

LIST OF DRAWINGS

SHEET NO.	SHEET TITLE
COVER	COVER SHEET
G-1	ARCHITECTURAL NOTES AND SPECIFICATIONS
G-2	GENERAL DETAILS
G-3	ELECTRICAL NOTES, SPECIFICATIONS, SCHEDULES, AND DETAILS
G-4	MECHANICAL SPECIFICATIONS AND SCHEDULES
A-1	PLANS AND SCHEDULES
A-2	REFERENCE PHOTOS
M-1	MECHANICAL PLANS AND SCHEDULE
E-1	ELECTRICAL POWER AND LIGHTING PLAN

APPLICABLE CODES:
 2021 MICHIGAN REHABILITATION CODE FOR EXISTING BUILDINGS
 2021 MICHIGAN BUILDING CODE (MBC)
 2023 NATIONAL ELECTRIC CODE (NEC) WITH AMENDMENTS.
 2021 MICHIGAN MECHANICAL CODE
 2021 MICHIGAN PLUMBING CODE

APPLICABLE STANDARDS & REFERENCE GUIDES:
 2017 ICC ANSI A117.1 (ADA STANDARDS)

USE GROUP (302, 303): U. UTILITY

CONSTRUCTION TYPE (TABLE 601 & 602): EXISTING TO REMAIN

TRAVEL DISTANCE:
 DISTANCE TO AN EXIT ACCESS DOES NOT EXCEED 75 FEET FOR AREAS CONSTRUCTED UNDER THIS WORK. ONE EXIT IS REQUIRED.

ACCESSIBILITY:
 AFFECTED AREAS ARE REQUIRED TO BE ACCESSIBLE PER MBC CHAPTER 11.

PROJECT DESCRIPTION:
 -PROJECT CONSISTS OF RENOVATIONS (LEVEL 1 ALTERATION) TO THE EXISTING RESTROOM BUILDING (EXISTING FOOTPRINT TO REMAIN);

AFFECTED FLOOR AREAS:
 442 SQFT

ECKSTEIN PARK RESTROOM IMPROVEMENTS



CITY OF WARREN, MICHIGAN PARKS AND RECREATION DEPARTMENT

ISSUED FOR BID
 FEBRUARY 13, 2025
 ITB-W-1253

PREPARED BY:

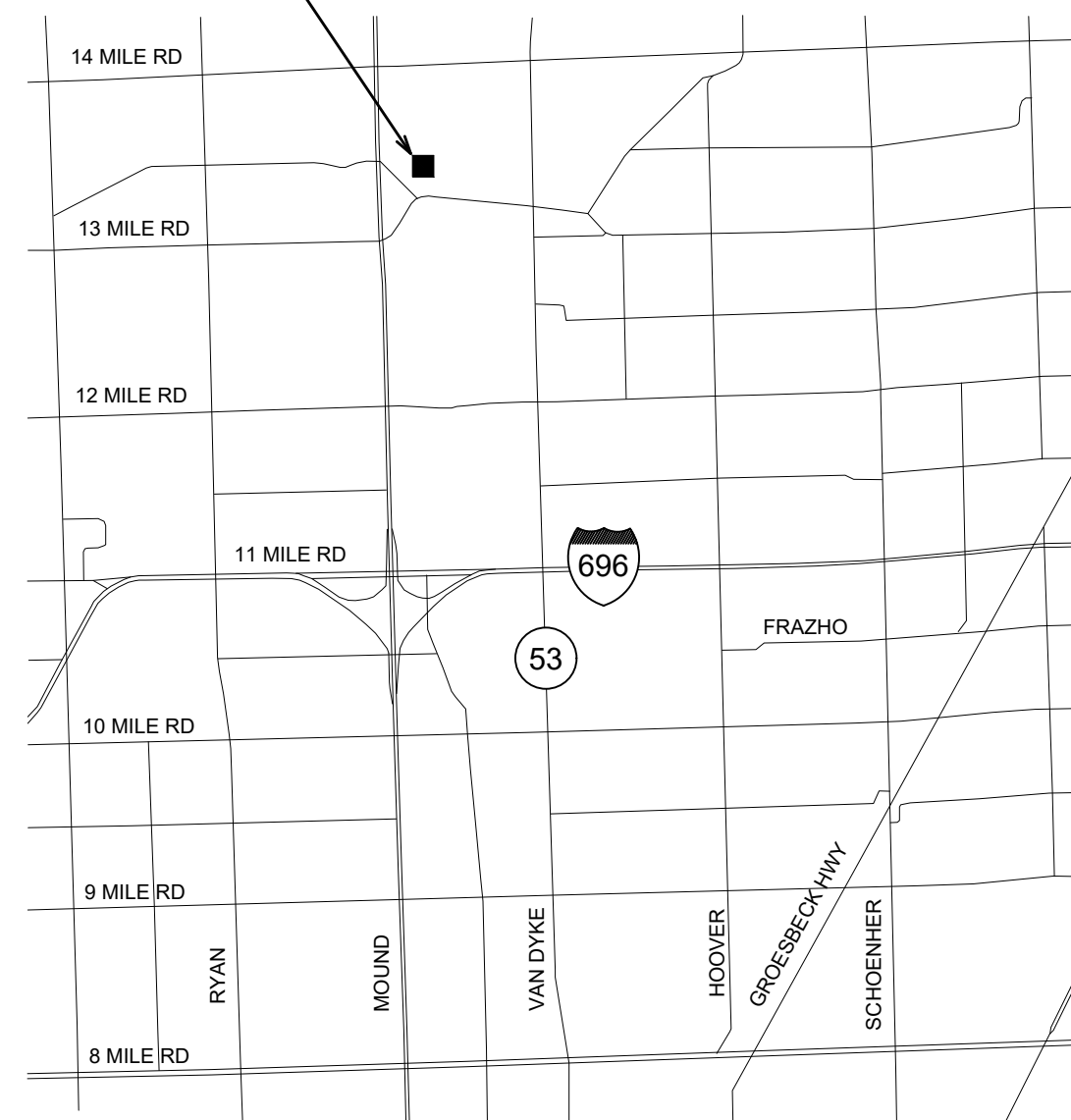
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ECKSTEIN PARK
 31950 MOUND RD.
 WARREN, MI 48092



LOCATION MAP
 NO SCALE



WARREN CITY COUNCIL

ANGELA ROGENSUES - PRESIDENT	MELODY MAGEE
DAVE DWYER	JONATHAN LAFFERTY
MINDY MOORE	GARY BOIKE
HENRY NEWNAN	

CITY ADMINISTRATION

LORI STONE - MAYOR
 SONJA DJUROVIC BUFFA - CITY CLERK
 LORIE BARNWELL - TREASURER
 TINA GAPSHES - CITY ENGINEER

HUBBELL, ROTH & CLARK, INC.
 JOB NO. 20200165.26
 PREPARED UNDER THE SUPERVISION OF:
 ADRIANNA MELCHIOR, AIA
 REGISTERED PROFESSIONAL ENGINEER
 MICHIGAN REGISTRATION NO. 1301051959

SEAL

SPECIFICATIONS:

GENERAL REQUIREMENTS:

- CONTRACTOR SHALL COORDINATE ALL WORK PRIOR TO INSTALLATION OR FABRICATION OF ANY COMPONENTS. ALL OPENINGS SHALL ALSO BE COORDINATED WITH REFERENCE DRAWINGS.
- ALL WORK MUST CONFORM TO ALL STATUTES OF THE MICHIGAN BUILDING CODE (EDITION IN EFFECT AT THE TIME OF PERMIT), ALL STATE, COUNTY AND LOCAL ORDINANCES, CURRENT BARRIER FREE REGULATIONS, MIOSHA STRUCTURAL GUIDELINES, ASTM STANDARD TESTING PROCEDURES, OWNERS PRACTICES AND GENERALLY ACCEPTED DESIGN PRACTICES. IF DISCREPANCIES IN DRAWING APPEAR, WORK MUST BE DONE PER CODE.
- EXISTING CONDITIONS OF BUILDING SHOWN ON CONSTRUCTION DOCUMENTS ARE ILLUSTRATIVE OF CONDITIONS VISIBLE TO ARCHITECT AND BASED ON EXISTING DRAWINGS. ALL EXISTING DIMENSIONS, CONDITIONS, SIZES & LOCATIONS ARE TO BE FIELD VERIFIED.
- THE CONTRACTOR SHALL KEEP THE SITE IN A NEAT AND ORDERLY CONDITION AND SHALL REMOVE RUBBISH DAILY OR AS DIRECTED BY OWNER. DUST CONTROL MEASURES ARE TO BE ERCTED BY THE CONTRACTOR TO PROTECT PATRONS AND VEHICLES DURING DEMOLITION AND CONSTRUCTION ACTIVITIES. ALL STAGING AND MATERIALS STORAGE IS TO BE COORDINATED WITH THE OWNER. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO ISOLATE CONSTRUCTION ACTIVITIES FROM ADJACENT AREAS THAT ARE TO REMAIN IN OPERATION DURING CONSTRUCTION - CONFIRM SCHEDULE AND REQUIRED BARRICADES WITH OWNER PRIOR TO COMMENCEMENT.
- CONTRACTOR SHALL PROVIDE NEW OPENINGS AND SUPPORTS AS NOTED. FINAL OPENING DIMENSIONS, CONNECTION SIZES, CLEARANCES, ETC. MUST BE COORDINATED DURING CONSTRUCTION WITH APPROVED COMPONENTS. SEAL TIGHT ALL OPENINGS (ROOF, WALL, AND CEILING), EQUIPMENT AND/OR PENETRATIONS - FROM AIR AND MOISTURE. MATCH EXISTING FINISHES. FIRE CAULK AND SEAL ALL NEW RATED PENETRATIONS.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND APPROVED MANUFACTURERS.
- ALL INSTALLATIONS TO BE COORDINATED WITH EXISTING CONDITIONS FOR PROPER SIZE, LOCATION AND PROVISIONS REQUIRED TO INSTALL COMPONENTS.
- PIPING & CONDUIT HANGERS AND SUPPORT LOCATION ARE NOT SHOWN ON DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE PIPING AND CONDUIT HANGERS AND SUPPORTS NECESSARY AS REQUIRED PER CODE.
- PATCH AND REPAIR EXISTING WALLS, FLOORS, & CEILINGS FOR SEAMLESS, LIKE NEW APPEARANCE. THIS ALSO APPLIES TO DAMAGES THAT OCCUR AS PART OF THE CONSTRUCTION PROCESS - RETURN AFFECTED AREAS TO ORIGINAL CONDITIONS. CAREFULLY CUT HOLES IN CEILINGS AND WALLS TO ACCOMMODATE INSTALLATION OF PIPING - REPAIR OPENINGS TO SEAMLESS, LIKE NEW APPEARANCE AND PAINT TO MATCH ADJACENT SURFACES.
- EXTEND CONDUIT AND PIPING AS REQUIRED TO ACCOMMODATE NEW WORK - PROVIDE NEW & REPAIR EXISTING AS REQUIRED.
- PROVIDE ADDITIONAL BLOCKING TO MATCH EXISTING AT WALLS/ CEILINGS TO ACCOMMODATE NEW INSTALLATIONS. MAINTAIN FIRE RATED ASSEMBLIES AND FIRE STOPPING PER LOCAL GOVERNING CODES AND ORDINANCES.
- CONTRACTOR SHALL PROVIDE ALL REQUIRED TRANSITIONS, FITTINGS AND APPURTENANT CONNECTIONS.
- CONFIRM ANY COLOR SELECTIONS WITH OWNER.
- PREVENT GALVANIC ACTION AND OTHER FORMS OF CORROSION BY INSULATING METALS OR OTHER MATERIALS FROM DIRECT CONTACT WITH INCOMPATIBLE MATERIALS.
- SHOP DRAWINGS AND PRODUCT DATA - THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND PROJECT ENGINEER, SHOP DRAWINGS & PRODUCT DATA SUBMITTALS FOR ALL PRODUCTS AND COMPONENTS TO BE USED ON THIS PROJECT. MAINTAIN ONE COPY OF ALL APPROVED SUBMITTALS AT THE SITE FOR THE OWNER'S REFERENCE.
- "RECORD" DRAWINGS - THE CONTRACTOR SHALL MAINTAIN A SET OF "AS-BUILT" PRINTS, MARKED UP AT THE SITE, CONTAINING ALL "AS-BUILT" INFORMATION. TURN SET OVER TO OWNER UPON COMPLETION OF THE WORK.
- INSTALL ALL MATERIALS IN COMPLIANCE W/ MFR. RECOMMENDATIONS AND CODE REQUIREMENTS.
- WORKING HOURS AT BUILDINGS ARE TO BE DETERMINED WITH OWNER AT START OF PROJECT.
- FLOORING MATERIAL TRANSITIONS AT ALL LOCATIONS ARE TO COMPLY WITH ADA REQUIREMENTS.
- PROVIDE PTD. GALV. STEEL COVER PLATES ON ALL REMAINING WALLS AT OPENINGS WHERE COMPONENTS HAVE BEEN REMOVED AND NOT REPLACED.
- ALL REMAINING WALLS ARE TO BE PATCHED SMOOTH PRIOR TO PAINTING FOR A SMOOTH, UNBLEMISHED APPEARANCE.

DEMOLITION NOTES:

- ALL DEMO'D COMPONENTS TO BE PROTECTED AND CAREFULLY REMOVED FOR SALVAGE/ REUSE AS NOTED. DEMOLISHED ITEMS THAT ARE NOT TO BE REUSED ARE TO BE REMOVED FROM PROJECT SITE PROMPTLY AND DISPOSED IN ACCORDANCE WITH OWNER STANDARDS. PROTECT EXISTING FACILITIES IN A MANNER AS TO NOT ADVERSELY AFFECT THE EXISTING FACILITIES OPERATIONS.
- VERIFY ALL POINTS OF EXIST. BEARING AND PROVIDE TEMPORARY SUPPORT/ SHORING AS REQD UNTIL ALL EXISTING BEARING CONDITIONS ARE VERIFIED AND TRANSFERRED TO PERMANENT SUPPORT. VERIFY CAPACITY OF EXIST. LOAD CARRYING MEMBERS.
- PROTECT EXISTING FACILITIES IN A MANNER AS TO NOT ADVERSELY AFFECT THE EXISTING FACILITIES OPERATIONS AND SURROUNDING NEIGHBORS.
- THE BUILDING DESIGN ENGINEER/ ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE DESIGN OR PROPER INSTALLATION OF TEMPORARY BUILDING BRACING OR SHORING REQUIRED TO REMOVE THE DESIGNATED PORTION OF THE PROJECT.
- CONTRACTOR IS TO ASSUME THAT THE EXISTING PAINT AT SURFACES IN AFFECTED AREAS IS LEAD-CONTAINING, AND IS TO BE HANDLED IN ACCORDANCE WITH ALL STATE AND FEDERAL GUIDELINES.
- PROVIDE INFILL CONCRETE SLAB TO MATCH AND ALIGN WITH EXISTING WHERE SAWCUT FOR NEW UTILITIES - EXISTING BASE TO BE RECOMPACTED PRIOR TO PLACEMENT TO ENSURE SETTLEMENT WILL NOT OCCUR.
- DURING SELECTIVE REMOVAL OF MASONRY UNITS, DOOR FRAMES, ETC., DO NOT DAMAGE ADJACENT EXISTING UNITS TO REMAIN. DO NOT PRY AGAINST EXISTING UNITS TO REMAIN. REPAIR ALL DAMAGE INCURRED TO LIKE NEW APPEARANCE.

SEALANT:

PAVEMENT SEALANT SHALL BE SELF-LEVELING POLYURETHANE ASTM C920, GRADE P, TYPE M, CLASS 25, USE T, 2 COMPONENT, CHEMICAL CURING, NON-STAINING, NON-BLEEDING, CAPABLE OF WATER IMMERSION; BASF MASTERSEAL SL 2, PECORA UREXPAN NR-200 OR EQUAL.

SEALANT FOR MISC. VERTICAL OR OVERHEAD JOINTS TO BE CAULKED SHALL BE POLYURETHANE, ASTM C920, GRADE NS, TYPE M, CLASS 25, USE T, 2 COMPONENT, CHEMICAL CURING, NON-STAINING, NON-BLEEDING, NON-SAGGING, CAPABLE OF WATER IMMERSION; SONOLASTIC NP-2, PECORA DYNATROL II OR EQUAL. COLOR TO MATCH ADJACENT SURFACES. DO NOT PAINT OVER CAULK.

PAINTING

- TOUCH UP PAINT AS REQUIRED AT AREAS THAT REMAIN OR RELOCATED ITEMS THAT HAVE BEEN AFFECTED BY PROJECT CONSTRUCTION. COLOR AND FINISH TO MATCH EXISTING AND BE APPROPRIATE FOR MATERIALS TO BE PAINTED.
- ALL DRY FILM THICKNESSES SHALL FALL WITHIN PAINT MFR. RECOMMENDED RANGES. INSTALL ALL PAINT MATERIALS PER MFR. RECOMMENDATIONS. ALL COLORS TO BE DETERMINED BY OWNER. ALL PAINT PRODUCTS UTILIZED TO BE BY THE SAME MFR.
- PREPARE SURFACES PRIOR TO PAINTING IN ACCORDANCE WITH MFR. RECOMMENDATIONS. PREPARE PAINTING AREAS SO AS TO NOT APPLY PAINT ON ADJACENT FINISHES THAT ARE TO REMAIN UNPAINTED. AREAS TO BE REPAINTED SHALL INCLUDE ALL SURROUNDING WALL SURFACE UP TO ADJACENT CHANGES IN WALL SURFACE (I.E., ROOM CORNERS, CHANGES IN WALL PLANE, DOOR TRIM, ETC.).
- ALL NEW MORTAR AND CMU MUST CURE FOR A MINIMUM OF 28 DAYS PRIOR TO PAINTING PER MFR. REQUIREMENTS. DO NOT APPLY MATERIALS WHEN TEMPERATURES AND HUMIDITY LEVELS ARE OUTSIDE THE RANGES REQUIRED BY THE COATING PRODUCT MANUFACTURER. DO NOT APPLY EXTERIOR COATINGS DURING RAIN OR SNOW.
- ALL PAINTS USED MUST BE FROM THE SAME MANUFACTURER.
- PAINTING CONTRACTOR TO ASSUME THERE WILL BE MULTIPLE SATURATED PAINT COLORS USED ON THE PROJECT. DOORS, WALLS, CEILINGS, AND INTERIOR VS. EXTERIOR WILL ALL BE DIFFERENT COLORS THAT WILL NEED TO BE COORDINATED WITH OWNER DURING CONSTRUCTION. PROVIDE ADDITIONAL COATS AS REQUIRED TO ACHIEVE PROPER COVERAGE.
- CONCRETE MASONRY UNITS SHALL BE PAINTED IN (2) COATS.
 - SURFACE PREPARATION - POWER WASH WITH MINIMUM 3,000 PSI, 0 DEGREE ROTATING NOZZLE TO REMOVE ALL SURFACE DIRT, LOOSE PAINT, OIL/GREASE, ETC. AND TO ADEQUATELY ROUGHEN SURFACES, IN ACCORDANCE WITH MANUFACTURER'S PREP REQUIREMENTS. PRIME SURFACES IF REQUIRED TO PROVIDE ADHESION PER MANUFACTURER'S RECOMMENDATIONS.
 - INTERMEDIATE AND FINISH COATS - SHERWIN WILLIAMS LOXON XP (5.0-7.0 DRY MILS MIN. EACH COAT), CARBOLINE FLEXIIDE ELASTOMER (5.0-7.0 DRY MILS MIN. EACH COAT) OR TNEMEC SERIES 156 ENVIRO-CRETE (5.0-7.0 DRY MILS MIN. EACH COAT).
- WOOD SHALL BE PAINTED WITH SAME SYSTEM AS CMU, EXCEPT PROVIDE DIFFERENT PREP AND ADDITIONAL PRIMER COAT AS FOLLOWS:
 - SURFACE PREPARATION: SURFACES MUST BE CLEAN, DRY AND FREE OF CONTAMINANTS AND LOOSE PAINT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - PRIMER COAT: SHERWIN WILLIAMS EXTERIOR LATEX WOOD PRIMER (2.0 DRY MILS MIN.), CARBOLINE SANITILE 120 (2.0 DRY MILS MIN.), OR TNEMEC SERIES 151-1051 ELASTO-GRIP FC (2.0 DRY MILS MIN.).
- FERROUS METALS SHALL BE PAINTED IN (3) COATS:
 - SURFACE PREPARATION: REMOVE GLOSS FROM THE NEW SPANGLED GALVANIZING BY SWEEP BLASTING IN ACCORDANCE WITH THE SSPC SP-16 - BRUSH OFF BLAST CLEANING OF COATED OR UNCOATED GALVANIZED STEEL, STAINLESS STEEL AND NON-FERROUS METALS. ONCE PREPARED, TREAT SURFACES WITH GREAT LAKES LABORATORIES "CLEAN N ETCH" PER MFR. REQUIREMENTS.
 - PRIMER COAT - SHERWIN WILLIAMS MACROPOXY 646, CARBOLINE 890 VOC OR TNEMEC V69 (3.0 DRY MILS MIN.)
 - INTERMEDIATE COAT - SHERWIN WILLIAMS MACROPOXY 646, CARBOLINE 890 VOC OR TNEMEC V69 (4.0 DRY MILS MIN.)
 - FINISH COAT - SHERWIN WILLIAMS HI SOLIDS POLYURETHANE 250, CARBOLINE CARBOTHANE 134 MC, OR TNEMEC 1095 ENDURA SHIELD (3.0 DRY MILS MIN.)
 - METAL SURFACES TO BE PRIMED AND PREPARED PRIOR TO PAINTING IN ACCORDANCE W/ MFR. RECOMMENDATIONS. ALL EXPOSED SURFACES TO BE PAINTED.

CONCRETE:

- CONCRETE MIX DESIGN SHALL BE PREPARED BY A QUALIFIED TESTING LABORATORY. SUBMIT PROPOSED CONCRETE MIX DESIGN WITH TEST DATA REQUIRED BY ACI-318 TO OWNER FOR APPROVAL BEFORE CONCRETE IS PLACED.
- COMPRESSIVE STRENGTH - MINIMUM 4000 PSI AT 28-DAYS FOR SLAB. AIR CONTENT - 6% (+/-1%) 3" MAX. SLUMP PRIOR TO ADDITION OF ADMIXTURES. CONCRETE SHALL BE ASR RESISTANT. CEMENT SHALL HAVE AN ALKALI LEVEL OF LESS THAN 0.6.
- ALL CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II AS REQUIRED TO MEET ASR RESISTANCE AS SPECIFIED.
- MDOT 6AA COURSE AGGREGATE: FINE AGGREGATE SHALL CONFORM TO 2NS. FLY ASH: ASTM C 618, CLASS F. GROUND GRANULATED BLAST FURNACE SLAG, GRADE 100, 120 ASTM C989.
- ALL CONCRETE REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, YIELD STRENGTH 60KSI.
- UTILIZE STANDARD WHITE MEMBRANE CURING COMPOUND (OR WET CURE) NEW CONCRETE. PROVIDE COLD WEATHER PROTECTION FOR CONCRETE CURING OPERATIONS; PREVENT ALL MATERIALS FROM FREEZING.

MASONRY:

- ALL CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C 90 AND C 140.
- MORTAR SHALL CONFORM TO ASTM C 270, AS FOLLOWS:
IN CONTACT WITH EARTH - TYPE M
NOT IN CONTACT WITH EARTH - TYPE M OR S
- GROUT SHALL CONFORM TO ASTM C 476, WITH PEA GRAVEL AGGREGATE AND WITH MINIMUM STRENGTH IN ACCORDANCE WITH THE TABLE BELOW.
- BASED ON THE FOLLOWING MINIMUM STRENGTHS SPECIFIED ABOVE FOR BLOCK, MORTAR AND GROUT, THE MINIMUM COMPOSITE MASONRY COMPRESSIVE STRENGTH, Fm, SHALL BE AS FOLLOWS:

COMPRESSIVE STRENGTH, Fm	UNIT STRENGTH	GROUT STRENGTH	MORTAR TYPE

USE TYPICAL U.N.O.	(PSI) 1500 MIN.	(PSI) 1900 MIN.	(PSI) 2000 MIN.	M OR S

MASONRY REPOINTING SPECIFICATIONS

- DETERIORATED MORTAR JOINTS IN EXISTING BUILDING MASONRY, AND OTHER AREAS THAT MAY BE SHOWN ON THE DRAWINGS, SHALL BE CLEANED OUT AND REFILLED WITH FRESH MORTAR.
- JOINTS SHALL BE CONSIDERED DETERIORATED IF THEY ARE ERODED BACK 1/4 INCH OR MORE FROM THE FACE OF THE MASONRY UNITS; MORTAR HAS FALLEN OUT OF THE JOINT; HAIRLINE CRACKS RUN THROUGH THE MORTAR; OR THE BOND BETWEEN MORTAR AND MASONRY UNIT IS BROKEN.
- RAKING THE OLD MORTAR JOINTS:
 - MORTAR JOINTS SHOULD BE RAKED OUT TO AT LEAST 1/2 INCH DEPTH OR, IF THE JOINT IS MORE THAN 1/2 INCH THICK, TO A DEPTH AS GREAT AS THE THICKNESS OF THE MORTAR JOINT.
 - IF THE MORTAR IS STILL UNSOUND AT 1/2 INCH, THE JOINT SHALL BE CUT DEEPER.
 - ALL UNSOUND MORTAR SHALL BE REMOVED WITHOUT DISTURBING THE MASONRY UNITS.
- MORTAR MAY BE REMOVED WITH A HAND-HELD GRINDER, A SMALL MASON'S CHISEL, OR A SPECIAL RAKING TOOL.
 - IF THE GRINDER IS USED TO RAKE VERTICAL JOINTS, CARE SHALL BE TAKEN NOT TO CUT THE MASONRY UNITS IN THE NEXT COURSE ABOVE OR BELOW THE JOINT.
 - BEFORE TUCKPOINTING, BRUSH ALL LOOSE FRAGMENTS AND DUST FROM THE JOINT OR FLUSH THEM OUT WITH A STREAM OF WATER.
- TUCKPOINTING MORTAR SHOULD CLOSELY MATCH THE EXISTING MORTAR IN STRENGTH, HARDNESS, AND TEXTURE.
- TEST THE EXISTING MORTAR TO SEE WHAT MIX PROPORTIONS WERE USED. TYPE N MORTAR MAY BE USED IF THE ORIGINAL MORTAR CAN'T BE DUPLICATED. TYPE N MORTAR SHOULD BE MADE FROM 1 PART PORTLAND CEMENT, 1 PART TYPE S HYDRATED LIME, AND 4 1/2 TO 6 PARTS SAND. ORDINARY GRAY OR WHITE MORTARS CAN BE TEMPERED AS NEEDED WITHIN THE FIRST 2 1/2 HOURS AFTER THEY'RE MIXED.
 - THE MORTAR INGREDIENTS SHALL BE HIGH QUALITY.
 - PORTLAND CEMENT (GRAY OR WHITE) SHALL MEET THE REQUIREMENTS OF ASTM C 150, TYPE I OR IA.
 - HYDRATED MASONRY LIME SHOULD MEET THE REQUIREMENTS OF ASTM C 207, TYPE S, HYDRAULIC QUIK-LIME.
 - SAND SHOULD MEET ASTM C 5 AND C 144 REQUIREMENTS, RESPECTIVELY.
 - DO NOT USE ADMIXTURES.
 - TO COMPENSATE FOR SHRINKAGE, A PREHYDRATION PROCESS SHALL BE USED.
 - MIX THE DRY INGREDIENTS WITH ONLY ENOUGH WATER TO PRODUCE A DAMP, UNWORKABLE MIX THAT RETAINS ITS FORM WHEN PRESSED INTO A BALL.
 - KEEP THE MORTAR IN THIS DAMP CONDITION FOR 1 TO 2 HOURS AND THEN ADD THE REMAINING WATER REQUIRED.
 - MORTAR FOR TUCKPOINTING SHOULD BE SOMEWHAT DRIER THAN MORTAR USED TO LAY MASONRY UNITS.
 - THIS DRIER MIX IS EASIER TO PLACE.
 - IT DOESN'T FLOW TO THE BOTTOM OF THE JOINT AFTER IT'S BEEN PUSHED INTO THE JOINT WITH THE TUCKPOINTERS TROWEL.

TOILET PARTITIONS AND URINAL SCREENS:

- BASIS OF DESIGN PRODUCT: ASI, FLOOR ANCHORED/OVERHEAD BRACED STAINLESS STEEL W/ DIAMOND FINISH. URINAL SCREEN STYLE: 48" HIGH STAINLESS STEEL W/ DIAMOND FINISH, WALL-HUNG WITH CONTINUOUS STAINLESS STEEL BRACKETS. STALL SCREEN STYLE: 72" HIGH STAINLESS STEEL W/ DIAMOND FINISH, FLOOR ANCHORED.
- SHOP DRAWINGS: INCLUDE OVERALL PRODUCT DIMENSIONS, FLOOR PLAN, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK. INCLUDE CHOICE OF OPTIONS WITH DETAILS.
- MATERIAL: A 666 COMMERCIAL STAINLESS STEEL SHEET SUITABLE FOR EXPOSED APPLICATIONS.
- BRACKETS (FITTINGS): STIRRUP TYPE: EAR OR U-BRACKETS; STAINLESS STEEL, FULL-HEIGHT (CONTINUOUS) TYPE: MANUFACTURER'S STANDARD DESIGN; STAINLESS STEEL.
- HARDWARE, HEAVY DUTY: MANUFACTURER'S HEAVY-DUTY STAINLESS STEEL, TAMPER-RESISTANT FASTENERS; HINGES: CONTINUOUS STAINLESS STEEL, SELF-CLOSING INTEGRAL, GRAVITY-TYPE ADJUSTABLE TO HOLD DOORS OPEN AT ANY ANGLE UP TO 90 DEGREES, WITH EMERGENCY ACCESS BY LIFTING DOOR. LATCH AND KEOPER: SURFACE-MOUNTED STAINLESS STEEL SLIDE LATCH WITH FLAT RUBBER-FACED COMBINATION DOOR STRIKE AND KEOPER, WITH PROVISION FOR EMERGENCY ACCESS, MEETING REQUIREMENTS FOR ACCESSIBILITY AT ACCESSIBLE COMPARTMENTS, PROVIDE GRAB BAR REINFORCEMENTS AND CUTOUTS AS REQ'D TO ACCOMMODATE ACCESSORIES.
- GENERAL: COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. INSTALL UNITS RIGID, STRAIGHT, LEVEL, AND PLUMB. SECURE UNITS IN POSITION WITH MANUFACTURER'S RECOMMENDED ANCHORING DEVICES.
- DOOR WIDTH: REFER TO ARCHITECTURAL DRAWINGS FOR DOOR WIDTHS AND SWING DIRECTIONS. INSTALL WITH CLEARANCES INDICATED ON DRAWINGS. WHERE CLEARANCES ARE NOT INDICATED MAINTAIN 3/8 TO 1/2 INCH (9 TO 13 MM) SPACE BETWEEN WALL AND PANELS AND BETWEEN WALL AND END PLASTERS. ATTACH PANEL BRACKETS SECURELY TO WALLS USING ANCHOR DEVICES. PROVIDE ADDITIONAL SOLID BLOCKING AT WALLS AS REQUIRED.

CUSTOM STEEL DOORS:

- NON-RATED GALVANIZED METAL DOORS, REINFORCED FOR HARDWARE. FLUSH SEAMLESS DOORS AS INDICATED ON THE DRAWINGS, CONFORM TO REQUIREMENTS OF HMMA 802, HMMA 810, HMMA 830, HMMA 840, HMMA 850, AND ANSI A117.1.
- FIELD MEASURE OPENINGS PRIOR TO FABRICATION OF DOORS. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED ON THE SHOP DRAWINGS. COORDINATE THE WORK WITH DOOR OPENING CONSTRUCTION, DOOR FRAME AND DOOR HARDWARE INSTALLATION.
- DOOR MANUFACTURERS: CECO; PRODUCT - MEDALLION SERIES. DOORS SHALL BE FROM THE SAME MANUFACTURER AS THE HOLLOW METAL FRAMES.
- DOOR CONSTRUCTION: STEEL, 16 GAGE; MANUFACTURED AND FABRICATED IN ACCORDANCE WITH HMMA 802 AND 810. 22 GAGE STIFFENERS SPACED AT 6" INTERNALLY ON THE DOOR, WELDED TO THE FACE SHEETS AT 5" ON CENTER. CORE: POLYURETHANE INSULATION TO LIMIT THERMAL AND SOUND TRANSMISSION. DOOR EDGE DESIGN: 1/8 INCH IN 2 INCH BEVEL, HINGE AND

LOCK EDGES. DOOR EDGE SEAM: DOORS SHALL HAVE VERTICAL, INTERLOCKING, CONTINUOUS MECHANICAL JOINTS AT LOCK AND HINGE SIDE WITH EDGE SEAM FILLED AND GROUND SMOOTH TO PROVIDE A SEAMLESS APPEARANCE. THE INTERNAL PORTION OF THE SEAM SHALL BE SEALED WITH EPOXY.

- FABRICATE DOORS WITH HARDWARE REINFORCEMENT WELDED IN PLACE. PREPARE DOORS TO RECEIVE MORTISED HARDWARE. CLOSE TOP AND BOTTOM EDGE OF ALL DOORS WITH STEEL CHANNEL CLOSURE. WELD ALL SEAMS WATERTIGHT. TOP OF DOOR SHALL BE FLUSH. BOTTOM CHANNEL CLOSURE SHALL BE INVERTED. MORTISE ALL DOORS FOR 1-1/2 PAIR HINGES. FABRICATE DOORS WITH HARDWARE REINFORCEMENT PLATES PROJECTION WELDED IN PLACE. PROVIDE ADEQUATE REINFORCING FOR ALL OTHER HARDWARE AS MAY BE SPECIFIED.
- FINISH: ASTM A653 G90. DOORS AND FRAMES SHALL BE PREPPED AND FIELD PAINTED AS SPECIFIED IN PAINT SPECIFICATIONS ON THIS SHEET; COLOR SHALL BE AS SELECTED BY OWNER.
- INSTALL DOORS IN ACCORDANCE WITH HMMA 840 AND HMMA 830 DHI FOR HARDWARE INSTALLATION. MAXIMUM DIAGONAL DISTORTION: 1/16 INCH MEASURED WITH STRAIGHT EDGE, CORNER TO CORNER.

CUSTOM STEEL FRAMES:

- NON-RATED GALVANIZED, REINFORCED STEEL FRAMES FOR HOLLOW METAL DOORS, CONFORM TO REQUIREMENTS OF HMMA 802, HMMA 820, HMMA 830, HMMA 840, HMMA 850, SDI 100, ANSI A117.1 AND ANSI A151.1. SHOP DRAWINGS: INDICATE FRAME ELEVATIONS, REINFORCEMENT, CONSTRUCTION AND FINISH. FRAME DETAILS FOR EACH FRAME TYPE INCLUDING DIMENSIONED PROFILES, DETAILS AND LOCATIONS OF REINFORCEMENT AND PREPARATIONS FOR HARDWARE. DETAILS OF EACH DIFFERENT WALL OPENING CONDITION, DETAILS OF ANCHORAGES, ACCESSORIES, JOINTS, AND CONNECTIONS. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED ON THE SHOP DRAWINGS.
- FRAME MANUFACTURER: CECO. SUBSTITUTIONS: UNDER PROVISIONS OF THE SPECIFICATIONS, SUBSTITUTIONS MUST MEET THE GAGE AND GALVANIZING SPECIFICATION REQUIREMENTS. FRAMES SHALL BE FROM THE SAME MANUFACTURER AS THE HOLLOW METAL DOORS.
- STEEL: G90 GALVANIZED SHEET IN ACCORDANCE WITH ASTM A653. FRAMES: 14 GAGE THICK MATERIAL, CORN THICKNESS.
- FABRICATE FRAMES WITH 2 INCH JAMB FACE AND 2 INCH HEAD (UNLESS NOTED OTHERWISE ON THE DRAWINGS); FRAMES SHALL BE SET-UP AND ARC WELDED WITH CORNER WELDS GROUND SMOOTH. MORTISE ALL FRAMES FOR 1-1/2 PAIR OF HINGES. FABRICATE FRAMES WITH HARDWARE REINFORCEMENT PLATES PROJECTION WELDED IN PLACE. ALL REINFORCING SHALL BE G90 GALVANIZED.
- FINISH: ASTM A653 G90. DOORS AND FRAMES SHALL BE PREPPED AND FIELD PAINTED AS SPECIFIED IN PAINT SPECIFICATIONS ON THIS SHEET; COLOR SHALL BE AS SELECTED BY OWNER.

DOOR HARDWARE:

- SHOP DRAWINGS: INDICATE LOCATIONS AND MOUNTING HEIGHTS OF EACH TYPE OF HARDWARE, AND MATERIAL TYPES. SUBMIT MANUFACTURER'S PARTS LISTS, AND TEMPLATES TO STEEL DOOR AND FRAME MANUFACTURERS FOR MORTISING OF STEEL DOORS AND FRAMES. ALL NECESSARY TEMPLATES AND SCHEDULES SHALL BE PROVIDED AT SUCH TIME SO NOT TO DELAY THE WORK. REFER TO DELIVERY, STORAGE AND HANDLING HEREIN FOR FORWARDING REQUIREMENTS OF HARDWARE.
- PERFORM WORK IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS: ANSI A117.1 - SPECIFICATIONS FOR MAKING BUILDINGS AND FACILITIES ACCESSIBLE TO AND USABLE BY PHYSICALLY HANDICAPPED PEOPLE. NFPA 101, NFPA 80, NFPA 252.
 - HARDWARE FOR METAL DOORS (PROVIDE ALL COMPONENTS AT EACH DOOR UNLESS NOTED OTHERWISE):
 - HINGES: STAINLESS STEEL WITH BALL BEARINGS, FLAT BUTTON TIP, STANLEY FBB 199 32D, HAGER BB 1199, IVES A5111 OR MCKINNEY NO. T4B386. HINGES SHALL BE 4-1/2" X 4-1/2" MINIMUM 0.180 INCHES THICK STAINLESS STEEL WITH STAINLESS STEEL PINS. DOORS SHALL HAVE A MINIMUM OF 1 1/2 PAIR PER LEAF, (U.N.O.) WITH NON-REMOVABLE PINS (NRP).
 - MORTISE LOCKSETS:
 - LEVERS AND ESCUTCHEONS: LEVERS SHALL BE CAST STAINLESS STEEL; ESCUTCHEONS SHALL BE WROUGHT STAINLESS STEEL. EACH LOCKSET SET SHALL BE FURNISHED COMPLETE WITH ONE PAIR OF LEVERS AND ESCUTCHEONS. LEVER STYLE SHALL BE CORBIN ROSSWIN "ARMSTRONG".
 - DOOR OPERATION: RESTROOM LOCKSETS MUST BE ABLE TO BE AUTOMATICALLY LOCKED AND UNLOCKED ON PRE-PROGRAMMED DAILY SCHEDULE (I.E., UNLOCKS AT 8:00AM, LOCKS AT 6:00PM) WHICH THE OWNER IS ABLE TO MODIFY AT THEIR DISCRETION WITH NO ADDITIONAL SERVICE CONTRACTS. DOORS WILL NORMALLY BE UNLOCKED DURING THE DAY AND LOCKED AT NIGHT. LOCKSETS AT SINGLE OCCUPANT RESTROOMS MUST ALSO BE ABLE TO BE MANUALLY LOCKED WHILE OCCUPIED - OPERATION OF THE LEVER ON THE INSIDE MUST RETRACT BOTH LATCHBOLT AND DEADBOLT FOR IMMEDIATE EGRESS AT ALL TIMES. THE DEADBOLT MAY BE MANUALLY RETRACTED FROM THE OUTSIDE WITH THE USE OF A KEY. PROVIDE COMPONENTS AS NECESSARY TO ACCOMMODATE REQUIRED OPERATIONS.
 - MORTISE LOCKSETS: CODELOCKS CL5510 SMART MORTISE LATCH OR PRE-APPROVED EQUAL. MANAGE AND OPERATE LOCKS VIA SMARTPHONE APP. BATTERY POWERED MORTISE LOCKSET WITH KEYPAD. KEYING TO MATCH OWNER'S STANDARD. MORTISE LOCKSET: "ENTRY" TYPE WITH CYLINDER WITHOUT DEADBOLT.
 - SURFACE MOUNT CLOSERS: SURFACE MOUNTED HEAVY DUTY ADA-COMPLIANT CLOSER WITH CAST IRON CYLINDER, ADJUSTABLE BACK CHECK, AND SPRING POWER WITH KEY VALVE ADJUSTING SCREWS FOR CLOSING AND LATCHING SPEEDS AND BACK CHECK CONTROL. CLOSER ARMS SHALL ALLOW FOR MINIMUM 100 DEGREE SWING. CLOSERS SHALL BE LCN 4000 SERIES, RYOBI D4550 OR ENGINEER APPROVED EQUAL, RESISTANT TO SEVERE CLIMATIC CONDITIONS. ALL REQUIRED ACCESSORIES: BRACKETS, PLATES, ARMS, SPACERS, ETC., REQUIRED FOR A COMPLETE INSTALLATION SHALL BE PROVIDED WHETHER SPECIFICALLY CALLED FOR OR NOT. MOUNT INSIDE ROOM.
 - KICKPLATES: DULL STAINLESS STEEL (US32D), (050) GA. 10" HIGH. PROVIDE KICKPLATES ON BOTH SIDES OF ALL METAL DOORS. ATTACH WITH STAINLESS STEEL SCREWS.
 - LOCK PROTECTORS: ALL SINGLE OUTSWINGING METAL PEDESTRIAN DOORS SHALL BE PROVIDED WITH LOCK PROTECTORS SIMILAR TO IVES LG SERIES IN STAINLESS STEEL. COORDINATE EXACT MODEL WITH DOOR EXIT DEVICES TO INSURE PROPER CLEARANCES.

- THRESHOLDS: BARRIER FREE ACCESSIBLE, 5 INCH WIDE, 1/2" HEIGHT, FULL WIDTH OF DOOR FRAME, NATIONAL GUARD PRODUCTS MODEL NO. 425E MILL FINISH ALUMINUM.
- ALL LOOKS SHALL BE CAPABLE OF ACCEPTING MINIMUM SIX (6) PIN CORES AND CYLINDERS MATCHING THE OWNER'S PRESENT SYSTEM, MASTER KEYED TO OWNER'S APPROVED SYSTEM. SUPPLY KEYS IN THE FOLLOWING QUANTITIES: 4 KEYS PER CYLINDERS, PLUS: 4 MASTER KEYS, 4 GRAND MASTER KEYS.
- DOOR STOP: IVES WS406CVX CONVEX WALL BUMPER W/ 630 STAINLESS STEEL FINISH.
- DOOR SWEEP: NATIONAL GUARD PRODUCTS 601 NYLON BRUSH SWEEP.
- FINISHES: SATIN CHROME, U.S. 32D OR 26D, WHEN U.S. 32D IS NOT AVAILABLE, UNLESS OTHERWISE NOTED IN HARDWARE PRODUCT DESCRIPTIONS OR SCHEDULE. ALL HARDWARE SCREWS, FASTENERS, ETC. SHALL BE TYPE 304 STAINLESS STEEL.

RESTROOM SIGNS:

- PROVIDE EXTERIOR GRADE METAL SIGNS AT ALL TOILET ROOMS TO IDENTIFY AS A RESTROOM PER ACCESSIBILITY REQUIREMENTS OF MICHIGAN BUILDING CODE AND ANSI ICC A177.1. MOUNT ON WALL ADJACENT TO DOOR PER BARRIER FREE REQUIREMENTS. SIGNAGE SHALL HAVE PICTOGRAM, TEXT AND TYPE II BRAILLE. PROVIDE SUBMITTAL FOR REVIEW AND APPROVAL. SEE "RESTROOM SIGNS" DETAIL ON SHEET G-2.

FLOOR TILE:

- TILE USING THE THINSET APPLICATION METHOD. INSTALL ALL MATERIALS IN ACCORDANCE WITH 2016 TILE COUNCIL OF NORTH AMERICA "HANDBOOK FOR CERAMIC, GLASS AND STONE TILE INSTALLATION" AND ANSI A108.5.
- TILE: METRO CERAMICS, QUARRY BASICS IRONSPOT QUARRY TILE.
FLOOR TILE SIZE: 6 INCH X 6 INCH
WALL BASE SIZE: 6 INCH COVE
COLOR: ITEM 571S PURITAN GRAY. PROVIDE SAMPLE BOARD FOR SELECTION PURPOSES. PROVIDE SAMPLE TO OWNER FOR APPROVAL PRIOR TO ORDERING.
- MORTAR: ANSI A118.4 LATEX MODIFIED PORTLAND CEMENT MORTAR AND WATER, SUITABLE FOR EXTERIOR USE.
- GROUT: TEC, SPECTRALOCK PRO EPOXY GROUT. COLOR AS SELECTED FROM MFR. FULL RANGE OF AVAILABLE SOLID COLORS.
- PERFORM WORK IN ACCORDANCE WITH ANSI A137.1B. CONFORM TO TCNA HANDBOOK, ANSI A108.5, AND ANSI A108.10. MAINTAIN 50 DEGREES F (10 DEGREES C) DURING INSTALLATION OF MORTAR MATERIALS.

FLOOR CRACK REPAIRS:

- SIKADUR 52 EPOXY PRESSURE INJECTION - INSTALL PER MFR. REQUIREMENTS. SMOOTH MATERIAL FOR SEAMLESS APPEARANCE AND ALLOW SUFFICIENT CURING TIME PRIOR TO INSTALLATION OF NEW FLOORING.



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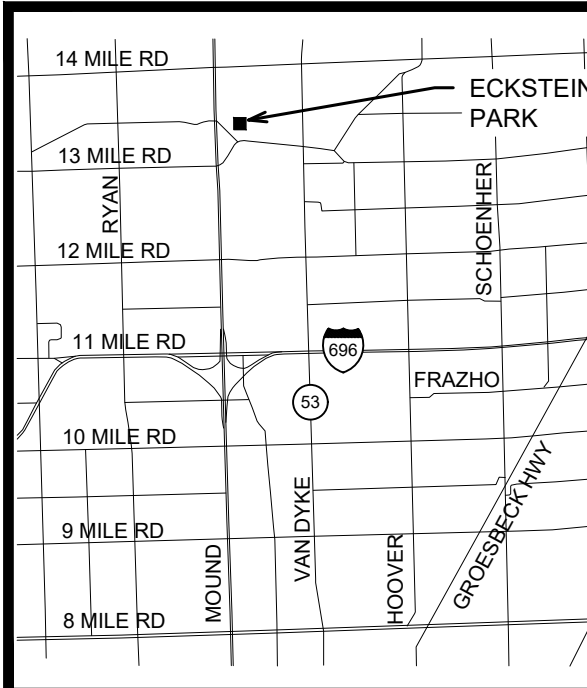
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DATE	ADDITIONS AND/OR REVISIONS
02-13-2025	ISSUED FOR BID
12-20-2024	100% OWNER REVIEW
07-16-2024	75% OWNER REVIEW

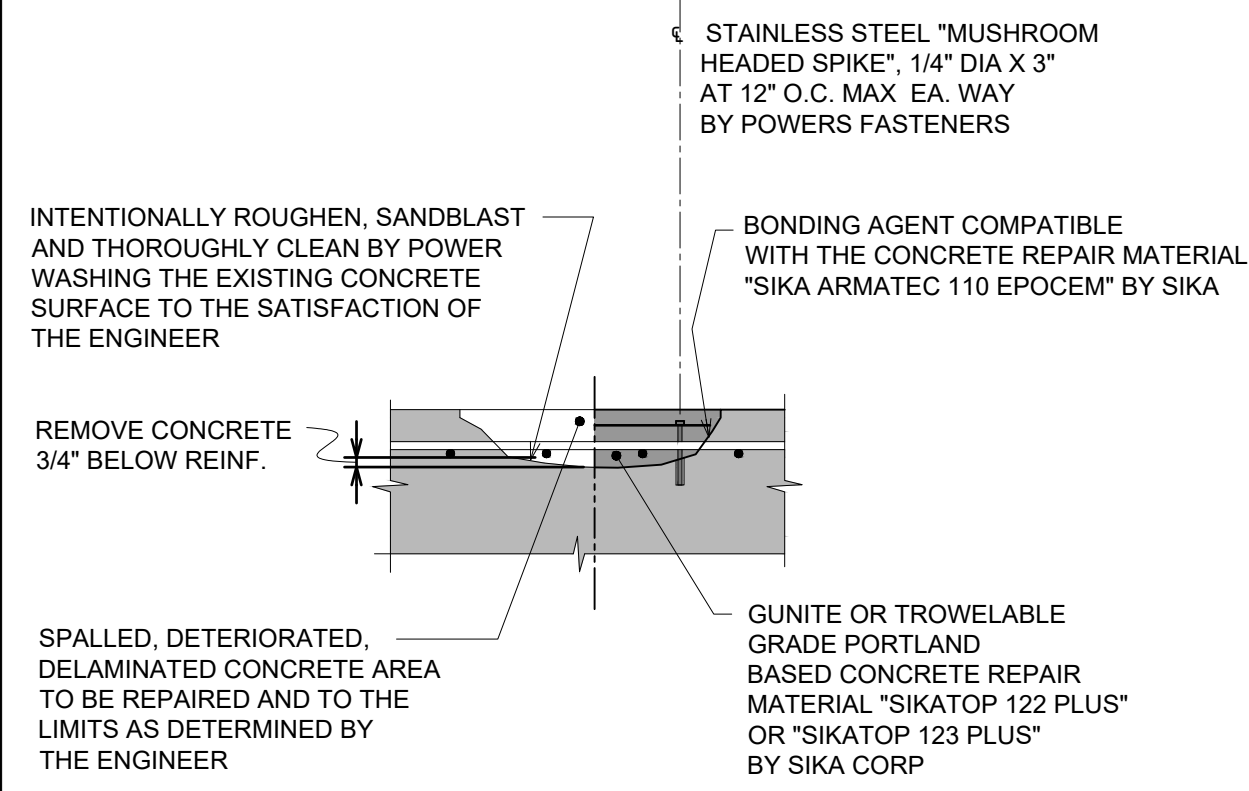
DESIGNED	STS
DRAWN	STS
CHECKED	AMM
APPROVED	MCM



CITY OF WARREN
ECKSTEIN PARK
RESTROOM IMPROVEMENTS
ITB-W-1253

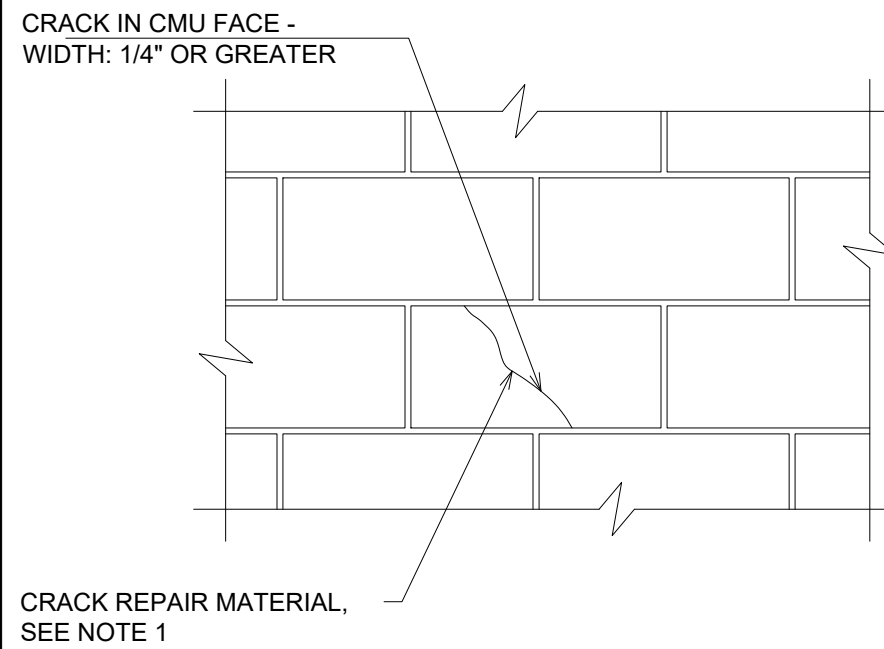
ARCHITECTURAL SPECIFICATIONS

HRC JOB NO. 20200165	SCALE AS NOTED
DATE FEBRUARY 2025	SHEET NO. G-1 OF



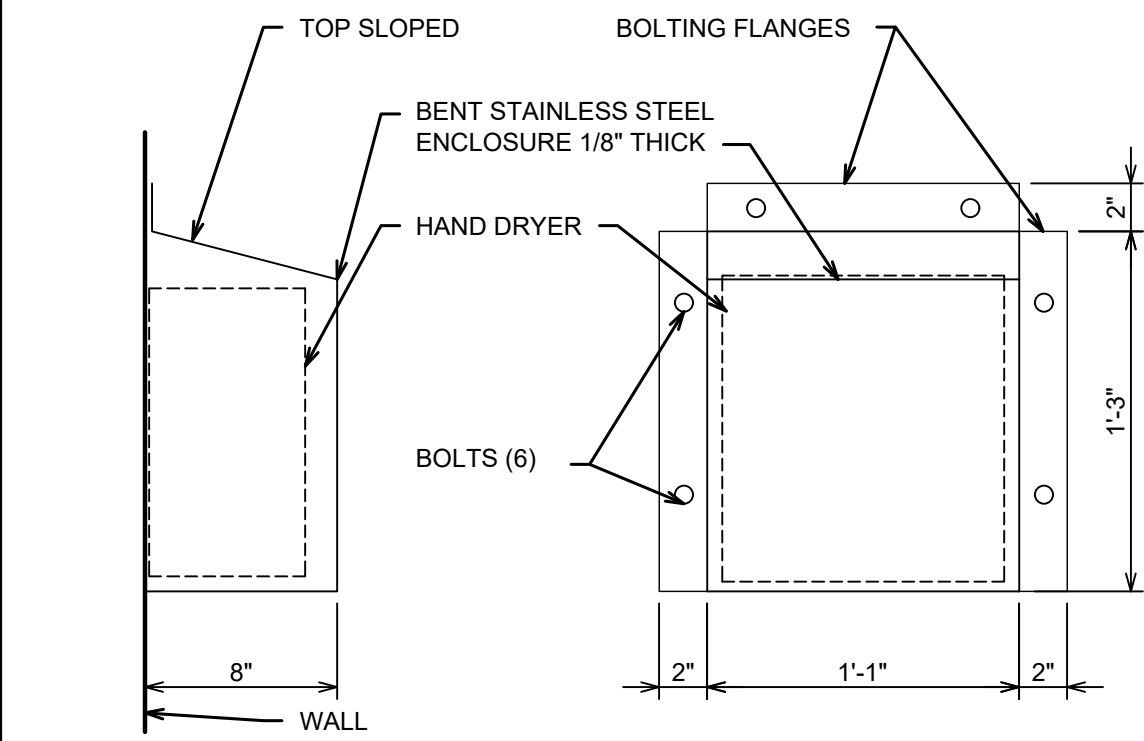
EXISTING & REMOVAL **PROPOSED**

CONCRETE SURFACE REPAIR
DEPTH: GREATER THAN 1"

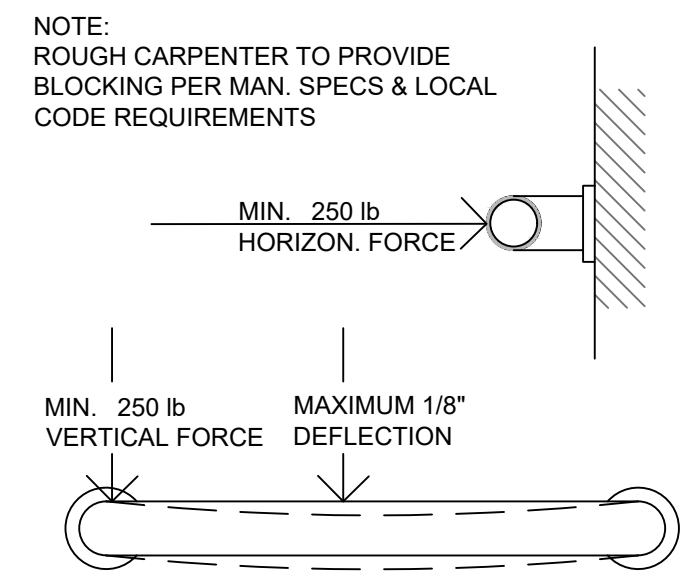


- CMU NOTES:**
- REPAIR APPLIES SPECIFICALLY TO CONCRETE MASONRY UNITS WITH CRACK(S) ACROSS FACE SHELL. FOR CRACKS THROUGH MORTAR, SEE ARCH FOR MASONRY REPOINTING.
 - REPAIR MATERIAL SHALL BE A TWO-COMPONENT, NON-SAG POLYURETHANE ELASTOMERIC SEALANT, "SIKAFLEX-2C NS EZ MIX" BY SIKA CORP OR APPROVED EQUAL.
 - PREPARE CMU WALL SURFACE IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. TOOL SEALANT AFTER APPLICATION TO PROVIDE SMOOTH SURFACE FOR PAINT. COMPLETELY REMOVE EXCESS SEALANT BEYOND CRACK PRIOR TO PAINTING.
 - CMU CRACK REPAIR TO BE COMPLETED PRIOR TO PAINTING.
 - TO BE PAID FOR UNDER "CRACKED CMU REPAIRS" BID ITEM. SEE PROPOSAL.

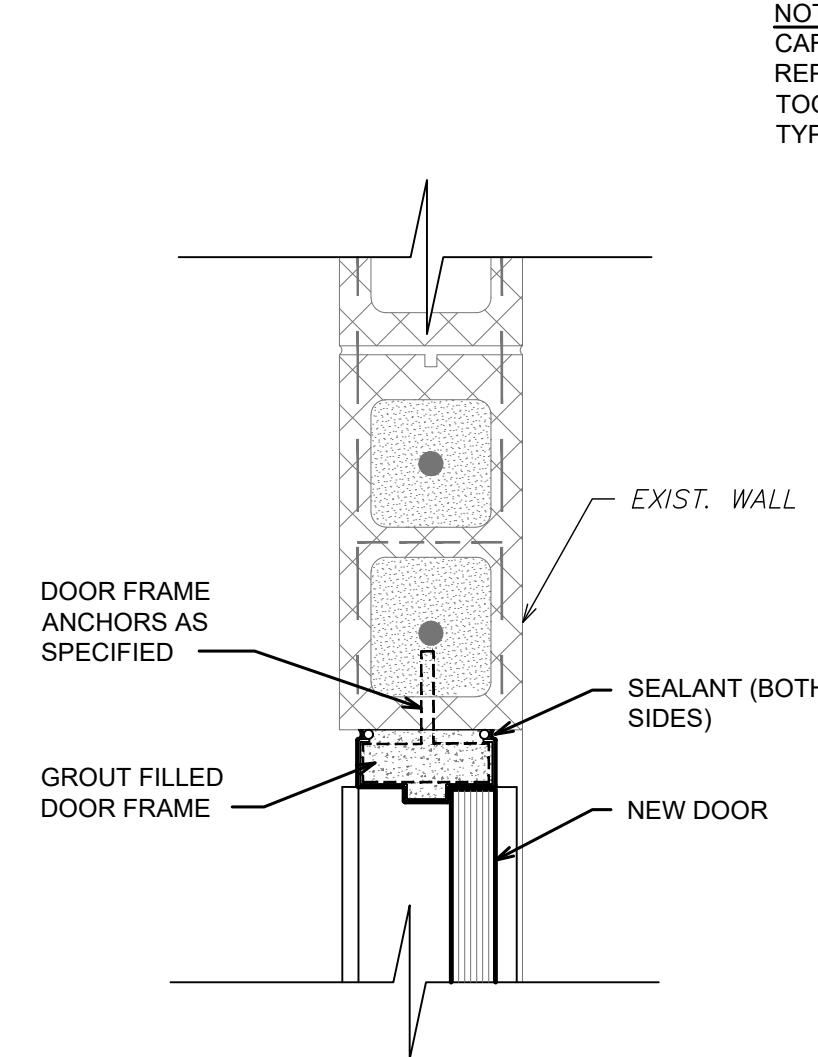
CMU CRACK REPAIR



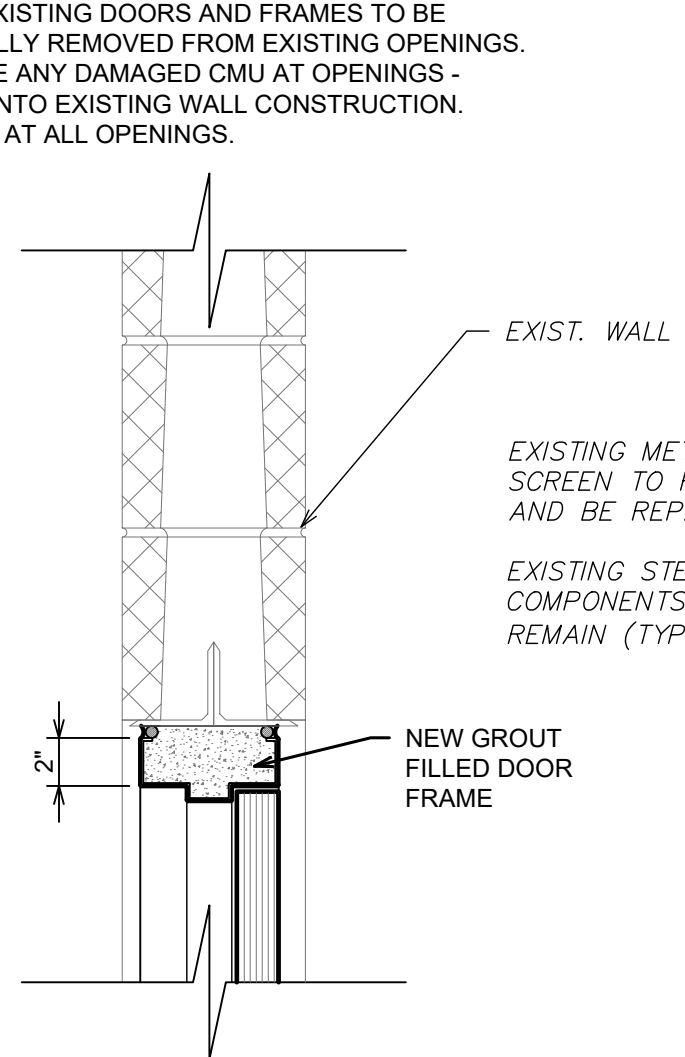
DRYER GUARD
SCALE: 1 1/2" = 1'-0"
NOTE: GUARD TO BE INSTALLED OVER ALL NEW HAND DRYERS



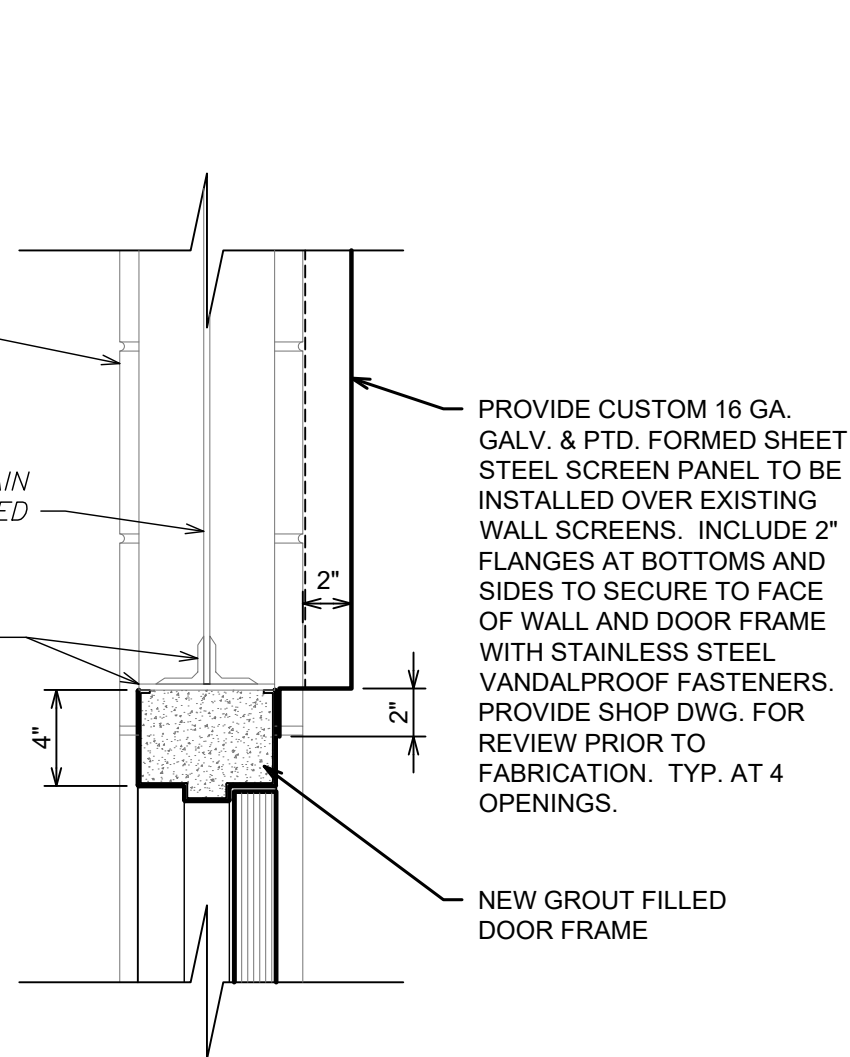
GRAB BAR DETAIL (TYP)
SCALE: NO SCALE



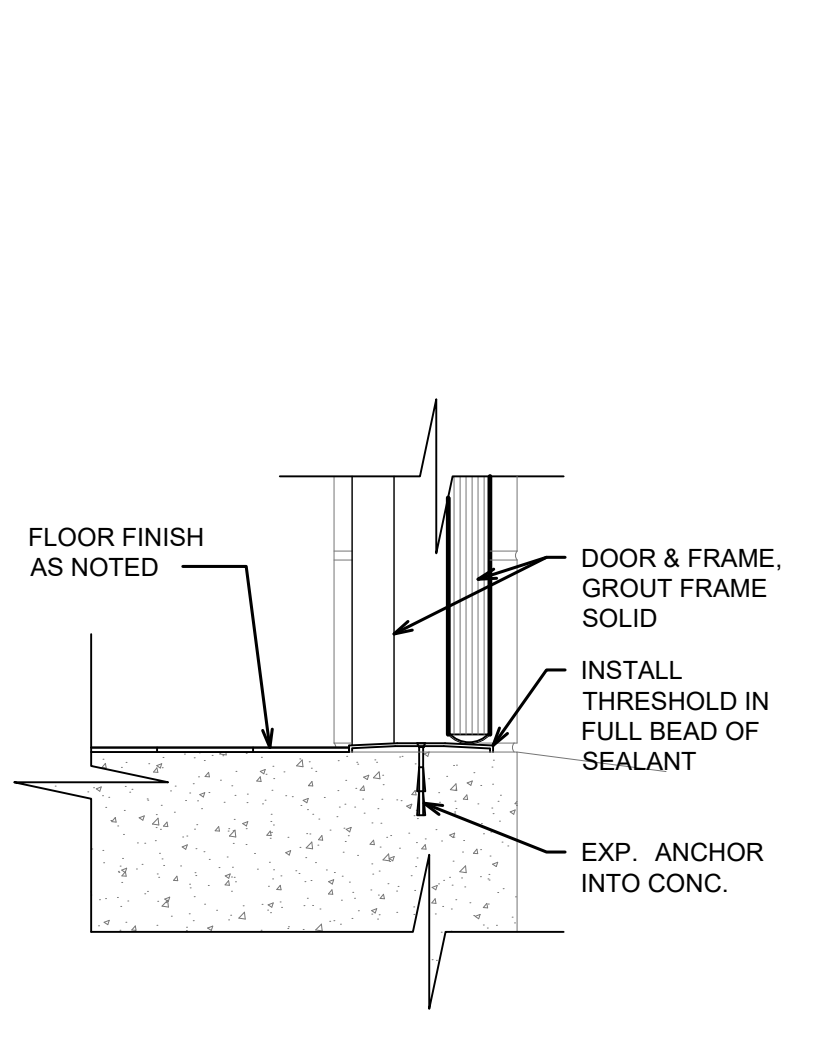
JAMB DETAIL J1
SCALE: 1 1/2" = 1'-0"



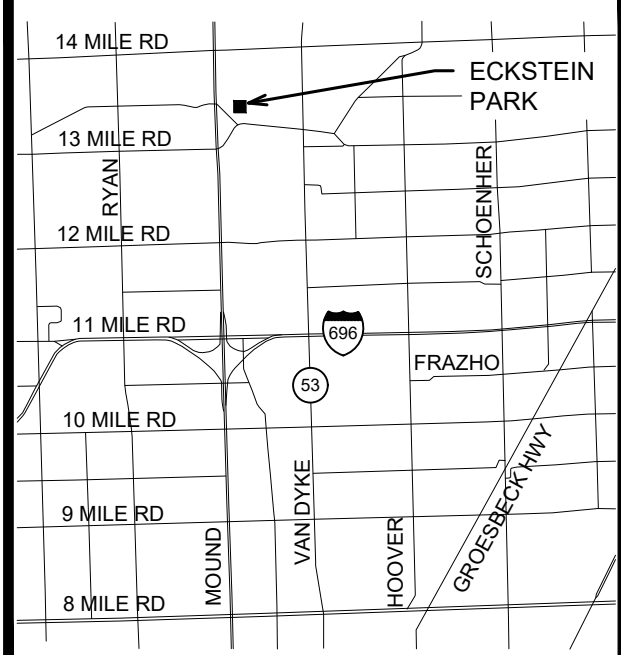
HEAD DETAIL H1
SCALE: 1 1/2" = 1'-0"



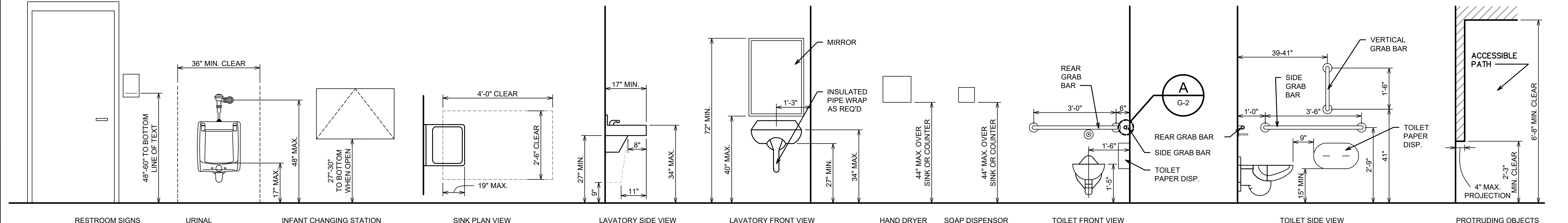
HEAD DETAIL H2
SCALE: 1 1/2" = 1'-0"



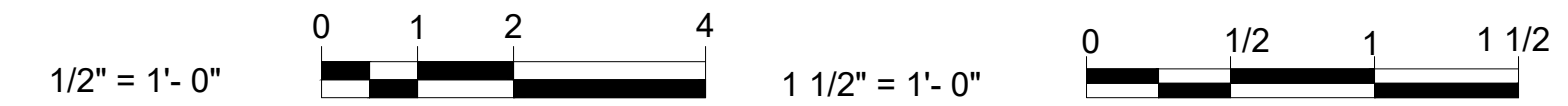
SILL DETAIL S1
SCALE: 1 1/2" = 1'-0"



CITY OF WARREN
ECKSTEIN PARK
RESTROOM IMPROVEMENTS
ITB-W-1253



ADA DETAILS
SCALE: 1/2" = 1'-0"



GENERAL DETAILS

HRC JOB NO. 20200165	SCALE AS NOTED
DATE FEBRUARY 2025	SHEET NO. G-2 OF

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02-13-2025	ISSUED FOR BID
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DESIGNED	STS
DRAWN	STS
CHECKED	AMM
APPROVED	MCM

ELECTRICAL GENERAL NOTES AND SPECIFICATIONS:

GENERAL NOTES

- OBTAIN AND PAY FOR ALL PERMITS, LICENSES, INSPECTIONS, APPROVALS AND FEES REQUIRED AND ENSURE THAT THE ENTIRE ELECTRICAL INSTALLATION CONFORMS TO CODES AND REGULATIONS REQUIRED BY AUTHORITY OR AGENCY HAVING JURISDICTION OVER THE INSTALLATION, ALTERATION OR CONSTRUCTION OF WORK INCLUDED. ALL FEES SHALL BE INCLUDED IN THE BASE PROPOSAL.
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE (N.E.C.), N.F.P.A., LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS INCLUDING ALL CITY OF WARREN REQUIREMENTS.
- ALL POWER WIRING 120 VOLTS AND GREATER SHALL BE INSTALLED IN CONDUIT AND SHALL BE NEW. THINWALL CONDUIT SHALL BE USED EXCEPT WHERE RIGID CONDUIT IS REQUIRED BY CODE.
- ALL MATERIALS USED SHALL BE NEW AND BEAR THE U.L. LABEL WHERE SUCH SERVICE AND LABEL ARE REGULARLY PROVIDED AND BE OF THE APPROPRIATE NEMA STANDARD.
- THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR AS INDICATED ON PLANS AND AS REQUIRED FOR A COMPLETE, REVISED ELECTRICAL SYSTEM.
- THE FOLLOWING ITEMS OR EQUIPMENT AND MATERIALS SHALL BE SUBMITTED FOR APPROVAL BY REFERENCE TO MANUFACTURER AND SPECIFIC CATALOG AND MODEL NUMBER: LTG. FIXTURES, PHOTOCCELL, LIGHTING CONTACTOR, WIRE, AND CONDUIT.
- THE CONTRACTOR SHALL VISIT THE JOB SITE, THOROUGHLY CHECK THE EXISTING FIELD CONDITIONS AND EXISTING ELECTRICAL INSTALLATIONS, AND CLARIFY ALL DISCREPANCIES WITH THE ENGINEER BEFORE SUBMITTING A BID. AS NO EXTRAS WILL BE ALLOWED FOR OMITTED WORK DUE TO FAILURE TO INSPECT THE PREMISES.
- ON COMPLETION OF WORK AND BEFORE FINAL PAYMENT IS MADE, THIS CONTRACTOR SHALL PREPARE "AS-BUILT DRAWINGS". CLEARLY INDICATE ON A SET OF CONTRACT DRAWINGS ALL THE CHANGES MADE DURING CONSTRUCTION, DUE TO FIELD CONDITIONS, ADDENDA, BULLETINS, ETC. DRAWINGS SHALL INDICATE THE INSTALLED LOCATION OF ALL EQUIPMENT, OUTLETS, ETC.
- WHEN THE JOB IS COMPLETE, CONTRACTOR SHALL PROVIDE THE OWNER WITH CERTIFICATE OF APPROVAL FROM THE ELECTRICAL INSPECTION AUTHORITY AND SHALL PROVIDE THE OWNER WITH A ONE YEAR WRITTEN GUARANTEE ON ALL NEW MATERIALS AND LABOR.

WORK AND CHANGES

- RE-SUPPORT EXISTING CONDUIT, BOXES, ETC. WHERE CEILING OR SUPPORT REVISIONS BY THE ARCHITECTURAL TRADES NECESSITATES NEW SUPPORTS. COORDINATE ALL WORK WITH THE ARCHITECTURAL TRADES.
- ALL DEMOLISHED ITEMS SHALL BE DISPOSED OF AWAY FROM THE SITE.

BASIC MATERIALS AND METHODS

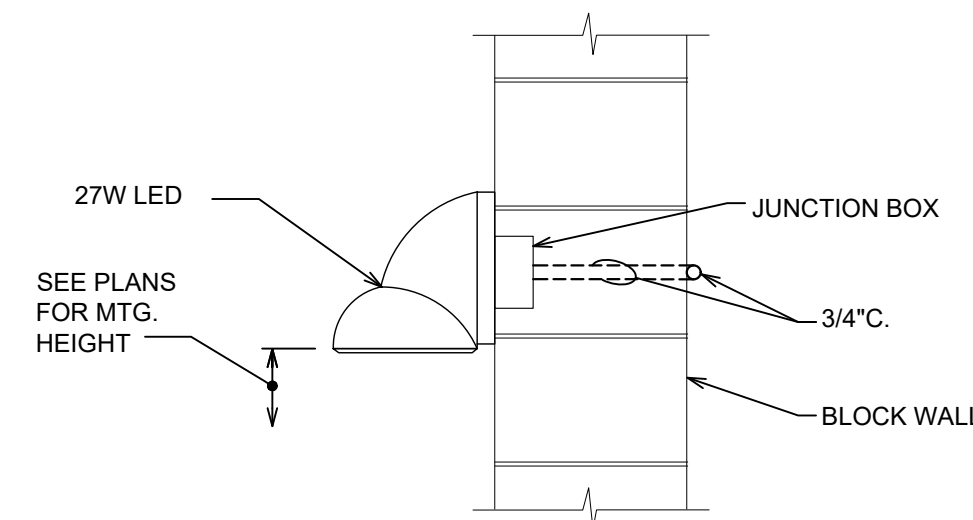
- WIRE FOR GENERAL USE SHALL BE COPPER, TYPE THHN/THWN, 90 DEGREES C. ALUMINUM WIRE SHALL NOT BE USED. ALL WIRE SHALL BE RATED AT 600 VOLTS, COPPER, MINIMUM SIZE NO. 12 A.W.G. INSTALLED IN EMT CONDUIT, SIZED AS SHOWN ON THE DRAWINGS, MINIMUM SIZE 3/4".
- BOXES SHALL BE GALVANIZED STEEL, CODE THICKNESS, A MINIMUM OF 1" DEEP AND OF SUFFICIENT SIZE TO ACCOMMODATE THE DEVICES THEY SERVE, ACCORDING TO N.E.C. REQUIREMENTS. PULL BOXES FOR ALL CONDUIT RUNS FOR ALL SYSTEMS SHALL BE INSTALLED AT INTERVALS NOT EXCEEDING 100 FEET OR AFTER 270 DEGREES OF BENDS.
- CONDUITS SHALL NOT BE SUPPORTED FROM MECHANICAL DUCTS, PIPE, OR PIPE AND DUCT SUPPORTS.
- ELECTRIC SYSTEM GROUNDING SHALL IN ALL INSTANCES COMPLY WITH THE MINIMUM REQUIREMENTS OF THE N.E.C. ALL CONDUITS SERVING WIRING OF 120 VOLTS OR GREATER SHALL INCLUDE A GROUND WIRE.
- ELECTRICAL ENCLOSURES, CONDUIT SYSTEMS, ETC., SHALL BE THOROUGHLY GROUNDED IN ACCORDANCE WITH THE N.E.C. AND ALL LOCAL CODES.
- PROVIDE WATERTIGHT HUBS AT CONDUIT ENTRANCES TO ALL WATERTIGHT (NEMA 4) ENCLOSURES.
- ALL CONDUITS SHALL BE ROUTED TO AVOID OPENINGS IN FLOORS, ROOFS, AND WALLS. LADDERS UP WALLS SHALL NOT BE CROSSED BY EXPOSED CONDUIT RUNS. PROVIDE THE MINIMUM CLEAR SPACE REQUIRED BY ALL GOVERNING CODES BETWEEN HANDRAILS AND ALL ELECTRICAL ENCLOSURES AND RACEWAYS, WHICH IN NO CASE SHALL BE LESS THAN 1 1/2" CLEAR.
- FOR ALL 120 VAC LIGHTING AND RECEPTACLE CIRCUITS, RUN 2-#12 (MINIMUM) + #12 GRD., 3/4". TO THE LIGHTING PANELBOARD INDICATED, UNLESS NOTED OTHERWISE.
- ELECTRICAL METALLIC TUBING (EMT) CONDUIT SHALL BE THIN WALL, GALVANIZED STEEL CONDUIT THAT COMPLIES WITH UNDERWRITER'S LABORATORIES STANDARD UL 797 AND SHALL BE MANUFACTURED BY WHEATLAND TUBE COMPANY OR ALLIED TUBE & CONDUIT CORPORATION. FITTINGS SHALL BE ANSINEMA FB 1, STEEL OR MALLEABLE IRON, AND COMPRESSION OR SET SCREW TYPE.
- GFI DUPLEX RECEPTACLES SHALL BE 125 VOLT, 3 WIRE GFCI TYPE WITH FACE MOUNTED TEST AND RESET BUTTONS AND MATCHING STAINLESS STEEL COVER PLATE, HUBBELL HBL GF-5362-I, LEVITON 6898-I, OR EQUAL. ALL SWITCHES AND RECEPTACLES SHALL BE PROVIDED WITH STAINLESS STEEL COVER PLATES AND LOCKABLE COVERS, OR LOCKABLE, METAL WEATHERPROOF WHILE-IN-USE

COVERS, AS INDICATED ON THE DRAWINGS.

- CIRCUIT BREAKERS SHALL BE OF THE BOLT-IN-PLACE TYPE USING SINGLE POLE OR COMMON TRIP AS INDICATED ON THE DRAWINGS. CIRCUIT BREAKERS SHALL BE OF THE MOLDED CASE TYPE WITH THERMAL MAGNETIC TRIP AND BREAKER HANDLES INDICATING "ON" - "OFF" AND "TRIP" POSITIONS. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE BREAKERS SHALL BE PROVIDED WHERE INDICATED ON THE DRAWINGS. BREAKERS SHALL HAVE 10,000 AMPERE INTERRUPTING CAPACITY MINIMUM AND SHALL BE APPROVED FOR "SWITCHING DUTY". CIRCUIT BREAKERS SHALL BE SQUARE D BY SCHNEIDER ELECTRIC TO MATCH EXISTING PANEL.
- LIGHTING CONTACTORS SHALL BE NEMA ICS 2, MAGNETIC LIGHTING CONTACTOR, ELECTRICALLY HELD, 2-WIRE CONTROL AS INDICATED ON THE DRAWINGS. LIGHTING CONTACTORS SHALL BE TWO POLE, 120 VOLTS, 60 HZ. THE CONTACTOR ENCLOSURE SHALL BE ANSINEMA ICS 6, TYPE 4 OR 12 AS REQUIRED TO MEET CONDITIONS OF INSTALLATION. CONTACTORS SHALL BE DESIGNED FOR CONTROL OF 240 VAC (MAXIMUM) LOADS AND SHALL BE EQUIPPED WITH COIL CLEARING CONTACTS TO DE-ENERGIZE THE COILS AFTER OPERATION. THE OPERATING COILS SHALL BE RATED FOR CONTINUOUS DUTY ON 120 VAC. MAGNETICALLY HELD CONTACTORS SHALL BE EQUIPPED WITH COIL CLEARING CONTACTS TO DE-ENERGIZE THE COILS AFTER OPERATION. LIGHTING CONTACTORS SHALL BE SQUARE D BY SCHNEIDER ELECTRIC CLASS 8903 OR EATON CUTLER-HAMMER A200 SERIES.
- PHOTOCCELL UNITS SHALL BE IN A WEATHERPROOF AND TAMPERPROOF POLYCARBONATE HOUSING WHICH MOUNTS THROUGH A 1/2" SWIVEL TO A JUNCTION BOX. IT SHALL HAVE A SPST SWITCH CONTACT CAPABLE OF CONTROLLING THE LUMINAIRE LOAD AT 120 VOLTS. IT SHALL HAVE AN ADJUSTABLE SHIELD TO SET THE ON OPERATING LEVEL. IT SHALL HAVE A TIME DELAY IN EXCESS OF 5 SECONDS INHERENT IN ITS DESIGN. THE PHOTOCCELL UNIT SHALL NOT BE AFFECTED BY MOISTURE, VIBRATION OR CHANGE IN TEMPERATURE. IT SHALL OPERATE SUCCESSFULLY IN CONNECTION WITH THE LIGHTING CONTACTORS. PHOTOCCELL UNITS SHALL BE INTERMATIC MODEL K4221C OR EQUAL.
- MOTION SENSOR SHALL BE 120V, PIR TYPE, OUTDOOR RATED. SENSOR SHALL INCLUDE MOUNTING HARDWARE AND SHALL BE LEVITON MODEL PS110-10W, RAB MODEL SMS500, OR HUBBELL "WASP."
- INDOOR OCCUPANCY SENSOR SHALL BE 120VAC, 10AMP RATED, CEILING MOUNTED, USING PIR TECHNOLOGY, AND SHALL HAVE A TIME DELAY ADJUSTMENT FROM 30 SECONDS TO 30 MINUTES. SENSOR SHALL BE MANUFACTURED BY LUTRON, LEVITON, HUBBELL, OR EQUAL.
- LIGHTING PANELBOARDS SHALL BE FACTORY ASSEMBLED FOR 120/240V, SINGLE PHASE, 3 WIRE, SOLID NEUTRAL SERVICE AS SHOWN ON THE DRAWINGS, WITH GROUND BUS. ALL PANELBOARD BUS WORK SHALL BE COPPER AND ALL TERMINALS OR LUGS SHALL BE 75°C RATED FOR COPPER CONDUCTORS. PANELBOARDS SHALL HAVE MAIN CIRCUIT BREAKERS OR MAIN LUGS ONLY WITH SINGLE, TWO, OR THREE POLE CIRCUITS AS INDICATED ON THE DRAWINGS. PANELBOARDS SHALL BE LISTED BY UL WITH AN INTEGRATED INTERRUPTING CAPACITY OF 22,000 RMS SYMMETRICAL AMPERES AT 240VAC, MINIMUM. SHALL BE SURFACE MOUNTED, OF CODE GAUGE COMMERCIAL HOT GALVANIZED SHEET STEEL WITH ANGLE IRON SUPPORTS PROVIDED FOR EASE IN ALIGNMENT OF PANEL INTERIOR AND NEMA TYPE 12 RATED. DOORS AND PANEL TRIM SHALL BE FINISHED WITH ONE PRIME CAT AND AT LEAST ONE FINISH COAT OF GRAY ENAMEL. DOORS SHALL BE FURNISHED WITH FLUSH TYPE COMBINATION CATCH AND LOCK. ALL PANEL LOCKS SHALL BE KEVED ALIKE AND SIX (6) KEYS SHALL BE FURNISHED OR DELIVERED TO THE OWNER. PANELS SHALL BE PROVIDED WITH A DIRECTORY ON THE INSIDE OF THE DOOR. CARD SHALL BE PROTECTED BY A PERMANENTLY TRANSPARENT PLASTIC WINDOW. PANELBOARDS SHALL BE EATON CUTLER-HAMMER POW-R-LINE 1, SQUARE D BY SCHNEIDER ELECTRIC NQOD, OR GENERAL ELECTRIC TYPE AQ.
- WIRING DUCTS SHALL BE NEMA TYPE 12 GALVANIZED STEEL, 14 GAUGE STEEL RACEWAYS, AND SHALL BE PROVIDED WITH REMOVABLE COVERS HELD WITH CAPTIVE SCREWS. THE DUCTS AND FITTINGS SHALL BE SIZED AS SHOWN ON THE DRAWINGS. THE WIRING DUCTS SHALL BE MANUFACTURED BY KEYSTONE, HOFFMAN ENGINEERING CO., B-LINE, OR EQUAL.
- CURRENT SENSOR SHALL BE SPLIT CORE, NORMALLY OPEN OUTPUT, DWYER SERIES CCS CURRENT SWITCH, OR EQUAL.
- CONTROL RELAY SHALL BE 120VAC, 10AMP RATED MINIMUM, MANUFACTURED BY ALLEN BRADLEY OR EQUAL.
- CONTROLS ENCLOSURE SHALL BE DUST AND OIL TIGHT, RATED NEMA TYPE 12, AND OF 14 GAUGE PAINTED SHEET STEEL CONSTRUCTION. THE DOORS SHALL BE GASKETED. PROVIDE AN INTERNAL, MILD STEEL SUBPLATE FOR MOUNTING OF INTERNAL COMPONENTS. PROVIDE TERMINAL BLOCKS AND ASSOCIATED COMPONENTS AS REQUIRED. SIZE OF CONTROLS ENCLOSURE SHALL BE SIZED AS REQUIRED.
- MANUAL MOTOR STARTER SHALL BE OF THE TOGGLE SWITCH, "ON-OFF" TYPE, AND SHALL BE HORSEPOWER RATED WITH THERMAL OVERLOADS. THE STARTERS SHALL BE SINGLE POLE AND ENCLOSURES SHALL BE NEMA TYPE 1. THE STARTERS SHALL BE BY EATON, SCHNEIDER ELECTRIC, OR EQUAL.

LIGHTING FIXTURE SCHEDULE				
TYPE	LAMP	OPERATING VOLTAGE	DESCRIPTION	MFR. CAT. NO.
"A"	49W, 2LED 4000K, 5072 LUMENS	120V.	CEILING MOUNTED 48" LINEAR FIXTURE W/ MATTE WHITE FINISH, IP64 RATED, PEARLESCENT POLYCARBONATE LENS AND INTEGRATED MOTION SENSOR	KENALL: MLH48-48-F-MW -PP-2-45L40K- 120-MS OR FAILSAFE EQUIVALENT
"OA"	27W, LED 4000K, 3000 LUMENS	120V.	WALL MOUNTED 9" FULL-CUTOFF FIXTURE, DARK BRONZE FINISH, IP65 RATED, CLEAR POLYCARBONATE LENS, HIGH IMPACT RESISTANT	KENALL: FN9-3-7-DB -24L-40K7-DV OR LIGMAN EQUIVALENT

ELECTRICAL LEGEND	
○	LED LIGHTING FIXTURE
S	SINGLE POLE SWITCH
□	LIGHTING PANEL
□ J.B.	JUNCTION BOX
⊕	DUPLEX RECEPTACLE
⊔	DISCONNECT
⊕	MOTOR, SINGLE PHASE
⊕	OCCUPANCY SENSOR
—	CONDUIT RUN EXPOSED
—	ELECTRICAL HOMERUN
P.V.C.	SCHED. 40 POLYVINYL CHLORIDE CONDUIT
R.G.S.	RIGID GALVANIZED STEEL
E.M.T.	ELECTRICAL METALLIC TUBING
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
W.T.	WATERTIGHT (NEMA 4)
W.T.X.	WATERTIGHT, CORROSION RESISTANT (NEMA 4X)
W.P.	WEATHER PROOF (NEMA 3R)
C.	CONDUIT
CKT.	CIRCUIT
G.F.I.	GROUND FAULT INTERRUPTER
GRD.	GROUND CONDUCTOR



TYPE "OB" MOUNTING DETAIL
N.T.S.
(TYPE "OC" MOUNTING SIMILAR)



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DATE	ADDITIONS AND/OR REVISIONS
02-13-2025	ISSUED FOR BID
12-20-2024	100% OWNER REVIEW
07-16-2024	75% OWNER REVIEW
DESIGNED	STS
DRAWN	STS
CHECKED	AMM
APPROVED	MCM



CITY OF WARREN ECKSTEIN PARK RESTROOM IMPROVEMENTS ITB-W-1253

ELECTRICAL NOTES, SPECIFICATIONS, SCHEDULES, AND DETAILS

HRC JOB NO. 20200165	SCALE AS NOTED
DATE FEBRUARY 2025	SHEET NO. G-3 OF

GENERAL MECHANICAL SPECIFICATIONS

GENERAL REQUIREMENTS:

READ AND BE BOUND BY THE ARCHITECTURAL SPECIFICATIONS.

THESE SPECIFICATIONS, ALL OTHER DOCUMENTS ATTACHED HERETO, ALL ADDENDA ISSUED AND THE ACCOMPANYING PLANS ARE INTENDED TO PROVIDE FOR THE COMPLETE FURNISHING AND INSTALLATION OF THE ENTIRE MECHANICAL SYSTEM.

THE WORK SHALL BE DONE IN ACCORDANCE WITH BEST PRACTICE SO AS TO CONTRIBUTE TO EFFICIENCY OF OPERATION AND MINIMUM MAINTENANCE AND SHALL BE INSTALLED WITH PROPER ACCESSIBILITY. THE MATERIALS AND EQUIPMENT, INCLUDING ALL NECESSARY ACCESSORIES, SHALL BE PUT INTO PROPER ADJUSTMENT SO THAT THE COMPONENT PARTS FUNCTION TOGETHER AS A WORKABLE SYSTEM. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS AND OPERATIONS AS INDICATED EITHER ON THE DRAWINGS OR CONTAINED HEREIN OR AS MAY BE REASONABLY IMPLIED BY EITHER TO ACCOMPLISH THE COMPLETE INSTALLATION.

PROVIDE ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY FOR COMPLETE AND OPERABLE MECHANICAL SYSTEMS. PROVIDE ALL NECESSARY TESTS AND PAY FOR ALL FEES, PERMITS, INSPECTIONS, ETC. AS REQUIRED BY LOCAL AUTHORITIES. SECURE PERMITS PRIOR TO STARTING WORK. OBTAIN ALL PERMITS, LICENSES, INSPECTIONS AND BONDS. PERFORM ALL TESTS REQUIRED. UPON COMPLETION OF THE WORK, OBTAIN AND SEND CERTIFICATES OF INSPECTION AND APPROVAL TO THE ARCHITECT/OWNER. PAY ALL FEES AND EXPENSES FOR PERMITS, LICENSES, TESTS AND INSPECTIONS.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR THAT HIS WORK IS INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER AND THAT INTERFERENCE IS AVOIDED.

THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE EQUIPMENT AND SYSTEMS TO BE INSTALLED AND THE GENERAL LOCATION AND ARRANGEMENT OF MECHANICAL WORK. DUE TO THE SCALE OF THE DRAWINGS IT IS NOT POSSIBLE TO INDICATE THE EXACT LOCATION AND ROUTING OF MECHANICAL WORK, UNLESS REFERENCE DIMENSIONS ARE SPECIFICALLY INDICATED ON DRAWINGS. DEVIATIONS FROM CONTRACT DRAWING LAYOUT IN ORDER TO AVOID INTERFERENCES WITH OTHER TRADES, OR OTHER MECHANICAL WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT, WITH NO INCREASE IN CONTRACT PRICE. ALL COSTS FOR REMOVAL AND RELOCATION OF MECHANICAL WORK RESULTING FROM FAILURE TO COORDINATE WITH OTHER TRADES SHALL BE PAID BY THE MECHANICAL SUBCONTRACTOR.

INSTALLATION SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES. THE CONTRACTOR SHALL BE HELD TO BE FULLY INFORMED OF ALL LAWS, ORDINANCES AND CODES, AND SHALL, IN THE PERFORMANCE OF THE CONTRACT, COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL AFORESAID REGULATIONS. ANY DEVIATION FROM THE PLANS OR SPECIFICATIONS AND ANY ADDITIONAL WORK NECESSARY TO MEET CODE REQUIREMENTS, SHALL BE MADE BY THE CONTRACTOR WITHOUT EXTRA COST TO THE OWNER.

WORK SHALL BE DONE IN ACCORDANCE WITH THE RULES OF LOCAL UTILITY COMPANIES.

ALL EQUIPMENT IS TO BE U.L. LISTED AND LABELED.

THE MECHANICAL TRADES (M.T.) SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. NOTIFY THE ARCHITECT OF INTERFERENCES OR DISCREPANCIES.

EACH TRADE SHALL BE RESPONSIBLE FOR ITS OWN CLEAN-UP. COORDINATE WITH THE ARCHITECTURAL TRADES (A.T.).

UNLESS OTHERWISE NOTED, ALL CUTTING SHALL BE PROVIDED BY THE M.T. AND PATCHING BY THE A.T. COORDINATE ALL OPENINGS WITH THE A.T.

GUARANTEE: THE M.T. SHALL REPAIR OR REPLACE ANY PART OF THE MECHANICAL SYSTEMS INSTALLATION WHICH MAY FAIL WITHIN A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE.

TESTS, ADJUSTMENTS AND ACCEPTANCE

UPON COMPLETION OF THE ERECTION OF ALL EQUIPMENT AND ALL WORK SPECIFIED HEREIN AND/OR SHOWN ON THE APPROVED SHOP DRAWINGS, OR AT SUCH TIME AS DIRECTED BY THE ARCHITECT, THIS SUBCONTRACTOR SHALL START ALL APPARATUS, MAKE NECESSARY TESTS AS DIRECTED AND AS SPECIFIED HEREIN, AND MAKE COMPLETE ADJUSTMENTS OF ALL ITEMS OF EQUIPMENT BEFORE ACCEPTANCE BY THE ARCHITECT TO WHOSE REPRESENTATIVE THIS SUBCONTRACTOR SHALL DEMONSTRATE (BY PERFORMANCE) ALL OF THE VARIOUS APPARATUS AND EQUIPMENT. START UP AND ADJUSTMENT OF EQUIPMENT SHALL INCLUDE ALL EQUIPMENT FURNISHED AND INSTALLED BY THIS CONTRACTOR.

WORK UNDER THIS SECTION OF THE SPECIFICATIONS SHALL NOT BE CONSIDERED COMPLETE UNTIL THIS SUBCONTRACTOR HAS OBTAINED REQUIRED INSPECTIONS, CONDUCTED PERFORMANCE TESTS, MADE NECESSARY ADJUSTMENTS AND HAS SUBMITTED SATISFACTORY EVIDENCE OF COMPLIANCE. THE ARCHITECT SHALL MAKE SPOT CHECKS TO DETERMINE THE ACCURACY AND COMPLETENESS OF FINAL ADJUSTMENTS. SHOULD SPOT CHECKS INDICATE MORE THAN A REASONABLE DEVIATION FROM DESIGN DRAWINGS AND REQUIREMENTS, THIS SUBCONTRACTOR SHALL REPEAT TESTS AND ADJUSTMENTS TO THE SATISFACTION OF THE ARCHITECT. DURING THE TESTING PERIOD, THIS SUBCONTRACTOR SHALL MAINTAIN ON THE JOB A COMPETENT INDIVIDUAL, THOROUGHLY FAMILIAR WITH ALL PHASES OF THE HEATING AND VENTILATION SYSTEMS, FOR AS LONG AS MAY BE REQUIRED TO THOROUGHLY ADJUST ALL OF THE SYSTEMS AND TO DEMONSTRATE TO THE ARCHITECT AND/OR ENGINEER THAT THEY ARE FUNCTIONING PROPERLY.

PLUMBING SPECIFICATIONS

GENERAL

SEWERS ARE TO BE PITCHED DOWN IN DIRECTION OF FLOW AT 1/8" PER FOOT UNLESS OTHERWISE NOTED. PITCH VENT PIPING UP. WATER PIPING SHALL BE PITCHED TO FACILITATE DRAINAGE.

PROVIDE MINIMUM 10 PIPE DIAMETERS DISTANCE BETWEEN FIXTURE CONNECTIONS TO HORIZONTAL UNDERGROUND WASTE OR SOIL STACKS.

CONNECT TO PLUMBING SERVICES AS INDICATED ON THE MECHANICAL DRAWINGS.

ALL PIPING SHALL BE CONCEALED UNLESS NOTED OR APPROVED BY THE ARCHITECT. EXPOSED PIPING SERVING PLUMBING FIXTURES SHALL BE CHROME PLATED.

PROVIDE CLEANOUTS AT THE BASE OF ALL WASTE STACKS AND RAIN

CONDUCTORS, CHANGES IN DIRECTION GREATER THAN 45 DEGREES AND 50 FEET ON CENTER ON STRAIGHT RUNS.

PROVIDE BRANCH LINE SHUT-OFF VALVES ON DOMESTIC WATER PIPING TO EACH GROUP OF PLUMBING FIXTURES OR EQUIPMENT. PROVIDE CHROME PLATED RIGID SUPPLIES WITH LOOSE KEY STOPS AT EACH FIXTURE.

ALL HOSE END FITTINGS ARE TO BE FURNISHED WITH WATTS 84 VACUUM BREAKERS.

ALL VALVES ARE TO BE TYPES AS RECOMMENDED BY THE MANUFACTURER FOR THE INTENDED SERVICE AND SHALL BE PROPERLY RATED FOR PRESSURE AND TEMPERATURE.

TO PREVENT ELECTROLYTIC CORROSION, PROVIDE INSULATED COUPLINGS WHERE DISSIMILAR METALS ARE JOINED. COUPLINGS SHALL BE EQUAL TO LOCHINVAR "V-LINE" WITH AN INERT, NON-CONDUCTIVE, LINED-IMPREGNATED LAMINATE MATERIAL AND THREADED TO NPS STANDARDS. COUPLINGS SHALL BE SUITABLE FOR HYDROSTATIC PRESSURE UP TO 300 PSI AND 225 DEGREE F. TEMPERATURE.

PIPE INTERIOR CLEANING:

PROVIDE ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO FLUSH THE LISTED PIPING SYSTEM WITH CLEAN WATER AT A MINIMUM VELOCITY OF 6 FEET/SECOND UNTIL DIRTY WATER DOES NOT APPEAR AT THE OUTLETS. USE OPEN END BRANCHES, SETTILING BASINS, PUMPS, OR TEMPORARY FILTERS AS SUITABLE FOR THE JOB CONDITIONS AND AS THE REASONABLE DISPOSAL OF FLUSHING WATER PERMITS. THE CONTRACTOR HAS THE OPTION OF HIGH PRESSURE HYDRAULIC JET CLEANING IN LIEU OF FLUSHING.

PROTECT ALL VALVES AND DEVICES FROM DAMAGE DURING THE CLEANING OPERATION.

DISINFECTION:

A. ALL DOMESTIC WATER SYSTEMS SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED PRIOR TO UTILIZATION. THE METHOD TO BE FOLLOWED SHALL BE AS PRESCRIBED BY THE HEALTH AUTHORITY HAVING JURISDICTION, OR IN THE ABSENCE OF A PRESCRIBED METHOD, THE PROCEDURE IN EITHER AWWA C651 OR AWWA C652 OR AS FOLLOWS:

1. FLUSH OUT SYSTEM FIRST, THEN HOLD A SOLUTION MIXTURE OF 50 PPM OF CHLORINE/ WATER FOR A 24 HOUR PERIOD OR THE SYSTEM SHALL BE FILLED WITH WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PPM OF CHLORINE AND ALLOWED T REMAIN TO STAND FOR AT LEAST 3 HOURS. DRAIN SYSTEMS AND FLUSH WITH CLEAN WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
2. CHLORINATION PROCEDURES SHALL CONFORM TO AWWA C651 OR AWWA C652. REPEAT CHLORINATION AS NECESSARY UNTIL NO CONTAMINANTS REMAIN IN THE SYSTEM.

PLUMBING MATERIALS

UNDERGROUND SEWERS AND VENTS SHALL BE STANDARD WEIGHT CAST IRON SOIL PIPE WITH COMPRESSION TYPE FITTINGS OR SCHEDULE 40 PVC.

ABOVEGROUND WASTE AND VENT PIPING SHALL BE CAST IRON WITH NO-HUB JOINTS, SCHEDULE 40 GALVANIZED STEEL, ALUMINUM WITH NO-HUB CAST IRON JOINTS OR DWV COPPER. SCHEDULE 40 PVC MAY BE USED ABOVEGROUND WHERE CODE PERMITS. ALL PIPING IN RETURN AIR PLENUMS SHALL BE PLENUM RATED WITH MAXIMUM FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 OR LESS.

DOMESTIC WATER PIPING 2-1/2" AND SMALLER SHALL BE TYPE "L" HARD DRAWN COPPER WITH LEAD-FREE SOLDER TYPE FITTINGS. ALL UNDERFLOOR PIPING IS TO BE TYPE "K" COPPER WITH NO JOINTS.

WATER, SEWER AND VENT PIPING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE ON CLEVIS TYPE HANGERS SPACED IN ACCORDANCE WITH ASHRAE GUIDE RECOMMENDATIONS.

WHERE PIPING PENETRATES UNDERGROUND BUILDING WALLS, THE PIPING SHALL BE RUN THROUGH A SLEEVE 2" LARGER IN DIAMETER THAN THE LINE, AND THE SPACE BETWEEN THE SLEEVE AND THE PIPE SHALL BE SEALED EXPANDING NEOPRENE EQUAL TO METRAFLEX "METRASEAL" OR "LINK-SEAL" BY THUNDERLINE.

PLUMBING SPECIALTIES

PLUMBING SPECIALTIES SHALL BE JOSAM, J.R. SMITH, WADE, MIFAB, SIOUX CHIEF OR ZURN.

CLEANOUTS: THREADED BRASS PLUGS WITH ZURN Z-1460-9 STAINLESS STEEL COVER IN WALLS AND Z-1400-2 NICKEL BRONZE SCORiated COVER IN FLOORS.

TRAP SEALS SHALL BE PROVIDED FOR ALL FLOOR DRAINS TO PREVENT TRAP EVAPORATION. SEALS SHALL BE EQUAL TO RECTORSEAL "SURESEAL", SIZED TO MATCH THE DRAIN TRAP.

PLUMBING FIXTURES

PLUMBING FIXTURES FOR PHYSICALLY HANDICAPPED USE SHALL BE MOUNTED AND PIPED PER STATE OF MICHIGAN "BARRIER FREE CODE" (ADA) REQUIREMENTS. PROVIDE ADJUSTMENT CAP WITH LOCKING FEATURE.

JOINTS BETWEEN PLUMBING FIXTURES AND WALLS OR COUNTERTOPS SHALL BE FILLED WITH WHITE PLASTIC SEAM COMPOUND EQUAL TO DE WITT "TUB AND TILE CAULK".

MECHANICAL SPECIFICATIONS

EXHAUST AIR DUCTWORK SHALL BE GALVANIZED STEEL, CONSTRUCTED OF PROPER PRESSURE CLASSIFICATION GAUGES AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. MINIMUM 2" PRESSURE RATING FOR LOW VELOCITY SYSTEMS.

RECTANGULAR DUCT JOINTS SHALL BE CONNECTED WITH DUCTMATE 25/35/45 JOINT SYSTEMS THAT UTILIZE ROLL-FORMED FLANGES, CORNER PIECES, GASKET AND CLEAT. DUCT JOINTS MAY BE INDIVIDUALLY REMOVED. SEAL ALL JOINTS WITH UL 181B-M LISTED JOINT SEALANT EQUAL TO DUCTMATE PROSEAL, HARDCAST OR AIRSEAL FOR THE APPROPRIATE PRESSURE CLASSIFICATION,

TEMPERATURE AND WEATHER-RESISTANCE.

ROUND SPIRAL DUCT FITTINGS AND ELBOWS SHALL BE JOINED USING SLIP-JOINT FITTINGS. FITTING SHALL HAVE A STOP BEAD TO LOCATE FITTING INSIDE PIPE. ALL PIPE TO PIPE CONNECTIONS REQUIRE A SLIP COUPLING THAT FITS INSIDE BOTH MATING SECTIONS. SEAL ALL JOINTS WITH UL 181B-M LISTED JOINT SEALANT EQUAL TO DUCTMATE PROSEAL, HARDCAST OR AIRSEAL FOR THE APPROPRIATE PRESSURE CLASSIFICATION, TEMPERATURE AND WEATHER-RESISTANCE.

DUCTWORK FITTINGS SHALL BE PER SMACNA RECOMMENDATIONS. RADIUS TURNS ON SUPPLY AIR DUCTS SHALL BE 1-1/2 TIMES DUCT WIDTH MINIMUM, WHERE SPACE OR CLEARANCE REQUIRES THE USE OF MITERED TURNS, PROVIDE HIGH PERFORMANCE DOUBLE THICKNESS TURNING VANES EQUAL TO AERO/DYNE "HEP" AND VOLUME DAMPERS. REFER TO DETAILS ON THE DRAWINGS.

PROVIDE FACTORY MANUFACTURED TEST HOLE UNITS IN DUCTWORK WHERE REQUIRED TO FACILITATE AIR BALANCE.

ALL DUCTWORK AND PIPING INSIDE THE BUILDING IS TO BE SUSPENDED FROM THE TOP CORD OF BAR JOIST AT PANEL POINTS ONLY OR WITH BEAM CLAMPS AT BEAM MEMBERS.

DUCT SIZES INDICATED ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

THE CONTRACTOR HAS THE OPTION OF USING EQUIVALENT SIZE ROUND DUCT (NOT FLEXIBLE DUCT) WHERE SPACE PERMITS.

NO OUTDOOR AIR INTAKES ARE TO BE LOCATED WITHIN 10 FEET OF EXHAUST FAN DISCHARGE OR PLUMBING VENTS.

M.T. SHALL FURNISH AND INSTALL ALL REQUIRED AUTOMATIC CONTROLS INCLUDING ELECTRICAL WIRING, TRANSFORMERS, ETC. FOR PROPER OPERATION OF THE HVAC SYSTEM MODIFICATIONS. WIRING SHALL BE IN ACCORDANCE WITH N.E.C. STANDARDS. POWER FOR CONTROLS IS AVAILABLE IN ONE OF THE ELECTRICAL PANELS. COORDINATE CIRCUIT AND BREAKER SIZE REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.

AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PDF VERSION OF "AS-BUILT" DRAWINGS OF ALL HVAC WORK.

DIFFUSERS AND REGISTERS

DIFFUSERS AND REGISTERS SHALL BE MANUFACTURED BY PRICE, CARNES, TUTTLE & BAILEY, TITUS OR KRUEGER. PROVIDE DAMPERS AT EACH DIFFUSER AND REGISTER. PROVIDE BAKED OFF-WHITE ENAMEL FINISH UNLESS NOTED.

FANS

IN-LINE FANS SHALL BE PENN, COOK, ACME OR GREENHECK MODEL SQ, DIRECT DRIVEN TYPE IN-LINE CENTRIFUGAL FAN WITH GALVANIZED STEEL HOUSING, CORROSION RESISTANT FASTENERS, ALUMINUM WHEEL, VARI-GREEN EC MOTOR AND DRIVE OUT OF THE AIR STREAM, DUCT CONNECTION FLANGES, HANGER KIT WITH NEOPRENE ISOLATIONS, DISCONNECT SWITCH. REFER TO FAN SCHEDULE ON THE DRAWINGS.

AIR AND WATER BALANCING

THE AIR SYSTEMS ARE TO BE BALANCED TO WITHIN 5% OF THE QUANTITIES INDICATED ON THE DRAWINGS.

PREPARE AN AIR BALANCE REPORT COMPLETE WITH AN 8-1/2" X 11" SKETCH OF EACH SYSTEM ON FORMS SIMILAR TO AABC OR NEBB AND SCHEDULE EACH OUTLET, FAN, TERMINAL UNIT, ETC. INCLUDE SUCTION AND DISCHARGE STATIC PRESSURES AT EACH FAN. SUBMIT (6) COPIES OF THE REPORT TO THE ARCHITECT.

PREPARE A WATER BALANCE REPORT ON FORMS SIMILAR TO AABC OR NEBB AND SCHEDULE EACH NEW FINNED TUBE PIPING LOOP. SUBMIT (6) COPIES OF THE REPORT TO THE ARCHITECT.

BALANCE IS TO BE PERFORMED BY AN INDEPENDENT AND CERTIFIED SYSTEMS BALANCE CONTRACTOR.

PLUMBING FIXTURE SCHEDULE

TAG	ITEM	MAKE	MODEL NAME	MODEL NUMBER	PIPE CONNECTION SIZES				NOTES/ACCESSORIES
					W	V	CW	HW	
FD-1	FLOOR DRAIN	JR SMITH		2005Y-805NB-U	SEE PLANS	-	-	-	A, B, G, L, Q
LAV-1	LAVATORY	ACORN	PENAL-WARE STAINLESS STEEL	1652LRB-ADA	1 1/2"	1 1/2"	1/2"	-	A, B, E, F, G, AA, CC, FF, GG
UR-1	URINAL	ACORN	PENAL-WARE STAINLESS STEEL	1709	2"	1 1/2"	1"	-	WALL MOUNT CONCEALED VALVE, ADA A, B, O, JJ, MM
WC-1	WATER CLOSET	ACORN	DURA-WARE STAINLESS STEEL	2120	4"	2"	1"	-	FLOOR/WALL MOUNT FLOOR OUTLET, EXPOSED VALVE, ADA A, B, C, J, M, DD, LL
HB-1	HOSE BIB	ZURN		Z1341-C12-RC	-	-	3/4"	-	w/ Z1399-VB VACUUM BREAKER
MS-1	MOP SINK	MUSTEE	24x24 SMG FIBERGLASS	63 CM	3"	2"	1/2"	1/2"	SERVICE FAUCET w/ WALL BRACKET & VACUUM BREAKER, MOP HANGER, HOSE KIT

PLUMBING FIXTURE NOTES/ACCESSORIES

A	B	C
VERIFY COLOR/FINISH WITH ARCHITECT	PROVIDE ALL SLEEVES, TEMPLATES, ETC. AS REQUIRED FOR ROUGH-IN OF FIXTURES. COORDINATE WITH ARCHITECTURAL TRADES.	PROVIDE INTEGRAL CONTOURED SEAT
PROVIDE BRASSCRAFT COMMERCIAL ANGLE SUPPLY WITH RISER	PROVIDE ADA SUPPLY AND WASTE PIPING	PROVIDE BRASSCRAFT 1 1/2" CAST BRASS "P" TRAP
PROVIDE DEEP SEAL TRAP UNLESS OTHERWISE NOTED	FLUSH VALVE: SLOAN MODEL REGAL 9803-1.6-XL CONCEALED w/ HY-100-A ACTUATOR 1.6 GPF & 1-1/2" SPUD COUPLING; PROVIDE WALL MOUNT HARDWARE	FLUSH VALVE: SLOAN MODEL REGAL 111 EXPOSED MOUNT W/ 1.6 GPF & 1-1/2" BACK SPUD; PROVIDE WALL MOUNT H/WARE & VANDAL RESISTANT STOP CAP
LAVATORY FAUCET: OPTION 03-M PNEUMATICALLY OPERATED PUSHBUTTON AIR CONTROL VALVE	SURE SEAL OR J.R. SMITH D2692 TRAP SEAL DEVICE	WASTE OUTLET SHALL BE 7-1/2" GASKETED WASTE W/ 6" MOUNTING CENTERS
PROVIDE BRASSCRAFT 1 1/4" CAST BRASS "P" TRAP	FLUSH VALVE: SLOAN MODEL 995 CONCEALED w/ HY-100-A ACTUATOR 0.5 GPF & 3/4" SPUD COUPLING; PROVIDE WALL SLEEVE & WALL MOUNT HARDWARE	FLUSH VALVE: MANUAL OPERATION FVI, FVT THRU WALL
VERIFY SIZE OF DRAIN IN FIELD; STRAINER SHALL BE NICKEL BRONZE W/ VANDAL PROOF SCREWS	PROVIDE CHAIR CARRIER W/ FOOT SUPPORTS, MOUNT PER ADA REQUIREMENTS	TEMPERING VALVE: POWERS: LF#480, ASSE 1070
PROVIDE STAINLESS STEEL FLOOR ANCHORS	BACKFLOW CHECK AND WALL BOX	MODEL # 1652lrB-1-9-H34-LW1-SW
LAVATORY FAUCET: SLOAN ETF-600-BOX-TEE-CP-0.5GPM-MLM-IR-BT-FCT	MODEL # 1695-W-3-1.6 GPF-FVBO-ADA	MODEL # 1709-W-1-0.5GPF-FVBO-SW
MODEL # 2120-T-3-1.6-HPS	MM	OO
		FLUSH VALVE: SLOAN REGAL 186-1.0 EXPOSED MOUNT, 1.0 GPF, 3/4" BACK SPUD, PROVIDE WALL MOUNT HARDWARE & VANDAL RESISTANT STOP CAP.

GRILLE REGISTER AND DIFFUSER SCHEDULE

TAG	SERVICE	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL NUMBER	CFM RANGE	NECK SIZE (IN)	FACE DIMENSIONS (IN)	MOUNTING	NOTES/ACCESSORIES
E-1	EXHAUST AIR GRILLE	PRICE	530	150	8x8 OR 12x6 (MATCH EXISTING IF LARGER)	NECK SIZE + 1-3/4" FOR BORDER	SURFACE	1, 2, 3
NOTES & ACCESSORIES								
1	CONTRACTOR SHALL COORDINATE INSTALLATION WITH THE ARCHITECTS REFLECTED CEILING PLAN. MATCH MOUNTING FRAME TO CEILING TYPE AS APPLICABLE. SURFACE MOUNTING TYPES INSTALLED IN LAY-IN CEILINGS SHALL BE CENTERED IN ONE DIMENSION FOR APPEARANCE. PROVIDE ADAPTER FRAME FOR LAY-IN TYPES INSTALLED IN HARD CEILINGS.							
2	PROVIDE OFF-WHITE FINISH UNLESS OTHER WISE NOTED OR DICTATED BY THE ARCHITECT.							
3	FIXED BLADE GRILLE, 3/4" BLADE SPACING, 45 DEG BLADE ANGLE, STEEL CONSTRUCTION, BLADES PARALLEL TO LONG DIMENSION.							

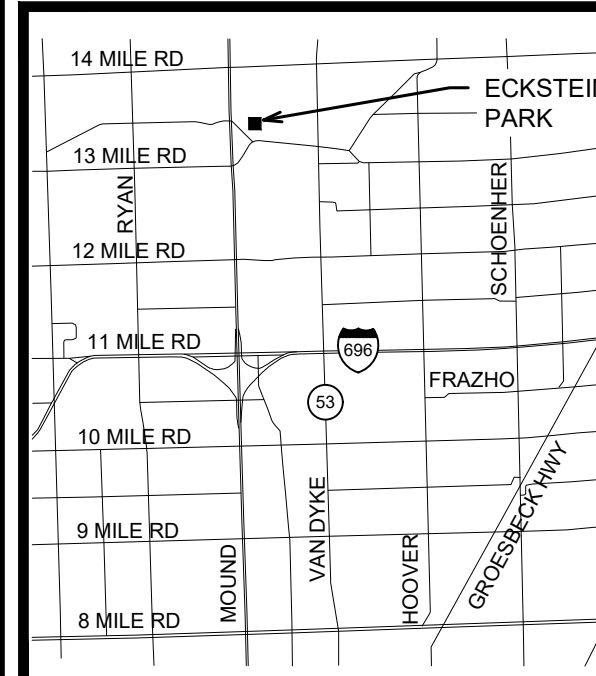
MECHANICAL LEGEND

	WATER METER	AC	AIR CONDITIONING UNIT	DN	DOWN	SAN	SANITARY
	DIAMETER	ACCU	AIR CONDITIONING CONDENSING UNIT	EF	EXHAUST FAN	V.T.R.	VENT THRU ROOF
	GATE VALVE	A.F.F.	ABOVE FINISHED FLOOR	EWH	ELECTRIC WATER HEATER	WC	WATER CLOSET
	THERMOSTAT	CFM	CUBIC FEET PER MINUTE	FD	FLOOR DRAIN	---	DOMESTIC COLD WATER
	PIPE DOWN	CO	CLEANOUT	HW	HOT WATER	---	DOMESTIC HOT WATER
	PIPE UP	COND	CONDENSATE	I.E.	INVERT ELEVATION	--SAN--	SANITARY SEWER
	PIPE TEE	CW	COLD WATER (DOMESTIC)	LAV	LAVATORY		VENT PIPING
	FLOOR DRAIN						



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CITY OF WARREN
ECKSTEIN PARK
RESTROOM IMPROVEMENTS
ITB-W-1253

MECHANICAL SPECIFICATIONS AND SCHEDULES

HRC JOB NO. 20200165	SCALE AS NOTED
DATE FEBRUARY 2025	SHEET NO. G-4 OF

EXISTING BUILDING MASONRY NOTES:

- EXISTING MORTAR AT MASONRY JOINTS TO BE REPOINTED AT CRACKED AND/OR DAMAGED LOCATIONS. EXACT QUANTITY TO BE DETERMINED IN FIELD, AT OWNER WALK THROUGH DURING CONSTRUCTION. FOR PRICING PURPOSES IN BID PROPOSAL, CONTRACTOR TO INCLUDE REPOINTING QUANTITIES NOTED ON THIS SHEET, AND UNIT PRICING PER LINEAL FOOT.
- EXISTING CRACKED AND/OR DAMAGED MASONRY UNITS TO BE REMOVED AND REPLACED WITH NEW TO MATCH EXISTING SIZE, COLOR, MODULE AND TEXTURE. EXACT UNIT QUANTITY TO BE DETERMINED IN FIELD AT OWNER WALK THROUGH DURING CONSTRUCTION. FOR PRICING PURPOSES IN BID PROPOSAL, CONTRACTOR TO INCLUDE QUANTITIES NOTED ON THIS SHEET AND UNIT PRICING PER CMU BLOCK.

UNIT PRICING ITEMS		
DESCRIPTION	UNIT	AMOUNT
FLOOR CRACK EPOXY REPAIR	LF	10
CMU REPOINTING	LF	50
BROKENDAMAGED CMU REPAIRS	EA	9
ROOF REPLACEMENT	LS	1

NOTES:
THE QUANTITIES AND DESCRIPTIONS ABOVE ARE PROVIDED FOR CLARIFICATION AND INFORMATION ONLY. THE CONTENTS OF THIS TABLE ARE TO BE USED FOR THE CONSTRUCTION BIDDING PROCESS ONLY AND ARE NOT TO BE CONSTRUED AS FINAL PAY/BID ITEMS.

FIXTURE LEGEND	
1	BOBRICK MODEL B-8806x36 SATIN FINISH CONCEALED MOUNT GRAB BAR (36" LENGTH)
2	BOBRICK MODEL B-8806x42 SATIN FINISH CONCEALED MOUNT GRAB BAR (42" LENGTH)
3	BOBRICK MODEL B-8806x18 SATIN FINISH CONCEALED MOUNT GRAB BAR (18" LENGTH)
4	BOBRICK B-2892 SURFACE MOUNT TWIN JUMBO ROLL TOILET TISSUE DISPENSER
5	BOBRICK MODEL B-165 2436 STAINLESS STEEL CHANNEL-FRAME MIRROR
6	ASI MODEL 0362 STAINLESS STEEL AUTOMATIC LIQUID SOAP DISPENSER
7	XLERATOR HAND DRYER MODEL XL-SB WITH CUSTOM COVER PER SHEET G-2
8	KOALA KARE MODEL #K8200-00 (CREAM) WALL MOUNTED BABY CHANGING STATION
9	TOILET PARTITION - REFER TO SPECS. ON SHEET G-1
10	URINAL SCREEN - REFER TO SPECS ON SHEET G-1

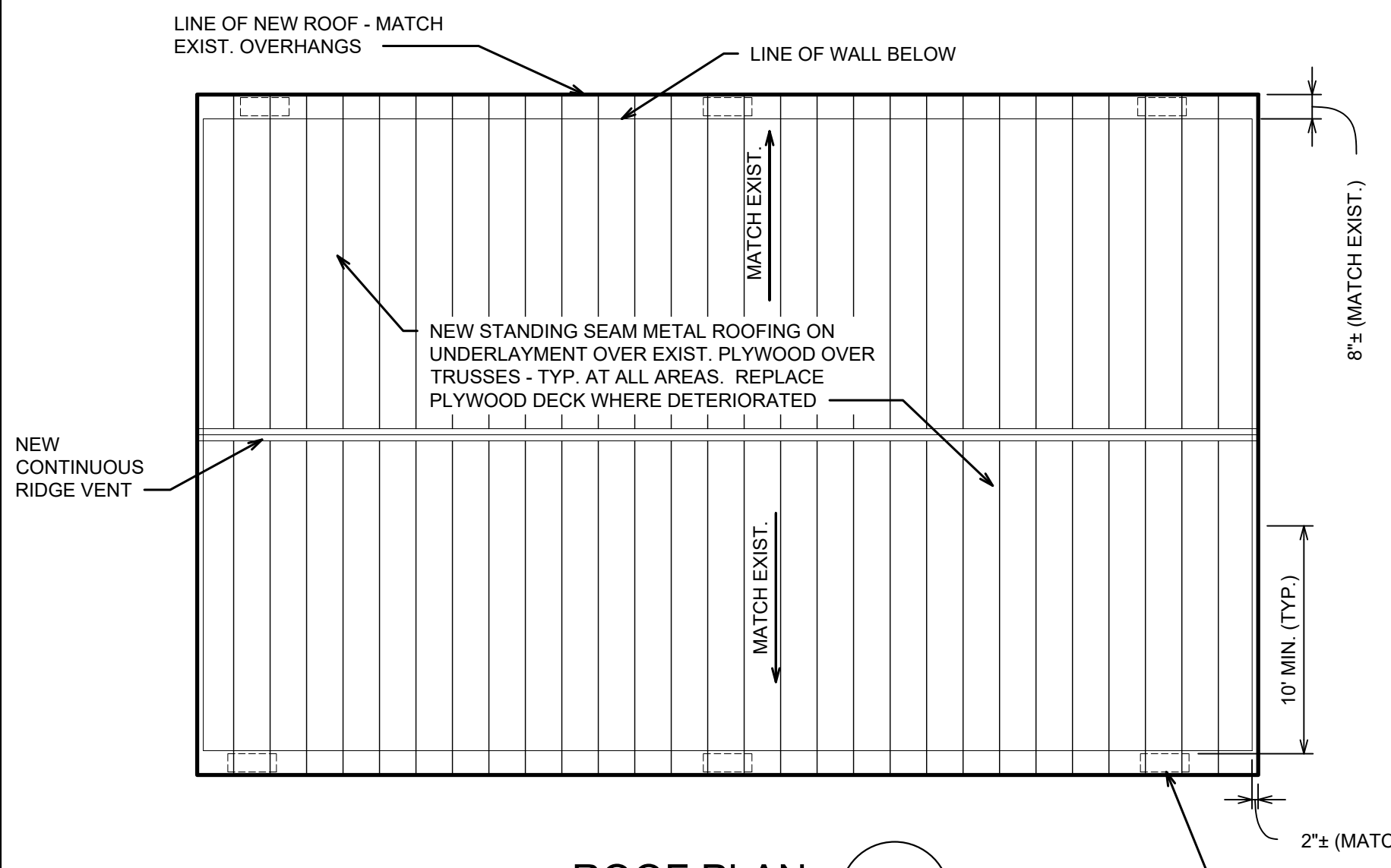
NOTES:
1. PROVIDE BLOCKING/ANCHORS AS REQ'D.
2. REFER TO PLUMBING DRAWINGS FOR EXACT SPECS/ DETAILS ON PLUMBING FIXTURES FOR COORDINATION.
3. ACCEPTABLE ALTERNATIVE ACCESSORY FIXTURE MANUFACTURERS ARE BRADLEY AND ASI - ALL ACCESSORIES ARE TO BE FROM THE SAME MANUFACTURER. SUBMIT CUT SHEETS FOR OWNER REVIEW & APPROVAL.

DOOR SCHEDULE											
DOOR NO.	DOOR LOCATION	SIZE (WXH)	TYPE	SILL DTL.	JAMB DTL.	HEAD DTL.	MATERIAL		FIELD FINISH		REMARKS
							DOOR	FRAME	NONE	PTD	
01	TOILET ROOM	3'-0" X 6'-8"	A	S1	J1	H1	STL	STL		o	
02	TOILET ROOM	3'-0" X 6'-8"	A	S1	J1	H1	STL	STL		o	
03	UTILITY ROOM	3'-6" X 6'-8"	A	S1	J1	H1	STL	STL		o	
04	PLUMBING CHASE	1'-8" X 6'-8"	B	S1	J1	H1	STL	STL		o	

NOTES:
1. FIELD VERIFY ALL DOOR OPENING DIMENSIONS PRIOR TO FABRICATION.
2. ALL DOOR FRAMES SHALL BE GROUTED SOLID AND ANCHORED INTO EXIST. WALLS (U.N.O.).
3. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION ON DOORS, FRAMES, AND HARDWARE.
4. REPAINT EXISTING LINTELS AT ALL REPLACED DOORS AND WINDOWS.
5. INSTALL DOOR HARDWARE IN COMPLIANCE W/ ADA REQUIREMENTS - OPERABLE PARTS TO BE MOUNTED BETWEEN 34" AND 48" ABOVE FIN. FLOOR.
6. ALL FRAMES ARE 2" HIGH HEADS AND 2" JAMBS (U.N.O.).
7. REFER TO SHEET G-1, DOOR HARDWARE SPECIFICATIONS, SECTION 3.2.3 FOR HARDWARE SET.

ROOM FINISH SCHEDULE																
ROOM NO.	ROOM DESCRIPTION	FLOOR	BASE			CEILING			WALLS			REMARKS				
			SEALED CONC.	EXISTING	QUARRY TILE	EXISTING	QUARRY TILE	PAINT	EXISTING	ACoust. TILE	NORTH		SOUTH	EAST	WEST	
01	TOILET ROOM				X			X	X			A	A	A	A	
02	TOILET ROOM				X			X	X			A	A	A	A	
03	UTILITY ROOM		X			X		X				A	A	A	A	
04	PLUMBING CHASE		X		X			X				B	B	B	B	

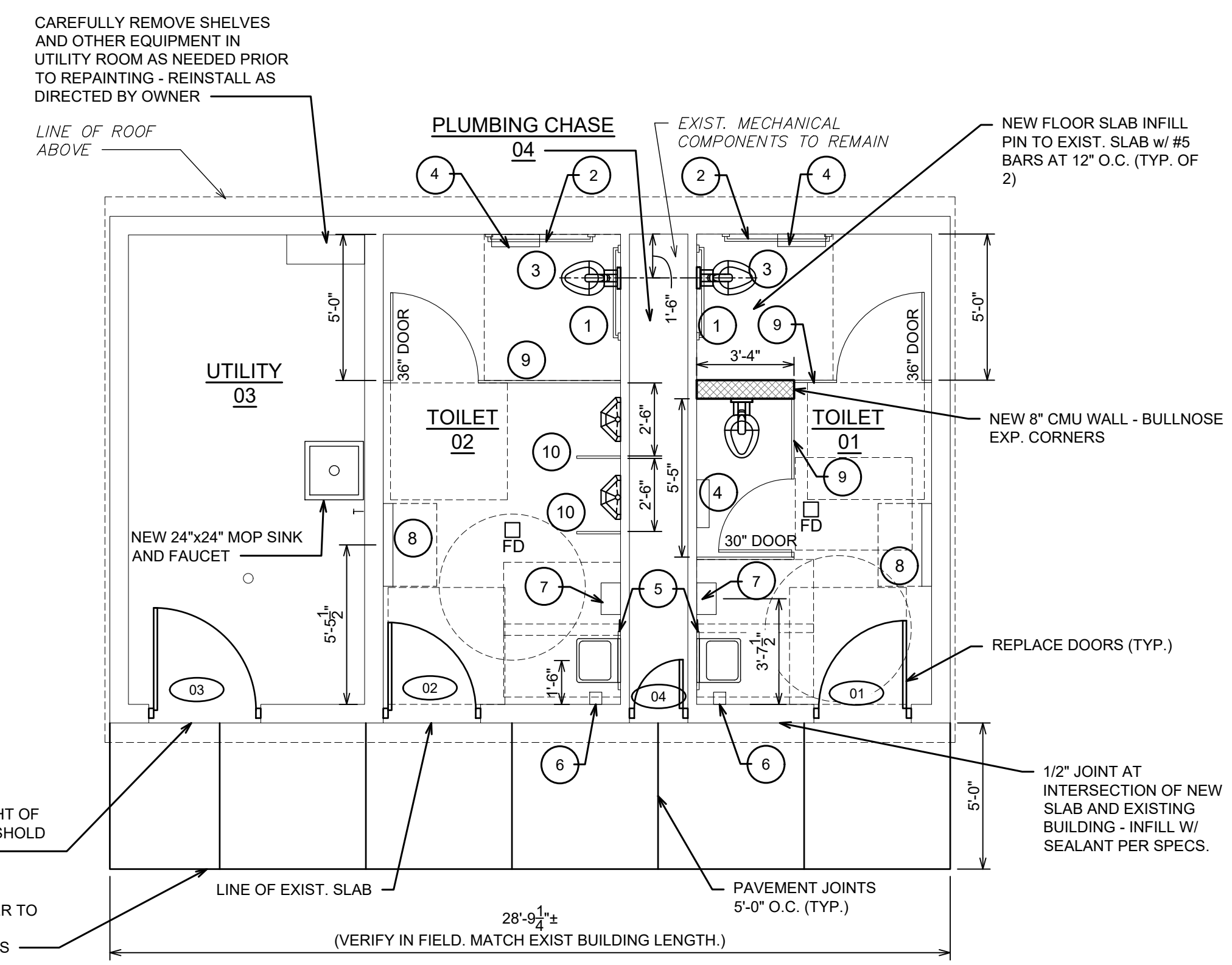
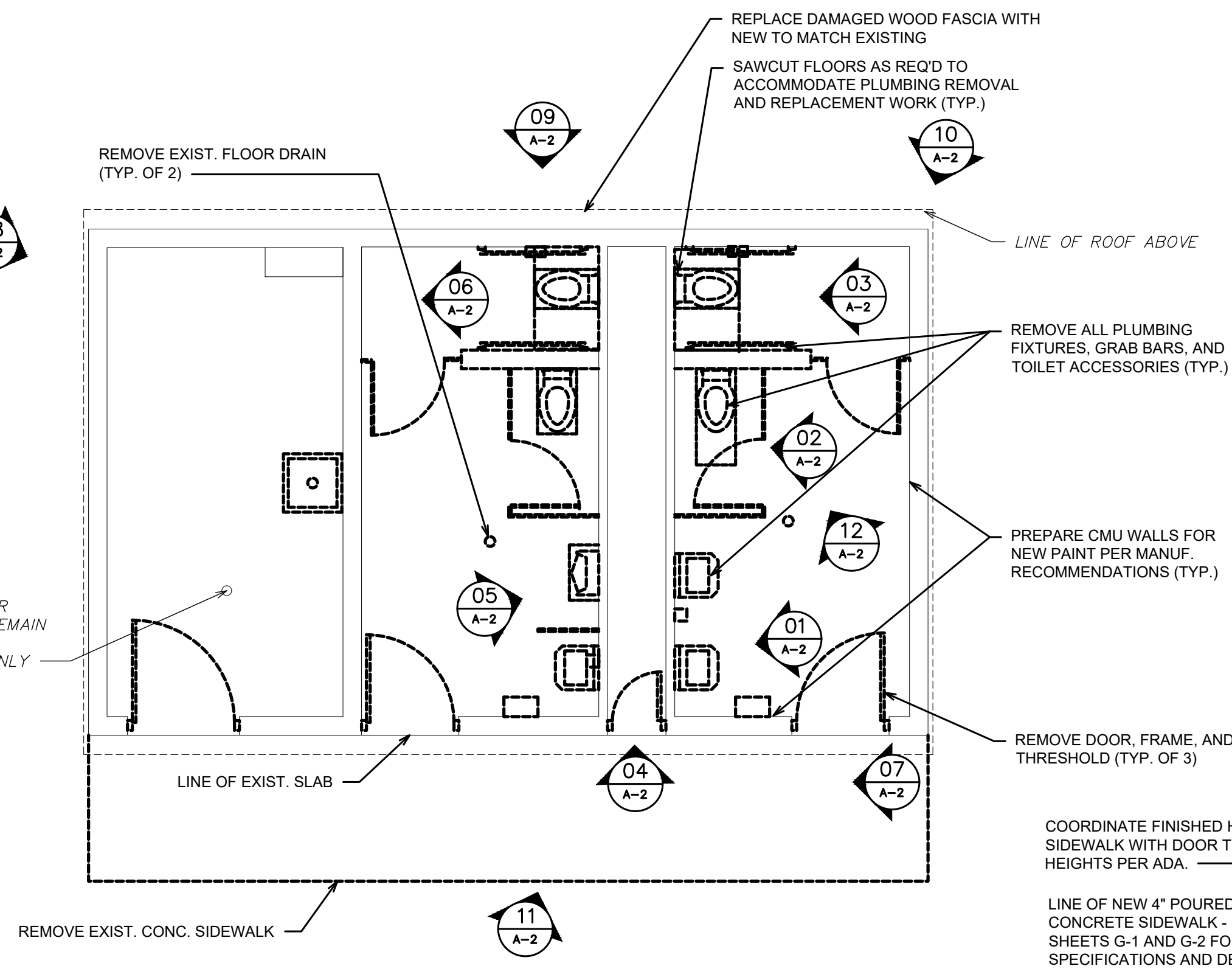
WALL TYPES:
A = PAINT
B = UNFINISHED



UNINHABITED AREA VENTILATION SCHEDULE:
CALCULATION FOR ENCLOSED ATTICS:
NATURAL VENTILATION (PER SEC. 1203.2 OF MBC):
REQUIRED NET FREE VENT AREA = 1/150 OF BLDG AREA:
PITCHED ROOF: 544 SF/150 = 3.63 SF X 144 = 523 SI REQUIRED
PROVIDED: RIDGE VENT = 29'-0" X 12.0 SI = 348 SI
6"x16" SOFFIT VENTS = (6) X 45 SI = 270 SI
TOTAL = 618 SI PROVIDED
SF - SQUARE FEET
SI - SQUARE INCHES

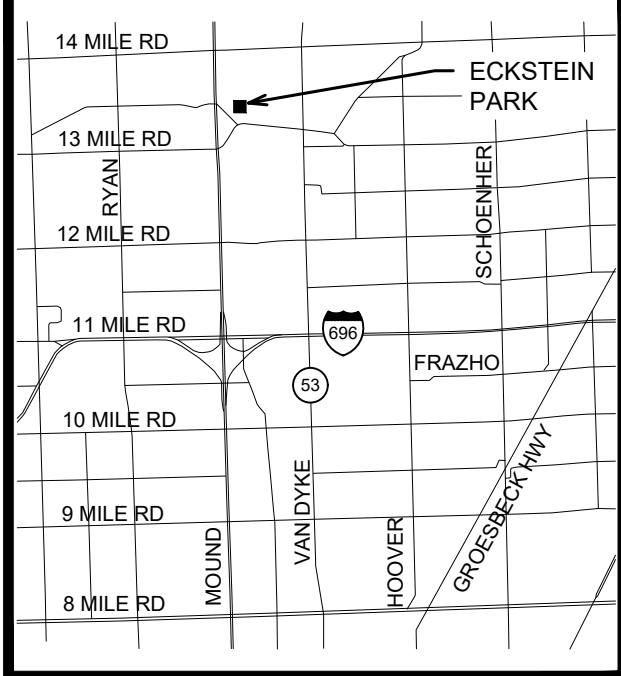
ROOF SYSTEM SPECIFICATIONS:

- SHEET METAL FLASHING AND TRIM**
- EDGE TRIM AND WRAP FOR WOOD FASCIAS: GALVANIZED STEEL - PREFINISHED; 24 GA. WITH HYLAR 5000 OR KYNAR 500 COATING. COLOR TO BE SELECTED FROM FULL RANGE OF AVAILABLE COLORS. MITRE AND SEAM CORNERS.
 - FASTENERS: HEAVY DUTY GALVANIZED, PER MFR. RECOMMENDATIONS. MUST MATCH SHEET METAL.
- STANDING SEAM METAL ROOFING**
- HOLCIM ELEVATE UNA-CLAD - UC-3 MECHANICALLY SEALED ROOFING.
 - STEEL PANELS: ASTM A653, G90 (LOCK-FORMING QUALITY), EXTRA SMOOTH, TENSION-LEVELED, GALVANIZED STEEL, MINIMUM SPANGLE, 24 GAUGE THICKNESS. SEAM SPACING: 12 (304.8MM) INCHES. SEAMS SHALL BE MECHANICALLY LOCKED IN THE FIELD WITH A MECHANICAL SEAMER. SEAMS SHALL HAVE A FACTORY APPLIED INTEGRAL SEAM SEALANT IN LEG OF PANEL.
 - FINISHES: COIL PRIMED AND COATED ON ONE SIDE WITH 70% FULL STRENGTH KYNAR 500/HYLAR 5000 FLUOROPOLYMER COATING OF 1.0 +/- 0.1 MIL TOTALLY DRY FILM THICKNESS. COLOR: SELECTED BY ARCHITECT/ENGINEER FROM MANUFACTURER'S STANDARD COLORS. FINISH WARRANTY: 20 YEARS MINIMUM.
 - COMPONENTS: COMPONENTS SHALL BE COMPATIBLE WITH THE ROOF PANEL FURNISHED. FLASHING, TRIM, METAL CLOSURE STRIPS, CAPS, RIDGE VENTILATION STRIPS AND SIMILAR METAL COMPONENTS SHALL NOT BE LESS THAN THE MINIMUM THICKNESS SPECIFIED BY THE MANUFACTURER. EXPOSED METAL COMPONENTS SHALL BE FINISHED TO MATCH THE PANELS OR TRIM, AS FURNISHED. MOLDED CLOSURE STRIPS SHALL BE CLOSED-CELL OR SOLID-CELL SYNTHETIC RUBBER OR NEOPRENE, OR POLYVINYLCHLORIDE OR METAL PRE-MOLDED TO MATCH CONFIGURATION OF THE COVERING AND SHALL NOT ABSORB OR RETAIN WATER.



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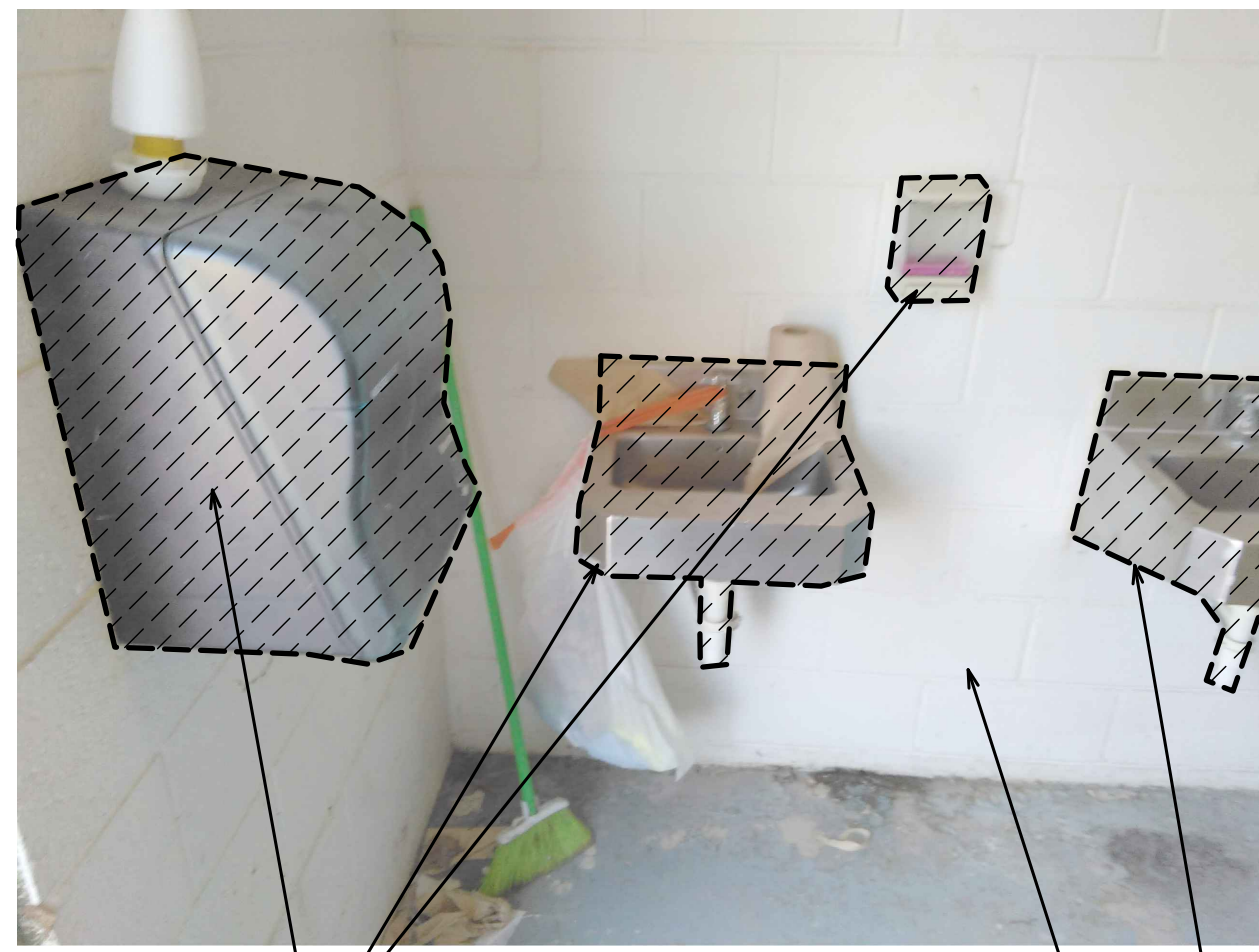
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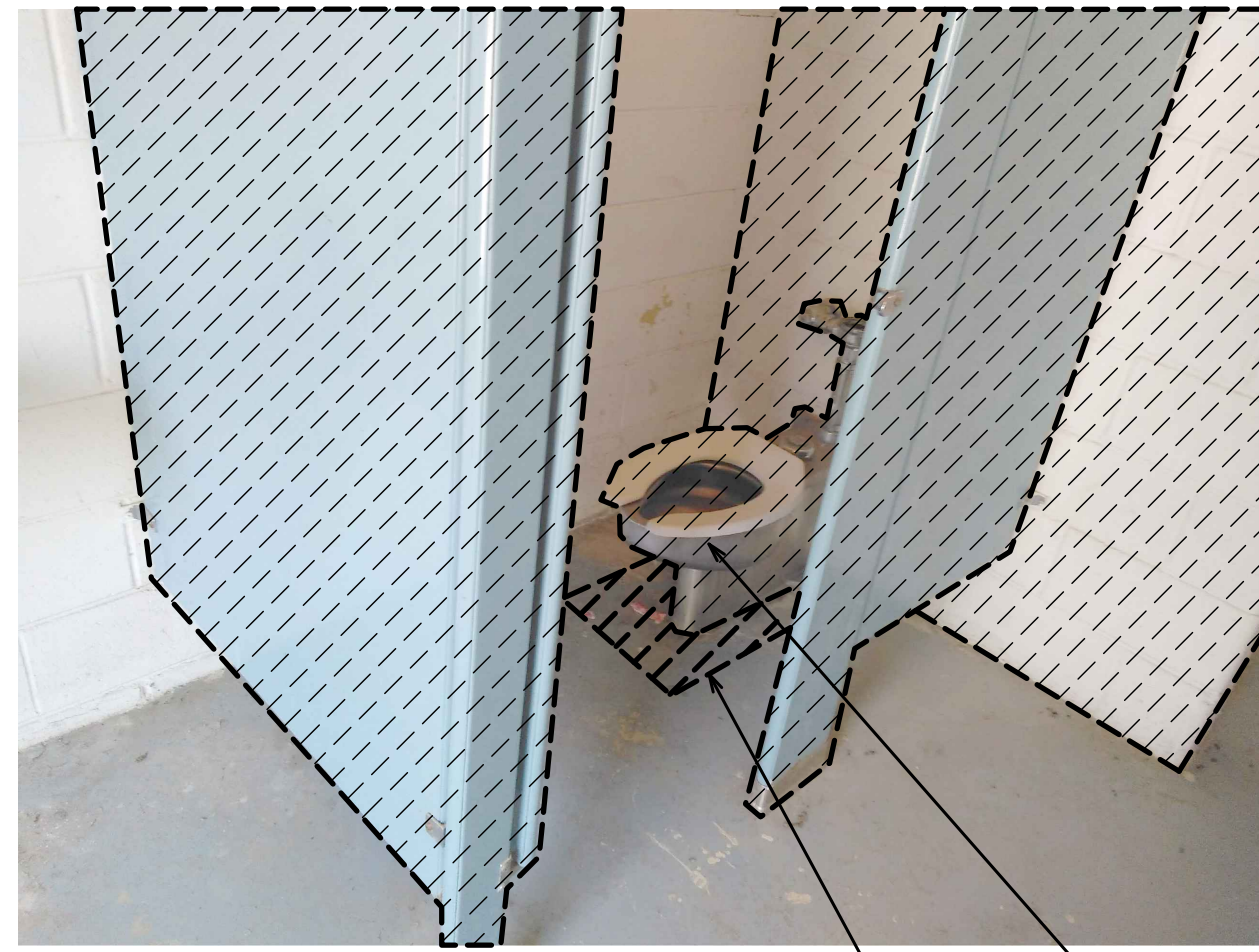
PLANS AND SCHEDULES

HRC JOB NO.	SCALE
20200165	AS NOTED
DATE	SHEET NO.
FEBRUARY 2025	A-1 OF



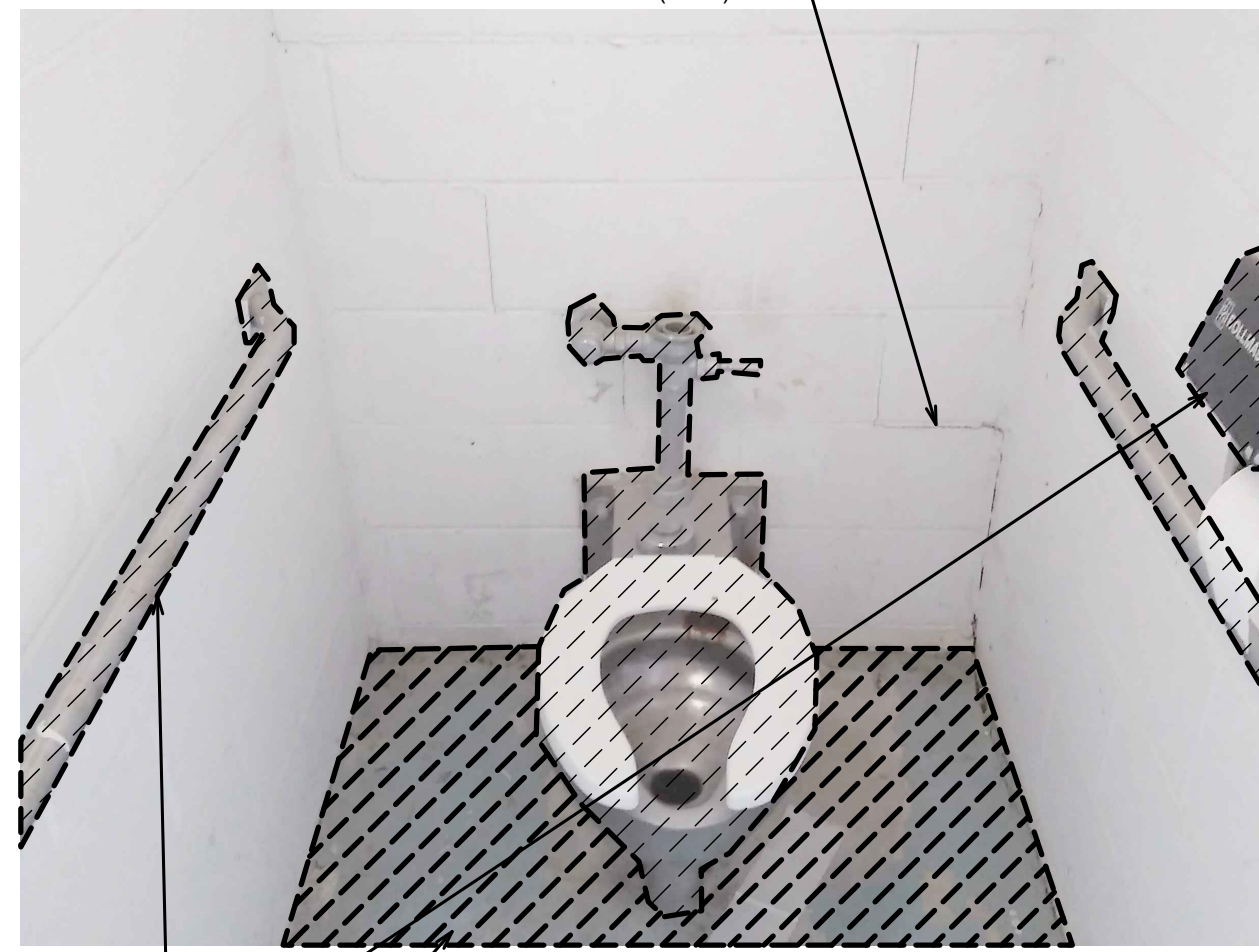
REMOVE LAVATORIES AND TOILET ACCESSORIES (TYP.)

PHOTO NO. 01



WALL INFILL AT REMOVED AND NOT REPLACED FIXTURES (TYP.)

PHOTO NO. 02



REMOVE ALL PLUMBING FIXTURES, GRAB BARS, AND TOILET ACCESSORIES (TYP.)

PHOTO NO. 03



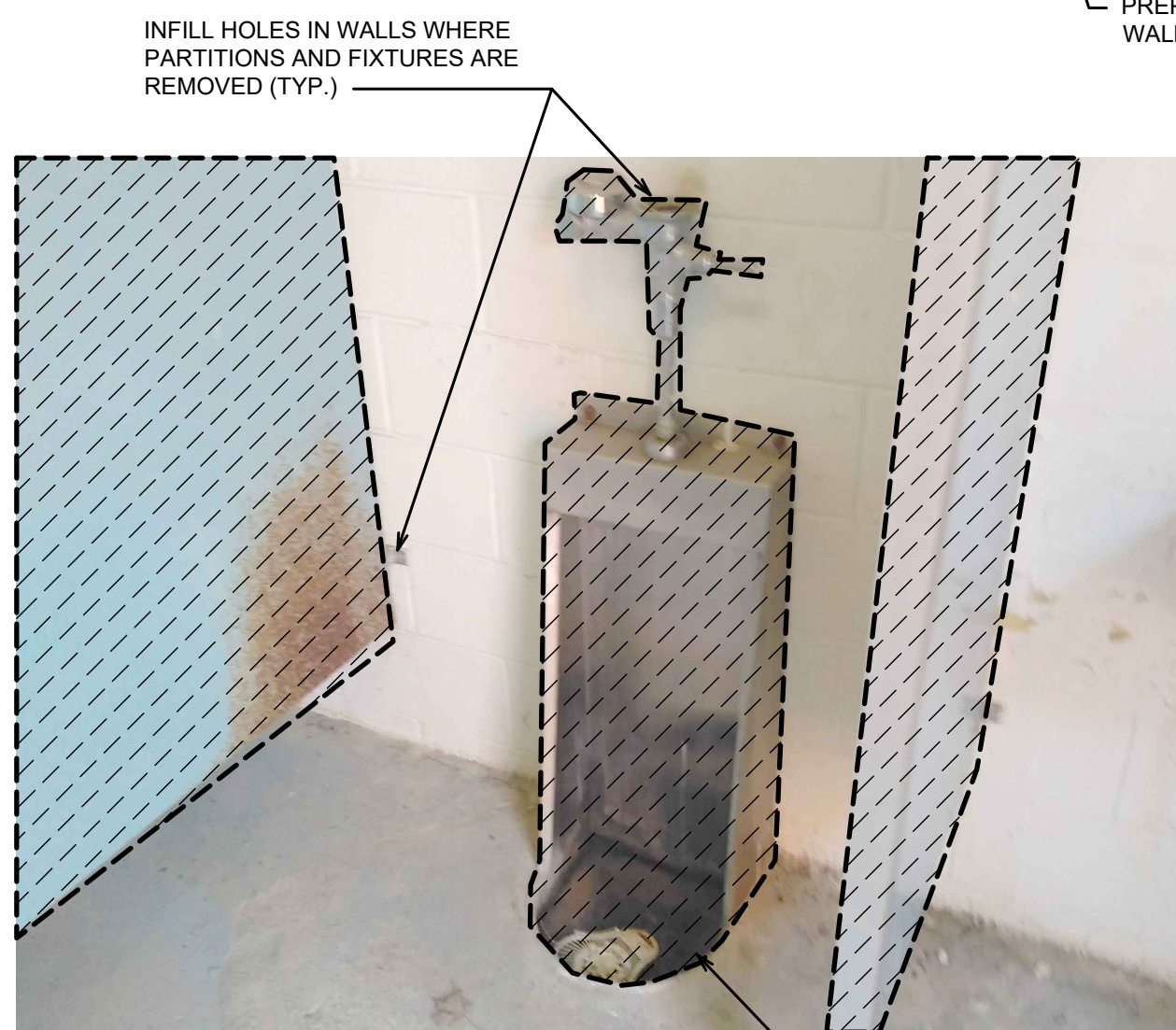
EXISTING PLUMBING TO REMAIN IN CHASE AS ABLE - PROVIDE NEW AS REQ'D

PHOTO NO. 04

RELAMP EXISTING SOCKETS WITH NEW CFL LAMPS - REPLACE NON-FUNCTIONING DEVICES AS REQ'D (TYP.)

REPAIR HOLE IN ROOF AT VENT PIPE

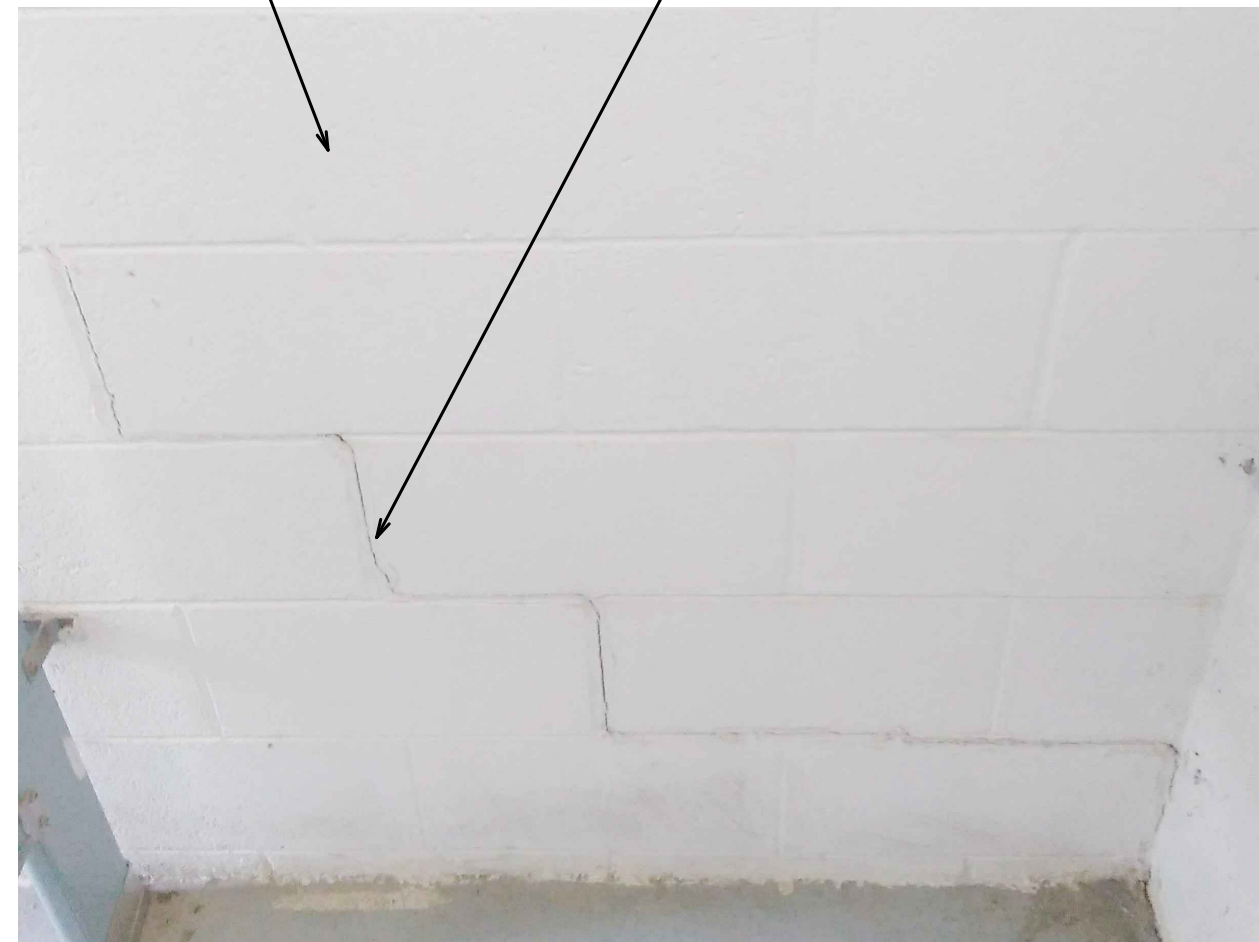
PRESERVE STUB-IN LOCATIONS FOR NEW PLUMBING FIXTURES ON OTHER SIDE OF WALL (TYP.)



INFILL HOLES IN WALLS WHERE PARTITIONS AND FIXTURES ARE REMOVED (TYP.)

PHOTO NO. 05

PREP. AND REPAINT INTERIOR WALLS (TYP.)



EXIST. DETERIORATED MORTAR TO BE REPOINTED - REFER TO SPECS (TYP.)

PHOTO NO. 06

REMOVE EXIST. LIGHTING - PROVIDE INFILL CONST. TO MATCH EXISTING FOR SEAMLESS APPEARANCE IF NOT BEING REUSED FOR NEW VENT OPNG. (TYP.)

PHOTO NO. 07

REMOVE ANTENNA. VERIFY WITH OWNER IF IT IS BEING DISPOSED OF OR BEING KEPT IN STORAGE. REPLACE ANY DAMAGED OR DETERIORATED BOARDS (TYP.)

ALL WOOD TO BE PREPPED AND REPAINTED PER MFR. RECOMMENDATIONS (TYP.)

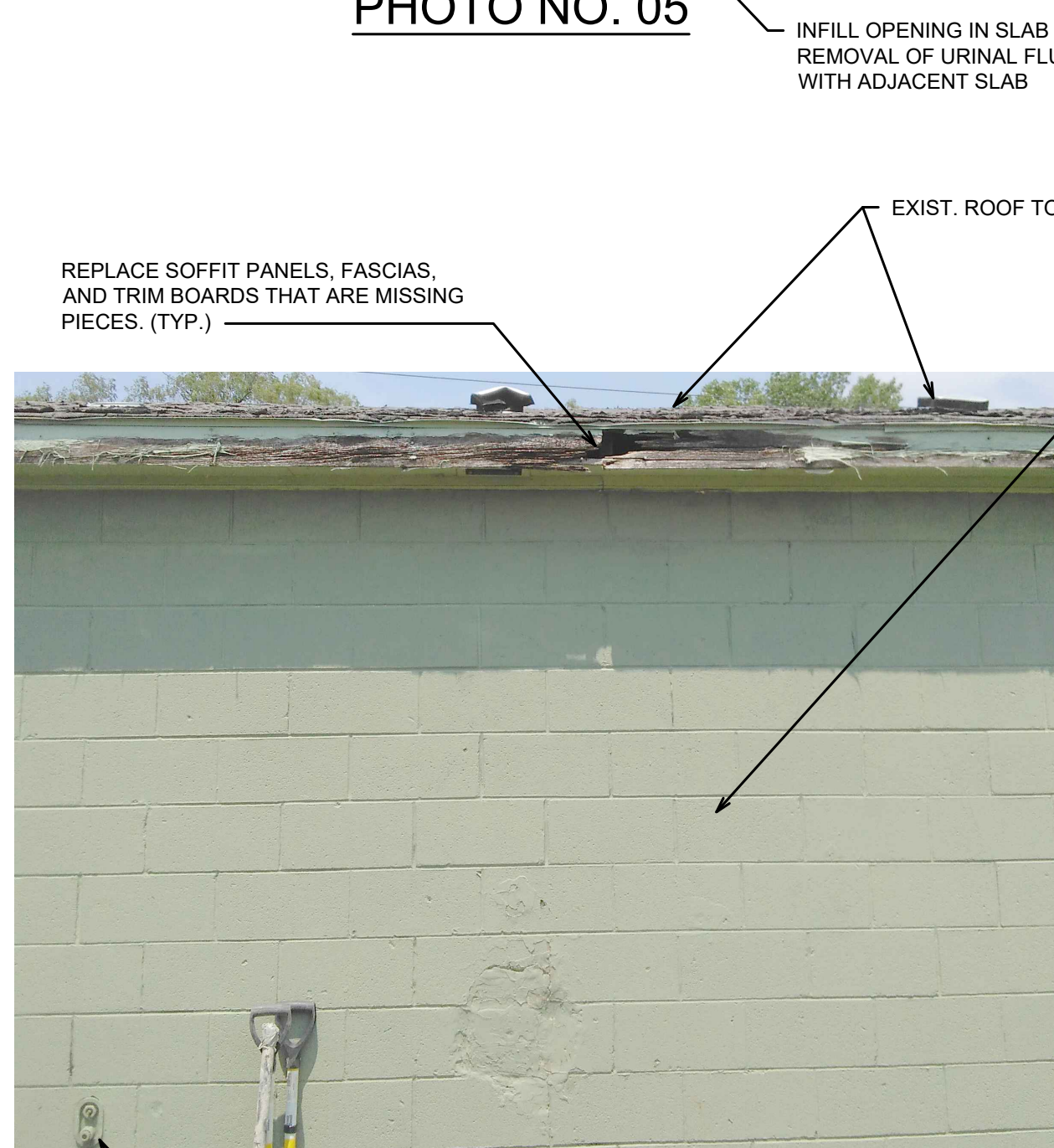
ALL CONDUIT AND JUNCTION BOXES TO BE PREPPED AND REPAINTED PER MFR. RECOMMENDATIONS (TYP.)



PHOTO NO. 08

RESEAL WALL PENETRATIONS (TYP.)

INSTALL REPLACEMENT COVER FOR JUNCTION BOX



REPLACE SOFFIT PANELS, FASCIAS, AND TRIM BOARDS THAT ARE MISSING PIECES. (TYP.)

PHOTO NO. 09

EXIST. ROOF TO BE REPLACED

PREP. AND REPAINT CMU WALLS (TYP.)

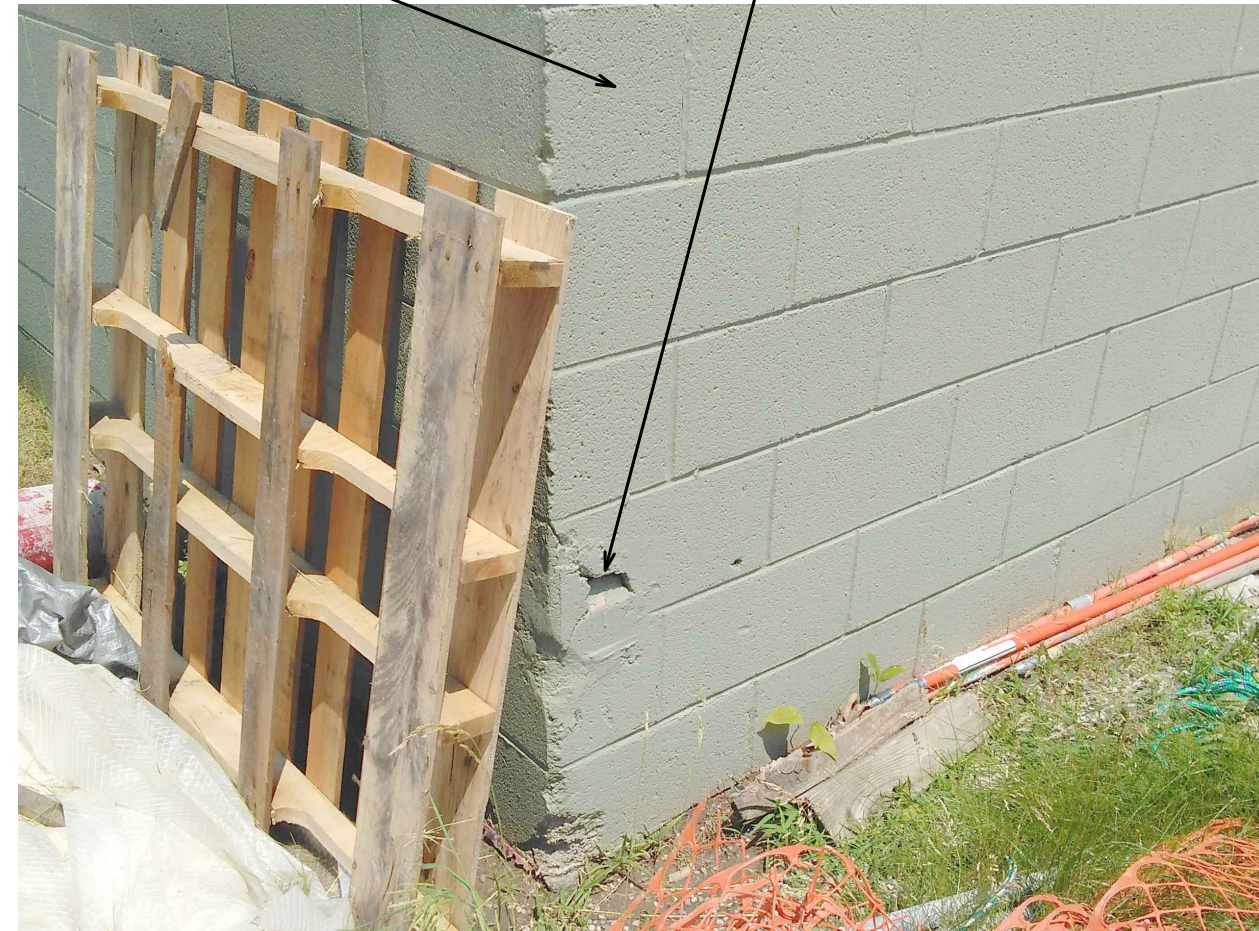


PHOTO NO. 10

REPLACE SEVERELY DETERIORATED CMUS (TYP.)

REPAIR/REPLACE DAMAGED SOFFIT PANELS, FASCIAS, AND TRIM BOARDS AT OVERHANGS TO LIKE NEW CONDITION. (TYP.)

REPLACE DOORS AND FRAMES (TYP.)



PHOTO NO. 11

PREP. AND REPAINT STEEL LINTELS PER MANUFACTURER'S RECOMMENDATIONS (TYP.)

WRAP FASCIA AND TRIM BOARDS W/ SHEET METAL - REFER TO SPECS FOR INFORMATION (TYP.)

REPLACE SIDING WHERE DETERIORATED. MATCH EXISTING APPEARANCE. (TYP.)

EXIST. DETERIORATED MORTAR TO BE REPOINTED - REFER TO SPECS (TYP.)

INFILL HOLES IN BLOCK WITH MORTAR. TROWEL FLUSH WITH SURFACE OF BLOCK. (TYP.)

REMOVE AND REPLACE EXIST. LIGHTING (TYP.)

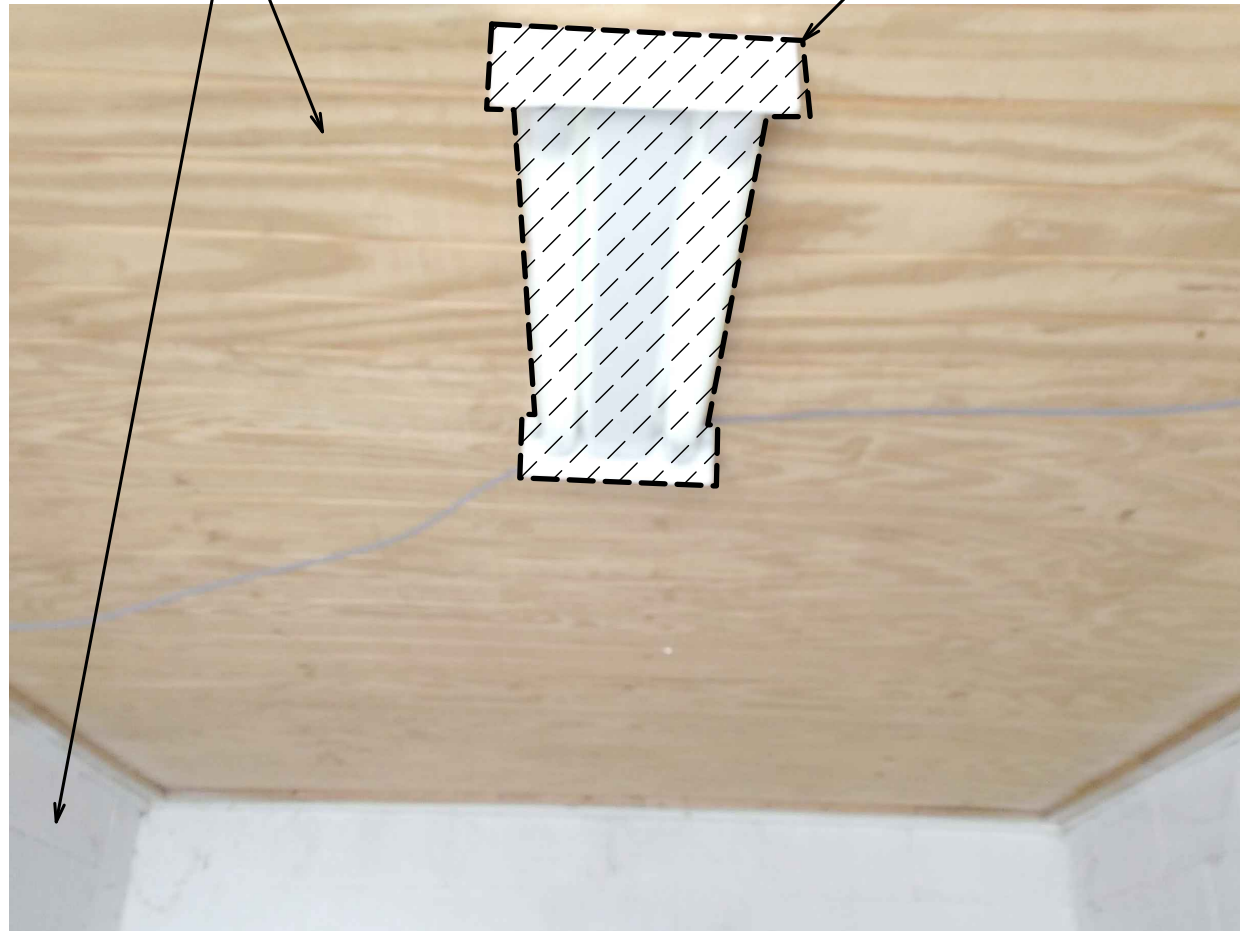


PHOTO NO. 12

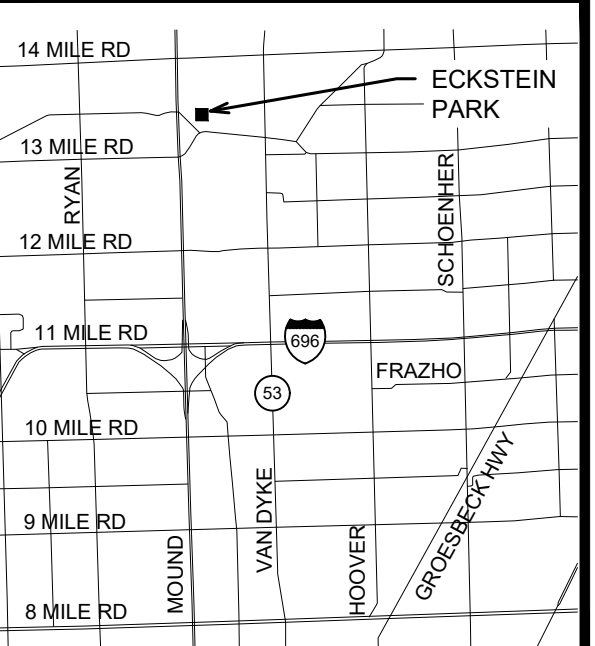
PREP. AND REPAINT INTERIOR WALLS AND CEILINGS (TYP.)

REMOVE AND REPLACE CONCRETE SIDEWALK. MATCH FOOTPRINT OF EXISTING. REFER TO DETAIL ON SHEET G-2. MAINTAIN ADA SLOPES WHERE CONNECTING TO EXISTING PAVING.



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REFERENCE PHOTOS

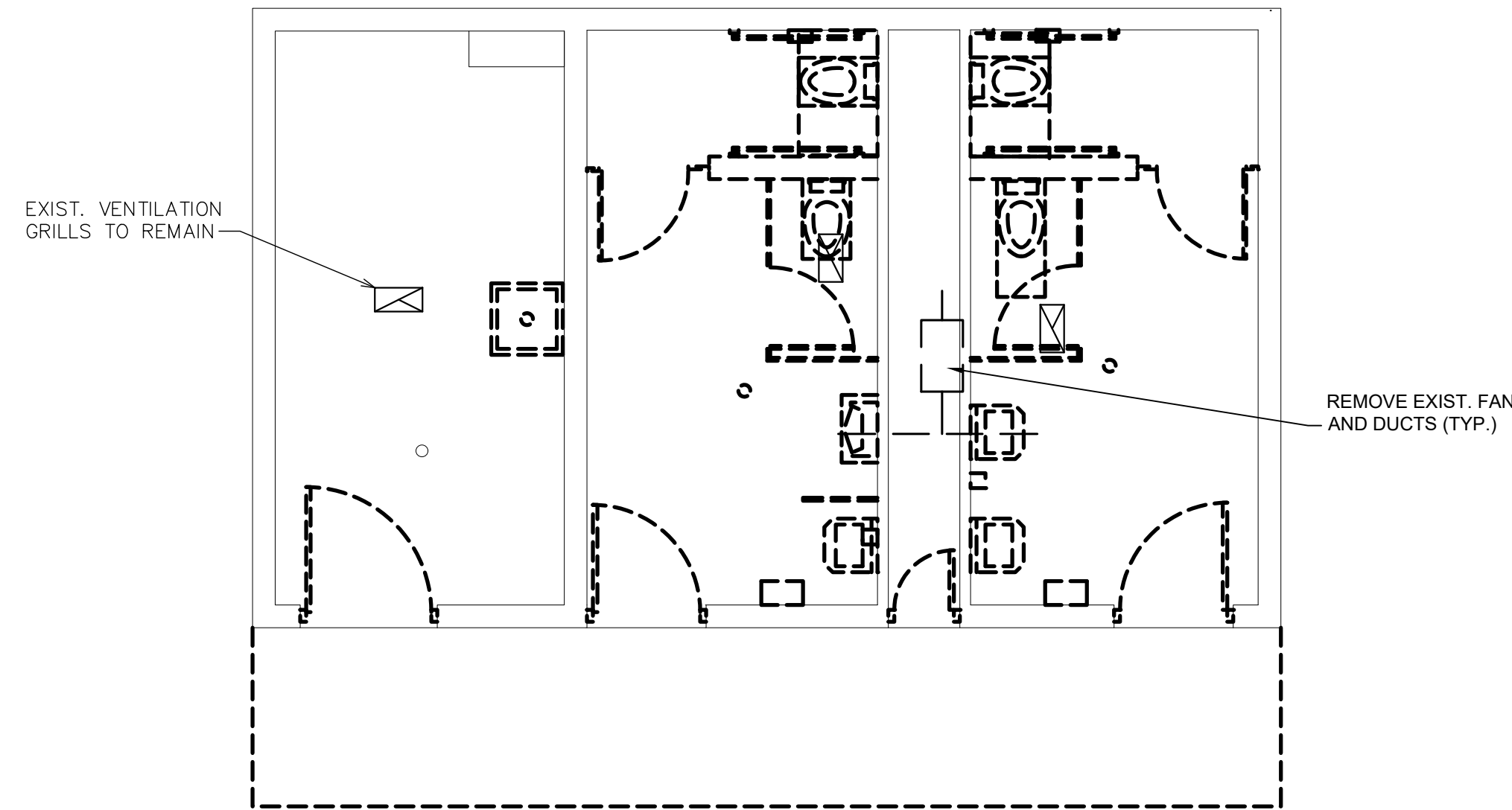
HRC JOB NO. 20200165	SCALE AS NOTED
DATE FEBRUARY 2025	SHEET NO. A-2 OF

EXHAUST FAN SCHEDULE

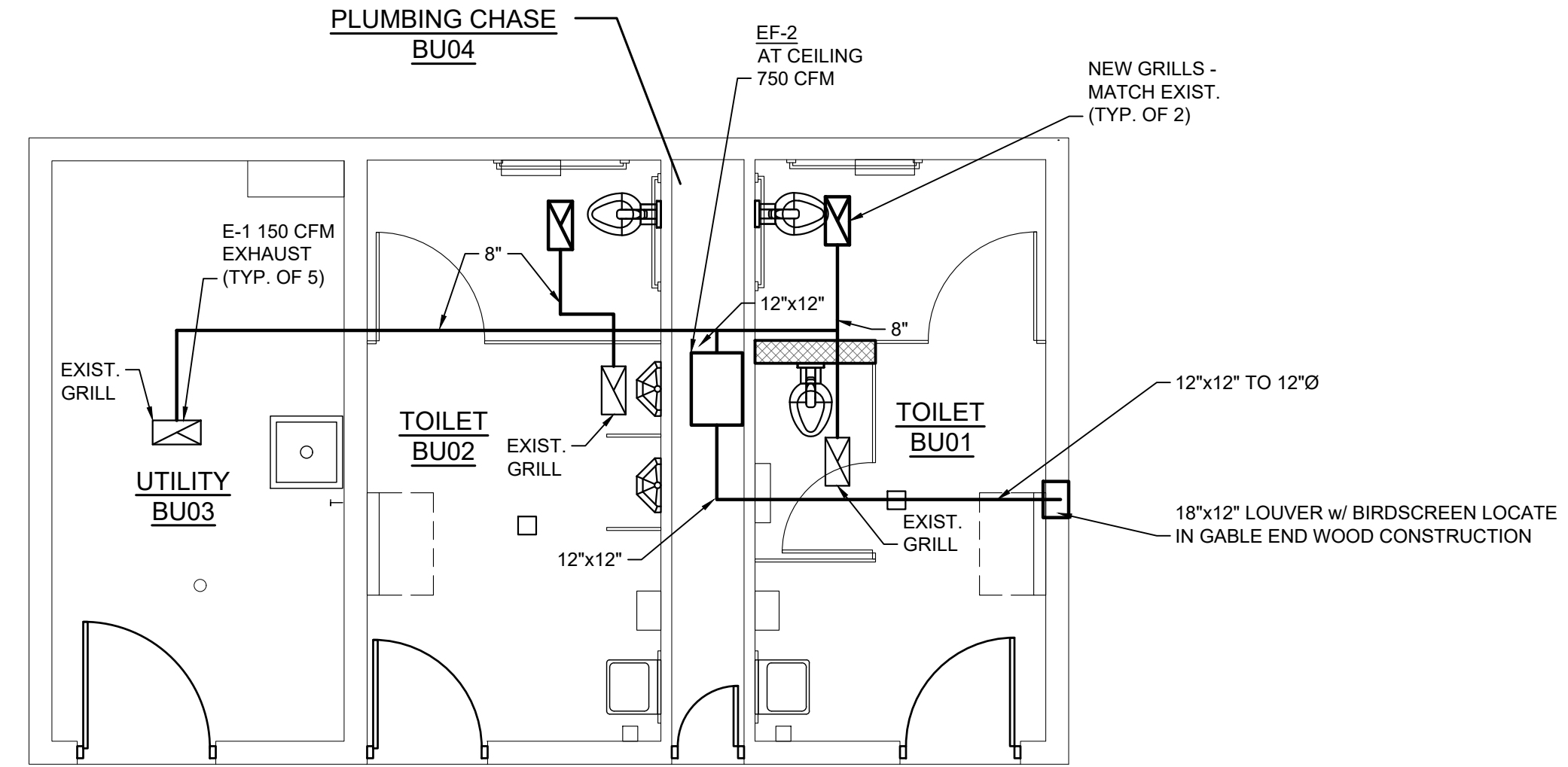
TAG	AREA SERVED	MANUFACTURER AND MODEL NUMBER	DRIVE TYPE	C.F.M.	ESP	FAN R.P.M.	MOTOR			CONTROL BY	NOTES/ACCESSORIES
							H.P.	VOLT	Ø		
EF-2	TOILET AND UTILITY ROOMS	GREENHECK SQ-100-VG 17" SQ x 24" LONG	DIRECT	750	0.75	1536	1/4	120	1	LIGHTING CONTROLS	A, B, C, D

NOTE:
 A. DISCONNECT.
 B. INTEGRAL SPEED CONTROL FACTORY MOUNTED AND WIRED.
 C. INTERLOCKED w/ LIGHTS
 D. BACKDRAFT DAMPER ON FAN DISCHARGE

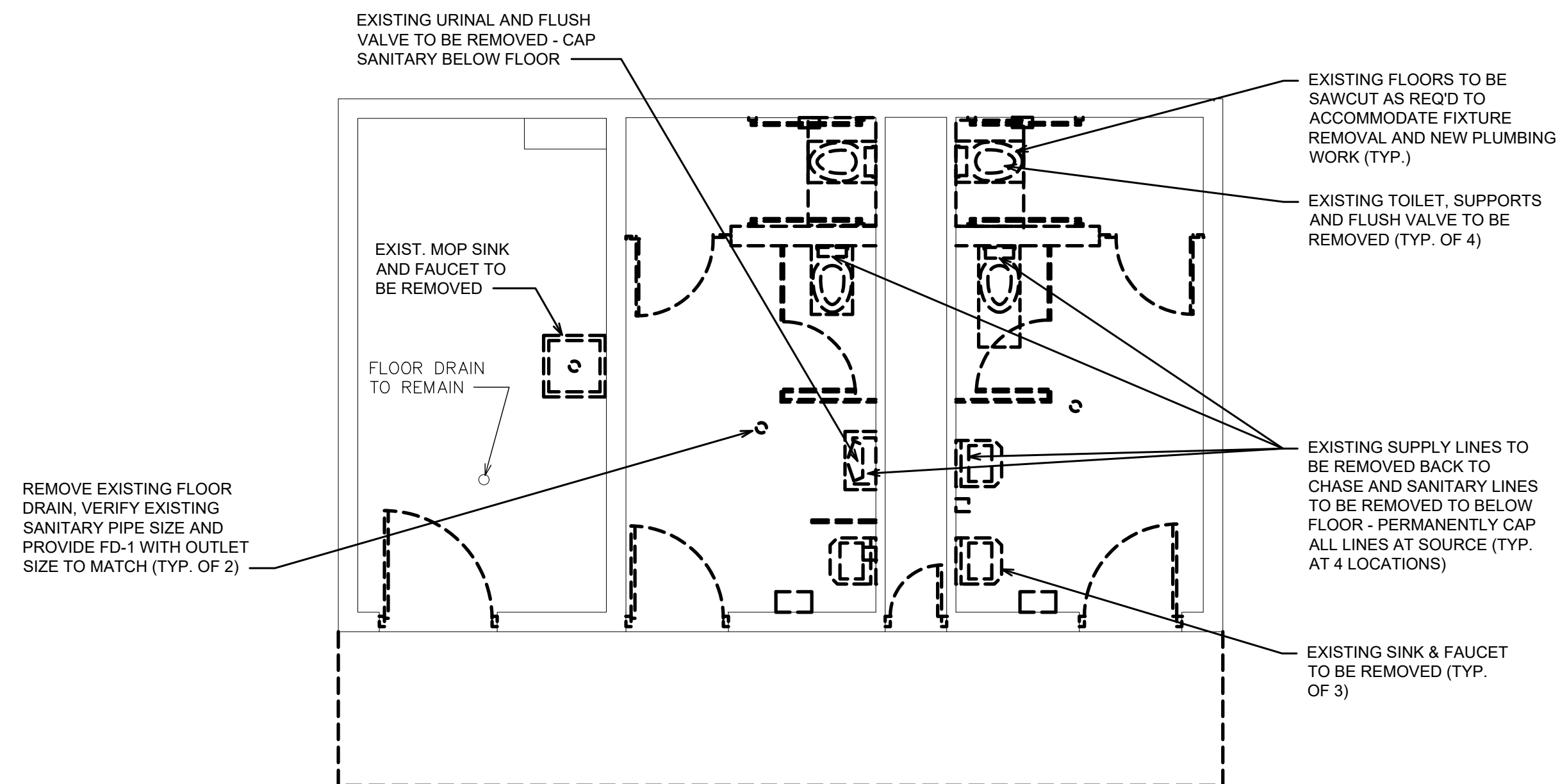
- NOTES:
1. PROVIDE TEMPORARY CAPS AS REQ'D DURING DEMOLITION OF FIXTURES.
 2. PATCH AND INFILL ALL GAPS & HOLES WITH NEW CONSTRUCTION TO MATCH EXISTING AT EXPOSED LOCATIONS WHERE NOT COVERED WITH NEW FIXTURES. COORD. W/ ARCHITECTURAL DWGS.
 3. REFER TO NOTES AND SCHEDULE ON G-4 FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
 4. PROVIDE NEW VENT PIPING TO FIXTURES AND NEW ROOF PENETRATIONS THROUGH ROOF AS REQ'D PER CODE. PROVIDE NEW CUSTOM METAL FLASHING CAP AT ROOF PENETRATIONS TO MATCH/COORDINATE WITH METAL ROOFING.



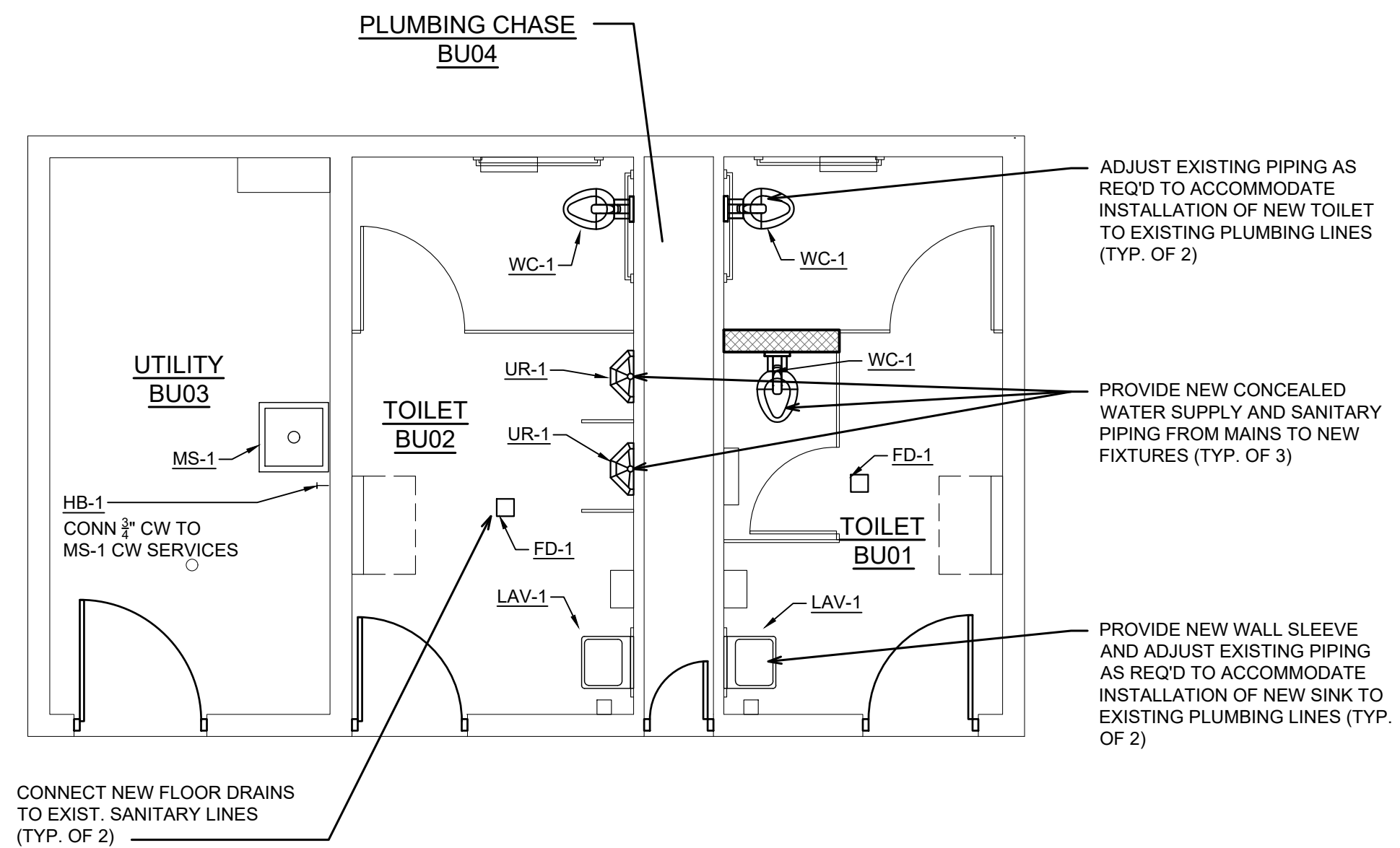
HVAC DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



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



PLUMBING DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



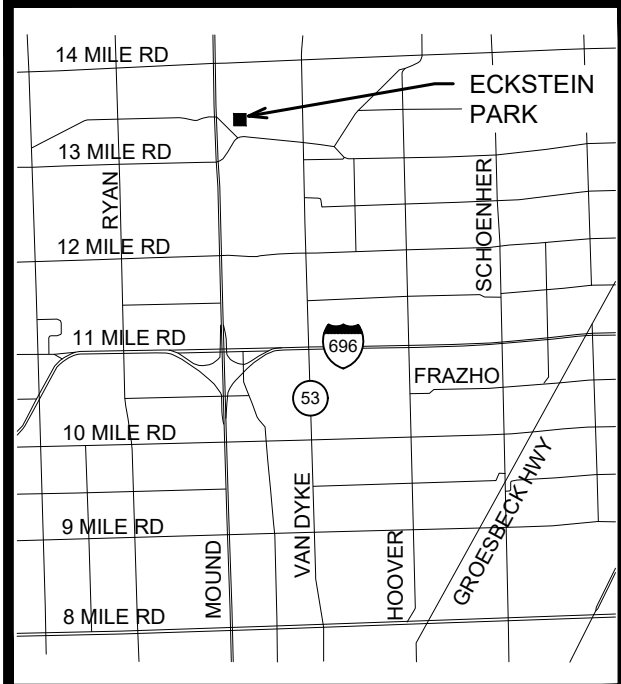
PLUMBING PLAN
SCALE: 1/4" = 1'-0"



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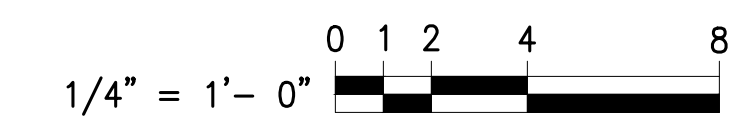
DESIGNED	STS
DRAWN	STS
CHECKED	AMM
APPROVED	MCM



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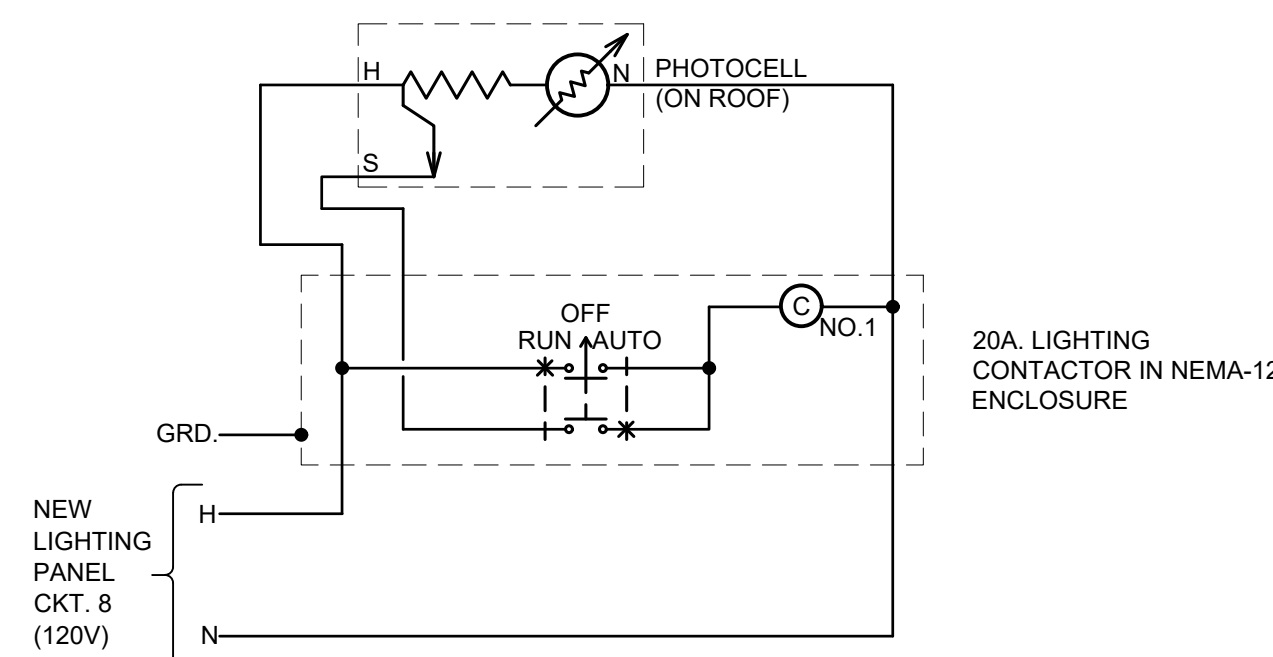
MECHANICAL
 PLANS AND SCHEDULE

HRC JOB NO. 20200165	SCALE AS NOTED
DATE FEBRUARY 2025	SHEET NO. M-1 OF

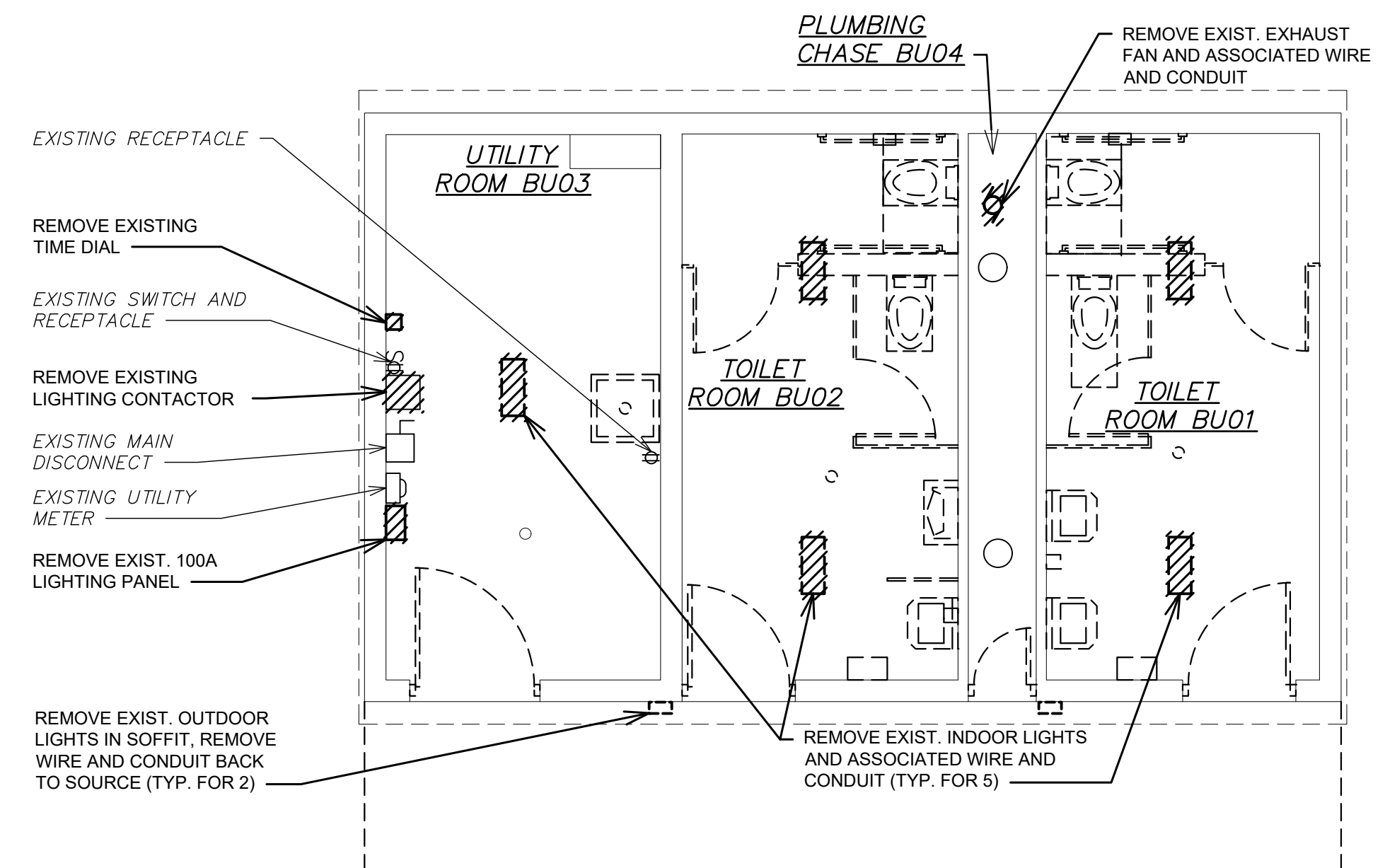


NEW LIGHTING PANEL SCHEDULE				
120/240 V., 1PH., 3W., WITH 100 AMP. MAIN BREAKER, NEUTRAL BUS, & GRD. BUS				
CIRC. NO.	BRKR. SIZE	ITEM SERVED	LOAD (WATTS)	
			ØX	ØY
1	20	OUTLETS		180
3	20	SPARE		
5	20	SPARE		
7	20	SPARE		
9	20	SPARE		
11	20	SPARE		
2	20	INTERIOR LIGHTS AND FAN	941	
4	20	HAND DRYER		1800
6	20	HAND DRYER	1800	
8	20	OUTDOOR LIGHTS		54
10	60	TEMPORARY FEED		
12				
TOTAL NEW LOAD			2741	2034

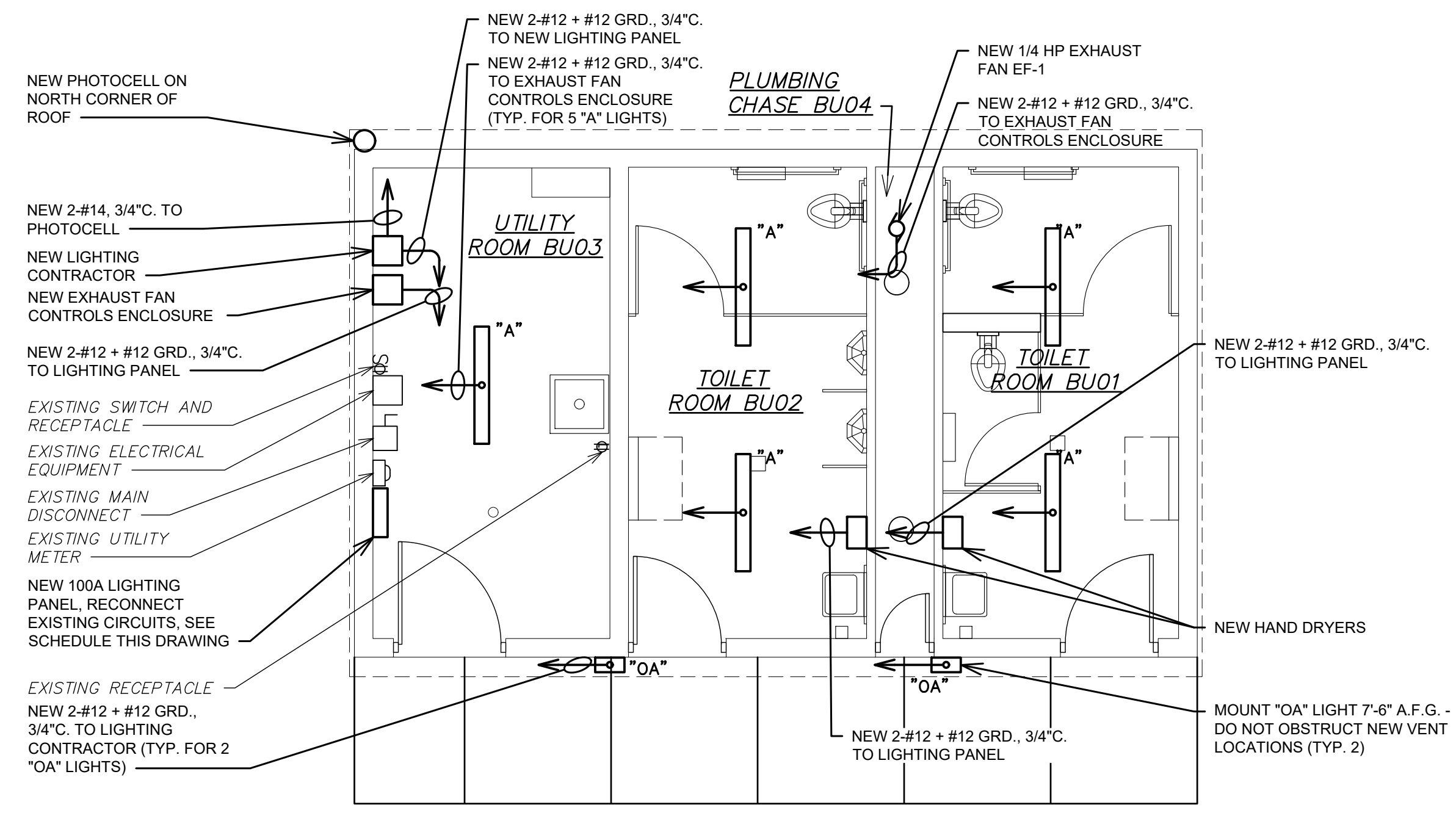
RECONNECT ALL EXISTING CIRCUITS



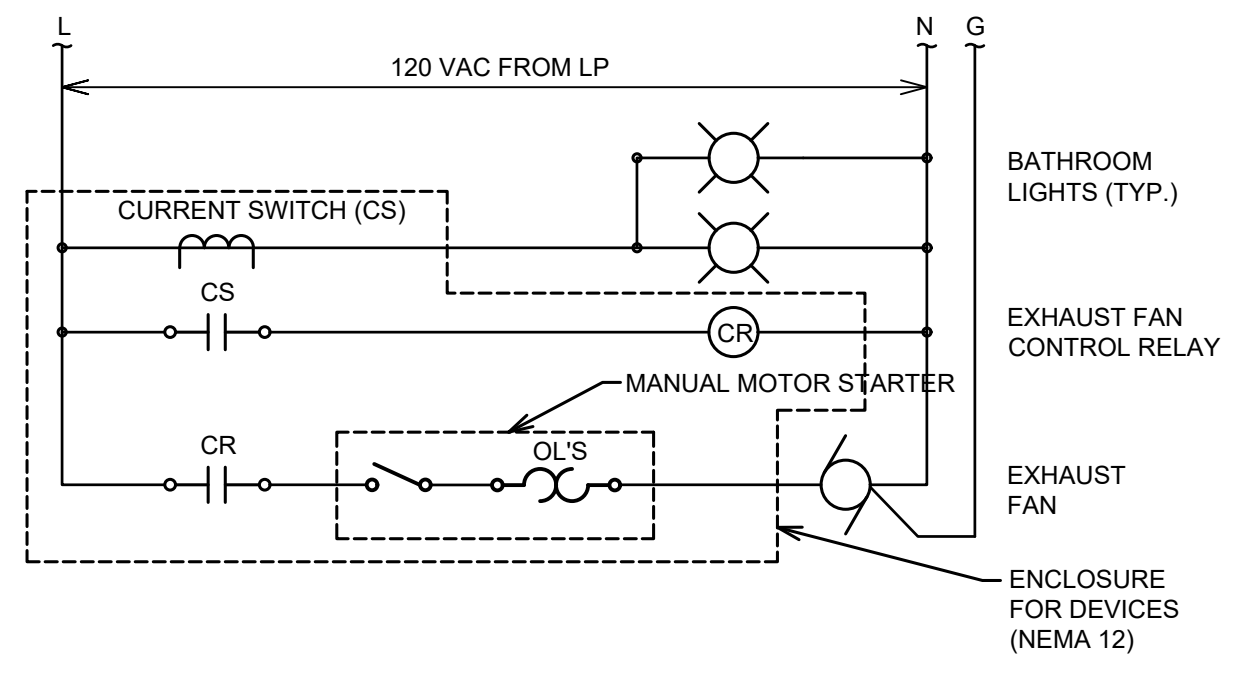
LIGHTING CONTACTOR WIRING DIAGRAM
N. T. S.



ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



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

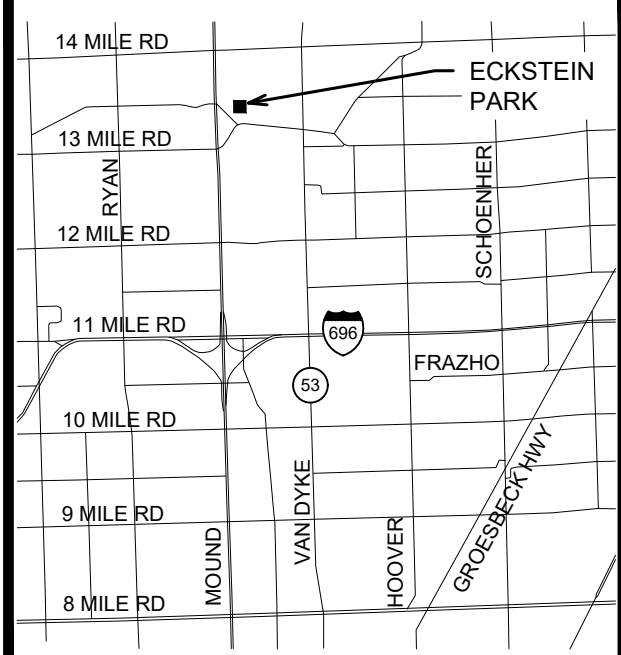


EXHAUST FAN CONTROLS ENCLOSURE WIRING DIAGRAM
N. T. S.



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DRAWN	JRM
CHECKED	MJR
APPROVED	MCM



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ELECTRICAL POWER AND LIGHTING PLAN

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