



**ADDENDUM NO. 3
TO CONTRACT DOCUMENTS FOR ECKSTEIN PARK RESTROOM IMPROVEMENTS**

**CITY OF WARREN
MACOMB COUNTY, MICHIGAN
IWB-W-1253**

Issued: March 26, 2025

HRC Job No. 20200165.27

Intent:

This Addendum is issued prior to receipt of bids to provide for certain changes and clarifications to the Specifications and/or the Plans, as herein specified, and is hereby made a part of the Contract Documents and shall be taken into consideration in preparing the Proposal. All other conditions remain the same. The following lists the extent of this Addendum. Descriptions of the changes or clarifications are given within each heading.

DRAWINGS

Sheet G-4 (reissued):

- Drinking fountain specification added.

Prepared by

HUBBELL, ROTH & CLARK, INC.

Steven T. Sack, RA, NCARB
Staff Architect

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...

PROVIDE ALL MATERIALS, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY FOR COMPLETE AND OPERABLE MECHANICAL SYSTEMS.

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.

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.

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.

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...

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.

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.

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.

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 TO 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.

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.

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 AERODYNE "HEP" AND VOLUME DAMPERS.

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.

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

Table with columns: TAG, ITEM, MAKE, MODEL NAME, MODEL NUMBER, PIPE CONNECTION SIZES (W, V, CW, HW), NOTES/ACCESSORIES. Includes items like FLOOR DRAIN, LAVATORY, URINAL, WATER CLOSET, HOSE BIB, MOP SINK, DRINKING FOUNTAIN.

PLUMBING FIXTURE NOTES/ACCESSORIES

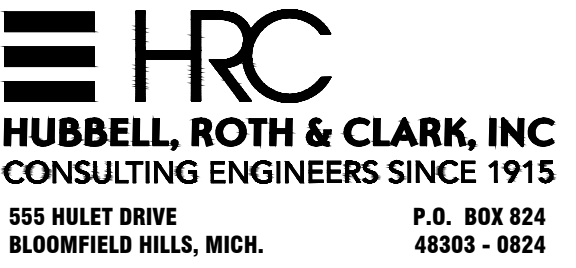
Table with columns: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z. Contains detailed notes for various fixtures and materials.

GRILLE REGISTER AND DIFFUSER SCHEDULE

Table with columns: TAG, SERVICE, BASIS OF DESIGN MFR, BASIS OF DESIGN MODEL NUMBER, CFM RANGE, NECK SIZE (IN), FACE DIMENSIONS (IN), MOUNTING, NOTES/ACCESSORIES. Includes EXHAUST AIR GRILLE and NOTES & ACCESSORIES.

MECHANICAL LEGEND

Legend table mapping symbols to mechanical components: WATER METER, DIAMETER, GATE VALVE, THERMOSTAT, PIPE DOWN, PIPE UP, PIPE TEE, FLOOR DRAIN, AIR CONDITIONING UNIT, EXHAUST FAN, ELECTRIC WATER HEATER, FLOOR DRAIN, HOT WATER, INVERT ELEVATION, LAVATORY, SANITARY, VENT THRU ROOF, WATER CLOSET, DOMESTIC COLD WATER, DOMESTIC HOT WATER, SANITARY SEWER, VENT PIPING.



Empty table with 2 columns and 10 rows.

Table with 2 columns: DATE, ADDITIONS AND/OR REVISIONS. Includes entries for 03-22-2025 (ADDENDUM 03) and 02-13-2025 (ISSUED FOR BID).

Table with 2 columns: DESIGNED, DRAWN, CHECKED, APPROVED. Includes names: STS, STS, AMM, MCM.



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

MECHANICAL SPECIFICATIONS AND SCHEDULES

Table with 2 columns: HRC JOB NO. (20200165), SCALE (AS NOTED).

Table with 2 columns: DATE (MARCH 2025), SHEET NO. (G-4 OF).