

ADDENDUM NUMBER 5
for
ADVANCED TREATMENT PROJECT
FORT THOMAS TREATMENT PLANT
NORTHERN KENTUCKY WATER DISTRICT

FROM: CH2M HILL
 TO: Plan Holders of Record

The following changes, additions, and deletions are hereby made a part of the project Bidding Documents as fully and completely, as if the same were set forth therein. Acknowledge receipt and acceptance of this Addendum in the space provided on the BID FORM.

SPECIFICATIONS

Item No. AD5-1: Agreement (Section 00 52 13)

Delete Article 7. INTEREST, in its entirety.

Item No. AD5-2: Supplementary Conditions (Section 00 73 00)

Delete paragraph SC-4.06.A.1. As a clarification, no reports relating to Hazardous Environmental Condition have been observed or used.

Add the following items to the end of 6.08.B:

6.08.B.4 Land Disturbance Permit from Sanitation District No. 1

6.08.B.5 Authorization for Construction, Kentucky Public Protection Cabinet ,
 Department of Housing, Buildings and Construction.

Item No. AD5-3: Cast-In-Place Concrete (Section 03 30 00)

Delete paragraph 2.04 A, 2, a. and replace as follows:

- a. Design for 1,500 psi at 28 days using 1-inch aggregate, 4-inch maximum slump and 0.53 maximum water to cementitious materials ratio.

Item No. AD5-4: Masonry Veneer (Section 04 21 13.13)

Revise Article 2.01.B by Deleting paragraph 1 and inserting the following:

1. Face Brick: Color and texture to match "buff" face brick on existing Laboratory Building.

2. Brick Type 2: Color and texture to match “red” face brick on existing Laboratory Building.

Item No. AD5-5: Metal Fabrications (Section 05 50 00)

Revise paragraph 2.01.B by deleting the first item in the table and replace with the following:

W- Shapes	A922/ A922M
Channels, Anglers, S-Shapes and Plate and Bar	A36

Replace Article 2.06 with the following:

2.06 STAINLESS STEEL LINTELS AND SHELF ANGLES

- A. ASTM A276 for stainless steel bars angles and shapes; ASTM A240/ A240M for stainless steel plate, sheet and strip.

Item No. AD5-6: Door Hardware (Section 08 71 00)

Revise Article 2.01 MATERIALS as follows:

Add the following paragraph to Article 2.01:

- D. For both single and double doors requiring access control, the doors will require electrified trim. Vendor to prep the access controlled doors for Sergent ETJ or Vonduprin 996L trim. The access control supplier will supply current transfer hinges and the electrified trim to make the doors fully operational. Coordinate installation with Specification Section 28 13 53 – Access Control System.

Revise Article 2.12 ELECTRIC STRIKE as follows:

Replace paragraphs A and B with the following:

- A. Electric strike and door contacts to be provided as part of Specification Section 28 13 53 – Access Control System.

Item No. AD5-7: Signage (Section 10 14 00)

As a clarification, the Sign Schedule at the end of the section provides examples of types of signs to be provided. For bidding purposes assume 5 of each type sign will be needed. Placement of signs will be as indicated by Construction Contract Administrator and Engineer during construction.

Item No. AD5-8: Instrumentation and Control Devices for HVAC (Section 23 09 00)

Delete paragraph 2.06 Field Components & Instruments of Part 2 Products.

Item No. AD5-9: Oil-Filled Pad Mount Transformers (Section 26 12 02)

Revise Article 2.09 SURGE ARRESTORS as follows:

Revise paragraph 2.06 A. by replacing "9 kV" with "15kV".

Item No. AD5-10: Diesel Engine Generator Set (Section 26 32 13.13)

Revise Article 2.04 ENGINE as follows:

Delete paragraph 2.04 F.1.b and replace with the following:

- b. Cooling System: Rated for full load operation in 104 degrees F (40 degrees C) ambient as measured at alternator air inlet.

Item No. AD5-11: Access Control System (Section 28 13 53)

Revise Article 2.07 DOORS AND HARDWARE as follows:

Delete paragraph A and replace with the following:

- A. Door Hardware: As specified in Specification Section 08 71 00 - Door Hardware.

Delete paragraphs B.1, 4 and 5.

Delete paragraph D - Touch Bar Exit.

Delete paragraph F - Electromagnetic Lock.

Item No. AD5-12: Fill and Backfill (Section 31 23 23)

Revise 3.05 B. Items 1 through 9 inclusive to add the words "Each Lift" after each item.

As a clarification, Owner will obtain and pay for testing.

Delete Article 2.05 and replace with the following:

2.05 Free Draining Granular Material:

- A. 1-inch minus crushed rock or gravel.
- B. Free from dirt, clay balls, and organic material.
- C. Less than 3 percent fines passing the No. 200 sieve.

Item No. AD5-13: Manholes (Section 33 05 13)

Revise Article 3.06 C by deleting the item “. [B. Interior]”.

Item No. AD5-14: Fabricated Slide Gates (Section 35 20 16.25)

Revise the Slide Gate Schedule at the end of this section by changing the gate height for both of the gates to be 48 inches.

Item No. AD5-15: Process Valves and Operators (Section 40 27 02)

Revise Article 2.05 OPERATORS AND ACTUATORS as follows:

Add the following paragraph to article 2.05 B.2.d:

- 8) The actuators are to be provided with plug/socket connections for the DeviceNet cables.

Revise the Valve Schedule at the end of this section for the two buried valves on the equalization basin discharge line as follows:

- For Valve Tag No. FT-WS-GV-001, change the valve tag no. to “FT-WS-BFV-004” and change the valve type to “V504”.
- For Valve Tag No. FT-WS-GV-002, change the valve tag no. to “FT-WS-BFV-005” and change the valve type to “V504”.

Item No. AD3-16: Overhead Cranes (Section 41 22 13.13)

Add to the end of Article 2.02 the following :

2.02 D. Rail attachment shall be by crane manufacturer, size and spacing as required to meet CMAA standards.

Item No. AD3-17: Submersible Pumps (Section 44 42 56.04)

As a clarification AD3-15 should read “Add attached to 44 42 56.04 Supplement after page 44 42 56.04 Supplement - 2.” The pump described under Addendum 3 is in addition to the EQ Basin Pumps.

PLANS

Item No. AD4-18: General Structural Notes (Sheet FT-G-008)

Revise Note 3 of Structural Steel and Metal Fabrications by deleting the standards for Steel and Galvanized Steel and replace with the following:

Steel	A1554, GR 55
Galvanized Steel	A1554, GR 55 / A153

Item No. AD5-19: Civil - General Site Plan (FT-C-101)

1. Add the following to the CONTACTOR NOTES on this drawing:
 - F. THE WIDTH AND SURFACE ELEVATIONS OF THE TEMPORARY ROAD SHOWN ON THIS DRAWING SHALL CONFORM TO THE WIDTH AND ELEVATIONS OF THE NEW PERMANENT ROAD AS SHOWN ON DRAWING FT-C-103. THE CONSTRUCTION DETAIL FOR THE TEMPORARY ROAD SHALL CONFORM TO THE TEMPORARY PAVING DETAIL ATTACHED TO THIS ADDENDUM.

Item No. AD5-20: Civil - Site Demolition Plan (FT-C-102)

Revise Note 10 to read as follows:

10. ABANDON AND/OR REMOVE 24" CI BACKWASH SUPPLY PIPE AS REQUIRED FOR CONSTRUCTION. PROVIDE 24 INCH DUCTILE IRON RESTRAINED JOINT TEMPORARY PIPING TO REPLACE DEMOLISHED CAST IRON LINE. THE TEMPORARY LINE MAY BECOME THE NEW PERMANENT 24 INCH DUCTILE IRON BACKWASH SUPPLY LINE AS SHOWN ON DRAWING FT-C-105 PROVIDED IT CAN BE LOCATED AS SHOWN ON FT-C-105.

Item No. AD5-21: Civil - Site Layout and Paving Plan (FT-C-103)

Add the following new Note to this drawing:

- D. THE CONTRACTOR SHALL PAINT 4-INCH SOLID WHITE STRIPES ON THE PAVING TO MARK ALL OF THE PARKING SPACES AS SHOWN ON THIS DRAWING AT THE LABORATORY BUILDING, THE A T BUILDING AND THE FILTER BUILDING PARKING AREAS."

Item No. AD5-22: Civil - Grading and Drainage Plan (FT-C-104)

As a clarification, the cover for the trench drain shown on the outside of west side of the AT Building is heavy duty, cast iron trench grate.

Add the following to the Structure Type for only Storm Structure #12:

PRECAST HEADWALL SHALL BE CLOUD CONCRETE KY. STRAIGHT HEADWALL, OR EQUAL, WITH 48 INCH OVERALL HEIGHT AND 71 INCH OVERALL WIDTH

Add the following to the DRAINAGE STRUTURE NOTES:

- E. AT STORM STRUCTURE #12 CONTRACTOR SHALL ADJUST EXISTING STONE WALLS AND BOTTOM ON EXISTING DRAINAGE CHANNEL AS NEEDED TO TIE THE EXISTING CHANNEL INTO THE PRECAST HEADWALL TO MAKE A SMOOTH TRANSITION AND FINISHED INSTALLATION"

Item No. AD5-23: Civil - Site Piping and Utilities Plan (FT-C-105)

Revise the drawing by incorporating the clouded notes on the attached sketch (excerpt from FT-C-105) which illustrate a revised arrangement for part of the sanitary lines required outside the west side of the new AT building to connect building sanitary drain lines to the new 6" sanitary sewer line.

As a clarification, the roof drains on the proposed Advanced Treatment building shall be Schedule 40 Cast Iron.

Revise the description of the 12" WATER METER PIT in the center of the Drawings to read as follows:

12" WATER METER PIT (SEE SHEET FT-C-403 FOR DETAILS)

Item No. AD5-24: Civil - Erosion Control Details (FT-C-107)

Revise the Detail by adding the following note:

Detail Note:

1. GRAVEL FILTER STONE SHALL BE KYDOT #3, #357 OR #5 COARSE AGGREGATE. WIRE MESH SHALL HAVE ½ INCH OPENINGS. "

Item No. AD5-25: Civil- EQ Outfall Structure (FT-C-401)

Add the following note to Section A on this drawing:

Section Note:

1. PROVIDE 24 INCH DI WALL PIPE, FLG X PE, WITH THRUST RING EMBEDDED IN CENTER OF WALL OF NEW CONCRETE STRUCTURE. PROVIDE 24 INCH BURIED RESTRAINED JOINT ON PLAIN END SIDE OF WALL PIPE, WITHIN 18 INCHES OF PENETRATION. PROVIDE FOUR (4)

¾-INCH STAINLESS STEEL ANCHOR BOLTS AND NUTS TO ATTACH 24 INCH BASE ELBOW TO NEW SLAB. ANCHOR BOLTS SHALL BE EMBEDDED 10 INCHES MINIMUM IN NEW CONCRETE SLAB.

Item No. AD5-26: Civil - Valve Vaults (FT-C-402)

Add the following notes to the Drawing for the North Filter Effluent and GAC Bypass Valve Vaults shown on this drawing:

Valve Vault Notes:

1. The 36" DI wall pipes shown are not required to have thrust collars or thrust rings.
2. The mechanical joints shown on the 36" DI pipe outside the vaults as "MJ" can alternately be restrained type bell and spigot joints.
3. The water tight flexible pipe joint seal required for all 36" DI pipe wall penetrations in these precast concrete vaults shall be Kor-N-Seal, A-Lok, or equal.

Add the following notes to the Drawing regarding the 36" DI piping on the exterior of the South Filter Effluent Bypass Valve Vault:

Valve Vault Note:

1. Wherever a joint is shown as "MJ" it can be restrained type bell and spigot joints.

Item No. AD5-27: Civil - Flow Splitter Box (FT-C-403)

Revise the title of the sheet to FLOW SPLITTER BOX AND WATER METER VAULT DETAILS.

Add the attached WATER METER VAULT PLAN & PROFILE to this Drawing.

Item No. AD5-28: Civil - Yard Pipe Profiles (FT-C-503)

As a clarification, details of the AIR VALVE & VAULT shown on the 36" GAC Influent are provided in Standard Detail 3312-654.

Item No. AD5-29: AT Building Door and Hardware Schedule - 1 (Sheet FT-A-601)

For Door FT105A, replace hardware exit device "X1" with "X4".

Item No. AD4-30: AT Building South Plan (Sheet FT-S-131)

Transition Slab at elevation 769.00 from 1'-6" to 2'-6" at location shown on attached sketch.

Item No. AD4-31: AT Building South Plan and North Plan (Sheet FT-S-131 and FT-S-132)

As a clarification, grating at elevation 769.00, spanning across trench in Pipe Gallery floor shall receive embed detail GS-1 typically, except use GS-3 at face of columns projecting upward.

Item No. AD5-32: AT Building Section - 1(Sheet FT-S-301)

Add the following note to the drawing:

For backfill under and around the AT Building see Specification 31 23 23, Article 3.02 Backfill Under and Around Structures.

As a clarification, this note applies to the AT Building sections on the subsequent drawings.

Item No. AD5-33: AT Building Section (FT-S-306)

Change the section reference on the left side of floor elevation 800.00 from 8/FT-S-505 to 7/FT-S-505. As a clarification, delete item AD4-20 which changed the section callout previously but was in error.

Item No. AD5-34: AT Building Section (FT-S-308)

Change the section reference on the left side of floor elevation 800.00 from 8/FT-S-505 to 7/FT-S-505.

Item No. AD5-35: AT Building Endwall Louver Framing Details (FT-S-501)

Change the note on Sections A and C describing the anchor bolts to read as follows:

Anchors shall be 5/8" diameter anchors, set in HILTI RE 500 SD adhesive and spaced at 24" c/c.

As a clarification, this change shall also to be made on Drawing FT-S-502, Details 6 and 9, Drawing FT-S-503, Details 1,3 and 9, Drawing FT-S-504, Detail 6, and Drawing FT-S-506, Detail 6.

Item No. AD5-36: AT Building Details (FT-S-502)

Change Section 7 as follows:

Brick Shelf Angle L2 shall be installed above the lower roof line, in lieu of below as shown. Coordinate Brick Shelf Angle elevation with FT-A-501.

Item No. AD5-37: AT Building Details (FT-S-503)

Change Section 5 as follows:

Double-tee connector plate shall be ½" thick x 4" long x 6" high.

Item No. AD5-38: AT Building Details (FT-S-504)

Change Section 12 as follows:

Change callout at upper left from ¾" Dia. A325 Anchor Bolts to ¾" Dia. Anchor Rods.

Add the following note:

All anchor rods to be ASTM F1554, Grade 55

As a clarification, this change shall also to be made on Drawing FT-S-506, Sections 2 and 3.

Item No. AD5-39: AT Building Details (FT-S-506)

Change the detail callout on the Plan View from 11/MP-S-505 to 5/FT-S-506.

Item No. AD4-40: AT Building Section (FT-D-301)

Add "See Detail 1/FT-D-501." to keyed note #1.

Item No. AD4-41: AT Building Continued Section (FT-D-302)

Add "See Detail 1/FT-D-501." to keyed note #1.

Item No. AD4-42: AT Building Section (FT-D-303)

Add "See Detail 1/FT-D-501." to keyed note #1.

Item No. AD5-43: Process Mechanical - Exist. Filter Bldg. Basement Plan (FT-D-401)

Revise the keyed note at the far right side of the Basement Plan to be keyed note 9 instead of keyed note 8.

Item No. AD4-44: AT Building Details (FT-D-501)

Replace this sheet with the Drawing FT-D-501 attached to this addendum .

Item No. AD5-45: AT Building Basement North Plan (Sheet FT-P-131)

Provide trap primers, along with ½" CW Line (Below Floor) from trap primers to all Floor Drains and p-traps of all Trench Drains.

Item No. AD5-46: AT Building Basement South Plan (Sheet FT-P-131)

1. The main water line North of the elevator indicated as 1 ½" shall be 2".
2. Delete the Note "1" Drain Piping Up, see 1st Floor Plumbing" located North of the Elev. Control Room.
3. Provide trap primers along with a ½" CW Line (below floor) from trap primers to all Floor Drains and p-traps of all Trench Drains.

Item No. AD5-47: AT Building First Floor South Plan (Sheet FT-P-141)

1. The contractor shall provide trap primers, along with a ½" CW Line (Below Floor) from trap primers to all Floor Drains and p-traps of all Trench Drains.
2. The main CW line running Northward from the tee at the elevator, shall be 3" in-lieu-of 2" as indicated.

Item No. AD5-48: AT Building First Floor North Plan (Sheet FT-P-142)

1. The wall hydrants designated as HV shall be HV- 1, ¾" Freezeproof.
2. The contractor shall provide trap primers, along with a ½" CW line (Below Floor) from trap primers to all Floor Drains and p-traps of all Trench Drains.
3. The note North of washroom 106 shall read "2" Cold Water Up and 3" Down."
4. The water line extending to the Pump Seal shall be 2".

Item No. AD5-49: AT Building Second Floor South Plan (Sheet FT-P-151)

Contractor shall provide (3) 1 ½" Hose Reels with service shut off valves on East wall. Provide a 3" CW Line down to floor below (Sheet FT-P-141). Contractor shall provide (2) ½" Hose Valves (HV), one on South wall near Sand Trap and one on column between GAC Contactors: #6 & #7 (West). Provide water piping for Hose Reels & Hose Valves as indicated on revised drawing attached to this addendum.

As a clarification the revised drawing is intended to indicate changes related to hose valves, all items in prior addendums related to sheet FT-P-151 remain in effect.

Item No. AD5-50: AT Building Second Floor North Plan (Sheet FT-P-152)

Contractor shall provide a Hose Reel on East wall between GAC Contactors #1 & #2 and water line as required (extended from South Plan (Sheet FT-P-151). Contractor shall provide a ½" Hose Valve (HV) on the wall between Sand Trap & Boot Wash and water line as required. Provide water piping for Hose Reels & Hose Valves as indicated on revised drawing attached to this addendum.

As a clarification the revised drawing is intended to indicate changes related to hose valves, all items in prior addendums related to sheet FT-P-152 remain in effect.

Item No. AD5-51: Plumbing General Notes (Sheet FT-P-601)

As a clarification, plumbing fixture HV shall be a ½" Hose Bibb and HV-1 shall be ¾" wall hydrant – freeze proof.

Revise the data for EF-2 in the Ventilation Fan Schedule as follows:
Model No. is 42XMWH, 583 RPM, 31 sones.

Item No. AD5-52: Plumbing Riser Diagrams (Sheet FT-P-901)

Replace Drawing FT-P-901 with the revised drawing attached to this Addendum.

Item No. AD5-53: AT Building Overall One-Line Diagram (Sheet FT-E-001)

Delete the generator transformer designation and replace with "2500 KVA PMT, 480/12470 VOLTS, WYE/DELTA".

Item No. AD5-54: AT Building Basement Level North Lighting Plan (Sheet FT-EL-132)

For lighting circuit LP-1, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuit LP-3, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

Item No. AD5-55: AT Building First Floor South Lighting Plan (Sheet FT-EL-141)

For lighting circuit LP-11, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

Item No. AD5-56: AT Building First Floor South Power Plan (Sheet FT-EP-141)

The disconnect switch for HP-1A designated as "221//4X" should be designated "30".

The disconnect switch for HP-1B designated as "221//4X" should be designated "30".

The disconnect switch for EUH-22 designated as "361//4X" should be designated "30".

Item No. AD5-57: AT Building First Floor North Lighting Plan (Sheet FT-EL-142)

For lighting circuit LP-5, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuit LP-7, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuit LP-9, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

Item No. AD5-58: AT Building First Floor North Power Plan (Sheet FT-EP-142)

The disconnect switch for EUH-4 designated as "361//4X" should be designated "30".

The disconnect switch for EUH-5 designated as "361//4X" should be designated "30".

The disconnect switch for EUH-7 designated as "361//4X" should be designated "30".

The disconnect switch for EUH-10 designated as "361//4X" should be designated "30".

The combination starter/disconnect for EF-1 designated as "31/5/4X" should be designated "1".

The combination starter/disconnect for EF-2 designated as "31/5/4X" should be designated "1".

The combination starter/disconnect for EF-3 designated as "31/5/4X" should be designated "1".

Add EF-5 along the west wall of the Mechanical Room 104. Refer to mechanical drawings for exact location. Provide 120 volt, single-phase power to the fan from the Mechanical Room lighting circuit LP-11. Include a manual motor starter at EF-5.

Circuit MPA-13 shown for EUH-10 should be changed to MPB-12.

Item No. AD5-59: AT Building Second Floor South Lighting Plan (Sheet FT-EL-151)

For lighting circuit LP-18, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuit LP-20, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

Item No. AD5-60: AT Building Second Floor South Power Plan (Sheet FT-EP-151)

The disconnect switch for EUH-18 designated as "361//4X" should be designated "30".

Item No. AD5-61: AT Building Second Floor North Lighting Plan (Sheet FT-EL-152)

For lighting circuits LP-15, 17, 19 replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuits LP-21, 23 replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuit LP-22 replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For lighting circuits LP-25, 27 replace AWG #12 wiring with AWG #10 to minimize voltage drop.

Item No. AD5-62: AT Building Second Floor North Power Plan (Sheet FT-EP-152)

The disconnect switch for EUH-16 designated as "361//4X" should be designated "30".

The disconnect switch for EUH-17 designated as "361//4X" should be designated "30".

The combination starter/disconnect for EF-10 should be designated "1".

EF-10 is shown in the wrong location. Exact location is shown on Drawing FT-M-152.

Circuit MPB-12 shown for EF-10 should be changed to MPB-14.

Add EF-12. The exact location is shown on Drawing FT-M-152. Provide 480 volt, 3-phase power to the fan from circuit MPB-14 which also feeds EF-10. Circuit MPB-14 will be used to feed both EF-10 and EF-12. EF-12 should have a NEMA 1 combination starter/disconnect switch adjacent to the fan with conduit to the thermostat and louver. Wiring to be similar to EF-10.

Item No. AD5-63: AT Building Roof South Power Plan (Sheet FT-EP-161)

The disconnect switch for EUH-20 should be designated "30".

Item No. AD5-64: AT Building Panelboard Schedules (Sheet FT-E-603)

For Panel MPB, add circuit #14. Circuit #14 shall be a 20 amp, 3-pole breaker that feeds EF-10 and EF-12.

Item No. AD5-65: AT Building Panelboard Schedules (Sheet FT-E-604)

For panelboard schedule LP, circuits 1, 3, 5, 7, 9, 11, 13, 15, 17, 18, 19, 20, 21, 22, 23, 25 and 27, replace AWG #12 wiring with AWG #10 to minimize voltage drop.

For panelboard schedule LP, circuit 24, replace AWG #12 wiring in ¾" conduit with AWG #8 wiring in 1" conduit.

Item No. AD5-66: AT Building Network Diagram - Modified.(Sheet FT-I-001)

Add the following general note:

The existing control panels CP-3 and CP-4 located in the Filter Building are Allen-Bradley PLC5s. They have adequate spare I/O on existing cards as well as spare terminals for landing the field wiring. Coordinate final connections with NKWD.

STANDARD DRAWING DETAILS

Item No. AD5-67: Standard Drawing Details

Add the detail number 4005-526 attached to this addendum.

Item No. AD5-68: Standard Drawing Details

1. Standard Details 0315-212 and 216: Revise as follows:

Change Joint Treatment reference from 0315-222A to 0315-228A.

2. Standard Details 0315-212, 216 228A, 232, 233 and 239A: Eliminate tooled and chamfered edges in locations to receive expansion joint covers. Coordinate joint requirements with expansion joint cover manufacturer.
3. Standard Detail 0512-055: Delete table and replace with note: See plans and sections for anchor requirements.
4. Standard Detail 0551-201: Add following note:
 11. Provide calculations sealed by an engineer licensed in the state of Kentucky.

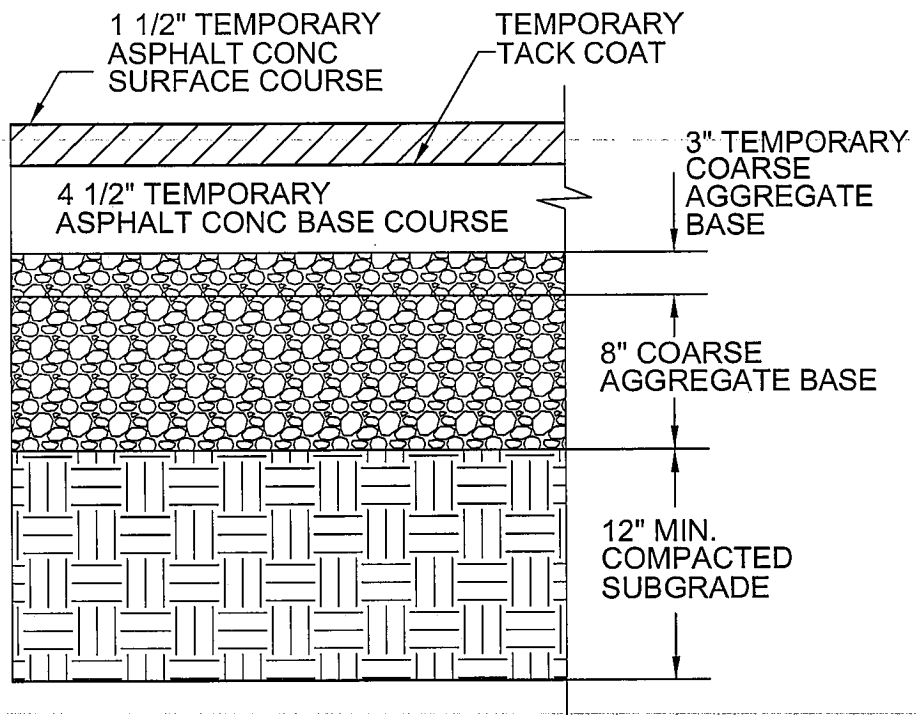
PLAN HOLDER QUESTIONS

Item No. AD5-69: Expansion Joint Covers

Drawings A-132, A-142 and A-152 call for an expansion joint cover typical at floors, walls, ceilings and columns. The standard details call for expansion joint covers at all exposed areas. Please address the following questions concerning the 2" expansion joint and the specified expansion joint cover.

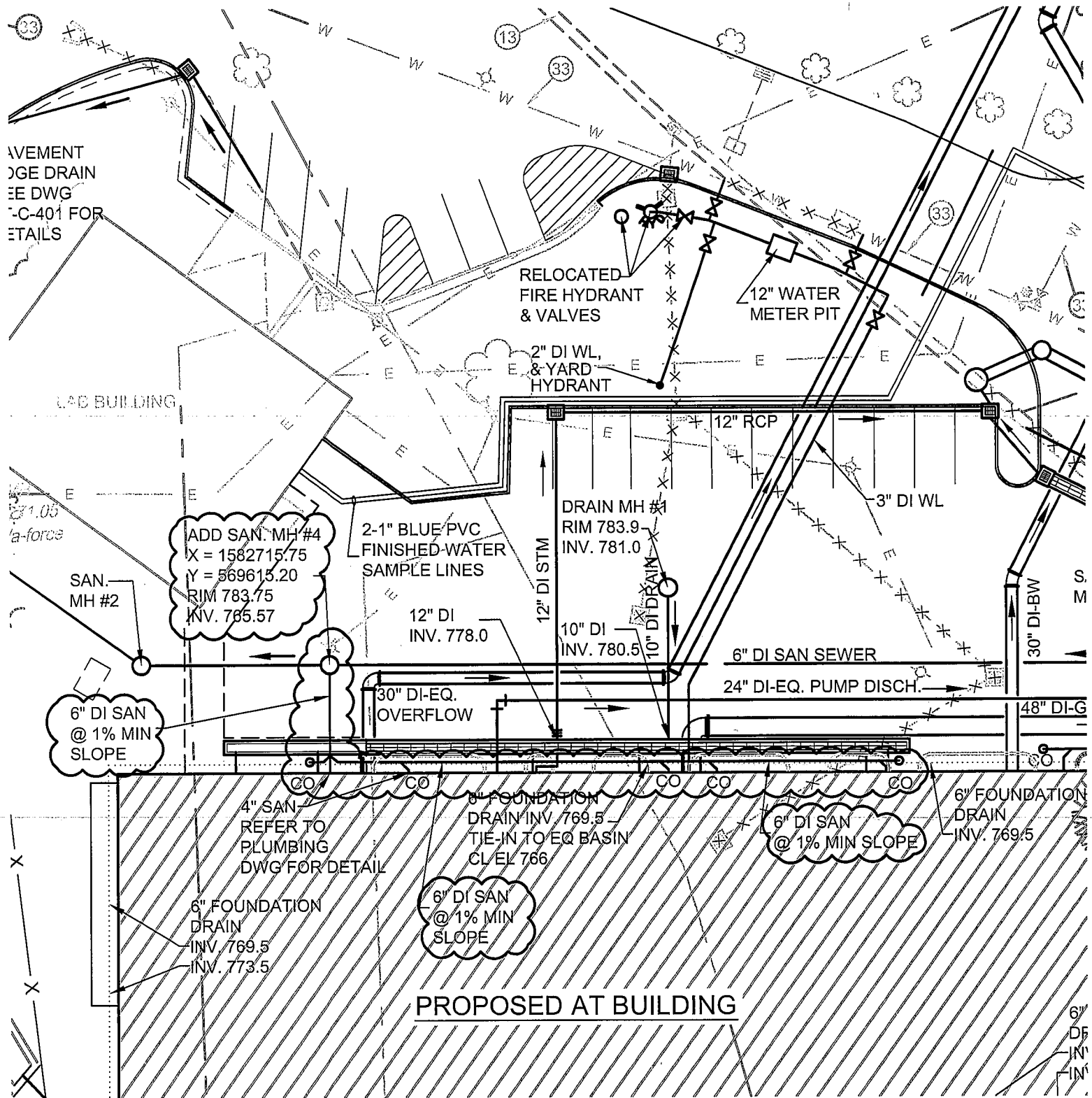
- (Q) Is an expansion joint cover required at the slab and walls at elevation 761 shown in plan on drawing S-122?
 - (A) No.
- (Q) Is an expansion joint cover required in both the top and bottom of elevated slabs and beams at the 1st and 2nd floor in section A/S-301?
 - (A) Provide at elevation 769.0 top of slab. Provide at elevation 784.0, and elevation 800.0 top and bottom of slab.
- (Q) Is an expansion joint cover required on both sides of the columns from elevation 769 to 784 shown in section A/S-301?
 - (A) Yes, and from elevation 784 to elevation 800.

- (Q) Is continuous 2" thick expansion joint material required between all common surfaces of the expansion joint? (Including all areas between walls, columns, and slabs and beams.)
- (A) Yes.
- (Q) Is fiber expansion joint material per ASTM 1751 acceptable to use for all locations?
- (A) Yes, see attached spec section 03 15 00 Concrete Joints and Accessories.
- (Q) Please provide details for the trench drain at the expansion joint.
- (A) None required. Trench drain will be held back 6" from each face of expansion joint.
- (Q) Please provide details for the interface between the expansion joint cover and the trench drain.
- (A) The contractor must coordinate with expansion joint cover manufacture's recommendations.
- (Q) Are there any floors walls or ceilings inside the building where the expansion joint cover is not required?
- (A) No.
- (Q) Is joint sealant required where an expansion joint cover is used?
- (A) Only if required for fire rating.
- (Q) The slab and wall expansion joint treatment shown in standard details 0315-228A and 0315-239A seem inconsistent with the installation procedures for the expansion joint covers that are specified. We cannot find anywhere these standard details apply assuming the expansion joint cover is required throughout. Please advise if and where these standard details apply and provide additional details showing exactly what is required where the expansion joint cover occurs.
- (A) The contractor must coordinate with expansion joint cover manufacture's recommendations. Chamfered edges are not required at expansion joints with joint covers.
- (Q) Detail 9 on A-503 shows a plan detail at a wall to wall expansion joint. We cannot find a reference to this detail and it is nothing like the standard details provided. It also calls for an "air seal (typ)" on the exterior face of the joint. What is this air seal and what does it consist of? If this is required, please clarify where this air seal is to be used.
- (A) Air Seal is specified in 07 21 00 - 2.03. Detail 9/A-503 is typical arrangement for interior expansion joint cover.



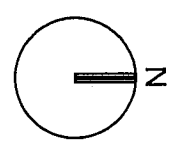
TEMPORARY ASPHALT CONCRETE
PAVEMENT SECTION

N.T.S.



REVISION ON SAN. SEWER LATERAL CONNECTIONS

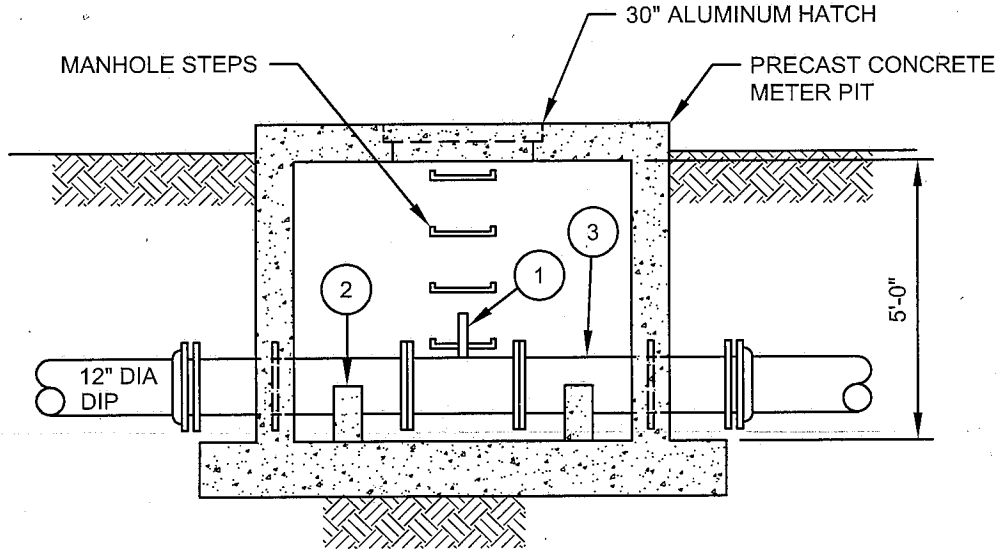
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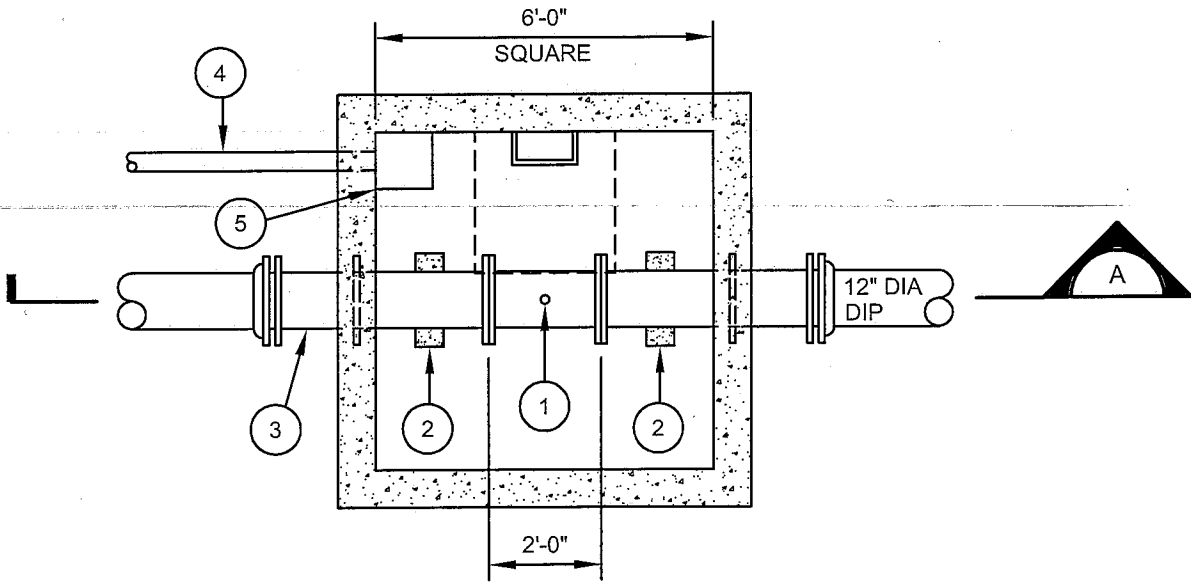
PROJECT NORTH

KEYED NOTES

- 1 12" DI FLG X FLG WITH INSERTION MAG METER (CONNECTED TO TRANSMITTER IN AT BUILDING)
- 2 PIPE SUPPORTS (TYPICAL)
- 3 12" DI PE WITH FLANGE ADAPTER INSIDE (TYPICAL)
- 4 4" DI DRAIN TO STORM STRUCTURE #19 WITH FLAPPER TYPE BACKWATER VALVE AS MANUFACTURED BY ZURN
- 5 18"x18"x6" SUMP



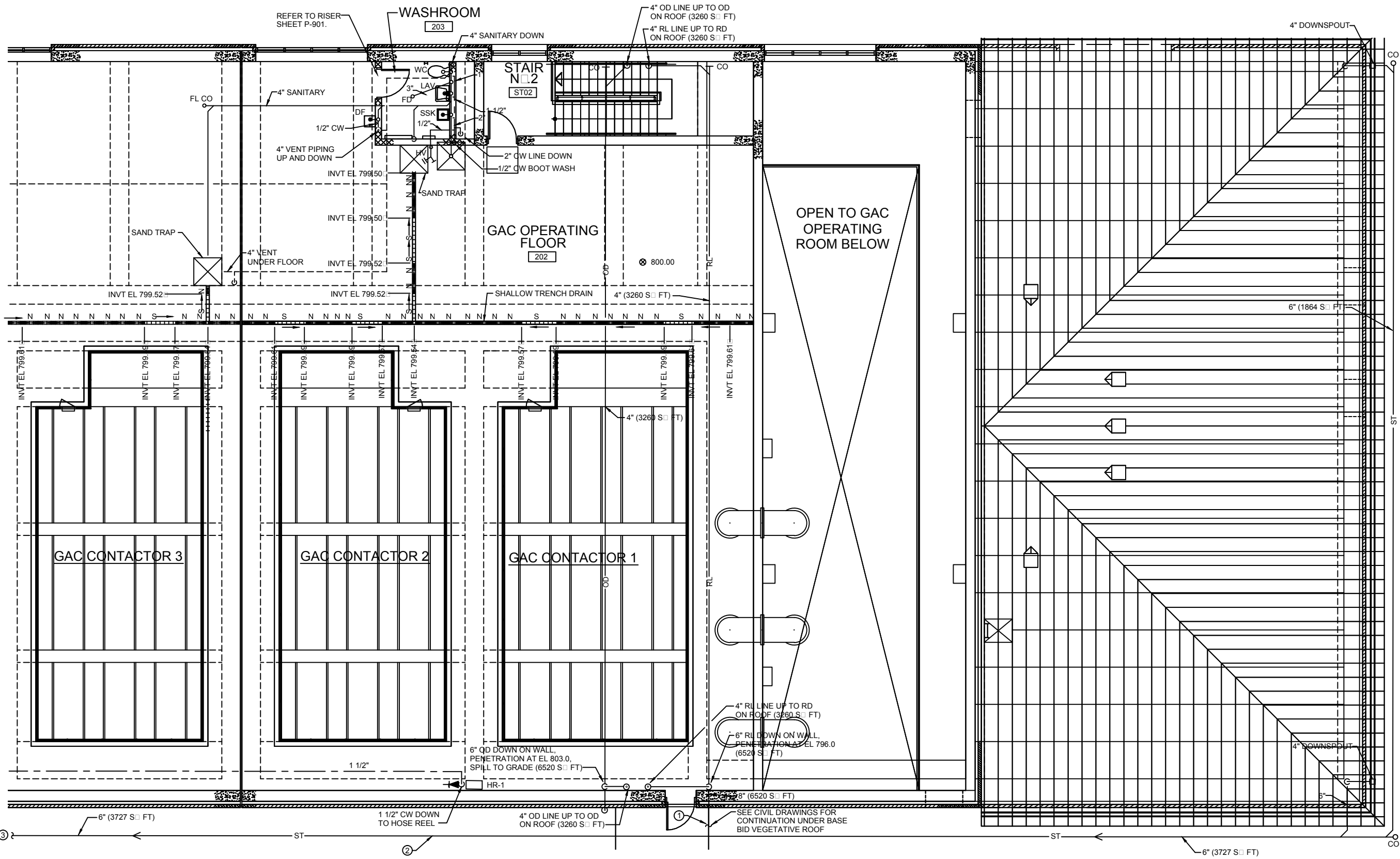
A SECTION
NTS



PLAN
NTS

WATER METER VAULT PLAN & PROFILE

FOR CONTINUATION SEE DWG. FT-P-151



KEYED NOTES:

- 1 IF METAL ROOF ALTERNATE IS USED, THIS LINE SHALL ROUTE TO EQUALIZATION TANK CONNECT TO NEW 8" LINE.
- 2 IF METAL ROOF ALTERNATE IS USED, THIS LINE SHALL INCREASE TO 8" AND CONTINUE TO EQUALIZATION TANK.
- 3 SEE SHEET FT-P-151 FOR CONTINUATION.

SECOND FLOOR NORTH PLAN
3/16" = 1'-0"

KEY	
[Symbol]	GAC CON 8
[Symbol]	GAC CON 7
[Symbol]	GAC CON 6
[Symbol]	GAC CON 5
[Symbol]	GAC CON 4
[Symbol]	GAC CON 3
[Symbol]	GAC CON 2
[Symbol]	GAC CON 1
[Symbol]	WASHROOM
[Symbol]	STAIR
[Symbol]	OPEN TO GAC OPERATING ROOM BELOW



NO.	DATE	DGN	TRG	DR	TRG	CHK	APVD	BY	APVD

WaterDistrict
ADVANCED TREATMENT
FORT THOMAS TREATMENT PLANT
NORTHERN KENTUCKY WATER DISTRICT
FORT THOMAS, KENTUCKY

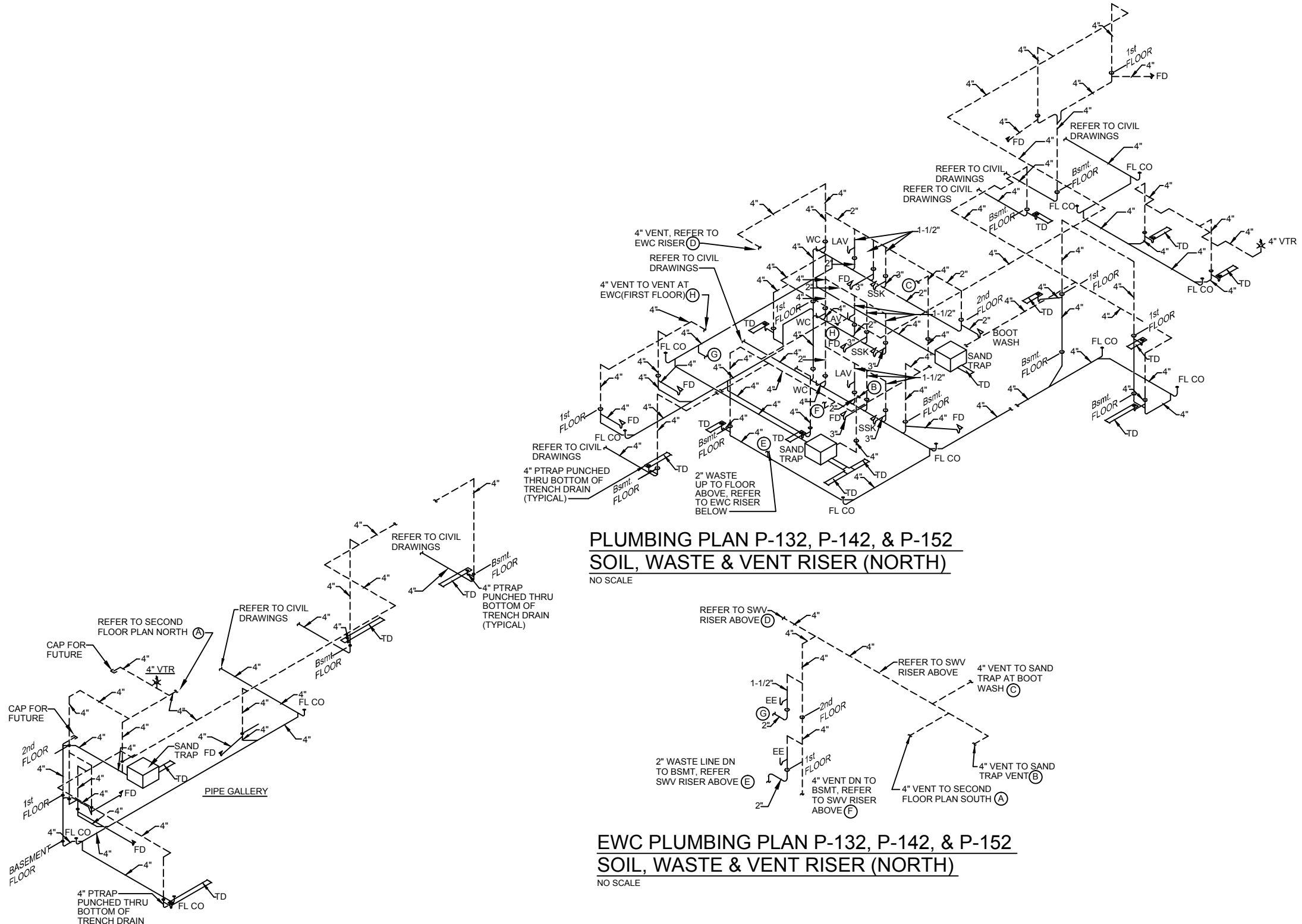
CH2MHILL HDR
PLUMBING
AT BUILDING
SECOND FLOOR
NORTH PLAN

DATE	12/03/09
PROJ	380723
DWG	FT-P-152
SHEET	149

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A
B
C
D



PLUMBING PLAN P-132, P-142, & P-152
SOIL, WASTE & VENT RISER (NORTH)
NO SCALE

EWC PLUMBING PLAN P-132, P-142, & P-152
SOIL, WASTE & VENT RISER (NORTH)
NO SCALE

BASEMENT SOUTH PLUMBING PLAN P-131, P-141, P-151 & ROOF
SOIL, WASTE & VENT RISER (SOUTH)
NO SCALE

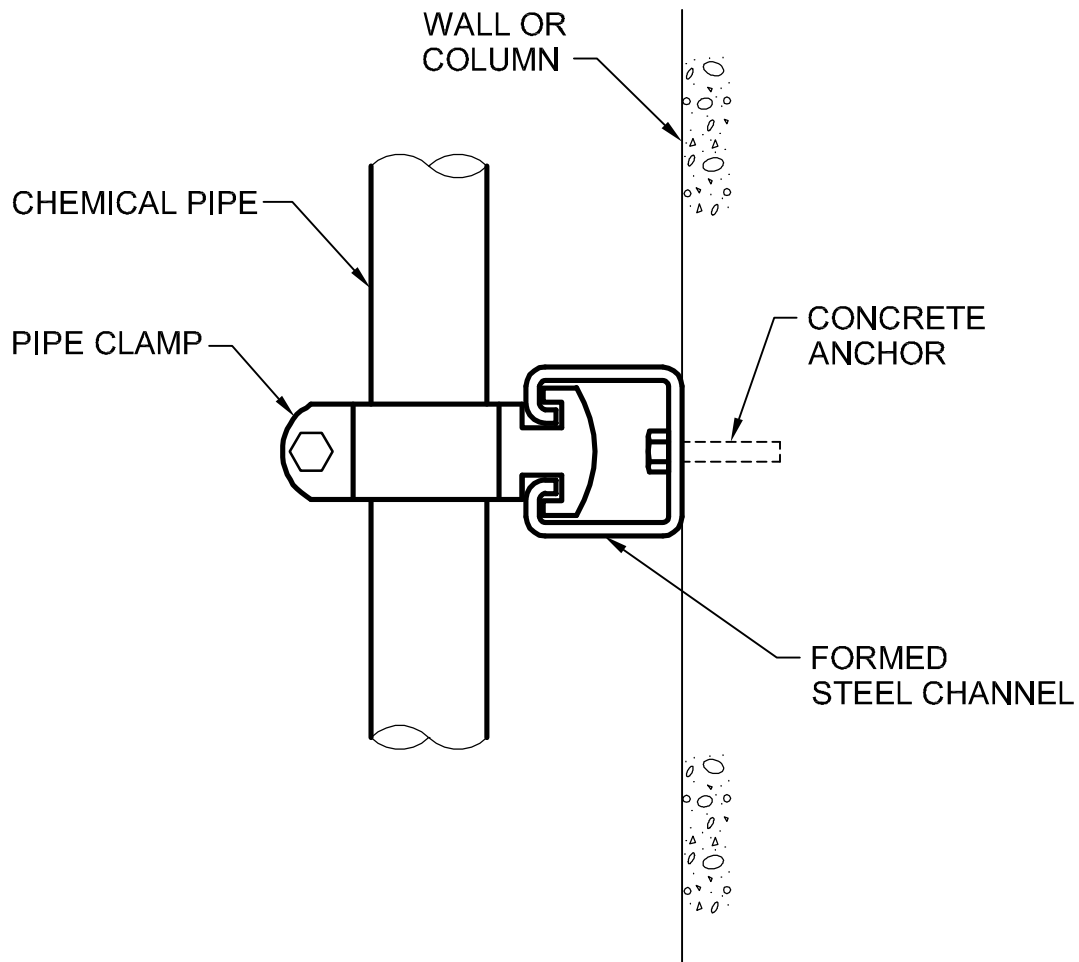
NO.	DATE	DR	TRG	CHK	REVISION	BY	APVD

WaterDistrict
ADVANCED TREATMENT
FORT THOMAS TREATMENT PLANT
NORTHERN KENTUCKY WATER DISTRICT
FORT THOMAS, KENTUCKY

CH2MHILL HDR
PLUMBING
PLUMBING RISER DIAGRAMS

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE 12/03/09
PROJ 380723
DWG FT-P-901
SHEET 153

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NOTE:

SUPPORT ALL EXPOSED SMALL DIAMETER (≤ 2 ") CHEMICAL PIPING ON FORMED STEEL CHANNELS.

SMALL CHEMICAL PIPING SUPPORT ON STRUCTURE

NTS

ADVANCED TREATMENT
 FORT THOMAS TREATMENT PLANT
 NORTHERN KENTUCKY WATER DISTRICT
 FORT THOMAS, KENTUCKY

4005-526

1

2

3

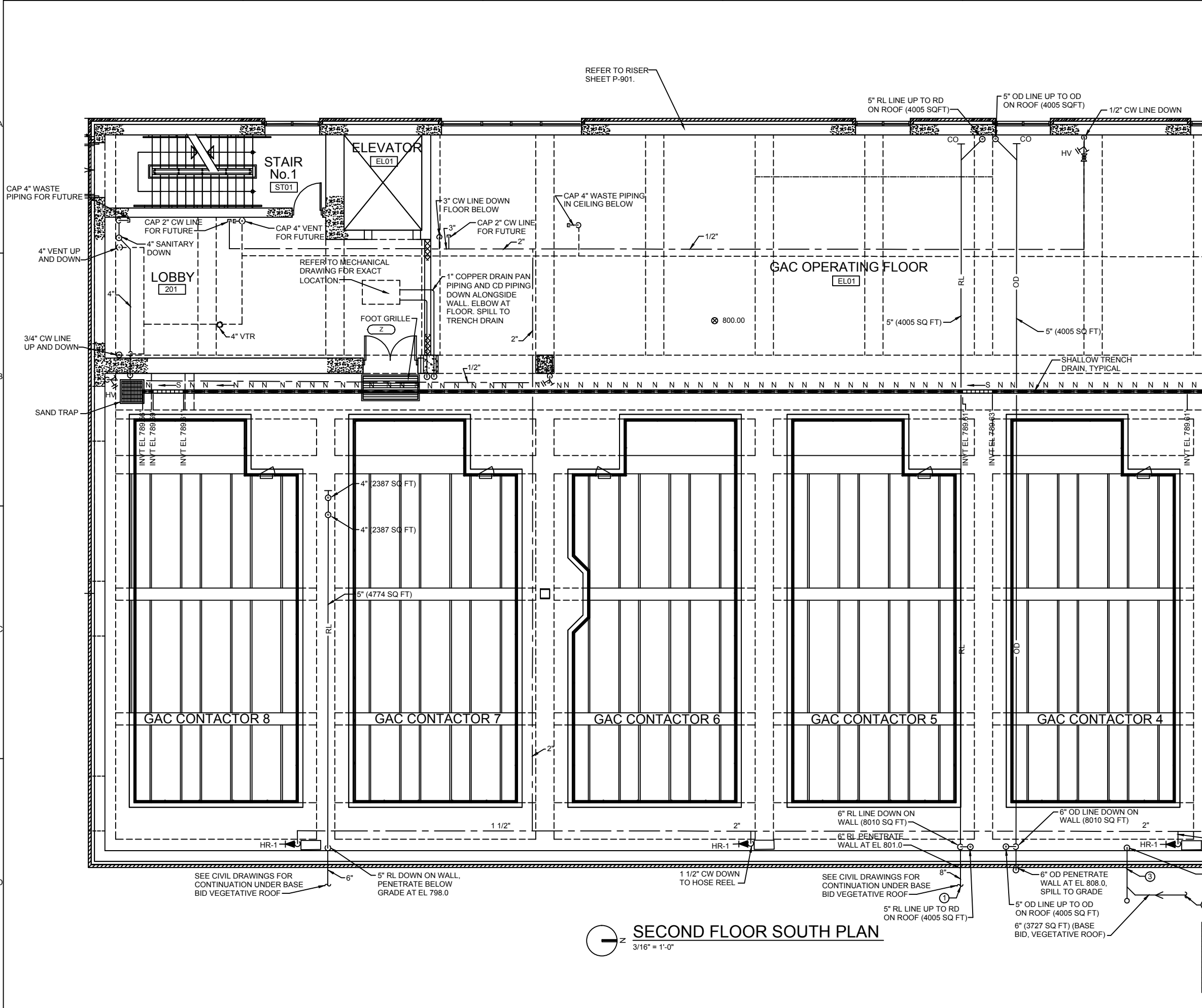
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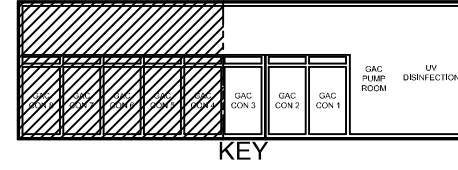
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- KEYED NOTES:**
- 1 DRAWING AS SHOWN IS FOR VEGETATIVE ROOF, IF METAL ROOF ALTERNATE IS USED THIS LINE SHALL ROUTE DIRECTLY TO EQUALIZATION TANK AT SIZE INDICATED AND TIE INTO NEW 10" LINE.
 - 2 FOR ALTERNATE METAL ROOF THIS LINE SHALL BECOME 8".
 - 3 FOR ALTERNATE METAL ROOF THIS LINE SHALL BECOME 10".

FOR CONTINUATION SEE DWG. FT-P-152

SECOND FLOOR SOUTH PLAN
3/16" = 1'-0"



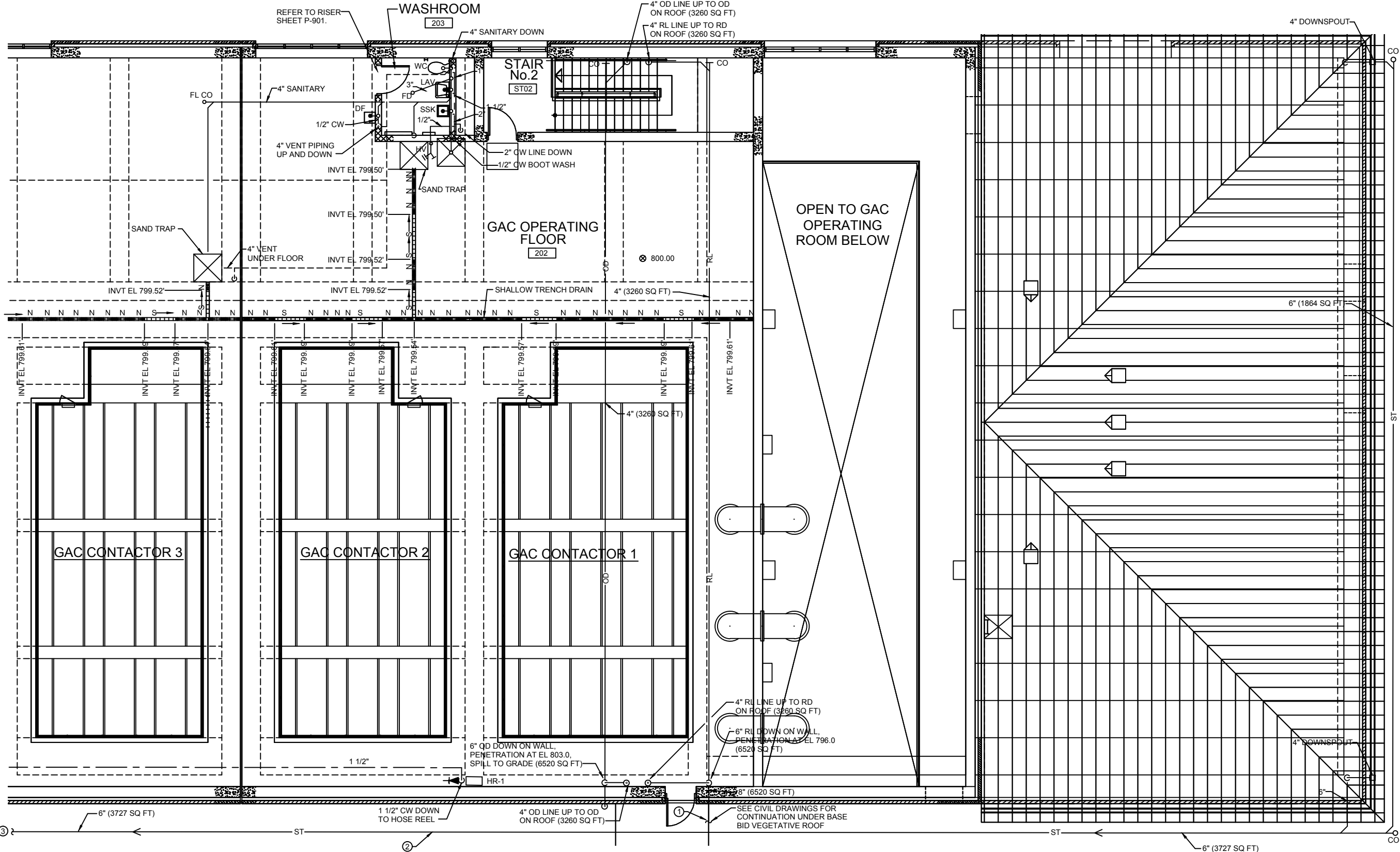
NO.	DATE	DR	TRG	REVISION	CHK	BY

Water District
 ADVANCED TREATMENT
 FORT THOMAS TREATMENT PLANT
 NORTHERN KENTUCKY WATER DISTRICT
 FORT THOMAS, KENTUCKY

CH2MHILL HDR
 PLUMBING
 AT BUILDING
 SECOND FLOOR
 SOUTH PLAN

DATE	12/03/09
PROJ	380723
DWG	FT-P-151
SHEET	148

FOR CONTINUATION SEE DWG. FT-P-151



KEYED NOTES:

- 1 IF METAL ROOF ALTERNATE IS USED, THIS LINE SHALL ROUTE TO EQUALIZATION TANK CONNECT TO NEW 8" LINE.
- 2 IF METAL ROOF ALTERNATE IS USED, THIS LINE SHALL INCREASE TO 8" AND CONTINUE TO EQUALIZATION TANK.
- 3 SEE SHEET FT-P-151 FOR CONTINUATION.

SECOND FLOOR NORTH PLAN
3/16" = 1'-0"

KEY	
GAC CON 8	8" (6520 SQ FT)
GAC CON 7	6" (3727 SQ FT)
GAC CON 6	4" (3260 SQ FT)
GAC CON 5	4" (3260 SQ FT)
GAC CON 4	4" (3260 SQ FT)
GAC CON 3	4" (3260 SQ FT)
GAC CON 2	4" (3260 SQ FT)
GAC CON 1	4" (3260 SQ FT)
STAIR	
WASHROOM	
SHALLOW TRENCH DRAIN	
6" (1864 SQ FT)	



NO.	DATE	DSGN	TRG	DR	TRG	CHK	APVD	BY	APVD

WaterDistrict
 ADVANCED TREATMENT
 FORT THOMAS TREATMENT PLANT
 NORTHERN KENTUCKY WATER DISTRICT
 FORT THOMAS, KENTUCKY

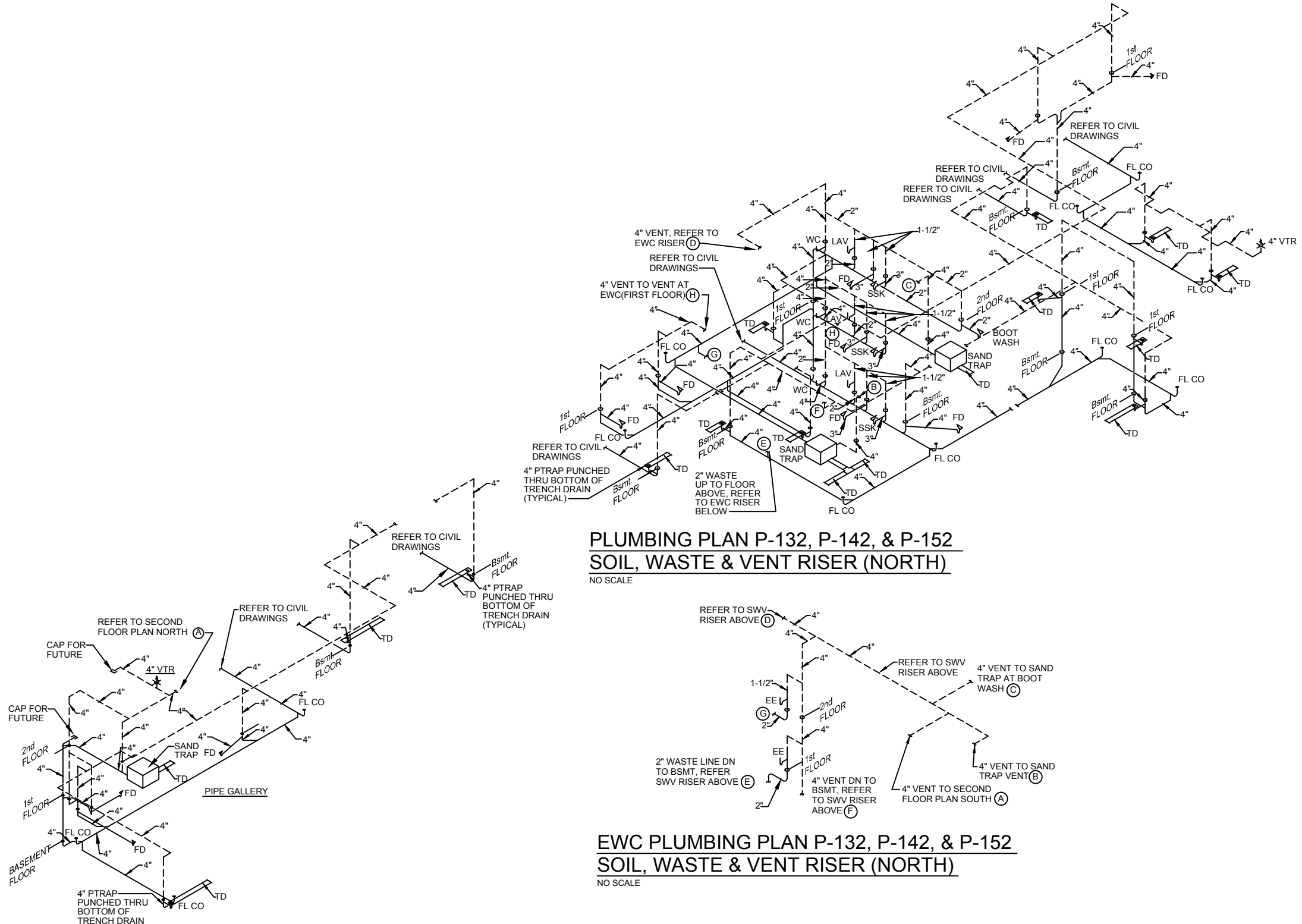
CH2MHILL HDR
 PLUMBING
 AT BUILDING
 SECOND FLOOR
 NORTH PLAN

DATE	12/03/09
PROJ	380723
DWG	FT-P-152
SHEET	149

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A
B
C
D



**PLUMBING PLAN P-132, P-142, & P-152
SOIL, WASTE & VENT RISER (NORTH)**
NO SCALE

**EWC PLUMBING PLAN P-132, P-142, & P-152
SOIL, WASTE & VENT RISER (NORTH)**
NO SCALE

**BASEMENT SOUTH PLUMBING PLAN P-131, P-141, P-151 & ROOF
SOIL, WASTE & VENT RISER (SOUTH)**
NO SCALE

NO.	DATE	DR	TRG	CHK	REVISION	BY	APVD

WaterDistrict
ADVANCED TREATMENT
FORT THOMAS TREATMENT PLANT
NORTHERN KENTUCKY WATER DISTRICT
FORT THOMAS, KENTUCKY

CH2MHILL HDR
PLUMBING
PLUMBING RISER DIAGRAMS

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
DATE 12/03/09
PROJ 380723
DWG FT-P-901
SHEET 153

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