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CITY OF UNALASKA

FEBRUARY 11, 2014

ADDENDUM 04

TO: ALL PLAN HOLDERS

**SUBJECT: INVITATION TO BID
UNALASKA PYRAMID WATER TREATMENT PLANT – LT2 UPGRADE
PROJECT NUMBER: DPW # 13401**

BID DATE: Thursday, February 20, 2014 2:00 PM (AST)

This addendum consists of: Seven (7) 8½” x 11” sheets. Six attached sketches.

The following corrections, changes, additions, deletions, revisions, and or clarifications are hereby made a part of the documents for the Unalaska Pyramid Water Treatment Plant – LT2 Upgrade dated December 6, 2013. In case of conflicts between this Addendum and previously issued documents, this Addendum shall take precedence.

Note to Bidders: Bidders are required to acknowledge this addendum on the bid form.

GENERAL CLARIFICATION:

NONE

CHANGES TO SPECIFICATIONS:

1. Section 02316, 2.01: Add “D. Class I Rip Rap shall be as specified in Alaska DOT&PF Standard Specifications for Highway Construction, Section 611.”
2. Section 02725, 2.03.B: Replace text with “All manhole grates shall be hot dip galvanized steel in accordance with Section 05500. Securement hardware shall be 304 stainless steel.”
3. Section 02500, 2.01.B: Restrained Joint Pipe. Replace text with “All exterior ductile iron pipe, valves, and fittings shall be mechanical joint restrained with Megalug Series 1100 or approved equal.
4. Section 15200, 1.03.A.1: Delete 1.03.A.1.e.
5. Section 15200, 2.01.A: Replace text with “As indicated on the Drawings.”



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6. Section 15216, 1.03C: Add, "Valve Body Coating: factory-applied fusion epoxy". Delete "Coating:" and "Desired Options:"
7. Section 15265 (formerly 15065), 1.07: Add "F. Process piping shall be connected with 150 pound flanges. Valves and other components shall be flanged to fit adjoining piping."
8. Section 15265 (formerly 15065), 1.01.B: Replace with "Types of service: Stainless steel piping specified in this section shall be used for process water transmission through the treatment bay."
9. Section 15265 (formerly 15065), 1.04.A: Delete 1.04.A.
10. Section 15265 (formerly 15065), 1.07.E: Add "Flange insulation kits shall be used between all flange connections involving dissimilar metals."
11. Section 15271, 2.02.B.3: Add "The disc shall utilize an on-center shaft and symmetrical design, cast from Ductile Iron ASTM A536 Gr. 65-45-12. The disc edge shall be stainless steel type 316. Disc shall be retained by pins that extend through the full diameter of the shaft. The pin material shall be the same as the shaft material. Torque plugs or tangential fasteners shall not be allowed. For valve sizes 3" through 20" the rubber seat shall be of one piece construction, simultaneously molded and bonded directly into the body. The seat material shall be either Buna-N or EPDM rubber."
12. Section 15300, 2.01.C: Delete 2.01.C.
13. Section 15411, 2.01: Add "C. Sanitary sewer piping includes Waste piping and Process Waste piping."
14. Section 15430, 2.04.B: Delete 2.04.B.
15. Section 16111, 3.01: Delete 3.01.D.
16. Section 16420, 2.01.B: Replace "Transformer Rated Meter Base" with "Stainless Steel Meter Base".
17. Section 16496, 2.02.B: Delete last sentence.
18. Section 16724, 1.14.B: Delete "and duct".
19. Section 16724, 2.03.D: Delete 2.03.D.
20. Section 16755, 2.11.B: Add after last sentence "J-hooks may be used above ceiling in office areas only."



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CHANGES TO DRAWINGS:

1. Sheet C1.0: Add Civil Note “9. At a sufficient distance prior to encountering a known obstacle or tie into an existing pipe, Contractor shall expose and verify the exact location so that alignment, crossings, and/or grade can be made before pipe sections or other items are laid and/or backfilled. No extra payment will be made for rework of newly installed utilities required by failure to expose obstacles and connecting utilities.”
2. Sheet C2.0: Replace “Select Fill” in Grading Note 3 with “Classified Fill”.
3. Sheet C3.3: Replace Details 4, 5, and 6 with attached sketch SKC2 - Fire Hydrant and Bollard Detail.
4. Sheet C3.5, Detail 2: Replace “Stainless Steel Manhole Grate per 3/C3.6” with “Steel Manhole Grate per 3/C3.6”.
5. Sheet C3.5: Replace Details 3 and 4 with sketch SKC1 – Discharge Header Detail.
6. Sheet C3.7, Detail 1, End View: Replace “Class B Bedding” with “Classified Bedding Material”.
7. Sheet P1.6: Replace callout “V210 flow to UVT-1 and TURB-1” to “V210 flow to UVT-2 and TURB-2”.
8. Sheet P1.6: Replace callout “V113” with “V211 flow to UVT-3 and TURB-3”.
9. Sheets P1.6, P2.0: Replace 16” diameter process piping immediately upstream from UVR101A and UVR101B with 24” piping as indicated on sketch SKC3 - Process Piping Modification.
10. Sheet P3.1, Valve and Control Schedule, Line items V105A and V105B: Replace 16” with 24”.
11. Sheet P3.0, Valve and Control Schedule, Line item V100: Change Operation from “Manual” to “Automated”. Change Actuator form “Manual” to “Auma SA07.6-54B/GS100.3/VZ4.3/AM01.2”.
12. Sheet P3.2: Replace Unalaska Pump Schedule with attached sketch SKP1 – Pump Schedule Replacement.
13. Sheets P1.3, P1.4, P1.5, P1.6, P2.2, P3.0, P3.1, and P3.2: Contractor may substitute 1 ½ inch Kynar piping for the 1 ¼ inch Kynar piping indicated on the drawings.
14. Sheet A3.1, Detail 2: Replace note “Overhead Crane (See Structural)” with “Overhead Crane, Type Tractel Tralift TE 2621915K or approved equal. Crane supports to be supplied with pre-manufactured Building Package. Crane and support system shall be capable of



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lifting 32-inch diameter chlorine cylinders off a 54-inch high truck bed". [This supersedes change in Addendum 01]

15. Sheet A3.1, Detail 2: Note the drafting glitch showing the overhead door and crane shifted three feet to the right of their correct position.
16. Sheet A6.1: Add attached sketch SKA3 Office Equipment Schedule.
17. Sheet S5.1, Details 2, 3, 4: Replace "Washed Sand" with "Classified Bedding Material". Replace "Engineered Fill" with "Classified Fill".
18. Sheet S5.3 Detail 1: Replace roofing framing section of detail with Attached sketch SKS1 – Typical Canopy Column.
19. Sheet M0.2, Tempering Valve Schedule, TV-1: Replace description with "Basis of Design – Lawler; Model – 801 Unit 86208; Medium – Water; Min Flow at 20 psi - 34 gpm; Material – Bronze; Remarks – High/Low Thermostatic Mixing Valve, Union End Stop and Check Inlets, Dial Thermometer, Set Discharge Temperature to 120 deg F".
20. Sheet M1.2: Replace "¾" CW" entering Boiler 106 with "1" CW".
21. Sheet M1.2: Replace "¾" HW" entering Boiler 106 with "1" HW".
22. Sheet M1.2: Replace "1" CW" located prior to the branch line to HB-2 and prior to Boiler 106 with "1-1/4" CW".
23. Sheet M4.1, Detail 1: Replace "1-1/2" CW" entering Boiler 106 with "1" CW".
24. Sheet M4.1, Detail 3: Replace "¾" HW" with "1" HW".
25. Sheet M4.1, Detail 3: Replace "¾" CW" with "1" CW".
26. Sheet M5.2, Detail 5: Replace, "Reduced pressure zone assembly with ¼ turn ball valves. Route discharge through air gap fitting to trench drain TD-2" with "Reduced pressure zone assembly with ¼ turn ball valves. Route discharge through air gap fitting to FD-3".
27. Sheet M5.2, Detail 6: Replace "12" x 12" Washed Sand Bedding" with "12" x 12" Classified Bedding Material".
28. Sheet E0.1, Detail 2: Replace "D-1 Gravel Backfill" with "Classified Bedding Material" and replace "Engineered Fill" with "Classified Fill".
29. Sheet E1.3, Detail 1: Delete callout in Room 102 which reads "1-inch C Below Grade to Sewage Holding Tank High Level Alarm". Delete symbols for conduit and junction box.



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30. Sheet E2.1: Replace “Padmount Transformer Pad by Utility” to “Install Padmount Transformer. Transformer itself to be provided by owner. All other parts to be provided by contractor.” [This supersedes change in Addendum 01]
31. Sheet E2.2, Detail 2: Replace “Wiremold J06B2B Plug Strip” with “Tripp-Lite ISOBAR12-20ULTRA”.
32. Sheet E2.2, Detail 2: Replace “18” Wide Cable Runway” with “12” Wide Cable Runway”

RESPONSES TO CONTRACTOR QUESTIONS:

- Q.1. Are the V200, V201, V202 valves (shown in two locations on the P&ID) the same valves or is there another filter bank? Which is correct, the P&ID or Instrument arrangement Area A piping as shown on sheet P2.1?
A. The arrangement shown in P2.1 is correct. The P&ID only shows one filter for simplicity.
- Q.2. On sheet P1.6, V210 supplies flow to TURB 1 and UVT 1. Where do these show up? Should this be TURB 2 & UVT 2 as in Area B instrument arrangement?
A. UVT-1 and TURB-1 are existing and located at Icy Creek Reservoir. See *Changes to the Drawings* above.
- Q.3. Are the HACH Bubble Traps the diffusers shown in the P&ID’s?
A. No. Bubble Traps are identified in the legend and shown on the P1.3 diagram.
- Q.4. On Drawing E1.5 Detail 2 Special Systems Plan - Generator & Fuel Tank there is a reference to a FM200 Panel. Is a FM200 System part of this project Scope of Work? If so is there a specification for this system?
A. See section 16622, 2.05.G.
- Q.5. Spec section 16111 Conduit - 3.03 Conduit Schedule. The conduit schedule appears to limit all interior conduits to schedule 80 PVC conduit, exposed or concealed. Is this correct? Can EMT, MC cable, or any other raceways be used for concealed runs inside new walls or above lids?
A. Yes, this is correct. EMT is permitted exposed only in electrical room per 3.03.C.
- Q.6. Sheet E2.2, Detail 2 shows a horizontal rack ground bar, however, Spec Section 16755, Para. 2.04.B.5 calls for a Vertical Ground Bar. Which are we to use?
A. Vertical per specification.



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Q.7. Sheet 2.2 shows 4 outlets per location, legend indicates 2 outlets 1 phone & 1 data.

A. Four combination phone & data outlets per drop as shown on E2.2.

Q.8. Fire Alarm – 16724.1.14.A&B: Maintenance Contact: Addendum 01 – Responses to Contractors Questions – Item Q.13 answer does require the contractor to return thirty days prior to one year after substantial completion to retest the system. Does this mean the Main Contract cannot be closed out until the end of the one year maintenance contract?

A. No, fire alarm maintenance will be considered an agreement between the fire alarm contractor and the City, main contract schedule is separate.

Q.9. The E1.X series drawings do not show a location for sprinkler pre-action control panel. The smoke detectors associated with the pre-action are not identified either. The pre-action FA panel is specified in 16724 2.08 and it is shown on the one line on E2.2. Can you clarify? Sheet E2.2 detail 1 shows a Monaco base transmitter and a Honeywell Cellular dialer. Please clarify the intent for the Monaco transmitter and a specification for it. The specifications, 16724 2.06, I & J also specify a dual line dialer DACT, and a Cellular GSM Dialer. Please clarify if all three of these items are required.

A. Sprinkler system and associated pre-action panel are performance specified under 15300 and 16724. Connection requirements for monitoring of the fire alarm panel shall be at the discretion of the AHJ. Intent is to connect via VoIP through Public Works Department, however if this is not an approved means alternative methods have been included.

Q.10. Sheet E1.2 shows a combination starter to be installed for the Domestic Water Booster Pump (WBP-1). Sheet M0.2 shows WBP-1 is 120V and is a packaged booster system complete with controls. Is the intent for the disconnection means to be a manual motor starter, fused or non-fused disconnect instead of a combination starter?

A. Provide NEMA 1 non-fused 30A disconnect for WBP-1, per Section 16440 2.02.B

Q.11. Addendum No. 01, Changes to Drawings Item No. 15, indicates “OVERHEAD CRANE, TYPE TRALIFT TE 2000 OR APPROVED EQUAL, AND SUPPORTS TO BE SUPPLIED WITH PRE-MANUFACTURED BUILDING PACKAGE”. Please provide detail of structural steel detailing the length and sizing for bridge beams and crane rails. Also, please provide equipment specifications for the electric crane trolley/hoist.

A. Crane rails to run the length of the Chlorine Room. Sizing and detailing of beams and rail to be supplied by pre-manufactured building supplier. See CHANGES TO DRAWINGS above for equipment clarification. Product called out represents the standard of quality. Approved equal may be substituted according to Section 01300.



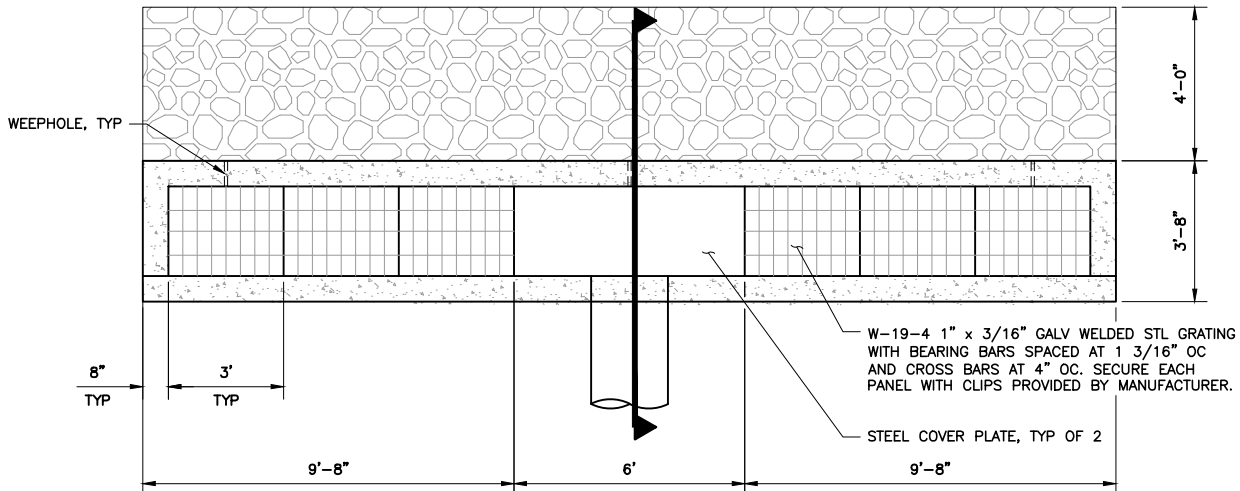
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Q.12. Specification Section 13121 paragraph 1.04.A. The above specification for thermal performance on the roof and wall panels indicates a K-factor of .14 btu/sf/hr./deg at a 75F degree mean temperature. Minimum thermal requirement for $k=0.14$ is equivalent to an $R=14.19$, which will be a 2" panel. See enclosed report. Please provide confirmation that 2" panels are correct as other buildings in Dutch Harbor have 4" panels.

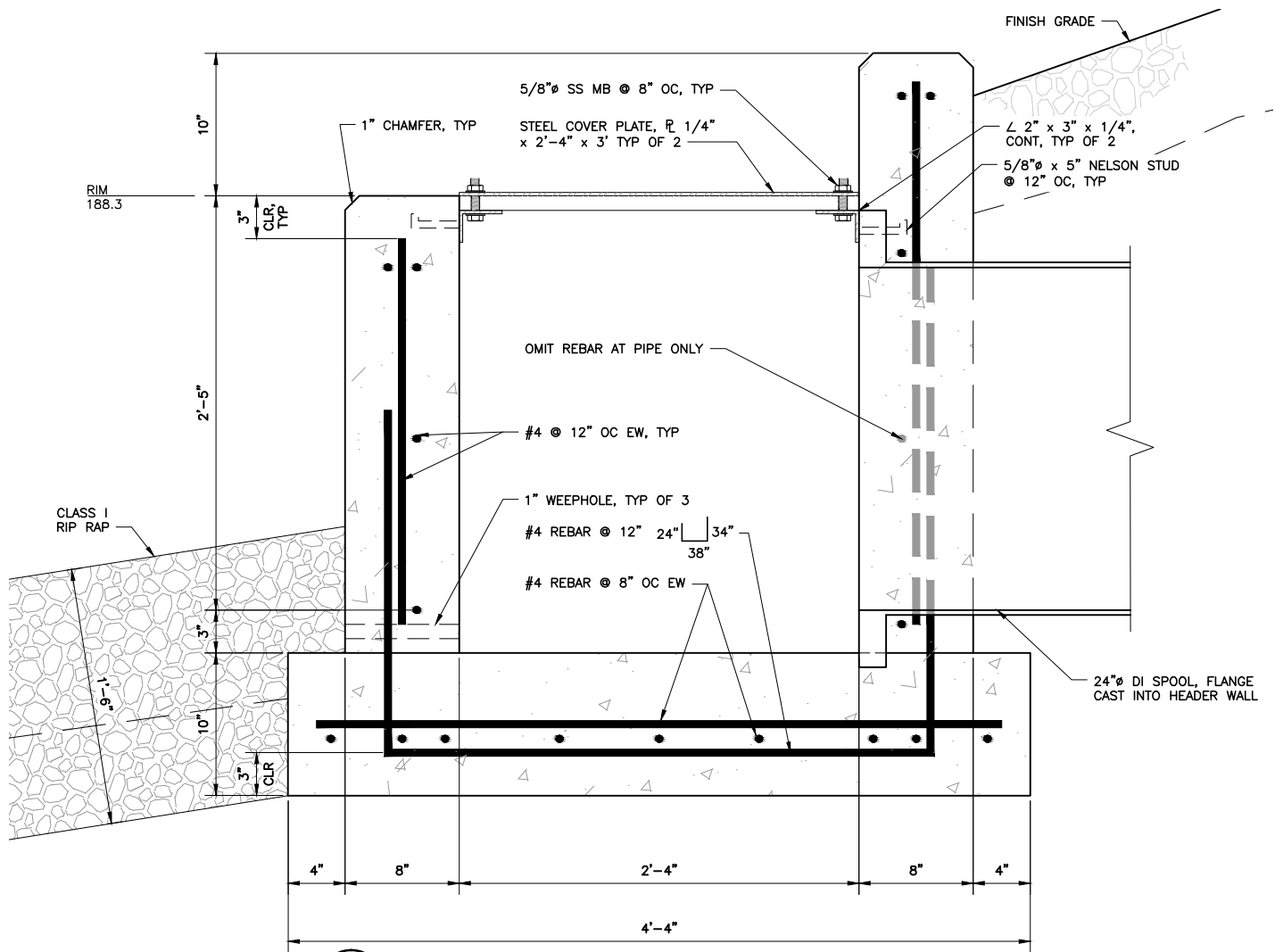
A. K value is independent of thickness. Panels are to be 4" thick to an equivalent of $R=28.6$ as shown on drawings.

ATTACHMENTS:

- SKC1 – DISCHARGE HEADER DETAIL
- SKC2 – FIRE HYDRANT AND BOLLARD DETAIL
- SKP1 – PUMP SCHEDULE REPLACEMENT
- SKP2 – PROCESS PIPING MODIFICATION
- SKA3 - OFFICE EQUIPMENT SCHEDULE
- SKS1 – TYPICAL CANOPY COLUMN



3 DISCHARGE HEADER PLAN
SCALE: 1" = 5'



4 DISCHARGE HEADER SECTION
SCALE: 1" = 1'

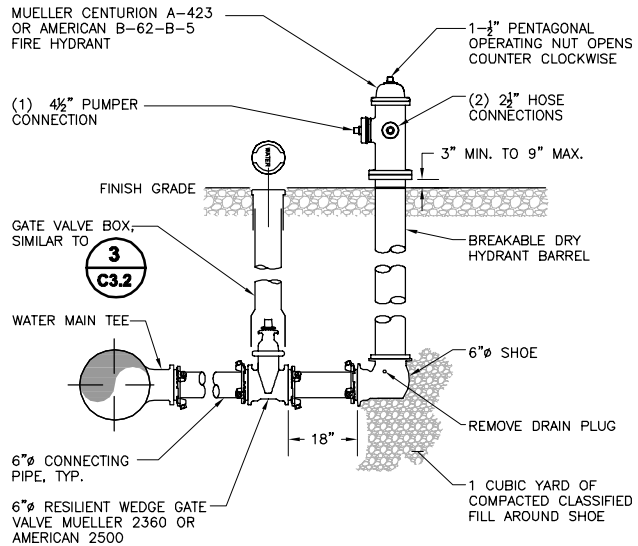
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DISCHARGE HEADER DETAIL
(FROM SHEET C3.5)

DESIGNED BY: DM
DRAWN BY: CS
DATE: 02/10/14
JOB NO: 850.01
RFI NO: SHEET NO:
- SKC1

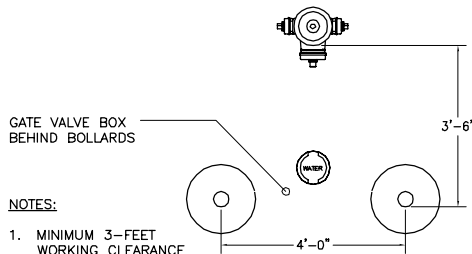


NOTES:

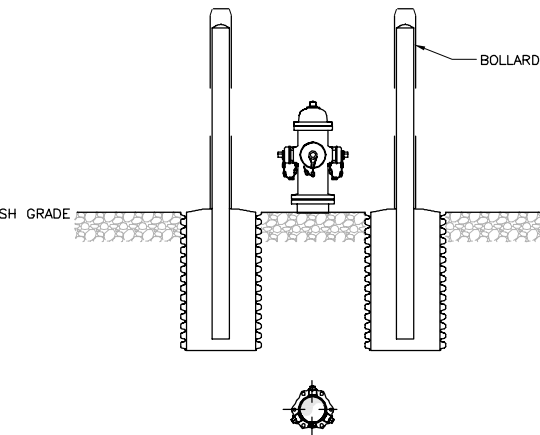
1. HYDRANTS ARE UL/FM LISTED AND MEET AWWA STANDARDS.
2. HYDRANTS ARE FACTORY FINISH; MUELLER-YELLOW, AMERICAN-RED.
3. SCREW THREAD CONNECTIONS ARE NFPA #1963.
4. JOINT, FITTING, AND VALVE CONNECTIONS ARE MECHANICAL JOINTS WITH MEGALUC STYLE RETAINING GLANDS EBAA IRON 1100 SERIES.
5. PIPE IS AWWA RATED CLASS 52 CEMENT MORTAR LINED DUCTILE IRON PIPE.

4 PROFILE VIEW

SCALE: NTS

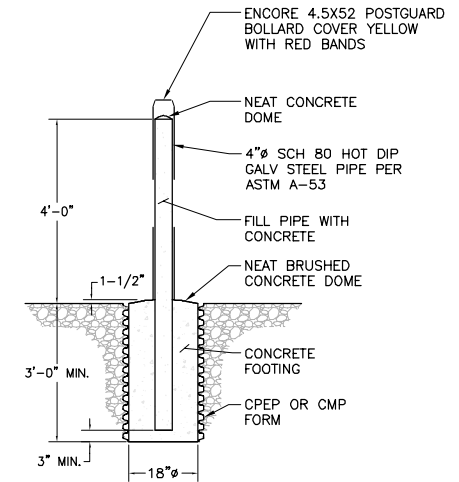


PLAN VIEW



5 FRONT ELEVATION VIEW

SCALE: NTS



6 LOW TRAFFIC AREA BOLLARD

SCALE: NTS

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CITY OF UNALASKA
PYRAMID WTP

FIRE HYDRANT AND BOLLARD DETAIL
(FROM SHEET C3.3)

DESIGNED BY: DM	
DRAWN BY: CS	
DATE: 02/10/14	
JOB NO: 850.01	
RFI NO:	SHEET NO:
	SKC2

PUMP NO.	NOMINAL FLOW			REQ'D HEAD		MANUFACT	PRODUCT LINE	RPM	NO OF STAGES	CONFIG OPTION	HP RATING		POLE/HZ/ PHASE	VOLAGE		ENCLOSURE		MODEL NO
	GPM	M3/HR	CALLOUT	PSI	FT						HP RATING	CALLOUT		VOLTAGE	CALLOUT	TYPE	CALLOUT	
PMP 101	29.1	6.61	5	195	450	GOULD	SV	3500	15	ROUND 304	5		2/60/3	230/460	F	TEFC	2	5SV15FG4F60
PMP 102	24.0	5.45	5	185	427	GOULD	SV	3500	13	ROUND 304	5		2/60/3	230/460	F	TEFC	2	5SV13FG4F60
PMP 103	23.7	5.38	5	182	420	GOULD	SV	3500	13	ROUND 304	5		2/60/3	230/460	F	TEFC	2	5SV13FG4F60
PMP 104	14.4	3.27	5	153	353	GOULD	SV	3500	11	ROUND 304	3		2/60/3	230/460	F	TEFC	2	3SV11FF4C60

PUMP SCHEDULE REPLACEMENT

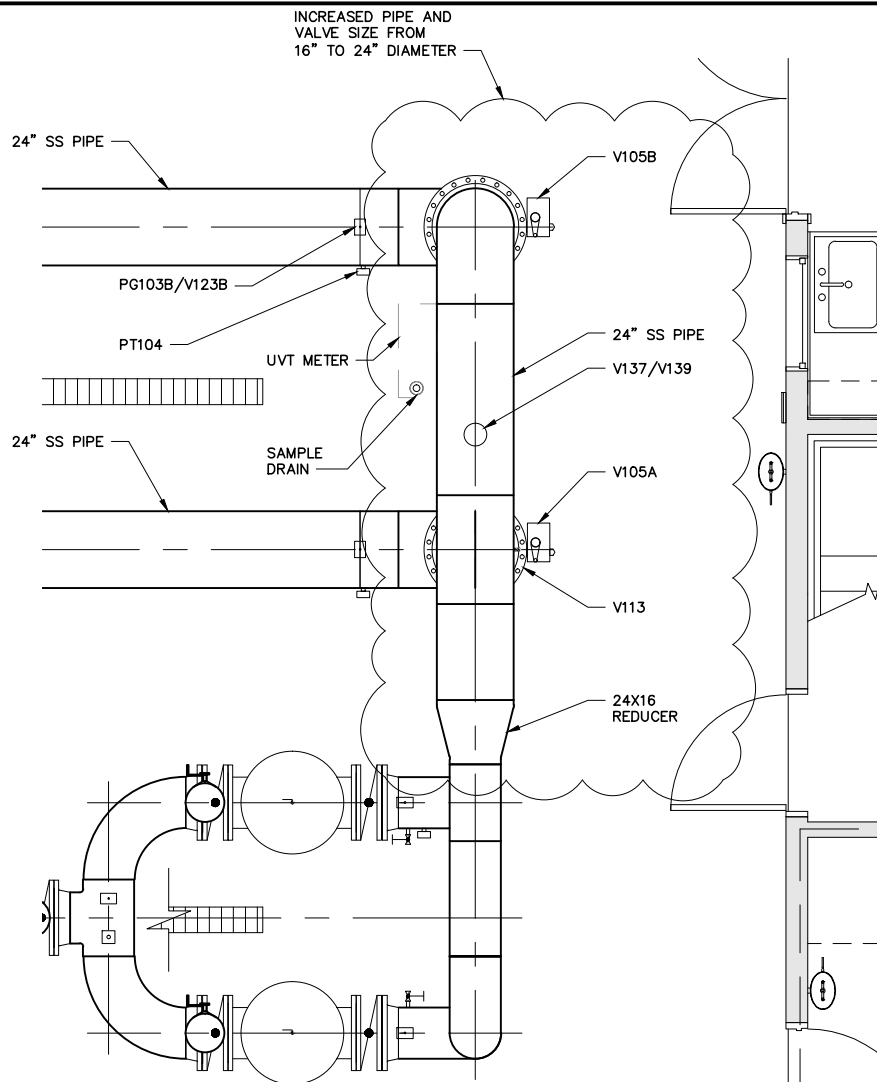
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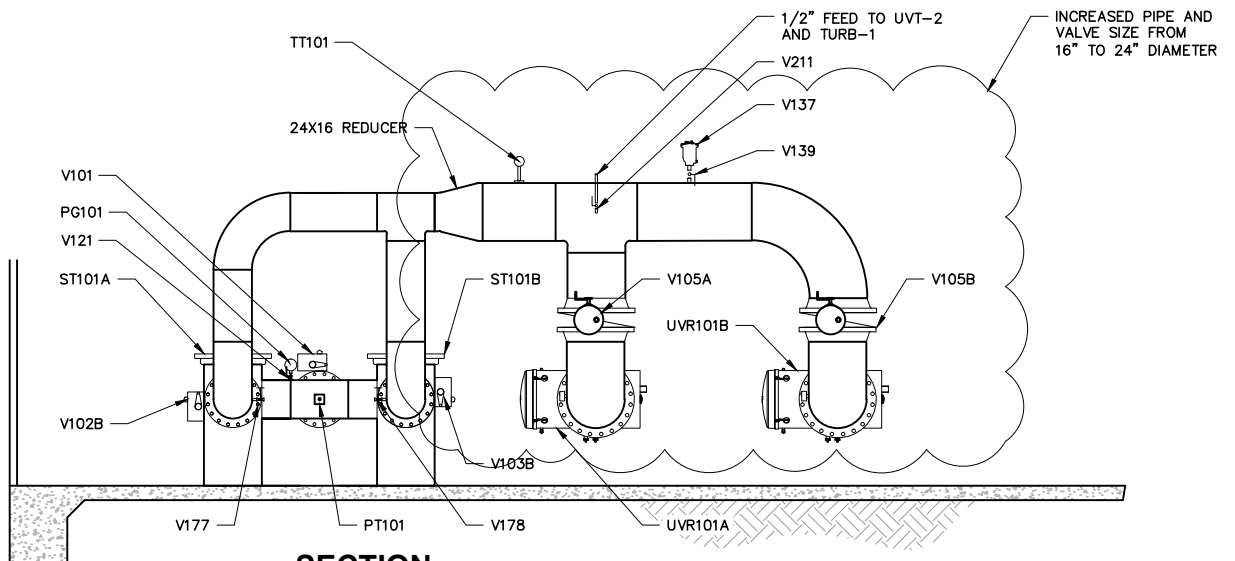
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PYRAMID WTP

PUMP SCHEDULE REPLACEMENT
(FROM SHEET P3.2)

DESIGNED BY: DM	
DRAWN BY: CS	
DATE: 02/10/14	
JOB NO: 850.01	
RFI NO:	SHEET NO:
	SKP1



PLAN



SECTION

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**CITY OF UNALASKA
 PYRAMID WTP**

**PROCESS PIPING MODIFICATION
 (FROM SHEET P1.6 & P2.0)**

DESIGNED BY: DM
DRAWN BY: CS
DATE: 02/07/14
JOB NO: 850.01
RFI NO: SHEET NO:
- SKP2

OFFICE EQUIPMENT

ADJUSTABLE SHELVING	TENNSCO AUTOMOTIVE SHELVING, 84", MEDIUM GRAY
TOOL CHEST	LISTABOX MODEL 750 DOUBLE BANK W/ STATIONARY FORK TRUCK BASE, BLAZE BLUE CABINET AND BLACK DRAWERS (TSDW07C06-1201FL-FT293-BKG) WITH BUTCHER BLOCK TOP (DW1BCT)
WHITE BOARD	QUARTET STANDARD WHITEBOARD WITH OAK FRAME, 48" x 36" - COORDINATE LOCATION WITH OWNER
WORKBENCH	GURMAN HEAVY DUTY WORKBENCH WITH MAPLE TOP, 96" x 36" x 30" HIGH (H141-836-30) WITH WOOD DRAWER - NO SIDE OR BACK STOPS FOR MAPLE TOP
WORKBENCH VICE	WILTON 63201 MODEL 1765, 6 1/2" TRADESMAN VICE - MOUNTED TO FRONT LEFTHAND CORNER OF WORKBENCH, FACING FORWARD



CITY OF UNALASKA
PYRAMID WTP

OFFICE EQUIPMENT SCHEDULE
(ADD TO SHEET A6.1)

DESIGNED BY:	RW
DRAWN BY:	RW
DATE:	01/16/14
JOB NO:	850.01
RFI NO:	SHEET NO:
	SKA3

