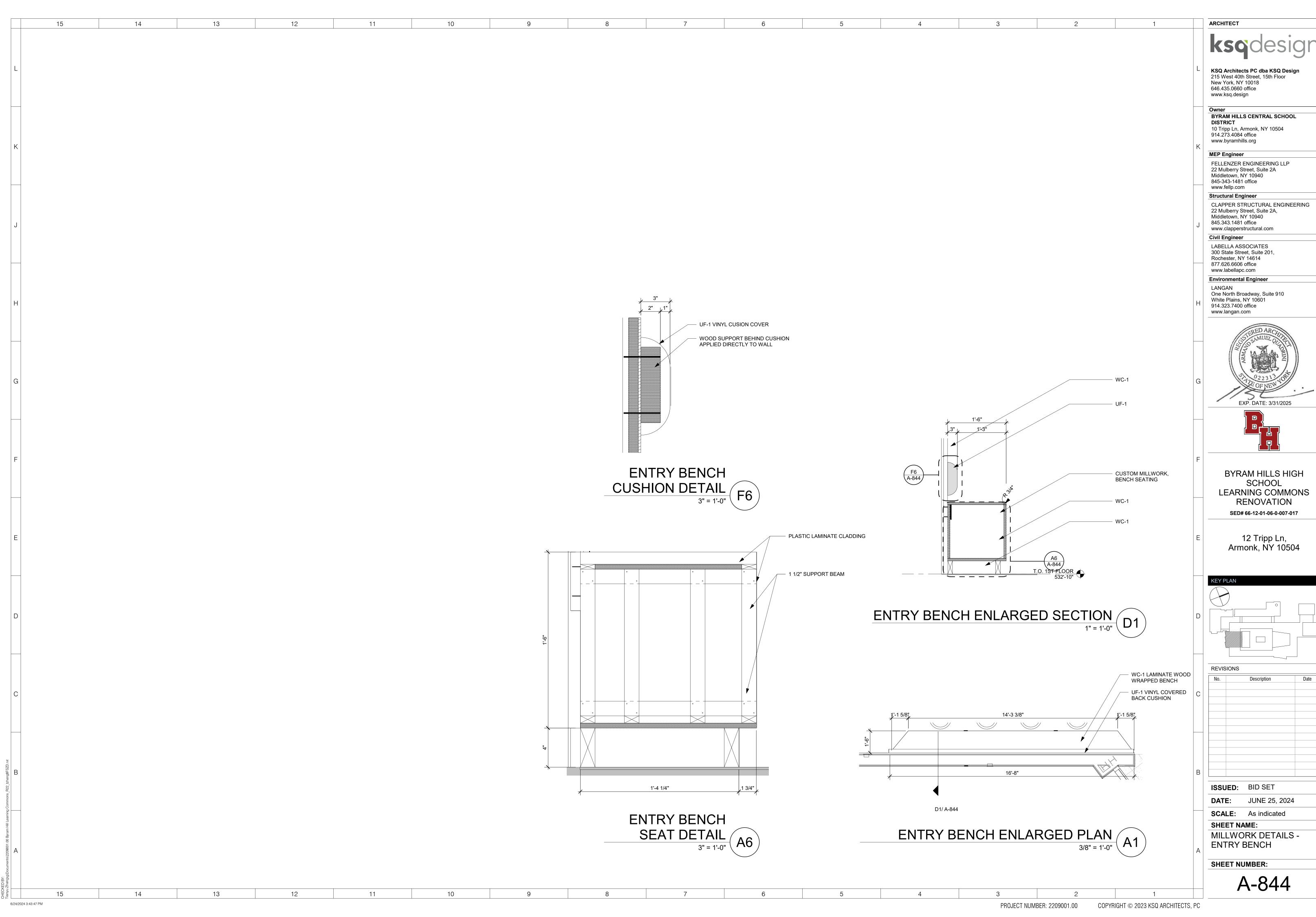


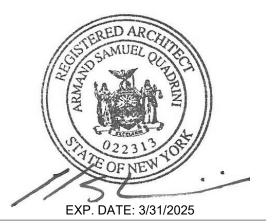


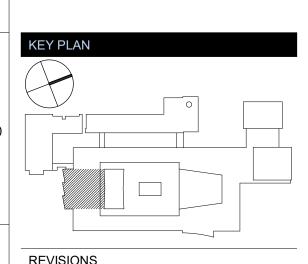


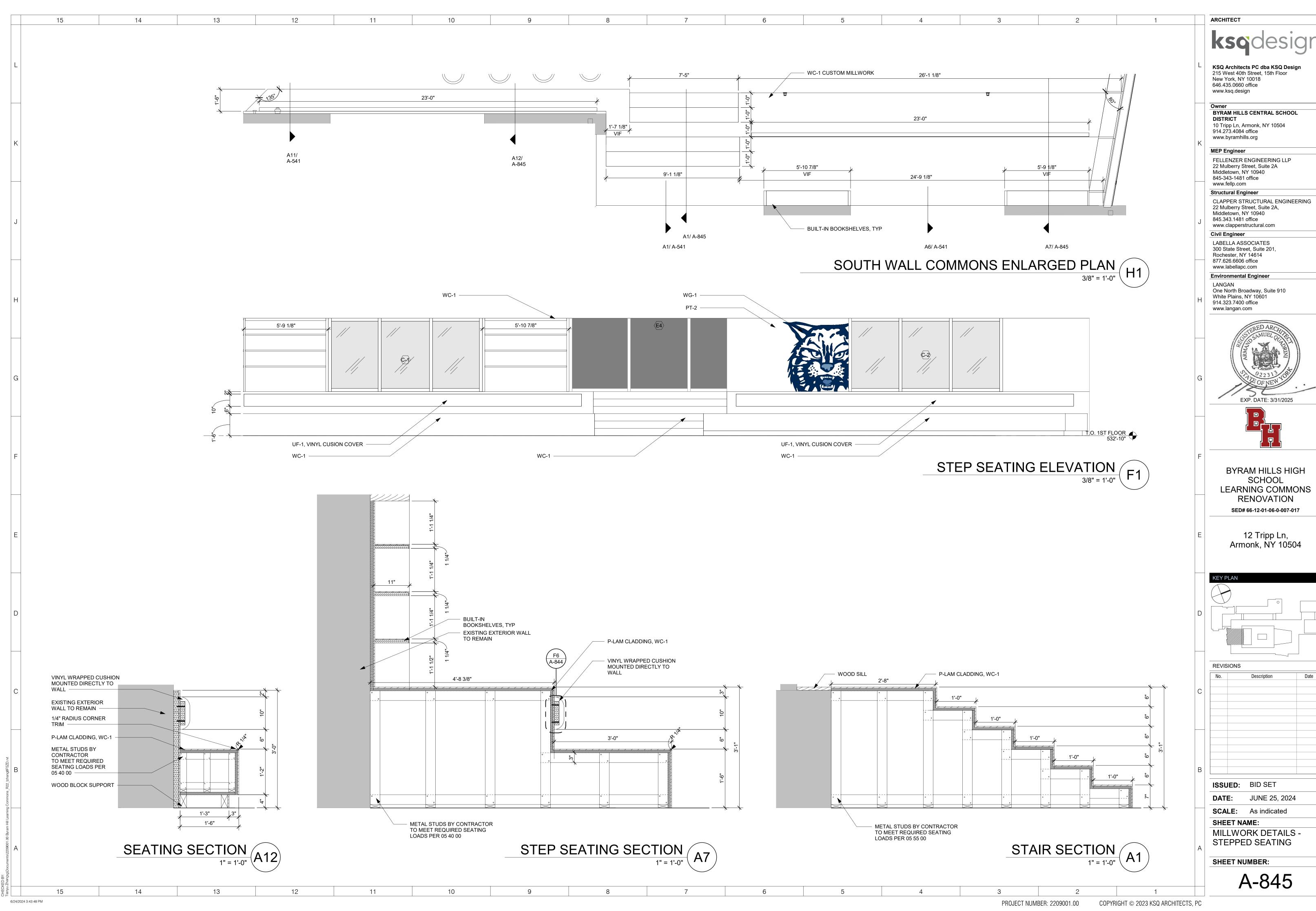




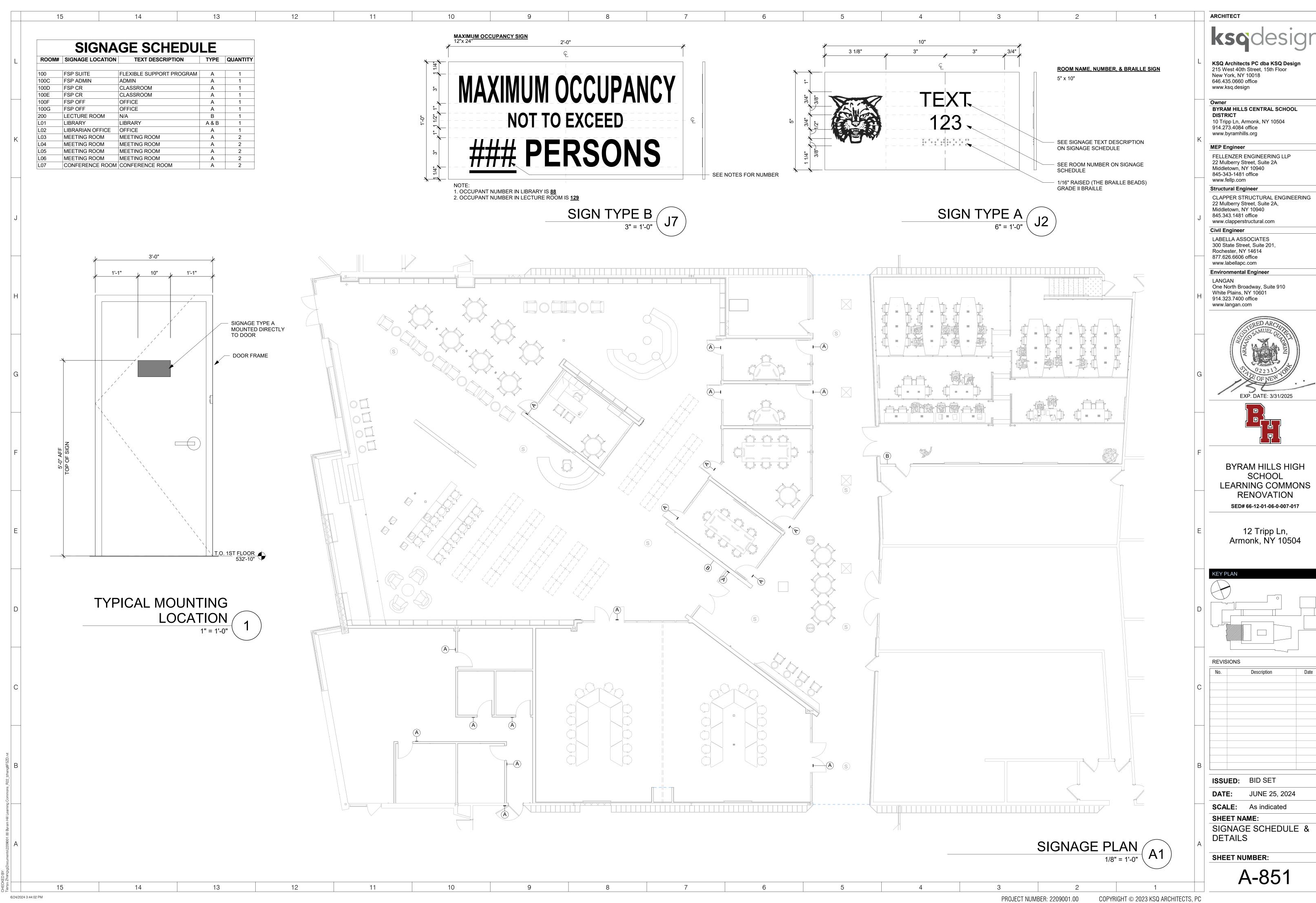




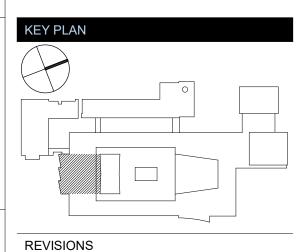












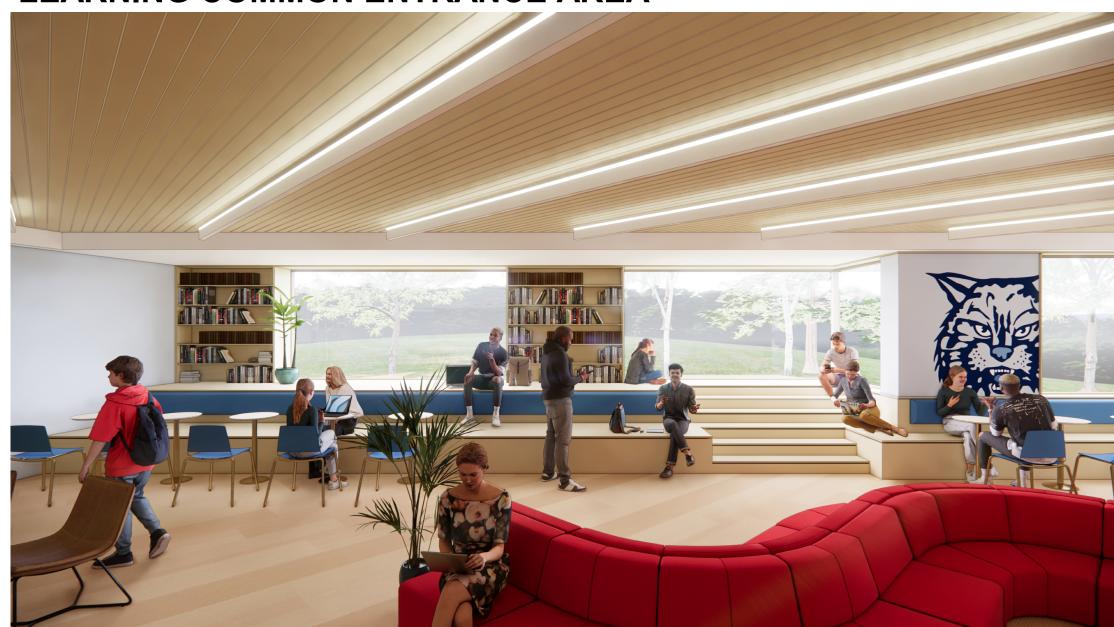


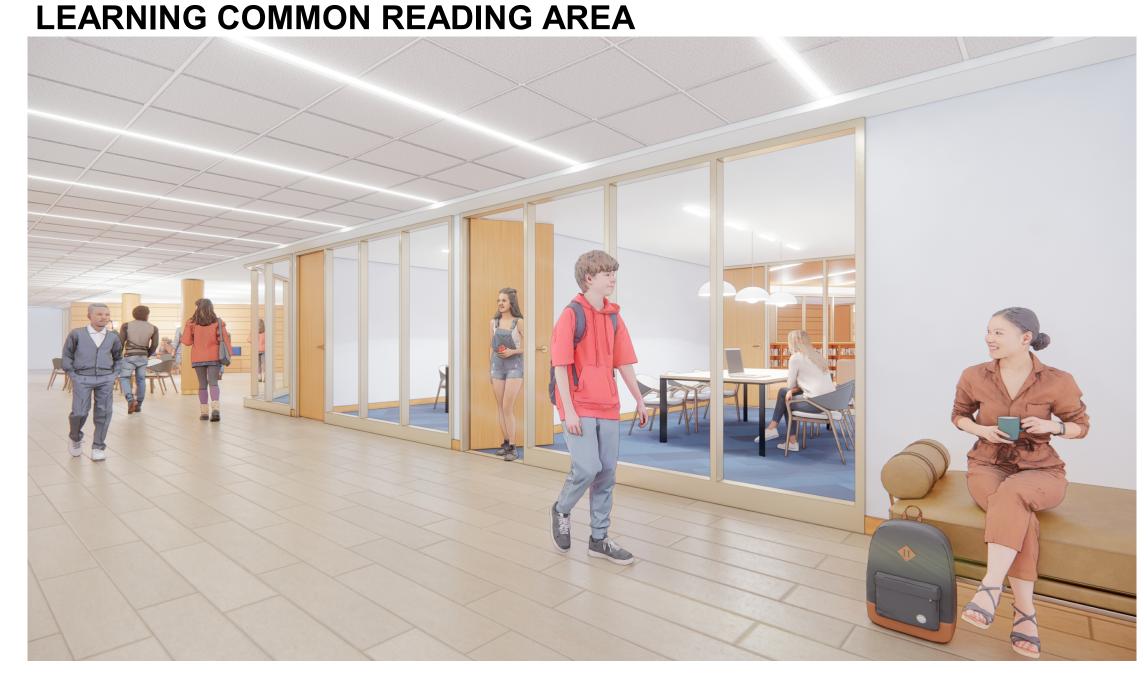
LEARNING COMMON ENTRANCE AREA

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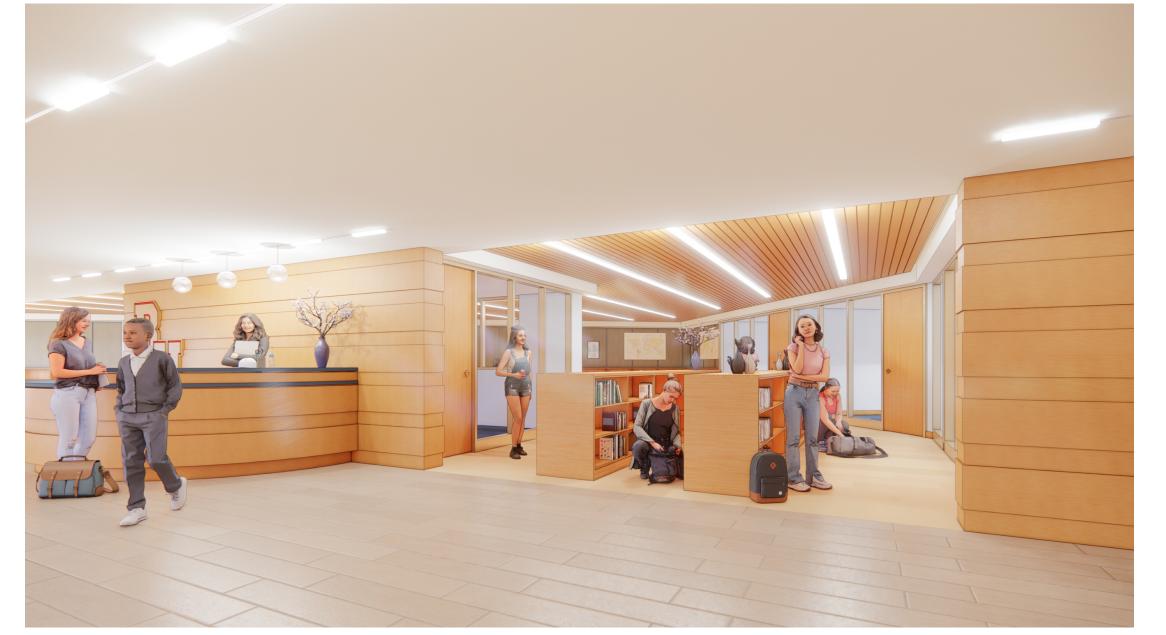
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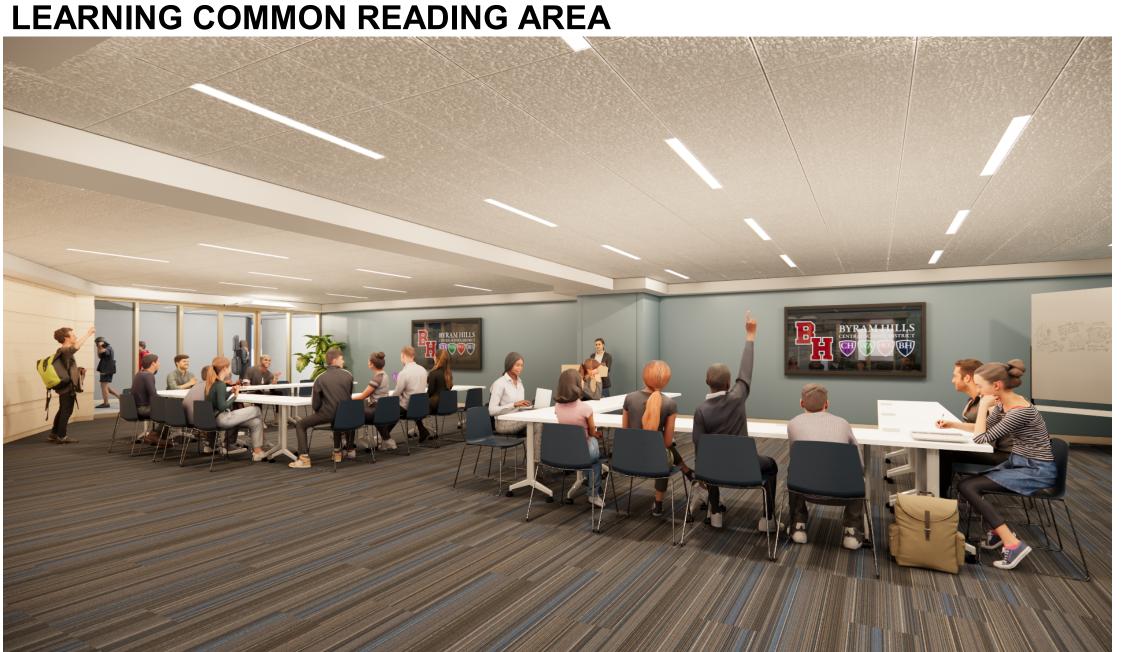


LEARNING COMMON CORRIDOR



LEARNING COMMON RECEPTION AREA





LEARNING COMMON CPMFERENCE ROOM

NOTE: SHOWN RENDERINGS ARE FOR REFERENCE ONLY.SEE DRAWINGS FOR ACTUAL DESIGN AND FINISHES.

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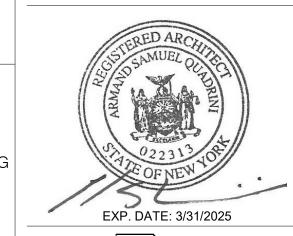
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BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION SED# 66-12-01-06-0-007-017

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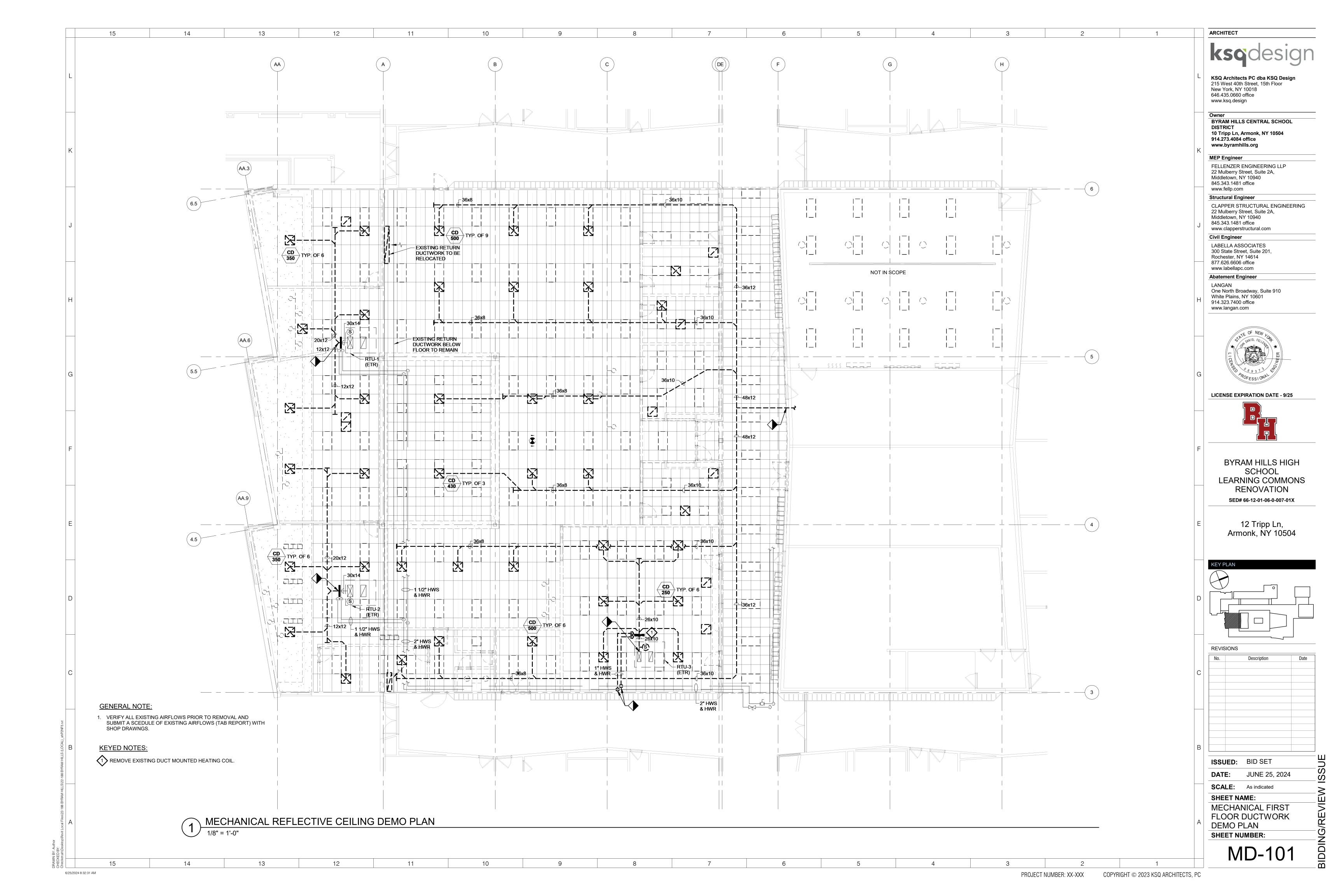
D	KEY PLAN
	REVISIONS

REVISION	REVISIONS											
No.	Description	Date										

ISSUED:	BID SET								
DATE:	JUNE 25, 2024								
SCALE:									
SHEET NAME:									
RENDER	RENDERINGS								

SHEET NUMBER:

R-100



1. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE DEMOLISHED.

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2. REMOVE ALL EQUIPMENT, DUCTWORK AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL SUPPORTS AND HANGERS, HOUSEKEEPING PADS, DAMPERS, VALVES, FITTINGS, CONTROLS AND ASSOCIATED LOW VOLTAGE WIRING, AND ANY OTHER ASSOCIATED ACCESSORIES WHICH PERTAIN TO THE EQUIPMENT TO BE REMOVED.

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- 3. REMOVAL OF ALL POWER CONNECTIONS TO DEMOLITION ITEMS SHALL BE BY THE E.C.
- 4. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DEMOLITION WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT, ENGINEER OR BUILDING FACILITIES MANAGER.
- 5. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT FOR CONNECTION TO NEW EQUIPMENT. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION
- 6. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF **DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE**
- 7. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS
- CONTRACTOR. 8. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
- 9. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION

### **GENERAL NOTES:**

- 1. THE DRAWINGS ON THESE PLANS ARE DIAGRAMMATIC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL HVAC WORK WITH OTHER TRADES AND THE BUILDING STRUCTURE. NO EXTRA PAYMENTS WILL BE AUTHORIZED FOR REROUTING OR REMOVAL OF INSTALLED WORK DUE TO LACK OF COORDINATION WITH OTHER
- 2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK.
- 3. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS, WALLS, FLOORS, ETC., AS REQUIRED TO MAINTAIN ACCESSIBILITY TO VALVES, DAMPERS, TRAPS, COILS, ETC.
- 4. PROVIDE DUCT ACCESS DOORS AT ALL MOTORIZED DAMPERS, FIRE DAMPERS, AND SMOKE
- $|\mathsf{G}|$  5. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.
  - 6. ALL DUCTWORK PASSING THROUGH A FIRE RATED PARTITION SHALL BE PROVIDED WITH A FIRE
- 7. LOCATIONS OF DIFFUSERS AND GRILLES ARE APPROXIMATE. REFER TO ARCHITECTURAL PLANS
- 8. ALL BRANCHES AND TAKE-OFFS SHALL BE EQUIPPED WITH VOLUME CONTROL DAMPERS.
- DAMPERS TO BE OPPOSED BLADE TYPE, 4" MAX. BLADE HEIGHT. VOLUME DAMPERS TO BE LOCATED AS NEAR TO THE POINT OF TAKE-OFF AS PRACTICAL.
- 9. FLEXIBLE DUCT CONNECTIONS SHALL BE LIMITED TO A MAXIMUM LENGTH OF FIVE (5) FEET AND SUPPORTED AT MID-POINT.
- 10. ALL SUPPLY & RETURN AIR DUCTWORK SHALL BE INSULATED.

DAMPER TO MAINTAIN THE FIRE RATING OF THE PARTITION.

- 11. PROVIDE SHUT-OFF VALVES AT ALL PIPING BRANCH TAKE-OFFS AND AT ALL CONNECTIONS TO
- 12. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE MANUAL VENTS ON PIPING AT ALL HIGH POINTS.
- 13. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL
- **EQUIPMENT WITH ELECTRICAL**

**HVAC CONTRACTOR.** 

- 14. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- 15. ALL REQUIRED CONTROL EQUIPMENT AND WIRING SHALL BE FURNISHED & INSTALLED BY THE
- 16. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
- 17. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS. SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND **WORKABLE SYSTEM.**
- 18. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
- 19. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

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### **HVAC LINE TYPES**

EXISTING EQUIPMENT/DUCT TO BE REMOVED EXISTING EQUIPMENT/DUCT TO REMAIN **NEW EQUIPMENT / DUCT HEATING HOT WATER RETURN** HEATING HOT WATER SUPPLY

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### RTU, DUCT COIL, & AHU REFURBISHMENT NOTES:

- THE CONTRACTOR SHALL REFURBISH THE EXISTING AIR HANDLING UNIT(S). REFURBISHMENT SHALL CONSIST OF THE **FOLLOWING:**
- REPLACE ALL FILTERS.

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- VACUUM AND STEAM CLEAN THE HEATING COIL AND COOLING
- C. STRAIGHTEN ("COMB-OUT") THE FINS ON THE HEATING COIL AND THE COOLING
- D. COCLEAN AND LUBRICATE ALL DAMPERS, INCLUDING LINKAGES AND BEARINGS.
- E. REPLACE ALL FAN BELTS. **CLEAN AND LUBRICATE ALL FAN/MOTOR ASSEMBLIES (SUPPLY**

FAN, RETURN FAN, POWER EXHAUST FAN).

- BALANCE ALL FANS TO PROVIDE AIR FLOWS AS SHOWN ON PLANS. SECURE THE FREEZE-STAT TO THE COOLING COIL. VERIFY THAT ALL CONNECTIONS TO THE TEMPERATURE CONTROL SYSTEM ARE
- I. CHECK ALL AUTOMATIC DAMPERS AND VALVES FOR CORRECT
- OPERATION, AND ADJUST COMPONENTS WHERE NECESSARY. CHECK ALL CONTROL WIRING CONNECTIONS. REFASTEN ANY
- LOOSE CONNECTIONS AND REPLACE ANY DAMAGED WIRE. K. VERIFY CORRECT OPERATION OF ALL EXISTING UNIT CONTROLLERS (PRIMARY UNIT CONTROLLER, ECONOMIZER,
- 2. THE CONTRACTOR SHALL ADVISE THE ENGINEER AND OWNER OF ANY COMPONENTS THAT ARE DAMAGED AND REQUIRE REPLACEMENT.

### **SEQUENCE OF OPERATIONS:**

- - a. WHEN THE RTU IS OFF, THE OUTDOOR AIR MOTORIZED DAMPER SHALL CLOSE, THE FANS SHALL BE OFF, AND ALL HEATING AND COOLING SHALL BE DE-ENERGIZED.
- 2. OCCUPIED CYCLE: a. THE SUPPLY FAN IS COMMANDED ON AND RUNS CONTINUOUSLY.
- b. THE OUTDOOR AIR MOTORIZED DAMPER SHALL OPEN TO THE MINIMUM **OUTDOOR AIR INTAKE POSITION.**
- c. HEATING OPERATION:
- THE HEAT PUMP IS CYCLED TO MAINTAIN A MINIMUM RETURN DUCT TEMPERATURE OF 70°F (ADJUSTABLE) AND A MAXIMUM RETURN DUCT TEMPERATURE OF 72°F (ADJUSTABLE). IF THE SPACE TEMPERATURE IS NOT REACHING THE HEATING SETPOINT, THE ELECTRIC HEATER ENERGIES AND OPERATES IN CONJUNCTION WITH THE HEAT PUMP.
- ii. ON A RISE IN RETURN DUCT TEMPERATURE ABOVE 72.0°F (ADJUSTABLE) THE HEAT PUMP SHALL BE MODULATED TO OFF.
- d. COOLING OPERATION:
- MECHANICAL DX COOLING SHALL BE CONTROLLED AND SEQUENCED SO AS TO MAINTAIN A MAXIMUM RETURN DUCT TEMPERATURE CONDITION WITH A COOLING SETPOINT OF 78°F (ADJUSTABLE). ON A DROP IN RETURN DUCT TEMPERATURE TO 76.0°F (ADJUSTABLE), THE COMPRESSORS SHALL BE SEQUENTIALLY STAGED OFF.

### 3. UNOCCUPIED CYCLE:

CLOSED.

a. THE SUPPLY FAN IS SET TO AUTO AND RUNS ONLY ON A CALL FOR HEATING (SPACE TEMPERATURE DROPS BELOW EMERGENCY LOW TEMPERATURE SETPOINT) OR COOLING (SPACE TEMPERATURE RISES ABOVE THE NIGHT SETUP TEMPERATURE SETPOINT) WHILE THE OUTDOOR DAMPERS REMAIN

### **DUCTWORK SYMBOLS**

**DUCTWORK DOUBLE LINE** REPRESENTATION: "A" INDICATES DUCT WIDTH; "B" INDICATES DUCT DEPTH. **DUCTWORK SINGLE LINE REPRESENTATION:** "A" INDICATES DUCT WIDTH; "B" INDICATES DUCT DEPTH.

**SUPPLY AIR DUCT UP** 

**SUPPLY AIR DUCT DOWN** 

**RETURN AIR DUCT UP** 

FLEXIBLE DUCTWORK

**SUPPLY AIR FLOW** RETURN/EXHAUST AIR FLOW

**RETURN AIR DUCT DOWN** 

**VOLUME DAMPER** 

FIRE DAMPER W/ ACCESS DOOR

**MOTORIZED DAMPER w/ ACCESS DOOR** 

**SUPPLY AIR DIFFUSER** 

RETURN GRILLE

## **PIPING SYMBOLS**

DIRECTION OF FLOW TOP CONNECTION, 45° OR 90° **BOTTOM CONNECTION, 45° OR 90°** SIDE CONNECTION

**CAPPED OUTLET** PIPE DOWN TURN

### **VALVE SYMBOLS**

GATE VALVE - THREADED/FLANGED  $\longrightarrow$ **GATE VALVE WITH 3/4" HOSE ADAPTER GLOBE VALVE - THREADED/FLANGED CHECK VALVE STRAINER** WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION) **STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR FLEXIBLE CONNECTION ANGLE GLOBE VALVE BUTTERFLY VALVE** BALL VALVE **CONTROL VALVE (CV) - FLOAT-OPERATED** MODULATING CONTROL VALVE MODULATING CONTROL BUTTERFLY VALVE TWO POSITION CONTROL VALVE

### **GENERAL SYMBOLS**

THREE-WAY MODULATING CONTROL VALVE

POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK **POINT OF DISCONNECT INDICATES SECTION LETTER** XX 🛴 INDICATES DRAWING NUMBER WHERE LOCATED INDICATES TYPE OF AIR OUTLET  $\langle \mathsf{xxx} \rangle$ \XXX /~ - INDICATES AIR FLOW REQUIREMENTS **ADJUSTABLE ANGLE THERMOMETER** WALL MOUNT THERMOSTAT 'A' **DESIGNATES COMPONENT SERVED TEMPERATURE SENSOR** 

**DUCT SMOKE DETECTOR** 

**FAN SWITCH WITH PILOT LIGHT** 

### **AUTOMATIC TEMPERATURE CONTROL POINTS SCHEDULE**

SYSTEM DESCRIPTION	INPUTS						OUTPUTS					SYSTEM FEATURES						
	A	NALC	OG	DIS	SCRETE	AN	ALOG	DI	SCRE	TE		Al	_ARI	IS	ı	PROG	RAM	S
ROOFTOP UNITS		PRESSURE	% OPEN	ON/OFF STATUS	ALARM	PID MODULATION		OPEN/CLOSE OR ON/OFF	SETPOINT	ENABLE/DISABLE	FIRE ALARM FAN SHUTDOWN ON/OFF	STATUS	SAFETIES	TEMPERATURE	OCCUPIED/UNOCCUPIED WITH OVERRIDE	WARM UP/PRE-COOL	LEAD/LAG STAGING	ECONOMIZER
SPACE TEMPERATURE/HUMIDITY	•								•					•				
FAN MOTOR				•				•			•	•			•	•		
R/A-O/A DAMPERS			•			•					•				•	•		•
OUTSIDE AIR TEMP./HUMIDITY	•					•		•	•					•	•	•		•
FILTER SENSORS									•			•	•					
DIFFERENTIAL ENTHALPY	•					•												•

**BDD** 

**BFC** 

**BTUH** 

CFM

CLG

E.C.

**ECC** 

**EXIST** 

ETR

F.A.I.

FLR

**FPC** 

F/SD

G.C.

H.C.

**HCP** 

**RHC** 

SPS

S.S.

TYP

UH

**ENERGY CODE STATEMENT:** 

**UNIFORM CODE STATEMENT:** 

WITH THE 2020 ENERGY CODE.

WITH THE 2020 UNIFORM CODE.

U.N.O.

ACOUSTIC CEILING TILE ACCESS DOOR AFTER FILTER ABOVE FINISHED FLOOR **AIR HANDLING UNIT ACCESS PANEL** BACK DRAFT DAMPER **BELOW FINISH CEILING** BRITISH THERMAL UNITS/HOUR COOLING COIL **CEILING DIFFUSER CUBIC FEET PER MINUTE CONDENSATE PUMP** CONDENSER WATER RETURN DRY BULB TEMPERATURE, °F **DECIBELS DUCT SMOKE DETECTOR** DIRECT EXPANSION **EXHAUST AIR ENTERING AIR TEMP ELECTRICAL CONTRACTOR ENGINEERING CONTROL CENTER EXHAUST FAN EXISTING** EXISTING TO REMAIN FRESH AIR INTAKE FLEXIBLE CONNECTION FIRE DAMPER **FLOOR** FIRE PROTECTION CONTRACTOR **COMBINATION FIRE/SMOKE DAMPER** 

**GENERAL CONTRACTOR GRAVITY HOOD GALLONS PER MINUTE HVAC CONTRACTOR HEPA FILTER** HORSEPOWER HEATING COIL PUMP LINEAR FEET POUNDS PER HOUR

LPR LOW PRESSURE STEAM CONDENSATE LOW PRESSURE STEAM LPS LBS/HF **MIXING BOX MOTORIZED DAMPER** MER **MECHANICAL EQUIPMENT ROOM** MAX. MAXIMUM MBH ONE THOUSAND BTUH MANUAL VENT NOM.

**OUTSIDE AIR** PLUMBING CONTRACTOR PRESSURE DROP (FEET OF WATER) PRE-FILTER PRESSURE REDUCING VALVE POUNDS PER SQUARE IN. **RETURN AIR** REFRIGERANT DISCHARGE **RETURN FAN** 

**REHEAT COIL** REFRIGERANT LIQUID **SUPPLY AIR SMOKE DAMPER** STATIC PRESSURE STATIC PRESSURE SENSOR STAINLESS STEEL **TYPICAL UNIT HEATER UNLESS NOTED OTHERWISE** 

**VALVE VOLUME DAMPER VIBRATION ISOLATOR VERIFY IN FIELD WIRE MESH SCREEN** 

### **ABBREVIATIONS**

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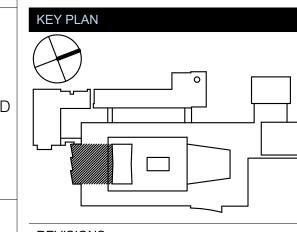
**LICENSE EXPIRATION DATE - 9/25** 



BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

SED# 66-12-01-06-0-007-01X

12 Tripp Ln, Armonk, NY 10504



REVISIONS Description **ISSUED**: BID SET

**DATE:** JUNE 25, 2024 **SCALE:** As indicated SHEET NAME: MECHANICAL SYMBOLS, ABBREVIATIONS &

SHEET NUMBER:

NOTES

6/25/2024 8:31:24 AN

PROJECT NUMBER: XX-XXX

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND

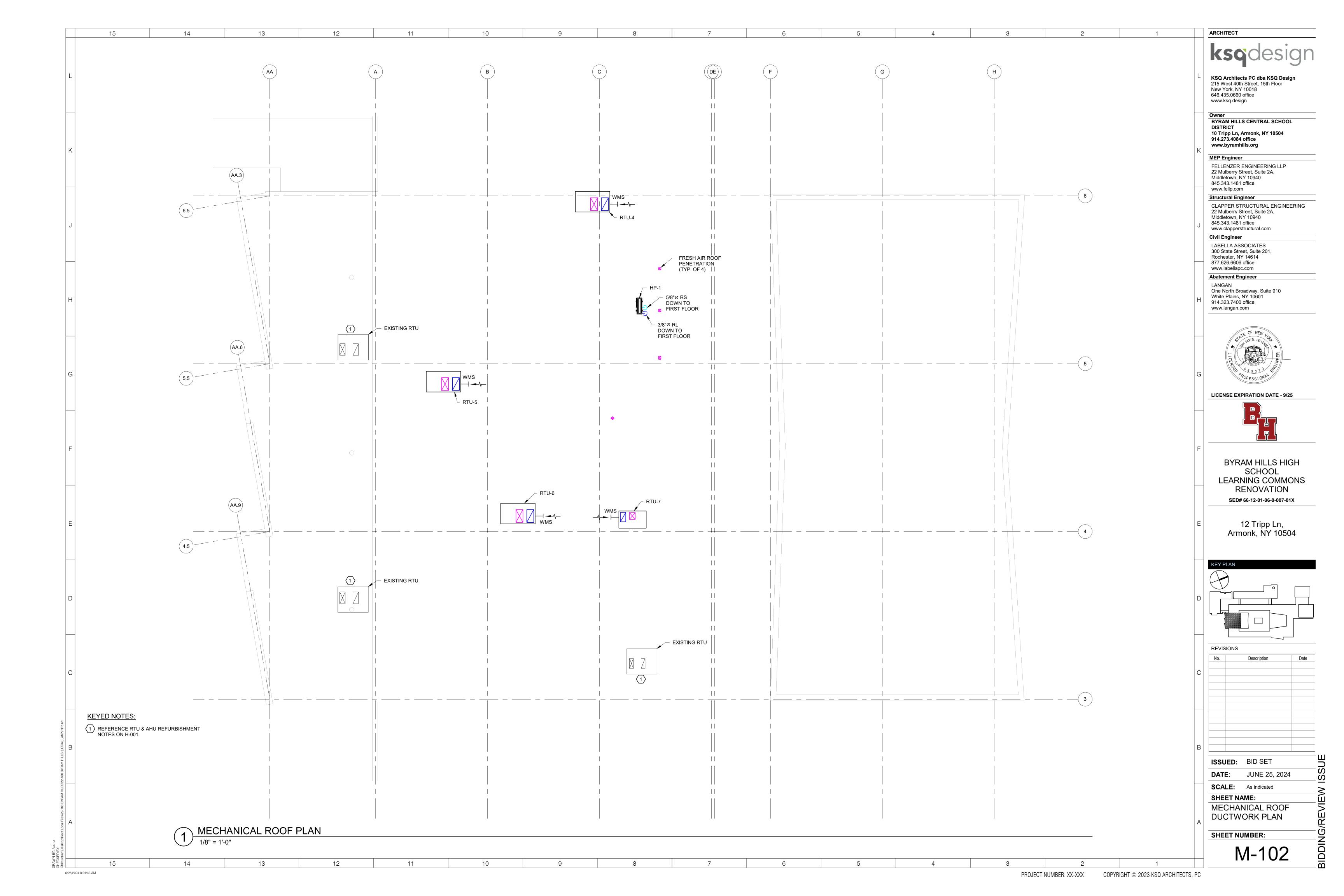
TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND

PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE

PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE

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**MAIN DUCT MAIN DUCT** RETURN **AIR FLOW AIR FLOW** SPLITTER DAMPER -CASTING (GALVANIZED) ADJUSTABLE ROD — BRASS HINGE ----WITH POSITION MARKS (GALVANIZED) WITH **BRANCH DUCT** SET SCREW FOR LOCKING IN POSITION. BRANCH DUCT -ىلى & RETURN كىل **EXHAUST** QUADRANT (GALVANIZED) —

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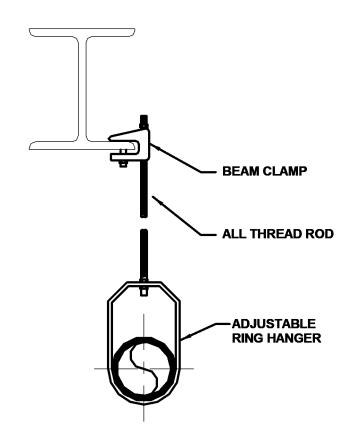
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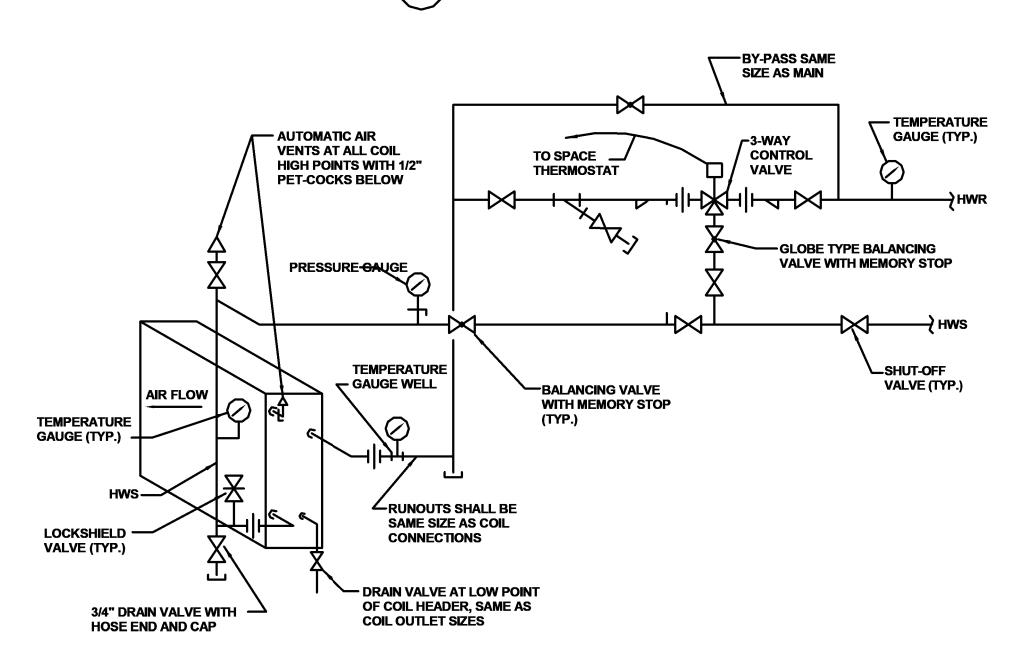
### TYPICAL LOW PRESSURE BRANCH TAKE-OFF DETAIL



# BEAM CLAMP HANGER DETAIL

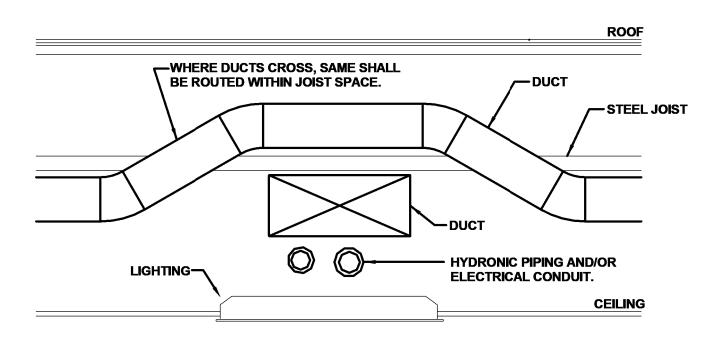
HANGER RODS AN ISOLATORS SCHEE		MASON INDUSTRIES AS					
PIPE SIZE	ROD SIZE	VIBRATION ISOLATOR WATER					
3/4" THRU 1 1/4" DIA.	3/8"	HS-A-45					
1 1/2" through 2" DIA.	3/8"	HS-A-75					
2 1/2" DIA.	1/2"	HS-A-125					
3" DIA.	1/2"	HS-A-200					
4" DIA.	5/8"	HS-A-200					

# PIPE HANGER DETAIL



**5** HOT WATER HEATING COIL CONNECTION DETAIL

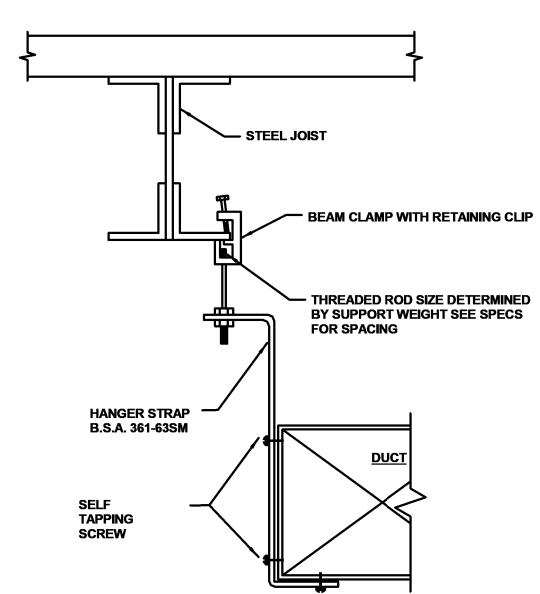
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### NOTE

- 1. THIS DETAIL IS SHOWN FOR COORDINATION PURPOSES. SHOP DRAWINGS SHALL REFLECT THIS COORDINATION EFFORT WHERE LIGHTING, DUCT AND PIPING CROSS. CONTRACTORS SHALL REFER TO OTHER TRADE DRAWINGS FOR COORDINATION PURPOSES. WHERE DUCT, PIPE OR CONDUIT DO NOT CROSS SAME SHALL BE INSTALLED AS TIGHT TO STEEL AS PRACTICAL.
- 2. THE FOLLOWING PRIORITIES SHALL BE MAINTAINED IF A ROUTING CONFLICT ARISES: LIGHTING, DUCT WORK, PIPING (INCLUDING WATER, ELECTRICAL AND SPRINKLER). THIS, HOWEVER DOES NOT ALLEVIATE THE CONTRACTOR FROM PROPER COORDINATION WITH OTHER TRADES.
- WHERE THE ABOVE CONFLICTS WITH CODE, CODE REQUIREMENTS SHALL PREVAIL.
  ROUTE DUCT UNDER EXISTING MEMBERS OR THROUGH TRUSSES.
  MECHANICAL.
- 4. STRUCTURAL CONTRACTOR SHALL NOT PIERCE, CUT OR ALTER EXISTING STRUCTURAL MEMBERS.

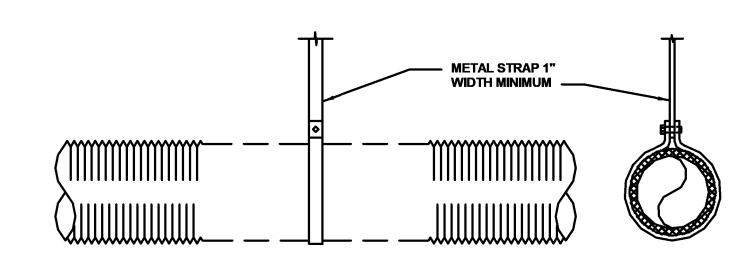
# PLENUM COORDINATION DETAIL N.T.S.



### NOTES:

- 1. DUCTS SHALL NOT BE HUNG FROM OR SUPPORTED BY HUNG CEILING. FOR DUCTS NOT EXCEEDING 2 SQ. FT. IN CROSS-SECTIONAL AREA, HANGERS.
- 2. SHALL BE OF METAL NOT LESS THAN 1/16".
- 3. FOR DUCTS LARGER THAN 2 SQ. FT. IN CROSS-SECTIONAL AREA, HANGERS SHALL BE OF METAL NOT LESS THAN 1" BY 1/8". FOR ALL DUCTS. HANGERS SHALL BE TURNED UNDER AND FASTENED TO THE.
- 4. BOTTOM OF DUCT AS SHOWN ABOVE. WHERE CROSS-SECTIONAL AREA OF DUCT EXCEEDS 8 SQ. FT., HANGERS 5. SHALL BE NOT MORE THAN 4 FT. ON CENTER.

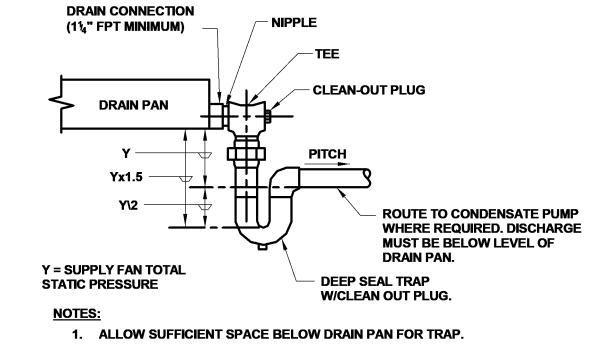
6 METHOD OF HANGING DUCTWORK



### NOTES:

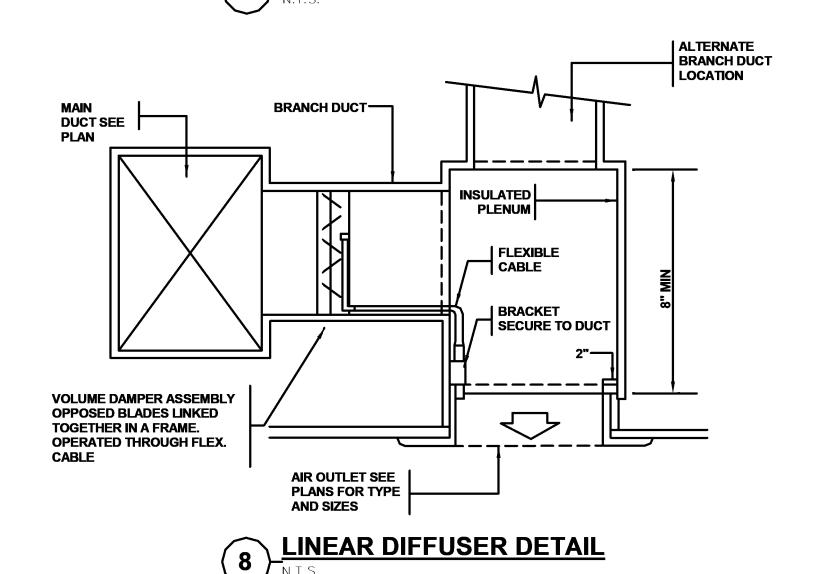
- 1. DUCT SHOULD EXTEND STRAIGHT FOR A MINIMUM OF 3 DUCT DIAMETERS BEFORE BENDING.
- 2. SUPPORT SYSTEM MUST NOT BEND DUCT OR CAUSE OUT OF ROUND SHAPE.
- 3. MAXIMUM SAG 1/2" PER FOOT OR SUPPORT SPACING.
- 4. 5'-0" MAXIMUM FLEX DUCT LENGTH.

## FLEX DUCT SUPPORT



- 2. PITCH DRAIN FOR PROPER RUN-OFF.
- 3. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN SEAL.
- 4. SUPPORT LENGTHY DRAIN LINES TO PREVENT SAG AND CONDENSATE

## CONDENSATE DRAIN DETAIL



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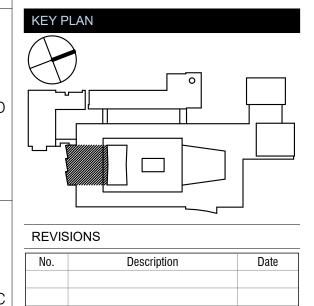
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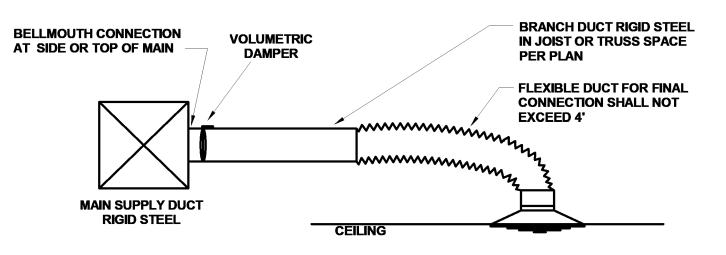
SCALE: As indicated

SHEET NAME:
MECHANICAL DETAILS

SHEET NUMBER:

M-701

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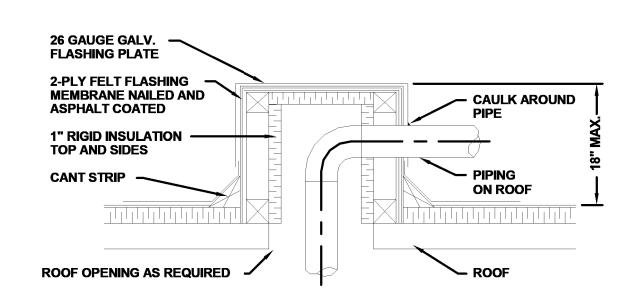


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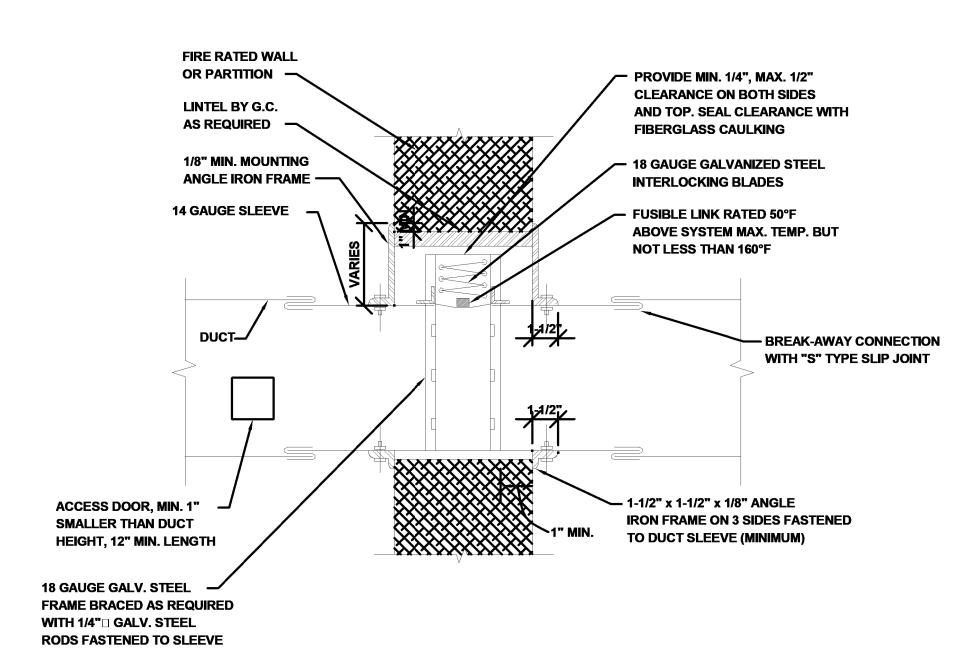
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# 1 DUCT DIFFUSER DETAIL N.T.S.



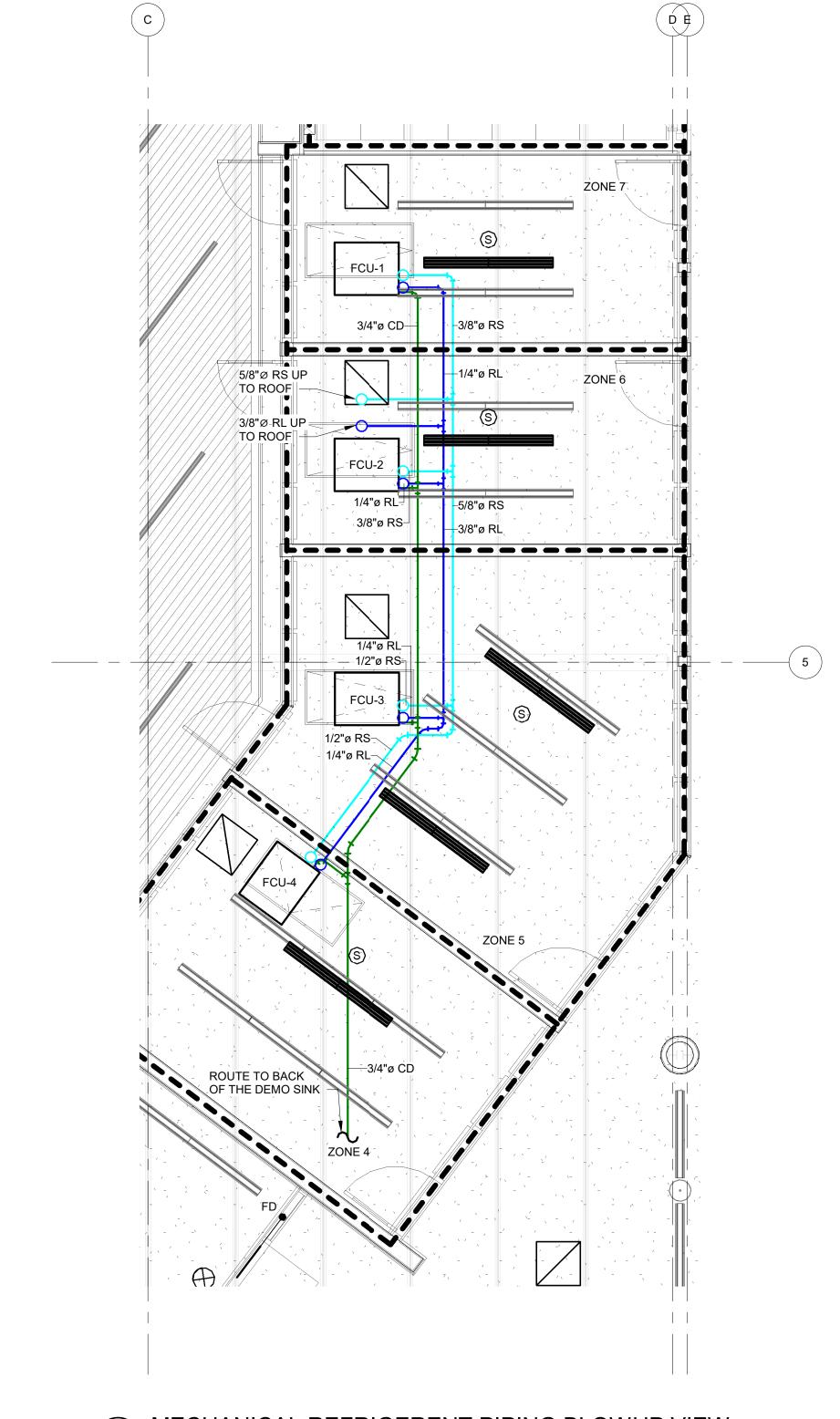
## PIPING THROUGH ROOF N.T.S.



# SHUTTER TYPE FIRE DAMPER FOR FOR LOW PRESSURE SYSTEMS DETAIL

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MECHANICAL REFRIGERENT PIPING BLOWUP VIEW

1/4" = 1'-0"

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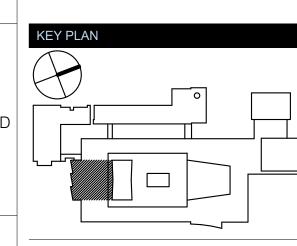
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REVISIONS

No. Description Date

ISSUED: BID SET

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MECHANICAL DETAILS

SHEET NUMBER:

M-702

	DUCTED SPLIT-SYSTEM UNIT SCHEDULE														
UNIT NO.	LOCATION	TYPE	MANUFACTURER	MODEL NO.	NET COOLING/HEATING MOUNTING CAPACITY (BTU/HR) LOCATION		SEER	HSPF	FAN CFM	VOLT/PHASE	MCA	МОСР			
FCU-1,2	OFFICE SPACE	CONCEALED DUCTED	MITSUBISHI	PEAD-A09AA8	9,000	CEILING			250	208/1					
FCU-3	CONFERENCE ROOM	CONCEALED DUCTED	MITSUBISHI	PEAD-A18AA8	18,000	CEILING			500	208/1					
FCU-4	BREAKROOM	CONCEALED DUCTED	MITSUBISHI	PEAD-A12AA8	12,000	CEILING			350	208/1					
HP-1	ROOF	HEAT PUMP	MITSUBISHI	MXZ-SM48NAMHZ2-U1	48000/48,000		16	9.5		208/1	42	50			

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1. PROVIDE CONDENSATION PUMPS FOR ALL INDOOR EQUIPMENT PIPE TO NEAREST SANITARY CONNECTION WITH FUNNEL DRAIN.

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- 2. INSTALL HP-1 WITH ACCESSORY BASE PAN HEATER.
- 3. SIZE REFRIGERANT PIPING AS RECOMMENDED BY MANUFACTURER.
- 4. PROVIDE HP-1 WITH WIND BAFFLES.

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5. EC SHALL PROVIDE POWER TO INDOOR UNITS THROUGH OUTDOOR UNIT.

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		HOT WATER/HEATING COIL SCHEDULE															
Г				NAANUUT O	CAPACIT	Y DATA	COIL DATA				WATER DATA						
L	UNIT	SERVICE	LOCATION	MANUF. & MODEL #	AIR FLOW (CFM)	CAPACITY (MBH)	FACE AREA (SQ. FT)	FACE VEL. (FPM)	ROWS	FIN/FT	SIZE (WxH)	FLOW (GPM)	E.W.T. (°F)	L.W.T. (°F)	E.A.T. (°F)	L.A.T. (°F)	REMARKS
	HC-1	RTU-3	DUCT MOUNTED	GREENHECK	2200	105	2.33	800	2	108	30" X 12"	10.5	180	160	51	95	SEE NOTES

- 1. PRVOIDE HC-1 WITH 3-WAY MODULATING CONTROL VALVES.
- 2. REFERENCE HEATING COIL CONNECTON DETAIL ON M-701.

				ROOFT	OP UNIT SO	CHEDU	ILE			
	ADEA		SUPPLY FAN DATA		COOLING COIL	ELEC	CTRICAL DATA	NAANUUTACTUURER		
UNIT	AREA SERVED	TOTAL SYSTEM (CFM)	MINIMUM O.A. (CFM)	E.S.P (IN. WG)	TOTAL CAPACITY (MBH)	MCA	VOLTAGE/PHASE	MANUFACTURER (MODEL)	WEIGHT (LBS)	REMARKS
EXISTING RTU-1	ZONE 8	2000	SEE VENTILATION TABLE	1.2	60	32	208/3ø	CARRIER		SEE NOTES
EXISTING RTU-2	ZONE 2	2000	SEE VENTILATION TABLE	1.2	60	32	208/3ø	CARRIER		SEE NOTES
EXISTING RTU-3	ZONE 3	2200	SEE VENTILATION TABLE	1	60	32	208/3ø	CARRIER		SEE NOTES
RTU-4,5,6	ZONE 1	2000	400	0.8	60	90	208/3ø	TRANE (WHC050H3RGA)	1100	SEE NOTES
RTU-7	CORRIDOR	1200	200	0.6	60	80	208/3ø	TRANE (WHC036H3REB)	800	SEE NOTES

- 1. REBALANCE RTU-1,2, & 3 TO THE AIRFLOWS STATED ABOVE.
- 2. REFERENCE REFURBISH NOTES ON M-001.
- 3. ENSURE ALL ROOFTOP UNITS HAVE DUCT SMOKE DETECTORS. PROVIDED BY MC AND WIRED BY EC AS NECESSARY.
- 4. RTU-4, 5,6, & 7 SHALL BE TIED TO THE EXISTING BMS.
- 5. PROVIDE RTU-4,5,6 WITH A 18KW ELECTRIC STRIP HEATER TO OPERATE IN CONJUNCTION WITH THE HEAT PUMP DURING LOW ABIMENT CONDITIONS.

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- 6. PROVIDE RTU-7 WITH A 12KW ELECTRIC STRIP HEATER TO OPERATE IN CONJUNCTION WITH THE HEAT PUMP DURING LOW ABIMENT CONDITIONS.
- 7. PROVIDE RTU-4,5,6 & 7 WITH A 7-DAY PROGRAMMABLE THERMOSTAT.

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			All	R OUTL	ET SCHED	ULE				
DESIGNATION AND SYMBOL	AIRFLOW (CFM)	OVERALL LENGTH (FEET)	INLET/NECK SIZE (INCHES)	FACE SIZE (INCHES)	APPLICATION	MANUF. & MODEL	ACCESSORIES	MAX S.P.	FINISH	REMARKS
LD-1	500	15'	6" Ø		2-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-2	300	9'	6" Ø		3-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-3	400	10'	10" Ø		2-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-4	100	4'	7" Ø		2-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-5	200	6'	6" Ø		2-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-6	600	18'	6" Ø		2-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-7	600	15'	10" Ø		3-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
LD-8	300	9'	6" Ø		2-SLOT LINEAR DIFFUSER	PRICE (SDS100)	PROVIDE SDB PLENUM	0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
CD-1	150-200 201- 250		8" Ø 10" Ø	24" X 24"	CEILING DIFFUSER	PRICE (SPD)		0.08	COORDIANTE WITH ARCHITECT	SEE NOTES
RG-1	100-1200			24" X 24"	PLENUM RETURN GRILLE	PRICE (PDR)		0.03	COORDIANTE WITH ARCHITECT	SEE NOTES

1. ALL LINEAR DIFFUSERS INSTALLED WITHIN THE SLATTED CEILING WILL REQUIRE CUSTOM PLENUMS DUE TO THE HEGIHT OF THE SLATS. CONTRACTOR SHALL INCORPARTE COST OF CUSTOM PLENUMS IN BASE BID.

	VENTILATION	I TABLE P	ER 2020 N	ICNYS Ch	apter 4	
Space (Room #)	Occupancy Classification	Area (sqft)	Space Ventilation (CFM/ft",	Number of Occupants	Occupant Ventilation (CFM/person)	Total Ventilation Airflow (CFM)
FSP SUITE (100)	OFFICES	880	0.06	4	5	78
FSP ADMIN (100C)	OFFICES	128	0.06	2	5	20
FSP CR (100D)	CLASSROOM	67	0.12	1	10	21
FSP CR (100E)	CLASSROOM	67	0.12	1	10	21
FSP OFF (100F)	OFFICES	149	0.06	2	5	21
FSP OFF (100G)	OFFICES	117	0.06	2	5	20
LIBRARY (L01)	MULTIUSE ASSEMBLY	5,190	0.06	100	7.5	1,249
LIBRARIAN OFFICE (L02)	OFFICES	205	0.06	1	5	19
MEETING ROOM (L03)	CONFERENCE ROOMS	151	0.06	3	5	28
MEETING ROOM (L04)	CONFERENCE ROOMS	151	0.06	3	5	28
MEETING ROOM (L05)	CONFERENCE ROOMS	299	0.06	16	5	118
MEETING ROOM (L06)	CONFERENCE ROOMS	216	0.06	10	5	75
SNACK KIOSK	BREAKROOM	300	0.06	16	5	118

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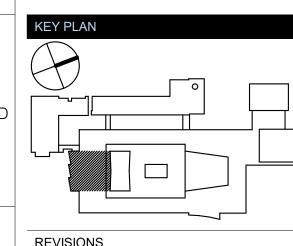
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**DATE:** JUNE 25, 2024 SCALE: As indicated SHEET NAME: MECHANICAL

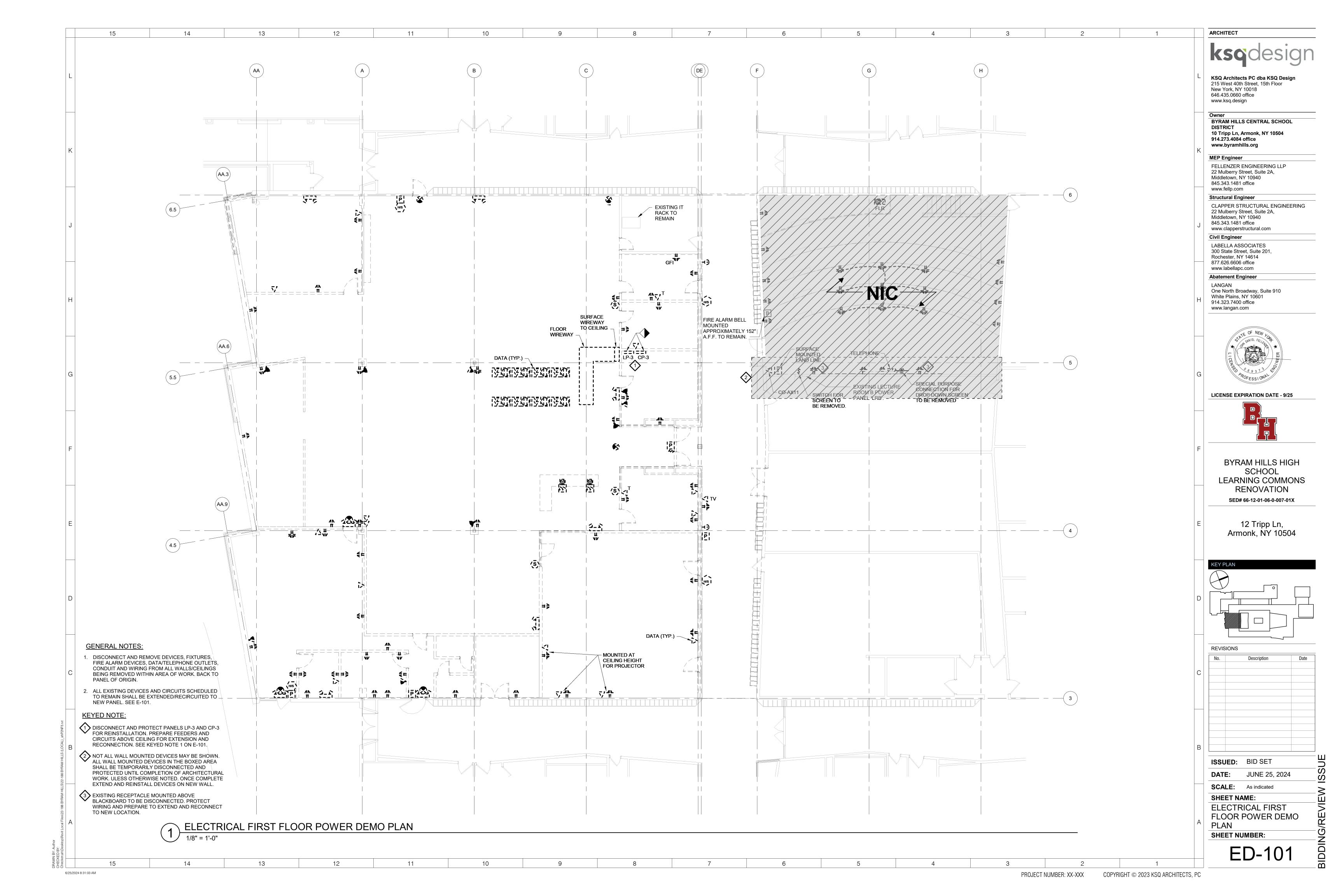
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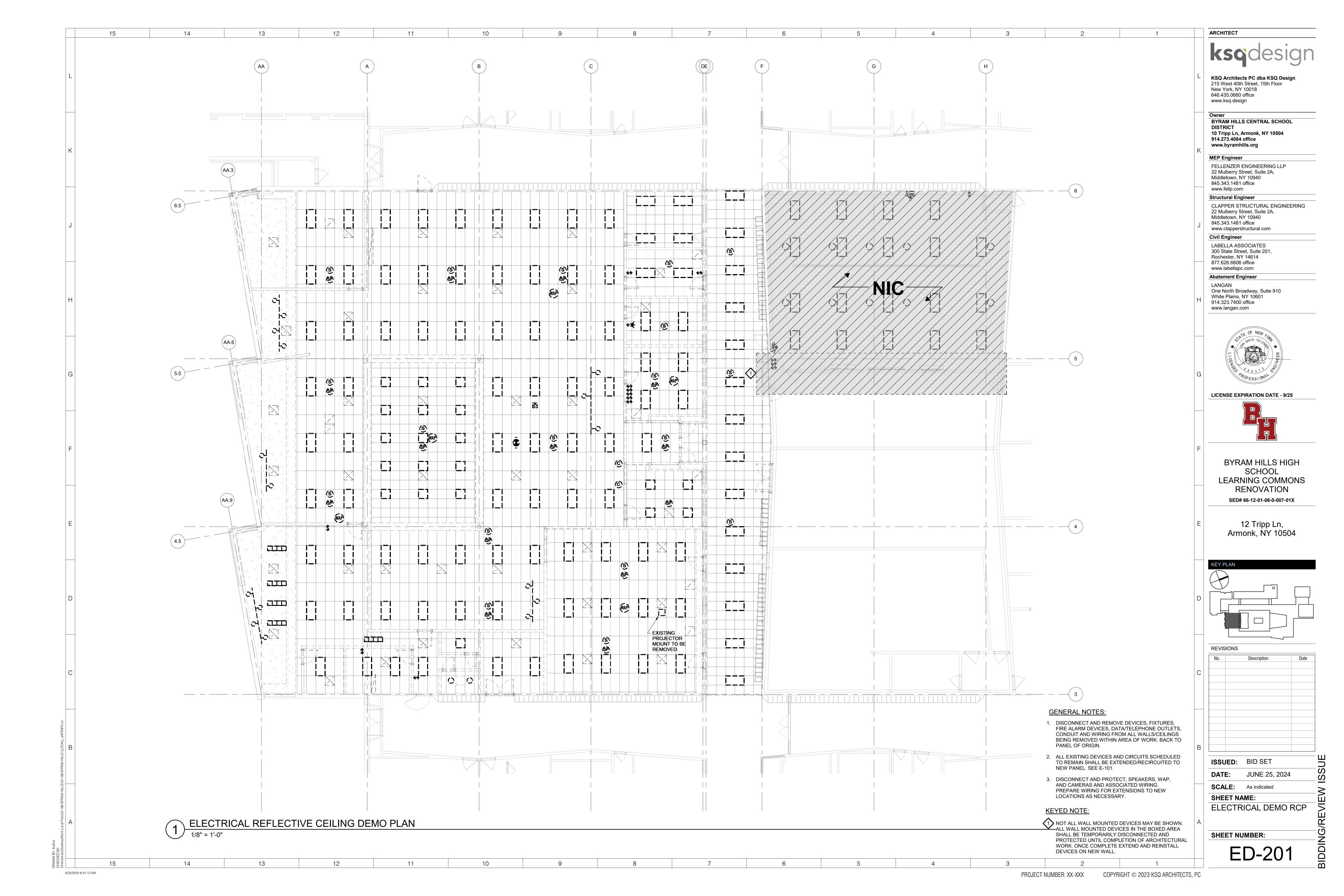
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13. THE ELECTRICAL CONTRACTOR SHALL NOT ENDANGER THE STABILITY OF

OTHERWISE, AND SHALL NOT IN ANY WAY CUT OR ALTER THE WORK OF

ANY OTHER CONTRACTOR, EXCEPT WITH THE WRITTEN CONSENT OF AND

THE STRUCTURE OR ANY PART THEREOF BY CUTTING, DRILLING OR

14. THE ELECTRICAL CONTRACTOR SHALL SECURE ALL APPROVALS AND

CERTIFICATES AND PAY ALL FEES FOR ALL THE WORK INSTALLED.

CERTIFICATES SHALL BE DELIVERED TO THE GENERAL CONTRACTOR

APPLICABLE VERSION OF THE NEC AS WELL AS ALL STATE AND LOCAL

GENERAL ARRANGEMENTS AND LOCATION OF OUTLET BOXES, ETC. THE

CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE OWNER, MAKE ALL

REASONABLE MODIFICATIONS IN THE WORK AS MAY BE REQUIRED TO PREVENT CONFLICT WITH EXISTING CONDITIONS, THE WORK OF OTHER

17. PRIOR TO SUBMISSION OF BID PROPOSAL, THE CONTRACTOR SHALL VISIT

THE SITE AND EXAMINE CAREFULLY THE EXISTING CONDITIONS AND THE

C. VERIFY & COORDINATE SCOPE OF WORK INVOLVING CONNECTIONS

FIRE ALARM SYSTEM AS REQUIRED TO ACCOMMODATE ALL ADDED

ASSOCIATED WITH RIGGING OF EQUIPMENT TO BE PREPURCHASED.

D. VERIFY SCOPE OF WORK THAT HAS TO BE DONE WITH EXISTING

DIFFICULTIES THAT WILL BE INCURRED DURING THE PERFORMANCE OF

UNDER THE DIRECTION OF THE ARCHITECT AND/OR GENERAL

15. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST

16. THE DRAWINGS INDICATE AND THE SPECIFICATIONS DESCRIBE THE

TRADES AND FOR THE PROPER INSTALLATION OF THE WORK.

B. VERIFY & COORDINATE SCOPE OF DEMOLITION WORK.

E. VERIFY WITH GENERAL CONTRACTOR SCOPE OF WORK

F. COORDINATE WITH THE BUILDING ENGINEER AND GENERAL

19. ARRANGE FOR SITE VISIT WITH THE BLDG. OWNER REPRESENTATIVE AND

20. CLAIMS FOR ADDITIONAL COMPENSATION ARISING DUE TO THE FAILURE

OF THE CONTRACTOR TO FULLY UNDERSTAND THE SITE CONDITIONS

A. INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH

c. ONLY WITH WRITTEN CONSENT OF THE GENERAL

C. ALARM AND EMERGENCY SYSTEMS: NOT TO BE INTERRUPTED.

D. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS

E. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND

b. AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF

REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN

ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO

CONTRACTOR SHALL SEARCH OUT ALL EXISTING CIRCUITS FED

13

ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING

F. PRIOR TO DEMOLITION OF AN EXISTING POWER PANEL, THE

FROM THE PANEL TO PREVENT ANY ACCIDENTAL SERVICE

CONTRACTOR AND/OR BUILDING OWNERS REPRESENTATIVE.

A. VERIFY & COORDINATE CONDUIT ROUTING.

TO EXISTING BASE BUILDING SYSTEMS.

CONTRACTOR SHUT DOWNS OF EXISTING

SHALL NOT BE PAID FOR BY ANY OTHER PARTY.

MINIMUM INTERFERENCE TO EXISTING

a. AT NO ADDITIONAL CHARGES.

**EXISTING SERVICES.** 

**NEW AND EXISTING WORK.** 

CONTINUITY AS REQUIRED.

INTERRUPTIONS.

15

**B. TEMPORARY SHUTDOWNS OF EXISTING SERVICES:** 

FACILITIES.

**GENERAL CONTRACTOR.** 

21. CONNECTIONS TO EXISTING WORK:

FACILITIES.

BEFORE FINAL PAYMENT WILL BE MADE.

WORK.

22. LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL **CONNECTIONS. CONDUIT OVER 10 FEET IN WHICH WIRING IS NOT INSTALLED-FURNISH PULL STRING.** 23. DO NOT PULL THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32

12

DEG F (0 DEG C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS 24. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. INSTALL SWITCH ON SIDE OPPOSITE

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HINGE; VERIFY FINAL DOOR HINGE LOCATION IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION. 25. JUNCTION & PULL BOXES: DO NOT LOCATE EXPOSED IN FINISH SPACES UNLESS REQUIRED BY NEC. WHERE NECESSARY, REROUTE CONDUIT OR

MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. PROVIDE PULL BOXES AS INDICATED AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE AND COORDINATE LOCATIONS WITH OTHER TRADES. COVERS OF JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE. FOR EMPTY CONDUITS, INSTALL PULL BOXES EVERY 100 FEET AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.

26. SUPPORT PANEL, JUNCTION & PULL BOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON CONDUIT.

27. FOR EACH LOCATION OF OTHER TRADES EQUIPMENT, SEE RESPECTIVE TRADE DRAWINGS.

28. FOR RECEPTACLE & OUTLETS MOUNTING HEIGHTS AND POSITION (HORIZONTAL, VERTICAL), COORDINATE WITH ARCHITECT, OWNER, REPRESENTATIVE & DATA/ COMMUNICATION CONSULTANT.

29. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAILS SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT **EQUIPMENT REQUIRED FOR A COMPLETE WORKABLE SYSTEM.** 

30. ALL CONDUITS, ETC. SHALL BE SUPPORTED FROM STRUCTURAL STEEL ONLY. COORDINATE WITH GENERAL CONTRACTOR.

31. PROVIDE BARRIERS IN ALL PULL BOXES FOR CONDUIT SETS.

32. PAINT AND RUST PROOF ALL HARDWARE & CONDUITS ON ROOF AND IN EXPOSED AREAS AS DIRECTED BY GENERAL CONTRACTOR.

33. LETTER SHOWN ADJACENT TO LIGHTING FIXTURES INDICATES CIRCUIT NUMBER.

34. ALL GROUND CONNECTIONS TO THE BUILDING STEEL SHALL BE EXOTHERMIC WELDED.

35. FLEXIBLE CONNECTIONS IN EXPOSED AREAS SHALL NOT EXCEED 18"

36. ALL EQUIPMENT DEVICES, WIRING, ETC. SHOWN ON THE DRAWINGS IS NEW

UNLESS OTHERWISE NOTED. 37. ELECTRICAL CONTRACTOR SHALL PROVIDE SLEEVES/ OPENINGS FOR ALL CONDUIT RISERS PENETRATING WALLS, ROOF & FLOOR SLABS. ALL ROOF

AND MECH. ROOMS SLAB PENETRATIONS SHALL BE WATERPROOF. METHOD OF PENETRATIONS & FIRE/WATER WATER PROOFING SHALL BE APPROVED BY ARCHITECT AND STRUCTURAL ENGINEER, COORDINATE WITH GENERAL CONTRACTOR.

38. ELECTRICAL CONTRACTOR SHALL BECOME FAMILIAR AND COMPLY WITH OWNERS BUILDING STANDARDS FOR CONSTRUCTION.

39. ALL FINAL CONNECTIONS TO VIBRATING EQUIPMENT (MOTORS, GENERATORS ETC.) SHALL BE THROUGH A LIQUID TIGHT FLEXIBLE METAL

40. LOCATION OF ALL SLAB PENETRATIONS FOR SLEEVES & CONDUITS SHALL BE REVIEWED & APPROVED BY STRUCTURAL ENGINEER & ARCHITECT.

41. CONTRACTOR SHALL WIRE NO MORE THAN EIGHT CONVENIENCE RECEPTACLES TO A 20A SINGLE POLE CIRCUIT. UTILIZE 2-#12&1 #12 GND IN 3/4" CONDUIT & 1-20A SINGLE POLE CIRCUIT BREAKER FOR EACH CIRCUIT. INSTALL ADDITIONAL CIRCUIT AS NECESSARY TO MEET THIS

42. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING

43. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

44. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT: DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.

45. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

> SWITCHBOARDS, PANEL BOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS THAT ARE LIKELY TO REQUIRE **EXAMINATION, ADJUSTMENT SERVICING OR MAINTENANCE** WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE **EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE** OF THE **EQUIPMENT**

### LIGHTING SYMBOLS

2'x2' - LENSED LIGHTING FIXTURE (SEE SCHEDULE)

CEILING MOUNTED VACANCY SENSOR

EXIT LIGHT (SEE SCHEDULE)

1P, 20A, TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE,

COLOR BY ARCHITECT. MOUNT 48" AFF. 1P, 20A, 3-WAY TOGGLE SWITCH, PROVIDE WITH MATCHING FACE

PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF. 1P, 20A, DIMMER SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.

1P, 20A, TOGGLE SWITCH WITH BUILT-IN VACANCY SENSOR, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.

### **COMMUNICATION SYMBOLS**

COMBINATION TELEPHONE/DATA OUTLET. PROVIDE & INSTALL (2) CAT. 6 CABLES FROM OUTLET LOCATION TO ABOVE CEILING EACH IN 34" CONDUIT. MOUNT 18" AFF UNLESS OTHERWISE NOTED. COORDINATE EXACT LOCATION OF TERMINATION WITH SCHOOL IT.

TV OUTLET. PROVIDE & INSTALL PULL STRING FROM OUTLET LOCATION TO ABOVE CEILING EACH IN 34" CONDUIT. MOUNT 18" **AFF UNLESS OTHERWISE NOTED.** 

**CEILING MOUNTED INTERCOM SPEAKER DEVICE** 

**CEILING MOUNTED NETWORK CAMERA** 

CEILING MOUNTED WIRELESS NETWORK ACCESS POINT

1. REFER TO THE FLOOR PLANS FOR LOCATION & QUANTITY OF FIRE ALARM

2. ALL NEW FIRE ALARM WIRING SHALL BE IN TEFLON WIRE AND SHALL BE **CONCEALED IN CEILING SPACES & WALLS.** 

3. CONTRACTOR IS RESPONSIBLE FOR ALL FILING AND FINAL INSPECTION AS PER THE LOCAL AUTHORITY HAVING JURISDICTION.

4. CONTRACTOR TO PROVIDE AND INSTALL ALL ADDITIONAL NECESSARY MODULES, INTERFACE MODULES AND DEVICES REQUIRED TO PROVIDE AN

OPERABLE ALARM SYSTEM IN COMPLIANCE WITH ALL CODES. 5. FIRE ALARM PANEL SHALL PROVIDE CONTINUOUSLY SUPERVISED

6. ACTIVATION OF THE SMOKE DETECTORS SHALL CAUSE A GENERAL ALARM AFTER THE SMOKE DETECTOR PERFORMS VERIFICATION.

MONITORING OF ALL SYSTEMS FOR OPENS, SHORTS AND GROUNDS.

7. ACTIVATION OF ANY PULL STATION OR HEAT DETECTOR SHALL IMMEDIATELY CAUSE THE ALARM PANEL TO ENTER THE ALARM MODE

8. UPON ENTERING THE PANEL ALARM MODE, THE ALARM INDICATING DEVICE SHALL BE ACTIVATED, AND THE SUPPLY FANS SHALL SHUT-DOWN AND THE DIGITAL COMMUNICATOR SHALL NOTIFY THE CENTRAL RECEIVING STATION. (LOCAL FIRE CONTROL CENTER).

9. CONTRACTOR SHALL PROVIDE ALL NECESSARY ADDITIONAL RELAY DEVICES OR POWER TRANSFORMERS FOR PROPER OPERATION OF THE FAN SHUT-DOWN UNITS AND OTHER RELATED DEVICES.

10. BATTERY BACKUP SHALL PROVIDE A MINIMUM OF 24 HRS. OPERATION WITH A 15 MINUTE ALARM AT THE END OF 24 HRS. REPLACE EXISTING BATTERY

11. EXISTING FIRE ALARM SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA CODES 70, 70E, 72, BCNYS, FCNYS, AS WELL AS ALL LOCAL AND STATE CODE REQUIREMENTS.

12. PROVIDE APPURTENANCES NECESSARY SUCH THAT IF MORE THEN TWO STROBES ARE VISIBLE THEY SHALL FLASH IN SYNCH.

13. ENTIRE FIRE DETECTION AND ALARM SYSTEM SHALL BE FURNISHED AND INSTALLED BY A N.Y. STATE LICENSED ALARM CONTRACTOR.

14. ALL AIR HANDLING SYSTEMS RATED 2,000 CFM OR MORE SHALL BE PROVIDED WITH DUCT SMOKE DETECTORS FAN SHUTDOWNS CONNECTED TO THE FIRE ALARM SYSTEM.

### **POWER SYMBOLS**

**SPEC GRADE NEMA 5-20R RECEPTACLE.** -GFI INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE SPEC GRADE NEMA 5-20R RECEPTACLE. MOUNT AT 44" AFF OR 6" ABOVE COUNTER, UON. -GFI INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE 1P, 3 WIRE, 125V QUAD RECEPTACLE. -GFI INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE 1P, 3 WIRE, 125V SIMPLE RECEPTACLE. SPECIAL PURPOSE CONNECTION

JUNCTION BOX, SIZE PER N.E.C. NON-FUSED DISCONNECT SWITCH, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. SHALL HAVE THE SAME # OF POLES

AS CONNECTING CIRCUIT UNLESS OTHERWISE NOTED.

SCHEDULE FOR CONDUIT & CABLE QUANTITY AND SIZE.

CONDUIT HOME RUN TO DESIGNATED PANEL. REFER TO PANEL

208Y/120V, 3Ø, 4W PANEL BOARD (SEE SCHEDULE)

**DOUBLE HOME RUN** 

GROUND

**CIRCUIT BREAKER - 100A TRIP - SINGLE POLE** 

### **GENERAL SYMBOLS**



POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK

POINT OF DISCONNECT

### **ELECTRICAL LINE TYPES**

EXISTING TO BE REMOVED EXISTING TO REMAIN **NEW DEVICE NEW WIRING NEW FIXTURE** 

### **ELECTRICAL DEMOLITION NOTES:**

1. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE

2. REMOVALS SHALL INCLUDE, BUT NOT BE LIMITED TO DEVICES, FIXTURES, FIRE ALARM DEVICES, DATA/TEL. OUTLETS, POWER CONNECTIONS TO HVAC

3. ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY TEMPORARY WORK AND/OR MATERIALS TO RENDER EXISTING SYSTEM OPERATIONAL DURING ALL PHASES OF CONSTRUCTION IN ALL OCCUPIED SPACES. INCLUDING BUT NOT LIMITED TO, POWER, DATA, LIGHTING, EMERGENCY COMPONENTS & ALARMS.

4. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.

5. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.

6. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.

LEGEND AND SCHEDULE OF FIRE ALARM EQUIPMENT

OP921

SL2HSWR-AL

OP921 w/

AND ST-XX

PROVIDE APPURTENANCES NECESSARY SUCH THAT IF MORE THEN TWO STROBES ARE

MANUFACTURER CATALOG #

SIEMENS

VISIBLE THEY SHALL FLASH IN SYNCH.

2. STROBES MUST BE PLACED 15' FROM THE END OF ANY CORRIDOR.

(H/S)

**EQUIPMENT AND DISCONNECT SWITCHES, CONDUIT & WIRING.** 

COORDINATE WITH ALL TRADES, OWNER AND OVERALL CONSTRUCTION PHASING

DESCRIPTION

ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR.

**USER SELECTED SENSITIVITY LEVEL BETWEEN** 

1-3.5%. TWIN RED/GREEN STATUS LEDS. SELF

HORN-STROBE WITH SELECTABLE 15,30,75, 110,

86-96 db HORN OUTPUT. INDOOR USE ONLY.

ADDRESSABLE MANUAL PULL STATION. RED

SYNCHRONIZED STROBE WITH SELECTABLE

**COVER. INDOOR USE ONLY.** 

15,30,75 OR 110 cd OUTPUT. 16V-33VDC, RED

DUCT SMOKE DETECTOR HOUSING AND SMOKE

**DETECTOR. COORDINATE SIZE OF SAMPLING TUBE** 

WITH DUCTWORK. PROVIDE RELAYS AS REQUIRED.

135, OR 185 cd STROBE OUTPUT AND SELECTABLE

CHECK AGAINST FALSE ALARMS 19V DC.

DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN.

**ABBREVIATIONS** ACOUSTIC CEILING TILE **AMPERE FRAME ABOVE FINISHED FLOOR** AMPERE INTERRUPTING CAPACITY **AUTO** AUTOMATIC **AMERICAN WIRE GAUGE BARE COPPER WIRE** CONDUIT CAT CATALOG **CIRCUIT BREAKER CEILING COPPER** DIVISION DRAWING E.C. **ELECTRICAL CONTRACTOR** ELEC. **ELECTRICAL EQUIP EQUIPMENT EMT ELECTRICAL METALLIC TUBING FIRE ALARM PANEL** FLOOR **FLEX FLEXIBLE FEET OR FOOT** F.W.E. **FURNISHED WITH EQUIPMENT** G, GND G.C. **GENERAL CONTRACTOR HVAC** HEATING, VENTILATING & AIR CONDITIONING INTERRUPTING CAPACITY INTERMEDIATE METAL CONDUIT JUNCTION BOX **KILO VOLT** KILO VOLT AMP **KILO WATT** LIGHT-EMITTING DIODE LIGHTING PANEL LIGHTING **MECHANICAL CONTRACTOR** THOUSAND CIRCULAR MILS MAIN CIRCUIT BREAKER MECHANICAL **MAIN DISTRIBUTION PANEL** MLO MAIN LUGS ONLY **MOUNTED** MOUNTING NEUTRAL NOT IN CONTRACT

**PULL BOX POWER** RECEPT. RECEPTACLE **REQUIRED** 

RGS **RIGID GALVANIZED STEEL ROOM** SCHED.

NATIONAL ELECTRIC CODE

NON-METALLIC CONDUIT

NOT TO SCALE

SCHEDULE SECT. SECTION SPEC. **SPECIFICATION** SPKR. SPEAKER SW SWITCH

SYS SYSTEM TEL **TELEPHONE TYPICAL** 

U.N.O. **UNLESS NOTED OTHERWISE VERIFY IN FIELD** 

**WEATHER PROOF** 

XFMR/ TRANSFORMER TRANSF.

### ENERGY CODE STATEMENT

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY

### **UNIFORM CODE STATEMENT:**

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 UNIFORM CODE.

**WIRELESS NETWORK ACCESS POINT** 

REVISIONS Description

**ARCHITECT** 

KSQ Architects PC dba KSQ Design

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**LICENSE EXPIRATION DATE - 9/25** 

BYRAM HILLS HIGH

SCHOOL

**LEARNING COMMONS** 

RENOVATION

SED# 66-12-01-06-0-007-01X

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www.ksq.design

**ISSUED**: BID SET

**SCALE:** As indicated SHEET NAME:

NOTES

6/25/2024 8:29:18 AM

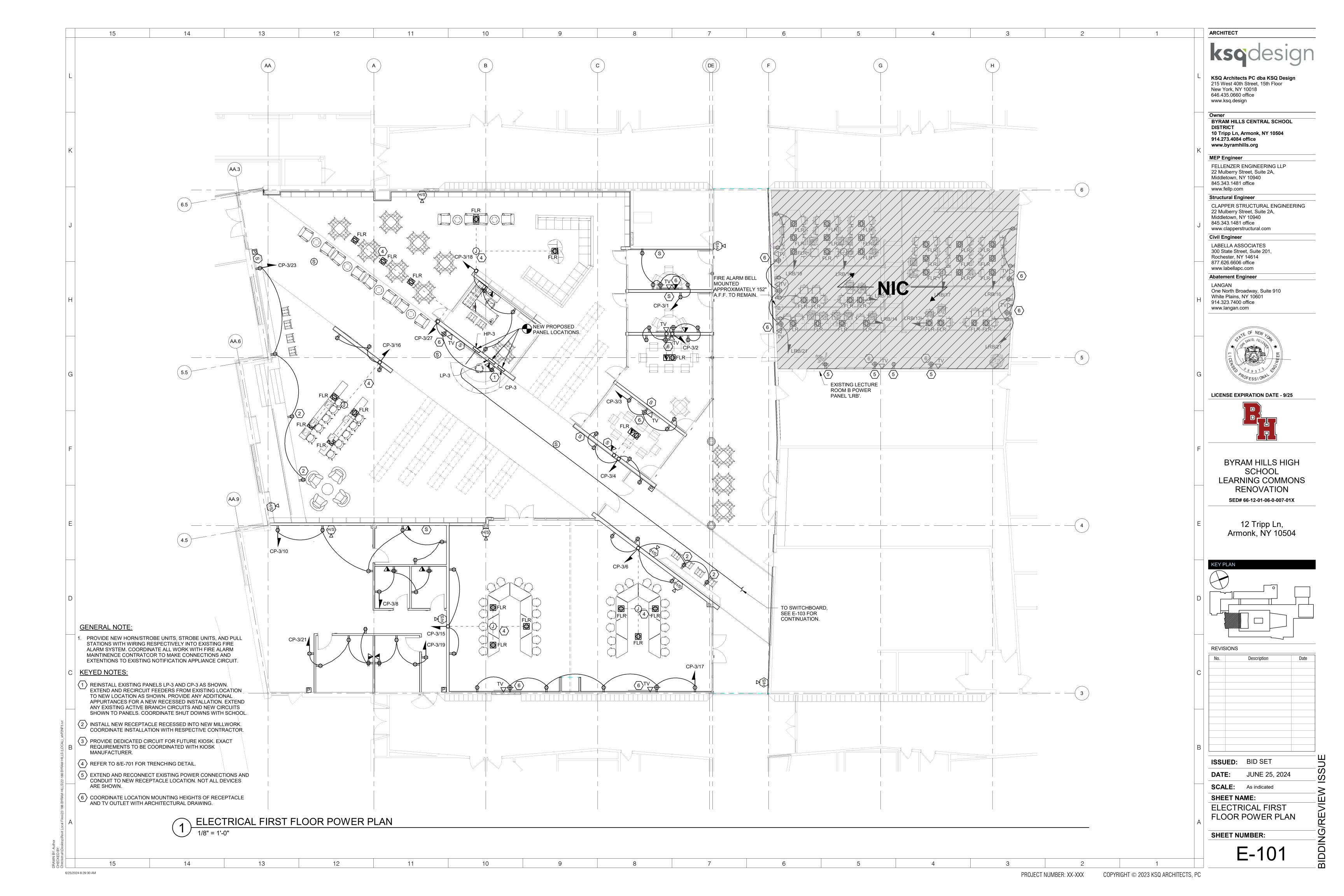
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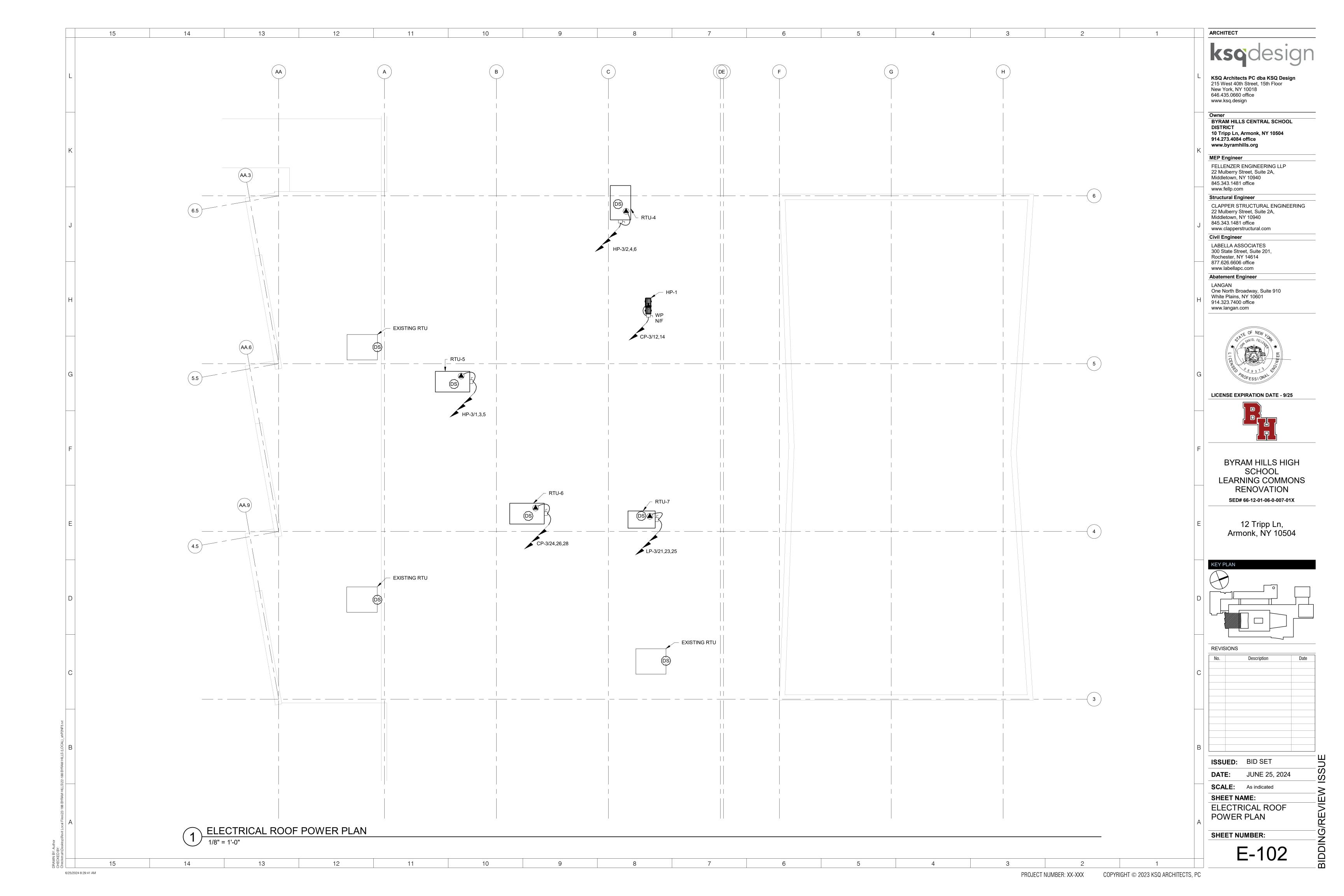
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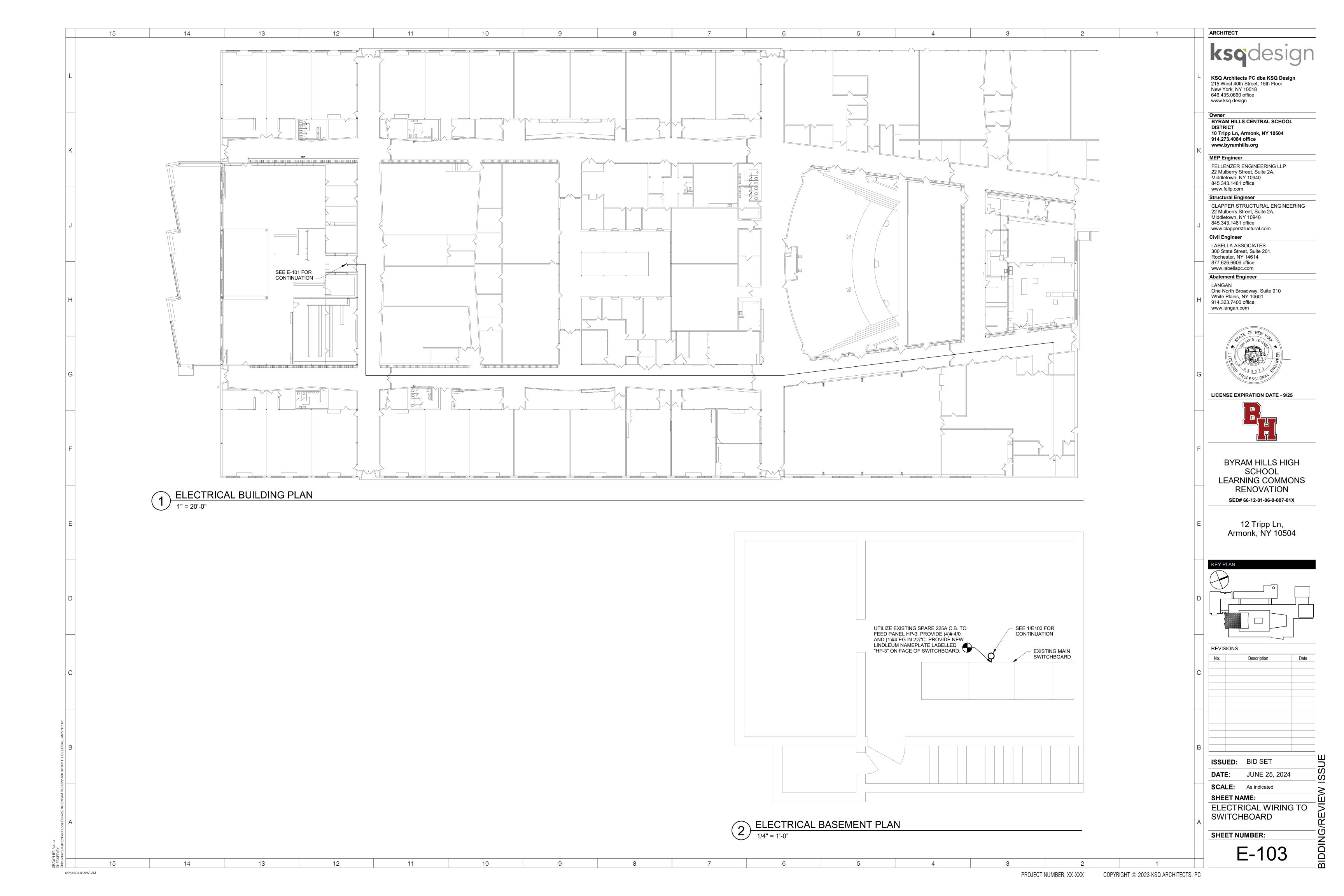
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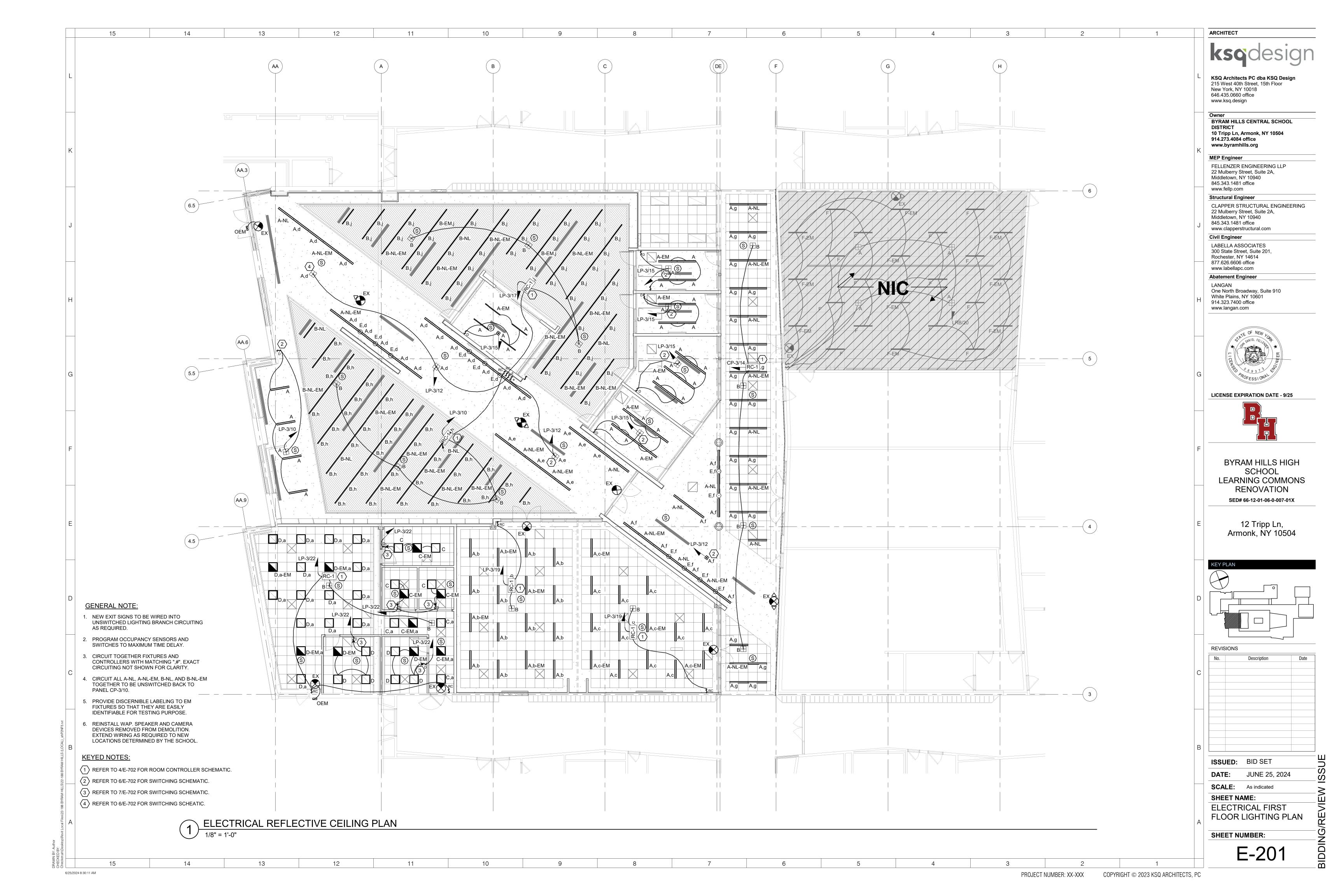
ELECTRICAL SYMBOLS. **ABBREVIATIONS &** 

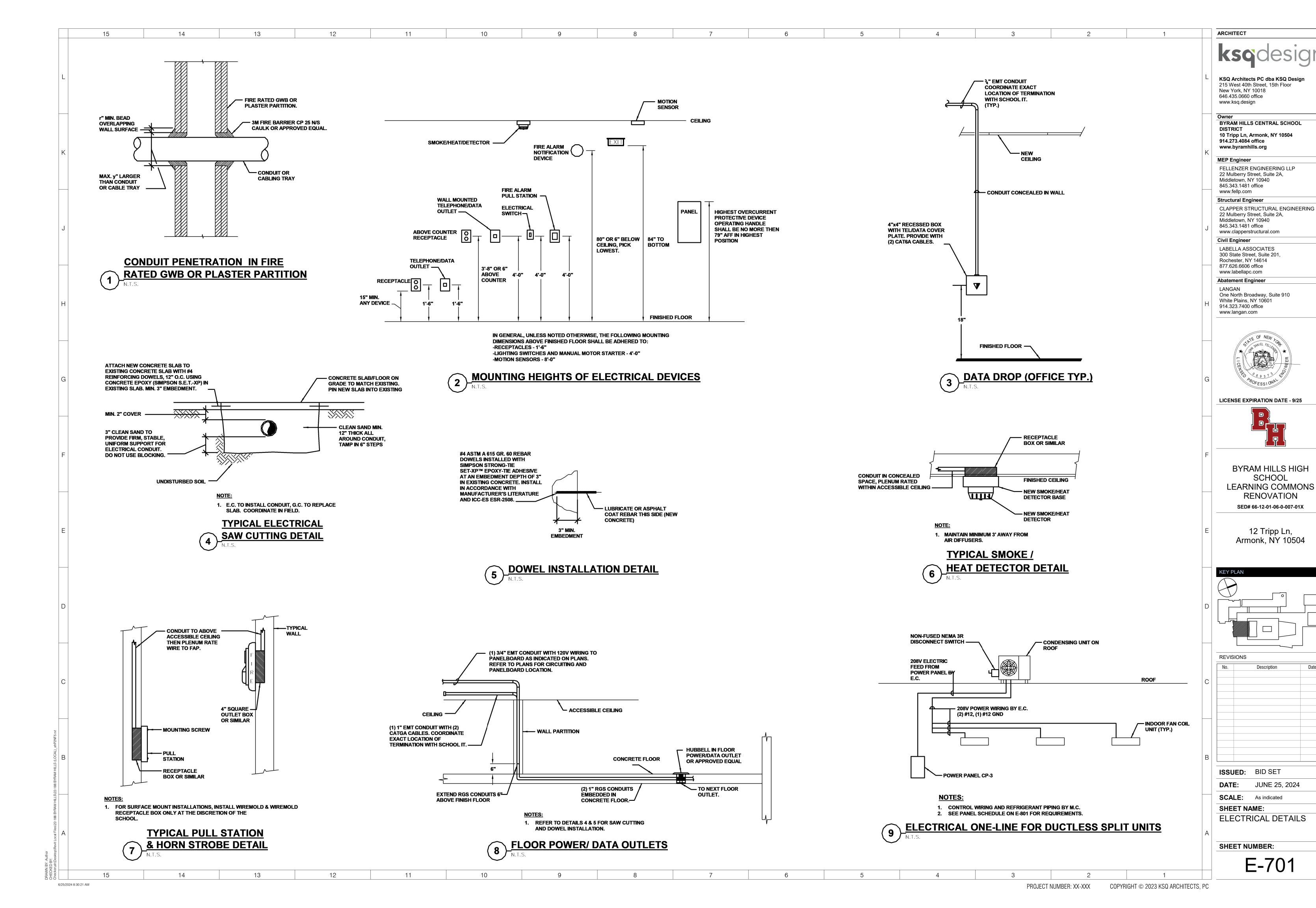
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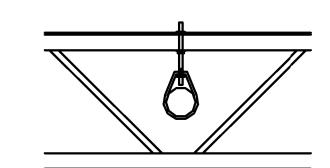






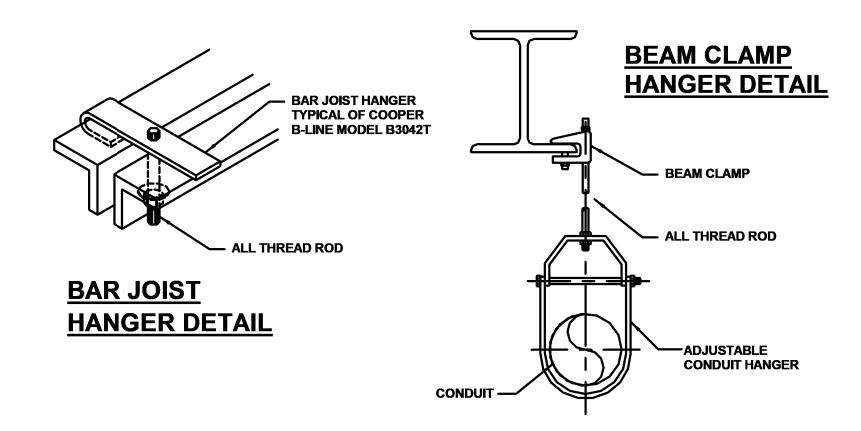






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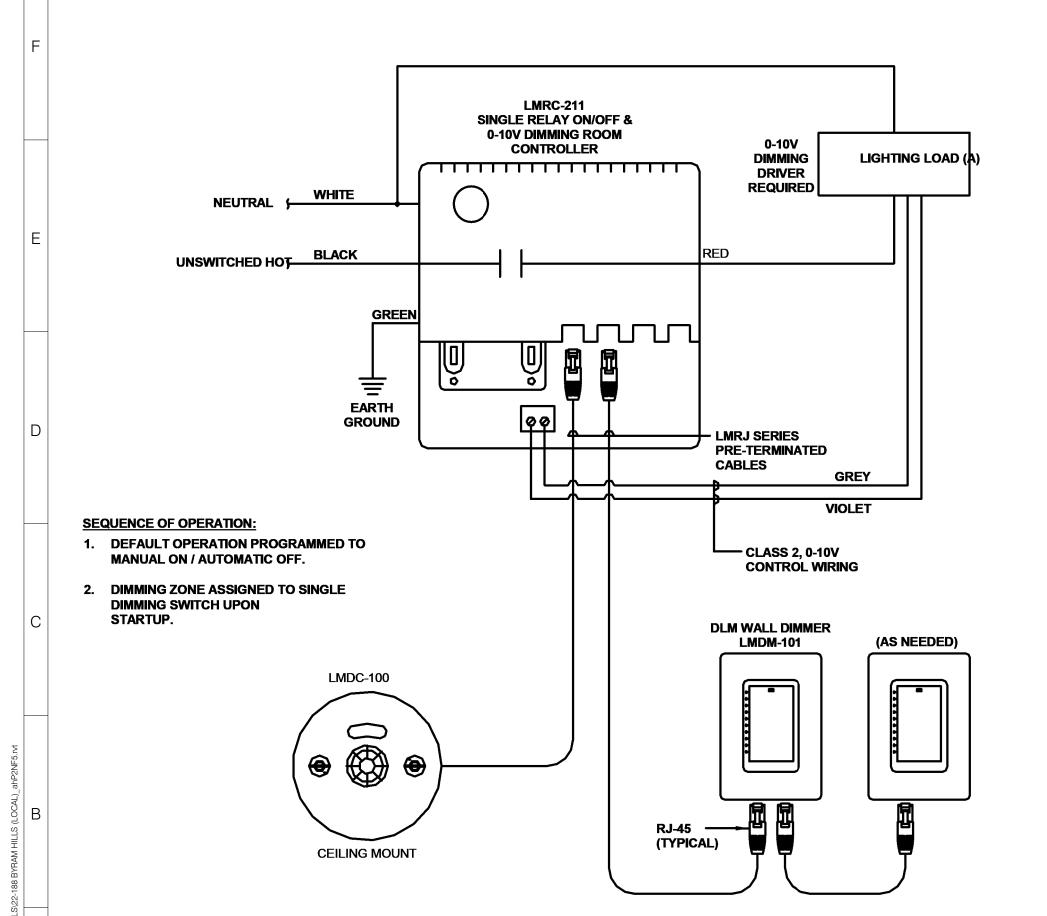


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## TYPICAL CONDUIT HANGER DETAIL



13

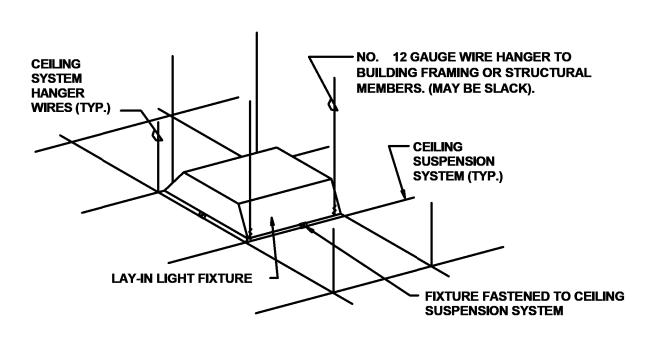
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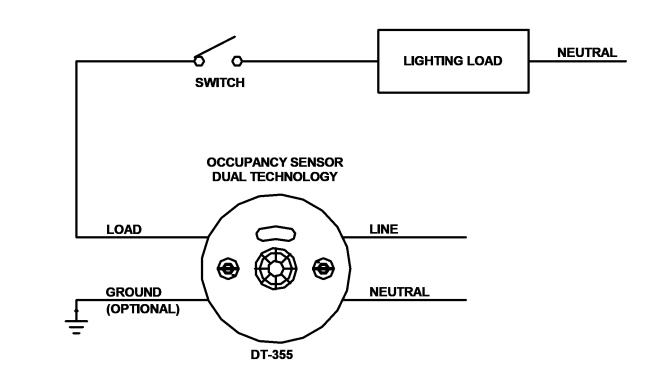
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TYPICAL SINGLE ZONE DIMMING ROOM CONTROLLER
N.T.S.

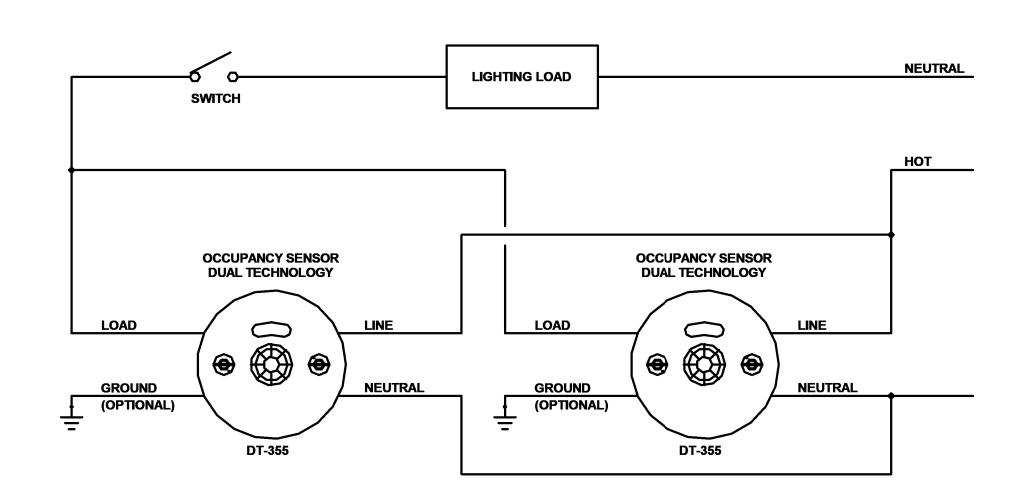
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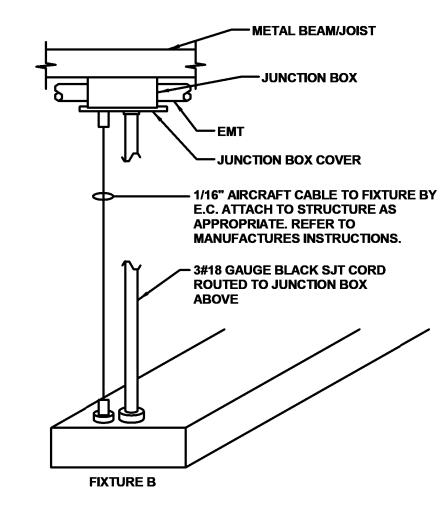
# LAY-IN LIGHT FIXTURE SUPPORT DETAIL N.T.S.



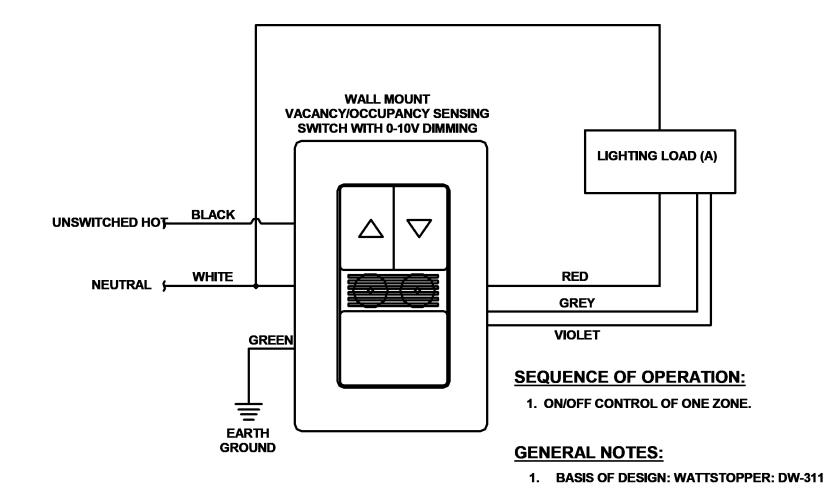
# 5 SWITCHING DETAIL N.T.S.



6 LINE VOLTAGE CEILING SERSOR WIRING
N.T.S.



# 3 TYPICAL PENDANT FIXTURE DETAIL N.T.S.



TYPICAL WALL MOUNT VACANCY/OCCUPANCY

SENSOR WITH 0-10V DIMMING DETAIL

N.T.S.

ARCHITECT

ksqdesign

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LICENSE EXPIRATION DATE - 9/25



BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

SED# 66-12-01-06-0-007-01X

12 Tripp Ln, Armonk, NY 10504

)	KEY PLAN		
>	REVISIONS No.	Description	Date
3	ISSUED:		
	SCALE:	As indicated	

SHEET NAME:

SHEET NUMBER:

ELECTRICAL DETAILS

E-702

PROJECT NUMBER: XX-XXX COPYI

		<b>LEGEND AND SCHE</b>	DULE OF LIGHTING EQUIPMENT	
SYMBOL	MANUFACTURER	MODEL#	DESCRIPTION	LAMP
A	CORONET	LSR6-4-35-LOW-DB-W-NT-FL-NA-NA-NA	4 FT RECESSED ARCHITECTURAL LUMINAIRE, 3500K CCT, 90 CRI, 120/277V, 0-10V DIMMING, 2400 LUMENS. COORDINATE FIXTURE FINISH WITH ARCHITECTNL INDICATES FIXTURE TO BE UNSWITCHED.	LED 7 WATTS/FT 611 LUMENS/FT
A-EM	CORONET	LSR6-4-35-LOW-DB-W-NT-FL-NA-NA-EMPCK	SAME AS FIXTURE 'A' WITH 7W EM-BATTERY PACK	LED 7 WATTS/FT 611 LUMENS/FT
В	CORONET	RUSH DN-4-35-MED-DB- W-AC-SD-NA-NA	4 FT SUSPENDED ARCHITECTURAL LUMINAIRE, 3500K CCT, 90 CRI, 120/277V, 1040 LUMENS, 0-10V DIMMING. SUSPEND FIXTURE TO BE FLUSH WITH CEILING. COORDINATE FIXTURE FINISH WITH ARCHITECTNL INDICATES FIXTURE TO BE UNSWITCHED.	LED 5 WATTS/FT 260 LUMENS/FT
B-EM	CORONET	RUSH DN-4-35-MED-DB- W-AC-SD-NA-EMPCK	SAME AS FIXTURE 'B' WITH 7W EM-BATTERY PACK	LED 5 WATTS/FT 260 LUMENS/FT
	LITHONIA LIGHTING	CPX-2X2-3200-80CRI-3500K-SWL- MIN10-ZT-MVOLT	2'X2' LOW-GLARE BACK-LIT PANEL FIXTURE, 3500K CCT, 80+ CRI, 120-277V, 0-10V DIMMING, 3200 LUMENS.	LED 30 WATTS 122 LUMENS/WAT
C-EM	LITHONIA LIGHTING	CPX-2X2-3200-80CRI-3500K-SWL- MIN10-ZT-MVOLT-E10WLCP	SAME AS FIXTURE 'C' WITH 10W EM-BATTERY PACK	LED 30 WATTS 122 LUMENS/WAT
	LITHONIA LIGHTING	CPX-2X2-2000-80CRI-3500K- SWL-MIN10-ZT-MVOLT	2'X2' LOW-GLARE BACK-LIT PANEL FIXTURE, 3500K CCT, 80+ CRI, 120-277V, 0-10V DIMMING, 2000 LUMENS.	LED 16 WATTS 139 LUMENS/WAT
D-EM	LITHONIA LIGHTING	CPX-2X2-2000-80CRI-3500K- SWL-MIN10-ZT-MVOLT-E10WLCP	SAME AS FIXTURE 'D' WITH 10W EM-BATTERY PACK	LED 16 WATTS 139 LUMENS/WAT
O <sub>E</sub>	MANNING LIGHTING	DP-46-12-LED-35-D0-120-WHG-DKC	12" DIA. ARCHITECTURAL LUMINAIRE, LED, 3500 CCT, 80+ CRI, 120V, 0-10V DIMMING, 2300 LUMENS.	LED 20 WATTS 115 LUMENS/WAT
<b>⊗</b> <sub>EX</sub>	LITHONIA LIGHTING	EDGR-X-R-EL	RED LED EDGELIT ALUMINUM EXIT SIGN, ULTRA BRIGHT, AND ENERGY EFFICIENT. DUAL 120/277 VOLTAGE STANDARD.	LED
F	CORONET	LS6 UPDN-4-35-LOW-UNV-DB- B-PS-FL-NA-NA-NA	4 FT SUSPENDED DIRECT/INDIRECT ARCHITECTURAL LUMINAIRE, 3500K CCT, 90 CRI, 120/277V, 0-10V DIMMING, 2500 LUMENS. SUSPEND FIXTURE TO BE APPROX. 1 FT FROM FINISHED CEILING. COORDINATE FIXTURE FINISH WITH ARCHITECT.	LED 14 WATTS/FT 643 LUMENS/FT DIRE 628 LUMENS/FT DIRE
F-EM	CORONET	LS6 UPDN-4-35-LOW-UNV-DB- B-PS-FL-NA-EMPCK-NA	SAME AS FIXTURE 'F' WITH 7W EM-BATTERY PACK	LED 14 WATTS/FT 643 LUMENS/FT DIRE 628 LUMENS/FT DIRE
OEM	DUAL-LITE	PG-Z-HTR	WALL MOUNTED, OUTDOOR EMERGENCY LIGHT WITH 2 SETS OF LED LAMPS (405 LUMENS), SELF DIAGNOSTICS, BATTERY HEATER & BATTERY CAPABLE OF PROVIDING 90 MINUTES CONTINUOUS BACKUP. BRONZE HOUSING, 120V.	LED

11

10

	<u>LE</u>	GEND AND SCHEDULI	E OF LIGHTING CONTROL EQUIPMENT	
SYMBOL	MANUFACTURER	MODEL#	DESCRIPTION	LAMP
**	WATTSTOPPER	DW-311	PUSH BUTTON WALL SWITCH WITH INTEGRAL 0-10V DIMMING CONTROL AND DUAL-TECHNOLOGY OCCUPANCY SENSOR. COLOR BY ARCHITECT. '3' DENOTES WIRED FOR 3-WAY OPERATION.	
\$ <sub>RC</sub>	WATTSTOPPER	LMDM-101	DLM DIMMING WALL SWITCH. COLOR BY ARCHITECT. '3' DENOTES WIRED FOR 3-WAY OPERATION.	
\$ <sub>D</sub>	WATTSTOPPER	RH4FBL3PW	RADIANT SINGLE POLE PADDLE SWITCH WITH 0-10V SLIDE CONTROLLER FOR DIMMING OPERATION.	
Ø <sub>B</sub>	WATTSTOPPER	DT-355	120V DUAL TECHNOLOGY CEILING OCCUPANCY SENSOR. THE OCCUPANCY SENSOR FEATURES 5, 10, 15 or 30 MINUTE TIME DELAYS AND BUILT IN LIGHT LEVEL SENSOR.	
Ø <sub>A</sub>	WATTSTOPPER	LMDC-101	DLM DUAL TECHNOLOGY CEILING SENSOR. SET TO MANUAL ON OPERATION.	
RC-1	WATTSTOPPER	LMRC-211	DLM ON/OFF/0-10V DIMMING RELAY ROOM CONTROLLER. MOUNT ABOVE FINISHED CEILING ABOVE LIGHT SWITCH. FOR ROOMS WITHOUT FINISHED CEILING, MOUNT INCONSPICUOUSLY AT/NEAR CEILING.	

	E: Byram Hills High School 208/120V, 4W, 3PH, 225A					-	<b>anel LF</b> EXISTINO	-					JOB: NO.: 22 LOCATION: LIBRARY		
CKT. NO.	CIRCUIT DESCRIPTION	POLE	LOAD KVA	BKR.	BRANCH CIRCUIT	Α .	В	C	BRANCH CIRCUIT	BKR.	LOAD KVA	POLE	CIRCUIT DESCRIPTION	C	
1	DESCRIPTION		KVA		CIRCUIT	0.0			CIRCUIT	<b> </b>	KVA		DESCRIPTION	╁	
3	RTU - 1	3		60	EXISTING CONDUCTORS	0.0	0.0		EXISTING CONDUCTORS	60		3	RTU - 3	╟	
5	KIO-I	3		1 60	EXISTING CONDUCTORS		0.0	0.0	EXISTING CONDUCTORS	60		3	K10-3	⊦	
7						0.0		0.0	EXISTING CONDUCTORS	20		1	Exhaust Fan Bathroom	╬	
9	RTU - 2	3		60	EXISTING CONDUCTORS	0.0	0.0		EXISTING CONDUCTORS	20		1	Back Wall Rec	╁	
11	11.0 2			1 00	Exionino dell'Edellario		0.0	0.0	EXISTING CONDUCTORS	20		1	Column Rec	╁	
13	East Wall Rec	1		20	EXISTING CONDUCTORS	0.0		0.0	EXISTING CONDUCTORS	20		1	Column Rec	╫	
15	Comp Lab Lighting	1 1		20	EXISTING CONDUCTORS	0.0	0.0		EXISTING CONDUCTORS	20		1	Roof Rec	╁	
17	Comp Lab Rec	1		20	EXISTING CONDUCTORS		0.0	0.0	EXISTING CONDUCTORS	20		1	Roof Rec	╁	
19	Office Lighting	1		20	EXISTING CONDUCTORS	0.0		0.0	EXISTING CONDUCTORS	20		1	Roof Rec	┰	
21	Librarian Rec	1		20	EXISTING CONDUCTORS	0.0	0.0		EXISTING CONDUCTORS	20		1	Track Lights	┰	
23	Coumn Outlet	1		20	EXISTING CONDUCTORS		0.0	0.0	EXISTING CONDUCTORS	20		1	Track Lights	┰	
25	Main Library Lights	1		20	EXISTING CONDUCTORS	0.0		1	EXISTING CONDUCTORS	20		1	Office Rec	╅	
27	Main Library Lights	1		20	EXISTING CONDUCTORS	0.0	0.0		EXISTING CONDUCTORS	20		1	Office Rec	-	
29	Main Library Lights	1		20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20		1	EM-Lights	┪	
31	Main Library Lights	1		20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20		1	Main RM Outlets and RM 35	┪	
33	Main Library Lights	1		20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20		1	Server RM A/C	┰	
35	Main Library Lights	1		20	EXISTING CONDUCTORS			0.0						┰	
37	Bathroom Exhaust	1		20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	100		3	Temp Const, Panel (OFF)		
39	Exit Lights	1		20	EXISTING CONDUCTORS		0.0					1		┢	
41	SPACE	1		-				0.0		-		1	SPACE		
	PE: NEMA 1 G: SURFACE	•		•	TOTAL (PHASE):	0.0	0.0	0.0	SPARE CAPACITY		%				
	CUIT BREAKER: 225A				TOTAL	CONN.:	0.0	KVA	DEMAND FACTOR	-					
	PTING RATING: 0KA SYM.				TOT. CONN. +			KVA	DEMANDIACION	. 100	70				
	M: SWBD-1					EMAND:		KVA							
LDTINO	VI. OVVBB-1					EMAND:		AMPS							
NOTES						LIVI) (I <b>1</b> D.	0.0	711111 0	ı						
	SING TO BE COPPER														
	N BREAKERS ONLY														
		COORDIN	ATF THE	SHOR	T CIRCUIT RATING AT THE I	JTII ITY	TRANSF	ORMER	AND NOTIFY THE ENGINEER	PRIOR T	TO PURC	CHASIN	G ANY FOUIPMENT		
	RE SIZES ARE BASED ON 75			_ 51.1510				O' WILL					o, Laon MLITI.		
		O. \ V													

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Panel LP-3

	AME: Byram Hills High School						anel LP						JOB: NO.: 22	
	IG: 208/120V, 4W, 3PH, 225A		1				MODIFIE	_ /			1		LOCATION: LIBRARY	
CKT.	CIRCUIT	POLE	LOAD	BKR.	BRANCH	Α	В	С	BRANCH	BKR.	LOAD	POLE	CIRCUIT	СКТ
NO.	DESCRIPTION		KVA		CIRCUIT				CIRCUIT		KVA		DESCRIPTION	NO.
1			3.8			7.7					3.8			2
3	RTU - 1	3	3.8	60	EXISTING CONDUCTORS		7.7		EXISTING CONDUCTORS	60	3.8	3	RTU - 3	4
5			3.8					7.7			3.8			6
7			3.8			4.6			EXISTING CONDUCTORS	20	0.8	1	Exhaust Fan Bathroom	8
9	RTU - 2	3	3.8	60	EXISTING CONDUCTORS		4.7		2#12 & 1#12EG IN 3/4"C	20	0.90	1	Lib Bot Half LTG	10
11			3.8					4.8	2#12 & 1#12EG IN 3/4"C	20	0.99	1	Lib Corridor LTG	12
13	East Wall Rec	1	1.5	20	EXISTING CONDUCTORS	2.8			2#12 & 1#12EG IN 3/4"C	20	1.30	1	Main Corridor LTG	14
15	Meeting + Librarian LTG	1	0.67	20	2#12 & 1#12EG IN 3/4"C		1.0		EXISTING CONDUCTORS	20	0.3	1	Roof Rec	16
17	Lib Top Half LTG	1	1.06	20	2#12 & 1#12EG IN 3/4"C			1.4	EXISTING CONDUCTORS	20	0.3	1	Roof Rec	18
19	Conference RM LTG	1	0.8	20	2#12 & 1#12EG IN 3/4"C	1.1			EXISTING CONDUCTORS	20	0.3	1	Roof Rec	20
21			7.1				7.8		2#12 & 1#12EG IN 3/4"C	20	0.72	1	FSP Suite LTG	22
23	RTU-7	3	7.1	60	4#6 & 1#10EG IN 1-1/4"C			7.9	2#12 & 1#12EG IN 3/4"C	20	0.8	1	Night LTG Fixtures	24
25			7.1	1		7.1				20	0.0	1	SPARE	26
27	SPARE	1	0.0	20			0.0			20	0.0	1	SPARE	28
29	SPARE	1	0.0	20				0.0		20	0.0	1	SPARE	30
31	SPARE	1	0.0	20		1.8			EXISTING CONDUCTORS	20	1.8	1	Main RM Outlets and RM 35	32
33	SPARE	1	0.0	20			1.9		EXISTING CONDUCTORS	20	1.9	1	Server RM A/C	34
35	SPARE	1	0.0	20				0.0			0.0			36
37	Bathroom Exhaust	1	0.8	20	EXISTING CONDUCTORS	0.8			EXISTING CONDUCTORS	100	0.0	3	Temp Const, Panel (OFF)	38
39	SPARE	1	0.0	20			0.0				0.0	1	, , ,	40
41	SPACE	1	0.0	-				0.0		-	0.0	1	SPACE	42
PANEI	L TYPE: NEMA 1				TOTAL (PHASE):	26.0	23.1	21.7						
	ITING: FLUSH				(				SPARE CAPACITY	(	) %			
MAIN	CIRCUIT BREAKER: 225A				TOTAL	CONN ·	70.8	KVA	DEMAND FACTOR					
	RUPTING RATING: 35KA SYM.				TOT, CONN. + S		70.8		BEIN/INB 17101011	100	, , 0			
	ANOT THIS TRATING, SSICA STIM.					EMAND:	70.8							
						EMAND:								
NOTE	e					LIVIAIND.	190.0	AIVII O						
	<u>s</u> BUSING TO BE COPPER													
	T ON BREAKERS ONLY	000000		IE 01101	OT OIDOUIT DATING AT THE		/ TD 4 N 10		AND NOTICY THE ENGINEES		. TO D' '		NO ANY FOLUDATAT	
	NTRACTOR IS RESPONSIBLE TO			1E SHO	RI CIRCUIT RATING AT THE	UTILITY	IRANS	FURMER	AND NOTIFY THE ENGINEER	KPRIOF	K TO PUF	KCHASII	NG ANY EQUIPMENT.	
	WIRE SIZES ARE BASED ON 75 [													
EXT اذ	END AND RECONNECT EXISTING CI	RCUITS T	O REMAI	N FROM	DEMO LOCATION TO NEW LOC	ATION.								

	AME: Byram Hills High School IG: 208/120V, 4W, 3PH, 225A					-	anel Cl EXISTIN				JOB: NO.: 22 LOCATION: LIBRARY				
CKT.	CIRCUIT	POLE	LOAD	BKR.	BRANCH	Α	В	С	BRANCH	BKR.	LOAD POLE		СКТ		
NO.	DESCRIPTION		KVA		CIRCUIT				CIRCUIT		KVA	DESCRIPTION	NO		
1	Comp Lab Floor Recpt. (OFF)	1		20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	1	Comp Lab Floor Recpt (OFF)	2		
3	Comp Lab Floor Recpt. (OFF)	1		20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	1	Comp Lab Floor Recpt (OFF)	4		
5	Comp Lab Floor Recpt.	1		20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	1	Comp Lab Floor Recpt (OFF)	6		
7	Comp Lab Floor Recpt. (OFF)	1		20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	1	Comp Lab Floor Recpt (OFF)	8		
9	Main Desk Recpt.	1		20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	1	Main RM Comp Floor Recpt	10		
11	Main Desk Recpt.	1		20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	1	Main RM Comp Floor Recpt	12		
13	Office Heat Rec.	1		20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	1	Main RM Comp Floor Recpt	14		
15	Existing Load (OFF)	1		20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	1	Main RM Comp Floor Recpt	16		
17	Existing Load (OFF)	1		20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	1	Existing Load (OFF)	18		
19	Existing Load (OFF)	1		20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	1	Existing Load (OFF)	20		
21	Existing Load (OFF)	1		20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	1	Existing Load (OFF)	22		
23	SPACE	1		-				0.0		-	1	<u> </u>	24		
25	UPS Unit	1		30	EXISTING CONDUCTORS	0.0				-	1		26		
27		1		-			0.0			-	1	7	28		
29		1		-				0.0		-	1	7	30		
31		1		-		0.0				-	1	SPACE	32		
33	CDACE	1		-			0.0			-	1	SPACE	34		
35	SPACE	1		-				0.0		-	1	7	36		
37		1		-		0.0				-	1		38		
39		1		-			0.0			-	1	7	40		
41		1		-				0.0		-	1	7	42		
NUON	L TYPE: NEMA 1 ITING: SURFACE		•	•	TOTAL (PHASE):	0.0	0.0	0.0	SPARE CAPACITY		%				
	CIRCUIT BREAKER: 225A				TOTAL			KVA KVA	DEMAND FACTOR	100	%				
— .	RUPTING RATING: 0KA SYM.				TOT. CONN. + S										
-ED F	ROM: SWBD-1					MAND:		KVA							
	•				DE	EMAND:	0.0	AMPS							
. BOL	SOUSING TO BE COPPER IT ON BREAKERS ONLY STRACTOR IS RESPONSIBLE TO	COORDI	NATE TI	HE SHOF	RT CIRCUIT RATING AT THE	UTILITY	TRANS	FORMER	R AND NOTIFY THE ENGINEER	R PRIOR	TO PURCHAS	ING ANY EQUIPMENT.			

JOB N	IAME: Byram Hills High School					P	anel CP	-3					JOB: NO.: 22		
RATIN	NG: 208/120V, 4W, 3PH, 225A					(	MODIFIE	D)		LOCATION: LIBRARY					
CKT.	CIRCUIT	POLE	LOAD	BKR.	BRANCH	Α	В	С	BRANCH	BKR.	LOAD	POLE	CIRCUIT	CKT	
NO.	DESCRIPTION		KVA		CIRCUIT				CIRCUIT		KVA		DESCRIPTION	NO.	
1	Meeting RM Recep. #1	1	1.5	20	2#12 & 1#12EG IN 3/4"C	3.3			2#12 & 1#12EG IN 3/4"C	20	1.8	1	Meeting Room Recep #2	2	
3	Meeting RM Recep. #3	1	1.2	20	2#12 & 1#12EG IN 3/4"C		2.4		2#12 & 1#12EG IN 3/4"C	20	1.2	1	Meeting Room Recep #4	4	
5	Comp Lab Floor Recpt.	1	1.2	20	EXISTING CONDUCTORS			3.3	2#12 & 1#12EG IN 3/4"C	20	2.1	1	Corridor + Conference FLR Rec	6	
7	KIOSK	1	1.8	20	2#12 & 1#12EG IN 3/4"C	3.6			2#12 & 1#12EG IN 3/4"C	20	1.8	1	FSP CR(100D)&(100E) Recep.	8	
9	Main Desk Recpt.	1	1.2	20	EXISTING CONDUCTORS		3.0		2#12 & 1#12EG IN 3/4"C	20	1.8	1	FSP Admin + Suite	10	
11	Main Desk Recpt.	1	1.2	20	EXISTING CONDUCTORS			5.5	2#8 & 1#10EG IN 3/4"C	50	4.3	1	HP-1	12	
13	Office Heat Rec.	1	1.2	20	EXISTING CONDUCTORS	5.5			2#6 & 1#10EG IN 3/4 C	30	4.3	] '	nr-i	14	
15	Conference RM FLR Recep.	1	1.5	20	2#12 & 1#12EG IN 3/4"C		3.6		2#12 & 1#12EG IN 3/4"C	20	2.1	1	Lib Laptop FLR Rec + Wall Recep.	16	
17	Conference RM Recep.	1	1.8	20	2#12 & 1#12EG IN 3/4"C			3.6	2#12 & 1#12EG IN 3/4"C	20	1.8	1	FLR Rec + Librarian Office Recep.	18	
19	FSP Office 100G Recep	1	1.5	20	2#12 & 1#12EG IN 3/4"C	1.5				20	0.0	1	SPARE	20	
21	FSP Office 100F Recep + Suite	1	1.5	20	2#12 & 1#12EG IN 3/4"C		1.5			20	0.0	1	SPARE	22	
23	Millwork Recep.	1	1.2	20	2#12 & 1#12EG IN 3/4"C			10.7			9.5			24	
25	UPS Unit	1	2.8	30	EXISTING CONDUCTORS	12.3			4#4 & 1#8EG IN 1-1/4"C	80	9.5	3	RTU-6	26	
27	FLR Rec + Reception Recep.	1	1.8	20	2#12 & 1#12EG IN 3/4"C		11.3				9.5			28	
29	SPARE	1	0.0	20				0.0			0.0	1		30	
31	SPARE	1	0.0	20		0.0					0.0	1		32	
33		1	0.0				0.0				0.0	1		34	
35		1	0.0					0.0			0.0	1	SPACE	36	
37	SPACE	1	0.0			0.0					0.0	1		38	
39		1	0.0				0.0				0.0	1		40	
41		1	0.0					0.0			0.0	1		42	
PANE	L TYPE: NEMA 1				TOTAL (PHASE):	26.2	21.8	23.1							
MOUN	NTING: FLUSH								SPARE CAPACITY	′ 0	%				
MAIN	CIRCUIT BREAKER: 225A				TOTAL	CONN.:	71.1	KVA	DEMAND FACTOR	R 100	%				
NTEF	RRUPTING RATING: 35KA SYM.				TOT. CONN. + S	SPARE:	71.1	KVA							
					DE	MAND:	71.1	KVA							
					DE	MAND:	197.6	AMPS							
NOTE	<u>s</u>														
1. ALL	BUSING TO BE COPPER														
2. BO	LT ON BREAKERS ONLY														
3. CO	NTRACTOR IS RESPONSIBLE TO (	COORDII	NATE TH	HE SHOP	RT CIRCUIT RATING AT THE	UTILITY	TRANSE	ORMER	AND NOTIFY THE ENGINEER	R PRIOR	TO PUF	RCHASING	G ANY EQUIPMENT.		
1. ALL	. WIRE SIZES ARE BASED ON 75 D	EGREE	WIRE.												
. EXT	END AND RECONNECT EXISTING CIR	CUITS T	O REMAI	N FROM	DEMO LOCATION TO NEW LOC	ATION.									

22-188 Panel Schedule.xlsx 4/19/2024 12:12 PM Panel CP-3

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LICENSE EXPIRATION DATE - 9/25



BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION SED# 66-12-01-06-0-007-01X

12 Tripp Ln, Armonk, NY 10504

D	KEY P	PLAN	
	REVIS	SIONS	
	No.	Description	Date

REVIS	SIONS			
No.		Description	Date	
ISSL	JED:	BID SET		

DATE: JUNE 25, 2024

SCALE: As indicated

SHEET NAME:

ELECTRICAL
SCHEDULES

SHEET NUMBER:

E-801

22-188 Panel Schedule.xlsx

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IOB	NAME: Byram Hills High School	1				Dr	nel LR	B				Ī	JOB: NO.: 22	
	NG: 240/120V. 3W. 1PH 225A						MODIFIE	_					LOCATION: TECH OFFICE	
CKT.	CIRCUIT	POLE	LOAD	BKR.	BRANCH	Α (	В	C	BRANCH	BKR.	LOAD	POLE	CIRCUIT	СКТ.
NO.	DESCRIPTION		KVA	<b>D.</b>	CIRCUIT	, ,	_		CIRCUIT		KVA		DESCRIPTION	NO.
1	CEILING LIGHTS	1	0.0	20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	0.0	1	LECTURE REC	2
3	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD (OFF)	4
5	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	6
7	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD (OFF)	8
9	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	10
11	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	12
13	LECTURE HALL FLR RECPT 1	1	2.2	20	2#12 & 1#12EG IN 3/4"C	4.0			2#12 & 1#12EG IN 3/4"C	20	1.8	1	LECTURE HALL FLR RECPT 2	14
15	LECTURE HALL FLR RECPT 3	1	2.2	20	2#12 & 1#12EG IN 3/4"C		4.0		2#12 & 1#12EG IN 3/4"C	20	1.8	1	LECTURE HALL FLR RECPT 4	16
17	LECTURE HALL FLR RECPT 5	1	2.2	20	2#12 & 1#12EG IN 3/4"C			4.4	2#12 & 1#12EG IN 3/4"C	20	2.2	1	LECTURE HALL FLR RECPT 6	18
19	LECTURE HALL FLR RECPT 7	1	1.8	20	2#12 & 1#12EG IN 3/4"C	3.1			2#12 & 1#12EG IN 3/4"C	20	1.3	1	LECTURE HALL LTG	20
21	LECTURE HALL TV RECPT	1	0.9	20	2#12 & 1#12EG IN 3/4"C		0.9			20	0.0	1	SPARE	22
23	SPARE	1	0.0	20				0.0		20	0.0	1	SPARE	24
25	EXISTING LOAD	1	0.0	30	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	26
27	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	28
29	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	30
31	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	32
33	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS		0.0		EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	34
35	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS			0.0	EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD	36
37	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS	0.0			EXISTING CONDUCTORS	20	0.0	1	EXISTING LOAD (OFF)	38
39	EXISTING LOAD	1	0.0	20	EXISTING CONDUCTORS		0.0			20	0.0	1	SPACE	40
41	EXISTING LOAD (OFF)	1	0.0	20	EXISTING CONDUCTORS			0.0		20	0.0	1	SPACE	42
PANI	EL TYPE: NEMA 1				TOTAL (PHASE):	7.1	4.9	4.4						
MOU	NTING: FLUSH								SPARE CAPACITY	0	%			
MAIN	LUGS ONLY				TOTAL	CONN.:	16.3	KVA	DEMAND FACTOR	100	%			
					TOT. CONN. + S	SPARE:	16.3	KVA						
					DE	MAND:	16.3	KVA						
					DE	MAND:	39.3	AMPS						
NOT	<u>ES</u>								•					
1. AL	L BUSING TO BE COPPER													
2. BC	DLT ON BREAKERS ONLY													
3. CC	ONTRACTOR IS RESPONSIBLE TO C	COORDIN	NATE TH	IE SHOF	RT CIRCUIT RATING AT THE	UTILITY	TRANSI	FORMER	R AND NOTIFY THE ENGINEER	RPRIOR	TO PUF	RCHASIN	IG ANY EQUIPMENT.	
4. AL	L WIRE SIZES ARE BASED ON 75 D	EGREE '	WIRE.											
5. EX	TEND AND RECONNECT EXISTING CIR	CUITS TO	O REMAI	N FROM	DEMO LOCATION TO NEW LOC	ATION.								

JOB NA	AME: Byram Hills High School					Pa	anel HP	<b>-</b> 3					JOB: NO.: 22	
RATING	G: 208/120V, 4W, 3PH, 225A						(NEW)						LOCATION: LIBRARY	
CKT.	CIRCUIT	POLE	LOAD	BKR.	BRANCH	Α	В	С	BRANCH	BKR.	LOAD	POLE	CIRCUIT	
NO.	DESCRIPTION		KVA		CIRCUIT				CIRCUIT		KVA		DESCRIPTION	
1			9.5			19.0					9.5			
3	RTU-5	3	9.5	80	4#4 & 1#8EG IN 1-1/4"C		19.0		4#4 & 1#8EG IN 1-1/4"C	80	9.5	3	RTU-4	
5			9.5					19.0			9.5	1		
7	SPARE	1		20		0.0				20		1	SPARE	
9	SPARE	1		20			0.0			20		1	SPARE	
11	SPARE	1		20				0.0		20		1	SPARE	
13	SPARE	1		20		0.0				20		1	SPARE	
15	SPARE	1		20			0.0			20		1	SPARE	
17	SPARE	1		20				0.0		20		1	SPARE	
19		1		-		0.0				-		1		
21		1		-			0.0			-		1	1	
23		1		-				0.0		-		1	1	
25		1		-		0.0				-		1	1	ľ
27		1		-			0.0			-		1	1	
29	00405	1		-				0.0		-		1	1 00.05	
31	SPACE	1		-		0.0				-		1	SPACE	
33		1		-			0.0			-		1	1	ľ
35		1		-				0.0		-		1	1	
37		1		-		0.0				-		1	1	
39		1		-			0.0			-		1	1	
41		1		-				0.0		-		1	1	
PANEL	TYPE: NEMA 1				TOTAL (PHASE):	19.0	19.0	19.0						
MOUN	TING: FLUSH				,				SPARE CAPACITY	0	%			
MAIN C	CIRCUIT BREAKER: 225A			I	TOTAL	CONN.:	57.0	KVA	DEMAND FACTOR	100	%			
	RUPTING RATING: 35KA SYM.			- 1	TOT. CONN. +									
						EMAND:								
						EMAND:								
NOTES														
	BUSING TO BE COPPER													
	T ON BREAKERS ONLY													
	TRACTOR IS RESPONSIBLE TO	COORDIA	VATE TH	IF SHOR	T CIRCUIT RATING AT THE	LITILITY	TRANS	FORMER	AND NOTIFY THE ENGINEER	PRIOR	TO PUE	RCHASI	ING ANY FOLIPMENT	
	WIRE SIZES ARE BASED ON 75			_ 01101	TO CONTRACTOR OF THE	O I ILII I	110/11401	OINMEIN	THE HOMELING		. 5 . 5	.011/101	TO ATT EQUIT MENT.	
/. ALL	WITH GIZES AIL DAGED ON 13	PLUNCE	VVIIVE.											

22-188 Panel Schedule.xlsx 4/18/2024 9:17 AM Panel HP-3

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ARCHITECT

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LICENSE EXPIRATION DATE - 9/25



BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

12 Tripp Ln,

SED# 66-12-01-06-0-007-01X

Armonk, NY 10504

D	KEY PLAN
	REVISIONS

No.	Description	Date
	2 333puon	Date
	: BID SET	

	DATE:	JUNE 25, 2024
	SCALE:	As indicated
	SHEET N	AME:
	ELECTF	RICAL
٨	SCHED	ULES

SHEET NUMBER:

E-802

6/25/2024 8:30:53 AM

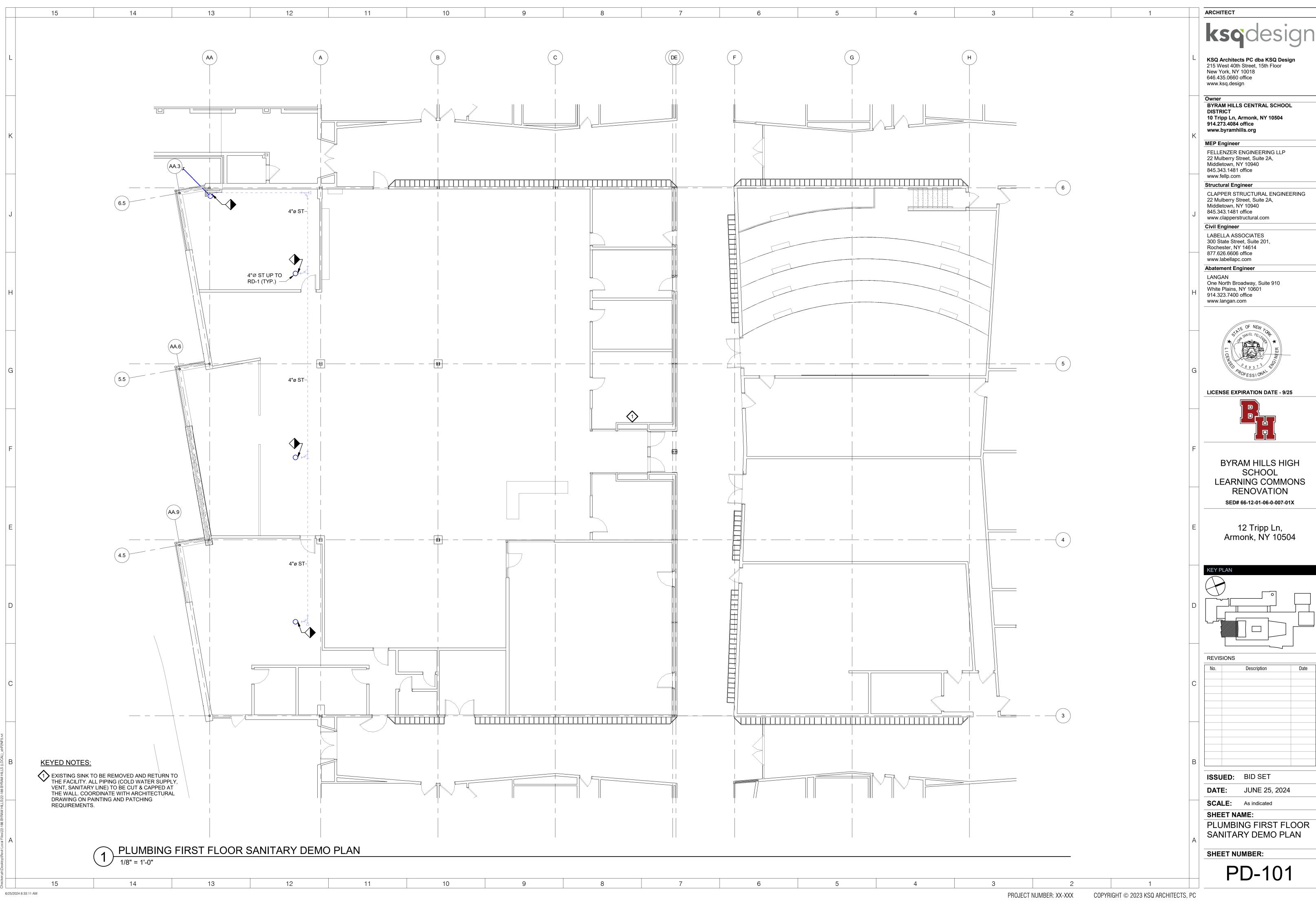
15

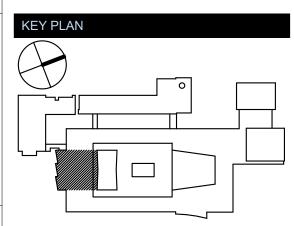
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- 2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK.
- 3. THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS AS REQUIRED WHERE ACCESSIBILITY TO COMPONENTS (VALVES, TRAPS, CLEANOUTS, ETC.) IS REQUIRED FOR MAINTENANCE AND/OR SYSTEM
- 4. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.
- 5. ALL PENETRATIONS THROUGH FOUNDATIONS AND EXTERIOR WALLS SHALL BE SEALED WITH EDPM OR EDPM RUBBER GASKET AND SEALED WITH A WATERPROOF, NON-HARDENING SEALANT.
- 6. FURNISH AND INSTALL UNDER SINK PROTECTIVE PIPE COVER KITS ON EXPOSED PIPING AT ALL ADA ACCESSIBLE SINKS AND LAVATORIES.
- 7. COORDINATE FIXTURE ROUGH-INS AND INSTALLATIONS WITH THE ARCHITECTURAL PLANS.
- 8. ALL EXPOSED DOMESTIC WATER DISTRIBUTION PIPING IS TO BE INSULATED.
- 9. PROVIDE SHUT-OFF VALVES AT ALL BRANCH PIPING TAKE-OFFS (UNO) AND AT ALL CONNECTIONS TO EQUIPMENT. PROVIDE UNIONS AT ALL **EQUIPMENT CONNECTIONS.**
- 10. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE MANUAL VENTS ON PIPING AT ALL HIGH POINTS.
- 11. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR.
- 12. ALL REQUIRED MOTOR STARTERS SHALL BE FURNISHED BY THIS CONTRACTOR AND INSTALLED BY THE E.C.
- 13. ALL REQUIRED CONTROL EQUIPMENT AND WIRING SHALL BE FURNISHED & **INSTALLED BY THIS CONTRACTOR.**
- 14. WHERE INSTALLATION OR REMOVAL OF BELOW-SLAB PIPING IS INDICATED IN EXISTING CONCRETE SLAB, THIS CONTRACTOR SHALL SAW-CUT AND EXCAVATE THE EXISTING SLAB AS REQUIRED. UPON COMPLETION OF WORK, THIS CONTRACTOR SHALL PATCH THE CONCRETE SLAB. FLOOR FINISH WORK BY G.C.
- 15. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED **EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A** COMPLETE AND OPERABLE SYSTEM.
- 16. CONTRACTOR SHALL PROVIDE ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM.
- 17. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
- 18. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

### **PLUMBING DEMOLITION NOTES:**

- 1. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE
- 2. REMOVE ALL EQUIPMENT AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL FITTINGS, SUPPORTS AND HANGERS.
- 3. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DEMOLITION WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT. ENGINEER OR BUILDING FACILITIES MANAGER.
- 4. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT OR PIPING FOR CONNECTION TO NEW WORK. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION PLANS.
- 5. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE NOTED.
- 6. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
- 7. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
- 8. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.

### **GENERAL PLUMBING NOTES:**

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- 1. KITCHEN FIXTURES ONLY SHALL BE SERVED WITH (140°F) HOT WATER. (120°F) HOT WATER WILL SERVE HAND WASHING FIXTURES IN KITCHEN.
- 2. ALL OTHER AREAS SHALL BE SERVED WITH (110°F) HOT WATER. MAXIMUM OUTLET TEMPERATURE FOR ANY FIXTURE (EXCEPT THOSE IN KITCHEN) SHALL BE SET @ 100°F.

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- 3. DRAIN PIPING SHOWN ON PLANS SHALL BE INSTALLED BELOW THE FLOOR SHOWN (BELOW SLAB OR ABOVE CEILING OF LOWER FLOOR AS APPROPRIATE) UNLESS OTHERWISE NOTED.
- 4. ALL PLUMBING SUPPLY & VENT PIPING SHOWN SHALL BE INSTALLED IN THE **CEILING OF THE FLOOR PLAN SHOWN, UNLESS OTHERWISE NOTED.**
- 5. PLUMBING CONTRACTOR IS RESPONSIBLE FOR OWN CUTTING & PATCHING AS REQUIRED. FINISHING SHALL BE BY GENERAL CONTRACTOR.
- 6. INSTALL SECTIONALIZING VALVES AT ALL MAIN 'T' ON DOMESTIC HOT & **COLD WATER SERVICE.**
- 7. VENT PIPING UNDER SLABS SHALL BE A MINIMUM OF 2".
- 8. WASTE PIPING UNDER SLABS SHALL BE A MINIMUM OF 3".
- 9. INSTALL CONDENSATION CONTROL INSULATION: MINIMUM 1"-INCH THICK FOR ALL PIPE SIZES.
  - A. COOLING COIL CONDENSATION PIPING TO WASTE PIPING FIXTURE OR INLET. (COORDINATE W/ MECHANICAL CONTRACTOR).
  - B. PLUMBING PIPING AS FOLLOWS:
  - a. BODY OF ROOF DRAINS AND STORM PIPE OF HORIZONTAL & **VERTICAL RUNS, & OFFSETS (INCLUDING ELBOWS) OF** INTERIOR DOWN SPOUT PIPING IN ALL AREAS.
  - b. WASTE PIPING FROM ELECTRIC WATER COOLERS TO
  - DRAINAGE SYSTEM.
  - c. WASTE PIPING LOCATED ABOVE BASEMENT FLOOR FROM AIR HANDLING UNITS, FROM FIXTURE (INCLUDING TRAP) TO MAIN VERTICAL WASTE PIPE. (COORDINATE W/ MECHANICAL CONTRACTOR).
  - d. COLD WATER PIPING
- 10. PLUMBING CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ROOF DRAINS AND FOR ADDITIONAL ROOF DRAIN WORK NOT SHOWN ON PLUMBING DRAWING.
- 11. ROOF LEADERS MUST BE CONVEYED INDEPENDENTLY FROM SANITARY SEWER SYSTEMS, (STORM DRAIN SHALL NEVER TIE INTO SANITARY SEWER
- 12. UNLESS OTHERWISE NOTED, ALL VALVES 2"Ø & SMALLER SHALL BE **QUARTER-TURN BALL VALVES AND ALL VALVES 2** GATE VALVES. ALL VALVES SHALL BE OF FULL-PORT DESIGN.
- 13. PLUMBING CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED & PAY
- 14. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCHING BEDDING AND BACK FILLING AS PER SPECIFICATIONS. ALL TRENCH WORK TO BE COORDINATED WITH THE GENERAL CONSTRUCTION CONTRACTOR.
- 15. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SANGER ISE SELSEABLED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.

### **PIPING SYMBOLS**

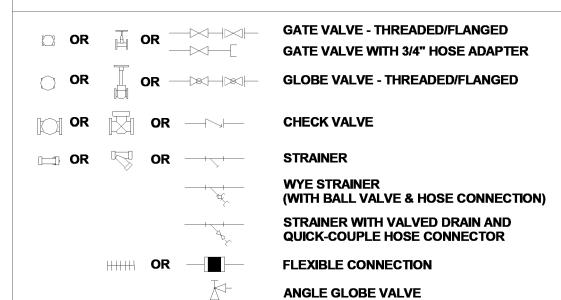
DIRECTION OF FLOW **ANCHOR** PIPE GUIDE REDUCER OR INCREASER ECCENTRIC REDUCER **TOP CONNECTION, 45° OR 90° BOTTOM CONNECTION, 45° OR 90°** SIDE CONNECTION CAPPED OUTLET PIPE DOWN TURN UNION

# **PLUMBING LINE TYPES**

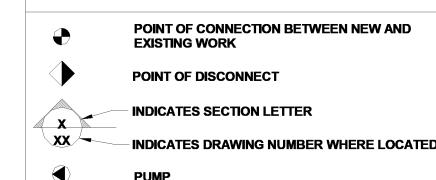
**DIRECTION OF PIPE PITCH (DOWN)** 

**EXISTING TO BE REMOVED EXISTING TO REMAIN COLD WATER SUPPLY HOT WATER RETURN HOT WATER SUPPLY SANITARY LINE** STORM LINE **VENT PIPE** 

### **VALVE SYMBOLS**



Α	MEDICAL AIR
BTUH	BRITISH THERMAL UNITS/HOUR
CLG	CEILING
CO	CLEAN OUT
СР	CONDENSATE PUMP
CW	DOMESTIC COLD WATER
DIA	DIAMETER
D	DRAIN
DN	DOWN
DP	DIFFERENTIAL PRESSURE
EXIST	EXISTING
G.C.	GENERAL CONTRACTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
G.SAN	"GREASE LADEN" SANITARY DRAINAGE PIPE
H.C.	HVAC CONTRACTOR
HP	HORSE POWER
LF	LINEAR FEET
NOM.	NOMINAL
0	OXYGEN
Р	PUMP
P.C.	PLUMBING CONTRACTOR
PD	PRESSURE DROP (FEET OF WATER)
DDV	DDECCUDE DEDUCINO VALVE



### MINIMUM PIPE INSULATION THICKNESS (IN INCHES) a,c

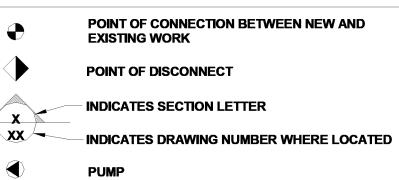
FLUID OPERATING	INSULATION CON	DUCTIVITY		NOMINAL PIF	PE OR TUBE S	SIZE (INCHES)	
TEMPERATURE RANGE AND USAGE (°F)	CONDUCΠVITY (BTUxIN)/(HxFT²x°F) <sup>b</sup>	MEAN RATING TEMPERATURE °F	<1"	1 TO <1½"	1½" TO <4"	4" TO <8"	8"
105-140	0.21-0.28	100	1.0	1.0	1.5	1.5	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0	1.0	1.0
<40	0.20-0.26	50	0.5	1.0	1.0	1.0	1.5

### **ABBREVIATIONS**

	MEDICAL AIR
TUH	BRITISH THERMAL UNITS/HOUR
LG	CEILING
0	CLEAN OUT
P	CONDENSATE PUMP
:w	DOMESTIC COLD WATER
IA	DIAMETER
)	DRAIN
N	DOWN
P	DIFFERENTIAL PRESSURE
XIST	EXISTING
.C.	GENERAL CONTRACTOR
PH	GALLONS PER HOUR
PM	GALLONS PER MINUTE
.SAN	"GREASE LADEN" SANITARY DRAINAGE PIPE
.C.	HVAC CONTRACTOR
P	HORSE POWER
F	LINEAR FEET
OM.	NOMINAL
	OXYGEN
ı	PUMP
.C.	PLUMBING CONTRACTOR
D	PRESSURE DROP (FEET OF WATER)
RV	PRESSURE REDUCING VALVE
SI	POUNDS PER SQUARE IN.
AN	SANITARY DRAINAGE PIPE
.S.	STAINLESS STEEL

### **GENERAL SYMBOLS**

STORM DRAINAGE PIPE





**ARCHITECT** 

KSQ Architects PC dba KSQ Design

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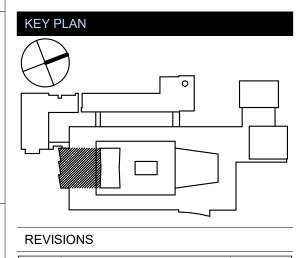
www.byramhills.org

www.ksq.design

BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

SED# 66-12-01-06-0-007-01X

12 Tripp Ln, Armonk, NY 10504



Description

**ISSUED**: BID SET **DATE:** JUNE 25, 2024

**SCALE:** As indicated SHEET NAME:

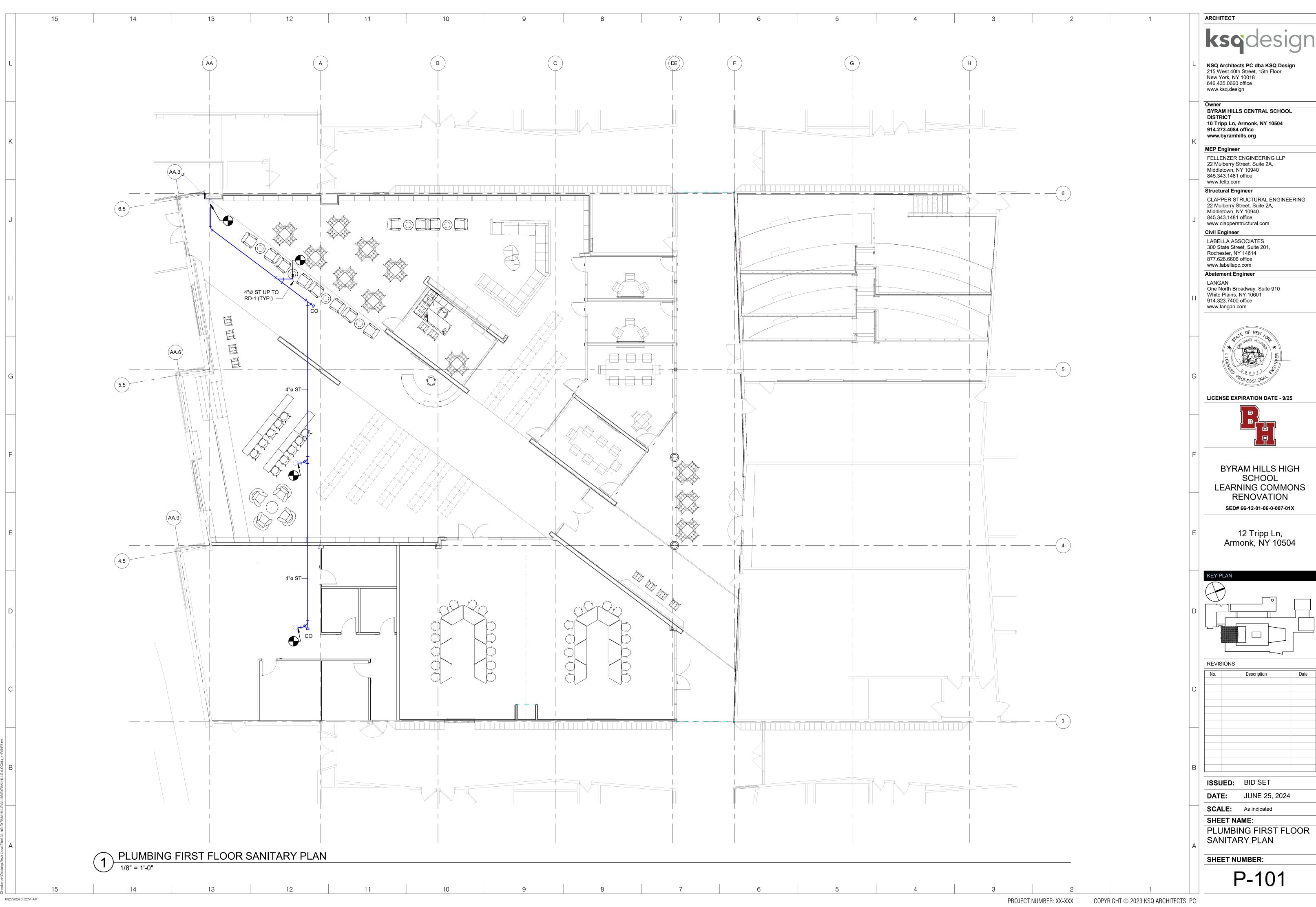
PLUMBING SYMBOLS, ABBREVIATIONS & NOTES SHEET NUMBER:

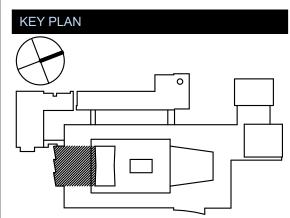
### **ENERGY CODE STATEMENT:**

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 ENERGY CODE.

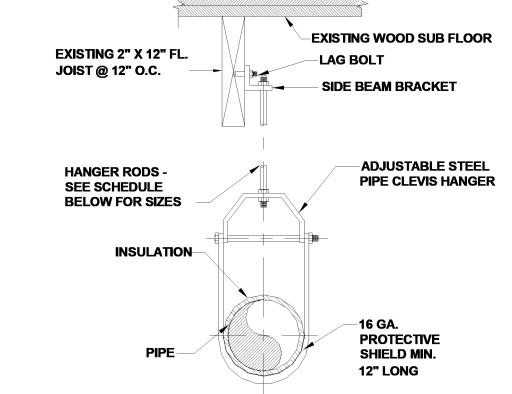
### **UNIFORM CODE STATEMENT:**

TO THE BEST OF THE REGISTERED DESIGN PROFESSIONAL'S KNOWLEDGE. BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND/OR SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2020 UNIFORM CODE.





Vo.	Description	Date



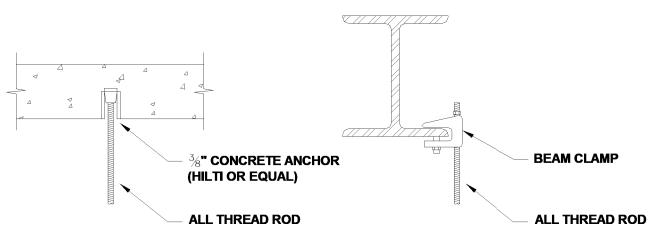
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### **SIDEBEAM HANGER DETAIL**

		VIBRATIO	N ISOLATOR SIZ
PIPE SIZE	ROD SIZE	WATER	
3/4" THRU 1 1/4" DIA.	3/8"	HS-A-45	
1 1/2" through 2" DIA.	3/8"	HS-A-75	
2 1/2" DIA.	1/2"	HS-A-125	
3" DIA.	1/2"	HS-A-200	
4" DIA.	5/8"	HS-A-200	



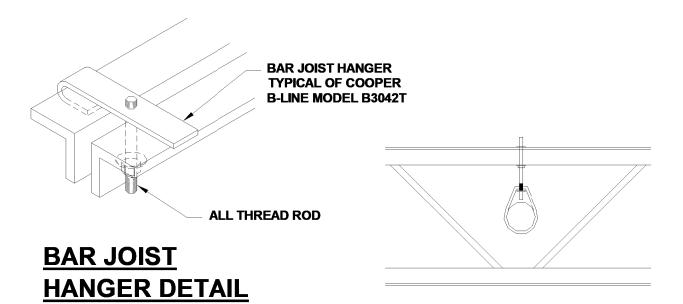
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**CONCRETE DECK HANGER DETAIL** 

12

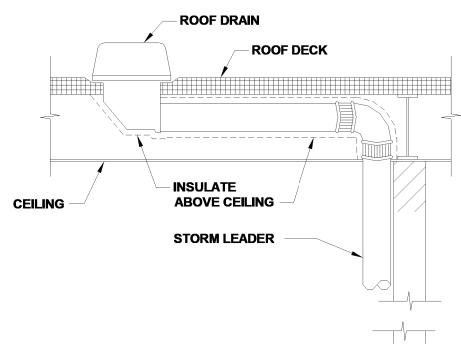
**BEAM CLAMP HANGER DETAIL** 

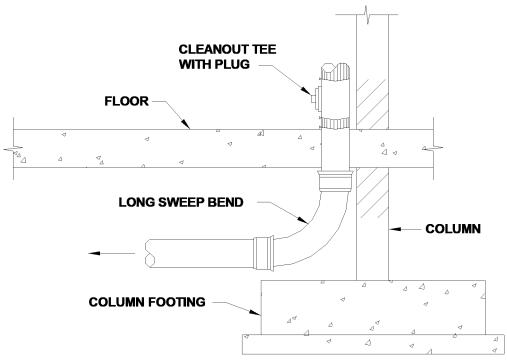
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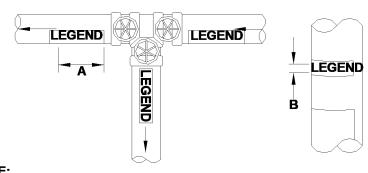
1 TYPICAL PIPE HANGER DETAILS

N.T.S.





TYPICAL STORM LEADER DETAIL



IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL **EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS** AND AT ALL VALVES, BRANCHES, CHANGE IN DIRECTION OF FLOW AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING OF FLOW.

### SIZE OF LEGEND LETTERS

OF	DIAMETER PIPE VERING	LENG1 COLOR A	FIELD	SIZE OF LETTERS B		
INCHES	ММ	INCHES	ММ	INCHES	ММ	
¾" TO 1¼"	19 TO 32	8"	200	12"	13	
1½" TO 2"	38 TO 51	8"	200	3 <sub>4</sub> "	19	
2½" TO 6"	64 TO 150	12"	300	11/4"	32	
8" TO 10"	200 TO 250	24"	600	2½"	64	
OVER 10"	OVER 250	32"	800	3½"	89	

SERVICE	BACKGROUND OR COLOR BAND	IDENTIFICATION MARKER
STORM WATER	GREEN	WHITE ON GREEN

TYPICAL PIPE IDENTIFICATION DETAIL

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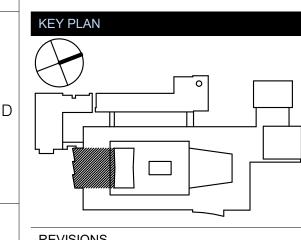
**LICENSE EXPIRATION DATE - 9/25** 



BYRAM HILLS HIGH SCHOOL LEARNING COMMONS RENOVATION

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REVISIONS				
No.	Description	Date		
ISSUED:	BID SET			
DATE:	JUNE 25. 2024			

**SCALE:** As indicated SHEET NAME: PLUMBING DETAILS

SHEET NUMBER:

P-701

6/25/2024 8:33:00 AM

15

PROJECT NUMBER: XX-XXX

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