

ALLEGHENY COUNTY SANITARY AUTHORITY

July 8, 2020

CONTRACT NO. 1728 G, E, H, P

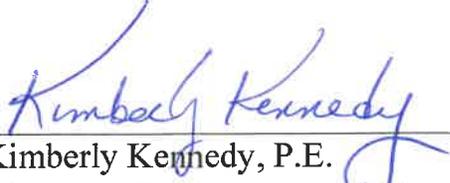
RAS PIPE AND PUMP REPLACEMENT

ADDENDUM NO. 4

All bidders bidding Contract No. 1728 G, E, H, P shall read and take note of this Addendum No. 4. The Contract Documents for **Contract No. 1728 G, E, H, P – RAS Pipe and Pump Replacement** are hereby revised and/or clarified as stated below.

Acknowledgement of Contract No. 1728 G, E, H, P; Addendum No. 4

The Acknowledgement attached to Addendum No. 4 is to be signed and returned immediately via fax or email to John Findley at 412-734-8716 or John.Findley@alcosan.org and acknowledged with Bidder's Proposal.



Kimberly Kennedy, P.E.
Director – Engineering and Construction

**ACKNOWLEDGEMENT OF
CONTRACT NO. 1728 G, E, H, P - RAS PIPE AND PUMP
REPLACEMENT**

ADDENDUM NUMBER 4

FIRM NAME: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

JULY 8, 2020

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RAS PIPE AND PUMP REPLACEMENT

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RAS PIPE AND PUMP REPLACEMENT

ADDENDUM NO. 4

A. Contract Documents – Volume 1

1. EXHIBIT “A” - INSURANCE

- a) Page EXHIBIT A-5, DELETE the following language:
“The Contractor shall purchase and maintain boiler and machinery insurance including coverage for explosion, damage, mechanical breakdown and business interruption which will include the interests of the Owner, subcontractors, Consulting Engineer and any other persons or entities identified by the Owner, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured, with coverages of not less than the following amounts or greater if required by law: \$500,000.”

B. Contract Specifications – Volume 2

1. Summary of Work (Section 01 11 00)

- a) Page 01 11 00 – 2, Section 1.2.A.1, ADD item k. stating the following:
All pipe gallery RAS piping and supports in areas 930 and 835, to include crossover valves, isolation valves, and venturi flow tubes.”
- b) Page 01 11 00 – 2, Section 1.2.A.2.g, DELETE is paragraph and replace with the following: “Installation and maintenance of temporary motor control equipment and installation and wiring of temporary flow meters for bypass pumping.”

2. Measurement and Payment (Section 01 22 00)

- a) Page 01 22 00 – 3, Section 1.6.D.1, DELETE “hazardous materials (lead-based paint and asbestos) removal and disposal,”

3. Facility Start Up (Section 01 75 00)

- a) Page 01 75 00 – 3, Section 1.7, DELETE the entirety of 1.7.A and replace with the following:
“Contractor to pay all costs associated with Facility start-up not specifically stated in sections 1.4.A or 1.4.B of this specification.”

C. Contract Specifications – Volume 3

1. Pumping Equipment – Basic Requirements (Section 43 21 00)

- a) Page 43 21 00 – 1, Section 1.4.A.3, ADD Paragraph 1.4.A.3.e. stating the following:
“Signed and sealed pump support design that has been prepared by a licensed professional engineer registered in the Commonwealth of Pennsylvania.”
- b) Page 43 21 00 – 2, Section 2.3, DELETE the entirety of Paragraph 2.3.C
- c) Page 43 21 00 – 3, Section 2.3.D, DELETE paragraph 2.3.D.2 and REPLACE with the following: “Provide split-type cartridge seal”
- d) Page 43 21 00 – 3, Section 2.3.D.4, DELETE paragraph 2.3.D.4.b and REPLACE with the following: “Springs: Hastelloy C or Elgiloy”
- e) Page 43 21 00 – 3, Section 2.3.D.4, DELETE paragraph 2.3.D.4.c and REPLACE with the following: “Seal faces: Reaction Bonded Silicon Carbide”
- f) Page 43 21 00 – 3, Section 2.4.A, DELETE item 2.4.A.4 and REPLACE with the following:
“Design concrete pier supports for vertical pumps to be similar configuration to existing supports to be demolished.”
- g) Page 43 21 00 – 4, Section 2.4.A, ADD item 2.4.A.7 stating the following:
“Design fabricated steel tripod motor support structure similar to existing support configuration to independently support pump motors as required by manufacturer.”

2. Pumping Equipment – Non-Clog Centrifugal (Section 43 23 14)

- a) Page 43 23 14 – 2, Section 2.2, DELETE paragraph 2.2.F and REPLACE with the following: “Mechanical Seal, Chesterton 442C or approved equal. Materials per Specification 43 21 00.”
- b) Page 43 23 14 – 2, Section 2.2, DELETE the entirety of paragraph 2.2.G.

- c) Page 43 23 14 – 4, Section 2.5.D, DELETE the entirety of paragraph 2.5.D.1.
- d) Page 43 23 14 – 4, Section 2.5.D, DELETE the entirety of paragraph 2.5.D.2.

3. Temporary Bypass Pumping and Piping (Section 43 50 10)

- a) Page 43 50 10 – 3, Section 2.2.B, DELETE the entirety of paragraph 2.2.B.1 and REPLACE with the following:
“Portable 460V, 3Ph electric drive pump shall be provided by General Contractor. Pump shall be fully automatic self-priming suction-lift unit that does not require the use of foot valves on the suction line. Pump shall be single skidded unit with a discharge hydraulic capacity comparable to a single existing RAS pump (8400 GPM @ 35 ft THD). Unit shall come equipped with starters and VFD with level sensor input capability.”
- b) Page 43 50 10 – 3, Section 2.2.E, ADD item 2.2.E.3 stating the following:
“Electrical Contractor to furnish and install two (2) clamp-on Doppler type external flow meters, one mounted to pipe downstream of E-1/W-1 and one mounted to pipe downstream of E-2/W-2.”
- c) Page 43 50 10 – 3, Section 2.2.E, ADD item 2.2.E.4 stating the following:
“Electrical Contractor to coordinate with ALCOSAN to connect 4-20mA output of Doppler flow meters to ALCOSAN DCS system for remote readings.”

D. Contract Drawings – Volume 4

1. Drawings 911-S-10, 912-S-10, 921-S-10, and 922-S-10

- a) REPLACE Note 1 with the following:
“CONCRETE PIER PUMP SUPPORTS. GENERAL CONTRACTOR TO DESIGN PROPOSED SUPPORTS IN SIMILAR CONFIGURATION TO EXISTING SUPPORTS TO BE DEMOLISHED, WITH DIMENSIONS AND DESIGN MODIFIED TO SUPPORT SELECTED RAS PUMPS. COORDINATE WITH DRAWING 911-SDM-10 AND PROCESS DRAWINGS. SUBMIT SUPPORT DESIGN FOR ENGINEER SHOP SUBMITTAL REVIEW IN CONJUNCTION WITH PUMP AND MOTOR SUBMITTAL.”

b) REPLACE Note 2 with the following:

“FABRICATED STEEL TRIPOD MOTOR SUPPORT STRUCTURE. SUPPORT ON CONCRETE WALLS AND FLOOR AS REQUIRED. GENERAL CONTRACTOR TO DESIGN PROPOSED SUPPORTS IN SIMILAR CONFIGURATION TO EXISTING SUPPORTS TO BE DEMOLISHED, WITH DIMENSIONS AND DESIGN MODIFIED TO SUPPORT SELECTED RAS PUMPS MOTORS. COORDINATE WITH DRAWING 911-SDM-10 AND PROCESS DRAWINGS. SUBMIT SUPPORT DESIGN FOR ENGINEER SHOP SUBMITTAL REVIEW IN CONJUNCTION WITH PUMP AND MOTOR SUBMITTAL.”

2. Drawing 911-ADM-10

a) DELETE this drawing and REPLACE with the attached drawing 911-ADM-10.

3. Drawing 912-ADM-10

a) DELETE this drawing and REPLACE with the attached drawing 912-ADM-10.

4. Drawing 921-ADM-10

a) DELETE this drawing and REPLACE with the attached drawing 921-ADM-10.

5. Drawing 922-ADM-10

a) DELETE this drawing and REPLACE with the attached drawing 922-ADM-10.

6. Drawing 911-A-10

a) DELETE this drawing and REPLACE with the attached drawing 911-A-10.

7. Drawing 911-A-40

a) DELETE this drawing and REPLACE with the attached drawing 911-A-40.

8. Drawing 912-A-10

a) DELETE this drawing and REPLACE with the attached drawing 912-A-10.

9. Drawing 912-A-40

- a) DELETE this drawing and REPLACE with the attached drawing 912-A-40.

10. Drawing 921-A-10

- a) DELETE this drawing and REPLACE with the attached drawing 921-A-10.

11. Drawing 921-A-40

- a) DELETE this drawing and REPLACE with the attached drawing 921-A-40.

12. Drawing 922-A-10

- a) DELETE this drawing and REPLACE with the attached drawing 922-A-10.

13. Drawing 922-A-40

- a) DELETE this drawing and REPLACE with the attached drawing 922-A-40.

14. Drawing H-01

- a) DELETE General Note 15 and REPLACE with the following:
“ALL CONDUIT, PULL STRINGS, CONDUCTORS FOR POWER, AND CONTROL WIRING TO BE FURNISHED AND INSTALLED BY 1728E CONTRACTOR. HVAC DUCT SMOKE DETECTORS AND DIFFERENTIAL PRESSURE SWITCHES SHALL BE FURNISHED AND INSTALLED BY 1728H CONTRACTOR. CONTRACTOR TO COORDINATE WORK BETWEEN TRADES.”

15. Drawing HD-60

- a) DELETE DETAIL B “DRYWELL DETAIL”

E. Questions

37. **QUESTION:** Reference Specification Section 01 65 50. Which contract is responsible for the storage building and what is it for?

RESPONSE: The individual prime contractor will be responsible for providing this building, if necessary.

38. **QUESTION:** Reference Specification Section 01 81 10. What electrical equipment needs to have its anchorage designed and sealed by a professional engineer?

RESPONSE: No electrical equipment on this project will require the anchorage designed and sealed by a professional engineer.

39. **QUESTION:** Central Pipe Gallery conduit installations. Is there a drawing showing the location of expansion joints in the pipe gallery? Is there a general requirement for expansion joints every 100LF?

RESPONSE: There are no expansion joints in the pipe gallery.

40. **QUESTION:** Reference Exhibit A-5. Is contract 1728E required to provide boiler & machinery insurance?

RESPONSE: There is not a need for boiler & machinery insurance on this project. This requirement has been deleted from Exhibit A via this addendum.

41. **QUESTION:** ALCOSAN and Addendum 1. The specification calls for packing and the Addendum calls out mechanical seals. We request for verification via Addendum that all RAS pumps shall eliminate packing and replace with mechanical seals. Please request specification on mechanical seals to be provided with "Or Equal." John Findley verbally requested all seals to be Chesterton Type 442 split seals. Please specify material of construction including hardware, seal faces and elastomers. The Addendum should include a specification to ensure all manufacturers are offering the same or equal part.

RESPONSE: Per request, all RAS pumps are to be provided with Chesterton split mechanical seals. There will be no packing. Primary selection is Chesterton 442C series (split mechanical seal in cartridge form) with silicon carbide (RSC) facing and Viton/FKM elastomer. The requirements in specifications 43 21 00 and 43 23 14 are to be modified via this addendum.

42. **QUESTION:** The conduit and cable schedule and Riser Diagram references that the Electric Contractor terminate cable in Terminal Boxes at several locations. We are not able to locate all of the referenced terminal boxes on the drawings. Can you revise the drawings to show the following Terminal Boxes:

- a. West Final Settling Tank Terminal Box:
 - i. WFS-7TB
 - ii. WFS-8TB

RESPONSE: The two referenced terminal boxes reside adjacent to the stair platforms of final settling tanks EFS-7 and EFS-8. Refer to sheet G-06 for location of final settling tanks.

43. **QUESTION:** Instrumentation List Addendum #1. The High Level Switches (LSHH) have not been included in the Instrumentation List provided with Addendum #1 for Sump Pumps SPP001-930, SPP003-930, SSP005-930, SPP007-930 and SPP009-930. Will the E Contract be responsible for providing and installing these level switches?

RESPONSE: No, these are not new switches. The 1728E contractor will be responsible for re-wiring the existing switches.

44. **QUESTION:** Is there a detail for the 3 tripod supports required in each of the pump rooms, drawing 911-S-10, Note 2.

RESPONSE: See response to question 25 in Addendum 2.

45. **QUESTION:** Is the 1728 contractor required to get rid of the HDPE when the project is over? Or will ALCOSAN keep and store?

RESPONSE: The 1728G Contractor shall remove the HDPE pipe from the site.

46. **QUESTION:** Is there a spec or instruction on the removal of the Hypochlorite lines and liquid?

RESPONSE: There is no specification specific to the demolition of hypochlorite lines and liquid. Drawing notes and general specifications on cleaning and demolition apply. ALCOSAN will drain the lines, General Contractor will then flush the lines and dispose of flush water into on-site sewer for return to plant headworks while exercising proper precautions and wearing appropriate PPE where exposure is possible. Once disconnected, the lines may then be cut and disposed according to general demolition specifications by the 1728G Contractor.

47. **QUESTION:** Please clarify the following: Addendum No.2 Question 2D Response. Please provide wiring information of all empty conduits being provided by contract 26 Note 15 on drawing H01 states "ALL HVAC CONTROL WIRING FURNISHED AND INSTALLED BY DIVISION 23"

RESPONSE: The response on Addendum 2 and 01 11 00 are correct. Apply modified notes to Drawing H-01 per this addendum.

48. **QUESTION:** I am presuming galvanized pipe supports for this project. Do you see that differently, I noticed everything currently down there is painted, would this be necessary if we supply galvanized material? Another question: Specification 10 14 23 Signage, what is required? (Architectural drawings not clear)

RESPONSE: For commercially available supports specified in the M sheets, galvanized may be considered standard unless otherwise noted on drawings. For the engineered supports detailed in the structural drawing, the supports should be painted per the coatings specification unless noted otherwise on drawings. Any field cuts of galvanized posts must be field-patched per specifications. The supports in Detail I, Sheet MD-61 are to be stainless steel as noted, as they will be submerged. The supports in Detail H, Sheet MD-61 can be changed to galvanized unless in a location where submersion or regular wetting is a risk. With respect to the 10 14 23 signage requirements, the specification describes building, room, and exit signage required. Note, this is different from equipment tagging which is discussed elsewhere.

49. **QUESTION:** Reference Article 2 – 2.04 which states: *“The Bid must be submitted intact, sealed and delivered in the envelope which accompanied these Contract Documents, addressed to the Allegheny County Sanitary Authority, Director of Engineering and Construction, 3300 Preble Avenue, Pittsburgh, PA 15233.”* The envelope referenced was not provided. Please confirm the bidder can submit using any envelope.

RESPONSE: Envelopes will be available upon request. One may use their own envelope; however, the rest of section 2.04 still applies. Please make it clear if the enclosed bid is for the G, E, H or P contract.

50. **QUESTION:** Reference Article 1 – 7.1 which states: *“Bidder agrees to submit within FIVE (5) days of Owner’s request, a listing of subcontracting firms or businesses that will be awarded subcontracts for portions of Work as described in the Instructions to Bidders.”*

Also reference Article 2 – 2.31 which states: *“The Bidder shall submit for approval a list of all subcontractors employed on the Work, whose work to be performed is anticipated to be in excess of One Hundred Thousand Dollars (\$100,000.00), or Five percent (5%) of the Lump Sum Price, whichever is greater, with a list of Work they are to perform. Bidders are advised that they must submit a complete list of subcontractors. Failure to provide this information at the time specified will, at the Owner’s election, make the Bid nonresponsive or constitute a breach of the awarded Contract.”*

Please confirm that the “time specified” in Article 2 - 2.31 is referencing “within Five (5) days of Owner’s request” as specified in Article 1 -7.1. If the information required in Article 2 – 2.31 is required with the submission of the bid, please clarify this requirement.

RESPONSE: The time is five (5) days “within the Owner’s request.” It is not required with the bid documents.

51. **QUESTION:** Reference Information for Bidders Article 2 - 2.15.A which indicates “*The Owner has concluded that no lead or Chromium based paint will be disturbed during the Work on this Contract. Therefore, Bidders should not include any costs for removal.*” Also reference 01 22 00,1.6.D.1 which states “*Work includes, but is not limited to, mechanical, structural, civil, architectural, hazardous materials (lead-based paint and asbestos) removal and disposal, and associated...*”

Please confirm that the direction within Information for Bidders Article 2, Item 2.15.A is correct and that the bidder should not include costs associated with lead or chromium-based paint removal.

RESPONSE: The contractor should not include costs associated with lead or chromium-based paint removal. This has been removed from 01 22 00 via this addendum.

52. **QUESTION:** Reference Information for Bidders Article 2, Item 2.15.B which indicates “*The Owner has concluded that no asbestos will be disturbed during the Work on this Contract. Therefore, Bidders should not include any costs for asbestos removal in their Bids*”. Also reference 01 22 00,1.6.D.1 which states “*Work includes, but is not limited to, mechanical, structural, civil, architectural, hazardous materials (lead-based paint and asbestos) removal and disposal, and associated...*”

Please confirm that the direction within Information for Bidders Article 2, Item 2.15.B is correct and that the bidder should not include costs associated with asbestos removal.

RESPONSE: The contractor should not include costs associated with asbestos removal. This has been removed from 01 22 00 via this addendum.

53. **QUESTION:** Reference Article XIII, Section 8 of the Project Labor Agreement which states that ALCOSAN will make arrangements for employee parking.

Will these arrangements be made available to bidders during the bid preparation period?

RESPONSE: Refer paragraph 1.5.D of Specification Section 01 30 00.

54. **QUESTION:** Reference 01 31 16, 1.2.A which states *“The Owner shall drain and flush existing final settling tanks to Owner standards and the Owner shall drain process pipes to Owner standards, when necessary for General Contractor to complete Work. Any additional hosing or cleaning of the pipe, if considered necessary by the General Contractor, shall be done at the sole discretion of the General Contractor to suit the means and methods of construction employed and to protect the health and safety of construction personnel.”*

Please further define the Owners standards related to draining process piping and how much residual should be anticipated in the 36” & 30” RAS pipes scheduled for demolition.

RESPONSE: Refer to Paragraph 1.2.A of Specification Section 01 31 16.

55. **QUESTION:** Reference 01 75 00, 1.4.A which states the Owner is responsible to *“Provide water, power, chemicals, and other items as required for testing, unless otherwise indicated.”* Subsequently, paragraph 1.7.A states *“Contractor to pay all costs associated with Facility start-up.”*

Please clarify those costs that are to be the responsibility of the Contractor.

RESPONSE: The contractor will be responsible for any costs that are not specifically stated in section 1.4.A. Section 1.7.A has been revised via this addendum to clarify.

56. **QUESTION:** The W-3 RAS pumps are being purchased under this contract but will be installed under a separate contract. Is it anticipated that the W-3 RAS pumps will be started prior to completion of this contract, or will the owner be responsible for coordinating the startup and warranty start date for the W-3 RAS pumps under the separate contract?

RESPONSE: The owner will be responsible for coordinating the startup and warranty start date for the W-3 RAS pumps under the separate contract. Per 43 23 14 section 1.1.A.2, the 1728G contractor will only be responsible for procuring the W-3 pumps.

57. **QUESTION:** Please reference Section 43 50 10, Item 2.2 - Components:
Item E - Flow Measurement: Please confirm that the Electrical Contract is responsible to furnish and install this Flow Meter to measure total bypassed flow.
Item F – Controls: Please confirm that Electrical Contract is responsible to furnish and install the required controls and Control Panel mounted in the Temporary MCC.
Item G – Monitoring: Please confirm that the Electrical Contract is responsible to furnish and install the “Monitoring” as described.

RESPONSE: The electrical contractor is to furnish and install the flow meter. This has been clarified in Specification 43 50 10 via this addendum. The temporary Motor Starter and VFD that will power the temporary rental RAS pump will ideally be provided as a package by the rental pump supplier, and therefore be furnished by the GC but connected by the EC. Note, this is a separate item from the temporary MCC/VFD system to power the existing RAS pumps during bypass pumping, which will be furnished and installed by the EC per the Electrical Drawings.

58. **QUESTION:** Please reference Section 01 52 00 - Please confirm that the Bypass Pumping System Temporary MCC/VFD's and Controls referenced in this section are the same as the Temporary MCC/VFD's and Controls that are described in Section 43 50 10 Item 2.2 – Components.

RESPONSE: The bypass systems referenced in 01 52 00 are the same as what is specified in 43 50 10.

59. **QUESTION:** Please reference Section 01 11 00, Item 1.2.A.1.i. – Please confirm that the General Contractor is responsible to furnish, install, and maintain the temporary bypass pumping and piping components of the Temporary Bypass Pumping System.

RESPONSE: Yes. This is in 1728G scope of work.

60. **QUESTION:** Please reference Section 01 11 00, Item 1.2.A.2.g. – Please confirm that the Electrical Contractor is responsible to furnish, install, and maintain the temporary bypass motor VFD/control equipment/instruments and control panel components of the Temporary Bypass Pumping System.

RESPONSE: Yes. This is in 1728E scope of work.

61. **QUESTION:** Please clarify where the drywell (Detail B) on drawing sheet HD-60 applies on the project.

RESPONSE: This detail is not necessary. It has been removed from the drawing via this addendum.

62. **QUESTION:** Addendum No.2 Follow Up Question: Paragraph B.1.c. This is the same as B.1.b. was something else to be added here or is this a duplicate?

RESPONSE: This was an error. B.1.c should be deleted. A clarification has been made via this addendum.

63. **QUESTION:** Addendum No.2 Follow Up Question: Paragraph E.25. Please clarify your response. Your response is that the contractors are to include in our proposal a cost for the new concrete foundations for the pump bases as well as for the new structural support steel for the motor support tripods, based on a reasonable design assumption by the contractor at bid time and any differences would be covered by an Alcosan Construction-Phase field directive. Since the new concrete foundations and structural tripod design for the pumps will be performed by HDR after the pumps have been submitted for approval, this work has not been completed at bid time for the contractors to accurately estimate this portion of the contract and this work cannot be included in our proposal at this time. Leaving it up to the contractors to include an estimated cost based on the contractor's reasonable design assumptions is dangerous and not fair. If I say that these reasonable costs should be \$25,000.00 for each pump and the next contractor says that \$5,000.00 for each pump is reasonable then, our Lump Sum base bid price now jumps \$240,000.00 higher than the other bidder. In lieu of this potential base bid discrepancy, can you assign an allotment amount for each pump so that all General Contractor will include the same amount in their proposal for these new concrete pump foundations and the new motor support tripod structures? I would have to assume here also that the demo of the existing concrete pump base walls and the tripod support piers and well as the demo of the existing tripod motor support steel structures will have to be included in the base bid contract regardless as to which option is select?

RESPONSE: General Contractor shall be responsible for providing design of concrete pedestal base for each RAS pump and providing steel tripod support for each RAS pump motor. Configuration will be similar to existing, with modifications to suit the pumps and motors selected by Contractor. Contractor to submit design as shop submittal for Engineer review during construction. Note changes to drawings 911-S-10, 912-S-10, 921-S-10, and 922-S-10 via this addendum. This response supersedes Comment/Response #25 from Addendum 2.

64. **QUESTION:** Can you clarify the New Masonry work inside the 4-RAS Pump Stations. The architectural and structural demo and new work drawings show details for everything but, nothing specific for this project. 6" or 8" CMU? New masonry walls rebar reinforced, cores grouted and dowelled into floor slab? New masonry walls with no rebar or grouted cores and filled with masonry wall insulation? New masonry walls dowelled into floor slab, bottom course cores grouted and balance filled with masonry wall insulation? As per architectural drawing 911-A-10 are these new walls Type A and are we to use the Type A wall detail notes on the bottom left hand corner on drawing AS-01? This detail does not reference the other questions associated with wall dowels, grouted cores and masonry fill insulation. Also, the

interior of the existing Pump Station has Glazed Block which are a different size than normal block. Please clarify?

RESPONSE: Wall type A is under the partition schedule is on drawing AS-01. Interior CMU walls in the RAS pump stations will be installed in accordance with the details on drawing SD-62. The callout for insulation in Detail C/AD-60 does not apply. The interior walls being removed in each pump station are painted CMU walls not glazed block. The exterior walls inner wall material are glazed block. The new wall should have the same makeup as the CMU wall being removed.

65. **QUESTION:** For the equipment pads on drawing SD-60, #5 closed ties at 6” and #5 at 12” are both pointing to the same bars. Are the #5 at 12 in both directions? Are the #5 closed ties in both directions? If we run the ties in each direction do we need the #5 horizontals?

RESPONSE: Equipment pads are reinforced with #5@12” bars in each direction. If any installed pad is more than 8” tall, then a #5 closed tie spaced at 6” below the main reinforcing steel at the top of the pad shall be installed.

66. **QUESTION:** Can you clarify the scope of work for the painting and specialty coatings required on this project. According to the finish schedule on Drawing AS-01, the only new painting in the RAS pump Stations is for the new masonry walls. No specialty performance coatings are shown on the finish schedule.

RESPONSE: This is correct. The walls will be painted PT-1, which is Extra White (SW-7006). Per AS-01, there are no specialty performance coatings on the CMU walls. Refer to section 3.1 in specification section 09 96 00.

67. **QUESTION:** As per notes 1 and 2 on Drawings 835-SD-10 and 835-SD-11 , the existing 24” beam pipe support top angles and saddle plates are to be removed from these pipe supports before these remaining beams are field sandblasted and repainted. Is it permissible to use Oxygen and Acetylene torches in the area 835 and Area 930 pipe galleries to remove these angles and saddles?

RESPONSE: The method of removal should be discussed with the Construction Manager to ensure that it meets OSHA requirements and that proposed work would not create a hazardous environment.

68. **QUESTION:** As per note 5 on drawing 930 SDM-40, the existing Double Beam Knee Brace pipe supports as well the top beams for all the pipe supports that are to be removed are field welded to imbedded plates in the existing Pipe Gallery Walls. Removing these welded beam connections to the imbedded plates flush with the face

of the existing Gallery walls will pose a fire problem in the Galleries. Please advise if the existing specialty coating system on the gallery walls will produce toxic fumes if these connections are cut with an oxygen/acetylene torch? Also, please advise if the specifications include a requirement to re-coat the gallery walls at each of these torched connections and if there is a specialty material specified for this application?

RESPONSE: Note 5 does not specify cutting with an oxygen/acetylene torch. Using that would need approval similar to response above for Question 67. Note 5 indicates cutting (could be a saw) and then grinding (minimal fire hazard). This falls into the means and methods of how work will be performed. Refer to the response to Question 67.

69. **QUESTION:** The elevation drawings for the pump stations as shown on drawing 911-A-40, 912-A-40, 921-A-40 and 922-A-40 are incorrect. There are two full height louvers that require aluminum Blank off panels as per detail F on drawing AD-60. The drawings only show one louver. The same applies for the three stair tower building. There are 2-full height louvers for each stair tower building. Please verify and advise?

RESPONSE: There are two full height louvers in each of the four RAS pump stations and one full height louver at stair buildings 827 and 837 that will have blank off panels per detail AD-60. The related architectural drawings have all been revised via this addendum.

70. **QUESTION:** On Drawings 930-M-11, 930-M-12, 930-M-14, and 930-M-40 there are F911PRS000, F912PRS000, F912PRS000 and F922PRS000 in line Flow Measuring Venturi devices in the new pipe lines. I did not see these on the instrumentation lists included in addendum No.1 which is required to be Furnished and Installed by the Electrical Contractor. Please advise which specification section applies to these Venturi? Please also advise if these Venturi are to be furnished and installed by the Electrical Contractor?

RESPONSE: The venturi flow measurement devices are to be supplied and installed by the General Contractor. The differential pressure transmitters connected to the venturi devices are to be supplied and installed by the Electrical Contractor. The specification covering the venturi devices is 40 71 00 Paragraph 2.2. This has been additionally clarified by modifications noted in this Addendum to Specification 01 11 00.

71. **QUESTION:** Please clarify if the 2" Copper NPW piping in the 835 and 930 pipe galleries will require insulation? Please also clarify if the 4" DI EWH Victaulic coupled pipe and fittings in the 835 and 930 Pipe Galleries will require insulation?

RESPONSE: The 2" copper NPW piping will require insulation per 3.3.A in specification section 40 42 00. The 4" ductile iron piping will not require insulation.

72. **QUESTION:** As per note 2 on Drawing 930-M-10 the existing Hypochlorite lines in the 930 Pipe Gallery are to be removed under this contract. The draining of these lines in the 835 and 930 pipe galleries are to be performed under a separate contract. I believe there are 2-4" CPVC lines on the west side of the 930 pipe Gallery. Can you confirm the number of lines and the pipe diameters?

RESPONSE: There are two 4" pipes on the west wall of the 930 pipe gallery containing hypochlorite. ALCOSAN will isolate these lines from the supply pumps and will drain the lines. General Contractor will flush and demolish the lines.

73. **QUESTION:** Are the By Pass piping Butterfly valves included in the Valve listing as shown on drawing MS-01?

RESPONSE: No, the valves on MS-01 are only permanent valves.

74. **QUESTION:** As per note 2 on Drawing G-19, we are required to add an additional 20" Flanged tee in pump station E-2 to provide a second by-pass tee to match the other three pump stations. Will this also require that an additional 20" Butterfly Valve will need to be furnished and installed?

RESPONSE: Yes, but since E-2 will be done after W-1 and W-2 are complete, the GC could consider repurposing a tee and valve from those stations' demolished piping for negligible capital cost.

75. **QUESTION:** As per Section 6 on drawing 930-M-42, the pipe materials and connections from the new EWH piping to the field yard hydrants needs to be clarified. The piping shown here is 2" Copper. The only solder copper valves listed in the valve listing on drawing MS-01 is for the pump seal water piping. Is the piping for these connections to be 316 SS with threaded SS fittings and nipples?

RESPONSE: Use bronze ball valves as specified in 40 05 63 paragraph 2.3. These valves are represented by the 7th line down on MS-01 in the drawings.

76. **QUESTION:** We are running a little bit behind working up of our estimate for this project, fourth of July weekend is this Saturday, we have not heard anything from any of the pipe and pump manufacturers when their prices will be ready to submit to the contractors and there are still a lot of suppliers that are not back to work yet full

time therefore delaying their submittal of quotes. Can you extend the bid due date on this project until at least Friday July 10, 2020 or Wednesday July 15, 2020.

RESPONSE: A One (1) week extension was granted by Addendum #3. Bids are due 11:00 AM on Wednesday, July 15th, 2020.

77. **QUESTION:** Can you clarify If the power feed to the Temporary MCC set up at each pump station to operate the temporary by-pass pumps need to be buried and concrete encased? If so, can you provide a concrete encased duct bank detail for this purpose? Also, will these MCC need to be installed on equipment pads?

RESPONSE: The contract does not require temporary feeders to be buried. Contractor to use appropriate means and methods to protect all temporary feeders from physical damage. Contractor is responsible for the installation and relocation of the temporary MCC. Contractor to install temporary MCC using appropriate means and methods to protect the MCC from physical damage.

F. Clarifications

1. DELETE item B.1.c from Addendum 2. It was an erroneous duplicate.

Attachments:

Specifications:

None

Drawings:

911-ADM-10

912-ADM-10

921-ADM-10

922-ADM-10

911-A-10

911-A-40

912-A-10

912-A-40

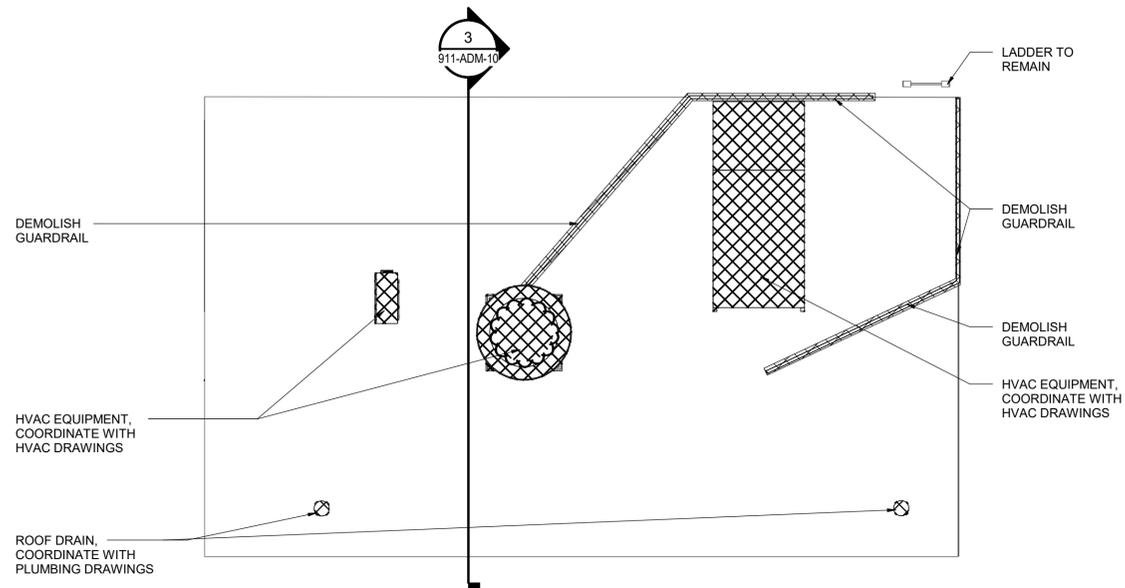
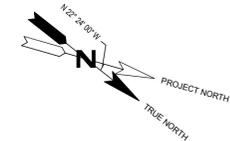
921-A-10

921-A-40

922-A-10

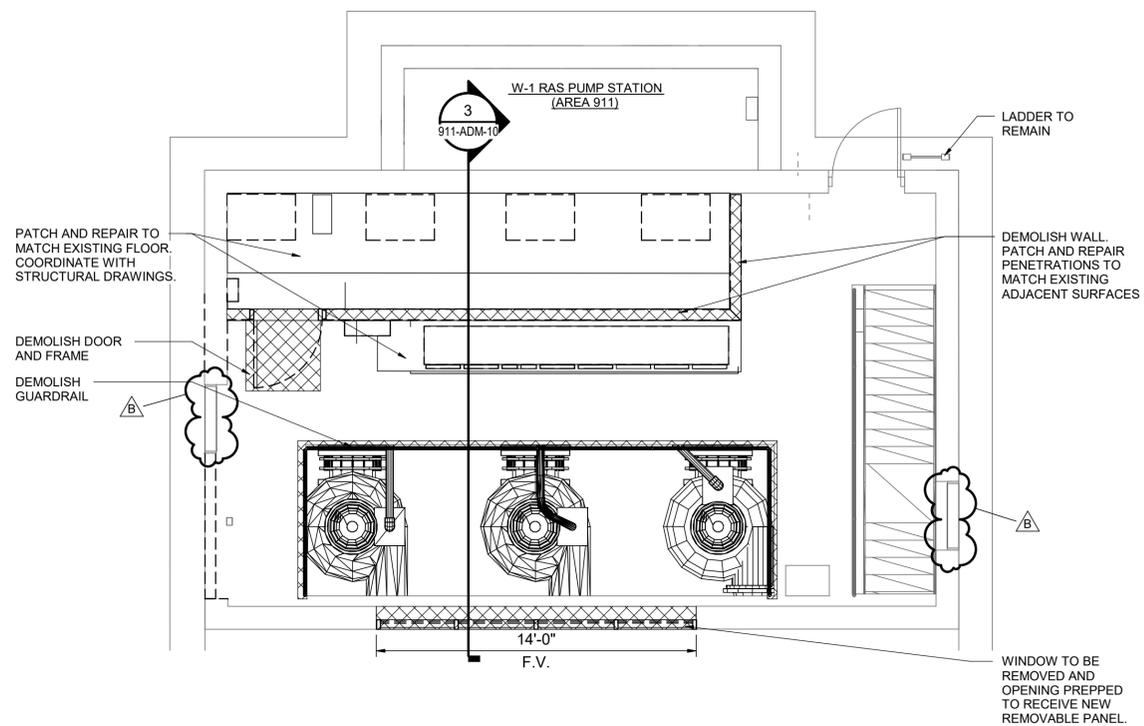
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***** END OF ADDENDUM NO. 4 *****



ROOF DEMOLITION PLAN

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

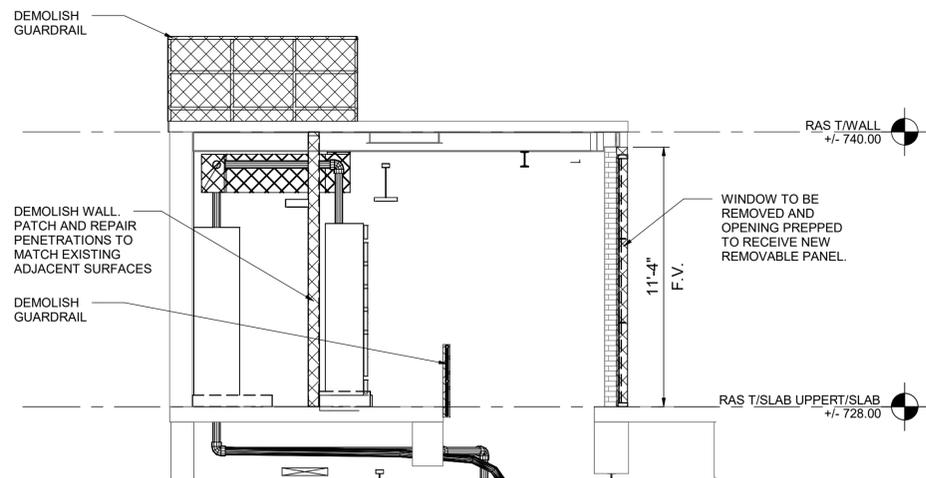


UPPER LEVEL DEMOLITION PLAN

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

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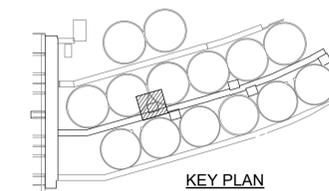
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DEMOLITION SECTION

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

3
911-ADM-10



KEY PLAN

4 2 0 4 8
SCALE: 1/4"=1'-0"

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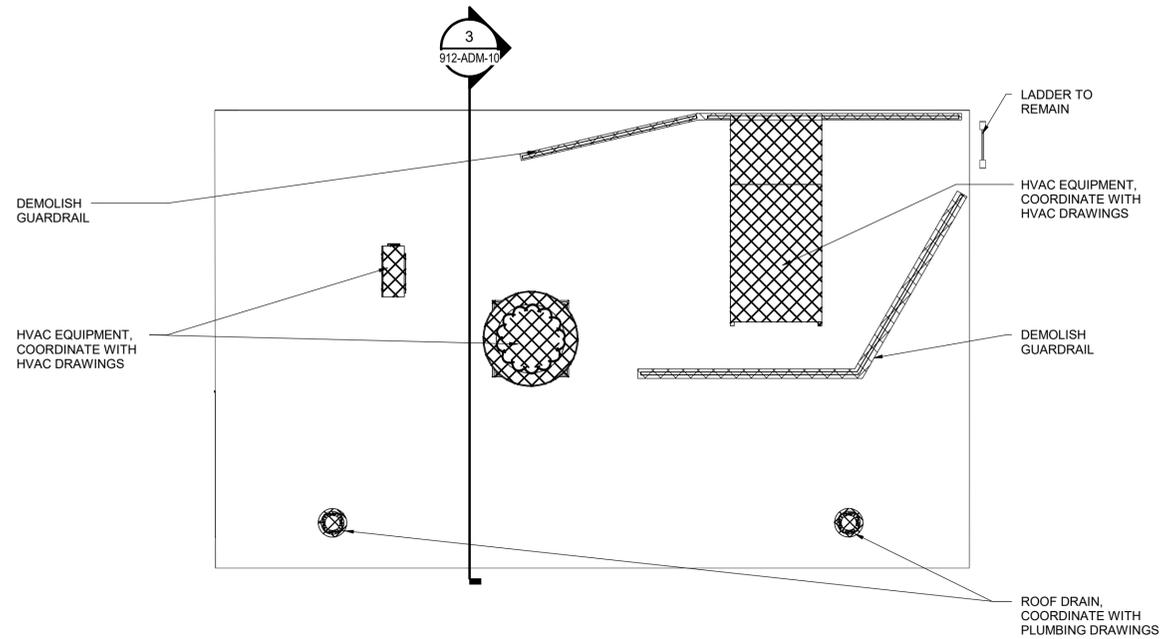
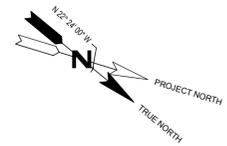
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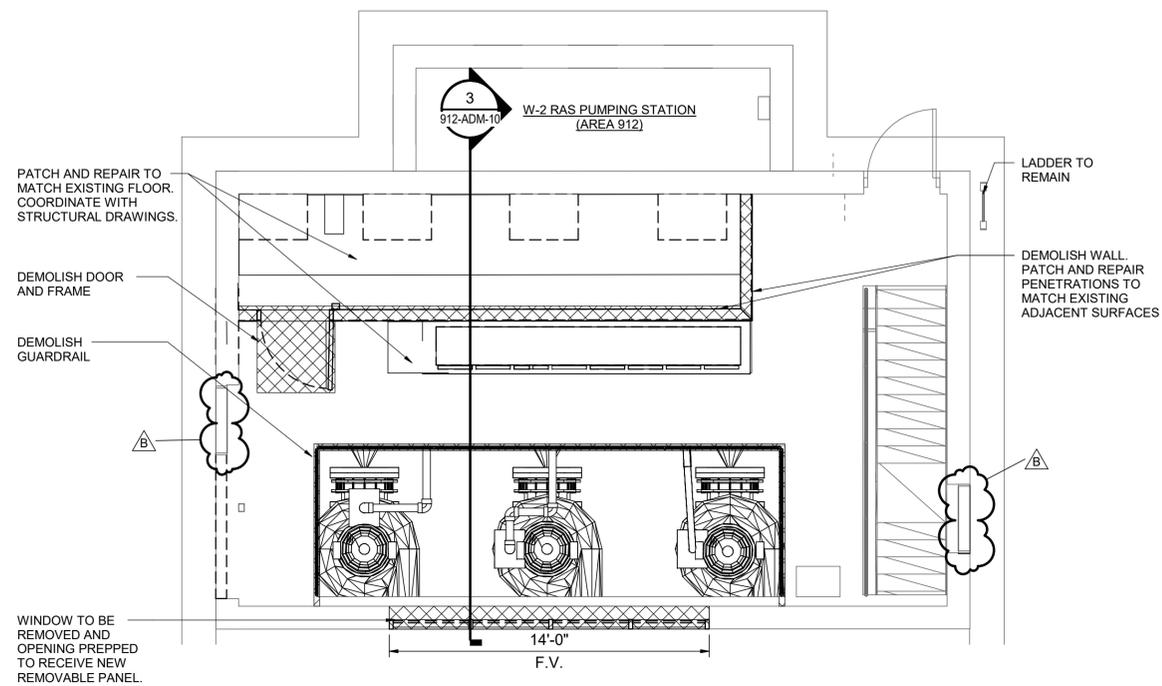
911-ADM-10
W-1 RAS PUMP STATION DEMOLITION PLAN

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ROOF DEMOLITION PLAN

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

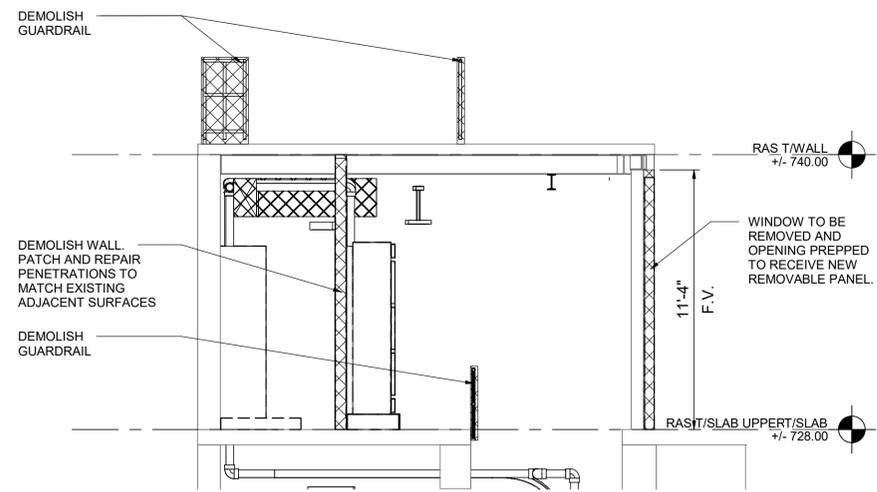


UPPER LEVEL DEMOLITION PLAN

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

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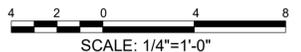
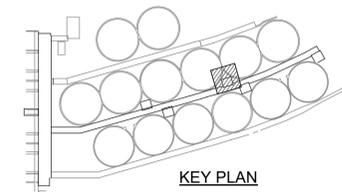
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DEMOLITION SECTION

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

3
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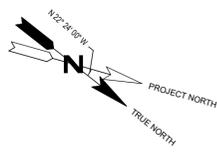
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W-2 RAS PUMP STATION - DEMOLITION PLAN

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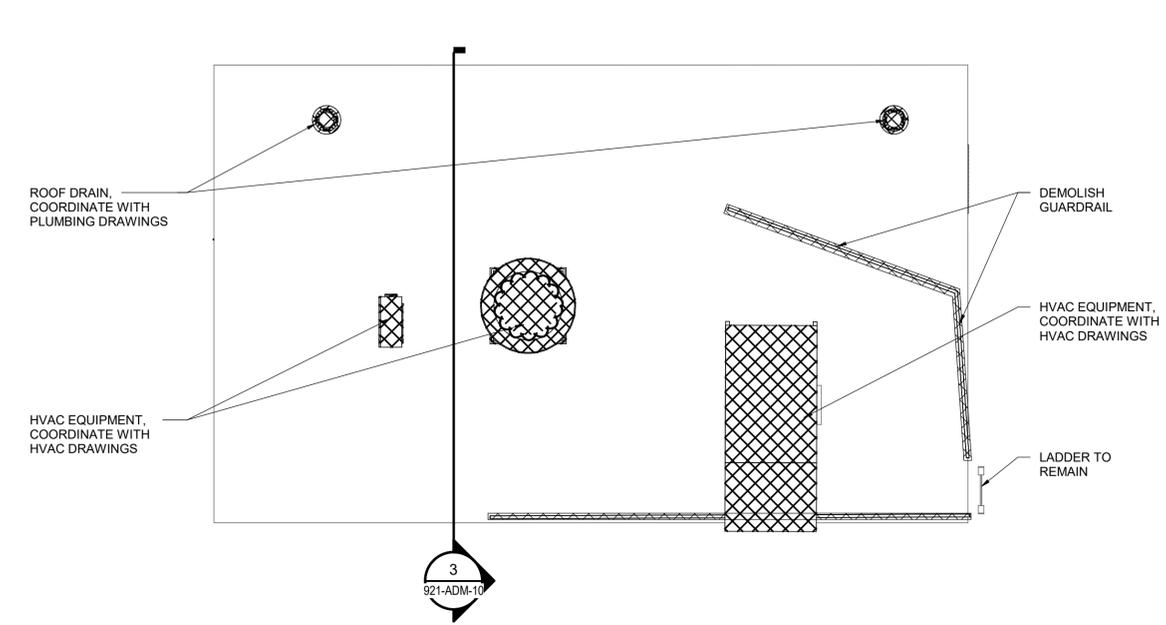
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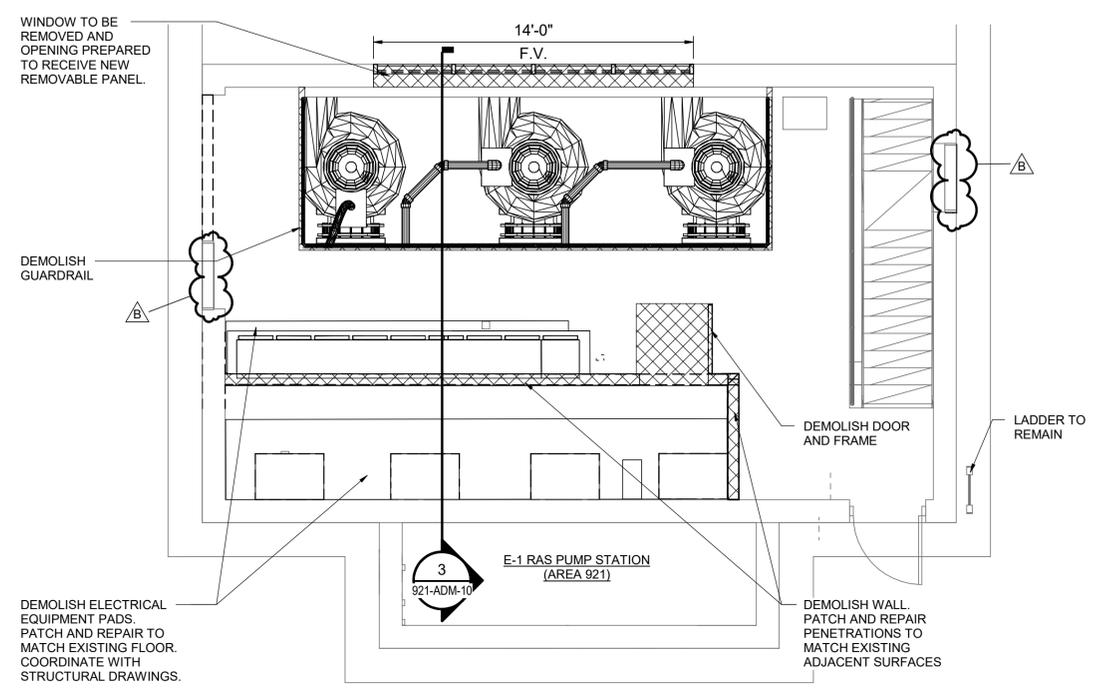


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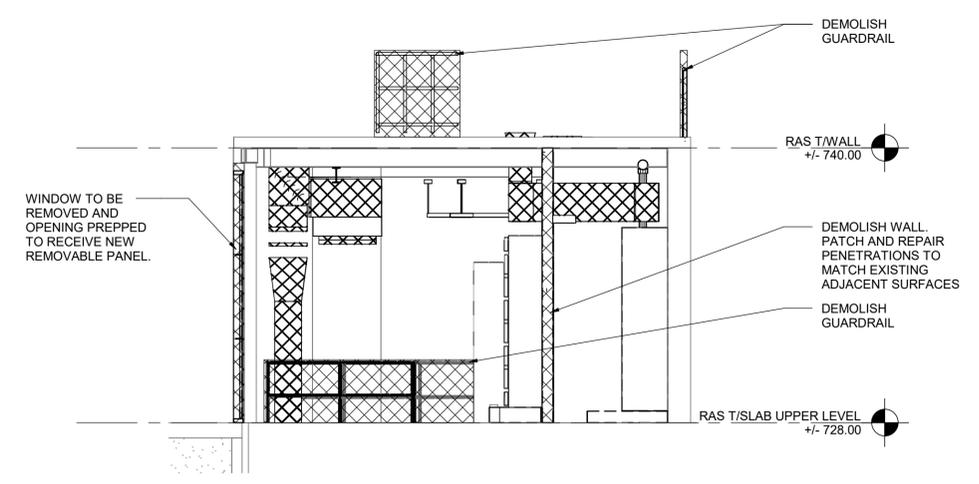
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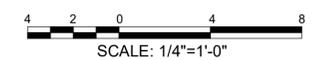
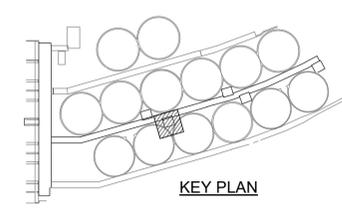
UPPER LEVEL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



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



DEMOLITION SECTION
SCALE: 1/4" = 1'-0"



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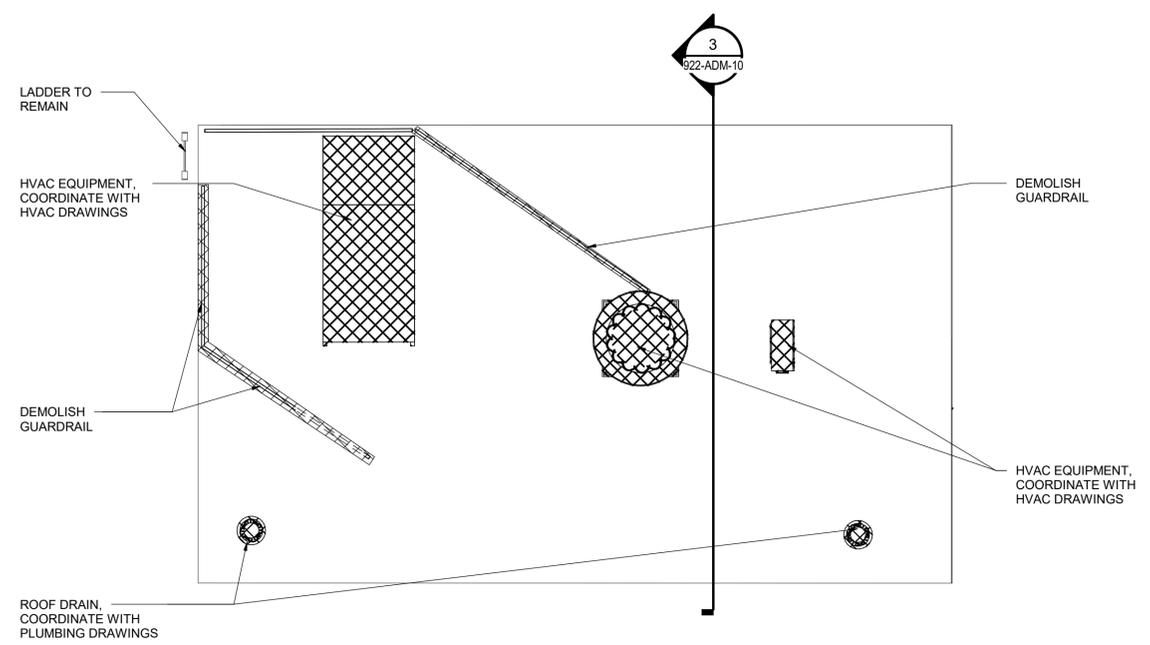
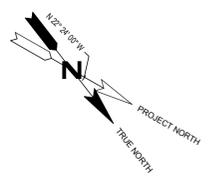
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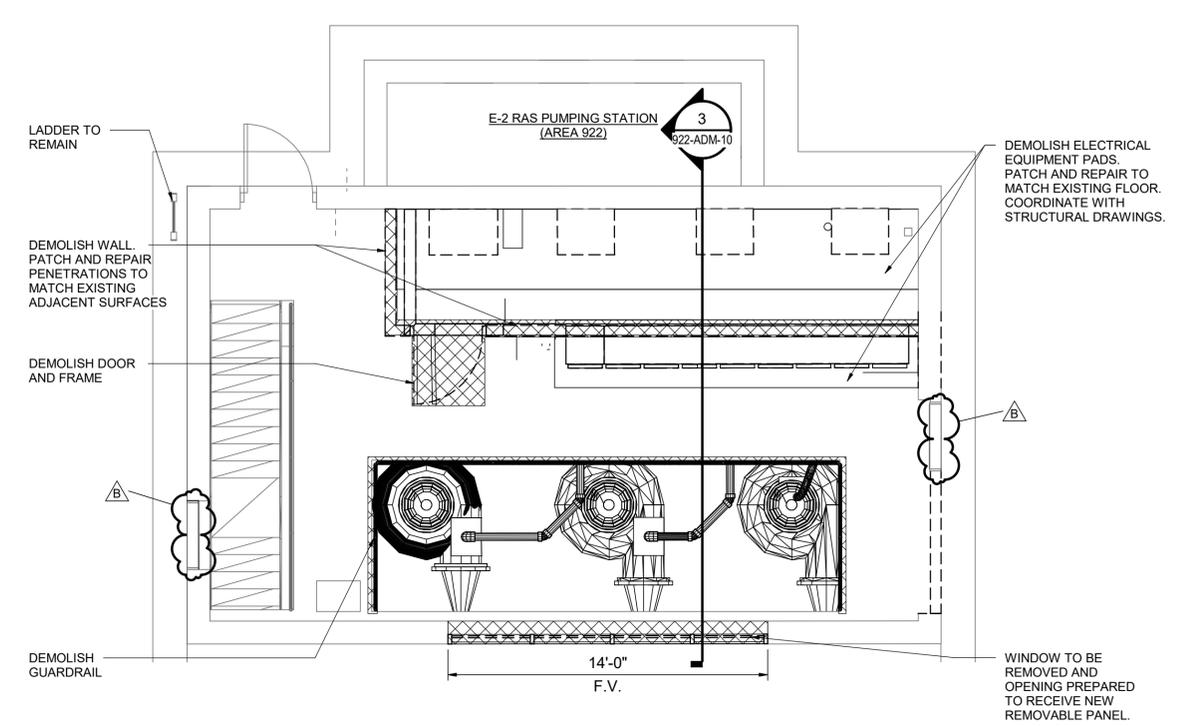
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921-ADM-10
E-1 RAS PUMP STATION DEMOLITION PLAN

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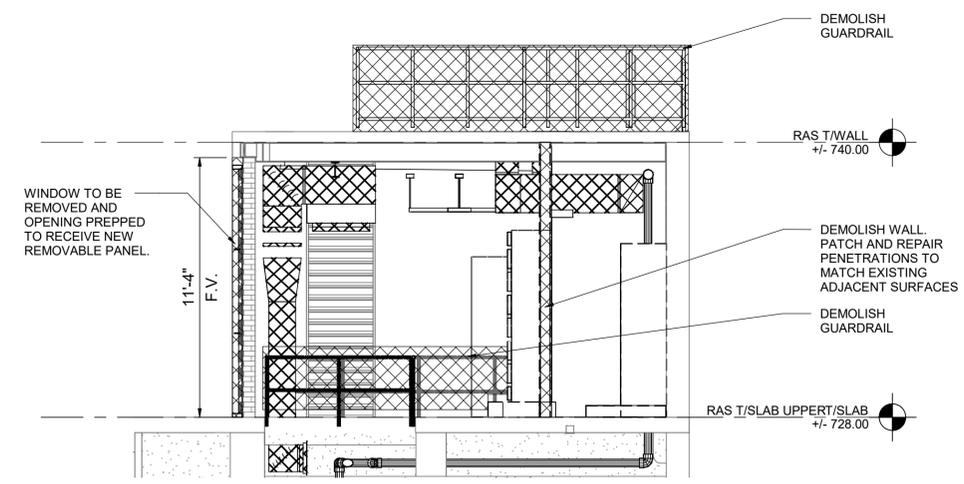


UPPER LEVEL DEMOLITION PLAN
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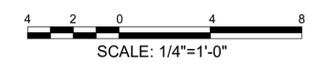
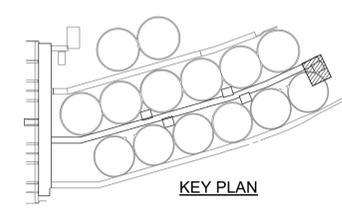


UPPER LEVEL DEMOLITION PLAN
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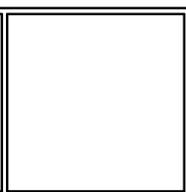
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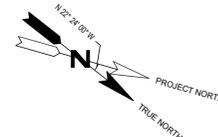
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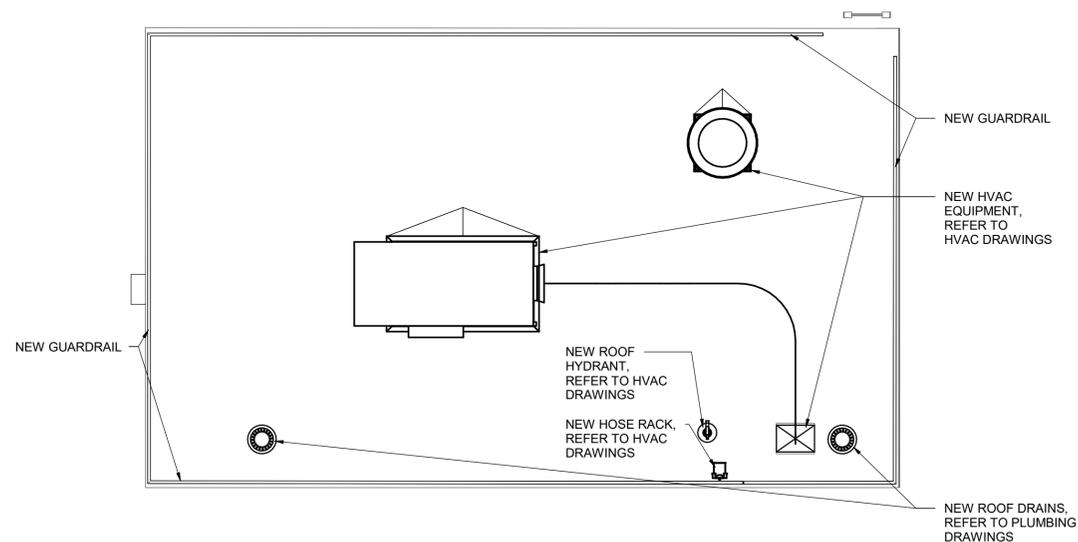
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E-2 RAS PUMP STATION - DEMOLITION PLAN

Contract: 1728
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Date: 06/03/20
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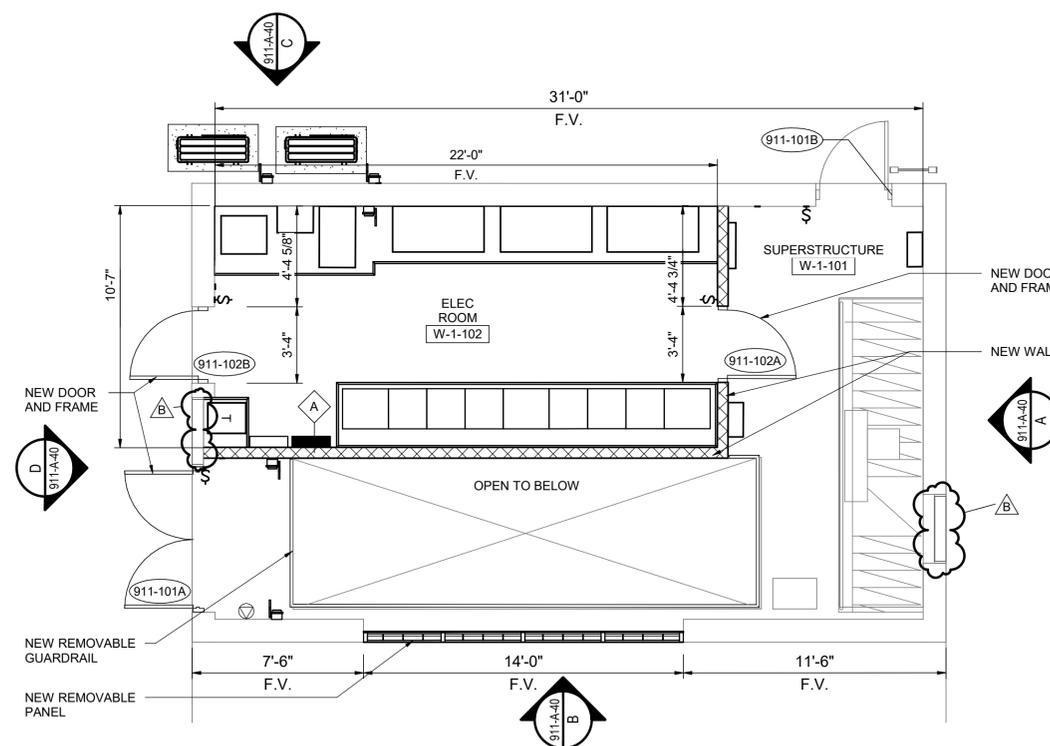
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5. OWNER TO PROVIDE FIRE EXTINGUISHERS AND SIGNAGE.



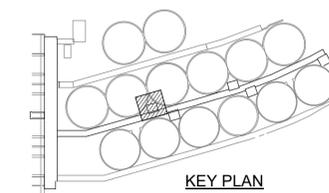
ROOF INSTALLATION PLAN

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



UPPER LEVEL INSTALLATION PLAN

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



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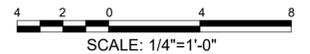
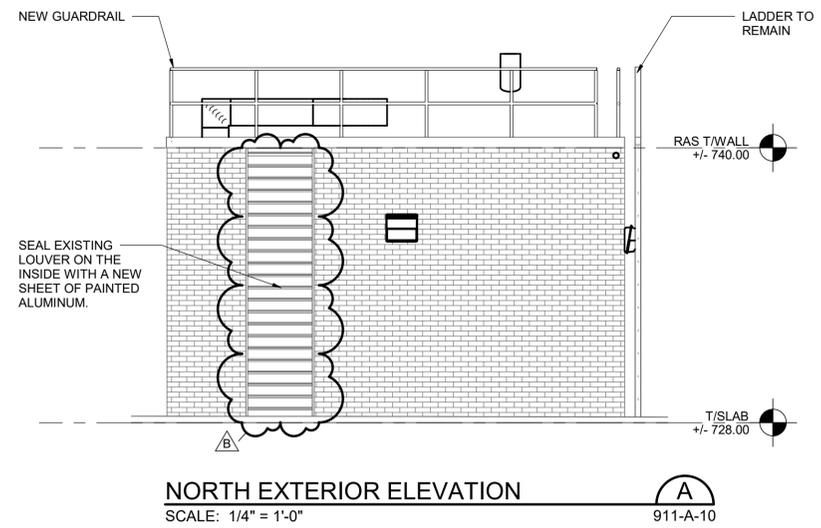
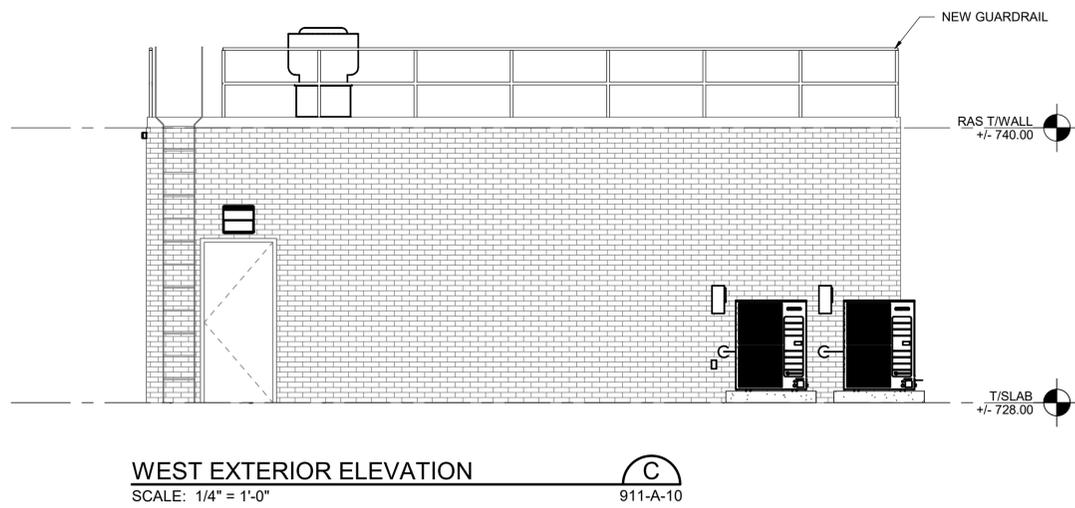
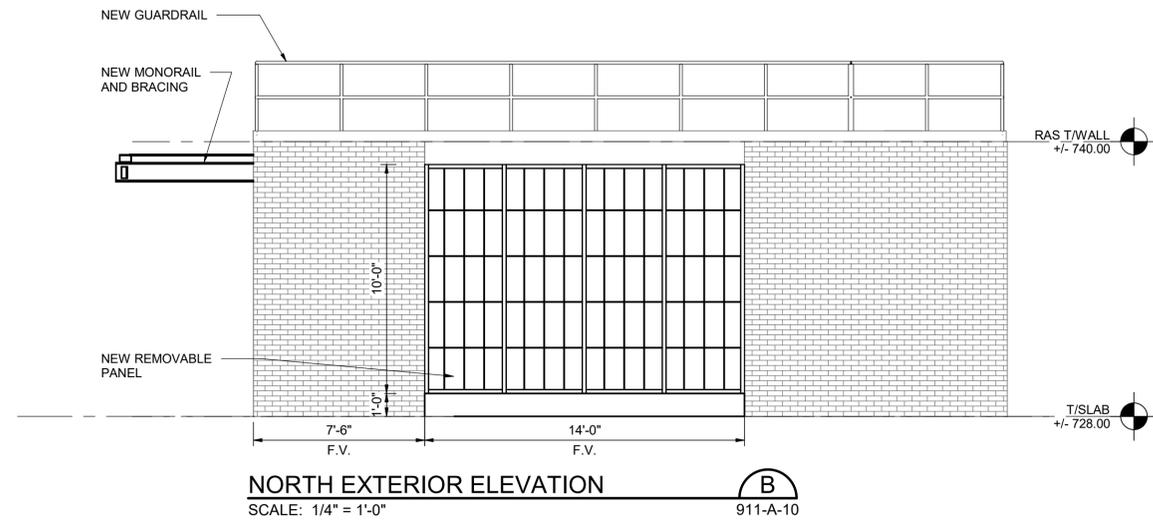
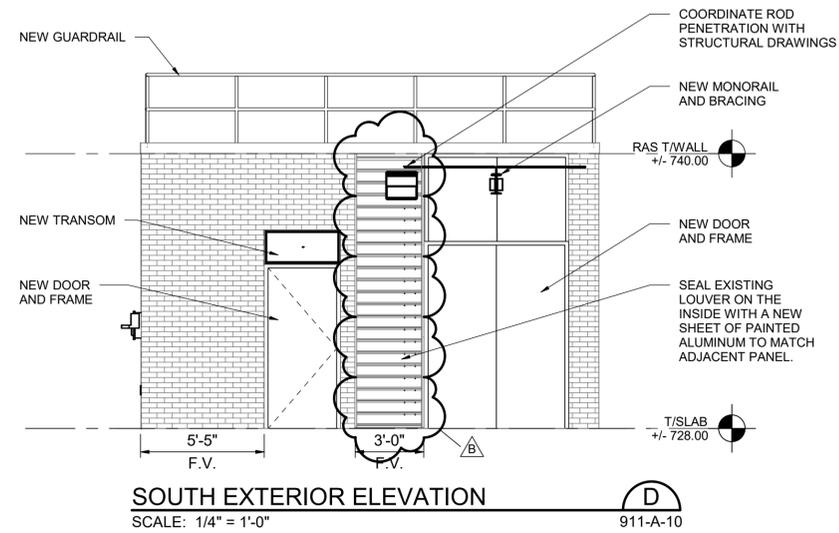
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911-A-10
W-1 RAS PUMP STATION
UPPER LEVEL PLANS

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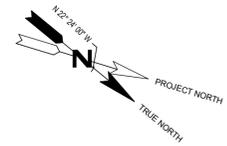
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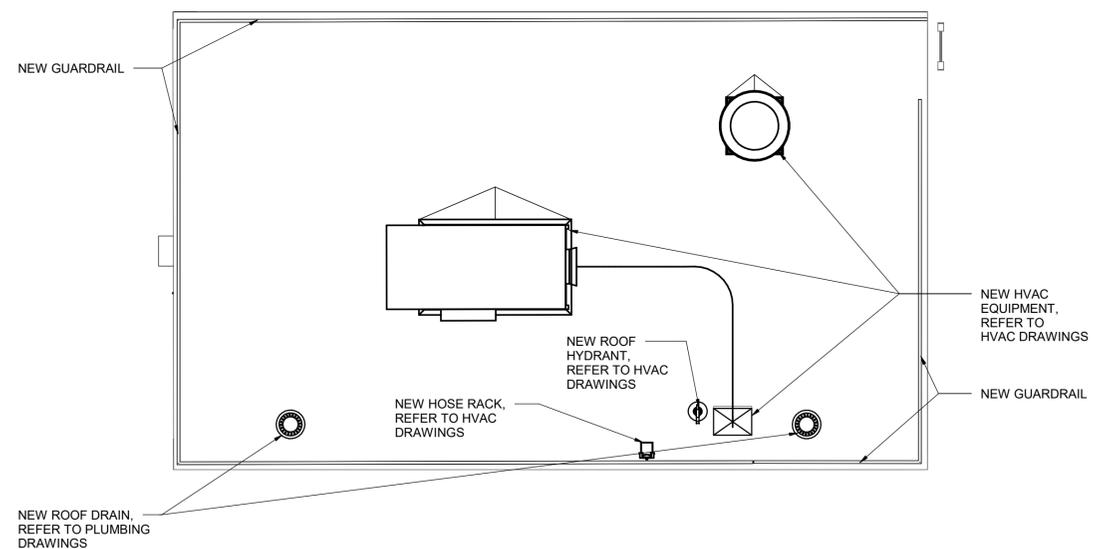
911-A-40
W-1 RAS PUMP STATION EXTERIOR
ELEVATIONS

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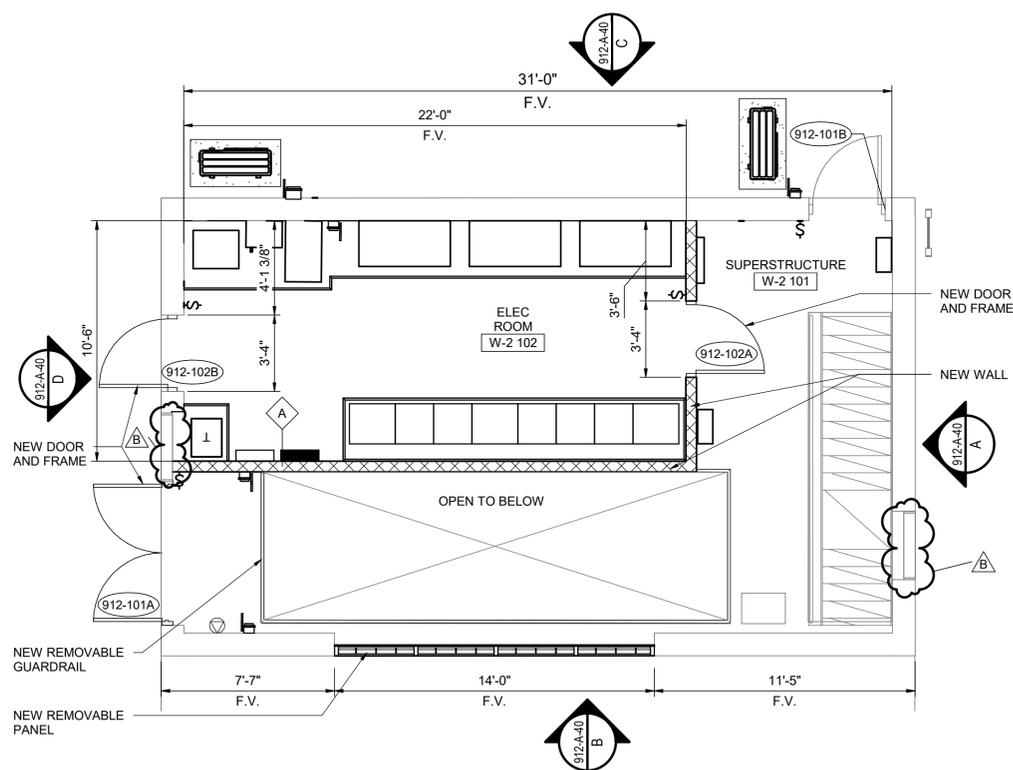
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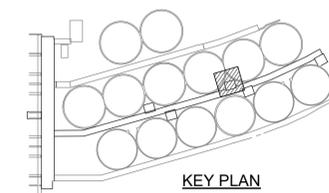
ROOF INSTALLATION PLAN

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



UPPER LEVEL INSTALLATION PLAN

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



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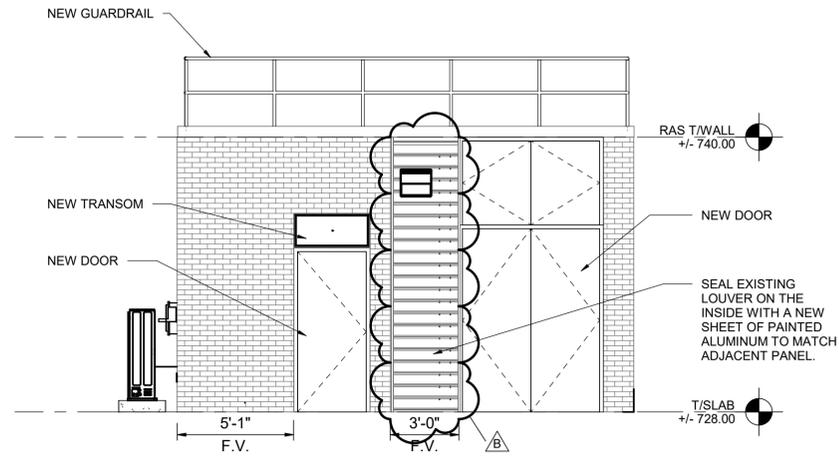
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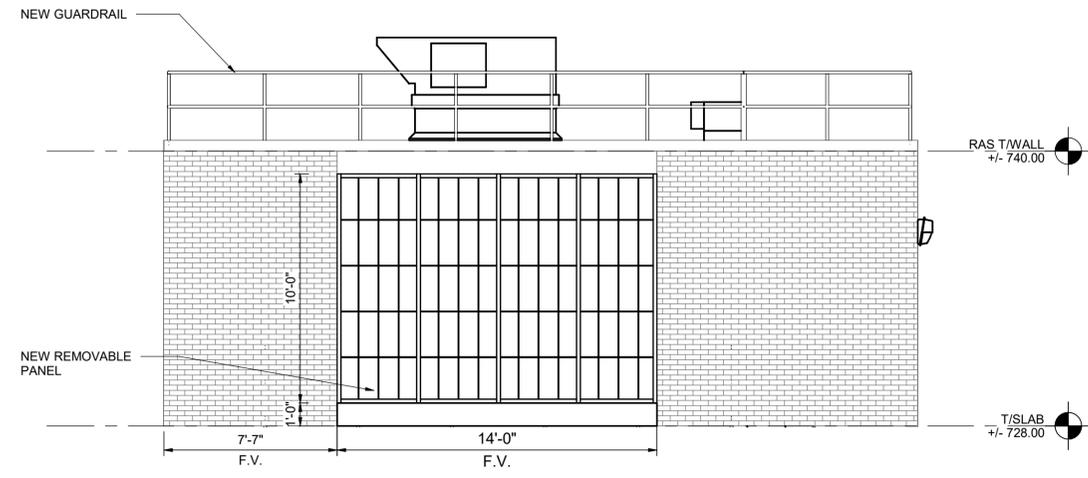
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WASTEWATER TREATMENT PLANT
RAS PIPE AND RAS PUMP REPLACEMENT

912-A-10
W-2 RAS PUMP STATION
UPPER LEVEL PLANS

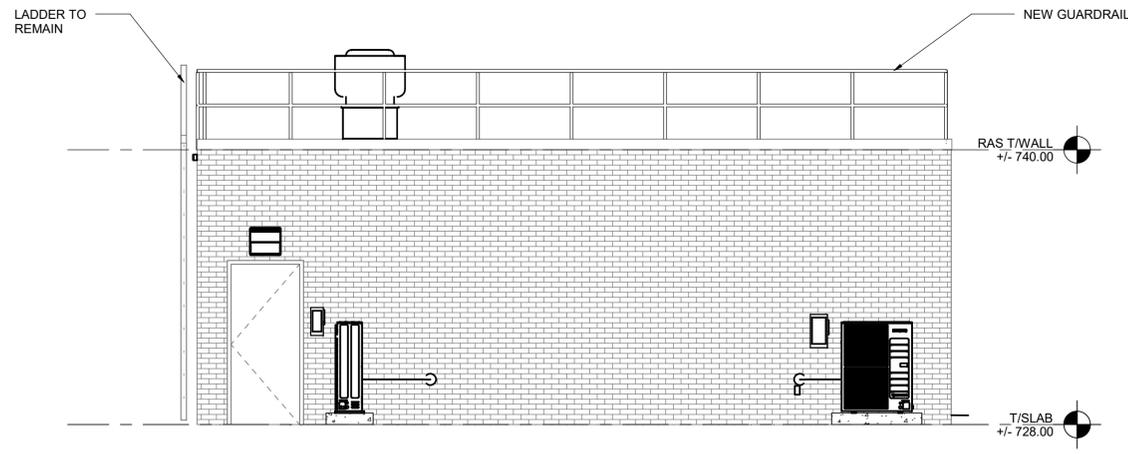
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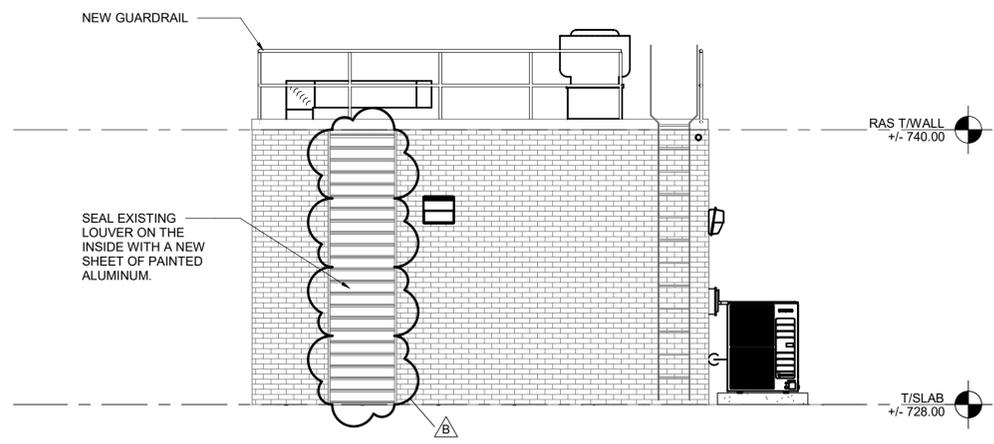
SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
D
912-A-10



EAST EXTERIOR ELEVATION
SCALE: NTS
B
912-A-10

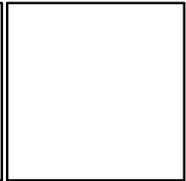


WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
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912-A-10



NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
A
912-A-10

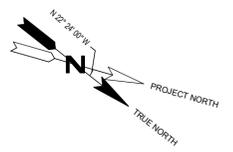
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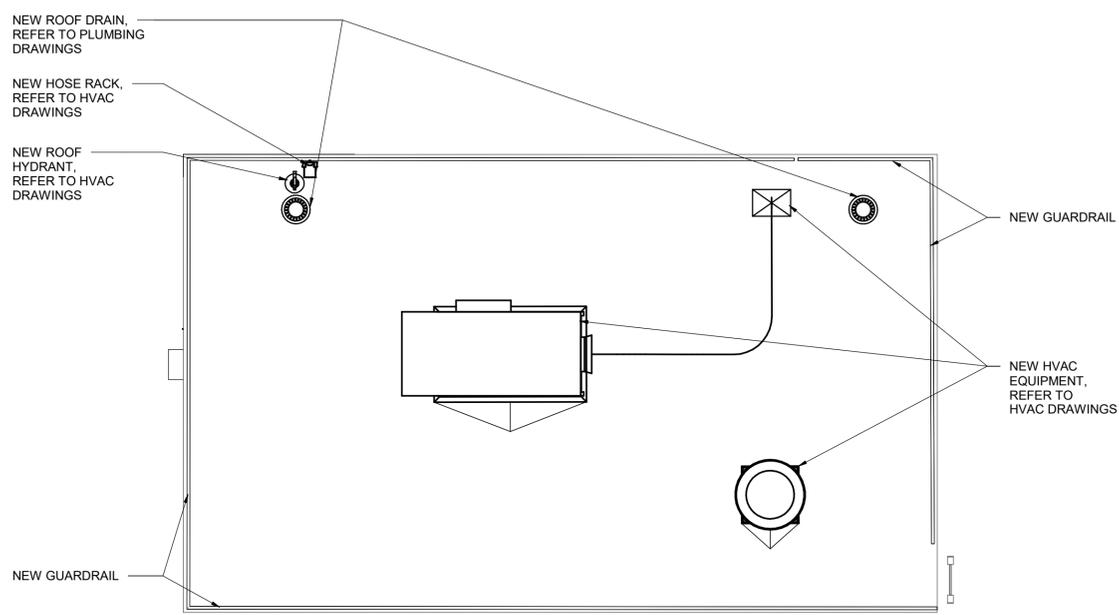
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912-A-40
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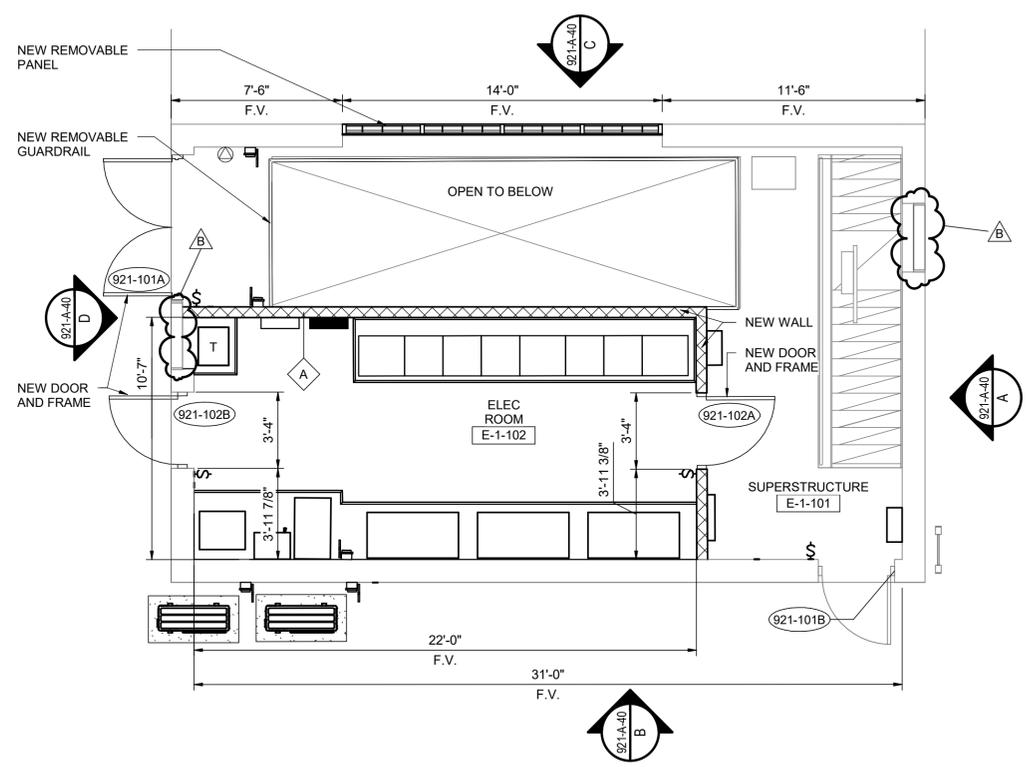


NOTES:

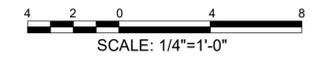
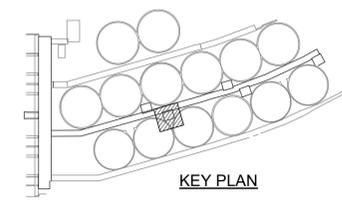
1. REFER TO A-01 FOR ADDITIONAL GENERAL NOTES AND INFORMATION.
2. PATCH AND REPAIR, IN KIND, AREAS DISTURBED AS A RESULT OF REPAIRING ALL PLUMBING AND HVAC PENETRATIONS, REROUTING/RELOCATING ELECTRICAL WIRING & CONDUITS. FINISHED SURFACES SHALL HAVE A UNIFORM AND CONSISTENT APPEARANCE.
3. DIMENSIONS ARE APPROXIMATE. FIELD VERIFY DIMENSION TO ALIGN TO EXISTING WALL CONSTRUCTION.
4. PROVIDE CRICKETS AS REQUIRED TO ALLOW POSITIVE DRAINAGE AT ROOF MOUNTED EQUIPMENT OR WHERE SHOWN.
5. OWNER TO PROVIDE FIRE EXTINGUISHERS AND SIGNAGE.



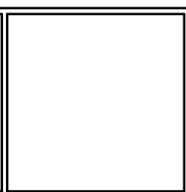
UPPER LEVEL INSTALLATION PLAN
SCALE: 1/4" = 1'-0"



UPPER LEVEL INSTALLATION PLAN
SCALE: 1/4" = 1'-0"



Designed by: W. ROBERTS	REVISION			
Drawn by: W. ROBERTS	REV No.	DATE	DESCRIPTION	APPV
Checked by: G. GALIETI	A	06/03/20	ISSUED FOR BIDS	
	B	07/08/20	ADDENDUM #4	



ARLETTA SCOTT WILLIAMS
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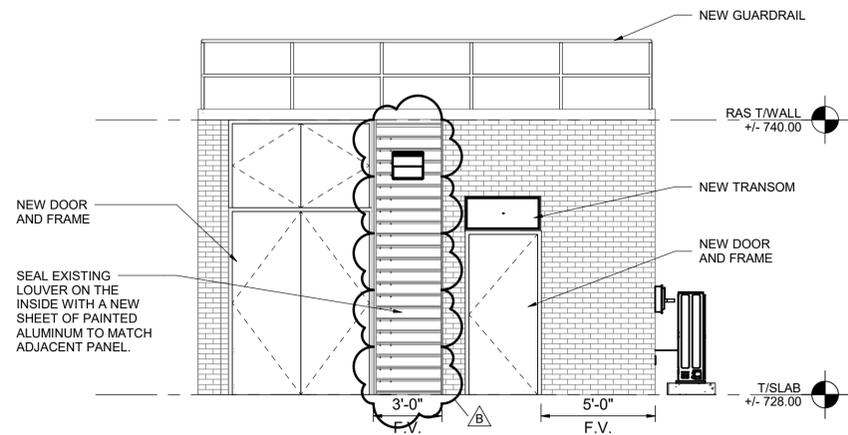
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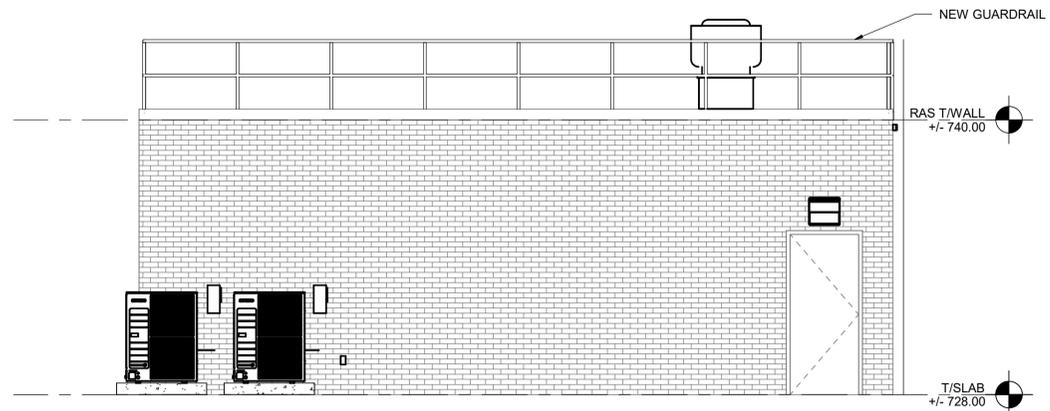
ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
RAS PIPE AND RAS PUMP REPLACEMENT

921-A-10
E-1 RAS PUMP STATION
UPPER LEVEL PLANS

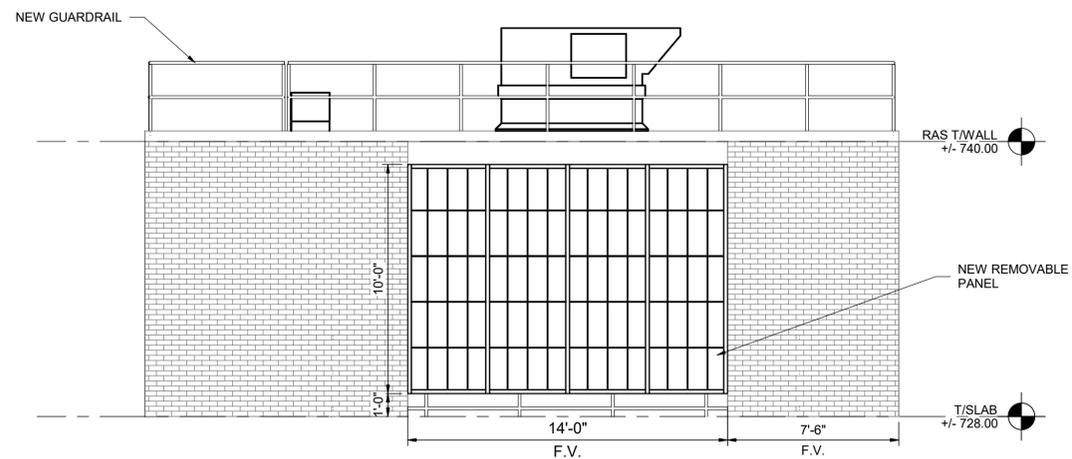
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Date: 06/03/20
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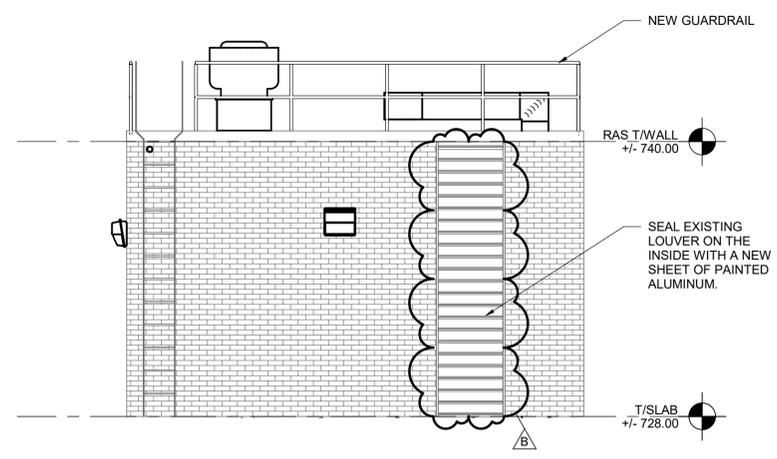
SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
921-A-10



EAST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
921-A-10



WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
921-A-10



NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"
921-A-10

Designed by:	W. ROBERTS			
Drawn by:	W. ROBERTS			
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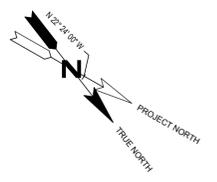
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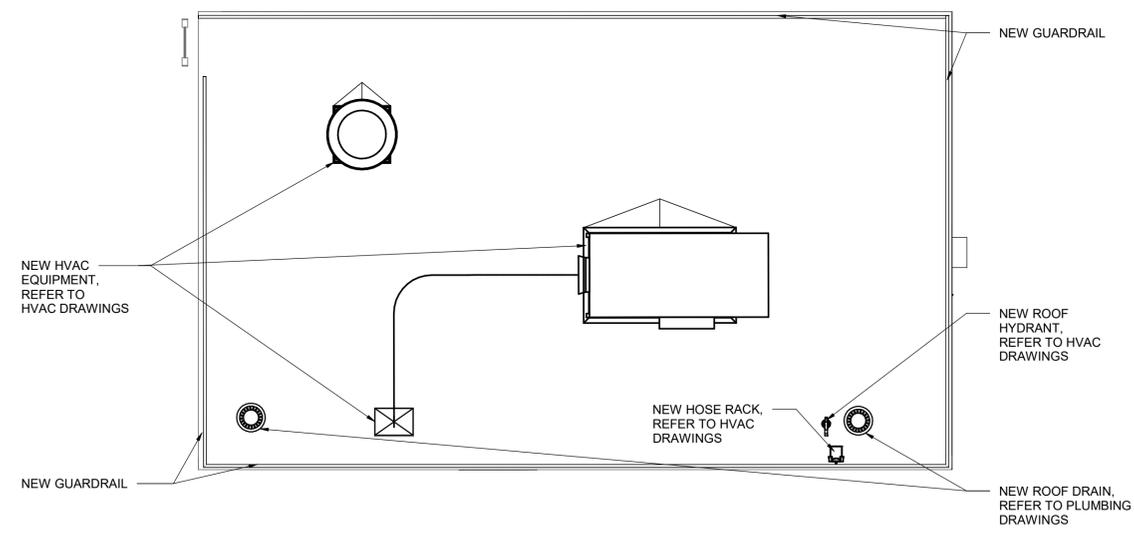
ALLEGHENY COUNTY SANITARY AUTHORITY
WASTEWATER TREATMENT PLANT
RAS PIPE AND RAS PUMP REPLACEMENT

921-A-40
E-1 RAS PUMP STATION EXTERIOR ELEVATIONS

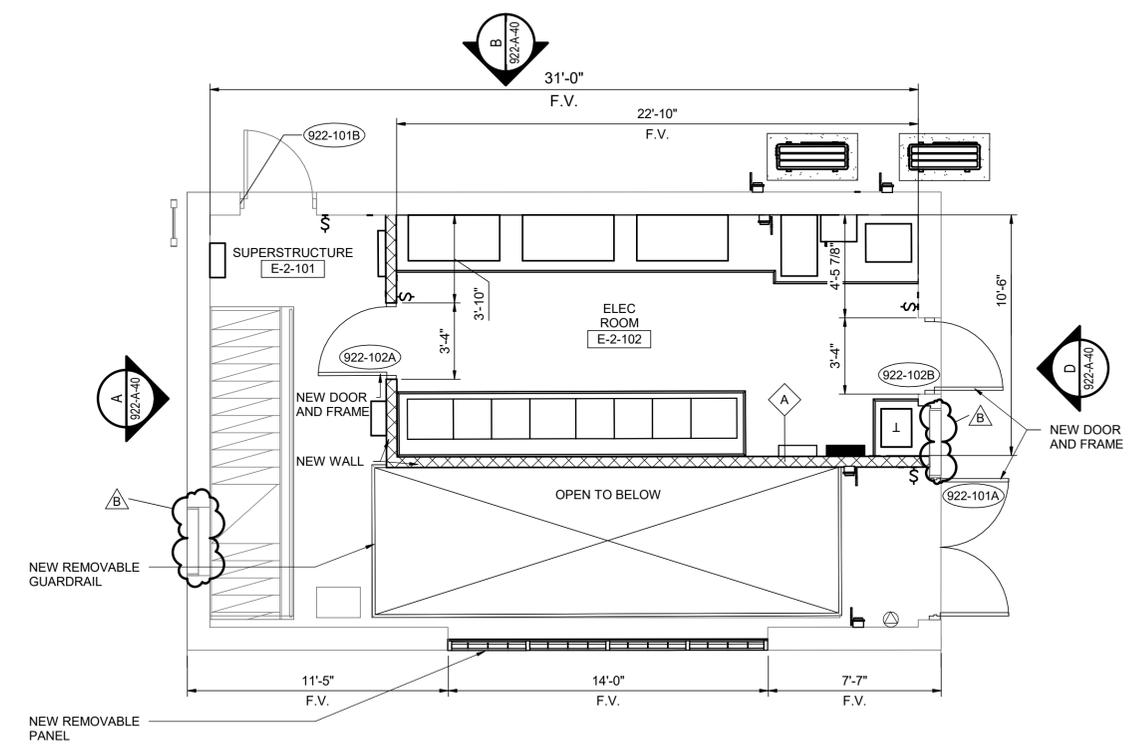
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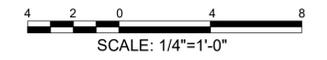
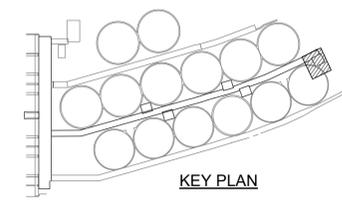
- NOTES:**
- A. REFER TO A-01 FOR ADDITIONAL GENERAL NOTES AND INFORMATION.
 - B. PATCH AND REPAIR, IN KIND, AREAS DISTURBED AS A RESULT OF REPAIRING ALL PLUMBING AND HVAC PENETRATIONS, REROUTING/RELOCATING ELECTRICAL WIRING & CONDUITS. FINISHED SURFACES SHALL HAVE A UNIFORM AND CONSISTENT APPEARANCE.
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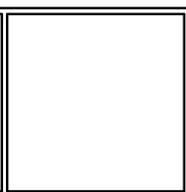
ROOF INSTALLATION PLAN
SCALE: 1/4" = 1'-0"



UPPER LEVEL INSTALLATION PLAN
SCALE: 1/4" = 1'-0"



Designed by:	REVISION			
W. ROBERTS	REV No.	DATE	DESCRIPTION	APPV
Drawn by:	A	06/03/20	ISSUED FOR BIDS	
W. ROBERTS	B	07/08/20	ADDENDUM #4	
Checked by:				
G. GALIETI				



ARLETTA SCOTT WILLIAMS
EXECUTIVE DIRECTOR, ALCOSAN

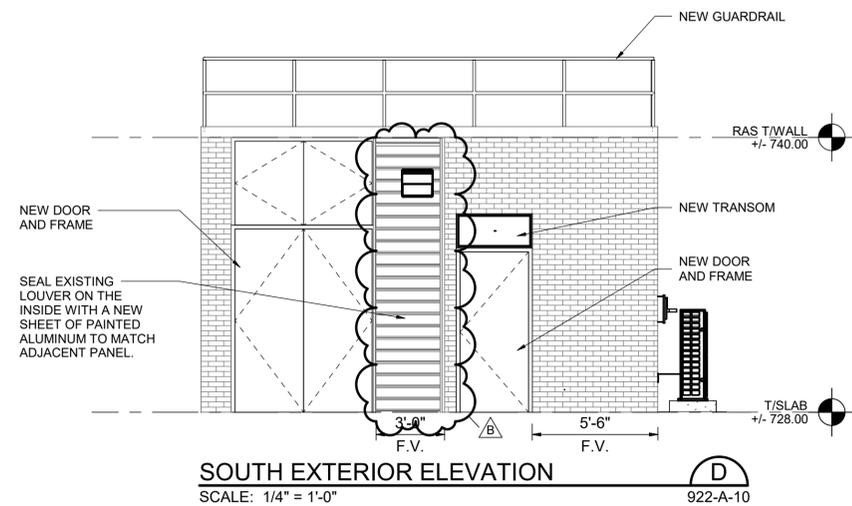
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WASTEWATER TREATMENT PLANT
RAS PIPE AND RAS PUMP REPLACEMENT

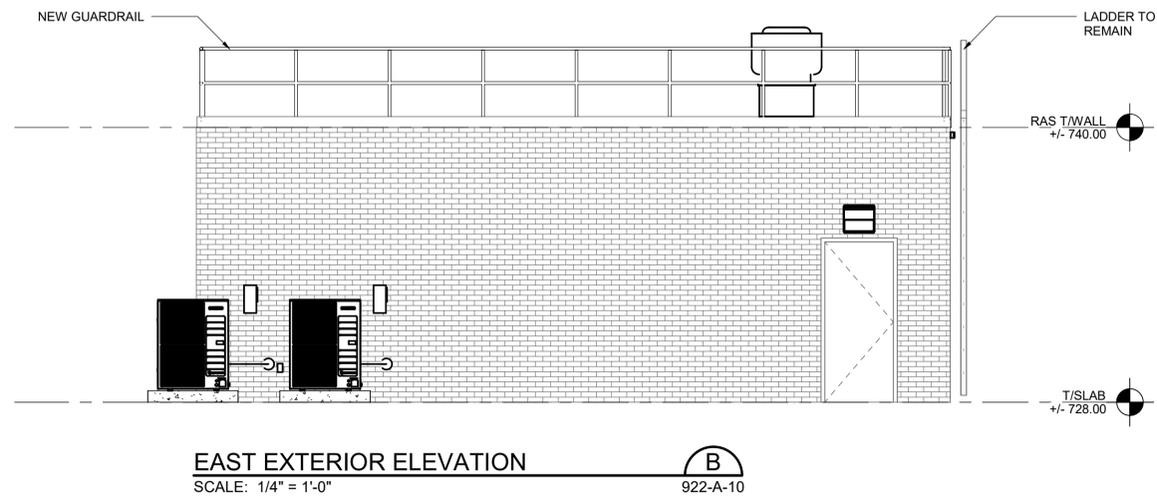
922-A-10
E-2 RAS PUMP STATION
UPPER LEVEL PLANS

Contract: 1728
CAD File Name: 10172351.rvt
Date: 06/03/20
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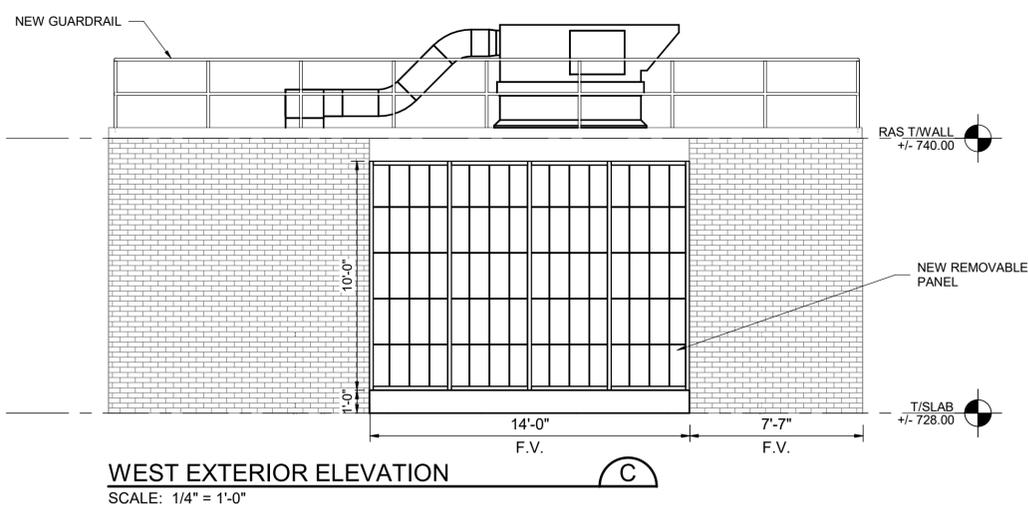
SOUTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

D
922-A-10



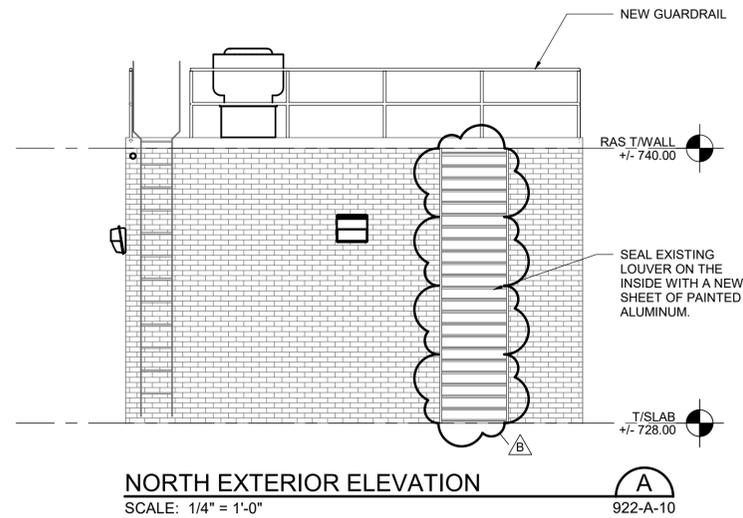
EAST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

B
922-A-10



WEST EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

C
922-A-10



NORTH EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"

A
922-A-10

Designed by:	W. ROBERTS			
Drawn by:	W. ROBERTS			
Checked by:	G. GALIETI			
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922-A-40
E-2 RAS PUMP STATION EXTERIOR
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