DOCUMENT 00 90 00 ADDENDUM

ADDENDUM NO. [2] Date: September 23, 2021

RE: LA FARGE SCHOOL DISTRICT ADDITION AND RENOVATION

301 W. ADAMS STREET LA FARGE, WI 54639 HSR Project 19041-1

FROM: HSR Associates, Inc

100 Milwaukee Street La Crosse, WI 54603 (608) 784-1830

To: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated September 2021. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of [4] pages, [1] bidding documents [1] specification section and [30] 30 x 42 drawings, and [6] prior approvals.

CHANGES TO BIDDING REQUIREMENTS AND CONDITIONS OF THE CONTRACT:

- 1. Document 00 11 13 Advertisement for Bids Revised section attached
 - a. Changed bid opening date from September 30 to October 7.

CHANGES TO SPECIFICATIONS:

- 2. Section 14 42 00 Wheelchair Platform Lifts Revised section attached
 - a. Changes throughout including changing the basis of design model.
- 3. Section 23 52 16 Condensing Boilers
 - Revised section to include boiler that are dual fuel (natural gas and LP) with separate fuel trains.
 - b. Based on product by Lochinvar Crest.
 - i. Aerco, Buderus, Cleaverbrooks, Fulton, Laars, PK, Raypak, Riello, Viessman, Weil-McLain equals, are acceptable.
 - ii. BOILER(S) MUST BE CAPABLE OF DUAL FUEL (NATURAL GAS AND LP) WITH SEPARATE FUEL TRAINS OF CAPACITIES AND PARAMETERS LISTED ON SCHEDULE.
- 4. Section 28 31 00 Fire Alarm and Detection
 - a. Paragraph 2.07(C)(1): delete the following: "shall be by Simplex and"
 - The VECP shall be by Simplex and shall contain a microprocessor-based Central Processing Unit (CPU). The CPU shall distribute and control emergency voice messages over the speaker circuits.

CHANGES TO DRAWINGS

- 5. Sheet C101 LAYOUT PLAN 30 x 42 attached hereto
 - a. See clouded change
 - b. Added concrete pad for propane tank.
- 6. Sheet C102 GRADING PLAN 30 x 42 attached hereto
 - a. Added concrete pad for propane tank
- 7. Sheet A120 ROOF 30 x 42 attached hereto
 - a. See clouded change
 - b. Added General Note K to include painting of exposed gas piping at the roof.
- 8. Sheet ID600 MASTER COLOR SCHEDULE 30 x 42 attached hereto
 - a. See clouded change
 - b. Revised AWP-2 Color selection.
- 9. Sheet S107 FRAMING PLAN 30 x 42 attached hereto
 - a. HSR Associates received feedback from some potential bidders that the lead time for steel joists is not compatible with the project schedule presented in the bidding documents. The project schedule will not be changed in this addendum. It is acceptable, at the bidder's option, to substitute structural steel members in place of the steel joists. Any costs associated with the substitution including effects to building services such as plumbing, mechanical and electrical are to be coordinated by the bidder prior to the bid and are to be included in the bid amount. This bidder's option is presented by narrative here and is not presented on the revised drawing.
 - b. At bidder's option (see item "a" above) it is acceptable to use W21x50 beams and masonry detail 5/S810 in lieu of 22KCS5 and the associated steel joist details.
 - c. At bidder's option (see item "a" above) it is acceptable to use W18X50 beams and masonry detail 5/S810 in lieu of 28K6 and the associated steel joist details.
- 10. Sheet S108 FRAMING PLAN no revised drawing attached.
 - a. At bidder's option (see item "a" under Changes to Drawings S107 above) it is acceptable to use W8x15 beams and masonry detail 5/S810 in lieu of 16K3 and the associated steel joist details.
- 11. Sheet P001 PLUMBING GENERAL INFORMATION 30 X 42 attached hereto
 - a. Revisions clouded on drawing.
 - b. Revisions to Plumbing Schedules
 - c. Water System Calculation added.
- 12. Sheet P091 FIRST FLOOR PLUMBING DEMO PLAN SEG A 30 X 42 attached hereto
 - Revisions clouded on drawing.
 - b. Demo scope of work added/clarified.
 - c. Keynotes added
- 13. Sheet P093 FIRST FLOOR PLUMBING DEMO PLAN SEG C 30 X 42 attached hereto
 - a. Revisions clouded on drawing.
 - b. Demo scope of work added/clarified.
- 14. Sheet P100 LOWER LEVEL PLUMBING PLAN –SEG A 30 X 42 attached hereto
 - a. Revisions clouded on drawing.
 - b. New work scope added/clarified.
 - c. Keynotes added.

15. Sheet P101 LOWER LEVEL PLUMBING PLAN – SEG B 30 X 42 attached hereto

- a. Revisions clouded on drawing.
- b. New work scope added/clarified.
- c. Keynotes added.

16. Sheet P102 FIRST FLOOR PLUMBING PLAN – SEG A 30 X 42 attached hereto

- a. Revisions clouded on drawing.
- b. New work scope added/clarified.
- c. Keynotes added.

17. Sheet P104 FIRST FLOOR PLUMBING PLAN – SEG C 30 X 42 attached hereto

- a. Revisions clouded on drawing.
- b. New work scope added/clarified.

18. Sheet P400 PLUMBING ENLARGED PLANS 30 X 42 attached hereto

- a. Replace sheet with new sheet
- 19. Sheet M200 ENLARGED PLANS 30 x 42 attached hereto
 - a. Revised boiler layout to include update basis of design boilers (dual fuel).
- 20. Sheet M600 HVAC SCHEDULES 30 x 42 attached hereto
 - a. Revised Gas Fired Boiler Schedule to have dual fuel (natural gas and LP) boilers that have separate fuel trains.
- 21. Sheet M603 HVAC SCHEDULES 30 x 42 attached hereto
 - a. Revised Air/Dirt Separator Schedule to have a removable head feature.
 - b. Revised BT-1 to be just a tank without coalescing media within the tank.
- 22. Sheet E090 LOWER LEVEL ELEC. DEMO PLANS SEGEMENT A & B 30 x 42 attached hereto
 - a. Added equipment to be removed
- 23. Sheet E092 FIRST FLOOR ELEC. DEMO PLAN SEG.B 30 x 42 attached hereto
 - a. Added areas of demolition.
- 24. Sheet E093 FIRST FLOOR ELEC. DEMO PLAN SEG. C 30 x 42 attached hereto
 - a. Added areas of demolition.
- 25. Sheet E100- LOWER LEVEL SEGMENT A & B 30 x 42 attached hereto
 - a. Provided electrical connections to additional equipment.
- 26. Sheet E101- FIRST FLOOR POWER PLAN SEG A 30 x 42 attached hereto
 - a. Add electrical connections at ADA lift.
 - b. Added duct mounted smoke detectors.
- 27. Sheet E102- FIRST FLOOR POWER PLAN SEG B 30 x 42 attached hereto
 - a. Added duct mounted smoke detectors.
- 28. Sheet E103-FIRST FLOOR POWER PLAN SEG C 30 x 42 attached hereto
 - a. Added equipment connections.
 - b. Identified new water service location.
- 29. Sheet E105 SECOND FLOOR POWER PLAN SEG A 30 x 42 attached hereto
 - a. Add electrical connections at ADA lift
- 30. Sheet E201 -LOWER LEVEL LIGHTING PLAN SEG A & B 30 x 42 attached hereto
 - a. Added light fixtures in welding booths in shop 01.
- 31. Sheet E202 –FIRST FLOOR LIGHTING PLAN SEG A 30 x 42 attached hereto
 - a. Added Exit light in Hall C116.

32. Sheet E203 -FIRST FLOOR LIGHITNG PLAN - SEG B 30 x 42 attached hereto

- a. Added Lighting for hall C102 and track lighting (base bid)
- b. Added light fixture to light fixture schedule.
- c. Revision to low voltage relay panel.
- 33. Sheet E600 ELECTRIC RISER DIAGRAM AND SCHEDULES 30 x 42 attached hereto
 - a. Revised feeder and circuit breaker to chiller to 600 amp.
- 34. Sheet E602 ELECTRICAL SCHEDULES 30 x 42 attached hereto
 - a. Panelboards Schedule: Added and Revised circuit breakers and numbering.
- 35. Sheet E603 ELECTRICAL SCHEDULES 30 x 42 attached hereto
 - a. Equipment Schedule: Added equipment connections.

PRIOR APPROVALS

- 36. Section 07 14 00 Fluid Applied Waterproofing
 - a. Polyguard brand Commercial Stretch product Apply to min 55mil minimum cured thickness
- 37. Section 23 09 14 / 23 09 23 Direct Digital Control System for HVAC
 - a. JCI
 - b. Andover
 - c. AES
 - d. Distech Ahern
- 38. Section 23 21 16 Hydronic Specialties Hot/Chilled
 - a. Water Filters
 - i. Harmsco HIF
- 39. Section 23 21 17 Air Control Devices
 - a. Expansion Tanks
 - ii. American Wheatley
- 40. Section 23 38 13 Commercial Kitchen Hoods
 - a. Denlar
- 41. Section 23 83 16 Radiant Floor Systems
 - a. Roth X-Pert
 - b. Watts Radiant
 - c. Viega

END OF DOCUMENT 00 90 00

DOCUMENT 00 11 13

ADVERTISEMENT FOR BIDS

Sealed bids for the construction of:

LA FARGE SCHOOL DISTRICT ADDITION AND RENOVATION 301 W. ADAMS STREET LA FARGE, WI 54639 HSR PROJECT NO. 19041-1

will be received by: LA FARGE SCHOOL DISTRICT

301 W. ADAMS STREET LA FARGE, WI 54639

ATTENTION: Meaghan Gustafson - District Administrator

until 2:00 PM, October 7, 2021, after which they will be opened publicly and read aloud. Bids received after the time set for receipt of bids will not be accepted.

In general, the Project consists of additions and renovations to an existing K-12 educational building.

Project work includes but is not limited to: demolition, concrete, slab on grade, slab on deck, masonry, CMU, brick, cast stone, structural steel, steel joist, steel deck, cold formed steel framing, decorative handrail, insulated EPDM roof, EIFS, foamed-in-place insulation, rigid insulation, aluminum storefront, curtainwall, accordion folding door, gypsum assemblies, acoustic tile ceiling, resilient flooring, tile, fluid applied flooring, carpet, sound absorbing units, and hydraulic elevator. Site work includes masonry retaining wall, site furnishings, concrete paving, and rerouting of utilities including gas, electric, telephone, and storm drain. Plumbing work includes removal and replacement of existing systems and extending systems to new locations. HVAC work includes new boilers, make up air units, roof top units, air handling units, unit vents, unit heaters, roof exhausters, ductwork and piping. Electrical work includes new electrical service, new fire alarm system, replacement of light fixtures and power wiring. The bidding documents describe five alternates. One of the alternates includes installation of a three stop ADA platform lift. Another of the alternates includes an interior folding glass storefront unit.

Lump-sum Bids will be received on a SINGLE PRIME CONSTRUCTION CONTRACT FOR THE ENTIRE WORK including plumbing, mechanical and electrical work.

The Project Drawings, Project Manual and other Bidding Documents prepared by the AE may be examined at the following locations:

AE's Office: HSR ASSOCIATES, INC.

100 Milwaukee Street La Crosse, WI 54603

608-784-1830

Builder's Exchanges: La Crosse, WI

Northwest Regional (Eau Claire/Chippewa Falls)

Wausau, WI

Builders Exchange of Wisconsin (Appleton)

Minneapolis, MN Rochester, MN

Northern IA (Mason City, IA)

ConstructConnect

Dodge Data & Analytics (West Allis, WI) The Blue Book (Jefferson Valley, NY) Bidding Document PDF files will be available from HSR Associates, Inc. via Sharefile electronic distribution. Access will be granted upon request. Addenda will be distributed via the Sharefile system. Documents will be available from listed Builders Exchanges as well.

Bidders may request printed Bidding Documents from the office of the AE by sending a check made out to HSR Associates in the amount of \$15.00, as a fee to cover the cost of postage and handling. Such fee amount will not be refunded. Postage fee must be received before documents are shipped.

Disclaimer: HSR Associates is responsible for distribution of addenda to only those that have requested project documents from HSR in formats described above.

Note that HSR Associates offers a printing service of documents including single sheets or entire document. Contact HSR for rates.

REQUESTED CAD FILES: Upon award of Contract and upon request HSR will provide electronic versions of project information.

A plan holders list is available on HSR's website; www.hsrassociates.com. The list includes only those requesting plans from HSR. If you obtained plans from another source and want your firm on HSR's list contact us.

BID SECURITY in the amount of five percent of the maximum amount of the Bid must accompany each Bid as described in the Instructions to Bidders in the Project Manual.

The Owner reserves the right to waive irregularities and to reject any or all Bids. No Bid may be withdrawn until 60 days after the time stated for receipt of Bids.

A pre-bid meeting will be conducted by the Owner and Architect/Engineer to answer questions and to enable bidders to examine conditions at the Project Site. Such meeting will occur at 1 p.m. September 13, 2021 at the project site.

By: Meaghan Gustafsen

Title: District Administrator – La Farge School District.

Publish Date: Weeks of September 6 & 13 La Crosse Tribune Vernon County Times

END OF DOCUMENT 00 11 13

SECTION 14 42 00 WHEELCHAIR PLATFORM LIFTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. All material and labor necessary to complete the installation of the vertical platform lift.
- B. Obtain all information affecting work at job site. Include verification of field, dimensions, anchoring and storage. Verify voltages and outlets on electrical drawings.

1.02 REFERENCES

- A. The lift shall be designed and tested in accordance with ICC/A117.1, NEC, ASME A18.1 Guidelines and the requirements of the authority having jurisdiction.
- B. All designs, clearances, construction, workmanship and installation shall be in accordance with the requirements and code adopted by the authority having jurisdiction. The platform lift shall be subject to local, city and state approval prior to and following installation.

1.03 SYSTEM DESCRIPTION

A. Vertical Platform Lift consisting of a machine tower with lifting platform with 180° enter/exit, selected and dimensioned to provide adequate lifting height to suit the individual building requirements. The lift can be used to vertically transport a wheelchair user or mobility-impaired person up and over a barrier thus creating access to or within a building.

B. Performance:

- 1. Rated Load: 750 pound capacity.
- 2. Travel Speed: 10 fpm.
- 3. Lifting Height: up to 144"
- 4. Platform size: 36"x54", with non-skid surface.

C. Related Work:

- Door Hardware. Lift door hardware by lift supplier. Lift supplier to coordinate with door hardware schedule to provide the needed building functionality and needed lift functionality.
- 2. Painting.
- 3. Section 06 10 00 Rough Carpentry Coordinate structural connections, door frames and related items.
- 4. Division 26 Electrical Coordinate requirements with electrical contractor for conduit locaitons.
- 5. Drawing A601 Door Schedule and Frame Types

1.04 SUBMITTALS

- A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, dimensions, electrical characteristics, safety features, controls, and finishes.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 2. Wiring Diagrams: For power, signal, and control wiring.
- C. Samples for Initial Selection: For surfaces and components with factory-applied color finishes.
 - 1. Include similar Samples of accessories involving color selection.
- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:
 - 1. Metal Finish: Manufacturer's standard-size unit, not less than 4 inches square.
 - 2. Tubular Products and Running Trim: Manufacturer's standard-size unit, 6 inches long.
 - 3. Hardware: Manufacturer's standard, exposed, door-operating device.
- E. Qualification Data: For qualified Installer.

- F. Manufacturer Certificates: Signed by lift manufacturer certifying that runway, ramp or pit, and dimensions as shown on Drawings and that electrical service as shown and specified are adequate for lift being provided.
- G. Inspection and Acceptance Certificates and Operating Permits: As required by authorities having jurisdiction for normal, unrestricted use of lifts.
- H. Operation and Maintenance Data: include operation and maintenance manuals. In addition include the following:
 - 1. Parts list with sources indicated.
 - Recommended parts inventory list.
- I. Warranty: Sample of special warranty.

1.05 QUALITY ASSURANCE

- A. Certified for installation in the State of Wisconsin.
- B. Manufacturer: Company shall contain personnel with not less than ten (10) years of experience in the design and fabrication of vertical platform lifts.
- C. Installer Qualifications: Manufacturer's certified installer who is trained and approved for installation of units required for this Project.
- D. Regulatory Requirements: In addition to requirements of authorities having jurisdiction, comply with ASME A18.1, "Safety Standard for Platform Lifts and Stairway Chairlifts."

1.06 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of lifts that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Two years from date of Substantial Completion.

1.07 MAINTENANCE SERVICE

- A. Maintenance of the platform lift unit shall consist of regular cleaning of the unit and routine safety testing at interval of not longer than every six (6) months. Rule 10.2.1 of ASME A18.1 requires all Vertical Platform Lifts be inspected every six (6) months.
- B. Provide maintenance service as described above for owner during the warranty period as identified above.
- C. Unit must be assembled and tested in factory before shipment.

PART 2 PRODUCTS

2.01 MANUFACTURER AND MODEL

- A. Symmetry VPL-SL; https://symmetryelevators.com/
- B. Garaventa Genesis Shaftway Lead Screw; www.garaventalift.com

2.02 FABRICATION

- A. Platform shall be constructed of 12-gauge minimum hot rolled steel. Installed in a 3-inch pit to meet lower landing.
- 3. Platform side panels must be 42" high. Side panel framework shall be a minimum of 1" x 1 ½" steel. Solid infill panels shall be a minimum of 18 gauge Steel.
- C. Finish shall be electro statically applied powder coating, oven backed to cure. Color shall be selected from manufacturers standard color or optional colors.
- D. Platform configuration; straight through.
- E. The Mainframe (Main Tower) support shall be a combination 7 gauge C Channel, 12 gauge interface plates and 16 gauge exterior skin.
- F. Carriage platform supports shall be a minimum of ½" steel plate and carriage uprights shall be a minimum of 3/8" thick laser cut steel plate.

- G. Elevator style (Nylon) rollers shall be used for axial carriage guidance and wear pads shall be used for horizontal stability.
- H. Loaded fasteners shall be grade eight of higher. Locking fasteners shall be used in all critical locations.
- I. Doors: Provide doors and frames. See the door schedule on sheet A601. It is permissible to provide the manufacturer's standard door in lieu of solid core wood door.
- J. Finish: Exterior grade powder coat paint. Color as selected from manufacturer's standard line
- K. A constant pressure, elevator style, hall call control switch shall be provided at each landing.
- L. The motor shall be 1 HP, 115 volt, 1 phase.
- M. Operating control circuit regulated N.R.T.L. listed class 2 power limited circuit operating at 24vdc.
- N. An upper final limit switch shall be provided.
- O. The drive mechanism stationary nut on a rotating 1" diameter ACME screw with a secondary safety nut.
- P. Unit must be assembled and tested in factory before shipment.

2.03 SAFETY DEVICES

- A. Nonskid platform surface.
- B. Alarm and emergency stop switch.
- C. Grab rail.
- D. Platform gate operator.
- E. Landing interlocks keep door locked when the lift is on another floor.
- F. Upper final limit.
- G. Manual lowering device.
- H. 24-volt DC, fail secure electric strike that contains electric contacts to ensure the door is both closed and locked.
- I. Battery controlled emergency operation to satisfy code requirements.
- J. Telephone kit (ADA compliant with battery backup).

2.04 CONTROLS

- Remote mounted controller allows for readily serviceable diagnostics at upper or lower landing.
- B. Low-power door operator: 115-volt, 15-amp, low-energy. ADA-compliant processor controlled and fully adjustable operator.
- C. An illuminated emergency stop switch / Audible alarm switch shall be provided on the car as a means of signaling for assistance in the event of an emergency.
- D. Provide power operated door openers compatible with the manufacturer's system. Provide door operator actuators to be installed in conduits and boxes installed by the electrical contractor.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, critical dimensions, and other conditions affecting performance.
- B. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Unit shall be installed and operated in accordance with the guidelines and requirements of ICC A117.1, NEC, ASME A18.1, and the authority having jurisdicition.
- B. The installation of the vertical platform lift shall be made in accordance with approved plans and specifications and the manufactures installation instructions.
- C. Coordinate runway doors with platform travel and positioning, for accurate alignment and minimum clearance between platforms, runway doors, sills, and door frames.
- D. A lockable service disconnect switch rated at 110v 30A shall be supplied by the electrical contractor at job site.
- E. Adjust stops for accurate stopping and leveling at each landing, within required tolerances.
 - 1. Leveling Tolerance: 1/4 inch up or down, regardless of load and direction of travel.
- F. Lubricate operating parts of lift, including drive mechanism, guide rails, hinges, safety devices, and hardware.
- G. Test safety devices and verify smoothness of required protective enclosures and fascias.

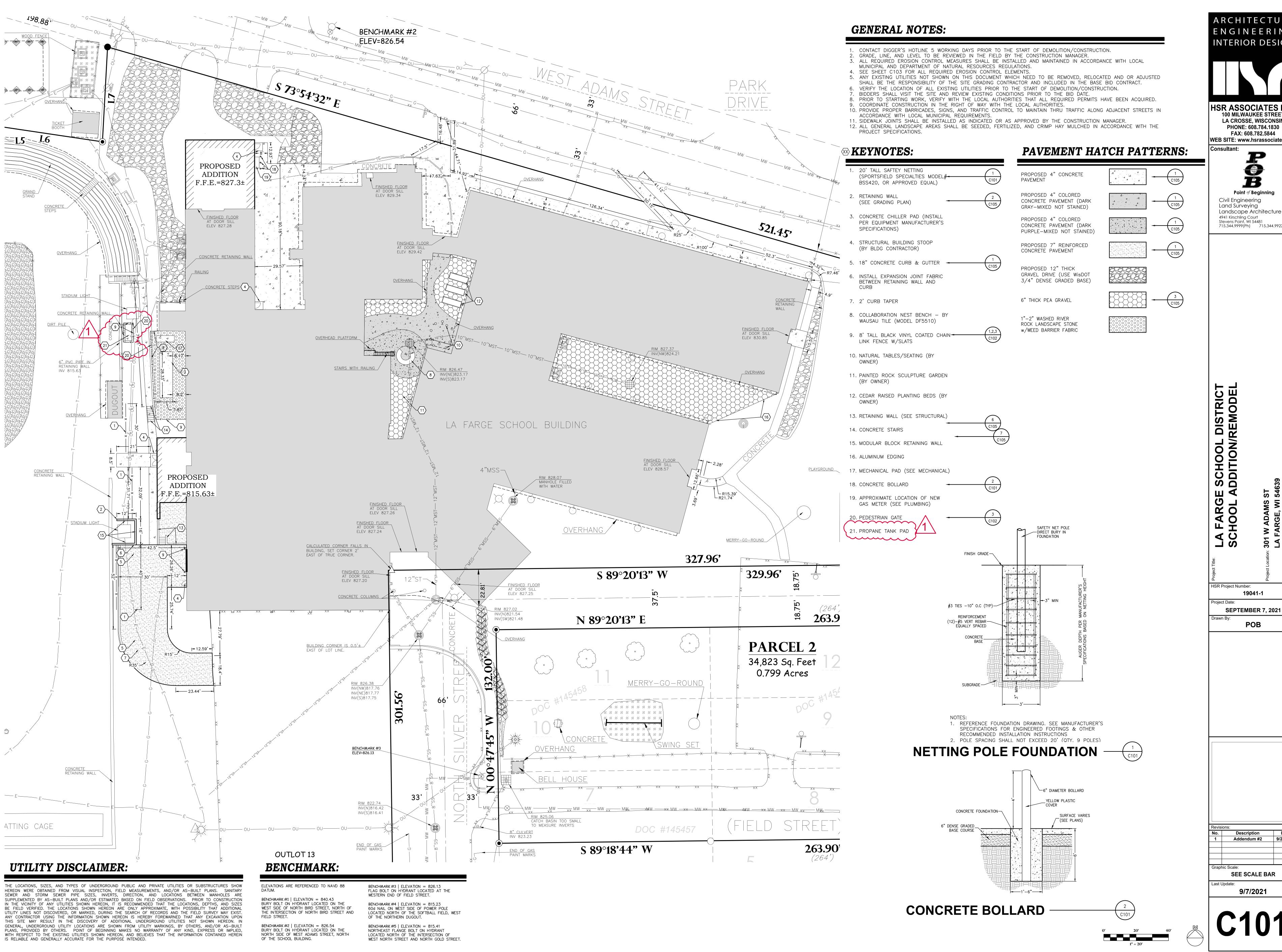
3.03 FIELD QUALITY CONTROL

- A. Acceptance Testing: On completion of lift installation and before permitting use of lifts, perform acceptance tests as required and recommended by ASME A18.1 and authorities having jurisdiction.
- B. Operating Test: In addition to above testing, load lifts to rated capacity and operate continuously for 30 minutes between lowest and highest landings served. Readjust stops, signal equipment, and other devices for accurate stopping and operation of system.
- C. Advise Owner, Architect, and authorities having jurisdiction in advance of dates and times tests are to be performed on lifts.

3.04 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain lifts. Include a review of emergency systems and emergency procedures to be followed at time of operational failure and other building emergencies.
- B. Check operation of lifts with Owner's personnel present and before date of Substantial Completion. Determine that operating systems and devices are functioning properly.
- C. Check operation of lifts with Owner's personnel present not more than one month before end of warranty period. Determine that operating systems and devices are functioning properly.

END OF SECTION





LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844

WEB SITE: www.hsrassociates.com

B Point f Beginning Civil Engineering Land Surveying Landscape Architecture

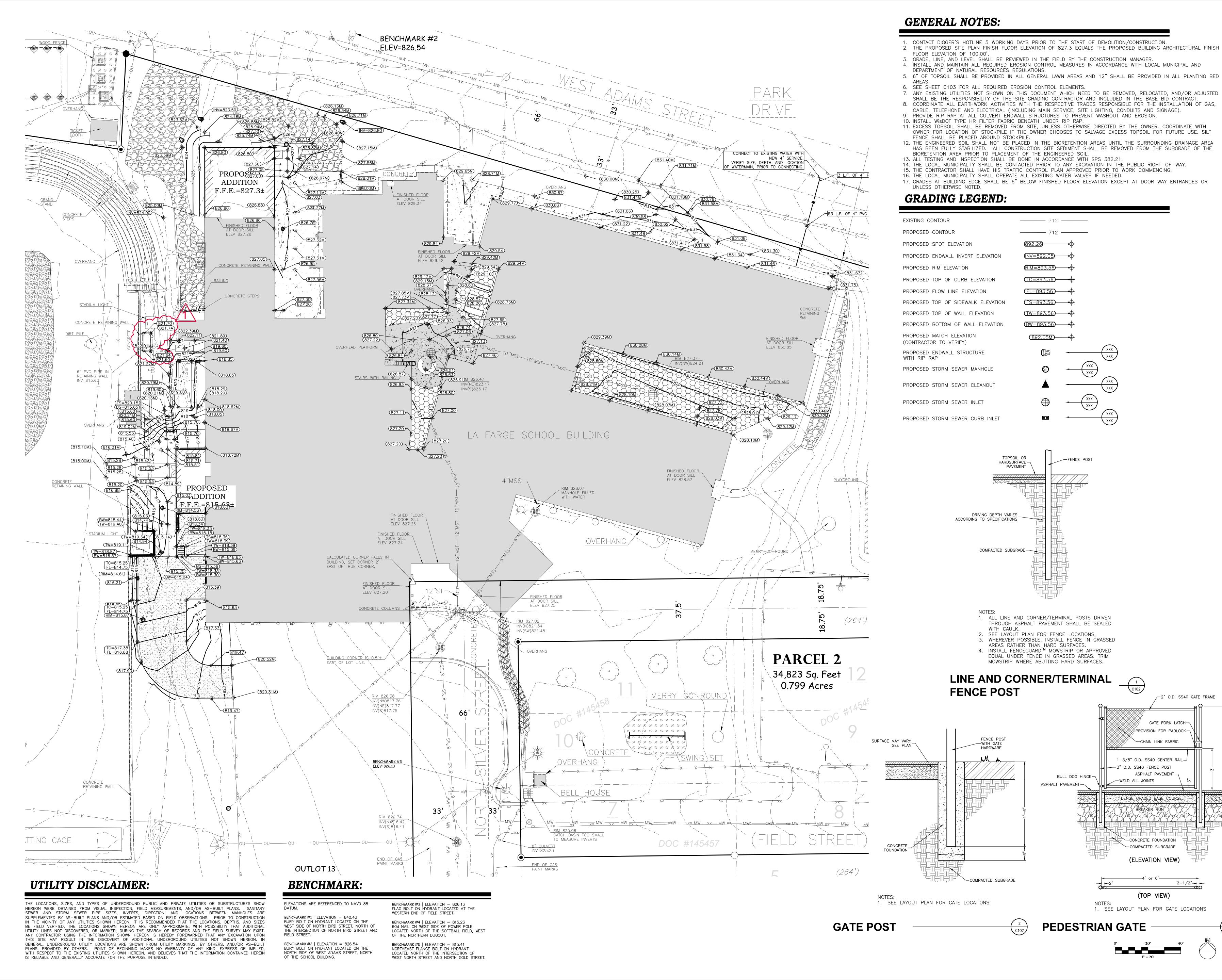
4941 Kirschling Court Stevens Point, WI 54481 715.344.9999(Ph) 715.344.9922(Fx)

HSR Project Number: 19041-1

POB

Addendum #2 **SEE SCALE BAR**

9/7/2021



ARCHITECTURE ENGINEERING INTERIOR DESIGN

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SCHOOL ADDITION/REN

School ADDITION/REN

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HSR Project Number:

oject Date:

19041-1

SEPTEMBER 7, 2021

POB

Revisions:

No. Description Date

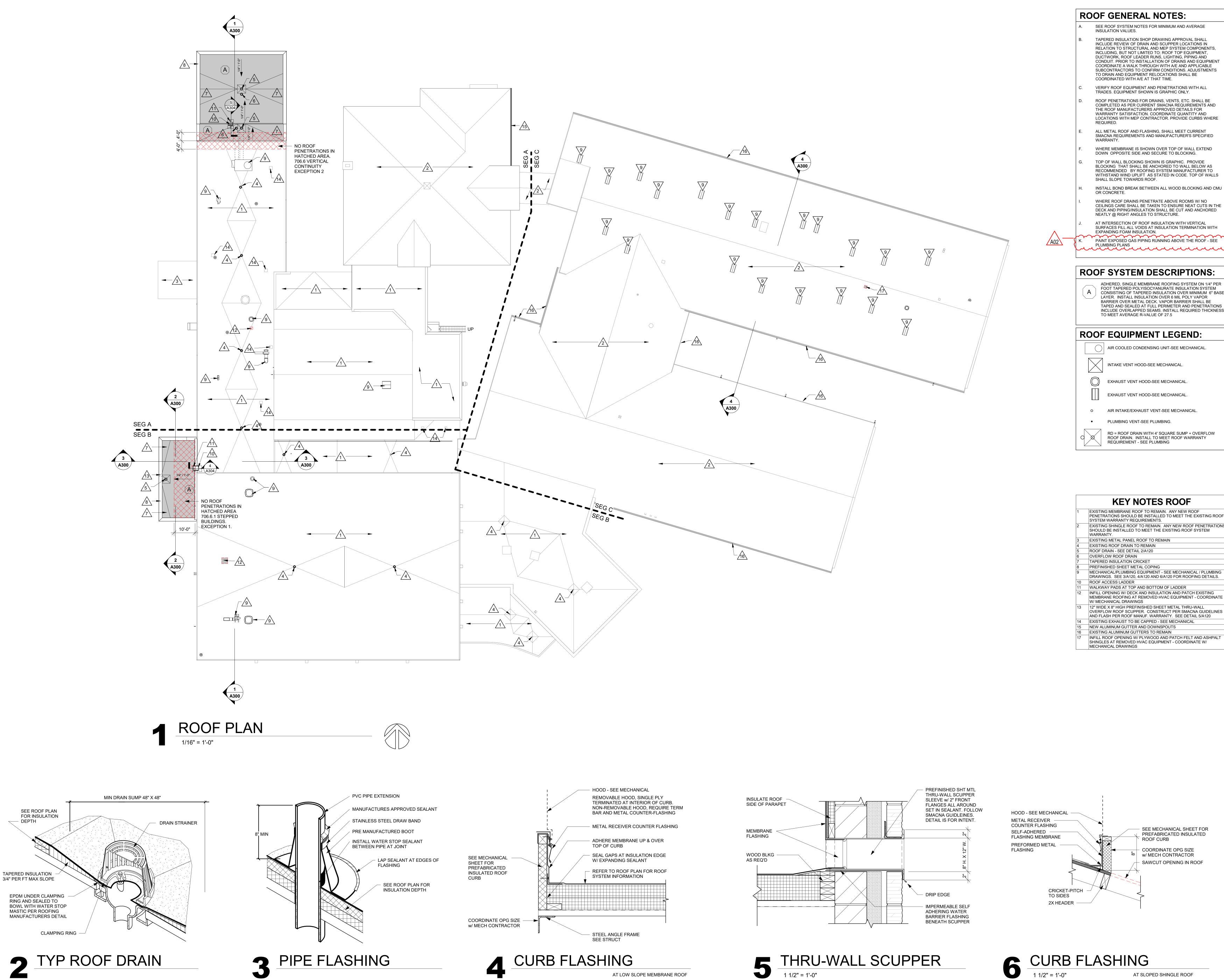
1 Addendum #2 9/23/2021

Graphic Scale:

SEE SCALE BAR

C102

9/7/2021



ROOF GENERAL NOTES:

SEE ROOF SYSTEM NOTES FOR MINIMUM AND AVERAGE INSULATION VALUES.

TAPERED INSULATION SHOP DRAWING APPROVAL SHALL INCLUDE REVIEW OF DRAIN AND SCUPPER LOCATIONS IN RELATION TO STRUCTURAL AND MEP SYSTEM COMPONENTS, INCLUDING, BUT NOT LIMITED TO; ROOF TOP EQUIPMENT, DUCTWORK, ROOF LEADER RUNS, LIGHTING, PIPING AND CONDUIT. PRIOR TO INSTALLATION OF DRAINS AND EQUIPMENT COORDINATE A WALK THROUGH WITH A/E AND APPLICABLE SUBCONTRACTORS TO CONFIRM CONDITIONS. ADJUSTMENTS TO DRAIN AND EQUIPMENT RELOCATIONS SHALL BE

COORDINATED WITH A/E AT THAT TIME. VERIFY ROOF EQUIPMENT AND PENETRATIONS WITH ALL TRADES. EQUIPMENT SHOWN IS GRAPHIC ONLY. ROOF PENETRATIONS FOR DRAINS, VENTS, ETC. SHALL BE

COMPLETED AS PER CURRENT SMACNA REQUIREMENTS AND THE ROOF MANUFACTURERS APPROVED DETAILS FOR WARRANTY SATISFACTION. COORDINATE QUANTITY AND LOCATIONS WITH MEP CONTRACTOR. PROVIDE CURBS WHERE

ALL METAL ROOF AND FLASHING, SHALL MEET CURRENT SMACNA REQUIREMENTS AND MANUFACTURER'S SPECIFIED

WHERE MEMBRANE IS SHOWN OVER TOP OF WALL EXTEND DOWN OPPOSITE SIDE AND SECURE TO BLOCKING.

TOP OF WALL BLOCKING SHOWN IS GRAPHIC. PROVIDE BLOCKING THAT SHALL BE ANCHORED TO WALL BELOW AS RECOMMENDED BY ROOFING SYSTEM MANUFACTURER TO WITHSTAND WIND UPLIFT AS STATED IN CODE. TOP OF WALLS SHALL SLOPE TOWARDS ROOF.

INSTALL BOND BREAK BETWEEN ALL WOOD BLOCKING AND CMU OR CONCRETE. WHERE ROOF DRAINS PENETRATE ABOVE ROOMS W/ NO CEILINGS CARE SHALL BE TAKEN TO ENSURE NEAT CUTS IN THE

NEATLY @ RIGHT ANGLES TO STRUCTURE. AT INTERSECTION OF ROOF INSULATION WITH VERTICAL SURFACES FILL ALL VOIDS AT INSULATION TERMINATION WITH EXPANDING FOAM INSULATION. PAINT EXPOSED GAS PIPING RUNNING ABOVE THE ROOF - SEE

ROOF SYSTEM DESCRIPTIONS:

ADHERED, SINGLE MEMBRANE ROOFING SYSTEM ON 1/4" PER FOOT TAPERED POLYISOCYANURATE INSULATION SYSTEM A CONSISTING OF TAPERED INSULATION OVER MINIMUM 6" BASE LAYER. INSTALL INSULATION OVER 6 MIL POLY VAPOR BARRIER OVER METAL DECK. VAPOR BARRIER SHALL BE TAPED AND SEALED AT FULL PERIMETER AND PENETRATIONS INCLUDE OVERLAPPED SEAMS. INSTALL REQUIRED THICKNESS TO MEET AVERAGE R-VALUE OF 27.5

ROOF EQUIPMENT LEGEND:

AIR COOLED CONDENSING UNIT-SEE MECHANICAL.

INTAKE VENT HOOD-SEE MECHANICAL.

EXHAUST VENT HOOD-SEE MECHANICAL. EXHAUST VENT HOOD-SEE MECHANICAL.

O AIR INTAKE/EXHAUST VENT-SEE MECHANICAL.

PLUMBING VENT-SEE PLUMBING. RD = ROOF DRAIN WITH 4' SQUARE SUMP + OVERFLOW

KEY NOTES ROOF

REQUIREMENT - SEE PLUMBING

EXISTING MEMBRANE ROOF TO REMAIN. ANY NEW ROOF PENETRATIONS SHOULD BE INSTALLED TO MEET THE EXISTING ROOF SYSTEM WARRANTY REQUIREMENTS. EXISTING SHINGLE ROOF TO REMAIN. ANY NEW ROOF PENETRATIONS SHOULD BE INSTALLED TO MEET THE EXISTING ROOF SYSTEM

ROOF DRAIN. INSTALL TO MEET ROOF WARRANTY

EXISTING METAL PANEL ROOF TO REMAIN EXISTING ROOF DRAIN TO REMAIN ROOF DRAIN - SEE DETAIL 2/A120

OVERFLOW ROOF DRAIN TAPERED INSULATION CRICKET PREFINISHED SHEET METAL COPING MECHANICAL/PLUMBING EQUIPMENT - SEE MECHANICAL / PLUMBING

DRAWINGS. SEE 3/A120, 4/A120 AND 6/A120 FOR ROOFING DETAILS. ROOF ACCESS LADDER WALKWAY PADS AT TOP AND BOTTOM OF LADDER

INFILL OPENING W/ DECK AND INSULATION AND PATCH EXISTING MEMBRANE ROOFING AT REMOVED HVAC EQUIPMENT - COORDINATE W/ MECHANICAL DRAWINGS 12" WIDE X 8" HIGH PREFINISHED SHEET METAL THRU-WALL

OVERFLOW ROOF SCUPPER. CONSTRUCT PER SMACNA GUIDELINES AND FLASH PER ROOF MANUF. WARRANTY. SEE DETAIL 5/A120 EXISTING EXHAUST TO BE CAPPED - SEE MECHANICAL NEW ALUMINUM GUTTER AND DOWNSPOUTS

EXISTING ALUMINUM GUTTERS TO REMAIN INFILL ROOF OPENING W/ PLYWOOD AND PATCH FELT AND ASHPALT SHINGLES AT REMOVED HVAC EQUIPMENT - COORDINATE W/ MECHANICAL DRAWINGS

AD

ARCHITECTURE

ENGINEERING

INTERIOR DESIGN

HSR ASSOCIATES INC.

100 MILWAUKEE STREET

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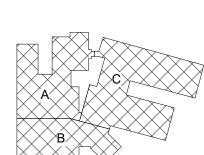
Consultant:

HSR Project Number:

19041-1 SEPTEMBER 2021

Drawn By:

Key Plan:



KEY PLAN



A02 ADD2

Graphic Scale: **VARIES**

9/22/2021 12:47:52 PM

AT SLOPED SHINGLE ROOF

SEE MECHANICAL SHEET FOR

COORDINATE OPG SIZE

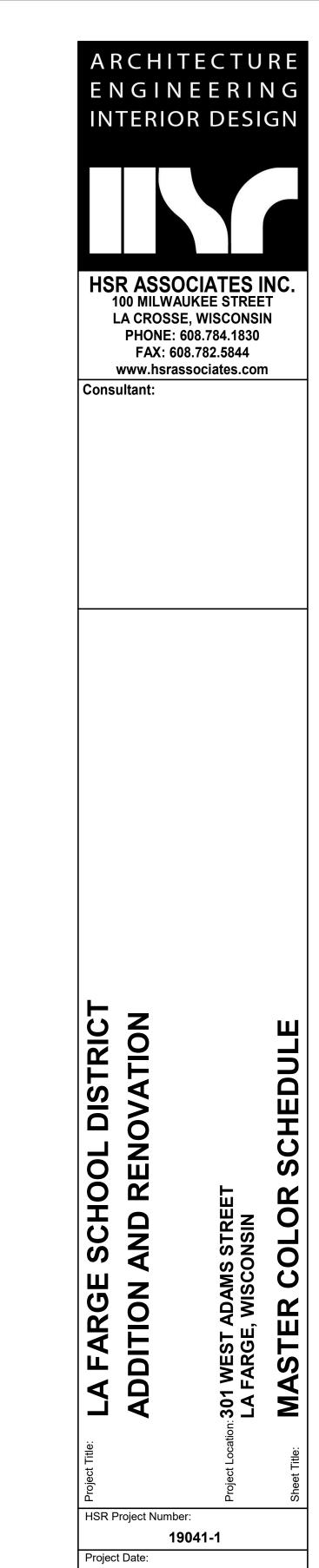
SAWCUT OPENING IN ROOF

∞ w/ MECH CONTRACTOR

ROOF CURB

PREFABRICATED INSULATED

							MASTER COLOR S	CHEDULE						
	MANUFACTURE	R / COLOR	GENERAL LOCATION	REMARKS		MANUFACTURER	/ COLOR	GENERAL LOCATION	REMARKS	MANUFACTURI	ER / COLOR		GENERAL LOCATION	REMARKS
6 41 00 CUSTOM CABINETS					09 65 00 RESILIENT FLOORING/BASE					09 84 30 SOUND ABSORBING WALL AND CEILING UNITS				
PLAM-1	Manufacturer:	Formica	Casework	Comparable Products by	LVT-1	Manufacturer:	Mohawk Group	Field	Comparable Products by	AWP-1	See spec section for panel fabric		See A210, A211, A212	Comparable Products
(Plastic	Color:	Formica White Twill	Casework	Prior Approval	(Luxury Vinyl		Lineate	Elevator	Prior Approval	(Acoustical	See spec section for panel fabric		See A210, A211, A212	by Approval
Laminate)	<u>Finish:</u>	Matte Finish			Tile)		Figured			Wall Panel)	Panel Edge Profile:	Square	Room 152, 154, 155, 157	
						<u>Thickness:</u> Wear Layer	5mm 20 mil	Refer to arrows on plan for install direction See LVT Ratio for RM 157 on ID102			Panel Size: Fabric:	See A210, A211, A212 Carnegie Xorel		
PLAM-2	Manufacturer:	Nevamar	Countertops	Comparable Products by							Fabric Pattern:	Dash		
	<u>Color:</u> <u>Finish:</u>	Veto Proof Textured Finish		Prior Approval	LVT-2	Manufacturer:	Mohawk Group	Purple Accent	Comparable Products by		Fabric Color: Fabric Backing:	6603 34 Acrylic		
	<u>r misn.</u>	reatured i illisii					Lineate	ruipie Acceilt	Prior Approval		Tablic Backing.	Acrylic		
						Color:	Stripe							
PLAM-3	Manufacturer: Color:	Nevamar Clear Maple	Cubbies	Comparable Products by Prior Approval		<u>Thickness:</u> Wear Layer	5mm 20 mil	Refer to arrows on plan for install direction See LVT Ratio for RM 157 on ID102		AWP-2	See spec section for panel fabric		See A210, A211, A212	Comparable Products by Approval
	Finish:	Textured Finish									Panel Edge Profile:	Square	Room 152, 154, 155, 157	
					LVT-3	Manufacturer:	Mohawk Group	Accent	Comparable Products by		Panel Size: Fabric:	See A210, A211, A212 Carnegie Xorel	(Purple)	
06 61 00 CAST POLYMER FABR	RICATIONS					Product:	Lineate	Accent	Prior Approval		<u>Fabric Pattern:</u>		(i diple)	
							Groove			A02	Fabric Color: Fabric Backing:	6427 2036		
SS-1	Manufacturer:	Corian		Comparable Products by		<u>Thickness:</u> Wear Layer	5mm 20 mil	Refer to arrows on plan for install direction See LVT Ratio for RM 157 on ID102			Fabric Backing:	Acrylic		
(Solid	Color:	Silver Birch	Window Sills	Prior Approval										
Surface)										09 90 00 PAINTS AND COATINGS				
					RS-1 (Rubber Sheet)	Manufacturer: Product:	Nora Environcare		Comparable Products by Prior Approval					
SS-2	Manufacturer:			Comparable Products by		Color:	Clam Bake 7036			PNT-1	Manufacturer:	Sherwin Williams	Field	*Or Equal
	<u>Color:</u>	Mosaic Dalmatian	Rm 147	Prior Approval		Thickness:	3mm Roll Good	Integral Page		(Paint)	Color:	Crushed Ice 7647 255-C6	Exposed Ceilings	
						Size: Install:	Roll Good Heat Welded Seams	Integral Base			Color Code:	2JJ-U0	Exposed Cellings	
09 30 00 TILE										PNT-2	Manufacturer:	Sherwin Williams	Accent	*Or Equal
O OO OO IILL					RST-1	Manufacturer:	Johnsonite		Comparable Products by	1117-2	Color:	Plummy 6558	Accent	Of Equal
					(Rubber Stair	Product:	Rubber Tread with Integrated Riser HTR		Prior Approval		Color Code:	189-C6		
TLE-1 (Tile)	Manufacturer: Product:	Daltile Color Wave Straight Joint 1x6	Rm 147	Comparable Products by Prior Approval	Tread)	<u>Color:</u>	Moon Rock 29 WG	(Hammered Tread)						
, ,	Color:	Purple Magic								PNT-3	Manufacturer:	Sherwin Williams	Accent	*Or Equal
	Size:	1x6" Vertically	TT-3 for edges of TLE-1		RT-1 (Rubber Tile)	Manufacturer: Product:	Johnsonite HRT Rubber Tile	Stair Landing	Comparable Products by Prior Approval		Color Code:	Mystical Shade 6276 226-C3		
	<u>Install:</u>	vertically			(Rubbel Tile)		24"x24"		Prior Approval		Color Code.	220-03		
						Color:	Moon Rock 29 WG							
TLE-2	Manufacturer: Product:	Ceramic Tileworks Modern	T105	Comparable Products by Prior Approval						PNT-4	Manufacturer: Color:	Sherwin Williams Dovetail 7018	Hollow Metal Door and Window Frames	*Or Equal
	Color:	Grey	Floor Tile		VCT-1	Manufacturer:	Basis of Design: Armstrong		Comparable Products by		Color Code:	244-C5		
	Size:	12x24" 1/3, see ID sheet/arrows for floor direction	Tile base		(Vinyl	Product:	Standard Excelon Imperial Texture (Match Existing)	C102, 134A	Prior Approval					
	<u>Install:</u>	1/3, see ID sneet/arrows for floor direction			Composition Tile)	Color: Thickness:	Match Existing 1/8" (Match Existing)	(Match C102)	Prior Approval	10 21 23 CUBICLE CURTAIN				
						Size:	12x12 (Match Existing)							
TLE-3	Manufacturer: Product:	Ceramic Tileworks Modern	T105	Comparable Products by Prior Approval						Privacy	Manufacturer:	DL Couch		Comparable Products
	Color:	White	Wall Tile	т пог дрргочаг	VWB-1	Manufacturer:	Johnsonite		Comparable Products by	Curtains	Product:	Privacy Curtain		by Approval
	Size:	12x24"			(Vinyl	Size:	4"		Prior Approval	& Track	Color:	As selected by A/E		
	<u>Install:</u>	Running Bond 1/2, Vertical			Wall Base)	<u>Color:</u>	Silver Grey 55 WG				Pattern: Contents:	As selected by A/E 100% polyester FR		
ТТ-1	Manufacturer:	Schluter	Floor Tile Transition	Comparable Products by	VCE-1	Manufacturer:	Johnsonite		Comparable Products by					
(Tile	Product:	Reno-U	T105	Prior Approval	(Vinyl Carpet Edge)		Varies by location, see ID sheets		Prior Approval	10 26 00 WALL AND DOOR PROTECTION				
Transition)	Color:	AE				Color:	Silver Grey 55 WG							
										CG-1	Manufacturer:	InPro	See ID sheets	Comparable Products
TT-2	Manufacturer:		Tile Cove Base	Comparable Products by	09 67 00 FLUID APPLIED FLOORING					(Corner Guards)	Product:	Corner Guard 160	Install on top of wall base	by Approval
	Product: Color:	DILEX-AHKA ACGB	T105	Prior Approval							Color: Size:	TBD 4' high, 2" wing	Room 152	
					FAF-1							_		
тт-з	Manufacturer:	Schluter	Varies by Location	Comparable Products by	(Fluid Applied Flooring)		See Specifications Section							
11-5	Product:	Edge Finishing Protection - Jolly	All Tile Edge Protection		T looning)		See Specifications Section							
	Color:	ACGB	T105, RM147											
				-										
					09 68 13 CARPETING									
					CPT-1 (Carpet	Manufacturer:	Milliken Journal - Inscription	Room 152, 154, 155, 156, 129 110, 110A	Comparable Products by Prior Approval					
					Tile)		Manuscript w/ Chamomile/Plum	110, 110A	Τιοι Αρριοναί					
						Construction:	Tufted, Textured Loop							
						<u>Size:</u> <u>Installation:</u>	50 cm x 50 cm Brick	Refer to arrows on plan for install direction						
					WCPT-1	Manufacturer:			Comparable Products by					
						Style Name:			Prior Approval					
						Color Name: Construction:								
						Size:	24x24"							
						Installation:	Brick	Refer to arrows on plan for install direction						
]				
					09 72 00 WALL COVERINGS									
					09 72 00 WALL COVERINGS]				
					09 72 00 WALL COVERINGS WC-1	Manufacturer:	Koroseal	See A210 and A211	Comparable Products					
						Manufacturer: Product: Color:	Koroseal Walitalkers Tac-Wali Suntan	See A210 and A211 Above Cubbies C108 C102	Comparable Products by Approval					



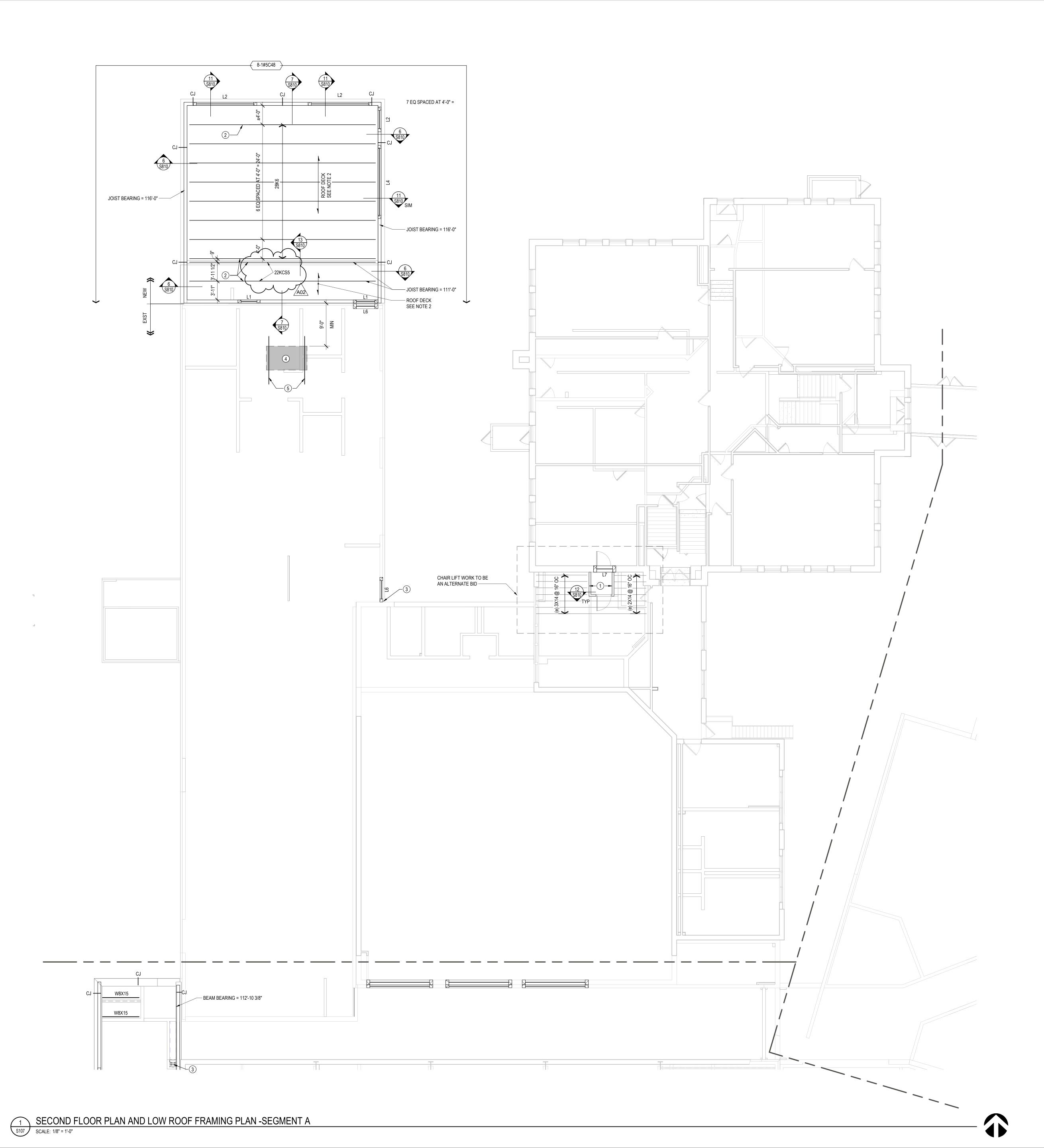
SEPTEMBER 2021

Key Plan:

BID DOCUMENTS

VARIES

Last Update: 9/23/2021 10:01:58 AM



ROOF FRAMING PLAN NOTES

1. ELEVATIONS REFERENCE FINISHED 1ST LEVEL SLAB WHICH HAS BEEN SET EQUAL TO 100'-0".

2. ROOF DECKING SHALL BE 1 1/2" x 22GA ACOUSTIC WIDE RIB PRIME PAINTED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 36/4 PATTERN OF ANY OF THE ATTACHMENT METHODS SHOWN IN DETAIL 1/S810 WITH #10 TEK SIDELAP FASTENERS AT 18" OC. PROVIDE DECK WITH THE FOLLOWING PROPERTIES:

> THICK = 0.0295 in $I_p = 0.155 \text{ in}^4/\text{ft}$ $S_p = 0.186 \text{ in}^3/\text{ft}$ $F_y = 50 \text{ KSI MIN}$ $I_n = 0.183 \text{ in}^4/\text{ft}$ $S_n = 0.192 \text{ in}^3/\text{ft}$

INSTALL DECK UNDER 3 OR MORE SPAN CONDITIONS.

- 3. PROVIDE 8" HIGH BOND BEAM WITH (2) #5 CONTINUOUS AT AND ADJACENT TO JOIST BEARING ELEVATIONS UNLESS NOTED OTHERWISE. WHERE JOIST BEARING IS NOT AT COURSING, PROVIDE PARTIAL HEIGHT BLOCK GROUTED SOLID TO TOP OF BOND BEAM. WIDTH OF BOND BEAM TO MATCH WALL THICKNESS AND IS TO RUN CONTINUOUS THROUGH CONTROL JOINTS. PROVIDE CORNER BARS WHERE THEY OCCUR AND LAP ALL BOND BEAM STEPS A MINIMUM OF 24".
- 4. JOIST SUPPLIER TO PROVIDE CONTINUOUS TOP AND BOTTOM CHORD HORIZONTAL ANGLE BRIDGING AS REQUIRED. PROVIDE DIAGONAL X-BRIDGING WHERE INDICATED.
- 5. PROVIDE ANGLE FRAME SUPPORT AT ALL ROOF OPENINGS IN ACCORDANCE WITH DETAIL 3/S810. REFER TP DETAIL 2/S810 FOR SMALLER ROOF OPENINGS.
- 6. ALL BAR JOISTS AND JOIST GIRDERS TO BE DESIGNED FOR A NET UPLIFT LOAD OF 15 PSF IN ADDITION TO GRAVITY VERTICAL LOADS REQUIRED BY THE BAR JOIST / JOIST GIRDER DESIGNATION. IN ADDITION, SUPPLIER SHALL ALSO INCLUDE THE WEIGHT OF THE ROOFTOP UNITS SHOWN ON THIS PLAN IN THE DESIGN OF JOISTS GIRDERS BY APPLYING THE PANEL POINT LOAD SHOWN ON THE PLAN (E.G. 1.0k) IN ADDITION TO THAT REQUIRED BY MEMBER
- 7. AT FIRST BOTTOM CHORD PANEL POINT AT EACH END OF BAR JOIST WHERE THIS NOTE IS REFERENCED, PROVIDE CONTINUOUS HORIZONTAL BRIDGING. PROVIDE ADDITIONAL LINES OF HORIZONTAL BRIDGING ALONG LENGTH OF JOIST AS REQUIRED TO RESIST UPLIFT LOADINGS.
- 8. PROVIDE C12 BELOW ROOFTOP UNIT CURB AND REINFORCE JOIST AS NEEDED AT CURB LOCATION IN ACCORDANCE WITH DETAILS 3/S810 AND 4/S810
- 9. BRACE TOP OF NON-LOAD BEARING CMU WALLS IN ACCORDANCE WITH DETAILS 14/S810 AND 15/S810.
- 10. NEW REPLACEMENT MECHANICAL AIR HANDLING UNITS (AHU) ARE ASSUMED TO BE EQUAL IN WEIGHT AS THOSE EXISTING. IF NEW UNITS ARE SIGNIFICANTLY HEAVIER THAN THE EXISTING, NOTIFY EOR FOR ANALYSIS OF FRAMING AND CONNECTIONS.

ROOF FRAMING KEY NOTES

DESIGNATION.

- (1) FIELD CUT EXISTING FLOOR JOISTS AT NEW OPENING AS REQUIRED. BEAR EXISTING JOISTS ON NEW SPF NO.1/NO.2 2x4 WALL FRAMING AT 16" O.C. REFER TO DETAIL 11/S810.
- 2) REDUCE CAMBER BY 1/2 AT JOISTS
- (3) FIELD LOCATE OPENING TO PROVIDE MIN OF 8" BEARING FOR NEW STEEL
- (4) NEW 1100LB RTU. NOTIFY EOR IF FINAL RTU WEIGHT IS HIGHER THAN THAT INDICATED. OPENINGS NEED TO BE COORDINATED WITH EOR.
- (5) SET RTU ON CHANNELS OR STRUCTURAL CURB THAT SPANS OVER 2 FULL 5FT WIDE CONCRETE DOUBLE "T" ROOF FRAMING.

ARCHITECTURE ENGINEERING



INTERIOR DESIGN

HSR ASSOCIATES INC. 100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844

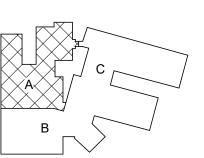
www.hsrassociates.com Consultant:

rasmith | 4001 Felland Road, Suite 108 | Madison, WI 53718-6459 | (608)467-3034 CREATIVITY BEYOND ENGINEERING rasmith.com project number: 2210166

HSR Project Number:

SEPTEMBER 2021

raSmith



KEY PLAN 💮

CONSTRUCTION **DRAWINGS**

VARIES

Last Update: 9/23/2021 11:33:00 AM

PLUMBING GENERAL INFORMATION

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE USED IN THE DRAWINGS AND MAY NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED IN THE DRAWINGS.

PIPING ABBREVIATIONS

POUNDS PER SQUARE INCH

POLYVINYL CHLORIDE

POTABLE WATER

REVERSE OSMOSIS

ROOF DRAIN

DETECTORS

RESIN PIPE

SANITARY SEWER

SILT DENSITY INDEX

SQUARE FEET

SPECIFICATION

SQUARE FEET

STANDARD

STAINLESS STEEL

STORM WATER

TRENCH DRAIN

TEMPERATURE

100,000 BTU

TRAP PRIMER

THERMOSTAT

AGRICULTURE

VENT/VOLT

SERVICE

WASTE

Managemen⁻

U.S. DEPARTMENT OF

VA CFM: VA CONSTRUCTION & FACILITIES

VA CFM VA CFM CONSULTING SUPPORT

MEDICAL CENTER

ADMINISTRATION

WATER CLOSE

WALL CLEANOUT

WATER GAUGE

WALL HYDRAN

WASTE STACK

YARD HYDRANT

WATER, OIL, GAS

VETERANS HEALTH

VARIABLE SPEED DRIVE

WASTE ANESTHESIA GAS

WATER HAMMER ARRESTOR

WATER SUPPLY FIXTURE UNITS

WATER PRESSURE DROP

VENT THROUGH ROOF

VETERANS ADMINISTRATION

VOLTAGE IN ALTERNATING

VETERANS ADMINISTRATION

WWW.CFM.VA.GOV/TIL/INDEX.ASP

TYPICAL

TOTAL DYNAMIC HEAD

TETRAFLUOROETHYLENE

THERMOPLASTIC HIGH-HEAT

RESISTANT NYLON COATED WIRE

THERMOPLASTIC HEAT & WATER

RESISTANT NYLON COATED WIRE

THERMOSTATIC MIXING VALVE

TEMPERATURE AND PRESSURE

SMACNA: SHEET METAL AND AIR

SHOWER

STORM DRAIN MANHOLE

NATIONAL ASSOCIATION

PVDF:

SQFT:

TSTAT:

USDA:

CSS:

WAGD:

POLYTETRAFLUOROETHYLENE

POLYVINYLIDENE FLUORIDE

REVOLUTIONS PER MINUTE

RESISTANCE TEMPERATURE

STANDARD CUBIC FEET PER

CONDITIONING CONTRACTORS

STERILE PROCESSING SERVICES

SAYBOLT UNIVERSAL SECOND

TEMPERATURE CONTROL VALVE

TOTALLY ENCLOSED FAN-COOLED

STEAM WORKING PRESSURE

REINFORCED THERMOSETTING

			PIPING ABBREVIATIONS
ABS:	ACRYLONITRILE BUTADIENE	GAL:	GALLON
AC:	STYRENE ALTERNATING CURRENT	GCO: GPD:	GRADE CLEANOUTS GALLONS PER DAY
AC. ACR:	AIR CONDITIONING AND	GPD: GPH:	GALLONS PER DAT GALLONS PER HOUR
A /F	REFRIGERATION	GPM:	GALLONS PER MINUTE
A/E: AFF:	ARCHITECT/ENGINEER ABOVE FINISH FLOOR	GPR: GRS:	GAS PRESSURE REGULATOR GAS REGULATOR STATION
AFG:	ABOVE FINISH GRADE	GT:	GREASE TRAP
AG: AI:	AIR GAP ANALOG INPUT	GVTR:	GAS VENT THROUGH ROOF
AISI:	AMERICAN IRON AND STEEL INSTITUTE	H&CW: HB:	HOT AND COLD WATER HOSE BIBB
AO:	ANALOG OUTPUT	HD:	HUB DRAIN
ASHRAE:	AMERICAN SOCIETY OF HEATING REFRIGERATION, AIR CONDITIONING ENGINEERS	HDPE: HEFP:	HIGH DENSITY POLYETHYLENE HEALTHCARE ENVIRONMENT AND FACILITIES PROGRAM
ASJ:	ALL SERVICE JACKET		(REPLACEMENT FOR OCAMES)
ASME:	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	HEX: HG:	HEAT EXCHANGER MERCURY
ASPE:	AMERICAN SOCIETY OF	HOA:	HANDS-OFF-AUTOMATIC
ASR:	PLUMBING ENGINEERS AUTOMATIC SPRINKLER RISER	HP: HVE:	HORSEPOWER HIGH VOLUME EVACUATION
ASK. AWG:	AMERICAN WIRE GAUGE	HW:	HOT WATER
DAGNET	DUIL DING AUTOMATION AND	HWCP:	HOT WATER CIRCULATING PUMP
BACNET:	BUILDING AUTOMATION AND CONTROL NETWORK	HWR: HYD:	HOT WATER RETURN HYDRANT
BAG:	SILVER-COPPER-ZINC BRAZING ALLOY	HZ:	HERTZ
BAS:	BUILDING AUTOMATION SYSTEM	ID:	INSIDE DIAMETER
BCUP:	SILVER-COPPER-PHOSPHORUS	IE:	INVERT ELEVATION
BF:	BRAZING ALLOY BOTTLE FILLER	INV: IPC:	INVERT INTERNATIONAL PLUMBING CODE
BFP:	REDUCED PRESSURE BACKFLOW PREVENTER	IPS:	IRON PIPE SIZE
BHP: BTU:	BRAKE HORSEPOWER BRITISH THERMAL UNIT	JS:	JANITOR'S SINK
BTU/H:	BRITISH THERMAL UNIT PER HOUR	KG:	KILOGRAM
BSG:	BOROSILICATE GLASS PIPE	KPA: KW:	KILOPASCAL KILOWATT
C:	CELSIUS	KWH:	KILOWATT HOUR
CD:	COMPACT DISK		LAVATORY
CDA:	COPPER DEVELOPMENT ASSOCIATION	L: LB:	LAVATORY POUND
CGA:	COMPRESSED GAS ASSOCIATION	LBS/HR:	POUNDS PER HOUR
CFM: CO:	CUBIC FEET PER MINUTE CLEANOUT	LNG: L/MIN:	LIQUID NATURAL GAS LITERS PER MINUTE
COR:	CONTRACTING OFFICER'S	L/S:	LITERS PER SECOND
CPVC:	REPRESENTATIVE CHLORINATED POLYVINYL	M:	METER
	CHLORIDE	MA:	MEDICAL AIR
CR: CRS:	CHLOROPRENE CORROSION RESISTANT STEEL	MAV: MAX:	MEDICAL AIR VENT MAXIMUM
CV:	CONTROL VALVE	MBH:	1000 BTU PER HOUR
CW:	COLD WATER	MER:	MECHANICAL EQUIPMENT ROOM
CXA:	COMMISSIONING AGENT	MFG: MG:	MANUFACTURER MILLIGRAM
DB: DB(A):	DECIBELS DECIBELS (A WEIGHTED)		MILLIGRAMS PER LITER
DD(A). DDC:	DIRECT DIGITAL CONTROL	MG/L: ML: MM:	MILLILITER MILLIMETER
DFU:	DRAINAGE FIXTURE UNITS	MIN:	MINIMUM
DI: DI:	DIGITAL INPUT DEIONIZED WATER	MV:	MEDICAL VACUUM
DISS:	DIAMETER INDEX SAFETY SYSTEM	N2:	NITROGEN
DN: DO:	DOWN/DIAMETER NOMINAL DIGITAL OUTPUT	N20:	NITROGEN OXIDE
DOE:	DEPARTMENT OF ENERGY	NC: NF:	NORMALLY CLOSED OIL FREE DRY (NITROGEN)
DVD: DW:	DIGITAL VIDEO DISC DISHWASHER	NG:	NATURAL GAS
DW. DWG:	DRAWING	NIC: NO:	NOT IN CONTRACT NORMALLY OPEN
DWV:	DRAINAGE, WASTE AND VENT	NOM:	NOMINAL
(E):	EXISTING	NPTF: NPS:	NATIONAL PIPE THREAD FEMALE NOMINAL PIPE SIZE
ECC:	ENGINEERING CONTROL CENTER	NPT:	NOMINAL PIPE THREAD
EL:	AKA BAS ELEVATION	NTS:	NOT TO SCALE
EPA:	ENVIRONMENTAL PROTECTION	O2:	OXYGEN
EPACT:	AGENCY ENERGY POLICY ACT	OC:	ON CENTER REPLACED BY HEFP
EPDM:	ETHYLENE PROPYLENE DIENE	OD:	OUTSIDE DIAMETER
EPT:	MONOMER ETHYLENE PROPYLENE	OR:	OPERATING ROOM
ETO:	TERPOLYMER ETHYLENE OXIDE	OSD: OS&Y: OXY:	OPEN SIGHT DRAIN OUTSIDE STEM AND YOKE OXYGEN
F:	FAHRENHEIT	PA:	PASCAL
FAR:	FEDERAL ACQUISITION REGULATIONS	PBPU:	PREFABRICATED BEDSIDE
FCO:	FLOOR CLEANOUT	PD:	PATIENT UNITS PRESSURE DROP OR DIFFERENCE
FD: FDC:	FLOOR DRAIN FIRE DEPARTMENT (HOSE)	PDI:	PLUMBING AND DRAINAGE
FDC.	CONNECTION	PG:	INSTITUTE PRESSURE GAUGE
FNPT:	FEMALE NATIONAL PIPE THREAD	PH:	POWER OF HYDROGEN
FOP: FOR:	FUEL OIL PUMP FUEL OIL RETURN	PID:	PROPORTIONAL-INTEGRAL- DIFFERENTIAL
FOS:	FUEL OIL SUPPLY	PLC:	PROGRAMMABLE LOGIC
FOV:	FUEL OIL VENT		CONTROLLERS

PIPING SYSTEM LABELS

PIPING STATENT	ADELS		
PIPING STSTEM LA	ABELO		ACCEPTABLE MANUFACTURERS: WATTS LF009, ZURN, WADE
WATER PIPING SYSTEMS:	GENERAL:	ET 4	THERMAL EXPANSION TANK, NON-ASME, REMOVABLE BLADDER, 14.8 GAL., 150 PSIG RATING
COLD WATER		<u>ET-1</u>	ACCEPTABLE MANUFACTURERS: WESSELS MODEL 12 TX
——————————————————————————————————————	— — — — TO BE DEMOLISHED ———— NEW WORK	FD-1	FLOOR DRAIN, 6" DIA, NICKEL BRONZE ADJUSTABLE TOP, CAST-IRON BODY, THREADED FLASHING COLLAR, 3" OUTLET.
—— – – — HOT WATER RETURN	EXISTING	<u> </u>	ACCEPTABLE MANUFACTURERS:ZURN Z415B, SMITH, WADE.
DRAIN, WASTE AND VENT SYSTEMS:	NOTE: (E) PRIOR TO SYSTEM TYPE DENOTES EXISTING PIPING	<u>FD-2</u>	FLOOR DRAIN, 9" DIA, ACID RESISTING EPOXY COATED CAST-IRON BODY AND ADJUSTABLE TOP, THREADED FLASHING COLLAR, 3" OUTLET.
—— SAN—— SANITARY	(E) TRIOR TO OTOTEM THE BENOTED EXISTING THE INC		ACCEPTABLE MANUFACTURERS: ZURN Z550, SMITH, WADE.
—— ST —— STORM		FCO	FLOOR CLEANOUT, ROUND, NICKEL BRONZE, ADJUSTABLE SCORIATED SECURED TOP, CAST IRON BODY AND PLUG, OUTLET SIZE SHALL MATCH PIPE SIZE. "CO" SHALL BE CAST IN TOP.
V VENT	ب ــر	~~~	ACCEPTABLE MANUEACTURERS: ZURN Z1400, SMITH, WADE:
——CWW—— CLEARWATER WASTE			GREASE INTERCEPTOR, 20 GPM FLOW RATING, 40 LBS GREASE CAPACITY PER PDI.
—— D —— DRAIN	$\wedge = \{$	<u>GI-1</u>	ACCEPTABLE MANUFACTURERS: MIFAB LIL-20, SCHIER, ROCKFORD
PD PUMPED DISCHARGE PROPANE	<u>/A02</u>	<u>GR-1</u>	GAS PRESSURE REGULATOR, 2 PSIG INLET PRESSURE, 7"-14" W.C. (1/2 PSIG) OUTLET PRESSURE. VENT EACH REGULATOR TO THE BUILDING EXTERIOR. REFER TO PLUMBING AND MECHANICAL SCHEDULES FOR CAPACITY REQUIREMENTS.
—— G —— NATURAL GAS	\ \		ACCEPTABLE MANUFACTURERS: FISHER HSR, ITRON, SENSUS, MAXITROL
DRAINS AND C	LEANOUTS	HB-1	HÓSE BIBB, INTERÍOR, VÁCUÚM BREÁKÉR, BRASS BODY, ROUGH BRASS FÍNISH, WALL CLÁMP, 3/4 MÁLÉ HOSE THREAD, ROUND METAL HANDLE OPERATOR.
FLOOR DRAIN	—⊢ CO CLEANOUT		ACCEPTABLE MANUFACTURERS: WOODFORD 24, ZURN, WADE.
O HUB DRAIN	○— FCO FLOOR CLEANOUT	<u>RD-1</u>	ROOF DRAIN, 15" DIA, COATED CAST-IRON BODY WITH MEMBRANE FLASHING CLAMP AND LOW SILHOUETTE POLY DOME, REFER TO DRAWINGS FOR OUTLET SIZE.
	WCO WALL CLEANOUT		ACCEPTABLE MANUFACTURERS: ZURN Z100, SMITH, WADE
			SECONDARY ROOF DRAIN 15" DIA COATED CAST-IRON BODY WITH MEMBRANE ELASHING CLAMP AND LOW

PIPE VALVES AND SPECIALTIES

<u></u>	BALANCING VALVE	≕ 5⊫ ——[i—	BALL VALVE BUTTERFLY VALVE
$-\!$	ISOLATION VALVE (NORMALLY OPEN)	\bigcirc	
——	ISOLATION VALVE (NORMALLY CLOSED)	<u>+</u>	PRESSURE GAUGE
— 以 —	GAS PRESSURE REGULATOR		THERMOMETER

PIPE FITTINGS

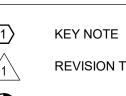
	FLANGE	с	ELBOW DOWN
	UNION		ELBOW UP
	ANCHOR		TEE DOWN
	LINE CONTINUATION BREAK		TEE UP
	FLOW ARROW		PIPE CAP
	PIPELINE STRAINER	$\overline{\qquad}$	DOUBLE WYE
Ŷ	VENT THROUGH THE ROOF	<u> </u>	WYE

GENERAL SYMBOLS

1 P1.10	
1 P1.10	

DETAIL REFERENCE TOP DESIGNATES DETAIL NUMBER DESIGNATES SHEET NUMBER SECTION REFERENCE TOP DESIGNATES SECTION NUMBER

DESIGNATES SHEET NUMBER



REVISION TAG

POINT OF CONNECTION POINT OF DISCONNECTION

WATER HAMMER ARRESTORS

FLUOROELASTOMER POLYMER

VA CONSTRUCTION & FACILITIES

FOIL-SCRIM-KRAFT FACING

MANAGEMENT, FACILITY

STANDARDS SERVICE

FLOW SWITCH

FIXTURE UNITS

NOMINAL PIPE DIAMETER IN.	NOMINAL PIPE DIAMETER MM	FIXTURE UNITS	REF. WH201 BEND STANDARD
1/2"	15	1 - 11	А
3/4"	20	12 - 32	В
1"	25	33 - 60	С
1 1/4"	32	61 - 113	D
1 1/2"	40	114 - 154	E
2"	50	155 - 330	E

BUILDING DEM	AND	139	GPM		
MINIMUM STAT	IC PRESSURE AT STREET			60	PSIG
ELEVATION DIF CRITICAL FIXTU	FERENCE BETWEEN SERVICE CONNECTION AND JRE			-4	PSIG
PRESSURE DR	OP IN 70' OF 3" PIPE			-1	PSIG
PRESSURE DR	OP OF THE FOLLOWING COMPONENTS				
	WATER SOFTENER			-15	PSIG
	WATER METER			-2	PSIG
	BACKFLOW PREVENTER			-5	PSIG
MINIMUM PRES	SSURE AT CRITICAL FIXTURE			-15	PSIG
	AVAILABLE PRESSURE			18	PSIG
DEVELOPED LE FIXTURE (630 F	ENGTH OF SYSTEM FROM SERVICE TO CRITICAL T x 1.5)	945	FT		
				1.9	PSIG/100FT

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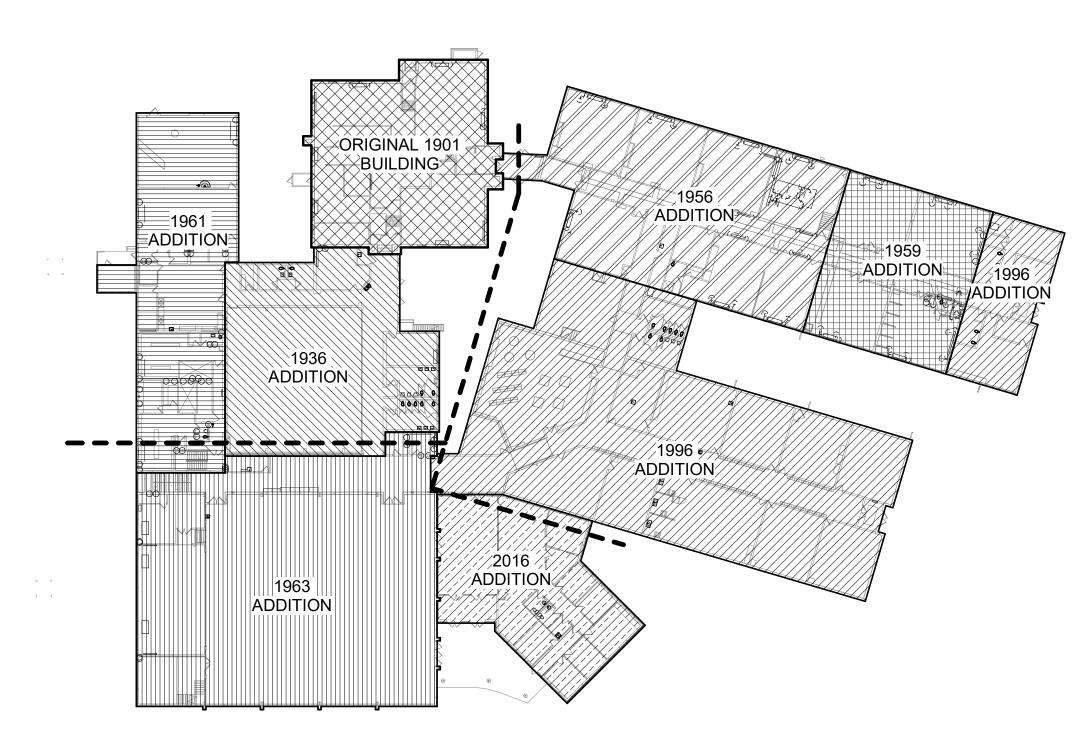
PARTS PER BILLION

PARTS PER MILLION

PRESSURE REDUCING VALVE

POUNDS PER SQUARE INCH

POUNDS PER SQUARE INCH



3 BUILDING KEY
1" = 40'-0"

PLUMBING FIXTURE SCHEDULE

WATER COOLER WITH BOTTLE FILLING STATION, SELF-CONTAINED, WALL MOUNT, BY-LEVEL. FRONT AND SIDE PUSH BUTTON. 14 GAUGE STAINLESS STEEL CABINET, ONE-PIECE HEAVY DUTY CONSTRUCTION. 8.0 GPH AT 50 DEGREE F AT 90 DEGREE AMBIENT. PROVIDE CHROME PLATED BRASS STOP, STAINLESS STEEL BRAIDED SUPPLY, DRAIN, 1-1/4" BRASS P-TRAP WITH CLEANOUT PLUG AND TAILPIECE ADA COMPLIANT, LEAD-FREE DESIGN COMPLIANT TO NSF/ANSI-61.

ACCEPTABLE MANUFACTURERS: ELKAY EMABFTL8WSSK, OASIS, HALSEY-TAYLOR EMERGENCY EYE/FACE WASH. BARRIER FREE, YELLOW IMPACT RESIST PLASTIC BOWL AND DUST COVER, 304 SS ACTIVATION PUSH HANDLE, CHROME-PLATED STAY-OPEN BALL VALVE, HEAVY GAUGE CAST ALUMINUM WALL BRACKET WITH SAFETY YELLOW COATING, 1-1/4" DRAIN, P-TRAP AND TAILPIECE.

ACCEPTABLE MANUFACTURERS: BRADLEY S19224FWPT, HAWS, ACORN ACCESSIBLE LAVATORY, WALL MOUNT VITREOUS CHINA WITH CONCEALED CARRIER ARM, 3 HOLE AT 4" CENTERS. PROVIDE CHROME PLATED BRASS SUPPLIES LOOSE KEY SUPPLIES, PERFORATED GRID DRAIN, 1-1/2" BRASS P-TRAP WITH CLEANOUT PLUG AND OFFSET TAILPIECE. PROVIDE

WALL-MOUNTED LAVATORY CARRIER SUITABLE FOR MASONRY WALL INSTALLATION. 34" RIM HEIGHT. ADA COMPLIANT.

ACCEPTABLE MANUFACTURERS: KOHLER K-2032, AMERICAN STANDARD, ELKAY. LAVATORY FAUCET, BATTERY POWERED, SENSOR FAUCTET, BELOW-DECK THERMOSTATIC MIXING VALVE, 0.5 GPM FLOW RATE. INSTALLATION SHALL BE IN COMPLIANCE WITH ADA SECTION 4.19. ACCEPTABLE MANUFACTURERS: SLOAN SF-2350, KOHLER, MOEN, DELTA, CHICAGO FAUCET.

PROVIDE PRE-MANUFACTURED TRAP AND SUPPLY INSULATION KIT. FIELD FABRICATION COVERING IS NOT ACCEPTABLE. ACCEPTABLE MANUFACTURERS: TRUEBRO "HANDI-LAV GUARD 2", MCQUIRE "PRO WRAP", BROCAR "TRAP WRAP".

JUVENILE LAVATORY, WALL MOUNT VITREOUS CHINA WITH CONCEALED CARRIER ARM, 3 HOLE AT 4" CENTERS. PROVIDE CHROME PLATED BRASS SUPPLIES LOOSE KEY SUPPLIES, PERFORATED GRID DRAIN, 1-1/2" BRASS P-TRAP WITH CLEANOUT PLUG AND OFFSET TAILPIECE. PROVIDE WALL-MOUNTED LAVATORY CARRIER SUITABLE FOR MASONRY WALL INSTALLATION. 24" MINUMUM KNEE CLEARANCE, 29" RIM HEIGHT. ADA COMPLIANT

LAVATORY FAUCET, BATTERY POWERED, SENSOR FAUCTET, BELOW-DECK THERMOSTATIC MIXING VALVE, 0.5 GPM FLOW RATE. INSTALLATION SHALL BE IN COMPLIANCE WITH ADA SECTION 4.19. ACCEPTABLE MANUFACTURERS: SLOAN SF-2350, KOHLER, MOEN, DELTA, CHICAGO FAUCET. PROVIDE PRE-MANUFACTURED TRAP AND SUPPLY INSULATION KIT. FIELD FABRICATION COVERING IS NOT ACCEPTABLE

ACCEPTABLE MANUFACTURERS: KOHLER K-2032, AMERICAN STANDARD, ELKAY.

"TRAP WRAP". MOB BASIN, MOLDED STONE, 24" X 24" X 10", WHITE, STAINLESS STEEL DRAIN, 3" OUTLET, PROVIDE MOP HANGER, HOSE AND HOSE BRACKET. PROVIDE FRP PANELS TO WALL SURFACES ABOVE MOP

INTEGRAL STOPS, PAIL HOOK, 3/4" MALE HOSE THREAD SPOUT. PROVIDE HOSE END VACUUM

ACCEPTABLE MANUFACTURERS: MUSTEE 63M, ZURN, WILLIAMS. SINK, SINGLE BOWL, 18 GA, TYPE 304 SATIN FINISH, DROP-IN, 25" x 21-1/4" x 6-1/2" BOWL, 3-1/2" DIA CENTER DRAIN. STAINLESS STEEL STRAINER BASKET WITH RUBBER SEAL, CHROME PLATED CAST BRASS TAILPIECE AND P-TRAP WITH CLEANOUT, 3/8" BRASS ANGLE STOPS WITH STAINLESS STEEL

ACCEPTABLE MANUFACTURERS: ELKAY LRAD252165, AMERICAN STANDARD, KOHLER SINK FAUCET, 8" CENTERSET DECK MOUNT FAUCET WITH 8" GOOSENECK RIGID SPOUT, 4" WRISTBLADE HANDLES, CHROME-PLATED CONSTRUCTION. NSF 61 & 372.

SINK, DOUBLE BOWL, 18 GA, TYPE 304 SATIN FINISH; DROP-IN, 31-1/2" x 21-1/4" x 7-7/8" DEEP BOWLS. 3-1/2" DIA CENTER DRAINS, STAINLESS STEEL STRAINER BASKETS WITH RUBBER SEAL,CHROME PLATED CAST BRASS TAILPIECES AND P-TRAPS WITH CLEANOUTS, 3/8" BRASS ANGLE STOPS WITH

ACCEPTABLE MANUFACTURERS: ELKAY LR3321, AMERICAN STANDARD, KOHLER SINK FAUCET, 8" CENTERSET DECK MOUNT FAUCET WITH 8" GOOSENECK SWING SPOUT, 4" WRISTBLADE HANDLES, CHROME-PLATED CONSTRUCTION. NSF 61 & 372.

SCULLERY SINK, THREE COMPARTMENT, 18 GA, TYPE 304 SATIN FINISH, 90" x 23-13/16" x 43-3/4", 18" x DRAINS, STAINLESS STEEL STRAINER BASKETS WITH RUBBER SEAL,CHROME PLATED CAST BRASS

ACCEPTABLE MANUFACTURERS: ELKAY S3C18X18-2-18X, AMERICAN STANDARD, KOHLER SINK FAUCET, 8" CENTERSET BACKSPLASH MOUNTED FAUCET, 21" DOUBLE-JOINTED SWING SPOUT

CLASSROOM SINK, SINGLE BOWL, 18 GA, TYPE 304 SATIN FINISH, DROP-IN, 25" x 19-1/2" x 6-1/2" BOWL, 3-1/2" DIA CENTER DRAIN. STAINLESS STEEL GRID STRAINER, CHROME PLATED CAST BRASS TAILPIECE AND P-TRAP WITH CLEANOUT, 3/8" BRASS ANGLE STOPS WITH STAINLESS STEEL BRAIDED

WRISTBLADE HANDLES, CHROME-PLATED CONSTRUCTION. NSF 61 & 372. ADA COMPLIANT. 3. COORDINATE ALL WORK WITH OTHER TRADES TO AVOID INTERFERENCE ACCEPTABLE MANUFACTURERS: ELKAY LKD2439C, CHICAGO FAUCETS, KOHLER, T&S BRASS 4. PROVIDE ACCESS PANELS FOR ALL ITEMS UNDER THIS SECTION REQUIRING

SERVICING, INSPECTION, MAINTENANCE AND ADJUSTMENT. 5. OMISSIONS: IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS TO PROVIDE A COMPLETE INSTALLATION. SHOULD THERE BE OMISSIONS, THE BRASS TAILPIECE AND P-TRAP WITH CLEANOUT, 3/8" BRASS ANGLE STOPS WITH STAINLESS STEEL CONTRACTOR SHALL CALL THE ATTENTION OF THE A / E TO SUCH BRAIDED SUPPLIES.

7. ADDITIONAL WORK: THE DESIGN IS BASED ON EQUIPMENT AS DESCRIBED IN THE DRAWINGS. ANY CHANGE IN ELECTRICAL, WIRING, CONDUIT, CONNECTIONS, PIPING, CONTROLS, AND OPENINGS REQUIRED BY ALTERNATE EQUIPMENT SPECIFIED AND SUBMITTED AND APPROVED SHALL BE PAID FOR BY THIS CONTRACTOR.

6. THE INSTALLATION SHALL CONFORM TO THE LATEST APPLICABLE INDUSTRY

STANDARDS UNLESS SPECIFICALLY NOTED OTHERWISE.

PLUMBING SPECIALTIES SCHEDULE

ACCEPTABLE MANUFACTURERS: ZURN Z100, SMITH, WADE

ACCEPTABLE MANUFACTURERS: ZURN Z100, SMITH, WADE

WALL CLAMP, 3/4" MALE HOSE THREAD, LOOSE-KEY OPERATOR.

ACCEPTABLE MANUFACTURERS: WOODFORD 65, ZURN, WADE.

ACCEPTABLE MANUFACTURERS: ZURN Z1446, SMITH, WADE.

ACCEPTABLE MANUFACTURERS: WEIL, LIBERTY, ZOELLER

OVERLOAD AND PUMP RUN. INCLUDE 30" x 30" x 24" DEEP SUMP

APPLICABLE REGULATIONS FOR THE PROJECT.

ACCEPTABLE MANUFACTURERS: WEIL, LIBERTY, ZOELLER

ACCEPTABLE MANUFACTURERS: QUINCY MODEL QP -7.5 PRO AIR, KAISER.

ACCEPTABLE MANUFACTURERS: AO SMITH ATI-340H, STATE, BRADLEY-WHITE

COVER PLATE AND CENTER SCREW INTO PLUG.

3/4" TANK OUTLET, VERTICAL TANK ARRANGEMENT.

SUMP, 48" DEEP WITH SEALED LID.

GENERAL NOTES

AND DELAYS.

REQUIRED FOR THIS WORK.

ACCESS TO INTERNALS.

FOR INLET SIZE.

3/4" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER, ASSE® LISTED 1013, EPOXY COATED CAST

SILHOUETTE POLY DOME, 2" INTERNAL WATER DAM, REFER TO DRAWINGS FOR OUTLET SIZE.

SECONDARY ROOF DRAIN, 15" DIA, COATED CAST-IRON BODY WITH MEMBRANE FLASHING CLAMP AND LOW

DOWNSPOUT NOZZLE, NICKEL BRONZE BODY, WALL FLANGE AND OUTLET NOZZLE, REFER TO DRAWINGS

WALL HYDRANT, FREEZELESS, AUTODRAINING, VACUUM BREAKER, BRASS BODY, CHROME PLATED FACE,

WALL CLEANOUT, BODY AND PLUG SHALL BE OF SAME MATERIAL AS PIPE WITH ROUND STAINLESS STEEL

PLUMBING EQUIPMENT SCHEDULE

CIRCULATING PUMP. 2 GPM @ 10' OF HEAD, 0, 1 HP, 115 V, 0.55 AMPS WITH 3-0" POWER CORD.

ACCEPTABLE MANUFACTURERS: GRUNDFOS ALPHA1 25-60 130, BELL & GOSSETT

GPM, SPARK IGNITION SYSTEM, MICROPROCESSOR CONTROLS, 115 VOLT / 1 PH POWER.

AIR COMPRESSOR, PRESSURE LUBRICATED TWO-STAGE, 460 VOLT / 3 PHASE, 1.5 HP, SOLID CAST IRON

BELT DRIVEN PUMP, MAGNETIC STARTER, 80 GALLON STORAGE, OIL SIGHT GLASS, 175 PSI MIN, 22.5 CFM,

GAS-FIRED WATER HEATER, TANKLESS STYLE, 180 MBH INPUT, HIGH-EFFICIENCY CONDENSING, 8.0 MAX.

SEWAGE EJECTOR, DUPLEX, TWO SUBMERSIBLE GRINDER 1 HP PUMPS WITH 56 GPM CAPCITY AT 10 FEET

OF HEAD, 2" PUMP OUTLET, 460 VOLT/ 3-PHASE 1750 RPM MOTORS, AIR FILLED HERMETICALLY SEALED

STAINLESS STEEL SHAFT, CAST IRON MOTOR SHELL, CLASS F INSULATION, 20 FT LONG POWER CABLE,

MINIMUM LEVEL FLOAT, LEAD PUMP FLOAT, LAG PUMP FLOAT AND ALARM LEVEL FLOAT. 36" DIAMETER

SUMP PUMP, SIMPLEX, 30 GPM @ 15 FT. HEAD, 115 VOLTS, 2.3 FLA, 4.1 LRA, 2 POLE, 3450 RPM, OIL-MINDER (

SYSTEM WITH NEMA 4X WATERTIGHT ENCLOSURE, STAINLESS STEEL SENSOR PROBES, SINGLE DIRECT

PLUG-IN POWER. EQUIPPED WITH LEVEL SENSORS/FLOATS TO INCLUDE LOW LEVEL CUT OFF AND HIGH

AND HIGH AMPERAGE CONDITIONS, LED INDICATOR LIGHTS FOR OIL SPILL, POWER, HIGH LIQUID LEVEL,

1. CONFORM TO ALL REQUIREMENTS OF THE CURRENT CODES AND OTHER

2. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS PRIOR TO BID AND

LEVEL ALARM. SOLID STATE PANEL COMPLETE WITH REMOTE MONITORING CIRCUIT FOR OIL, HIGH LIQUID.

SEALED LID WITH GASKET, REMOTE CONTROL / ANNUNCIATOR PANEL, PUMPS SHALL BE CONTROLLED BY

IRON BODY, 1/4 TURN BALL VALVES AND INDIRECT WASTE FITTING. TOP ENTRY ACCESS COVER FOR

8. PRODUCT DELIVERY, STORAGE AND HANDLING: FURNISH NEW FIXTURES, MATERIALS AND ACCESSORIES BEARING THE MANUFACTURER'S IDENTIFICATION. COORDINATE DELIVERIES TO AVOID INTERFERENCE OF CONSTRUCTION AND DELAYS. PROTECT PRODUCTS DURING DELIVERY, STORAGE, INSTALLATION, AND THE REMAINDER OF THE CONSTRUCTION PERIOD AFTER INSTALLATION.

PREPARATION: VISIT THE WORK SITE AND BECOME FULLY AWARE OF ALL EXISTING CONDITIONS. INVESTIGATE THE CONTRACT DOCUMENTS AND MAKE PROPER PROVISIONS TO AVOID INTERFERENCE OR CONSTRUCTION DELAYS. FURNISH OTHER TRADES WITH INFORMATION TO PROPERLY LOCATE AND SIZE OPENINGS IN THE STRUCTURE REQUIRED FOR THIS WORK. FURNISH ANCHOR BOLTS, SLEEVES, INSERTS AND SUPPORT

10. INSTALLATION: PERFORM WORK USING PERSONNEL SKILLED IN THE TRADE INVOLVED. PROVIDE COMPETENT SUPERVISION. FURNISH NEW MATERIALS, AND ACCESSORIES BEARING THE MANUFACTURER'S IDENTIFICATION, AND CONFORMING TO THE RECOGNIZED COMMERCIAL STANDARDS.

11. FIELD QUALITY CONTROL: TEST SYSTEMS IN ACCORDANCE WITH APPLICABLE STANDARDS. CODES AND MANUFACTURER'S RECOMMENDATIONS. PERFORM TESTS IN THE PRESENCE OF GOVERNMENT

12. CLEANING AND ADJUSTING: AT THE COMPLETION OF THE WORK, ALL PARTS OF THE INSTALLATION SHALL BE THOROUGHLY CLEANED. PIPE, VALVES, AND FITTINGS SHALL BE CLEANSED OF GREASE, METAL CUTTINGS, AND SLUDGE THAT MAY HAVE ACCUMULATED BY OPERATION OF THE SYSTEM FOR TESTING ANY STOPPAGE OR DISCOLORATION OR OTHER DAMAGE TO PARTS OF THE BUILDING, ITS FINISH, OR FURNISHINGS. FAILURE TO PROPERLY CLEAN THE PIPING SYSTEM DUE TO THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER.

ACCEPTABLE MANUFACTURERS: TRUEBRO "HANDI-LAV GUARD 2", MCQUIRE "PRO WRAP", BROCAR

BASIN. PROVIDE STAINLESS STEEL BUMPERGUARDS ON EXPOSED SIDES. SERVICE FAUCET, TWO HANDLE MIXING FAUCET, CHROME PLATED, INTEGRAL VACUMM BREAKER,

BRAIDED SUPPLIES.

ACCEPTABLE MANUFACTURERS: CHICAGO FAUCETS 1100-GN8AE3-317AB, ELKAY, KOHLER, T&S

STAINLESS STEEL BRAIDED SUPPLIES.

ACCEPTABLE MANUFACTURERS: CHICAGO FAUCETS 1100-GN8AE3-317AB, ELKAY, KOHLER, T&S

18" x 14" BOWLS, 18" DRAINBOARDS ON BOTH SIDES, STAINLESS STEEL LEGS, 3-1/2" DIA CENTER TAILPIECES AND P-TRAPS WITH CLEANOUTS, 3/8" BRASS ANGLE STOPS WITH STAINLESS STEEL BRAIDED SUPPLIES. PROVIDE ADDITIONAL SUPPORT BEHIND BACKSPLASH TO ENSURE RIGID FAUCET INSTALLATION.

WITH 5-1/4" GOOSENECK SPOUT, 2-3/8" HANDLES, CHROME-PLATED CONSTRUCTION. NSF 61 & 372,

ACCEPTABLE MANUFACTURERS: CHICAGO FAUCETS 445-DJ21ABCP, ELKAY, AMERICAN STANDARD,

ACCEPTABLE MANUFACTURERS: ELKAY DRKAD22265, AMERICAN STANDARD, KOHLER SINK FAUCET, 8" CENTERSET DECK MOUNT FAUCET WITH 7" GOOSENECK RIGID SPOUT, 2-5/8"

BUBBLER, CHROME-PLATED BRASS, PUSH-BUTTON, FLEXIBLE ANTI-MICROBIAL MOUITH GUARD. ADA ACCEPTABLE MANUFACTURERS: ELKAY LK1141A, KOHLER, CHICAGO FAUCETS, T&S BRASS SINK, SINGLE BOWL, 18 GA, TYPE 304 SATIN FINISH, DROP-IN, 25" x 21-1/4" x 10-1/8" BOWL, 3-1/2" DIA CENTER DRAIN. STAINLESS STEEL STRAINER BASKET WITH RUBBER SEAL,CHROME PLATED CAST

SK-5 ACCEPTABLE MANUFACTURERS: ELKAY DLR252110, AMERICAN STANDARD, KOHLER SINK FAUCET, 8" CENTERSET DECK MOUNT FAUCET WITH 8" GOOSENECK SWING SPOUT, 4" WRISTBLADE HANDLES, CHROME-PLATED CONSTRUCTION. NSF 61 & 372.

ACCEPTABLE MANUFACTURERS: CHICAGO FAUCETS 1100-GN8AE3-317AB, KOHLER, T&S BRASS SERVICE SINK, MOLDED STONE, 20" X 24" X 14 3/8" DEEP, WALL HUNG, WALL BRACKET. MOUNT AT 34"

ACCEPTABLE MANUFACTURERS: MUSTEE 18W, FIAT, WILLIAMS, ZURN. ACCESSIBLE HEIGHT WATER CLOSET, WALL MOUNTED WITH CARRIER, FLUSH-VALVE TYPE, WHITE VITREOUS CHINA, 1-1/2" TOP INLET, ELONGATED BOWL, 17"-19" SEAT HEIGHT, 2-1/8" TRAP PASSAGEWAY, SIPHON JET FLUSH ACTION, ADA COMPLIANT.

2-HANDLE FAUCET, P-TRAP, ANGLE STOPS, BRAIDED STAINLESS STEEL SUPPLIES.

FLUSH VALVE, SENSOR ACTIVATED, BATTERY POWERED, POLISHED CHROME PLATED, WALL AND SPUD ESCUTCHEON, 1.6 GPF, ADA COMPLIANT. ACCEPTABLE MANUFACTURERS: SLOAN G2 8111-1.6, AMERICAN STANDARD, KOHLER, TOTO SEAT, EXTRA HEAVY, OPEN FRONT, SOLID ANTI-MICROBIAL PLASTIC, WHITE SELF-SUSTAINING

ACCEPTABLE MANUFACTURERS: KOHLER K-4325, AMERICAN STANDARD, CRANE, TOTO

CHECK HINGE, AND STAINLESS STEEL POSTS AND NUTS. ACCEPTABLE MANUFACTURERS: BEMIS, AMERICAN STANDARD, KOHLER JUVENILE WATER CLOSET, FLOOR-MOUNTED, FLUSH-VALVE TYPE, WHITE VITREOUS CHINA, 1-1/2" TOP INLET, ELONGATED BOWL, 13-3/4" RIM HEIGHT, 2-1/8" TRAP PASSAGEWAY, SIPHON JET FLUSH ACTION, ADA COMPLIANT.

ACCEPTABLE MANUFACTURERS: KOHLER K-96059-SS, AMERICAN STANDARD, CRANE, TOTO FLUSH VALVE, SENSOR ACTIVATED, BATTERY POWERED, POLISHED CHROME PLATED, WALL AND SPUD ESCUTCHEON, 1.6 GPF, ADA COMPLIANT.

ACCEPTABLE MANUFACTURERS: SLOAN G2 8111-1.6. AMERICAN STANDARD, KOHLER, TOTO SEAT, EXTRA HEAVY, OPEN FRONT, SOLID ANTI-MICROBIAL PLASTIC, WHITE SELF-SUSTAINING CHECK HINGE, AND STAINLESS STEEL POSTS AND NUTS.

ACCEPTABLE MANUFACTURERS: BEMIS, AMERICAN STANDARD, KOHLER WASH FOUNTAIN, SEMI-CIRCULAR, 14 GA #4 POLISHED STAINLESS STEEL, SINGLE COMPARTMENT,

54" X 9" DEEP WITH BACKSPLASH, 28" RIM HEIGHT, SINGLE SPRAYHEAD OPERATION, AIR VALVE HAND CONTROLS, WALL-OUTLET, THERMOSTATIC MIXING VALVE, NO SOAP DISPENSER.

ACCEPTABLE MANUFACTURERS: BRADLEY WF2704, HAWS, ACORN

INTERIOR DESIGN

HSR ASSOCIATES INC 100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844

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PROJECT NUMBER: 2021082

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Project Date:

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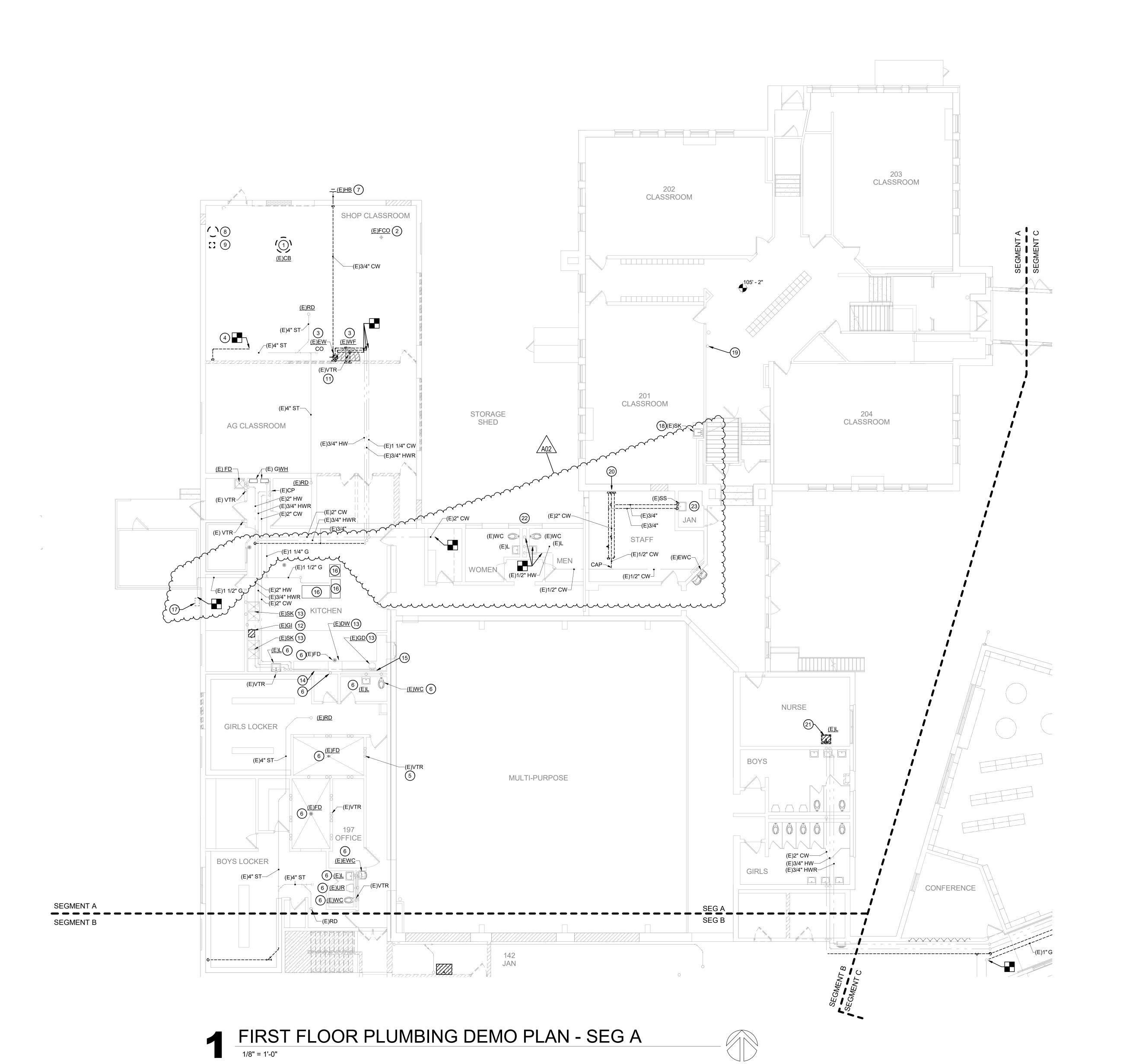
Key Plan:

BID DOCUMENTS

Revisions: Description A01 ADD1 A02 ADD2 9.23.21

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Graphic Scale:



GENERAL NOTES: PLUMBING

1. EXISTING CONDITIONS ARE BASED ON EXISTING DRAWINGS AND FIELD SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND REPORT

PLUMBING DEMOLITION PLAN KEYNOTES

- 1. REMOVE CATCH BASIN. REFER TO SHEET P090 FOR DETAILS.
- 2. EXISTING FLOOR CLEANOUT TO E ABANDONED IN PLACE.
- 3. REMOVE PLUMBING FIXTURE AND ASSOCIATED PIPING.
- 4. REMOVE ST PIPING FROM POINT NOTED DOWN TO BELOW FLOOR.
- 5. REMOVE ST PIPING FROM POINT NOTED DOWN TO LOWER LEVEL.
- 6. EXISTING PLUMBING FIXTURE / EQUIPMENT / FLOOR DRAINS TO REMAIN. REFER TO SHEET P090 FOR PIPING REPLACEMENT.
- 7. REMOVE WALL HYDRANT AND ASSOCIATED PIPING REMOVE ABANDONED UNDERFLOOR PIPING CONNECTION BELOW FLOOR. G.C. TO PATCH FLOOR.
- 8. REMOVE EXISTING AIR COMPRESSOR AND ALL CONNECTED PIPING IN SPACE. TURN COMPRESSOR OVER TO OWNER.
- 9. REMOVE COMPRESSED AIR HOSE REEL AND TURN OVER TO OWNER.
- 10. EXISTING PLUMBING FIXTURE TO REMAIN.
- 11. EXISTING VTR TO REMAIN FOR NEW CONNECTION.
- 12. REMOVE EXISTING GREASE INTERCEPTOR FOR REPLACEMENT. 13. EXISTING PLUMBING FIXTURE/EQUIPMENT AND ASSOCIATED PIPING TO
- 14. EXISTING 2" CW, 3/4" HWR, 2" HW TO REMAIN.
- 15. EXISTING 2" CW, 3/4" HWR, 2" HW DN TO FLOOR BELOW TO REMAIN.
- 16. EXISTING COOKING EQUIPMENT AND ASSOCIATED GAS PIPING CONNECTIONS
- 17. UTILITY TO REMOVE GAS METER SET. P.C. TO REMOVE PIPING SERVING BUILDING (AFTER METER) TO POINT SHOWN.
- 18. EXISTING PLUMBING FIXTURE TO REMAIN. REMOVE CW/HW PIPING FOR
- REPLACEMENT. 19. REMOVE CW PIPING COMPLETE.
- 20. REMOVE 2" CW, 2" HW, 3/4" HWR DN. REFER TO SHEET P090 FOR CONTINUATION.
- 21. REMOVE EXISTING PLUMBING FIXTURE. EXISTING ROUGH IN PIPING TO BE MODIFIED TO ACCOMMODATE NEW FIXTURE. 22. EXISTING CW PIPING SERVING WATER CLOSETS TO REMAIN FOR NEW
- 23. REMOVE EXISTING SERVICE SINGK AND ASSOCIATATED PIPING FOR REPLACEMENT. EXSTING SAN/V PIPING CONNECT TO BE MODIFIED AS REQUIRED FOR NEW FIXTURE.



ARCHITECTURE

ENGINEERING

INTERIOR DESIGN



HSR ASSOCIATES INC. 100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844

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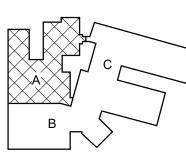


PROJECT NUMBER: 2021082

HSR Project Number:

SEPTEMBER 2021

OTIE Key Plan:



KEY PLAN 🚯

BID DOCUMENTS

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ARCHITECTURE

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INTERIOR DESIGN

HSR ASSOCIATES INC.
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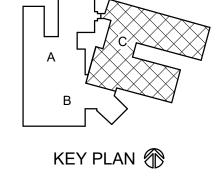
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PROJECT NUMBER: 2021082

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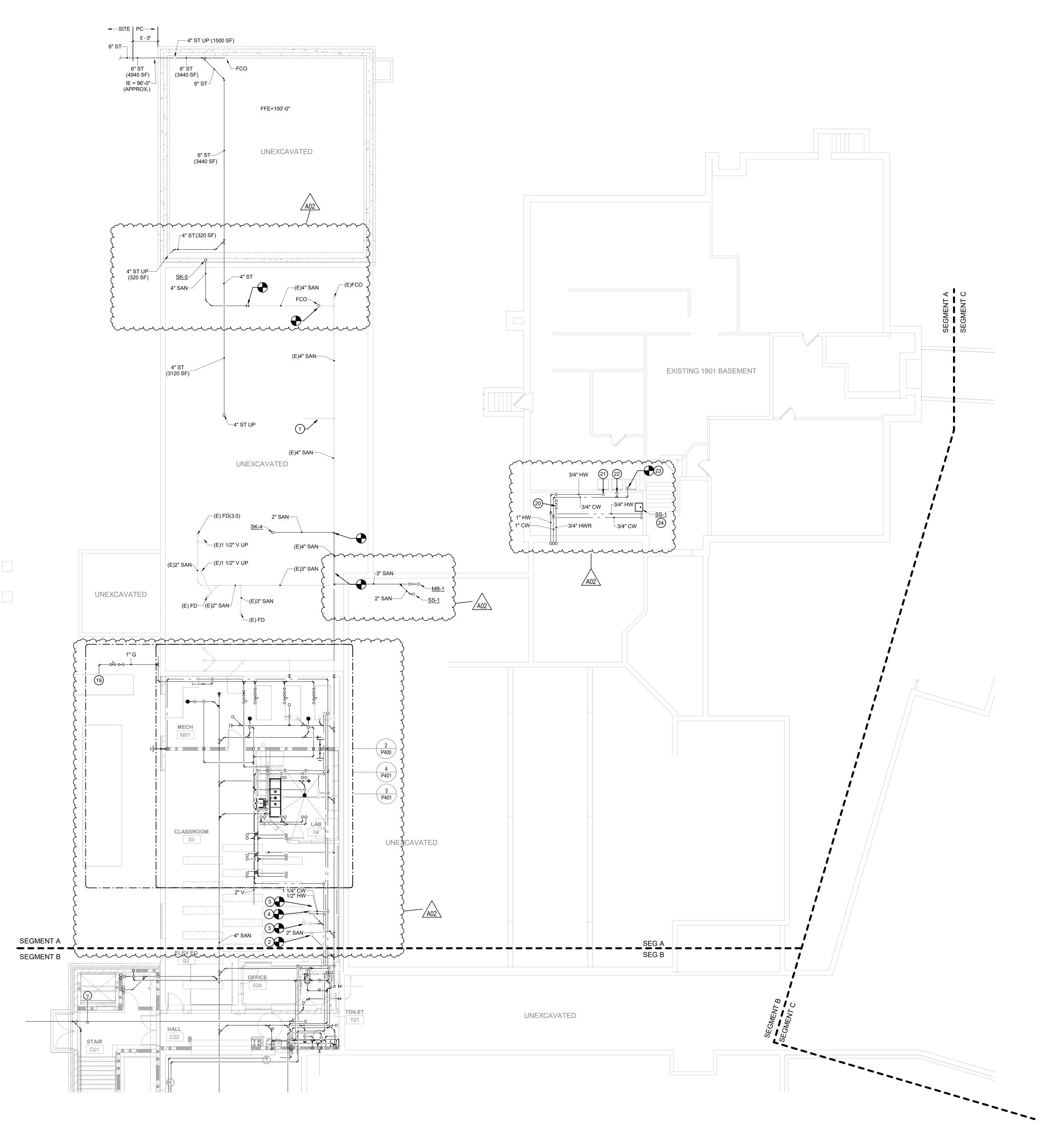
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GENERAL NOTES: PLUMBING

DRINKING FOUNTAIN ABOVE.

EXISTING CONDITIONS ARE BASED ON EXISTING DRAWINGS AND FIELD SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND REPORT

PLUMBING PLAN KEYNOTES

. EXISTING SAN BELOW FLOOR ABANDONED IN PLACE

NEW 4" SAN CONNECTION TO EXISTING PIPE UP SERVING WATER CLOSET

NEW 2" SAN CONNECTION TO EXISTING PIPE SERVING URINAL ABOVE. NEW 2" SAN CONNECTION TO EXISTING PIPE SERVING LAVATORY AND

NEW 1 1/4" CW AND 1/2" HW CONNECTION TO EXISTING PIPING SERVING FIXTURES ABOVE.

NEW 1 1/2" SAN CONNECTION TO EXISTING PIPING SERVING LAVATORY

NEW 2" SAN TRAP AND CONNECTION TO EXISTING FLOOR DRAIN.

B. NEW 1 1/2" V CONNECTION TO EXISTING PIPE UP.

9. NEW 2" SAN CONNECTION TO EXISTING PIPING SERVING FIXTURES ABOVE.

10. NEW 4" SAN CONNECTION TO EXISTING WATER CLOSET ABOVE.

11. NEW 3" TRAP AND CONNECTION TO EXISTING FLOOR DRAIN ABOVE. 12. EXTEND 3/4" CW TO HEARTING SYSTEM AND CHILLED WATER SYSTEM FEEDER UNITS.

13. NEW 2" CW, 2" HW, AND 3/4" HWR CONNECTIONS TO EXISTING PIPING UP. 14. NEW 3/4" CW AND 3/4" HW CONNECTION TO EXISTING PIPING UP SERVING

15. 1" CW AND 1" HW DOWN TO SERVE BOTH SINKS. 1/2" CW, 1/2" HW TO SK-1 AND

3/4" CW AND 3/4" HW TO SK-3.

16. 2 1/2" G (2PSIG) UP TO ROOF. SEE SHEET P105 FOR CONTINUATION. 17. 1" G TO MAIN.

18. 1 1/2" G DN TO BOILER GAS TRAIN.

- 19. 3/4" G DN SURFACE MOUNTED TO GAS CORK. INSTALLED APPLIANCE

20. SET BALANCE VALVE TO 0.5 GPM 6PM

21. 3/4" HW DOWN TO (2) <u>HB-1</u>. CONNECT EXISTING CLOTHES WASHER HOSES.

22. 3/4" CW DOWN TO (2) <u>HB-1</u>. CONNECT EXISTING CLOTHES WASHER HOSES. 23. NEW 1/2" CW TO EXISTING PIPING SERVING ICE MACHINE.

24. NEW SS-1. EXTEND 3/4" CW, 3/4" HW SURFACE MOUNTED TO FIXTURE. MODIFY EXISTING SAN ROUGH-IN TO ACCOMMODATE.

ARCHITECTURE INTERIOR DESIGN



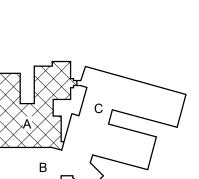
HSR ASSOCIATES INC. 100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844

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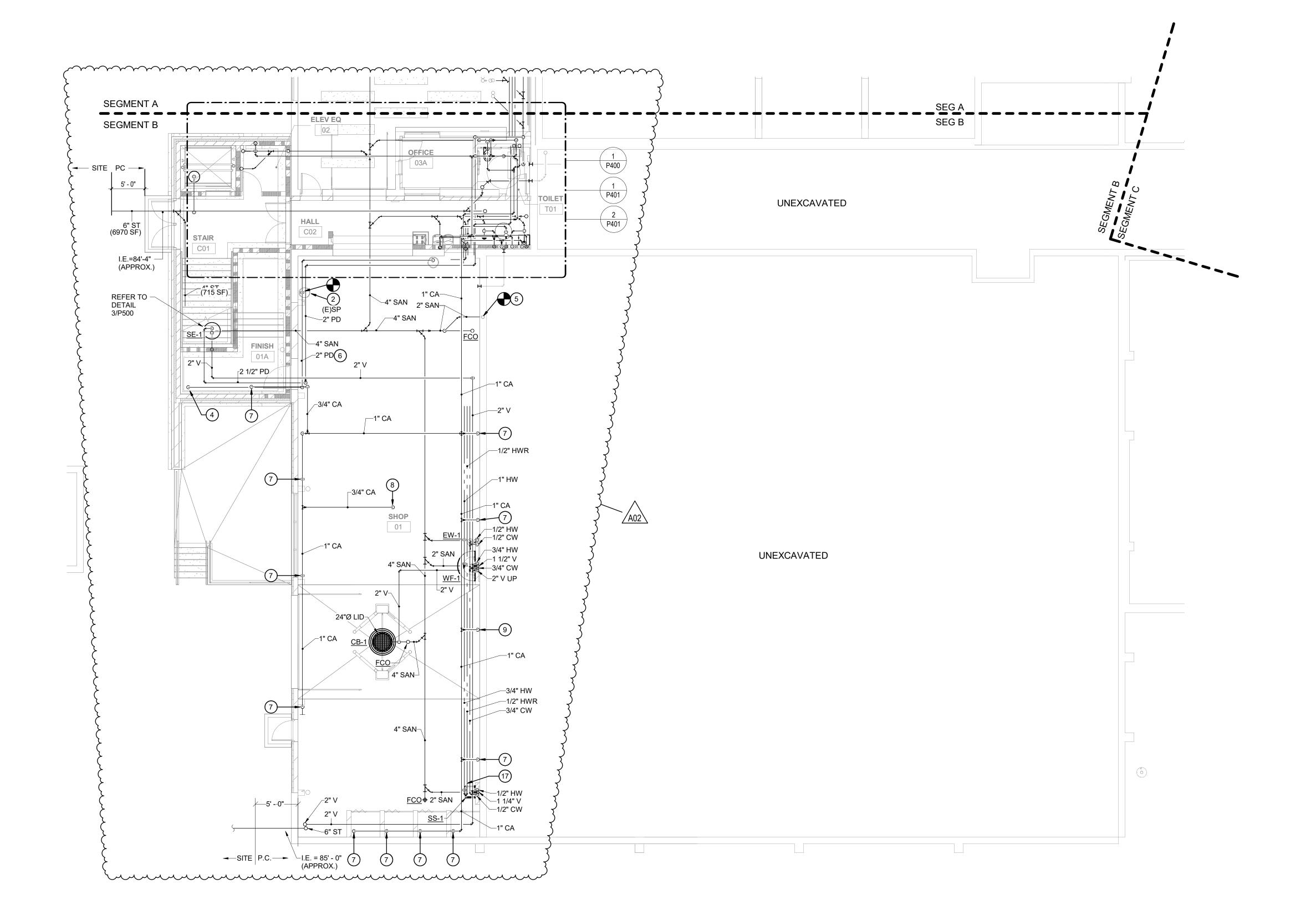
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KEY PLAN 🛞

BID DOCUMENTS

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LOWER LEVEL PLUMBING PLAN - SEG B

1/8" = 1'-0"



GENERAL NOTES: PLUMBING

 EXISTING CONDITIONS ARE BASED ON EXISTING DRAWINGS AND FIELD SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND REPORT ISSUES TO A/E.

PLUMBING PLAN KEYNOTES

- 1. 1" G (2PSIG) UP TO ROOF. REFER TO SHEET P106 FOR CONTINUATION.
- 2. EXISTING FOUNDATION DRAINAGE SUMP/PUMP. EXTEND NEW 2" PD PUMP FROM EXISTING PUMP TO POINT SHOWN REFER TO DETAIL 3/P500.
- 3. 4" ST UP IN SHAFT ABOVE.
- 4. 4' ST UP IN NEW STAIR TO ROOF.
- 5. NEW 2" SAN CONNECTION TO EXISTING SAN PIPE UP SERVING EXISTING WATER COOLER IN GYM.
- 6. INSTALL NEW 2" PD AS HIGH AS POSSIBLE.
- 7. 1/2" CA DOWN TO QUICK DISCONNECT FITTING. VERIFY LOCATION WITH
- OWNER.
- 8. PROVIDE NEW HOSE REEL WITH 30'-0" HOSE.9. INSTALL EXISTING HOSE REEL REMOVED FROM EXISTING AUTO SHOP.
- 10. EXISTING 6" ST UP.
- 11. 3" SAN UP TO MOP BASIN.
- 12. 2" SAN UP TO SERVICE SINK.
- 13. 1 1/2" V UP.
- 14. PIPING TO BE INSTALLED ABOVE RATED CEILING.
- 15. 1 1/2" V DN AND 2" V UP.16. 3/4" CW, 3/4" HW UP TO SERVE MB AND SS ABOVE PIPING TO BE ROUTED
- ABOVE RATED CEILING.

 17. SET BALANCE VALVE TO 0.5 6 GPM.
- 18. NEW 1/2" CW CONNECTION TO EXISTING PIPING SERVING DRINKING FOUNTAIN IN GYM.







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Consultant:

ONEIDA

Total Integrated
Enterprises

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PROJECT NUMBER : 2021082

ADAMS STREET
E, WISCONSIN
R L EVEL PLUMBIN

Project Locatio

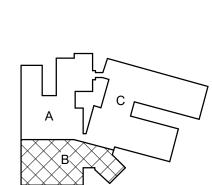
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Project Date:

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KEY PLAN

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Revisions:

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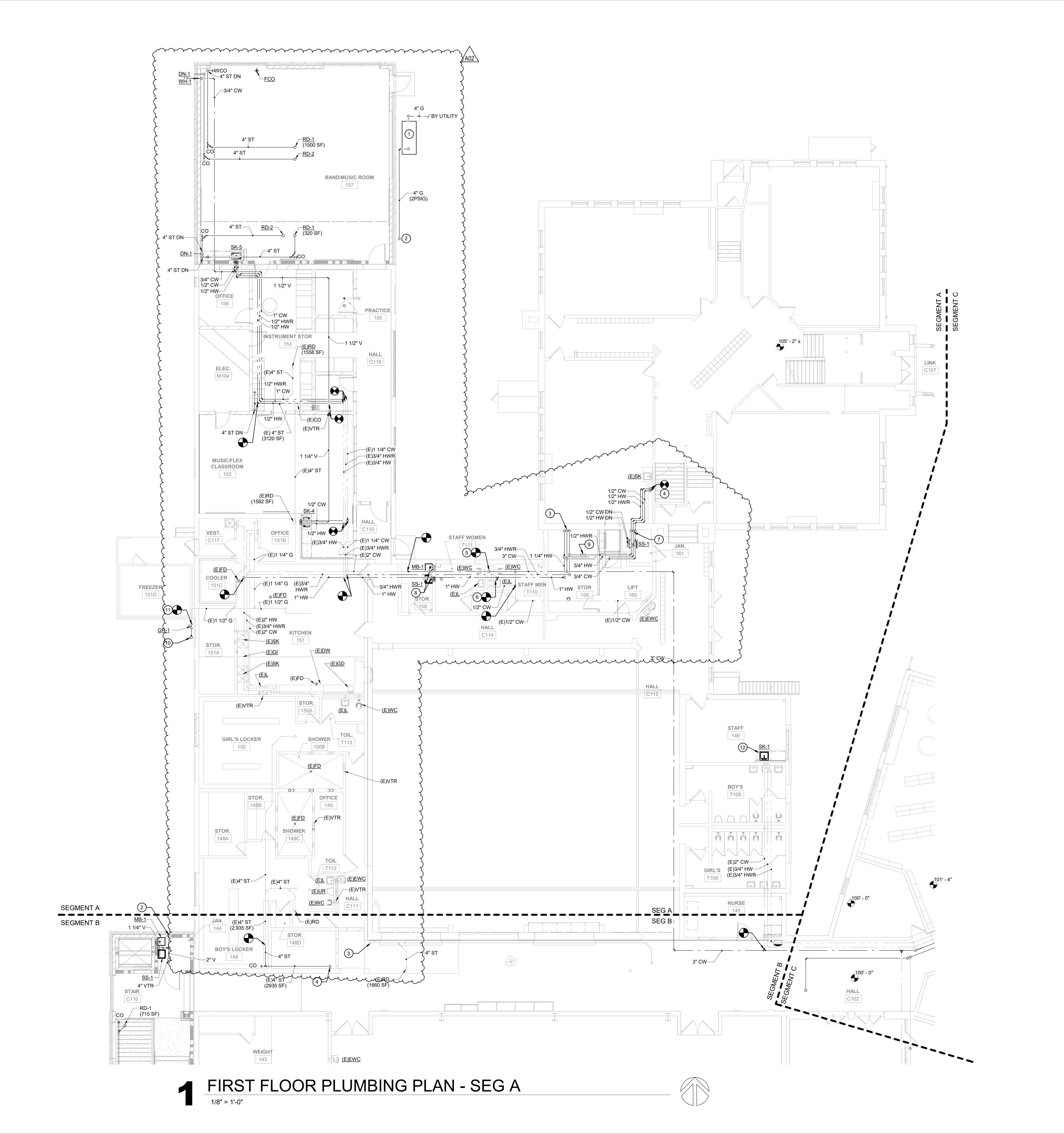
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0' 4' 8' 16' 24'

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P101



GENERAL NOTES: PLUMBING

1. EXISTING CONDITIONS ARE BASED ON EXISTING DRAWINGS AND FIELD SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND REPORT

NEW GAS SERVICE. 9,650 CFH WITH 2 PSIG DISCHARGE PRESSURE SERVICE

METER, REGULATOR AND PIPING UPSTREAM OF THE METER SET IS BY THE

2. 4" G (2 PSIG) UP TO THE ROOF. REFER TO SHEET P105 FOR CONTINUATION.

3. 1" CW, 1" HW, AND 3/4" HWR PIPING DOWN TO SERVE FIXTURE IN THE 1901

5. NEW 1 1/4" CW CONNECTION TO EXISTING PIPING SERVING THE EXISTING

6. NEW 1/2" HW CONNECTION TO PIPING SERVING THE EXISTING LAVATORIES.

7. 1/2" CW, 1/2" HW, 1/2" HWR DOWN TO SERVE EXISTING SINK IN CLASSROOM.

8. 3/4" CW, 3/4" HW DN TO SERVE NEW MB AND SS. PIPING SHALL BE EXPOSED IN

11. NEW 1 1/2" G (2 PSIG) CONNECTION TO EXISTING G PIPE SERVING KITCHEN. INSTALL GR-1 TO CUT PRESSURE TO 1/2 PSIG. CONNECTED LOAD IS 1168 CFH.

www.www.www

12. NEW SINK. MODIFY EXISTING ROUGH-INS TO ACCOMMODATE.

BLDG BASEMENT. REFER TO SHEET P100 FOR CONTINUATION.

4. 1/2" NEW CW, 1/2" HW CONNECTIONS TO EXISTING SINK ROUGH-IN.

WATER CLOSETS.

9. SET BALANCE VALVE AT 0.5 GPM.

10. 2 1/2" (2 PSIG) G UP AND DN.



ARCHITECTURE

ENGINEERING

INTERIOR DESIGN

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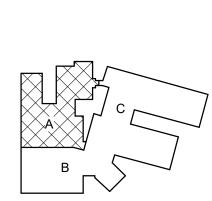
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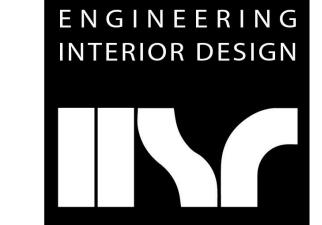
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KEY PLAN 💮

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ARCHITECTURE

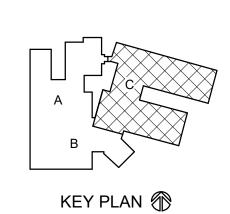
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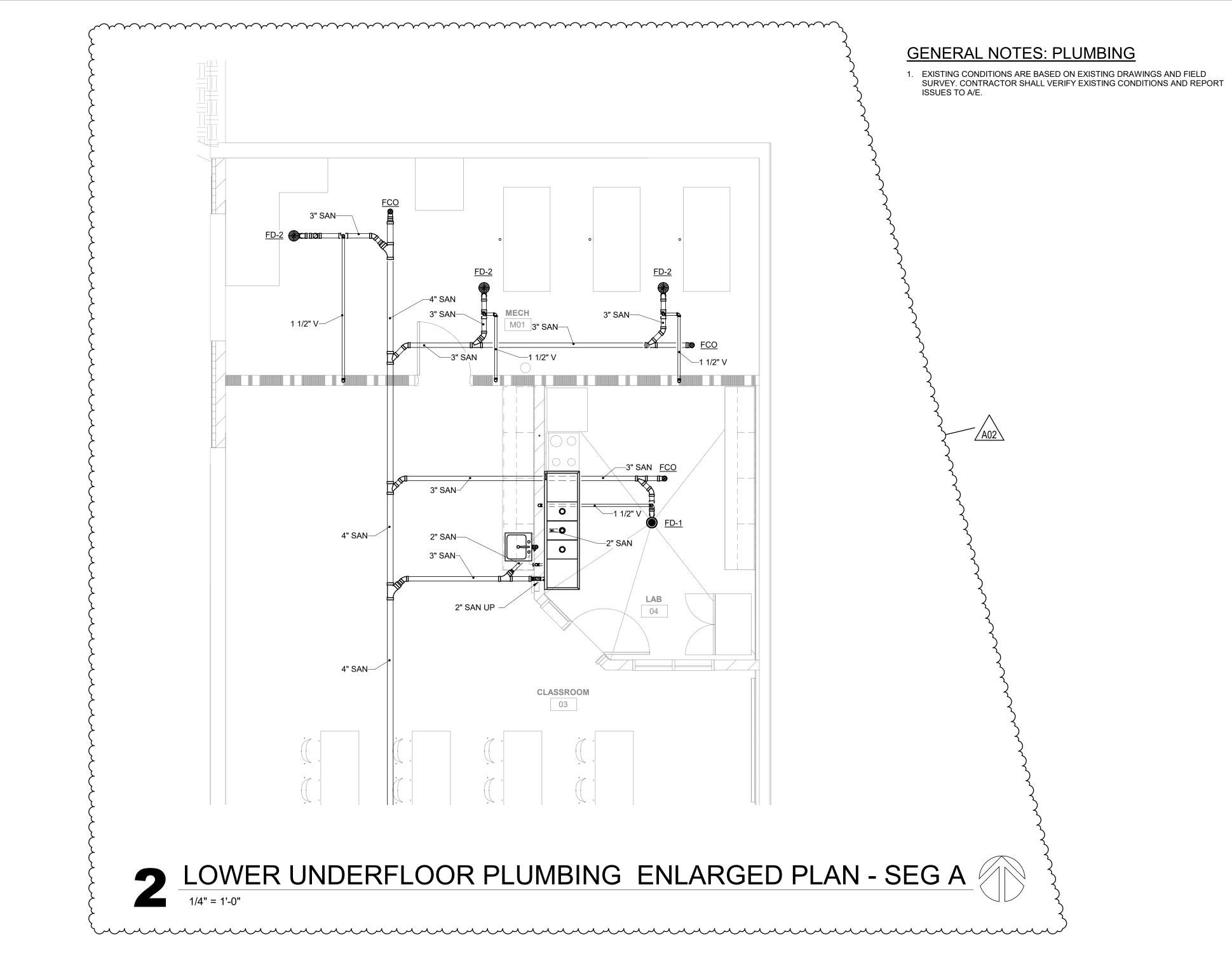
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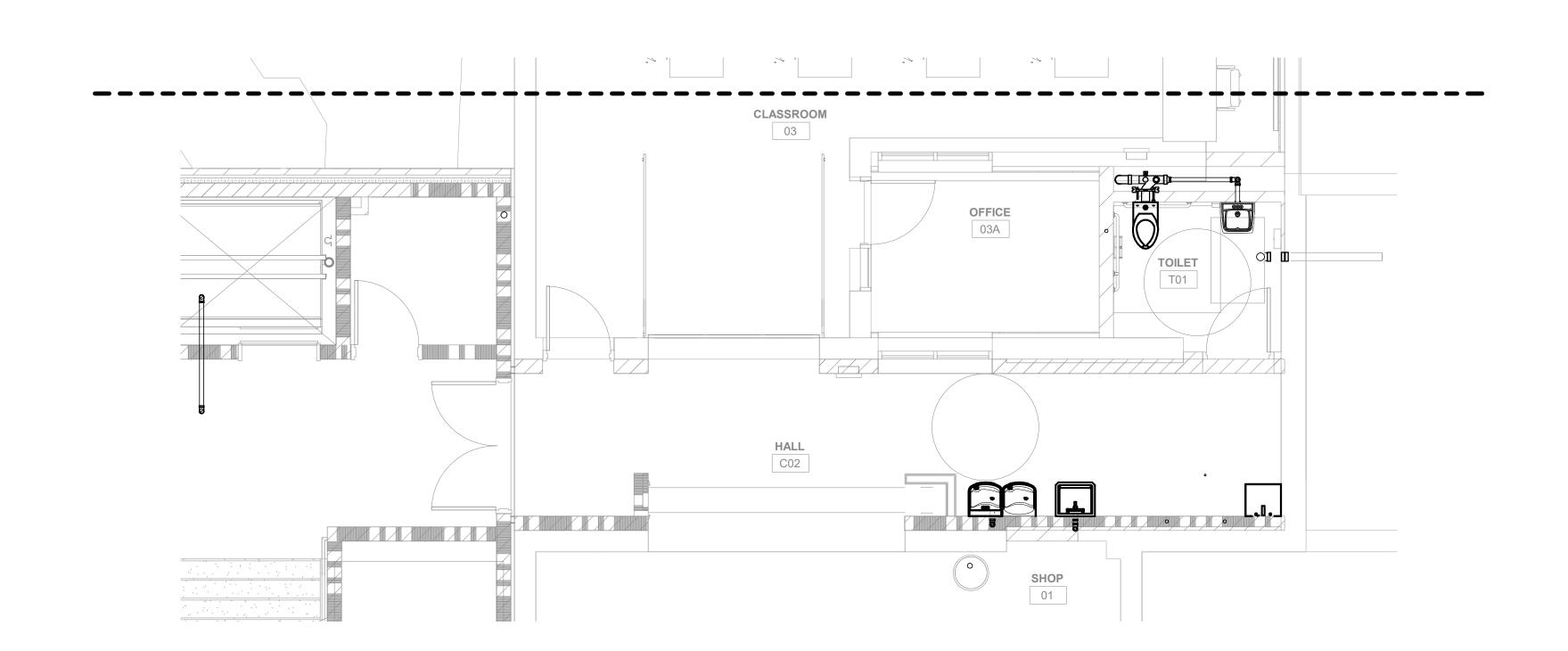
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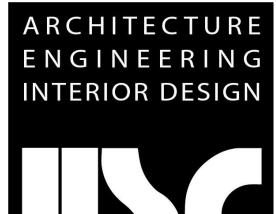




LOWER UNDERFLOOR PLUMBING ENLARGED PLAN - SEG B

1/4" = 1'-0"







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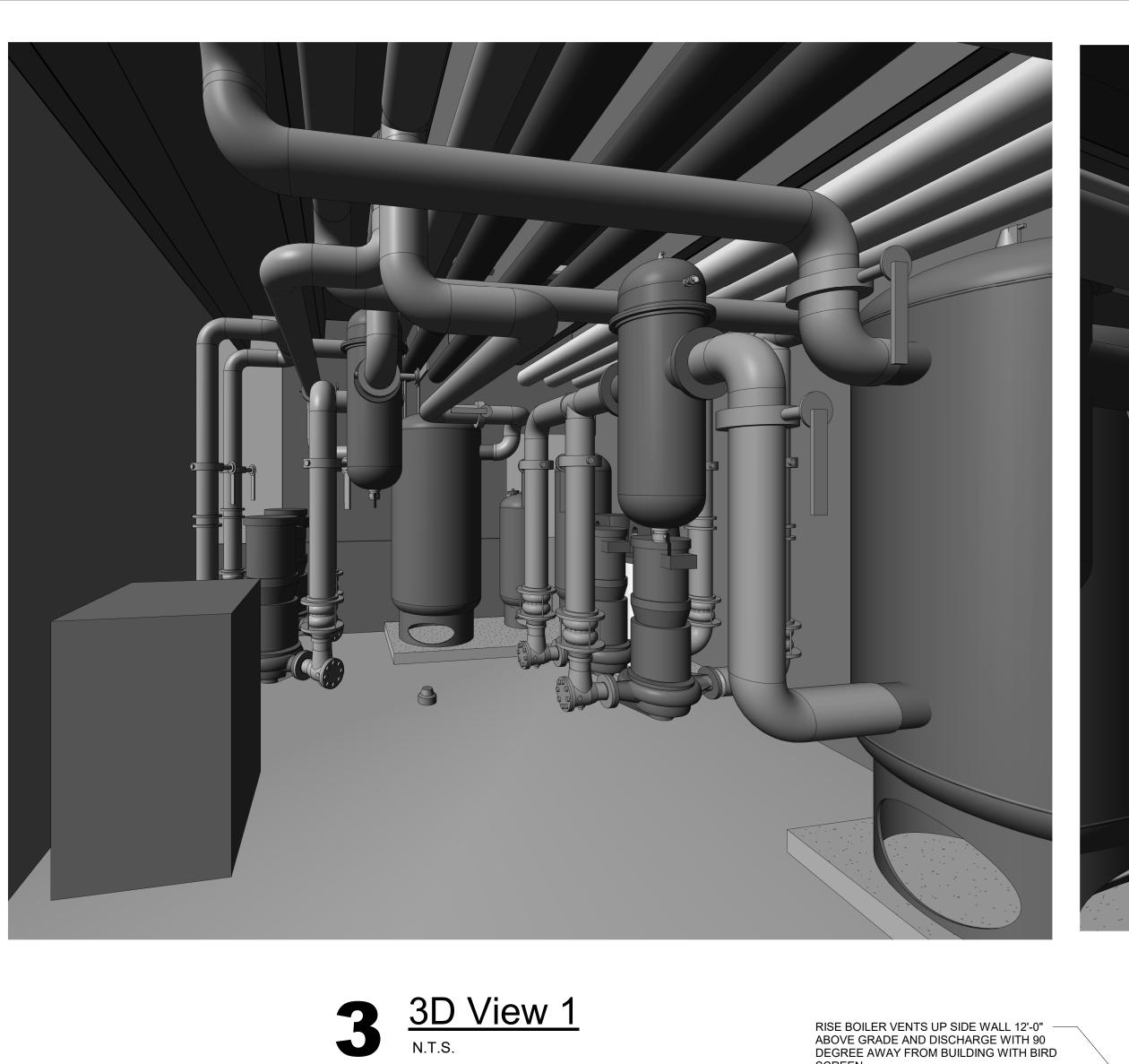
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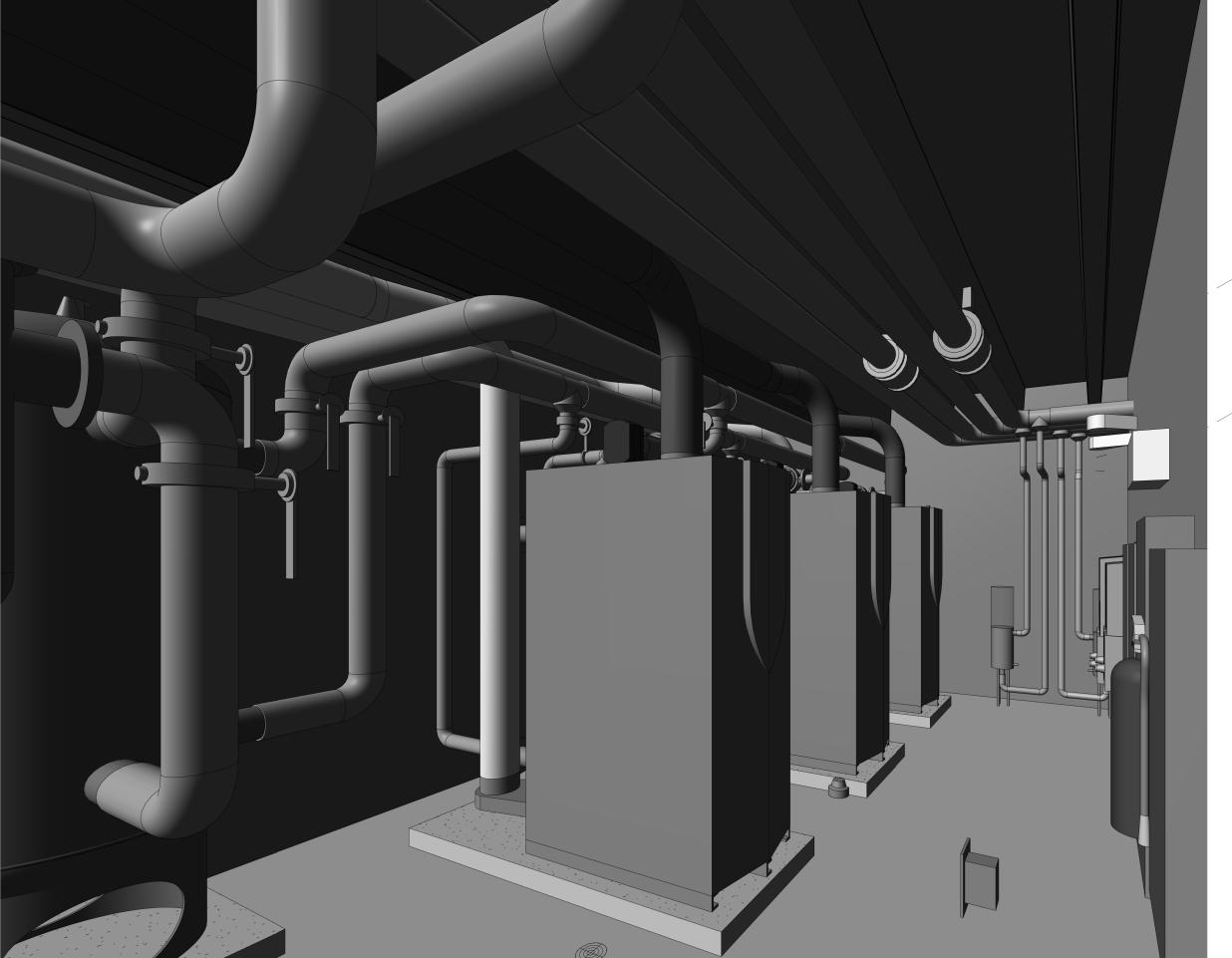
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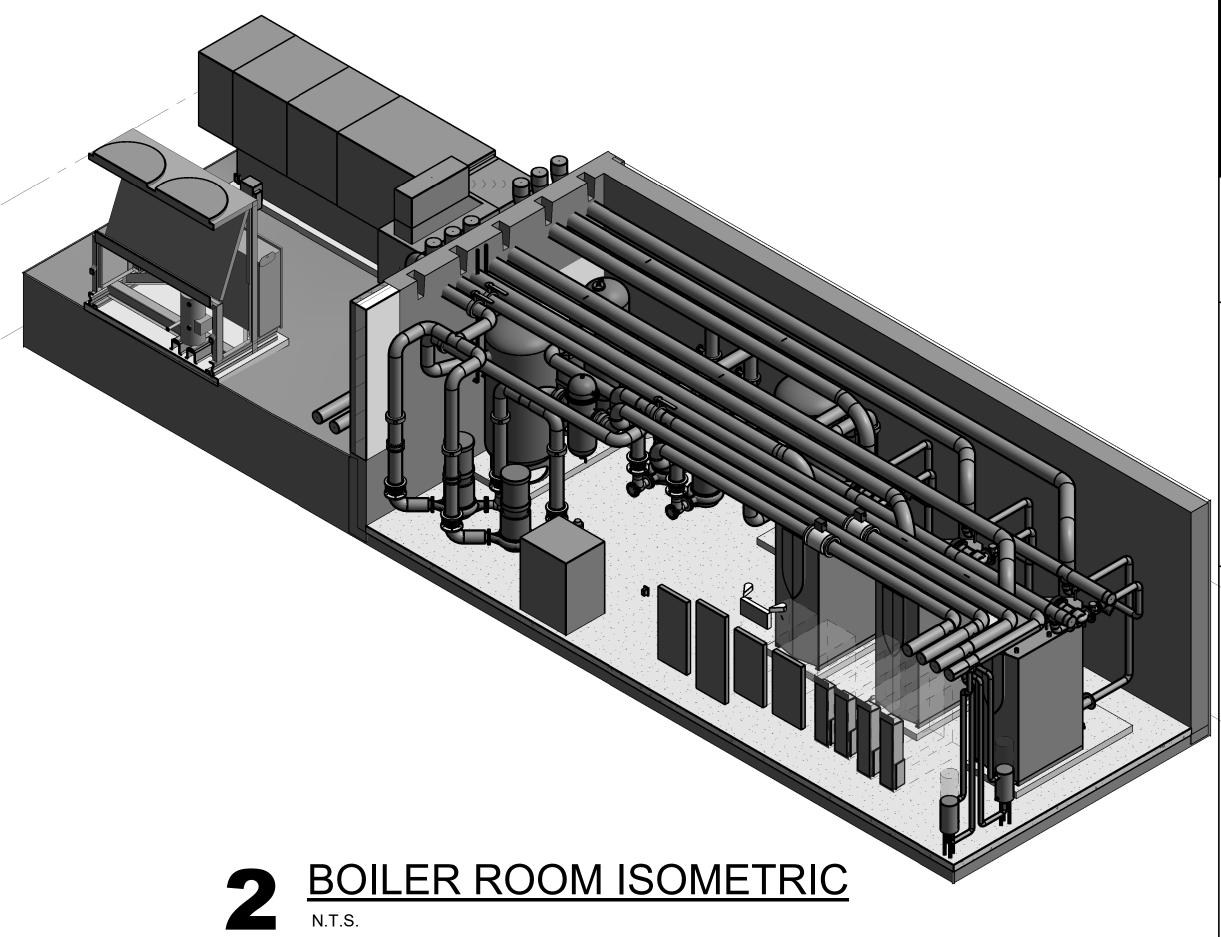
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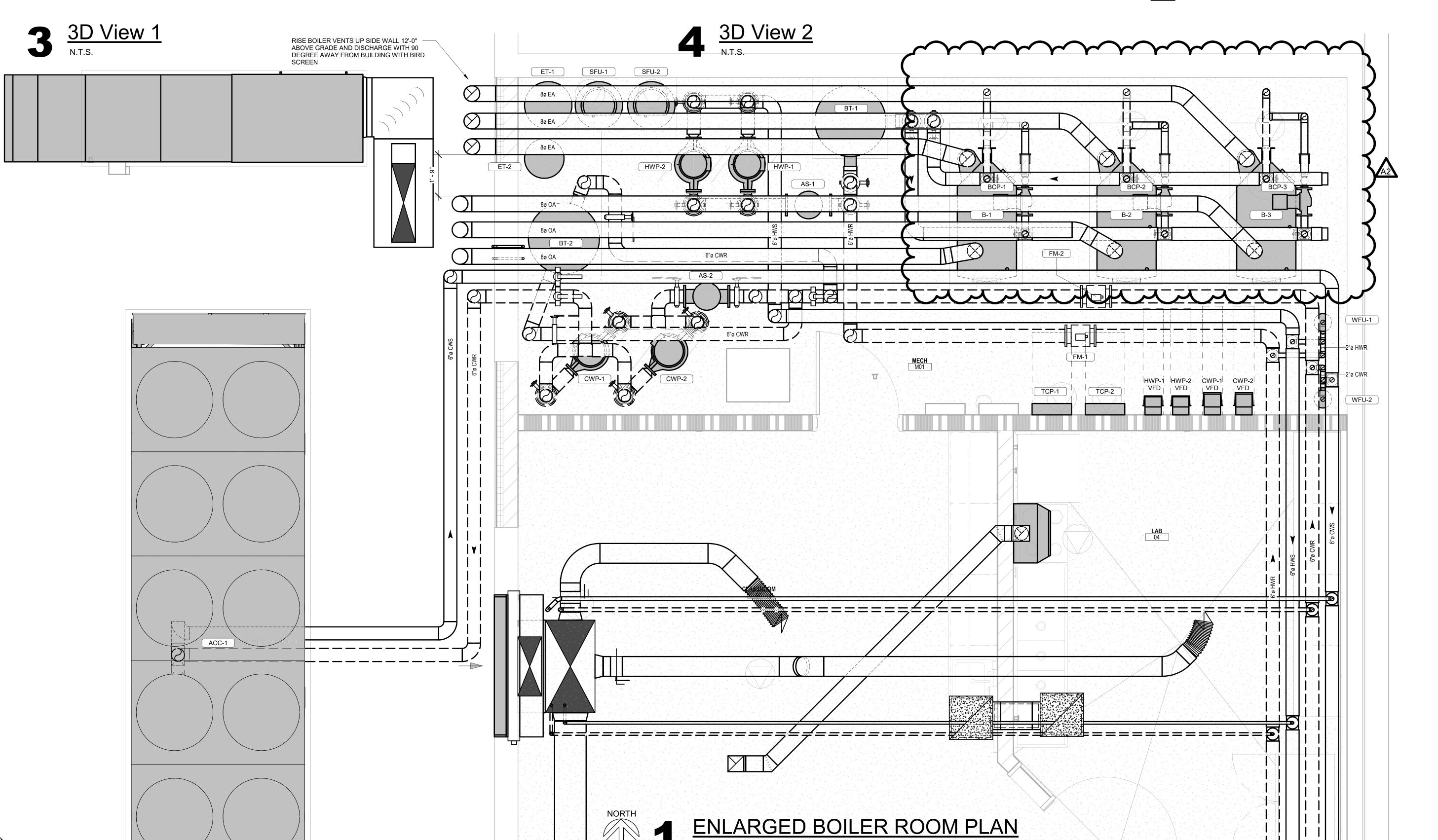
KEY PLAN 🛞

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ARCHITECTURE ENGINEERING INTERIOR DESIGN

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BSMT 95'-2"

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GE SCHOOL DISTRICT
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																RO	OFTO	P UNIT	SCH	EDULE																
								SUPPLY	FAN		FILTERS		EVAPORATOR	R COOLIN	G COIL			GAS FIRE	D HEAT E	EXCHANGER					CO	MPRESSOR						ELECTRICA	۸ <u>L</u>	REFERENCE	=	
							EXT. T	OTAL		МОТОІ	PRE-FILTE	₹	AIF	RSIDE				GAS BU	IRNER		AIRSIDE				SUMME	R		COOLING		}						
					OUTDOOR		STATIC S	TATIC	DRI	/E		TOTAL CLG	. SENSIBLE CLG.	EAT	EAT LA	AT LAT			FUEL	MAX GAS	EAT LAT		COOLING	REFRIGERANT	OUTSIDE A	AIR HOT GAS	LOW	EFFICIENC	CY EFFICIENC	Y UNI	-					
NO. MANU	IFACTURER	MODEL NO.	TYPE	ARRANGEMENT	AIRFLOW	AIRFLOW	PRESS. PI	RESS. FAN	RPM TYF	E QTY PO	VER TYPE	CAP.	CAP.	DB	WB D	B WB	INPUT	OUTPUT	TYPE	PRESSURE	DB DB	TYPE	STAGES	TYPE	TEMP.	BY-PASS	AMBIENT KI	T (EER)	(IEER)	WEIG	HT MCA	MOP VOLT	AGE PHASE	E DETAIL NO.	•	REMARKS
-1 T	TRANE	YZC120	ULTRA HIGH	HORIZONTAL	650 CFM	3500 CFM	.60 in-wg 1.9	2 in-wg 1	165 DIRE	CT 1 2.7	hp 2" MERV 1	103,000 Btu/h	n 76,960 Btu/h	80 °F	67 °F 56	°F 56 °F	250,000	202,500 Btu/h	NG	0.5 psi 4	45 °F 99 °F	VS	0	R-410A	95 °F	No	No	12.2	23.0	1540 I	bf 31 A	45 A 460	V 3	8M504	PROVIDE INSULATED	ROOF CURB, 100% DRY BULB EC
			EFFICIENCY					-									Btu/h					SCROLL													W/ BAROMETRIC REL	EF, VARIABLE SPEED FAN & COI
																																			MODULATING GAS HE	AT W/ SS HEAT EXCHANGER, HI
																																			ACCESS PANELS, CO	NDENSER HAIL GUARD

												GAS FIF	RED BOI	LER SCHI	EDULE													
	LOC	ATION										GAS FIR	ED HEAT EXCH	ANGER									ELI	ECTRICAL	REF	FERENCE		
								GAS BURN	IER						WATERSIE	E				EFFICIENCY								
JNIT	DOOM	NUMBER	MANUFACTURER	MODEL NO.	. TYPE	MAX INPUT	MAX OUTPUT	INPUT @ MIN. FIRE	MIN. BURNER TURNDOWN	FUEL TYPE	MAX PRESSURE	EL OW	MIN. FLOW @ MAX. FIRE	ENTERING WATER TEMP.	LEAVING WATER TEMP	PRESS. DROP	WATER VOLUME	GLYCOL TYPE	GLYCOL (%)	AHRI RATED THERMAL EFFICIENCY	RELIEF VALVE	UNIT	ELA V	OLTAGE PH	JASE DE	TAU NO		REMARKS
NO. B-1	ROOM	NOWBER	Lochinvar	FBD1501	CONDENSING, SEALED COMBUSTION	1,500,000 Btu/h	1,425,000 Btu/h	57,000 Btu/h	5:1	NG/LP	0.50 psi	95.0 GPM	25.0 GPM	140 °F	110 °F	8.9 ftH2O	94 gal	NONE	0	96%	50.0 psig	000711.6		120 V			OUAL FUEL NG/LP	KEWAKKS
B-2			Lochinvar	FBD1501	CONDENSING, SEALED COMBUSTION	1,500,000 Btu/h	1,425,000 Btu/h	57,000 Btu/h	5:1	NG/LP	0.50 psi	95.0 GPM	25.0 GPM	140 °F	110 °F	8.9 ftH2O	94 gal	NONE	0	96%	50.0 psig	2307 lbf	10 A	120 V	1	1M504 C	DUAL FUEL NG/LP	
B-3			Lochinvar	FBD1501	CONDENSING, SEALED COMBUSTION	1,500,000 Btu/h	1,425,000 Btu/h	57,000 Btu/h	5:1	NG/LP	0.50 psi	95.0 GPM	25.0 GPM	140 °F	110 °F	8.9 ftH2O	94 gal	NONE	0	96%	50.0 psig	2307 lbf	10 A	120 V	1	1M504	OUAL FUEL NG/LP	

													AIR	COOLED CH	IILLER SCH	HEDULE											
		LOCATI	ION			CONDENSE	R FAN			EVAPORATO	OR COOLING	HEAT EXCH	ANGER					COMPRESSOR					E	LECTRICAL	A-WEIGHTED	REFERENCE	
							1	MOTOR		LC	OAD: CHILLE	ED WATER				MOTOR				OPERATING DITIONS	AHRI		CIRC	UIT 1: CHILLER	SOUND PRESSURE		
UN	IT		MOE	DEL			DRIVE	co	OOLING		ENTERING WATER	LEAVING WATER	PRESS.	GLYCOL			REFRIGER	SUMMER OUTDOOR	COOLING EFFICIENCY	COOLING EFFICIENCY	COOLING EFFICIENCY	/ UNIT			dBA @ 30 FT. FREE		
l NC). l	ROOM	NUMBER MANUFACTURER NO).	TYPE	TYPE	TYPE Q	JANTITY	CAP. FLOW MIN	N. FLOW	TEMP.	TEMP.	DROP	TYPE GLYCOL	TYPE	QUANTITY	TYPE	AIR TEMP.	(EER)	(IPLV)	(EER)	WEIGHT	MCA MC	OP VOLTAGE PHASE	FIELD	DETAIL NO.	REMARKS
ACC	2-1		TRANE ASCE AC	END SCRO	OLL 230 NOMINAL TONS	VARIABLE SPEED	DIRECT	12 20	07.7 ton 442.0 GPM 33	8.0 GPM	56 °F	44 °F	15.8 ftH2O	PROPYLENE 35%	SCROLL WITH VARIABLE VOLUME RATIO	6	R-410A	A 95 °F	9.55	16.46	9.72	10701 lbf	468 A 500	0 A 460 V 3	70	5M502	PROVIDE ELASTOMERIC VIBRATION ISOLATORS, ARCHITECTURAL LOUVERED PANELS, FACTORY FLOW SWITCH, BACNET INTEGRATION, SINGLE POINT POWER WITH 65KA SCCR RATING, SUPERIOR SOUND PACKAGE

															G	AS FI	RED MA	KE-U	P AIR	UNIT	SCHE	DULE													
	LOC	ATION									SUPPLY F	AN					FILTERS				GAS	FIRED HE	AT EXCHANGE	R					ELEC	CTRICAL		INT	ERLOCK		
															MOT	OR	FINAL FILTE	₹		GAS BURN	NER			AIRSIDE		EFFICIENC	Υ								
										EXT.	TOTAL	FAN											ENTERING	LEAVING											
UNIT						OUTDOOR	R			STATIC	STATIC	BRAKE	FAN	DRIVE						NO. OF	FUEL	MAX	AIR TEMP.	AIR TEMP.	PRESS.	THERMAL	UNIT								
NO.	ROOM	NUMBER M	ANUFACTUREF	MODEL NO.	TYPE	AIRFLOW	AIRFLOW	FAN TYPE	CONTROL	PRESS.	PRESS.	POWER	RPM	TYPE	QUANTITY	POWER	EFFICIENC	INPUT	OUTPUT	T STAGES	TYPE	PRESSURE	DB	DB	DROP	EFFICIENC	Y WEIGHT	MCA	MOP	VOLTAGE	PHASE	CONTROLS	TYPE	REMARKS	
MAU-1			Greenheck	IGX-P116-H22	INDIRECT	3500 CFM	3500 CFM	MIXED FLOV	W VFD	1.00 in-wg	1.12 in-wg	1.1 hp	1478	DIRECT	1	2 hp	2" MERV 13	400,000	320,000	16	NG	0.50 psi	-20 °F	65 °F	0.06 in-wg	80%	1614 lbf	5 A	15 A	460 V	3	BAS	RECIRCULAT	ING PROVIDE HINGED ACCESS PANELS, ELECTRICAL DISCO	JNNECT, BAS
					INDOOR													Btu/h	Btu/h															INTEGRATION, LOW LEAK INSULATED OUTDOOR & RETU	URN AIR DAMP
MAU-2			Greenheck	IGX-P116-H22	INDIRECT	3500 CFM	3500 CFM	MIXED FLO	W VFD	1.50 in-wg	1.92 in-wg	1.9 hp	1757	DIRECT	1	3 hp	2" MERV 13	500,000	400,000	26	NG	0.50 psi	-20 °F	86 °F	0.23 in-wg	80%	1764 lbf	7 A	15 A	460 V	3	BAS	VARIABLE	PROVIDE HINGED ACCESS PANELS, ELECTRICAL DISCO	JNNECT, BAS
					OUTDOOR													Btu/h	Btu/h														VOLUME	INTEGRATION, LOW LEAK INSULATED SUPPLY AIR DAMI	iPER

										LE	CHEDU	ACE S	FURN													
E	REFERENCE		RICAL	ELECTR					EXCHANGE	IRED HEAT	GAS			ERS	FILTI		'N	SUPPLY FA	S					ATION	LOCA	
	CW						EFFICIENCY		AIRS			GAS B		FILTER	FINAL F	OR	MOT									
	COOLING					UNIT			NTERING AIR	-	NO. OF								MAX FAN		OUTDOOR		MODEL			UNIT
 REMARKS	COIL REF.	PHASE	LTAGE PH				AFUE	TEMP. DB	TEMP. DB	TYPE	STAGES	OUTPUT	INPUT	EFFICIENCY	TYPE	- 	QUANTITY		RPM		AIRFLOW			NUMBER MANUFACTURER	ROOM	NO
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 IDT	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 np	1	DIRECT	3300	2000 CFM	205 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-1
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400	120,000	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	275 CFM	HORIZONTAL		TRANE		F-2
VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		4	20.17	0.0.1	45.0	407116		400.05	25.05			Btu/h	Btu/h	1455) / 40				DIDECT	0000	2000 0514	0.40.0514		2-STAGE			
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	340 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-3
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400	120,000	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	285 CFM	HORIZONTAL		TRANE		F-4
VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		4	00.17	0.0.1	45.0	407116		400.05	OF 0F	NO		Btu/h	Btu/h	MEDVA	LUCIUME COLTM			DIDEOT	2000	0000 0514	005.0514	LIODIZONITAL	2-STAGE	TDANE		
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	395 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-5
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC	CC-8	1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400	120,000	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	UPFLOW	S9V2	TRANE		F-6
 VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.												Btu/h	Btu/h										2-STAGE			
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT TIED INTO EXISTING CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	UPFLOW	S9V2 2-STAGE	TRANE		F-7
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT,		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400	120,000	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	HORIZONTAL		TRANE		F-8
PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.												Btu/h	Btu/h										2-STAGE			
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-9
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT,	CC-12	1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400	120,000	MERV 13	HIGH VELOCITY	1 hp I	1	DIRECT	3300	2000 CFM	200 CFM	HORIZONTAL		TRANE		F-10
PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.												Btu/h	Btu/h		ļ								2-STAGE			
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-11
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT,		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400	120,000	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	0 CFM	HORIZONTAL		TRANE		F-12
PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.												Btu/h	Btu/h										2-STAGE			
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	0 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-13
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.		1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	HORIZONTAL	S9V2 2-STAGE	TRANE		F-14
PROVIDE FILTER RACK, 3" PVC INTAKE/VENT W/ CONCENTRIC VENT, PROGRAMMABLE THERMOSTAT. BALANCE TO CFM NOTED ON PLANS.	CC-15	1	20 V	3.9 A 1	15 A 1	167 lbf	96	100 °F	65 °F	NG	2	116,400 Btu/h	120,000 Btu/h	MERV 13	HIGH VELOCITY	1 hp	1	DIRECT	3300	2000 CFM	200 CFM	HORIZONTAL		TRANE		F-15

	LOC	ATION							PUMP						FLUID PROPI	ERTIES		ELECTR	ICAL	REFERENCE	
UNIT									PUMP	IMPELLER		MOTOR	-			GLYCOL	UNIT				
NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	SYSTEM	FLOW	TYPE	HEAD	EFFICIENCY	DIA.	QUANTITY	POWER	RPM	BHP	TYPE	%	WEIGHT	VOLTAGE	PHASE	DETAIL NO.	REMARKS
BCP-1			Taco	VR30	BOILER	95.0 GPM	Inline ECM Wet Rotor	20 ftH2O	0.0%		1	2.20 hp	0	0	120°F WATER	0	99 lbf	240 V	1		PROVIDED WITH BOILER, VARIABL SPEED CONTROL
BCP-2			Taco	VR30	BOILER	95.0 GPM	Inline ECM Wet Rotor	20 ftH2O	0.0%		1	2.20 hp	0	0	120°F WATER	0	99 lbf	240 V	1		PROVIDED WITH BOILER, VARIABL SPEED CONTROL
BCP-3			Taco	VR30	BOILER	95.0 GPM	Inline ECM Wet Rotor	20 ftH2O	0.0%		1	2.20 hp	0	0	120°F WATER	0	99 lbf	240 V	1		PROVIDED WITH BOILER, VARIABL SPEED CONTROL
CWP-1			Taco	KS4013D	CHILLED WATER	450.0 GPM	Vertical Split Coupled In-Line	175 ftH2O	75.0%	13.5"	1	40.00 hp	1760	27.5	45°F PROPYLENE	35	1190 lbf	460 V	3	3M502	PROVIDE SUPPORT STAND
CWP-2			Taco	KS4013D	CHILLED WATER	450.0 GPM	Vertical Split Coupled In-Line	175 ftH2O	75.0%	13.5"	1	40.00 hp	1760	27.5	45°F PROPYLENE	35	1190 lbf	460 V	3	3M502	PROVIDE SUPPORT STAND
HCP-1			Taco	VR3452	AHU COIL	30.4 GPM	Inline ECM Wet Rotor	15 ftH2O	0.0%		1	0.25 hp	0	0	120°F WATER	0	8 lbf	120 V	1	4M501/8M502	
HCP-2			Taco	VR3452	AHU COIL	30.4 GPM	Inline ECM Wet Rotor	15 ftH2O	0.0%		1	0.25 hp	0	0	120°F WATER	0	8 lbf	120 V	1	4M501/8M502	
HCP-3			Taco	VR3452	AHU COIL	10.9 GPM	Inline ECM Wet Rotor	15 ftH2O	0.0%		1	0.25 hp	0	0	120°F WATER	0	8 lbf	120 V	1	4M501/8M502	
HWP-1			Taco	KS3013D	HEATING HOT WATER	350.0 GPM	Vertical Split Coupled In-Line	130 ftH2O	76.0%	11.45"	1	20.00 hp	1760	15	120°F WATER	0	797 lbf	460 V	3	3M502	PROVIDE SUPPORT STAND
HWP-2			Taco	KS3013D	HEATING HOT WATER	350.0 GPM	Vertical Split Coupled In-Line	130 ftH2O	76.0%	11.45"	1	20.00 hp	1760	15	120°F WATER	0	797 lbf	460 V	3	3M502	PROVIDE SUPPORT STAND
RFP-1			Taco	VR3452	RADIANT FLOOR	3.5 GPM	Inline ECM Wet	20 ftH2O	0.0%		1	0.25 hp	0	0	120°F WATER	0	8 lbf	120 V	1	4M501/6M504	

CSAA025 305,020 Btu/h 70 °F 95 °F 450 FPM 0.13 in-wg 2 20.4 GPM 140 °F 110 °F 0.85 ftH2O NONE

 CSAA025
 305,020 Btu/h
 70 °F
 95 °F
 450 FPM
 0.13 in-wg
 2
 20.4 GPM
 140 °F
 110 °F
 0.85 ftH2O
 NONE

 CSAA010
 108,450 Btu/h
 70 °F
 95 °F
 401 FPM
 0.11 in-wg
 2
 7.3 GPM
 140 °F
 110 °F
 0.52 ftH2O
 NONE

AHU-1

AHU-2 AHU-3

Grand total: 3

Trane



Consultant:

HSR Project Title: LA FARGE SCHOOL DISTRICT
ADDITION AND RENOVATION

ADDITION AND RENOVATION

By Project Location: 301 WEST ADAMS STREET

Res Dams STREET

Res Dams STREET

Res Dams STREET

BID DOCUMENTS

Revisions:

No. Description Date

A2 Addendum #2 09/23/2021

Graphic Scale:

VARIES

Last Update: 9/23/2021 12:06:41 PM

M600

						VA	ARIAB	LE A	MR V	OLU/	MEI	ERMI	NAL	UNIT	SCHE	DULE						
				PRIM	MARY					НС	OT WATE	R HEATING	G COIL							REFER	RENCE	
								AIRSIDE	•					Н	OT WATER			NC LEVEL				
UNIT NO.	SYSTEM	MANUFACTURER	MODEL NO.	MAXIMUM AIRFLOW	MINIMUM AIRFLOW	MAX. HEATING AIRFLOW	HEATING CAP.	EAT DB	LAT DB	PRESS. DROP	ROWS	FLOW	EWT	DELTA T	PRESS. DROP	GLYCOL TYPE	GLYCOL	DISCHARGE / RADIATED AHRI 885-98/08	UNIT WEIGHT	DETAIL NO.	CONTROL VALVE 2-WAY UNO	REMARKS
VAV-01	RTU-1	TRANE	VCWF16	1900 CFM	570 CFM	1900 CFM	72,120 Btu/h	55 °F	90 °F	0.40 in-wg	3	3.4 GPM	140 °F	43 °F	0.67 ftH2O	NONE	0%	15/15	72 lbf	5M500	3-WAY	
VAV-02	RTU-1	TRANE	VCWF04	100 CFM	85 CFM	100 CFM	4,580 Btu/h	55 °F	97 °F	0.03 in-wg	1	1.0 GPM	140 °F	9 °F	1.73 ftH2O	NONE	0%	17/15	23 lbf	5M500		
VAV-03	RTU-1	TRANE	VCWF05	300 CFM	100 CFM	300 CFM	11,390 Btu/h	55 °F	90 °F	0.20 in-wg	2	0.9 GPM	140 °F	26 °F	0.49 ftH2O	NONE	0%	18/15	26 lbf	5M500		
VAV-04	RTU-1	TRANE	VCWF08	400 CFM	120 CFM	400 CFM	15,180 Btu/h	55 °F	90 °F	0.29 in-wg	3	1.0 GPM	140 °F	32 °F	0.10 ftH2O	NONE	0%	15/15	32 lbf	5M500		
VAV-05	RTU-1	TRANE	VCWF12	800 CFM	240 CFM	800 CFM	30,370 Btu/h	55 °F	90 °F	0.24 in-wg	3	1.6 GPM	140 °F	38 °F	0.21 ftH2O	NONE	0%	15/15	52 lbf	5M500		
ind total: 5	•			3500 CFM	1115 CFM	3500 CFM	133,640 Btu/h		1		•	7.9 GPM										

											HYC	RONIC	PANEL	RADIA	TOR S	CHEDI	ULE						
	LOCA	TION			\top					HO	T WATER HE	EATING						DIM	IENSIONS		REFER	RENCE	
								AIRSIDE					HOT W	ATER						воттом ог	F		
UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	TYPE	TOTAL HEATING CAP.	HEATING CAP. PER FOOT BTUH/LF	EAT DB	ROWS	TUBE DIAMETER	FLOW	EWT	LWT	PRESS. DROP	GLYCOL TYPE	I	LENGTH	WIDTH	HEIGHT	EQUIPMENT ELEVATION (FIELD VERIFY)		CONTROL VALVE	REMARKS
RP-1			RUNTAL	TT-4	WALL MOUNTED	2,712 Btu/h	452	65 °F	4	3/4"	0.6 GPM	140 °F	130 °F	0.15 ftH2O	NONE	0%	6' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
RP-2			RUNTAL	TT-4	WALL MOUNTED	2,712 Btu/h	452	65 °F	4	3/4"	0.6 GPM	140 °F	130 °F	0.15 ftH2O	NONE	0%	6' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
RP-3			RUNTAL	TT-4	WALL MOUNTED	4,972 Btu/h	452	65 °F	4	3/4"	1.0 GPM	140 °F	130 °F	0.30 ftH2O	NONE	0%	11' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
RP-4			RUNTAL	TT-4	WALL MOUNTED	4,972 Btu/h	452	65 °F	4	3/4"	1.0 GPM	140 °F	130 °F	0.30 ftH2O	NONE	0%	11' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
RP-5			RUNTAL	TT-4	WALL MOUNTED	4,972 Btu/h	452	65 °F	4	3/4"	1.0 GPM	140 °F	130 °F	0.30 ftH2O	NONE	0%	11' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
RP-6			RUNTAL	TT-4	WALL MOUNTED	4,972 Btu/h	452	65 °F	4	3/4"	1.0 GPM	140 °F	130 °F	0.30 ftH2O	NONE	0%	11' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
RP-7			RUNTAL	TT-4	WALL MOUNTED	5,876 Btu/h	452	65 °F	4	3/4"	1.2 GPM	140 °F	130 °F	0.50 ftH2O	NONE	0%	13' - 0"	0' - 3"	12"	0' - 4"	9 & 10M503	2-WAY	PROVIDE ALL REQUIRED TRIM PANELS TO CONCEAL PIPING
Grand total: 7						31,188 Btu/h					6.4 GPM					,	,						

																				UNIT	VEN	ITILA	TOR	SCHE	DULE															
									SUPPLY F	FAN			FILTER	3				CHILI	ED WATE	R COOLIN	NG COIL						ŀ	HOT WATE	R HEATING	G COIL (R	EHEAT F	POSITION)				ELECT	RICAL	REFERENCE	
							EXT.	TOTAL			M	IOTOR	FINAL FIL	ER			AIRSIDE		·		•	CHI	LLED WA	ER	·		AIRSIDE				НОТ	WATER								
UNIT NO.	MANUFAC	CTURER M	MODEL NO.	TYPE	OUTDOOR AIRFLOW	AIRFLOW	STATIC PRESS.	STATIC PRESS	FAN B. RPM	I DRIVE		TY POWER	R EFFICIEN	TOT	AL SENS		.	LAT LA DB WI	T PRES	-	W EWT	LWT	PRESS. DROP	GLYCOL TYPE	GLYCOL	HEATING CAP.		AT PRES	SS. OP FLOW	v EWT	LWT	PRESS. DROP	GLYCOL TYPE G	LYCOL V	UNIT VEIGHT	MCA	MOP V	OLTAGE PHASE	UNIT NO.	REMARKS
CUV-1	CHANG		RESHMAN HWC IQ	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECT ECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN) 45 °F И	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w		M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLEI HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-2	MITSUE	IBISHI PU	UY-A12NHA6	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECT ECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN) 45°F И	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w	5.0 GPI	M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLE HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-3	CHANG		RESHMAN HWC IQ	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECT ECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN) 45°F И	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w		M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLI HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-4	CHANG			VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECT ECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN) 45°F И	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w		M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLHOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-5	CHANG	· · · · · ·	RESHMAN HWC IQ	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECTECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,4 Btu	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN	45 °F	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w	5.0 GPI	M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLHOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-6	CHANG		RESHMAN HWC IQ	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECT ECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN) 45°F И	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w		M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLHOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-7	CHANG			VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECTECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN) 45°F И	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w	5.0 GPI	M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLI HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-8	CHANG		RESHMAN HWC IQ	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECTECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN	45 °F	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w		M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLI HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-9	CHANG		RESHMAN HWC IQ	VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECTECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN	45 °F	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w		M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLE HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-10	CHANG			VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECTECM	1	1 hp	2" MERV	11 44,020	Btu/h 37,	190 80 u/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN	45 °F	53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w	5.0 GPI	M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLI HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS
CUV-11	CHANG			VERTICAL C CABINET	200 CFM	1650 CFM	0.50 in-wg	1.33 in-w	/g 1166	DIRECTECM		1 hp	2" MERV	11 44,020	Btu/h 37,4 Btu	190 80 ı/h	°F 67 °F 5	59 °F 59 °	°F 0.33 in-	wg 12.0 GPN		53 °F	8.74 ftH2O	PROPYLEN	35%	84,030 Btu/h	53 °F 10	0.06 in-w	5.0 GPI	M 140 °F	106 °F	1.71 ftH2O	NONE	0%	850 lbf	14 A	20 A	120 V 1	2M502	PROVIDE INSULATED BACK OUTSIDE AIR PLENUM, INSULATED TOP PLE HOT WATER COIL IN REHEAT POSITION, TOP PIPING CONNECTIONS

								LIIA-	IUDE	ERADIA		3 6 F									
	LOCA	TION								HOT WA	TER HEATI	NG					DIM	ENSIONS	REFE	RENCE	
							,	AIRSIDE					НО	T WATER				воттом оғ			
UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	TYPE	TOTAL HEATING CAP.	HEATING CAP. PER FOOT BTUH/LF	EAT DB	ROWS	TUBE DIAMETER	FLOW	EWT	LWT	PRESS. DROP	GLYCOL TYPE	GLYCOL LI	ENGTH	EQUIPMENT ELEVATION (FIELD VERIFY)	DETAIL NO.	CONTROL VALVE	REMARKS
FTR-1	TOO!!!	Nomber	RITTLING	COPPER TUBE-ALUMINUM FIN	4 1/4"x4 1/4"		931	65 °F	2	1"		140 °F	130 °F	0.30 ftH2O	NONE		8' - 0"	0' - 4"	8M501	2-WAY	PROVIDE ECONOLINE SLOPED LOUVERE OUTLET/OPEN INLET, HANGING BRACKE
FTR-2			RITTLING	COPPER TUBE-ALUMINUM FIN	4 1/4"x4 1/4" FIN	7,400 Btu/h	931	65 °F	2	1"	1.5 GPM	140 °F	130 °F	0.30 ftH2O	NONE	0%	8' - 0"	0' - 4"	8M501	2-WAY	PROVIDE ECONOLINE SLOPED LOUVERE OUTLET/OPEN INLET, HANGING BRACKE
FTR-3			RITTLING	COPPER TUBE-ALUMINUM FIN	4 1/4"x4 1/4" FIN	5,600 Btu/h	931	65 °F	2	1"	1.1 GPM	140 °F	130 °F	0.20 ftH2O	NONE	0%	6' - 0"	0' - 4"	8M501	2-WAY	PROVIDE ECONOLINE SLOPED LOUVERE OUTLET/OPEN INLET, HANGING BRACKE
FTR-4			RITTLING	COPPER TUBE-ALUMINUM FIN	4 1/4"x4 1/4" I FIN	5,600 Btu/h	931	65 °F	2	1"	1.1 GPM	140 °F	130 °F	0.20 ftH2O	NONE	0%	6' - 0"	0' - 4"	8M501	2-WAY	PROVIDE ECONOLINE SLOPED LOUVERE OUTLET/OPEN INLET, HANGING BRACKE
nd total: 4			1		1	26,000 Btu/h	1				5.2 GPM							1	1	1	·

				AIF	R/DIRT S	EPARAT	OR SCH	HEDULE			
UNIT	LOC	ATION						MAX PRESSURE	CONNECTION	REFERENCE	
NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	TYPE	SYSTEM	MAX FLOW	DROP	DIAMETER	DETAIL NO.	REMARK
AS-1			Taco	4900AR	COALESCING	HEATING HOT WATER	350.0 GPM	1.7 ftH2O	6"	5M504	REMOVABLE HEAD.
AS-2			Taco	4900AR	COALESCING	CHILLED WATER	450.0 GPM	2.6 ftH2O	6"	5M504	REMOVABLE HEAD.

ELECTRONIC FLOW METER SCHEDULE

F-3200 STAINLESS HEATING HOT 20 °F 180 °F 800.0 GPM NONE

F-3200 STAINLESS CHILLED 20 °F 180 °F 800.0 GPM PROPYLENE 35 WATER

FM-1 Electromagnetic

FM-2 Electromagnetic

WATER

Grand total: 2

ET-1 BLADDER

ET-2 BLADDER Taco

FLUID PROPERTIES

MATERIAL SYSTEM MIN. MAX. MAXIMUM GLYCOL GLYCOL NOMINAL MIN. RATED REFERENCE TEMP. FLOW TYPE % DIAMETER FLOW DETAIL NO.

VALVE PROPERTIES

8.5 GPM

10M501 PROVIDE BAS INTEGRATION,

2500 GAL WATER PROVIDE BULLS EYE SIGHT GLASS, PRE-CHARGE TANK TO 16 PSI

2500 GAL 35% PROVIDE BULLS EYE SIGHT GLASS, PRE-CHARGE TANK TO 16 PSI

REMOTE MOUNT DISPLAY

PROVIDE BAS INTEGRATION, REMOTE MOUNT DISPLAY

							Į	JTILIT	Y BLO	WER S	CHE	DULE							
LOC	ATION					EXHAUST FA	۸N			EXHAUST FAN		EXHA	AUST FAN				ELECT	RICAL	
					EAN		EAN	OUTLET	EXT.		EAN	DDIVE	MOT		DEEEDENCE	LINIT			
ROOM	NUMBER	MANUFACTURER	MODEL NO.	AIRFLOW		FAN CLASS			PRESS.	ВНР	RPM		QUANTITY	1		_	VOLTAGE	PHASE	REMARKS
		Greenheck	USF-12	2000 CFM	TH	EXPLOSION PROOF	CW	2330 FPM	4.70 in-wg	2.45 hp	3248	DIRECT	1	3.00 hp	7M501	300 lbf	460 V	3	PROVIDE INSULATED 18" ROOF CURB FOR DUCT PENETRATION, EQUIPMENT ROOF SUPPORT RAILS FOR FAN, 1" SPRING VIBRATION ISOLATORS, EXPLOSION PROOF MOTOR, DISCONNECT SWITCH, SHAFT GROUNDING PROTECTION, DRAIN PLUG, MOTOR COVER
		Greenheck	USF-16	2000 CFM	TH		CW	1830 FPM	0.75 in-wg	0.42 hp	1052	DIRECT	1	0.75 hp	7M501	150 lbf	115 V	1	PROVIDE INSULATED 18" ROOF CURB FOR DUCT PENETRATION, EQUIPMENT ROOF SUPPORT RAILS FOR FAN, 1" SPRING VIBRATION ISOLATORS, DISCONNECT SWITCH, MOTOR MOUNTED SPEED CONTROLLER, DRAIN PLUG, MOTOR COVER
		LOCATION ROOM NUMBER	ROOM NUMBER MANUFACTURER Greenheck	ROOM NUMBER MANUFACTURER MODEL NO. Greenheck USF-12	ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW Greenheck USF-12 2000 CFM	ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE Greenheck USF-12 2000 CFM TH	ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN DISCHARGE FAN CLASS Greenheck USF-12 2000 CFM TH EXPLOSION PROOF	LOCATION ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN CLASS PAN CLASS PAN CLASS POTATION Greenheck USF-12 2000 CFM TH EXPLOSION PROOF CW	LOCATION ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN DISCHARGE FAN CLASS ROTATION VELOCITY Greenheck USF-12 2000 CFM TH EXPLOSION PROOF CW 2330 FPM	LOCATION ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN CLASS FAN CLASS FAN ROTATION VELOCITY PRESS. OUTLET STATIC PRESS. Greenheck USF-12 2000 CFM TH EXPLOSION PROOF CW 2330 FPM 4.70 in-wg	EXHAUST FAN ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN CLASS FAN CLASS FAN CLASS FAN CLASS FOR COUNTY OF CW FAN CLASS FOR COUNTY OF CW CW 2330 FPM 4.70 in-wg 2.45 hp	ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN CLASS FAN ROTATION VELOCITY PRESS. BHP RPM	EXHAUST FAN ROOM NUMBER MANUFACTURER MODEL NO. AIRFLOW DISCHARGE FAN CLASS	EXHAUST FANROOMNUMBERMANUFACTURERMODEL NO.AIRFLOWFAN DISCHARGEFAN CLASSFAN CLASSFAN ROTATION PROOFCW2330 FPM4.70 in-wg2.45 hp3248DIRECT1	LOCATION ROOM NUMBER MANUFACTURER Greenheck WODEL NO. AIRFLOW DISCHARGE FAN CLASS F	EXHAUST FANROOMNUMBERMANUFACTURERMODEL NO.AIRFLOWEXHAUST FAN DISCHARGEFAN CLASSFAN CLASSFAN CONTATION VELOCITY PRESS.BHP ROTORFAN PRIVE TYPEQUANTITY POWERREFERENCE DETAIL NO.GreenheckUSF-122000 CFMTHEXPLOSION PROOFCW2330 FPM4.70 in-wg2.45 hp3248DIRECT13.00 hp7M501	LOCATION ROOM NUMBER Greenheck MANUFACTURER Greenheck MODEL NO. USF-12 USF-12 MODEL NO. EXHAUST FAN FAN FAN DISCHARGE FAN CLASS F	LOCATION NUMBER MANUFACTURER Greenheck USF-12 2000 CFM TH EXPLOSION PROOF CW 2330 FPM 4.70 in-wg 2.45 hp STATIC PRESS. PRESS. STATIC PRESS. STATIC PRESS. PRESS.	LOCATION ROOM NUMBER Greenheck ROOM OF MANUFACTURER Greenheck ROOM OF MANUFACTURER Greenheck ROOM OF MANUFACTURER Greenheck ROOM OF MANUFACTURER Greenheck ROOM OF MANUFACTURER ROOM OF MANU

				SYSTE	M FEEDE	ER UI	NIT SCH	IEDUL	Ε.					
	LOCA	ATION					PUMP				ELECTRICA .UG AND CO		REFERENCE	
UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	SYSTEM	FLOW	DISCHARGE PRESSURE		UNIT WEIGHT	FLA	VOLTAGE	PHASE	DETAIL NO.	REMARKS
SFU-1			AXIOM	SF100	HEATING HOT WATER	1.0 GPM	16.0 psig	55.0 gal	460 lbf	1 A	120 V	1	5M504	PROVIDE RIA10-1-SA LOW LEVEL ALARM
SFU-2			AXIOM	SF100	CHILLED WATER	1.0 GPM	16.0 psig	55.0 gal	460 lbf	1 A	120 V	1	5M504	PROVIDE RIA10-1-SA LOW LEVEL ALARM

								GAS F	IRED	UNIT	HEAT	ER S	CHEDUL	.E								
	LOCA	ATION				SI	JPPLY FAN	I			GAS	FIRED H	EAT EXCHANG	ER					ELECTRICA	\L	REFERENCE	
							MOT	OR			GAS BURI	NER		AIRS	IDE	EFFICIENCY						
NIT											NO. OF	FUEL	PRESSURE		LAT	THERMAL	UNIT					
10.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	TYPE	AIRFLOW	QUANTITY	POWER	INPUT	OUTPUT	STAGES	TYPE	AVAILABLE	DB	DB	EFFICIENCY	WEIGHT	FLA	VOLTAGE	PHASE	DETAIL NO.	REMARKS
JH-1			Modine	PTC 65AS01	CONDENSING,	1141 CFM	1	0.125 hp	65,000	60,450	1	NG	2.00 psi	60 °F	109 °F	93	103 lbf	4 A	115 V	1	9M504	UNIT TO BE MOUNTED FROM
					SEALED				Btu/h	Btu/h												STRUCTURE, PROVIDE
					COMBUSTION																	VIBRATION ISOLATION. PROVI
																						CONCETRIC VENT KIT &
																						CONDENSATE NEUTRALIZER WITH UNIT.

UNIT NO. ROOM NUMBER MANUFACTURER MODEL NO. SYSTEM VOLUME DIAMETER HEIGHT DIAMETER DIAMETER WEIGHT DETAIL NO. BT-1 Taco MPT0300G06-125N1BN HEATING HOT 300.0 gal 3'-0" 8'-0" 6" 6" 1000 lbf 1M503 ASME RATIONAL STATEMENT OF TACK OF	
RT 1 Tage MPT0300C06 125N1RN HEATING HOT 300.0 gal 3' 0" 8' 0" 6" 6" 1000 lbf 1M503 ASME PAT	REMARKS
	D, PROVIDE 3/4" NPT P/T PORTS EL AND SHELL, CORNER MODE
BT-2 Taco BTH0300G06-125N CHILLED 300.0 gal 3' - 0" 7' - 6" 6" 820 lbf 2M503 ASME RATI	D, PROVIDE INTERNAL BAFFLE
Grand total: 2	

EXPANSION TANK SCHEDULE

MANUFACTURER MODEL NO. SYSTEM VOLUME VOLUME FILL PRESSURE RELIEF DIAMETER HEIGHT CONNECTION WEIGHT DETAIL NO.

CA300-125 CHILLED 79.0 gal 79.0 gal 16.0 psi 50.0 psi 2' - 0" 4' - 10" 1 1/2" 320 lbf 5M504

TANK ACCEPTANCE INITIAL TANK PRESSURE DIMENSIONS PIPE UNIT

16.0 psi 50.0 psi 2' - 6" 6' - 0" 1 1/2"

							WAT	ER FILT	ER (JNIT S	CHE	DULE					
	LOC	ATION											DIMENSI	IONS		REFERENCE	
UNIT NO.	ROOM	NUMBER	MANUFACTURER	MODEL NO.	SYSTEM	DESCRIPTION	EFFICIENCY		1	FILTER LENGTH	TANK VOLUME	DIAMETER	HEIGHT	INLET/OUTLET DIAMETER	UNIT WEIGHT	DETAIL NO.	REMARKS
WFU-1			PARKER	FE6-1-2	HEATING HOT WATER	BYPASS FILTER	5 MICRON	30.0 GPM	6	10"	3.6 gal	0' - 8 11/32"	2' - 9"	2"	115 lbf	6M503	INCLUDE EXTRA FILTER SETS PER SPECIFICATION. INCLUDE FLOOR MOUNTING LEGS.
WFU-2			PARKER	FE6-1-2	CHILLED WATER	BYPASS FILTER	5 MICRON	30.0 GPM	6	10"	3.6 gal	0' - 8 11/32"	2' - 9"	2"	115 lbf	6M503	INCLUDE EXTRA FILTER SETS PER SPECIFICATION. INCLUDE FLOOR MOUNTING LEGS.

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN

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Consultant:

A FARGE SCHOOL DISTRICT
DITION AND RENOVATION

HSR Project Number:

19041-1

Project Date:

AUGUST 2021

Drawn By:

JB/SK

Key Plan:

BID DOCUMENTS

Revisions:

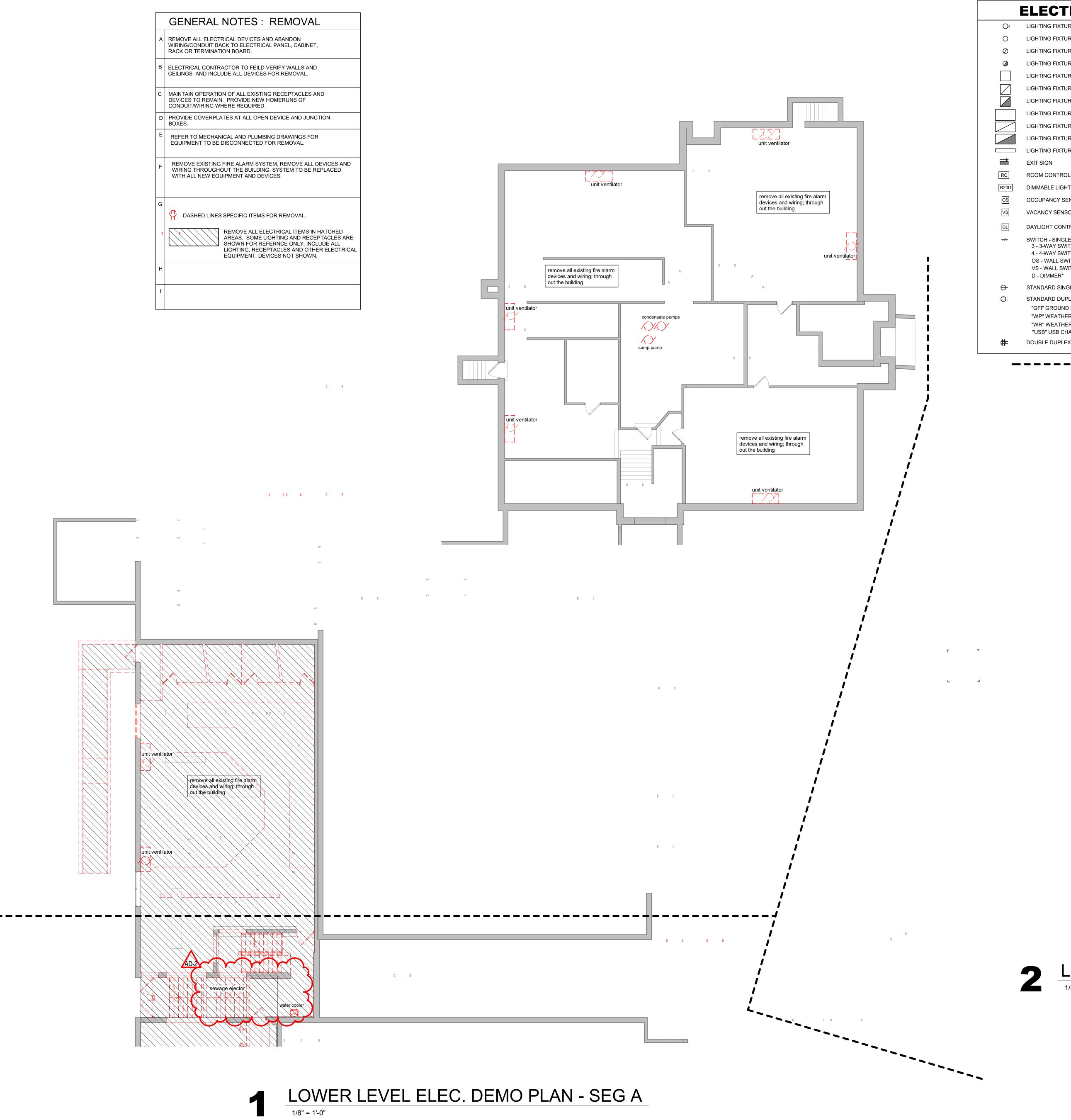
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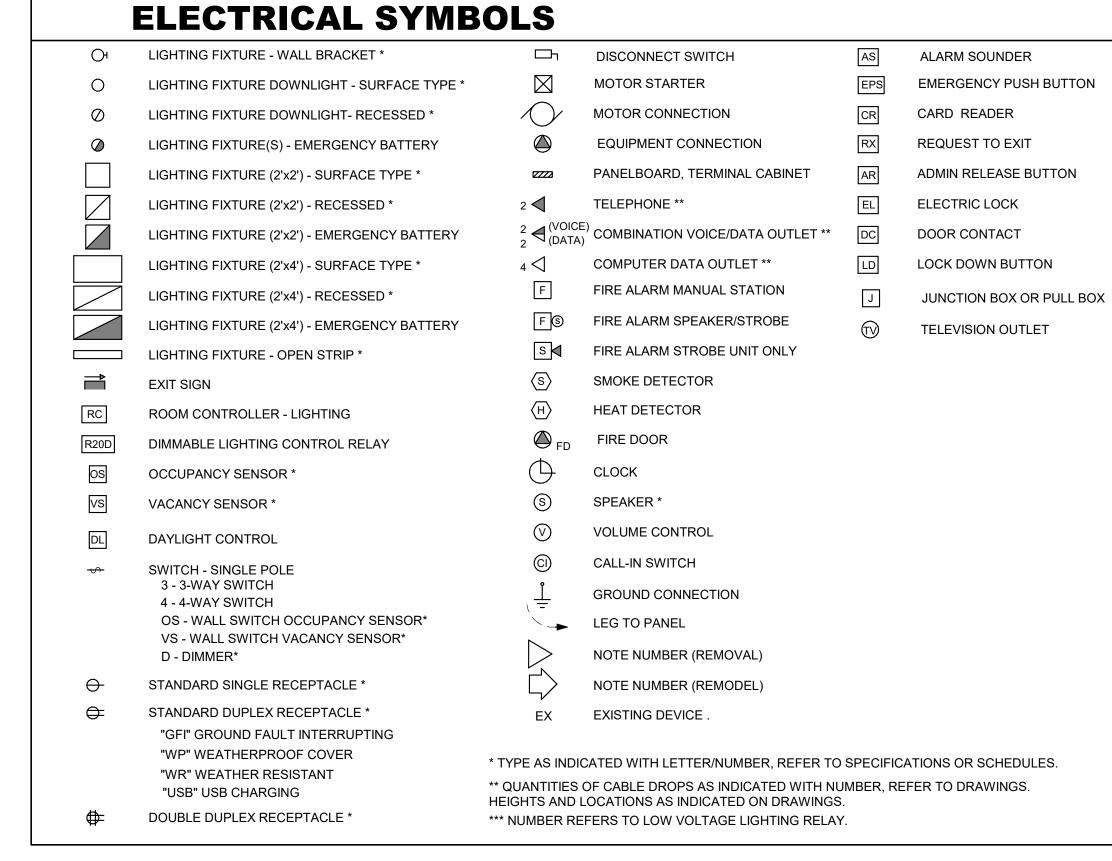
A2 Addendum #2 09/23/202

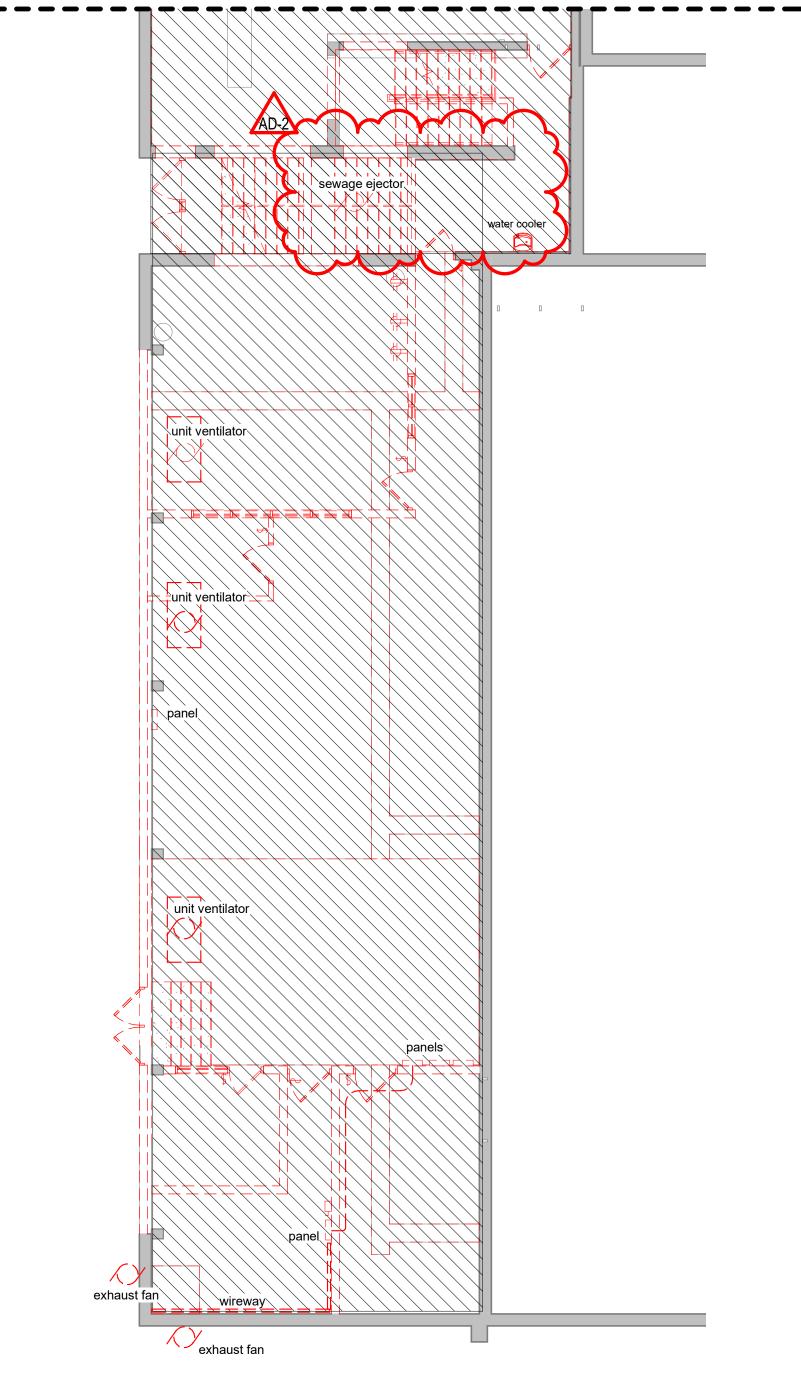
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M603







2 LOWER LEVEL ELEC. DEMO PLAN - SEG B

1/8" = 1'-0"

ARCHITECTURE ENGINEERING INTERIOR DESIGN

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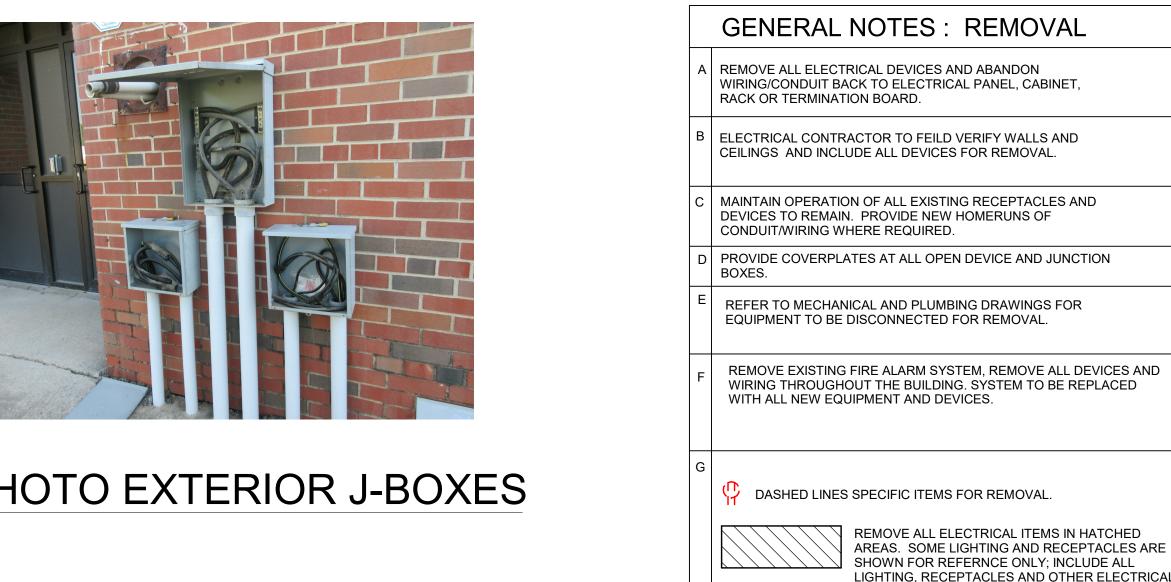
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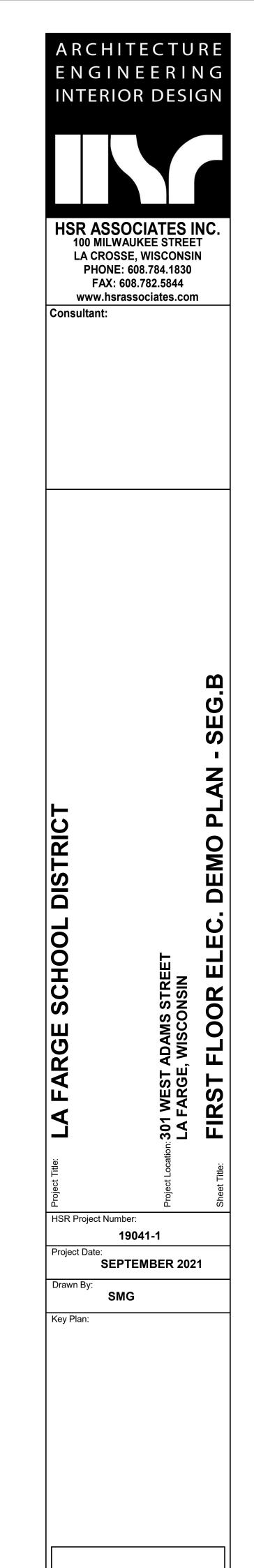
BID DOCUMENTS

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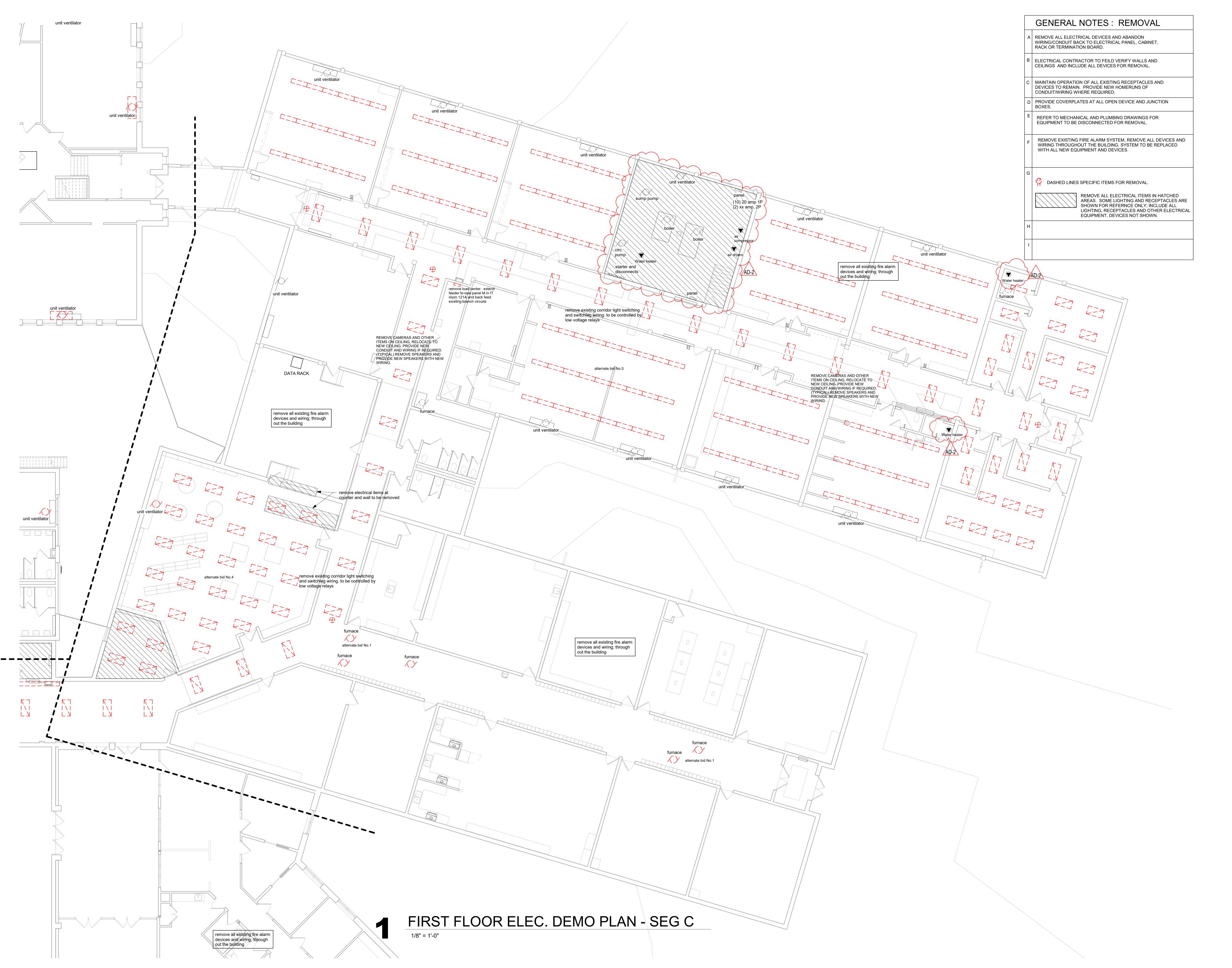
2 PHOTO EXTERIOR J-BOXES REMOVE ALL ELECTRICAL ITEMS IN HATCHED AREAS. SOME LIGHTING AND RECEPTACLES ARE SHOWN FOR REFERNCE ONLY; INCLUDE ALL LIGHTING, RECEPTACLES AND OTHER ELECTRICAL EQUIPMENT, DEVICES NOT SHOWN. alternate bid No.1 Remove junction box and all wiring.
 provide new conduit and wiring to active surface wireway -1×1 -1×1 verify quanity and locations of lights to be removed REMOVE JUNCTION BOXES AND CONDUITS/CONDUCTORS BACK TO SOURCE AND PANELS. VERIFY FEED LOCATIONS AND ROUTING OF CONDUITS TO BE REMOVED. REFER TO PHOTOGRAPH THIS SHEETAND SHEET E600- ELECTRIC RISER DIAGRAM- REMOVAL. EXISTING ELECTRICAL LB FITTINGS, REMOVE CONDUCTORS AND CONDUIT TO LIGHT POLE. AREA IS TO BE EXCAVATED. air handler LIGHT POLE TO BE REMOVED BY GENERAL CONTRACTOR ()----+---- - FEILD LIGHTING STRUCTURE. roof exhauster EXISTING ELECTRICAL PULL BOX, REMOVE CONDUCTORS AND CONDUIT BACK TO ELECTRIC remove all existing fire alarm devices and wiring; through COMPANY PULL BOX. AREA IS TO BE EXCAVATED. PROVIDE NEW CONDUCTORS AND CONDUITS AFTER NEW GRADE IS ESTABLISHED. VERIFY EXISTING out the building CONDUIT AND CONDUCTOR SIZES. CEILING FAN **CEILING FAN** remove all existing fire alarm devices and wiring; through out the building air handler FIRST FLOOR ELEC. DEMO PLAN - SEG B - REMOVE UNDERGROUND CONDUIT/CONDUCTORS. VERIFY LOCATION AND LENGTHS FOR NEW INSTALLATION, BY ELEECTRICAL CONTRACTOR. PULL BOX. (VERIFY LOCATION)



BID **DOCUMENTS**

Revis	sions:	
No.	Description	Date
AD-1	AD-1	9/20/21
AD-2	AD-2	9/23/21

VARIES 9/23/2021 2:22:02 PM



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Consultant:

HSR Project Number:

19041-1 t Date: SEPTEMBER 2021

SM0 ey Plan:

BID DOCUMENTS

evisions:

o. Description

0-1 AD-1 9/20

0-2 AD-2 9/23

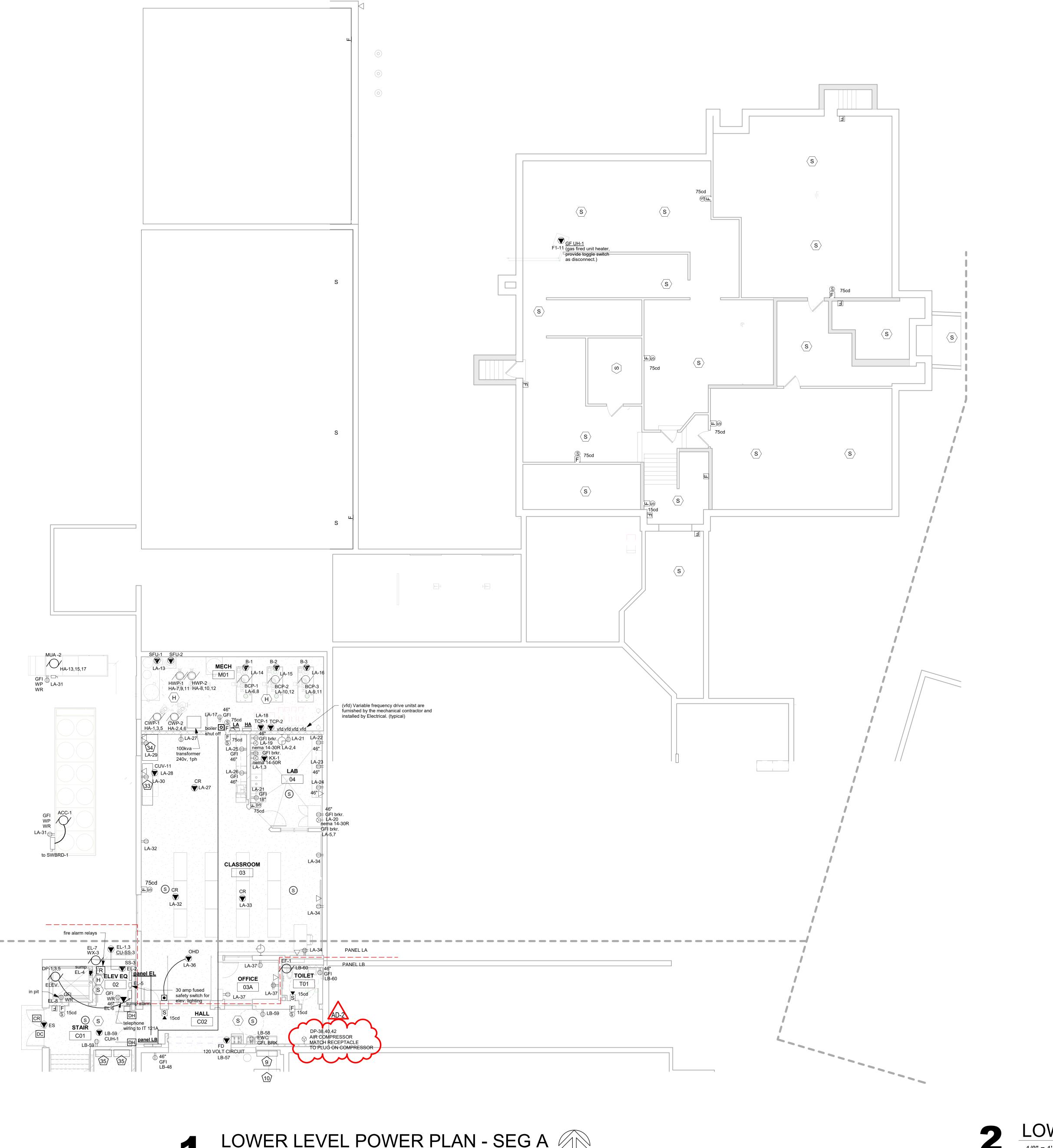
raphic Scale:

VARIES

st Update:

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E093



GENERAL NOTES: REMODEL A ALL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE. B MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED. PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH BRANCH CIRCUIT. $\mathsf{E} \mid \mathsf{PROVIDE}$ FIRE STOPPING AND SMOKE DRAFT STOPPING AT ALL CONDUIT PENETRATIONS, REFER TO SPECIFICATIONS SECTION 07840 FOR FIRE RESISTIVE AND NON-FIRE RESISTIVE ASSEMBLIES. F PROVIDE NEW FIRE ALARM SYSTEM AND WIRING. G EXTEND EXISTING LIGHTING BRANCH CIRCUITS TO NEW LIGHT FIXTURES, UNLESS INDICATED BY A NEW BRANCH CIRCUIT. PROVIDE NEW CONDUIT, WIRING AND HOMERUNS WHERE REQUIRED. H REFER TO SHEETS A111, AND A113 (KEY NOTES RCP #6) FOR ADDITIONAL ELECTRICAL WORK. REMOVE ALL ELECTRICAL ITEMS AND CONDUITS IN THE AREAS INDICATED. REMOVE AND REINSTALL ITEMS AS REQUIRED FOR INSTALLATION OF

MECH. WORK. RELOCATE CONDUITS AND JUNCTION BOXES. PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE REQUIRED. FEILD SURVERY <u>EXISTING CONDITIONS</u> AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.

fire alarm relays — - 30 amp fused safety switch for MATCH RECEPTACLE TO PLUG ON COMPRESSOR provide conduit and DC-1-AF DP-20,22,24 DP-2,4,6 DP-20,22,24 LB-9-11 LB-6,8 LB-5,7 LB-10,12 LB-13,15 LB-14,16 LB-17,19 LB-36 LB-37 LB-38 LB-39 (29) (29) (29) (29) NEMA 14-20 LB-31,33 mounting heights of welding outlets with owner. (typical) NEMA 5-20R-GFI TO LIGHT POLE REFER TO SHEET E001

LOWER LEVEL POWER PLAN - SEG B



ARCHITECTURE

INTERIOR DESIGN

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Consultant:

HSR Project Number:

BID **DOCUMENTS**

AD-1 AD-1 AD-2 AD-2

Graphic Scale: **VARIES**

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GENERAL NOTES: REMODEL

A ALL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE.

B MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED.

6 -----

PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS

D PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH

BRANCH CIRCUIT.

E PROVIDE FIRE STOPPING AND SMOKE DRAFT STOPPING AT ALL CONDUIT PENETRATIONS, REFER TO SPECIFICATIONS SECTION 07840 FOR FIRE RESISTIVE AND NON-FIRE

F PROVIDE NEW FIRE ALARM SYSTEM AND WIRING.

RESISTIVE ASSEMBLIES.

G EXTEND EXISTING LIGHTING BRANCH CIRCUITS TO NEW LIGHT FIXTURES, UNLESS INDICATED BY A NEW BRANCH CIRCUIT. PROVIDE NEW CONDUIT, WIRING AND HOMERUNS WHERE REQUIRED.

H REFER TO SHEETS A111, AND A113 (KEY NOTES RCP #6) FOR ADDITIONAL ELECTRICAL WORK. REMOVE ALL ELECTRICAL ITEMS AND CONDUITS IN THE AREAS INDICATED. REMOVE AND REINSTALL ITEMS AS REQUIRED FOR INSTALLATION OF MECH. WORK. RELOCATE CONDUITS AND JUNCTION BOXES. PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE REQUIRED. FEILD SURVERY EXISTING CONDITIONS AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.

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Consultant:

ARCHITECTURE

A FARGE, WISCONSIN

HSR Project Number:

BID DOCUMENTS

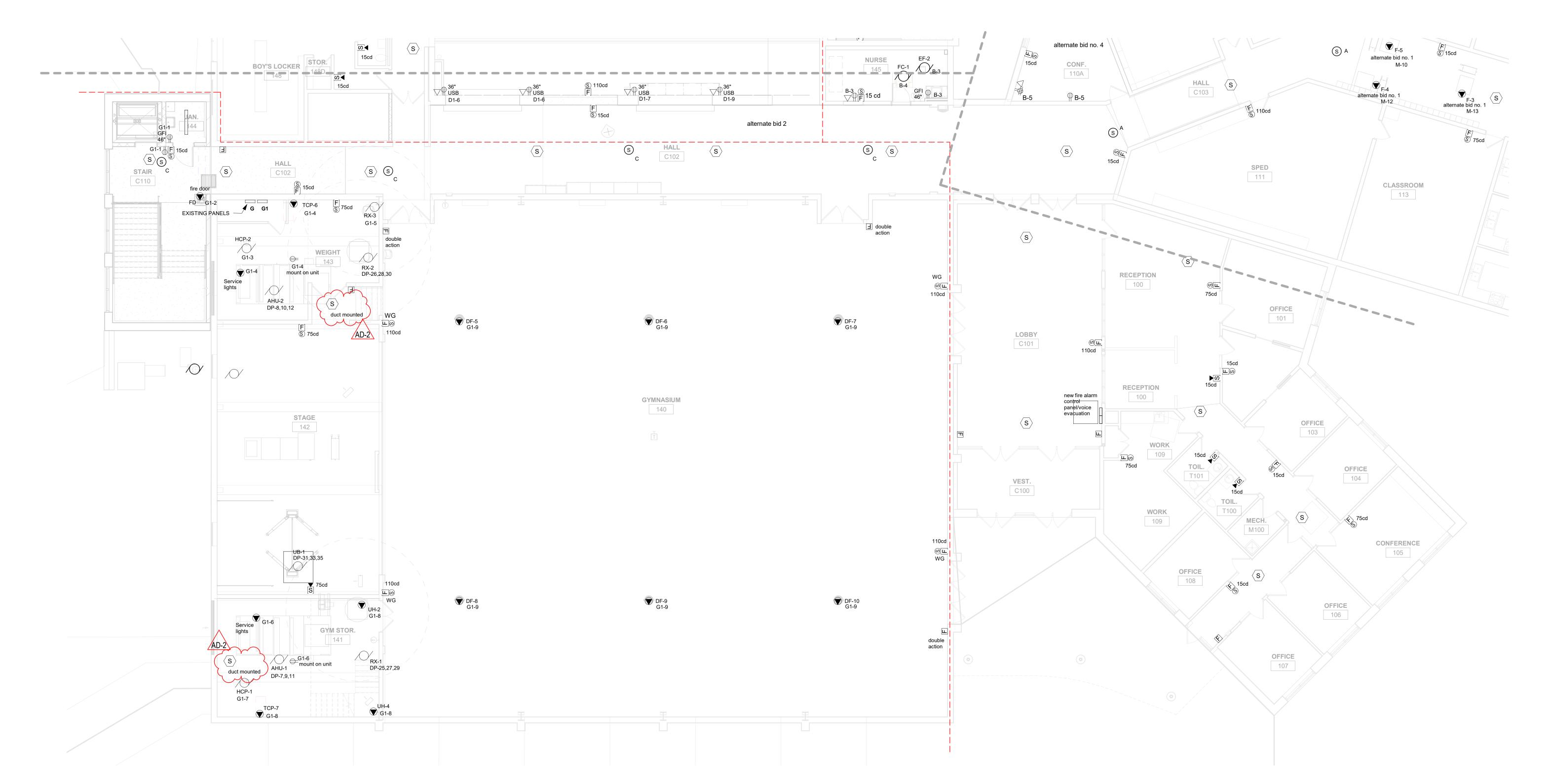
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E101



- ALL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE.
- MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED.
- PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS
- D PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH
- BRANCH CIRCUIT. PROVIDE FIRE STOPPING AND SMOKE DRAFT STOPPING AT ALL CONDUIT PENETRATIONS, REFER TO SPECIFICATIONS
 SECTION 07840 FOR FIRE RESISTIVE AND NON-FIRE
- RESISTIVE ASSEMBLIES. F PROVIDE NEW FIRE ALARM SYSTEM AND WIRING.
- EXTEND EXISTING LIGHTING BRANCH CIRCUITS TO NEW LIGHT FIXTURES, UNLESS INDICATED BY A NEW BRANCH CIRCUIT. PROVIDE NEW CONDUIT, WIRING AND HOMERUNS WHERE REQUIRED.
- H | REFER TO SHEETS A111, AND A113 (KEY NOTES RCP #6) FOR ADDITIONAL ELECTRICAL WORK. REMOVE ALL ELECTRICAL ITEMS AND CONDUITS IN THE AREAS INDICATED. REMOVE AND REINSTALL ITEMS AS REQUIRED FOR INSTALLATION OF MECH. WORK. RELOCATE CONDUITS AND JUNCTION BOXES. PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE REQUIRED. FEILD SURVERY EXISTING CONDITIONS AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.



FIRST FLOOR POWER PLAN -SEG B



ARCHITECTURE ENGINEERING INTERIOR DESIGN HSR ASSOCIATES INC. 100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844 www.hsrassociates.com

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Consultant:

Project Title: LA FARGE SCHOOL DISTRICT

La FARGE, WISCONSIN

Project Date: SEPTEMBER 2021

BID DOCUMENTS

Revisions:

No. Description

AD-1 AD-1

AD-2 AD-2

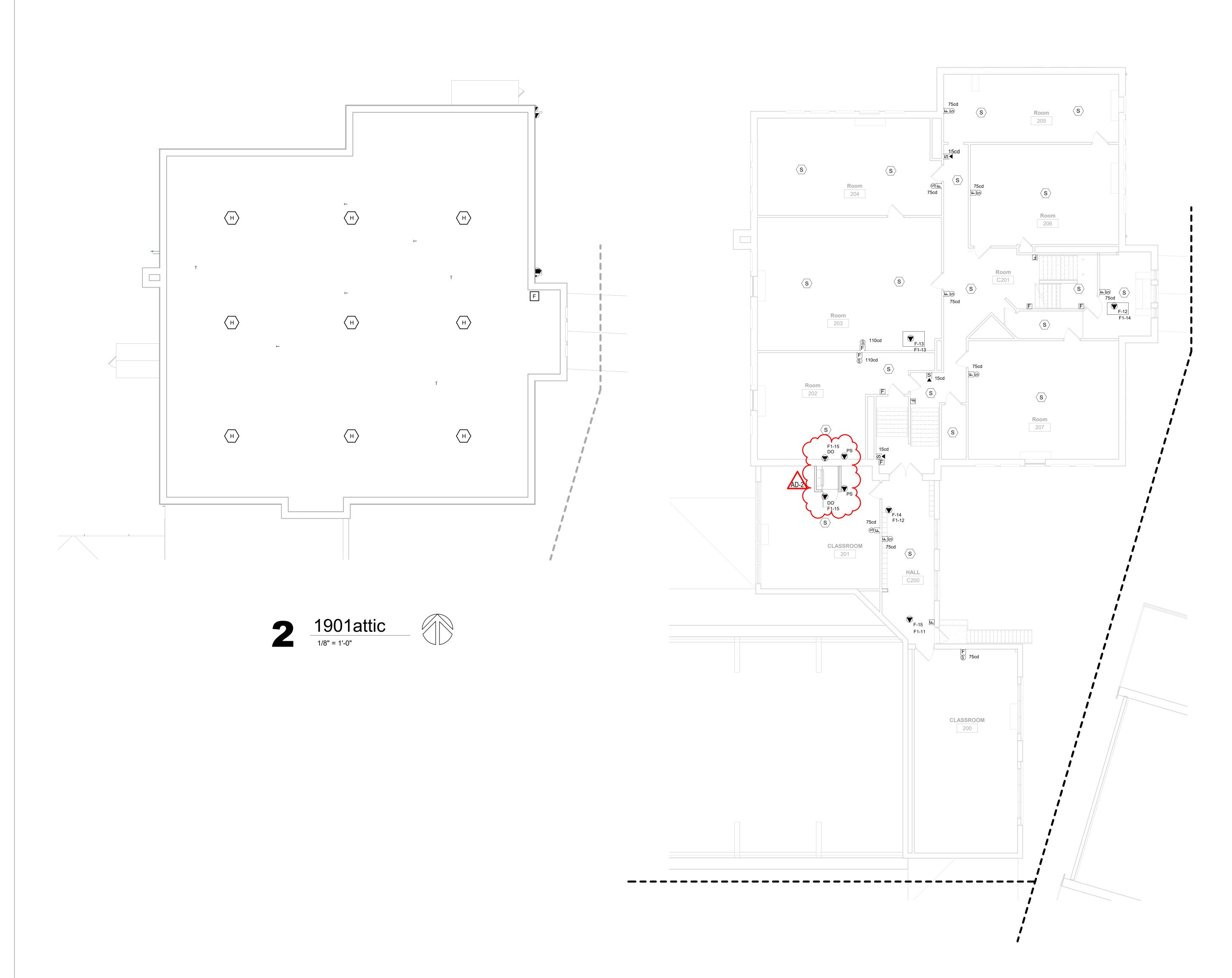
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VARIES

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E103



SECOND FLOOR POWER PLAN - SEG A

1/8" = 1'-0"

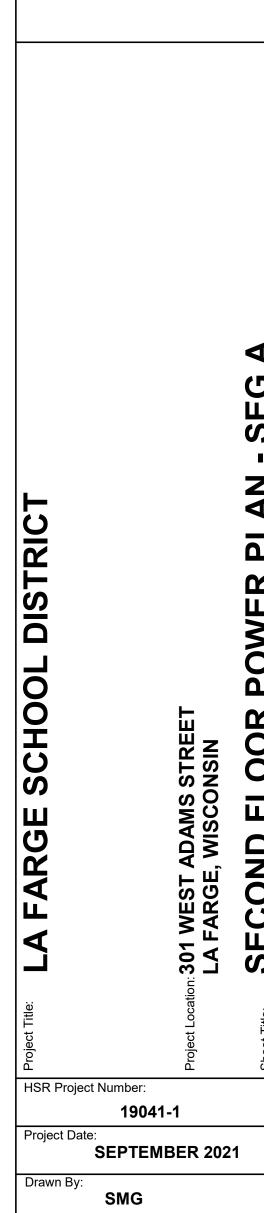


- ALL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE.
- B MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED.
- C PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS
- PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS
- D PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH BRANCH CIRCUIT.
- PROVIDE FIRE STOPPING AND SMOKE DRAFT STOPPING AT ALL CONDUIT PENETRATIONS, REFER TO SPECIFICATIONS SECTION 07840 FOR FIRE RESISTIVE AND NON-FIRE RESISTIVE ASSEMBLIES.
- F PROVIDE NEW FIRE ALARM SYSTEM AND WIRING.
- EXTEND EXISTING LIGHTING BRANCH CIRCUITS TO NEW LIGHT FIXTURES, UNLESS INDICATED BY A NEW BRANCH CIRCUIT. PROVIDE NEW CONDUIT, WIRING AND HOMERUNS WHERE REQUIRED.
- REFER TO SHEETS A111, AND A113 (KEY NOTES RCP #6) FOR ADDITIONAL ELECTRICAL WORK. REMOVE ALL ELECTRICAL ITEMS AND CONDUITS IN THE AREAS INDICATED. REMOVE AND REINSTALL ITEMS AS REQUIRED FOR INSTALLATION OF MECH. WORK. RELOCATE CONDUITS AND JUNCTION BOXES. PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE REQUIRED. FEILD SURVERY EXISTING CONDITIONS AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.



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BID DOCUMENTS

 No.
 Description
 Da

 AD-1
 AD-1
 9/20/2

 AD-2
 AD-2
 9/23/2

Graphic Scale:

VARIES

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E105



GENERAL NOTES: REMODEL

PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH

G EXTEND EXISTING LIGHTING BRANCH CIRCUITS TO NEW LIGHT FIXTURES, UNLESS INDICATED BY A NEW BRANCH CIRCUIT. PROVIDE NEW CONDUIT, WIRING AND HOMERUNS WHERE REQUIRED.

REQUIRED. FEILD SURVERY <u>EXISTING CONDITIONS</u> AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.

A LL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE.

B | MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED.

PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS

BRANCH CIRCUIT. PROVIDE FIRE STOPPING AND SMOKE DRAFT STOPPING AT ALL CONDUIT PENETRATIONS, REFER TO SPECIFICATIONS SECTION 07840 FOR FIRE RESISTIVE AND NON-FIRE

RESISTIVE ASSEMBLIES.

F PROVIDE NEW FIRE ALARM SYSTEM AND WIRING.

H REFER TO SHEETS A111, AND A113 (KEY NOTES RCP #6) FOR ADDITIONAL ELECTRICAL WORK. REMOVE ALL ELECTRICAL ITEMS AND CONDUITS IN THE AREAS INDICATED. REMOVE AND REINSTALL ITEMS AS REQUIRED FOR INSTALLATION OF MECH. WORK. RELOCATE CONDUITS AND JUNCTION BOXES. PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE

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ARCHITECTURE

ENGINEERING

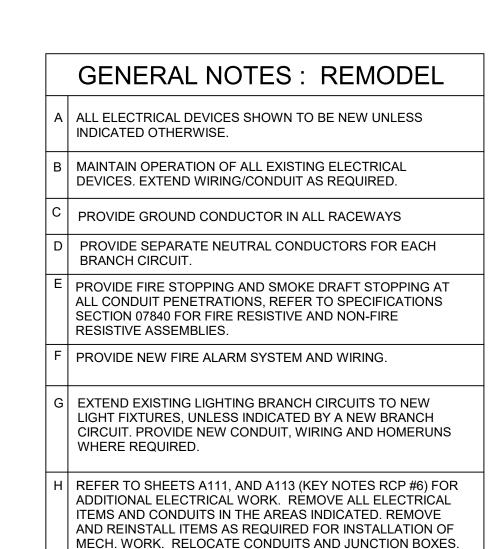
INTERIOR DESIGN

HSR Project Number:

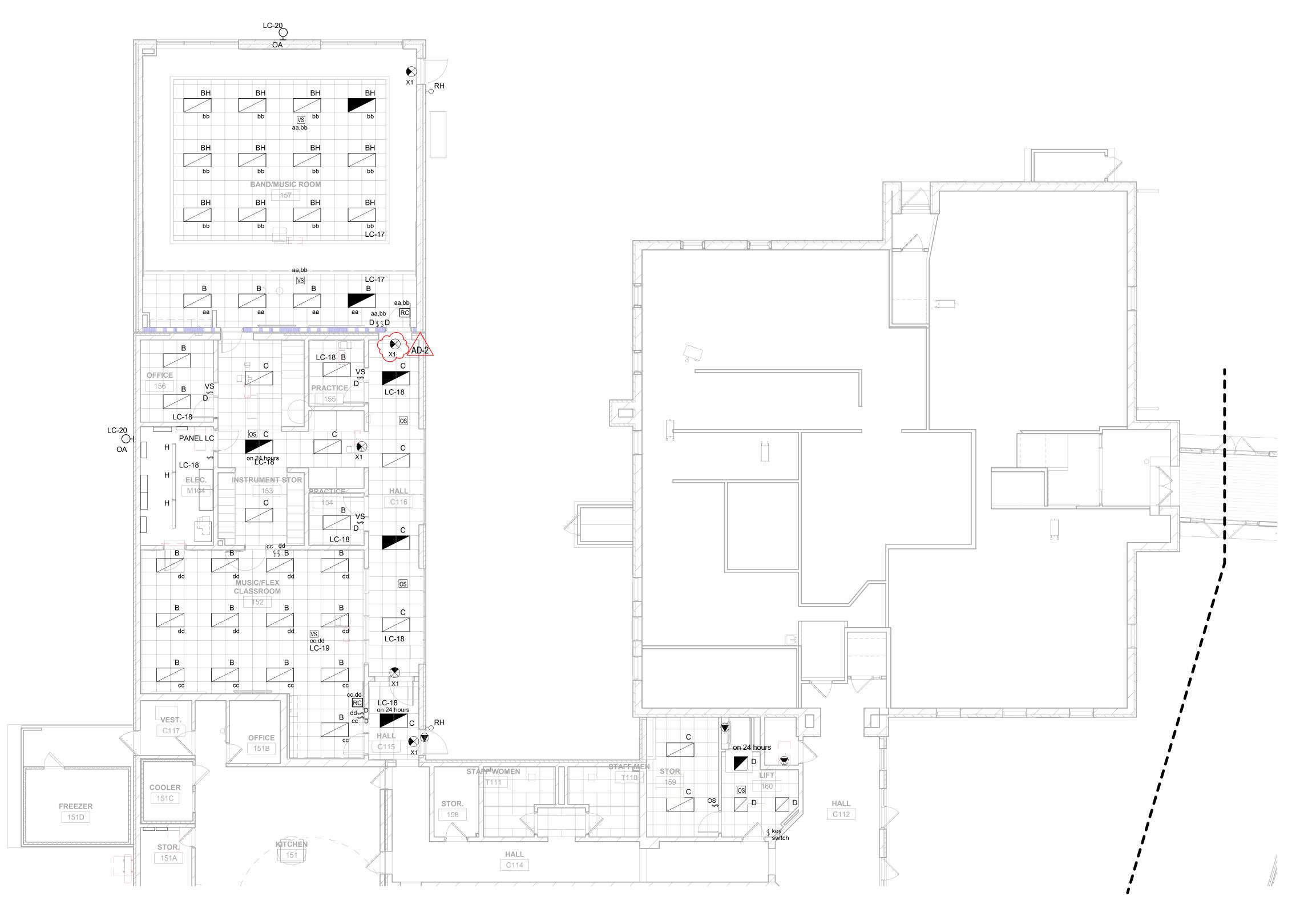
BID DOCUMENTS

VARIES

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PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE REQUIRED. FEILD SURVERY <u>EXISTING CONDITIONS</u> AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.





BID DOCUMENTS

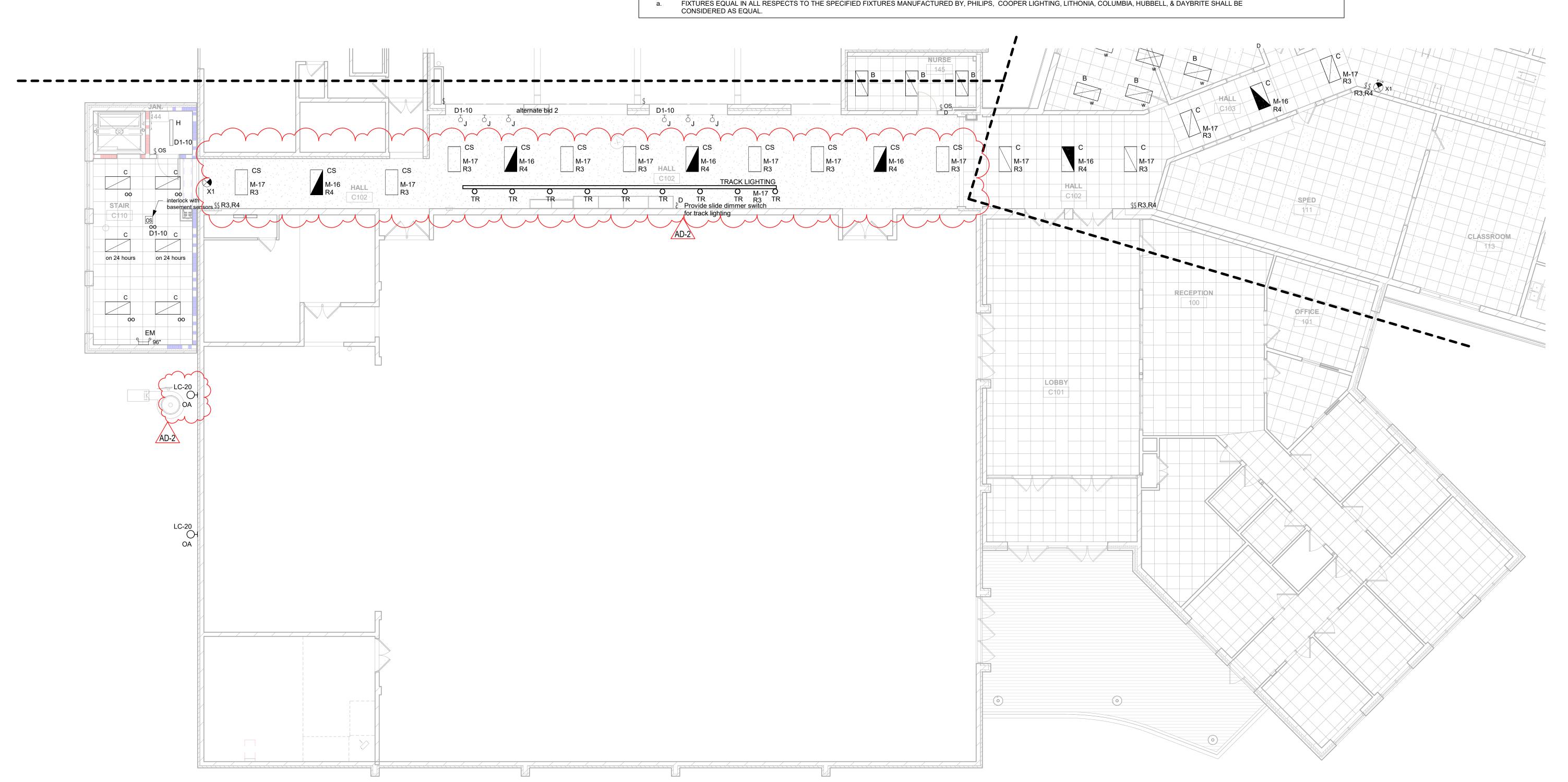
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VARIES

LOW VOLTAGE LIGHTING RELAY SHEDULE PANEL LCP, IT 121A												
RELAY NUMBER												
R1	CORRIDOR C108, VEST. 109	TYPE "C" FIXTURES	1									
R2	CORRIDOR C108	TYPE "C" FIXTURES	1									
R3	CORRIDOR C106 C102 AD-2	TYPE "C" FIXTURES	1									
R4	CORRIDOR C102,103, C106, C102	TYPE "C" FIXTURES	1									
R5	SPARE AD-2											
R6	SPARE											
REMARKS	S MAYBE CONTROLLED FROM MULTIPLE SW	ITCH LOCATIONS. REFER TO D	RAWINGS									

						MOU	NTING	**			
TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	VOLT	F	s	Р	О	WATTS	COLOR TEMP.	REMARK
А	LEDALITE	7406LACQDXX7W	LINEAR DIRECT/INDIRECT LIGHT	UNIV.			*		39.2/4 ft.	4000K	5
В	DAYBRITE	2FZP38L840-4-DS-UNV-DIM	2'X4' LED FLAT PANEL 3800 LU	UNIV.	*				29	4000K	1
С	DAYBRITE	2FZP30L840-4-DS-UNV-DIM	2'X4' LED FLAT PANEL 3000 LU	UNIV.	*				23	4000K	1
D	DAYBRITE	2FZP30L840-2-DS-UNV-DIM	2'X2' LED FLAT PANEL 3000 LU	UNIV.	*				23	4000K	2
F	DAYBRITE	1SML42L840-4-FA-12F-UNV-DIM	1'X4' SURFACE MODULAR 4200 LU	UNIV.		*			39	4000K	
G	DAYBRITE	SFL8110L840-PP2-UNV-DIM	8' INDUSTRIAL LED	UNIV.		*			69	4000K	7
H	DAYBRITE	FSX440L840-UNV	4' SEALED STRIP LED	UNIV.	\\\\\	*	$\left\langle \right\rangle$	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	32	4000K	~~~~
CS	DAYBRITE	2FZP30L840-4-DS-UNV-DIM/FSK24	2'X4' LED FLAT PANEL 3000 LU	UNIV.		*			23	4000K	1,10
OA	GARDCO	111L-16L-350-NW-G3-3-UNV-BZ-PC.	LEDMINI WALLSCONGE	UNIV.	1	/ *\	\)	1	18	4900K	8
UC	NUVO LIGHTING	NUVO 63-203	UNDERCOUNTER LIGHT	UNIV.		*			7	3500K/4000	
XT	CHLORIDE	CLXNRW BATTERY	EXIT LYGHT	UNW.	*				4	N)A	9
WD	DAYBRITE	DWAE27L8402-UNV	4' SEALED INDUSTRIAL	UNIV.		*			26	4000K	
	MILLENIUM LIGHTING	RDBS12-RGN15-SB	WIDE BOWL SHADE WITH GOOSE NECK	120	\\ \\	*			17	4000K	Black Finish
EM	CHLORIDE	CLR2	EMERGENCY LIGHT	UNIV.		*			2.2	LED	
RH	CHLORIDE	PLEMBZ	EXTERIOR EMERGENCY LIGHT	UNIV.	\nearrow	*	\ <u>\</u>	\bigcap	8-3W	LED	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
TR	LIGHTOLIER	LLAV20940LBK/LLAV11RF	LED TRACK LIGHTS 2000 LU	UNIV.		*			22W	4000K	11
	EMARKS JSH MOUNT; (S) SURFACE MOUNT; (P) PEND	ANT HUNG; (O) OTHER-SEE REMARI	KS IN REGARDS TO FIXTURE MOUNTIN	G.		<u></u>	人 				
REMARK:	2. 2'X 2' LED FLAT PANEL. 3. LIGHT FIXTURE CONNECTED TO 4. PROVIDE SURFACE MOUNTING K 5. LINEAR SUSPENDED LIGHT FIXTU 6. XXXX 7. LED INDUSTRIAL FIXTURE. SUPPO 8. WALL MOUNT LED FIXTURE, FULL 9. LED EXIT LIGHT, RED LETTERS W 10. PROVIDE WITH SURFACE MOUNT	IT. IRE, 80% DOWNLIGHT, PROVIDE CAE ORT WITH CABLES. CUT OFF LIGHTING, DIE CAST ALUI ITH WHITE HOUSING.	PICATED IN SYMBOLS LIST. PROVIDE 120 BLES TO HANG FIXTURE, WHITE FIXTUR MINUM HOUSING WITH BRONZE FINISH	RE FINISI	H.						

GENERAL NOTES: REMODEL A | ALL ELECTRICAL DEVICES SHOWN TO BE NEW UNLESS INDICATED OTHERWISE. B MAINTAIN OPERATION OF ALL EXISTING ELECTRICAL DEVICES. EXTEND WIRING/CONDUIT AS REQUIRED. PROVIDE GROUND CONDUCTOR IN ALL RACEWAYS PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH BRANCH CIRCUIT. PROVIDE FIRE STOPPING AND SMOKE DRAFT STOPPING AT ALL CONDUIT PENETRATIONS, REFER TO SPECIFICATIONS SECTION 07840 FOR FIRE RESISTIVE AND NON-FIRE RESISTIVE ASSEMBLIES. PROVIDE NEW FIRE ALARM SYSTEM AND WIRING. EXTEND EXISTING LIGHTING BRANCH CIRCUITS TO NEW LIGHT FIXTURES, UNLESS INDICATED BY A NEW BRANCH CIRCUIT. PROVIDE NEW CONDUIT, WIRING AND HOMERUNS WHERE REQUIRED. H REFER TO SHEETS A111, AND A113 (KEY NOTES RCP #6) FOR ADDITIONAL ELECTRICAL WORK. REMOVE ALL ELECTRICAL ITEMS AND CONDUITS IN THE AREAS INDICATED. REMOVE AND REINSTALL ITEMS AS REQUIRED FOR INSTALLATION OF MECH. WORK. RELOCATE CONDUITS AND JUNCTION BOXES. PROVIDE NEW SEGMENTS OF CONDUIT AND WIRING WHERE REQUIRED. FEILD SURVERY <u>EXISTING CONDITIONS</u> AND INCLUDE ALL REQUIRED WORK IN THE ELECTRICAL BID.



HSR Project Number: BID DOCUMENTS

Last Update: 9/23/2021 2:22:20 PM

INTERIOR DESIGN

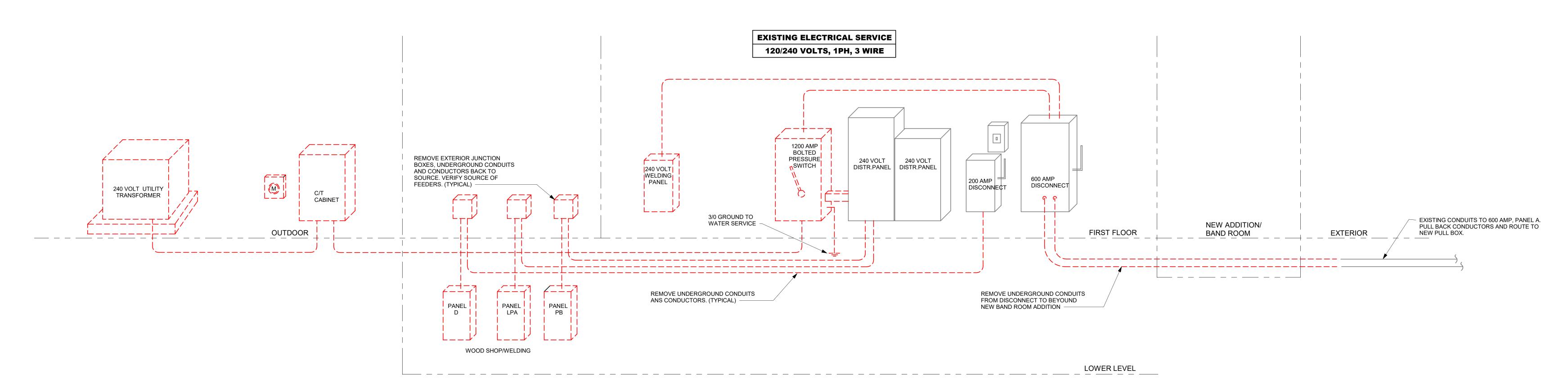
HSR ASSOCIATES INC.

100 MILWAUKEE STREET LA CROSSE, WISCONSIN

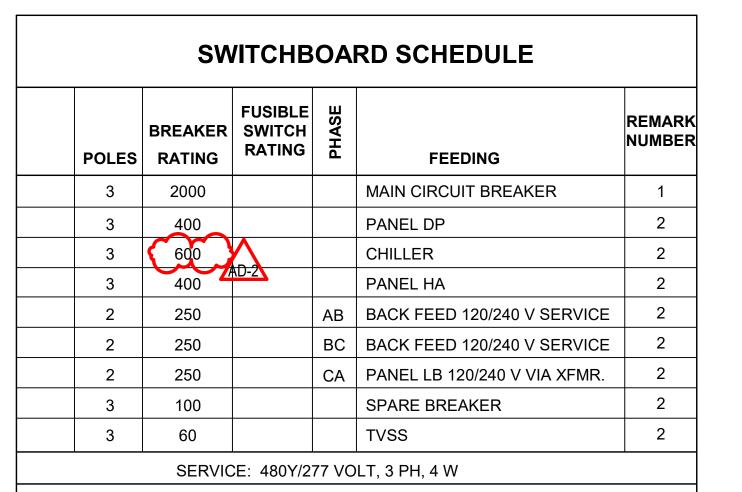
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ELECTRIC RISER DIAGRAM REMOVAL

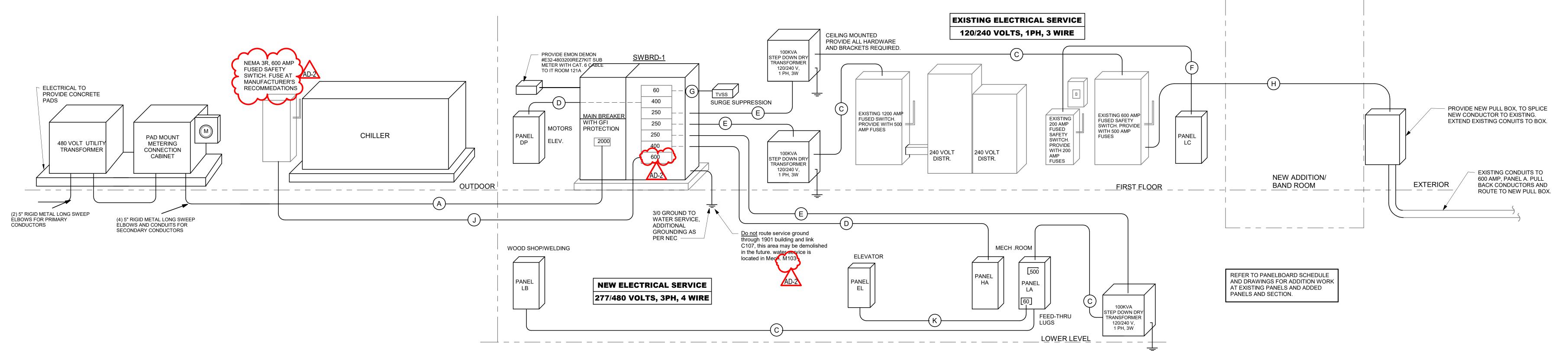


REMA	<u>IRKS</u>
1.	PROVIDE MAIN CIRCUIT BREAKER WITH 65,000 AMP INTERUPTING

DISTRIBUTION CIRCUIT BREAKERS TO BE SERIES RATED WITH MAIN

RATING. PROVIDE WITH GROUND FAULT SENSING.

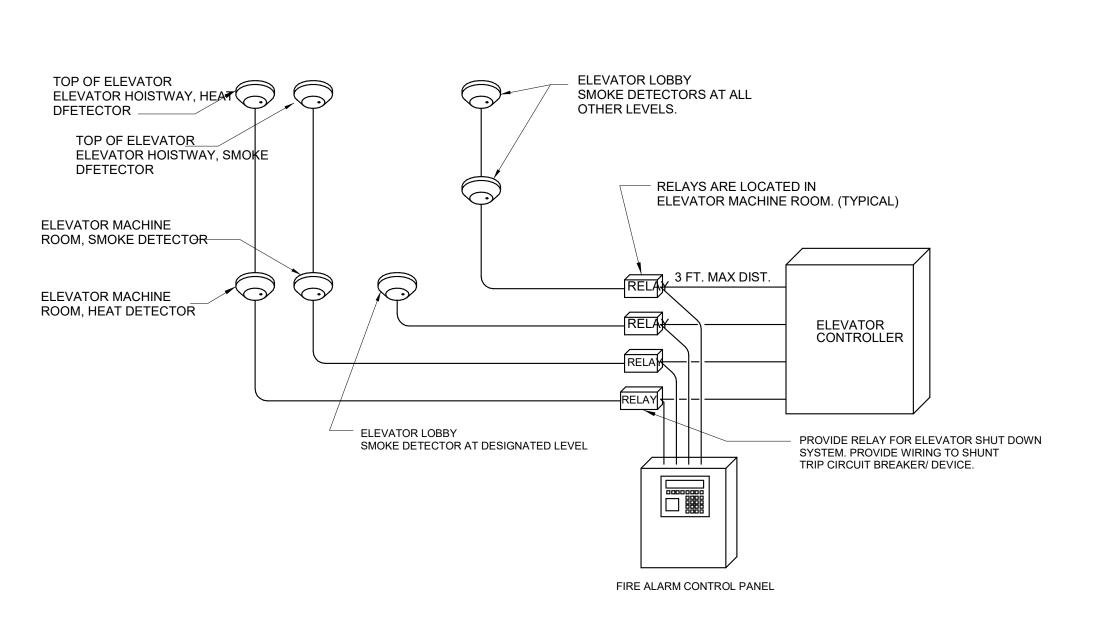
FEEDER SCHEDULE											
MARK NO.	CONDUIT SIZE	CONDUCTOR SIZE	GROUND SIZE	REMARKS							
A	5"	(4) #600 kcmil		4 PARALLEL RUNS							
B	2 1/2"	(4) # 300 kcmil	# 1	2 PARALLEL RUNS							
0	2"	(3) # 4/0	# 2	2 PARALLEL RUNS							
(D	3 1/2"	(4) #500 kcmil	# 3								
E	2"	(2) # 4/0	# 4								
F	2"	(3) # 3/0	# 6								
G	1"	(4) #6	# 10								
(H)	3"	(3) # 350 kcmil	#1	2 PARALLEL RUNS							
J	2 1/2"	(3) # 300 kcmil	#1	2 PARALLEL RUNS							
(K)	1"	(3) # 6	# 10 AD	-2							



100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844 www.hsrassociates.com Consultant: HSR Project Number: 19041-1 SEPTEMBER 2021 Drawn By: SMG Key Plan: BID **DOCUMENTS** AD-2 AD-2 Graphic Scale: **VARIES** 9/23/2021 2:22:21 PM

//ARK					RATING		WIRING S	SIZE	CONNECTION	
JMBER	DESCRIPTION		ROOM NUMBER	KW	HP VOLT	PH	CONDUCTORS	GRD.	DIRECT OR RECEPTACLE	REMARKS
1	LATHE	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
2	BAND SAW	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
3	PORTABLE AIR COMPRESSOR	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
4	PLANNER	EXISTING	SHOP 01		240	1	2 #10	#10	NEMA 14-30R	1
5	DISC SANDER	EXISTING	SHOP 01		240	1	2 #12	#12	NEMA L14-20R	1
6	TABLE SAW	EXISTING	SHOP 01		240	1	2 #12	#12	NEMA L14-20R	1
7	CHOP SAW TABLE	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
8	WORK TABLE	EXISTING	SHOP 01							
9	CLAMP RACK	EXISTING	SHOP 01							
10	GLUE TABLE	EXISTING	SHOP 01							
11	CNC TABLE	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
12	DRILL PRESS	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
13	SANDING TABLE	EXISTING	SHOP 01							
14	SMALL TOOL TABLE	EXISTING	SHOP 01							
15	SCROLL SAW	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
16	JOINTER	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
17	ROUTER TABLE	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
18	WORK TABLE (METALS)	EXISTING	SHOP 01							
19	TALL STORAGE CABINET	EXISTING	SHOP 01							
20	TOOL BOX	EXISTING	SHOP 01							
21	WORK BENCH	EXISTING	SHOP 01							
22	HOMAK STORAGE	EXISTING	SHOP 01							
23	METAL CHOP SAW	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
24	GRINDER (LARGE)	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
25	GRINDER (SMALL)	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
26	WELDING TABLE	EXISTING	SHOP 01							
27	TIRE BALANCER	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
28	TIRE MOUNTING	EXISTING	SHOP 01		240	1	2 #10	#10	NEMA 14-30R	1
29	MILLER THUNDERBOLT XL	EXISTING	SHOP 01		240	1	2 #10	#10	NEMA 14-30R & NEMA 14-50R	1
30	PLASMA CUTTER	EXISTING	SHOP 01		240	1	2 #10	#10	NEMA 14-30R & NEMA 14-50R	1
31	MILLER 212	EXISTING	SHOP 01		240	1	2 #10	#10	NEMA 14-30R	1
32	ECONOTIG	EXISTING	SHOP 01	52 amp	240	1	2 #4	#8	plug furnished with unit	1
33	3D PRINTER	EXISTING	SHOP 01		120	1	2 #12	#12	NEMA 5-20R	1
34	LASER	EXISTING	SHOP 04		120	1	2 #12	#12	NEMA 5-20R	1
35	FLAMABLE STORAGE	EXISTING	SHOP 04							
36	LIFT - AUTOMOTIVE	NEW	SHOP 01	5 HP	240	1	2 #6	#10	DIRECT	
E REMAR	KS: MCA MINIMUM CIRCUIT AMPACITY									
EMARKS										

Remark:



INDOOR UNIT

ELEVATOR RECALL DIAGRAM SHUNT TRIP

NTS

2 MINI-SPLIT WIRING DIAGRAM

NTS

			MOL	JNT'G	SIZ	Έ		MAIN	IS						В	RANCHES		
PANEL NAME	ROOM NO.	MFGR.	FLUSH	SURFACE	WIDTH	DEPTH	ELECTRICAL SERVICE	AMP.	rngs	BREAKER	SWITCH	FEED THRU LUGS	NO.	AMP.	POLE	CIRCUIT NUMBERS	SPACE	REMARK NUMBER
DP	ELEC M104	SQ D NF		X	20"	5.75"	480Y/277 VOLT 3 PH, 4 WIRE	400	Х			AD-2	2 7 2	60 45 20	3 3 3 3 3	DP-1,2,3,4,5,6 DR-7,8,9,10,11,12,14,16,18 DP-20,22,24-31,33,35,32,34,36,38,40,42 DP-13,15,17, 19,21,23	54 SPACE	
НА	MECH. M01	SQ D NF		Х	20"	5.75"	480Y/277 VOLT 3 PH, 4 WIRE	400	X				2 2 2	20 90 60	3 3 3	SPARES HA-1,2,3,4,5,6 HA-7,8,9,10,11,12 HA-13,15,17	54 SPACE	
LA	MECH M01	SQ D NQ		X	20"	5.75"	240/120 VOLT 1 PH, 3 WIRE	600		X		Х	1 2	20 500 50 30	2 2	SPARES MAIN CIRCUIT BREAKER LA-1,3 LA-2,4,5,7 (GFI circuit breakers)	54 SPACE	FEED THRU LUGS
													3 23 2 4	20 20 20 20 20	2 1 1 1	LA-2,4,5,7 (GFT circuit breakers) LA-6,8,9,10,11,12 LA -13, 14-18. 21-37 LA -19,20 (GFI circuit breakers) SPARES		
LB	SHOP 01	SQ D NQ		x	20"	5.75"	240/120 VOLT 1 PH, 3 WIRE	600	Х				1 2	80 60	2 2	LB-1,3 LB-2,4. Sub feed to panel EL LB-5,6-9,11	84 SPACE	
											2	AD-2	7 3 39 2 2	30 20 20 20 50 30	2 2 1 2 2 2	LB-10,12,13-17,19,21,23,26,28,30 ,32 LB-22,24,25,27,31,33, LB-29,34-67,68,69,71 LB-71 (GFI circuit breaker) LB-58 (GFI circuit breaker) SPARES		
LC	ELEC. M104	SQ D NQ		Х	20"	5.75"	240/120 VOLT 1 PH, 3 WIRE	225	X				6 1 18 2	20 20 20 20	1 2 1 2	SPARES LC-1,3 LC-2, 4-16,17,18,19,20 SPARES	54 SPACE	
L1A (existing)	MECH. M102	Kinney					240/120 VOLT 1 PH, 3 WIRE						3	20	1	SPARES L1A -1,2,3 (Existing circuit breakers)		
B (existing)	STAFF 146	Cutler- Hammer					240/120 VOLT 1 PH, 3 WIRE						5	20	1	B-1,2,3,4,5		1
C existing)	MECH. M103	Cutler- Hammer					240/120 VOLT 1 PH, 3 WIRE						1	125	2	FEEDS SUB PANEL C2		1
C2	MECH. M103	SQ D NQ		Х	20"	5.75"	240/120 VOLT 1 PH, 3 WIRE	225	X				18 10 4	20 20 20	1 1 1	C2-1, 2-18 refeed existing circuits from boiler room panel	54 SPACE	2
D1	OFFICE 149	SQ D NQ		X	20"	5.75"	240/120 VOLT 1 PH, 3 WIRE	225	Х				10 36 4	20 20 20 20	1 1 2	D1-1,2-10 refeed existing circuits from adjacent panel D refeed existing circuits from adjacent panel D SPARES	72 SPACE	3
EL	ELEV. EQUIP 02	SQ D NQ		Х	20"	5.75"	240/120 VOLT 1 PH, 3 WIRE	100	Х				1 6	20 20 20	2	EL-1,3 EL-2, 4-8 SPARES	18 SPACE	
F1 existing)	JAN. 161	Cutler- Hammer		X			240/120 VOLT 1 PH, 3 WIRE					AD 2	15	20	1	F1-1,2-15		1
G1 existing)	WEIGHT 143	Cutler- Hammer		X			240/120 VOLT 1 PH, 3 WIRE					AD-2	9	20	1	G1-1, 2-9		1
M	WEIGHT 143	Cutler- Hammer		X			240/120 VOLT 1 PH, 3 WIRE					AD-2	17	20 20 20	1 1	M-9,11 M-1, 2-8, 10,12-15,16,17,18,19 Refeed existing branch circuits from removed load center.		
* SEE RE	EMARKS ARD SCHEDULE																	

ENGINEERING INTERIOR DESIGN 100 MILWAUKEE STREET LA CROSSE, WISCONSIN PHONE: 608.784.1830 FAX: 608.782.5844 www.hsrassociates.com HSR Project Number: SMG Key Plan:

> BID DOCUMENTS

 No.
 Description
 Date

 AD-1
 AD-1
 9/20/21

 AD-2
 AD-2
 9/23/21

Graphic Scale:

Last Update: 9/23/2021 2:22:21 PM

E602

	EQUIPMENT SCHE	DULE							
MARK				R/	ATING		WIRING	SIZE	
NUMBER	DESCRIPTION	LOCATION ROOM NUMBER	KW	НР	VOLT	PH	CONDUCTOR	S GRD.	REMARKS
B-1	BOILER	MECH M01	13 FLA		120	1	2 #12	#12	1,8
B-2	BOILER	MECH M01	13 FLA		120	1	2 #12	#12	1,8
B-3	BOILER	MECH M01	13 FLA		120	1	2 #12	#12	1,8
AF-1	AIR FILTER	SHOP 01	13 FLA		120	1	2 #12	#12	7
			20						
CE-1	CEILING EXHAUST FAN	TOILET 104B	20 WATTS		120	1	2 #12	#12	1
CE-2	CEILING EXHAUST FAN	IT 104A	60 WATTS		120	1	2 #12	#12	1
CUH-1			120				2 // 2	"10	
to 5	CABINET HEATER (quantity of 5)	SEE DRAWINGS	WATTS		120	1	2 #12	#12	1
CUV-1	CABINET UNIT VENTILATOR (quantity of 11)	SEE DRAWINGS	14		120	1	2 #12	#12	1
to 11	CABINET UNIT VENTILATOR (quantity of 11)	SEE DRAWINGS	MCA		120	<u>'</u>	2 #12	7712	1
CU-SS-1	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR	16 MCA		240	1	2 #10	#10	1,3
SS-1	DUCTLESS SPLIT SYSTEM - INTERIOR	xx	-		240	1	2#10	#10	1,3
CU-SS-2	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR	16 MCA		240	1	2 #10	#10	1,3
SS-2	DUCTLESS SPLIT SYSTEM - INTERIOR	xx	_		240	1	2#10	#10	1,3
CU-SS-3	DUCTLESS SPLIT SYSTEM - EXTERIOR	EXTERIOR	16 MCA		240	1	2 #10	#10	1,3
SS-3	DUCTLESS SPLIT SYSTEM - INTERIOR	ELEV 02	_		240	1	2#10	#10	1,3
					2.0				1,0
CR	CORD REEL	SEE DRAWINGS	_		120	1	2 #12	#12	5
DC	DROP CORD	SEE DRAWINGS	_		120	1	2 #12	#12	6
20	Ditol Colle	OLL BIVWINGS			120				, and the second
DF-1 to	DESTRATIFICATION FAN (quantity of 10)	SEE DRAWINGS			120	1	2 #12	#12	1,2
10	· · · · · · · · · · · · · · · · · · ·								
F-1 to	FURNACE (quantity of 15)	SEE DRAWINGS	15 AMP MOP	1 HP	120	1	2 #12	#12	1
15			MOP						·
HT	HEAT TAPE	SEE DRWGS.	-		120	1	2 #12	#12	
	AD-2								
WH-1	WATER HEATER	MECH. 102	-		120	1	2 #12	#12	1
OHD	OVERHEAD DOOR	GARAGE 115	3/4		120	1	2 #12	#12	1,4
									,
SFU-1	SYSTEM FEEDER UNIT	MECH. M01	125 WATTS		120	1	2 #12	#12	7
SFU-2	SYSTEM FEEDER UNIT	MECH. M01	125 WATTS		120	1	2 #12	#12	7
KX-1	RANGE HOOD	LAB 04	-		120	1	2 #12	#12	
TCP-1 to 9	TEMPERATURE CONTROL PANEL	SEE DRAWINGS	50 WATTS		120	1	2 #12	#12	1
			25						
UH-1	UNIT HEATER	SHOP 01	WATTS 25		120	1	2 #12	#12	1
UH-2	UNIT HEATER	SHOP 01	WATTS		120	1	2 #12	#12	1
DO DO	DOOR OPERATOR	SECURE 115E SEE DRWGS.	WATVS	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	120 120	1	2 #12 2 #12	#12	9
PS	PUSH STATION	SEE DRWGS. SEE DRWGS.	-		120	1	2 #12	#12	9 9
ADA	ADALIFT	LIFT 160	1/2 HP		120	1	2#12	#12	10
LIFT	· · · ·	1 100	.=."		0	•			10

* SEE REMARKS: MCA - MINIMUM CIRCUIT AMPACITY; FLA - FULL LOAD AMPS; MOP - MAXIMUM OVERCURRENT PROTECTION.

- REMARKS

 1. PROVIDE TOGGLE SWITCH NEAR UNIT TO SERVE AS DISCONNECT.
 2. DESTRATIFICATION FANS ARE FURNISHED BY MECHANICAL AND INSTALLED BY ELECTRICAL, ELECTRICAL TO INSTALL SPEED CONTROLLER FURNISHED WITH FANS.
 3. PROVIDE INTERCONNECTING WIRING BETWEEN INDOOR UNIT AND EXTERIOR CONDENSER. INCLUDE CONTROL WIRE (600 VOLT INSULATION RATING). PROVIDE NEMA 3R FUSED SAFETY SWITCH AT EXTERIOR UNIT AND TOGGLE SWITCH AT INTERIOR UNIT FOR DISCONNECTS.
 4. PROVIDE TOGGLE SWITCH AT UNIT TO SERVE AS DISCONNECT. INSTALL DOOR OPERATOR STATION AND WIRING. PROVIDE CONDUIT RACEWAYS FOR ALL DOOR LIMIT SWITCHES AND
- SAFETY SENSORS; VERIFY LOCATION OF SENSORS AND SWITCHES WITH DOOR MANUFACTURER. ELECTRICAL TO PROVIDE AND INSTALL CORD REELS, PROVIDE DUPLEX RECEPTACLE NEAR UNIT TO SERVE AS DISCONNECT.
- PROVIDE "SO" CORD WITH STRAIN RELIEFS WITH DUPLEX RECEPTACLES AT APPROXIMATELY 66" ABOVE FLOOR, VERIFY MOUNTING HEIGHT AND LOCATIONS WITH OWNER.
 PROVIDE DUPLEX RECEPTACLE NEAR UNIT FOR CORD AND PLUG-CONNECTION.
 PROVIDE LOCK-OUT TABS ON TOGGLE SWITCH
 PROVIDE INTERCONNECTING WIRING/RACEWAY TO PUSH STATIONS AND LIFT CONTROLLER.

PROVIDE INTERCONNECTING WIRING/RACEWAY TO POSH STATIONS AND LIFT CONTROLLER.
PROVIDE LOCKABLE TOGGLE SWITCH NEAR CONTROLLER UNIT. PROVIDE CONDUIT RACEWAY AND WIRING FROM CONTROLLER TO DOOR FRAME/LOCK AT EACH LEVEL.

	AIR COOLED CHILLER ELEVATOR AIR HANDLING UNIT AIR HANDLING UNIT AIR HANDLING UNIT ROOF TOP UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	HVAC/PLBG. EQUIP. NO. ACC-1 ELEV. AHU-1 AHU-2 AHU-3 RTU-1 MUA-1 MUA-2 BCP-1 BCP-2	EXTERIOR ELEV. 02 GYM STOR. 141 WEIGHT RM.143 MULTI PURP. 147 INST. STOR. 153 SHOP 01 EXTERIOR		480 480 480 480 480 480		X X	BY ELEC. X	F VFD VFD	MECH X X	ELEC.	TYPE *** staged VFD VFD	X X		see riser diagram 3 #3	GRD. see riser diagram #8	1 2
	ELEVATOR AIR HANDLING UNIT AIR HANDLING UNIT AIR HANDLING UNIT ROOF TOP UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	ACC-1 ELEV. AHU-1 AHU-2 AHU-3 RTU-1 MUA-1 MUA-2 BCP-1	EXTERIOR ELEV. 02 GYM STOR. 141 WEIGHT RM.143 MULTI PURP. 147 INST. STOR. 153 SHOP 01 EXTERIOR	468 MCA 20 15 15 5 3 HP	480 480 480 480 480	3 3 3 3	X	Х	F VFD	X X		*** staged VFD	X X		see riser diagram 3 #3	see riser diagram #8 #10	1
	AIR HANDLING UNIT AIR HANDLING UNIT AIR HANDLING UNIT ROOF TOP UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	AHU-1 AHU-2 AHU-3 RTU-1 MUA-1 MUA-2 BCP-1	GYM STOR. 141 WEIGHT RM.143 MULTI PURP. 147 INST. STOR. 153 SHOP 01 EXTERIOR	20 15 15 5 3 HP	480 480 480 480	3 3 3	X	х	VFD	х		VFD	Х		3 #3 3 #10	#8	2
	AIR HANDLING UNIT AIR HANDLING UNIT AIR HANDLING UNIT ROOF TOP UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	AHU-1 AHU-2 AHU-3 RTU-1 MUA-1 MUA-2 BCP-1	GYM STOR. 141 WEIGHT RM.143 MULTI PURP. 147 INST. STOR. 153 SHOP 01 EXTERIOR	15 15 5 3 HP	480 480 480 480	3 3 3	X	X	VFD	х		VFD	Х		3 #10	#10	2
	AIR HANDLING UNIT AIR HANDLING UNIT ROOF TOP UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	AHU-2 AHU-3 RTU-1 MUA-1 MUA-2 BCP-1	141 WEIGHT RM.143 MULTI PURP. 147 INST. STOR. 153 SHOP 01 EXTERIOR	15 5 3 HP 2 HP	480 480 480	3	X										
	AIR HANDLING UNIT ROOF TOP UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	AHU-3 RTU-1 MUA-1 MUA-2 BCP-1	RM.143 MULTI PURP. 147 INST. STOR. 153 SHOP 01 EXTERIOR	5 3 HP 2 HP	480	3			VFD	×		VFD			0 # * *		
	MAKE UP AIR UNIT MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	MUA-1 MUA-2 BCP-1	147 INST. STOR. 153 SHOP 01 EXTERIOR	3 HP	480		Х					5	Х		3 #10	#10	
	MAKE UP AIR UNIT MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	MUA-1 MUA-2 BCP-1	SHOP 01 EXTERIOR	2 HP		3	1		VFD	Х		VFD	Х		3 #10	#10	
	MAKE UP AIR UNIT BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	MUA-2 BCP-1	EXTERIOR		480			Х	F	X		VFD	Х		3 #12	#12	3
	BOILER CIRCULATING PUMP BOILER CIRCULATING PUMP	BCP-1		3 HP		3	Х		VFD	Х		VFD	Х		3 #12	#12	
	BOILER CIRCULATING PUMP				480	3	X		VFD	Х		VFD	Х		3 #12	#12	
		BCP-2	MECH. M01	2.25HP	240	1		Х	TG	Х		ECM	Х		2 #12	#12	
	BOILER CIRCULATING PUMP		MECH. M01	2.25HP	240	1		х	TG	х		ECM	Х		2 #12	#12	
		BCP-3	MECH. M01	2.25HP	240	1		Х	TG	Х		ECM	Х	_	2 #12	#12	
Į.	CHILLED WATER PUMP	CWP-1	MECH. M01	40	480	3	X		VFD	X		VFD	Х		3 #4	#8	
	CHILLED WATER PUMP	CWP-1	MECH. M01	40	480	3	X		VFD	X		VFD			3 #4	#8	
																	3
	DUST COLLECTOR	DC-1	EXTERIOR	20	480	3		X	F	X		VFD			3 #8	#10	3
L	DUST COLLECTOR AIR FILTER	DC-1-AF	EXTERIOR	1/2	480	3		X	NF	X		VFD	Х		3 #12	#12	
	HOT WATER PUMP	HWP-1	MECH. M01	20	480	3	Х		VFD	Х		VFD	Х		3 #10	#10	
	HOT WATER PUMP	HWP-2	MECH. M01	20	480	3	Х		VFD	Х		VFD	Х		3 #10	#10	
	ROOF EXHAUST FAN	RX-1	GYM STOR. 141	5	480	3	X		VFD	Х		VFD	Х		3 #12	#12	
	ROOF EXHAUST FAN	RX-2	WEIGHT 143	5	480	3	Х		VFD	Х		VFD	Х		3 #12	#12	
	ROOF EXHAUST FAN	RX-3	WEIGHT 143	1/4	120	1		Х	TG	Х			Х		2 #12	#12	
	ROOF EXHAUST FAN	RX-4	TOILET T105	1/4	120	1		Х	TG	Х			Х		2 #12	#12	
	ROOF EXHAUST FAN	RX-5	KITCHEN 151	1/2	120	1		Х	TG	Х			Х		2 #12	#12	
	WALL EXHAUST FAN	WX-1	EXTERIOR	1/2	120	1		Х	TG	Х			Х		2 #12	#12	
	WALL EXHAUST FAN WALL EXHAUST FAN	WX-2	ELEV. EQ.	1/2 1/8	120 120	1		X	TG TG	X			X		2 #12 2 #12	#12 #12	
	WALL EXTROGRAM	WV-3	02	1/0	120	'		^	10	^			^		2 11 12	1112	
	UTILITY BLOWER	UB-1	STAGE 142	3	480	3	Х		VFD	Х		VFD	Х		3 #12	#12	
	UTILITY BLOWER	UB-2	GIRLS LOCKER 150	3/4 HP	120	1		Х	TG	Х			Х		3 #12	#12	
	EXHAUST FAN	EF-1	TOILET T01	35 W	120	1		X	TG	X		VFD	Х		2 #12	#12	
	EXHAUST FAN	EF-2	NURSE 145	83 W	120	1		Х	TG	Х		VFD	Х		2 #12	#12	
	FAN COIL UNIT	FC-1	NURSE 145	3 A	120	1		Х	TG	X		VFD	Х		2 #12	#12	
	FAN COIL UNIT	FC-2	STAFF 146	4 A	120	1		Х	TG	Х		VFD	Х		2 #12	#12	
	FAN COIL UNIT	FC-3	STOR. 159	3 A	120	1		Х	TG	Х		VFD	Х		2 #12	#12	
	FAN COIL UNIT	FC-4	LIFT 160	4 A	120	1		Х	TG	Х		VFD	Х		2 #12	#12	
	RADIANT FLOOR PUMP	RFP-1	INST.STOR. 153	1/4 HP	120	1		х	TG	Х		VFD	х		2 #12	#12	
	HOT WATER CIRC. PUMP	HCP-1	GYM STOR.	1/4 HP	120	1		X	TG	X		VFD	X		2 #12	#12	
	HOT WATER CIRC. PUMP	HCP-2	141 WEIGHT 143	1/4 HP	120	1		X	TG	X		VFD	X		2 #12	#12	
	HOT WATER CIRC. PUMP	HCP-3	MULTI-PURP 147	1/4 HP	120	1		X	TG	X		VFD	Х		2 #12	#12	

*** (CB) CIRCUIT BREAKER; (CS) COMBINATION STARTER/DISCONNECT; (F) FUSED SAFETY SWITCH; (NF) NON FUSED SAFETY SWITCH; (TG) TOGGLE SWITCH(FVNR) FULL VOLTAGE NON-REVERSING MAGNETIC STARTER; (FVR) FULL VOLTAGE REVERSING MAGNETIC STARTER; (MS) MANUAL STARTER-WITH OVERLOAD PROTECTION; (MSW) MANUAL SWITCH-WITHOUT OVERLOAD PROTECTION; (MCC) MOTOR CONTROL CENTER; (PB) PUSH BUTTON STARTER; (VFD) VARIABLE FREQUENCY DRIVE; (MCA) MINIMUM CIRCUIT AMPS; (MOP) MAXIMUM OVER CURRENT PROTECTION.

PROVIDE 600 AMP, NEMA 3R FUSIBLE SAFETY SWITCH, FUSE AT MANUFACTURERS RECOMMENDATIONS.
 PROVIDE 100 AMP FUSIBLE SAFETY SWITCH, FUSE AT MANUFACTURERS RECOMMENDATIONS.
 FUSE AT MANUFACTURERS RECOMMENDATIONS.

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DOCUMENTS

Drawn By:

Key Plan:

SMG

VARIES

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