

Tony Baldwin, Ed.D., Superintendent

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buncombeschools.org

ADDENDUM #1

July 2, 2019

TRANSMITTED VIA EMAIL: 12 pages

TO: ALL PLAN HOLDERS AND POTENTIAL BIDDERS
FROM: TIFFANY McCANTS, PURCHASING OFFICER
SUBJECT: A.C. REYNOLDS MIDDLE SCHOOL RESTROOM REMODEL
(RFP# 26-19)

The following specifications and drawings are hereby made a part of the original documents. Bidders shall acknowledge receipt of this addendum by notation in the space provided on the Proposal Form.

Addendum includes: Pre-Bid meeting notes, revised drawings and new due date.

Addendum #1
RFP# 26-19

MEMO TO: Tiffany McCants
Purchasing Officer

FROM: Carol Fay, Architect
Facilities- Assistant Director

DATE: June 27, 2019

SUBJECT: AC Reynolds Middle School- Lower Level Restrooms – Addendum 1

A pre-bid meeting was held at 10:00 AM for the AC Reynolds Middle School LL restrooms.

The pre-bid meeting minutes are to be incorporated in the bid documents as clarification and information related to the project requirements.

- Pre-Bid Attendees:
- Jeannie Hargis Bolton Construction jeanniehargis@webolton.com
- Mike Young Northstar
- Mimi Hall Goforth Builders nillsted@gmail.com
- Tom Sterzel Sterzel Development Tom@Sterzeldevelopment.com
- Lauren Bartholomew J. Bartholomew Construction, LLC lauren@div7.org
- Brian Bartholomew J. Bartholomew Construction, LLC brian@div7.org
- Chris Dillingham Protech Industrial chris@protecindustrial.com

The following items and issues were discussed and clarifications are as follows:

- 1) It was requested by the majority of attendees that the bid date be extended. Bids are due by July 17 at 4:00 PM. This is an informal bid with no public bid opening.
- 2) Drawing 2.1 on the Website is mis-label. A new set of architectural drawings, with Rev. 1 in the title block, are available on the website. These include the plumbing, mechanical and electrical drawings.
- 3) Asbestos testing of materials to be demolished will be performed by the owner. Any affected materials will be removed by the owner prior to start of construction.
- 4) The contractor is responsible for obtaining and paying all costs associated with Buncombe County permits.
- 5) Construction may begin after a PO is issued. Demolition is preferred before August 19th, 2019. After August 19, there must be a pause in construction for 10 days. Substantial completion by January 3rd.

and final completion and acceptance of closeout documents must occur within 30 days of substantial completion otherwise liquidated damages will be assessed at a rate of \$250.00 per day

END AC REYNOLDS MIDDLE SCHOOL RESTROOM RENOVATION PRE-BID MEETING MINUTES

PROJECT DESCRIPTION:

WORK INVOLVES:
WORK CONSISTS OF THE CONSTRUCTION OF A (4) STALL RESTROOM AND A STAFF TOILET ROOM TO BE INTERNAL TO THE BUILDING. WORK INCLUDES THE DEMOLITION AND RENOVATION OF BLOCK WALLS, PLUMBING, MECHANICAL, ELECTRICAL, TOILET PARTITIONS AND TOILET ACCESSORIES.

THE PROJECT INVOLVES: GENERAL CONTRACTOR, MECHANICAL, PLUMBING AND ELECTRICAL WORK. THE LOCATION IS INTERNAL TO THE BUILDING AND DOES NOT INVOLVE AN ADDITION OR NEW BUILDING FOOTPRINT.

CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING ALL COSTS ASSOCIATED W/ BUNCOMBE COUNTY PERMITS AND FEES ASSOCIATED WITH THIS WORK.

GENERAL NOTES

1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES THAT WILL IMPACT THE DESIGN INTENT OF THE ADA COMPLIANT IMPROVEMENTS INDICATED IN THESE DOCUMENTS.
2. ALL EQUIPMENT, FIXTURES, HARDWARE AND ACCESSORIES PROVIDED ARE TO COMPLY WITH 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN BY THE US DEPARTMENT OF JUSTICE AND ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES. ALL PRODUCTS IDENTIFIED INDICATE BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. ALL EXISTING MATERIALS TO REMAIN ARE TO BE PROTECTED AND CLEANED. REMOVE EXISTING DEBRIS WITHOUT DAMAGING FINISHES.
4. NEATLY SEAL NEW MATERIALS TO EXISTING MATERIAL AND SURFACES.

OWNER CONTACTS:

DESIGN AND TECHNICAL CONTACT:

ARCHITECT
CAROL HENNE FAY
ASST. FACILITIES DIRECTOR, BUNCOMBE CO. SCHOOLS
PHONE: 828-255-5917
E-MAIL: CAROL.FAY@BCSEMAIL.ORG

PME ENGINEER
SUD ASSOCIATES, P.A.
CONSULTING ENGINEERS
PHONE- 828-255-4691

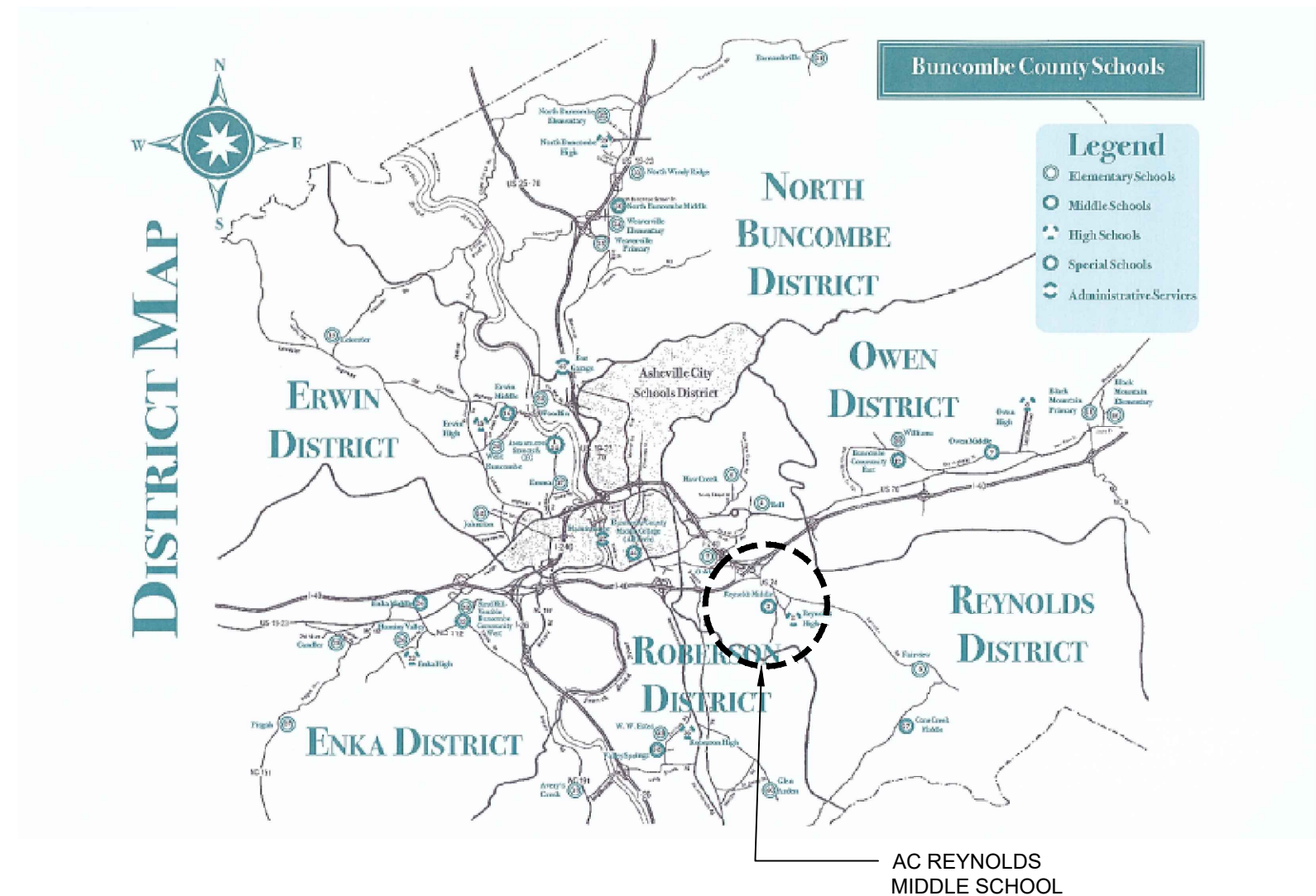
BIDDING & ADMINISTRATIVE CONTACT:

TIFFANY McCANTS
PURCHASING OFFICER
PHONE: 828-255-5891
FAX: 828-251-1730

SHEET INDEX:

| | |
|-------|--|
| COVER | |
| A1.1 | PROPOSED AND DEMOLITION PLANS |
| A2.1 | ELEVATIONS AND DETAILS, DOOR AND HARDWARE SCHEDULE, REFLECTED CEILING PLANS, FINISH SCHEDULE |
| P1.1 | PLUMBING SUPPLY |
| P1.2 | PLUMBING DWV |
| P2.2 | PLUMBING SCHEDULE AND NOTES |
| M1.1 | MECHANICAL- DEMOLITION AND CONSTRUCTION |
| E1.1 | ELECTRICAL- POWER AND LIGHTS |
| E2.1 | ELECTRICAL- LEGEND AND NOTES |

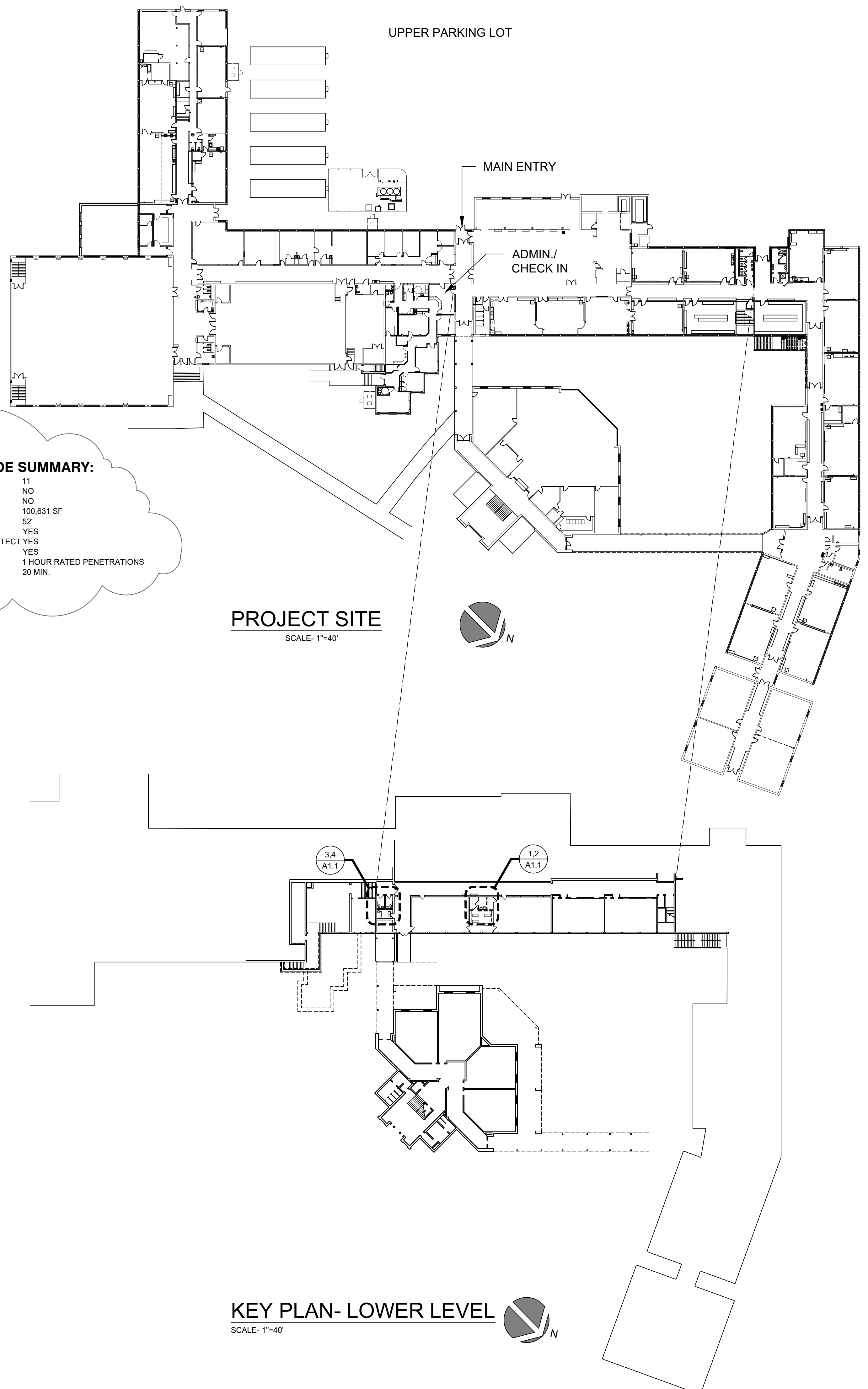
REV. 1



VICINITY MAP

BUILDING CODE SUMMARY:

| | |
|---------------------------|---------------------------|
| CONSTRUCTION TYPE: | 11 |
| SPRINKLED | NO |
| FIRE DISTRICT | NO |
| BUILDING AREA | 100,631 SF |
| BUILDING HEIGHT | 52' |
| EMERGENCY LIGHTS | YES |
| FIRE ALARM & SMOKE DETECT | YES |
| PANIC HARDWARE | YES |
| CORRIDOR WALLS | 1 HOUR RATED PENETRATIONS |
| CORRIDOR DOORS | 20 MIN. |



PROJECT SITE
SCALE- 1"=40'

KEY PLAN- LOWER LEVEL
SCALE- 1"=40'

**Buncombe County Schools
Facilities and Planning**

Timothy Fierle AIA, Director
175 Bingham Road □ Asheville, N.C. 28806-3800
Phone: (828) 255-5916 Fax: (828) 255-5923



COVER

DESIGNED BY: CHF
DATE: 06.14.2019
REV. 1: 07.01.2019



GENERAL NOTES

- 1) REPAIR WALLS TO REMAIN WHERE, PLUMBING FIXTURES AND OTHER UTILITIES ARE REMOVED, INCLUDING DAMAGE PRIOR TO START OF WORK
- 2) SEE SHEET A2.1 FOR FIXTURES AND ACCESSORIES SCHEDULE.
- 3) IN STAFF TOILET AND GIRL'S RR- ALL EXPOSED WALL SURFACES TO BE PAINTED. PAINT WALLS WITH COMPATIBLE PRIMER AND WATER BASED CATALYZED EPOXY PAINT. SEE A2.1 FOR FINISH PLAN
- 4) FLOOR LEVELING: AS REQUIRED BY FLOORING MANUFACTURER FOR INSTALLATION OF NEW VINYL FLOORING.
- 6) REPAIR ALL PENETRATIONS TO CEILING "PROTECTED" ROOF STRUCTURE EXISTING AND NEW. WHERE ROOF STRUCTURE IS EXPOSED, PROTECT WITH 1 LAYER 5/8" TYPE X GYPSUM BOARD, TAPED AND FIRE SEALED
- 7) CONTRACTOR TO VERIFY ALL DIMENSIONS AND QUANTITIES IN FIELD.
- 8) ALL UNDERGROUND PLUMBING TO BE SCHEDULE 40 PVC.

KEYED NOTES- PROPOSED

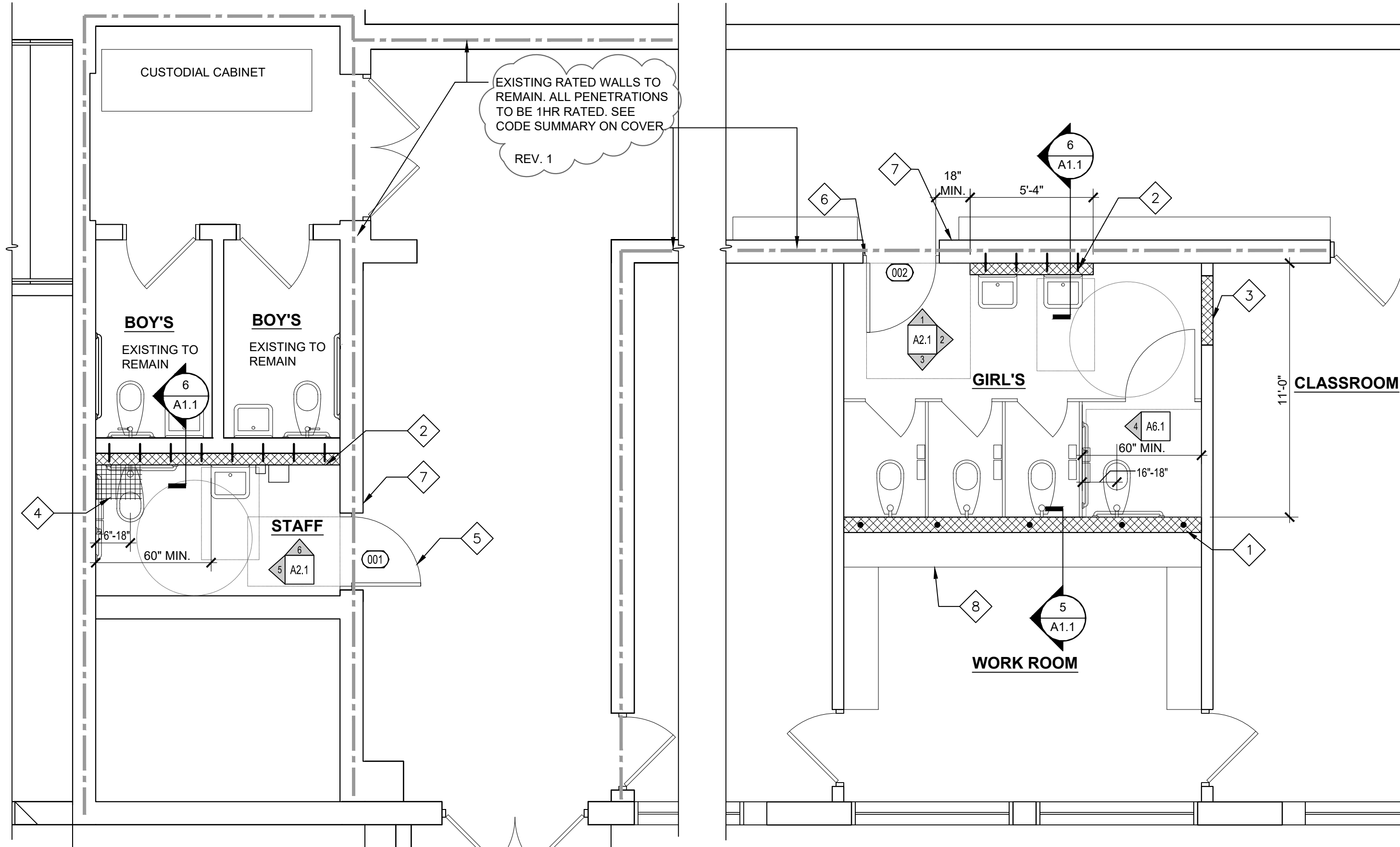
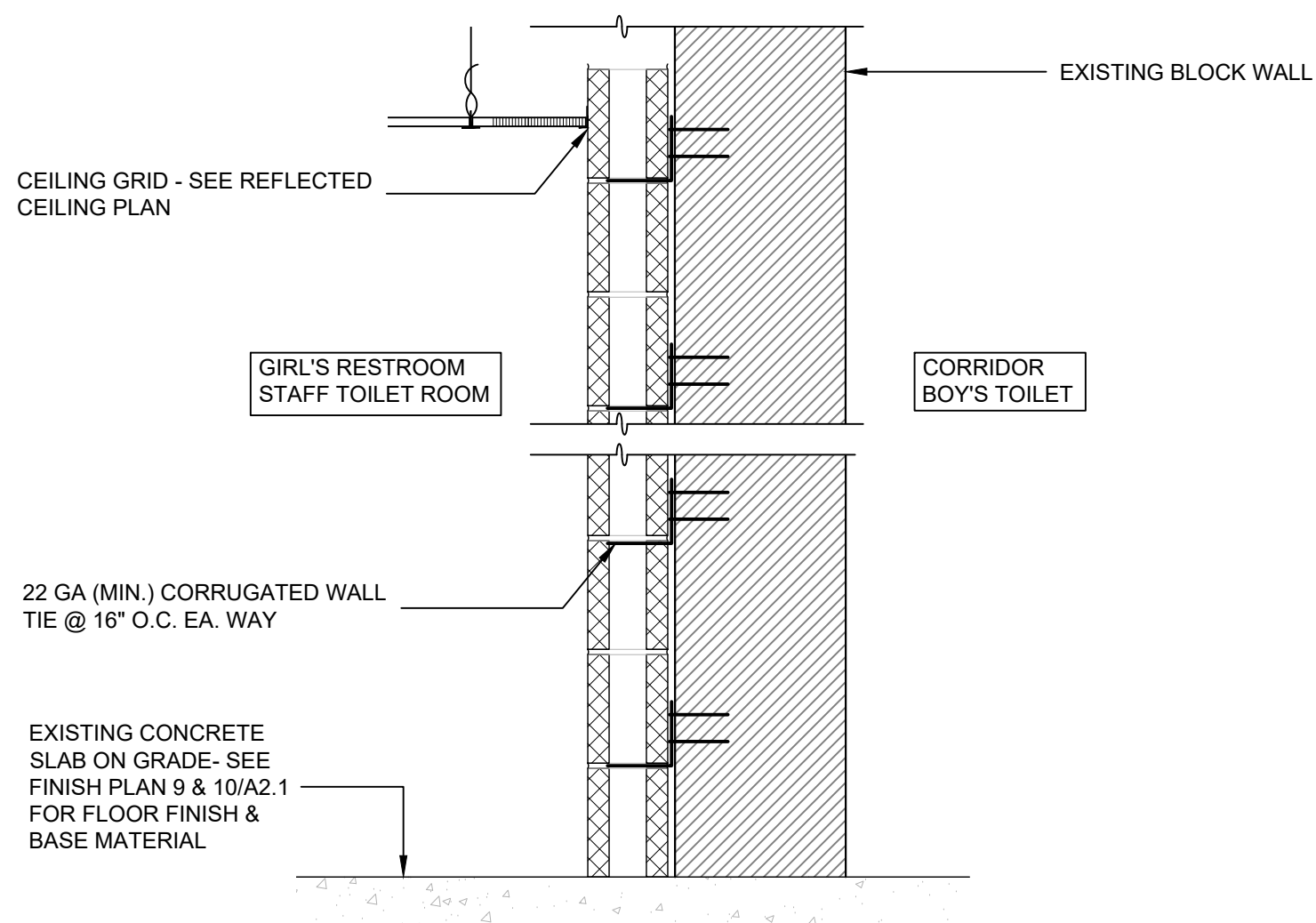
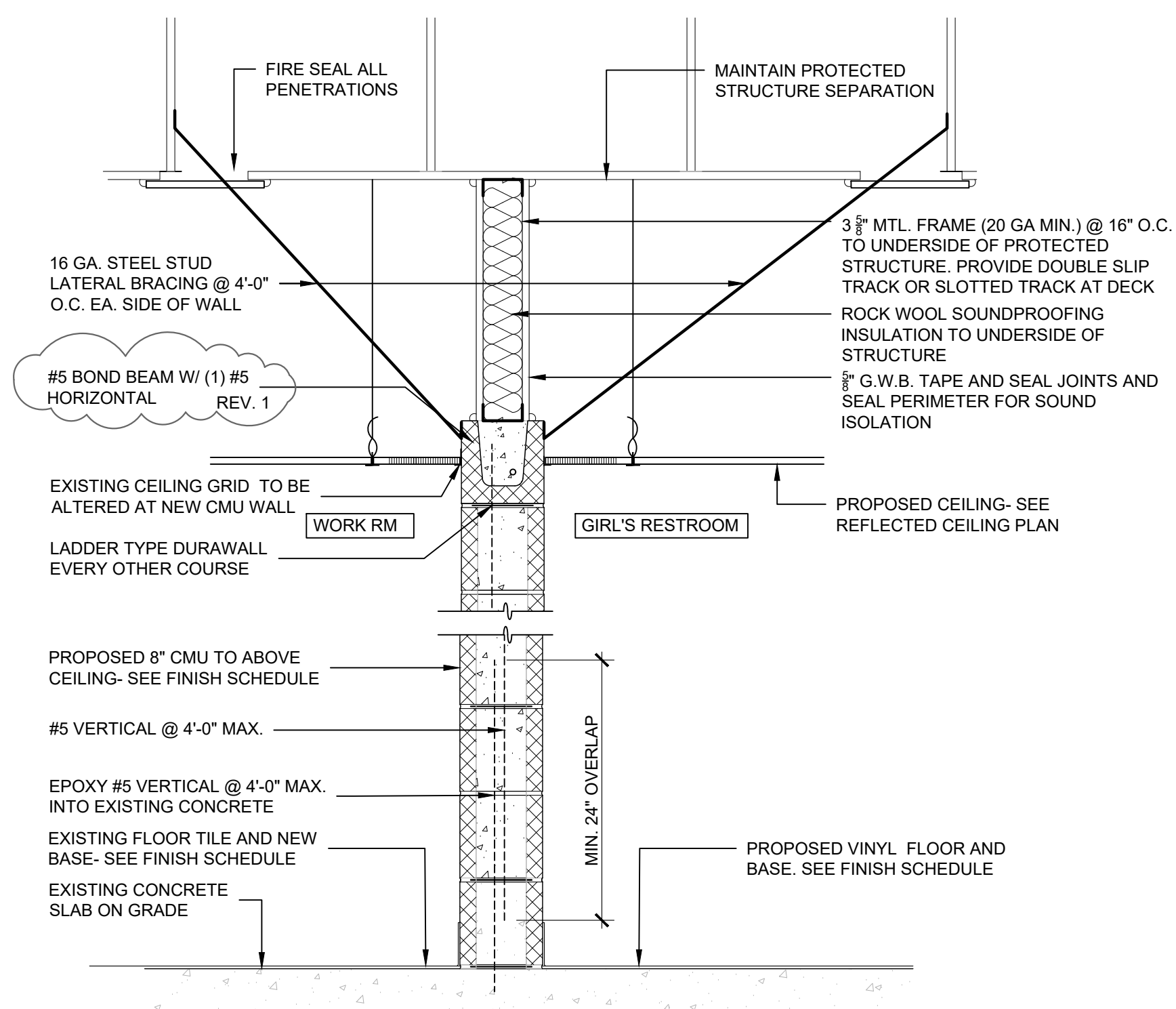
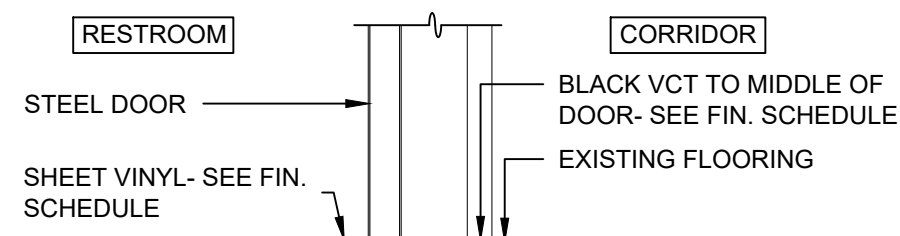
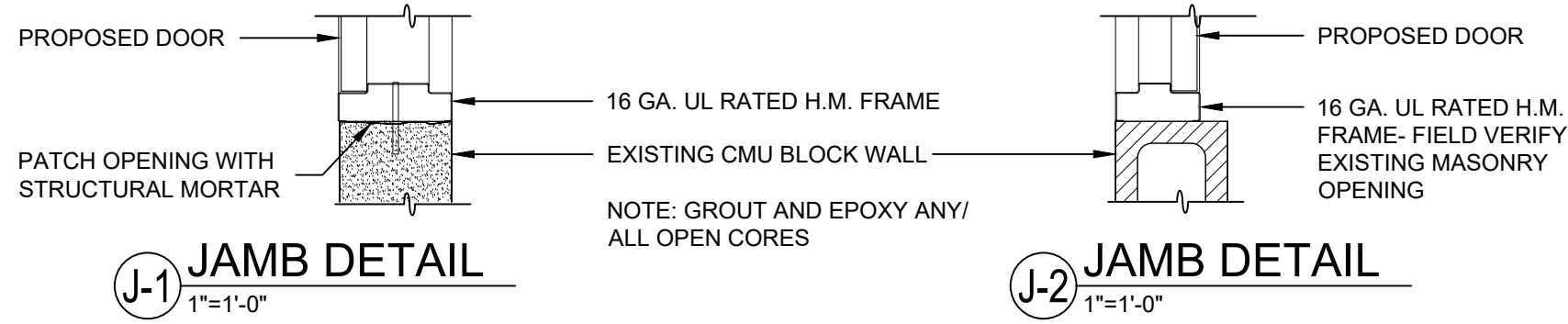
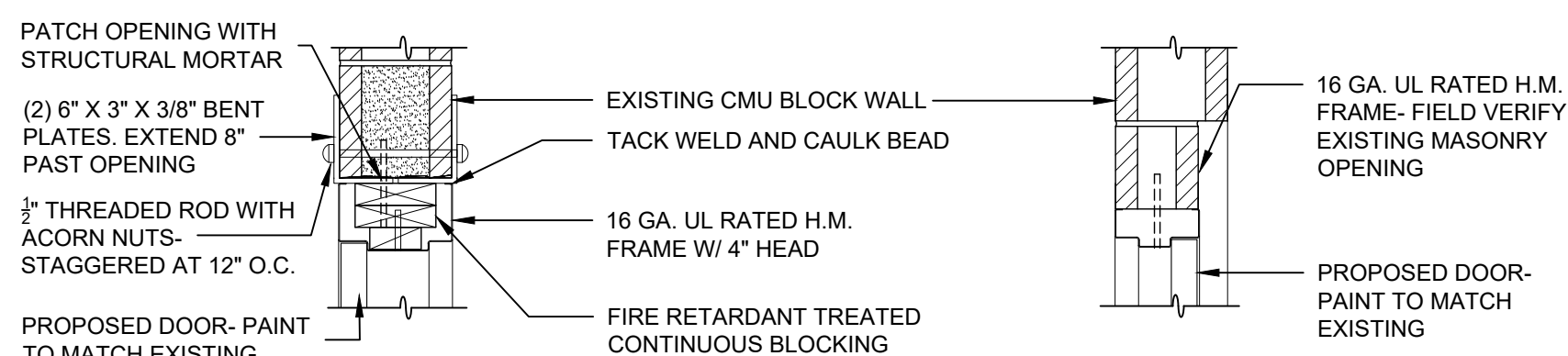
- 1 PROVIDE NEW CMU WALL PER SECTION 5/A1.1
- 2 PROPOSED 6" CMU WALL TO ABOVE CEILING- CORRUGATED BRICK TIES @ 16" O.C. EA. WAY SEE SECTION 6/A1.1
- 3 INFILL EXISTING DOOR OPENING W/ BLOCK TO MATCH- PATCH AND PAINT- BOTH SIDES
- 4 PATCH WITH 2"x2" CERAMIC MOSAIC TILE WHERE SERVICE SINK IS TO BE REMOVED. MATCH EXISTING TILE
- 5 NEW DOOR AND FRAME IN EXISTING BLOCK OPENING. SEE H-2, J-2 AND DOOR SCHEDULE.
- 6 NEW DOOR AND FRAME IN PROPOSED OPENING. SEE H-1, J-1, S-1 AND DOOR SCHEDULE.
- 7 PROVIDE NEW RESTROOM SIGN TO MEET ADA REQUIREMENTS
- 8 PROVIDE AND INSTALL 27 LF X 5 HIGH (3" X 18" D) MELAMINE SHELVING ON HEAVY DUTY STANDARDS AND BRACKET @ 16" O.C. REV. 1

GENERAL DEMOLITION NOTES

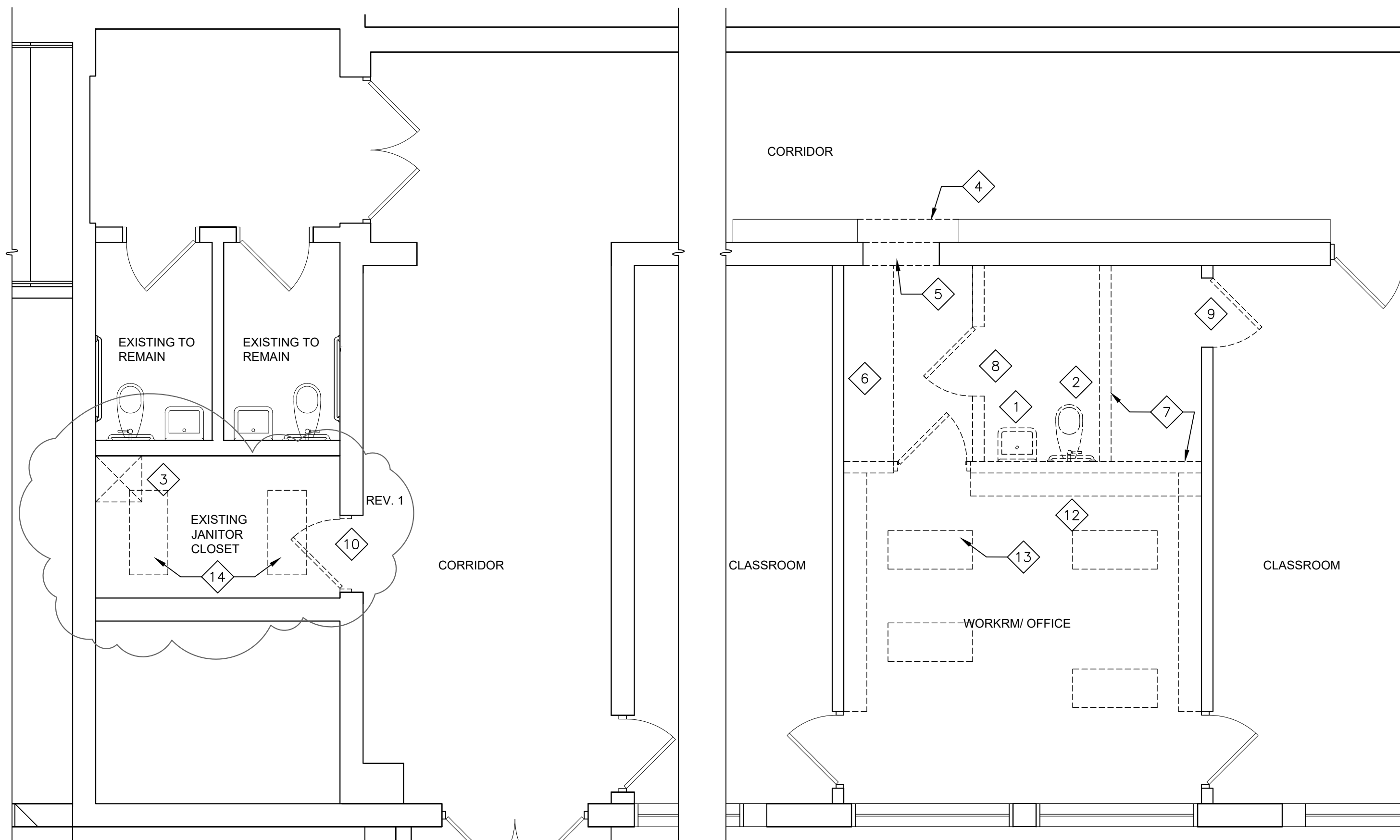
1. REMOVE & DISPOSE OF WALLS, DOORS, FINISHES, FIXTURES & ALL ITEMS NECESSARY FOR LIFT/IT AS SHOWN IN DRAWINGS. PROTECT ADJACENT SPACES FROM DEMOLITION ACTIVITIES & DUST. REMOVE ALL OR PORTION OF FLOOR SLAB AS NECESSARY TO CAP, REPLACE & MODIFY IN-SLAB DWV PIPING, FLOOR DRAIN ETC.
2. PATCH AND REPAIR WHERE DEMOLITION OCCURS TO MATCH EXISTING FINISHES. REPAINT WALL NEAREST CHANGE OF SURFACE.
3. DEMOLITION / DISTURBANCE OF LEAD CONTAINING MATERIALS TO BE IN COMPLIANCE WITH CURRENT CODES.

KEYED NOTES DEMOLITION

- 1 REMOVE LAVATORY & STORE FOR RE-USE
- 2 REMOVE WATER CLOSET & ELECTRONIC FLUSH VALVE STORE FOR RE-USE
- 3 REMOVE MOP SINK AND STORE FOR REUSE
- 4 REMOVE LOCKERS AS REQUIRED AND RE-INSTALL PER OWNER
- 5 INSTALL LINTEL AND REMOVE WALL PER 5/A1.1
- 6 REMOVE BUILT-INS AND MISC.
- 7 REMOVE EXISTING BLOCK WALLS AS SHOWN
- 8 REMOVE WALLS AND DOORS AS SHOWN
- 9 REMOVE DOOR AND FRAME
- 10 REMOVE DOOR AND FRAME
- 11 NOT USED. REV. 1
- 12 REMOVE EXISTING SHELVING.
- 13 REWORK EXISTING CEILING GRID AND RELOCATE LIGHT FIXTURES IN AREA OF NEW WALL. SEE ELECTRICAL DRAWINGS.
- 14 RELOCATE EXISTING LIGHT FIXTURES- SEE ELECATRICAL DRAWINGS. REV. 1

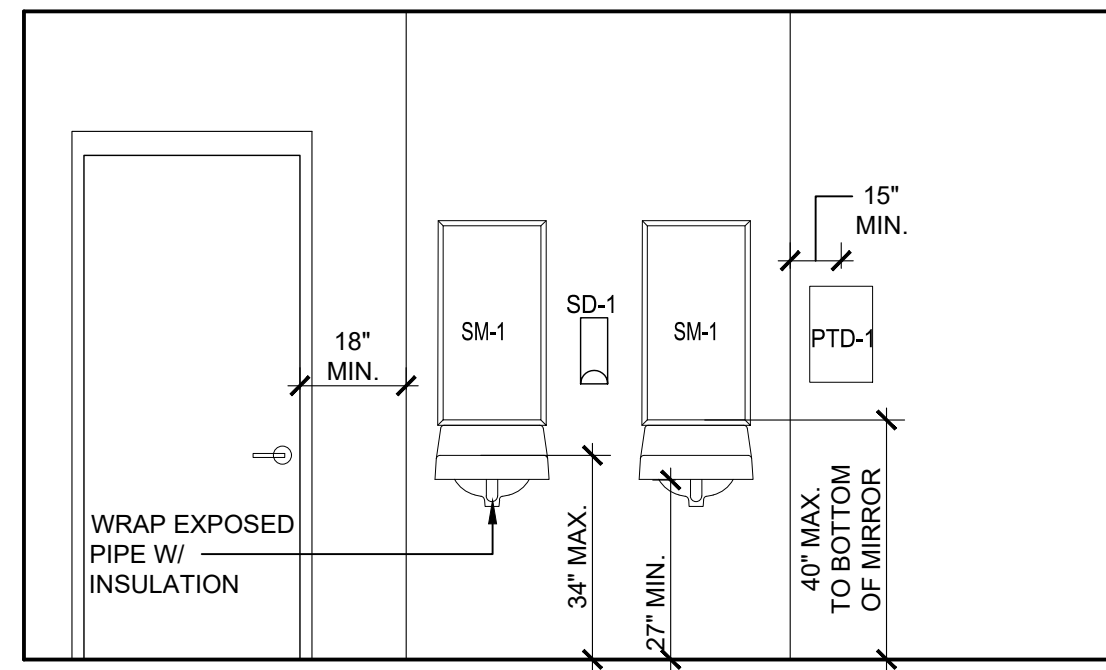


3 ENLARGED PLAN- PROPOSED
1/4"=1'-0"

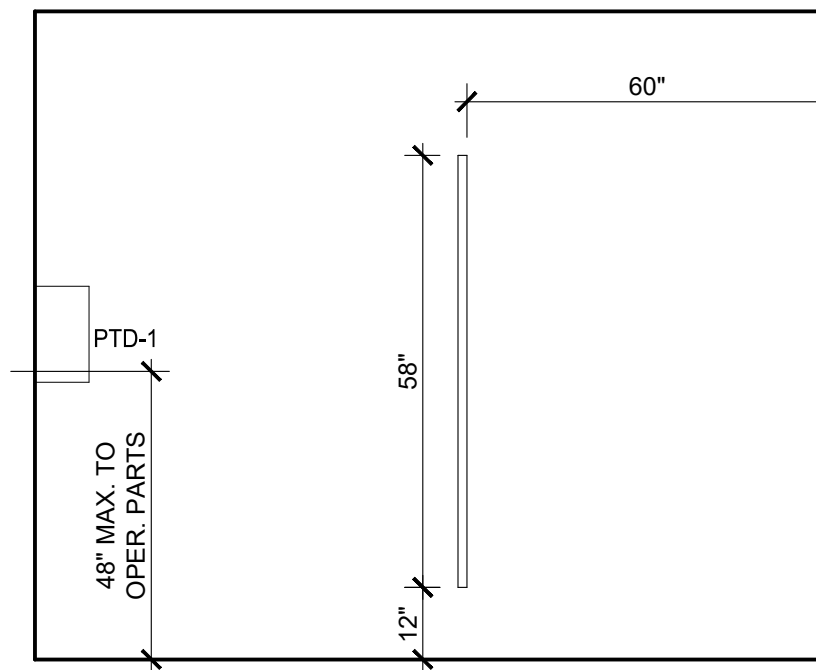


4 DEMOLITION PLAN
1/4"=1'-0"

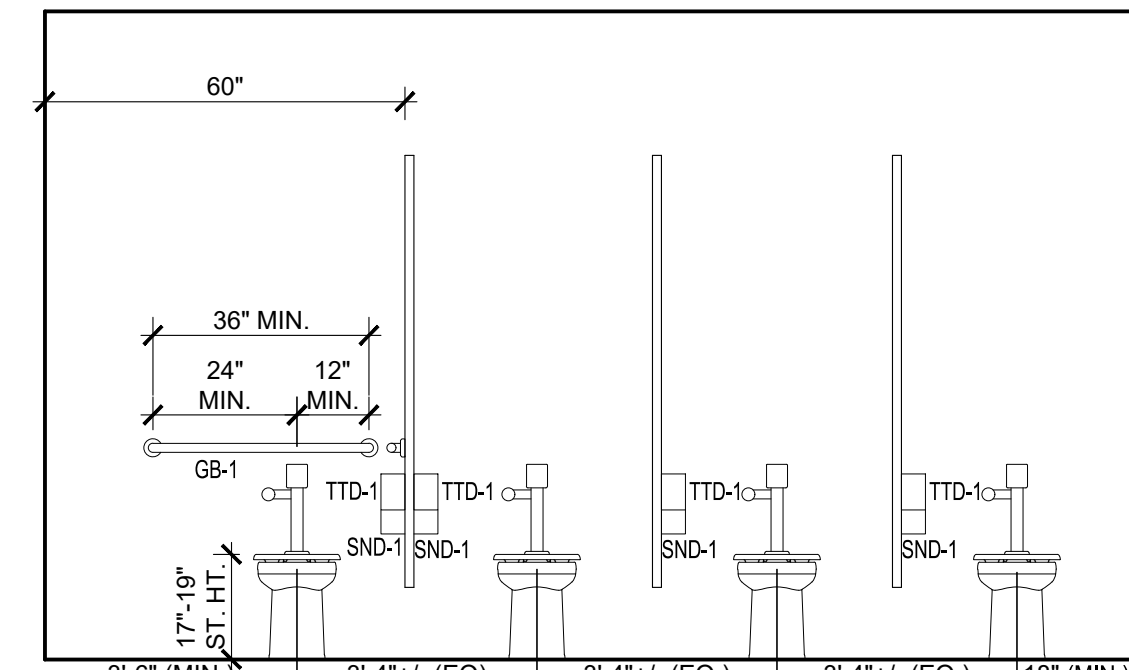
2 DEMOLITION PLAN
1/4"=1'-0"



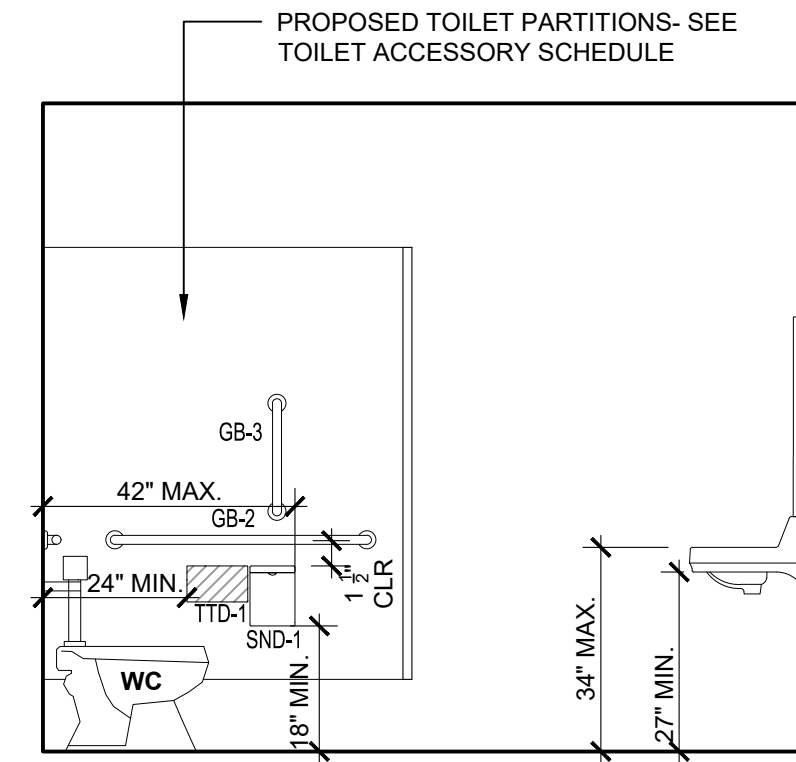
1 ELEVATION
3/8"=1'-0"



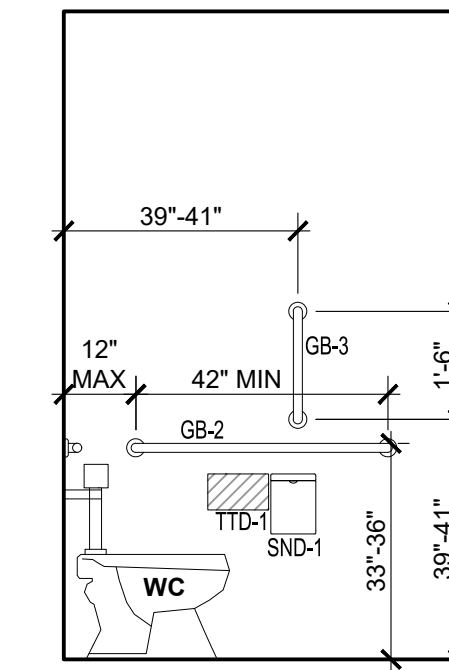
2 ELEVATION
3/8"=1'-0"



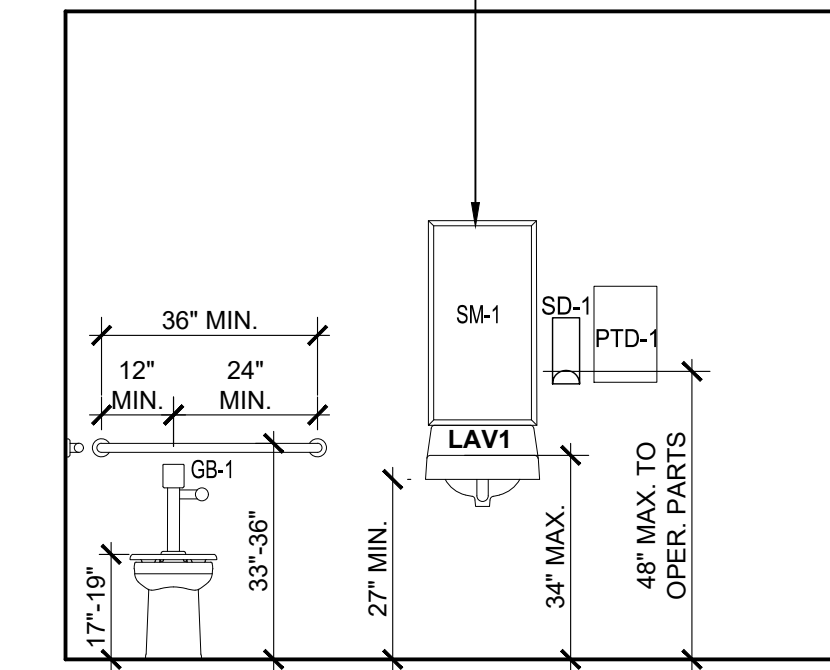
3 ELEVATION
3/8"=1'-0"



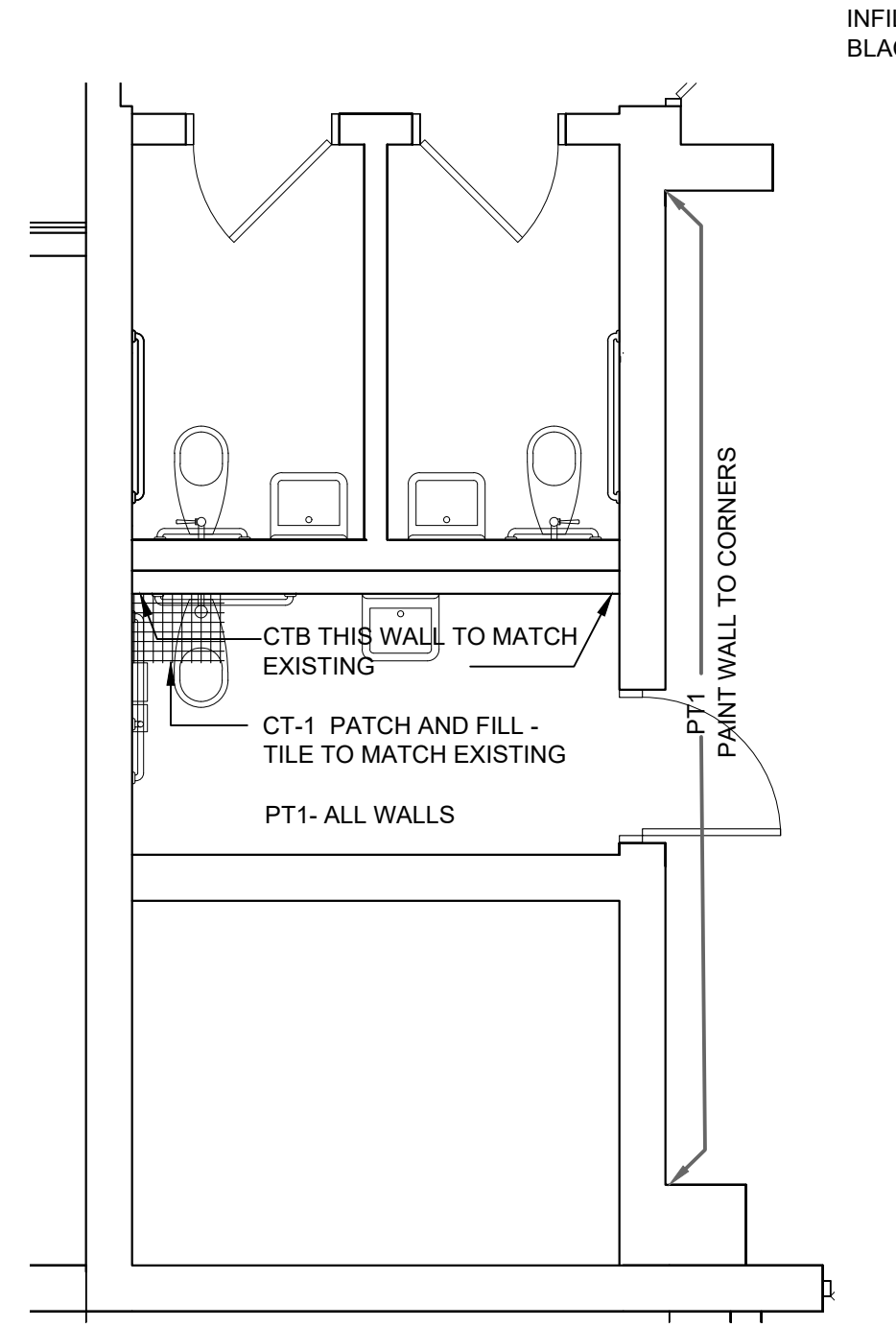
4 ELEVATION
3/8"=1'-0"



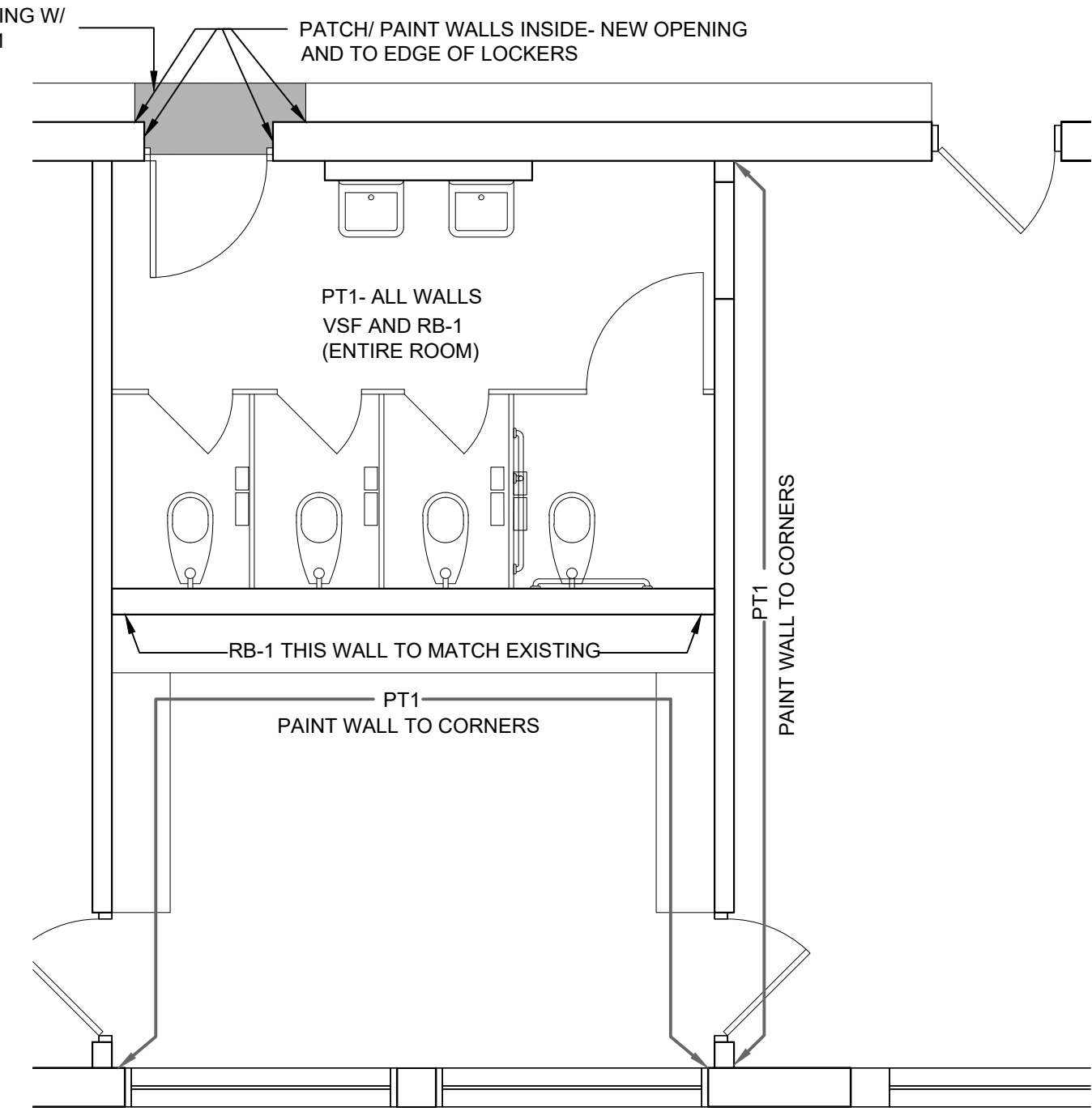
5 ELEVATION
3/8"=1'-0"
SEE 4/A6.1 FOR MOUNTING HEIGHTS OF TTD-1 AND SND-1



6 ELEVATION
3/8"=1'-0"



10 FINISH PLAN
1/4"=1'-0"



9 FINISH PLAN
1/4"=1'-0"

FINISH SPECIFICATIONS:
PT1 2 COATS ALKYD ENAMEL PAINT BY SHERWIN WILLIAMS OR EQUAL ON CMU BLOCK AND CONCRETE. USE (1) COAT OF CMU BLOCK FILLER AND (1) COAT CONCRETE PRIMER ACCORDING TO PAINT MANUFACTURERS RECOMMENDATIONS. PAINT TO MATCH EXISTING WALLS.
RB1 4" X 1/2" VINYL BASE
CTB TILE BASE TO MATCH EXISTING
CT1 TILE TO MATCH EXISTING
VSF VINYL SHEET FLOORING- MANNINGTON BIOSPEC OR PATCRAFT ORGANIC HUE W/ WELDED SEAMS OR APPROVE EQUAL.
CONTACT: RANDY SMITH
CARPET ONE- ASHEVILLE
VCT1 VINYL TILE INFILL AT NEW DOOR OPENING

| TOILET ACCESSORY SCHEDULE | | | |
|---------------------------|-------------------------------|----------------|----------------------------------|
| WHERE NOTED ON DRAWINGS | | | |
| MARK | DESCRIPTION | HEIGHT A.F.F. | REMARKS/ BOBRICK MODEL # U.N.O. |
| GB-1 | HORIZONTAL GRAB BAR- 36" LONG | SEE ELEVATIONS | B-5806.99X36 |
| GB-2 | HORIZONTAL GRAB BAR- 42" LONG | SEE ELEVATIONS | B-5806.99X42 |
| GB-3 | VERTICAL GRAB BAR- 18" LONG | SEE ELEVATIONS | B-5806.99x18 |
| SM-1 | MIRROR | SEE ELEVATIONS | B-165 ST STEEL MIRROR 18"X36" |
| SND-1 | SANITARY NAPKIN DISPOSAL | SEE ELEVATIONS | B-270 |
| TTD-1 | TOILET TISSUE DISPENSER | SEE ELEVATIONS | ROLLS ROYCE RINGER CO #TP-2 |
| PTD-1 | PAPER TOWEL DISPENSER | SEE ELEVATIONS | SUPPLIED BY OWNER, GC TO INSTALL |
| SD-1 | SOAP DISPENSER | SEE ELEVATIONS | SUPPLIED BY OWNER, GC TO INSTALL |

TOILET PARTITIONS TO BE FACTORY FABRICATED DOORS, PILASTERS AND DIVIDED PANELS MADE OF SOLID PHENOLIC CORE PANELS WITH INTEGRAL MELAMINE FINISH, FLOOR MOUNTED HEADRAIL- BRACED. DOORS- 3/4" THICK X 24" WIDE. (36" OUTSWING FOR ADA STALL) X 58" HIGH. PANELS- 3/4" THICK X 58" HIGH.

SCREENS W/OUT DOORS TO MATCH COMPARTMENTS, MOUNTED TO WALL W/ 2 PANEL BRACKETS W/ VERTICAL SUPPORT/ BRACING. ALL SCREENS TO INCLUDE FLOOR MOUNTED PILASTERS.

VANDAL AND GRAFFITI RESISTANT MATERIALS AND HARDWARE. BASIS OF DESIGN- SENTINEL SERIES 400 BY BRADLEY CORPORATION

SHOES, RAILS AND BRACKETS AND HARDWARE- STAINLESS STEEL.

DOOR HARDWARE- PIVOT HINGES, GRAVITY TYPE- 2 PER DOOR, NYLON BEARINGS. DOOR LATCH TO BE SLIDE TYPE. FOR ADA STALL PROVIDE ACCESSIBLE LATCH W/ REVERSE OFFSET BAR, DOOR STRIKE AND KEEPER WITH RUBBER BUMPER MOUNTED ON PLASTER. COAT HOOK WITH RUNNER BUMPER- 1 PER STALL. PROVIDE DOOR PULL FOR OUT-SWINGING DOOR.

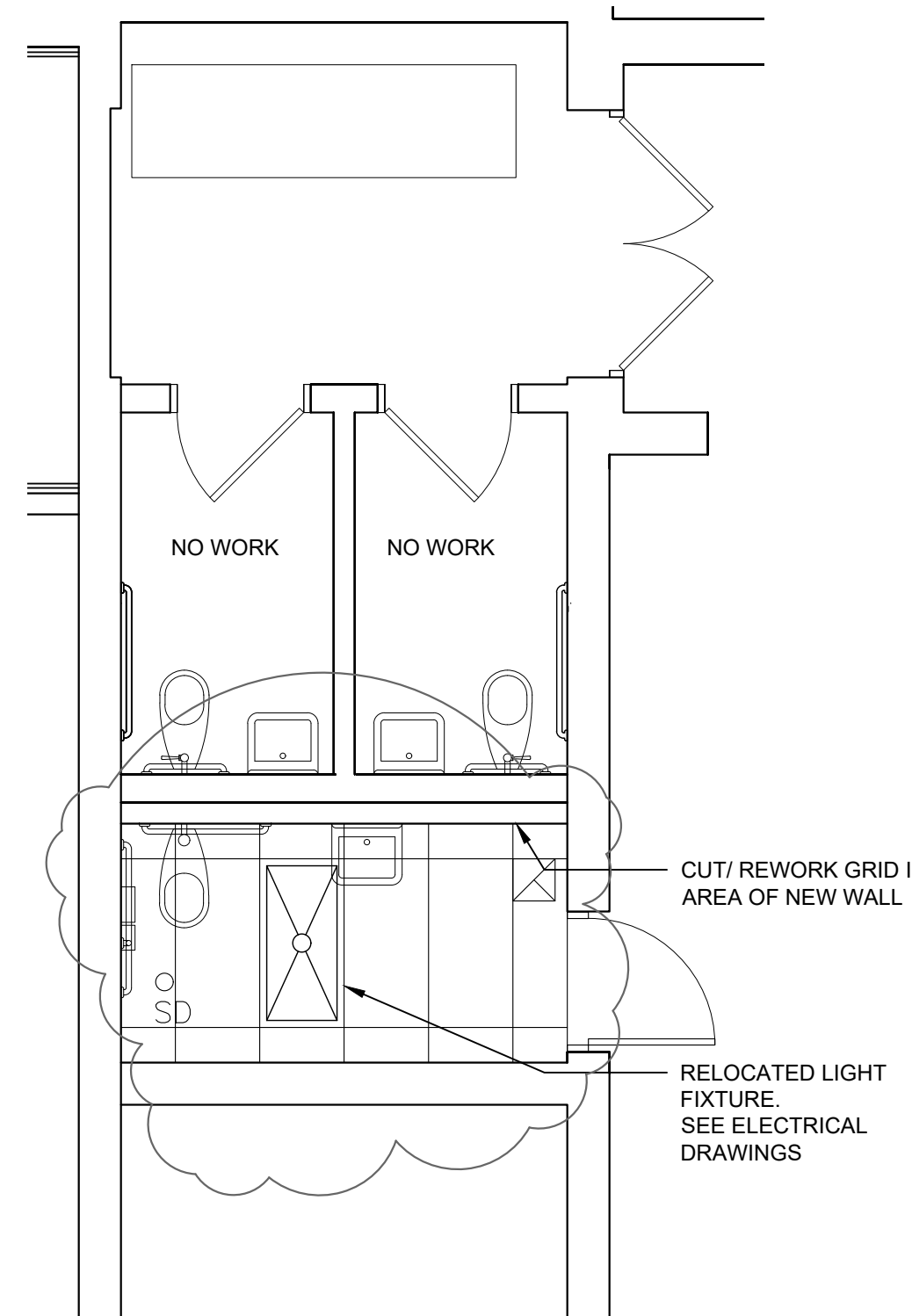
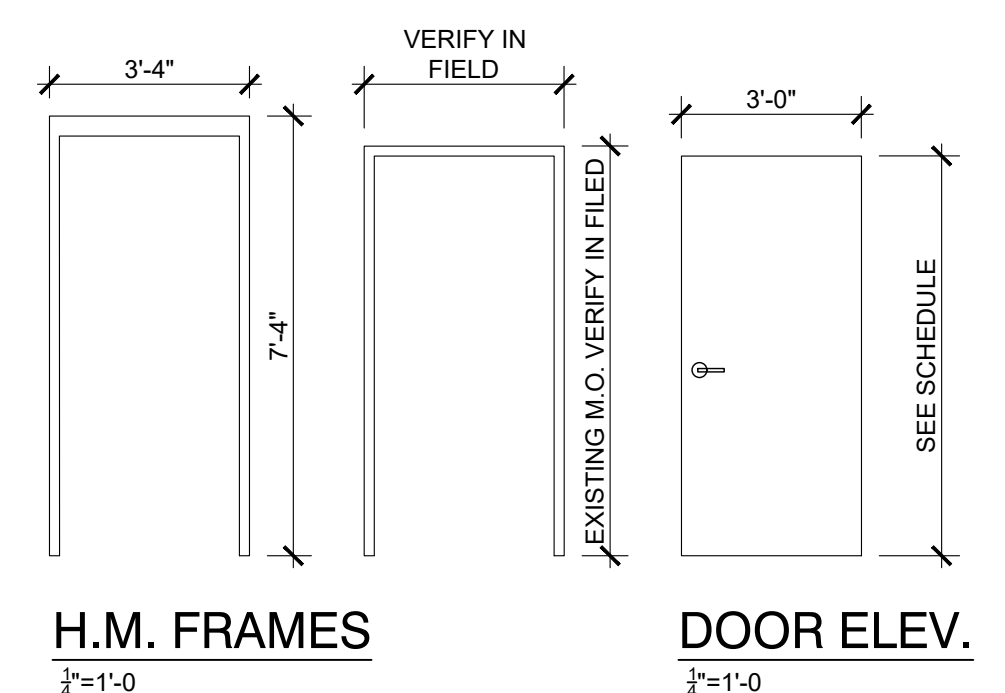
GENERAL CONTRACTOR TO PROVIDE SHOP DRAWINGS TO INDICATE PARTITION PLAN AND ELEVATION VIEWS W/ DIMENSIONS, DETAILS OF SUPPORTS AND DOOR SWINGS. SUBMIT (2) SAMPLES- 4"X4" ILLUSTRATING PANEL FINISH, COLOR AND SHEEN

| DOOR SCHEDULE | | | | | | | | | | | | |
|---------------|-----------|----------------|--------|-------|-------|------------|---------|------|------|---------|------|--------------------------------|
| DOOR NO. | DOOR TYPE | WIDTH x HEIGHT | THK. | MAT'L | FRAME | FRAME TYPE | DETAILS | | | UL RAT. | HDW | REMARKS |
| | | | | | | | HEAD | JAMB | SILL | | | |
| 001 | A | 3'-0" X 6'-8" | 1 3/4" | STEEL | H.M. | 2 | H-2 | J-2 | | 20 MIN. | HW-1 | * VERIFY EXISTING MASONRY R.O. |
| 002 | A | 3'-0" X 7'-0" | 1 3/4" | STEEL | H.M. | 1 | H-1 | J-1 | S-1 | 20 MIN. | HW-2 | |

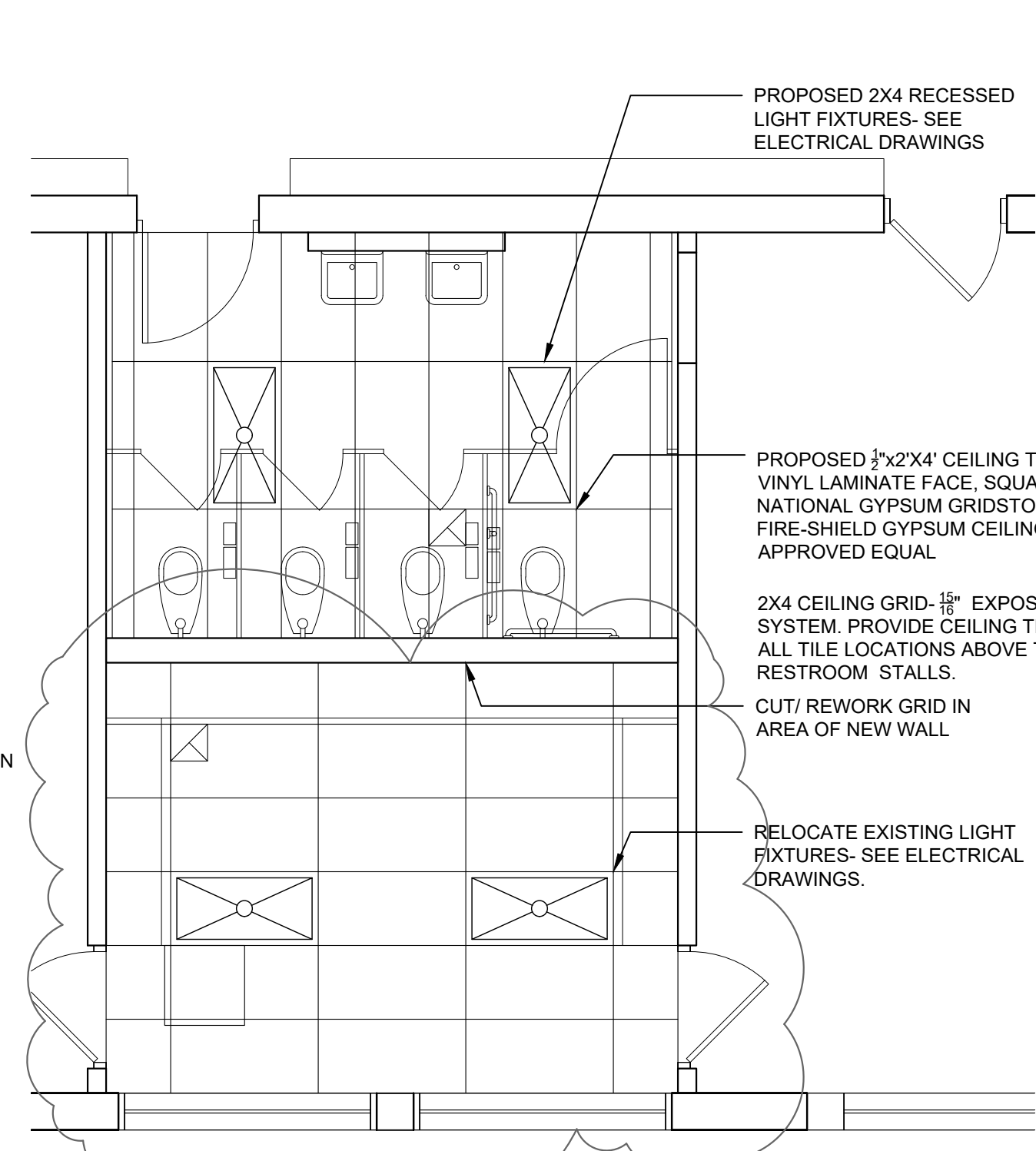
NEW DOORS AS FOLLOWS: 18 GAUGE STEEL DOORS PAINT TO MATCH EXISTING DOORS.
FRAMES: 16 GA. RATED W/ WELDED SEAMS. PAINT TO MATCH ADJACENT FRAMES.

| HW-1: | | | |
|--------------|----------------------|--------------------------|-----|
| FOR DOOR 001 | | | |
| 3 | HW HINGE | 5881HW 4.5X4.5 | 652 |
| 1 | PRIVACY W/ DB & IND. | L949ET 03A L583-363 | 626 |
| 1 | CONVENTIONAL CORE | 23-030 EV29 T | 626 |
| 1 | SURFACE CLOSER | 4011 TBWMS-REG | 689 |
| 1 | KICK PLATE | 8400 10"X1 1/2" LDW B-CS | 630 |
| 1 | WALL STOP | WS406/407CCV | 630 |
| 1 | SILENCER | SR64 | 630 |
| | SCHLAGE C123 KEYWAY | | GRY |

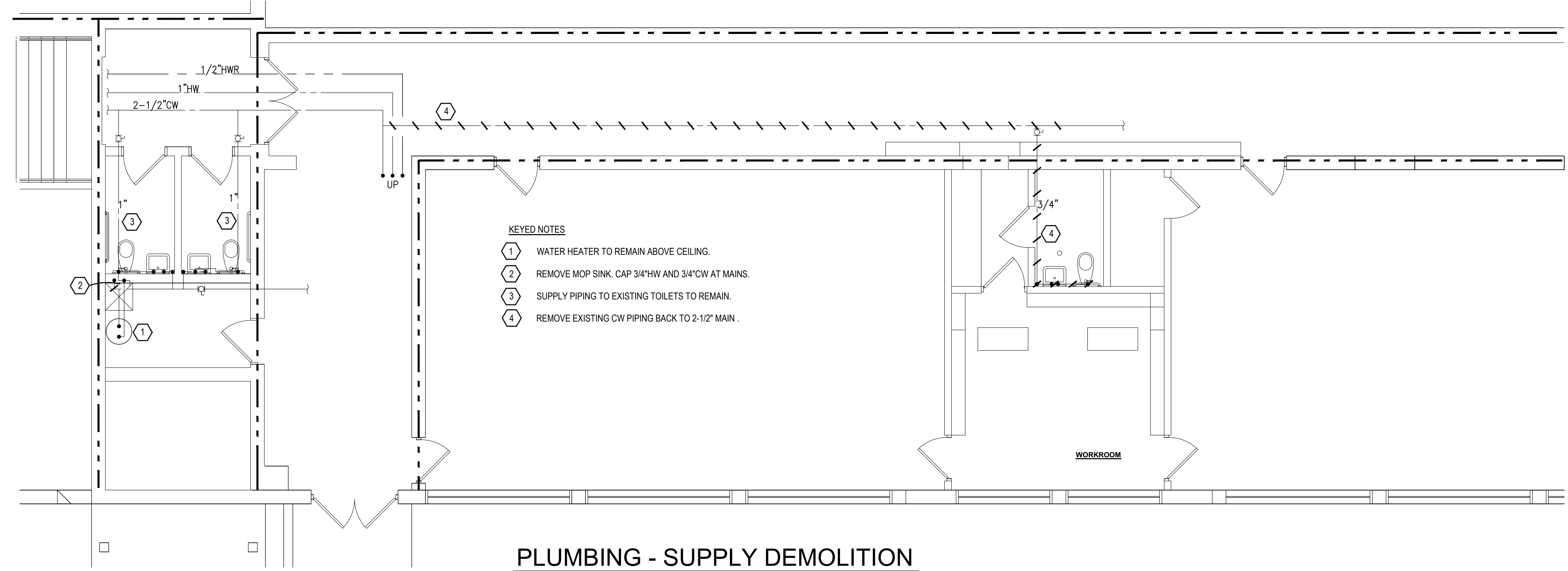
| HW-2: | | | |
|--------------|---------------------|--------------------------|-----|
| FOR DOOR 002 | | | |
| 3 | HW HINGE | 5881HW 4.5X4.5 | 652 |
| 1 | CLASSM DEAD BOLT | B663P | 626 |
| 1 | PUSH PLATE | 8200 6"X16" | 630 |
| 1 | PULL PLATE | 8302 10"X16" | 630 |
| 1 | SURFACE CLOSER | 4011 TBWMS-REG | 689 |
| 1 | KICK PLATE | 8400 10"X1 1/2" LDW B-CS | 630 |
| 1 | MOP PLATE | 8400 4"X1 1/2" LDW B-CS | 630 |
| 1 | WALL STOP | WS406/407CCV | 630 |
| | SCHLAGE C123 KEYWAY | | GRY |



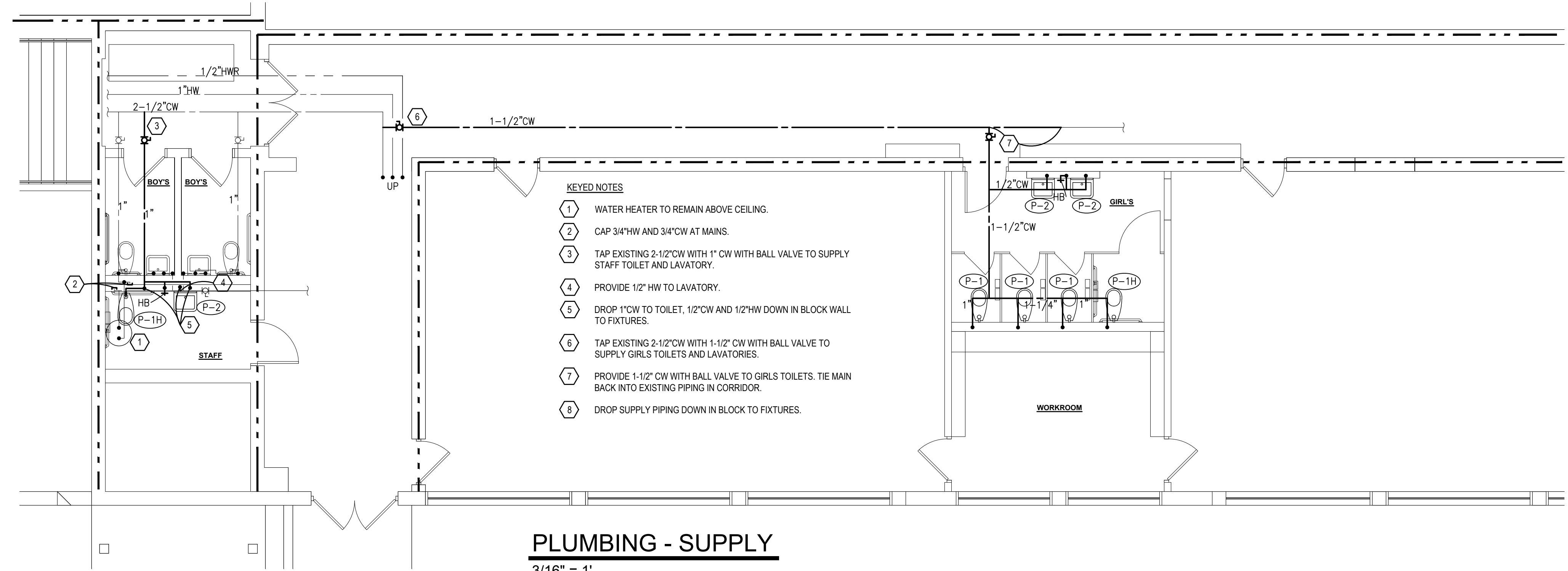
12 REFLECTED CEILING PLAN
1/4"=1'-0"



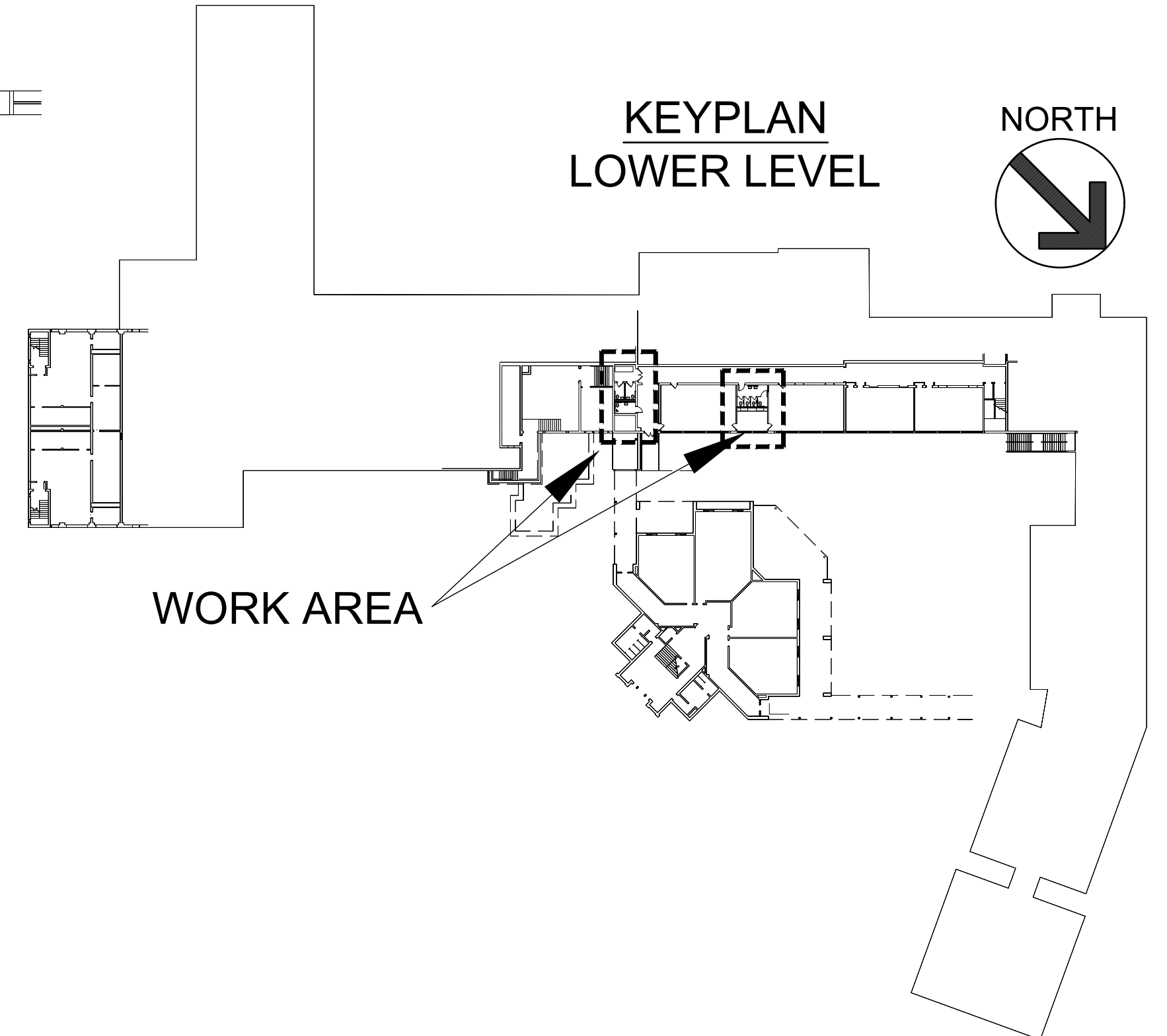
11 REFLECTED CEILING PLAN
1/4"=1'-0"



PLUMBING - SUPPLY DEMOLITION
3/16" = 1'



PLUMBING - SUPPLY
3/16" = 1'

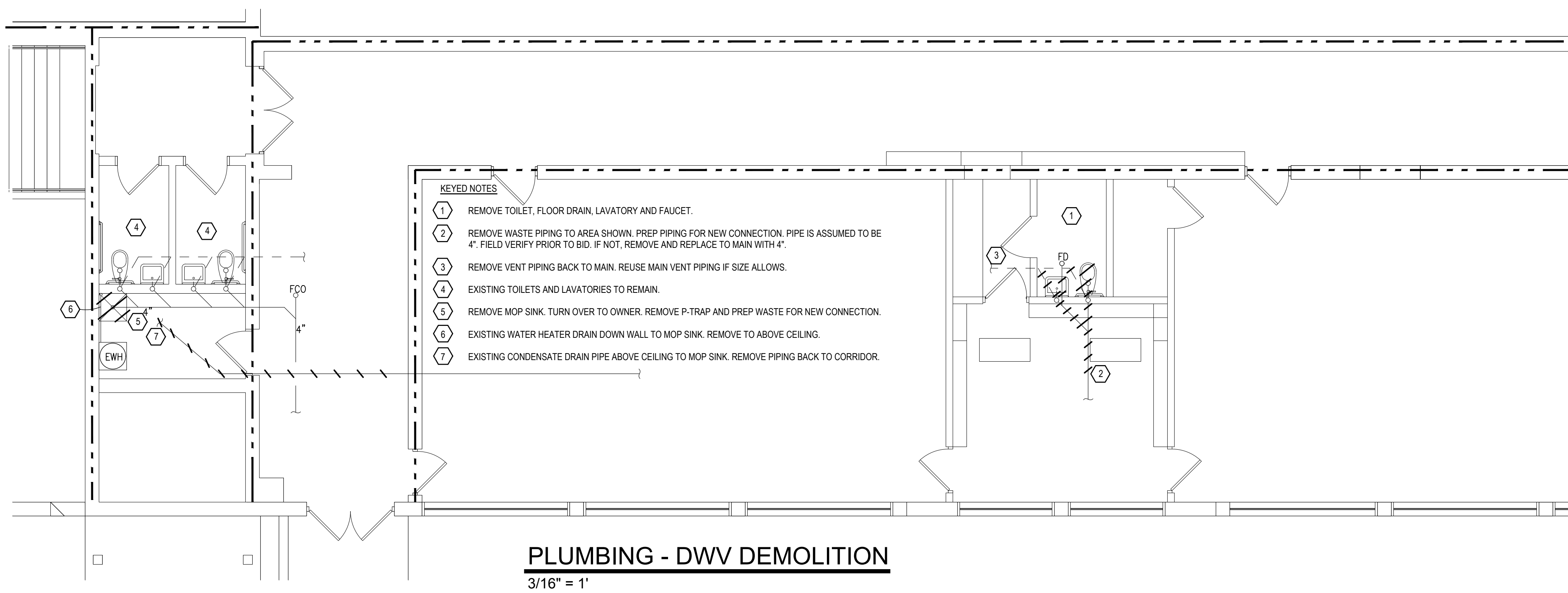


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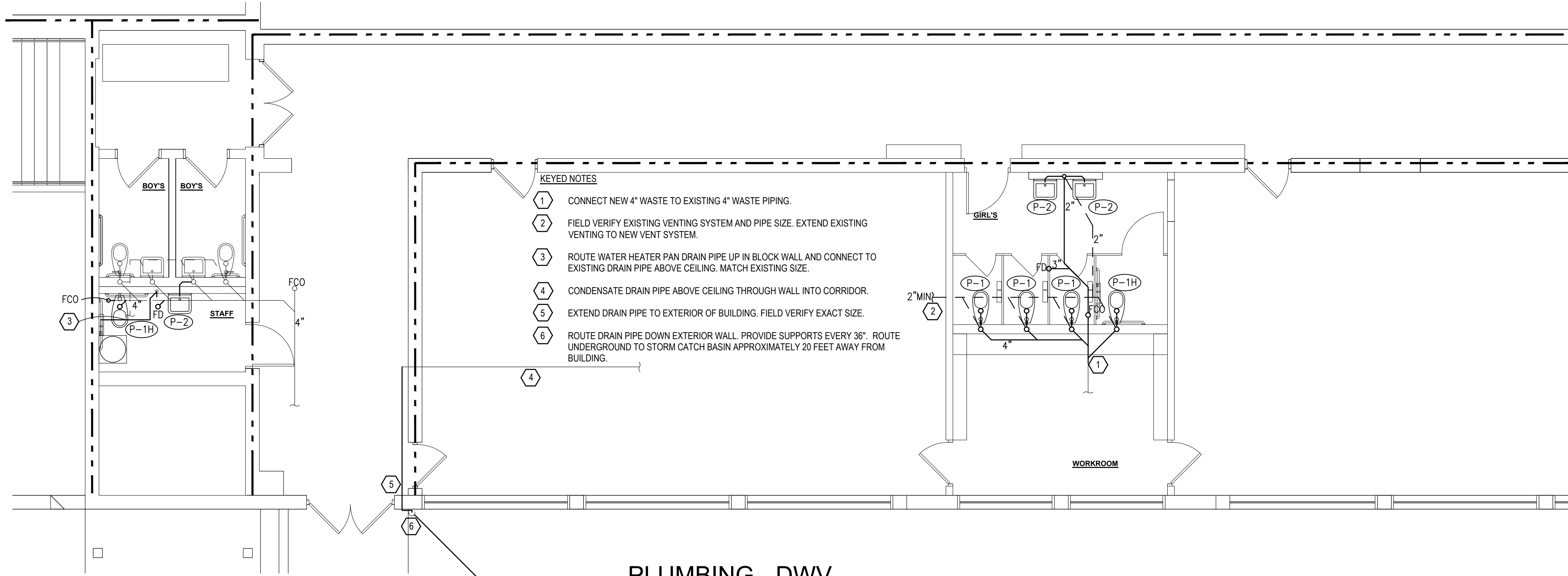
CONSULTANTS:
SUD ASSOCIATES, P.A.
CONSULTING ENGINEERS
LICENSE NO. C-0315
PROJECT #19242
FLAT IRON BUILDING SUITE 706
20 BATTERY PARK AVENUE
ASHEVILLE, NORTH CAROLINA
(828) 255-4691
1813 CHAPEL HILL ROAD
DURHAM, NORTH CAROLINA
(919) 493-5277



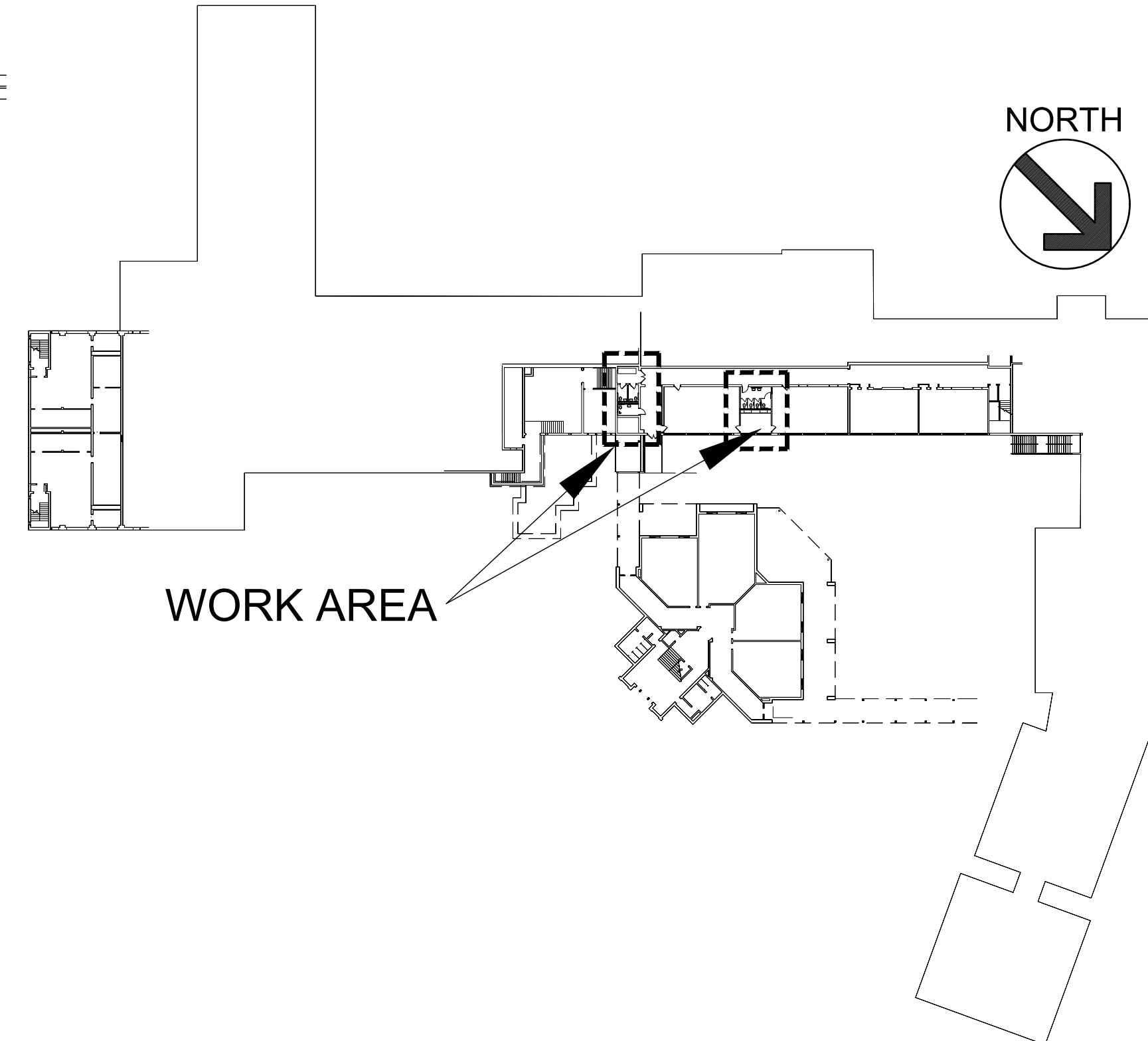
PLUMBING - SUPPLY DEMO & CONSTRUCTION
P1.1
DESIGNED BY: DCR
DATE: 06.26.2019



PLUMBING - DWV DEMOLITION
3/16" = 1'



PLUMBING - DWV
3/16" = 1'



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PLUMBING - DWV DEMO & CONSTRUCTION
P1.2
DESIGNED BY: DCR
DATE: 06.26.2019

| PLUMBING FIXTURE SCHEDULE | | | | | | | | | | |
|---------------------------|-------------------|--------------|-----------------------|-------------------|--------|---|--------------------------|-----|-------|------|
| MARK | MANU. * | MODEL * | FIXTURE TYPE | MOUNTING | COLOR | DESCRIPTION | FIXTURE CONNECTION SIZES | | | |
| | | | | | | | CW | HW | WASTE | VENT |
| P-1 | AMERICAN STANDARD | 2599.001 | WATER CLOSET | FLOOR, RM @ 14.0" | WHITE | FLOOR MOUNT, FLOOR OUTLET, ELONGATED BOWL, VITREOUS CHINA, SIPHON JET ACTION, FULLY GLAZED TRAPWAY, CENTER INLET 1-1/2" TOP SPUD, HARD PLASTIC OPEN FRONT TOILET SEAT. | | | | |
| | HYDROTEK | HB-8-128 | AUTOMATIC FLUSH VALVE | TOP SPUD | CHROME | QUIET, EXPOSED, BATTERY POWERED, SENSOR ACTIVATED, PISTON TYPE CLOSET FLUSHOMETER, 1.28 GPF, SCREW DRIVER STOP, VACUUM BREAKER, FREE SPINNING VANDAL RESISTANT STOP CAP, CAST WALL FLANGE, ADA/NC ACCESSIBILITY CODE COMPLIANCE | 1" | --- | 3" | 2" |
| P-1H | AMERICAN STANDARD | 3043.01 | WATER CLOSET | FLOOR, RM @ 16.5" | WHITE | FLOOR MOUNT, FLOOR OUTLET, ELONGATED BOWL, VITREOUS CHINA, SIPHON JET ACTION, FULLY GLAZED TRAPWAY, CENTER INLET 1-1/2" TOP SPUD, HARD PLASTIC OPEN FRONT TOILET SEAT. ADA/NC ACCESSIBILITY CODE COMPLIANT | | | | |
| | HYDROTEK | HB-8-128 | AUTOMATIC FLUSH VALVE | TOP SPUD | CHROME | QUIET, EXPOSED, BATTERY POWERED, SENSOR ACTIVATED, PISTON TYPE CLOSET FLUSHOMETER, 1.28 GPF, SCREW DRIVER STOP, VACUUM BREAKER, FREE SPINNING VANDAL RESISTANT STOP CAP, CAST WALL FLANGE, ADA/NC ACCESSIBILITY CODE COMPLIANCE | 1" | --- | 3" | 2" |
| P-2 | AMERICAN STANDARD | 356.421 | LAVATORY | WALL @ 34" AFF | WHITE | 15" X 10" BOWL, WALL MOUNTED, VITREOUS CHINA, SELF DRAINING DECK WITH BACK AND SIDE SPLASH SHIELDS, 1 CENTER HOLE PUNCH, CONCEALED ARM SUPPORT. ADA/NC ACCESSIBILITY CODE COMPLIANCE | | | | |
| | CHICAGO | 116.222.AB.1 | LAVATORY FAUCET | DECK | CHROME | BATTERY OPERATED, SINGLE HOLE 1.5 GPM, VANDAL PROOF AREATOR. DUAL SUPPLY LINES. ADA/NC ACCESSIBILITY CODE COMPLIANCE | 3/4" | --- | 2" | 2" |

* BASIS OF DESIGN, EQUALS BY AMERICAN STANDARD, TOTO, T&S BRASS, CHICAGO, AND ZURN

PLUMBING GENERAL NOTES:

- SYMBOLS AND ABBREVIATIONS MAY NOT ALL BE UTILIZED FOR THIS PROJECT.
- UNLESS OTHERWISE INDICATED PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, TRENCHING, CORE--DRILLING, PATCHING AND BACKFILL REQUIRED TO INSTALL PLUMBING WORK. GC IS RESPONSIBLE FOR CONCRETE REPAIR.
- PLUMBING CONTRACTOR IS RESPONSIBLE FOR COORDINATING PLUMBING RELATED WORK WITH OTHER TRADES. PLUMBING CONTRACTOR IS CAUTIONED THAT IT IS TOTALLY HIS RESPONSIBILITY TO COORDINATE HANGERS AND SUPPORTS WITH OTHER TRADES.
- ITEMS SHOWN TO BE DEMOLISHED MAY OR MAY NOT BE CORRECTLY LABELED OR LOCATED. EXAMINE EXISTING CONDITIONS OF ALL AREAS AND FIELD VERIFY/IDENTIFY ALL UTILITIES BEFORE STARTING DEMOLITION OR NEW CONSTRUCTION. VERIFICATION/IDENTIFICATION SHALL INCLUDE TRACING EACH UTILITY TO DETERMINE ITS EXACT ORIGIN AND THE AREA OR EQUIPMENT THE UTILITY SERVES. IN ADDITION TO SPECIFICALLY NOTED PLUMBING DEMOLITION, THIS CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL PLUMBING AS REQUIRED TO ELIMINATE INTERFERENCES WITH INSTALLATION OF NEW WORK.
- ALL DEMOLITION WORK SHALL BE PERFORMED WITH "DUE CARE AND DILIGENCE" SO AS TO PREVENT THE ARBITRARY DESTRUCTION OR INTERRUPTION OF CONCEALED UTILITIES WHICH ARE INTENDED TO REMAIN IN USE AND THE ROUTING OF WHICH COULD NOT BE PREDETERMINED UNTIL DEMOLITION WAS STARTED. ALL SUCH DISCOVERIES OF UTILITIES DURING THE DEMOLITION PROCESS WHICH ARE IN A LOCATION DIFFERENT FROM THAT INDICATED, CHANGE DIRECTION FROM FLOOR TO FLOOR, ETC., OR ARE UNIDENTIFIED, SHALL BE REPORTED TO THE ARCHITECT BEFORE REMOVAL.
- VISIT THE SITE PRIOR TO BID DATE AND EXAMINE ALL AREAS TO BE DEMOLISHED AND RENOVATED. THOROUGHLY FAMILIARIZE YOURSELF WITH EXISTING CONDITIONS. NO EXTRA COMPENSATION WILL BE GIVEN FOR FAILURE TO THOROUGHLY EXAMINE EXISTING CONDITIONS TO DETERMINE THE EXACT SCOPE OF DEMOLITION WORK. "KEYED" NOTES ON THE DRAWINGS. ARE PROVIDED TO ASSIST BIDDERS TO DETERMINE THE SCOPE OF DEMOLITION WORK.
- THE OWNER HAS THE RIGHT TO FIRST REFUSAL ON ALL ITEMS REMOVED DURING THE DEMOLITION PHASE OF THIS PROJECT. ITEMS NOT TURNED OVER TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE PREMISES ON A DAILY BASIS.
- EXISTING AREAS WHETHER WITHIN OR WITHOUT THE "GENERAL LIMITS OF CONSTRUCTION", SHALL BE REPAIRED WHERE ANY DAMAGE HAS OCCURRED DUE TO CONSTRUCTION BY THE CONTRACTOR.
- PLUMBING CONTRACTOR IS RESPONSIBLE FOR SEALING ALL PIPING PENETRATIONS THROUGH ALL NEW NON--RATED WALLS TO PREVENT SOUND TRANSFER. GYPSUM WALL BOARD "MUD" MAY BE USED. PLUMBING CONTRACTOR IS RESPONSIBLE FOR SEALING PIPING PENETRATIONS THROUGH ALL FIRE RATED WALLS AND/OR FLOORS.
- OBTAIN AND PAY FOR ANY AND ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES OF INSPECTIONS AND APPROVAL. DELIVER ALL SUCH CERTIFICATES TO THE OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ALL INSPECTION REQUESTS AT THE SAME TIME AS THE INSPECTION AUTHORITY.
- REFER TO PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES TO FIXTURES.
- ALL SHUTDOWNS OF THE EXISTING UTILITIES SHALL BE SCHEDULED IN ADVANCE WITH OWNER.
- DEMOLITION OF PLUMBING FIXTURES AND PIPING IS THE RESPONSIBILITY OF THE PC. ALL ACCESSIBLE PIPING MADE OBSOLETE BY RENOVATIONS SHALL BE REMOVED. CAP PIPING WHERE UNABLE TO REMOVE.
- UNLESS OTHERWISE NOTED, WASTE PIPING SHOWN ON THE PLANS IS LOCATED BELOW THE FLOOR LEVEL OF THE PLAN SHOWN. WATER AND VENT PIPING IS LOCATED IN THE CEILING LEVEL OF THE PLAN SHOWN.
- PLUMBER SHALL PROVIDE ALL ACCESSORIES REQUIRED FOR A COMPLETE AND PROPERLY FUNCTIONING PROJECT INCLUDING BUT NOT LIMITED TO; STOP VALVES, SUPPLY HOSES, AND P--TRAPS ETC. PC SHALL INSTALL ALL FIXTURES, FAUCETS AND ACCESSORIES REQUIRED TO PROVIDE A COMPLETE AND PROPERLY FUNCTIONING PROJECT. SEE FIXTURE SCHEDULE FOR PIPE SIZES AND PC SUPPLIED FIXTURES.
- WARRANT ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP SHOWN OR IMPLIED BY THESE DOCUMENTS TO BE FREE OF DEFECTS FOR A PERIOD OF ONE YEAR FROM THE TIME OF ACCEPTANCE BY THE OWNER. IF WITHIN ONE YEAR AFTER THE OWNER'S ACCEPTANCE DATE ANY WORK OR EQUIPMENT IS FOUND TO BE DEFECTIVE, CORRECT IT PROMPTLY AT NO COST TO THE OWNER.
- A PLUMBING INSPECTION CERTIFICATE SHALL BE ISSUED BY THE INSPECTION AUTHORITIES HAVING JURISDICTION BEFORE WORK WILL BE APPROVED FOR FINAL PAYMENT.
- ALL DOMESTIC WATER PIPING SHALL BE TYPE L COPPER WITH WROUGHT COPPER FITTINGS. JOINTS SHALL BE 95/5 TIN ANTIMONY SOLDER.
- PROVIDE 1/2" CLOSED CELL INSULATION FOR COLD WATER PIPING AND 1" FOR HOT WATER PIPING.
- NO DEAD LEGS ARE PERMITTED WHEN WASTE PIPE IS DEMOLISHED. REVISE AND CAP PIPE AS NEEDED TO PREVENT THIS CONDITION.
- WASTE AND VENT PIPING SHALL BE SERVICE WEIGHT CAST IRON.
- PROTECT ALL FIRE RATED PENETRATIONS.

| PLUMBING LEGEND | |
|-----------------|---|
| SYMBOL | DESCRIPTION |
| --- | EXISTING COLD WATER |
| --- | NEW COLD WATER |
| --- | EXISTING HOT WATER |
| --- | NEW HOT WATER |
| --- | EXISTING SANITARY WASTE |
| --- | NEW SANITARY WASTE |
| --- | EXISTING VENT |
| --- | NEW VENT |
| VTR | VENT THROUGH ROOF |
| ○-I CO | RISER CLEANOUT |
| ○-I CO | FLOOR CLEAN--OUT |
| ○-I CO | YARD CLEANOUT |
| ○-I VTR | VENT THROUGH THE ROOF |
| G | NATURAL GAS |
| ⊞ | SHOCK ABSORBER |
| ↑ HB | HOSE BIBB |
| FPWH | FROST PROOF WALL HYDRANT |
| ⊞-D | FIXTURE IDENTIFICATION (SEE SPECIFICATIONS) |
| ⊞ | BALL VALVE |
| ⊞ | FLOOR SINK |
| ⊞-TP | FLOOR DRAIN WITH TRAP PRIMER |
| WCO | WALL CLEANOUT |
| /// | ITEMS TO BE DEMOLISHED |
| --- | 1 HOUR FIRE WALL |

System No. C-AJ-5091

| | |
|---|--|
| ANSI/L1479 (ASTM E814) | CANULC 5115 |
| F Rating — 2 Hr | F Rating — 2 Hr |
| T Rating — 0 and 1 Hr (See Items 2 and 4) | FT Ratings — 0 and 1 Hr (See Items 2 and 4) |
| L Rating At Ambient — 4 CFM/sq ft | FR Rating — 2 Hr |
| L Rating At 400 F — Less Than 1 CFM/sq ft | FTH Ratings — 0 and 1 Hr (See Items 2 and 4) |
| | L Rating At Ambient — 4 CFM/sq ft |
| | L Rating At 400 F — Less Than 1 CFM/sq ft |

SECTION A-A

1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Block. Max diam of opening is 29 in. (737 mm).
See Concrete Blocks (CA) category in the Fire Resistance directory for names of manufacturers.

2. Metallic Sleeve — (Optional) — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe sleeve cast or grouted into floor or wall assembly. Flush with floor or wall surface or extending a max of 3 in. (76 mm) above floor or beyond both surfaces of wall. If the steel sleeve extends beyond the top surface of the floor or both surfaces of the wall, the T Rating of the firestop system is 0 hr.

2A. Sheet Metal Sleeve — (Optional) — Max 6 in. (152 mm) diam, min 28 ga galv steel provided with a 28 ga galv steel square flange spot welded to the sleeve at approximately mid-height, or flush with bottom of sleeve in floor, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place flush with bottom surface of floor and may extend a max of 1 in. (25 mm) above the top surface of the floor.

2B. Sheet Metal Sleeve — (Optional) — Max 12 in. (305 mm) diam, min 24 ga galv steel provided with a 24 ga galv steel square flange spot welded to the sleeve at approximately mid-height, or flush with bottom of sleeve in floor, and sized to be a min of 2 in. (51 mm) larger than the sleeve diam. The sleeve is to be cast in place flush with bottom surface of floor and may extend a max of 1 in. (25 mm) above the top surface of the floor.

Page: 1 of 2

System No. C-AJ-5091

3. Through Penetrants — One metallic pipe or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or tubing may be used:
A. Steel Pipe — Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 12 in. (305 mm) diam (or smaller) cast or ductile iron pipe.
C. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

4. Pipe Covering — Min 1/2 in. (13 mm) to max 2 in. (51 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m³) glass fiber units jacketed on the outside with an all-weather jacket. Longitudinal joints sealed with metal fasteners or factory applied, self-sealing tape. Transverse joints secured with metal fasteners or with but tape supplied with the product. The annular space between the insulated pipe and the edge of the periphery of the opening shall be min 1/2 in. (13 mm) to max 12 in. (305 mm). When thickness of pipe covering is less than 2 in. (51 mm), the T Rating for the firestop system is 0 hr.

See Pipe Equipment Covering — Materials — (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4A. Pipe Covering — (Not Shown) — As an alternate to Item 4, max 2 in. (51 mm) thick cylindrical calcium silicate (min 14 pcf or 224 kg/m³) units sized to the outside diam of the pipe or tube may be used. Pipe insulation secured with stainless steel bands or min 18 AWG stainless steel wire spaced max 12 in. (305 mm) OC. The annular space shall be min 1/2 in. (13 mm) to max 12 in. (305 mm).

5. Firestop System — The firestop system shall consist of the following:
A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
B. Fill, Void or Cavity Material — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.
C. HLT CONSTRUCTION CHEMICALS, DIV OF HLT INC. — FS-One Sealant or FS-ONE MAX Intumescent Sealant
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

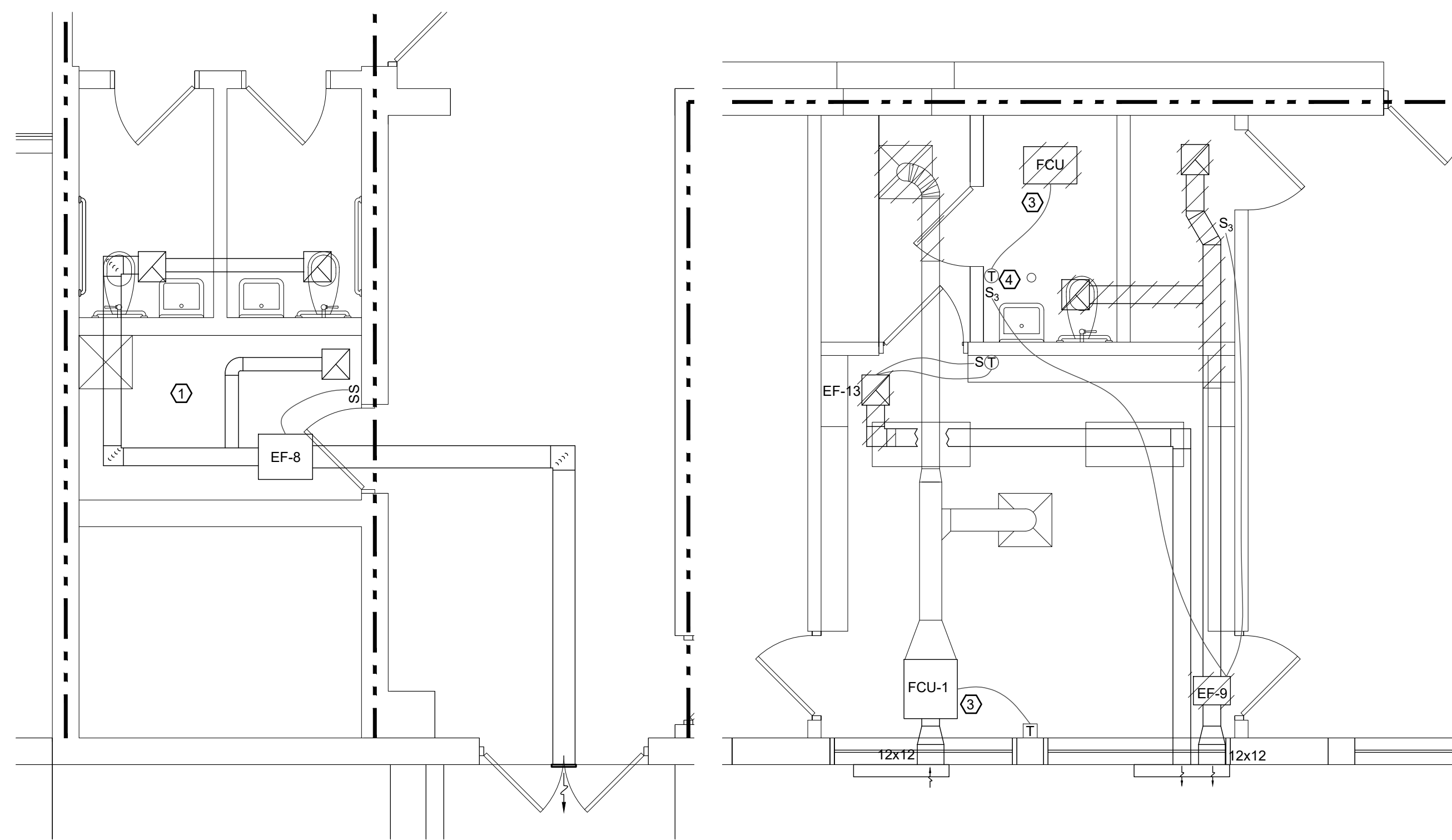
Page: 2 of 2

RESTROOMS ON LOWER LEVEL @ AC REYNOLDS MIDDLE SCHOOL
22 ROCKET DRIVE ASHEVILLE, NC

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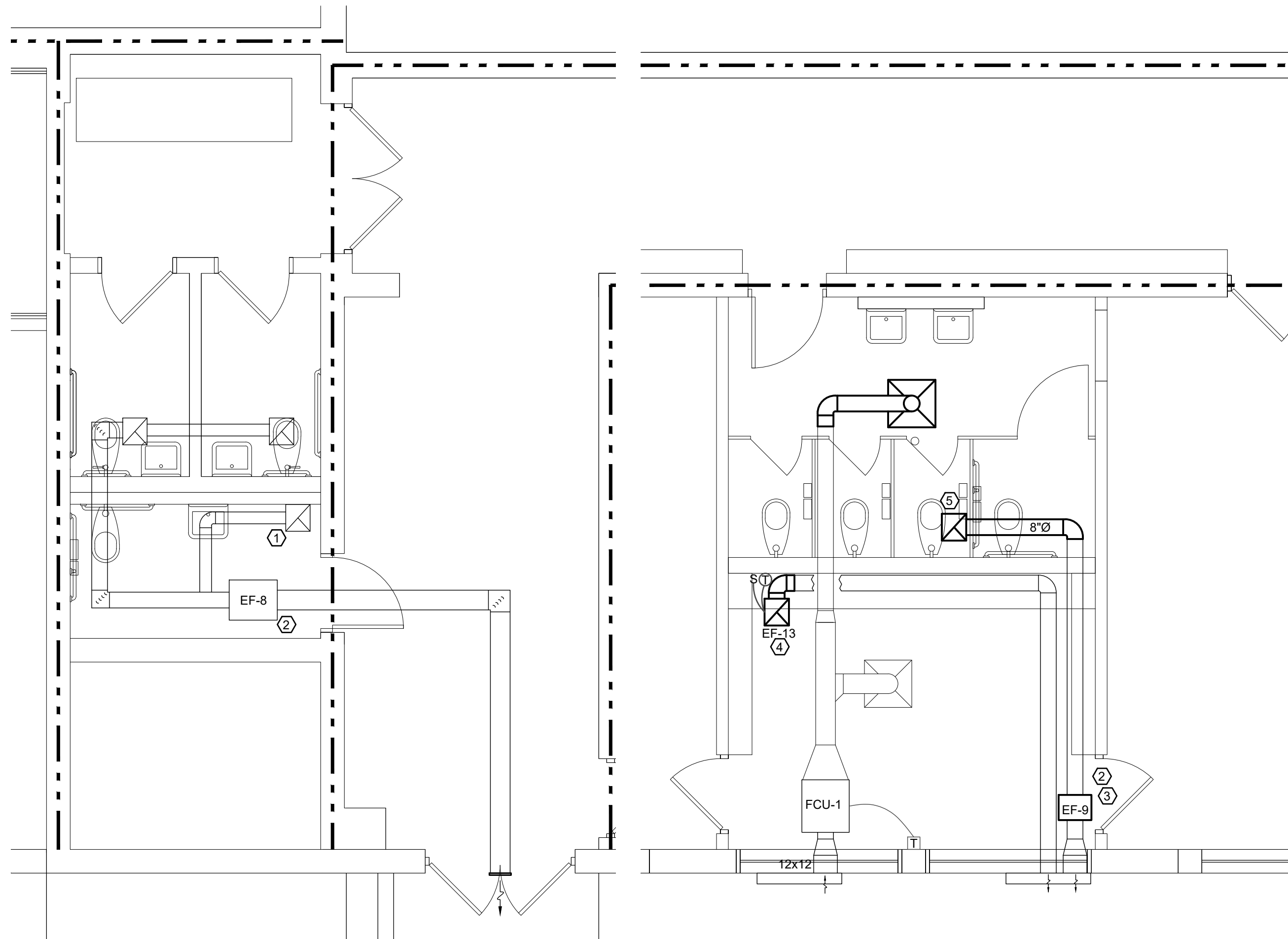




1 MECHANICAL - DEMOLITION
M1.1 1/4" = 1'

KEYED NOTES

- ① EXISTING FAN AND DIFFUSERS TO REMAIN.
- ② REMOVE EXISTING EXHAUST FAN.
- ③ EXISTING FCU TO BE REMOVED. CAP PIPES.
- ④ REMOVE THERMOSTAT.



2 MECHANICAL - CONSTRUCTION
M1.1 1/4" = 1'

KEYED NOTES

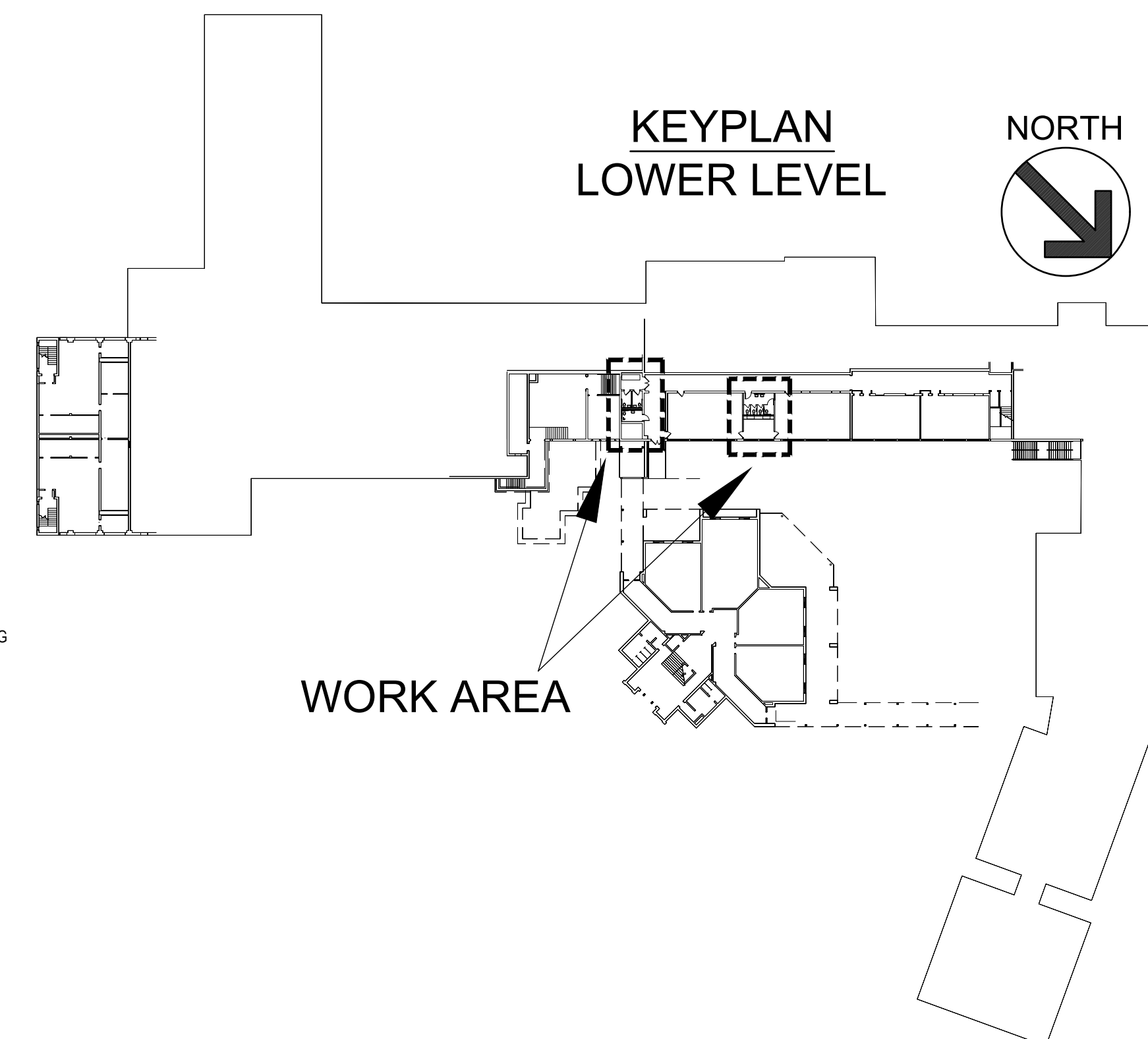
- ① REINSTALL EXHAUST REGISTER IN CEILING.
- ② CONNECT EXHAUST FAN TO EXISTING AUTOMATED LOGIC CONTROL SYSTEM. CONTROL TO BE ON DURING OCCUPIED PERIOD AND OFF DURING UNOCCUPIED PERIOD.
- ③ INSTALL NEW FAN IN PLACE OF EXISTING. RECONNECT TO EXISTING DUCT.
- ④ RELOCATE EF-13 AND RECONNECT TO EXISTING DUCT.
- ⑤ 12x12 EGG CRATE EXHAUST REGISTER. PRICE 80 OR EQUAL.

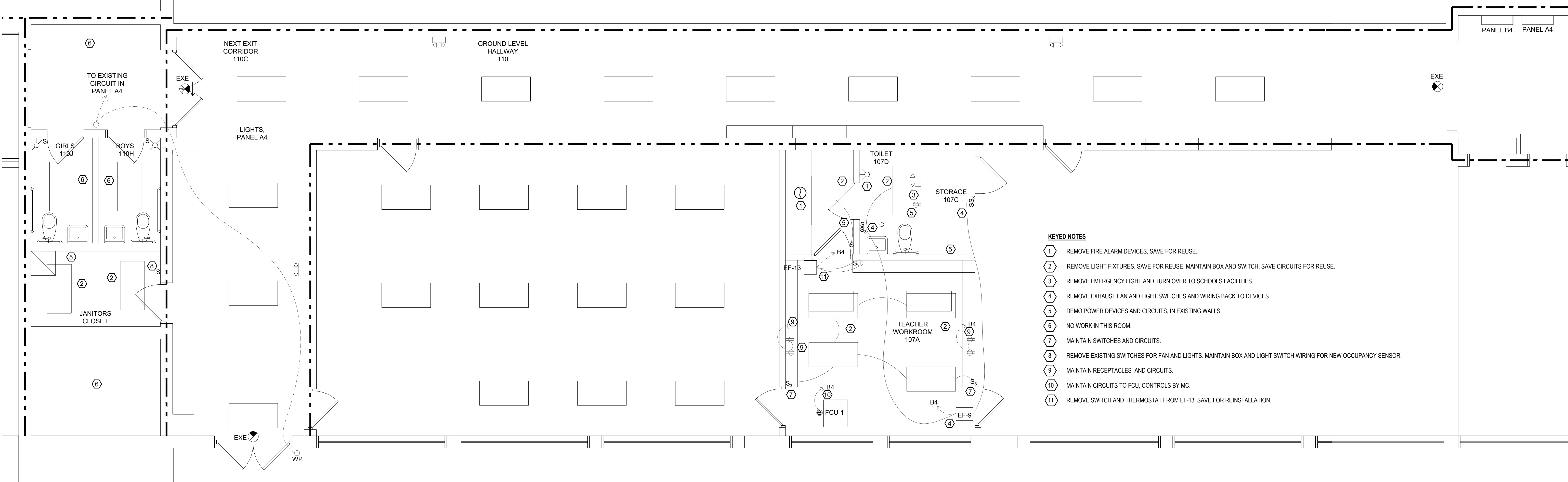
MECHANICAL GENERAL NOTES:

- 1 THE BUILDING PLANS ARE BASED ON INFORMATION PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, QUANTITIES, AND CONDITIONS PRIOR TO WORK. OWNER WILL NOT APPROVE ANY CHANGE ORDERS RESULTING FROM CONTRACTOR'S FAILURE TO FIELD VERIFY. DRAWINGS SHALL NOT BE SCALED TO DETERMINE ACTUAL DIMENSIONS.
- 2 THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE APPROXIMATE LOCATION OF EQUIPMENT, PIPING AND DUCTWORK. MINOR ADJUSTMENTS AND OFFSETS SHALL BE PROVIDED WHERE REQUIRED AT NO ADDITIONAL COST TO THE OWNER. COORDINATE CHANGES IN ROUTING OR OTHER WORK WITH THE ENGINEER PRIOR TO PROCEEDING.
- 3 EXISTING AREAS WHETHER WITHIN OR WITHOUT THE "GENERAL LIMITS OF CONSTRUCTION", SHALL BE REPAIRED WHERE ANY DAMAGE HAS OCCURRED DUE TO CONSTRUCTION BY THE CONTRACTOR.
- 4 ALL PENETRATIONS SHOULD BE REUSED TO EXTENT POSSIBLE. PATCH NEW AND EXISTING PENETRATIONS TO MATCH EXISTING WALL CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR SEALING ALL PENETRATIONS THROUGH ALL WALLS TO PREVENT SOUND TRANSFER. GROUT OR GYPSUM WALL BD. "MUD" MAY BE USED FOR NON RATED WALLS. PENETRATIONS THROUGH RATED WALLS SHALL BE MADE PER THE UL DETAILS PROVIDED.
- 5 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE NORTH CAROLINA STATE MECHANICAL CODE.
- 6 UNLESS OTHERWISE INDICATED MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, CORE-DRILLING AND PATCHING OF FLOORING AND WALLS AS REQUIRED TO MATCH EXISTING CONDITIONS.
- 7 MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING MECHANICAL RELATED WORK WITH OTHER TRADES. MECHANICAL CONTRACTOR IS CAUTIONED THAT IT IS TOTALLY HIS RESPONSIBILITY TO COORDINATE HANGERS AND SUPPORTS ETC. WITH OTHER TRADES.
- 8 DUCT DIMENSIONS INDICATED ON THE PLANS ARE NET INSIDE DIMENSIONS. FIELD VERIFY ALL MEASUREMENTS AND DIMENSIONS BEFORE FABRICATING DUCTWORK.
- 9 ALL SOLID DUCTWORK SHALL BE GALVANIZED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE CURRENT SMACNA DUCT CONSTRUCTION STANDARDS. DUCT SHALL BE CONSTRUCTED FOR ANTICIPATED STATIC PRESSURES. ALL JOINTS SHALL BE SEALED WITH MASTIC. MAXIMUM FLEX DUCT LENGTH IS 5'.
- 10 ALL NEW METAL SUPPLY DUCTWORK AND ALL RETURN DUCTWORK SHALL BE INSULATED WITH 2" EXTERNAL, 3/4 LB. DENSITY DUCT INSULATION, PROPERLY TAPED AND SEALED TO PROVIDE A CONTINUOUS VAPOR BARRIER. FRESH AIR DUCTS SHALL BE INSULATED SAME AS ABOVE. EXHAUST DUCTWORK DOES NOT TO BE INSULATED.
- 11 ALL SUPPLY DUCT ELBOWS SHALL CONTAIN TURNING VANES.
- 12 FIELD VERIFY UNIT & DUCT LOCATIONS. COORDINATE DUCT SIZING AND LAYOUT WITH BUILDING STRUCTURE PRIOR TO INSTALLATION. REVISE DUCTS TO EQUIVALENT SIZES AS NEEDED.
- 13 MOUNT ROOM TEMPERATURE SENSORS AT 48" AFF. MOUNT THERMOSTATS AT 48" AFF. REPAIR WALL FROM REMOVAL OF EXISTING SENSOR TO MATCH EXISTING. ROUTE CONTROL WIRING IN WALL.
- 14 ALL SHUTDOWNS OF THE EXISTING UTILITIES SHALL BE SCHEDULED IN ADVANCE WITH OWNER.
- 15 ALL EQUIPMENT, BOTH EXISTING AND NEW, SHALL BE LABELED WITH PERMANENT LABELS, PROPERLY AFFIXED TO THE EQUIPMENT.
- 16 PROPER FIRE WATCH TO BE MAINTAINED AT ALL TIMES DURING WELDING OR OPEN FLAME USE.
- 17 IF THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION. COORDINATE WORK SO THAT UTILITIES ARE OPERATIONAL WHEN NEEDED IN OCCUPIED AREAS.

| EXHAUST FAN SCHEDULE | | | | | | | | | | | |
|----------------------|-----------|----------|--------------|---------------|---------|-----|---------|-----------|-------|-------------|-------|
| MARK | MANU. * | MODEL * | AREA SERVED | MOUNTING | TYPE | CFM | SP (in) | MAX SONES | WATTS | VOLTS/PHASE | NOTES |
| EF-9 | GREENHECK | CSP-A250 | GIRLS TOILET | ABOVE CEILING | IN-LINE | 221 | 0.25 | 2.0 | 64.0 | 120 / 1 | |

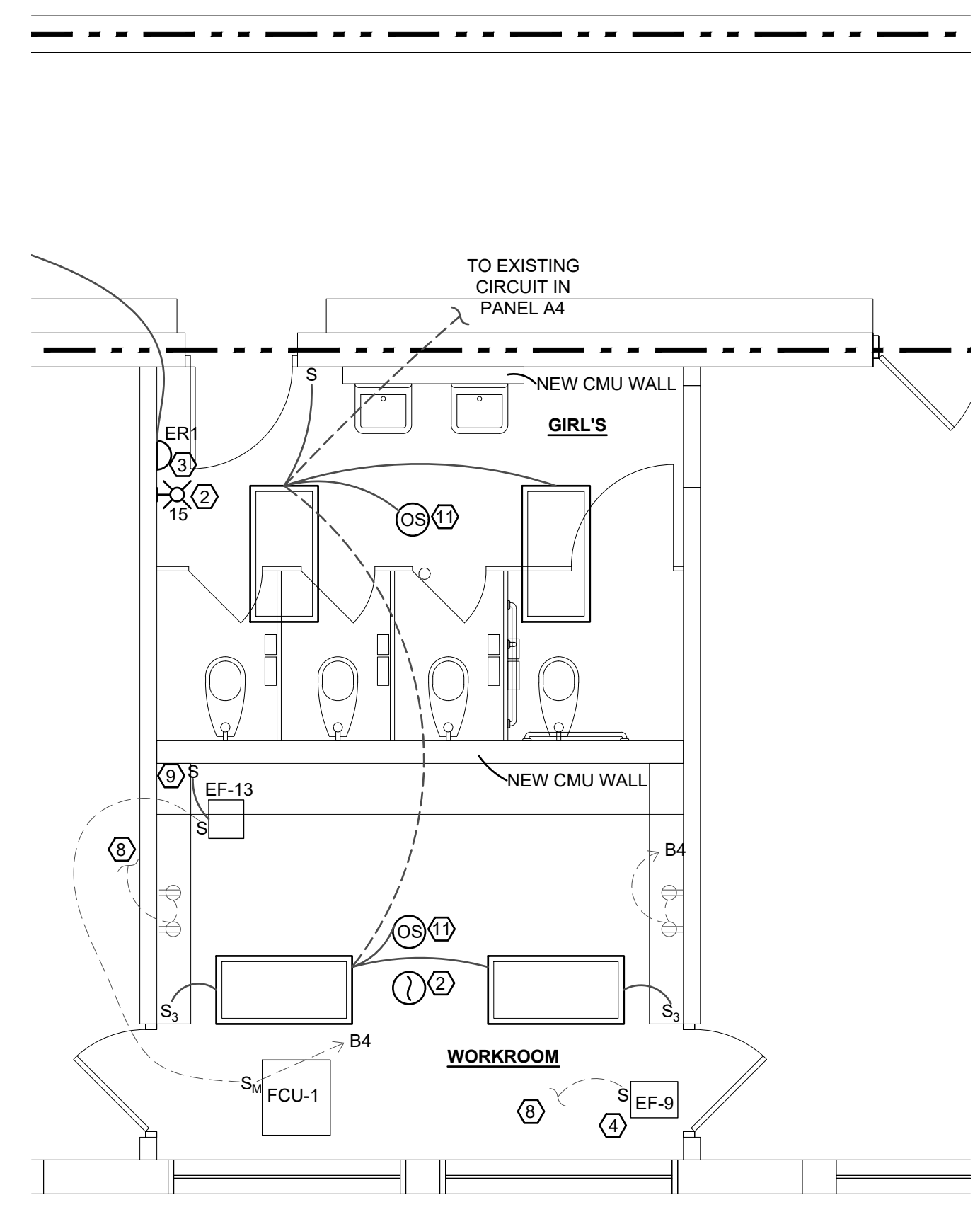
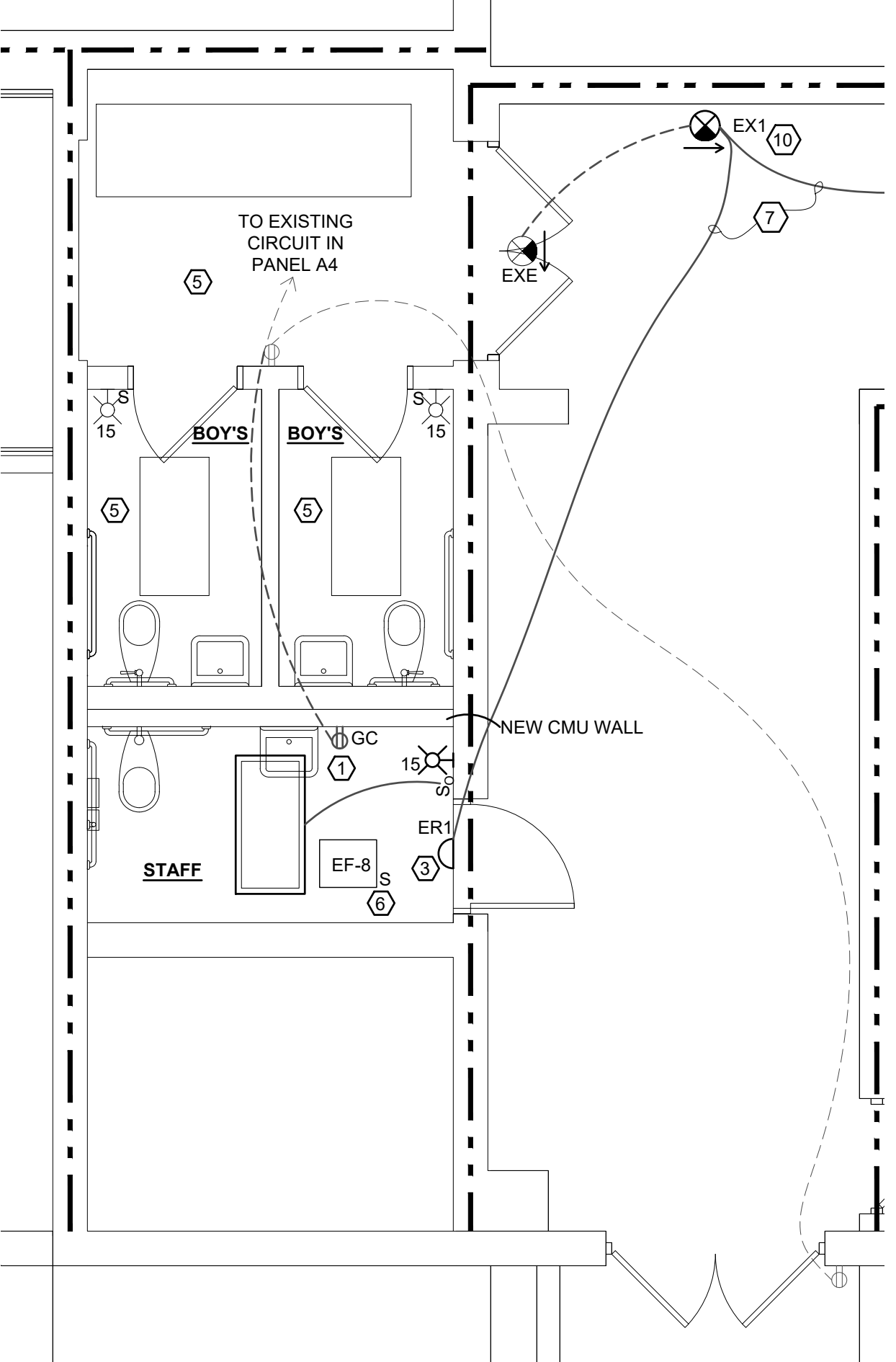
* BASIS OF DESIGN





- KEYED NOTES**
- ① REMOVE FIRE ALARM DEVICES, SAVE FOR REUSE.
 - ② REMOVE LIGHT FIXTURES, SAVE FOR REUSE. MAINTAIN BOX AND SWITCH, SAVE CIRCUITS FOR REUSE.
 - ③ REMOVE EMERGENCY LIGHT AND TURN OVER TO SCHOOLS FACILITIES.
 - ④ REMOVE EXHAUST FAN AND LIGHT SWITCHES AND WIRING BACK TO DEVICES.
 - ⑤ DEMO POWER DEVICES AND CIRCUITS, IN EXISTING WALLS.
 - ⑥ NO WORK IN THIS ROOM.
 - ⑦ MAINTAIN SWITCHES AND CIRCUITS.
 - ⑧ REMOVE EXISTING SWITCHES FOR FAN AND LIGHTS. MAINTAIN BOX AND LIGHT SWITCH WIRING FOR NEW OCCUPANCY SENSOR.
 - ⑨ MAINTAIN RECEPTACLES AND CIRCUITS.
 - ⑩ MAINTAIN CIRCUITS TO FCU, CONTROLS BY MC.
 - ⑪ REMOVE SWITCH AND THERMOSTAT FROM EF-13. SAVE FOR REINSTALLATION.

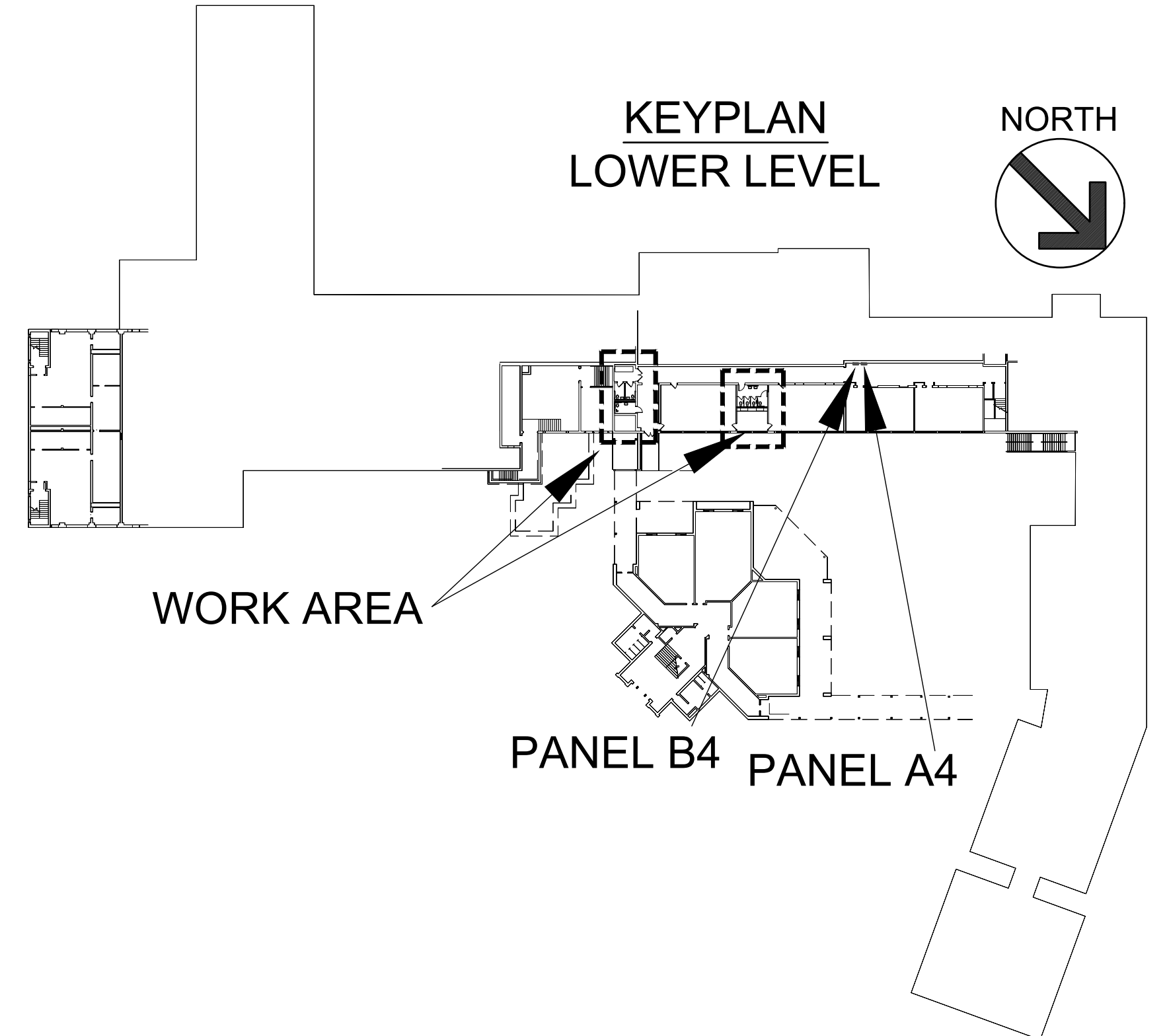
1 ELECTRICAL - POWER & LIGHTS DEMOLITION
E1.1 1/4" = 1'



- KEYED NOTES**
- ① PROVIDE NEW GFCI RECEPTACLE RECESSED IN CMU WALL, WIRE TO EXISTING RECEPTACLE CIRCUIT.
 - ② REINSTALL FIRE ALARM DEVICE FROM DEMO, EXTEND NAC CIRCUIT AS NEEDED.
 - ③ PROVIDE NEW EMERGENCY LIGHT (ER1), LIGHT ALARM #ELF650/M6-M-6.
 - ④ PROVIDE WIRE REPLACEMENT FOR EXHAUST FAN, PROVIDED BY MECHANICAL CONTRACTOR. PROVIDE SWITCH AT UNIT. CONTROLS BY MC.
 - ⑤ NO WORK IN THIS ROOM.
 - ⑥ EF-8 TO BE CONTROLLED BY MC. MAINTAIN EXISTING CIRCUIT. PROVIDE TOGGLE DISCONNECT SWITCH.
 - ⑦ PROVIDE MC CABLE WITH (2) #14 + #14G.
 - ⑧ EXISTING CIRCUIT.
 - ⑨ REINSTALL SWITCH AND THERMOSTAT TO CONTROL EF-13. REWIRE EXISTING FAN.
 - ⑩ PROVIDE NEW EXIT SIGN (EX1) WITH RIGHT HAND ARROW AND 12 WATTS REMOTE CAPACITY. LIGHT ALARM # UQLXN500-R-0-R.
 - ⑪ PROVIDE PIR SENSING CEILING OCCUPANCY SENSOR, LINE RATED, EATON: OAC-P-0500-MV.

2 ELECTRICAL - POWER & LIGHTS
M1.1 1/4" = 1'

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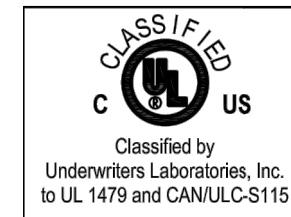


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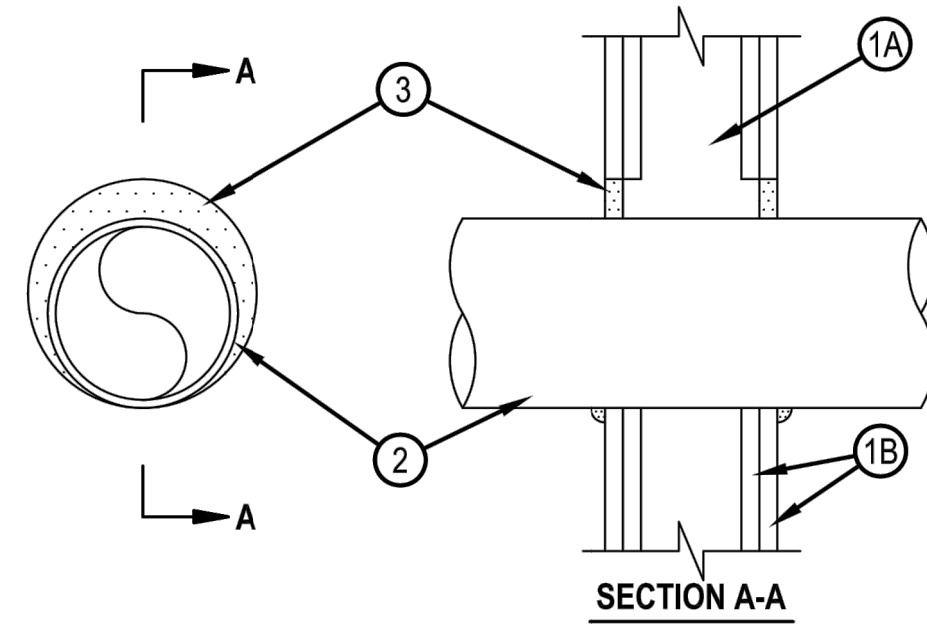
ELECTRICAL - POWER & LIGHTS

E1.1
DESIGNED BY: PSD
DATE: 06.26.2019



System No. W-L-1054

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings — 1 and 2 Hr (See Items 1 and 3) | F Ratings — 1 and 2 Hr (See Items 1 and 3) |
| T Rating — 0 Hr | FT Rating — 0 Hr |
| L Rating at Ambient — Less Than 1 CFM/sq ft | FH Ratings — 1 and 2 Hr (See Items 1 and 3) |
| L Rating at 400 F — Less Than 1 CFM/sq ft | FTH Rating — 0 Hr |
| | FTH Rating — 0 Hr |
| | L Rating at Ambient — Less Than 1 CFM/sq ft L Rating at 400 F — Less Than 1 CFM/sq ft |



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.

B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls. The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.

System No. W-L-1054

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.

C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) diam steel conduit.

D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

SCOPE OF WORK

PROVIDE TEMPORARY CONSTRUCTION PHASE POWER AND LIGHTING FOR ALL TRADES AS NEEDED.

PROVIDE SUBMITTALS ON ALL LIGHTING AND CONTROLS EQUIPMENT.

PROVIDE ALL ELECTRICAL SHOWN ON DRAWINGS AND SPECIFICATIONS AND AS NEEDED TO PROVIDE A COMPLETE FUNCTIONAL INSTALLATION IN COMPLIANCE WITH STATE AND LOCAL CODES.

PROVIDE FIELD COORDINATION WITH OTHER TRADES AND PROVIDE RED-LINE MARKED UP DRAWINGS TO OWNER OF ALL FIELD CHANGES.

TEST ALL LIGHTING, SWITCHING, AND OCCUPANCY SENSORS FOR PROPER FUNCTION.

TEST AND CERTIFY ALL FIRE ALARM EQUIPMENT.

TEST AND CERTIFY ALL EMERGENCY LIGHTING.

PROVIDE ALL REQUIRED ELECTRICALLY RELATED PERMITS AND INSPECTIONS.

PROVIDE ONE YEAR WARRANTY ON ALL PARTS AND LABOR FROM DATE OF PROJECT ACCEPTANCE

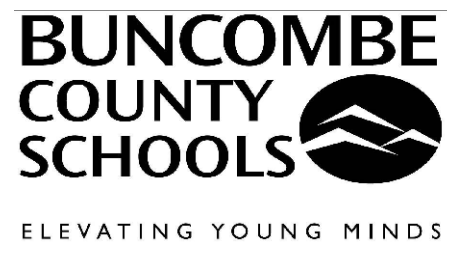
GENERAL NOTES (ALL ELECTRICAL SHEETS)

- THIS DRAWING IS DIAGRAMMATIC AND INDICATES THE APPROXIMATE LOCATION OF DEVICES AND EQUIPMENT. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS ON SITE. MINOR ADJUSTMENTS AND OFFSETS SHALL BE PROVIDED WHERE REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- PROVIDE ALL WORK IN COMPLIANCE WITH ALL STATE AND LOCAL CODES AND IN AN INDUSTRY STANDARD WORKMANLIKE MANNER.
- NMC (ROMEX AND SE CABLE FOR FEEDERS) IS NOT ACCEPTABLE. AC/MC CABLE IS ACCEPTABLE WHEN FISHED INSIDE EXISTING WALLS OR AS NOTED. EMT CONDUITS WITH CRIMP COUPLINGS AND CONDUCTORS SHALL BE USED IN ALL LOCATIONS U.O.N. CONDUIT MINIMUM 3/4".
- RACEWAYS SHALL NOT BE RUN ON THE EXTERIOR OF BUILDING OR EXPOSED IN FINISHED USER/PUBLIC AREAS.
- ALL WALLS AND PENETRATIONS SHALL BE REPAIRED AND SEALED. SEE ARCHITECTURAL FOR WALL CONSTRUCTION.
- ALL WIRE SIZES SHOWN ARE FOR COPPER, UNLESS OTHERWISE NOTED. WIRES #10 OR LESS SHALL BE SOLID.
- RECEPTACLE AND SWITCH COVER PLATES SHALL BE STAINLESS STEEL. DEVICES SHALL BE GRAY.
- ALL SPARE BREAKERS SHALL BE TURNED OFF AND LABELED "SPARE" ON DIRECTORY CARD.
- THE ENGINEER HAS ATTEMPTED TO PROVIDE A COMPLETE DESIGN, COMPLIANT WITH ALL CODES. THE CONTRACTOR IS STILL RESPONSIBLE FOR MAKING MINOR ADJUSTMENTS TO MEET CODES AND THE DESIGN INTENT.

| GENERAL ELECTRICAL LEGEND | |
|---------------------------|---|
| SYMBOL | DESCRIPTION |
| | NEW EQUIPMENT |
| | EXISTING EQUIPMENT |
| | TYPICAL LIGHT FIXTURES LETTER INDICATES TYPE |
| | TYPICAL EXIT SIGN - NUMBER OF FACES AND DIRECTIONAL ARROWS INDICATED, LETTER INDICATES TYPE |
| | SINGLE HEAD, REMOTE EMERGENCY LIGHTING |
| | EMERGENCY LIGHTING UNIT |
| | OCCUPANCY SENSOR |
| | DUPLEX RECEPTACLE, NEMA CONFIGURATION 5-20R |
| | GFCI DUPLEX RECEPTACLE |
| | ABOVE COUNTER DUPLEX RECEPTACLE, MOUNT CENTER AT 44" AFF |
| | WEATHER TIGHT DUPLEX RECEPTACLE |
| | 20A, 120/277VAC SINGLE POLE SNAP SWITCH |
| | 20A, 120/277VAC THREE WAY SNAP SWITCH |
| | MOTOR STARTER TOGGLE SWITCH, #POLE TO MATCH # CIRCUITS |
| | 20A, 120/277 VAC OCCUPANCY SENSOR, INFRARED SNAP SWITCH |
| | ELECTRICAL POWER SUPPLY CONNECTION TO EQUIPMENT - EQUIPMENT TAG OR DESIGNATION INDICATED. COORDINATE LOCATION AND CONNECTION DETAILS WITH EQUIPMENT PROVIDER. |
| | JUNCTION BOX |
| | 1 HOUR FIRE RATED WALL |
| | SWITCHED CIRCUIT |
| | UNSWITCHED CIRCUIT |
| | HOMERUN CIRCUIT TO PANEL - CIRCUIT INDICATED |

ABBREVIATIONS

| | |
|------|-------------------------------------|
| A | AMP |
| AFF | ABOVE FINISHED FLOOR |
| C | CONDUIT (AND DEVICE COUNTER HEIGHT) |
| CU | COPPER OR CONDENSING UNIT |
| EC | ELECTRICAL CONTRACTOR |
| EF | EXHAUST FAN |
| ER | REMTOE EMERGENCY LIGHT |
| EX | EXIT SIGN |
| EXE | EXISTING EXIT SIGN |
| FCU | FAN COIL UNIT |
| FMC | FLEXIBLE METAL CONDUIT |
| G | GROUND |
| GC | GENERAL CONTRACTOR |
| GFCI | GROUND FAULT CIRCUIT INTERRUPTER |
| MC | MECHANICAL CONTRACTOR |
| N | NEUTRAL |
| NIC | NOT IN CONTRACT |
| OEM | ORIGINAL EQUIPMENT MANU. |
| PC | PLUMBING CONTRACTOR |
| PNL | PANELBOARD |
| UON | UNLESS OTHERWISE NOTED |
| VAC | VOLTAGE AC |
| WIR | WIRE (SIZE/RATING) |



RESTROOMS ON LOWER LEVEL @ AC REYNOLDS MIDDLE SCHOOL
2 ROCKET DRIVE ASHEVILLE, NC

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ELECTRICAL - GENERAL

E2.1

DESIGNED BY: PSD
DATE: 06.26.2019