## **BURNCOAT MIDDLE SCHOOL ACCESSIBILITY RENOVATIONS**

# WORCESTER PUBLIC SCHOOLS

135 BURNCOAT ST WORCESTER, MA 01606

## CONSTRUCTION DOCUMENTS

MAY 22, 2023

#### **DRAWING LIST**

G-001 COVER SHEET

G-002 SYMBOLS, ABBREVIATIONS & GENERAL NOTES

G-010 BUILDING CODE SUMMARY G-020 PARTITION TYPES

ARCHITECTURAL DEMOLITION AD-110 FIRST FLOOR DEMOLITION PLAN

AD-120 SECOND FLOOR DEMOLITION PLAN AD-130 ENLARGED DEMOLITION PLANS, DETAILS, AND

A-001 ARCHITECTURAL SITE PLAN

A-110 FIRST FLOOR OVERALL PLAN A-111 EXTERIOR SITE WORK

A-120 SECOND FLOOR OVERALL PLAN ENLARGED TOILET ROOM PLANS

A-601 DOOR SCHEDULE & DETAILS

A-701 FINISH PLANS, SCHEDULES, AND DETAILS

P-000 PLUMBING COVERSHEET

P-400 PLUMBING DETAILS

P-600 PLUMBING SCHEDULES

M-000 HVAC COVERSHEET

M-101 OVERALL HVAC 1ST FLOOR - DEMOLITION PLAN

M-102 OVERALL HVAC 2ND FLOOR - DEMOLITION PLAN

OVERALL HVAC 2ND FLOOR - PLAN

HVAC STAIR LIFT ENLARGED PLANS M-302 HVAC 2ND FLOOR RESTROOM ENLARGED PLAN

M-400 HVAC DETAILS M-600 HVAC SCHEDULES

E-000 ELECTRICAL COVERSHEET

E-212 2ND FLOOR RESTROOM ENLARGED PLANS POWER STAIR LIFT ENLARGED PLANS

ELECTRICAL ADA EXIT ENLARGED PLANS, SCHEDULE, AND DETAILS

#### **ARCHITECT**

## **HABEEB & ASSOCIATES ARCHITECTS**

100 GROVE STREET #303 WORCESTER, MA 01605

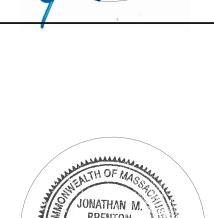
TEL: 781-871-9804 www.habeebarch.com

**MECHANICAL ENGINEER** 

**IMEG** 

63 FRANKLIN STREET, 5TH FLOOR **BOSTON**, MA 02110

TEL: 617-542-0810 ARCENGRS.COM



#### **OWNER/AWARDING AUTHORITY**

## **CITY OF WORCESTER - PURCHASING** DIVISION

455 MAIN STREET - ROOM 201 WORCESTER, MA 01608

TEL: 508-799-1297

## **OWNER'S PROJECT MANAGER**

## **WORCESTER PUBLIC SCHOOLS FACILITIES MANAGEMENT**

115 NORTHEAST CUTOFF WORCESTER, MA 01608

TEL: 774-418-1780

#### **ELECTRICAL ENGINEER**

#### **IMEG**

63 FRANKLIN STREET, 5TH FLOOR BOSTON, MA 02110

TEL: 617-542-0810 ARCENGRS.COM

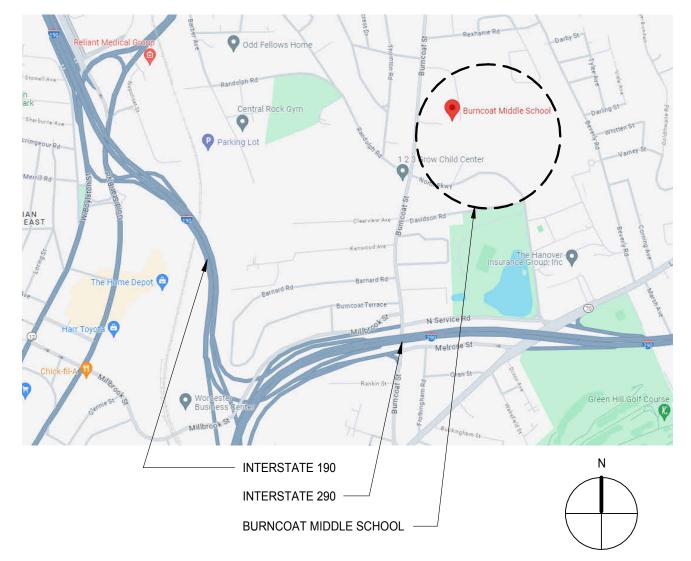
## **PLUMBING ENGINEER**

## **IMEG**

63 FRANKLIN STREET, 5TH FLOOR BOSTON, MA 02110

TEL: 617-542-0810 ARCENGRS.COM

#### LOCUS PLAN (NOT TO SCALE)



DATE: 05/22/24 SCALE: 1/8" = 1'-0" DRAWN BY: TP CHECKED BY: KP

**COVER SHEET** 

G-001

BRICK

MASONRY BLOCK

**MATERIALS (ELEVATION)** 

SHEET METAL

/// GLASS

ROUGH LUMBER

ALUMINUM

**GENERAL DRAWING ANNOTATIONS** 

A101 🚣

**WALL SECTION:** 

INDICATES VIEW NUMBER

INDICATES SHEET NUMBER

INDICATES VIEW NUMBER

**BUILDING SECTION:** 

(KEY ON PLANS & ELEVATIONS)

(KEY ON PLANS & ELEVATIONS)

COLUMN GRID

DESIGNATION

**COLUMN GRID** 

CENTERLINES

LEVEL INDICATOR

INDICATES VERTICAL

**GENERAL NOTE #9** 

**ROOM TAG:** 

NUMBER

NUMBER

PLAN VIEWS)

CONTINUATION

**NORTH ARROW:** 

NORTH

**ELEVATION - REFER TO** 

INDICATES ROOM NAME

DENOTES ROOM /AREA

DENOTES SMALL ROOM

WITHIN MAIN ROOM/AREA

DENOTES FLOOR / LEVEL

REFERENCE FOR VIEW

DENOTES PLAN/PROJECT

REVISION ISSUE NUMBER

ITEMS WITHIN CLOUD

HAVE BEEN REVISED

MATCH LINE (FOR DIVIDED FLOOR

1ST FLOOR

EL:100'-0"

**CLASSROOM** 

101A~

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##/A-110A

#### **GENERAL NOTES**

1. "N.I.C." IS NOTED ON ITEMS NOT IN THE CONTRACT. "BY OWNER" AND/OR "OTHERS" ARE NOTED ON ITEMS TO BE PROVIDED UNDER SEPARATE CONTRACT BY THE TENANT.

2. WHERE A TYPICAL CONDITION IS DETAILED AND/OR NOTED, IT SHALL BE UNDERSTOOD THAT ALL LIKE OR SIMILAR CONDITIONS SHALL BE THE SAME UNLESS SPECIFICALLY DETAILED OR NOTED OTHERWISE.

3. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT OF ANY DIMENSIONAL REQUIREMENT AS

4. THE TERM "AFFECTED WORK" AS USED IN THESE GENERAL NOTES SHALL BE DEEMED TO BE ANY REQUIREMENT OF THE CONSTRUCTION DOCUMENTS AND SHALL BE FURTHER DEEMED TO INCLUDE THE PROCUREMENT OF ANY AND ALL MATERIALS, TOOLS, LABOR, ETC., AS FURTHER DESCRIBED IN THE SPECIFICATIONS, REQUIRED FOR THE

5. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY WITHIN THE CONTRACT DOCUMENTS TO THE ARCHITECT FOR CLARIFICATION AND/OR RESOLUTION PRIOR TO THE COMMENCEMENT OF ANY AFFECTED WORK. SUCH CLARIFICATION AND/OR RESOLUTION SHALL BE PROVIDED BY THE ARCHITECT PRIOR TO THE COMMENCEMENT OF

6. THE CONTRACTOR SHALL VERIFY ALL EXISTING SITE, BUILDING, AND UTILITY CONDITIONS, AND SHALL REPORT ANY DISCREPANCIES BETWEEN SUCH EXISTING CONDITIONS AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS TO THE ARCHITECT FOR CLARIFICATION AND/OR RESOLUTION, PRIOR TO THE COMMENCEMENT OF ANY AFFECTED WORK. THE ARCHITECT SHALL PROVIDE SUCH CLARIFICATION AND/OR RESOLUTION PRIOR TO THE COMMENCEMENT OF ANY AFFECTED WORK

7. THE LOCATIONS OF ALL NEW PLUMBING FIXTURES, MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING ARE TO BE CONSIDERED DIAGRAMMATIC UNLESS SPECIFICALLY NOTED AND/OR DIMENSIONED OTHERWISE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION REQUIREMENTS FOR THE SAME. AND SHALL REPORT ANY CONFLICTS AFFECTING THE CONSTRUCTION DOCUMENTS TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY AFFECTED WORK. THE ARCHITECT SHALL PROVIDE CLARIFICATION AND/OR RESOLUTION REGARDING ANY SUCH CONFLICT PRIOR TO THE COMMENCEMENT OF ANY AFFECTED WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY REQUIREMENTS FOR ALL OFFSETS, BENDS, ELBOWS, AND/OR OTHER COMPONENTS NOT DRAWN BUT NECESSARY FOR PROPER EXECUTION OF THE WORK, AND ALL SUCH MISCELLANEOUS COMPONENTS SHALL BE DEEMED TO BE PART OF THE SCOPE OF WORK REQUIRED BY THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL MANUFACTURERS' REQUIREMENTS FOR MECHANICAL EQUIPMENT RELATED TO POWER, WATER SUPPLY, DRAINAGE, PADS, BASES, ANCHORAGE, STRUCTURAL OPENINGS, ETC. PIPING AND DUCTS PENETRATING WALLS AND/OR FLOOR/CEILING ASSEMBLIES SHALL BE PROVIDED WITH ALL NECESSARY FRAMES, BRACING, FIRESAFING, AND ACOUSTICAL SEALANT AROUND SUCH OPENINGS. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS.

8. NOMINAL DIMENSIONS FOR LUMBER AND WOOD TRIM ARE NOTED IN THE FOLLOWING FORMAT: 1 x 4, 5/4 x 4, 2 x 4, ETC. ACTUAL DIMENSIONS, WHERE REQUIRED, ARE NOTED AS 1" x 2" ETC.

9. ARCHITECTURAL DRAWINGS REFERENCE THE MAIN FLOOR CLOSEST TO GROUND LEVEL AS 100'-0." ALL **ELEVATIONS REFERENCED BY:** 

Ref. Elev. 100'-0"

**KEY PLAN** (NOT TO SCALE)

ON ARCHITECTURAL DRAWINGS ARE RELATIVE TO GROUND FLOOR AS ELEVATION 100'-0". REFER TO CIVIL DRAWINGS FOR ACTUAL GRADE ELEVATIONS.

NECESSARY FOR THE PROPER EXECUTION OF ANY AFFECTED WORK PRIOR TO THE COMMENCEMENT OF SUCH ш **m** ~ EXECUTION OF SUCH WORK. 8

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REVISIONS Δ MM-DD-YYYY DESCRIPTION

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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: AS INDICATED DRAWN BY: TP

CHECKED BY: KP SYMBOLS,

**GENERAL NOTES** 

**ABBREVIATIONS 8** 

#### **BUILDING CODE SUMMARY**

THE BUILDING SHALL COMPLY AND/OR CONFORM TO THE FOLLOWING CONSTRUCTION CODES, SUPPLEMENTS, STANDARDS GUIDELINES, AND ALL STANDARDS REFERENCED

• 780 CMR MASSACHUSETTS STATE BUILDING CODE, 9TH EDITION

• 2015 INTERNATIONAL BUILDING CODE (IBC) WITH AMENDMENTS

 2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC) • 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) WITH AMENDMENTS

 2015 INTERNATIONAL MECHANICAL CODE (IMC) • 248 CMR 10.00 MASSACHUSETTS FUEL GAS AND PLUMBING CODE

• 521 CMR MASSACHUSETTS ARCHITECTURAL ACCESS BOARD RULES AND

527 CMR 1.00 MASSACHUSETTS COMPREHENSIVE FIRE SAFETY CODE (2015 NFPA 1 FIRE

• 527 CMR 12.00 MASSACHUSETTS ELECTRICAL CODE (2020 NATIONAL ELECTRIC CODE

• 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

THE PROJECT CONSISTS OF ACCESSIBILITY RENOVATIONS TO THE BURNCOAT

**BUILDING USE AND OCCUPANCY** 

(USE GROUP) E

**IEBC COMPLIANCE METHOD** 

• REQUIREMENTS FOR LEVEL 1 ALTERATIONS SHALL APPLY IN THE WORK AREA • EXISTING FIRE ALARM SYSTEM TO BE MODIFIED AND RECONFIGURED BASED ON

REQUIREMENTS FOR EXISTING OCCUPANCY.

EXISTING HAZARD CATEGORY: 3

NEW HAZARD CATEGORY: 3 MEANS OF EGRESS LIGHTING AND EXIT SIGNS FOR EXISTING EGRESS ELEMENTS WILL BE REPAIRED OR REPLACED AS REQUIRED. NEW EGRESS LIGHTING AND EXIT

CONSTRUCTION TYPE: TYPE IIB

FIRE RESISTANCE RATED CONSTRUCTION

STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES STRUCTURAL FRAME SUPPORTING ROOF ONLY: BEARING WALLS, EXTERIOR: BEARING WALLS, EXTERIOR SUPPORTING ROOF ONLY:

BEARING WALLS, INTERIOR: BEARING WALLS, INTERIOR SUPPORTING ROOF ONLY:

NON-BEARING WALLS AND PARTITIONS, INTERIOR: FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS & JOISTS:

ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS & JOISTS:

**ELEVATOR HOISTWAY: ELEVATOR MACHINE ROOM:** 

0 HR EXIT ENCLOSURES:

**MEANS OF EGRESS:** 

EDUCATIONAL CLASSROOM AREAS: 20 NET SF/OCCUPANT

COMMERCIAL KITCHENS: 200 GROSS SF/OCCUPANT LIBRARY READING ROOMS: 50 NET SF/OCCUPANT LIBRARY STACK AREAS: 100 GROSS SF/OCCUPANT

LOCKER ROOMS: 50 GROSS SF/OCCUPANT STORAGE: 300 GROSS SF/OCCUPANT

STAGES/PLATFORMS: 15 NET SF/OCCUPANT

MECHANICAL ROOMS: 300 NET SF/OCCUPANT

MAXIMUM ALLOWABLE EXIT ACCESS TRAVEL DISTANCE WITHOUT SPRINKLER SYSTEM: MAX. OCC. LOAD:

200 MAXIMUM ALLOWABLE COMMON PATH OF TRAVEL WITHOUT SPRINKLER SYSTEM:

TRAVEL DISTANCE:

MEANS OF EGRESS CONTINUED:

EGRESS WIDTH

STAIRS: 0.3 INCHES/OCCUPANT

OTHER EGRESS COMPONENTS: 0.2 INCHES/OCCUPANT MINIMUM INTERIOR FINISH CLASS (SPRINKLED):

<u>OCCUPANCY</u> <u>EXITS</u>

**ENERGY CONSERVATION:** 

CLIMATE ZONE: 5

PRESCRIPTIVE BUILDING ENVELOPE REQUIREMENTS: ROOFS: R-30 CI

METAL BUILDING ROOF: R-19 + R-11 LS

MASS WALLS: R-11.4 CI

METAL BUILDING WALLS: R-13 + R-13 CI METAL FRAMED WALLS: R-13 + R-7.5 CI

WOOD FRAMED WALLS: R-13 + R-3.8 CI OR R-20

BELOW GRADE WALLS: R-7.5 CI

BELOW GRADE MASS WALLS: R-10 CI

UNHEATED SLABS: R-10 24" BELOW HEATED SLABS: R-15 36" BELOW + R-5 CI

NON-SWING OPAQUE DOORS: R-4.75

SWINGING DOORS: U-0.37 GARAGE DOORS: U-0.31

0 HR

FENESTRATION: <u>U-FACTOR</u>: SHGC: FIXED WINDOWS: U-0.38 U-0.38 SEW/0.51 N

OPERABLE WINDOWS: U-0.45 **ENTRANCE DOORS:** U-0.77 U-0.38 SEW/0.51 N

SKYLIGHTS: U-0.50 U-0.40

U-0.38 SEW/0.51 N

<u>ROOMS</u>

0 0 C BLIC 

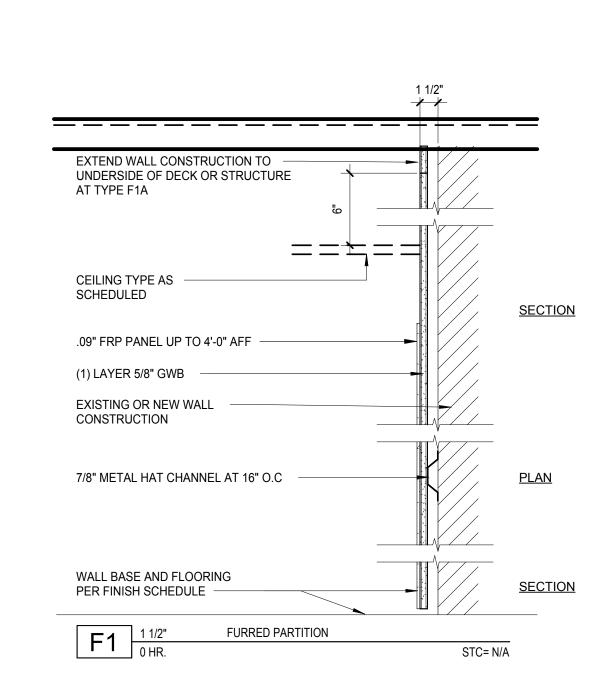
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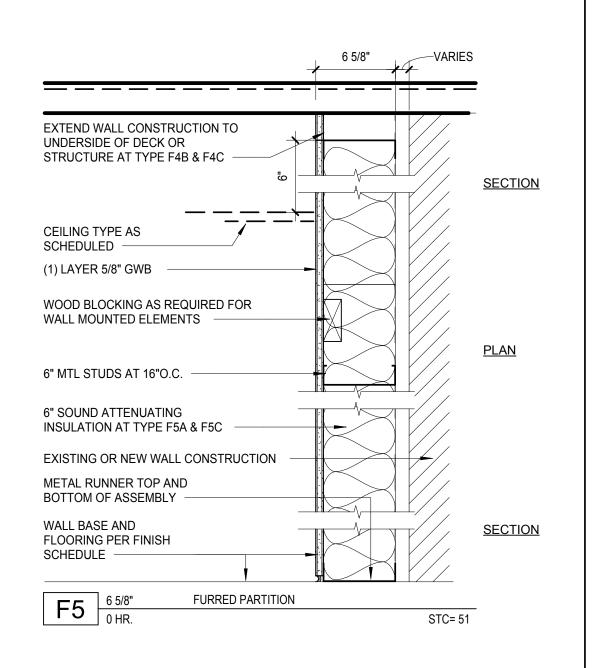
REVISIONS Δ MM-DD-YYYY DESCRIPTION

PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: AS INDICATED DRAWN BY: TP

CHECKED BY: KP

**BUILDING CODE** SUMMARY





1. INTERIOR METAL FRAMING CONTRACTOR TO SELECT METAL STUD GAGE FOR STUD DEPTH INDICATED BY PARTITION TYPE AS REQUIRED FOR SPAN WITH 5 PSF UNIFORM LOAD AND MAXIMUM 1/240 DEFLECTION. SUBMIT MANUFACTURER'S DATA FOR REVIEW AND APPROVAL.

2. PROVIDE DEFLECTION TRACK AT HEAD OF ALL FULL HEIGHT PARTITIONS. REFER TO TYPICAL DETAILS ON THIS

3. PROVIDE BRACING AS REQUIRED BY STUD MANUFACTURER FOR NON- COMPOSITE ASSEMBLIES AT PARTITIONS WHERE GYPSUM WALL BOARD DOES NOT EXTEND TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE.

4. PROVIDE 5/8 " MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL BATHROOM WALLS AND OTHER WET AREAS.

5. PROVIDE DOUBLE 20 GAGE METAL STUD FRAMING AT ALL DOOR JAMB LOCATIONS.

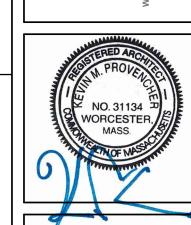
6. PROVIDE ACOUSTIC SEALANT AT PERIMETER OF ALL FULL HEIGHT ACOUSTIC PARTITIONS.

7. REFER TO TYPICAL DETAILS THIS SHEET FOR FIRE RESISTANT JOINT REQUIREMENTS AT HEAD OF WALL FOR FIRE RESISTANT RATED PARTITIONS.

8. PROVIDE THROUGH PENETRATION FIRESTOP SYSTEMS AS REQUIRED FOR WALL CONSTRUCTION AND TYPE OF PENETRATION. REFER TO TYPICAL DETAILS ON FIRESTOP SYSTEMS SHEET.

9. REFER TO STRUCTURAL DRAWINGS FOR REINFORCING REQUIREMENTS AT CONCRETE MASONRY WALLS.

**GENERAL NOTES - PARTITIONS** 



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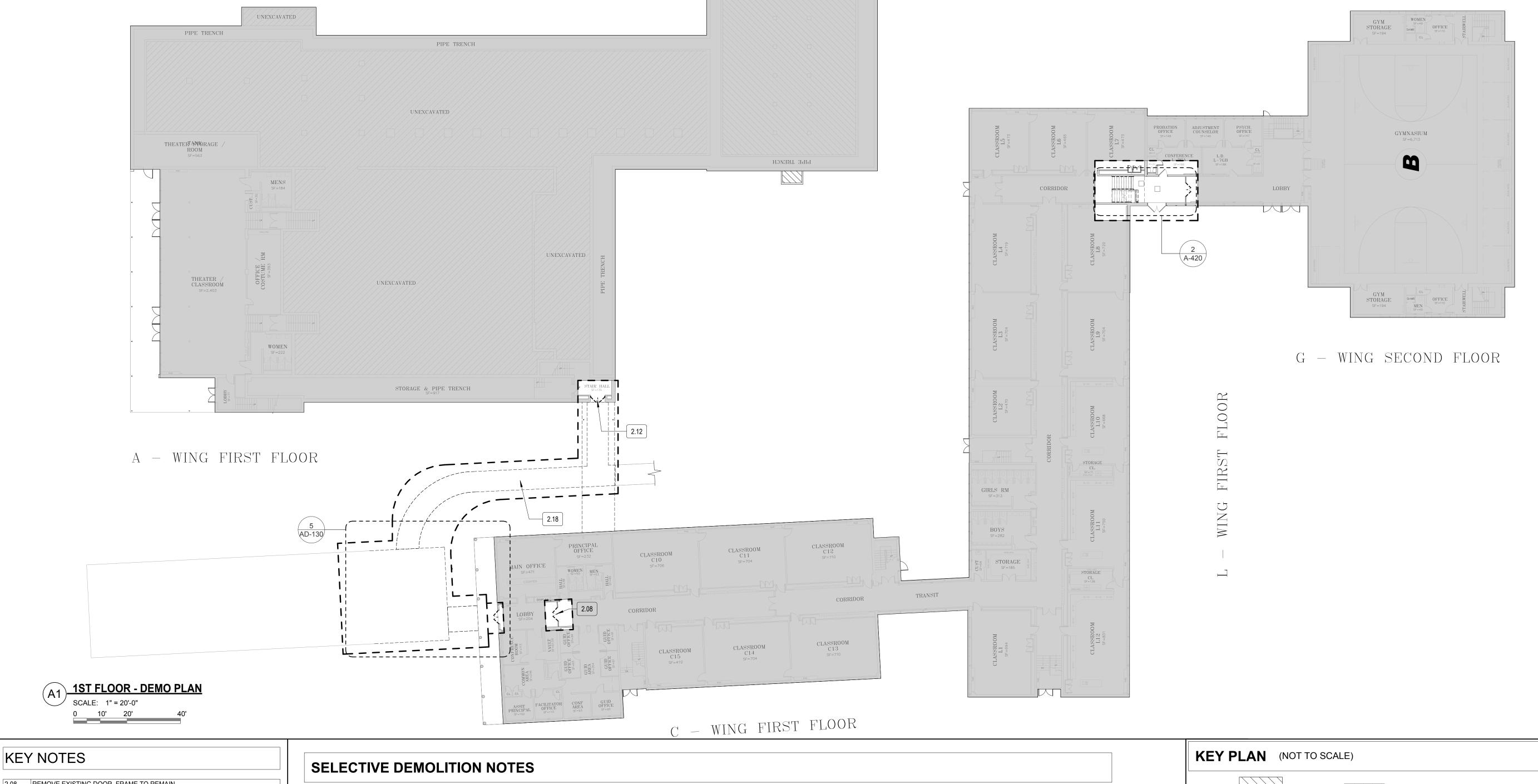
PROJECT NO: 2124.15 DATE: 05/22/24

SCALE: AS INDICATED

DRAWN BY: TP CHECKED BY: KP

**PARTITION TYPES** 

PARTITION TYPES & FIRESTOP SYSTEMS SCALE: 1 1/2" = 1'-0"



2.08 REMOVE EXISTING DOOR, FRAME TO REMAIN. 2.12 REMOVE EXISTING DOOR, FRAME, AND THRESHOLD IN ITS ENTIRETY. 2.18 REMOVE PORTION OF EXISTING PAVING.

#### **DEMOLITION FLOOR PLAN LEGEND**

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**EXISTING CONSTRUCTION** TO BE DEMOLISHED EXISTING WALL CONSTRUCTION

TO REMAIN

EXISTING DOOR TO REMAIN

EXISTING DOOR TO BE DEMOLISHED

EXISTING WINDOW TO REMAIN

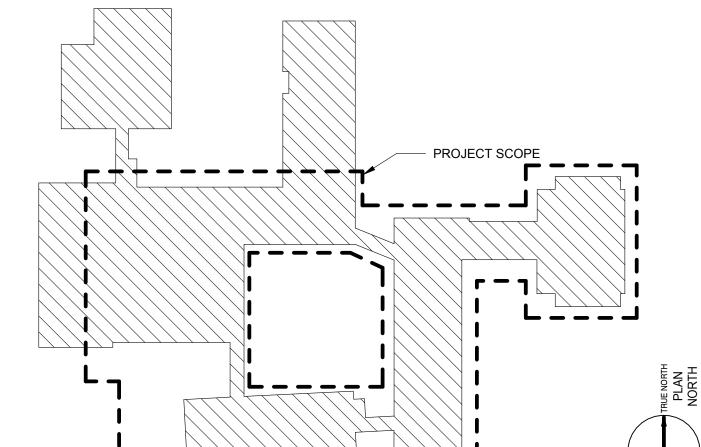
EXISTING WINDOW TO BE

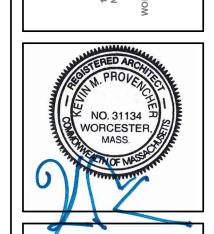
DEMOLISHED

LIMIT OF WORK

- 1. EXISTING TO REMAIN: PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION.
- 2. EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN THE OWNER'S PROPERTY, DEMOLISHED MATERIALS SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED LEGALLY FROM THE SITE WITH FURTHER DISPOSITION AT THE CONTRACTOR'S OPTION.
- 3. IF UNANTICIPATED EXISTING BUILDING ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT. PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT.
- 4. MAINTAIN EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
- 5. UTILITY REQUIREMENTS: COORDINATE WITH MECHANICAL AND ELECTRICAL WORK FOR SHUTTING OFF, DISCONNECTING, REMOVING, SEALING OR CAPPING UTILITY SERVICES. DO NOT START SELECTIVE DEMOLITION WORK UNTIL UTILITY DISCONNECTION AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.
- 6. COORDINATE WITH ELECTRICAL SUB-CONTRACTOR WITH RESPECT TO ELECTRICAL DEMOLITION AND DE-ENERGIZING OF PARTICULAR PORTIONS OF THE BUILDING.
- DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT AND DISPOSE OF ALL LIQUIDS (WITH THE EXCEPTION OF WASTE OIL AND RESIDUAL SLUDGE WHICH MAY BE PRESENT IN EXISTING MECHANICAL PIPING), AND REFUSE, BEFORE PROCEEDING WITH SELECTIVE DEMOLITION OPERATIONS.
- 8. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO EXISTING BUILDING COMPONENTS AND FACILITIES SET TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREAS.

- 9. ERECT TEMPORARY PROTECTION, SUCH AS WALKWAYS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS, WHERE REQUIRED.
- 10. ALL DEMOLITION ACTIVITIES WILL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS, INCLUDING BUT NOT LIMITED TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MADEP) REGULATIONS FOR SOLID WASTE MANAGEMENT, HAZARDOUS WASTE MANAGEMENT, AND AIR QUALITY CONTROL, OSHA, AND MASS. STATE BUILDING CODE.
- 11. NEATLY SAW-CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION-TO-REMAIN OR ADJOINING CONSTRUCTION. TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES, USE HAND OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING. TEMPORARILY COVER OPENINGS TO REMAIN.
- 12. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STATING FLAME CUTTING OPERATIONS. MAINTAIN PORTABLE FIRE SUPPRESSION DEVICES DURING FLAME CUTTING
- 13. LOCATE SELECTIVE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE DEBRIS AND MATERIALS SO AS NOT TO IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
- 14. SWEEP THE BUILDING BROOM CLEAN ON A DAILY BASIS AND AT THE COMPLETION OF SELECTIVE DEMOLITION OPERATION.





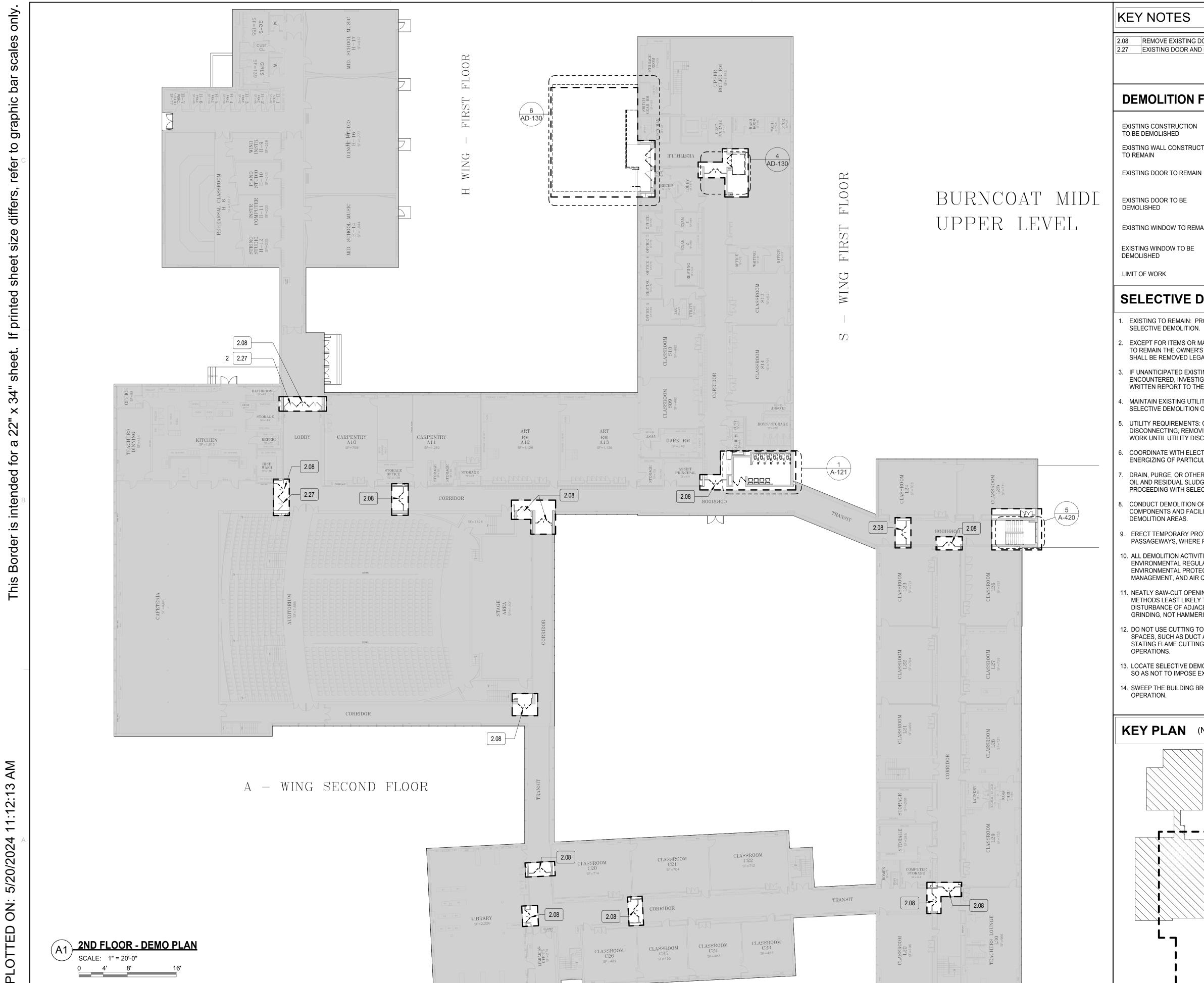
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**REVISIONS** Δ MM-DD-YYYY DESCRIPTION

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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: AS INDICATED DRAWN BY: TP CHECKED BY: KP

> FIRST FLOOR **DEMOLITION PLAN**



#### **KEY NOTES**

2.08 REMOVE EXISTING DOOR, FRAME TO REMAIN. 2.27 EXISTING DOOR AND FRAME TO REMAIN.

#### **DEMOLITION FLOOR PLAN LEGEND**

EXISTING CONSTRUCTION TO BE DEMOLISHED

EXISTING WALL CONSTRUCTION

TO REMAIN

**EXISTING WINDOW TO REMAIN** 

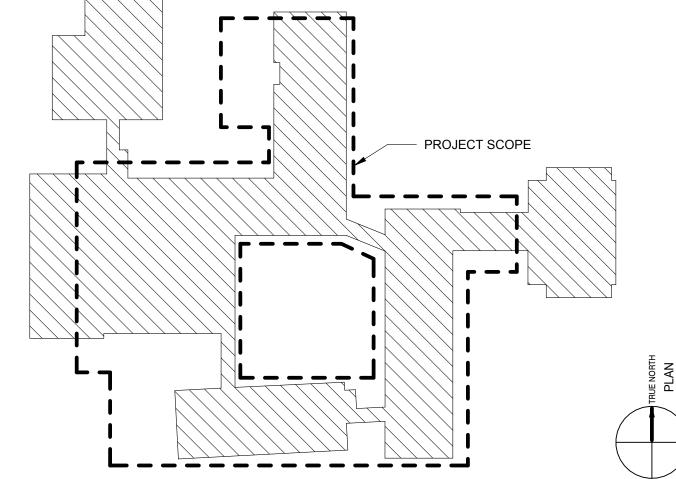
EXISTING WINDOW TO BE

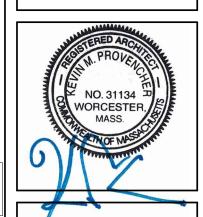
LIMIT OF WORK

#### **SELECTIVE DEMOLITION NOTES**

- EXISTING TO REMAIN: PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION.
- EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN THE OWNER'S PROPERTY, DEMOLISHED MATERIALS SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED LEGALLY FROM THE SITE WITH FURTHER DISPOSITION AT THE CONTRACTOR'S OPTION.
- IF UNANTICIPATED EXISTING BUILDING ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT. PROMPTLY SUBMIT A WRITTEN REPORT TO THE ARCHITECT.
- MAINTAIN EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
- UTILITY REQUIREMENTS: COORDINATE WITH MECHANICAL AND ELECTRICAL WORK FOR SHUTTING OFF, DISCONNECTING, REMOVING, SEALING OR CAPPING UTILITY SERVICES. DO NOT START SELECTIVE DEMOLITION WORK UNTIL UTILITY DISCONNECTION AND SEALING HAVE BEEN COMPLETED AND VERIFIED IN WRITING.
- COORDINATE WITH ELECTRICAL SUB-CONTRACTOR WITH RESPECT TO ELECTRICAL DEMOLITION AND DE-ENERGIZING OF PARTICULAR PORTIONS OF THE BUILDING.
- DRAIN, PURGE, OR OTHERWISE REMOVE, COLLECT AND DISPOSE OF ALL LIQUIDS (WITH THE EXCEPTION OF WASTE OIL AND RESIDUAL SLUDGE WHICH MAY BE PRESENT IN EXISTING MECHANICAL PIPING), AND REFUSE, BEFORE PROCEEDING WITH SELECTIVE DEMOLITION OPERATIONS.
- CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO EXISTING BUILDING COMPONENTS AND FACILITIES SET TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREAS.
- ERECT TEMPORARY PROTECTION, SUCH AS WALKWAYS, FENCES, RAILINGS, CANOPIES, AND COVERED PASSAGEWAYS, WHERE REQUIRED.
- 10. ALL DEMOLITION ACTIVITIES WILL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS, INCLUDING BUT NOT LIMITED TO MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MADEP) REGULATIONS FOR SOLID WASTE MANAGEMENT, HAZARDOUS WASTE MANAGEMENT, AND AIR QUALITY CONTROL, OSHA, AND MASS. STATE BUILDING CODE.
- 1. NEATLY SAW-CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION-TO-REMAIN OR ADJOINING CONSTRUCTION. TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES, USE HAND OR SMALL POWER TOOLS DESIGNED FOR SAWING OR
- 12. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STATING FLAME CUTTING OPERATIONS. MAINTAIN PORTABLE FIRE SUPPRESSION DEVICES DURING FLAME CUTTING
- 13. LOCATE SELECTIVE DEMOLITION EQUIPMENT THROUGHOUT THE STRUCTURE AND REMOVE DEBRIS AND MATERIALS SO AS NOT TO IMPOSE EXCESSIVE LOADS ON SUPPORTING WALLS, FLOORS, OR FRAMING.
- 14. SWEEP THE BUILDING BROOM CLEAN ON A DAILY BASIS AND AT THE COMPLETION OF SELECTIVE DEMOLITION OPERATION.

#### **KEY PLAN** (NOT TO SCALE)





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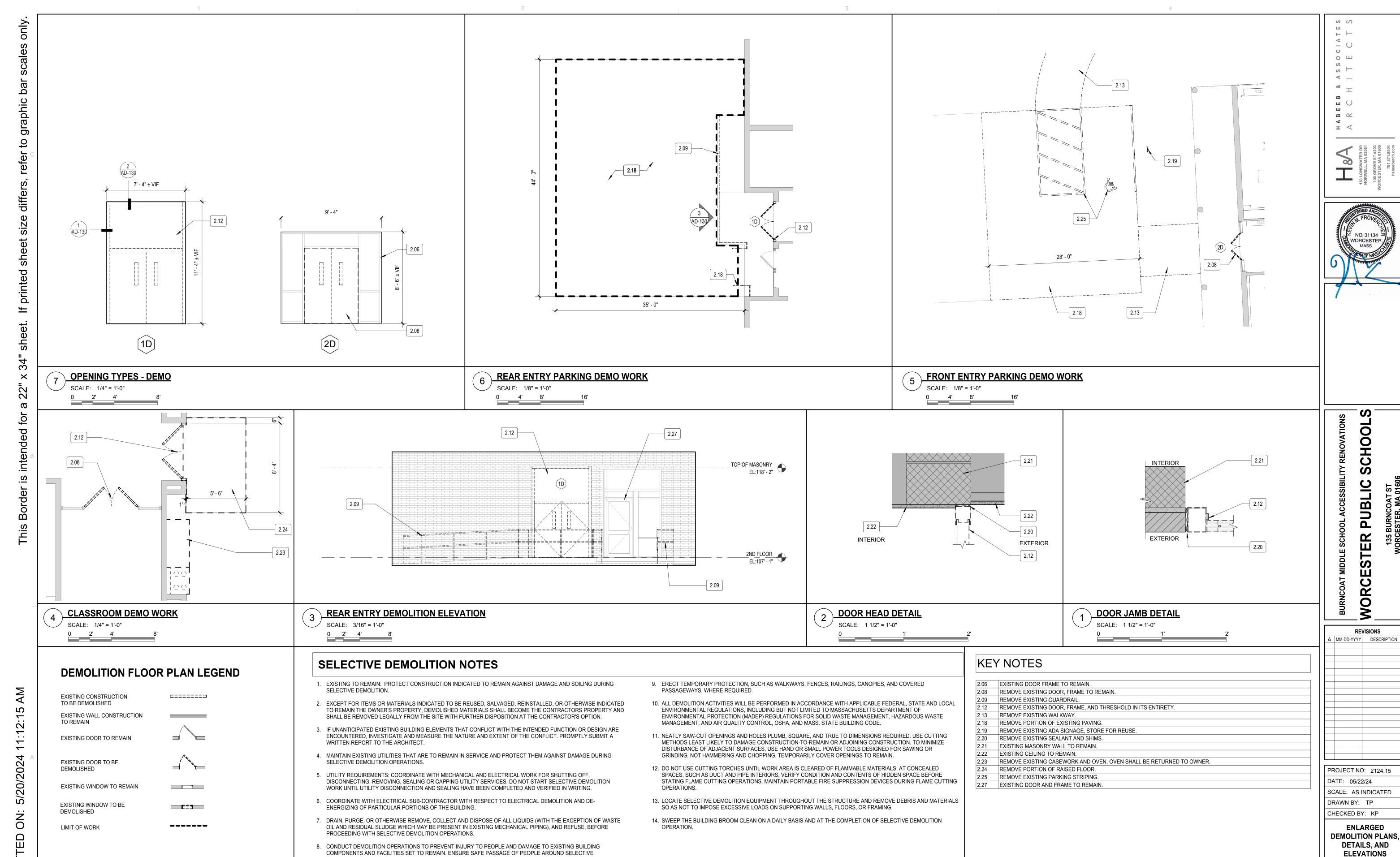
REVISIONS Δ MM-DD-YYYY DESCRIPTION

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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: AS INDICATED DRAWN BY: TP

CHECKED BY: KP

**SECOND FLOOR DEMOLITION PLAN** 

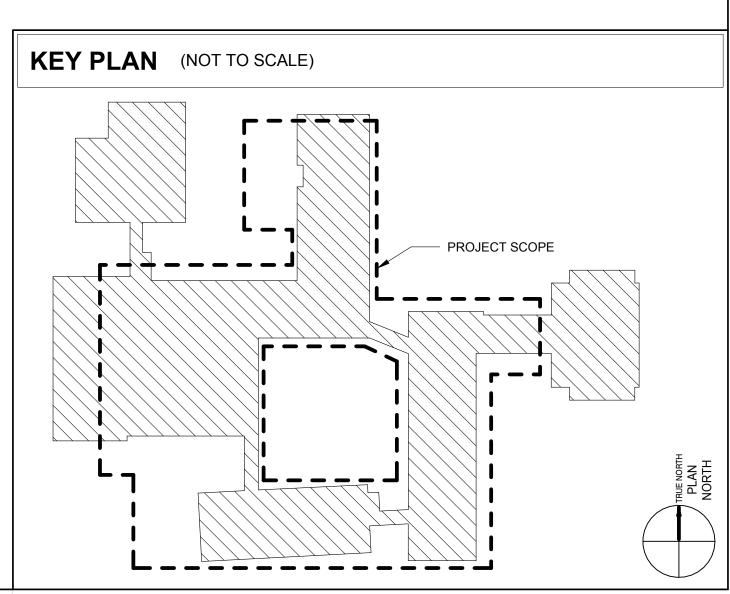


DEMOLITION AREAS.

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AERIAL VIEW
SCALE: NOT TO SCALE

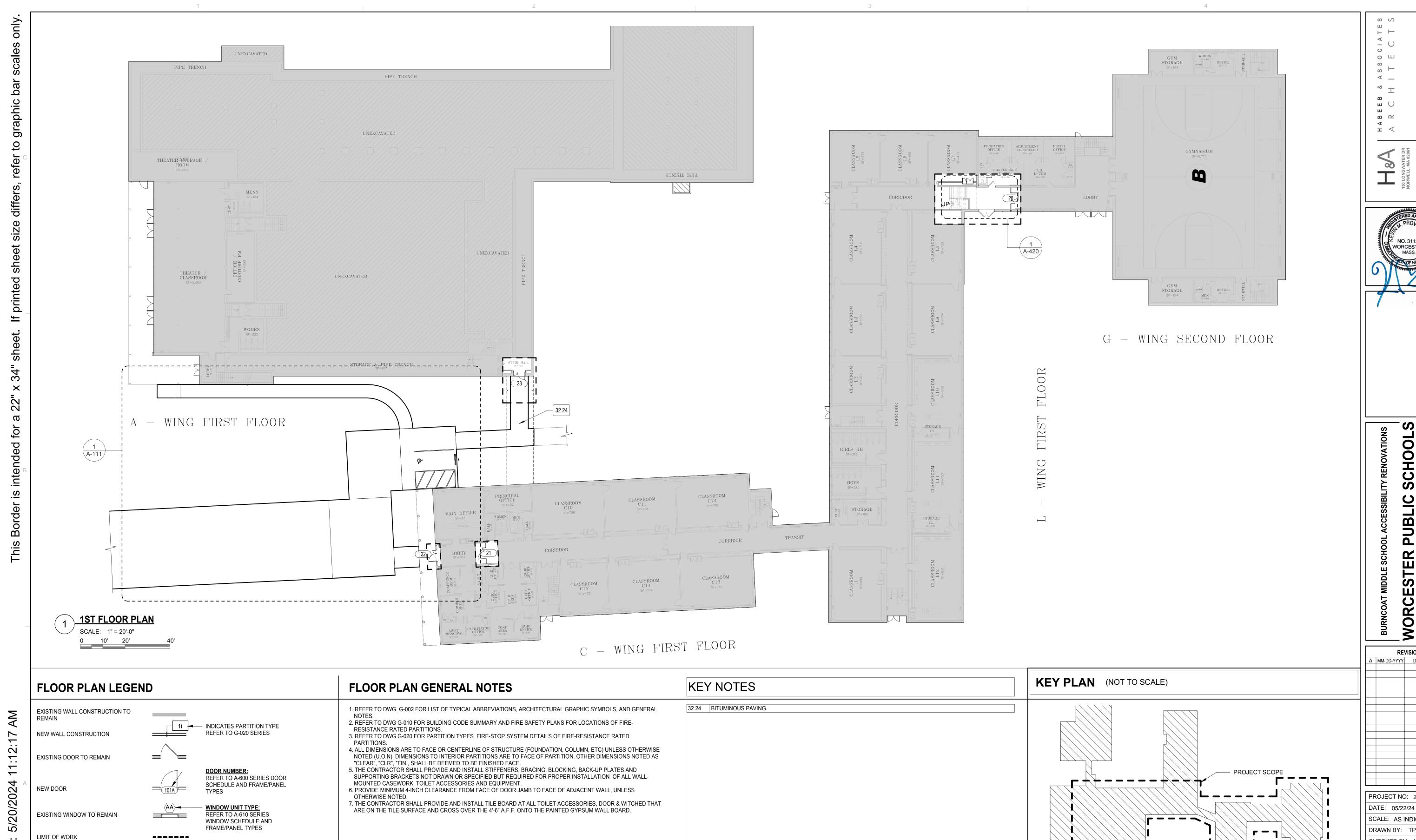


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REVISIONS
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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: AS INDICATED DRAWN BY: Author CHECKED BY: Checker

ARCHITECTURAL SITE PLAN





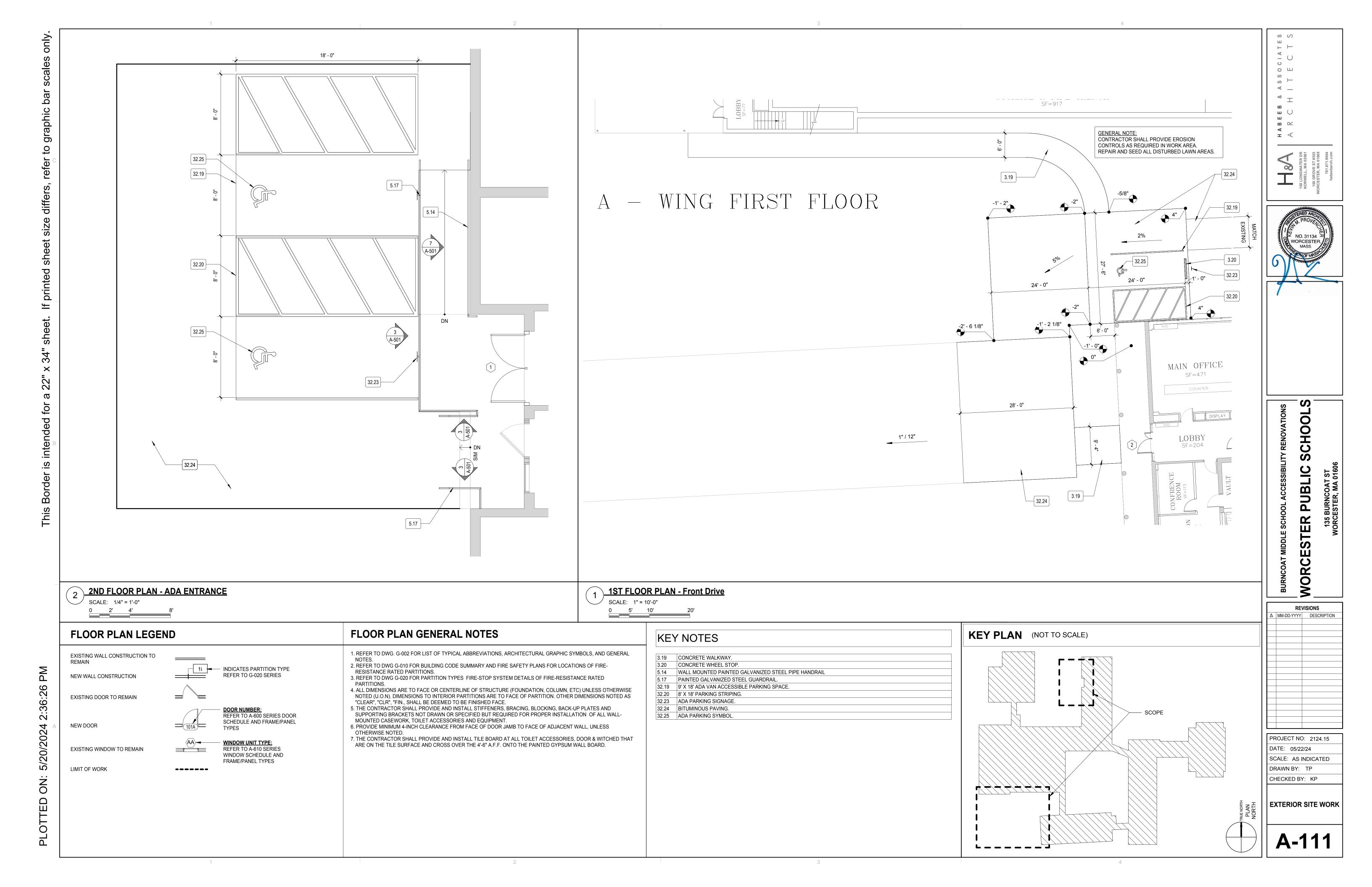
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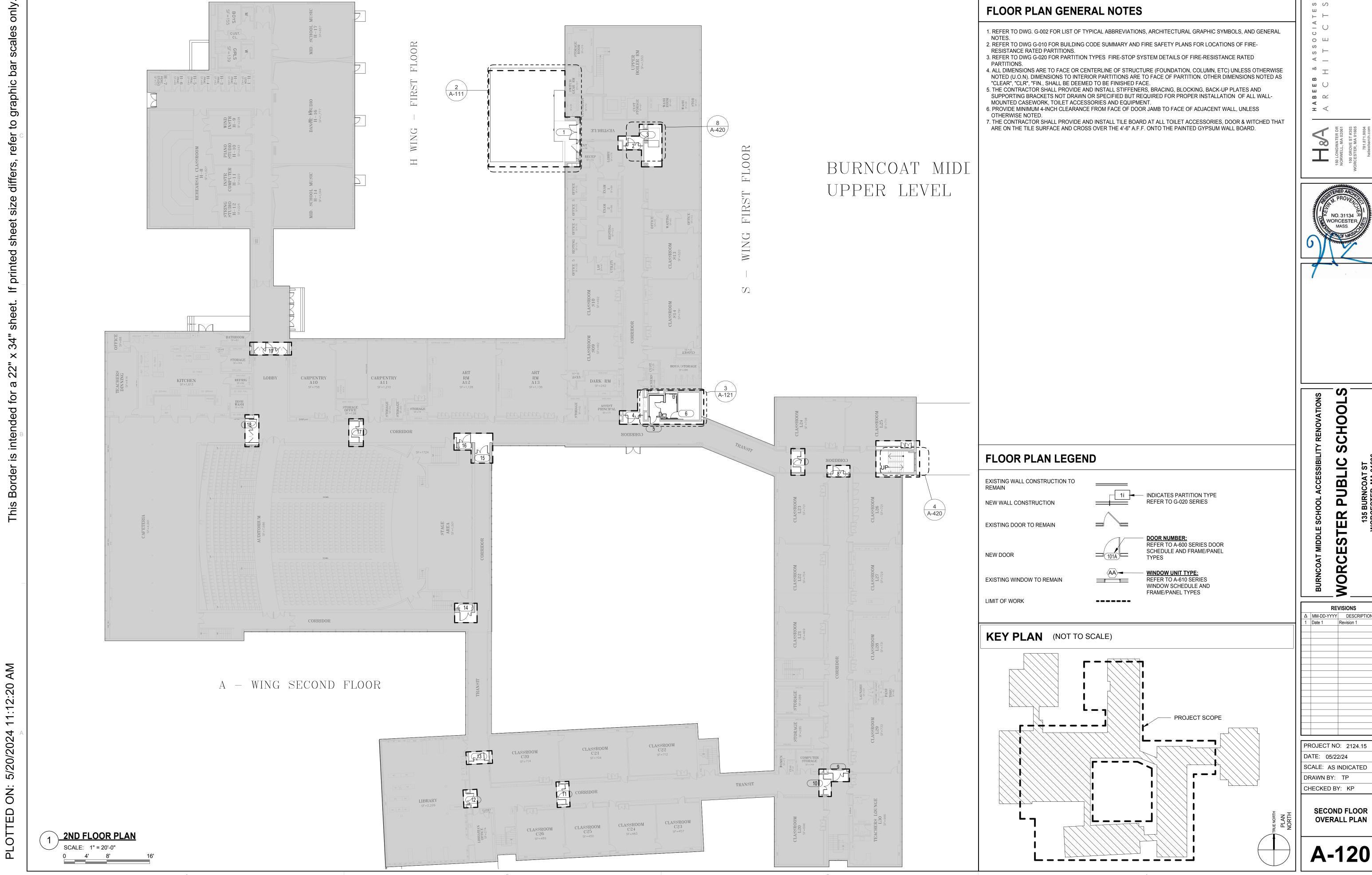
REVISIONS

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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: AS INDICATED DRAWN BY: TP CHECKED BY: KP

> FIRST FLOOR **OVERALL PLAN**

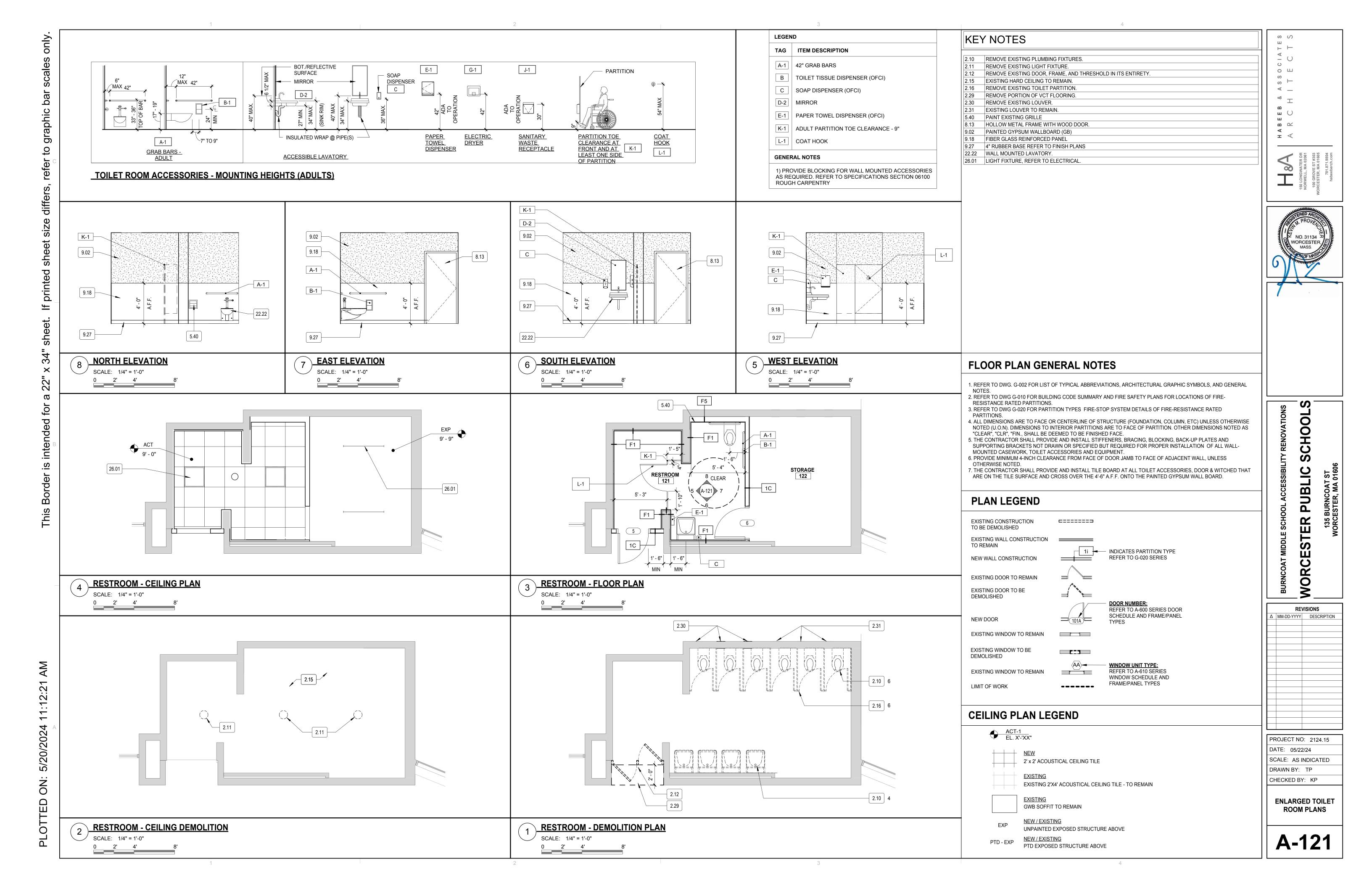


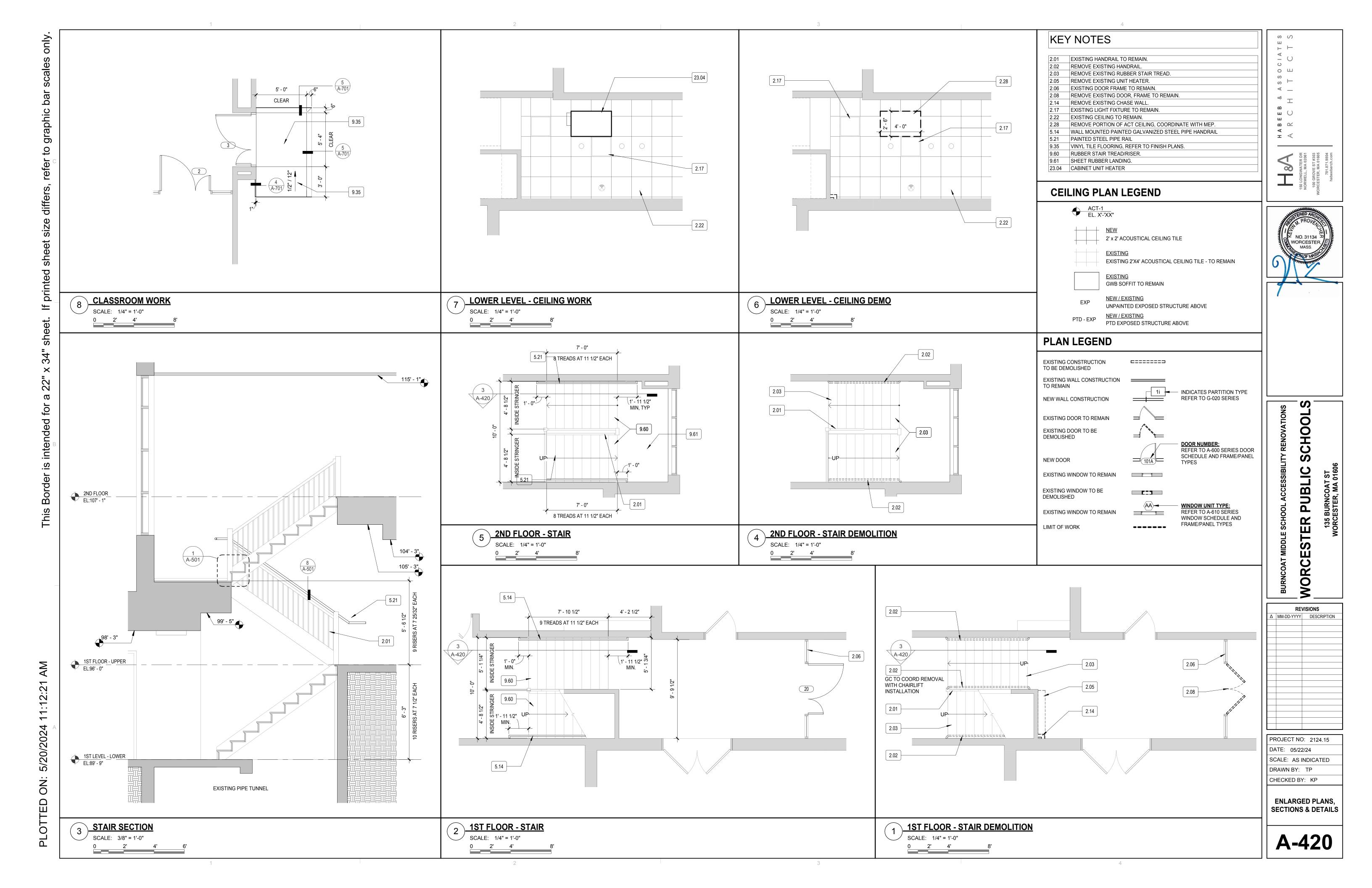


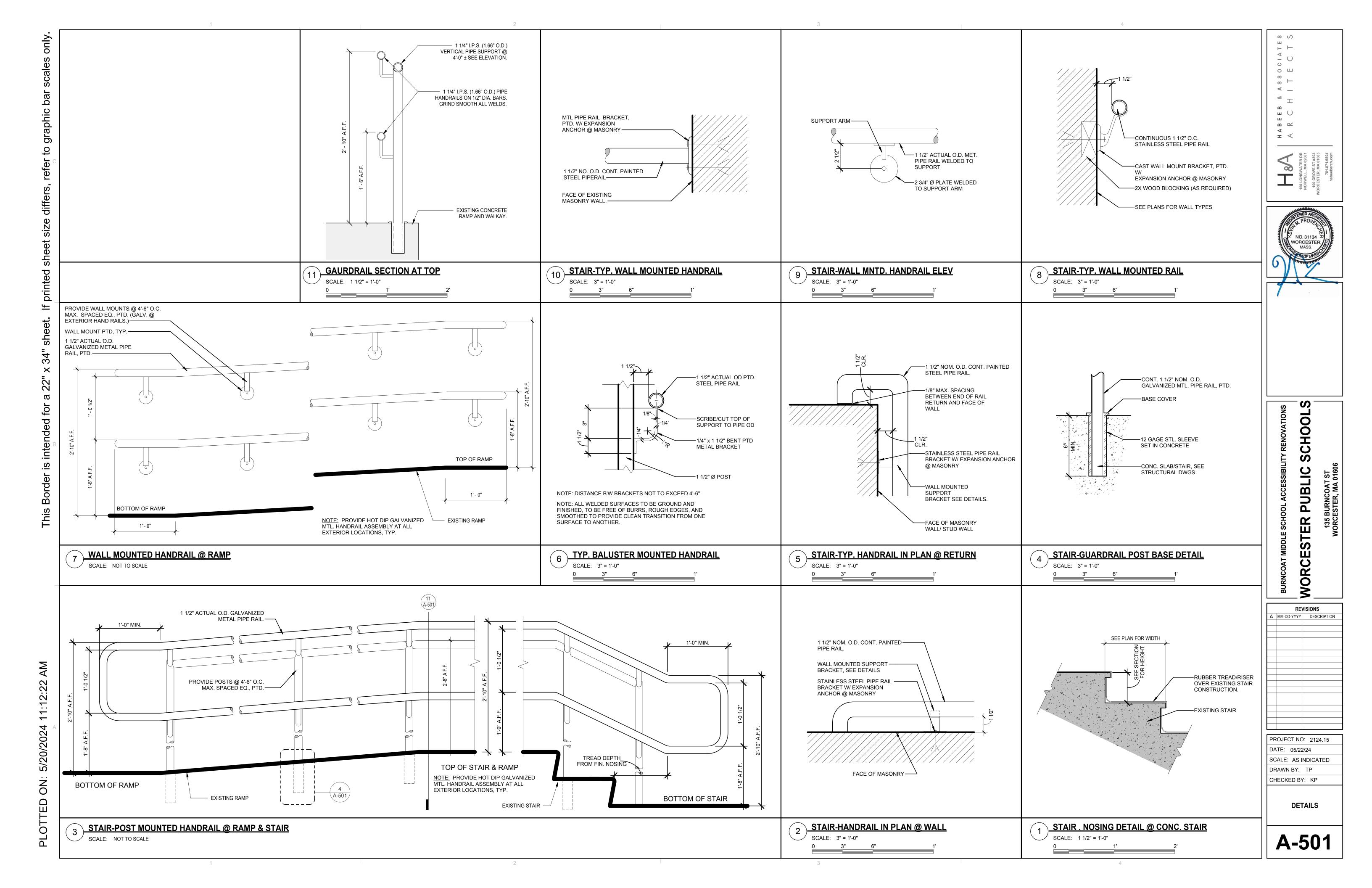


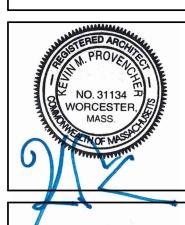
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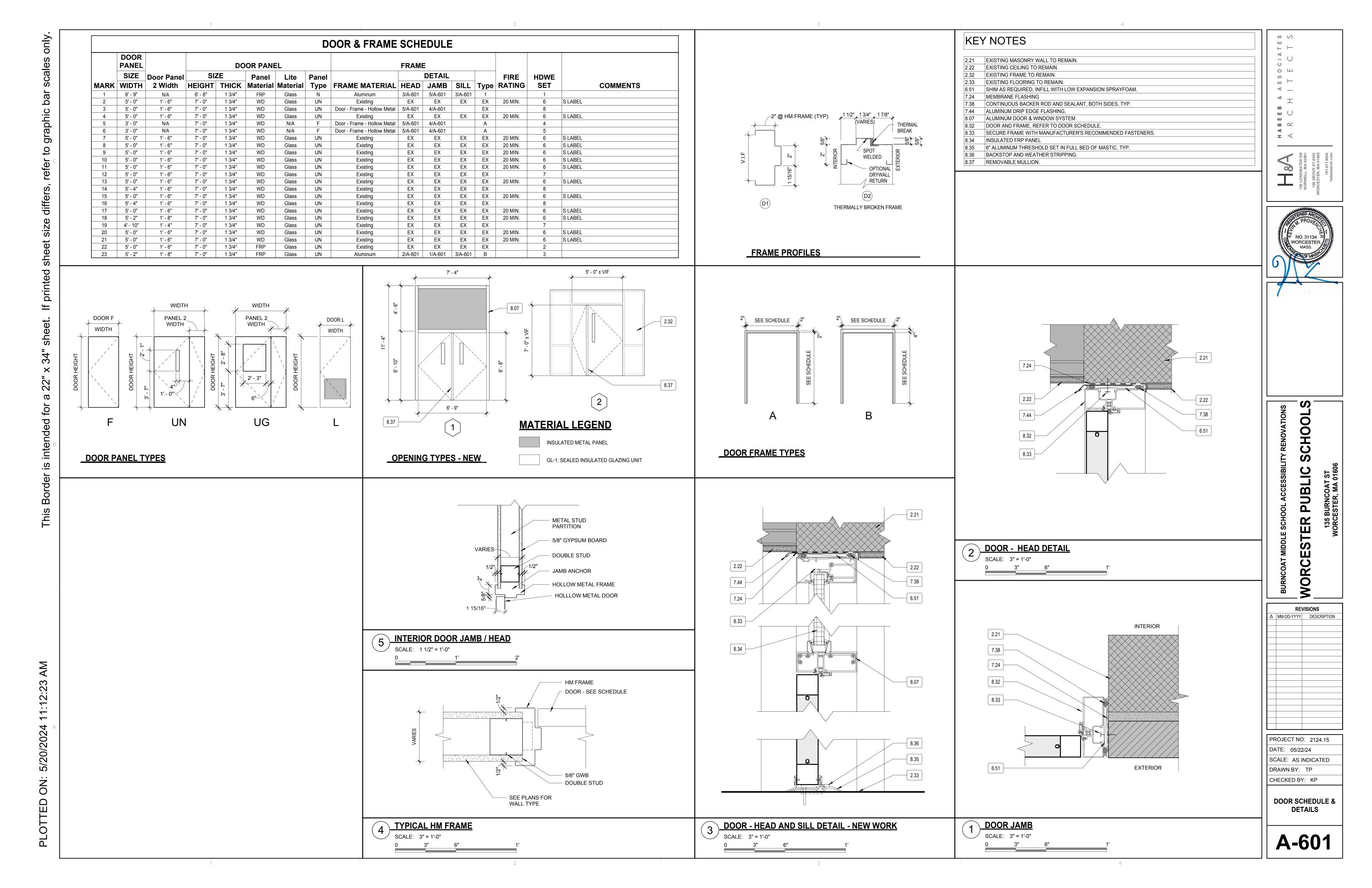


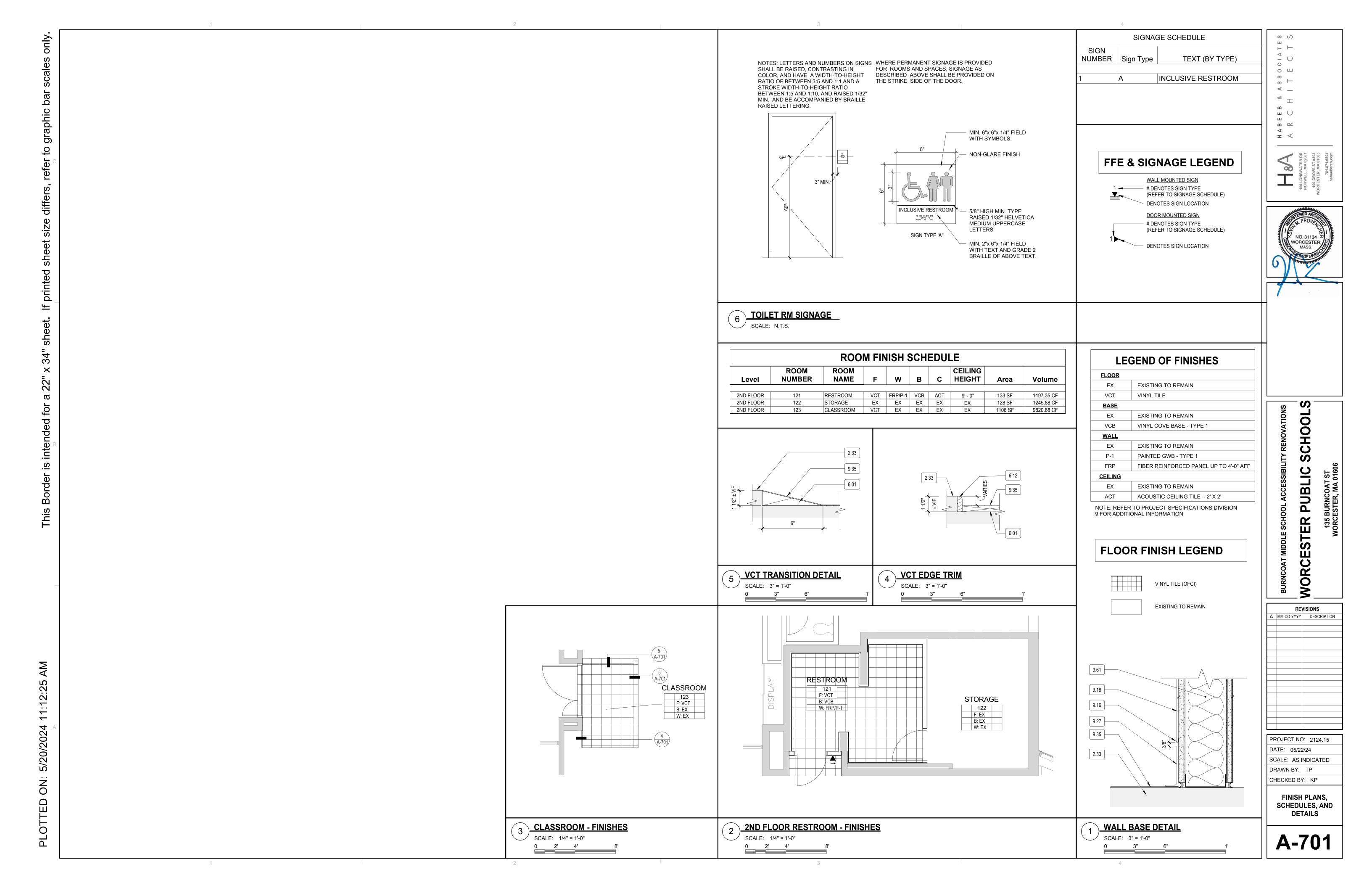


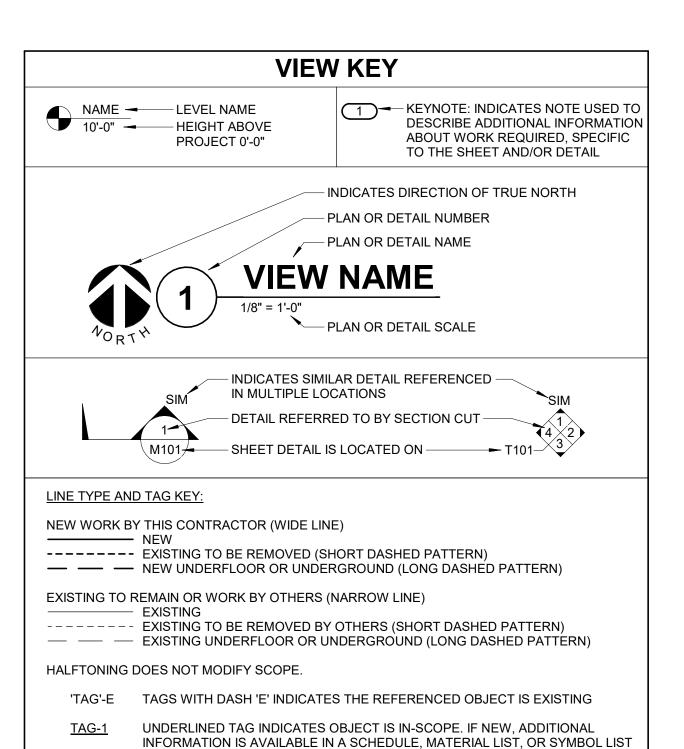


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PROJECT NO: 2124.15 SCALE: AS INDICATED CHECKED BY: Checker







INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

NOT ALL SYMBOLS MAY APPLY.				
SYMBOL:	DESCRIPTION:			
CW	COLD WATER - POTABLE			
D	DRAIN			
—НW——	HOT WATER - POTABLE			
—SAN——	SANITARY DRAINAGE			
V	VENT			
	PIPE CONTINUATION			
	PIPE CAP			
	PIPE DOWN			
<del></del> 0	PIPE UP OR UP/DOWN			
o	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)			
	PITCH PIPE IN DIRECTION			
<del></del>	DIRECTION OF FLOW IN PIPE			
7	ROUTE TO DRAIN			
	UNION/FLANGE			
<b>─</b> ₩ <b>─</b>	SHUTOFF VALVE NORMALLY OPEN			
₩	SHUTOFF VALVE NORMALLY CLOSED			
Ŷ	VACUUM BREAKER			

A.V.C. AUDIO/VISUAL CONTRACTOR C.C. CIVIL CONTRACTOR C.M. CONSTRUCTION MANAGER E.C. ELECTRICAL CONTRACTOR F.P.C. FIRE PROTECTION CONTRACTOR F.S.C. FOOD SERVICE CONTRACTOR G.C. GENERAL CONTRACTOR H.C. HEATING CONTRACTOR M.C. MECHANICAL CONTRACTOR N.C.C. NURSE CALL CONTRACTOR P.C. PLUMBING CONTRACTOR S.C. SECURITY CONTRACTOR	A.V.C. AUDIO/VISUAL CONTRACTOR C.C. CIVIL CONTRACTOR C.M. CONSTRUCTION MANAGER E.C. ELECTRICAL CONTRACTOR F.P.C. FIRE PROTECTION CONTRACTOR F.S.C. FOOD SERVICE CONTRACTOR G.C. GENERAL CONTRACTOR H.C. HEATING CONTRACTOR M.C. MECHANICAL CONTRACTOR N.C.C. PLUMBING CONTRACTOR P.C. PLUMBING CONTRACTOR
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TO TECHNOLOGY CONTRACTOR	S.C. SECURITY CONTRACTOR
T.C. TECHNOLOGY CONTRACTOR	T.C. TECHNOLOGY CONTRACTOR
T.C.C. TEMPERATURE CONTROLS CONTRACTOR	T.C.C. TEMPERATURE CONTROLS CONTRACTOR
V.C. VENTILATION CONTRACTOR	V.C. VENTILATION CONTRACTOR

ABBR:	DESCRIPTION:
AFF CO DI	ABOVE FINISHED FLOOR CLEANOUT DUCTILE IRON
DN	DOWN
E	EXISTING
ETR	EXISTING TO REMAIN
ETBR FCO	EXISTING TO BE REMOVED FLOOR CLEANOUT
FD	FLOOR DRAIN
L or LAV MV	LAVATORY MIXING VALVE
NIC	NOT IN CONTRACT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
UON	UNLESS OTHERWISE NOTED

#### PLUMBING SLOPE REQUIREMENTS:

**BASED ON PLUMBING CODE: 248 CMR 10** 

INTERIOR: **SANITARY WASTE:** 

**SANITARY AND GREASE VENT:** DOMESTIC WATER:

≤3"ø =1/4" PER FOOT >3"ø = 1/8" PER FOOT NO SPECIFIC PITCH, PITCH TO FIXTURES NO SPECIFIC PITCH, PITCH TO FIXTURES

#### PLUMBING GENERAL NOTES:

- 1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
- 2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.
- 3. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
- 4. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874 AND BE MA PLUMBING BOARD
- 5. INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY
- ALL ELEVATIONS BEFORE BEGINNING WORK. 6. VERIFY UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATIONS PRIOR TO
- BEGINNING ANY WORK.
- 7. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURES. 8. FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE SHUTOFF VALVES IN DOMESTIC WATER PIPING SERVING EACH ROOM WITH FIXTURES. ANGLE STOPS SHALL NOT
- BE CONSIDERED SHUTOFF VALVES. 9. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. REFER TO SPECIFICATION SECTION 22 05 05 FOR
- ADDITIONAL DEMOLITION INFORMATION. 10. P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.

#### **PLUMBING RENOVATION NOTES:**

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
- 2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
- 3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD
- 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE
- REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK. 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.
- CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. 6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO
- 7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL
- SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. 8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT
- 9. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW
- SYSTEMS ARE INSTALLED. 10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS, OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.



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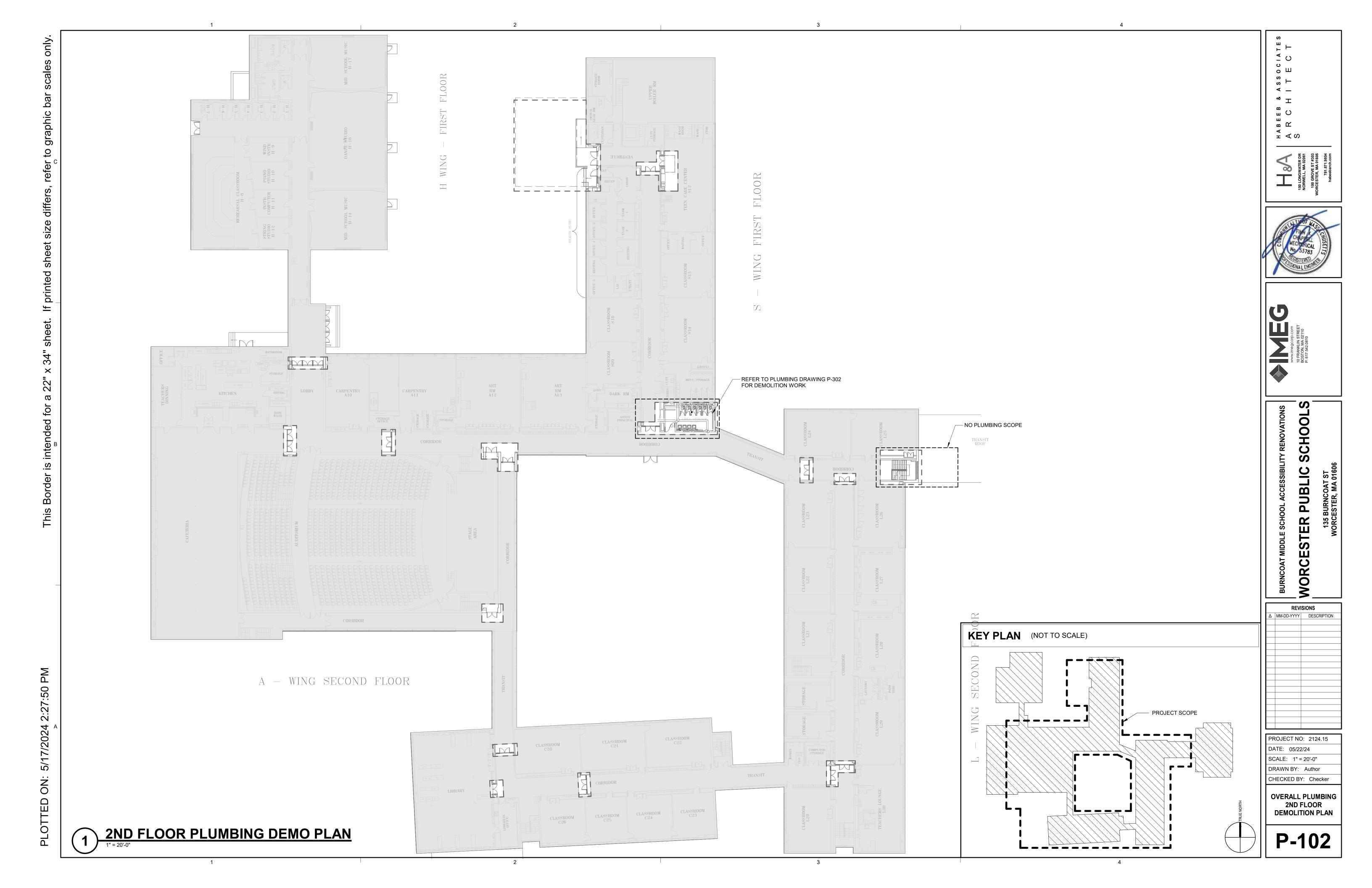
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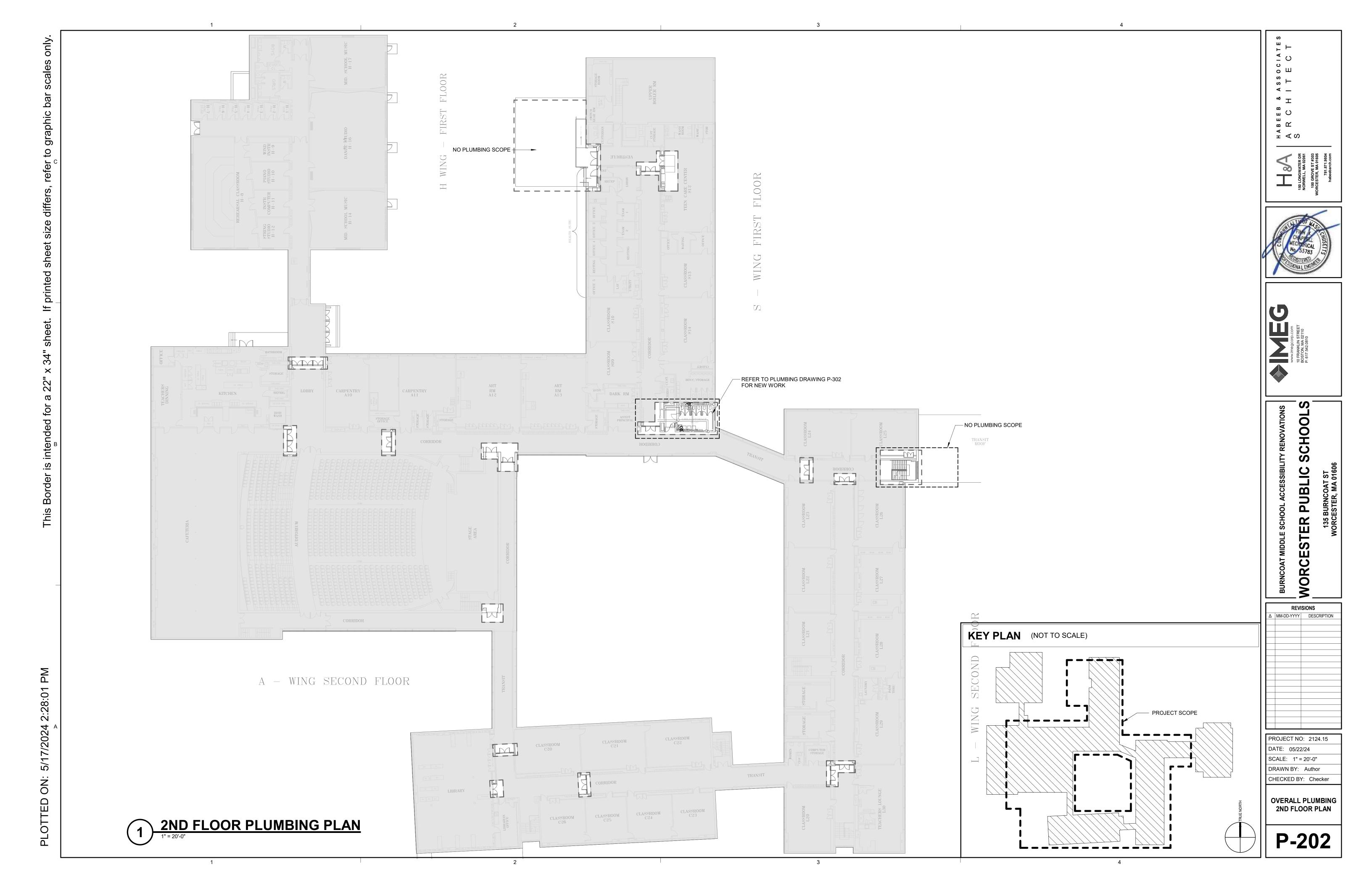
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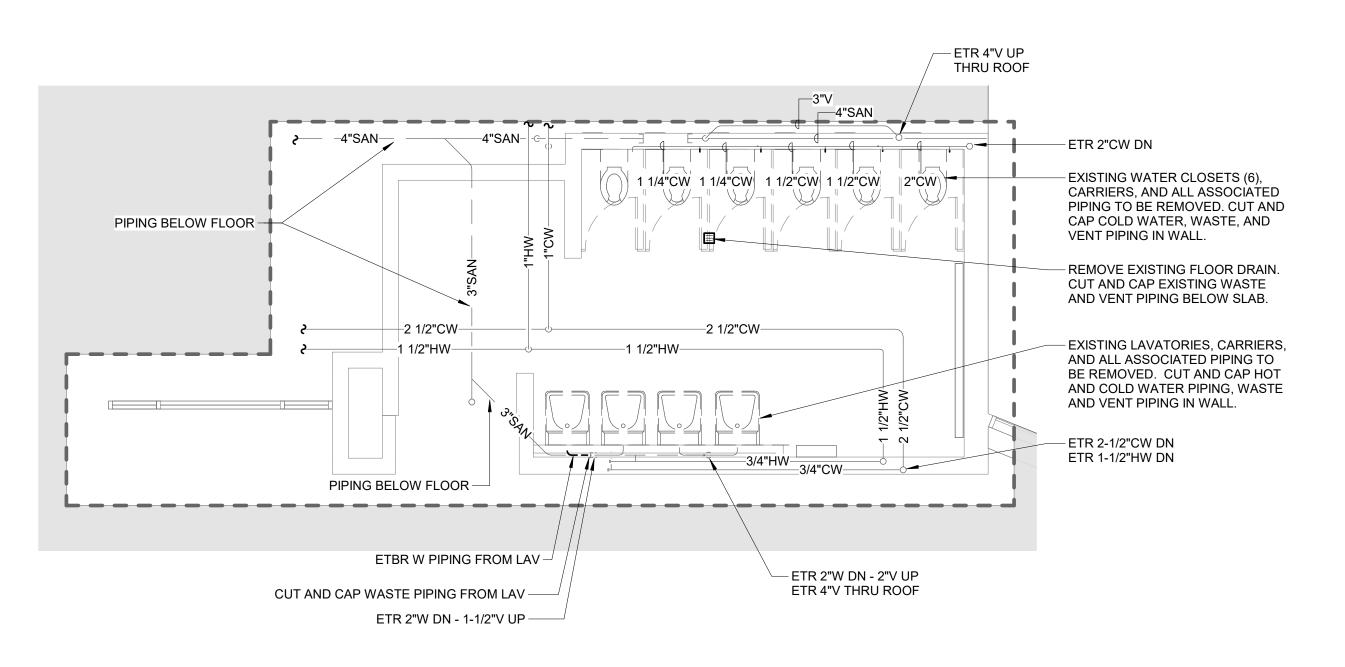
PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: As indicated DRAWN BY: RE

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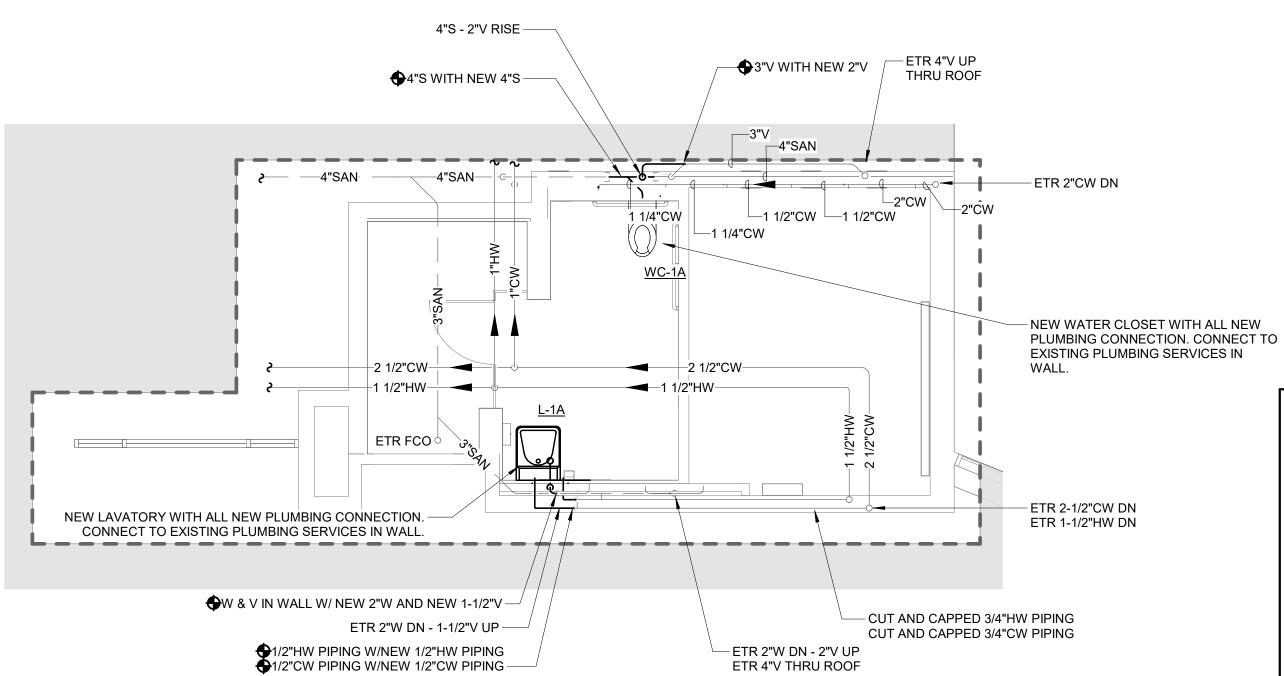
**PLUMBING** COVERSHEET





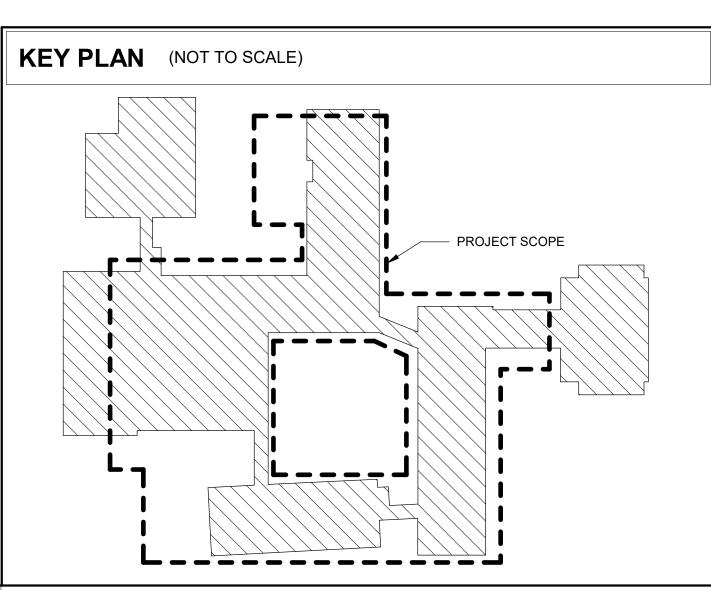


1 PLUMBING 2ND FLOOR - RESTROOM DEMOLITION PLAN



PLUMBING 2ND FLOOR - RESTROOM PLAN

1/4" = 1'-0"



HABEEB & ASSOCIATES

A R C H I T E C T

GROVEST#303
STER, MA 01606
781.871.9804
habeebarch.com





ESTER PUBLIC S
135 BURNCOAT ST
WORCESTER. MA 01606

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A MM-DD-YYYY DESCRIPTION

PROJECT NO: 2124.15

DATE: 05/22/24

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

DRAWN BY: Author

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PLUMBING 2ND FLOOR RESTROOM ENLARGED PLANS

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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: 12" = 1'-0" DRAWN BY: Author

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PLUMBING ROUGH-IN SCHEDULE

NOTES: (APPLIES TO ALL PLUMBING FIXTURES LISTED BELOW)

1) SIZES SHOWN ARE MINIMUMS. LARGER SIZES SHOWN ON THE DRAWING SHALL DICTATE THE ROUGH-IN SIZE.
2) SANITARY RISERS UP IN WALL TO FIXTURES SHALL BE A MINUMUM OF 2". 3) DOMESTIC WATER BRANCH PIPING OUTSIDE OF THE WALL/CHASE SHALL BE A MINIMUM OF 3/4" UNLESS NOTED OTHERWISE. ONLY THE FINAL RISE-DROP SHALL BE SMALLER. 4) FINAL SANITARY SIZE SHALL MATCH P-TRAP SIZE (REFER TO MATERIAL

TAG NAME	DESCRIPTION	TRAP	COLD WATER	HOT WATER	SANITARY	VENT
L-1A	LAVATORY (ACCESSIBLE)		1/2"	1/2"	1 1/2"	1 1/2"
WC-1A	WATER CLOSET (ACCESSIBLE)		1 1/2"	-	4"	2"

## PIPE INSULATION SCHEDULE (PLUMBING)

GENERAL NOTES:

1. REFER TO THE SPECIFICATIONS FOR TYPE DESCRIPTIONS AND JACKETING REQUIREMENTS.

2. TYPE A INSULATION IS NOT ALLOWED IN NON-AIR CONDITIONED SPACES, SUCH AS MECHANICAL ROOMS, EXTERIOR, ATTICS, ETC.

3. TYPE B INSULATION GREATER THAN 1" THICK SHALL BE INSTALLED USING MULTIPLE LAYERS OF 3/4" OR 1" WITH STAGGERED SEAMS. 4. TYPE E IS NOT ALLOWED IN RETURN AIR PLENUMS, UNLESS LISTED AND LABELED AS 25/50 RATED PER ASTM E84/UL723

5. TYPE G 4" SHALL BE INSTALLED IN TWO (2) 2" LAYERS WITH STAGGERED SEAMS.
6. PROVIDE RIGID INSERT AT HANGERS, EITHER PRE-MANUFACTURED COUPLINGS (REFER TO PIPE HANGER AND SUPPORTS SPECIFICATIONS) OR TYPE C, D, OR E INSULATION. SEE SPEC. FOR MORE DETAILS.
7. DIRECT BUIRED PIPING SHALL ONLY USE TYPE C OR TYPE E. REDUCTION IN THICKNESS FOR DIRECT BURED PIPING IS ALLOWED PER ASHRAE / IECC AS APPLICABLE.

SYMBOL	PIPE SYSTEM	INSULATION TYPE	INSULA	TION THICKNES	S PER NOMIN	AL PIPE OR TU	JBE SIZE	NOTES
STWIDUL	PIPE STSTEW	INSULATION TIPE	< 1"	1" TO < 1.5"	1.5" TO < 4"	4" TO < 8"	≥ 8"	NOTES
22 PLUM	BING - WASTE		•	•				
SAN	SANITARY DRAINAGE	A (GlsFbr)	1/2"	1/2"	1"	1"	1"	APPLY INSULATION ONLY TO FLOOR DRAIN BODY, P-TRAP AND 10' DOWNSTREAM AT LOW TEMP DRAIN DISCHARGE (55 DEG AND LOWER IE: COOLING COIL CONDENSATE, ICE MACHINE DRAINS, ETC.)
V	VENT	A (GlsFbr)	1/2"	1/2"	1"	1"	1"	APPLY INSULATION ONLY WITHIN 10' OF EXTERIOR PENETRATION
22 PLUM	BING - WATER							
CW	COLD WATER - POTABLE	A (GlsFbr)	1/2"	1/2"	1"	1"	1"	
HW	HOT WATER - POTABLE	A (GIsFhr)	1"	1"	1 1/2"	1 1/2"	1 1/2"	

PLUM	IBING MATERIAL LIST	
TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
L-1A	LAVATORY - ACCESSIBLE WALL MOUNTED, WHITE VITREOUS CHINA, 20"x18", 4" HIGH CONTOURED BACKSPLASH, SINGLE FAUCET HOLE, DRILLED FOR CONCEALED ARM CARRIER.	LAVATORY -
	LAVATORY TRIM - SENSOR ACTIVATED NON-MIXING FAUCET, BATTERY POWERED, BRASS CONSTRUCTION, CHROME-PLATED FINISH, SPOUT WITH LAMINAR FLOW OUTLET, SINGLE HOLE INSTALLATION, INTEGRAL CHECK VALVES, PERFORATED GRID STRAINER WITH 1-1/4" 17 GAUGE TAILPIECE.	AMERICAN STANDARD (0356921), GERBER (12-654), KOHLER (K-2031), ZURN (Z5841)  LAVATORY TRIM - AMTC (AEF-308), T&S BRASS (ECW-3172), ZURN
	MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 2005 AND ASME/ANSI STANDARD A112.18.1M. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.	(Z6950-XL-S), BRADLEY (\$53-3100)  MIXING VALVE - LEONARD (170-LF/270-LF/370-LF), POWERS (SERIES LFLM495), SYMMONS (8210CK MAXLINE SERIES) INSULATION KIT - TRUEBRO (LAV-GUARD), BROCAR PRODUCTS
	MOUNT CONTROLS AND BATTERIES IN WATERPROOF VANDAL-RESISTANT ENCLOSURE BELOW LAVATORY.	(TRAP WRAP), MCGUIRE (PROWRAP), PLUMBEREX (PRO-EXTREME)
	MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 2005 AND ASME/ANSI STANDARD A112.18.1M. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. PROVIDE RESTRICTIVE DEVICE AND ESCUTCHEON PLATE AS REQUIRED.	
	MIXING VALVE - POINT-OF-USE ANTI-SCALD THERMOSTATIC MIXING VALVE ARRANGEMENT FOR TEMPERED WATER CONTROL, ALL BRONZE/BRASS CONSTRUCTION, ROUGH FINISH, UNION/THREADED INLETS WITH STRAINERS, COMBINATION CHECK STOPS OR SEPARATE SUPPLY CHECK VALVES AND SHUT OFF VALVES.	
	RATED FOR 8 GPM OUTPUT MAXIMUM AT 15 PSI DIFFERENTIAL AND 0.5 GPM OUTPUT MINIMUM. UNIT TO MIX 140DEGREE F HOT WATER SUPPLY AND 40 DEGREE F COLD WATER SUPPLY FOR 110 DEGREE F OUTLET.	
	UNIT SHALL BE ASSE 1070 LISTED AND APPROVED. VALVE SHALL COMPLY WITH FEDERAL ACT S.3874. INSULATION KIT - PRE-MANUFACTURED FOR P-TRAP, STOP VALVES AND SUPPLY LINES. ACCESSORIES - QUARTER-TURN 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY STOPS, CHROME PLATED SOFT COPPER OR FLEXIBLE STAINLESS STEEL SUPPLY LINES, DRAIN AND OFFSET TAILPIECE, 1-1/4" 17 GAUGE CAST BRASS P-TRAP, SUPPORT CARRIER.	
	MOUNT LAVATORY WITH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. MOUNT AT HEIGHT SPECIFIED BY ARCHITECT.	
WC-1A	WATER CLOSET - ACCESSIBLE WALL HUNG, FLUSH VALVE TYPE, WHITE VITREOUS CHINA, SIPHON JET, HIGH EFFICIENCY RATED FOR 1.28 GPF, ELONGATED BOWL, 1-1/2" TOP SPUD.	WATER CLOSET - AMERICAN STANDARD (2257101), SLOAN (ST-2459), ZURN (Z5615), KOHLER (K-84325), TOTO (CT708E)
	FLUSH VALVE - EXPOSED, SENSOR OPERATED, BATTERY POWERED, 1.28 GALLONS PER FLUSH, CHROME PLATED 1" I.P.S. SCREWDRIVER STOP-CHECK VALVE, CHEMICAL RESISTANT MATERIAL, VACUUM BREAKER, SPUD COUPLING AND FLANGE, WALL FLANGE WITH SET SCREW, MECHANICAL OVER-RIDE BUTTON, LOW BATTERY INDICATOR LIGHT, RANGE ADJUSTMENT SCREW, 3 YEAR WARRANTY.	FLUSH VALVE -SLOAN (8111-1.28), TOTO (TET1LA32#CP), OR APPROVED EQUAL SEAT - BEMIS (3155SSCT), CHURCH (3155C), BENEKE (533PC),
	SEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC, SELF-SUSTAINING HINGE, STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS.	OLSONITE (95), SAME AS WATER CLOSET MANUFACTURER
	CONTRACTOR OPTION: COMBINATION WATER CLOSET/FLUSH VALVE PACKAGED SYSTEM BY AMERICAN STANDARD, KOHLER, SLOAN, OR ZURN	
	ACCESSORIES - WATER CLOSET SUPPORT CARRIER RATED FOR 500 LBS.	
	MOUNT WATER CLOSET WITH CARRIER BOLTED SECURELY TO FLOOR. TOP OF SEAT SHALL BE AT 17"-19' ABOVE FINISHED FLOOR (VERIFY EXACT MOUNTING HEIGHT WITH MANUFACTURER). MOUNT AT HEIGHT SPECIFIED BY ARCHITECT. VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.	

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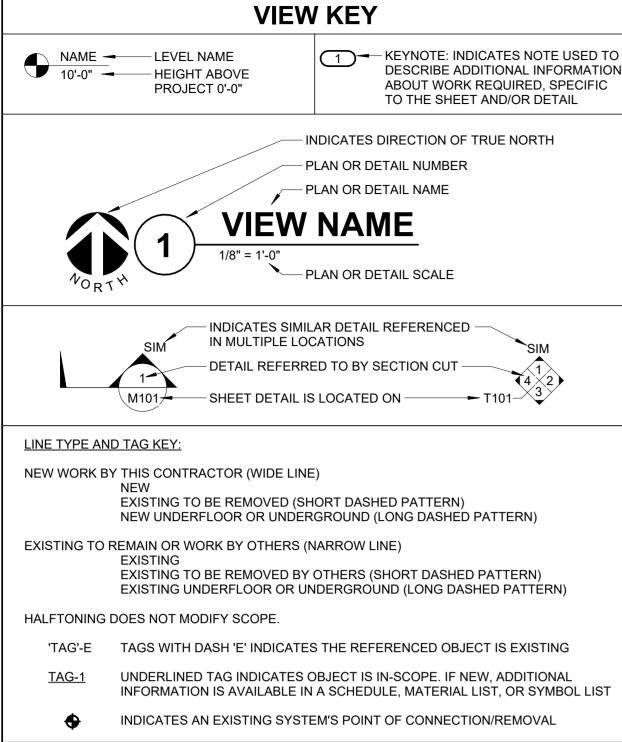
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PROJECT NO: 2124.15 DATE: 05/22/24

DRAWN BY: Author CHECKED BY: Checker

> **PLUMBING** SCHEDULES



APPLICABLE CODES					
	Y WITH APPLICABLE CODES AND LOCAL AMENDMENTS BUT NOT LIMITED TO, THE FOLLOWING:				
BUILDING CODE:	780 CMR 9TH EDITION				
FIRE CODE:	NFPA: 1 2021 EDITION				
MECHANICAL CODE:	IMC 2015 EDITION WITH MA AMENDMENTS				
ELECTRICAL CODE:	NFPA 70 (NEC) 2023 EDITION				
ENERGY CONSERVATION CODE:	IECC 2021 WITH MA AMENDMENTS				
HEALTH DEPARTMENT CODE:	CURRENT EDITION				
LOCAL BUILDING CODE:	CURRENT EDITION				

	NOT ALL CYMPOLO MAY APPLY	
	NOT ALL SYMBOLS MAY APPLY.	
SYMBOL:	DESCRIPTION:	
—HWR—	HEATING WATER RETURN	
—HWS—	HEATING WATER SUPPLY	
	PIPE CAP	
<del></del>	PIPE DOWN	
<del></del>	PIPE UP OR UP/DOWN	
	PITCH PIPE IN DIRECTION	
_	DIRECTION OF FLOW IN PIPE	
<del></del>	DIELECTRIC CONNECTION	
	UNION/FLANGE	
—₩—	SHUTOFF VALVE NORMALLY OPEN	
<b>—</b>	SHUTOFF VALVE NORMALLY CLOSED	
<b>─</b> ₩──	THROTTLING VALVE	
—¤—	BALANCING VALVE (NUMBER INDICATES GPM)	
	AUTOMATIC BALANCING VALVE	
— <del> </del>	MIXING VALVE	
<b>───</b> ₩──	CONTROL VALVE (THREE-WAY)	
————	CONTROL VALVE (TWO-WAY)	
	SOLENOID VALVE	
<u> </u>	CHECK VALVE	

<b>HVAC ABBREVIATION KEY</b>		
ABBR:	DESCRIPTION:	
AD	ACCESS DOOR	
AFF	ABOVE FINISHED FLOOR	
С	COMMON	
CO	CLEANOUT	
CFSD	CONTROL/FIRE/SMOKE DAMPER	
DN	DOWN	
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)	
DPS	DIFFERENTIAL PRESSURE SWITCH	
EP	ELECTRICAL TO PNEUMATIC VALVE	
FD	FIRE DAMPER	
FOB	FLAT ON BOTTOM	
FOT	FLAT ON TOP	
FSD	FIRE/SMOKE DAMPER	
MV	MIXING VALVE	
N.C.	NORMALLY CLOSED	
NIC	NOT IN CONTRACT	
N.O.	NORMALLY OPEN	
PS	PRESSURE SWITCH	
SCCR	SHORT CIRCUIT CURRENT RATING	
SD	SMOKE DAMPER	
TAB	TERMINAL AIR BOX	
TD	TRANSFER DUCT	
TYP	TYPICAL	
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)	
UON	UNLESS OTHERWISE NOTED	

CONTRACTOR ABBREVIATION KEY				
BBR:	DESCRIPTION:			
C.M.	CONSTRUCTION MANAGER			
E.C.	ELECTRICAL CONTRACTOR			
F.P.C.	FIRE PROTECTION CONTRACTOR			
G.C.	GENERAL CONTRACTOR			
M.C.	MECHANICAL CONTRACTOR			
P.C.	PLUMBING CONTRACTOR			
S.C.	SECURITY CONTRACTOR			
T.C.	TECHNOLOGY CONTRACTOR			
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR			
V.C.	VENTILATION CONTRACTOR			

	DUCT ABBREVIATION KEY
ABBR.	DESCRIPTION
EA	EXHAUST AIR

NOT ALL SYMBOLS MAY APPLY.				
SYMBOL:	DESCRIPTION:			
-	DIRECTION OF AIR FLOW			
	MANUAL VOLUME DAMPER			
R	RISE IN DIRECTION OF AIR FLOW			
D -	DROP IN DIRECTION OF AIR FLOW			
	DUCT CAP			
	DUCT DOWN			
	DUCT UP			
$\boxtimes$	SUPPLY/OUTSIDE AIR DUCT SECTION			
	RETURN AIR DUCT SECTION			
	EXHAUST/RELIEF AIR DUCT SECTION			
<u>SD-1</u> 6/115	AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM			
T	THERMOSTAT/SENSOR			
T	TEMPERATURE SENSOR (DUCT MOUNTED)			

#### **TAB PRE-DEMOLITION NOTES:**

- 1. BEFORE ANY DEMOLITION WORK IS BEGUN A COMPLETE AIR BALANCE TEST SHALL BE PERFORMED BY THE TESTING, ADJUSTING AND BALANCING (TAB) CONTRACTOR ON EXISTING AIR HANDLERS AND EXHAUST FANS SERVING THE AREAS AFFECTED BY CONSTRUCTION. EQUIPMENT TO BE DEMOLISHED DOES NOT REQUIRE TESTING. PROVIDE AIR BALANCE TESTING ONLY ON EQUIPMENT THAT WILL CONTINUE TO BE USED TO SERVE RENOVATED AREAS AFTER THE CONSTRUCTION PHASE IS COMPLETED.
- IN THE EVENT A DUCT TRAVERSE LOCATION AS MARKED ON THIS PLAN IS INACCESSIBLE FOR MEASUREMENT, THE TAB CONTRACTOR SHALL PERFORM THE TRAVERSE AT AN ALTERNATE LOCATION OR SHALL TAKE MULTIPLE DUCT TRAVERSES AND/OR READINGS AS REQUIRED TO DETERMINE THE AIRFLOW READING WHERE THE DUCT TRAVERSE SYMBOL IS SHOWN. IN THE EVENT TRAVERSES ARE TAKEN AT ALTERNATE LOCATION(S), TAB CONTRACTOR SHALL INCLUDE A DRAWING THAT SHOWS THE LOCATIONS WHERE THE ACTUAL MEASUREMENTS WERE TAKEN.
- TAKE A DUCT STATIC PRESSURE READING AT EACH LOCATION WHERE A DUCT TRAVERSE
- READING IS TAKEN AND INCLUDE IN THE FINAL PRE-DEMOLITION TAB REPORT. 4. TAB CONTRACTOR SHALL COMPILE AND SUBMIT FOUR COPIES OF THE FINAL PRE-DEMOLITION REPORT WITHIN 10 WORKING DAYS AFTER THE FIELD MEASUREMENTS ARE COMPLETED. FINAL TAB REPORT SHALL BE SUBMITTED FOR REVIEW TO THE ARCHITECT/ENGINEER. TESTING SHALL INCLUDE ALL ITEMS REQUIRED IN THE
- SPECIFICATIONS. TAB CONTRACTOR SHALL PROVIDE DUCT TRAVERSE READINGS AT LOCATIONS DESIGNATED ON THE DRAWINGS BY THE "AIRFLOW MEASUREMENT SYMBOL". THOSE MEASUREMENTS SHALL BE INCLUDED IN THE POST-CONSTRUCTION REPORT AND SHALL BE DESIGNATED WITH THE IDENTIFIER AS MARKED ON THE CONSTRUCTION DRAWINGS. GRILLE AND DIFFUSER READINGS SHALL BE DESIGNATED WITH THE ROOM NAME AND NUMBER AS MARKED ON THE DRAWINGS. IF THE DRAWINGS DO NOT HAVE UNIQUE ROOM NAMES AND NUMBERS, TAB CONTRACTOR SHALL INCLUDE FLOOR PLANS WITH UNIQUE NUMBER DESIGNATIONS ASSIGNED TO TRAVERSES, GRILLES, AND DIFFUSERS THAT MATCH THOSE USED IN THE FINAL PRE-DEMOLITION REPORT. SIMILAR ROOM NAMES, NUMBERS, OR DESIGNATIONS SHALL BE USED TO SIMPLIFY THE CROSS- REFERENCING OF READINGS TAKEN BETWEEN PRE-DEMOLITION AND POST-CONSTRUCTION REPORTS.
- BALANCING CONTRACTOR SHALL PRE-BALANCE ALL EXISTING SYSTEMS TO REMAIN PER SPECIFICATION SECTION 23 05 93. BALANCE READINGS WILL BE REQUIRED AT AIR OUTLETS AND DUCT TRAVERSES TO VERIFY EXISTING AIRFLOW TO UNAFFECTED SPACES.

#### TAB POST-CONSTRUCTION NOTES:

- 1. AFTER CONSTRUCTION ACTIVITIES ARE COMPLETE, TESTING, ADJUSTING (TAB) AND BALANCING CONTRACTOR SHALL REBALANCE AIR HANDLING UNITS AND EXHAUST FANS AS REQUIRED TO ACHIEVE THE NEW AIRFLOW VALUES SHOWN ON THE CONSTRUCTION
- 2. AREAS SERVED BY THIS EQUIPMENT WHICH WERE NOT RENOVATED SHALL BE RE-BALANCED TO THE AIRFLOW RATES MEASURED BEFORE THE RENOVATION OCCURRED (REFER TO THE FINAL PRE- DEMOLITION REPORT).
- IF DUCT TRAVERSE LOCATION AS MARKED ON THE DRAWINGS IS INACCESSIBLE FOR MEASUREMENT, THE TAB CONTRACTOR SHALL PERFORM THE TRAVERSE AT AN ALTERNATE LOCATION OR SHALL TAKE MULTIPLE DUCT TRAVERSES AND/OR GRILLE READINGS AS REQUIRED TO DETERMINE THE FLOW RATE. IN THE EVENT TRAVERSES ARE TAKEN AT AN ALTERNATE LOCATION(S), TAB CONTRACTOR SHALL INCLUDE A DRAWING THAT SHOWS THE LOCATIONS WHERE THE ACTUAL MEASUREMENTS WERE TAKEN.
- 4. A DUCT STATIC PRESSURE READING SHALL BE TAKEN AT EACH LOCATION WHERE A DUCT TRAVERSE READING IS TAKEN AND SHALL BE INCLUDED IN THE FINAL POST-CONSTRUCTION TAB REPORT
- 5. TAB CONTRACTOR SHALL COMPILE AND SUBMIT COPIES OF THE FINAL POST-
- CONSTRUCTION TAB REPORT AS REQUIRED BY SECTION 23 05 93. 6. THE FINAL POST CONSTRUCTION REPORT SHALL INCLUDE ALL ITEMS REQUIRED IN THE

#### SPECIFICATIONS.

#### DESIGN CONDITIONS:

BASED ON WEATHER DATA FOR: WORCESTER, MA

**MECHANICAL DESIGN CONDITIONS:** 

SUMMER:

86°F DRY BULB, 71.4°F WET BULB 1.7°F DRY BULB

WINTER:

TYPICAL ROOM SETPOINTS:

**SUMMER DESIGN:** 75°F DRY BULB. 50% RELATIVE HUMIDITY (NO HUMIDITY REQUIREMENT) **WINTER DESIGN:** 70°F DRY BULB, NO HUMIDITY REQUIREMENT

**SUMMER SETBACK:** 80°F DRY BULB, 50% RELATIVE HUMIDITY (NO HUMIDITY REQUIREMENT) WINTER SETBACK: 65°F DRY BULB, NO HUMIDITY REQUIREMENT

REFER TO CONTROL DIAGRAMS FOR ROOM SPECIFICS.

#### **PIPING GENERAL NOTES:**

1. THE SIZE OF BRANCH PIPING TO TERMINAL HEATING DEVICES AND COILS SHALL BE 3/4" UNLESS NOTED OTHERWISE.

#### **VENTILATION GENERAL NOTES:**

- 1. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO AN AIR TERMINAL SHALL MATCH THE INLET SIZE.
- ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES AND WHEN IN CLOSE PROXIMITY TO EACH OTHER.
- PROVIDE ACCESS DOORS AT ALL DUCT MOUNTED EQUIPMENT.
- EXISTING AIR INLET AND OUTLET CFM SHOWN ON DRAWINGS ARE FROM EXISTING DRAWINGS, AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE PRE-BALANCE VALUES, AND NOT EXISTING CFM SHOWN ON DRAWINGS.
- CONTRACTOR MAY REUSE PORTIONS OF EXISTING DUCT PROVIDED SIZES AND PRESSURE CLASSES ARE CORRECT, DUCT IS THOROUGHLY CLEANED AND FREE OF DEFECTS, AND ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS ARE SEALED AS SPECIFIED FOR NEW DUCTWORK.

#### **MECHANICAL GENERAL NOTES:**

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES. INCLUDING BUT NOT LIMITED TO VENTILATION, PIPING AND TEMPERATURE CONTROL.

- DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT
- CATALOG AND MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESCRIPTION OF MATERIAL SCHEDULED ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL AND SCHEDULED PERFORMANCE TAKES PRECEDENCE OVER THE MODEL NUMBER. THE FIRST MANUFACTURER SCHEDULED IS THE BASIS OF DESIGN.
- DETERMINATION OF QUANTITIES OF MATERIAL AND EQUIPMENT REQUIRED SHALL BE MADE BY THE CONTRACTOR FROM THE DOCUMENTS. WHERE MATERIAL AND/OR QUANTITY DISCREPANCIES ARISE BETWEEN DRAWINGS, SCHEDULES AND/OR SPECIFICATIONS, THE HIGHER QUALITY/ GREATER NUMBER SHALL GOVERN.
- DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
- COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
- REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR
- 8. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING
- MOUNTED DEVICES, OTHER THAN SPRINKLERS. 10. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
- 11. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
- 12. SEAL ALL WALL PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS
- 13. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES, THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
- 14. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS. PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT.
- 15. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS,
- PIPING, DUCTWORK, ETC. 16. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.
- 17. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS
- 18. MAINTAIN THE DEDICATED ELECTRICAL EQUIPMENT SPACE DEFINED BY THE WIDTH / DEPTH OF ELECTRICAL EQUIPMENT MEASURED FROM THE FLOOR TO A HEIGHT 6 '-0" ABOVE THE EQUIPMENT OR THE STRUCTURAL CEILING, WHICHEVER IS LOWER. SYSTEMS FOREIGN TO THE ELECTRICAL DISTRIBUTION SYSTEM ARE NOT ALLOWED IN THE DEDICATED ELECTRICAL SPACE INCLUDING: DUCTWORK, PIPING, ETC.
- 19. DO NOT EXCEED 25 LBS PER HANGER AND A MINIMUM SPACING OF 2'-0" ON CENTER WHEN ATTACHING TO METAL ROOF DECKING (LIMITATION NOT REQUIRED WITH CONCRETE ON METAL DECK). THIS 25 LBS. LOAD AND 2'-0" SPACING INCLUDE ADJACENT ELECTRICAL AND ARCHITECTURAL ITEMS HANGING FROM DECK. IF THE HANGER RESTRICTIONS CANNOT BE ACHIEVED. SUPPLEMENTAL FRAMING OFF STEEL FRAMING SHALL BE ADDED. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

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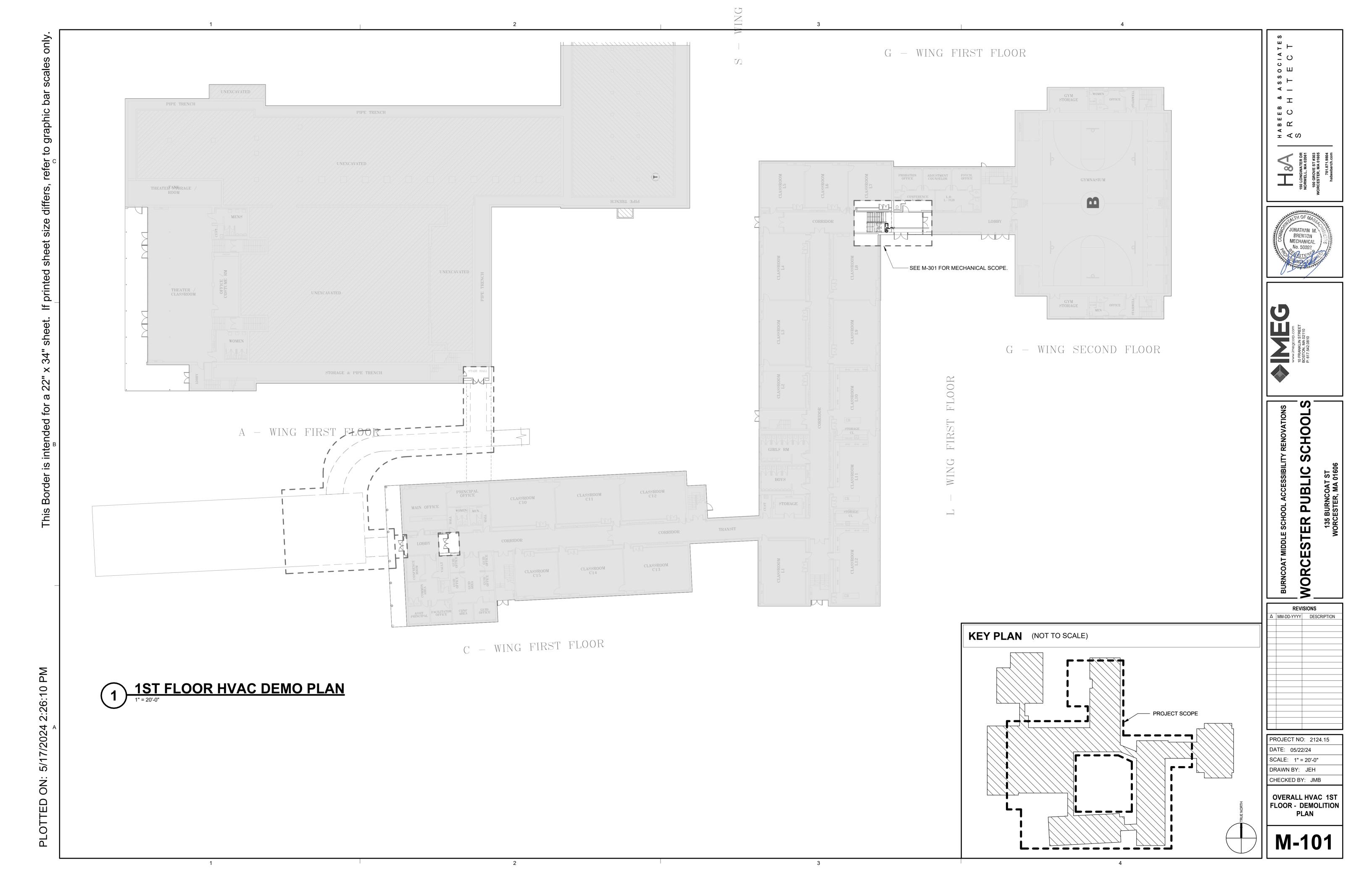
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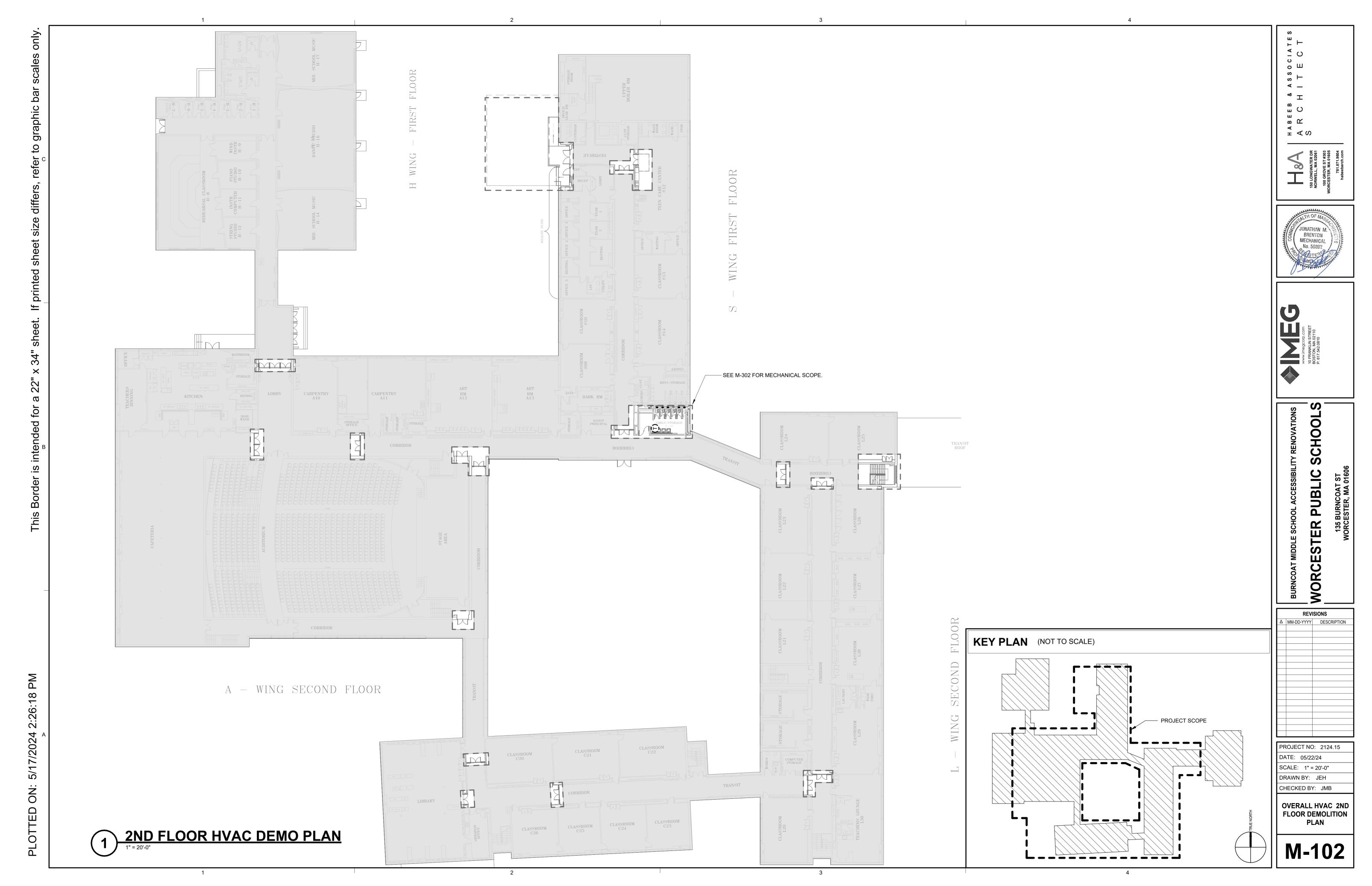
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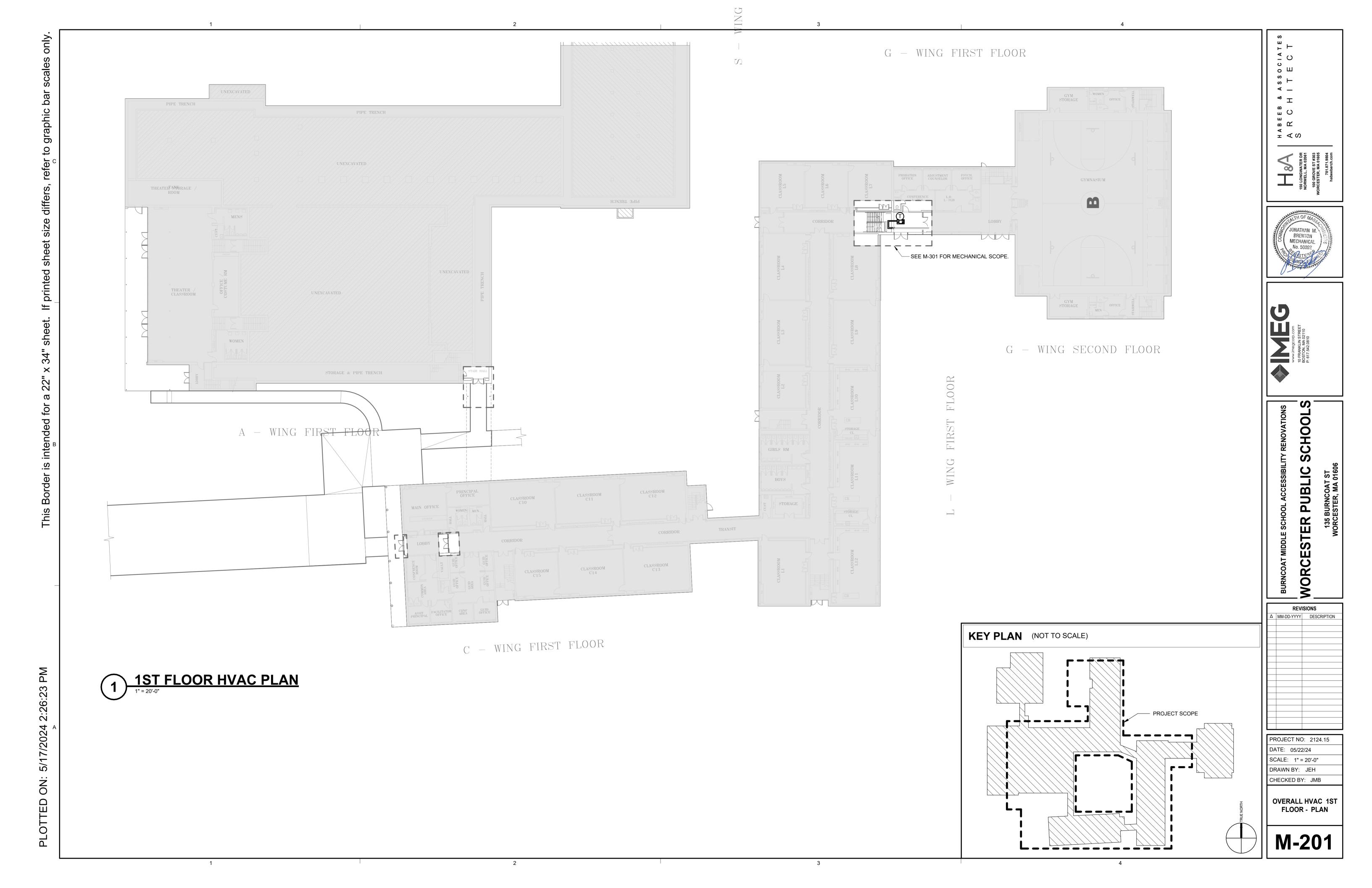
	REVISIONS							
Δ	MM-DD-YYYY	DESCRIPTION						

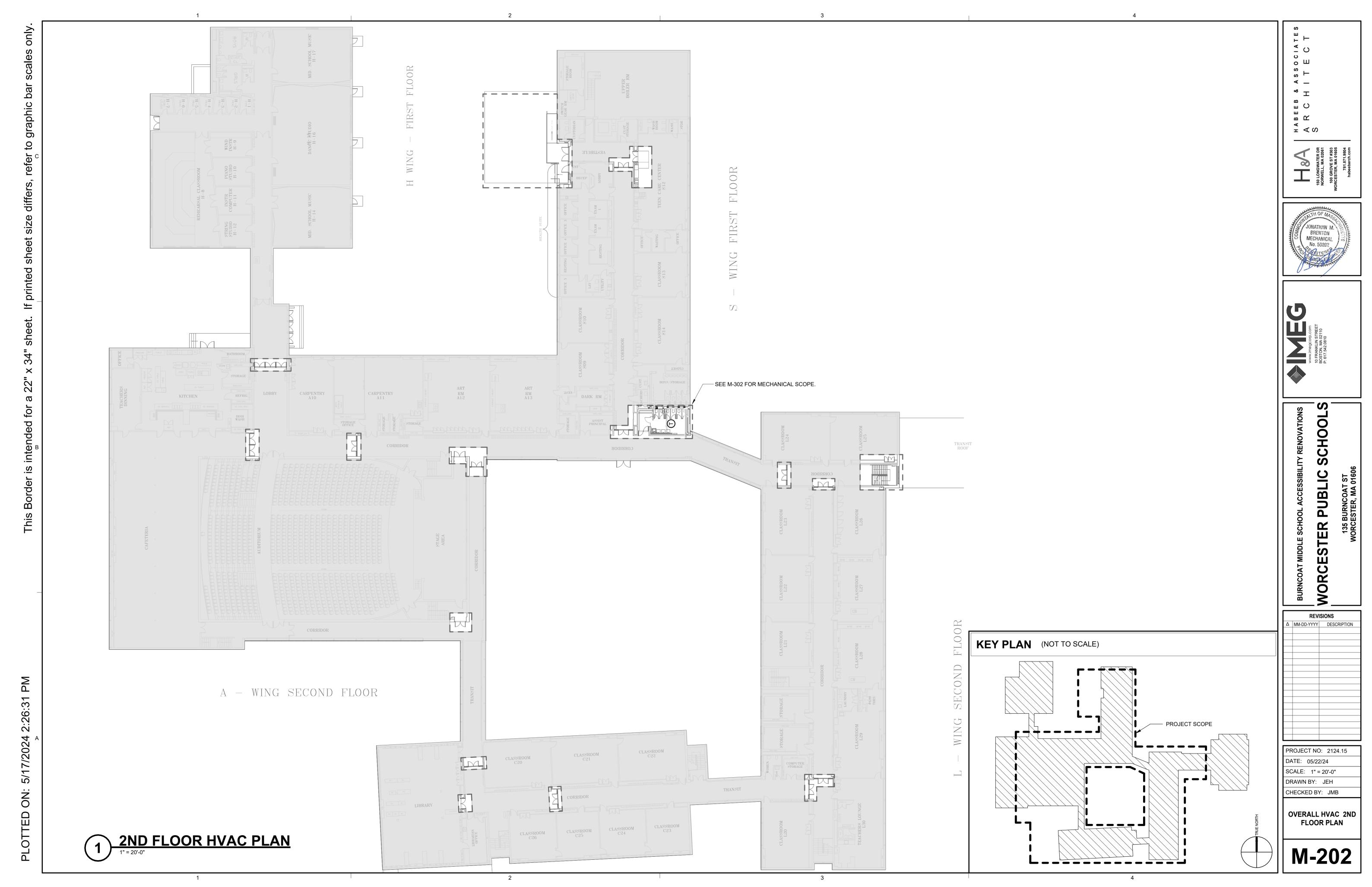
PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: As indicated DRAWN BY: JEH CHECKED BY: JMB

**HVAC COVERSHEET** 

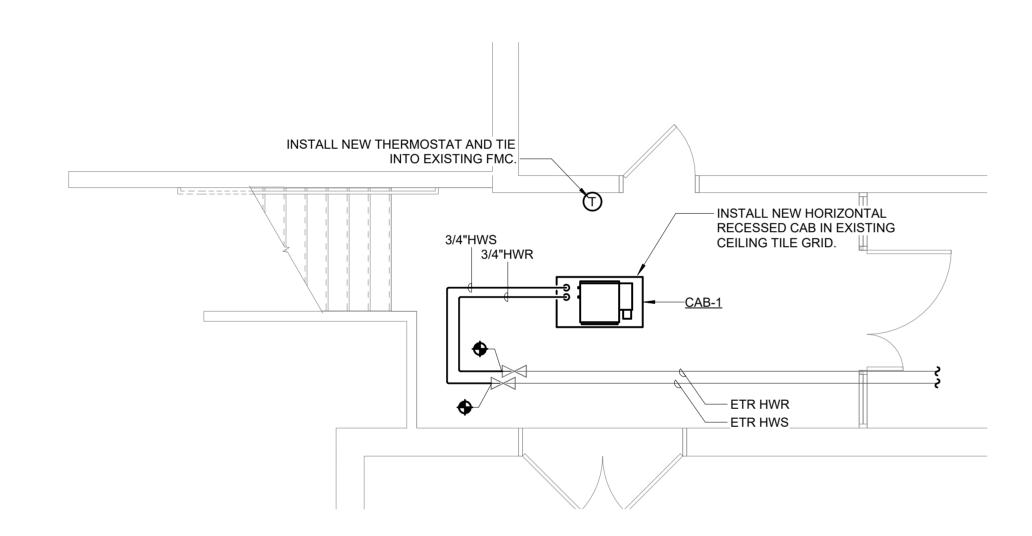






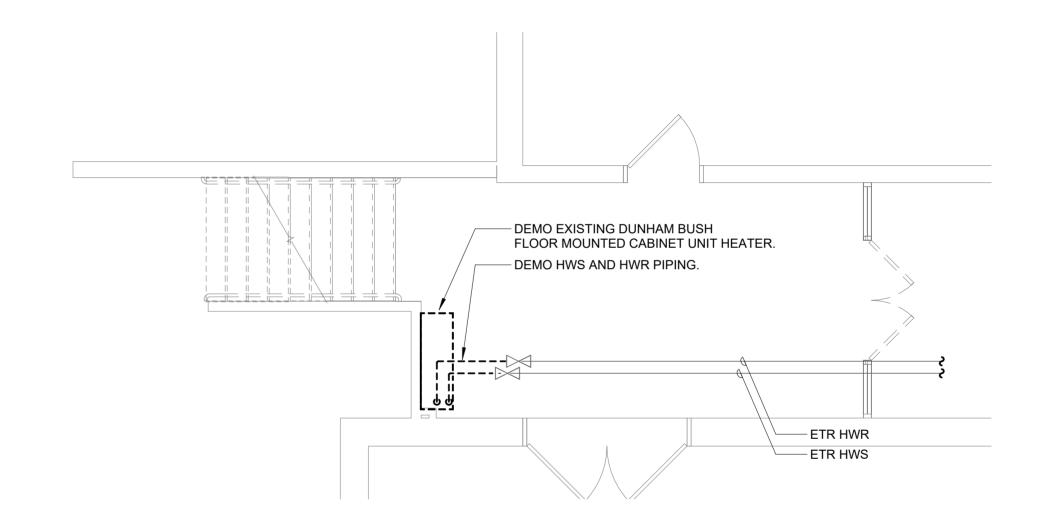


GECOND FLOOR

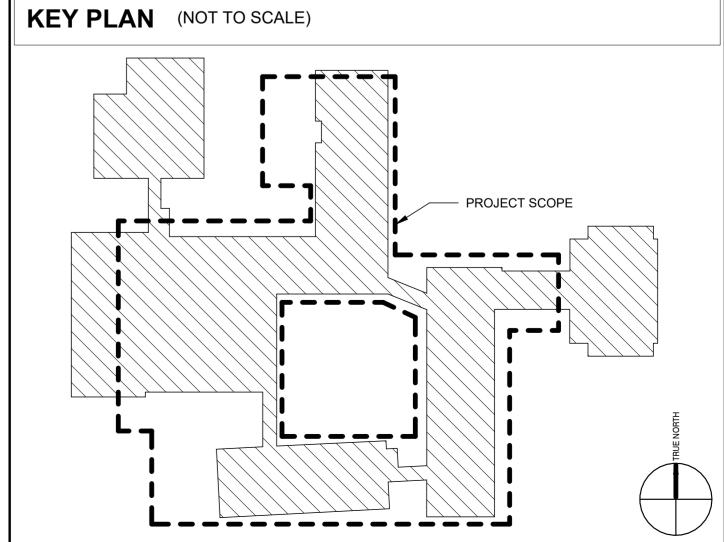


2 HVAC 1ST FLOOR - STAIR LIFT PLAN

1/4" = 1'-0"



1) HVAC 1ST FLOOR - STAIR LIFT DEMOLITION PLAN





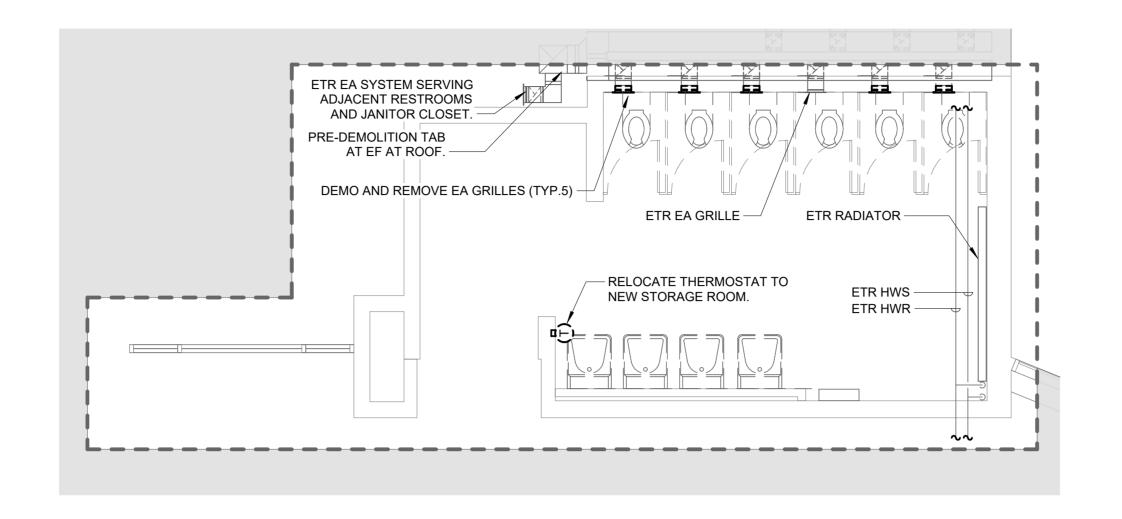




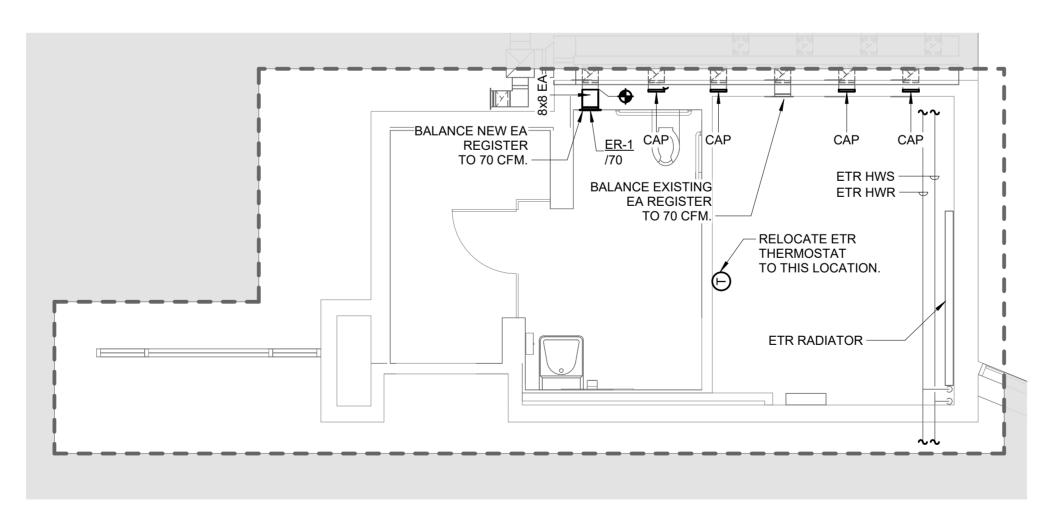
CHOOL **UBLIC** 135 BUR WORCESTE **WORCESTER P** 

DATE: 05/22/24 CHECKED BY: JMB

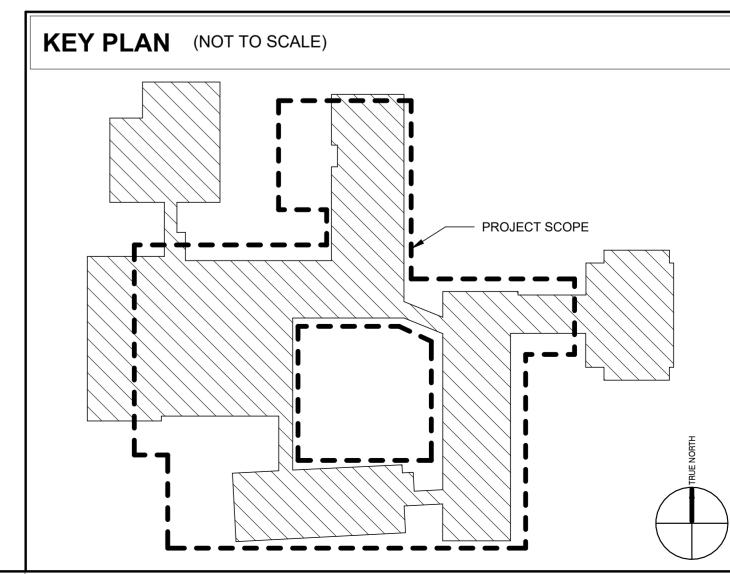
HVAC STAIR LIFT ENLARGED PLANS



1 HVAC 2ND FLOOR - RESTROOM DEMOLITION PLAN



2 HVAC 2ND FLOOR - RESTROOM PLAN



HABEEB & ASSOCIATES

150 LONGWATER DR
NORWELL, MA 02061

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habeebarch.com





WORCESTER PUBLIC SCHOOLS

REVISIONS

A MM-DD-YYYY DESCRIPTION

PROJECT NO: 2124.15

PROJECT NO: 2124.15

DATE: 05/22/24

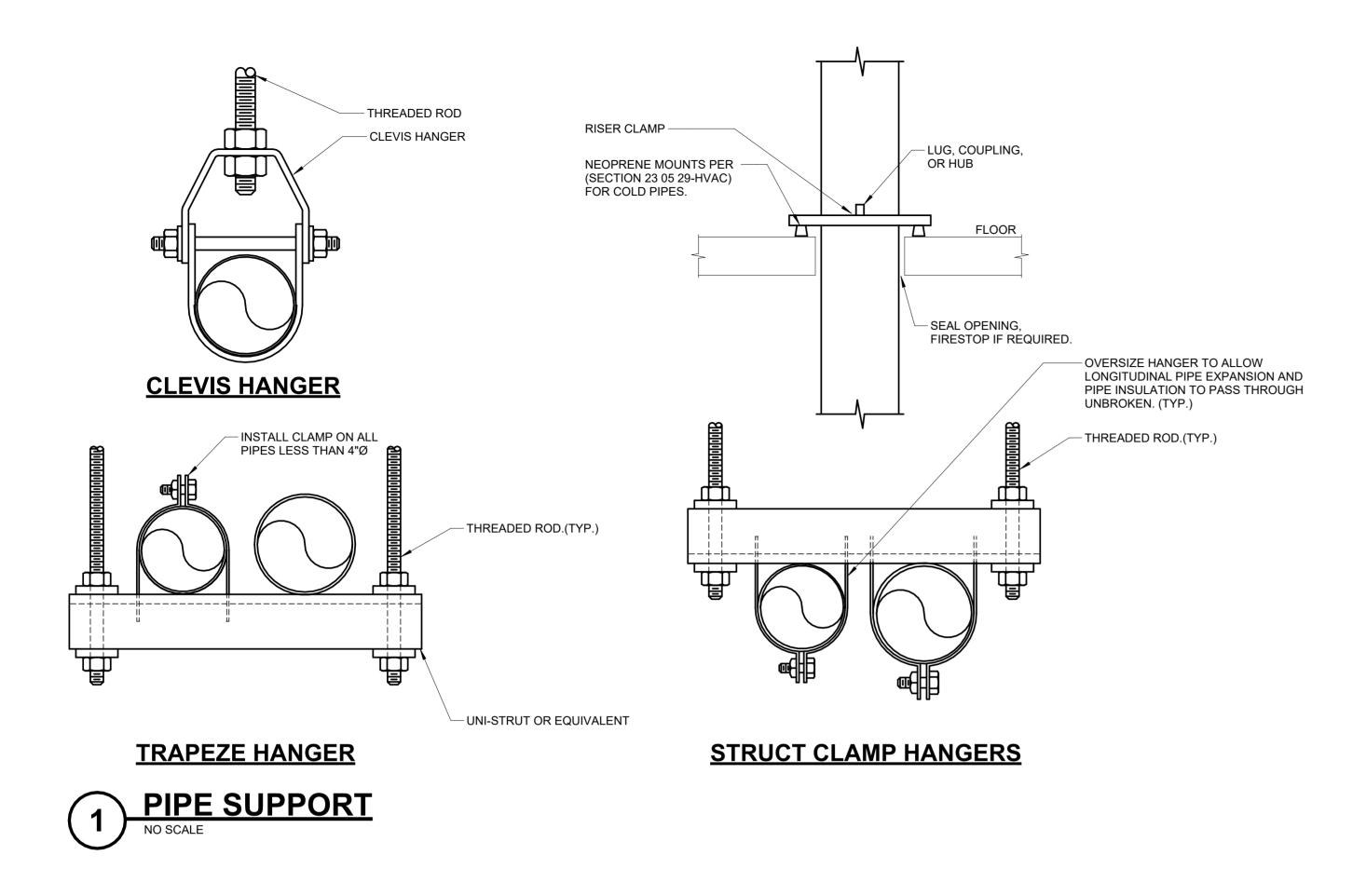
SCALE: 1/4" = 1'-0"

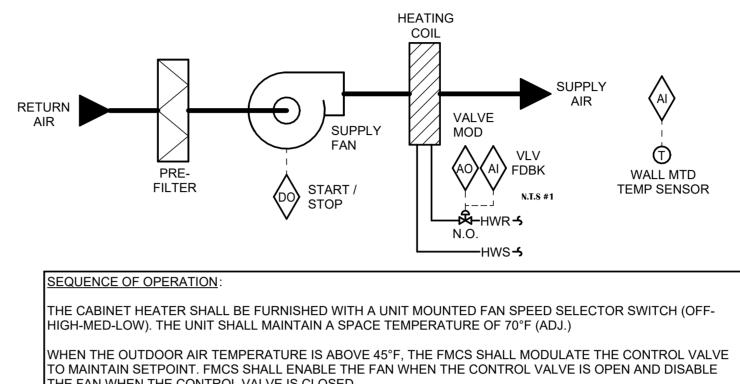
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HVAC 2ND FLOOR

HVAC 2ND FLOOR RESTROOM ENLARGED PLANS





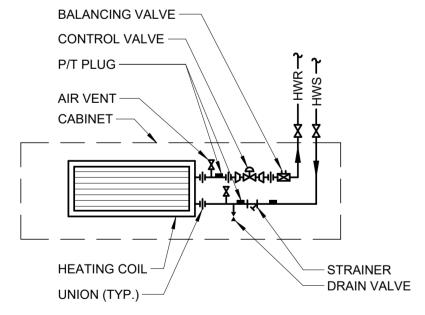
THE FAN WHEN THE CONTROL VALVE IS CLOSED.

WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 45°F, THE FMCS SHALL MODULATE THE CONTROL VALVE TO MAINTAIN SETPOINT AND THE FAN SHALL RUN CONTINUOUSLY.

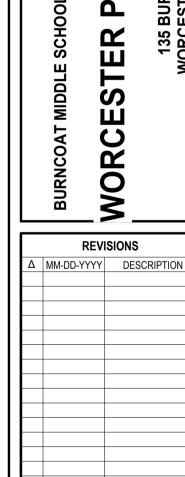
ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE FMCS OPERATOR INTERFACE IF SPACE TEMPERATURE FALLS 10°F (ADJ.) BELOW

2 CABINET HEATER CONTROL - HYDRONIC
NO SCALE



**CABINET HEATER - 2-PIPE PIPING DIAGRAM** 



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BRENTON MECHANICAL

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**UBLIC** 

PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: 12" = 1'-0" DRAWN BY: JEH

CHECKED BY: JMB

**HVAC DETAILS** 

#### CABINET HEATER SCHEDULE - HOT WATER

1. MODULATING CONTROL VALVE WITH WALL MOUNTED SENSOR. TIE INTO EXISTING ALERTON BUILDING MANAGEMENT SYSTEM.

Z. COOKL	OURDINATE COLOR SELECTION WITH ARCHITECT.																						
									CABINET (NOTE 1) ELECTRICAL														
			NOMINAL					CONTROL								# OF	DISCONNECT	CONTROLLER/	STARTER	EMERGENCY			
TAG NAM	E AREA SERVED	CONFIGURATION	CFM	MBH	GPM	EWT °F	LWT °F	TYPE	HEIGHT	WIDTH	DEPTH	FAN HP	RPM	VOLTAGE	PHASES	WIRES	BY (NOTE A) TYPE (NOTE B)	BY (NOTE A)	SCCR	POWER	MANUFACTURER	MODEL	NOTES
CAB-1	VESTIBULE	HORIZONTAL RECESSED	335	19.2	1.9	180	160	NOTE 1	10"	43"	25"	0.066667	1050	120	1	0	EC	MFR	0	No	VULCAN	RC-1200-03 NOTES 1, 2	

#### PIPE INSULATION SCHEDULE (HVAC)

	INSULATION SCILLOLI	- (IIVAC)							
0 1 1 1	GENERAL NOTES:								
	1. REFER TO THE SPECIFICATIONS FOR TYPE DESCRIPTIONS AND JACKETING REQUIREMENTS. 3. PROVIDE RIGID INSERT AT HANGERS, EITHER PRE-MANUFACTURED COUPLINGS (REFER TO PIPE HANGER AND SUPPORTS SPECIFICATIONS) OR TYPE C, D, OR E INSULATION. SEE SPEC. FOR MORE DETAILS								
6. PROVIL	DE RIGID INSERT AT HANGERS, EITHER PRE-MAI	NUFACTURED COUPLINGS (REFER TO PIPE HANGER A	AND SUPPORTS SPE	CIFICATIONS)	OR TYPE C, L	D, OR E INSULA	ATION. SEE SI	PEC. FOR MORE DETAILS	
SYMBOL	PIPE SYSTEM	INSULATION TYPE	INSULAT	ION THICKNES	SS PER NOMIN	NAL PIPE OR T	UBE SIZE	NOTES	
STIVIBUL		INSULATION TIPE	< 1"	1" TO < 1.5"	1.5" TO < 4"	4" TO < 8"	≥ 8"	NOTES	
23 PIPING	- HEATING WATER								
HWR	HEATING WATER RETURN	A (GlsFbr)	1 1/2"	1 1/2"	2"	2"	2"		
HWS	HEATING WATER SLIPPLY	Δ (GlsFhr)	1 1/2"	1 1/2"	2"	2"	2"		

#### AIR TERMINAL SCHEDULE

NOTES:

PLATE RATING.

1. CONTRACTOR SHALL DETERMINE PROPER BORDER TYPE TO MATCH WALL CONSTRUCTION.
2. REFER TO DRAWINGS FOR NECK SIZE. ALL BRANCH DUCTWORK TO AIR TERMINALS SHALL BE NECK SIZE UNLESS NOTED OTHERWISE.
3. PROVIDE WITH STEEL OPPOSED BLADE DAMPER.
4. LONG BLADES.

TAG NAME	FACE SIZE (IN.) (NOTE 2)	TYPE	BORDER (NOTE 1)	MATERIAL	FINISH	MANUFACTURER	MODEL	NOTES
ER-1	SEE DWG	35 DEGREE	SURFACE	STEEL	WHITE	TITUS	350	1, 2, 3, 4

### **SCHEDULE GENERAL NOTES:**

A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR.
MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR.
TCC = TEMPERATURE CONTROL CONTRACTOR

B. DISCONNECT TYPE:
CB = CIRCUIT BREAKER
F = FUSED
NE = NON-FUSED

B. DISCONNECT TYPE: CB = CIRCUIT BREAKER F = FUSED NF = NON-FUSED PLUG = PLUG AND CORD C. CONTROLLER STARTER TYPE: FV = FULL VOLTAGE WYE = WYE-DELTA SS = SOLID STATE (SOFT START) MS = MANUAL STARTER VFD = VARIABLE FREQUENCY DRIVE VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS YD = WYE - DELTA ECM = ELECTRONICALLY COMMUTATED MOTOR D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER.

E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAMI

F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.

MFR = STANDARD CURB BY MANUFACTURER

GC = BY GENERAL CONTRACTOR

SAC = SOUND ATTENUATOR CURB

HABEEB & ASSOCIATES A R C H I T E C T S

150 LONGWATER DR
NORWELL, MA 02061
100 GROVE ST #303
WORCESTER, MA 01605
781.871,9804





PUBLIC SCHOOLS

| BURNCOAT MIDDLE SCHO | WORCESTER |

REVISIONS

A MM-DD-YYYY DESCRIPTION

PROJECT NO: 2124.15

DATE: 05/22/24

SCALE:

DRAWN BY: JEH

CHECKED BY: JMB

**HVAC SCHEDULES** 

	ELECTRICAL SYMBOL LIST
SYMBOL:	DESCRIPTION:
COMMON AND SEQUENCE OF OPERATION SUBSCRIPTS	SUBSCRIPTS: TYPE / PROGRAMMING  WG = WIRE GUARD IS REQUIRED W = WEATHERPROOF A = ATRIUM CA = CLEAN AGENT SYSTEM CR = COMPUTER ROOM E = ELEVATOR RECALL D = HVAC CONTROL DH = DOOR HOLD RELEASE DIPS = DUAL INTERLOCK PREACTION SYS FD = FIRE DOOR RELEASE MP = MEDICAL PROCEDURE S = SLEEPING / PATIENT ROOM SW = STAIRWELL # = 15, 30, 75, 110, 177 CANDELA RATING CD = CANDELA RATING SELECTED BY NICET DESIGNER
	FIRE ALARM ANNUNCIATOR  FIRE ALARM TERMINAL CABINET  FIRE ALARM SMOKE DETECTOR, CEILING OR WALL MOUNT BLANK - PHOTOELECTRIC CO = COMBINATION SMOKE / CARBON MONOXIDE ID = IN DUCT DETECTOR SA = STAND ALONE WITH SOUNDER SB = SOUNDER BASE
E P	FIRE ALARM MANUAL PULL STATION  FIRE ALARM VISUAL ALARM DEVICE, CEILING  OR WALL MOUNT
F F F # RI MM CM R	AUDIO HORN/CHIME ALARM DEVICE, CEILING OR WALL MOUNTED  FIRE ALARM REMOTE INDICATOR  FIRE ALARM ADDRESSABLE MONITOR MODULE  FIRE ALARM ADDRESSABLE CONTROL MODULE  FIRE ALARM RELAY MODULE

SYMBOL:	DESCRIPTION:	
<b>=</b>	DUPLEX RECEPTACLE, 125V	
₩	DUPLEX GFI RECEPTACLE, 125V	
G	GROUND FAULT DEVICE	
₩	DUPLEX GFI WEATHERPROOF RECEPTACLE 125V	
<b>⇒</b> U	DUPLEX RECEPTACLE, USB CHARGING	
<b>⇒</b> >	DUPLEX RECEPTACLE, TAMPER RESISTANT, 125V	
<del>*⊜</del> >	GFI DUPLEX RECEPTACLE, TAMPER RESISTANT, 125V	
<b>=⊕</b> >	QUAD RECEPTACLE, TAMPER RESISTANT, 125V	
≠	QUAD RECEPTACLE, 125V	
₩	QUAD GFI RECEPTACLE, 125V	
<b>₩</b> W	QUAD GFI WEATHERPROOF RECEPTACLE, 125V	
J	JUNCTION BOX	
	PANELBOARD - RECESS MOUNT	
	PANELBOARD - SURFACE MOUNT	
□₁	DISCONNECT SWITCH FUSED DISCONNECT SWITCH INTERLOCKED RECEPTACLE DISCONNECT. REFER TO DISC/STA SCHEDULE	
S	SWITCH - SINGLE POLE	
$s_3$	SWITCH - THREE WAY	
D <sub>D</sub>	DIMMER - LED	
⊚ <sub>D</sub>	OCCUPANCY SENSOR - DUAL TECHNOLOGY	
s <sub>o</sub>	SWITCH - OCCUPANCY SENSOR WALL SWITCH	

ELEC.	ELECTRICAL LIGHTING FIXTURE SYMBOL LIST							
SYMBOL:	DESCRIPTION:							
	LINEAR LUMINAIRES							
	TROFFER							
• •	INDUSTRIAL LUMINAIRE							
오모	WALL BRACKET LUMINAIRE							
8	SINGLE FACE EXIT SIGN							
	DOUBLE FACE EXIT SIGN							

#### **ELECTRICAL GENERAL NOTES:**

1. REFER TO SHEET **E-000** FOR LUMINAIRE SCHEDULE.

LUMINAIRE KEY:

R1 = FIXTURE TAG

LUMINAIRE a = SWITCH DESIGNATION

**DEVICE KEY:** 

DEVICE # = MOUNTING (IF APPLICABLE) 1 = CIRCUIT NUMBER

**ELECTRICAL MOUNTING SUBSCRIPT KEY:** 

MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH

MOUNT AT CEILING (DEVICE OR ROUGH-IN CONTEXT)

MOUNT ORIENTED HORIZONTALLY MOUNT IN CASEWORK

MOUNT IN MODULAR FURNITURE WIRING DEVICE, OCCUPANCY CONTROLLED

MOUNT IN SURFACE RACEWAY

DECCRIPTION.

PLUMBING CONTRACTOR RELOCATED EXISTING

UNLESS OTHERWISE NOTED

TYPICAL

TYP

UON

FINISHED FLOOR.

SURFACE MOUNTED WEATHERPROOF WIRING DEVICE, NEMA 3R WHILE-IN-USE COVER, WR LISTED

WIRE GUARD WEATHERPROOF

#### **ELECTRICAL ABBREVIATION KEY**

	ABBR:	DESCRIPTION:
	ABV	ABOVE
	AFC	ABOVE FINISHED CEILING
	AFF	ABOVE FINISHED FLOOR
	ВС	BELOW COUNTER
	С	CONDUIT (BRANCH CIRCUIT OR FEEDER CONTEXT)
	E.C.	ELECTRICAL CONTRACTOR
	EN	EXISTING TO BE REMOVED AND REPLACED WITH NEW
	ER	EXISTING TO BE REMOVED
	ERR	EXISTING TO BE REMOVED AND RELOCATED
	ETR	EXISTING TO REMAIN
	EG	EQUIPMENT GROUND
	EGC	EQUIPMENT GROUNDING CONDUCTOR
	G.C.	GENERAL CONTRACTOR
	M.C.	MECHANICAL CONTRACTOR
	NEMA#	NEMA RATING
	NIC	NOT IN CONTRACTED SCOPE
- 1		

## **LUMINAIRE SYMBOL KEY DESCRIPTION:** SYMBOL: NORMAL BRANCH LUMINAIRE BRANCH LUMINAIRE WITH EMERGENCY BATTERY PACK

#### **ELECTRICAL INSTALLATION NOTES:**

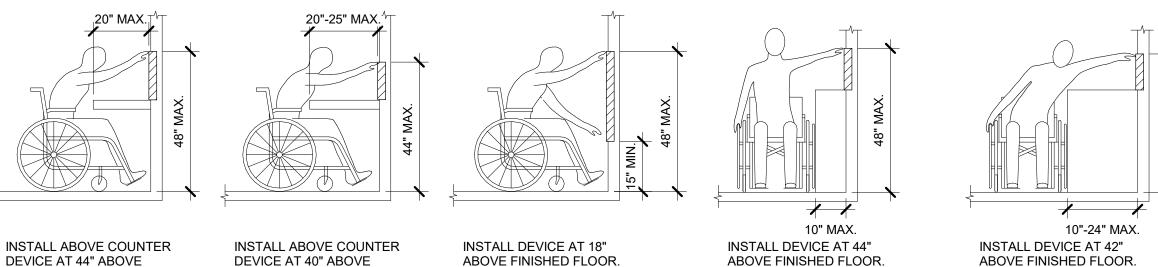
- 1. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH
- 2. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
- 3. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. MOUNT EXTERIOR LOCATED RECEPTACLES WITH WHILE-IN-USE COVERS AT +20" FROM FINISHED GRADE (CENTER DIMENSIONS) TO MAINTAIN INSTALLATION ADA COMPLIANCE.
- 4. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS.
- 5. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
- 6. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
- 7. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. CENTER ALL DEVICES IN CEILING TILE PATTERN. SMOKE DETECTORS, CARBON MONOXIDE DETECTORS, AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE. CARBON MONOXIDE DETECTORS SHALL BE LOCATED 10 PLUS FT FROM FIRE PLACES, COOKING, AND SIMILAR FUEL-BURNING APPLIANCES
- 8. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT. ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
- 10. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO THE WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND
- 11. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
- 12. ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLE/WIRE, AND EQUIPMENT.

#### **ELECTRICAL RENOVATION NOTES:**

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND REPORT CONFLICTS.
- 2. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND REPORT CONFLICTS.
- 3. ELECTRICAL CONTRACTOR SHALL REVIEW EXISTING CONDITIONS TO VERIFY ACCESSIBILITY TO THE AREAS OF THEIR WORK INCLUDING WALLS, FLOOR, CEILINGS, CEILING TILES/GRID, AND ROOF. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE CUTTING, REMOVAL, PATCHING, AND REINSTALLATION OF AFFECTED AREAS ASSOCIATED WITH THEIR WORK BY
- COORDINATING WITH THE GENERAL CONTRACTOR OR QUALIFIED CONTRACTOR. 4. WHERE EXISTING ELECTRICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, CONDUIT, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING ELECTRICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.

#### **ELECTRICAL PHASING NOTES:**

- REFER TO THE ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF PHASES. 2. REFER TO THE GENERAL CONTRACTOR'S/ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND PHASING SCHEDULES AND FOR CONCURRENT WORK. MECHANICAL AND ELECTRICAL DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. MECHANICAL AND ELECTRICAL DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF
- THE PHASING CRITERIA. 3. REVIEW PROJECT PHASING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES, ETC.
- WITH AFFECTED ADJACENT AREAS.
- 4. PROVIDE TEMPORARY LIGHTING, POWER, FIRE ALARM, AND OTHER LOW VOLTAGE SYSTEMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS DURING ALL PHASES OF



ADA GUIDELINES - FRONT ACCESS

FINISHED FLOOR.

ADA GUIDELINES - SIDE ACCESS

#### ADA STANDARDS FOR ACCESSIBLE DESIGN

REVISIONS Δ MM-DD-YYYY DESCRIPTION PROJECT NO: 2124.15

DATE: 05/22/24 SCALE: As indicated DRAWN BY: KY CHECKED BY: JM

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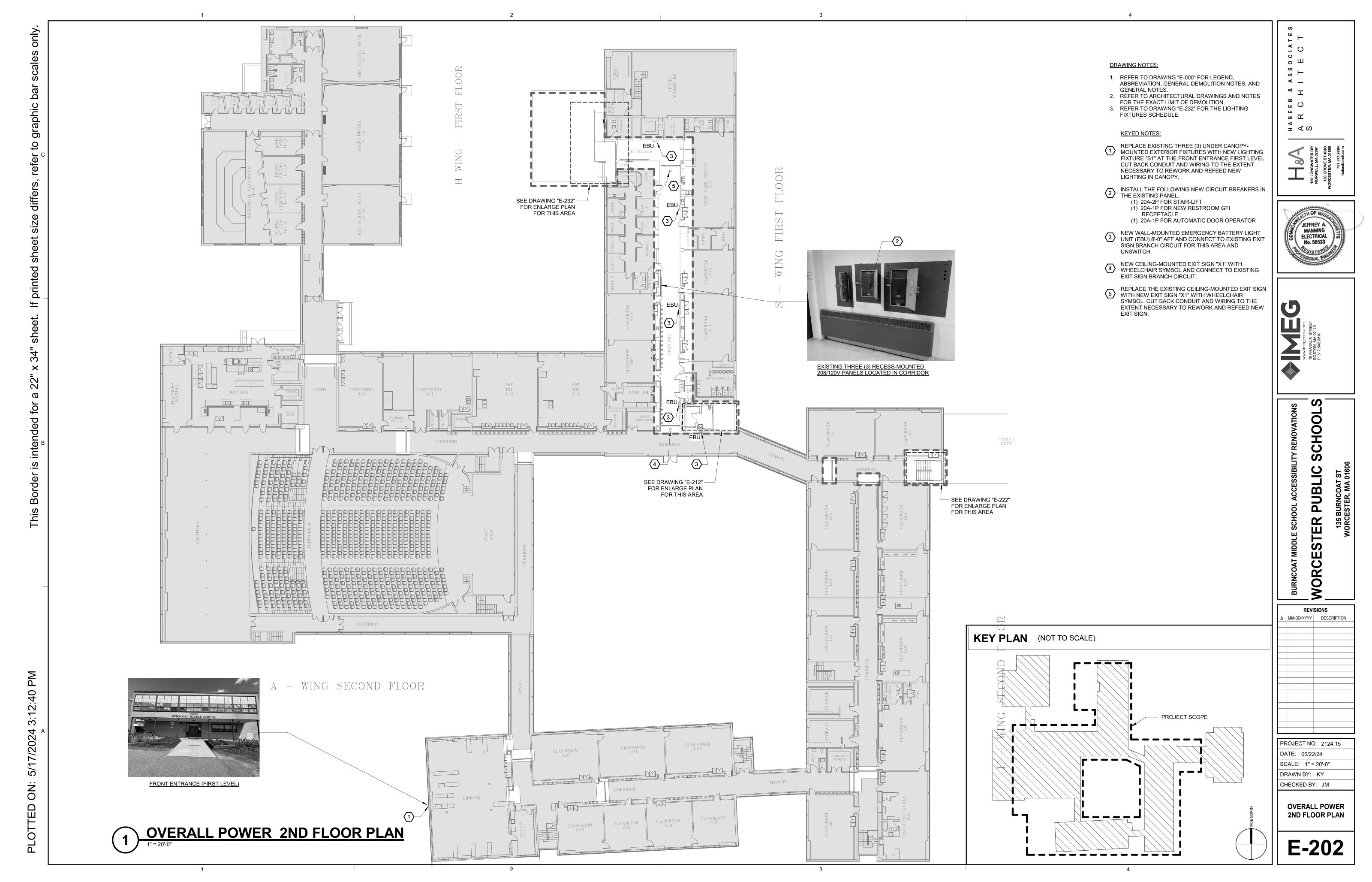
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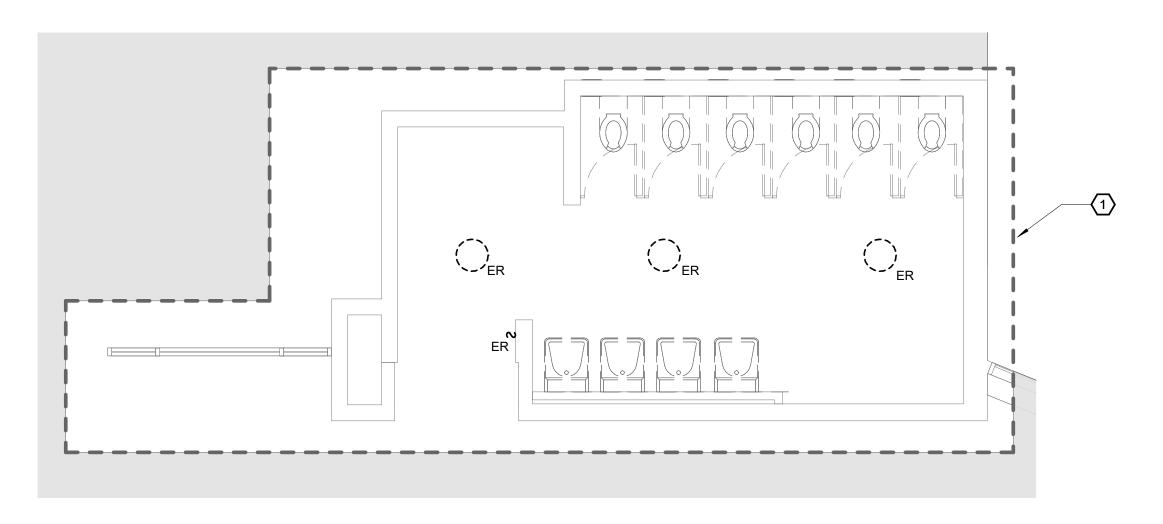
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**ELECTRICAL** COVERSHEET

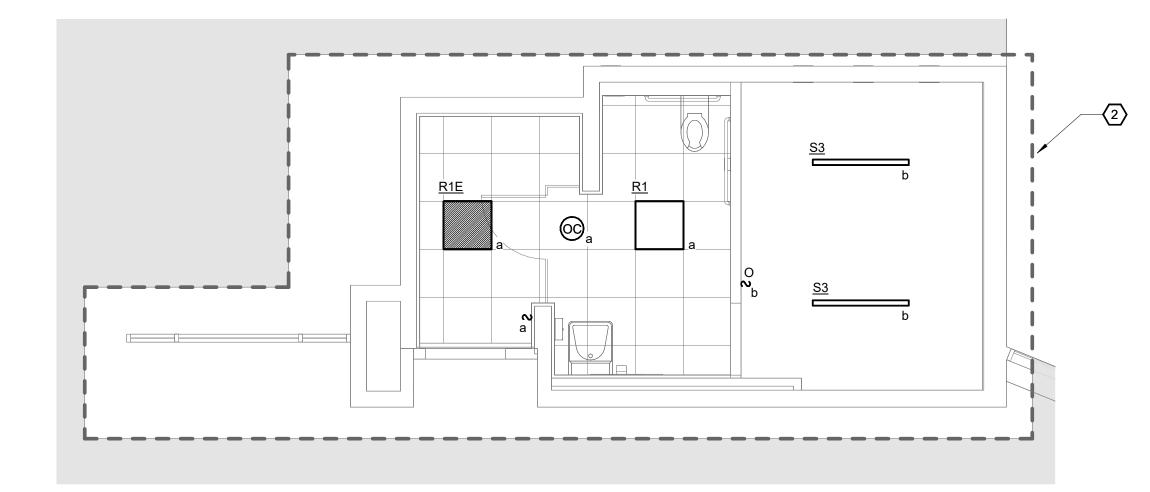
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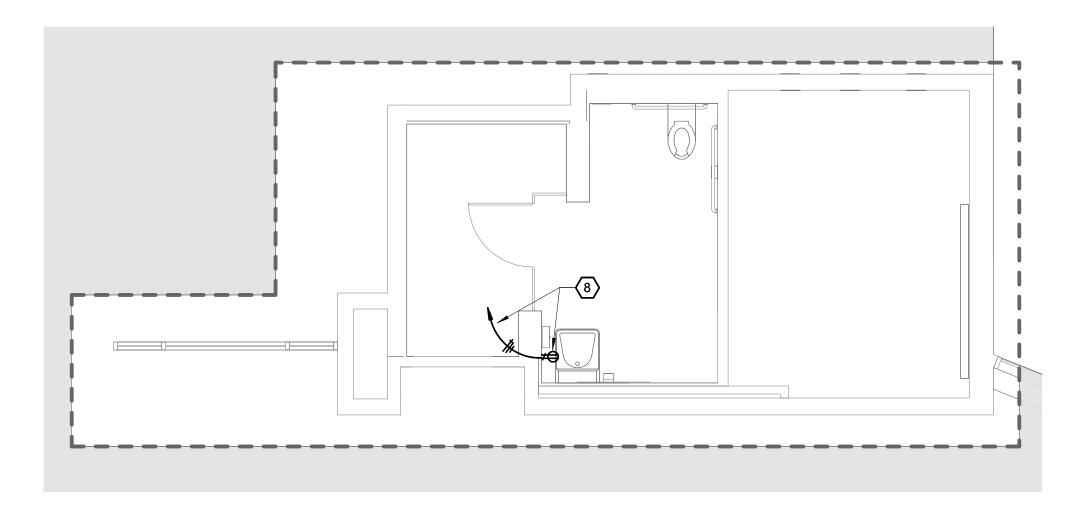
TING SECOND FLOOR



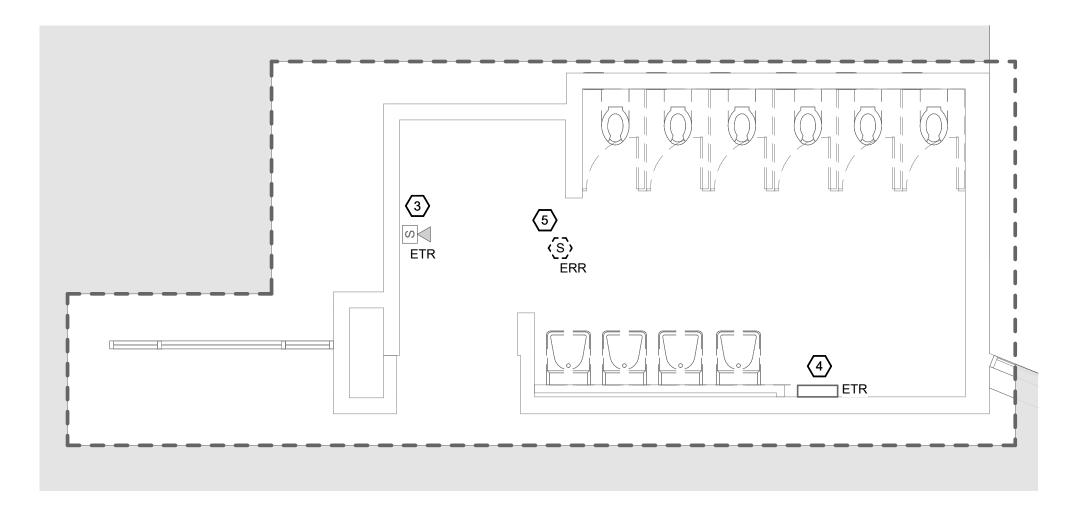
1 LIGHTING 2ND FLOOR - RESTROOM DEMOLITION PLAN



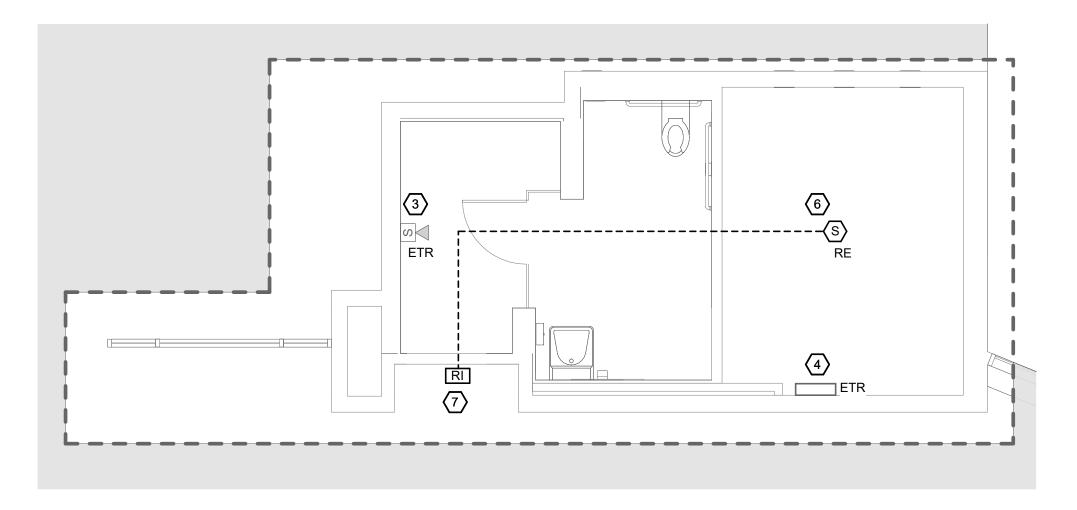
2 LIGHTING 2ND FLOOR - RESTROOM PLAN



5 POWER 2ND FLOOR - RESTROOM PLAN



FIRE ALARM 2ND FLOOR - RESTROOM DEMOLITION PLAN



FIRE ALARM 2ND FLOOR - RESTROOM PLAN

#### **DRAWING NOTES:**

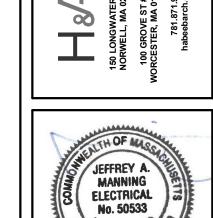
- 1. REFER TO DRAWING "E-000" FOR LEGEND, ABBREVIATION,
- GENERAL DEMOLITION NOTES, AND GENERAL NOTES.

  2. REFER TO ARCHITECTURAL DRAWINGS AND NOTES FOR
- THE EXACT LIMIT OF DEMOLITION.

  3. REFER TO DRAWING "E-232" FOR THE LIGHTING FIXTURES

#### KEYED NOTES:

- REMOVE EXISTING LIGHTING FIXTURES AND LIGHTING CONTROL SWITCH. CUT BACK CONDUIT AND WIRING TO THE EXTENT NECESSARY TO REWORK AND REFEED NEW
- NEW LIGHTING FIXTURES ARE CONNECTED TO THE EXISTING LIGHTING BRANCH CIRCUIT FROM DEMOLITION.
- (3) EXISTING FIRE ALARM NOTIFICATION DEVICE TO REMAIN.
- EXISTING FIRE ALARM EQUIPMENT AND ANTENNA TO REMAIN.
- RELOCATE THE EXISTING CEILING-MOUNTED SMOKE DETECTOR AND BASE.
- RELOCATED EXISTING CEILING-MOUNTED SMOKE DETECTOR AND BASE. EXTENDER EXISTING CONDUIT AND WIRING AS REQUIRED.
- 7 NEW WALL MOUNTED FIRE ALARM REMOTE INDICATOR.
- A NEW GFI RECEPTACLE IS CONNECTED TO A NEW 20A-1P CIRCUIT BREAKER IN THE EXISTING PANEL IN CORRIDOR. (SEE DRAWING "E-202" FOR PANEL LOCATION)



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PROJECT NO: 2124

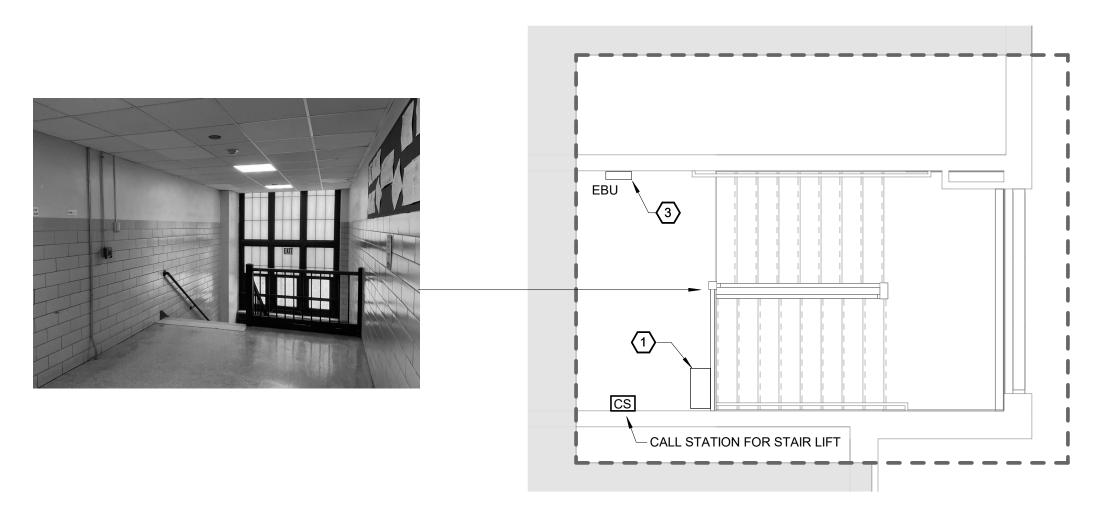
DATE: 05/22/24

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

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CHECKED BY: JM

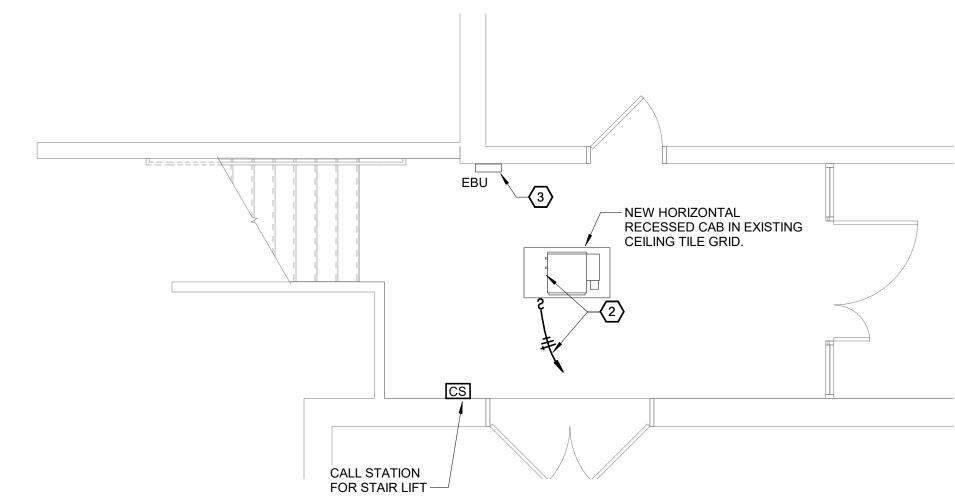
2ND FLOOR RESTROOM ENLARGED PLANS

E-212



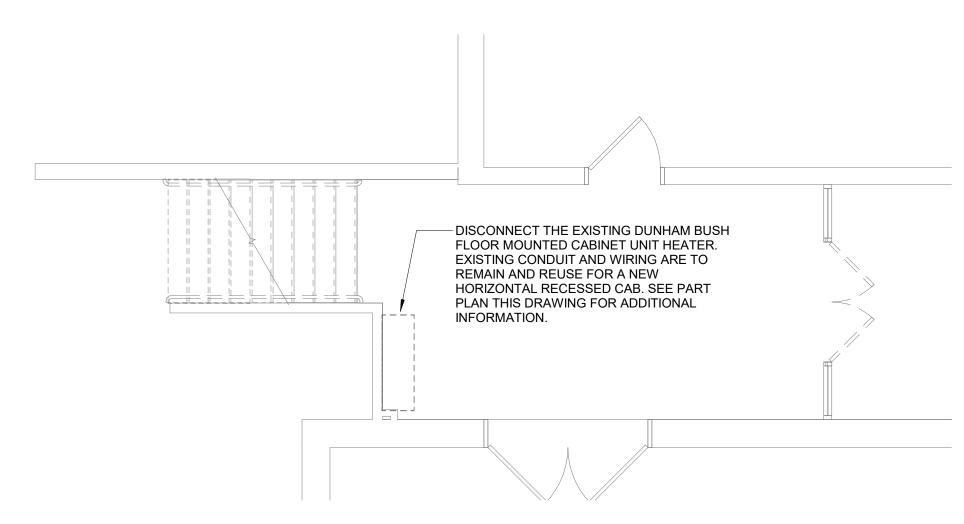
9 POWER 2ND FLOOR STAIR LIFT PLAN

1/4" = 1'-0"

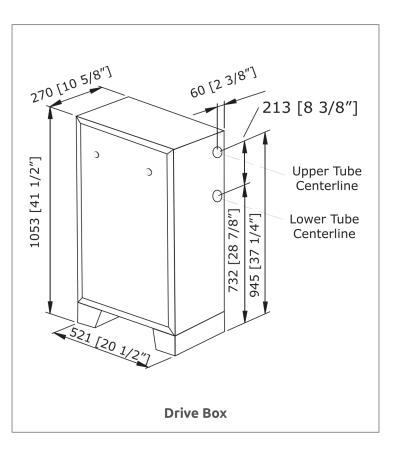


POWER 1ST FLOOR - STAIR LIFT PLAN

1/4" = 1'-0"



1) POWER 1ST FLOOR - STAIR LIFT DEMOLITION PLAN



#### **DRIVE BOX NOTES:**

- 1. USES A 2-HP MOTOR AND IS ALWAYS ATTACHED TO
- THE UPPER END OF THE GUIDE TUBES.
  2. 208V SINGLE-PHASE, 60Hz ON A DEDICATED 20-AMP

## **DRIVE BOX DETAIL**

#### **DRAWING NOTES:**

- 1. REFER TO DRAWING "E-000" FOR LEGEND, ABBREVIATION, AND GENERAL NOTES.
- 2. REFER TO THE ARCHITECT'S DRAWINGS FOR CALL STATION
- LOCATIONS, DETAILS, AND OTHER REQUIREMENTS. 3. THE DRIVE BOX DETAIL AND TYPICAL WIRING DIAGRAM ARE BASED ON "GARAVENTA LIFT" DETAILS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT'S DRAWINGS AND CHAIR LIFT VENDOR FOR ADDITIONAL INFORMATION.
- 4. A CHAIR LIFT SYSTEM THAT INCLUDES DRIVE BOX, CALL STATIONS, AND ASSOCIATED JUNCTION BOXES, CONDUIT, AND WRING SHALL BE PROVIDED UNDER A SEPARATE CONTRACT. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE CHAIR LIFT INSTALLER FOR ADDITIONAL INFORMATION ON POWER REQUIREMENTS.

#### **KEYED NOTES:**

- THE CHAIR LIFT DRIVE BOX CONNECT TO THE NEW 20A-2P CIRCUIT BREAKER IN THE EXISTING PANEL LOCATED IN THE CORRIDOR SECOND FLOOR. SEE DRAWING "E-202" FOR PANEL LOCATION AND ADDITIONAL INFORMATION. (2#10, 1#10G. IN 3/4" C. AND APPROXIMATE 190' FROM EXISTING PANEL TO DRIVE BOX)
- INSTALL A DISCONNECT SWITCH FOR THE HORIZONTAL 2 RECESSED CAB AND CONNECT IT TO THE EXISTING CIRCUIT FROM THE DUNHAM BUSH FLOOR-MOUNTED CABINET UNIT HEATER DEMOLITION. EXTEND EXISTING CONDUIT AND WIRING AS REQUIRED.
- NEW WALL-MOUNTED EMERGENCY BATTERY LIGHT UNIT (EBU) 8'-0" AFF AND CONNECT TO EXISTING EXIT SIGN BRANCH CIRCUIT FOR THIS AREA AND UNSWITCH.



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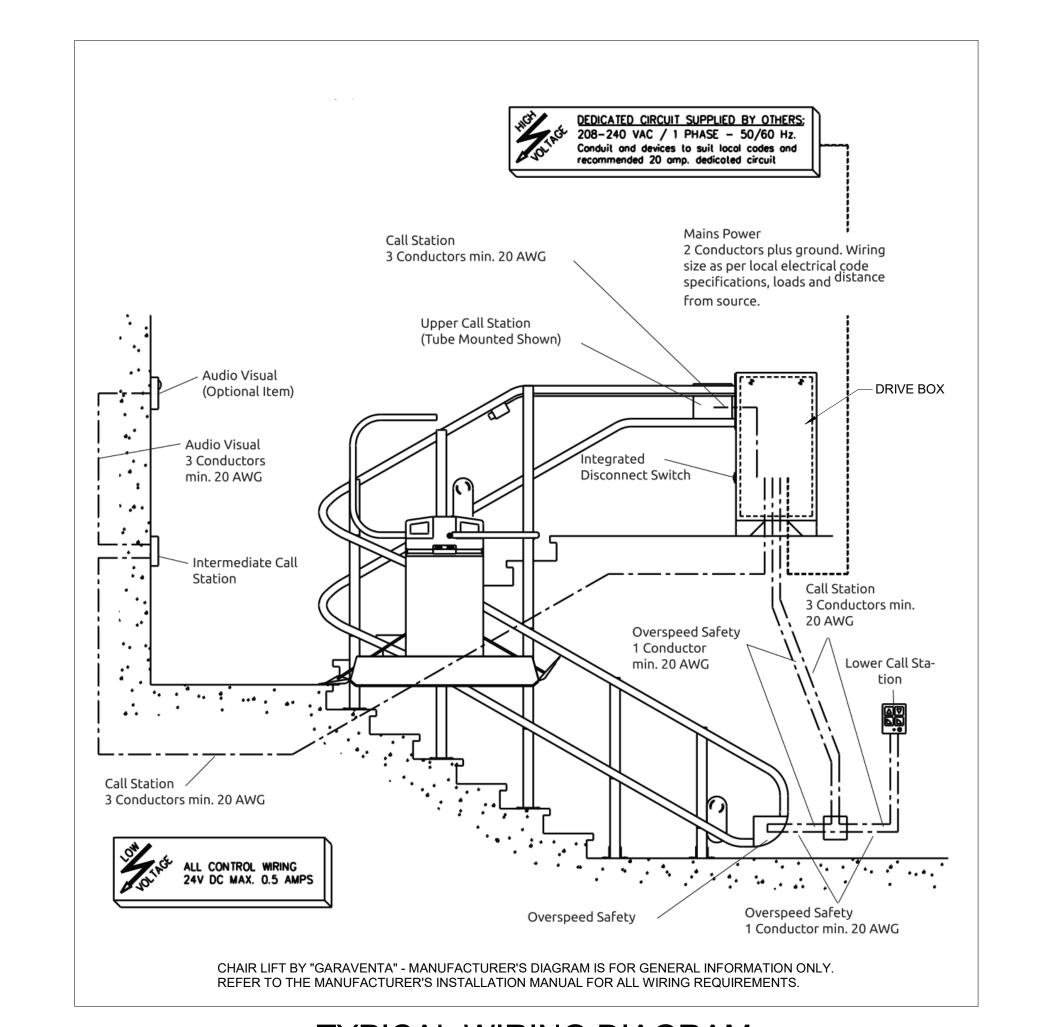
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PROJECT NO: 2124.15 DATE: 05/22/24 SCALE: 1/4" = 1'-0" DRAWN BY: KY

CHECKED BY: JM

**POWER STAIR LIFT ENLARGED PLANS** 

E-222



**TYPICAL WIRING DIAGRAM** 

ISO WHEEL CHAIR SYMBOL

LED LUMINAIRE SCHEDULE WATT DRIVER **DIMENSIONS DELIVERED** LUMENS **DESCRIPTION** H DIA. WATTS PER TYPE QTY MANUFACTURER AND MODEL W (MIN) VOLTS TYPE EBU LED ADJUSTABLE OPTICS 640 LUMENS, 6.6W, EMERGENCY LIGHT UNIT WALL MOUNTED | 1'-2" | 6" FIX EM LITHONIA LIGHTING: ELM4L 205/25 EPANL SERIES LED EDGE-LIT FLAT PANEL 2'X2' RECESS 2'-0" 2'-0" LED 1 2000 0-10V LITHONIA LIGHTING: EPANL 2X2 2000LM 80CRI 35K MIN1 ZT MVOLT R1E | EPANL SERIES LED EDGE-LIT FLAT PANEL 2'X2' WITH EMERGENCY BATTERY PACK 20 W | FIX | LED | 1 | 2000 RECESS 0-10V | LITHONIA LIGHTING: EPANL 2X2 2000LM 80CRI 35K MIN1 ZT MVOLT E10WCP 8" DIA, AL DIECAST EXTERIOR FIXTURE, SURFACE MOUNT CEILING BOX, BLACK FINISH, WET LISTED SURFACE 0-10V LUMINIS: SN800C-LIL23-K35-120-BKT-SWK 8" 29 W FIX LED CEILING SURFACE MOUNT (CANOPY OVER BUILDING ENTRANCE) WITH FIELD INSTALLABEL EMERGENCY BATTERY AND BEAUTY COVER PLATE SURFACE 0-10V LITHONIA LIGHTING: CNY LED ALO SWW2 UVOLT PE PIR DDB M2, CNYBCP DDB, ACCESSORIES CEILING CNYEK E7WC M12 4 FEET LONG LED STRIP LIGHT SURFACE 4'-0" | 2 3/4" | 2 3/4" 0-10V LITHONIA LIGHTING: CSS L48 4000LM MVOLT 35K 80CRI CEILING 0-10V LITHONIA LIGHTING: WDGE1 LED P2 35K 80CRI VF MVOLT SRM E4WH PE DDBTXD WALL PACK WITH EMERGENCY BATTERY PACK WALL MOUNTED | 1'-4" | 10" | 10 1/2" | 10 W FIX LED

RECESS

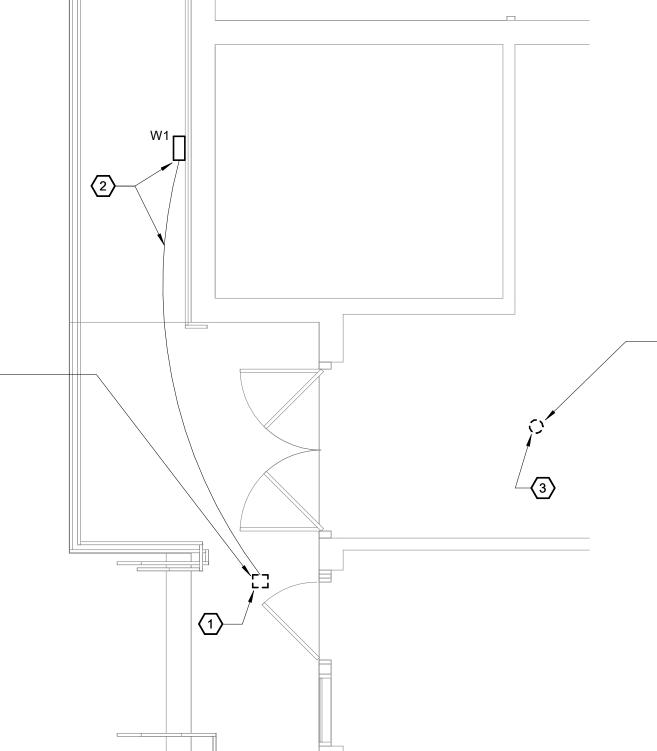
FIRE ALARM -- 4" SQ. BOX W/ SINGLE GANG RELAY MODULE MUD RING MOUNTED 6" TO 12" ABOVE DOOR - WIRING FOR DOOR TO DOOR -OPERATOR TO 4" SQ. AUTOMATIC **BOX ABOVE DOOR** OPERATOR 2#12, 1#12 GND. IN 3/4"C. - WIRING FOR DOOR OPERATOR PUSH PAD PUSH PAD - FLUSH OUTLET VIEW FROM INSIDE OF THE BUILDING VIEW FROM OUT SIDE OF THE BUILDING

FIX

LED

## TYPICAL CONNECTIONS AT DOOR





EM ISOLITE: ELTCG-EM-R, 1C-AG-WH-MRC-SD W/CUSTOM GRAPHICS 08



**POWER 2ND FLOOR ADA EXIT DOOR** 

EXIT SIGN, NICAD BATTERY, SINGLE RED FACE, WHITE BACKGROUND, ANGULAR TRIM, SELF DIAGNOSTICS WITH CUSTOM GRAPHICS FOR

LIGHTING 2ND FLOOR ADA EXIT DOOR

1. REFER TO DRAWING "E-000" FOR LEGEND, ABBREVIATION, GENERAL DEMOLITION NOTES, AND GENERAL NOTES.

**KEYED NOTES:** 

REPLACE EXISTING ONE (1) UNDER CANOPY-MOUNTED EXTERIOR LIGHTING FIXTURE WITH NEW LIGHTING FIXTURE "S2". CUT BACK CONDUIT AND WIRING TO THE EXTENT NECESSARY TO REWORK AND REFEED NEW LIGHTING IN CANOPY.

NEW WALL PACK FIXTURE MOUNTED 9'-0" AFF AND 2 CONNECT TO EXISTING LIGHTING BRANCH CIRCUIT FOR NEW LIGHTING FIXTURE "S2". (2#12, 1#12 GND IN 3/4"C)

REPLACE THE EXISTING CEILING-MOUNTED EXIT SIGN WITH NEW EXIT SIGN "X1" WITH WHEELCHAIR SYMBOL. CUT BACK CONDUIT AND WIRING TO THE EXTENT NECESSARY TO REWORK AND REFEED NEW EXIT SIGN.

PUSH PAD FOR DOOR OPERATOR (SEE DETAIL THIS SHEET) (SEE DETAIL THIS SHEET)

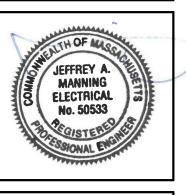
JUNCTION BOX WITH POWER FROM A NEW 20A-1P CIRCUIT BREAKER IN THE EXISTING PANEL IN CORRIDOR FOR DOOR (SEE DRAWING "E-202" FOR PANEL LOCATION)

INSTALL A FIRE ALARM RELAY MODULE AND CONNECT IT TO THE EXISTING FIRE ALARM CONTROL PANEL. REPROGRAM THE EXISTING FIRE ALARM CONTROL PANEL AS REQUIRED TO SEND A SIGNAL TO THE FIRE ALARM RELAY MODULE TO MAKE THE DOOR OPERATOR OPEN THE DOOR DURING THE FIRE ALARM.

DRAWING NOTES:

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WORCI **REVISIONS** 

PROJECT NO: 2124.15 DATE: 05/22/24

SCALE: As indicated DRAWN BY: KY CHECKED BY: JM

**ELECTRICAL ADA** EXIT ENLARGE PLANS, SCHEDULE AND DETAIL

E-232