# SHEPARDSON COMMUNITY CENTER ADA COMPLIANCE

1172 Whittemore Road Middlebury, Connecticut

April 22, 2020



# MECH - ELEC ENGINEER



31 Liberty Street, Suite 208 Southington, CT 06489

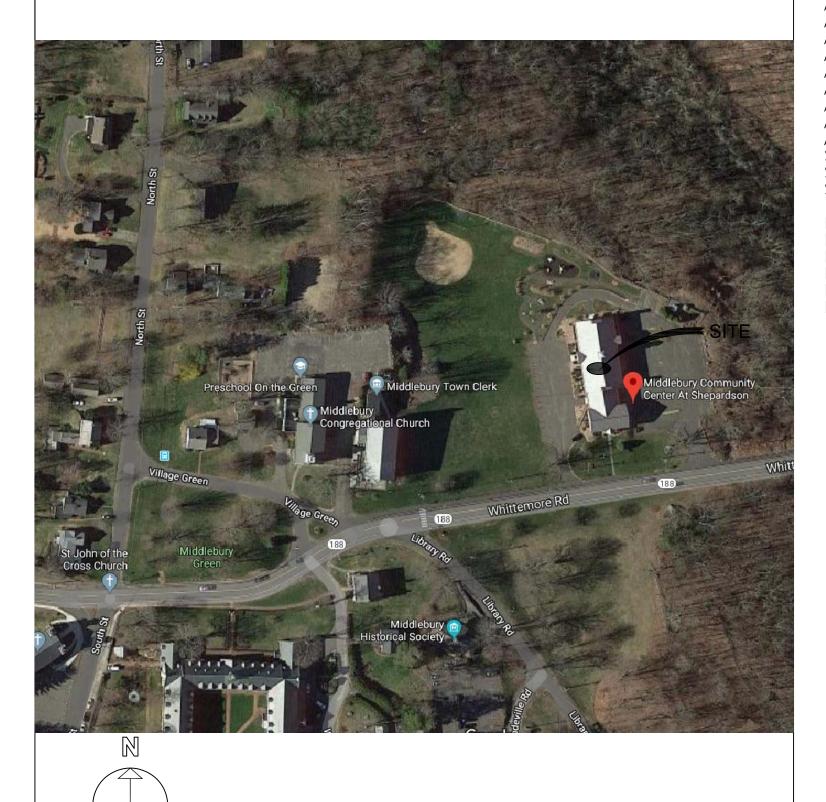
**Drawing List** 

Fax (860) 621-0957



Connecticut Office 51 Depot St., Suite 104 Watertown, CT 06795 www.kueglerassociates.com

Site Location Map



COVER SHEET
LOWER LEVEL TOILET ROOMS DEMO PLANS
UPPER LEVEL TOILET ROOMS DEMO PLANS
LOWER LEVEL TOILET ROOMS NEW WORK PLANS
UPPER LEVEL TOILET ROOMS NEW WORK PLANS
LOWER LEVEL REFLECTED CEILING PLANS
UPPER LEVEL REFLECTED CEILING PLANS
TOILET ROOM ELEVATIONS
DETAILS
BID ALTERNATE — FLOOR DRAIN DETAILS
SPECIFICATIONS SPECIFICATIONS SPECIFICATIONS
SPECIFICATIONS (INCLUDING HAZARDOUS MATERIALS) P001 PLUMBING NOTES & SYMBOLS
P100 PLUMBING FLOOR PLANS
M001 MECHANICAL NOTES & SYMBOLS
M100 MECHANICAL FLOOR PLANS
E001 ELECTRICAL NOTES & SYMBOLS
E100 ELECTRICAL FLOOR PLANS

Abbreviations ACOUSTICAL TILE ABUSE RESISTANT A.C.T. A.R. ALUM. ALUMINUM BITUMINOUS WALK BIT. WALK CER. CJ CONC. CONTROL JOINT CONCRETE CONC. CONT. CPT DIA. DIM. DS DWG. ELECT. EQ. CONTINUOUS DIAMETER DIMENSION DOWN SPOUT DRAWING ELECTRIC EQUAL EACH SIDE EXISTING EXTERIOR EXIST.
EXT.
F.C.
F.D.
FEC
FIN.
F.R.
GA.
GALV.
GYP. BD
H.M.
HGT.
INS.
J.T.
LAM.
M.R. FIBER CEMENT FLOOR DRAIN FIRE EXTINGUISHER CABINET FIRE RESISTANT GAUGE GALVANIZED GYPSUM BOARD HOLLOW METAL HEIGHT INSULATED JOINT LAMINATE MOISTURE RESISTANT MAX. MEAS. MAXIMUM MEASURE месн. MECHANICAL MET. METAL MIN.
N.I.C.
O.C.
O.D.
PLAS.
POLY.
PR.
PR. TRTD. MINIMUM NOT IN CONTRACT ON CENTER OUTSIDE DIAMETER POLYURETHANE PRESSURE TREATED PTD. R.L. REINF. RES. R.O. SIM. STD. TEMP. REINFORCED RESILIENT ROUGH OPENING STANDARD TEMPORARY TYP. U.N.O. V.B. V.C.T. UNLESS NOTED OTHERWISE VAPOR BARRIER VINYL COMPOSITE TILE WELDED WIRE MESH

Symbols SECTION MARK DETAIL MARK NORTH ARROW MULTIPLE VIEWS ROOM:NAME ROOM IDENTIFIER

Alteration Level 1 No decrease in plumbing fixtures. INTERIOR ELEVATION ROOM# # DOOR IDENTIFIER  $\langle \# \rangle$ KEYNOTE INDICATOR WALL TYPE INDICATOR

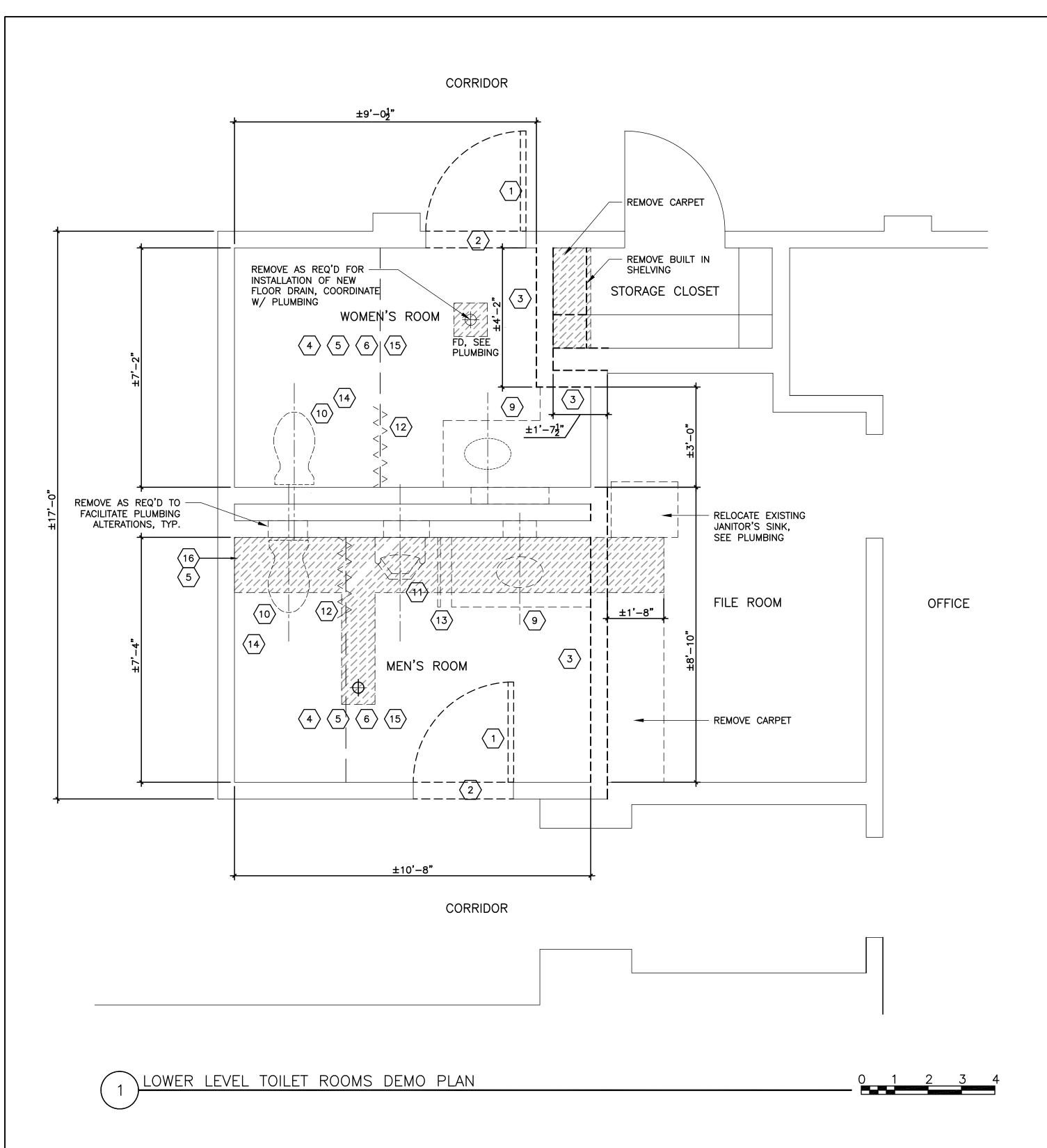
**Code Information** Use Classification

A-3 (Community Halls)

Construction Type IIIB (Non-Sprinklered) 9,500 sf ±6,000 sf Allowable Area Actual

Project is to increase accessibility to existing toilet rooms.

Automatic door operators added at upper level toilet



DEMO KEY NOTES 1 REMOVE DOOR AND FRAME. REMOVE THRESHOLD. REMOVE WALL. EXISTING CERAMIC TILE WAINSCOT TO REMAIN. REMOVE CERAMIC TILE FLOOR. REMOVE ACT TILES AND GRID. REMOVE ACT TILES. EXISTING GRID TO REMAIN. REMOVE COUNTER. REMOVE LAV AND COUNTER. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. REMOVE TOILET. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. REMOVE URINAL. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. REMOVE SHOWER CURTAIN AND ROD. REMOVE PARTITIONS AND ASSOCIATED HARDWARE. REMOVE ALL HANDICAPPED ACCESSIBLE GRAB BARS. REMOVE ALL DISPENSERS. REMOVE SLAB - COORDINATE EXTENT W/ PLUMBING

#### HAZARDOUS MATERIALS NOTE:

IN THE EVENT THAT MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; IMMEDIATELY NOTIFY THE ARCHITECT AND THE OWNER. HAZARDOUS MATERIALS WILL BE REMOVED BY THE OWNER UNDER A SEPARATE CONTRACT.

# SHEPARDSON COMMUNITY CENTER ADA COMPLIANCE MIDDLEBURY, CONNECTICUT

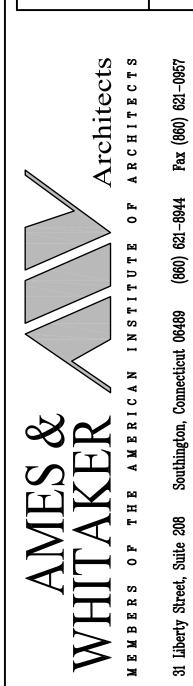
A

DEMO

ROOM

TOILET

LOWER LEVEL



PROJECT NO.

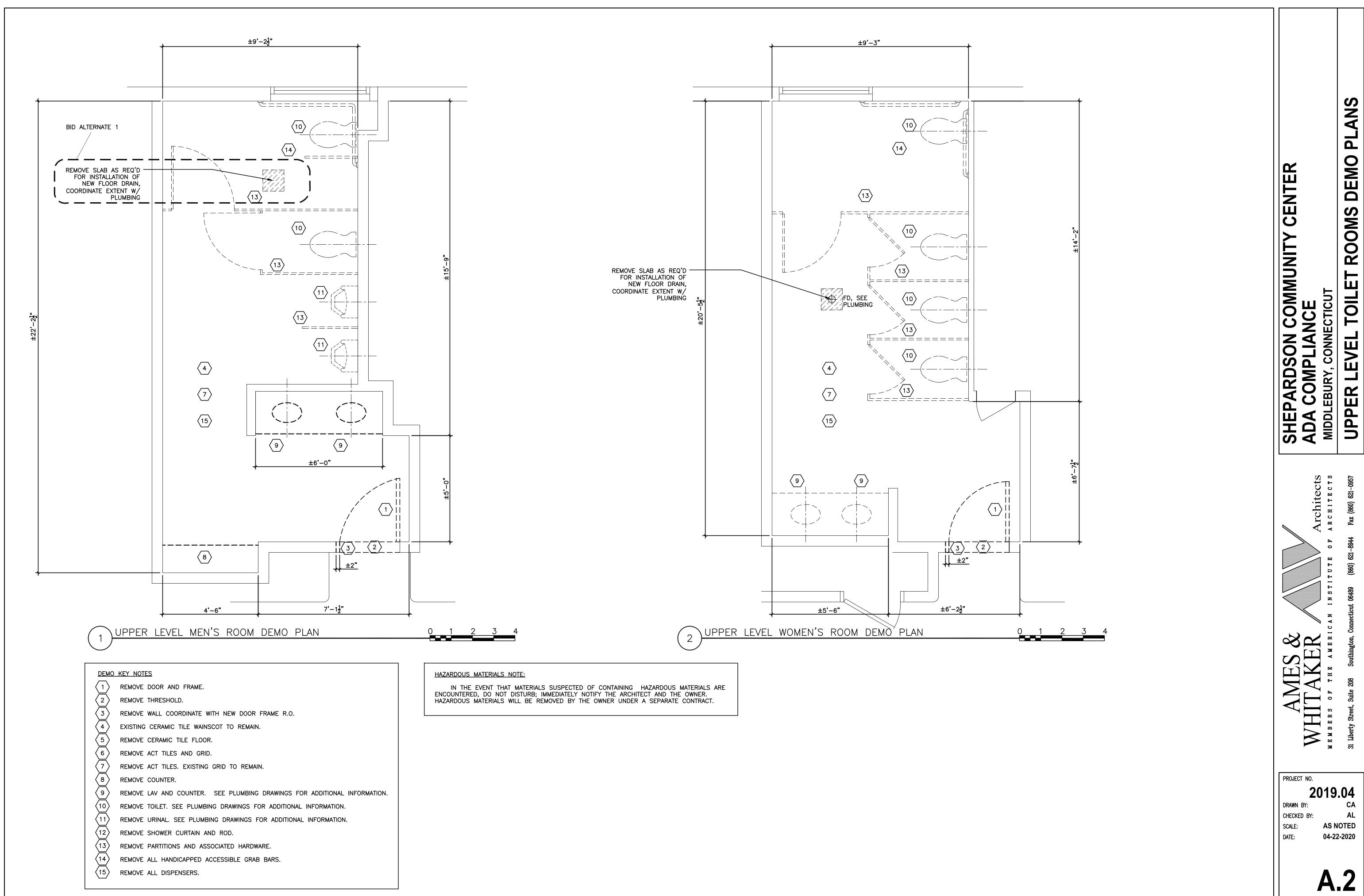
2019.04

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SCALE: AS NOTED

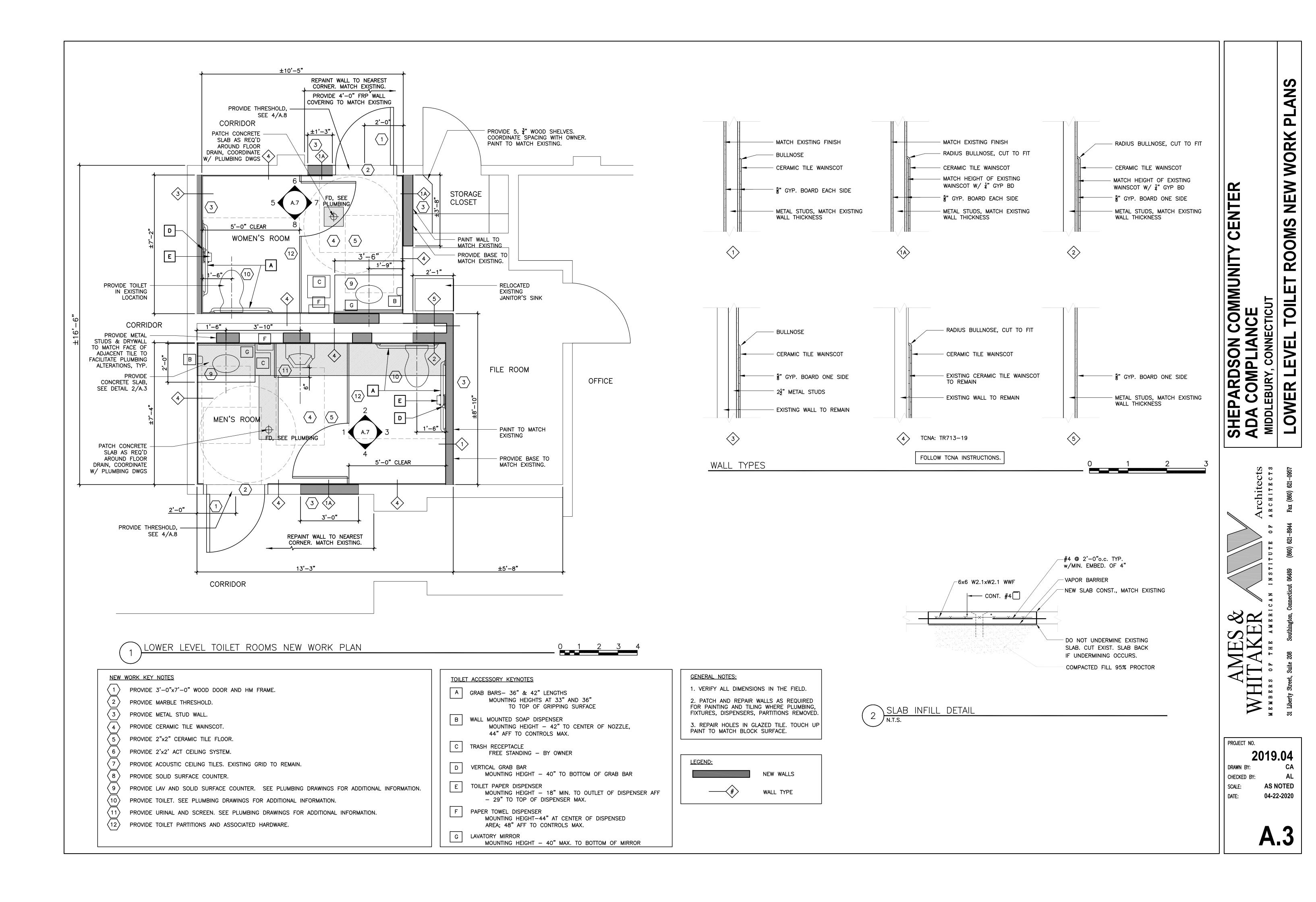
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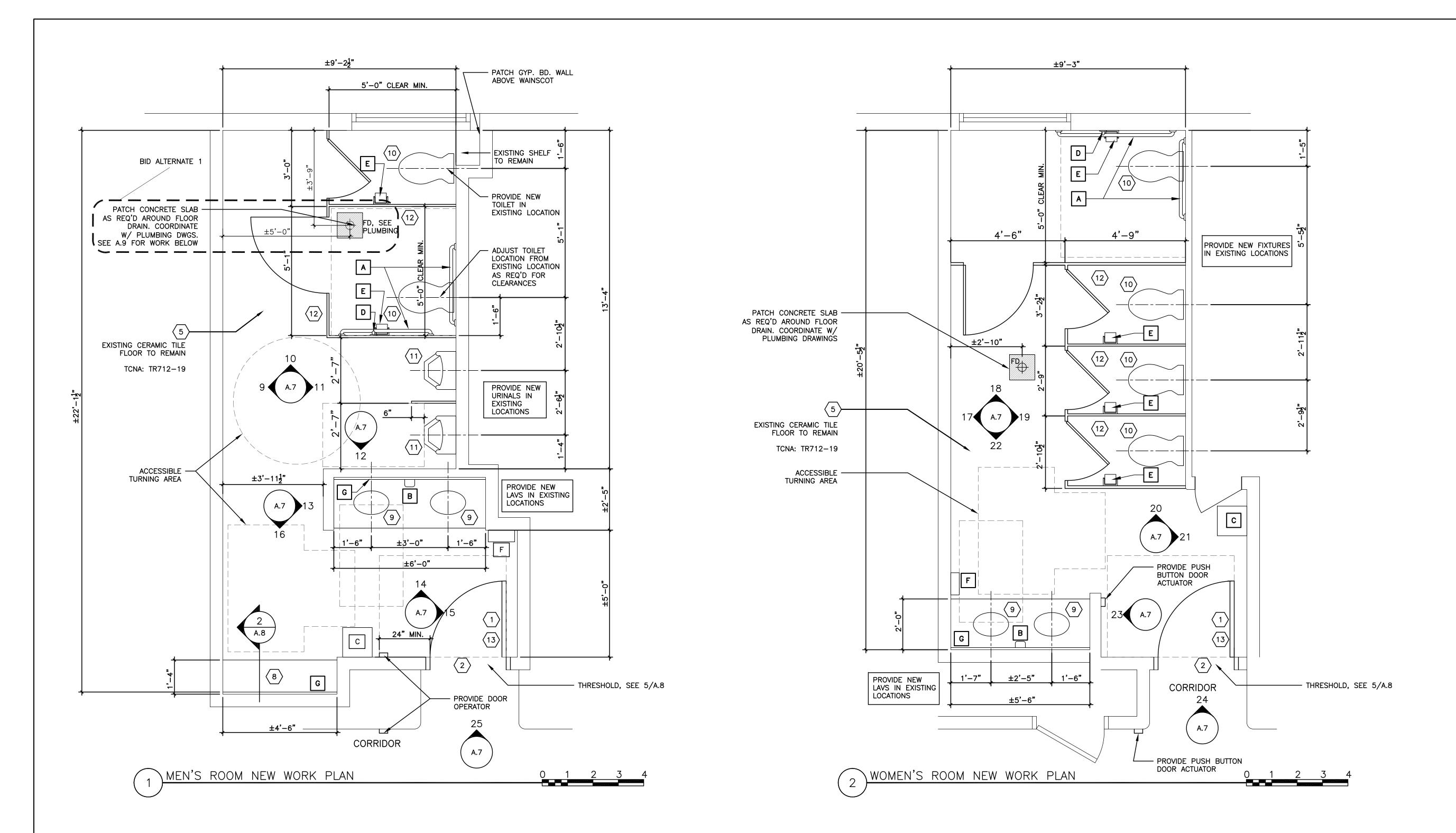


DEMO

ROOMS

2019.04 **AS NOTED** 04-22-2020





#### NEW WORK KEY NOTES

- 1 PROVIDE 3'-0"x7'-0" WOOD DOOR AND HM FRAME.
- 2 PROVIDE MARBLE THRESHOLD.
- 3 PROVIDE METAL STUD WALL.
- 4 PROVIDE CERAMIC TILE WAINSCOT.
- PROVIDE 2"x2" CERAMIC TILE FLOOR.
- PROVIDE 2'x2' ACT CEILING SYSTEM.
- PROVIDE 2 x2 ACT CEILING SYSTEM.
- PROVIDE ACOUSTIC CEILING TILES. EXISTING GRID TO REMAIN.
- PROVIDE SOLID SURFACE COUNTER.
- 9 PROVIDE LAV AND SOLID SURFACE COUNTER. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- 10) PROVIDE TOILET. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE URINAL AND SCREEN. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- (12) PROVIDE TOILET PARTITIONS AND ASSOCIATED HARDWARE.
- 3 PROVIDE ADA COMPLIANT POWER OPERATORS, SEE ELECTRICAL FOR ADDITIONAL INFORMATION.

#### TOILET ACCESSORY KEYNOTES

- A GRAB BARS— 36" & 42" LENGTHS

  MOUNTING HEIGHTS AT 33" AND 36"

  TO TOP OF GRIPPING SURFACE
- B WALL MOUNTED SOAP DISPENSER

  MOUNTING HEIGHT 42" TO CENTER OF NOZZLE,

  44" AFF TO CONTROLS MAX.
  - TRASH RECEPTACLE
- FREE STANDING BY OWNER
- VERTICAL GRAB BAR

  MOUNTING HEIGHT 40" TO BOTTOM OF GRAB BAR
- TOILET PAPER DISPENSER

  MOUNTING HEIGHT 18" MIN. TO OUTLET OF DISPENSER AFF

   29" TO TOP OF DISPENSER MAX.
- PAPER TOWEL DISPENSER

  MOUNTING HEIGHT-44" AT CENTER OF DISPENSED

  AREA; 48" AFF TO CONTROLS MAX.
- G LAVATORY MIRROR

  MOUNTING HEIGHT 40" MAX. TO BOTTOM OF MIRROR

#### GENERAL NOTES:

- 1. VERIFY ALL DIMENSIONS IN THE FIELD.
- 2. PATCH AND REPAIR WALLS AS REQUIRED FOR PAINTING AND TILING WHERE PLUMBING FIXTURES, DISPENSERS, PARTITIONS REMOVED.
- 3. REPAIR HOLES IN GLAZED TILE. TOUCH UP PAINT TO MATCH BLOCK SURFACE.

AMES & Architect ARBERS OF THE AMERICAN INSTITUTE OF ARCHITECT

A

WORK

NEW

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RO

TOILET

UPPER LEVEL

CENTER

SHEPARDSON COMMUNITY
ADA COMPLIANCE
MIDDLEBURY, CONNECTICUT

PROJECT NO.

2019.04

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# LOWER LEVEL TOILET ROOMS REFLECTED CEILING PLANS



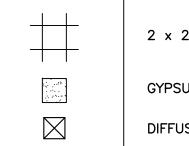
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- PROVIDE 2'x2' ACT CEILING SYSTEM.
- PROVIDE ACOUSTIC CEILING TILES. EXISTING GRID TO REMAIN.
- PROVIDE SOLID SURFACE COUNTER.
- PROVIDE LAV AND SOLID SURFACE COUNTER. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
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- B WALL MOUNTED SOAP DISPENSER MOUNTING HEIGHT - 42" TO CENTER OF NOZZLE, 44" AFF TO CONTROLS MAX.
  - TRASH RECEPTACLE
- FREE STANDING BY OWNER
- VERTICAL GRAB BAR MOUNTING HEIGHT - 40" TO BOTTOM OF GRAB BAR
- TOILET PAPER DISPENSER MOUNTING HEIGHT - 18" MIN. TO OUTLET OF DISPENSER AFF - 29" TO TOP OF DISPENSER MAX.
- PAPER TOWEL DISPENSER MOUNTING HEIGHT-44" AT CENTER OF DISPENSED AREA; 48" AFF TO CONTROLS MAX.
- LAVATORY MIRROR MOUNTING HEIGHT - 40" MAX. TO BOTTOM OF MIRROR

#### CEILING LEGEND



2 x 2 SUSPENDED CEILING

GYPSUM BOARD CEILING, PAINTED

DIFFUSERS AND GRILLES, SEE MECH.

RECESSED FLUORESCENT LUMINAIRE

#### REFLECTED CEILING NOTES:

1. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND FIXTURE DESCRIPTIONS OF LIGHTING, AND SUPPLY/ RETURN DIFFUSERS.

#### **GENERAL NOTES:**

1. VERIFY ALL DIMENSIONS IN THE FIELD.

2. PATCH AND REPAIR WALLS AS REQUIRED FOR PAINTING AND TILING WHERE PLUMBING FIXTURES, DISPENSERS, PARTITIONS REMOVED.

3. REPAIR HOLES IN GLAZED TILE. TOUCH UP PAINT TO MATCH BLOCK SURFACE.

CENTER SHEPARDSON COMMUNITY CADA COMPLIANCE
MIDDLEBURY, CONNECTICUT
LOWER LEVEL REFLECTED

A

CEILING

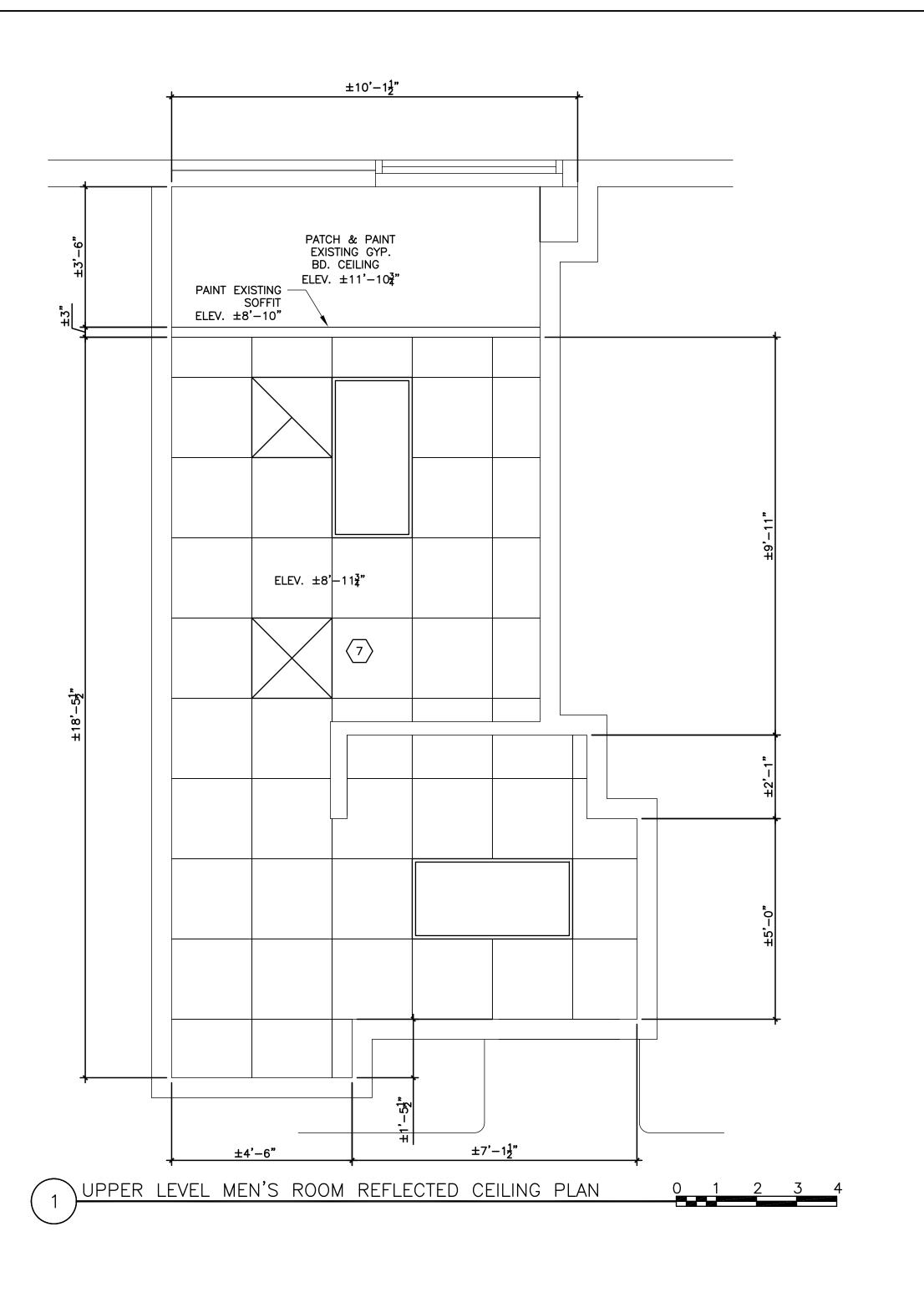
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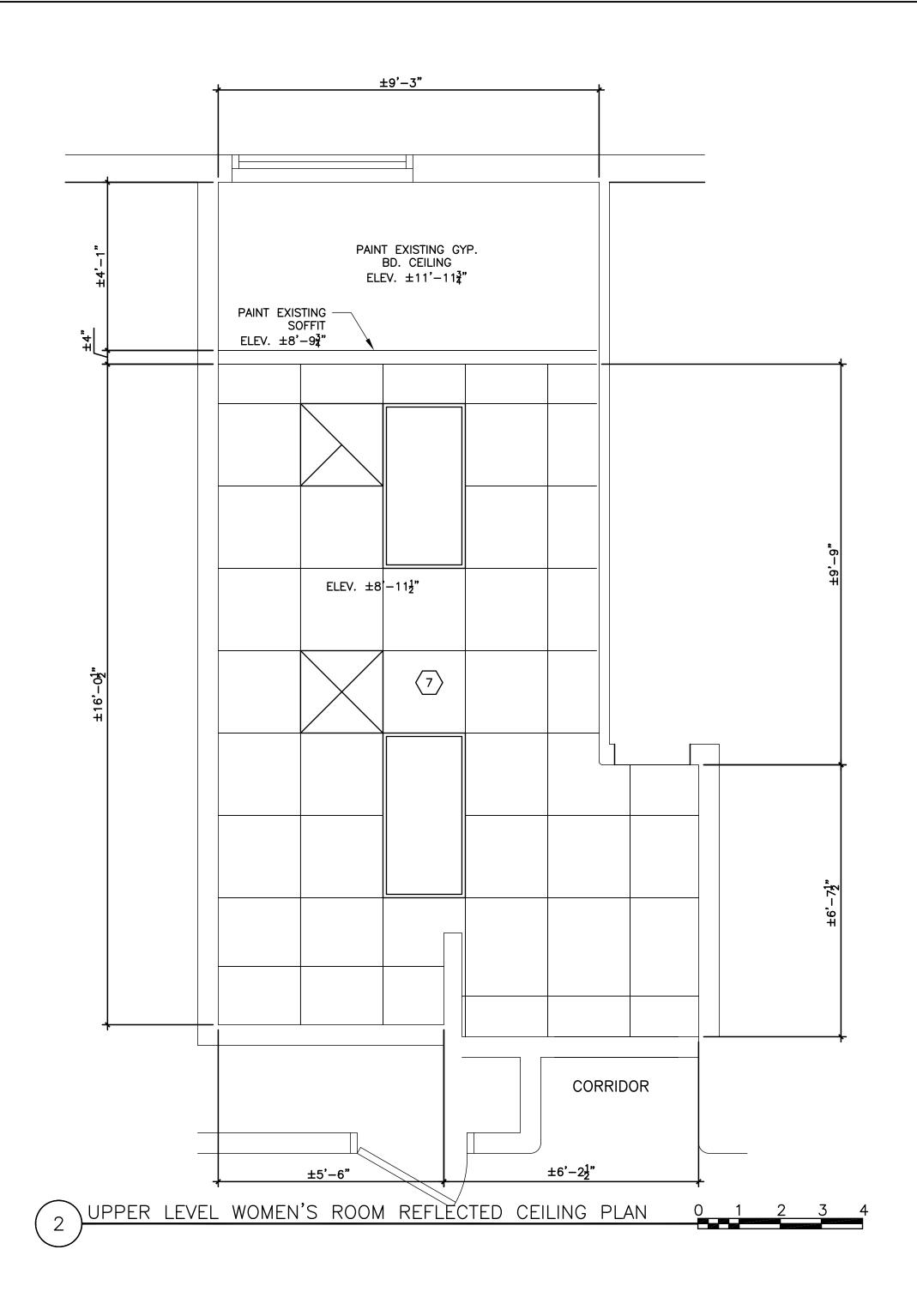
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PROJECT NO.

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- PROVIDE SOLID SURFACE COUNTER.
- $\langle 9 \rangle$  PROVIDE LAV AND SOLID SURFACE COUNTER. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- 10 PROVIDE TOILET. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE URINAL AND SCREEN. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE TOILET PARTITIONS AND ASSOCIATED HARDWARE.

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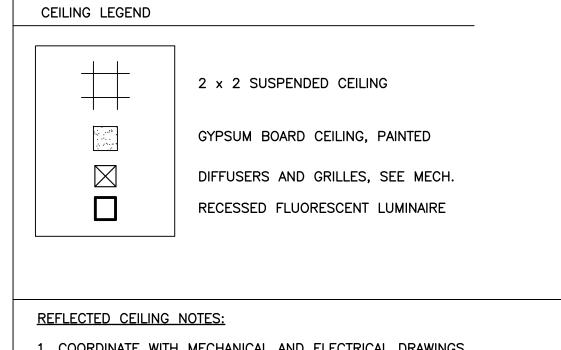
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#### GENERAL NOTES:

1. VERIFY ALL DIMENSIONS IN THE FIELD.

2. PATCH AND REPAIR WALLS AS REQUIRED FOR PAINTING AND TILING WHERE PLUMBING FIXTURES, DISPENSERS, PARTITIONS REMOVED.

3. REPAIR HOLES IN GLAZED TILE. TOUCH UP PAINT TO MATCH BLOCK SURFACE.

AMES & ARCH ARERS OF THE AMERICAN INSTITUTE OF ARCH

**PLANS** 

CEILING

CENTER

SHEPARDSON COMMUNITY CADA COMPLIANCE
MIDDLEBURY, CONNECTICUT
UPPER LEVEL REFLECTED C

PROJECT NO.

2019.04

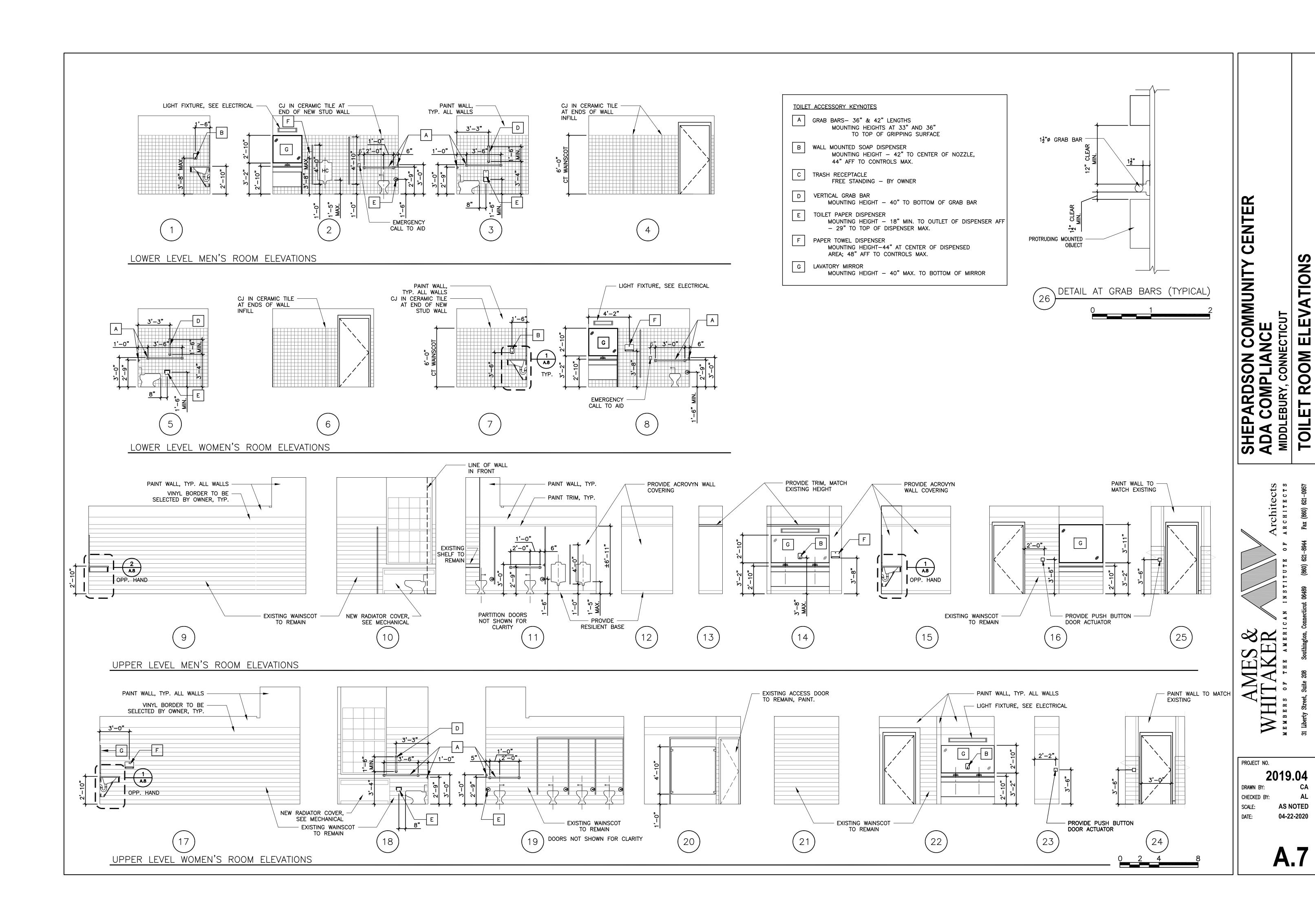
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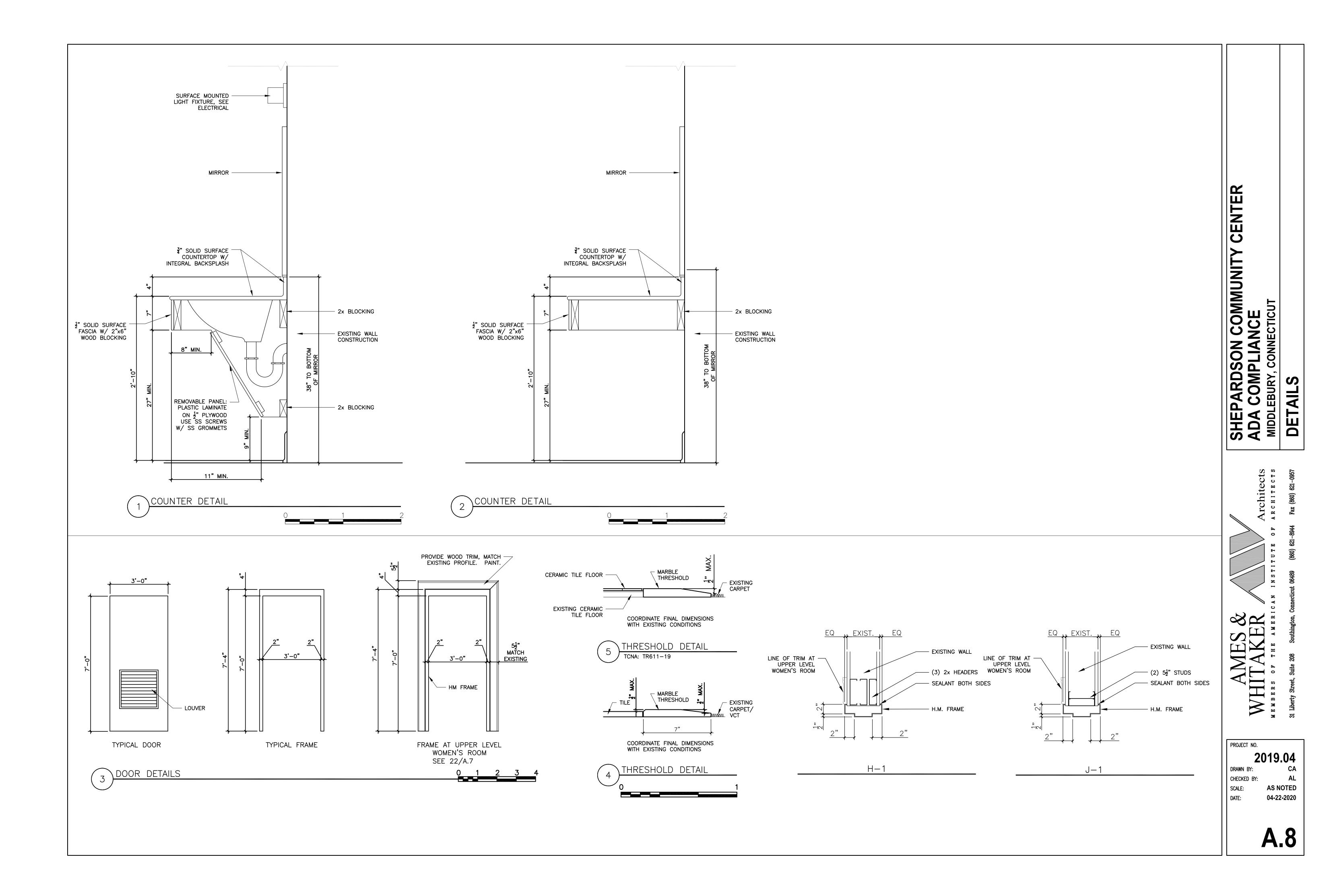
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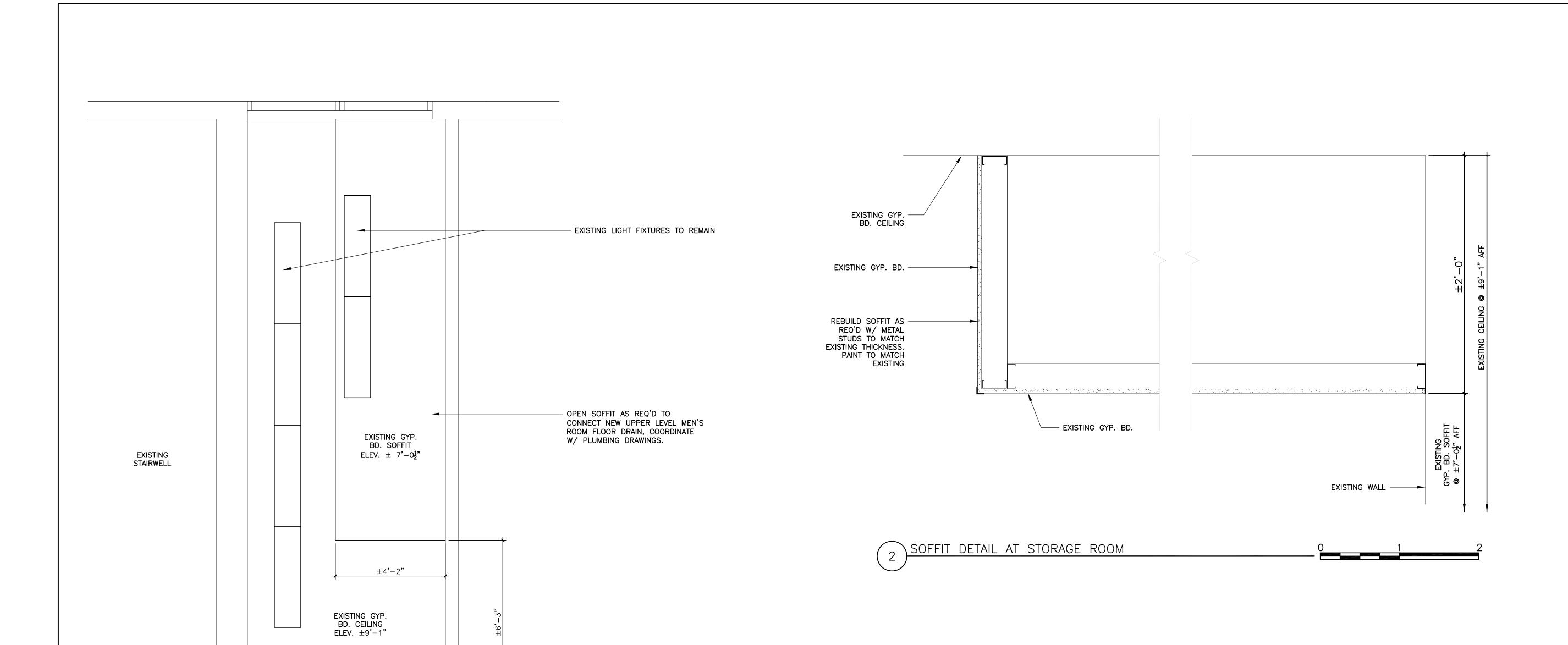
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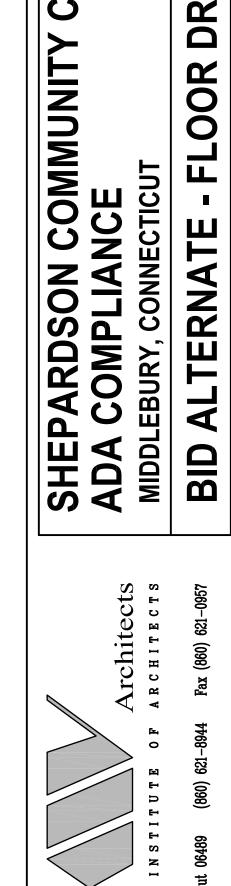
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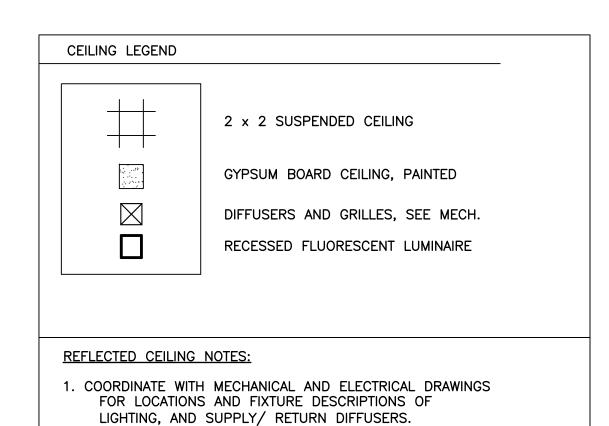


**DETAIL**(

DRAIN

CENTER

LOWER LEVEL STORAGE ROOM REFLECTED CEILING PLAN SEE A.4 FOR UPPER LEVEL MEN'S TOILET ROOM FLOOR PLAN ABOVE.



**GENERAL NOTES:** 

1. VERIFY ALL DIMENSIONS IN THE FIELD.

2. PATCH AND REPAIR WALLS AS REQUIRED.

PROJECT NO. 2019.04 DRAWN BY: CHECKED BY: **AS NOTED** SCALE:

DATE:

04-22-2020

- GENERAL REQUIREMENTS
- 1.1. THIS CONTRACT INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SERVICES REQUIRED FOR THE PROPER PERFORMANCE OF THE WORK HEREIN INDICATED ON THE DRAWINGS OR SPECIFIED.
- 1.2. THE CONTRACTOR SHALL KEEP THE WORK AREA CLEAN OF ALL DEBRIS AT ALL TIMES AND SHALL KEEP MATERIALS PILED IN AN ORDERLY MANNER. REMOVE ALL MARKS, STAINS, AND DIRT FROM PAINTED FINISHED SURFACES AND ALL ADJACENT SURFACES.
- 1.3. THE CONTRACTORS AND SUBCONTRACTORS SHALL COORDINATE THEIR WORK WITH ADJACENT WORK AND COOPERATE WITH OTHER TRADES SO AS TO FACILITATE GENERAL PROGRESS OF THE WORK.
- 1.4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT SURFACES FROM DAMAGE WHILE UNDER CONSTRUCTION. ANY EXISTING OR NEW SURFACES DAMAGED DURING THIS CONTRACT BY THE CONTRACTOR SHALL BE REPLACED AS NEW OR RESTORED TO PREVIOUS EXISTING CONDITIONS.
- 1.5. PROTECT ALL EQUIPMENT OF THE OWNER'S AND PERSONNEL BY TEMPORARY BARRIERS WHILE WORKING WITHIN THE PROJECT AREA. CONFER WITH THE OWNER'S REPRESENTATIVE FOR AREAS OF CONCERN OR PROBLEMS.
- 1.6. ALL WORK SHALL BE IN COMPLIANCE WITH THE LATEST EDITIONS OF THE STATE OF CONNECTICUT BUILDING AND FIRE CODES, STATE, AND LOCAL **AUTHORITIES.**
- 1.7. THE CONTRACTOR IS TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO START OF ANY WORK AND NOTIFY THE OWNER OF ANY DISCREPANCIES AS THEY RELATE TO THE NEW WORK.
- 1.8. SUBMIT SIX (6) SETS OF SHOP DRAWINGS OR DATA SHEETS ON ALL PRODUCTS FOR REVIEW AND APPROVAL BY THE ARCHITECT PRIOR TO COMMENCING WITH CONSTRUCTION.
- 2.1. SYSTEM COMPONENTS: WITH EACH TYPE OF METAL FRAMING REQUIRED, PROVIDE MANUFACTURER'S STANDARD STEEL STUDS, RUNNERS (TRACKS), BLOCKING, LINTELS, CLIP ANGLES, SHOES, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR APPLICATIONS AS INDICATED, AS NEEDED TO PROVIDE A COMPLETE METAL FRAMING SYSTEM.
- 2.2. MATERIALS AND FINISHES
- FABRICATE METAL FRAMING COMPONENTS OF STRUCTURAL QUALITY STEEL SHEET WITH A MINIMUM YIELD POINT OF 40,000 PSI; ASTM A-446, A-570, OR A-611 (MINIMUM 16 GA. USG ST16).
- PROVIDE GALVANIZED FINISH TO METAL FRAMING COMPONENTS, COMPLYING WITH ASTM A-525 FOR MINIMUM G60 COATING.
- FABRICATION: FRAMING COMPONENTS SHALL BE FABRICATED IN PLACE. FABRICATE PANELS PLUMB, SQUARE, TRUE TO LINE, AND BRACED AGAINST RACKING WITH JOINTS SCREWED. NEST DOUBLE STUDS AT DOOR OPENINGS.
- MANUFACTURER: ALL METAL FRAMING UNITS SHALL BE BY USG INRYCO/MILCOR OR EQUAL.
- MISCELLANEOUS METALS
- 3.1. METAL SHAPES AND MEMBERS SHALL BE NEW, FREE OF DEFECTS, DURABLE, TRUE TO DETAIL MEETING ASTM A-36 STEEL REQUIREMENTS.
- 3.2. MEMBERS NOT NOTED AS BEING GALVANIZED SHALL BE COATED WITH NO. 25 ZINC CHROMATE PRIMER.
- 3.3. INSTALLATION OF HIGH-STRENGTH BOLTS SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A-325 BOLTS. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE FOR WELDING E70XX.
- ROUGH CARPENTRY
- 4.1. INCLUDES ALL WOOD BLOCKING, FRAMING, SLEEPERS, NAILERS, AND BACKING BOARD. LUMBER SHALL BE PROVIDED KILN DRIED WITH 15% MAXIMUM MOISTURE CONTENT. CONSTRUCTION GRADE HEM FIR OR DOUGLAS FIR (ALL WOOD SHALL BE FIRE RETARDANT TYPE).
- GYPSUM DRYWALL 5.1. QUALITY CRITERIA
- INDUSTRY STANDARD: COMPLY WITH APPLICABLE REQUIREMENTS OF GA-216-75 "APPLICATION AND FINISHING OF GYPSUM BOARD", BY THE GYPSUM ASSOCIATION.
- ALLOWABLE TOLERANCES: 1 OFFSETS BETWEEN PLANES OF BOARD FACES, AND 1" IN 8'-0" FOR PLUMB, LEVEL, AND BOW.
- 5.2 MATERIALS:
- 5.2.1 ALL MATERIALS ARE TO BE AS MANUFACTURED BY USG OR EQUAL. GYPSUM BOARD: §" INTERIOR, FIRE—CODE, ½" INTERIOR, WATERPROOF, TAPERED EDGE BOARDS IN MAXIMUM LENGTHS PRACTICAL. INSTALL ALL GWB PERPENDICULAR TO STUDS.
- FASTENERS: USG SCREWS 1-1/4" TYPE S BUGLE HEAD OR SIZE AS REQUIRED.
- 5.2.4 METAL CORNER BEADS (OUTSIDE CORNERS), USG 103 OR EQUAL. 5.2.5 PANEL JOINTS AND INTERIOR CORNERS; USG PERF-A-TAPE AND
- 5.2.6 JOINT COMPOUND: USG READY MIXED PLUS 3 JOINT COMPOUND. TAPING: 3 COAT SYSTEMS (SAND BETWEEN COATS AS REQUIRED).
- AT ABUTTING SURFACES: USG 200A CASING BEAD.
- PAINTING
- 6.1. PAINTING SHALL INCLUDE, BUT NOT NECESSARILY BE LIMITED TO, PRIMING AND PAINTING OF GYPSUM WALLBOARD, HOLLOW METAL DOORS AND FRAMES, MISCELLANEOUS STEEL, AND EXISTING GYPSUM AND CMU WALLS.
- 6.2. ALL SURFACES TO BE PAINTED SHALL BE DRY, CLEAN, AND FREE OF OIL, GREASE, AND ANY FOREIGN MATERIALS THAT WILL SHOW THROUGH OR OTHERWISE ADVERSELY AFFECT THE PAINT FINISH. FILL AND SAND ALL IRREGULARITIES WITH MATERIALS APPROVED BY MANUFACTURER.
- 6.3. ALL PRIMER AND PAINT COAT APPLICATIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED GUIDELINES. LOW VOC. SEE PAINTING SCHEDULE FOR MATERIAL TYPES AND NUMBER OF COATS.
- 6.4. PAINTING SCHEDULE:
- EXISTING CMU WALLS: TWO (2) COATS LATEX ENAMEL (GLIDDEN -6.4.1. COLOR AS SELECTED BY OWNER).
- NEW HOLLOW METAL DOORS AND FRAMES: TWO (2) COATS OF LATEX ENAMEL (GLIDDEN - COLOR AS SELECTED BY OWNER).

- EXISTING HOLLOW METAL DOORS AND FRAMES: SAME AS NEW HOLLOW METAL DOORS AND FRAMES.
- NEW GYPSUM BOARD WALLS: ONE (1) COAT OF PRIMER/SEALER AND TWO (2) COATS LATEX ENAMEL (GLIDDEN - COLOR AS SELECTED BY OWNER).
- CONTRACTOR SHALL SUBMIT COLOR CHIPS FOR OWNER'S APPROVAL

#### 7. TOILET PARTITIONS

- 7.1 SITE CONDITIONS: VERIFY DIMENSIONS BY FIELD MEASUREMENTS BEFORE FABRICATION, INCLUDING LOCATION OF FINISH WALLS, PLUMBING FIXTURES, MECHANICAL AND ELECTRICAL ITEMS WHICH ARE CLOSE TO PARTITION WORK.
- REGULATORY REQUIREMENTS: COMPLY WITH APPLICABLE PROVISIONS IN THE U.S. ARCHITECTURAL & TRANSPORTATION BARRIERS COMPLIANCE BOARD'S ADA-ABA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES AND ICC A117.1.
- 7.1.2 SOLID-SURFACE IS DEFINED AS NONPOROUS, HOMOGENOUS MATERIAL MAINTAINING THE SAME COMPOSITION THROUGHOUT THE PART WITH A COMPOSITION OF ACRYLIC POLYMER, ALUMINUM TRIHYDRATE FILLER AND PIGMENT.
- 7.1.3 SEE SECTIONS 18 FOR TOILET TISSUE DISPENSERS, GRAB BARS AND SIMILAR ACCESSORIES MOUNTED ON TOILET PARTITIONS; SEE PLUMBING SPECIFICATIONS FOR FIXTURES.
- 7.1.4 ,1 PRODUCT DATA FOR EACH TYPE OF PRODUCT. INCLUDE CONSTRUCTION DETAILS, MATERIAL DESCRIPTIONS, DIMENSIONS OF INDIVIDUAL COMPONENTS AND PROFILES, AND FINISHES FOR TOILET COMPARTMENTS. .2 SHOP DRAWINGS:
  - .01 INCLUDE DIMENSIONAL PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENT DETAILS.
  - .02 SHOW SAMPLE LARGE-SCALE DETAIL OF TYPICAL HARDWARE AND PARTITION ENHANCEMENT DETAILS TO ILLUSTRATE OVERALL APPEARANCE.
  - .03 SHOW VISUAL EXAMPLE OF SOLID SURFACE COLOR(S)
  - .04 SHOW LOCATIONS OF CENTERLINES OF TOILET FIXTURES. .05 SHOW LOCATIONS OF FLOOR DRAINS. .3 SAMPLES FOR VERIFICATION: FOR THE FOLLOWING PRODUCTS, IN MANUFACTURER'S STANDARD SIZES, - EACH TYPE OF
  - MATERIAL, COLOR, AND FINISH FOR TOILET COMPARTMENTS; EACH TYPE OF HARDWARE AND ACCESSORY. .4 PRODUCT CERTIFICATES FOR EACH TYPE OF TOILET
  - COMPARTMENT. .5 CLOSEOUT SUBMITTALS: MAINTENANCE DATA FOR TOILET COMPARTMENTS TO INCLUDE IN MAINTENANCE MANUALS. .6 MAINTENANCE MATERIAL SUBMITTALS: FURNISH EXTRA MATERIALS THAT MATCH PRODUCTS INSTALLED AND THAT ARE
  - PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS AND SOURCE. .01 DOOR HINGES: ONE HINGE(S) WITH ASSOCIATED FASTENERS. .02 LATCH AND KEEPER: ONE LATCH(ES) AND KEEPER(S) WITH ASSOCIATED FASTENERS.
  - .03 DOOR BUMPER: ONE DOOR BUMPER(S) WITH ASSOCIATED FASTENERS.
  - .04 DOOR PULL: ONE DOOR PULL(S) WITH ASSOCIATED FASTENERS.
- .05 FASTENERS: TEN FASTENERS OF EACH SIZE AND TYPE. 7.2 SEQUENCING/SCHEDULING:
- 7.2.1 PLUMBING FIXTURES, FLOOR FINISHES, AND WALL FINISHES SHALL BE INSTALLED PRIOR TO INSTALLATION OF COMPARTMENTS AND SCREENS.

#### 7.3 MANUFACTURER

- 7.3.1 BASIS OF DESIGN - AMERICAN BUILDING SPECIALTIES CORP. WARRANTY: TEN YEAR LIMITED WARRANTY ON PRODUCT AND ONE 7.3.2
- YEAR WARRANTY FOR HARDWARE. 7.3.3 PERFORMANCE REQUIREMENTS:
  - TEST PROPERTY RESULT TENSILE STRENGTH 6,000 PS1 ASTM D638 1.5X10<sup>-6</sup> PSI ASTM D638 TENSILE MODULUS TENSILE ELONGATION 0.4% MIN. ASTM D638 10,000 PSI ASTM D790 FLEXURAL STRENGTH FLEXURAL MODULUS 1.2X10<sup>-6</sup> PSI ASTM D790 ASTM D785 HARDNESS  $1.80 \times 10^{-5} \text{IN/IN/}^{\circ}\text{F}$  ASTM D2583 THERMAL EXPANSION GLOSS (60° GARDNER) 5-75 ANSI Z124 LIGHT RESISTANCE (XENON ARC)
    - NO EFFECT NEMA LD 3-2000, METHOD
  - WEAR & CLEANABILITY PASSES ANSI Z124.3 & Z124.6
  - STAIN RESISTANCE: SHEETS PASSES ANSI Z124.3 & Z124.6
  - FUNCUE & DACTEDIA

FUNGUS & BACTERIA			
RESISTANCE	DOES NOT SUPPOR	Т	
	MICROBAL GROWTH	ASTM G21&G22	
BOILING WATER	NO VISIBLE CHANGE	NEMA LD	
		3-2000, METHOD	
		3.5	
HIGH TEMP. RESISTANCE	NO CHANGE	NEMA LD	
		3-2000, METHOD	
		7.0	

0.28 FT.LBS/ IZOD IMPACT (NOTCHED SPECIMEN) INCH OF NOTCH

ASTM D256 METHOD A

3.3

BALL IMPACT RESISTANCE

½" SLAB, 144" DROP NO FRACTURE POUND BALL NEMA LD 3-2000, METHOD 1.7 SPECIFIC GRAVITY

WATER ABSORPTION LONG-TERM ASTM D570  $0.4\% \left(\frac{3}{4}\right)^{2}, 0.6\% \left(\frac{1}{2}\right)^{2}$ TOXICITY 99 SOLID COLORS PITTSBURG

66 PATTERNED PROTOCOL TEST LC50 COLORS ASTM E84 FLAMMABILITY ALL COLORS NFPA 255 & CLASS I & CLASS A UL 723

- 7.4 TYPE
- 7.4.1 COMPARTMENT TYPES: FLOOR MOUNTED WITH OVERHEAD
- 7.4.2 SIZES: AS INDICATED ON DRAWINGS.
- 7.4.3 URINAL SCREENS: 22"X48", TYPE A WALL HUNG, MOUNTED 12" AFF (AS INDICATED).
- 7.5 PANEL CONSTRUCTION
- 7.5.1 SOLID POLYMER COMPONENTS - CAST, NONPOROUS, FILLED POLYMER, NOT COATED, LAMINATED OR OF COMPOSITE CONSTRUCTION, WITH THROUGH BODY COLORS MEETING ANSI Z124.3 OR ANSI Z124.6, HAVING MINIMUM PHYSICAL AND PERFORMANCE PROPERTIES SPECIFIED, CONFORMING TO ASTM E-84, NFPA CLASS "A" RATING,
- 7.5.2 SUPERFICIAL DAMAGE TO A DEPTH OF 0.010 INCH SHALL BE REPAIRABLE BY SANDING AND/OR POLISHING.
- MINIMUM THICKNESS: 7.5.3 PANELS: 1" THICK PILASTERS: 1" THICK DOOR: 1" THICK URINAL SCREENS: 1" THICK
- 7.5.4 **COLOR FINISHES:** COLOR SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD RANGE OF CLASS A & B DUPONT CORIAN COLORS.
- ONLY COLORS PRODUCED BY CORIAN IN  $\frac{1}{2}$ " MATERIAL THICKNESS ARE USABLE FOR 1" TOILET PARTITIONS. 7.5.5 INTEGRAL HINGES: CONFIGURE DOORS AND PILASTERS TO
- RECEIVE INTEGRAL HINGES. HEAT-SINK STRIP: MANUFACTURER'S STANDARD CONTINUOUS,
  - STAINLESS-STEEL STRIP FASTENED TO EXPOSED BOTTOM EDGES OF SOLID-PLASTIC COMPONENTS TO HINDER MALICIOUS COMBUSTION.
- 7.6 FABRICATION
  - GENERAL: FABRICATE TOILET COMPARTMENT COMPONENTS TO SIZES INDICATED, IN ACCORDANCE WITH APPROVED SHOP DRAWINGS, MANUFACTURER'S PRINTED INSTRUCTIONS AND
- TECHNICAL BULLETINS. 7.6.2 FORM JOINTS BETWEEN COMPONENTS USING MANUFACTURER'S STANDARD JOINT ADHESIVE, WITHOUT CONSPICUOUS JOINTS. .01 PROVIDE INTERNAL REINFORCEMENT. NOT ALLOWED: STRIP
  - OF SOLID POLYMER MATERIAL 2" WIDE AS A SURFACE-MOUNTED CLEAT ON LARGE PANELS. .02 ROUT AND FINISH EDGES WITH CLEAN, SHARP RETURNS. ROUT CUTOUTS, RADII AND CONTOURS TO TEMPLATE. SMOOTH EASED 16" RADIUSED EDGES. REPAIR OR REJECT DEFECTIVE OR
- INACCURATE WORK. 7.6.3 OVERHEAD-BRACED UNITS: PROVIDE MANUFACTURER'S STANDARD
- CORROSION-RESISTANT SUPPORTS, LEVELING MECHANISM AND ANCHORS AT PILASTERS TO SUIT FLOOR CONDITIONS.
- 7.7 DOORS
- 7.7.1 WIDTH: 24" MIN., UNLESS INDICATED, AND REQUIRED BY WALL TO WALL INSTALLATION. PROVIDE 36" DOORS WHERE TOILET STALLS ARE DESIGNATED ON THE DRAWINGS FOR
- USE BY THE PHYSICALLY HANDICAPPED. 7.7.2 SWING: SWING IN, EXCEPT SWING OUT WHERE TOILET STALLS ARE DESIGNATED ON THE DRAWINGS FOR USE BY THE PHYSICALLY HANDICAPPED.
- 7.8 URINAL SCREENS: PANEL CONSTRUCTION SAME AS FOR COMPARTMENTS. PROVIDE CONTINUOUS WALL MOUNTING FLANGES.
- 7.9 CONCEALED REINFORCEMENT: PROVIDE CONCEALED REINFORCEMENT FOR HARDWARE, FITTINGS, BRACKETS, ACCESSORIES, AND GRAB BARS.
- 7.10 CUT AND DRILL COMPARTMENTS TO RECEIVE ACCESSORIES FURNISHED UNDER ANOTHER SECTION. THIS WORK SHALL BE DONE FROM TEMPLATES FURNISHED BY THE ACCESSORY MANUFACTURER.
- 7.11 HARDWARE AND FITTINGS: ITEMS SHALL BE MANUFACTURER'S STANDARD HEAVY-DUTY STAINLESS STEEL OPERATING HARDWARE AND ACCESSORIES. ALL HARDWARE AND FITTINGS SHALL BE SUPPLIED BY FABRICATOR, AND SHALL BE INTEGRALLY MOUNTED INTO THE PARTITIONS AT TIME OF MANUFACTURE.
- 7.11.1 FASTENINGS: .1 EXPOSED FASTENERS SHALL BE MADE OF STAINLESS STEEL WITH FINISH TO MATCH HARDWARE. NUT AND BOLT HEADS SHALL BE THEFT-RESISTANT AND ONE-WAY TYPE.
- .2 CONCEALED FASTENERS SHALL BE GALVANIZED STEEL, HOT-DIP COATED AFTER FABRICATION. 7.11.2 ANCHORAGE:
  - .1 FLOOR MOUNTED STILES: 7 GAUGE CORROSION—RESISTANT STEEL LEVELING BAR FOR ANCHORAGE TO EXISTING STRUCTURAL FLOOR, INCLUDING THREADED LEVELING BOLTS, LOCK WASHERS, AND ADJUSTMENT NUTS, DESIGNED TO SUPPORT STILES FROM

STRUCTURAL FLOOR AND TRANSMIT NO LOADS TO FINISHED FLOOR. ANCHORS SHALL BE NOT LESS THAN  $\frac{7}{16}$ " DIAMETER. .2 PANELS: SECURE PANELS AND STILES TO WALL WITH MANUFACTURER'S STANDARD HEAVY-DUTY STIRRUP SECURED TO PANELS WITH 16" BRASS SHOULDER, PHILLIPS HEAD SCREWS, AND BRASS SEX NUTS AND TO WALL EXPANSION SHIELDS AND SUPPORT AND TRANSMIT NO LOADS TO FINISHED CEILING. ANCHORS SHALL BE NOT METAL SCREWS.

- .3 URINAL SCREENS: CONTINUOUS MOUNTING FLANGE STANDARD
- BE THE MANUFACTURER'S STANDARD FABRICATED FROM 302 STAINLESS STEEL. 7.13 HINGES: MANUFACTURER'S STANDARD SELF-CLOSING TYPE, ADJUSTABLE TO HOLD DOOR AT ANY ANGLE UP TO 90 DEGREES. JACKNOB 304 STAINLESS
  - .1 OUT-SWING DOORS SHALL USE STERLING SURFACES SEMI-CONCEALED,
- 7.14 DOOR PULL: MANUFACTURER'S HEAVY-DUTY CAST STAINLESS-STEEL PULL AT OUT-SWINGING DOORS THAT COMPLIES WITH REGULATORY REQUIREMENTS FOR ACCESSIBILITY. PROVIDE UNITS ON BOTH SIDES OF DOORS AT COMPARTMENTS DESIGNATED AS ACCESSIBLE, AND ADDITIONAL PULL MOUNTED 6" FROM HINGE SIDE, BETWEEN 26" AND 36" ABOVE THE FLOOR. MOUNT WITH THROUGH
- 7.15 COAT HOOK: MANUFACTURER'S HEAVY-DUTY COMBINATION PREVENT IN-SWINGING DOOR FROM HITTING COMPARTMENT-MOUNTED
- 7.16 LATCH AND KEEPER: MANUFACTURER'S HEAVY-DUTY SURFACE-MOUNTED SLAMMING, WITH COMBINATION RUBBER-FACED DOOR STRIKE AND KEEPER, WITH REGULATORY REQUIREMENTS FOR ACCESSIBILITY AT COMPARTMENTS
- 7.17 DOOR BUMPER: MANUFACTURER'S HEAVY-DUTY RUBBER-TIPPED CAST-STAINLESS-STEEL BUMPER AT OUT-SWINGING DOORS. MOUNT WITH
- 7.18 ADJUST HARDWARE FOR PROPER OPERATION AFTER INSTALLATION AND CLEAN EXPOSED SURFACES OF COMPARTMENTS, HARDWARE, AND FITTINGS.
- WITH REQUIREMENTS FOR FASTENING, SUPPORT, ALIGNMENT, OPERATING CLEARANCES, AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE
- FOR INSTALLATION. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY
- 7.19.3 GENERAL: COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. INSTALL UNITS RIGID, STRAIGHT, LEVEL, AND PLUMB, SCRIBED TO ADJACENT FINISHES IN ACCORDANCE WITH APPROVED SHOP DRAWINGS AND PRODUCT DATA. SECURE UNITS IN POSITION WITH MANUFACTURER'S
  - RECOMMENDED FASTENING DEVICES. .01 PROVIDE PRODUCT IN LARGEST PIECES AVAILABLE. .02 FORM FIELD JOINTS USING MANUFACTURER'S RECOMMENDED ADHESIVE, WITH JOINTS INCONSPICUOUS IN FINISHED WORK. EXPOSED JOINTS/SEAMS
  - .03 CUT AND FINISH COMPONENT EDGES WITH CLEAN, SHARP RETURNS. .04 CAREFULLY DRESS JOINTS SMOOTH, REMOVE SURFACE SCRATCHES, AND CLEAN ENTIRE SURFACE.
  - .05 MAXIMUM CLEARANCES: PILASTERS AND PANELS 3"; PANELS AND WALLS
  - .06 FULL-HEIGHT (CONTINUOUS) BRACKETS: SECURE PANELS TO WALLS AND TO PILASTERS WITH FULL-HEIGHT BRACKETS. LOCATE BRACKET FASTENERS SO HOLES FOR WALL ANCHORS OCCUR IN MASONRY OR TILE JOINTS. ALIGN BRACKETS AT PILASTERS WITH BRACKETS AT WALLS. .07 OVERHEAD-BRACED UNITS: SECURE PILASTERS TO FLOOR AND LEVEL,
  - PLUMB, AND TIGHTEN. SET PILASTERS WITH ANCHORS PENETRATING NOT LESS THAN 1-3/4" INTO STRUCTURAL FLOOR UNLESS OTHERWISE INDICATED IN MANUFACTURER'S WRITTEN INSTRUCTIONS. SECURE CONTINUOUS HEADRAIL TO EACH PILASTER WITH NO FEWER THAN TWO FASTENERS. HANG DOORS TO ALIGN TOPS OF DOORS WITH TOPS OF PANELS, AND ADJUST SO TOPS OF DOORS ARE PARALLEL WITH OVERHEAD BRACE WHEN DOORS ARE IN CLOSED
- STRUCTURE. SET UNITS LEVEL AND PLUMB, RIGID, AND SECURED TO RESIST
- 7.19.4 REPAIR: REPAIR OR REPLACE DAMAGED WORK WHICH CANNOT BE REPAIRED, TO ARCHITECT'S SATISFACTION.
- 7.19.6 HARDWARE ADJUSTMENT: ADJUST AND LUBRICATE HARDWARE ACCORDING TO 30° FROM CLOSED POSITION WHEN UNLATCHED. SET HINGES ON
- OUT-SWINGING DOORS TO RETURN TO FULLY CLOSED POSITION.
- 8.1. INTERIOR ARCHITECTURAL WOODWORK INCLUDES WOOD FURRING, BLOCKING, SHIMS AND SOLID SURFACE, MATERIALS FOR INSTALLING THESE ITEMS, UNLESS CONCEALED IN OTHER CONSTRUCTION BEFORE INSTALLATION.
- CONTRACTOR(S) SHALL PROVIDE PRODUCT DATA ON ALL PRODUCTS
- 8.2.2. CONTRACTOR SHALL ALSO INCLUDE DATA FOR FIRE-RATINGS MATERIALS COMPLY WITH REQUIREMENTS.

WITH MANUFACTURER. 7.12 PILASTER TRIM SHALL CONCEAL ANCHORAGE AND LEVELING BOLTS AND SHALL

- STEEL HEAVY-DUTY OR APPROVED EQUAL.
- CONTINUOUS, INSIDE MOUNTED HINGE.
- BOLTS.
- CAST-STAINLESS-STEEL HOOK AND RUBBER-TIPPED BUMPER, SIZED TO ACCESSORIES. MOUNT WITH THROUGH BOLTS.
- CAST-STAINLESS-STEEL LATCH UNIT DESIGNED TO RESIST DAMAGE DUE TO AND WITH PROVISION FOR EMERGENCY ACCESS. PROVIDE UNITS THAT COMPLY DESIGNATED AS ACCESSIBLE. MOUNT WITH THROUGH BOLTS.
- 7.19.1 EXAMINE AREAS AND CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE
- 7.19.2 CONFIRM LOCATION AND ADEQUACY OF BLOCKING AND SUPPORTS REQUIRED
- CONDITIONS HAVE BEEN CORRECTED.

  - WILL NOT BE ALLOWED.

  - .07 URINAL SCREENS: ATTACH WITH ANCHORING DEVICES TO SUIT SUPPORTING
- 7.19.5 CLEANING AND PROTECTION: KEEP COMPONENTS CLEAN DURING INSTALLATION. REMOVE, ADHESIVES, SEALANTS AND OTHER STAINS. HARDWARE MANUFACTURER'S WRITTEN INSTRUCTIONS FOR PROPER OPERATION. SET HINGES ON IN-SWINGING DOORS TO HOLD DOORS OPEN APPROXIMATELY
- 8. INTERIOR ARCHITECTURAL WOODWORK
- 8.2. SUBMITTALS
  - USED UNDER INTERIOR ARCHITECTURAL WOODWORK. MANUFACTURER AND CERTIFICATION BY TREATING PLANT THAT TREATING

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PROJECT NO. 2019.04 DRAWN BY: CHECKED BY: **AS NOTED** SCALE:

DATE:

SP.

04-22-2020

SHOW DETAILS FULL SIZE. SHOW LOCATION AND SIZES OF ALL TRIM, COUNTERTOPS, BACKSPLASHES, AND SHELVES INCLUDING CONCEALED BLOCKING AND REINFORCEMENTS. SHOW LOCATIONS AND SIZES OF CUTOUTS AND HOLES FOR PLUMBING FIXTURES AND OTHER ITEMS. APPLY CERTIFIED COMPLIANCE LABEL TO FIRST PAGE OF SAMPLES FOR INITIAL SELECTION: MANUFACTURER'S COLOR CHARTS CONSISTING OF UNITS OR SECTIONS SHOWING THE FULL RANGE OF COLORS, TEXTURES AND PATTERNS AVAILABLE FOR EACH TYPE OF PRODUCT CERTIFICATES: SIGNED BY MANUFACTURER CERTIFYING THAT PRODUCTS FURNISHED COMPLY WITH REQUIREMENTS. INSTALL WOODWORK LEVEL, PLUMB, TRUE, AND STRAIGHT. SHIM AS REQUIRED WITH CONCEALED SHIMS. INSTALL LEVEL AND PLUMB, INCLUDING TOPS, TO A TOLERANCE OF  $\frac{1}{8}$ " IN 96". SCRIBE AND CUT WOODWORK TO FIT ADJOINING WORK, AND REFINISH CUT SURFACES AND REPAIR DAMAGED FINISH AT CUTS. ANCHOR COUNTERS AND SHELVES TO ANCHORS OR BLOCKING BUILT IN OR DIRECTLY ATTACHED TO SUBSTRATES. SECURE WITH CONCEALED FASTENERS AND BLIND NAILING AS REQUIRED FOR COMPLETE INSTALLATION. USE FINE FINISHING NAILS OR FINISHING SCREWS FOR EXPOSED FASTENING, COUNTERSUNK AND FILLED FLUSH WITH WOODWORK AND MATCHING FINAL FINISH IF TRANSPARENT FINISH IS STANDING AND RUNNING TRIM: INSTALL WITH MINIMUM NUMBER OF JOINTS POSSIBLE., USING FULL-LENGTH PIECES TO GREATEST EXTENT POSSIBLE. DO NOT USE PIECES LESS THAN 60" LONG, EXCEPT WHERE SHORTER, SINGLE-LENGTH PIECES ARE NECESSARY. STAGGER JOINTS IN

ADJACENT AND RELATED MEMBERS. INSTALL WALL RAILINGS ON INDICATED METAL BRACKETS. INSTALL STANDING AND RUNNING TRIM WITH NO MORE VARIATION FROM A STRAIGHT LINE THAN & IN 96".

8.3.5.1 INSTALLER QUALIFICATIONS: AN EXPERIENCED INSTALLER WHO HAS COMPLETED ARCHITECTURAL WOODWORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL

8.3.5.2 FABRICATOR QUALIFICATIONS: A FIRM EXPERIENCED IN PRODUCING ARCHITECTURAL WOODWORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPABILITY TO PRODUCE REQUIRED UNITS.

8.3.5.3 SOURCE LIMITATIONS: ENGAGE A QUALIFIED WOODWORKING FIRM TO ASSUME UNDIVIDED RESPONSIBILITY FOR PRODUCTION AND INSTALLATION OF INTERIOR ARCHITECTURAL WOODWORK.

8.3.5.4 QUALITY STANDARDS: UNLESS OTHERWISE INDICATED, COMPLY WITH AWI'S "ARCHITECTURAL WOODWORK QUALITY STANDARDS" IN SECTIONS 1500 AND 1700 FOR GRADES OF INTERIOR ARCHITECTURAL WOODWORK, CONSTRUCTION, FINISHES AND OTHER REQUIREMENTS. PROVIDE AWI CERTIFICATION LABELS OR COMPLIANCE CERTIFICATE INDICATING THAT WOODWORK COMPLIES WITH REQUIREMENTS OF

8.3.5.5 FIRE—TEST RESPONSE CHARACTERISTICS: WHERE FIRE—RETARDANT MATERIALS OR PRODUCTS ARE INDICATED, PROVIDE MATERIALS AND PRODUCTS WITH SPECIFIED FIRE-TEST RESPONSE CHARACTERISTICS AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER TEST METHOD INDICATED BY UL, ITS, OR ANOTHER TESTING AND INSPECTION AGENCY ACCEPTABLE TO AUTHORITY HAVING JURISDICTION. IDENTIFY WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AND INSPECTING AGENCY IN THE FORM OF SEPARABLE PAPER LABEL, OR, WHERE REQUIRED BY AUTHORITIES HAVING JURISDICTION, IMPRINT ON SURFACES OF MATERIALS THAT WILL BE CONCEALED FROM VIEW AFTER

DELIVERY, STORAGE AND HANDLING: DO NOT DELIVER WOODWORK UNTIL PAINTING AND SIMILAR OPERATIONS THAT COULD DAMAGE WOODWORK HAVE BEEN COMPLETED IN INSTALLATION AREAS. IF WOODWORK MUST BE STORED IN OTHER THAN INSTALLED AREAS, STORE ONLY IN AREAS WHERE ENVIRONMENTAL CONDITIONS COMPLY WITH "PROJECT

.1 ENVIRONMENTAL LIMITATIONS: DO NOT DELIVER OR INSTALL WOODWORK UNTIL BUILDING IS ENCLOSED, WET WORK IS COMPLETE, AND HVAC SYSTEM IS OPERATING AND WILL MAINTAIN TEMPERATURE BETWEEN 60 AND 90 DEGREES FAHRENHEIT, AND RELATIVE HUMIDITY BETWEEN 43-70% DURING THE REMAINDER OF THE CONSTRUCTION

.2 FIELD MEASUREMENTS: WHERE WOODWORK IS INDICATED TO FIT OTHER CONSTRUCTION, VERIFY DIMENSIONS OF OTHER CONSTRUCTION BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE MEASUREMENTS ON SHOP DRAWINGS. COORDINATE FABRICATION SCHEDULE WITH CONSTRUCTION PROGRESS TO AVOID DELAY OF WORK.

COORDINATION: COORDINATE SIZES AND LOCATIONS OF FRAMING, BLOCKING, FURRING, REINFORCEMENTS, AND OTHER RELATED UNITS OF WORK SPECIFIED TO ENSURE THAT INTERIOR ARCHITECTURAL WOODWORK CAN BE SUPPORTED AND INSTALLED AS INDICATED.

8.3.9 PLASTIC LAMINATE:

8.3.9.1 QUALITY STANDARD .1 COMPLY WITH AWI SECTION 400 REQUIREMENTS FOR LAMINATED CABINETS.

.2 COMPLY WITH WIC SECTION15.

8.3.9.2 GRADE: PREMIUM. 8.3.9.3 LAMINATE CLADDING FOR EXPOSED SURFACES: HIGH-PRESSURE DECORATIVE LAMINATE COMPLYING WITH THE FOLLOWING REQUIREMENTS: .1 HORIZONTAL SURFACES OTHER THAN TOPS: HGL .2 POST-FORMED SURFACES: HGP.

.3 VERTICAL SURFACES: HGS.

.4 EDGES: HGS. 8.3.9.4 MATERIALS FOR SEMI-EXPOSED SURFACES: PROVIDE SURFACE MATERIALS INDICATED BELOW:

.1 D.A. SURFACE OTHER THAN DRAWER BODIES: HIGH-PRESSURE DECORATIVE LAMINATE, GRADE VGS.

8.3.9.5 COLORS, PATTERNS, FINISHES: PROVIDE MATERIAL AND PRODUCTS THAT RESULT IN COLORS AND TEXTURES OF EXPOSED LAMINATE SURFACES COMPLYING WITH THE FOLLOWING REQUIREMENTS:

Z124.3 FOR TYPE 5 OR TYPE 8 FINISH.

.1 PROVIDE ARCHITECT'S SELECTIONS FROM LAMINATE MANUFACTURER'S RANGE OF COLORS AND FINISHES.

8.3.10 SOLID SURFACE MATERIAL: COUNTERTOPS

8.3.10.1 QUALITY STANDARD: .1 COMPLY WITH MATERIAL AND PERFORMANCE REQUIREMENTS IN ANSI

.2 GRADE: PREMIUM

.3 SOLID SURFACING MATERIAL THICKNESS: 3" .4 COLORS, PATTERNS, FINISHES: PROVIDE MATERIALS AND PRODUCTS THAT RESULT IN COLORS AND TEXTURES OF EXPOSED SOLID SURFACE COMPLYING WITH THE FOLLOWING REQUIREMENTS:

A. PROVIDE ARCHITECT'S SELECTIONS FROM SOLID SURFACE MANUFACTURER'S RANGE OF COLORS AND FINISHES.

8.3.10.2 FABRICATE TOPS IN ONE PIECE WITH INTEGRAL BACKSPLASH FORMED WITH COUNTER AND EDGES, UNLESS OTHERWISE INDICATED. COMPLY WITH SOLID SURFACING MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR ADHESIVES, SEALERS, FABRICATION, AND FINISHING. .1 MANUFACTURER: WILSONART.

9. SEALANTS AND CAULKING

9.1 SEALANTS AND CAULKING FOR INTERIOR JOINTS EXCEPT WHERE OTHERWISE SPECIFIED: PHENOSEAL VINYL ADHESIVE CAULK.

9.2 COLORS OF SEALANTS AND CAULKING: AS SELECTED BY THE ARCHITECT FROM ALL OF THE MANUFACTURER'S AVAILABLE COLOR SELECTIONS.

9.3 BACKER RODS AT SEALANTS AND CAULKING: SOFT ROD EXTRUDED POLYOLEFIN FOAM MADE WITH A NON-ABSORBING OUTER SKIN AND OPEN AND CLOSED CELL INTERIOR.

10. ACOUSTICAL CEILINGS:

10.1 ACOUSTICAL CEILING TILES SHALL BE 2'X2' ARMSTRONG "CORTEGA" #704, TEGULAR EDGE, WITH ARMSTRONG "PRELUDE ML" EXPOSED TEE GRID SYSTEM. GRID TO BE HUNG USING 12 GA. GALVANIZED WIRE OR LARGER. PROVIDE ANY ADDITIONAL STEEL CHANNEL FRAMING NECESSARY FOR THE PROPER SUPPORT OF THE CEILING GRID SYSTEM. PROVIDE ONE EXTRA CARTON OF SPARE CEILING TILE TO THE OWNER.

10.2 SPACE HANGER WIRES ON MAIN TEES A MAXIMUM OF 4'-0" O.C. ATTACHING HANGER SECURELY TO STRUCTURE ABOVE. DO NOT SUPPORT WIRES FROM MECHANICAL OR ELECTRICAL EQUIPMENT, PIPING, OR OTHER EQUIPMENT ABOVE THE CEILING. PROVIDE ADDITIONAL HANGER WIRES WHERE LIGHTING FIXTURES AND/OR OTHER SIMILAR EQUIPMENT OCCURS IN CEILING, MINIMUM OF FOUR HANGERS FOR EACH ITEM. DIAGONAL CEILING HANGER WIRES NOT TO EXCEED 30 DEGREE PITCH.

10.3 SUSPENDED CEILING GRID SHALL BE SEISMICALLY RESTRAINED IN

10.4 TILE COLOR AND GRID COLOR SHALL BE WHITE.

ACCORDANCE WITH APPLICABLE BUILDING CODES.

11. HOLLOW METAL DOORS AND FRAMES

11.1 FRAMES SHALL BE 16 GA. GALVANIZED STEEL, MANUFACTURER'S STANDARD PROFILES. FRAME SHALL BE REINFORCED FOR HARDWARE REQUIRED AND PRE-DRILLED FOR THREE SILENCERS ON LATCH SIDE. PROVIDE WITH ONE COAT OF RUST INHIBITIVE PRIMER.

11.2 EXISTING FRAMES TO BE CLEANED AND REPAINTED. COLOR AS SELECTED BY ARCHITECT.

11.3 DOORS SHALL BE 1-3/4" THICK HOLLOW METAL WITH 18 GA. GALV. STEEL FACE SHEETS AND 20 GA. HONEYCOMB CORE. TOPS AND SIDES OF DOORS SHALL BE CLOSED FLUSH WITH EDGE OF DOOR, REINFORCED FOR FINISH HARDWARE AS REQUIRED, AND SHOP PRIMED WITH ONE COAT OF RUST-INHIBITIVE PRIMER. DOORS SHALL HAVE SIGHTPROOF LOUVERS AS INDICATED IN PLANS (SEE DOOR DETAIL).

11.4 DOORS SHALL BE HUNG AND ACCURATELY FITTED FOR SMOOTH OPERATION. THE CONTRACTOR SHALL WARRANT THE MATERIAL PERFORMANCE AND OPERATION OF THE DOORS FOR A PERIOD OF TWO YEARS.

12. DOOR HARDWARE

12.1 DOOR SILENCERS SHALL BE GLYNN JOHNSON MODEL NO. GJ-64. ALL DOORS SHALL HAVE THREE SILENCERS PER FRAME.

12.2 DOOR STOPS SHALL BE H. B. IVES COMPANY MODEL NO. 4388. ALL DOORS SHALL HAVE STOPS.

12.3 KICKPLATES SHALL BE ROCKWOOD .050" THICK STAINLESS STEEL, BEVELED THREE SIDES, 10" HIGH X 2" LESS THAN DOOR WIDTH, FINISH US32D. ALL DOORS SHALL HAVE KICK PLATES ON PUSH SIDE ONLY.

12.4 HINGES: SHALL BE STANLEY CB1900 SERIES WITH CONCEALED BEARINGS, 1-1/2 PAIR PER DOOR LEAF, US26D FINISH.

12.5 DOOR CLOSERS SHALL BE CORBIN RUSSWIN MODEL DC6210 M71, M54, HEAVY-DUTY, PARALLEL ARM TYPE UNIT.

12.6 PUSH PLATES AND PULL PLATES SHALL BE BALDWIN 4" WIDE X 16" HIGH WITH SATIN NICKEL FINISH. 12.7 HANDICAPPED POWER DOOR OPERATORS: MANUFACTURED BY HORTON,

EXPOSED ARM TYPE, SURFACE MOUNTED, SUITABLE FOR 3'-0" WIDE DOOR. FINISH SHALL BE CLEAR ANODIZED ALUMINUM.

UNITS SHALL BE 120/1/60 ELECTRICAL POWERED WITH TWO WALL-MOUNTED PUSH-PADDLE CONTROL UNITS.

12.8 SIZING HARDWARE: IN THE EVENT THAT THE ITEM SPECIFIED DOES NOT MEET THE MANUFACTURER'S RECOMMENDATIONS FOR SIZE OR APPLICATION, PROVIDE THE APPROPRIATE ITEMS AND STATE ON THE HARDWARE SCHEDULE THE REASON THAT THE CHANGE WAS MADE. IF ADDITIONAL HARDWARE IS REQUIRED, OR IF DIFFERENT HARDWARE IS REQUIRED DUE TO DOOR RATINGS, PROVIDE THE APPROPRIATE ITEM AND IDENTIFY THE CHANGE.

13. ACCESS DOORS

13.1 SUBMIT DRYWALL ACCESS DOOR SHOWING SIZE, SPECIFICATIONS AND OTHER DETAILS, FOR ARCHITECT'S REVIEW. LOCATIONS AS INDICATED ON THE

13.2 ACCEPTABLE MANUFACTURERES ARE MILCOR, LARSEN, AND ELMDOR/STONEMAN. SUBSTITUTIONS WILL BE ACCEPTABLE SUBJECT TO ARCHITEC'S APPROVAL.

13.3 ACCESS DOOR FOR DRYWALL SHALL BE 24' X 48", 16 GA. GALVANIZED STEEL WITH A PRIME COAT FINISH FOR PAINTING. FRAME SHALL BE 1" WIDE, ONE PIECE CONSTRUCTION, WITH CONCEALED PIVOTING HINGE. LATCHES SHALL BE OPERABLE BY SCREWDRIVER.

13.4 INSTALL PER MANUFACTURER'S SPECIFICATIONS BY BLOCKING OUT OPENING WITH FIRE-RETARDANT WOOD BLOCKING FOR ATTACHMENT.

14. HANDICAPPED GRAB BARS

14.1 PRODUCTS: AMERICAN SPECIALTIES, INC., 3800-AW SERIES, SIZE AS INDICATED, STAINLESS STEEL, WHITE POWDER-COATED.

14.2 NOMINAL THICKNESS 0.05".

14.3 MOUNTING:CONCEALED WITH MANUFACTURER'S STANDARD FLANGES AND

14.4 GRIPPING SURFACES: SATIN FINISH, MANUFACTURER'S STANDARD SLIP-RESISTANT TEXTURE.

14.5 OUTSIDE DIAMETER: 1-1/2", FOR HEAVY-DUTY APPLICATIONS, COMPLY WITH ADA STANDARDS.

15. ACROVYN WALL COVERING 15.1 MANUFACTURER: INTERIOR SURFACE WALL PROTECTION PRODUCTS SPECIFIED HEREIN AND INSTALLED ON THE SUBMITTAL DRAWINGS SHALL BE

MANUFACTURED BY 'CONSTRUCTION SPECIALTIES'. 15.2 MATERIALS: EXTRUDED MATERIAL FOR 'WALL COVERING' SHALL BE HIGH

IMPACT 'ACROVYN 4000' HAVING VARIOUS TEXTURED GRAIN FINISHES AND 15.3 WALL COVERING TYPE: .040 RIGID ACROVYN SHEET (COLOR BY OWNER) WITH

SUEDE TEXTURE. PANELS LOCATED SUCH THAT THE WALL RAILS COVER THE TOP EDGE OF THE PANEL. MINIMIZE VERTICAL JOINTS. SEAL ABUTTING JOINTS WITH APPROVED SEALANTS OF THE SAME COLOR, WITH A SMOOTH FINISH.

15.4 WALL COVERINGS: MOUNTED WALL ASSEMBLY SHALL BE FURNISHED AS A COMPLETE PACKAGE SYSTEM, CONTAINING ALL ADHESIVES. ADHESIVES SHALL BE WATER BASED AND NON-HAZARDOUS.

16. CERAMIC TILE

16.1 FLOOR TILE BASIS OF DESIGN: AMERICAN OLEAN; A DIVISION OF DAL-TILE

.01 COMPOSITION: PORCELAIN, CERTIFIED BY THE PORCELAIN TILE CERTIFICATION AGENCY.

.02 MODULE SIZE: 2 BY 2 INCHES.

.03 THICKNESS: 1 INCH.

.04 FACE: PLAIN WITH CUSHION EDGES.

.05 SURFACE: SLIP-RESISTANT, WITH ABRASIVE ADMIXTURE. .06 DYNAMIC COEFFICIENT OF FRICTION: NOT LESS THAN 0.42.

.07 FINISH: MATT, CLEAR GLAZE.

.08 TILE COLOR AND PATTERN: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.

.09 GROUT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.

.10 TRIM UNITS: COORDINATED WITH SIZES AND COURSING OF ADJOINING FLAT TILE WHERE APPLICABLE AND MATCHING CHARACTERISTICS OF ADJOINING FLAT TILE. PROVIDE SHAPES AS FOLLOWS, SELECTED FROM MANUFACTURER'S STANDARD SHAPES:

.1 BASE COVE: COVE, MODULE SIZE 2 BY 1 INCH.

.2 EXTERNAL CORNERS FOR THINSET MORTAR INSTALLATIONS: SURFACE BULLNOSE, MODULE SIZE 2 BY 2 INCHES.

.3 INTERNAL CORNERS: COVE, MODULE SIZE 2 BY 1 INCH. 16.2 CERAMIC GLAZED WALL TILE: BASIS OF DESIGN AMERICAN OLEAN; A DIVISION

OF DAL-TILE CORPORATION.

.01 MODULE SIZE: 4 BY 4 INCHES.

.02 FACE SIZE VARIATION: RECTIFIED.

.03 THICKNESS: & INCH. .04 FACE: PLAIN WITH MODIFIED SQUARE EDGES OR CUSHION EDGES.

.05 FINISH: BRIGHT, OPAQUE GLAZE.

.06 TILE AND COLOR PATTERN: AS SELECTED BY ARCHITECT FROM

MANUFACTURER'S FULL RANGE.

.07 GROUT COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL

.08 MOUNTING: FACTORY, BACK MOUNTED.

.09 TRIM UNITS: COORDINATED WITH SIZES AND COURSING OF ADJOINING FLAT TILE WHERE APPLICABLE AND MATCHING CHARACTERISTICS OF ADJOINING FLAT TILE. PROVIDE SHAPES AS FOLLOWS, SELECTED FROM MANUFACTURER'S STANDARD SHAPES:

.1 WAINSCOT CAP: MATCH COURSING OF ADJOINING FLAT TILE. .2 EXTERNAL CORNERS FOR THINSET MORTAR INSTALLATIONS:

SURFACE BULLNOSE, SAME SIZE AS ADJOINING FLAT TILE. .3 INTERNAL CORNERS: FIELD-BUTTED SQUARE CORNERS. FOR COVED BASE AND CAP, USE ANGLE PIECES DESIGNED TO FIT WITH STRETCHER SHAPES.

16.3 MODIFIED DRY-SET MORTAR

.1 MODIFIED DRY-SET MORTAR (THINSET): ANSI 118.4 .2 ACCEPTABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS HEREIN, PROVIDE PRODUCTS FROM ONE OF THE FOLLOWING

MANUFACTURERS: .A C-CURE

.B LATICRETE SUPERCAP, LLC

.C SOUTHERN GROUTS & MORTARS.

16.4 INTERIOR CERAMIC TILE INSTALLATION SCHEDULE:

.1 INTERIOR FLOOR INSTALLATIONS - CONCRETE SUBFLOOR: .01 CERAMIC TILE INSTALLATION: TCNA F113, THINSET MORTAR .A THINSET MORTAR: MODIFIED DRY-SET MORTAR .B GROUT: POLYMER-MODIFIED SANDED GROUT.

.2 INTERIOR FLOOR INSTALLATIONS - OVER EXISTING TILE;

.01 CERAMIC TILE INSTALLATION: TCNA TR712-19 .A THINSET MORTAR: MODIFIED DRY-SET MORTAR

.B GROUT: POLYMER-MODIFIED SANDED GROUT. .3 INTERIOR WALL INSTALLATIONS - MASONRY OR CONCRETE: .01 CERAMIC TILE INSTALLATION: TCNA W202, THINSET MORTAR.

.A THINSET MORTAR: MODIFIED DRY-SET MORTAR

.B GROUT: POLYMER-MODIFIED UNSANDED GROUT.

.4 INTERIOR WALL INSTALLATION — WOOD OR METAL STUDS OR FURRING: .01 CERAMIC TILE INSTALLATION: TCNA W244C OR W244F. .A THINSET MORTAR: MODIFIED DRY-SET MORTAR. .B GROUT: POLYMER-MODIFIED UNSANDED GROUT.

.5 INTERIOR WALL INSTALLATION — OVER EXISTING TILE: .01 CERAMIC TILE INSTALLATION: TCNA TR713-19, CASE II. .A BOND COAT.

.B GROUT: POLYMER-MODIFIED UNSANDED GROUT.

.1 POLYMER-MODIFIED TILE GROUT: ANSI 118.7

.2 COLOR: TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLOR.

.3 ACCEPTABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS HEREIN, PROVIDE PRODUCTS FROM ONE OF THE FOLLOWING MANUFACTURERS:

A.. C-CURE. B. LATICRETE SUPERCAP, LLC.

C. SOUTHERN GROUTS & MORTARS.

16.6 EXECUTION

.1 EXAMINE SUBSTRATES, AREAS, AND CONDITIONS WHERE TILE WILL BE INSTALLED, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING THE PERFORMANCE OF THE WORK.

.2 VERIFY THAT SUBSTRATES FOR SETTING TILE ARE FIRM, DRY, CLEAN, FREE OF COATINGS THAT ARE INCOMPATIBLE WITH TILE-SETTING MATERIALS, INCLUDING CURING COMPOUNDS AND OTHER SUBSTANCES THAT CONTAIN SOAP, WAX, OIL OR SILICONE, AND COMPLY WITH FLATNESS TOLERANCE REQUIRED BY ANSI A108.01 FOR INSTALLATIONS INDICATED.

.3 VERIFY THAT CONCRETE SUBSTRATES FOR TILE FLOORS INSTALLED WITH BONDED MORTAR BED OR THINSET MORTAR COMPLY WITH THE SURFACE FINISH REQUIREMENTS IN ANSI A108.01 FOR INSTALLATIONS INDICATED. A. VERIFY THAT SURFACES THAT RECEIVED A STEEL TROWEL FINISH HAVE

BEEN MECHANICALLY SCARIFIED. B. VERIFY THAT PROTRUSIONS, BUMPS, AND RIDGES HAVE BEEN REMOVED BY SANDING OR GRINDING.

C. VERIFY THAT INSTALLATION OF GROUNDS, ANCHORS, RECESSED FRAMES, ELECTRICAL AND MECHANICAL UNITS OF WORK, AND SIMILAR ITEMS LOCATED IN OR BEHIND TILE HAS BEEN COMPLETED.

D. VERIFY THAT JOINTS AND CRACKS IN TILE SUBSTRATES ARE COORDINATED WITH TILE JOINT LOCATIONS; IF NOT COORDINATED, ADJUST JOINT LOCATIONS IN CONSULTATION WITH ARCHITECT.

E. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS

HAVE BEEN CORRECTED. .4 FILL CRACKS, HOLES, AND DEPRESSIONS IN CONCRETE SUBSTRATES FOR TILE FLOORS INSTALLED WITH ADHESIVES OR THINSET MORTAR WITH TROWELABLE LEVELING AND PATCHING COMPOUND SPECIFICALLY

RECOMMENDED BY TILE-SETTING MATERIAL MANUFACTURER. .5 BLENDING: FOR TILE EXHIBITING COLOR VARIATIONS, VERIFY THAT TILE HAS BEEN FACTORY BLENDED AND PACKAGED SO TILE UNITS TAKEN FROM ONE PACKAGE SHOW SAME RANGE OF COLORS AS THOSE TAKEN FROM OTHER PACKAGES AND MATCH APPROVED SAMPLES. IF NOT FACTORY BLENDED, EITHER RETURN TO MANUFACTURER OR BLEND TILES AT PROJECT SITE BEFORE INSTALLING.

.6 COMPLY WITH TCNA'S "HANDBOOK FOR CERAMIC, GLASS, AND STONE TILE INSTALLATION" FOR TCNA INSTALLATION METHODS SPECIFIED IN THE INSTALLATION SCHEDULES. COMPLY WITH PARTS OF THE ANSI A108 SERIES "SPECIFICATIONS FOR INSTALLATION OF CERAMIC TILE" THAT ARE REFERENCED IN TCNA INSTALLATION METHODS. SPECIFIED IN TILE INSTALLATION SCHEDULES. AND APPLY TO TYPES OF SETTING AND GROUTING MATERIALS USED. .7 EXTEND TILE WORK INTO RECESSES AND UNDER OR BEHIND EQUIPMENT AND FIXTURES TO FORM COMPLETE COVERING WITHOUT INTERRUPTIONS UNLESS OTHERWISE INDICATED. TERMINATE WORK NEATLY AT OBSTRUCTIONS, EDGES, AND CORNERS WITHOUT DISRUPTING PATTERN OR JOINT ALIGNMENTS.

.8 ACCURATELY FORM INTERSECTIONS AND RETURNS. PERFORM CUTTING AND DRILLING OF TILE WITHOUT MARRING VISIBLE SURFACES. CAREFULLY GRIND CUT EDGES OF TILE ABUTTING TRIM, FINISH, OR BUILT-IN ITEMS FOR STRAIGHT ALIGNED JOINTS. FIT TILE CLOSELY TO ELECTRICAL OUTLETS, PIPING, FIXTURES, AND OTHER PENETRATIONS SO PLATES, COLLARS, OR COVERS OVERLAP TILE.

.9 PROVIDE MANUFACTURER'S STANDARD TRIM SHAPES WHERE NECESSARY TO ELIMINATE EXPOSED TILE EDGES.

.10 WHERE ACCENT TILE DIFFERS IN THICKNESS FROM FIELD TILE, VARY SETTING-BED THICKNESS SO THAT TILES ARE FLUSH.

.11 JOINTING PATTERN: LAY TILE IN GRID PATTERN UNLESS OTHERWISE INDICATED. LAY OUT TILE WORK AND CENTER TILE FIELDS IN BOTH DIRECTIONS IN EACH SPACE OR ON EACH WALL AREA. LAY OUT TILE WORK TO MINIMIZE THE USE OF PIECES THAT ARE LESS THAN HALF OF A TILE. PROVIDE UNIFORM JOINT WIDTHS UNLESS OTHERWISE INDICATED. .12 FOR TILE MOUNTED IN SHEETS, MAKE JOINTS BETWEEN TILE SHEETS SAME WIDTH AS JOINTS WITHIN TILE SHEETS SO JOINTS BETWEEN SHEETS ARE NOT APPARENT IN FINISHED WORK.

.13 WHERE ADJOINING TILES ON FLOOR, BASE, WALLS OR TRIM ARE SPECIFIED OR INDICATED TO BE THE SAME SIZE, ALIGN JOINTS. .14 WHERE TILES ARE SPECIFIED OR INDICATED TO BE WHOLE INTEGER MULTIPLES OF ADJOINING TILES ON FLOOR, BASE, WALLS, OR TRIM, ALIGN JOINTS UNLESS OTHERWISE INDICATED.

.15 JOINT WIDTHS: UNLESS OTHERWISE INDICATED, INSTALL TILE WITH THE FOLLOWING JOINT WIDTHS: CERAMIC MOSAIC TILE: 16 INCH; GLAZED WALL TILE:

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.17 EXPANSION JOINTS: PROVIDE EXPANSION JOINTS AND OTHER SEALANT-FILLED JOINTS, INCLUDING CONTROL, CONTRACTION AND ISOLATION JOINTS, WHERE INDICATED. FORM JOINTS DURING INSTALLATION OF SETTING MATERIALS, MORTAR BEDS, AND TILE. DO NOT SAW-CUT JOINTS. WHERE JOINTS OCCUR IN CONCRETE SUBSTRATES, LOCATE JOINTS IN TILE SURFACES DIRECTLY ABOVE THEM.

FLOOR SEALER: APPLY FLOOR SEALER TO CEMENTITIOUS GROUT JOINTS IN TILE FLOORS ACCORDING TO FLOOR-SEALER MANUFACTURER'S WRITTEN INSTRUCTIONS. AS SOON AS FLOOR SEALER HAS PENETRATED GROUT JOINTS, REMOVE EXCESS SEALER FROM TILE FACES BY WIPING WITH SOFT CLOTH.

#### 17. VINYL WALL COVERINGS

#### 17.1 SUBMITTALS

.1 PRODUCT DATA FOR EACH TYPE OF PRODUCT SPECIFIED. INCLUDE DATA ON PHYSICAL CHARACTERISTICS, DURABILITY, FADE RESISTANCE AND FLAME RETARDANT CHARACTERISTICS.

.2 SAMPLES FOR VERIFICATION IN SETS FOR EACH COLOR, TEXTURE AND PATTERN SPECIFIED, SHOWING THE FULL RANGE OF VARIATIONS EXPECTED IN THESE CHARACTERISTICS.

.3 SCHEDULE OF WALL COVERINGS USING SAME ROOM DESIGNATIONS INDICATED ON DRAWINGS.

.4 PRODUCT CERTIFICATES SIGNED BY MANUFACTURERS OF WALL COVERINGS CERTIFYING THAT THEIR PRODUCTS COMPLY WITH SPECIFIED REQUIREMENTS. .5 MAINTENANCE DATA FOR WALL COVERING.

#### 17.2 QUALITY ASSURANCE

.1 INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED 5 PROJECTS SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE.

.2 FIRE-TEST RESPONSE CHARACTERISTICS: PROVIDE WALL COVERINGS WITH THE FOLLOWING SURFACE-BURNING CHARACTERISTICS AS DETERMINED BY TESTING IDENTICAL PRODUCTS PER ASTM E84 BY UL OR ANOTHER TESTING AND INSPECTION AGENCY ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.

A. FLAME SPREAD: 25 OR LESS.

B. SMOKE DEVELOPED: 25 OR LESS.

C. FUEL CONTRIBUTED: 15 OR LESS.

.3 VINYL WALL COVERINGS AND ADHESIVE SHALL BE MILDEW RESISTANT AND CONTAIN BACTERIAL ADDITIVE TO INHIBIT MICRO-BIOLOGICAL GROWTH OF STAPHYLOCOCOUS, E-COLI, AND ASPERGILUS NIGER.

#### 17.4 PROJECT CONDITIONS

.1 SPACE ENCLOSURE AND ENVIRONMENTAL LIMITATIONS: DO NOT INSTALL WALL COVERING UNTIL SPACE IS ENCLOSED AND WEATHER-PROOF, WET-WORK IN SPACE IS COMPLETED AND NOMINALLY DRY, WORK ABOVE CEILING IS COMPLETE, AND AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS ARE AND WILL BE CONTINUOUSLY MAINTAINED AT VALUES NEAR TO THOSE INDICATED

FOR FINAL OCCUPANCY. .2 LIGHTING: DO NOT INSTALL WALL COVERING UNTIL A LIGHTING LEVEL OF NOT LESS THAN 15 FOOTCANDLES (160 LUX) IS PROVIDED ON THE SURFACES TO RECEIVE THE WALL COVERING.

.3 VENTILATION: PROVIDE CONTINUOUS VENTILATION DURING INSTALLATION AND NOT LESS THAN THE TIME RECOMMENDED BY THE WALL COVERING

#### MANUFACTURER FOR FULL DRYING OR CURING. 17.5 EXTRA MATERIALS

.1 FURNISH EXTRA MATERIALS DESCRIBED BELOW BEFORE INSTALLATION BEGINS THAT MATCH PRODUCTS INSTALLED, ARE PACKAGED WITH PROTECTIVE COATING FOR STORAGE, AND ARE IDENTIFIED WITH LABELS DESCRIBING

A. ROLL OF WALL COVERING MATERIAL: FULL-SIZE UNITS EQUAL TO 5% OF AMOUNT FOR EACH TYPE INSTALLED.

#### 17.6 PRODUCTS

#### .1 MANUFACTURER: DESIGNTEX.

.2 ADHESIVES: MILDEW-RESISTANT, NON-STAINING ADHESIVE, FOR USE WITH SPECIFIC WALL COVERING AND SUBSTRATE APPLICATION, AS RECOMMENDED BY WALL COVERING MANUFACTURER.

.3 ACCESSORIES: WALL LINER; NON-WOVEN, SYNTHETIC UNDERLAYMENT AND ADHESIVE AS RECOMMENDED BY WALL COVERING MANUFACTURER.

#### 17.7 EXECUTION

.1 EXAMINE SUBSTRATES FOR COMPLIANCE WITH REQUIREMENTS FOR MOISTURE CONTENT AND OTHER CONDITIONS AFFECTING PERFORMANCE OF WORK OF THIS SECTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

#### .2 PREPARATION

A. COMPLY WITH MANUFACTURER'S INSTRUCTIONS FOR SURFACE PREPARATIONS.

SEMI-GLOSS AND EGGSHELL FINISHES WITH FINE SANDPAPER.

B. CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR WALL COVERING'S BOND, INCLUDING MOLD, MILDEW, OIL, GREASE, INCOMPATIBLE PRIMERS, AND DIRT.

C. PREPARE SUBSTRATE TO ACHIEVE A SMOOTH, CLEAN, DRY SURFACE, FREE

OF FLAKING, UNSOUND COATINGS, CRACKS AND DEFECTS. D. CHECK PAINTED SURFACES FOR PIGMENT BLEEDING. SAND GLOSS,

E. INSTALL WALL LINER, WITH NO GAPS OR OVERLAPS, WHERE REQUIRED BY WALL COVERING MANUFACTURER. FORM SMOOTH WRINKLE-FREE SURFACE FOR FINISHED INSTALLATION. DO NOT BEGIN WITH WALL COVERING INSTALLATION UNTIL WALL LINER HAS DRIED.

#### .3 INSTALLATION - GENERAL

A. GENERAL: COMPLY WITH WALL COVERING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS APPLICABLE TO PRODUCTS AND APPLICATIONS INDICATED, EXCEPT WHERE MORE STRINGENT REQUIREMENTS APPLY. B. INSTALL WALL COVERING WITH NO GAPS OR OVERLAPS. C. INSTALL SEAMS VERTICAL AND PLUMB AT LEAST 6" FROM OUTSIDE CORNERS, AND 3" FROM INSIDE CORNERS. NO HORIZONTAL SEAMS.

D. REMOVE AIR BUBBLES, WRINKLES, BLISTERS AND OTHER DEFECTS. E. TRIM EDGES FOR COLOR UNIFORMITY, PATTERN MATCH, AND TIGHT

#### CLOSURE AT SEAMS AND EDGES. BUTT SEAMS. 17.8 CLEANING

.1 REMOVE EXCESS ADHESIVE AT FINISHED SEAMS, PERIMETER EDGES, AND ADJACENT SURFACES.

#### .2 REPLACE STRIPS THAT CANNOT BE CLEANED. 17.9 VINYL WALL COVERING DATA SHEET.

.1 VINYL WALL COVERING STANDARD: FS CCC-W-408A AND CFFA-W-101-A, TYPE II, CLASS A, MEDIUM DUTY.

.2 WALLCOVERING DURABILITY STANDARD: ASTM F793, FOR CATEGORY V, TYPE II COMMERCIAL SERVICEABILTY.

.3 TOTAL WEIGHT: 21 OZ. PER LINAEL YARD. TOTAL WEIGHT DOES NOT INCLUDE PERFORMANCE COATINGS.

.4 WIDTH 54".

.5 BACKING MATERIAL: NON-WOVEN.

.6 STAIN RESISTANT COATING: DUPONT "TEDLAR" COATING, COMPLYING WITH FS L-P-1040-B.

#### 18. TOILET ACCESSORIES

#### 18.1 SUBMITTALS

.1 PRODUCT DATA: INCLUDE CONSTRUCTION DETAILS, MATERIAL, DESCRIPTIONS AND THICKNESS, DIMENSIONS, PROFILES, FASTENING AND MOUNTING METHODS, SPECIFIED OPTIONS, AND FINISHES FOR EACH TYPE OF ACCESSORY SPECIFIED. .2 SAMPLES: FOR EACH ACCESSORY ITEM TO VERIFY DESIGN, OPERATION, AND FINISH REQUIREMENTS.

.3 SETTING DRAWINGS: FOR CUT-OUTS REQUIRED IN OTHER WORK; INCLUDE TEMPLATES, SUBSTRATE PREPARATION INSTRUCTIONS, AND DIRECTIONS FOR PREPARING CUT-OUTS AND INSTALLING ANCHORING DEVICES.

.4 PRODUCT SCHEDULE: INDICATING TYPES, SIZES, AND INSTALLATION LOCATIONS BY ROOM OF EACH ACCESSORY REQUIRED.

.5 MAINTENANCE DATA: FOR ACCESSORIES INCLUDED IN MAINTENANCE MANUALS. PROVIDE LIST OF REPLACEMENT PARTS AND SERVICE RECOMMENDATIONS.

.6 THE FOLLOWING ITEMS MARKED (NIC) ARE SUPPLIED BY OWNER TO THE CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER WHEN ITEMS ARE REQUIRED FOR INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR INSTALLATION.

#### 18.2 TOILET AND BATH ACCESSORY SCHEDULE

.1 WASTE RECEPTACLE: (NIC) FREESTANDING .2 SOAP DISPENSER, SURFACE MOUNTED. PROVIDED BY OWNER, INSTALLED BY

CONTRACTOR. .3 HAND TOWEL DISPENSER, SURFACE MOUNTED. PROVIDED BY OWNER,

INSTALLED BY CONTRACTOR. .4 TOILET TISSUE DISPENSER DOUBLE ROLL, SURFACE MOUNTED. PROVIDED

BY OWNER, INSTALLED BY CONTRACTOR. .5 MIRROR

a. PRODUCTS: BOBRICK STAINLESS-STEEL CHANNEL FRAMED MIRROR, SIZED AS INDICATED.

b. FRAMED MIRROR: FABRICATE BRIGHT FINISHED STAINLESS STEEL TRIM AND 1 POLISHED GLASS WITH SQUARE CORNERS, MITERED, WELDED, AND GROUND SMOOTH. EXTERIOR OUTSIDE EDGE DIMENSIONS. MOUNT WITH THEFT-RESISTANT HARDWARE.

# HAZARDOUS MATERIALS REMEDIATION SPECIFICATIONS

#### 19. REMOVAL OF OTHER HAZARDOUS AND REGULATED MATERIALS PART 1 GENERAL

#### 1.1 CONDITIONS

A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH 40 CFR PARTS 82, 171 TO 179, 260 TO 270, 273, 280 AND 281, REGULATIONS OF CONNECTICUT STATE AGENCIES (RCSA) SECTION 22a-116 TO 122, -454, AND -449, NFPA 30. NFPA 31. NFPA 327, API 1604, 40 CFR PART 761, TSCA SEC. 6(e), DOT 49 CFR PARTS 172 TO 180 AND ALL OTHER APPLICABLE STATE AND FEDERAL REGULATIONS.

B. THE CONTRACTOR WILL BE HELD TO HAVE EXAMINED THE SITE ON WHICH THIS WORK IS TO BE PERFORMED AND TO HAVE SATISFIED HERSELF/ HIMSELF AS TO THE CONDITIONS SURROUNDING THE PREMISES AS NO ALLOWANCE WILL SUBSEQUENTLY BE MADE FOR FAILURE ON HER/ HIS PART TO DO SO. THE SUBMISSION OF A PROPOSAL BY THE CONTRACTOR WILL BE CONSTRUED AS ACCEPTANCE, BY THE CONTRACTOR, OF THE SCOPE OF WORK AS SUFFICIENT TO ENABLE HER/ HIS SUPPLYING THE NECESSARY DETAIL OF ALL WORK CONTEMPLATED HEREUNDER, ALL TO THE APPROVAL OF THE BUILDING OWNERS' TECHNICAL REPRESENTATIVE, AND WITHOUT EXTRA CHARGE. INSOFAR AS POSSIBLE, THE CONTRACTOR, IN CARRYING OUT HER/HIS WORK, MUST EMPLOY SUCH METHODS OR MEANS AS WILL NOT CAUSE THE INTERRUPTION OF OR INTERFERENCE WITH THE WORK OF ANY OTHER CONTRACTOR, NOR WITH THE NORMAL ROUTINE ACTIVITIES AT THE FACILITY.

#### 1.2 EQUIPMENT

A. THE CONTRACTOR SHALL FURNISH TOOLS, APPARATUS AND APPLIANCES AND POWER FOR SAME, AND SIMILAR WORK OR MATERIAL NECESSARY TO INSURE CONVENIENCE AND SAFETY IN THE EXECUTION OF THE CONTRACTOR EXCEPT WHERE THIS IS IDENTIFIED IN ANY SPECIFICATION SECTION. ALL SUCH ITEMS SHALL MEET THE APPROVAL OF THE BUILDING OWNERS' TECHNICAL REPRESENTATIVE BUT RESPONSIBILITY FOR DESIGN, STRENGTH AND SAFETY SHALL REMAIN WITH THE CONTRACTOR. ALL SUCH ITEMS SHALL COMPLY WITH EPA AND OSHA REGULATIONS AND APPLICABLE CODES AND

#### STATUTES. 1.3 TEMPORARY CONTROLS

A. IF THE CONTRACTOR LOCATES MATERIAL THAT IS BELIEVED TO BE A REGULATED OR HAZARDOUS SUBSTANCE DURING PERFORMANCE OF PROJECT WORK, WHICH HAS NOT BEEN PREVIOUSLY IDENTIFIED IN THIS PLAN, SHE/HE SHALL NOTIFY THE BUILDING OWNERS' TECHNICAL REPRESENTATIVE. NO WORK SHALL BE DONE TO DISPOSE OF PREVIOUSLY UNIDENTIFIED MATERIAL OR ADDITIONAL QUANTITIES WITHOUT THE PERMISSION OF THE BUILDING OWNERS' TECHNICAL REPRESENTATIVE.

B. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE SAFETY AND HEALTH MEASURES IN PERFORMING WORK UNDER THIS CONTRACT. THE CONTRACTOR IS SUBJECT TO APPLICABLE FEDERAL AND STATE LAWS, REGULATIONS, ORDINANCES, CODES AND ORDERS RELATING TO SAFETY AND HEALTH IN EFFECT ON THE DATE OF THIS CONTRACT. CONTRACTOR TO SUBMIT FULLY EXECUTED WASTE MANIFESTS FOR PAYMENT REQUISITION.

#### 1.4 DESCRIPTION OF WORK

THE FOLLOWING DETAILS ACTIVITIES TO BE PERFORMED DURING THE COMPLETION OF THE ABOVE STIPULATED TASKS AND MATERIALS IDENTIFIED REFER TO ENVIROMED INSPECTION REPORT LEAD & OTHER HAZARDOUS MATERIALS, ISSUE DATE APRIL 2, 2020.

#### LOWER AND UPPER LEVEL TOILET ROOMS

#### 1. FLUORESCENT LIGHT BULBS

THE CONTRACTOR SHALL DISMANTLE, PACKAGE, TRANSPORT AND DISPOSE OF APPROXIMATELY 20 FLUORESCENT LIGHT BULBS. THE LIGHT BULBS CONTAIN MERCURY WITHIN THE GLASS BULBS, WHICH SHALL BE PACKAGED, LABELED, MARKED AND PLACARDED IN ACCORDANCE WITH 49 CFR PARTS 172-180 AND DISPOSED OF AS UNIVERSAL WASTE IN ACCORDANCE WITH 40 CFR 273.4. 2. PCB CONTAINING BALLASTS

THE CONTRACTOR SHALL DISMANTLE, PACKAGE, TRANSPORT AND DISPOSE OF APPROXIMATELY 20 ASSOCIATED PCB CONTAINING BALLASTS. THE BALLASTS CONTAIN PCBs, WHICH SHALL BE PACKAGED, LABELED, MARKED AND PLACARDED IN ACCORDANCE WITH 49 CFR PARTS 172-180 AND DISPOSED OF IN ACCORDANCE WITH 40 CFR 273.4.

3. THE CONTRACTOR SHALL PROVIDE INVENTORY ALONG WITH WASTE MANIFEST DOCUMENTATION TO OWNER FOR FINAL PAYMENT REQUISITION.

#### 20. LEAD COMPLIANCE IN CONSTRUCTION GENERAL

A. SCOPE: THIS SECTION GOVERNS CONSTRUCTION WORK ACTIVITIES ASSOCIATED WITH RENOVATION OR DEMOLITION OF WORK THAT MAY DISTURB LEAD-BASED PAINT ON BUILDING COMPONENTS. THIS INCLUDES COMPONENT REMOVAL FOR RECYCLING OF METAL BUILDING COMPONENTS WITH LEAD CONTAINING PAINT. THE RECYCLING OF SCRAP METAL (REGARDLESS OF LEAD PAINT CONCENTRATION) IS EXEMPT FROM USEPA, RCRA AND CTDEEP HAZARDOUS WASTE REGULATIONS. B. THE INTENT OF THIS SECTION IS TO ASSIST THE CONTRACTOR IN COMPLYING

WITH THE OSHA CONSTRUCTION INDUSTRY STANDARD FOR LEAD (29 CFR PART 1926.62) WHEN CONDUCTING CONSTRUCTION ACTIVITIES.

A. PROVIDE NAMES OF COMPETENT PERSON, FOREMAN AND WORKERS PROPOSED TO BE USED FOR THIS PROJECT AND CURRENT YEAR TO DATE OSHA LEAD AWARENESS

B. SCRAP METAL RECYCLING FACILITY - PROVIDE PROPOSED NAME AND ADDRESS OF THE PROPOSED SCRAP METAL RECYCLING FACILITY AND TRANSPORTER. C. HAZARDOUS WASTE DISPOSAL FACILITY - PROVIDE PROPOSED NAME AND ADDRESS OF THE PROPOSED HAZARDOUS WASTE DISPOSAL FACILITY AND TRANSPORTER.

LEAD PAINT IN THE RENOVATION AREAS FOR THIS PROJECT ARE IDENTIFIED IN THE ENVIROMED SERVICES, APRIL 2, 2020 LEAD INSPECTION REPORT.

LEAD PAINT IS IDENTIFIED ON THE FOLLOWING COMPONENTS AND LOCATIONS UPPER LEVEL - MEN'S LAVATORY

WHITE PAINT ON THE METAL RADIATOR PANEL LOCATED ON LOWER WALL UNDER WINDOW <u>UPPER LEVEL – WOMEN'S LAVATORY</u>

GRAY PAINT ON THE METAL RADIATOR PANEL LOCATED ON LOWER WALL UNDER WINDOW

A. CONTRACTOR SHALL REMOVE RADIATOR COVER PANEL INTACT, BY REMOVING SCREWS/ FASTENERS AND SEGREGATE METAL PANEL FOR METAL RECYCLING AND IN ACCORDANCE WITH CONNECTICUT'S SOLID WASTE MANAGEMENT PLAN. DEMOLITION RESTRICTIONS

A. COORDINATE WORK AND ACCESS TO THE BUILDING WITH THE BUILDING OWNER OR DESIGNATED REPRESENTATIVE. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF WORK AND SHALL BE APPROVED BY THE BUILDING OWNER PRIOR TO THE START OF WORK.

B. PROHIBITED WORK METHODS INCLUDE: MECHANICAL GRINDING, SANDING, CUTTING OR HEAT REMOVAL OF LEAD PAINT OR CHEMICAL STRIPPING. THESE WORK ACTIVITIES REQUIRE ADDITIONAL LEVELS OF WORKER TRAINING, LICENSURE AND WORKER QUALIFICATIONS INCLUDING MEDICAL SURVEILLANCE AND RESPIRATOR FIT TESTING.

#### WORKER PROTECTION PROCEDURES

A. WORKERS SHALL NOT EAT, DRINK, SMOKE, OR CHEW GUM OR TOBACCO WHILE IN ANY REGULATED AREA.

#### WORKER TRAINING REQUIREMENTS

A. ALL WORKERS THAT WILL CONTACT PAINTED SURFACES SHALL RECEIVE LEAD AWARENESS TRAINING MEETING THE REQUIREMENTS OF 29 CFR 1926.62. DOCUMENTATION OF SAID TRAINING IS TO BE KEPT ON-SITE IN A BINDER FOR REVIEW. THE AWARENESS TRAINING INITIAL OR REFRESHER MUST BE DATED WITHIN ONE YEAR TO DATE.

#### COMPETENT PERSON A. MAINTAIN A COMPETENT PERSON ON SITE FOR THE DURATION OF ANY

BUILDING COMPONENTS.

SCOPE VERIFICATIONS A. EVERY ATTEMPT HAS BEEN MADE TO ACCURATELY DEPICT THE EXTENT OF THE MATERIAL AND SCOPE OF WORK IN THIS SPECIFICATION. THE BIDDER SHALL VISIT THE WORK SITE TO DETERMINE EXACT QUANTITIES AND THE DEGREE OF

DEMOLITION ACTIVITIES THAT INVOLVE DISTURBING LEAD CONTAMINATED

DIFFICULTY OF WORKING IN THESE AREAS. B. A THIRD PARTY LEAD CONSULTANT MAY BE RETAINED BY OWNER OR OWNERS REPRESENTATIVE TO CONDUCT ON SITE MONITORING OF THE CONTRACTORS WORK TO VERIFY LEAD SAFE WORK PRACTICES ARE BEING USED.

#### PART 2 EXECUTION

- A. ISOLATION OF THE WORK AREA FROM THE NON-WORK AREA ISOLATE EACH LEAD WORK AREA WITH WARNING CAUTION SIGNAGE AND
  - BARRIER TAPE. PROVIDE SINGLE LAYER OF 6 MIL POLYETHYLENE GROUND COVER UNDER EACH RADIATOR EXTENDING MINIMUM OF 4 FEET FROM BASE OF RADIATOR.

#### B. DISPOSABLE PPE

WEAR DISPOSABLE OUTER LAYER IMPERMEABLE RUBBER/ NITRILE GLOVES AND TYVEC OR RUBBER SHOE COVERS TO PREVENT THE TRACKING OF DUST FROM THE WORK AREA AND TO PROTECT YOUR SHOES FROM EXPOSURE TO DUST.

C. RADIATOR COVER/ PANEL COMPONENT REMOVAL UNFASTEN SCREWS USING HAND TOOLS TO REMOVE EACH RADIATOR COVER/

PLACE RADIATOR COVER PANEL INTO WHEELED CART LINED WITH SINGLE LAYER OF 6 MIL POLYETHYLENE SHEETING. CLEAN UP ANY RESIDUE USING DETERGENT SUCH AS TRI SODIUM PHOSPHATE (TSP) 5 PERCENT SOLUTION. REMOVE CLEAN POLY DROP CLOTH FOR DISPOSAL AS CONSTRUCTION WASTE. ANY CONTAMINATED PPE, RAGS, MOPS, PAINT CHIPS, RESIDUE OR POLY SHEETING WITH VISIBLE RESIDUE SHALL BE PLACED INTO AN IMPERMEABLE WASTE CONTAINER WITH PROPER WASTE LABELING FOR DISPOSAL AS LEAD

CONTRACTOR RESPONSIBLE FOR PROPER HANDLING, SHIPPING AND RECYCLING OF METAL PANELS AT AN APPROVED METAL RECYCLING MANAGEMENT FACILITY AND PROVIDE MANIFEST TO CLIENT FOR WORK COMPLETION. CONTRACTOR RESPONSIBLE FOR PROVIDING WASTE MANIFEST FOR ANY

GENERATED HAZARDOUS WASTE WITHIN 90 DAYS FROM COMPLETION OF WORK.

2.2 COMPLETION OF WORK - VISUAL INSPECTION A. A THIRD PARTY LEAD CONSULTANT MAY BE RETAINED BY THE OWNER OR OWNERS REPRESENTATIVE TO CONDUCT A VISUAL INSPECTION OF THE WORK AREAS IN ORDER TO DOCUMENT THAT ALL SURFACES HAVE BEEN MAINTAINED AS FREE AS PRACTICABLE OF ACCUMULATIONS OF LEAD IN ACCORDANCE WITH 29 CFR 1926.62(h). IF VISIBLE ACCUMULATIONS OF WASTE, DEBRIS, LEAD PAINT CHIPS OR DUST ARE FOUND IN THE WORK AREA, THE CONTRACTOR SHALL REPEAT THE CLEANING, AT THE CONTRACTOR'S EXPENSE, UNTIL THE AREA IS IN COMPLIANCE. THE VISUAL INSPECTION WILL DETECT INCOMPLETE WORK, DAMAGE CAUSED BY THE ABATEMENT ACTIVITY, AND INADEQUATE

### CLEAN-UP OF THE WORK SITE.

A. <u>BUILDING OWNER</u>: TOWN OF MIDDLEBURY, CT OR SPECIFICALLY AUTHORIZED REPRESENTATIVE.

B. <u>COMPETENT PERSON</u>: AN INDIVIDUAL CAPABLE OF IDENTIFYING EXISTING LEAD HAZARDS AND TAKING CORRECTIVE MEASURES TO ELIMINATE THEM. THE DUTIES OF THE COMPETENT PERSON INCLUDE AT LEAST THE FOLLOWING: CONTROLLING ENTRY TO AND EXIT FROM THE DEMOLITION/ DEMOLITION AREA, ENSURING CONTRACT COMPLIANCE, CONDUCTING PERSONAL AIR MONITORING, ENSURING THAT ALL EMPLOYEES WORKING WITHIN THE DEMOLITION/DEMOLITION AREA HAVE LEAD AWARENESS TRAINING, AND ENSURING THAT DEMOLITION WORKERS USE THE HAND WASHING FACILITIES.

C. <u>LEAD</u>: METALLIC LEAD, INORGANIC LEAD COMPOUNDS AND ORGANIC LEAD SOAPS.

- EXCLUDED FROM THIS DEFINITION ARE ALL OTHER ORGANIC LEAD COMPOUNDS. D. X-RAY FLUORESCENCE (XRF) ANALYZER: AN ANALYTICAL INSTRUMENT WHICH MEASURES LEAD CONCENTRATION OF DRIED PAINT ON SURFACES IN MILLIGRAMS PER SQUARE CENTIMETER (mg/cm²) USING A RADIOACTIVE SOURCE WITHIN THE
- INSTRUMENT. E. LEAD CONTAINING PAINT: PAINT FOUND TO CONTAIN ANY DETECTABLE LEVEL OF
- F. <u>LEAD BASED PAINT</u>: PAINT FOUND TO CONTAIN GREATER THAN OR EQUAL TO 1.0 MILLIGRAMS OF LEAD PER SQUARE CENTIMETER OF SURFACE AREA BY XRF TESTING OR 0.5 PERCENT LEAD BY WEIGHT BY ATOMIC ABSORPTION (AA) SPECTROPHOTOMETER TESTING.
- G. ACTION LEVEL: EMPLOYEE EXPOSURE, WITHOUT REGARD TO THE USE OF RESPIRATORS. TO AN AIRBORNE CONCENTRATION OF LEAD OF 30 MICROGRAMS PER CUBIC METER ( $\mu$ g/m<sup>3</sup>) CALCULATED AS AN EIGHT HOUR TIME WEIGHTED
- H. PERMISSIBLE EXPOSURE LIMIT (PEL): FIFTY (50) MICROGRAMS OF LEAD PER CUBIC METER ( $\mu$ g/m<sup>3</sup>) OF AIR AVERAGED OVER AN 8 HOUR PERIOD AS DETERMINED BY 29 CFR 1926.62.
- I. PERSONAL MONITORING: SAMPLING OF LEAD CONCENTRATIONS WITHIN THE BREATHING ZONE OF A WORKER TO DETERMINE THE 8-HOUR TIME WEIGHTED AVERAGE CONCENTRATION IN ACCORDANCE WITH 29 CFR 1926.62. SAMPLES SHALL BE REPRESENTATIVE OF THE EMPLOYEE'S WORK TASKS.
- J. <u>TSP</u>: ACRONYM FOR TRISODIUM PHOSPHATE K. VISIBLE RESIDUE: ANY PAINT DEBRIS OR CHIPS ON SURFACES IN AREAS WITHIN THE WORK AREA WHERE LEAD ABATEMENT HAS TAKEN PLACE AND WHICH IS VISIBLE TO THE UN AIDED EYE.
- L. TOXICITY CHARACTERISTICS LEACHING PROCEDURE (TCLP): TOXICITY CHARACTERISTICS LEACHING PROCEDURE UTILIZING EPA TEST METHOD SW-846, METHOD 1311.
- M. <u>CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)</u>: GENERATES LESS THAN 100 KILOGRAMS (kg) PER MONTH OF HAZARDOUS WASTE; ACCUMULATES NO GREATER THAN 1000 (kg) ON-SITE AT ANY ONE TIME. N. SMALL QUANTITY GENERATOR (SQG): GENERATES BETWEEN 100 (kg) AND 1000
- KILOGRAMS (kg) OF HAZARDOUS WASTE ON-SITE AT ANY ONE TIME; STORES WASTE FOR NO GREATER THAN 180 DAYS. O. <u>LARGE QUANTITY GENERATOR (LQG)</u>: GENERATES GREATER THAN 1000 (kg) PER MONTH OF HAZARDOUS WASTE OR ACCUMULATES MORE THAN 1000 (kg) ON SITE

(kg) PER MONTH OF HAZARDOUS WASTE; ACCUMULATES NO GREATER THAN 1000

- AT ANY ONE TIME; STORES WASTE FOR NO GREATER THAN 90 DAYS. P. TREATMENT, STORAGE, AND DISPOSAL FACILITY: TREATS OR DISPOSES OF HAZARDOUS WASTE ON SITE, RECEIVES HAZARDOUS WASTE FROM OFF SITE, OR STORES HAZARDOUS WASTE IN EXCESS OF THE LIMITS LISTED FOR (SQG) OR (LQG) STATUS.
- Q. EPA IDENTIFICATION NUMBER: THE UNIQUE NUMBER ASSIGNED BY EPA TO EACH GENERATOR OR TRANSPORTER OF HAZARDOUS WASTE AND EACH TREATMENT, STORAGE OR DISPOSAL FACILITY.

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PROJECT NO. 2019.04 DRAWN BY: CHECKED BY: **AS NOTED** SCALE:

DATE:

04-22-2020



NORTH ARROW

#### GENERAL NOTES

- PROJECT SCOPE: PROVIDE COMPLETE AND OPERATIONAL SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS INCLUDING ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT.
- CONSTRUCTION\CONTRACT DOCUMENTS: CONTRACT DOCUMENTS INCLUDING PLANS, DETAILS, AND ONE-LINE DIAGRAMS SHOW THE GENERAL LOCATION AND ARRANGEMENT OF THE WORK. THESE DOCUMENTS ARE DIAGRAMMATIC AND DO NOT SHOW ALL CONNECTORS, FITTINGS, HANGERS, AND ADDITIONAL ELEMENTS WHICH THE CONTRACTOR MUST PROVIDE TO COMPLETE THE SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS. PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCE'S AND CONDITIONS, VISIBLE AND/OR HIDDEN, THAT MAY EXIST, THUS REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE PROJECT AREA BEFORE PERFORMING THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.

#### COORDINATION:

- A) THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH ALL CONSTRUCTION DOCUMENTS AND OTHER TRADES ASSOCIATED WITH THE PROJECT.
- B) THE CONTRACTOR SHALL VISIT THE SITE OF WORK AND FAMILIARIZE HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE NATURE OF THE INSTALLATION AND CONDITIONS.
- C) BEFORE SELECTING MATERIAL, EQUIPMENT AND PROCEEDING WITH WORK, INSPECT AREAS WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT, CLEARANCES AND INTERCONNECTIONS.
- D) PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCE'S AND CONDITIONS, VISIBLE AND/OR HIDDEN THAT MAY EXIST; THUS, REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE SPACE BEFORE PERFORMING THE WORK.
- E) BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS INSPECT AND LAYOUT WORK TO AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES.
- F) ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR PROPER SYSTEM INSTALLATIONS.
- G) COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED IN PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE
- H) SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING.
- I) FAILURE OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE ABOVE CONDITIONS AND NOT PERFORMING PROPER COORDINATION WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ESTIMATING THE DIFFICULTIES AND COSTS FOR SUCCESSFULLY PERFORMING THE COMPLETE WORK UNDER
- SHUTDOWNS: WRITTEN REQUESTS FOR APPROVAL FOR PLANNED SHUTDOWNS OR INTERRUPTION OF OWNER'S UTILITIES, SYSTEMS AND EQUIPMENT SHALL BE MADE 72 HOURS PRIOR TO THE START OF THE REQUESTED SHUTDOWN PERIODS.
- CODES AND STANDARDS: THE CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL CODES THAT HAVE JURISDICTION WHERE THE WORK IS BEING PERFORMED. THROUGHOUT THE CONTRACT DOCUMENTS CERTAIN CODES AND STANDARDS ARE REFERENCED. THE CONTRACTOR SHALL USE THE LATEST VERSIONS OF CODES AND STANDARDS REFERENCED UNLESS OTHERWISE NOTED. IF THE CONTRACTOR IS NOT FAMILIAR WITH THE REFERENCED STANDARD THEY SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR DIRECTION.
- PERMITS: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AUTHORITIES.
- WORKMAN: ALL WORK SHALL BE DONE WITH LICENSED WORKMEN IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AUTHORITIES CODES AND REGULATIONS.
- SUBMITTALS: THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL EQUIPMENT AND MATERIALS BEING PROVIDED BEFORE SUCH EQUIPMENT AND MATERIALS ARE PURCHASED AND INSTALLED. THE SUBMITTALS SHALL BE REVIEWED AND RETURNED BY THE OWNER'S REPRESENTATIVE WITH APPROPRIATE COMMENTS. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT AND WILL BE RETURNED WITH COMMENTS TO THE CONTRACTOR IN PDF FORMAT.
- AS-BUILT DOCUMENTATION: THE CONTRACTOR SHALL PROVIDE ONE MARK-UP SET OF CONSTRUCTION DOCUMENTS SHOWING FINAL AS-BUILT CONDITIONS. DOCUMENTS SHALL CLEARLY SHOW THE CHANGES MADE TO THE INSTALLED SYSTEMS.
- . EQUIPMENT WARRANTIES, MAINTENANCE MANUALS AND INSTALLATION MANUALS: TURN OVER TO THE OWNER ALL MANUFACTURERS' WARRANTIES, MAINTENANCE MANUALS, AND INSTALLATION MANUALS FOR EQUIPMENT AND MATERIALS PROVIDED.
- PHOTOGRAPHS: PHOTOGRAPHS ARE PROVIDED TO SHOW CURRENT CONDITION OF BUILDING SYSTEMS TO ASSIST THE CONTRACTOR, PHOTOGRAPHS DO NOT SHOW ALL AREAS OF THE BUILDING OR ALL SYSTEM CONDITIONS, THUS REQUIRING THE CONTRACTOR TO VISIT THE SITE BEFORE PERFORMING WORK. PHOTOGRAPHS ARE NOT INTENDED TO SHOW SCOPE OF WORK. PLANS, NOTES, SPECIFICATIONS AND OTHER BID DOCUMENTS INDICATE SCOPE OF WORK. 12. TERMINOLOGY:
- A) THE TERM "INDICATED" SHALL MEAN, "AS SHOWN ON CONTRACT DOCUMENTS

- (SPECIFICATIONS, DRAWINGS, AND RELATED ATTACHMENTS)".
- B) THE TERM "PROVIDE" SHALL MEAN, "TO FURNISH, INSTALL, AND CONNECT COMPLETELY". C) THE TERM "COORDINATE" SHALL MEAN ONE OR MORE OF THE FOLLOWING: "TO MANAGE, INTERFACE, COMMUNICATE, MAKE ARRANGEMENT, BRING INTO ORDER, ADMINISTER AND
- D) THE TERM "INTERIOR" IS AN INTERIOR LOCATION WHERE ITS ENVIRONMENT IS HEATED
- AND/OR AIR CONDITIONED AND NOT SUBJECT TO OUTSIDE WEATHER CONDITIONS. E) THE TERM "EXTERIOR" IS ALL LOCATIONS, WHICH ARE NOT INTERIOR, OR UNDERGROUND.
- F) THE TERM "INTERIOR FINISHED SPACE" IS INTERIOR SPACES, WHICH ARE USED FOR OFFICES, CORRIDORS, LOBBIES, TOILETS, STORAGE AND FILING ROOMS, LOUNGES,
- 13. DEMOLITION: DEMOLITION OF INDICATED ITEMS INCLUDES THE REMOVAL AND PROPER DISPOSAL OF THOSE ITEMS AND ALL ASSOCIATED PIPING, DUCTWORK, WIRING AND HANGERS. ELECTRICAL BRANCH, CONTROL, TELEPHONE, AND ALARM WIRING SHALL BE REMOVED BACK TO
- PANELBOARDS OR RELATED SYSTEM PANELS OR BACKBOARDS. 14. EQUIPMENT AND MATERIAL INSTALLATIONS:

MECHANICAL ROOMS, ELECTRICAL ROOMS, ETC.

HANDLE COMPLETELY".

- A) ALL EQUIPMENT AND MATERIALS SHALL BE LABELED AND LISTED, AND INSTALLED IN ACCORDANCE WITH THEIR LISTING AND MANUFACTURER'S REQUIREMENTS.
- B) WHEN A MANUFACTURER RECOMMENDS AN OPTION OR ACCESSORY ITEM FOR THE INSTALLED CONDITION, OPERATION, OR ENVIRONMENT THAT IS TO BE EXPERIENCED, SUCH
- ITEM SHALL BE SUPPLIED AT NO ADDITIONAL COST TO THE OWNER. C) IF AN EQUIPMENT MANUFACTURER REQUIRES LARGER CAPACITY, CIRCUITRY AND/OR EQUIPMENT, THE CONTRACTOR SHALL PROVIDE SUCH CAPACITY AND/OR EQUIPMENT UNDER HIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
- D) LOCATE ALL EQUIPMENT, WHICH REQUIRES SERVICING IN FULLY ACCESSIBLE POSITIONS. IF
- REQUIRED FOR BETTER ACCESSIBILITY, FURNISH ACCESS DOORS FOR THAT PURPOSE. E) MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ALLOW FOR BETTER ACCESSIBILITY.
- F) ALL WORK IN INTERIOR FINISHED SPACES SHALL BE CONCEALED BEHIND WALLS, ABOVE CEILINGS OR HUNG CEILINGS, OR UNDER THE FLOOR. PROVIDE ALL NECESSARY CUTTING, PATCHING, REPAINTING AND/OR REPLACEMENT OF CEILING TILES AS REQUIRED TO PERFORM
- G) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO CONFORM WITH APPROVED SUBMITTAL DATA, INCLUDING COORDINATION DRAWINGS (IF REQUIRED), TO GREATEST EXTENT POSSIBLE CONFORM TO ARRANGEMENTS INDICATED BY THE CONTRACT DOCUMENTS, RECOGNIZING THAT PORTIONS OF THE WORK ARE SHOWN ONLY IN DIAGRAMMATIC FORM. WHERE COORDINATION REQUIREMENTS CONFLICT WITH INDIVIDUAL SYSTEM REQUIREMENTS, REFER CONFLICT TO THE ARCHITECT/ENGINEER.
- H) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES
- 1) INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.
- J) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT GIVING RIGHT OF WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.
- K) WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
- 15.FIRE RATINGS: THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS FOR FIRE SEPARATION AND FIRE RATED ASSEMBLIES. ALL PIPING, DUCTWORK AND CONDUITS PASSING THROUGH OR PENETRATING WALLS. CEILINGS AND FLOORS SHALL BE PROVIDED WITH A UL LISTED FIRE STOPPING ASSEMBLIES. UL LISTED FIRE STOPPING ASSEMBLIES SHALL BE SUITABLE FOR THE CONDITIONS ENCOUNTERED AND SHALL BE RATED EQUAL TO THE RATING OF THE WALL, CEILING OR FLOOR. REVIEW FIRE RATED ASSEMBLIES THAT ALLOW PENETRATIONS OF ITEMS SUCH AS OUTLET BOXES AND CONDUITS THAT DO NOT REQUIRE FIRE STOPPING. SPACE AND POSITION THESE DEVICES AS ALLOWED PER THE ASSEMBLY'S UL RATING.
- 16. MANUFACTURER'S NAMEPLATES: EACH ITEM OF EQUIPMENT SHALL HAVE A NAMEPLATE BEARING THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER, AND SERIAL NUMBER SECURELY AFFIXED IN A CONSPICUOUS PLACE; THE NAMEPLATE OF THE DISTRIBUTING AGENT WILL NOT BE ACCEPTABLE.

	PLUMBING FIXTURE AND FITTING SCHEDULE									
FIXTURE	DESCRIPTION	MANUFACTURER	FIXTURE or EQUIPMENT	FAUCET or CONTROLS	NOTES, FITTINGS, ACCESSORIES					
FD 3" MEDIUM DUTY JAY		JAY R. SMITH	3" MEDIUM DUTY FLOOR DRAIN WITH 8-1/2"	REPLACE REQUIRED TRAP PRIMER WITH	UNLESS OTHERWISE NOTED,					
	FLOOR DRAIN	(OR EQUAL)	ROUND TOP: DUCO CAST IRON BODY AND	PROSET TRAP GUARD ALTERNATIVE.	SIZE TO MATCH PIPE SIZE.					
			FLASHING COLLAR WITH CAST IRON BAR							
			GRATE; SERIES 2110.							
LAV	COUNTERTOP LAVATORY	AMERICAN STANDARD	RONDALYN VITREOUS CHINA, SELF-RIMMING	PROVIDE WITH AMERICAN STANDARD	MOUNT SO THAT TOP OF FRONT RIM IS 34"					
(ADA)		(OR EQUAL)	LAVATORY WITH FRONT OVERFLOW; MODEL	RELIANT 3, ADA COMPLIANT, SINGLE LEVER,	FROM FINISHED FLOOR. IF PIPING BENEATH					
			0491.019.	4" CENTERSET FAUCET WITH GRID DRAIN,	SINK IS EXPOSED, PROVIDE WITH TRUEBRO					
				LESS POP-UP HOLE; MODEL 7385.003.	ADA LAV GUARD KIT; MODELS VARY.					
UR*	URINAL	AMERICAN STANDARD	WASHBROOK FLOWISE	MODEL EQUIPPED WITH SELF-CLEANING	* COORDINATE MOUNTING HEIGHT (TOP OF					
(ADA)		(OR EQUAL)	0.5 GPF HIGH EFFICIENCY, 3/4" TOP SPUD,	BRASS PISTON MANUAL FLUSH VALVE: LEFT	RIM) WITH LOCAL CODES.					
			VITREOUS CHINA, HIGH EFFICIENCY, WALL	OR RIGHT HAND INSTALLATION.	NON ADA REQUIREMENT - 17"					
			MOUNT URINAL;		ADA REQUIREMENT - 24"					
			MODEL 6590.501.							
WC1	FLOOR-MOUNT,	AMERICAN STANDARD	MADERA FLOWISE 15" HEIGHT, 12" ROUGH,	MODEL EQUIPPED WITH SELF-CLEANING	MOUNT SO THAT TOP OF SEAT IS 17 TO 19					
(ADA)	FLUSH VALVE	(OR EQUAL)	TOP SPUD, ELONGATED BOWL, VITREOUS	BRASS PISTON MANUAL FLUSH VALVE: LEFT	INCHES FROM FINISHED FLOOR.					
	WATER CLOSET		CHINA,	OR RIGHT HAND INSTALLATION. PROVIDE						
			1.28 GPF FLUSHOMETER TOILET SYSTEM;	WITH AMERICAN STANDARD ELONGATED						
			MODEL 2855.128.	HEAVY DUTY BOWL OPEN FRONT SEAT LESS						
				COVER; MODEL 5901.100.						
WC2	FLOOR-MOUNT,	AMERICAN STANDARD	CADET FLOWISE 16-1/2" HEIGHT, 12" ROUGH,	PROVIDE WITH AMERICAN STANDARD	MOUNT SO THAT TOP OF SEAT IS 17 TO 19					
(ADA)	TANK TYPE	(OR EQUAL)	ELONGATED BOWL, VITREOUS CHINA, 1.1 GPF	ELONGATED HEAVY DUTY BOWL OPEN	INCHES FROM FINISHED FLOOR.					
	WATER CLOSET		PRESSURE ASSISTED TOILET; MODEL	FRONT SEAT LESS COVER; MODEL 5901.100.						
			2467.100.							
WC3	FLOOR-MOUNT,	AMERICAN STANDARD	MADERA FLOWISE 16-1/2" HEIGHT, 10"	SAME AS WC1.	MOUNT SO THAT TOP OF SEAT IS 17 TO 19					
(ADA)	FLUSH VALVE	(OR EQUAL)	ROUGH, TOP SPUD, ELONGATED BOWL,		INCHES FROM FINISHED FLOOR.					
-	WATER CLOSET		VITREOUS CHINA, 1.1 GPF FLUSHOMETER							
			TOILET SYSTEM, MODEL 2854.111.							

CONTRACTOR SHALL VERIFY ALL PLUMBING FIXTURES, FITTINGS, FAUCETS, CONTROLS, ACCESSORIES, ETC. PRIOR TO ORDERING AND INSTALLATION.

#### PLUMBING SPECIFICATIONS

1.1 SUMMARY: THIS SECTION INCLUDES MATERIAL REQUIREMENTS AND INSTALLATION REQUIREMENTS FOR PLUMBING SYSTEMS. THE FOLLOWING ITEMS ARE INCLUDED IN THIS SECTION: DOMESTIC WATER DISTRIBUTION B. FIRE BARRIER PENETRATIONS: WHERE PIPES PASS THOUGH FIRE-RATED WALLS, PARTITIONS, CEILINGS, AND SYSTEMS, DRAINAGE AND VENT SYSTEMS, PLUMBING FIXTURES AND EQUIPMENT, SUPPORTS AND ANCHORS, PLUMBING SYSTEM INSULATION AND JOINT SEALERS.

1.2 REGULATORY REQUIREMENTS: COMPLY WITH THE PROVISIONS OF THE FOLLOWING: 2015 INTERNATIONAL MECHANICAL CODE, 2015 INTERNATIONAL PLUMBING CODE, CONNECTICUT BUILDING CODE, CONNECTICUT LIFE SAFETY CODE AND NFPA NATIONAL ELECTRIC CODE.

#### PRODUCTS

2.1 DOMESTIC WATER DISTRIBUTION SYSTEMS

A. PIPE, TUBE AND FITTINGS: REFER TO PART 3 FOR IDENTIFICATION OF SYSTEMS WHERE THE BELOW MATERIALS ARE USED.

- 1. COPPER TUBE: ASTM B 88, TYPE L WATER TUBE, DRAWN TEMPER.
- 2. COPPER TUBE: ASTM B 88, TYPE K WATER TUBE, ANNEALED TEMPER. 3. WROUGHT COPPER SOLDER-JOINT FITTINGS: ANSI B16.22, STREAMLINED PATTERN. 4. BRONZE FLANGES: ANSI B16.24, CLASS 150, RAISED GROUND FACE, BOLT HOLES SPOT FACED. 5. UNIONS: ASME B16.39, MALLEABLE IRON, CLASS 150, HEXAGONAL STOCK, WITH BALL-AND-SOCKET
- JOINTS, METAL-TO-METAL BRONZE SEATING SURFACES, FEMALE THREADED ENDS. THREADS SHALL CONFORM TO ASME B1.20.1. 6. SOLDER FILLER METAL: ASTM B 32, 95-5 TIN-ANTIMONY.

#### B. VALVES AND SPECIALTIES:

1. BALL VALVES, 1 INCH AND SMALLER: RATED FOR 150 PSI SATURATED STEAM PRESSURE, 400 PSI WOG PRESSURE; TWO-PIECE CONSTRUCTION; WITH BRONZE BODY CONFORMING TO ASTM B 62, STANDARD (OR REGULAR) PORT. CHROME-PLATED BRASS BALL. REPLACEABLE "TEFLON" OR "TFE" SEATS AND SEALS. BLOWOUT-PROOF STEM, AND VINYL-COVERED STEEL HANDLE.

#### 2.2 SANITARY DRAINAGE AND VENT SYSTEMS

A. ABOVE GROUND SANITARY DRAINAGE AND VENT PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS: PIPE & FITTINGS SHALL CONFORM WITH ASTM A 74 PIPE. JOINT COUPLINGS SHALL CONFORM WITH ASTM C 1277.

B. UNDERGROUND BUILDING DRAIN PIPE AND FITTINGS: HUB & SPIGOT CAST IRON SEWER PIPE AND FITTINGS: AND FLOORS, MAINTAIN THE FIRE RATED INTEGRITY. CONFORM TO ASTM A 74. JOINT COUPLINGS SHALL CONFORM WITH ASTM C 564.

#### 2.3 PLUMBING FIXTURES AND EQUIPMENT

A. PROVIDE PLUMBING FIXTURES AND TRIM, FITTINGS, OTHER COMPONENTS, AND SUPPORTS AS INDICATED ON THE CONTRACT DRAWINGS.

#### 2.4 SUPPORTS AND ANCHORS

A. HANGERS AND SUPPORT COMPONENTS SHALL BE FACTORY FABRICATED OF MATERIALS, DESIGN, AND MANUFACTURER COMPLYING WITH MSS SP-58. COMPONENTS SHALL HAVE GALVANIZED COATINGS WHERE INSTALLED FOR PIPING AND EQUIPMENT THAT WILL NOT HAVE FIELD-APPLIED FINISH. PIPE ATTACHMENTS SHALL HAVE NONMETALLIC COATING FOR ELECTROLYTIC PROTECTION WHERE ATTACHMENTS ARE IN DIRECT CONTACT WITH COPPER TUBING.

#### 2.5 PLUMBING SYSTEM INSULATION

A. INSULATION GENERAL: CONFORM TO THE FOLLOWING CHARACTERISTICS FOR INSULATION INCLUDING FACINGS, CEMENTS, AND ADHESIVES, WHEN TESTED ACCORDING TO ASTM E 84, BY UL OR OTHER TESTING OR INSPECTING ORGANIZATION ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION. LABEL INSULATION WITH APPROPRIATE MARKINGS OF TESTING LABORATORY. INTERIOR INSULATION: FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS. EXTERIOR INSULATION: FLAME SPREAD RATING OF 75 OR LESS AND A SMOKE DEVELOPED RATING OF 150 OR LESS.

B. PREFORMED GLASS FIBER PIPE INSULATION: ASTM C 547, CLASS 1, RIGID PIPE INSULATION, JACKETED. INORGANIC GLASS FIBERS. BONDED WITH A THERMOSETTING RESIN. JACKET: ALL-PURPOSE. FACTORY-APPLIED, LAMINATED GLASS-FIBER-REINFORCED, FLAME-RETARDANT KRAFT PAPER AND ALUMINUM FOIL HAVING SELF-SEALING LAP. PVC FITTING COVERS: FACTORY-FABRICATED FITTING COVERS MANUFACTURED FROM 20-MIL-THICK, HIGH-IMPACT, ULTRA-VIOLET-RESISTANT PVC.

#### 2.6 JOINT SEALERS

A. JOINT SEALER PRODUCTS SHALL BE TESTED IN ACCORDANCE WITH ASTM E-119, ASTM E-814 AND ASTM 3.5 JOINT SEALER INSTALLATIONS E-84. ALL PRODUCTS SHALL NOT CONTAIN ASBESTOS OR PCB'S. ALL JOINT SEALERS SHALL BE INSTALLED IN U.L. LISTED CONFIGURATIONS.

#### 3. EXECUTION

3.1 INSTALLATION OF DOMESTIC WATER DISTRIBUTION SYSTEMS

A. INSTALL TYPE L, DRAWN COPPER TUBE WITH WROUGHT COPPER FITTINGS AND SOLDER JOINTS FOR PIPE

ABOVE GROUND, WITHIN BUILDING. INSTALL TYPE K, ANNEALED TEMPER COPPER TUBE FOR PIPE, WITH MINIMUM NUMBER OF JOINTS, BELOW GROUND.

FLOORS, MAINTAIN THE FIRE-RATED INTEGRITY.

C. TEST WATER DISTRIBUTION PIPING AS FOLLOWS: TEST FOR LEAKS AND DEFECTS ALL NEW WATER DISTRIBUTION PIPING SYSTEMS AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED OR REPAIRED. IF TESTING IS PERFORMED IN SEGMENTS, SUBMIT A SEPARATE REPORT FOR EACH TEST,

D. REPAIR ALL LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.

E. CLEAN AND DISINFECT WATER DISTRIBUTION PIPING AS FOLLOWS: PURGE ALL NEW WATER DISTRIBUTION PIPING SYSTEMS AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED PRIOR TO USE. USE THE PURGING AND DISINFECTING PROCEDURE PROSCRIBED BY THE AUTHORITY HAVING JURISDICTION OR, IN CASE A METHOD IS NOT PRESCRIBED BY THAT AUTHORITY, THE PROCEDURE DESCRIBED IN EITHER AWWA C651, OR AWWA C652.

#### 3.2 INSTALLATION OF SANITARY DRAINAGE AND VENT SYSTEMS

COMPLETE WITH A DIAGRAM OF THE PORTION OF THE SYSTEM TESTED.

A. PREPARATION FOUNDATION FOR UNDERGROUND BUILDING DRAINS: GRADE TRENCH BOTTOMS TO PROVIDE A SMOOTH. FIRM. AND STABLE FOUNDATION. FREE FROM ROCK. THROUGHOUT THE LENGTH OF THE PIPE. REMOVE UNSTABLE, SOFT, AND UNSUITABLE MATERIALS AT THE SURFACE UPON WHICH PIPES ARE TO BE LAID AND BACKFILL WITH CLEAN SAND OR PEA GRAVEL TO INDICATED INVERT ELEVATION. SHAPE BOTTOM OF TRENCH TO FIT BOTTOM OF PIPE FOR 90-DEGREES (BOTTOM 1/4 OF THE CIRCUMFERENCE). FILL UNEVENNESS WITH TAMPED SAND BACKFILL. AT EACH PIPE JOINT DIG BELL HOLES TO RELIEVE THE BELL OF THE PIPE OF ALL LOADS, AND TO ENSURE CONTINUOUS BEARING OF THE PIPE BARREL ON THE FOUNDATION.

B. PIPE APPLICATIONS — ABOVE GROUND, WITHIN BUILDING: INSTALL PVC TYPE DWV PLASTIC PIPE AND

C. PIPE APPLICATIONS - BELOW GROUND, WITHIN BUILDING: INSTALL PVC SEWER PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS.

D. PIPE AND TUBE JOINT CONSTRUCTION: PVC DWV PIPE: JOINING AND INSTALLATION OF PVC DRAINAGE PIPE AND FITTINGS SHALL CONFORM TO ASTM D2665.

E. FIRE BARRIER PENETRATIONS: WHERE PIPES PASS THROUGH FIRE RATED WALLS. PARTITIONS. CEILINGS.

F. PIPING SYSTEM TEST: TEST DRAINAGE AND VENT SYSTEM IN ACCORDANCE WITH THE PROCEDURES OF THE AUTHORITY HAVING JURISDICTION. REPAIR ALL LEAKS AND DEFECTS USING NEW MATERIALS AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.

G. ADJUSTING AND CLEANING: CLEAN INTERIOR OF PIPING SYSTEM. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES. CLEAN DRAIN STRAINERS, DOMES, AND TRAPS. REMOVE DIRT AND DEBRIS

3.3 INSTALLATION OF HANGERS AND SUPPORTS

A. INSTALL HANGERS, SUPPORTS, CLAMPS AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE: COMPLY WITH MSS SP-69 AND SP-89. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING SUPPORTED TOGETHER ON FIELD-FABRICATED, HEAVY-DUTY TRAPEZE HANGERS WHERE POSSIBLE. INSTALL SUPPORTS WITH MAXIMUM SPACINGS COMPLYING WITH MSS SP-69. WHERE PIPING OF VARIOUS SIZES IS SUPPORTED TOGETHER BY TRAPEZE HANGERS, SPACE HANGERS FOR SMALLEST PIPE SIZE OR INSTALL INTERMEDIATE SUPPORTS FOR SMALLER DIAMETER PIPE AS SPECIFIED ABOVE FOR INDIVIDUAL PIPE

3.4 INSTALLATION OF PLUMBING SYSTEM INSULATION

A. GLASS FIBER PIPE INSULATION INSTALLATION: BOND INSULATION TO PIPE WITH LAGGING ADHESIVE. SEAL EXPOSED ENDS WITH LAGGING ADHESIVE. SEAL SEAMS AND JOINTS WITH VAPOR BARRIER COMPOUND.

B. PIPING SYSTEMS: UNLESS OTHERWISE INDICATED, INSULATE THE FOLLOWING PIPING SYSTEMS: STORM DRAINAGE, DOMESTIC COLD WATER AND DOMESTIC HOT WATER.

C. DOMESTIC COLD WATER AND STORM WATER ALL SIZES: 1/2-INCH-THICK GLASS FIBER INSULATION EXCEPT PROVIDE 1" INSULATION FOR PIPING WITH HEAT TRACING.

D. DOMESTIC HOT WATER AND HOT WATER RETURN ALL SIZES: 3/4-INCH-THICK GLASS FIBER INSULATION. PROVIDE 1-INCH-THICK INSULATION WITHIN 8 FEET OF STORAGE TANK.

A. VERIFY ARCHITECTURAL DRAWINGS AND FIELD CONDITIONS TO DETERMINE WHERE ALL PIPING PASSES THROUGH FIRE/SMOKE RATED WALLS. CEILINGS. FLOORS OR OTHER BUILDING ELEMENTS THAT REQUIRE PENETRATIONS TO BE SEALED. INSTALL ALL JOINT SEALERS AS SPECIFIED PER THE MANUFACTURER. ALL JOINT SEALING SYSTEMS SHALL BE U.L. RATED AND INSTALLED IN U.L. LISTED CONFIGURATIONS.

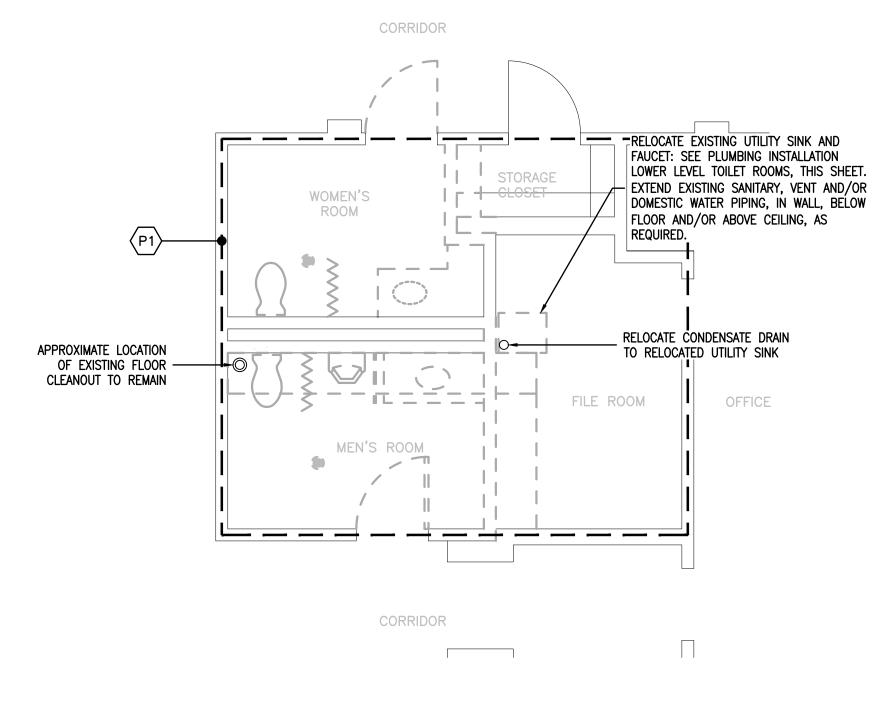
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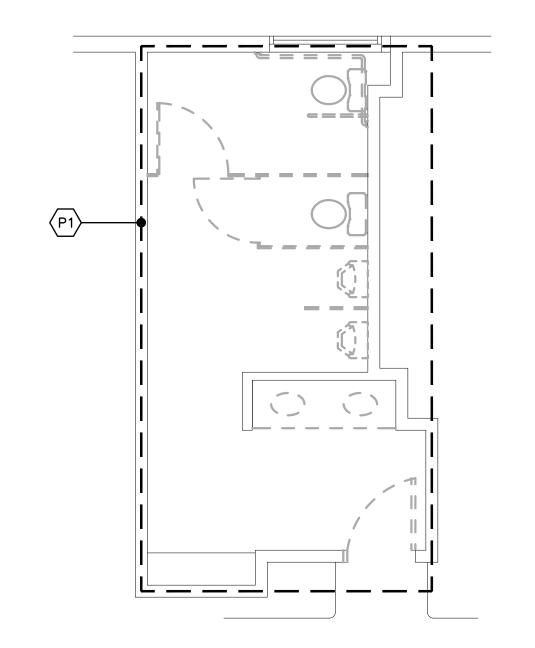
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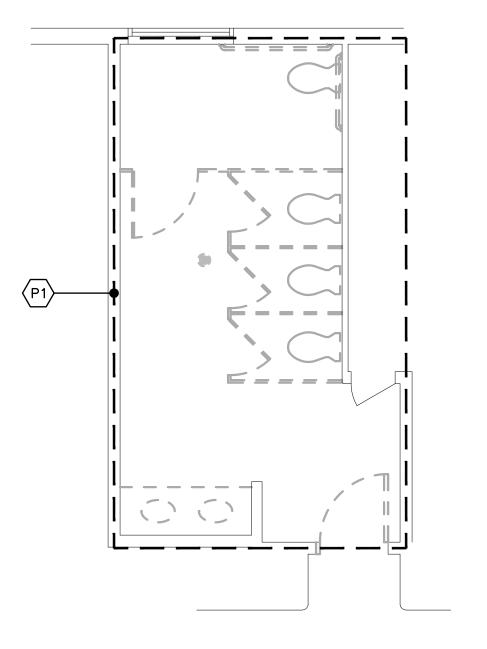
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#### PLUMBING WORK ITEMS

CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY DAMAGE CREATED DURING WORK/REPAIRS, WHETHER INTENTIONAL OR ACCIDENTAL. OWNER SHALL BE RESPONSIBLE FOR SELECTING MATERIALS TO MATCH EXISTING CONDITIONS AS BEST POSSIBLE.

#### PLUMBING REMOVAL: (HEXAGON)

P1. UNLESS OTHERWISE NOTED, REMOVE EXISTING PLUMBING FIXTURES: RELATED SANITARY, VENT AND/OR DOMESTIC WATER PIPING, IN WALL, BELOW FLOOR AND/OR ABOVE CEILING, SHALL REMAIN FOR RE-USE.

#### PLUMBING INSTALLATION: (CIRCLE)

P1. PROVIDE PLUMBING FIXTURES PER PLUMBING FIXTURE AND FITTING SCHEDULE, SHEET POO1. RECONNECT TO EXISTING SANITARY, VENT & DOMESTIC WATER PIPING IN WALL, BELOW FLOOR AND/OR ABOVE CEILINGS. REPLACE ALL DOMESTIC WATER STOPS AND DRAIN TRAPS. CAP ALL UNUSED SANITARY, VENT AND/OR DOMESTIC WATER PIPING AFTER INSTALLATION OF REPLACEMENT FIXTURES.

P2. PROVIDE "FD" FIXTURE PER PLUMBING FIXTURE AND FITTING SCHEDULE, SHEET POO1. CUT FLOOR AND/OR WALLS AS REQUIRED TO CONNECT TO NEAREST EXISTING SANITARY PIPING.

# PLUMBING DEMOLITION LOWER LEVEL TOILET ROOMS

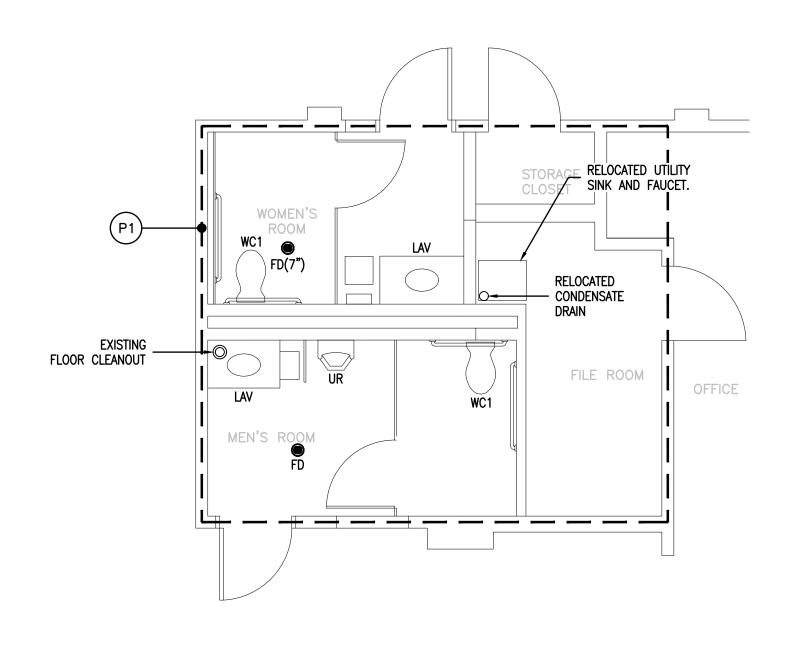


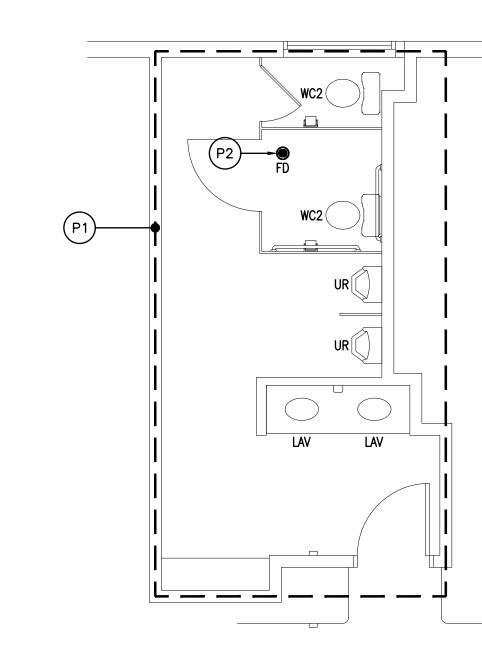


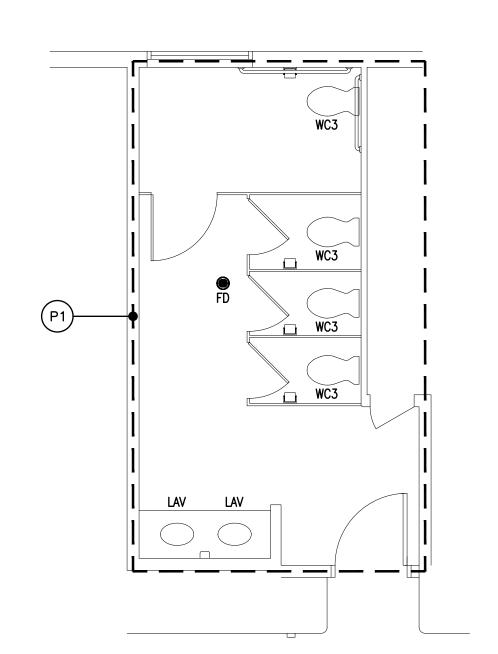














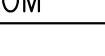






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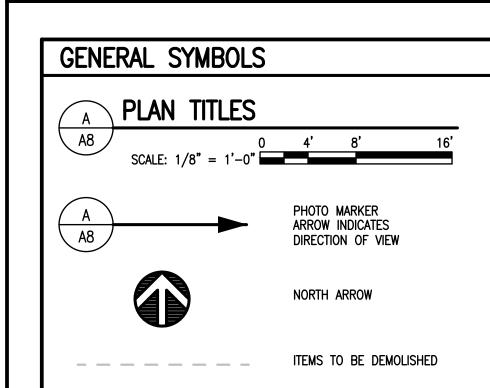




TOILET ROOM RENOVATI SHEPARDSONS COMMUNITY C 1172 WHITTEMORE ROAD, MIDDLEE

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# MECHANICAL DUCTWORK SYMBOLS DOUBLE LINE ROUND DUCT 12ø (DIMENSIONS IN INCHES) DOUBLE LINE RECTANGULAR DUCT, FIRST NUMBER IS VIEW SIZE, SECOND NUMBER 24X12 IS DEPTH SIZE (DIMENSIONS IN INCHES) SUPPLY DIFFUSER WITH DESIGNATION, NECK SIZE AND CFM RETURN GRILLE WITH DESIGNATION, NECK SIZE AND CFM EXHAUST FAN WITH DESIGNATION

#### **GENERAL NOTES**

- PROJECT SCOPE: PROVIDE COMPLETE AND OPERATIONAL SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS INCLUDING ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT.
- CONSTRUCTION\CONTRACT DOCUMENTS: CONTRACT DOCUMENTS INCLUDING PLANS, DETAILS, AND ONE-LINE DIAGRAMS SHOW THE GENERAL LOCATION AND ARRANGEMENT OF THE WORK. THESE DOCUMENTS ARE DIAGRAMMATIC AND DO NOT SHOW ALL CONNECTORS, FITTINGS, HANGERS, AND ADDITIONAL ELEMENTS WHICH THE CONTRACTOR MUST PROVIDE TO COMPLETE THE SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS. PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCE'S AND CONDITIONS, VISIBLE AND/OR HIDDEN, THAT MAY EXIST, THUS REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE PROJECT AREA BEFORE PERFORMING THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.

#### . COORDINATION:

- A) THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH ALL CONSTRUCTION DOCUMENTS AND OTHER TRADES ASSOCIATED WITH THE PROJECT.
- B) THE CONTRACTOR SHALL VISIT THE SITE OF WORK AND FAMILIARIZE HIMSELF WITH ALL
- AVAILABLE INFORMATION CONCERNING THE NATURE OF THE INSTALLATION AND CONDITIONS. C) BEFORE SELECTING MATERIAL, EQUIPMENT AND PROCEEDING WITH WORK, INSPECT AREAS
- WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT, CLEARANCES AND INTERCONNECTIONS. D) PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCE'S AND CONDITIONS, VISIBLE AND/OR
- HIDDEN THAT MAY EXIST; THUS, REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE SPACE BEFORE PERFORMING THE WORK.
- E) BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS INSPECT AND LAYOUT WORK TO AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES.
- F) ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION. TO ALLOW FOR PROPER SYSTEM INSTALLATIONS.
- G) COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED IN PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.
- H) SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING.
- I) FAILURE OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE ABOVE CONDITIONS AND NOT PERFORMING PROPER COORDINATION WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ESTIMATING THE DIFFICULTIES AND COSTS FOR SUCCESSFULLY PERFORMING THE COMPLETE WORK UNDER THIS PROJECT.
- SHUTDOWNS: WRITTEN REQUESTS FOR APPROVAL FOR PLANNED SHUTDOWNS OR INTERRUPTION OF OWNER'S UTILITIES, SYSTEMS AND EQUIPMENT SHALL BE MADE 72 HOURS PRIOR TO THE START OF THE REQUESTED SHUTDOWN PERIODS.
- CODES AND STANDARDS: THE CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL CODES THAT HAVE JURISDICTION WHERE THE WORK IS BEING PERFORMED. THROUGHOUT THE CONTRACT DOCUMENTS CERTAIN CODES AND STANDARDS ARE REFERENCED. THE CONTRACTOR SHALL USE THE LATEST VERSIONS OF CODES AND STANDARDS REFERENCED UNLESS OTHERWISE NOTED. IF THE CONTRACTOR IS NOT FAMILIAR WITH THE REFERENCED STANDARD THEY SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR DIRECTION
- PERMITS: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AUTHORITIES
- WORKMAN: ALL WORK SHALL BE DONE WITH LICENSED WORKMEN IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AUTHORITIES CODES AND REGULATIONS.
- SUBMITTALS: THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL EQUIPMENT AND MATERIALS BEING PROVIDED BEFORE SUCH EQUIPMENT AND MATERIALS ARE PURCHASED AND INSTALLED. THE SUBMITTALS SHALL BE REVIEWED AND RETURNED BY THE OWNER'S REPRESENTATIVE WITH APPROPRIATE COMMENTS. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT AND WILL BE RETURNED WITH COMMENTS TO THE CONTRACTOR IN PDF FORMAT.
- AS-BUILT DOCUMENTATION: THE CONTRACTOR SHALL PROVIDE ONE MARK-UP SET OF CONSTRUCTION DOCUMENTS SHOWING FINAL AS-BUILT CONDITIONS. DOCUMENTS SHALL CLEARLY SHOW THE CHANGES MADE TO THE INSTALLED SYSTEMS.
- IO. EQUIPMENT WARRANTIES, MAINTENANCE MANUALS AND INSTALLATION MANUALS: TURN OVER TO THE OWNER ALL MANUFACTURERS' WARRANTIES, MAINTENANCE MANUALS, AND INSTALLATION MANUALS FOR EQUIPMENT AND MATERIALS PROVIDED.
- PHOTOGRAPHS: PHOTOGRAPHS ARE PROVIDED TO SHOW CURRENT CONDITION OF BUILDING SYSTEMS TO ASSIST THE CONTRACTOR, PHOTOGRAPHS DO NOT SHOW ALL AREAS OF THE BUILDING OR ALL SYSTEM CONDITIONS. THUS REQUIRING THE CONTRACTOR TO VISIT THE SITE

- BEFORE PERFORMING WORK. PHOTOGRAPHS ARE NOT INTENDED TO SHOW SCOPE OF WORK. PLANS, NOTES, SPECIFICATIONS AND OTHER BID DOCUMENTS INDICATE SCOPE OF WORK. 12. TERMINOLOGY:
- A) THE TERM "INDICATED" SHALL MEAN, "AS SHOWN ON CONTRACT DOCUMENTS (SPECIFICATIONS, DRAWINGS, AND RELATED ATTACHMENTS)".
- B) THE TERM "PROVIDE" SHALL MEAN, "TO FURNISH, INSTALL, AND CONNECT COMPLETELY". C) THE TERM "COORDINATE" SHALL MEAN ONE OR MORE OF THE FOLLOWING: "TO MANAGE, INTERFACE, COMMUNICATE, MAKE ARRANGEMENT, BRING INTO ORDER, ADMINISTER AND HANDLE COMPLETELY".
- D) THE TERM "INTERIOR" IS AN INTERIOR LOCATION WHERE ITS ENVIRONMENT IS HEATED AND/OR AIR CONDITIONED AND NOT SUBJECT TO OUTSIDE WEATHER CONDITIONS.
- E) THE TERM "EXTERIOR" IS ALL LOCATIONS, WHICH ARE NOT INTERIOR, OR UNDERGROUND F) THE TERM "INTERIOR FINISHED SPACE" IS INTERIOR SPACES, WHICH ARE USED FOR OFFICES, CORRIDORS, LOBBIES, TOILETS, STORAGE AND FILING ROOMS, LOUNGES, MECHANICAL ROOMS, ELECTRICAL ROOMS, ETC.
- 13. DEMOLITION: DEMOLITION OF INDICATED ITEMS INCLUDES THE REMOVAL AND PROPER DISPOSAL OF THOSE ITEMS AND ALL ASSOCIATED PIPING, DUCTWORK, WIRING AND HANGERS. ELECTRICAL BRANCH, CONTROL, TELEPHONE, AND ALARM WIRING SHALL BE REMOVED BACK TO PANELBOARDS OR RELATED SYSTEM PANELS OR BACKBOARDS.
- 14. EQUIPMENT AND MATERIAL INSTALLATIONS:
- A) ALL EQUIPMENT AND MATERIALS SHALL BE LABELED AND LISTED, AND INSTALLED IN ACCORDANCE WITH THEIR LISTING AND MANUFACTURER'S REQUIREMENTS.
- B) WHEN A MANUFACTURER RECOMMENDS AN OPTION OR ACCESSORY ITEM FOR THE INSTALLED CONDITION, OPERATION, OR ENVIRONMENT THAT IS TO BE EXPERIENCED, SUCH ITEM SHALL BE SUPPLIED AT NO ADDITIONAL COST TO THE OWNER.
- C) IF AN EQUIPMENT MANUFACTURER REQUIRES LARGER CAPACITY, CIRCUITRY AND/OR EQUIPMENT, THE CONTRACTOR SHALL PROVIDE SUCH CAPACITY AND/OR EQUIPMENT UNDER HIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
- D) LOCATE ALL EQUIPMENT, WHICH REQUIRES SERVICING IN FULLY ACCESSIBLE POSITIONS. IF REQUIRED FOR BETTER ACCESSIBILITY, FURNISH ACCESS DOORS FOR THAT PURPOSE.
- E) MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ALLOW FOR BETTER ACCESSIBILITY.
- F) ALL WORK IN INTERIOR FINISHED SPACES SHALL BE CONCEALED BEHIND WALLS, ABOVE CEILINGS OR HUNG CEILINGS, OR UNDER THE FLOOR. PROVIDE ALL NECESSARY CUTTING, PATCHING, REPAINTING AND/OR REPLACEMENT OF CEILING TILES AS REQUIRED TO PERFORM
- G) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO CONFORM WITH APPROVED SUBMITTAL DATA, INCLUDING COORDINATION DRAWINGS (IF REQUIRED), TO GREATEST EXTENT POSSIBLE. CONFORM TO ARRANGEMENTS INDICATED BY THE CONTRACT DOCUMENTS, RECOGNIZING THAT PORTIONS OF THE WORK ARE SHOWN ONLY IN DIAGRAMMATIC FORM. WHERE COORDINATION REQUIREMENTS CONFLICT WITH INDIVIDUAL SYSTEM REQUIREMENTS, REFER CONFLICT TO THE ARCHITECT/ENGINEER.
- H) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES
- I) INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.
- J) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT GIVING RIGHT OF WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.
- K) WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
- 15. FIRE RATINGS: THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS FOR FIRE SEPARATION AND FIRE RATED ASSEMBLIES. ALL PIPING, DUCTWORK AND CONDUITS PASSING THROUGH OR PENETRATING WALLS, CEILINGS AND FLOORS SHALL BE PROVIDED WITH A UL LISTED FIRE STOPPING ASSEMBLIES. UL LISTED FIRE STOPPING ASSEMBLIES SHALL BE SUITABLE FOR THE CONDITIONS ENCOUNTERED AND SHALL BE RATED EQUAL TO THE RATING OF THE WALL, CEILING OR FLOOR. REVIEW FIRE RATED ASSEMBLIES THAT ALLOW PENETRATIONS OF ITEMS SUCH AS OUTLET BOXES AND CONDUITS THAT DO NOT REQUIRE FIRE STOPPING. SPACE AND POSITION THESE DEVICES AS ALLOWED PER THE ASSEMBLY'S UL RATING.
- 16. MANUFACTURER'S NAMEPLATES: EACH ITEM OF EQUIPMENT SHALL HAVE A NAMEPLATE BEARING THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER, AND SERIAL NUMBER SECURELY AFFIXED IN A CONSPICUOUS PLACE; THE NAMEPLATE OF THE DISTRIBUTING AGENT WILL NOT BE ACCEPTABLE.

LOCATION FRAME STYLE

CEILING

LAY-IN TEE BAR

REGISTER, GRILLE, AND DIFFUSER SCHEDULE

STEEL 4-WAY LOUVERED FACE

DIRECTION DIFFUSER

DESIGNATION DESCRIPTION

SLF4P-9X9

#### IMECHANICAL SPECIFICATIONS

#### PART 1 GENERAL

- 1.1 QUALITY ASSURANCE: EXCEPT AS OTHERWISE SPECIFIED, APPROVAL OF MATERIALS AND EQUIPMENT IS BASED ON MANUFACTURER'S PUBLISHED DATA.
- WHERE MATERIALS AND EQUIPMENT ARE SPECIFIED TO CONFORM TO THE STANDARDS OF THE UNDERWRITERS LABORATORIES, THE LABEL OF OR LISTING WITH REEXAMINATION IN UL BLD MAT DIR, AND UL 6 IS ACCEPTABLE AS SUFFICIENT EVIDENCE THAT THE ITEMS CONFORM TO UNDERWRITERS LABORATORIES REQUIREMENTS. IN LIEU OF SUCH LABEL OR LISTING, SUBMIT A WRITTEN CERTIFICATE FROM ANY NATIONALLY RECOGNIZED TESTING AGENCY, ADEQUATELY EQUIPPED AND COMPETENT TO PERFORM SUCH SERVICES. STATING THAT THE ITEMS HAVE BEEN TESTED AND THAT THE UNITS CONFORM TO THE SPECIFIED REQUIREMENTS. OUTLINE METHODS OF TESTING USED BY THE SPECIFIED AGENCIES.
- B. WHERE MATERIALS OR EQUIPMENT ARE SPECIFIED TO BE CONSTRUCTED OR TESTED, OR BOTH, IN ACCORDANCE WITH THE STANDARDS OF THE ASTM INTERNATIONAL (ASTM), THE ASME INTERNATIONAL (ASME), OR OTHER STANDARDS, A MANUFACTURER'S CERTIFICATE OF COMPLIANCE OF EACH ITEM IS ACCEPTABLE AS PROOF OF COMPLIANCE.
- C. CONFORMANCE TO SUCH AGENCY REQUIREMENTS DOES NOT RELIEVE THE ITEM FROM COMPLIANCE WITH OTHER REQUIREMENTS OF THESE SPECIFICATIONS.

#### PART 2 PRODUCTS

#### 2.1 DUCT SYSTEMS

NECK SIZE | FACE SIZE | MAXIMUM AIR | COLOR | MODEL | MANUFACTURER

310

(IN) | FLOW(CFM)

15X15

(IN), NOTE 1

9 x 9

- 2.1.1 METAL DUCTWORK: PROVIDE METAL DUCTWORK CONSTRUCTION, INCLUDING ALL FITTINGS AND COMPONENTS, THAT COMPLIES WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE", AS SUPPLEMENTED AND MODIFIED BY THIS SPECIFICATION.
- A. PROVIDE RADIUS TYPE ELBOWS WITH A CENTERLINE RADIUS OF 1.5 TIMES THE WIDTH OR DIAMETER OF THE DUCT WHERE SPACE PERMITS. OTHERWISE, ELBOWS HAVING A MINIMUM RADIUS EQUAL TO THE WIDTH OR DIAMETER OF THE DUCT OR SQUARE ELBOWS WITH FACTORY FABRICATED TURNING VANES ARE ALLOWED.
- B. PROVIDE SEALANTS THAT ARE SUITABLE FOR THE RANGE OF AIR DISTRIBUTION AND AMBIENT TEMPERATURES TO WHICH IT IS EXPOSED. DO NOT USE PRESSURE SENSITIVE TAPE AS A SEALANT.
- MAKE SPIRAL LOCK SEAM DUCT, AND FLAT OVAL WITH DUCT SEALANT AND LOCK WITH NOT LESS THAN 3 EQUALLY SPACED DRIVE SCREWS OR OTHER APPROVED METHODS INDICATED IN SMACNA "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE". APPLY THE SEALANT TO THE EXPOSED MALE PART OF THE FITTING COLLAR SO THAT THE SEALER IS ON THE INSIDE OF THE JOINT AND FULLY PROTECTED BY THE METAL OF THE DUCT FITTING. APPLY ONE BRUSH COAT OF THE SEALANT OVER THE OUTSIDE OF THE JOINT TO AT LEAST 2 INCH BAND WIDTH COVERING ALL SCREW HEADS AND JOINT GAP. DENTS IN THE MALE PORTION OF THE SLIP FITTING COLLAR ARE NOT ACCEPTABLE. FABRICATE OUTDOOR AIR INTAKE DUCTS AND PLENUMS WITH WATERTIGHT SOLDERED OR BRAZED JOINTS AND SEAMS.
- 2.1.2 INSULATED NONMETALLIC FLEXIBLE DUCT RUNOUTS: USE FLEXIBLE DUCT RUNOUTS ONLY WHERE INDICATED. RUNOUT LENGTH IS INDICATED ON THE DRAWINGS, AND IS NOT TO EXCEED 5 FEET. PROVIDE RUNOUTS THAT ARE PREINSULATED, FACTORY FABRICATED, AND THAT COMPLY WITH NFPA 90A AND UL 181. PROVIDE EITHER FIELD OR FACTORY APPLIED VAPOR BARRIER. PROVIDE NOT LESS THAN 20 OUNCE GLASS FABRIC DUCT CONNECTORS COATED ON BOTH SIDES WITH NEOPRENE. WHERE COIL INDUCTION OR HIGH VELOCITY UNITS ARE SUPPLIED WITH VERTICAL AIR INLETS. USE A STREAMLINED, VANED AND MITERED ELBOW TRANSITION PIECE FOR CONNECTION TO THE FLEXIBLE DUCT OR HOSE. PROVIDE A DIE-STAMPED ELBOW AND NOT A FLEXIBLE CONNECTOR AS THE LAST ELBOW TO THESE UNITS OTHER THAN THE VERTICAL AIR INLET TYPE. INSULATED FLEXIBLE CONNECTORS ARE ALLOWED AS RUNOUTS. PROVIDE INSULATED MATERIAL AND VAPOR BARRIER THAT CONFORM TO THE REQUIREMENTS OF SECTION 23 07 00 THERMAL INSULATION FOR MECHANICAL SYSTEMS. DO NOT EXPOSE THE INSULATION MATERIAL SURFACE TO THE AIR STREAM.
- 2.1.3 GENERAL SERVICE DUCT CONNECTORS: PROVIDE A FLEXIBLE DUCT CONNECTOR APPROXIMATELY 6 INCHES IN WIDTH WHERE SHEET METAL CONNECTIONS ARE MADE TO FANS OR WHERE DUCTS OF DISSIMILAR METALS ARE CONNECTED. FOR ROUND/OVAL DUCTS, SECURE THE

FLEXIBLE MATERIAL BY STAINLESS STEEL OR ZINC-COATED, IRON CLINCH-TYPE DRAW BANDS. FOR RECTANGULAR DUCTS, INSTALL THE FLEXIBLE MATERIAL LOCKED TO METAL COLLARS USING NORMAL DUCT CONSTRUCTION METHODS. PROVIDE A COMPOSITE CONNECTOR SYSTEM THAT COMPLIES WITH NFPA 701 AND IS CLASSIFIED AS "FLAME-RETARDED FABRICS" IN UL BLD MAT DIR.

#### PART 3 EXECUTION

3.1 GENERAL: SEE DUCTWORK SCHEDULE FOR SYSTEM MATERIALS, PRESSURE CLASSIFICATIONS AND SEALANT REQUIREMENTS.

#### 3.2 INSTALLATION

- A. INSTALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS AND APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS. ACCOMPLISH INSTALLATION BY WORKERS SKILLED IN THIS TYPE OF WORK. PERFORM INSTALLATION SO THAT THERE IS NO DEGRADATION OF THE DESIGNED FIRE RATINGS OF WALLS, PARTITIONS, CEILINGS, AND FLOORS.
- B. NO INSTALLATION IS PERMITTED TO BLOCK OR OTHERWISE IMPEDE ACCESS TO ANY EXISTING MACHINE OR SYSTEM. INSTALL ALL HINGED DOORS TO SWING OPEN A MINIMUM OF 120 DEGREES. PROVIDE AN AREA IN FRONT OF ALL ACCESS DOORS THAT CLEARS A MINIMUM OF 3 FEET. IN FRONT OF ALL ACCESS DOORS TO ELECTRICAL CIRCUITS, CLEAR THE AREA THE MINIMUM DISTANCE TO ENERGIZED CIRCUITS AS SPECIFIED IN OSHA STANDARDS, PART 1910.333 (ELECTRICAL—SAFETY RELATED WORK PRACTICES)AND AN ADDITIONAL 3 FEET.

#### 3.2.2 FLEXIBLE DUCT

INSTALL PRE-INSULATED FLEXIBLE DUCT IN ACCORDANCE WITH THE LATEST PRINTED INSTRUCTIONS OF THE MANUFACTURER TO ENSURE A VAPOR TIGHT JOINT. PROVIDE HANGERS, WHEN REQUIRED TO SUSPEND THE DUCT, OF THE TYPE RECOMMENDED BY THE DUCT MANUFACTURER AND SET AT THE INTERVALS RECOMMENDED.

- 3.2.3 METAL DUCTWORK: INSTALL ACCORDING TO SMACNA "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE" UNLESS OTHERWISE INDICATED. INSTALL DUCT SUPPORTS FOR SHEET METAL DUCTWORK ACCORDING TO SMACNA "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE", UNLESS OTHERWISE SPECIFIED. DO NOT USE FRICTION BEAM CLAMPS INDICATED IN SMACNA. ANCHOR RISERS ON HIGH VELOCITY DUCTS IN THE CENTER OF THE VERTICAL RUN TO ALLOW ENDS OF RISER TO MOVE DUE TO THERMAL EXPANSION. ERECT SUPPORTS ON THE RISERS THAT ALLOW FREE VERTICAL MOVEMENT OF THE DUCT. ATTACH SUPPORTS ONLY TO STRUCTURAL FRAMING MEMBERS AND CONCRETE SLABS. DO NOT ANCHOR SUPPORTS TO METAL DECKING UNLESS A MEANS IS PROVIDED AND APPROVED FOR PREVENTING THE ANCHOR FROM PUNCTURING THE METAL DECKING. WHERE SUPPORTS ARE REQUIRED BETWEEN STRUCTURAL FRAMING MEMBERS, PROVIDE SUITABLE INTERMEDIATE METAL FRAMING. WHERE C-CLAMPS ARE USED, PROVIDE RETAINER CLIPS.
- 3.6 TESTING, ADJUSTING, AND BALANCING: PERFORM TAB IN ACCORDANCE WITH THE REQUIREMENTS OF THE TAB PROCEDURAL STANDARD RECOMMENDED BY THE TAB TRADE ASSOCIATION THAT APPROVED THE TAB FIRM'S QUALIFICATIONS. COMPLY WITH REQUIREMENTS OF AABC "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE", NEBB "PROCEDURAL STANDARDS FOR TAB (TESTING, ADJUSTING AND BALANCING) ENVIRONMENTAL SYSTEMS", OR SMACNA "HVAC SYSTEMS — TESTING, ADJUSTING AND BALANCING". ALL RECOMMENDATIONS AND SUGGESTED PRACTICES CONTAINED IN THE TAB PROCEDURAL STANDARDS ARE CONSIDERED MANDATORY. SUBMIT TAB REPORTS TO THE OWNER'S REPRESENTATIVE.
- 3.7 PERFORMANCE TESTS: AFTER TESTING, ADJUSTING, AND BALANCING IS COMPLETE AS SPECIFIED, TEST EACH SYSTEM AS A WHOLE TO SEE THAT ALL ITEMS PERFORM AS INTEGRAL PARTS OF THE SYSTEM AND TEMPERATURES AND CONDITIONS ARE EVENLY CONTROLLED THROUGHOUT THE BUILDING. RECORD THE TESTING DURING THE APPLICABLE SEASON. MAKE CORRECTIONS AND ADJUSTMENTS AS NECESSARY TO PRODUCE THE CONDITIONS INDICATED OR SPECIFIED. CONDUCT CAPACITY TESTS AND GENERAL OPERATING TESTS BY AN EXPERIENCED ENGINEER. PROVIDE TESTS THAT COVER A PERIOD OF NOT LESS THAN 3 DAYS FOR EACH SYSTEM AND DEMONSTRATE THAT THE ENTIRE SYSTEM IS FUNCTIONING ACCORDING TO THE SPECIFICATIONS.
- 3.9 INSULATION: SEE DUCT INSULATION SCHEDULES FOR INSULATION MATERIAL AND INSTALLATION REQUIREMENTS.

DUCTWORK CONSTRUCTION SCHEDULE, N	DUCTWORK MATERIAL PRESSURE CLASS SEAL CLASS, (IWG), NOTE 2 NOTE 3				
DUCTWORK SYSTEM	DUCTWORK MATERIAL	PRESSURE CLASS	SEAL CLASS,		
		(IWG), NOTE 2	NOTE 3		
SUPPLY	GALVANIZED STEEL	+2	А		
GENERAL EXHAUST POSITIVE PRESSURE	GALVANIZED STEEL	+1	В		
GENERAL EXHAUST NEGATIVE PRESSURE	GALVANIZED STEEL	-1	В		
NOTE C:		•			

- 1. ALL DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SMACNA 2005
- "HVAC DUCT CONSTRUCTION STANDARDS".
- 2. PRESSURE CLASSIFICATIONS ARE BASED ON SMACNA 2005 "HVAC DUCT CONSTRUCTION STANDARDS". 3. SEAL CLASS A: SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS & DUCT WALL
- PENETRATIONS. SEAL CLASS B: SEAL ALL TRANSVERSE JOINTS & LONGITUDINAL SEAMS

DUCTWORK INSULATION SCHEDULE										
DUCT SYSTEM	LOCATION	DUCT TEMP.	INSULATION MATERIAL, NOTE 3	INSULATION	INSULATION	K-FACTOR AT A	MIN. INSTALLED	JACKET TYPE,	PRODUCT, NOTE 2	MANUFACTURER,
		(°F)		DENSITY	THICKNESS (IN),	75°F MEAN TEMP.	R-VALUE	NOTE 3		NOTE 2
				(LB/CF)	NOTE 1	(BTU*IN/HR*ST*F)	(H*FT^2/BTU)			
HEATING & COOLING	VENTILATED ATTIC	55 TO 110	INORGANIC GLASS MINERAL	0.75	3	0.29	8.4	FSK	FRIENDLY FEEL DUCT WRAP	KNAUF
SUPPLY			WOOL BLANKET						WITH ECOSE TECHNOLOGY	
HEATING & COOLING	UNVENTED ATTIC OR	55 TO 110	INORGANIC GLASS MINERAL	0.75	3	0.29	8.4	FSK	FRIENDLY FEEL DUCT WRAP	KNAUF
SUPPLY	ABOVE INSULATED CEILING		WOOL BLANKET						WITH ECOSE TECHNOLOGY	
_	T -	T	T	Γ.	T-	T		T -	1	
		55 TO 110		0.75	3	0.29	8.4	FSK	FRIENDLY FEEL DUCT WRAP	KNAUF
BACK DRAFT DAMPER &			WOOL BLANKET						WTH ECOSE TECHNOLOGY	
OUTDOOR DISCHARGE										
5)414110T DETILETA							0.4			
		55 TO 110		0.75	3	0.29	8.4	FSK	FRIENDLY FEEL DUCT WRAP	KNAUF
	ABOVE INSULATED CEILING		WOOL BLANKET						WITH ECOSE TECHNOLOGY	
OUTDOOR DISCHARGE										

- 1. THICKNESS IS BASED ON LABEL.
- 2. OR EQUAL MANUFACTURERS ARE ACCEPTABLE.
- 3. INSULATION AND JACKET SHALL HAVE A MAXIMUM FLAME SPREAD OF 25 & SMOKE DEVELOPMENT OF 50 PER ASTM E 84.
- 4. PROVIDE AS INDICATED ON DRAWINGS, SPECIFICATIONS OR OTHER SCHEDULES. LINED DUCTWORK DOES NOT NEED TO BE INSULATED. EXTERIOR DUCTWORK NEEDS TO BE SEALED WEATHER TIGHT.

EXHAUST FAN SCHEDULE					
DESIGNATION	EF-1	EF-2	EF-3	EF-4	EF-5
LOCATION	1ST FLOOR MEN'S RM	1ST FLOOR WOMEN'S RM	2ND FLOOR MEN'S RM	2ND FLOOR WOMEN'S RM	1ST FLOOR WOMEN'S RM
DESCRIPTION	CEILING CABINET FAN W/	CEILING CABINET FAN W/	CEILING CABINET FAN W	CEILING CABINET FAN W/	CEILING CABINET FAN W
	INSULATED HOUSING	INSULATED HOUSING	INSULATED HOUSING	INSULATED HOUSING	INSULATED HOUSING
AIR FLOW (CFM)	75	75	300	300	75
EXT. STATIC PRESS. (IWG)	0.5	0.5	0.5	0.5	0.5
AMCA SOUND RATING (SONES)	2	2	6	6	2
MOTOR WATTS	22	22	155	155	22
BACK DRAFT DAMPER	PROVIDE	PROVIDE	PROVIDE	PROVIDE	PROVIDE
ACCESSORIES	VG (EC MOTOR)	VG (EC MOTOR)	VG (EC MOTOR)	VG (EC MOTOR)	VG (EC MOTOR)
LOCAL ELECTRICAL DISCONNECT	PROVIDE	PROVIDE	PROVIDE	PROVIDE	PROVIDE
ELECTRICAL (V/PH/HZ)	120/1/60	120/1/60	120/1/60	120/1/60	120/1/60
MODEL	SP-A50-90-VG	SP-A50-90-VG	SP-A510-VG		SP-A50-90-VG
MANUFACTURER	GREENHECK OR EQUAL	GREENHECK OR EQUAL	GREENHECK OR EQUAL	GREENHECK OR EQUAL	GREENHECK OR EQUAL

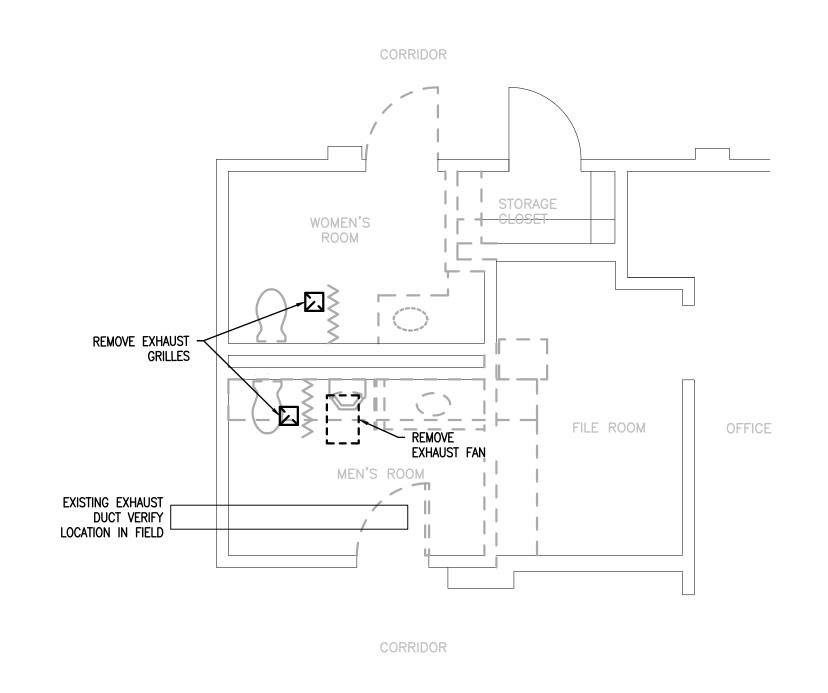
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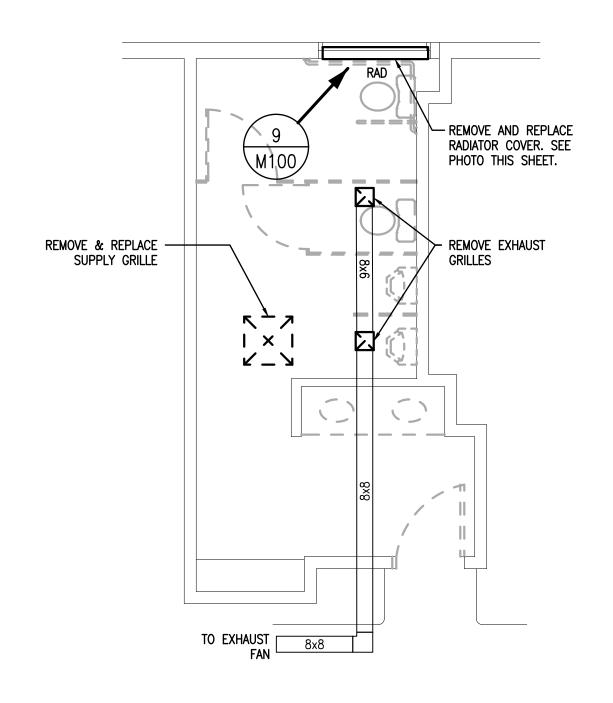
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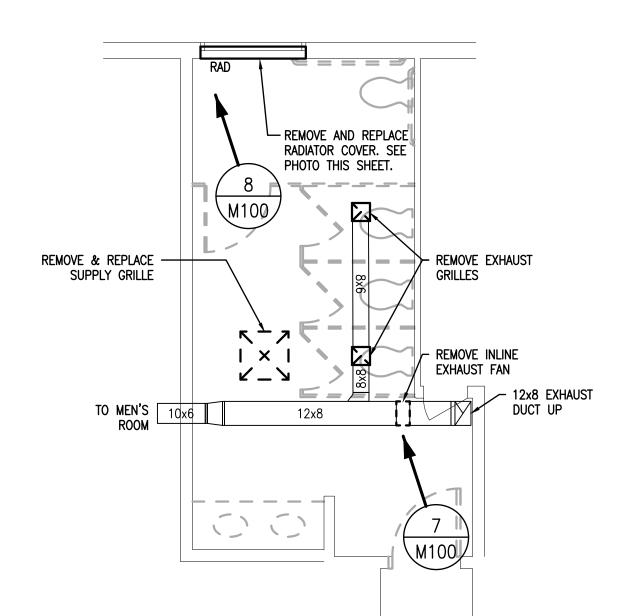
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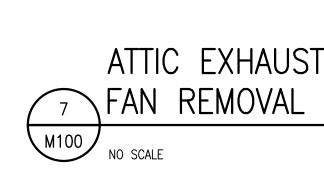


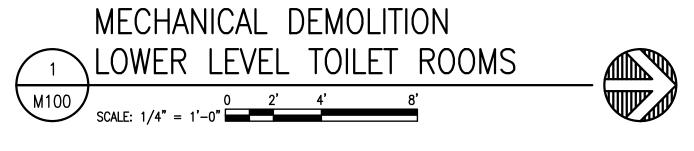


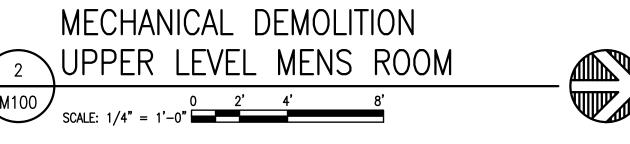


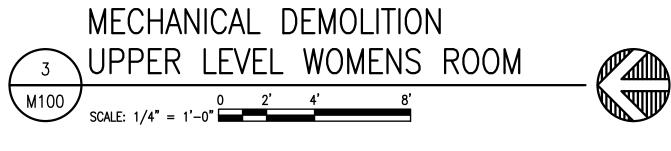










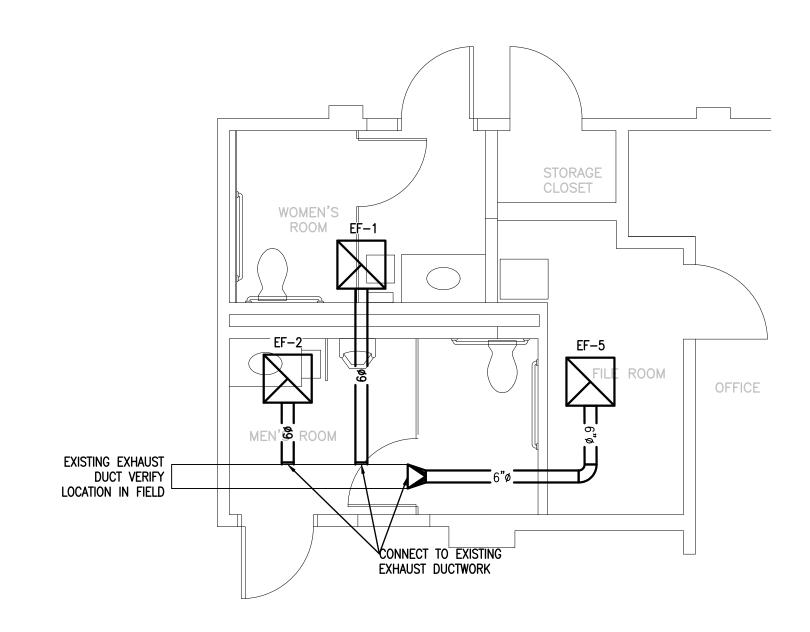


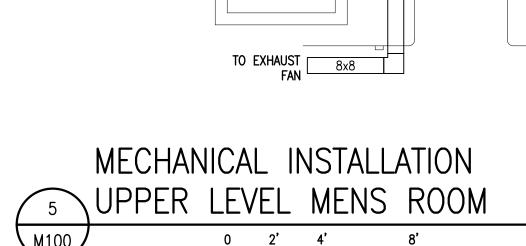




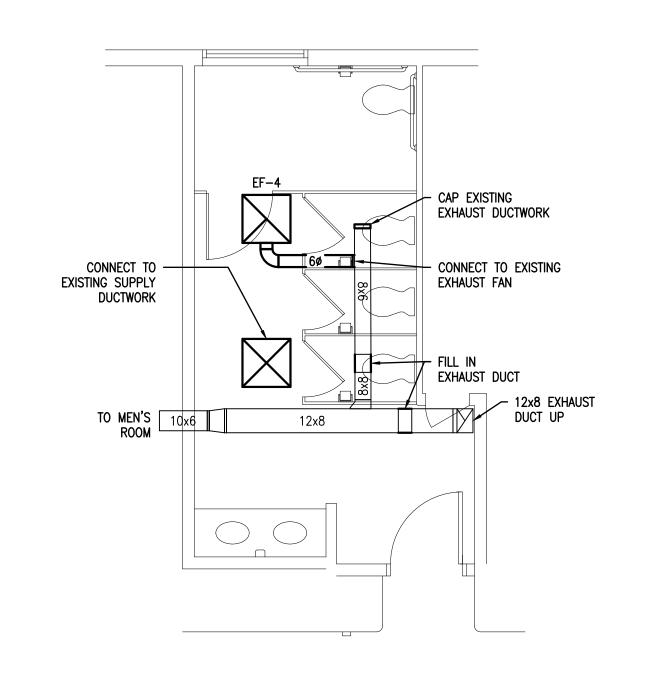








CONNECT TO EXISTING SUPPLY DUCTWORK

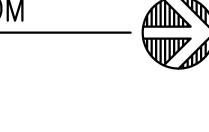












CAP EXISTING EXHAUST DUCTWORK

CONNECT TO EXISTING EXHAUST FAN

EXHAUST DUCT



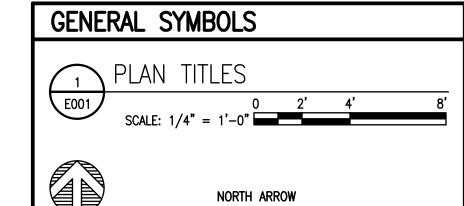
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IONS SENTER BURY, CT

FLOOR

MECHANICAL



#### **ELECTRICAL SYMBOLS** DUPLEX RECEPTACLE EQUIPMENT CONNECTION MOTOR RATED DISCONNECT SINGLE POLE LOW VOLTAGE MOMENTARY OVERRIDE SWITCH 2' WALL SURFACE LIGHT 4' WALL SURFACE LIGHT 2'x4' CEILING RECESSED LIGHT CEILING MOUNTED OCCUPANCY SENSOR

LIGHTING RELAY

#### ELECTRICAL SYMBOLS (EXG/DEMO) DUPLEX RECEPTACLE (EXISTING) BLANK DEVICE COVER PLATE (EXISTING) SINGLE POLE SWITCH (EXISTING)

SWITCH (EXISTING) 2'x2' CEILING RECESSED LIGHT (EXISTING) DUPLEX RECEPTACLE (DEMO)

SINGLE POLE SWITCH (DEMO) SINGLE POLE OCCUPANCY SENSOR SWITCH (DEMO)

SINGLE POLE OCCUPANCY SENSOR

2'x4' CEILING RECESSED LIGHT (DEMO)

4' WALL SURFACE LIGHT (DEMO)

#### GENERAL NOTES

- PROJECT SCOPE: PROVIDE COMPLETE AND OPERATIONAL SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS INCLUDING ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT.
- CONSTRUCTION\CONTRACT DOCUMENTS: CONTRACT DOCUMENTS INCLUDING PLANS, DETAILS, AND ONE-LINE DIAGRAMS SHOW THE GENERAL LOCATION AND ARRANGEMENT OF THE WORK. THESE DOCUMENTS ARE DIAGRAMMATIC AND DO NOT SHOW ALL CONNECTORS, FITTINGS, HANGERS, AND ADDITIONAL ELEMENTS WHICH THE CONTRACTOR MUST PROVIDE TO COMPLETE THE SYSTEMS AS OUTLINED IN THE CONTRACT DOCUMENTS. PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCE'S AND CONDITIONS, VISIBLE AND/OR HIDDEN, THAT MAY EXIST, THUS REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE PROJECT AREA BEFORE PERFORMING THE WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.
- A) THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH ALL CONSTRUCTION DOCUMENTS AND OTHER TRADES ASSOCIATED WITH THE PROJECT.
- B) THE CONTRACTOR SHALL VISIT THE SITE OF WORK AND FAMILIARIZE HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE NATURE OF THE INSTALLATION AND CONDITIONS.
- C) BEFORE SELECTING MATERIAL, EQUIPMENT AND PROCEEDING WITH WORK, INSPECT AREAS WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT, CLEARANCES AND INTERCONNECTIONS.
- D) PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCE'S AND CONDITIONS, VISIBLE AND/OR HIDDEN THAT MAY EXIST; THUS, REQUIRING THE CONTRACTOR TO INSPECT AND SURVEY THE SPACE BEFORE PERFORMING THE WORK.
- E) BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS INSPECT AND LAYOUT WORK TO
- AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES. F) ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR PROPER SYSTEM INSTALLATIONS.
- G) COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED IN PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.
- H) SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING IN THE BUILDING
- I) FAILURE OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE ABOVE CONDITIONS AND NOT PERFORMING PROPER COORDINATION WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ESTIMATING THE DIFFICULTIES AND COSTS FOR SUCCESSFULLY PERFORMING THE COMPLETE WORK UNDER
- 4. Shutdowns: Written requests for approval for planned shutdowns or interruption OF OWNER'S UTILITIES, SYSTEMS AND EQUIPMENT SHALL BE MADE 72 HOURS PRIOR TO THE START OF THE REQUESTED SHUTDOWN PERIODS.
- 5. CODES AND STANDARDS: THE CONTRACTOR SHALL FOLLOW ALL FEDERAL, STATE AND LOCAL CODES THAT HAVE JURISDICTION WHERE THE WORK IS BEING PERFORMED. THROUGHOUT THE CONTRACT DOCUMENTS CERTAIN CODES AND STANDARDS ARE REFERENCED. THE CONTRACTOR SHALL USE THE LATEST VERSIONS OF CODES AND STANDARDS REFERENCED UNLESS OTHERWISE NOTED. IF THE CONTRACTOR IS NOT FAMILIAR WITH THE REFERENCED STANDARD THEY SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR DIRECTION.
- 6. PERMITS: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AUTHORITIES.
- . WORKMAN: ALL WORK SHALL BE DONE WITH LICENSED WORKMEN IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNING AUTHORITIES CODES AND REGULATIONS.
- 8. SUBMITTALS: THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL EQUIPMENT AND MATERIALS BEING PROVIDED BEFORE SUCH EQUIPMENT AND MATERIALS ARE PURCHASED AND INSTALLED. THE SUBMITTALS SHALL BE REVIEWED AND RETURNED BY THE OWNER'S REPRESENTATIVE WITH APPROPRIATE COMMENTS. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT AND WILL BE RETURNED WITH COMMENTS TO THE CONTRACTOR IN PDF FORMAT.
- 9. AS-BUILT DOCUMENTATION: THE CONTRACTOR SHALL PROVIDE ONE MARK-UP SET OF CONSTRUCTION DOCUMENTS SHOWING FINAL AS-BUILT CONDITIONS. DOCUMENTS SHALL CLEARLY SHOW THE CHANGES MADE TO THE INSTALLED SYSTEMS.
- 10. EQUIPMENT WARRANTIES, MAINTENANCE MANUALS AND INSTALLATION MANUALS: TURN OVER TO THE OWNER ALL MANUFACTURERS' WARRANTIES, MAINTENANCE MANUALS, AND INSTALLATION MANUALS FOR EQUIPMENT AND MATERIALS PROVIDED.
- 11. PHOTOGRAPHS: PHOTOGRAPHS ARE PROVIDED TO SHOW CURRENT CONDITION OF BUILDING SYSTEMS TO ASSIST THE CONTRACTOR. PHOTOGRAPHS DO NOT SHOW ALL AREAS OF THE BUILDING OR ALL SYSTEM CONDITIONS. THUS REQUIRING THE CONTRACTOR TO VISIT THE SITE BEFORE PERFORMING WORK. PHOTOGRAPHS ARE NOT INTENDED TO SHOW SCOPE OF WORK. PLANS, NOTES, SPECIFICATIONS AND OTHER BID DOCUMENTS INDICATE SCOPE OF WORK.

- A) THE TERM "INDICATED" SHALL MEAN, "AS SHOWN ON CONTRACT DOCUMENTS (SPECIFICATIONS, DRAWINGS, AND RELATED ATTACHMENTS)".
- B) THE TERM "PROVIDE" SHALL MEAN, "TO FURNISH, INSTALL, AND CONNECT COMPLETELY". C) THE TERM "COORDINATE" SHALL MEAN ONE OR MORE OF THE FOLLOWING: "TO MANAGE, INTERFACE, COMMUNICATE, MAKE ARRANGEMENT, BRING INTO ORDER, ADMINISTER AND
- D) THE TERM "INTERIOR" IS AN INTERIOR LOCATION WHERE ITS ENVIRONMENT IS HEATED AND/OR AIR CONDITIONED AND NOT SUBJECT TO OUTSIDE WEATHER CONDITIONS.
- E) THE TERM "EXTERIOR" IS ALL LOCATIONS, WHICH ARE NOT INTERIOR, OR UNDERGROUND. F) THE TERM "INTERIOR FINISHED SPACE" IS INTERIOR SPACES, WHICH ARE USED FOR OFFICES, CORRIDORS, LOBBIES, TOILETS, STORAGE AND FILING ROOMS, LOUNGES, MECHANICAL ROOMS, ELECTRICAL ROOMS, ETC.
- 13. DEMOLITION: DEMOLITION OF INDICATED ITEMS INCLUDES THE REMOVAL AND PROPER DISPOSAL OF THOSE ITEMS AND ALL ASSOCIATED PIPING, DUCTWORK, WIRING AND HANGERS. ELECTRICAL BRANCH, CONTROL, TELEPHONE, AND ALARM WIRING SHALL BE REMOVED BACK TO PANELBOARDS OR RELATED SYSTEM PANELS OR BACKBOARDS.
- 14. EQUIPMENT AND MATERIAL INSTALLATIONS:
- A) ALL EQUIPMENT AND MATERIALS SHALL BE LABELED AND LISTED, AND INSTALLED IN ACCORDANCE WITH THEIR LISTING AND MANUFACTURER'S REQUIREMENTS.
- B) WHEN A MANUFACTURER RECOMMENDS AN OPTION OR ACCESSORY ITEM FOR THE INSTALLED CONDITION, OPERATION, OR ENVIRONMENT THAT IS TO BE EXPERIENCED, SUCH ITEM SHALL BE SUPPLIED AT NO ADDITIONAL COST TO THE OWNER.
- C) IF AN EQUIPMENT MANUFACTURER REQUIRES LARGER CAPACITY, CIRCUITRY AND/OR EQUIPMENT, THE CONTRACTOR SHALL PROVIDE SUCH CAPACITY AND/OR EQUIPMENT UNDER HIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
- D) LOCATE ALL EQUIPMENT, WHICH REQUIRES SERVICING IN FULLY ACCESSIBLE POSITIONS. IF REQUIRED FOR BETTER ACCESSIBILITY, FURNISH ACCESS DOORS FOR THAT PURPOSE.
- E) MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ALLOW FOR BETTER ACCESSIBILITY. F) ALL WORK IN INTERIOR FINISHED SPACES SHALL BE CONCEALED BEHIND WALLS, ABOVE
- CEILINGS OR HUNG CEILINGS, OR UNDER THE FLOOR. PROVIDE ALL NECESSARY CUTTING, PATCHING, REPAINTING AND/OR REPLACEMENT OF CEILING TILES AS REQUIRED TO
- G) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO CONFORM WITH APPROVED SUBMITTAL DATA, INCLUDING COORDINATION DRAWINGS (IF REQUIRED), TO GREATEST EXTENT POSSIBLE. CONFORM TO ARRANGEMENTS INDICATED BY THE CONTRACT DOCUMENTS, RECOGNIZING THAT PORTIONS OF THE WORK ARE SHOWN ONLY IN DIAGRAMMATIC FORM. WHERE COORDINATION REQUIREMENTS CONFLICT WITH INDIVIDUAL SYSTEM REQUIREMENTS, REFER CONFLICT TO THE ARCHITECT/ENGINEER.
- H) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES
- I) INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER
- J) INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT GIVING RIGHT OF WAY PRIORITY TO SYSTEMS REQUIRED TO BE INSTALLED AT A SPECIFIED SLOPE.
- K) WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
- 15. FIRE RATINGS: THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS FOR FIRE SEPARATION AND FIRE RATED ASSEMBLIES. ALL PIPING. DUCTWORK AND CONDUITS PASSING THROUGH OR PENETRATING WALLS, CEILINGS AND FLOORS SHALL BE PROVIDED WITH A UL LISTED FIRE STOPPING ASSEMBLIES. UL LISTED FIRE STOPPING ASSEMBLIES SHALL BE SUITABLE FOR THE CONDITIONS ENCOUNTERED AND SHALL BE RATED EQUAL TO THE RATING OF THE WALL, CEILING OR FLOOR. REVIEW FIRE RATED ASSEMBLIES THAT ALLOW PENETRATIONS OF ITEMS SUCH AS OUTLET BOXES AND CONDUITS THAT DO NOT REQUIRE FIRE STOPPING. SPACE AND POSITION THESE DEVICES AS ALLOWED PER THE ASSEMBLY'S UL
- 16. MANUFACTURER'S NAMEPLATES: EACH ITEM OF EQUIPMENT SHALL HAVE A NAMEPLATE BEARING THE MANUFACTURER'S NAME, ADDRESS, MODEL NUMBER, AND SERIAL NUMBER SECURELY AFFIXED IN A CONSPICUOUS PLACE; THE NAMEPLATE OF THE DISTRIBUTING AGENT WILL NOT BE ACCEPTABLE.

#### **ELECTRICAL SPECIFICATIONS**

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2018 CONNECTICUT BUILDING CODE, AND FIRE CODE WITH REFERENCES AND AMENDMENTS TO THE NATIONAL ELECTRIC CODE (NEC) ANSI/NFPA 70 2017 EDITION.
- 2. PROVIDE AS-BUILT, AND OPERATIONAL AND MAINTENANCE (0&M) DOCUMENTATION TO OWNER.

#### PART 2 PRODUCTS AND EXECUTION

- 3. THE CONTRACTOR SHALL VISIT THE SITE OF WORK AND FAMILIARIZE HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE NATURE OF THE INSTALLATION AND CONDITIONS. FAILURE OF THE CONTRACTOR TO ACQUAINT HIMSELF WITH ALL AVAILABLE INFORMATION CONCERNING THE ABOVE CONDITIONS WILL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ESTIMATING THE DIFFICULTIES AND COSTS FOR SUCCESSFULLY PERFORMING THE COMPLETE WORK UNDER THIS PROJECT.
- WHERE ELECTRICAL OUTLET BOXES AND DEVICES ARE INSTALLED IN FIRE RATED WALLS, SEE ARCHITECTURAL DRAWING FOR RATED WALLS. LOCATE BOX OPENINGS AND SIZE OF OPENINGS IN WALL IN ACCORDANCE WITH U.L. RATING REQUIREMENTS TO MAINTAIN FIRE RATING OF WALL. PROVIDE FIRE STOPPING PRODUCTS AND ASSEMBLIES AS REQUIRED BY THE CODES, BY U.L. LISTED ASSEMBLIES AND BY LOCAL FIRE AND BUILDING INSPECTION
- DEPARTMENTS TO MEET THEIR FINAL APPROVALS. WHERE ELECTRICAL CABLES AND RACEWAYS PASS THROUGH FIRE RATED WALLS AND FLOORS, PENETRATIONS IN WALLS AND FLOORS SHALL BE FIRE SEALED WITH U.L. RATED PRODUCTS SUITABLE FOR CONDITIONS ENCOUNTERED AND RATING REQUIRED TO MAINTAIN THE RATING OF THE U.L. FIRE RATED ASSEMBLY INVOLVED.
- 6. THE RIGHT IS RESERVED BY THE ENGINEER OR OWNER TO MAKE REASONABLE CHANGES IN LOCATIONS OF EQUIPMENT, OUTLETS, OR WIRING PRIOR TO THE INSTALLATION WITHOUT INVOLVING ADDITIONAL COST OR EXPENSE TO THE OWNER.
- 7. TURN OVER TO THE OWNER ALL MANUFACTURER'S WARRANTIES FOR EQUIPMENT AND
- UNLESS OTHERWISE INDICATED, ALL ELECTRICAL EQUIPMENT HAS BEEN BASED ON GENERAL ELECTRIC PRODUCTS. THE CONTRACTOR MAY SUBSTITUTE PRODUCTS OF ANOTHER MANUFACTURER IF IT IS OF EQUAL QUALITY AND RATING, SUBJECT TO ENGINEER'S REVIEW AND OWNER'S ACCEPTANCE.
- WHEN A MANUFACTURER RECOMMENDS AN OPTION OR ACCESSORY ITEM FOR THE INSTALLED CONDITION, OPERATION, OR ENVIRONMENT THAT IS TO BE EXPERIENCED, SUCH ITEM SHALL BE SUPPLIED AT NO ADDITIONAL COST TO THE OWNER.
- 10. BEFORE SELECTING MATERIAL, EQUIPMENT AND PROCEEDING WITH WORK, INSPECT AREAS WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT, CLEARANCES AND INTERCONNECTIONS.
- 11. BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS, INSPECT AND LAYOUT WORK TO
- AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES. 12. BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS INSPECT AND LAYOUT WORK TO AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES. COORDINATE THIS WORK
- 13. THE MEASUREMENT FROM ABOVE FINISHED FLOOR (AFF) OF BOXES, DEVICES OR LIGHTING FIXTURES SHALL BE TAKEN FROM THE FINISHED FLOOR SURFACE TO THE ELEVATION INDICATED. IN NO CASE THE MOUNTING HEIGHT SHALL VIOLATE THE REQUIREMENTS OF THE
- CONNECTICUT BUILDING CODE, THE CONNECTICUT FIRE SAFETY CODE, AND THE NATIONAL ELECTRIC CODE (NEC) ANSI/NFPA 70.

ELECTRIC. MECHANICAL. AND ATTIC SPACES.

- 14. PROVIDE ELECTRICAL WIRING TO AND FINAL CONNECTION FOR ALL APPLIANCES AND DEVICES.
- 15. PROVIDE POWER AND CONTROL WIRING FOR HEATING, VENTILATION AND AIR CONDITIONING
- 16. CONDUIT SIZE FOR INDICATED CONDUCTORS SHALL BE BASED ON ARTICLE 310 AND
- APPENDIX C OF NEC. 17. THE CONTRACTOR MAY GROUP BRANCH CIRCUIT HOMERUN CONDUCTORS IN A SINGLE RACEWAY IN ACCORDANCE WITH ARTICLE 310 AND APPENDIX C OF THE NEC, UTILIZING CORRECTION AND ADJUSTMENT FACTORS FOR CONDUCTORS USED, (IE, PROVIDE LARGER CONDUCTORS AS MAY BE REQUIRED).
- 18. IN AREAS WHERE WALLS ARE NOT DISTURBED OR RECONSTRUCTED, SURFACE METAL RACEWAY SYSTEM MAY BE USED TO INSTALL WALL SWITCHES, RECEPTACLES, AND THERMOSTATS. SURFACE METAL RACEWAY SYSTEM AND BOXES MUST BE PAINTED TO MATCH WALL COLOR. ALL SURFACE RACEWAY TYPE AND ITS ROUTING SHALL BE APPROVED BY OWNER.
- UNLESS OTHERWISE INDICATED. ALL BRANCH WIRING AND FEEDERS SHALL BE CONCEALED BEHIND PARTITIONS, WALLS, BELOW FLOORS, AND IN SOFFITS.

20. METALLIC CONDUIT AND METALLIC CABLE WIRING MAY BE EXPOSED ABOVE HUNG CEILINGS, IN

- 21. MINIMUM SIZE CONDUITS SHALL BE 1/2" EMT OR 3/4" RSC
- 22. UNLESS OTHERWISE INDICATED, FEEDERS, BRANCH AND CONTROL WIRING TO BE RUN IN RSC OR IMC RACEWAYS.
- 23. UNLESS OTHERWISE INDICATED, FEEDERS TO BE RUN IN EMT CONDUIT. 24. UNLESS OTHERWISE INDICATED, BRANCH AND CONTROL WIRING SHALL BE INSTALLED IN EMT.
- 25. NONMETALLIC CABLE SHALL NOT BE INSTALLED. 26. NONMETALLIC CONDUIT SHALL NOT BE INSTALLED
- 27. UNLESS OTHERWISE INDICATED, WIRING TO EQUIPMENT AND MOTORS MAY BE INSTALLED IN LIQUID TIGHT FLEXIBLE METALLIC CONDUIT. FOR INTERIOR DRY LOCATIONS FLEXIBLE METAL CONDUIT MAY BE USED. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL BE 5 FEET.
- PROVIDE INSULATED GROUND CONDUCTOR IN ALL FLEXIBLE CONDUIT. 28. UNLESS OTHERWISE INDICATED, FLEXIBLE METAL CONDUIT MAY BE USED FOR LIGHTING FIXTURE DROPS, CONNECTION OF VIBRATING EQUIPMENT, UNDER COUNTER AND DISPLAY CASE
- 29. A FEEDER TO A PANELBOARD MAY BE METAL CLAD CABLE (MC CABLE, TYPE MC). PHASE,
- NEUTRAL AND EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED. 30. FOR INTERIOR CONCEALED BRANCH AND CONTROL WIRING LOCATED IN WALLS AND CEILINGS THAT HAVE NUMBER 6 AWG AND SMALLER CONDUCTORS MAY BE METAL CLAD CABLE (MC CABLE, TYPE MC) WITH ONE INSULATED EQUIPMENT GROUNDING CONDUCTOR.
- 31. THE TEMPERATURE RATING OF CONDUCTORS SHALL BE A MINIMUM OF 75 DEGREES CENTIGRADE FOR WET CONDITIONS AND 90 DEGREES CENTIGRADE UNDER DRY CONDITIONS, UNLESS OTHERWISE INDICATED.
- 32. THE TEMPERATURE RATING OF CONNECTIONS SHALL BE A MINIMUM OF 75 DEGREES CENTIGRADE, UNLESS OTHERWISE INDICATED.
- 33. PROVIDE DEDICATED NEUTRAL CONDUCTORS FOR ALL 120 VOLT SINGLE PHASE CIRCUITS AND LOADS BACK TO BRANCH PANEL. NEUTRAL SHALL NOT BE SHARED WITH OTHER BRANCH CIRCUITS OR OTHER PHASES.
- 34. PROVIDE NEUTRAL CONDUCTORS FOR ALL FEEDERS AND BRANCH WIRING, UNLESS OTHERWISE
- 35. UNLESS OTHERWISE INDICATED, NEUTRAL CONDUCTORS FOR 3 PHASE 208Y/120 AND 480Y/277V SYSTEMS SHALL BE RATED FOR 1.0 TIMES THE AMPACITY OF THE PHASE
- 36. ALL OUTLET AND SWITCH BOXES TO BE CAST IRON WITH THREADED HUBS, UNLESS
- OTHERWISE INDICATED. 37. IN INTERIOR PROTECTED LOCATIONS, OUTLET AND SWITCH BOXES MAY BE STEEL.

#### ELECTRIC DEVICES

- 38. UNLESS OTHERWISE INDICATED, THE TOP OF WALL MOUNTED SWITCH BOXES SHALL BE 48"
- 39. 120V DUPLEX OUTLETS WITHIN 6 FEET OF SINKS AND SHOWERS SHALL BE GFCI PROTECTED AS REQUIRED BY NEC.
- 40. UNLESS OTHERWISE INDICATED, THE TOP OF WALL MOUNTED DUPLEX RECEPTACLE BOXES SHALL BE 18" AFF.
- 41. UNLESS OTHERWISE INDICATED, THE TOP OF WALL MOUNTED DUPLEX COUNTER RECEPTACLE BOXES SHALL BE 48" AFF. IF COUNTER BACK SPLASH OR WALL TILE EXISTS (SEE ARCHITECTURAL DOCUMENTS) COORDINATE WITH OWNER OR ARCHITECT FOR EXACT
- 42. UNLESS OTHERWISE INDICATED, THE TOP OF WALL MOUNTED DUPLEX BATHROOM OR TOILET ROOM RECEPTACLE BOXES SHALL BE 48" AFF. IF COUNTER BACK SPLASH OR WALL TILE EXISTS (SEE ARCHITECTURAL DOCUMENTS) COORDINATE WITH OWNER OR ARCHITECT FOR EXACT PLACEMENT.
- 43. UNLESS OTHERWISE INDICATED, THE TOP OF WALL MOUNTED LAUNDRY ROOM RECEPTACLE BOXES SHALL BE 48" AFF. IF COUNTER BACK SPLASH OR WALL TILE EXISTS (SEE ARCHITECTURAL DOCUMENTS) COORDINATE WITH OWNER OR ARCHITECT FOR EXACT PLACEMENT.
- 44. ALL BLANK COVER PLATES IN FINISHED AREAS AND ROOMS TO BE STAINLESS STEEL. 45. UNLESS OTHERWISE INDICATED, PROVIDE IVORY, COMMERCIAL GRADE, 20 AMPERE RECEPTACLES AND SWITCHES. ALL PLATES IN FINISHED AREAS TO BE BRUSHED STAINLESS STEEL. PLATES FOR SURFACE MOUNTED INTERIOR BOXES IN UNFINISHED AREAS OR IN CABINETS OR ENCLOSURES MAY BE STAMPED STEEL. PLATES EXPOSED TO WEATHER OR
- WATER TO BE METAL, WEATHERPROOF TYPE. 46. ALL RECEPTACLES SHALL BE TAMPER RESISTANT TYPE.

47. PROVIDE CALL FOR AID SYSTEM. PROVIDE HORN/STROBE UNIT ABOVE TOILET ROOM DOOR IN CORRIDOR WITH AN EMERGENCY WALL SWITCH NEXT TO WATER CLOSET IN TOILET ROOM. PROVIDE STEP DOWN TRANSFORMER IN AN ACCESSIBLE LOCATION POWERED FROM LOCAL RECEPTACLE CIRCUIT. HORN STROBE SHALL BE EDWARDS SIGNALING CATALOG NUMBER 6535 AND PULL CORD SWITCH WALL SWITCH CFA SERIES NUMBER 6537 OR EQUAL.

LIGHT	TING FIXTURE AND CONTROL DEVICE SCHEDU	LE [1]							
		FIXTURE LAMPING				FIXTURE BALLAST(S)		INSTALLATION & MOUNTING	
TYPE	DESCRIPTION	MANUFACTURER / CATALOG	QTY	WATTS	TYPE	COLOR TEMP	NOTE(S)	OPERATING	[7] [8]
		NO.*		(LUMENS)		DEGREES K	[2] [3] [5]	VOLTS [6]	
							PLUS		
Α	2'x4' LED FLAT PANEL TROFFER	LITHONIA /	N/A	4000 LUM	LED	4000		DUAL VOLTAGE	CEILING RECESSED T-BAR LAY-IN GRID:
		CPANL 2X4 40LM 40K M2						120VAC	ORDER MOUNTING KIT AS REQUIRED.
		(CI-250CSL) (OR EQUAL)						277VAC	
В	2' DECORATIVE INDOOR TRADITIONAL SQUARE VANITY	LITHONIA /		1373 LUM	LED	4000		DUAL VOLTAGE	WALL SURFACE.
	CONSTUCTED OF AN ACRYLIC DIFFUSER WITH BRUSHED NICKEL	FMVTSL 24IN MVOLT 40K 90CRI						120VAC	USE WITH NON-DIMMABLE SWITCHES ONLY.
	(BN) HOUSING.	BN (OR EQUAL)						277VAC	
С	4' DECORATIVE INDOOR TRADITIONAL SQUARE VANITY	LITHONIA /		2689 LUM	LED	4000		DUAL VOLTAGE	WALL SURFACE.
	CONSTUCTED OF AN ACRYLIC DIFFUSER WITH BRUSHED NICKEL	FMVTSL 48IN MVOLT 40K 90CRI						120VAC	USE WITH NON-DIMMABLE SWITCHES ONLY.
	(BN) HOUSING.	BN (OR EQUAL)						277VAC	
OSC	CEILING OCCUPANCY SENSOR PIR	LUTRON LOS-C	6	N/A	N/A	N/A	N/A	24VDC	CEILING RECESSED T-BAR LAY-IN GRID:
									ORDER MOUNTING KIT AS REQUIRED.
PP	POWER PACK / RELAY WITH SECONDARY 24V OUTPUT. INCLUDED	LUTRON PP-DV-M	4	N/A	N/A	N/A	N/A	DUAL VOLTAGE	
	MANUAL/MOMENTARY OVERRIDE CONNECTION TO TURN LIGHTS							120VAC	
	ON							277VAC	

#### LIGHTING FIXTURE AND CONTROL DEVICE SCHEDULE NOTES

- DESCRIPTION
- 1 GENERAL NOTE CATALOG NUMBER MAY NOT SPECIFY ALL OPTIONS, ACCESSORIES, ADAPTERS THAT MUST BE PROVIDED FOR A COMPLETE INSTALLATION, OR SPARE ITEMS, SEE OTHER COLUMNS IN THIS SCHEDULE, CONTRACT DOCUMENTS AND ACTUAL CONDITIONS ENCOUNTERED.
- 2 GENERAL NOTE ALL FLUORESCENT FIXTURES SHALL HAVE A SINGLE BALLAST POWERING ALL LAMPS, UNLESS OTHERWISE INDICATED.
- 3 GENERAL NOTE 3 AND 4 LAMP FIXTURES CAN BE MULTIPLE BALLAST IF THAT'S THE STANDARD CONFIGURATION OF THE MANUFACTURER.
- 4 THIS FIXTURE IS USED FOR DUAL LIGHTING LEVEL CONTROL, TWO SWITCHED CIRCUITS; THUS REQUIRING THE USE OF MULTIPLE BALLASTS. FOR THREE LAMP FIXTURES PROVIDE (1) TWO LAMP BALLAST SWITCHING OUTER LAMPS AND (1) ONE LAMP BALLAST SWITCHING INNER LAMP. FOR FOUR LAMP FIXTURES PROVIDE (2) TWO LAMP BALLASTS SWITCHING INNER LAMPS TOGETHER AND
- 5 GENERAL NOTE ALL FLUORESCENT FIXTURES SHALL HAVE ELECTRONIC BALLASTS, INSTANT START LAMPS, WITH LESS THAN OR EQUAL TO 10 PERCENT THD, UNLESS OTHERWISE INDICATED.
- 6 GENERAL NOTE THE USE OF MULTI-VOLT BALLAST IS ACCEPTABLE IN LIEU OF SPECIFIED VOLTAGE INDICATED IN FIXTURE SCHEDULE. 7 GENERAL NOTE - MOUNTING INDICATED SHOWS BASIC FIXTURE MOUNTING ARRANGEMENT. SEE ARCHITECTURAL AND OTHER DOCUMENTS FOR ADDITIONAL INFORMATION WHICH MAY EFFECT
- FIXTURE PLACEMENT AND MOUNTING STRUCTURES (CEILING AND WALL CONSTRUCTION, ETC). PROVIDE MOUNTING ADAPTERS AS REQUIRED.
- 8 GENERAL NOTE CONTRACTOR MUST PROVIDE ADJUSTMENTS (ALIGNMENTS AND FOCUSING) FOR FIXTURES WHICH ARE ADJUSTABLE. ADJUSTMENTS SHALL PROVIDE OPTIMAL ILLUMINATION OF AREA TO BE ILLUMINATED. ADJUSTMENTS SHALL BE MADE TO PROVIDE EVEN ILLUMINATION.

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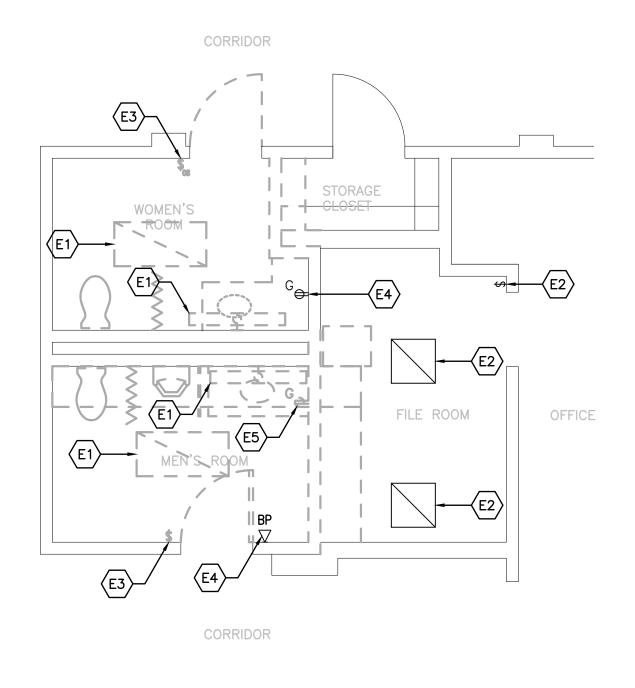
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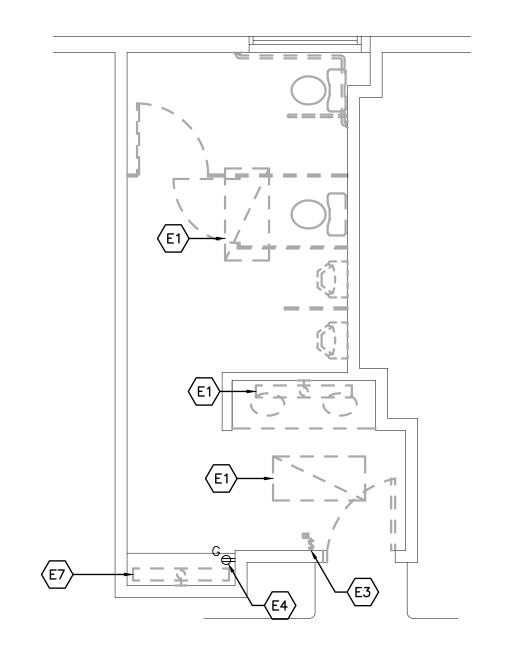
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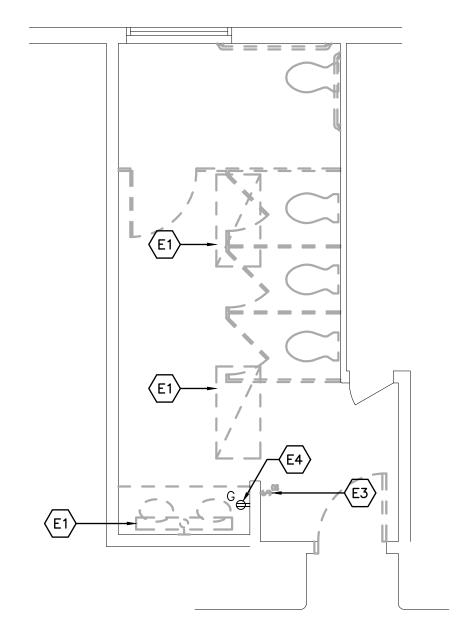
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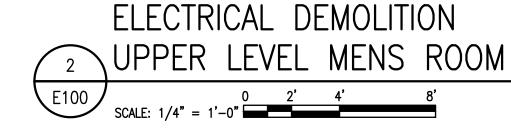
# ELECTRICAL DEMOLITION JPPER LEVEL WOMENS ROOM



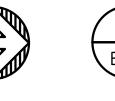


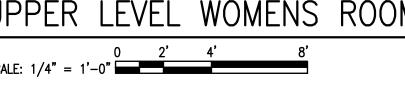




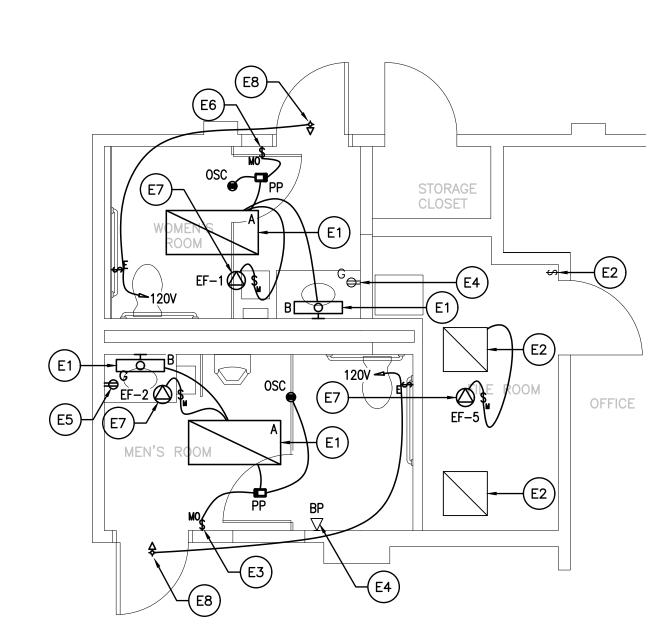


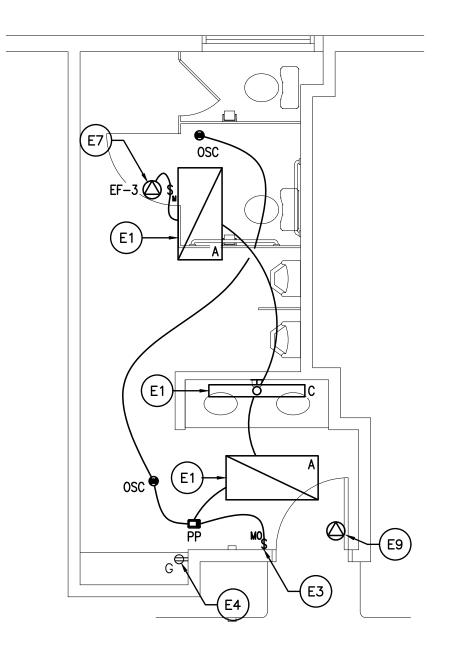


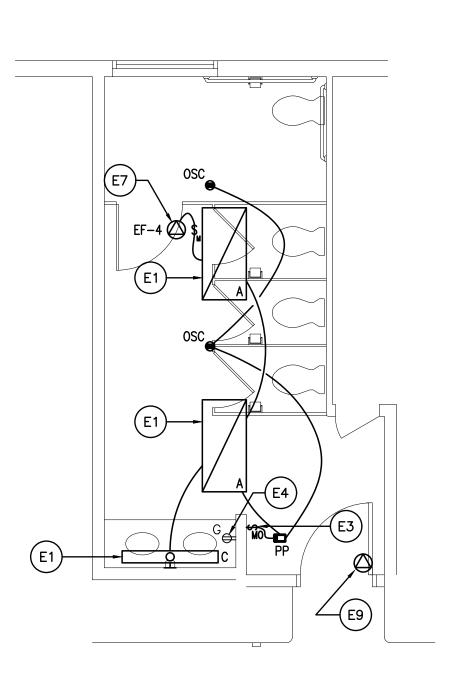










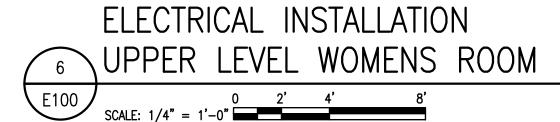














#### ELECTRICAL WORK ITEMS

#### **GENERAL**:

CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY DAMAGE CREATED DURING WORK/REPAIRS, WHETHER INTENTIONAL OR ACCIDENTAL. OWNER SHALL BE RESPONSIBLE FOR SELECTING MATERIALS TO MATCH EXISTING CONDITIONS AS BEST POSSIBLE.

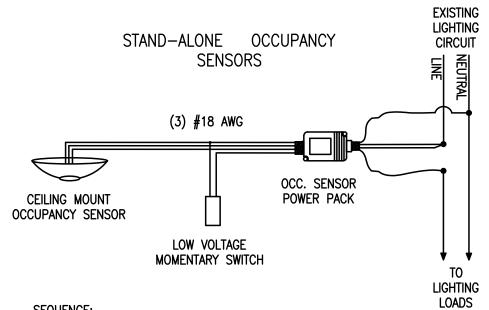
#### ELECTRICAL REMOVAL: (HEXAGON)

- E1. REMOVE AND REPLACE EXISTING FIXTURE: MAINTAIN CIRCUIT FOR RE—USE. CONTRACTOR MAY NEED TO EXTEND OR RE—ROUTE WIRING TO ACCOMMODATE PROPOSED FIXTURE IN ALTERNATE LOCATION.
- E2. EXISTING LIGHT FIXTURE, AND ANY RELATED WIRING AND/OR SWITCHING, TO REMAIN.
- E3. REMOVE EXISTING SWITCH: MAINTAIN CIRCUIT FOR RE-USE.
- E4. EXISTING DEVICE, AND ANY RELATED WIRING AND/OR SWITCHING, TO REMAIN.
- E5. REMOVE AND REPLACE EXISTING DEVICE: MAINTAIN CIRCUIT FOR RE-USE. CONTRACTOR MAY NEED TO EXTEND OR RE-ROUTE WIRING TO ACCOMMODATE PROPOSED DEVICE IN
- E7. EXISTING LIGHT FIXTURE SHALL BE REMOVED AND RELATED WIRING SHALL BE CAPPED AND ABANDONED IN PLACE: MAINTAIN CIRCUIT CONTINUITY.
- E8. REMOVE ALL BRANCH WIRING FROM EXHAUST FAN IN ATTIC BACH TO SOURCE PANEL. SEE MECHANICAL DRAWINGS FOR REMOVALS.

#### **ELECTRICAL INSTALLATION: (CIRCLE)**

SERVED: WIRE AS SHOWN.

- E1. PROVIDE FIXTURE PER LIGHTING FIXTURE AND CONTROL DEVICE SCHEDULE, SHEET E001. RE-CONNECT AS NECESSARY TO EXISTING CIRCUIT.
- E2. EXISTING LIGHT FIXTURE, AND ANY RELATED WIRING AND/OR SWITCHING, SHOWN IN EXISTING LOCATION FOR REFERENCE.
- E3. PROVE LOVE VOLTAGE OVERRIDE SWTICH AND WIRE TO POWERPACK RELAY. EXTEND EXISTING LIGHTING CIRCUIT TO THE POWER PACK RELAY.
- E4. EXISTING DEVICE, AND ANY RELATED WIRING AND/OR SWITCHING, SHOWN IN EXISTING
- LOCATION FOR REFERENCE.
- E5. PROVIDE DEVICE: RE-CONNECT AS NECESSARY TO EXISTING CIRCUIT. E7. CONNECT EXHAUST FAN TO EXISTING SWITCHED LIGHTING CIRCUIT OF AREA BEING
- E8. PROVIDE A CALL FOR AID SWITCH AND STROBE AS SHOWN. SEE GENERAL ELECTRICAL
- E9. PROVIDE POWER CONNECTION FOR POWER DOOR OPENER. CONNECT TO EXISTING LOCAL POWER CIRCUIT SERVING BATHROOM RECEPTACLES.



SEQUENCE:
1. UPON DETECTING OCCUPANCY, THE LIGHTS SHALL BE TURNED ON.
2. AFTER 15 MINUTES OF NO OCCUPANCY DETECTED, LIGHTS SHALL TURN OFF.
3. A PRESS OF THE MOMENTARY SWITCH SHALL TURN THE LIGHTS ON FOR 15 MINUTES.

E100

NO SCALE

CEILING MOUNT OCCUPANCY SENSOR DETAIL

FLOOR TOILET ROOM RENOVATI SHEPARDSONS COMMUNITY C 1172 WHITTEMORE ROAD, MIDDLEE

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