

SECTION 00 91 12 – ADDENDUM NO.2

1.1 PROJECT INFORMATION

- A. Project Name: Proposed Improvements for C1 and C2 Hangars, 1200 Capital Airport Drive, Springfield, Illinois 62707
- B. Owner: Springfield Airport Authority
- C. Architect: j.h. petty and associates, ltd. architects
- D. Architect Project Number: 2024-077
- E. Date of Addendum: May 29, 2025

1.2 NOTICE TO BIDDERS

- A. This Addendum is issued **to all registered plan holders** pursuant to the **Instructions to Bidders**. This Addendum serves to clarify, revise, and supersede information in the Project Manual and Drawings. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.
- B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.
- C. The date for receipt of bids is unchanged by this Addendum.
- D. The location for receipt of bids has been unchanged by this Addendum.

1.3 CLARIFICATIONS

- A. Commercial grade FRP panels are to be installed on the hangar side only of all new walls being installed. Panels to be installed over the 5/8" gypsum board from the top of the existing concrete slab up to 48" above finished floor level. The appropriate trim is to be installed at all panel joints and at exposed panel edges. Panels to be NUDO, Fiberlite FRP or equal.
- B. ProPress fittings acceptable for water lines.
- C. Finishes:
 - 1. Walls – All walls to be painted on both sides per 09 91 23 Interior Painting from top of existing concrete slab to bottom of existing deck.

2. Ceilings – All new gypsum board ceilings/soffits/ bulkheads to be painted per 09 91 23 Interior Painting. The existing deck/structure does not get painted.
 3. Floors
 - a) All existing floors are to remain “as is” – no work.
 - b) Install 4” vinyl base on both sides of wall new walls. Base to be ROPPE, Group II, Style B or equal.
- D. Contractor Questions:
1. Soil Test to make sure ground compaction/fill material isn’t present. A soil test is required by code for sizing and water table depth.
 - a) Answer: See attached Soil Report.
 2. Who designed the Presby (septic system)? It is my (the contractor’s) understanding that at least 140 foot is required with at least 30 to 70 foot long laterals.
 - a) Answer: This is from the current Presby Installation Manual (https://www.infiltratorwater.com/Customer-Content/www/CMS/files/Presby_Manuals/IL_AES_D_I_Manual_October_2020_092420.pdf):
 - 1) All beds shall have at least 2 rows.
 - 2) Maximum row length for any system is 100-foot of pipe
 - 3) Recommended minimum row length is 30-foot of pipe
 - a) A combination (or D-box) distribution system shall be used if any row length is less than 30 feet. The D-box shall feed at least 30-foot of Advanced Enviro-Septic (AES) pipe, a minimum of two D-box outlets must be used and the field must be vented.
 - 4) Minimum center-to-center spacing is 1.5 feet for all systems. Spacing may be increased at the discretion of the system designer or as needed to meet the required System Sand Bed Area (SSBA).
 - 5) For level beds: AES rows shall be centered in the middle of the system sand bed area and any system sand extensions divided evenly on both sides.
 3. What is the elevation coming out of the building? How deep is the Sewer line? Code for plumbing is exempt when it comes to being shallow for septic piping. Will a lift station be needed?
 - a) Answer: It is important to install the septic tank as shallow as possible to meet the depth of the Presby minimum separation above the Seasonal High-Water Table (SHWT). That information should be calculated from the cut sheet of the septic tank.

1.4 REVISIONS TO DRAWING SHEETS

A. Sheet A1.1

1. Detail 19 PARTITION TYPES: All partition types to be revised to show FRP panels being installed up to 48" above finished floor level on the hangar side only.
- B. Sheet P1.1
 1. Vents for trench drains relocated/reconfigured for both hangar spaces C1 and C2 to avoid interference with hangar doors and allow potential for trench sharing with drain line to minimize floor cuts.
- C. Sheet P3.1
 1. Plumbing Schedule: Trench Drain (TD) and Catch Basin (CB); A CB is installed at the downstream end of each TD. Revisions to model/order numbers to reflect additional accessories for complete install for the two fixtures to connect together.

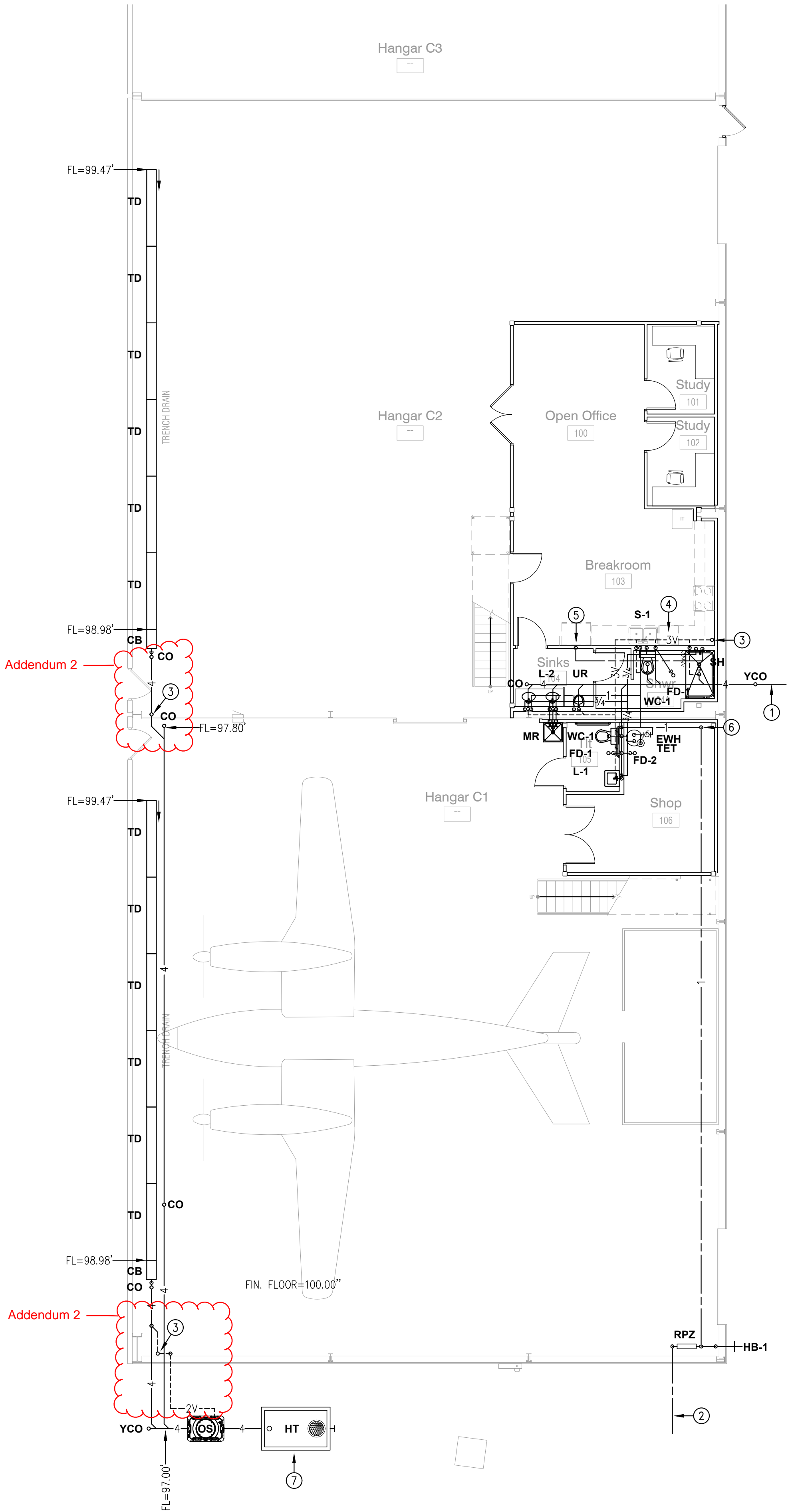
1.5 REVISIONS TO SPECIFICATIONS - None

1.6 ATTACHMENTS

- A. This Addendum includes the following attached Documents:
 1. Current plan holder's list.
 2. Sheet P1.1
 3. Sheet P3.1
 4. Soils Report

END OF DOCUMENT 00 91 12

- # KEYED NOTES
1. CONNECT TO SEPTIC SYSTEM. SEE SITE PLAN FOR CONTINUATION.
 2. NEW 1-INCH DOMESTIC WATER SERVICE. SEE SITE PLAN FOR CONTINUATION.
 3. 3-INCH VENT THRU ROOF
 4. BRANCH HW FROM SHUT-OFF VALVE IN SINK BASE CABINET TO DISHWASHER. BRANCH DRAIN FROM DISHWASHER TO TAILPIECE OF SINK DRAIN.
 5. 1/2" CW DOWN TO REFRIGERATOR ICE MAKER ROUGH-IN BOX WITH SHUT-OFF VALVE.
 6. 1-INCH CW DOWN TO BELOW MEZZANINE FLOOR.
 7. 1,000 GALLON HOLDING TANK. COORDINATE FINAL LOCATION WITH EXISTING SITE UTILITIES.



general notes

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revisions

no.	date	description

job title

Proposed Improvements for
C1 and C2 Hangars

1200 Capital Airport Drive
Springfield, IL

sheet title

PLUMBING PLAN

sheet number

P1.1

project number 2024-077 date 18APR2025

0' 8' 16'

SCALE: 1/8" = 1'-0"

BID SET

PLUMBING FIXTURE SCHEDULE								
TAG	DESCRIPTION	MFR	MODEL	COMMENTS	BRANCH PIPE SIZE			
					CW	HW	W	V
*WC-1	FLOOR MOUNTED VITREOUS CHINA, ELONGATED BOWL, CLOSE-COUPLED TANK, COMFORT HT., CLASS FIVE, 1.28 GPF	KOHLER	K-3658		1/2"		3"	2"
	SEAT - ELONGATED, HEAVY DUTY, SOLID PLASTIC, OPEN FRONT, WITH LIFT-OFF HINGE SYSTEM.	BEMIS	DURAGUARD 2155C					
*UR	WALL HUNG, SIPHON JET FLUSHING ACTION, ELONGATED RIM, VITREOUS CHINA URINAL WITH 3/4" TOP SPUD	KOHLER	K-5016-ETSS				2"	2"
	FLUSH VALVE - 1.0 GPF BATTERY POWERED SENSOR WITH LONG LIFE (10 YR) BATTERIES	ZURN	Z1R-6203-WS1-LL		3/4"			
	CARRIER WITH FLUSH VALVE SUPPORT AND LOWER BEARING PLATE	ZURN	Z1222 -					
*L-1	WALL HUNG, 21"W X 18" LAVATORY, VITREOUS CHINA WITH FAUCET HOLES ON 4" CENTERS, WHITE	KOHLER	K-2005-4				2"	1-1/2"
	DRAIN OPEN GRID STRAINER, 1-1/4" TAILPIECE, OFFSET TRAP	-	-					
	FAUCET CENTERTSET BATHROOM SINK FAUCET FOR 4" CENTERS 1.2 GPM, QUARTER-TURN WASHERLESS CERAMIC DISC VALVES BRASS BODY, POLISHED CHROME FINISH, LEVER HANDLES. POINT-OF-USE THERMOSTATIC MIXING VALVE	KOHLER	K-10270-4CP		1/2"	1/2"		
		CHICAGO	131-FMAB					
	CARRIER: CONCEALED ARM	ZURN	Z1231					
	UNDERSINK PROTECTIVE PIPE COVER	TRUEBRO	LAV GUARD					
*L-2	SOLID SURFACE COUNTERTOP WITH INTEGRAL BOWL(S) SEE ARCHITECTURAL PLANS	-	-				2"	1-1/2"
	DRAIN FITTING CAST BRASS CP OPEN GRID STRAINER, 17 GA 1-1/4" CP BRASS TAILPIECE, 17 GA 1-1/4" CP BRASS P-TRAP	DEARBORN	760-1					
	FAUCET CENTERTSET BATHROOM SINK FAUCET FOR 4" CENTERS 1.2 GPM, QUARTER-TURN WASHERLESS CERAMIC DISC VALVES BRASS BODY, POLISHED CHROME FINISH, LEVER HANDLES. POINT-OF-USE THERMOSTATIC MIXING VALVE	KOHLER	K-10270-4CP		1/2"	1/2"		
		CHICAGO	131-FMAB					
S-1	DOUBLE BOWL DROP-IN SINK WITH TWO 13"x16x8d" BOWLS, 18 GA, 304 SS WITH THREE (3) FAUCET HOLES.	ELKAY	LR3322	GENERAL USE			2"	1-1/2"
	DRAIN FITTING: SS BODY, REMOVABLE BASKET STRAINER P-TRAP: 1-1/2" 17 GA BRASS W/CO	ELKAY DEARBORN	LK99 710-1					
	FAUCET 8" CENTERSET, DECK MOUNTED, 13" GOOSENECK SPOUT, 4" LEVER HANDLES, CERAMIC DISC CARTRIDGE, CHROME, 1.5 GPM THERMOSTATIC MIXING VALVE	ELKAY	LKD232SBH5C		1/2"	1/2"		
		CHICAGO	131-FMAB					
*SH	36"x60" GELCOAT SHOWER MODULE. 1-PIECE SHOWER, REINFORCED FOR CUSTOMIZED PLACEMENT OF OPTIONAL GRAB BARS, SEAT AND SOAP DISH. CENTER DRAIN, TEXTURED BOTTOM PROVIDE WITH RECESSED SOAP DISH, GRAB BARS AND OTHER ACCESSORIES AS SHOWN ON THE ARCH. DRAWINGS.	AKER	OPS-6036G	-				
	SHOWER DRAIN	SIOUX CHIEF	825 SERIES				2"	1-1/2"
	THERMOSTATIC PRESSURE-BALANCING MIXING VALVE WITH SINGLE BLADE LEVER HANDLE. WALL/HAND SHOWER W/60" FLEXIBLE METAL HOSE, VACUUM BREAKER, & 30" SLIDE BAR. ADJ. STOP SCREW TO CONTROL MAX HW TEMP TO VALVE 2.0 GPM FLOW RESTRICTOR. INTEGRAL SERVICE STOPS	SYMMONS	9603-PLR -2.0 -X	ASSE 1016 COMPLIANT	1/2"	1/2"		
MR	24"x24"x10" HIGH MOP RECEPTOR	MUSTEE	63M				3"	2"
	30" HOSE & BRACKET	MUSTEE	65.700					
	MOP HANGER	MUSTEE	65.600					
	FAUCET 8" CENTERS, LEVER ACTUATED TYPE W/ SEPARATE HOT & COLD WATER CONTROL, NOZZLE W/ VACUUM BREAKER, PAIL HOOK, AND TOP BRACE TO WALL W/ FLANGE	CHICAGO	897-CP		1/2"	1/2"		
	VINYL BUMPER GAURDS WALL GUARD - 20 GA 316 SS SPLASH GAURDS 12" HIGH	MUSTEE MUSTEE	-	ON ALL EXPOSED SIDES ON ADJACENT WALLS				
NOTE: ALL ITEMS DESIGNATED BY (*) SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA)								

PLUMBING FIXTURE SCHEDULE								
TAG	DESCRIPTION	MFR	MODEL	COMMENTS	BRANCH PIPE SIZE			
					CW	HW	W	V
FD-1	FLOOR DRAIN - CAST IRON BODY WITH 5"x5" POLISHED NICKEL BRONZE TOP, NO HUB OUTLET, LIGHT DUTY STRAINER.	ZURN	ZN415-SZ1				2"	2"
FD-2	MEDIUM DUTY FLOOR DRAIN - 9"ø. CAST IRON BODY, POLISHED NICKEL BRONZE TOP, SEDIMENT BUCKET.	ZURN	ZN550-Y				2"	2"
CO-F	FLOOR CLEANOUT - ADJUSTABLE, CAST IRON BODY, POLISHED NICKEL BRONZE TOP, BRONZE PLUG, NO-HUB OUTLET	ZURN	ZN-1400-BP				VARIES	
CO-W	WALL CLEANOUT TEE - CAST IRON BODY, POLISHED SS WALL ACCESS COVER, BRONZE PLUG, NO-HUB OUTLET, VANDAL PROOF SECURED TOP	ZURN	Z-1445-BP-VP				VARIES	
YCO	YARD CLEANOUT - THREADED ADAPTER WITH WATERTIGHT PLUG 12"ø HEAVY DUTY CLEANOUT HOUSING, CAST IRON BODY WITH INTEGRAL ANCHOR FLANGE AND COVER	NEENAH	R-1976				VARIES	
HB-1	HOSEBIB - EXTERIOR FROSTPROOF, ANTI-SIPHON, AUTOMATIC DRAINING WITH LOOSE KEY	WOODFORD	MODEL 67		1/2"			
TD	12" WIDE PRE-SLOPED DRAIN SYSTEM, HEAVY DUTY STEEL FRAME WITH ANCHOR STUDS, CLASS C DUCTILE IRON SLOTTED GRATE, 96" HDPE CHANNEL SECTIONS.	ZURN	Z-882-DGC				4"	2"
CB	CATCH BASIN 12"x24X24"d 4" SIDE OR BOTTOM OUTLET AS REQUIRED PROVIDE WITH INLET ADAPTER PROVIDE WITH SEDIMENT BUCKET CLASS C DUCTILE IRON SLOTTED GRATE	ZURN	Z-887-12 -E4/U4 -1A (Z882) -Y -DGC	Addendum 2			4"	2"
EWB	ELECTRIC WATER HEATER 50 GAL STORAGE TANK, 2-3KW ELEMENTS, 1-PHASE WIRING, SIMULTANEOUS OPERATION, 25 FLA @ 240V,1ø MIN. 30 GPH AT 80F TEMP RISE.	A.O. SMITH	DEN-52		3/4"	3/4"		
TET	THERMAL EXPANSION TANK, 2 GAL IN-LINE TYPE	AMTROL	ST-5		3/4"			
OS	OIL SEPARATOR - HDPE CONSTRUCTION WITH GASKET SEAL TRAFFIC RATED COVER, 4" INLET & OUTLET AND BUILT IN FLOW CONTROL FLOW RATE = 75 GPM TOTAL CAPACITY = 110 GAL OIL CAPACITY = 27.5 GAL SOLIDS CAPACITY = 11 GAL PROVIDE RISERS AS REQUIRED TO MATCH FINISHED GRADE	STRIEM	OS-75				6"	2"
HT	CONCRETE HOLDING (SEPTIC) TANK 1,000 GAL CAPACITY 4-INCH INLET, 4-INCH CAPPED OUTLET 1-18" OPENING WITH 18" TRAFFIC RATED COVER/LID PROVIDE RISERS AS REQUIRED TO MATCH FINISHED GRADE	-	-				4"	-
RPZ	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY WITH AIR GAP ADAPTER FITTING	WILKINS	MODEL 975XL2 -AG		1"			
NOTE: ALL ITEMS DESIGNATED BY (*) SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA)								

0
INCHES
1
2
3
36"

0
INCHES
1
2
3
4

general notes

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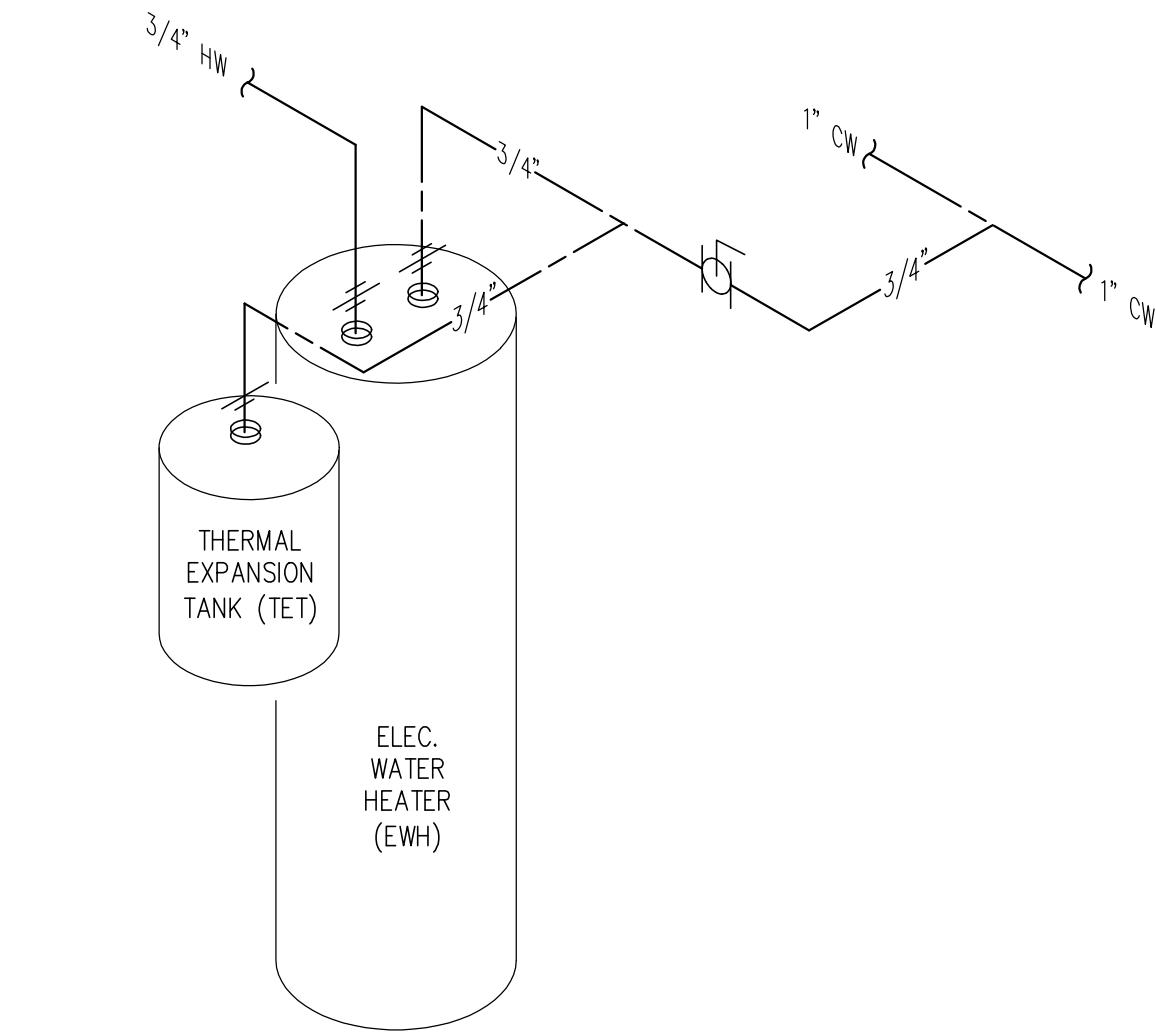
PLUMBING DETAILS,
SCHEDULES AND NOTES

sheet number

P3.1

project number 2024-077date 18APR2025

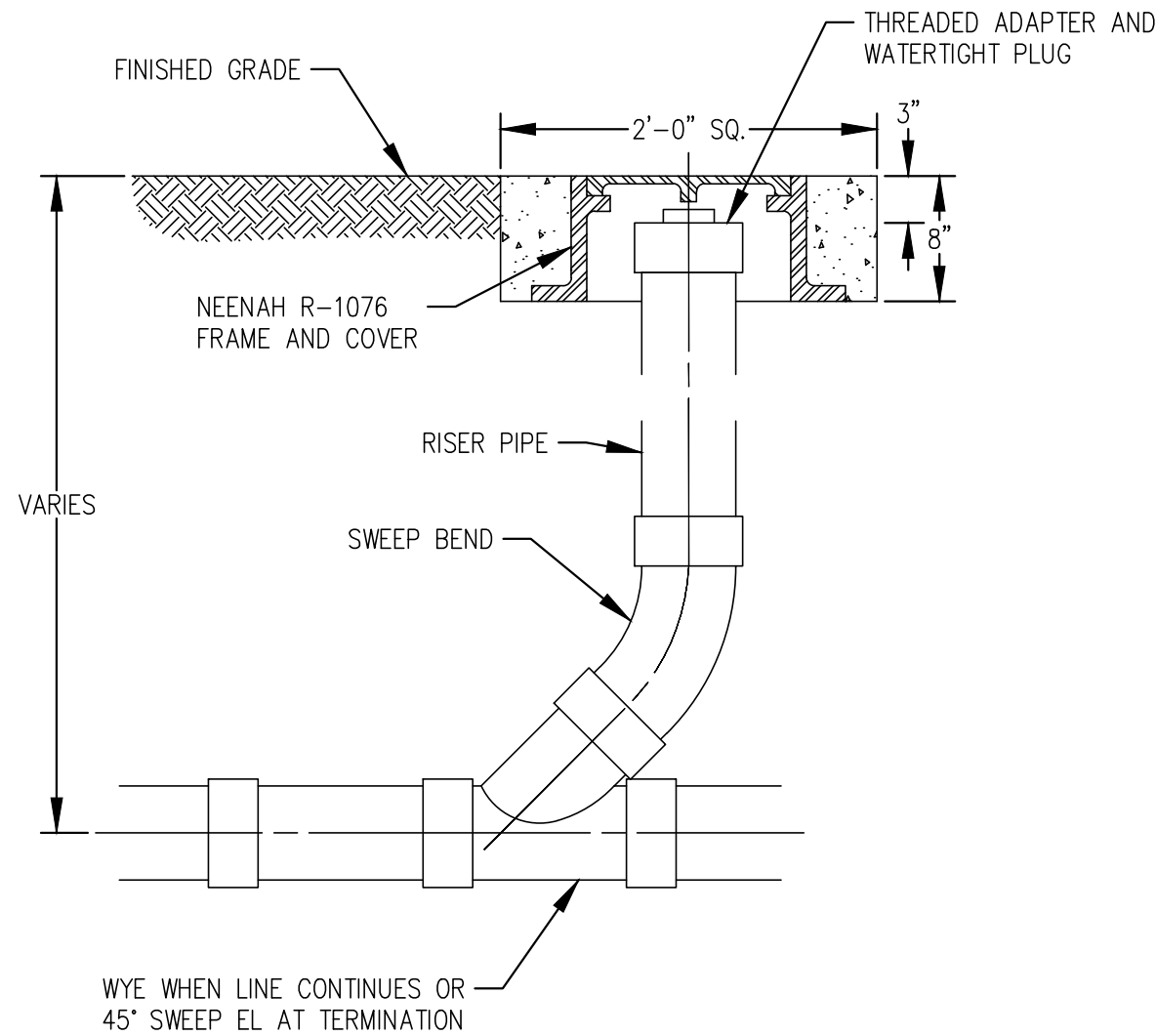
BID SET



NOTE: PIPE PRESSURE/TEMPERATURE RELIEF FROM WATER HEATER TO NEAREST FLOOR RECEPTOR. VENT THRU ROOF USING MANUFACTURER'S CONCENTRIC VENT KIT.

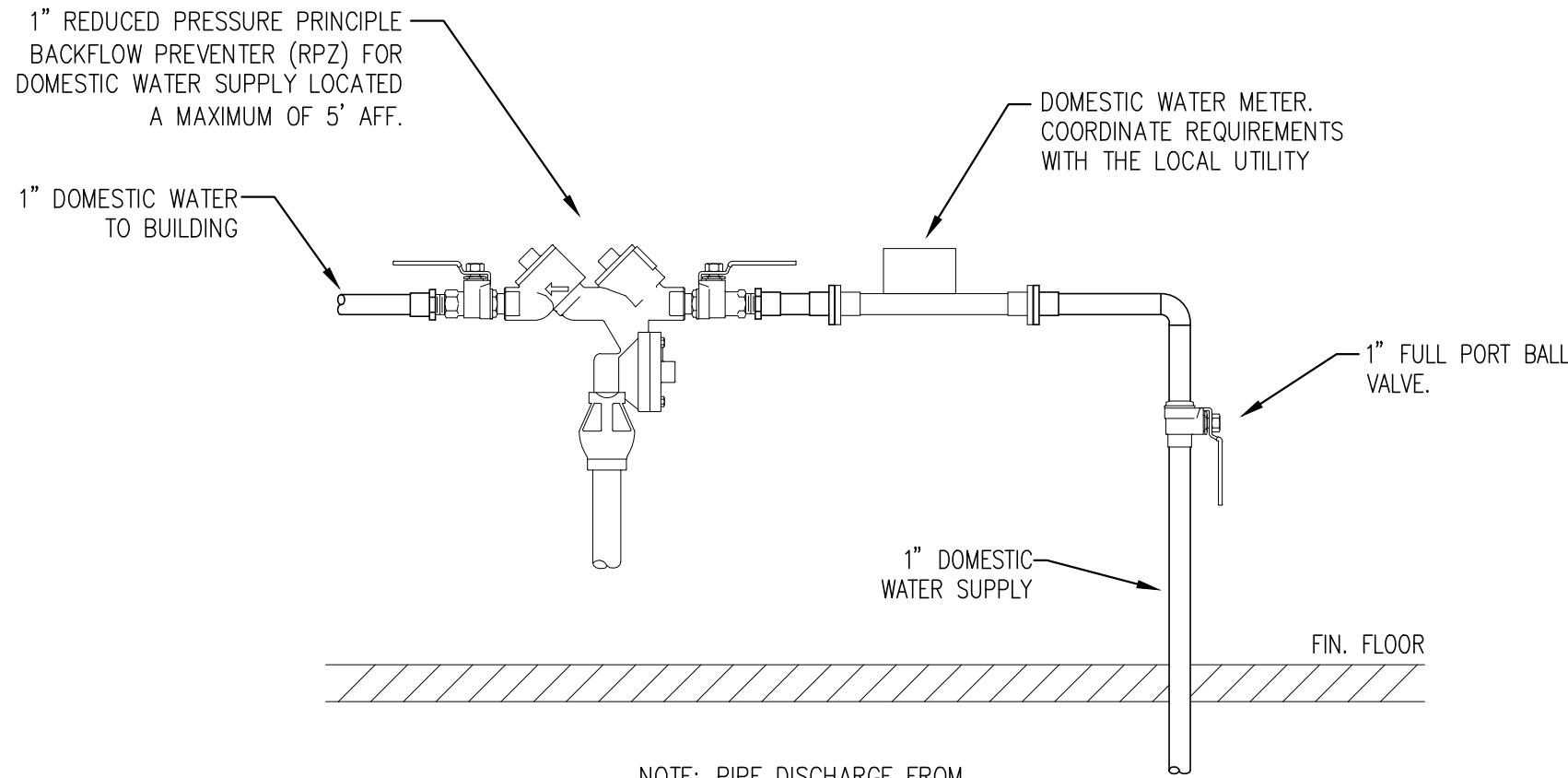
WATER HEATER PIPING SCHEMATIC

SCALE: NOT TO SCALE



EXTERIOR SEWER CLEANOUT (YCO) DETAIL

SCALE: NOT TO SCALE



NOTE: PIPE DISCHARGE FROM RPZ TO OUTSIDE BUILDING.

DOMESTIC WATER SUPPLY DETAIL

SCALE: NOT TO SCALE

PIPE MATERIAL SCHEDULE

TAG	SYSTEM	OPERATING		SIZE	MATERIAL	MFR. PROCESS	WEIGHT	ASTM	JOINTS	INSULATION
		PRESS. (PSI)	TEMP. (°F)							
CW	DOMESTIC COLD WATER (UNDER GROUND)	60	50	ALL	SOFT COPPER	DRAWN/ANNEALED	TYPE K	B88	NO JOINTS UNDERGROUND	ELASTOMERIC
	DOMESTIC COLD WATER (ABOVE GROUND)			ALL	COPPER	DRAWN	TYPE L	B88	SOLDER OR PRESSFIT	FIBERGLASS WITH ASJ OR ELASTOMERIC
HW	DOMESTIC HOT WATER (UNDER GROUND)	60	140	ALL	SOFT COPPER	DRAWN/ANNEALED	TYPE K	B88	SOLDER	ELASTOMERIC
	DOMESTIC COLD WATER (ABOVE GROUND)			ALL	COPPER	DRAWN	TYPE L	B88	SOLDER OR PRESSFIT	FIBERGLASS WITH ASJ OR ELASTOMERIC
HWR	DOMESTIC HOT WATER RETURN	60	130	ALL	COPPER	DRAWN	TYPE L	B88	SOLDER OR PRESSFIT	FIBERGLASS WITH ASJ OR ELASTOMERIC
SAN	SANITARY WASTE AND VENT	—	—	ALL	PVC, TYPE DWV	SEAMLESS	SCH 40	ASTM D2665/D2949	SOLVENT—WELD	NOT REQUIRED

NOTES

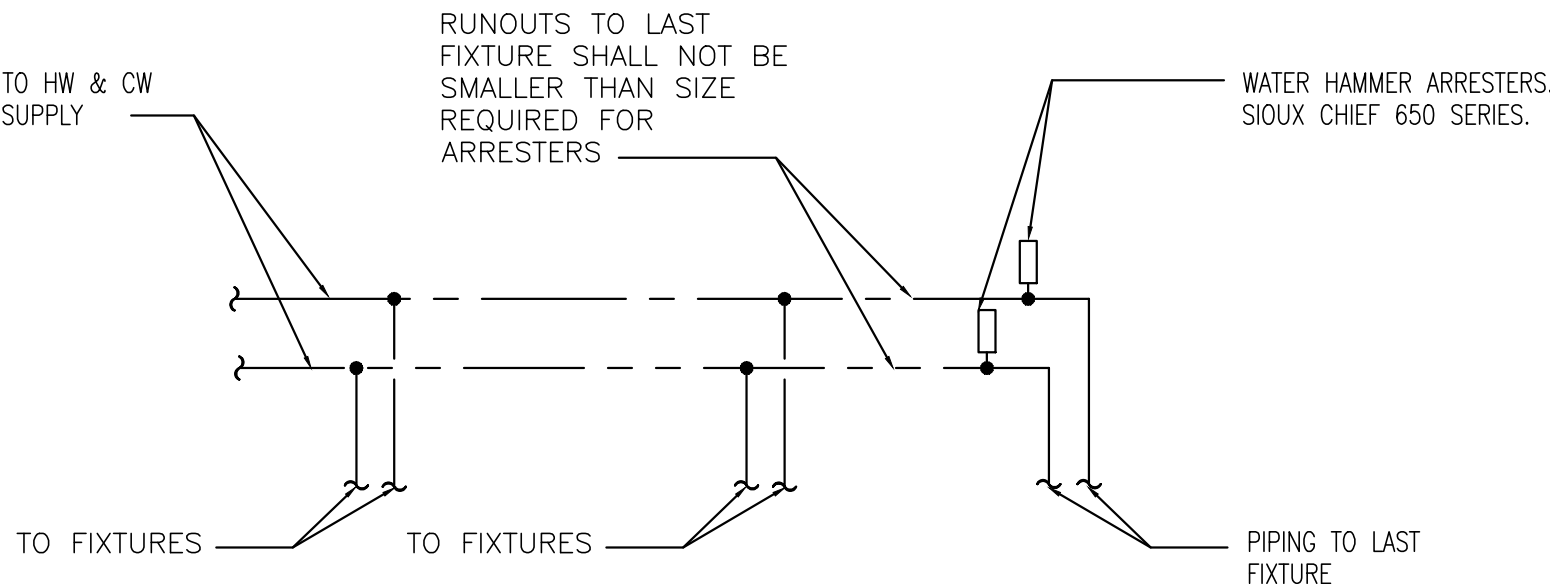
- CONNECTIONS BETWEEN DISSIMILAR METALS SHALL BE SEPARATED BY DIELECTRIC COUPLINGS.
- PVC PIPE USED IN AN AIR PLENUM SHALL BE WRAPPED WITH INSULATION (3M FIRE BARRIER WRAP 5A+ OR EQUAL) TO MAINTAIN A FLAME SPREAD INDEX LESS THAN 25 AND A SMOKE DEVELOPED INDEX LESS THAN 50.

PIPE INSULATION SCHEDULE

UNIT	DESCRIPTION	PIPE SIZE	TYPE	THICK.	JACKET
CW	COLD WATER	ALL	FIBERGLASS W/ASJ	1"	—
HW	HOT WATER AT 140 F	1–1/4" & LESS 1–1/2" TO 4"	FIBERGLASS W/ASJ FIBERGLASS W/ASJ	1" 1.5"	—
HWR	HOT WATER RECIRCULATION AT 130 F	1–1/4" & LESS	FIBERGLASS W/ASJ	1"	—

NOTES

- FIBERGLASS INSULATION: CONDUCTIVITY SHALL NOT EXCEED 0.27 BTU-INCH/H-FT²-F AT 75F.



WATER HAMMER ARRESTER SIZING CHART

FIXTURE UNIT RATING	CONNECTION TO SUPPLY LINE	SIOUX CHIEF 650 SERIES
1–11	1/2"	SIZE A
12–32	3/4"	SIZE B
33–60	1"	SIZE C

WATER HAMMER ARRESTOR SCHEMATIC

SCALE: NOT TO SCALE

GENERAL PLUMBING NOTES

- All plumbing shall be installed in accordance with the Illinois Plumbing Code, latest edition and all applicable local codes.
- Waste and vent piping shall be SCH 40 PVC (Type DWV) or Cast Iron. No hub cast iron or SCH 40 PVC (Type DWV) covered with fire barrier plenum wrap (3M Fire Barrier Plenum Wrap 5A+ or equal) shall be used in all plenum spaces.
- All water supply piping shall be Type L Copper and insulated with a minimum 1-inch of fiberglass insulation with all service jacket (ASJ) or as otherwise shown or scheduled on the Drawings.
- Maintain access to all clean outs and valves.
- Backfill all excavations to 95% proctor density. Sub-grade where disturbed, shall be replaced with 6-inches of new compacted material.
- Existing utility connections are approximate. Contractor shall verify exact location of all utility connections prior to starting work.
- Extend all plumbing vents thru roof. Plumbing vents shall be located a minimum of 20 ft. from fresh air intakes and rooftop HVAC equipment intakes.
- Water hammer arrestors shall be installed at the ends of long pipe runs, near batteries of fixtures and near fast closing valves. Air chambers shall be at least 12-inches in length and the same size as the fixture supply.
- Provide a separate trap with clean out for each fixture. Fixture traps shall be tubular wall type, minimum 17 gauge with integral clean out plugs, polished chrome plated finish, except where shown or specified otherwise. Size trap to fit fixture tailpiece.
- Provide an accessible loose key or screwdriver stop in all water supplies to all fixtures.
- Provide a chrome plated brass escutcheon plate fastened in place for all wall penetrations for exposed connections to fixtures.
- Fire caulk/stop all penetrations thru fire rated construction.
- Accessible water closets shall be seventeen (17) inches to nineteen (19) inches measured to the top of the toilet seat and sixteen to eighteen (16–18) inches center from the sidewall with the flush handle located on the wide side of the room.
- Lavatories shall not have exposed water or waste pipes or abrasive surfaces but shall be covered with protective guards.
- Lavatory faucets for public use shall be provided with a water-mixing device complying with ASSE 1070 or 1017 adjusted to a maximum setting of one hundred and ten (110) degrees Fahrenheit, at the time of installation.
- All shower and shower-bath combination valves shall comply with ASSE 1016, ASSE 1017 or ASSE 1070 adjusted to a maximum setting of one hundred and fifteen (115) degrees Fahrenheit at the time of installation.
- The drainage and vent system shall be pressure tested with water or air.
- The water supply system shall be pressure tested with water at a pressure not less than the working pressure of the system; or, for piping systems other than plastic, by an air test of not less than 50 psi. This pressure test shall be held for not less than 15 minutes.
- Any water distribution pipe having been terminated or is an unused segment shall have no "dead ends". No segment of pipe with a developed length of more than two (2) feet shall be permitted.
- All backflow devices shall be tested and approved by a Cross Connection Control Device Inspector (CCCDI) before initial operation.
- The domestic water service shall have an approved reduced pressure backflow preventer (RPZ) installed in-line of equal pipe diameter of the water service and shall be located no more than five (5) feet above the floor.
- Provide drip tee, ball valve, gas filter (if required), pressure regulator (if required) and union at each connection to gas fired equipment.
- All new gas piping shall be tested in accordance with section 406 of the IFGC. The system shall be purged, visually and pressure tested. Soap testing is not acceptable. Mechanical Gauges used to measure test pressures, shall have a range such that the highest end of the scale is not greater than five (5) times the test pressure. The test shall be witnessed and report provided.
- Gas lines run in concealed locations shall be limited to the following fittings: Threaded elbows, Tees, couplings, brazed, welded, and fittings listed to ANSI LC-1/CSA 6.26 or ANSI LC-4.
- Provide protection of all gas piping from physical damage in concealed areas by the use of shielded plates.
- The new potable water system shall be purged of deleterious matter and disinfected prior to use. The method to be followed shall be that prescribed by the local health authority or authority having jurisdiction (AHJ) or, in absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652.

PLUMBING LEGEND

----	DOMESTIC COLD WATER (CW)
----	DOMESTIC 115° HOT WATER (HW)
----	DOMESTIC 140° HOT WATER (HW)
----	DOMESTIC HOT WATER RECIRC. (HWR)
----	SEWER OR WASTE (W)
—OW—	OIL WASTE (OW)
—CWV—	COMBINATION WASTE AND VENT (CWV)
— — — — —	VENT LINE (V)
—G—	NATURAL GAS (G)
○	RISE
G	DROP
—	CAP ON END OF PIPE
●	POINT OF CONNECTION
—○ CO	FLOOR CLEAN OUT
—C CO	WALL CLEAN OUT
—(V)—	BALL VALVE
—X—	CHECK VALVE
—P—	MANUAL BALANCING VALVE
● G	FLOOR DRAIN
▶	CIRCULATING PUMP

OIL SEPARATOR (OS) SIZING

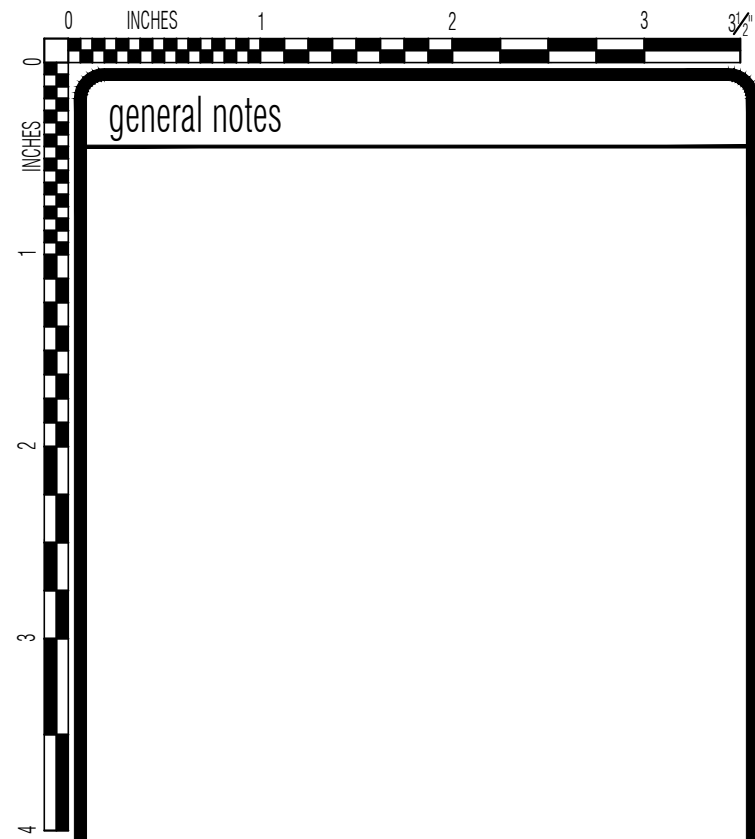
AREA	DRAINED AREA [SQ. FT.]	CAPACITY FIRST 3000 FT ² [GAL]	ADDITIONAL CAPACITY [GAL]	REQUIRED CAPACITY [GAL]
HANGER C1	3,500			
HANGER C2	3,050			
TOTAL	6,550	45	27	72

- Sized in accordance with the Illinois Plumbing Code 890.520(f)(2): Oil Separators shall have a capacity of not less than 6 cubic feet (45 gal) for the first 3000 square feet of area to be drained plus 1 cubic foot (7.5 gal) for each additional 1000 square feet of area to be drained into the separator.

DESIGN CRITERIA

LOCATION	DRAINAGE (DFU'S)	CW (WSFU'S)	HW (WSFU'S)	TOTAL (WSFU'S)	GAS (MBH)
HANGER C1 & C2	31	23	9	27	—

COLD WATER DEMAND = 18 GPM
COLD WATER SERVICE SIZE (TOTAL BLDG.) = 1"ø
BUILDING SEWER SIZE = 4"ø AT 1/8" PER FT.



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revisions

no.	date	description

job title

Proposed Improvements for
C1 and C2 Hangars

1200 Capital Airport Drive
Springfield, IL

sheet title

PLUMBING DETAILS,
SCHEDULES AND NOTES

sheet number

P3.2

project number 2024-077 date 18APR2025

BID SET

Soil Evaluation Report*In accordance with 77 Illinois Admin Code, Chapter 1, Section 905, Subsection r***Tegeler Soil Consulting, LLC**

Phone: 217-625-7603

Date: 4/7/2025

Report Prepared For**Property Owner:** Springfield Airport Authority, Capitol Airport**Address:** 1200 Capital Airport Dr**City:** Springfield**State:** IL**Zip:** 62707**Contact Name:** Joseph Petty,

JH Petty & Associates Architects

Phone: 217-787-2844

Property description: Parcel: 14-17.4-200-003**Address:** Hangar C, Capitol Airport**City:** Springfield**State:** IL**Zip:** 62707**Location description of Site****Site information****County:** Sangamon**Township/Range:** T16N, R5W**Section location:** SE 1/4 (10 ac.) of the
SE 1/4 (40 ac.) of the
NE 1/4 (160 ac.) of section**New:** Yes**Existing:**

Uncertain

Spec:**Bedrooms:** Uncertain**Disposal:**

Uncertain

Softener:

Uncertain

Water: Uncertain**Remarks:** System will be used for new bathroom in Hangar C.

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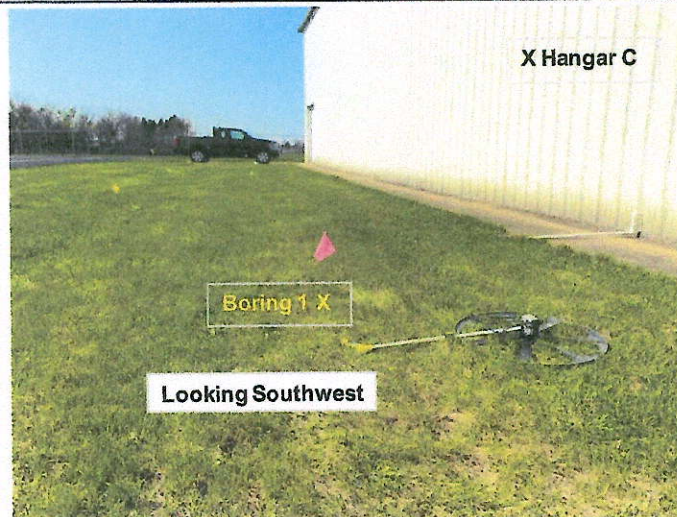
Boring 1 site information (See map)

Saturated Soil at time of boring:	55 inches	Latitude	39degrees 50'16.39"N
Seasonal High Water Table in most years peaks at:	36 inches	Longitude	89degrees 40'27.88"W
Slow or Very Slowly Permeable or NR layer(s) depth:	none within 60 inches	Slope	0-2%
Very Rapidly Permeable layer(s) depth:	none within 60 inches		
Location:	As flagged approximately 124 feet southwest(209 degrees) of Boring 3, and 96 feet northeast(29 degrees) of southeast corner of Hangar C.		

DETAILED SOIL DESCRIPTION – TEST SITE NO. 1

Depth	Matrix Color	% Rock Fragments	Texture	Mottles	Structure Grade	Size Type	Compaction	Moist Consistence	Parent Material	Coatings	* Soil Group & Size of System - sq. ft. per bedm /GPD/ft2
0-4	10YR 3/1	<1	Silt loam			Massive		Firm	Loess/Fill		5M 445/0.45
4-9	10YR 3/1 10YR 2/1	<1	Silt loam			Massive		Firm	Loess/Fill		5M 445/0.45
9-19	10YR 3/1 10YR 2/1	<1	Silt loam			Massive		Firm	Loess/Fill		5M 445/0.45
19-24	10YR 3/1		Silt loam		Moderate	fine blocky		Friable	Loess	Many 10YR 2/1 Organic	5D 265/0.75
24-31	10YR 3/2		Silty clay loam <35%		Moderate	medium blocky		Friable	Loess	Many 10YR 3/1 Organoargillans	6D 325/0.62
31-36	10YR 5/3		Silty clay loam >35%	Common Few	7.5YR 5/3 10YR 6/2	Moderate medium prismatic		Firm	Loess	Many 10YR 3/2 Organoargillans	7E 500/0.40
36-47	10YR 5/3		Silty clay loam <35%	Common Common	7.5YR 4/6 10YR 6/2	Weak medium prismatic		Friable	Loess	Few 10YR 4/2 Clay	6B 385/0.52
47-52	10YR 6/3		Silty clay loam <35%	Common Common	7.5YR 5/6 10YR 6/2	Weak coarse prismatic		Friable	Loess	Few 10YR 3/2 Organoargillans along roots	6B 385/0.52
52-60	10YR 6/2		Silt loam	Common Common	7.5YR 5/4 10YR 6/3	Weak coarse prismatic		Friable	Loess	Few 10YR 4/2 Clay along roots	5B 290/0.69

Rock and Tile fragments are less than one half inch in size at the 0 to 9 inch depth. Tile fragments are less than one half inch in size at the 9 to 19 inch depth.**



Boring 2 site information (See map)

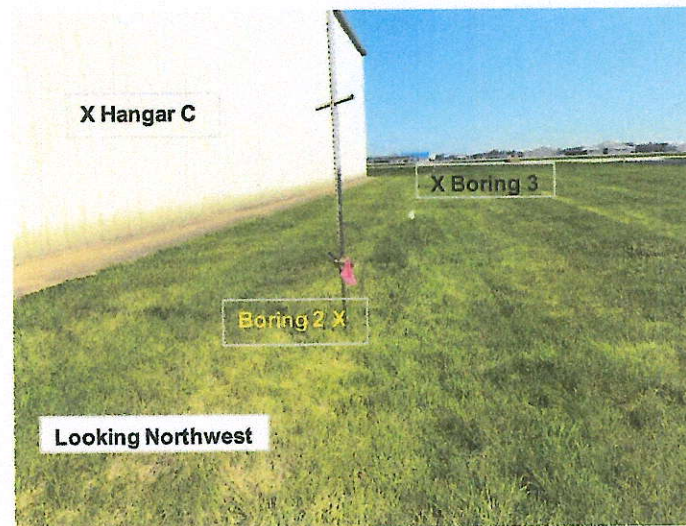
Saturated Soil at time of boring:	none within 60 inches	Latitude	39degrees 50'17.03"N
Seasonal High Water Table in most years peaks at:	39 inches	Longitude	89degrees 40'27.48"W
Slow or Very Slowly Permeable or NR layer(s) depth:	none within 60 inches	Slope	0-1%
Very Rapidly Permeable layer(s) depth:	none within 60 inches		

Location: As flagged approximately 65 feet northeast(28 degrees) of Boring 1, and 104 feet southwest(198 degrees) of northeast corner of Hangar C.

DETAILED SOIL DESCRIPTION – TEST SITE NO. 2

Depth	Matrix Color	% Rock Fragments	Texture	Mottles	Structure Grade	Size Type	Compaction	Moist Consistence	Parent Material	Coatings	* Soil Group & Size of System - sq. ft. per bedm /GPD/ft2
0-6	10YR 3/1		Silt loam			Massive		Firm	Loess/Fill		5M 445/0.45
6-19	10YR 3/2 10YR 3/1 10YR 4/2	<1	Silt loam			Massive		Firm	Loess/Fill		5M 445/0.45
19-22	10YR 4/3 10YR 3/2 10YR 6/2	<1	Silt loam			Massive		Firm	Loess/Fill		5M 445/0.45
22-30	10YR 3/2		Silt loam		Weak	fine blocky		Friable	Loess	Many 10YR 3/1 Organic	5B 290/0.69
30-33	10YR 3/2		Silty clay loam <35%		Moderate	medium blocky		Friable	Loess	Many 10YR 3/1 Organoargillans	6D 325/0.62
33-39	10YR 5/3		Silty clay loam <35%	Few Few	7.5YR 5/4 10YR 6/2	Moderate medium prismatic		Friable	Loess	Many 10YR 3/1 Organoargillans	6D 325/0.62
39-44	10YR 5/3		Silty clay loam <35%	Common Common	7.5YR 5/4 10YR 6/2	Moderate medium prismatic		Friable	Loess	Common 10YR 3/2 Organoargillans	6D 325/0.62
44-51	10YR 5/3		Silty clay loam <35%	Common Common	7.5YR 5/6 10YR 6/2	Weak medium prismatic		Friable	Loess	Few 10YR 4/2 Clay	6B 385/0.52
51-60	10YR 6/3		Silt loam	Common Many	7.5YR 4/6 10YR 6/2	Weak coarse prismatic		Friable	Loess	Few 10YR 3/2 Organoargillans along roots	5B 290/0.69

Rock fragments are less than one quarter inch in size at the 6 to 19 inch depth. Tile Fragments are less than one inch in size at the 19 to 22 inch depth. **



Boring 3 site information (See map)

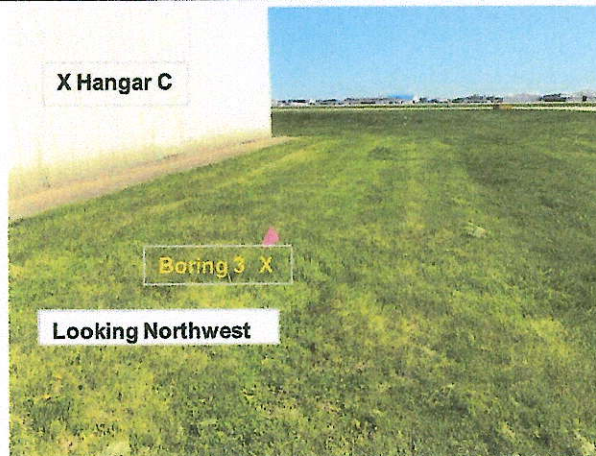
Saturated Soil at time of boring:	none within 60 inches	Latitude: 39degrees 50'17.44"N
Seasonal High Water Table in most years peaks at:	35 inches	Longitude: 89degrees 40'27.26"W
Slow or Very Slowly Permeable or NR layer(s) depth:	none within 60 inches	Slope: 0-1%
Very Rapidly Permeable layer(s) depth:	none within 60 inches	

Location: As flagged approximately 58 feet northeast(26 degrees) of Boring 2, and 44 feet southwest(186 degrees) of northeast corner of Hangar C.

DETAILED SOIL DESCRIPTION - TEST SITE NO. 3

Depth	Matrix Color	% Rock Fragments	Texture	Mottles		Structure Grade Size Type			Compaction	Moist Consistence	Parent Material	Coatings			* Soil Group & Size of System - sq. ft. per bedm /GPD/ft2
0-3	10YR 3/1		Silt loam					Massive		Firm	Loess/Fill				5M 445/0.45
3-14	10YR 3/1 10YR 3/2	<1	Silt loam					Massive		Firm	Loess/Fill				5M 445/0.45
14-17	10YR 3/2 10YR 3/1		Silt loam					Massive		Firm	Loess/Fill				5M 445/0.45
17-21	10YR 4/3 10YR 3/1 10YR 5/3	<1	Silt loam	Few	7.5YR 4/4			Massive		Firm	Loess/Fill				5M 445/0.45
21-25	10YR 3/1		Silt loam			Weak	fine	blocky		Friable	Loess				5B 290/0.69
25-29	10YR 3/1 10YR 3/2		Silty clay loam <35%			Weak	medium	platy	Slight	Friable	Loess				6A 385/0.52
29-35	10YR 5/3		Silty clay loam <35%	Common Few	7.5YR 5/4 10YR 6/2	Moderate	medium	prismatic		Friable	Loess	Many	10YR 3/1	Organoargillans	6D 325/0.62
35-40	10YR 5/3		Silty clay loam <35%	Common Common	7.5YR 4/6 10YR 6/2	Moderate	medium	prismatic		Friable	Loess	Common	10YR 3/2	Organoargillans	6D 325/0.62
40-49	10YR 6/3		Silty clay loam <35%	Common Common	7.5YR 5/6 10YR 6/2	Weak	medium	prismatic		Friable	Loess	Few	10YR 3/2	Organoargillans	6B 385/0.52
49-60	10YR 6/3		Silt loam	Common Common	7.5YR 5/6 10YR 6/2	Weak	coarse	prismatic		Friable	Loess	Few	10YR 3/2	Organoargillans along roots	5B 290/0.69

Rock and Tile fragments are less than one half inch in size.**



*The Soil Group and the filter field size (sq. ft./bedroom /GPD per sq. ft.), are a part of the 2013 Private Sewage Disposal Code, created by the State of Illinois Department of Public Health. The determinations listed in this report are based on the soil conditions found in the borings and their corresponding interpretations in Exhibit A & B, Illustration M, Section 905 Appendix A of this code (revised January, 2019). The Codes designations and recommendations are placed in this report as a help to the County Health Departments. I do not attest to the veracity of the Codes recommendations or restrictions, but only to the description of the soil properties found in my borings.

**Percent rock and tile fragments based on visual estimate.

Summary:

Permeability and depth to seasonal high water table are factors that need to be considered in the design of an on-site septic system at this site. The seasonal high water table is limiting in all three borings. The seasonal high water table is at a depth of 36 inches below the soil surface in Boring 1; it is at a depth of 39 inches below the soil surface in Boring 2; and it is at a depth of 35 inches below the soil surface in Boring 3. The depth to the seasonal high water table is based on the presence of a matrix color with chroma greater than 2 that has common to many mottles with chroma of 2 or less; or a matrix color with chroma of 2 or less that has common mottles with chroma greater than 2. Boring 1 has Fill material with High Moderately Slow Permeability at the surface to a depth of 19 inches. Boring 2 has Fill material with High Moderately Slow Permeability at the surface to a depth of 22 inches. Boring 3 has Fill material with High Moderately Slow Permeability at the surface to a depth of 21 inches. Fill material is variable and unpredictable. The slope ranges from 0 to 2 percent.

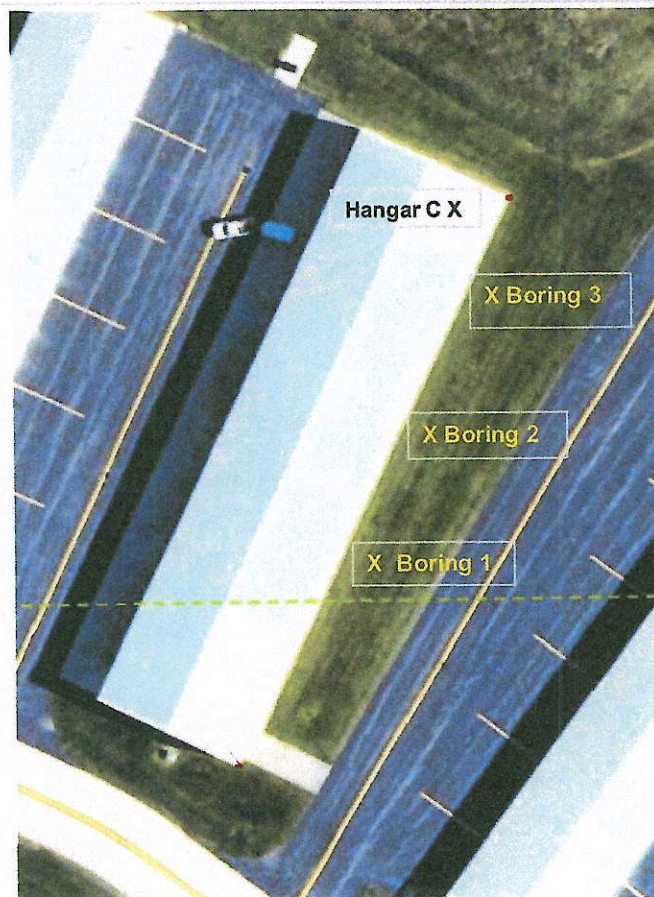
Care must be taken during septic system installation to avoid additional disturbance or additional compaction of the soil in the area sampled for this analysis. If there is additional disturbance or additional compaction of the soil, the current permeability could be affected.

Note: The borings were located with input from Joseph Petty-JH Petty & Associates Architects, and were marked with pink flags.

Parcel: 14-17.4-200-003
Hangar C, Capitol Airport
Springfield

Location not to scale

Robert Tegeler *Robert Tegeler*
Certified Professional Soil Classifier (#73)
Illinois Soil Classifiers Association
Certified Professional Soil Classifier (#16932)
Soil Science Society of America



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