

ADDENDUM NO. 1
to
BIDDING/CONTRACT DOCUMENTS
for
**CONSTRUCT WEST APRON EXPANSION AND
INFRASTRUCTURE AT VPS**

DESTIN-FORT WALTON BEACH AIRPORT

Okaloosa County ITB AP 66-19

TO: All Prospective Bidders

DATE: June 27, 2019

DELIVERY: Posted on bidnetdirect.com/florida and myokaloosa.com/purchasing/home

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents as noted below. Acknowledge receipt of this Addendum in the space provided on Page BF-1 of the Bid Forms. Failure to do so may subject a Bidder to disqualification.

This Addendum consists of 2 pages plus attachments.

I. PROJECT MANUAL

1. BID FORMS:

- i) Bid Schedule: Replace with attached revised Bid Schedule pages B7.1 to B7.4. Several pay items have been added/deleted and quantity changes have been made.

2. GENERAL REQUIREMENTS:

- i) Section 01010: In the Liquidated Damages Schedule on page 01010-2, change:
“Daily Rate Schedule on page OSCS-6” to:
“Daily Rate per the Rate Schedule in the Okaloosa County Standard Clauses section”

3. TECHNICAL SPECIFICATIONS:

- i) Item P-620 – Pavement Markings: Replace this item with the attached revised version. A paint specification, application rate and pay item for Temporary Paint has been added. Temporary paint will be required immediately after paving for all markings on the apron except for black outlines and must be applied in the parking lot to achieve substantial completion of Phase 1. Permanent markings are to be applied after the 24 day curing period has elapsed.
- ii) Item D-751 – Drainage Structures: Replace pages D-751-4 and D-751-5 with the attached revised versions. The list of pay items has been revised.
- iii) Section 15051 – Buried Water and Sanitary Sewer Piping: Replace pages 15051-13 and 15051-14 with the attached revised versions. The list of pay items has been revised.

II. CONSTRUCTION PLANS

- 1. Add Sheet G3.5 – Construction Access Connection to State Road 85N.
- 2. Replace the Cover Sheet, and Sheets G1.1, G1.2, G3.1, C3.2, C3.3, C4.2, C4.4, C4.5, C4.7, C4.9, C4.10, C4.12, C7.3, C7.7, C8.1, C8.2, C8.3 and C8.8 with the attached revised versions.

3. Delete Sheets C9.0, C9.1 and C9.2 dated Feb 2019 and replace with the attached revised versions dated May 2019. Please note these plans are for information only as the construction of the new sanitary sewer lift station and demolition of the existing lift station will now be included in the project as a Bid Allowance.
4. Delete sheets L1.0 thru L7.0 dated Feb 2019 and replaced with the attached revised sheets L1.0 thru L4.0 dated May 2019. Irrigation has been removed and comments to address County Growth Management requirements have been added.

ATTACHMENTS TO ADDENDUM NO. 2:

1. Revised Bid Schedule Pages BF-7.1 to BF-7.4 (hard copy and excel spreadsheet)
2. Revised Project Manual Pages P-620-1 to P-620-6, D-751-4, D-751-5, 15051-13 and 15051-14
3. Minutes to June 19, 2019 Pre-Bid Conference
4. New Construction Plans Sheet G3.5
5. Revised Construction Plan Cover Sheet and Sheets G1.1, G1.2, G3.1, C3.2, C3.3, C4.2, C4.4, C4.5, C4.7, C4.9, C4.10, C4.12, C7.3, C7.7, C8.1, C8.2, C8.3, C8.8, C9.0, C9.1, C9.2 and Sheets L1.0 to L4.0

END OF ADDENDUM NO. 1



Bid Schedule
Construct West Apron Expansion and Infrastructure at VPS
Destin - Fort Walton Beach Airport



| Item No. | Spec. No. | Item Description | Quantity | Unit | Unit Price | Amount |
|----------|-------------------------|--|----------|------|--------------|--------------|
| 1 | C-105 | Mobilization | 1 | LS | | |
| 2 | 01210-1 | Bid Allowance 1: For the purchase, delivery and installation of one new intercom system for the west gate, 2-360 degree security cameras mounted on light poles in the credit card parking lot and 2 -360 degree security cameras mounted on high mast light poles in the west apron expansion. Includes integration with Air Operations Center (AOC) communications and security system | 1 | LS | \$25,000.00 | \$25,000.00 |
| 3 | 01210-2 | Bid Allowance 2: For the purchase, delivery and installation of a flush station on the OCWS 20" water main as detailed in the plans. Includes 20" water line, fittings, valves and concrete pad. | 1 | LS | \$67,000.00 | \$67,000.00 |
| 4 | 01210-3 | Bid Allowance 3: For Okaloosa County Permit Fees | 1 | LS | \$5,000.00 | \$5,000.00 |
| 5 | | Bid Allowance 4: For the demolition of the existing sanitary sewer lift station, construction of the new lift station, one standard sanitary sewer manhole, 24 LF of 8" PVC gravity sewer, and 6" PVC force main. Price includes all material and labor for procurement, delivery and installation of these items. | 1 | LS | \$375,000.00 | \$375,000.00 |
| 6 | 01530 | Temporary Barricades and Barricade Lights | 1 | LS | | |
| 7 | 01720 | Project Record Documents | 1 | LS | | |
| 8 | S-140-1 | Full Depth Asphalt Pavement Removal | 9,052 | SY | | |
| 9 | S-140-2 | Asphalt Surface Course Removal | 773 | SY | | |
| 10 | S-140-3 | Concrete Pavement Removal | 1,510 | SY | | |
| 11 | S-140-4 | Remove 36" CMP Culvert | 1 | EA | | |
| 12 | S-140-5 | Remove Water Line Flush Facility, including 20" DIP Water Pipe with Stand Pipe, Concrete Box and Pad and Riprap Apron | 1 | LS | | |
| 13 | S-140-6 | Remove Chain Link Fence | 2,306 | LF | | |
| 14 | S-140-7 | Remove Chain Link Fence Slide Gate | 1 | EA | | |
| 15 | S-140-8 | Remove Lav Cart Dump Facility, including Grinder Pump Station, Control Panel, Effluent Inlet Drain and Piping, and 2" Force main | 1 | LS | | |
| 16 | S-140-9 | Remove Sanitary Sewer Manhole | 2 | | | |
| 17 | S-140-10 | Remove 2" PE Sanitary Sewer Force Main | 755 | LF | | |
| 18 | S-140-11 | Remove 6" PVC Sanitary Sewer Force Main | 749 | LF | | |
| 19 | S-140-12 | Remove 6" & 12" DIP Water Main | 1,119 | LF | | |
| 20 | S-140-13 | Remove Existing Riprap | 1 | LS | | |
| 21 | S-140-14 | Remove Existing Aluminum Shed | 1 | LS | | |
| 22 | S-140-15 | Remove Existing Masonry Building with Canopy | 1 | LS | | |
| 23 | S-141 | Asphalt Pavement Milling | 229 | SY | | |
| 24 | S-142 | Pavement Marking Removal | 2,672 | SF | | |
| 25 | P-151-1 | Clearing and Grubbing | 6.0 | AC | | |
| 26 | P-151-2 | Tree Removal | 21 | EA | | |
| 27 | P-152-1 | Unclassified Excavation | 16,815 | CY | | |
| 28 | P-152-2 | Pre-Construction Survey of Phase 1 Limits of Grading | 1 | LS | | |
| 29 | P-154-1 | 6" Subbase Course | 39,192 | SY | | |
| 30 | P-209-1/P-211-1 | Optional Base Course | 20,417 | SY | | |
| 31 | P-209-2 | 6" Crushed Aggregate Base Course | 18,774 | SY | | |
| 32 | P-304-1/P-306-1/P-403-1 | Optional Stabilized Base Course for PCC Pavement | 695 | SY | | |



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| Item No. | Spec. No. | Item Description | Quantity | Unit | Unit Price | Amount |
|----------|-----------------|--|----------|------|------------|--------|
| 33 | P-304-2/P-403-2 | Optional Stabilized Base Course for Asphalt Pavement | 18,774 | SY | | |
| 34 | P-401 | Asphalt Surface Course | 4,345 | TON | | |
| 35 | FDOT-334 | Type SP-12.5 Asphalt Surface Course | 3,287 | TON | | |
| 36 | P-501-1 | 18.75" Concrete Pavement | 695 | SY | | |
| 37 | P-602 | Emulsified Asphalt Prime Coat | 14,318 | GAL | | |
| 38 | P-603 | Emulsified Asphalt Tack Coat | 2,681 | GAL | | |
| 39 | P-620-1 | Non-Reflective Pavement Markings | 10,250 | SF | | |
| 40 | P-620-2 | Reflective Pavement Markings | 5,474 | SF | | |
| 41 | P-620-3 | Reflective Pavement Markings (Red Paint) | 760 | SF | | |
| 42 | P-620-4 | Temporary Pavement Markings | 9,981 | SF | | |
| 43 | F-162-1 | Chain Link Fence | 2,133 | LF | | |
| 44 | F-162-2 | Install High Density Polyethylene Slats in Existing Chain Link Fence | 210 | LF | | |
| 45 | F-162-3 | Temporary Chain Link Fence | 2,948 | LF | | |
| 46 | F-162-4 | Double Swing Gate (15' Opening) | 4 | EA | | |
| 47 | F-165-1 | Cantilever Slide Gate (15' Opening) | 1 | EA | | |
| 48 | F-165-2 | Cantilever Slide Gate (26' Opening) | 1 | EA | | |
| 49 | F-165-3 | Relocation of Existing Gate Operator and Power Rack | 1 | LS | | |
| 50 | D-701-1 | 12 inch Class III RCP | 33 | LF | | |
| 51 | D-701-2 | 12 inch Class V RCP | 68 | LF | | |
| 52 | D-701-3 | 12 inch DIP | 90 | LF | | |
| 53 | D-701-4 | 12 inch DIP in Existing PCC Pavement | 57 | LF | | |
| 54 | D-701-5 | 18 inch Class III RCP | 534 | LF | | |
| 55 | D-701-6 | 18 inch Class V RCP | 283 | LF | | |
| 56 | D-701-7 | 24 inch Class III RCP | 546 | LF | | |
| 57 | D-701-8 | 24 inch Class V RCP | 107 | LF | | |
| 58 | D-701-9 | 30 inch Class V RCP | 391 | LF | | |
| 59 | D-701-10 | 36 inch Class V RCP | 306 | LF | | |
| 60 | D-701-11 | 42 inch Class V RCP | 153 | LF | | |
| 61 | D-701-12 | 54 inch Class III | 244 | LF | | |
| 62 | D-751-1 | Type C Inlet | 8 | EA | | |
| 63 | D-751-2 | Type D Inlet | 1 | EA | | |
| 64 | D-751-3 | Type 4 Airfield Inlet | 1 | EA | | |
| 65 | D-751-4 | Trench Drain in Existing PCC Pavement | 20 | LF | | |
| 66 | D-751-5 | Airfield Trench Drain | 350 | LF | | |
| 67 | D-751-6 | Airfield Trench Drain Inlet | 6 | EA | | |
| 68 | D-751-7 | Airfield Storm Drain Manhole for S4, S5, S6 and S7 | 4 | EA | | |
| 69 | D-751-8 | Airfield Storm Drain Manhole for S3 | 1 | EA | | |
| 70 | D-751-9 | Storm Drain Manhole for S2 | 1 | EA | | |
| 71 | D-751-10 | Standard Storm Drain Manhole | 4 | EA | | |
| 72 | D-751-11 | MES (4:1) for 24 inch RCP | 1 | EA | | |
| 73 | D-751-12 | MES (4:1) for 18 inch RCP | 3 | EA | | |
| 74 | D-751-13 | MES (2:1) for 54 inch RCP | 1 | EA | | |



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| Item No. | Spec. No. | Item Description | Quantity | Unit | Unit Price | Amount |
|----------|------------|--|----------|------|------------|--------|
| 75 | D-751-14 | 15" Flap Gate Installed in Drainage Structure | 1 | EA | | |
| 76 | D-751-15 | 24" Flap Gate Installed in Drainage Structure | 1 | EA | | |
| 77 | D-751-16 | 36" Flap Gate Installed in Drainage Structure | 1 | EA | | |
| 78 | D-751-17 | 42" Flap Gate Installed in Drainage Structure | 1 | EA | | |
| 79 | FDOT-520 | Concrete Curb, Type D | 2,938 | LF | | |
| 80 | FDOT-522 | 4" Concrete Sidewalk | 351 | SY | | |
| 81 | FDOT-530 | Rubble Riprap | 342 | SY | | |
| 82 | FDOT-570 | Performance Turf | 26,600 | SY | | |
| 83 | FDOT-700-1 | Stop Sign and Post | 6 | EA | | |
| 84 | FDOT-700-2 | 18"x24" Sign Panel Mounted on Light Pole or Column | 28 | EA | | |
| 85 | FDOT-700-3 | Single Face ADA Accessible Parking Space Sign | 2 | EA | | |
| 86 | FDOT-700-4 | Double Face ADA Accessible Parking Space Sign | 2 | EA | | |
| 87 | | Bollards | 6 | EA | | |
| 88 | T-905 | Topsoil | 4,862 | CY | | |
| 89 | 02606-1 | Standard Sanitary Sewer Manhole | 2 | EA | | |
| 90 | 02606-2 | Aircraft Rated Sanitary Sewer Manhole | 3 | EA | | |
| 91 | | Lavatory Cart Dump Station Inlet, including concrete apron and 6" PVC Riser and Fittings | 2 | LS | | |
| 92 | 15051-1 | 8" PVC Gravity Sanitary Sewer Pipe | 1,195 | LF | | |
| 93 | 15051-2 | 2" PVC Force Main | 80 | LF | | |
| 94 | 15051-3 | 6" DIP Water Main | 40 | LF | | |
| 95 | 15051-4 | 12" DIP Water Main | 20 | LF | | |
| 96 | 15051-5 | 6" PVC Water Main | 497 | LF | | |
| 97 | 15051-6 | 12" PVC Water Main | 1,275 | LF | | |
| 98 | 15051-7 | 1" Polyethylene (HDPE) Tubing | 260 | LF | | |
| 99 | 15100-1 | Fire Hydrant & Gate Valve Assembly | 4 | EA | | |
| 100 | 15100-2 | Hose Bib Assembly to include concrete filled steel bollard pipe, water line riser pipe, gate valve, hose rack and painting of the base post, complete and in place | 2 | EA | | |
| 101 | 15100-3 | 6" Gate Valve | 1 | EA | | |
| 102 | 15100-4 | 12" Gate Valve | 3 | EA | | |
| 103 | | Pre- Emergent Herbicide-2 applications & spot spray (mulch areas) | 1 | LS | | |
| 104 | | Tree - October Glory Maple 45 Gal. 10'-12' Ht. (includes staking) | 8 | EA | | |
| 105 | | Tree- Duraheat River Birch 45 Gal. 10'-12' Ht. (includes staking) | 11 | EA | | |
| 106 | | Tree- Little Gem Magnolia 45 Gal. 7'-8' Ht. (includes staking) | 9 | EA | | |
| 107 | | Tree- Sand Live Oak 2" Cal min. 11'-12' Ht. (includes staking) | 29 | EA | | |
| 108 | | Tree- Shumard Oak 3" Cal. Min. 12'-14' Ht. (includes staking) | 6 | EA | | |
| 109 | | Centipede Sod- labor & material- irrigated areas per plan | 42,044 | SF | | |
| 110 | | Centipede Sod Unit Price- for additional disturbed areas if requested | 1 | SF | | |
| 111 | | Pinestraw Mulch for Tree Circles | 1 | LS | | |
| 112 | | Hardscape- Fido & Me Fountain Ultrasite-PBARK-498 w/ Labor | 1 | EA | | |
| 113 | | Hardscape-6 Ft. Bench Ultrasite-PBARK-940S-P6 w/ Labor | 2 | EA | | |



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|----------|-----------|--|----------|------|------------|--------|
| 114 | | Hardscape- Trash Receptacle Ultrasite PL-32, FTR-32-08, IG KIT | 2 | EA | | |
| 115 | | Hardscape- Pet Waste Station Ultrasite PBARK-488, IG KIT w/ Labor | 1 | EA | | |
| 116 | | Hardscape- 8'x8' Cantilevered Umbrella Ultrashade M-Shade w/ Labor | 1 | EA | | |
| 117 | | Hardscape- "Pet Relief Area" Post Sign 5'-6' O.A. Ht. w/ Labor | 2 | EA | | |
| 118 | | Covered Walkway (Includes Canopy Structure, Foundations, Walkway Lighting and 4" Sidewalk) | 1 | LS | | |
| 119 | L-105-1 | Electrical Demolition | 1 | LS | | |
| 120 | L-108-1 | Cable - L-824 5kV, #8 AWG Type C | 2640 | LF | | |
| 121 | L-108-2 | Counterpoise with Conduit/Duct | 1305 | LF | | |
| 122 | L-110-1 | 1W-2" PVC Direct-Bury | 490 | LF | | |
| 123 | L-110-2 | 1W-2" PVC Concrete-Encased | 815 | LF | | |
| 124 | L-125-1 | High Mast Light Pole & Foundation | 6 | EA | | |
| 125 | L-125-2 | High Mast Fixture | 12 | EA | | |
| 126 | L-125-3 | Elevated LED MITLs | 6 | EA | | |
| 127 | L-260521 | Panelboard Modifications | 1 | LS | | |
| 128 | L-260521 | GSE Rack & Power Center | 1 | LS | | |
| 129 | L-260521 | Fiber Optic Cable | 330 | LF | | |
| 130 | L-260521 | Cat-6 Cable | 140 | LF | | |
| 131 | L-260521 | 2-#12 AWG THWN-2, W/G | 660 | LF | | |
| 132 | L-260521 | 2-#10 AWG THWN-2, W/G | 6090 | LF | | |
| 133 | L-260521 | #10 AWG GND | 230 | LF | | |
| 134 | L-260521 | #6 AWG THWN-2 | 460 | LF | | |
| 135 | L-260521 | #2 AWG THWN-2 | 2100 | LF | | |
| 136 | L-260521 | #2 AWG GND | 50 | LF | | |
| 137 | L-260521 | #1 AWG THWN-2 | 4960 | LF | | |
| 138 | L-260521 | #1 AWG GND | 1240 | LF | | |
| 139 | L-260521 | 3/4" PVC in Canopy Structure | 500 | LF | | |
| 140 | L-260541 | 1" PVC CE Under Pavement | 3820 | LF | | |
| 141 | L-260541 | 1" PVC DB in Soil | 2020 | LF | | |
| 142 | L-260541 | 2" PVC DB in Soil | 180 | LF | | |
| 143 | L-260541 | 2-1/2" PVC DB in Soil | 1250 | LF | | |
| 144 | L-260541 | 13"x24" Handholes | 19 | EA | | |
| 145 | L-260541 | 12"x12" Handholes | 2 | EA | | |
| 146 | L-265600 | Parking Fixture, Pole and Foundation | 34 | EA | | |
| 147 | L-265600 | Wall-Mount, Bus Stations | 4 | EA | | |
| 148 | L-265600 | Canopy Lights | 26 | EA | | |
| 149 | L-330523 | Directional Bore, 1W-2"dia. | 650 | LF | | |
| 150 | L-330523 | Directional Bore, 2W-2"dia. | 290 | LF | | |

TOTAL AMOUNT BID:

Item P-620

Pavement Marking

DESCRIPTION

620-1.1 This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Resident Project Representative (RPR). The terms “paint” and “marking material” as well as “painting” and “application of markings” are interchangeable throughout this specification.

MATERIALS

620-2.1 Materials acceptance. The Contractor shall furnish manufacturer’s certified test reports, for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. This certification along with a copy of the paint manufacturer’s surface preparation; marking materials, including adhesion, flow promoting and/or floatation additive; and application requirements must be submitted and approved by the Resident Project Representative (RPR) prior to the initial application of markings. The reports can be used for material acceptance or the RPR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the RPR upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers that are easily quantifiable for inspection by the RPR.

620-2.2 Marking materials.

Table 1. Marking Materials

| Paint ¹ | | | | Glass Beads ² | |
|--------------------|------------------------|----------------------------|--------------------------|--------------------------|--------------------------|
| Type | Color | Fed Std. 595 Number | Application Rate Maximum | Type | Application Rate Minimum |
| III | White | 37925 | 90 ft ² /gal | III | 8 lb/gal |
| III | Red | 31136 | 90 ft ² /gal | I | 5 lb/gal |
| III | Yellow | 33538 or 33655 | 90 ft ² /gal | III | 8 lb/gal |
| III | Black | 37038 | 90 ft ² /gal | N/A | N/A |
| Temporary (Type 1) | White, Yellow or Black | Same as above for Type III | 230 ft ² /gal | N/A | N/A |

¹ See paragraph 620-2.2a

² See paragraph 620-2.2b

a. Paint. Paint shall be **waterborne** in accordance with the requirements of this paragraph. Paint colors shall comply with Federal Standard No. 595.

Waterborne. Paint shall meet the requirements of Federal Specification TT-P-1952F, Type I **or** Type III. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis. The acrylic resin used for Type III shall be

100% cross linking acrylic as evidenced by infrared peaks at wavelengths 1568, 1624, and 1672 cm-1 with intensities equal to those produced by an acrylic resin known to be 100% cross linking.

]

b. Reflective media. Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D **Type III** .

Glass beads for red and pink paint shall meet the requirements for **Type I, Gradation A** .

Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

Glass beads shall not be used in black and green paint nor in parking lot paint.

Type III glass beads shall not be used in red and pink paint.

CONSTRUCTION METHODS

620-3.1 Weather limitations. Painting shall only be performed when the surface is dry, and the ambient temperature and the pavement surface temperature meet the manufacturer's recommendations in accordance with paragraph 620-2.1. Painting operations shall be discontinued when the ambient or surface temperatures does not meet the manufacturer's recommendations. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns. Markings shall not be applied when weather conditions are forecasts to not be within the manufacturers' recommendations for application and dry time.

620-3.2 Equipment. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless type marking machine with automatic glass bead dispensers suitable for application of traffic paint. It shall produce an even and uniform film thickness and appearance of both paint and glass beads at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray. The marking equipment for both paint and beads shall be calibrated daily.

620-3.3 Preparation of surfaces. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminates that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the RPR. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

a. Preparation of new pavement surfaces. The area to be painted shall be cleaned by broom, blower, water blasting, or by other methods approved by the RPR to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

b. Preparation of pavement to remove existing markings. Existing pavement markings shall be removed by rotary grinding, water blasting, or by other methods approved by the RPR minimizing damage to the pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a fog seal or seal coat to 'block out' the removal area to eliminate 'ghost' markings.

c. Preparation of pavement markings prior to remarking. Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

Prior to the application of markings, the Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the paint to the pavement or existing markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR prior to the initial application of markings.

620-3.4 Layout of markings. The proposed markings shall be laid out in advance of the paint application. The locations of markings to receive glass beads shall be shown on the plans.

620-3.5 Application. A period of 24 days or as recommended by the manufacturer shall elapse between placement of surface course or seal coat and application of the permanent paint markings. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the RPR.

The edges of the markings shall not vary from a straight line more than 1/2 inch in 50 feet, and marking dimensions and spacing shall be within the following tolerances:

Marking Dimensions and Spacing Tolerance

| Dimension and Spacing | Tolerance |
|--------------------------------|------------------|
| 36 inch or less | ±1/2 inch |
| greater than 36 inch to 6 feet | ±1 inch |
| greater than 6 feet to 60 feet | ±2 inch |
| greater than 60 feet | ±3 inch |

The paint shall be mixed in accordance with the manufacturer’s instructions and applied to the pavement with a marking machine at the rate shown in Table 1. The addition of thinner will not be permitted.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment and distribution should be performed.

620-3.6 Application--preformed thermoplastic airport pavement markings.

Preformed thermoplastic pavement markings not used.

620-3.7 Control strip. Prior to the full application of airfield markings, the Contractor shall prepare a control strip in the presence of the RPR. The Contractor shall demonstrate the surface preparation method and all striping equipment to be used on the project. The marking equipment must achieve the prescribed application rate of paint and population of glass beads (per Table 1) that are properly embedded and evenly distributed across the full width of the marking. Prior to acceptance of the control strip, markings must be evaluated during darkness to ensure a uniform appearance.

620-3.8 Retro-reflectance. Reflectance shall be measured with a portable retro-reflectometer meeting ASTM E1710 (or equivalent). A total of 6 reading shall be taken over a 6 square foot area with 3 readings taken from each direction. The average shall be equal to or above the minimum levels of all readings which are within 30% of each other.

Minimum Retro-Reflectance Values

| Material | Retro-reflectance mcd/m ² /lux | | |
|---|---|--------|-----|
| | White | Yellow | Red |
| Initial Type I | 300 | 175 | 35 |
| Initial Type III | 600 | 300 | 35 |
| Initial Thermoplastic | 225 | 100 | 35 |
| All materials, remark when less than ¹ | 100 | 75 | 10 |

¹ Prior to remarking determine if removal of contaminants on markings will restore retro-reflectance

620-3.9 Protection and cleanup. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the RPR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations.

METHOD OF MEASUREMENT

620-4.1a The quantity of markings shall be paid for shall be measured by the number of square feet of painting .

620-4.1c The quantity of reflective media shall be considered incidental to the quantity of markings

620-4.1d The quantity of temporary markings to be paid for shall be the number of square feet of painting performed in accordance with the specifications and accepted by the RPR. Temporary marking includes surface preparation, application and complete removal of the temporary marking.

BASIS OF PAYMENT

620-5.1 This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item complete in place and accepted by the RPR in accordance with these specifications.

620-5.2ab Payment for markings shall be made at the contract price for by the number of square feet of painting .

620-5.3b Payment for reflective media shall be considered incidental to the unit cost of reflective pavement markings.

620-5.4d Temporary markings are not required.

Payment will be made under:

- Item P-620-1 Non-Reflective Pavement Markings - per square foot
- Item P-620-2 Reflective Pavement Markings - per square foot

| | |
|--------------|--|
| Item P-620-3 | Reflective Pavement Markings (Red Paint) - per square foot |
| Item P-620-4 | Temporary Pavement Markings - per square foot |

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

| | |
|------------|---|
| ASTM D476 | Standard Classification for Dry Pigmentary Titanium Dioxide Products |
| ASTM D968 | Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive |
| ASTM D1652 | Standard Test Method for Epoxy Content of Epoxy Resins |
| ASTM D2074 | Standard Test Method for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method |
| ASTM D2240 | Standard Test Method for Rubber Property - Durometer Hardness |
| ASTM D7585 | Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments |
| ASTM E303 | Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester |
| ASTM E1710 | Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer |
| ASTM E2302 | Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer |
| ASTM G154 | Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials |

Code of Federal Regulations (CFR)

| | | | | | | | |
|--|-----|------|-----|----------|------|--------|----|
| 40 | CFR | Part | 60, | Appendix | A-7, | Method | 24 |
| Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings | | | | | | | |
| 29 CFR Part 1910.1200 Hazard Communication | | | | | | | |

Federal Specifications (FED SPEC)

| | |
|---------------------|---|
| FED SPEC TT-B-1325D | Beads (Glass Spheres) Retro-Reflective |
| FED SPEC TT-P-1952F | Paint, Traffic and Airfield Marking, Waterborne |
| FED STD 595 | Colors used in Government Procurement |

Commercial Item Description

| | |
|-----------|-------------------------------|
| A-A-2886B | Paint, Traffic, Solvent Based |
|-----------|-------------------------------|

Advisory Circulars (AC)

AC 150/5340-1

Standards for Airport Markings

AC 150/5320-12

Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces

END OF ITEM P-620

Item D-751

Drainage Structures

DESCRIPTION

751-1.1 This item shall consist of construction of manholes, catch basins, inlets, and inspection holes, in accordance with these specifications, at the specified locations and conforming to the lines, grades, and dimensions shown on the plans or required by the RPR.

MATERIALS

751-2.1 Brick. The brick shall conform to the requirements of ASTM C32, Grade MS.

751-2.2 Mortar. Mortar shall consist of one part Portland cement and two parts sand. The cement shall conform to the requirements of ASTM C150, Type I. The sand shall conform to the requirements of ASTM C144.

751-2.3 Concrete. Plain and reinforced concrete used in structures, connections of pipes with structures, and the support of structures or frames shall conform to the requirements of Item P-610.

751-2.4 Precast concrete pipe manhole rings. Precast concrete pipe manhole rings shall conform to the requirements of ASTM C478. Unless otherwise specified, the risers and offset cone sections shall have an inside diameter of not less than 36 inches nor more than 48 inches. There shall be a gasket between individual sections and sections cemented together with mortar on the inside of the manhole. Gaskets shall conform to the requirements of ASTM C443.

751-2.5 Corrugated metal. Corrugated metal shall conform to the requirements of American Association of State Highway and Transportation Officials (AASHTO) M36.

751-2.6 Frames, covers, and grates. The castings shall conform to one of the following requirements:

- a. ASTM A48, Class 35B: Gray iron castings
- b. ASTM A47: Malleable iron castings
- c. ASTM A27: Steel castings
- d. ASTM A283, Grade D: Structural steel for grates and frames
- e. ASTM A536, Grade 65-45-12: Ductile iron castings
- f. ASTM A897: Austempered ductile iron castings

All castings or structural steel units shall conform to the dimensions shown on the plans and shall be designed to support the loadings, aircraft gear configuration and/or direct loading, specified.

Each frame and cover or grate unit shall be provided with fastening members to prevent it from being dislodged by traffic but which will allow easy removal for access to the structure.

All castings shall be thoroughly cleaned. After fabrication, structural steel units shall be galvanized to meet the requirements of ASTM A123.

751-2.7 Steps. The steps or ladder bars shall be gray or malleable cast iron or galvanized steel. The steps shall be the size, length, and shape shown on the plans and those steps that are not galvanized shall be given a coat of asphalt paint, when directed.

751-2.8 Precast inlet structures. Manufactured in accordance with and conforming to ASTM C913.

CONSTRUCTION METHODS

751-3.1 Unclassified excavation.

a. The Contractor shall excavate for structures and footings to the lines and grades or elevations, shown on the plans, or as staked by the RPR. The excavation shall be of sufficient size to permit the placing of the full width and length of the structure or structure footings shown. The elevations of the bottoms of footings, as shown on the plans, shall be considered as approximately only; and the RPR may direct, in writing, changes in dimensions or elevations of footings necessary for a satisfactory foundation.

b. Boulders, logs, or any other objectionable material encountered in excavation shall be removed. All rock or other hard foundation material shall be cleaned of all loose material and cut to a firm surface either level, stepped, or serrated, as directed by the RPR. All seams or crevices shall be cleaned out and grouted. All loose and disintegrated rock and thin strata shall be removed. Where concrete will rest on a surface other than rock, the bottom of the excavation shall not be disturbed and excavation to final grade shall not be made until immediately before the concrete or reinforcing is placed.

c. The Contractor shall do all bracing, sheathing, or shoring necessary to implement and protect the excavation and the structure as required for safety or conformance to governing laws. The cost of bracing, sheathing, or shoring shall be included in the unit price bid for the structure.

d. All bracing, sheathing, or shoring involved in the construction of this item shall be removed by the Contractor after the completion of the structure. Removal shall not disturb or damage finished masonry. The cost of removal shall be included in the unit price bid for the structure.

e. After excavation is completed for each structure, the Contractor shall notify the RPR. No concrete or reinforcing steel shall be placed until the RPR has approved the depth of the excavation and the character of the foundation material.

751-3.3 Concrete structures. Concrete structures which are to be cast-in-place within the project boundaries shall be built on prepared foundations, conforming to the dimensions and shape indicated on the plans. The construction shall conform to the requirements specified in Item P-610. Any reinforcement required shall be placed as indicated on the plans and shall be approved by the RPR before the concrete is placed.

All invert channels shall be constructed and shaped accurately to be smooth, uniform, and cause minimum resistance to flowing water. The interior bottom shall be sloped to the outlet.

751-3.4 Precast concrete structures. Precast concrete structures shall be furnished by a plant meeting National Precast Concrete Association Plant Certification Program or another RPR approved third party certification program.

Precast concrete structures shall conform to ASTM C478. Precast concrete structures shall be constructed on prepared or previously placed slab foundations conforming to the dimensions and locations shown on the plans. All precast concrete sections necessary to build a completed structure shall be furnished. The different sections shall fit together readily. Joints between precast concrete risers and tops shall be full-bedded in cement mortar and shall: (1) be smoothed to a uniform surface on both interior and exterior of the structure or (2) utilize a rubber gasket per ASTM C443. The top of the upper precast concrete section shall be suitably formed and dimensioned to receive the metal frame and cover or grate, or other cap, as required. Provision shall be made for any connections for lateral pipe, including drops and leads that may be installed in the structure. The flow lines shall be smooth, uniform, and cause minimum resistance to flow. The metal or metal encapsulated steps that are embedded or built into the side walls shall be aligned and placed in accordance to ASTM C478. When a metal ladder replaces the steps, it shall be securely fastened into position.

751-3.5 Corrugated metal structures. Corrugated metal structures shall be prefabricated. All standard or special fittings shall be furnished to provide pipe connections or branches with the correct dimensions and

of sufficient length to accommodate connecting bands. The fittings shall be welded in place to the metal structures. The top of the metal structure shall be designed so that either a concrete slab or metal collar may be attached to allow the fastening of a standard metal frame and grate or cover. Steps or ladders shall be furnished as shown on the plans. Corrugated metal structures shall be constructed on prepared foundations, conforming to the dimensions and locations as shown on the plans. When indicated, the structures shall be placed on a reinforced concrete base.

751-3.6 Inlet and outlet pipes. Inlet and outlet pipes shall extend through the walls of the structures a sufficient distance beyond the outside surface to allow for connections. They shall be cut off flush with the wall on the inside surface of the structure, unless otherwise directed. For concrete or brick structures, mortar shall be placed around these pipes to form a tight, neat connection.

751-3.7 Placement and treatment of castings, frames, and fittings. All castings, frames, and fittings shall be placed in the positions indicated on the plans or as directed by the RPR, and shall be set true to line and elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts shall be in place before the concrete or mortar is placed. The unit shall not be disturbed until the mortar or concrete has set.

When frames or fittings are placed on previously constructed masonry, the bearing surface of the masonry shall be brought true to line and grade and shall present an even bearing surface so the entire face or back of the unit will come in contact with the masonry. The unit shall be set in mortar beds and anchored to the masonry as indicated on the plans or as directed by the RPR. All units shall set firm and secure.

After the frames or fittings have been set in final position, the concrete or mortar shall be allowed to harden for seven (7) days before the grates or covers are placed and fastened down.

751-3.8 Installation of steps. The steps shall be installed as indicated on the plans or as directed by the RPR. When the steps are to be set in concrete, they shall be placed and secured in position before the concrete is placed. When the steps are installed in brick masonry, they shall be placed as the masonry is being built. The steps shall not be disturbed or used until the concrete or mortar has hardened for at least seven (7) days. After seven (7) days, the steps shall be cleaned and painted, unless they have been galvanized.

When steps are required with precast concrete structures they shall meet the requirements of ASTM C478. The steps shall be cast into the side of the sections at the time the sections are manufactured or set in place after the structure is erected by drilling holes in the concrete and cementing the steps in place.

When steps are required with corrugated metal structures, they shall be welded into aligned position at a vertical spacing of 12 inches.

Instead of steps, prefabricated ladders may be installed. For brick or concrete structures, the ladder shall be held in place by grouting the supports in drilled holes. For metal structures, the ladder shall be secured by welding the top support to the structure and grouting the bottom support into drilled holes in the foundation or as directed by the RPR.

751-3.9 Backfilling.

a. After a structure has been completed, the area around it shall be backfilled with approved material, in horizontal layers not to exceed 8 inches in loose depth, and compacted to the density required in Item P-152. Each layer shall be deposited evenly around the structure to approximately the same elevation. The top of the fill shall meet the elevation shown on the plans or as directed by the RPR.

b. Backfill shall not be placed against any structure until approved by the RPR. For concrete structures, approval shall not be given until the concrete has been in place seven (7) days, or until tests establish that the concrete has attained sufficient strength to withstand any pressure created by the backfill and placing methods.

c. Backfill shall not be measured for direct payment. Performance of this work shall be considered an obligation of the Contractor covered under the contract unit price for the structure involved.

751-3.10 Cleaning and restoration of site. After the backfill is completed, the Contractor shall dispose of all surplus material, dirt, and rubbish from the site. Surplus dirt may be deposited in embankments, shoulders, or as approved by the RPR. The Contractor shall restore all disturbed areas to their original condition. The Contractor shall remove all tools and equipment, leaving the entire site free, clear, and in good condition.

METHOD OF MEASUREMENT

751-4.1 Manholes, inlets, and mitered end sections (MES) and shall be measured by the unit. Trench Drains will be measured by the linear foot.

BASIS OF PAYMENT

751-5.1 The accepted quantities of manholes, inlets, and mitered end sections (MES) will be paid for at the contract unit price per each in place when completed. Trench drains will be paid for a the contract unit price per linear foot in place when completed. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling, and placing of the materials; furnishing and installation of such specials and connections to pipes and other structures as may be required to complete the item as shown on the plans; and for all labor equipment, tools and incidentals necessary to complete the structure. For Trench Drain in Existing PCC Pavement, the contract price per linear foot will also include the cost of PCC pavement removal and new PCC pavement patch.

Payment will be made under:

| | |
|---------------|---|
| Item D-751-1 | Type C Inlet - per each |
| Item D-751-2 | Type D Inlet – per each |
| Item D-751-3 | Type 4 Airfield Inlet – per each |
| Item D-751-4 | Trench Drain in Existing PCC Pavement – per linear foot |
| Item D-751-5 | Airfield Trench Drain – per linear foot |
| Item D-751-6 | Trench Drain Inlet – per each |
| Item D-751-7 | Airfield Storm Drain Manhole for S4, S5, S6 and S7 – per each |
| Item D-751-8 | Airfield Storm Drain Manhole for S3 – per each |
| Item D-751-9 | Storm Drain Manhole for S2 – per each |
| Item D-751-10 | Standard Storm Drain Manhole – per each |
| Item D-751-11 | MES (4:1) for 18 inch RCP - per each |
| Item D-751-12 | MES (4:1) for 24 inch RCP - per each |
| Item D-751-13 | MES (2:1) for 54” RCP – per each |
| Item D-751-14 | 15” Flap Gate Installed in Drainage Structure – per each |
| Item D-751-15 | 24” Flap Gate Installed in Drainage Structure – per each |
| Item D-751-16 | 36” Flap Gate Installed in Drainage Structure – per each |
| Item D-751-17 | 42” Flap Gate Installed in Drainage Structure – per each |

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

| | |
|-----------|--|
| ASTM A27 | Standard Specification for Steel Castings, Carbon, for General Application |
| ASTM A47 | Standard Specification for Ferritic Malleable Iron Castings |
| ASTM A48 | Standard Specification for Gray Iron Castings |
| ASTM A123 | Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products |
| ASTM A283 | Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates |
| ASTM A536 | Standard Specification for Ductile Iron Castings |
| ASTM A897 | Standard Specification for Austempered Ductile Iron Castings |
| ASTM C32 | Standard Specification for Sewer and Manhole Brick (Made from Clay or Shale) |
| ASTM C144 | Standard Specification for Aggregate for Masonry Mortar |
| ASTM C150 | Standard Specification for Portland Cement |
| ASTM C443 | Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets. |
| ASTM C478 | Standard Specification for Precast Reinforced Concrete Manhole Sections |
| ASTM C913 | Standard Specification for Precast Concrete Water and Wastewater Structures. |

American Association of State Highway and Transportation Officials (AASHTO)

| | |
|------------|--|
| AASHTO M36 | Standard Specification for Corrugated Steel Pipe, Metallic-Coated, for Sewers and Drains |
|------------|--|

END OF ITEM D-751

- A. Service Abbreviations

| | | | |
|---------------|----|------------------|----|
| Potable Water | PW | Secondary Sludge | SS |
| Force Main | FM | | |
- B. Material Abbreviations

| | | | |
|---------------------------|------|--------------|----|
| Polyvinyl Chloride | PVC | Ductile Iron | DI |
| High Density Polyethylene | HDPE | | |
- C. Lining/Coating Abbreviations

| | | | |
|-------------------|----|--|--|
| Cement Lined | CL | | |
| Bituminous Coated | BC | | |
| Epoxy Coated | EC | | |
- D. Joint Abbreviations

| | | | |
|------------------|----|-------------|-----|
| Belt and Spigot | BS | Flanged | Flg |
| Mechanical Joint | MJ | Butt Welded | BW |
- E. Test Abbreviations

| | | | |
|----------------------------------|-----|----------------|----|
| Hydrostatic test (Pressure-psig) | | HY (| |
| | |) Exfiltration | EX |
| Low pressure air | AIR | | |
| No test required | NR | | |

3.7 METHOD OF MEASUREMENT

- A. The length of pipe shall be measured in linear feet of pipe in place, completed, and accepted. It shall be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. The several classes, types and size of pipe shall be measured separately. All fittings and thrust resraints shall be included in the footage as typical pipe sections in the pipe being measured.

3.8 BASIS OF PAYMENT

- A. These prices shall fully compensate the Contractor for furnishing all materials and for all preparation, excavation, and installation of these materials; and for all labor, equipment, tools, and incidentals necessary to complete the item.
- B. Payment will be made at the contract unit price per linear foot for each kind of pipe of the type and size designated.

Payment will be made under:

- | | |
|--------------|--|
| Item 15051-1 | 8” PVC Gravity Sanitary Sewer Pipe – per linear foot |
| Item 15051-2 | 2” PVC Force Main – per linear foot |
| Item 15051-3 | 6” DIP Water Main – per linear foot |
| Item 15051-4 | 12” DIP Water Main – per linear foot |

- Item 15051-5 6” PVC Water Main – per linear foot
- Item 15051-6 12” PVC Water Main – per linear foot
- Item 15051-7 1” Polyethylene (HDPE) Tubing – per linear foot

END OF SECTION 15051

MINUTES
TO
PRE-BID CONFERENCE
FOR
WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS
ITB 66-19
DESTIN-FORT WALTON BEACH AIRPORT

June 19, 2019 2:30 PM

1. INTRODUCTION

Chad Rogers began the meeting by introducing members of Okaloosa County Airports team members present. This is a rebid of the project that includes a reduction in scope and value engineering changes. The purpose of the meeting is help make sure the bidders have a clear understanding of the scope and the bid items.

2. PREPARATION AND SUBMISSION OF BIDS

Invitation to Bid (ITB) & Respondent's Acknowledgement
Notice to Bidders
Instructions to Contractors
Okaloosa County Standard Clauses
Bid Forms
Standard form of Agreement

Remaking documents in the bid manual are FAA requirements and Technical Specifications,

- a. Read the Instructions to Contractors in the Project Manual carefully.
- b. Complete and submit all Bid Forms.
- c. Each bid must be accompanied by: Bid Security made payable to Owner, in an amount of five (5) percent of the Bidder's maximum Bid Price in the form of a certified or bank check or a Bid Bond prepared on the Bid Bond form included in the Bid Forms, duly executed by the Bidder as principal, and issued by a surety meeting the requirements of Paragraph 5.1 of the General Conditions.
- d. All Bidders must be licensed contractors in accordance with the Laws of Florida.
- e. Bids shall be submitted at the time and place indicated in the Advertisement (July 10th). Each Bid shall be contained in a sealed envelope marked along with the project name as stated in the Notice To Bidders, and the Bidder's name. Do not write any bid amount or other information on the envelope. The original copy plus 2 copies of all Bid Forms, Schedules and other required documents is required for submission of Bid. **DO NOT SUBMIT THE PROJECT MANUAL OR DRAWINGS WITH BID.**

- f. Purchasing indicated Crestview is not a guaranteed overnight location so the bidders need to allow extra time for mailing. Also, there is security in the building so allow extra time to get through if delivering by hand.
- g. Bids will be opened and read aloud publicly.
- h. Bids shall remain open for 120 days.

3. SUBMITTAL

- The **Bid opening date is Wednesday July 10th, 2019 at 3:00 PM** (local time) in the Okaloosa County Courthouse, 101 E James Lee Boulevard, Room 282, Crestview FL.

4. PROJECT SCOPE

Five aircraft parking positions in support of a future terminal (Concourse C), the Project will include the following items (*see project layout sheet*):

- Construction of a 27,700 SY terminal aircraft apron expansion which includes concrete and asphalt pavement of varying thicknesses.
- 7600 Tons of asphalt, 695 S.Y. of concrete.
- Construction of a 12,000 SY expansion of the credit card parking lot and demolition of a portion of the existing credit card lot.
- Construction of a covered walkway.
- Demolition of existing 6” and 12” DIP water line and construction of new 6” and 12” PVC water line.
- Demolition of an existing sanitary sewer lift station and construction of a new lift station.
- Demolition of existing 2” and 6” PVC force mains
- New 8” PVC gravity sanitary sewer, including 2 airline lavatory cart dump stations.
- Storm drain pipes, trench drain, and structures.
- Parking lot and high mast apron lighting.
- Apron edge lighting
- Temporary and permanent chain link fence.
- Landscaping (no irrigation)
- Sodding and grassing
- Pavement Marking.

6. CONSTRUCTION SAFETY & PHASING

1. *Refer to Construction Safety and Phasing sheets*
2. The phasing plans are shown on Sheets G3.0 thru G3.4.
3. Temporary fencing shown on Sheet G3.1 must be installed before beginning any other work. The temporary gate along SR 85 will be the sole access point for all work except for Dump Station #2, which will be through the existing east apron gate. The AOA gate will require a gate guard or remain locked.
4. Expansion of the Credit Card Parking Lot (Phase 1) must be completed and put in service before any parking lot demolition work (Phase 3) can begin. The contractor will have 120 days from the NTP to complete this work.
5. Phase 2 will consist of clearing and grubbing of the wooded area, site demolition outside of the credit card lot, and relocation of electrical, water and sewer. Work with the taxilane OFA must be

done on a pull back basis so that the apron taxilane can remain open at all times. All personnel and equipment must be pulled out of the OFA when aircraft are operating in the OFA. Existing water and sewer systems must remain in service until the new systems are ready to be put online. Connections to new water lines must be done at night. Phase 2 work may be performed concurrent with Phase 1.

6. Phase 3 consist of demolition work in the existing credit card lot which cannot begin until Phase 1 is complete and the credit card lot expansion area is open.
7. Phase 4 consist of grading, drainage and paving of the apron expansion, and construction of the covered walkway. As with Phase 3, work within the Taxilane OFA must be performed on a pull back basis. Work in this phase may be performed concurrent with Phases 1, 2 and 3. Phase 4 includes storm drain line along the west end of the terminal building in front of the baggage handling area (G3.3). This work can only be performed between 9:00 P.M. and 5:00 A.M. Any open trenches remaining at 5:00 A.M. must be covered with a steel plate so that baggage carts may operate. Phase 4 also includes paving of the asphalt GSE area at the north end of the apron (shown in green page G3.2 and G3.3).
8. Night work for any phase will be permitted provided sufficient notice is provided to owner and engineer.

5. STAGING AREA- HAUL ROUTES

(See project layout) The staging areas shown are approximate. The actual staging sites are to be approved by the Airport. Access to the project site is off of SR 85 N through the temporary gate, except that access to the 2nd Lavatory Cart Dump Station on the east side will be through the existing east apron gate. No construction traffic will be allowed on the terminal loop road.

6. SECURITY FENCE /ACCESS GATES

The existing AOA and SIDA fences are to remain secure at all times. A temporary fence and access gates are to be provided as shown on the Project Layout Plan (Sheet G1.1) If the contractor requires additional temporary fence is needed to keep the airport secure, it will be or at no additional cost to the airport. Vehicles cannot enter the SIDA area without undergoing an inspection. The Contractor is to assign personnel to perform these inspections who will be required to take a 4 hour training course at the Airport. Inspections must be in accordance with the Transportation and Security Administration (TSA) requirements. These temporary SIDA gates shall be manned with a gate guard provided by the contractor at all times or locked.

The cost of gate guards and vehicle inspections shall be considered incidental to the contractor's mobilization costs. The contractor's employee personal vehicles will not be allowed inside the AOA or SIDA fence but can be parked in the staging area.

The Airport will perform inspections of vehicles entering through the east gate to access the east lavatory dump station work.

Employees inside the SIDA area require badges. See Section 19. Workers outside the SIDA fence do not require badging or escorts.

7. WORK RESTRICTIONS (SECTION 01010 OF PROJECT MANUAL)

1. This project involves work on an active airfield. Thus, the Contractor will be restricted from working in areas closest to the active taxiways/taxilanes. The Contractor shall restrict his activity to within the access routes and work areas shown in the plans.

2. The *Contractor* must provide necessary information on construction conditions so that NOTAM's can be issued - such as for a taxiway closure.
3. Existing airfield pavements are not to be used as a haul route without permission from the Owner except where otherwise indicated.
4. Vehicles used on the airfield shall meet FAA and VPS requirements for marking and lighting.
5. Only the Owner can close active airfield areas - closures must be coordinated with the Engineer and Airport Manager.

8. PLAN SHEETS

1. Typical Section – Asphalt (parking, airfield, and ground service equipment) and concrete sections
2. Staking and Demolition
3. Grading and Drainage
4. Marking
5. Water sewer
6. Lift station-
 - American States Utility Services (ASUS) operates/ owns some utilities in the project area. They will be performing the lift station work, including the first gravity line manhole upstream of the lift station, by allowance. They are also available to bid on the other utility work as a sub to the contractor. Scheduling and coordination of work shall be the responsibility of the contractor.
7. Landscape
8. Structural
9. Electrical- gate, lighting, power

9. BID SCHEDULE

1. Discussion on Bid Items
2. Allowance on security items for the airports vendor to perform and for Okaloosa County water and Sewer to perform the relocation of the blow off.
3. Temporary fence does not require concrete around the pole or a top rail.

10. DISADVANTAGED BUSINESS ENTERPRISES (DBE) REQUIREMENTS

There is a 25.01% DBE goal for this project. All DBE firms must be certified by the Florida United Certification Program. Work must be done by the DBE to count toward the goal. Work completed by a subcontractor to the DBE will not count unless the subcontractor is also a certified DBE.

11. INSURANCE REQUIREMENTS

Bidders are to familiarize themselves with the insurance requirements stipulated in the Okaloosa County Standard Clauses (page 3, \$15M business, commercial) contained in the Front End Documents section of the Project Manual.

12. CONTRACT TIME AND LIQUIDATED DAMAGES

1. Construction will be substantially completed in accordance with the contract time of 350 calendar days as stipulated in Section 01010 of the Project Manual. The successful Bidder will commence work with an adequate force and equipment at the time stated in the Notice to Proceed, and complete all work in the number of days stipulated from the date stated in said Notice.
2. Liquidated damages for failure to substantially complete all work within contract time for Phase 1 and the total contract time. Also, for failure to complete all punch list items within 30 days of the date of the substantial completion punchlist generated by the Engineer after the contractor submits a Notice of Substantial Completion. Liquidated Damages will be assessed as prescribed in OCSC-5 and 6 (based on contract amount).

13. ESTIMATED QUANTITIES

Where quantities of work are given in the BID, these quantities are approximate and are assumed solely for comparison of the BIDS; they are not guaranteed to be accurate statements or estimates of quantities of work that are to be performed under the Contract. It is presumed that the BIDDER has verified the quantities necessary to complete the work of the Contract as intended, and any departure therefrom will not be accepted as valid grounds for any claim for damages, for extension of time, or for loss of profits. This is a unit price contract.

14. STAKING (SECTION 01040, 3.02A AND GP 50-07)

- a. The Contractor is responsible for all staking.
- b. There are benchmarks to work from.
- c. Cost of survey and staking is incidental to various contract items.
- d. Will require an as-built survey.

15. QUALITY CONTROL vs QUALITY ASSURANCE TESTING (SECTION 01400)

Responsibilities:

- a. Contractor Responsibilities: Contractor is responsible for his own Quality Control testing and inspection to insure that the quality of his means and methods of construction will produce the specified quality of work, and for any tests and inspections required by regulatory agencies. Costs for these services shall be included in the Contract Sum. The Contractor may employ and pay an independent agency, testing laboratory or other qualified firm to perform quality control services specified, (i.e., concrete and asphalt production, mix designs, steel mill, construction procedures for concrete, soil and asphalt) or perform in-house Quality Control services.
- b. The Owner will engage and pay for the services of an independent agency to perform inspections and tests of materials for Quality Assurance. This is a check after work has been performed (i.e., soil proctors and density, and asphalt).
- c. Retest Responsibility: Where results of required inspections or tests of similar services prove unsatisfactory and do not indicate compliance with the requirements of the Contract Documents, then re-tests are the responsibility of the Contractor, regardless of whether the original test was the Contractor's responsibility. If any additional costs are incurred, this will be deducted from the amount due to the Contractor.

Re-testing of work revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original work. The Contractor must submit a quality control plan in accordance with the contract documents.

16. PERMITS

The Engineer has obtained an Environmental Resource Permit (ERP) from the Florida Department of Environmental Protection (FDEP) and an FDOT Temporary Driveway permit for construction access off of SR 85N and is in the process of obtaining a Development Order approval from Okaloosa County and an FDEP permit for the wastewater collection/transmission system. The Contractor is responsible for obtaining all other permits required for construction.

17. SAFETY ITEMS

- a. Contractor shall designate or employ a Construction Safety Officer to be the liaison between the Contractor and the Engineer and Owner in all safety related matters for the duration of the project.
- b. Contractor shall coordinate apron, taxilane or taxiway closures with the RPR before commencing any work on the airfield. Only the Airport can close an active airfield pavement.
- c. Contractor shall supply, install, and maintain barricades where work areas are adjacent to active airfield pavements or to close airfield pavements as shown in the plans or directed by the Engineer. The Contractor shall also supply, install and maintain construction haul route signs, haul route & taxiway/taxilane OFA delineators and "Construction Ahead" signs as detailed in the plans.
- d. Contractor shall keep all active airfield pavements clean of construction dirt and debris and shall have equipment onsite at all times for doing so and shall have a water truck onsite at all time for controlling dust.
- e. A copy of the project Construction Safety and Phasing Plan (CSPP) is contained in the appendix to the Project Manual. The contractor will be required to prepare and submit a Safety Plan Compliance Document in accordance with FAA Advisory Circular 150/5370-2F. A copy of this circular is contained in an appendix to the CSPP.
- f. Men and equipment must yield to aircraft at all times.

18. SECURITY BADGING

- a. The prime Contractor is responsible for all Subcontractor badges, as well as his own, and will be signing all forms.
- b. There is a \$60 non-refundable fee for I.D. badges and a \$100 penalty if the badge is not returned at the end of the project.
- c. The badging class (SIDA and driving) is approximately 2 hours.
- d. All persons working alone inside the AOA or SIDA area will need a badge unless under escort and **direct control**. Those people always working in a group with someone with a badge will not need a badge. People without a badge will need to be within visual and audible range of a badged person.
- e. All vehicles will need to have company identification on both sides of the vehicle and must have a yellow flashing light mounted on the roof.

- f. All persons who apply for a badge must be fingerprinted at the Airport and have a ten (10) year background check completed. After results of the fingerprint based background check is approved, the applicant will need to return to the Airport to complete a 2 hour SIDA test.
- g. Trucks entering the site can be escorted by a lead vehicle. Multiple trucks can be escorted by a badged driver.
- h. Disqualifications for badges include felonies. This includes charged felonies with a plea deal.

19. NOTICE-TO-PROCEED

Notice-to-proceed date is anticipated to be: It will need to go to the August meeting of the Board of County Commissioners in August with an immediate start after that.

20. VALUE ENGINEERING CHANGES

- 1. Change concrete apron to asphalt except for main gear hardstands
- 2. Eliminate mill and overlay of asphalt in existing parking positions.
- 3. Eliminate Bus Shelters
- 4. Eliminate Engineer's Office Trailer
- 5. Eliminate top rail and concrete foundation for temp fence
- 6. Eliminate separation geotextile for base and subbase
- 7. Eliminate irrigation
- 8. Eliminate new VMAG gate operator
- 9. Allow alternate material (aluminum) for parking lot light poles
- 10. Reduce length of trench drains
- 11. Redesign Drainage Manhole S2 for non-aircraft loading
- 12. Change 54" flared end section to mitered end
- 13. Delete pay item and requirement for maintenance and warranty of landscaping

21. DBE GOOD FAITH EFFORT

Chad mentioned to be sure to submit a Statement of Good Faith Effort if the bidder can not achieve the DBE goal. Bidders questioned the 25.01% goal and how it was derived.

22. SITE VISIT

Bidders may visit the project site at the conclusion of the meeting.

23. QUESTIONS

Question: Can the parking lot marking be a separate bid item?

Answer: Since reflective beads are not required, parking lot markings will be paid for under the non-reflective pavement markings item.

Question: Will electrical inspections or structural be necessary?

Answer: Yes. The contractor will be responsible for coordinating inspections with the County.

Question: Can the demolition of the temporary road be left to the next contractor since other work is planned?

Answer: Possibly. We will address at some point in the future- most likely through a change order.

All questions after the conclusion of this meeting about the meaning or intent of the Contract Documents shall be submitted to Derita Mason, Contracts & Lease Coordinator (dmason@myokaloosa.com) in writing. Replies, when considered necessary by the County, will be issued by Addenda to be posted on the purchasing department page of the County website (<http://www.myokaloosa.com/purchasing/home>) and at <https://www.bidnetdirect.com/florida>.

Okaloosa County Purchasing Department
ATTN: Derita Mason dmason@myokaloosa.com
5479 Old Bethel Road., Suite A
Crestview, FL 32536
Tel: 850-689-5960
Fax: 850-689-5970

Questions received after 5:00 P.M. on June 26, 2019 will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

END OF MEETING

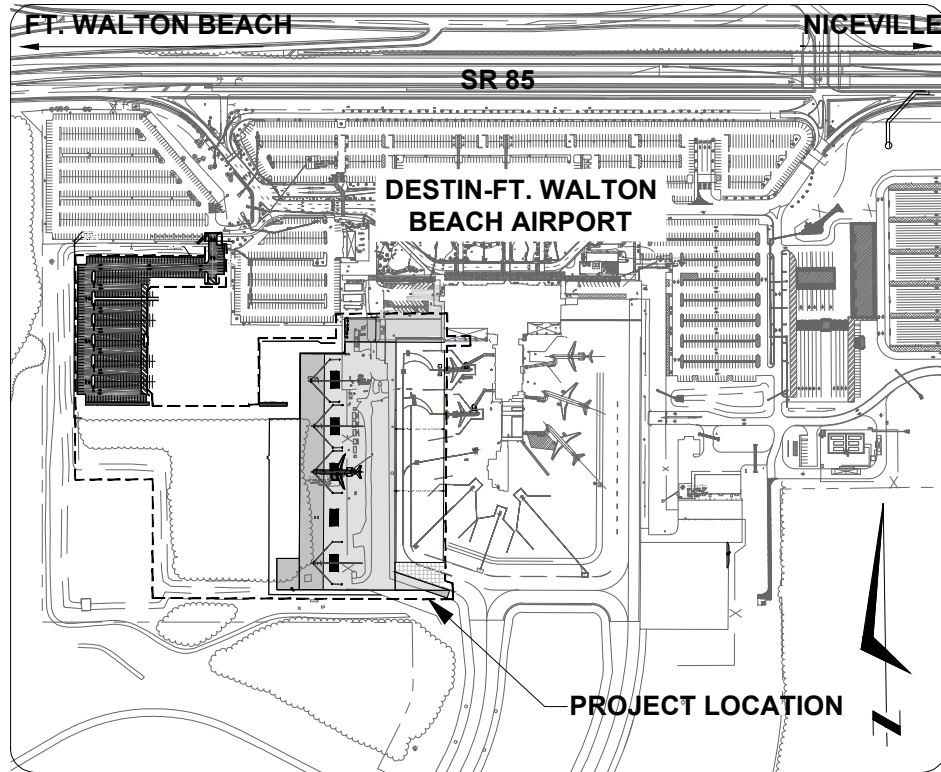
ATTACHMENTS: List of Attendees (Sign-In Sheet)

Pre-Bid Conference
Construct West Apron Expansion and Infrastructure at VPS
ITB 66-19

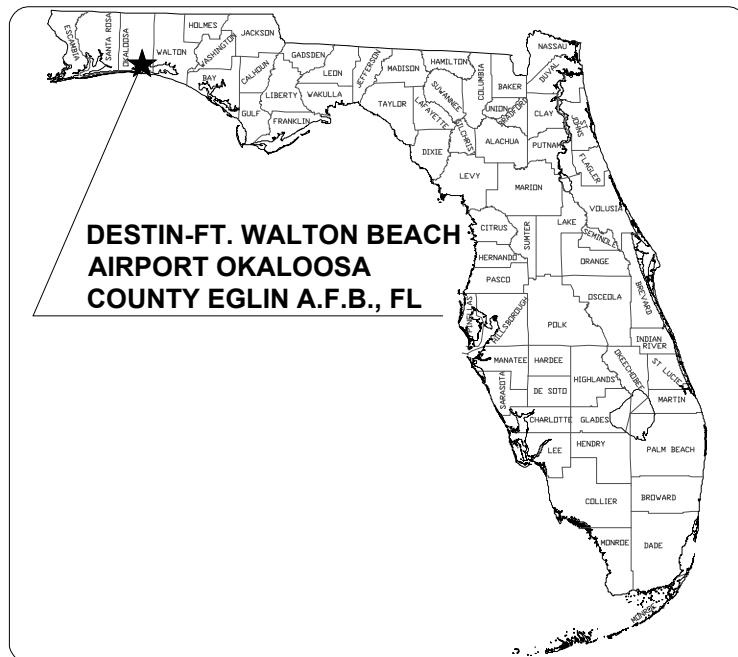
Date: June 19, 2019 @ 2:30 PM

Sign in sheet

| <i>initial</i> | Name | Company | Phone | email |
|----------------|--------------------|--|----------------|------------------------------|
| <i>TS</i> | Tracy Stage | Okaloosa County- Airports Director | 850.651-7160 | tstage@myokaloosa.com |
| <i>MB</i> | Mike Stenson | Okaloosa County Deputy Director | 850.651.7160 | mstenson@myokaloosa.com |
| | Allyson Oury | Okaloosa County Deputy Director | 850.651.7161 | aoury@myokaloosa.com |
| <i>CR</i> | Chad Rogers | Okaloosa County Projects Manager | 850.651.7160 | rrogers@myokaloosa.com |
| <i>TW</i> | Tiffany Wills | Okaloosa County Security | 850.651.7160 | twills@myokaloosa.com |
| <i>OW</i> | Oscar Williams | Okaloosa County Operations | 850.651.7160 | owilliams@myokaloosa.com |
| <i>JG</i> | Jennifer Grunest | Okaloosa County Deputy Director | 850.651.7161 | jgrunest@myokaloosa.com |
| <i>DH</i> | Doug Hambrecht | Infrastructure Consulting and Engineering- Project Manager | 850.510.5525 | doug.hambrecht@ice-eng.com |
| | Michael Howell | Captain, Airport Security Unit | (850) 974-8159 | mhowell@sheriff-okaloosa.org |
| | Chad Rewis | Lieutenant, Airport Security Unit | (850)259-0032 | crewis@sheriff-okaloosa.org |
| <i>VT</i> | Victoria Taravella | Purchasing | | |
| | | | | |
| | | | | |
| | | | | |
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VICINITY MAP



LOCATION MAP

BOARD OF COUNTY COMMISSIONERS

GRAHAM FOUNTAIN - CHAIRMAN
 CAROLYN KETCHEL
 NATHAN BOYLES
 TREY GOODWIN
 KELLY WINDES

JAMES N. GOODWIN, FL P.E. NO. 40995



CONSTRUCTION PLANS FOR:

CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

AT THE

DESTIN - FORT WALTON BEACH AIRPORT

FAA AIP PROJECT No.: 3-12-0081-029-2018

ITB AP 66-19

MAY 2019

100% ISSUED FOR BIDS

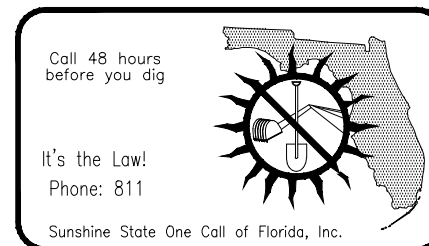


5550 W. IDLEWILD AVENUE, SUITE 102

TAMPA, FL 33634

(813) 330-2704

CERTIFICATE OF AUTHORIZATION NO.: 30862



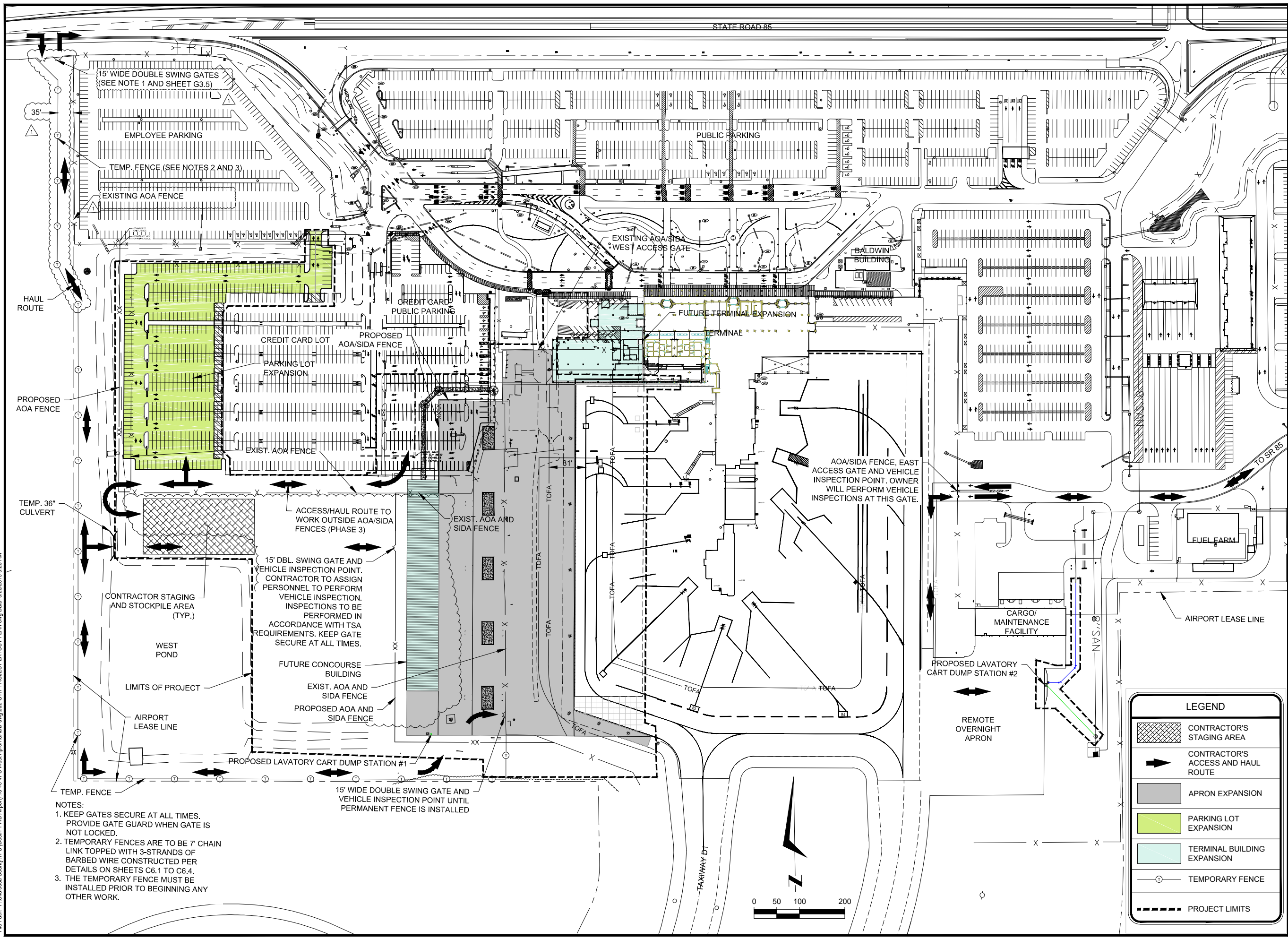
| REVISIONS | | | |
|-----------|----------------|---------|----|
| No. | Description | Date | By |
| 1 | ADDENDUM NO. 1 | 6/25/19 | JG |
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SHEET INDEX

| SHEET. No. | DESCRIPTION |
|---|---|
| G0.0 | COVER SHEET |
| CIVIL PLANS | |
| G1.1 | PROJECT LAYOUT PLAN |
| G1.2 | OVERALL SITE PLAN |
| G1.3 | GENERAL NOTES |
| G2.1 | BORING LAYOUT PLAN |
| G2.2 - G2.6 | BORING LOGS |
| G3.0 | CONSTRUCTION SCHEDULE |
| G3.1 - G3.3 | CONSTRUCTION SAFETY AND PHASING PLANS |
| G3.4 | CONSTRUCTION SAFETY AND PHASING DETAILS |
| G3.5 | CONSTRUCTION ACCESS CONNECTION TO SR 85 N |
| C1.1 - C1.2 | TYPICAL SECTIONS AND DETAILS |
| C2.1 | KEY SHEET |
| C3.1 - C3.4 | STAKING AND DEMOLITION PLANS |
| C4.1 - C4.3 | GRADING AND DRAINAGE PLANS |
| C4.4 - C4.12 | DRAINAGE DETAILS |
| C4.13 | STORMWATER POLLUTION PREVENTION PLAN |
| C5.1 | CONCRETE JOINT PLAN AND DETAILS |
| C6.1 - C6.2 | CHAIN LINK FENCE DETAILS |
| C6.3 - C6.4 | GATE DETAILS |
| C7.1 - C7.5 | MARKING AND SIGNAGE AND REMOVAL PLANS |
| C7.6 | MARKING AND SIGNAGE DETAILS |
| C7.7 | PARKING LOT MARKING AND SIGNING DETAILS |
| C8.1 - C8.4 | WATER AND SANITARY SEWER PLANS |
| C8.5 | OCWS WATER AND SEWER NOTES |
| C8.6 | WATER MAIN PROFILE |
| C8.7 - C8.9 | UTILITY DETAILS |
| C9.0 - C9.2 | LIFT STATION DETAILS |
| LANDSCAPING AND IRRIGATION PLANS | |
| L1.0 - L2.0 | LANDSCAPE PLANS |
| L3.0 | GENERAL AND PLANTING NOTES |
| L4.0 | PLANTING DETAILS |
| ARCHITECTURAL PLANS | |
| G001 | PROJECT LOCATION INFORMATION |
| G101 | NOTES |
| G102 | KEYNOTE INDEX |
| AD100 | ARCHITECTURAL DEMOLITION PLAN |
| A100 | ARCHITECTURAL PLAN |
| A102 | TOP OF CANOPY PLAN |
| A401 | FOUNDATION PLAN |
| A501 | CANOPY ELEVATIONS |
| A801 - A802 | MAIN CANOPY PLAN AND SECTION DETAILS |
| A811 - A812 | UMBRELLA CANOPY PLAN AND SECTION DETAILS |
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| A832 | CANOPY CONNECTIONS |
| A833 | WALKWAY DETAILS |
| ELECTRICAL PLANS | |
| E0.1 | ELECTRICAL LEGEND AND NOTES |
| E1.1 - E1.3 | ELECTRICAL DEMOLITION PLANS |
| E2.1 - E2.3 | ELECTRICAL LAYOUT PLANS |
| E3.1 | HIGH MAST PHOTOMETRICS PLANS |
| E4.1 | ELECTRICAL DETAILS |
| E5.1 | LIGHT POLE DETAILS |
| E5.2 | TAXIWAY FIXTURE DETAILS |
| E5.3 | DUCT BANK DETAILS |
| S1.1 | POLE FOUNDATION |

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- NOTES:**
- KEEP GATES SECURE AT ALL TIMES. PROVIDE GATE GUARD WHEN GATE IS NOT LOCKED.
 - TEMPORARY FENCES ARE TO BE 7' CHAIN LINK TOPPED WITH 3-STRANDS OF BARBED WIRE CONSTRUCTED PER DETAILS ON SHEETS C6.1 TO C6.4.
 - THE TEMPORARY FENCE MUST BE INSTALLED PRIOR TO BEGINNING ANY OTHER WORK.



DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
 5550 WEST IDLEWILD AVE. SUITE 102
 TAMPA, FLORIDA 33634 (813) 330-2701
 CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

| | |
|----------------|----------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

Notes:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |

PROJECT LAYOUT PLAN

FAA A.I.P. Project No.: **3-12-0081-029-2018**
 FDOT Project No.:

Date: **MAY 2019** Sheet Number: **G1.1**

LEGEND

- CONTRACTOR'S STAGING AREA
- CONTRACTOR'S ACCESS AND HAUL ROUTE
- APRON EXPANSION
- PARKING LOT EXPANSION
- TERMINAL BUILDING EXPANSION
- TEMPORARY FENCE
- PROJECT LIMITS



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CERTIFICATE OF AUTHORIZATION NO.: 30862

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Designer: HJ Checked by: JNG

Technician: MA ICE Proj. No.: 18-46

Engineer of Record:

REVISIONS

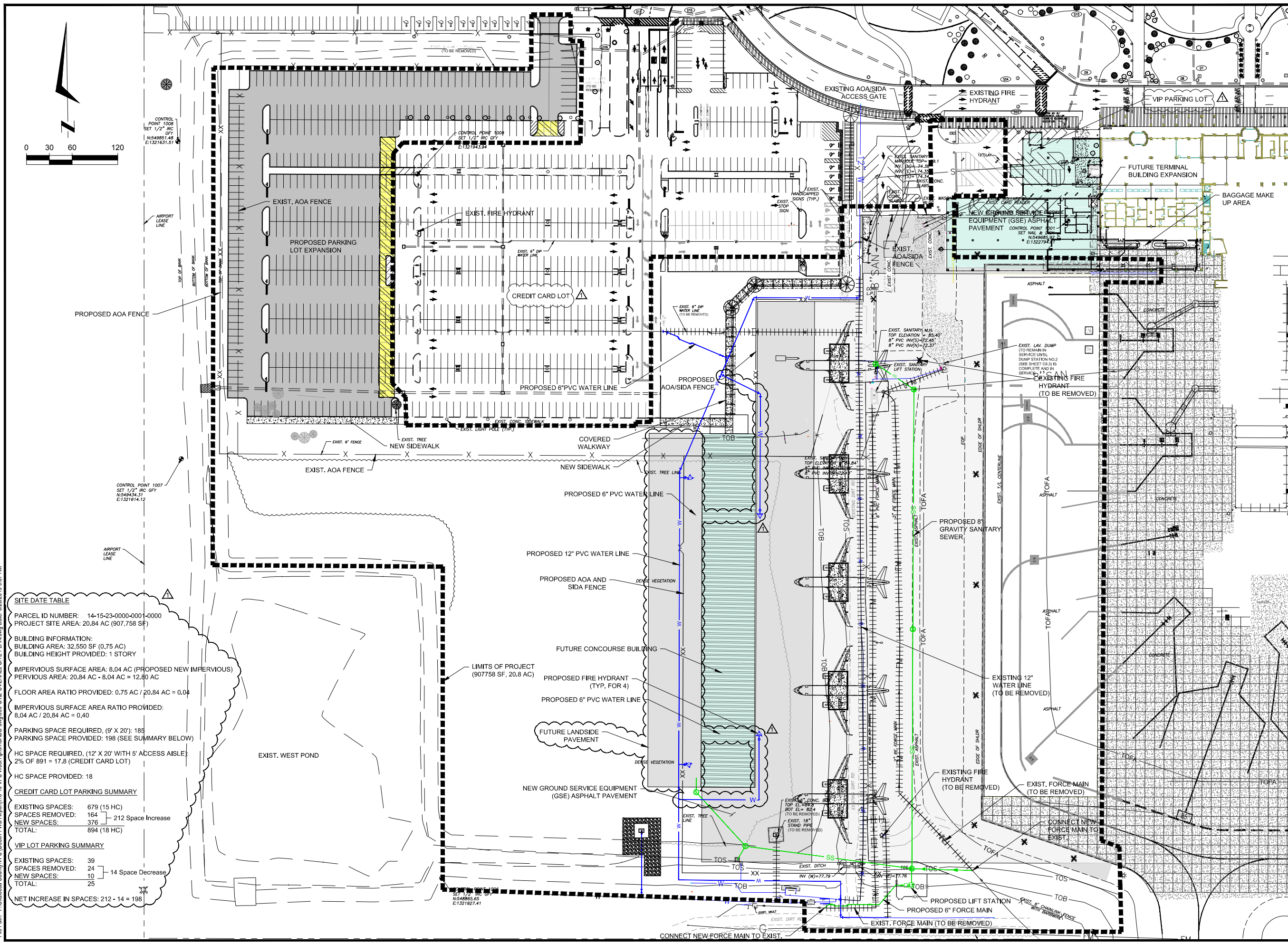
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| 1 | Addendum No. 1 | 6/25/19 | JG |

OVERALL SITE PLAN

FAA A.I.P. Project No.: 3-12-0081-029-2018

FDOT Project No.:

Date: MAY 2019 Sheet Number: G1.2



SITE DATA TABLE

PARCEL ID NUMBER: 14-15-23-0000-0001-0000
PROJECT SITE AREA: 20.84 AC (907,758 SF)

BUILDING INFORMATION:
BUILDING AREA: 32,550 SF (0.75 AC)
BUILDING HEIGHT PROVIDED: 1 STORY

IMPERVIOUS SURFACE AREA: 8.04 AC (PROPOSED NEW IMPERVIOUS)
PERVIOUS AREA: 20.84 AC - 8.04 AC = 12.80 AC

FLOOR AREA RATIO PROVIDED: 0.75 AC / 20.84 AC = 0.04

IMPERVIOUS SURFACE AREA RATIO PROVIDED:
8.04 AC / 20.84 AC = 0.40

PARKING SPACE REQUIRED, (9' X 20'): 185
PARKING SPACE PROVIDED: 198 (SEE SUMMARY BELOW)

HC SPACE REQUIRED, (12' X 20' WITH 5' ACCESS AISLE):
2% OF 891 = 17.8 (CREDIT CARD LOT)

HC SPACE PROVIDED: 18

CREDIT CARD LOT PARKING SUMMARY

EXISTING SPACES: 679 (15 HC)
SPACES REMOVED: 164
NEW SPACES: 376 } 212 Space Increase
TOTAL: 894 (18 HC)

VIP LOT PARKING SUMMARY

EXISTING SPACES: 39
SPACES REMOVED: 24
NEW SPACES: 10 } 14 Space Decrease
TOTAL: 25

NET INCREASE IN SPACES: 212 - 14 = 198

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5550 WEST IDLEWILD AVE. SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

Designer: HJ Checked by: JNG

Technician: MA ICE Proj. No.: 18-46

Engineer of Record:

Notes:

REVISIONS

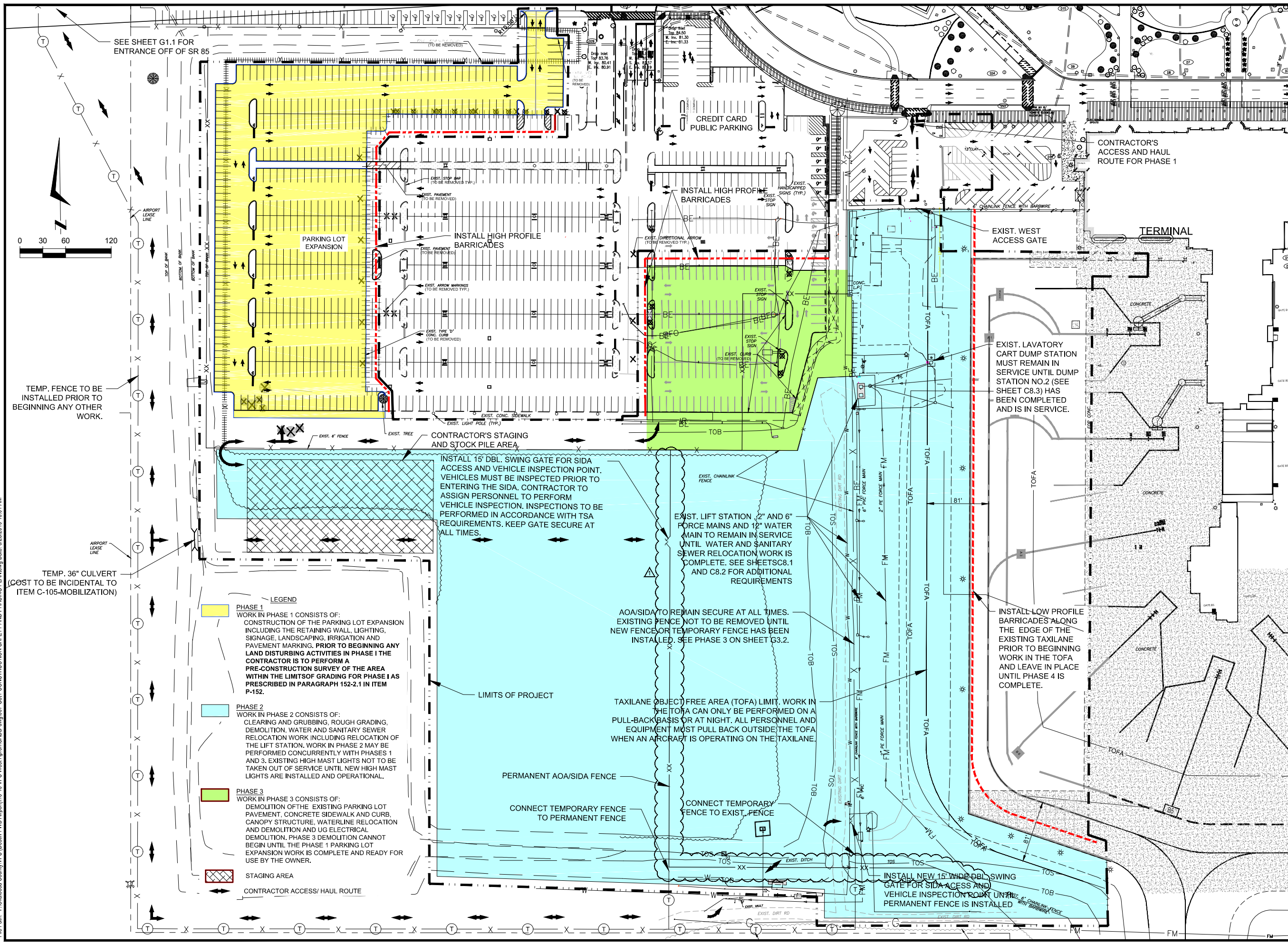
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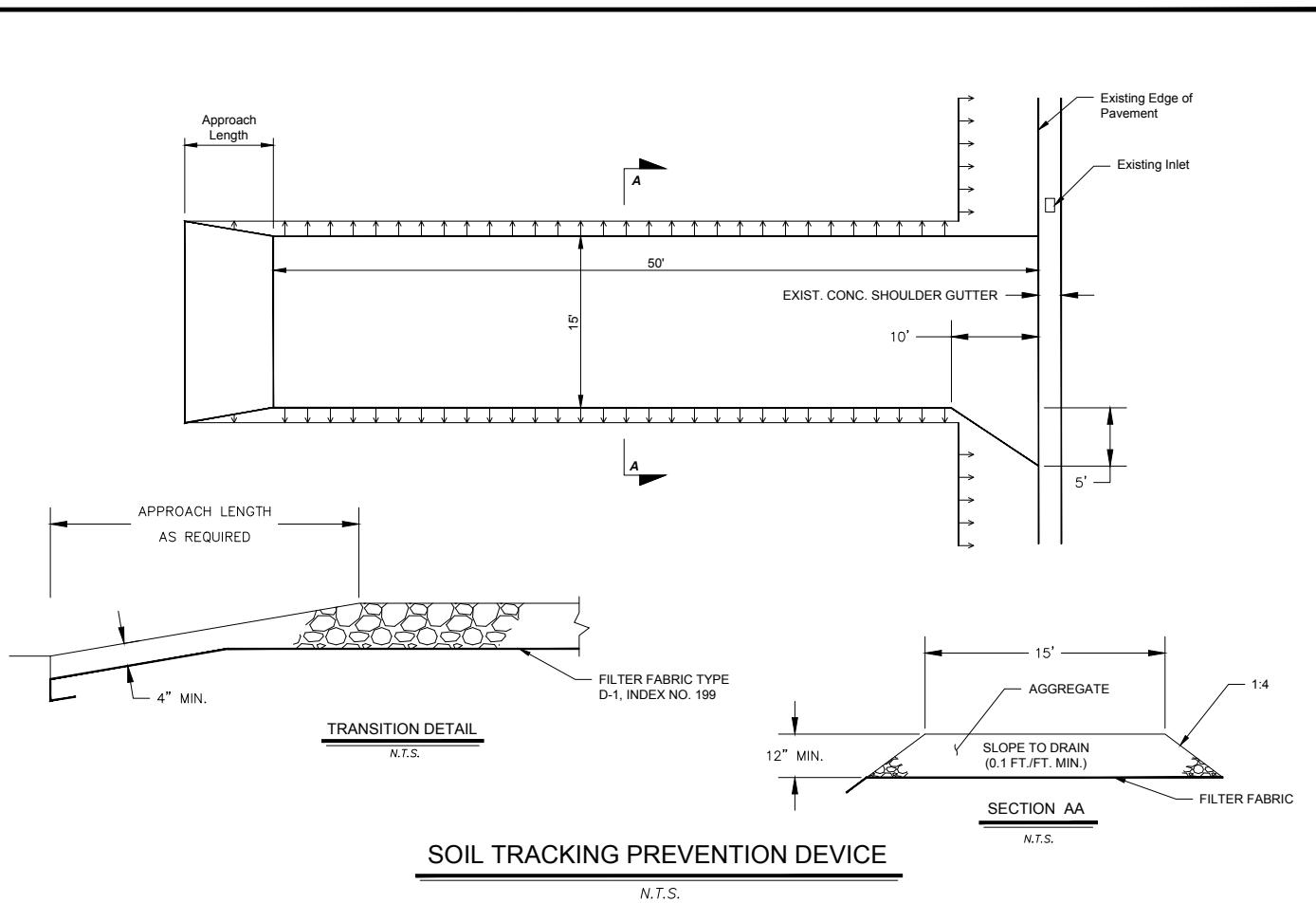
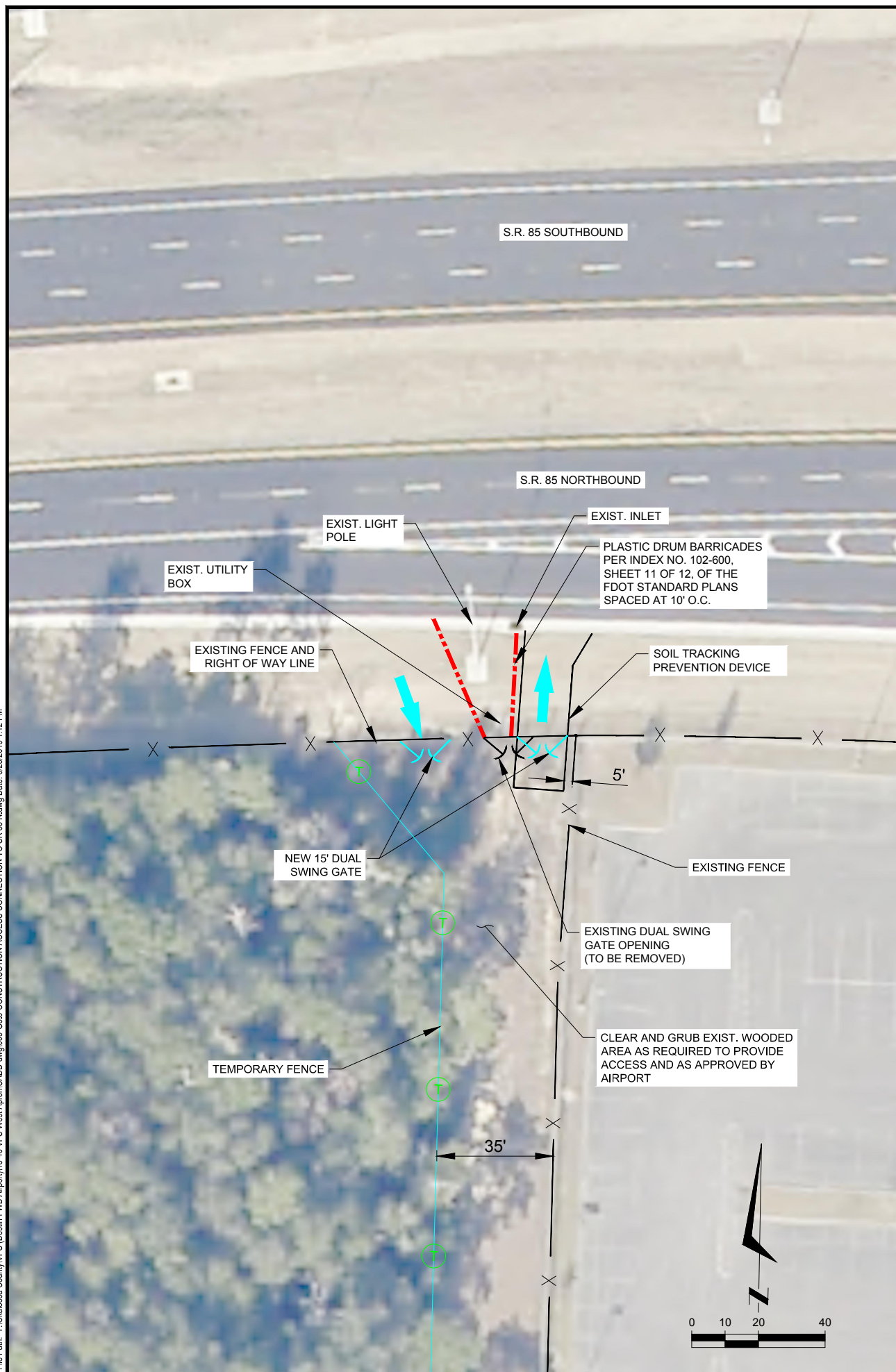
FAA A.I.P. Project No.: 3-12-0081-029-2018

FDOT Project No.:

Date: MAY 2019 Sheet Number: G3.1



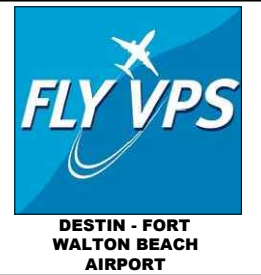
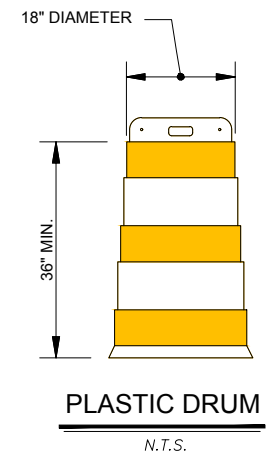
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SOIL TRACKING PREVENTION DEVICE

GENERAL NOTES

1. A SOIL TRACKING PREVENTION DEVICE (STPD) SHALL BE CONSTRUCTED AT LOCATIONS DESIGNATED BY THE ENGINEER FOR POINTS OF EGRESS FROM UNSTABILIZED AREAS OF THE PROJECT TO PUBLIC ROADS WHERE OFF-SITE TRACKING OF MUD COULD OCCUR. TRAFFIC FROM UNSTABILIZED AREAS OF THE CONSTRUCTION PROJECT SHALL BE DIRECTED THRU STPD. BARRIERS, FLAGGING, OR OTHER POSITIVE MEANS SHALL BE USED AS REQUIRED TO LIMIT AND DIRECT VEHICULAR EGRESS ACROSS THE STPD.
2. THE CONTRACTOR MAY PROPOSE AN ALTERNATIVE TECHNIQUE TO MINIMIZE OFF-SITE TRACKING OF SEDIMENT. THE ALTERNATIVE MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ITS USE.
3. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS (INCLUDING THE STPD AGGREGATE AND CONSTRUCTION MUD) SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER.
4. AGGREGATE SHALL BE AS DESCRIBED IN SECTION 901 EXCLUDING 901-2.3. AGGREGATE SHALL BE FDOT SIZE#1. IF THIS SIZE IS NOT AVAILABLE, THE NEXT AVAILABLE SMALLER SIZE AGGREGATE MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER. SIZES CONTAINING EXCESSIVE SMALL AGGREGATE WILL TRACK OFF THE PROJECT AND ARE UNSUITABLE.
5. CONTRACTOR IS RESPONSIBLE FOR RESTORING THE RIGHT OF WAY TO ITS ORIGINAL CONDITION AND FOR REPAIRING ANY DAMAGE TO PROPERTY (INCLUDING BUT NOT LIMITED TO THE LIGHT POLE, INLET, CONCRETE VALLEY GUTTER AND UTILITY BOX) TO THE APPROVAL OF THE OWNER.



Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

| | |
|----------------|----------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

Notes:

REVISIONS

| No. | Description | Date | By |
|-----|----------------------------|---------|----|
| 1 | Addendum No. 1 (New Sheet) | 6/25/19 | JG |
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Drawing Name: **CONSTRUCTION ACCESS CONNECTION TO SR 85 N**

FAA A.I.P. Project No.: **3-12-0081-029-2018**

FDOT Project No.:

Date: **MAY 2019** Sheet Number: **G3.5**



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INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE, SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

Designer: HJ Checked by: JNG

Technician: MA ICE Proj. No.: 18-46

Engineer of Record:

- Notes:
- SEE SHEET C3.1 FOR LEGEND.
 - SEE UTILITY RELOCATION AND ELECTRICAL SHEETS FOR ADDITIONAL DEMOLITION INFORMATION.

REVISIONS

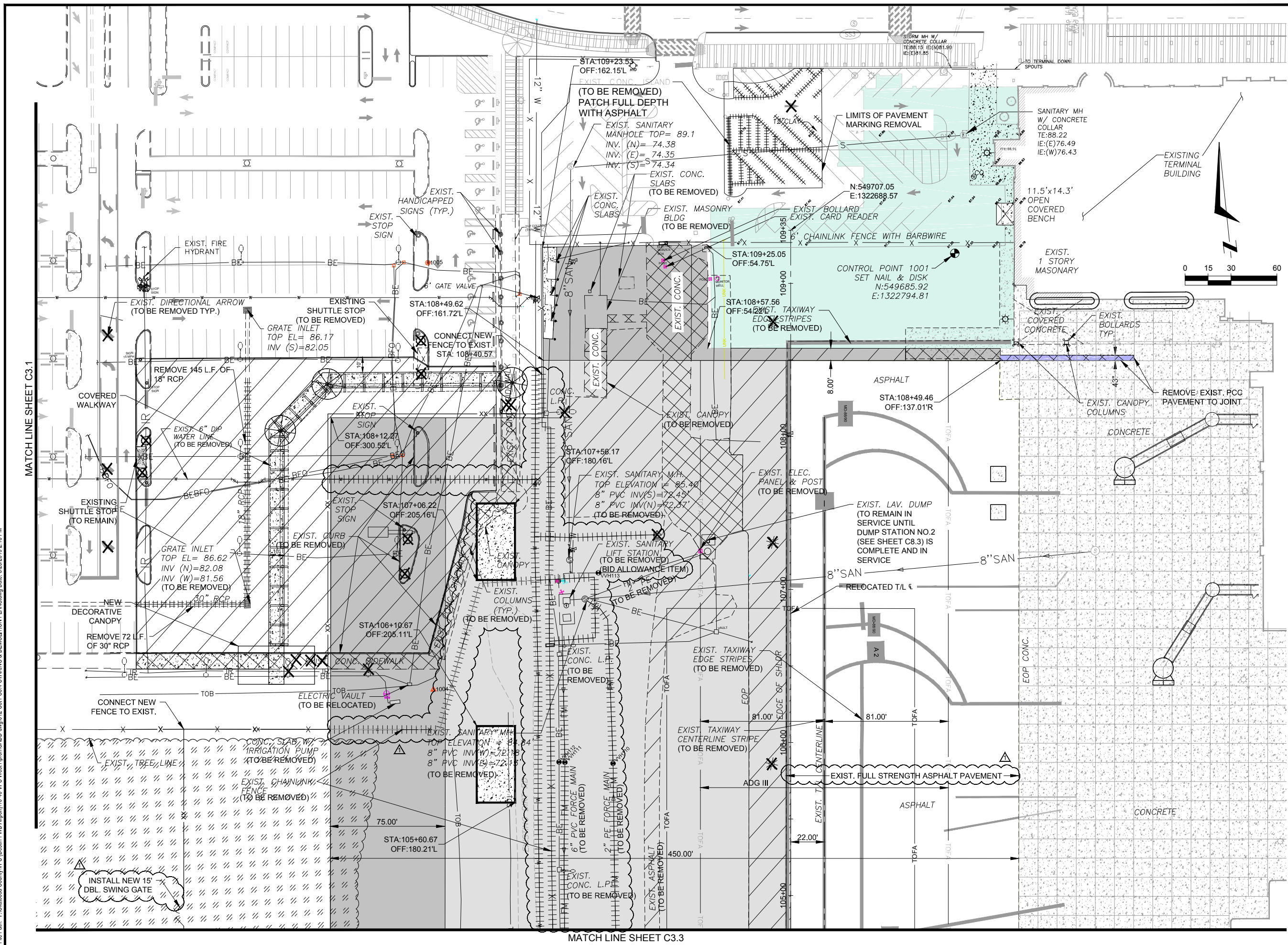
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| 1A | Addendum No. 1 | 6/25/19 | JG |

Drawing Name:
STAKING AND DEMOLITION PLAN NO. 2

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

Date: MAY 2019 Sheet Number: C3.2

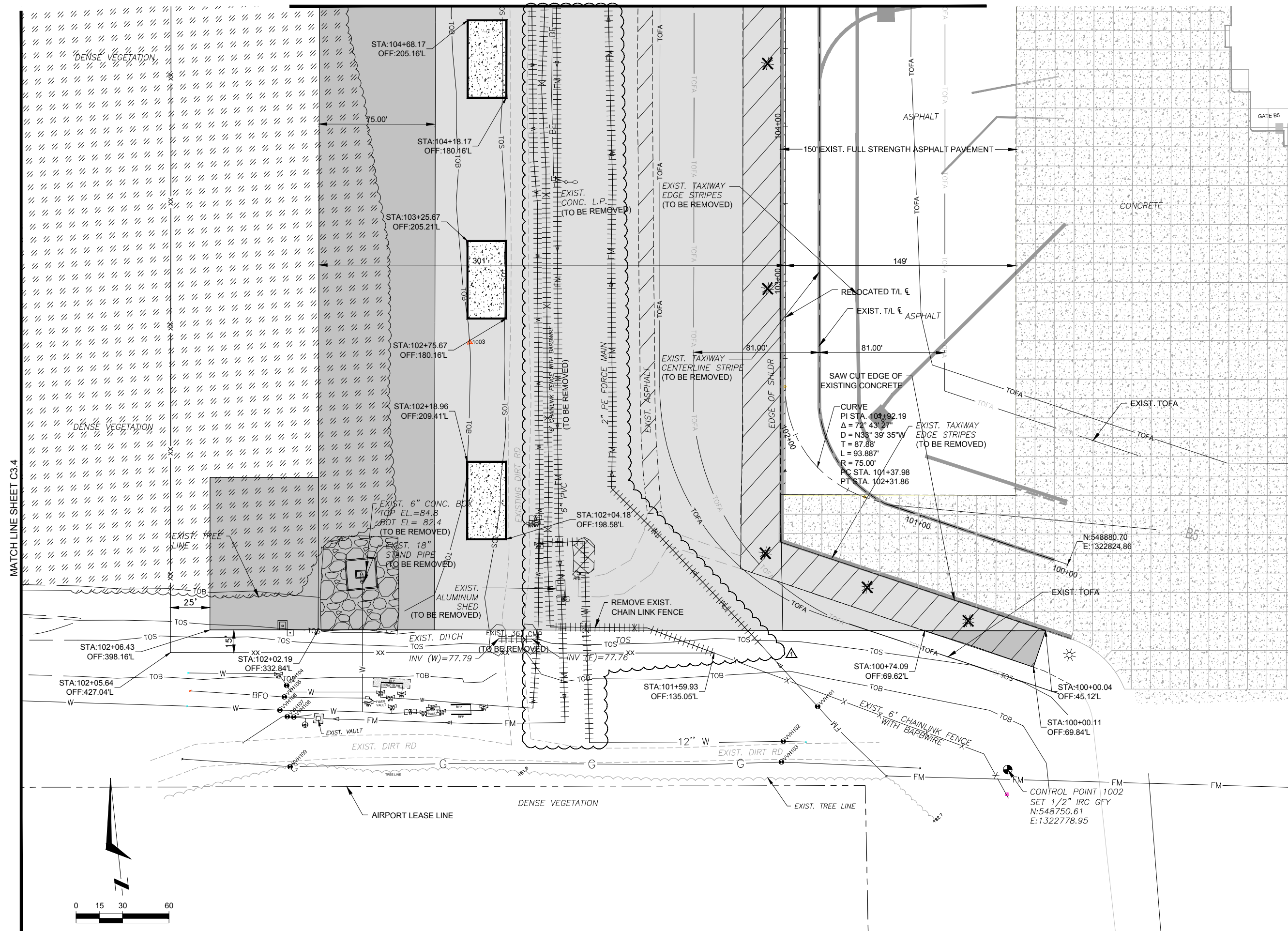


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INFRASTRUCTURE CONSULTING & ENGINEERING
 5550 WEST IDLEWILD AVE. SUITE 102
 TAMPA, FLORIDA 33634 (813) 330-2701
 CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

| | |
|----------------|----------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

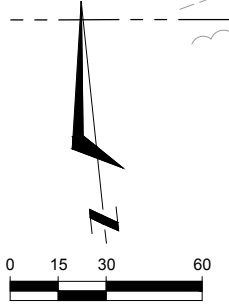
Notes:
1. SEE SHEET C3.1 FOR LEGEND.

| REVISIONS | | | |
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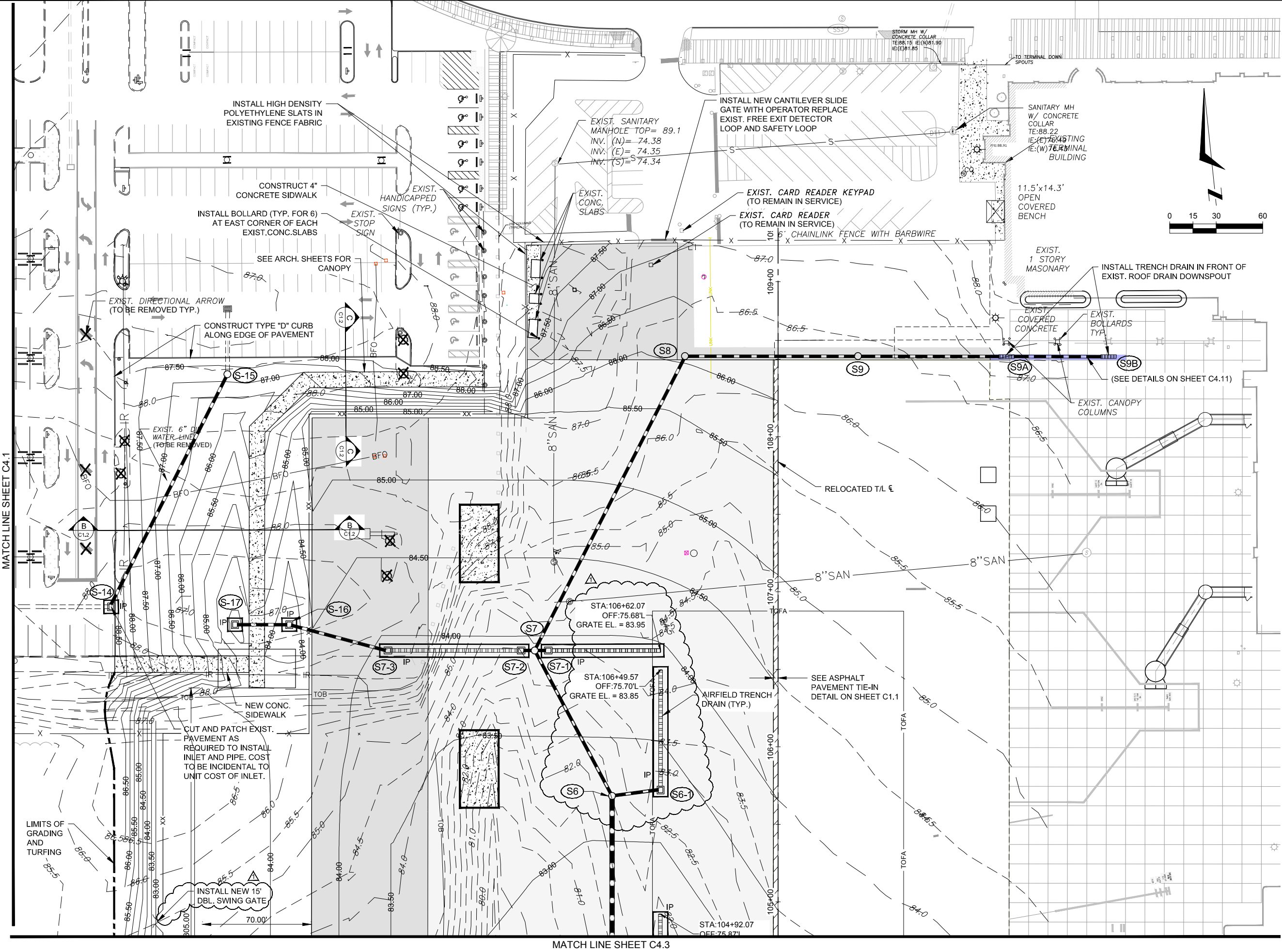
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FAA A.I.P. Project No.: **3-12-0081-029-2018**
 FDOT Project No.:

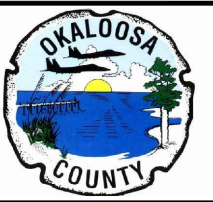
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INFRASTRUCTURE CONSULTING & ENGINEERING
 5550 WEST IDLEWILD AVE, SUITE 102
 TAMPA, FLORIDA 33634 (813) 330-2701
 CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | |
|-------------------|-------------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

- Notes:
- SEE SHEET C4.1 FOR LEGEND.
 - SEE SHEET C4.12 FOR DRAINAGE STRUCTURE SCHEDULE.

REVISIONS

| No. | Description | Date | By |
|------------------|-------------|---------|----|
| ▲ Addendum No. 1 | | 6/25/19 | JG |
| | | | |
| | | | |
| | | | |
| | | | |

Drawing Name:
GRADING AND DRAINAGE PLAN NO. 2

FAA A.I.P. Project No.:
3-12-0081-029-2018

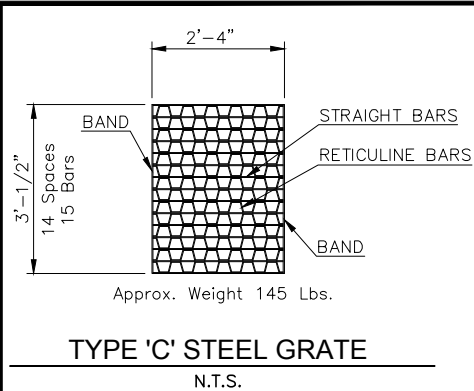
FDOT Project No.:

Date:
MAY 2019

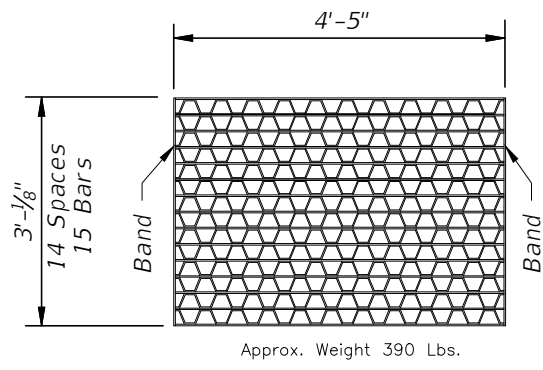
Sheet Number:
C4.2

MATCH LINE SHEET C4.1

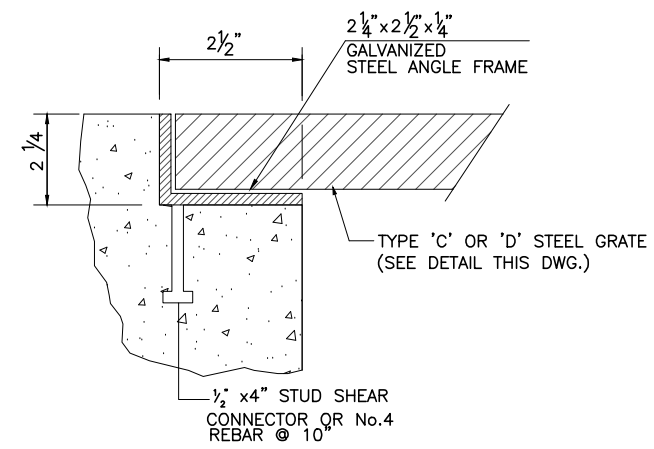
MATCH LINE SHEET C4.3



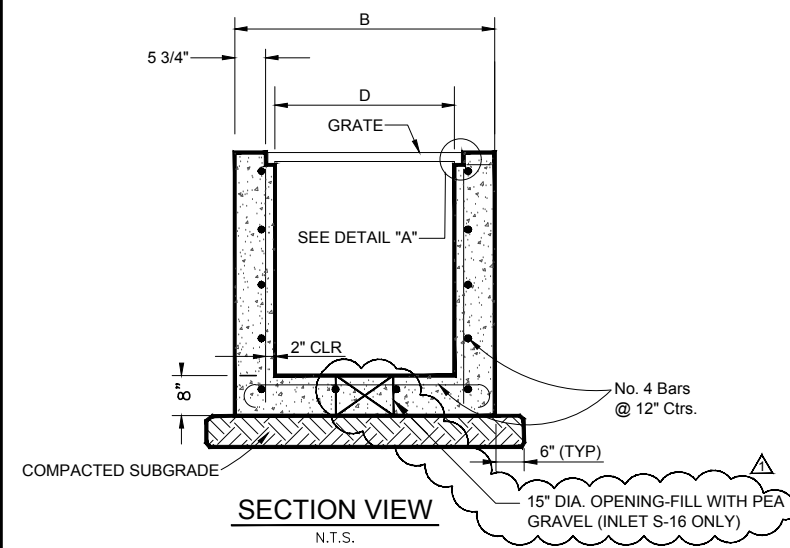
TYPE 'C' STEEL GRATE
N.T.S.



TYPE 'D' STEEL GRATE
N.T.S.



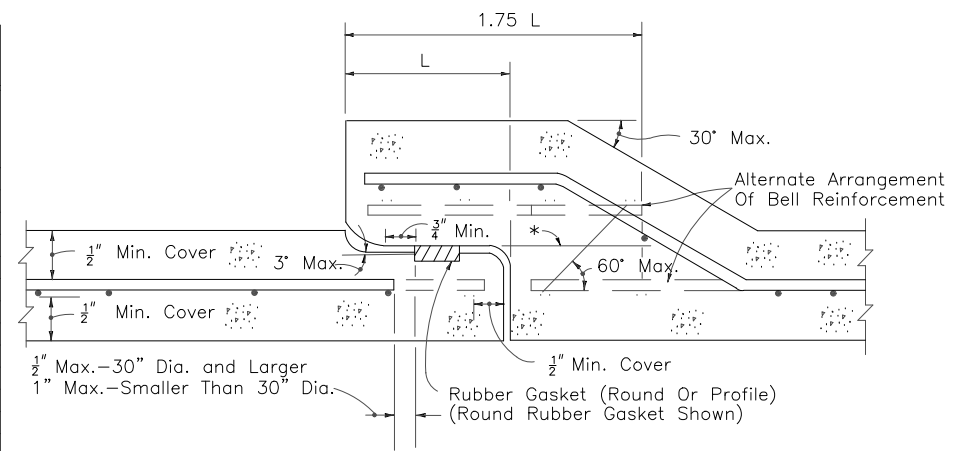
DETAIL 'A'
N.T.S.



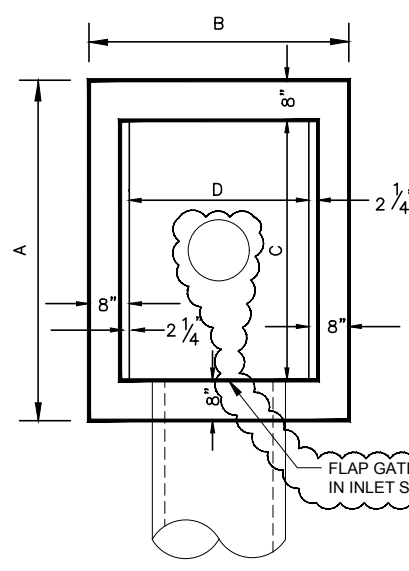
SECTION VIEW
N.T.S.

SCHEDULE OF BELL REINFORCEMENT
Classes II, III, IV, V; Wall A, B, C

| Nominal Pipe Diameter | Design Bell Reinforcement | Maximum Reinforcement Under Tolerance |
|-----------------------|---------------------------|---------------------------------------|
| | SQ. IN. PER FOOT | SQ. IN. PER FOOT |
| 15" | 0.07 | 0.010 |
| 18" | 0.07 | 0.010 |
| 24" | 0.09 | 0.010 |
| 30" | 0.12 | 0.010 |
| 36" | 0.14 | 0.010 |
| 42" | 0.16 | 0.010 |
| 48" | 0.19 | 0.011 |
| 54" | 0.21 | 0.012 |
| 60" | 0.23 | 0.0135 |
| 66" | 0.26 | 0.015 |
| 72" | 0.28 | 0.0165 |
| 78" | 0.30 | 0.018 |
| 84" | 0.33 | 0.0195 |
| 90" | 0.35 | 0.021 |
| 96" | 0.37 | 0.0225 |
| 102" | 0.40 | 0.024 |
| 108" | 0.42 | 0.0255 |



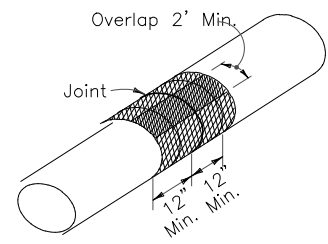
DETAIL OF BELL & SPIGOT CONCRETE PIPE JOINT USING ROUND OR PROFILE RUBBER GASKET
N.T.S.



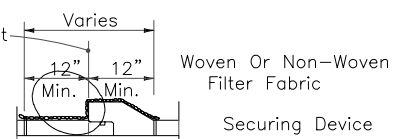
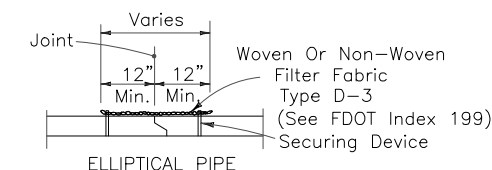
TYPE 'C' AND 'G' INLET
N.T.S.

| INLET DIMENSIONS | | | | |
|------------------|--|-------|-------|-------|
| | A | B | C | D |
| TYPE C | 4'-5" | 3'-4" | 3'-1" | 2'-0" |
| TYPE D | 4'-5" | 5'-5" | 3'-1" | 4'-1" |
| INLET TYPE | U.S. FOUNDRY GRATE CAT. NO. (OR EQUAL) | | | |
| TYPE C | 6611 | | | |
| TYPE D | 6626 | | | |

NOTE:
1. GRATES DIFFERING ONLY IN NON-ESSENTIAL DETAILS WILL BE ACCEPTABLE. STEEL GRATES SHALL BE GALVANIZED. GRATES SHALL BE RATED FOR H-20 LOADING.
2. 8" WALL MAY BE REDUCED TO 6" FOR PRE-CAST UNITS.



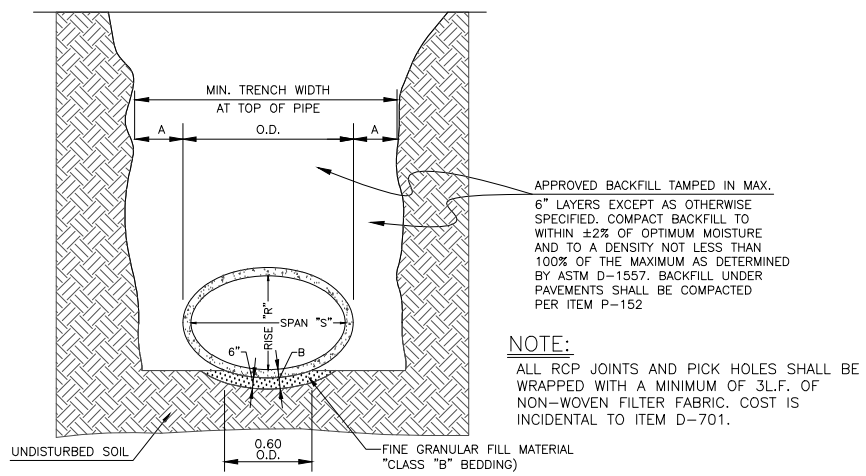
ELLIPTICAL PIPE SHOWN ISOMETRIC VIEW



ROUND PIPE PIPE SECTIONS

Cost of filter fabric jacket to be included in cost of pipe culverts.

FOR ALL PIPE TYPES - CONCRETE PIPE SHOWN
FILTER FABRIC JACKET
N.T.S.



PIPE BEDDING FOR R.C.P., P.V.C. AND D.I.P.
N.T.S.



DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE. SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

| | |
|----------------|----------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |

DRAINAGE DETAILS

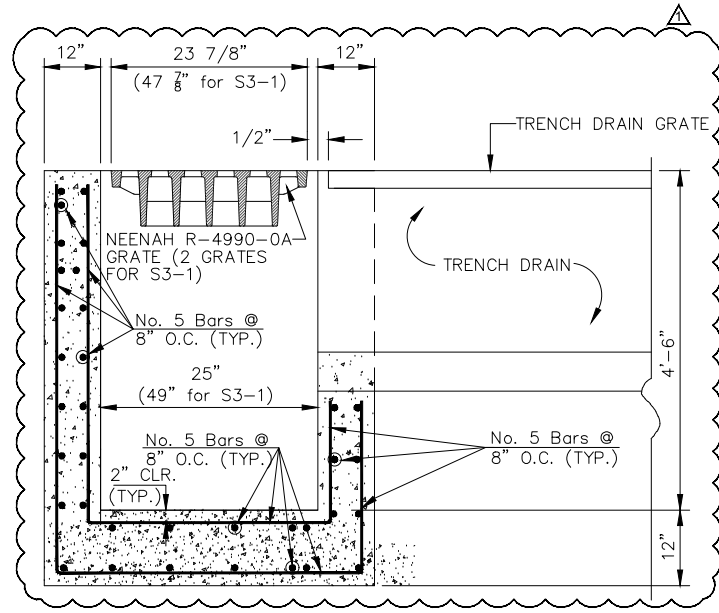
FAA A.I.P. Project No.: **3-12-0081-029-2018**

FDOT Project No.:

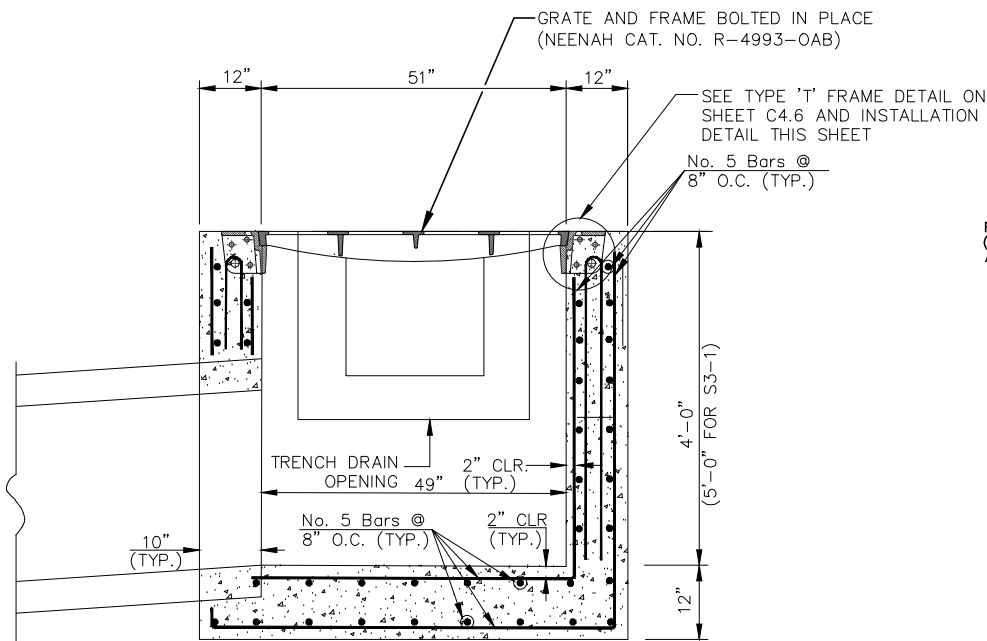
Date: **MAY 2019** Sheet Number: **C4.4**

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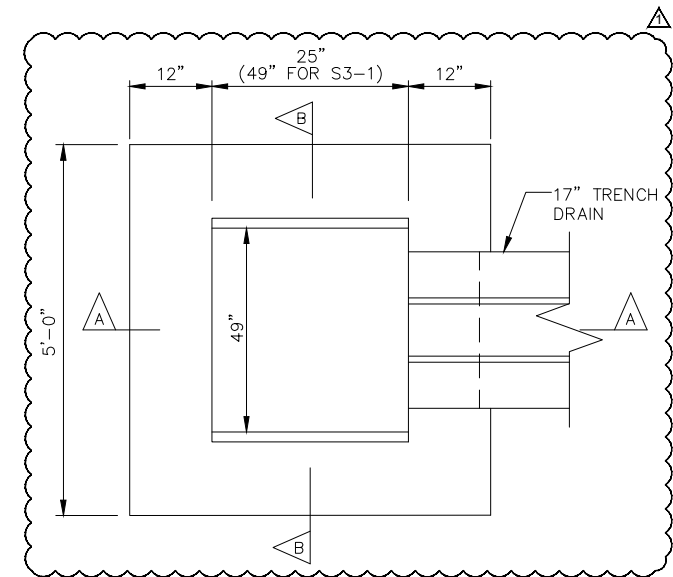
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SECTION A-A
N.T.S.

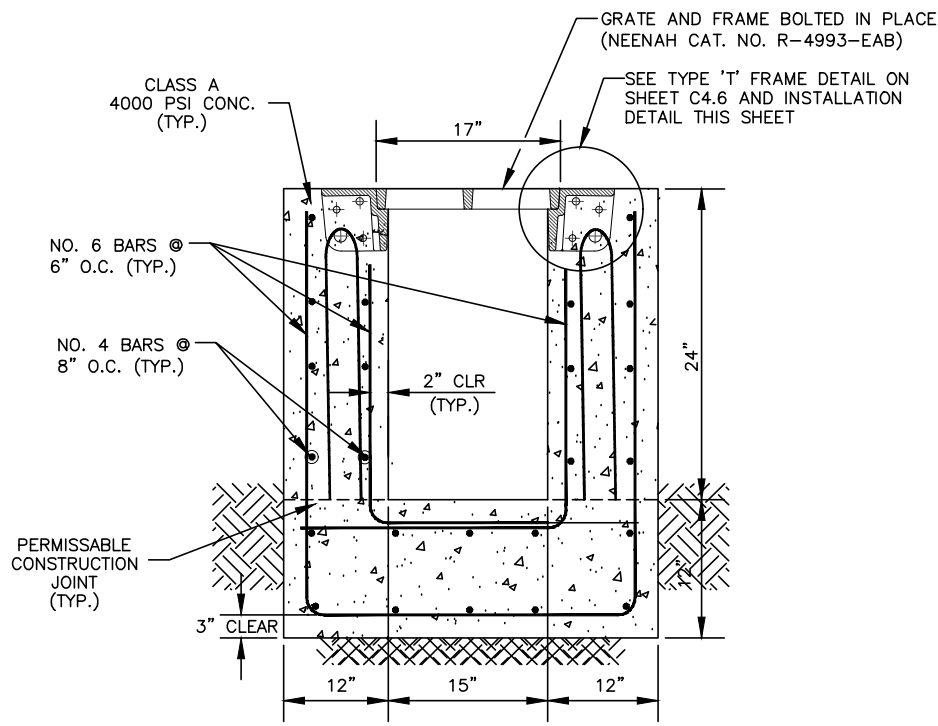


SECTION B-B
N.T.S.

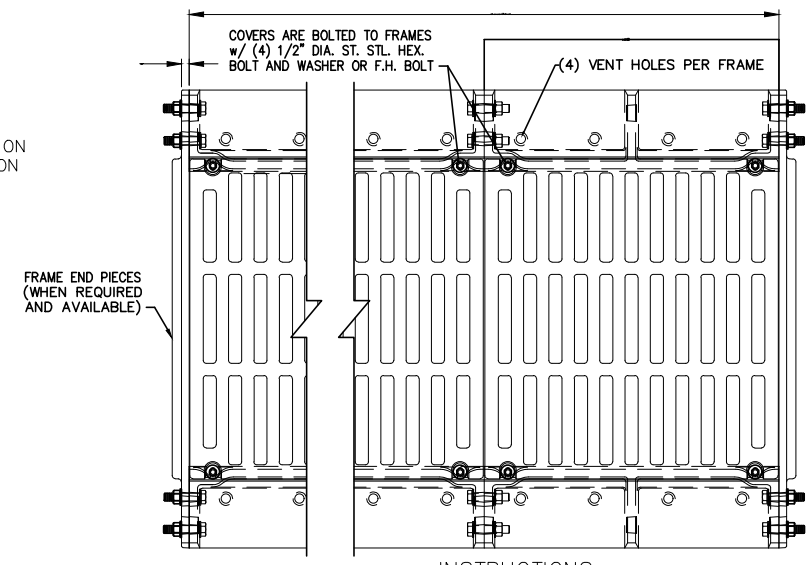


PLAN VIEW
N.T.S.

AIRFIELD TRENCH DRAIN INLET DETAIL
N.T.S.

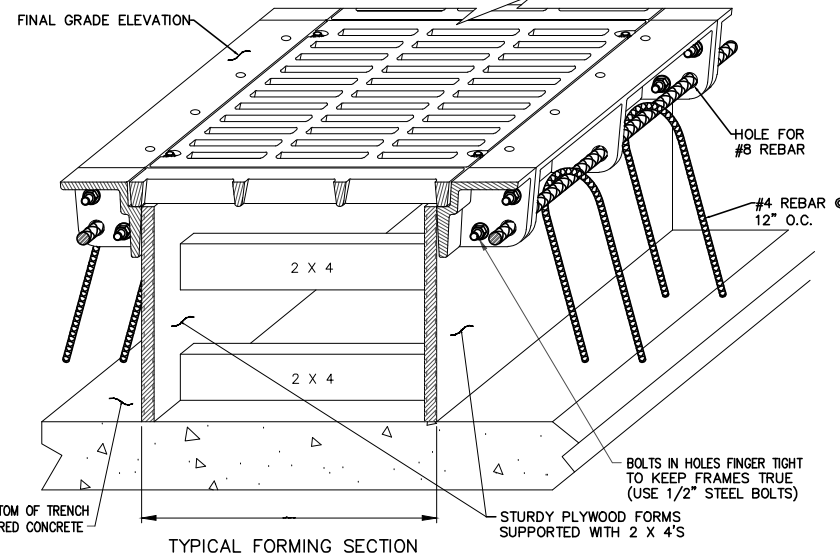
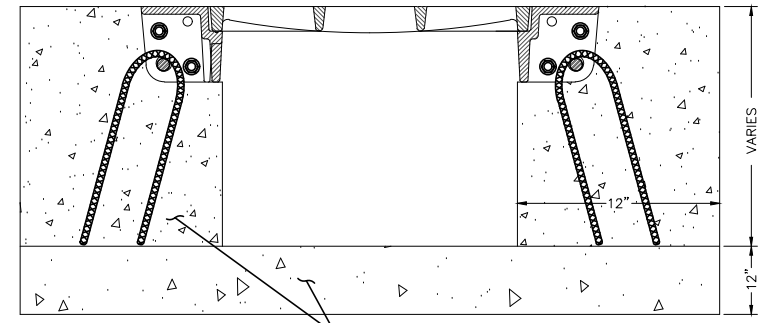


AIRFIELD TRENCH DRAIN SECTION
N.T.S.



INSTRUCTIONS:
IMPORTANT DO NOT DISASSEMBLE THE COVERS FROM THE FRAMES UNTIL FORMING IS COMPLETE.

1. FIRST POUR THE BOTTOM SLAB OF THE TRENCH.
2. CREATE FORMS FOR THE INSIDE WALLS OF THE TRENCH. THE OUT TO OUT OF THE FORMS MATCHES THE 'C' DIMENSION PROVIDED IN THE CATALOG. WHEN DONE CORRECTLY, THE BOLTED FRAME AND COVER WILL NEATLY REST ON THE FORMS.
3. ADD ADDITIONAL SECTIONS OF TRENCH BY PLACING THEM ON THE FORMS WITH ALL SECTIONS BUTTED TOGETHER. THERE ARE 4 HOLES ON THE ENDS OF THE TRENCH FRAME. THE LARGEST HOLE WILL ACCEPT AS LARGE AS #8 REBAR. THE TWO MATCHING DIAGONAL HOLES WILL ACCEPT 1/2" DIA. STEEL BOLTS. ADD WASHERS AND NUT, FINGER TIGHTEN.
4. THE LONGITUDINAL #8 REBAR MUST BE USED WITH ADDITIONAL REBAR BENDS TO ANCHOR THE FRAME INTO THE CONCRETE. IT IS NOT ACCEPTABLE TO USE ONLY THE #8 REBAR AS THIS WILL BE COUNTER-PRODUCTIVE. THE REMAINING HOLE ON THE FRAME END WILL NOT REQUIRE BOLTS BUT CAN BE USED AS AN ALIGNMENT HOLE FOR THE TWO BUTTED FRAMES WHEN NEEDED.
5. POUR CONCRETE AND VIBRATE ASSURING THAT CONCRETE IS COMPLETELY UNDER THE FRAME AND THERE ARE NO VOIDS.
6. AFTER THE CONCRETE IS SET, THE FORMS CAN BE REMOVED. THE MATED FRAMES AND COVERS NEED TO BE MARKED IN MATCHING SETS SO WHEN THEY ARE REMOVED TO EXPOSE THE FORMWORK, THEY CAN BE REPLACED IN THE EXACT LOCATION AND ORIENTATION THAT THEY WERE ORIGINALLY IN. RELOCATING OR ROTATING THE COVERS IS UNACCEPTABLE.

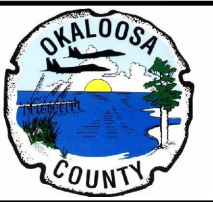


NOTE: TYPE T TRENCH FRAMES COME BOLTED TO THE COVER AND SHOULD REMAIN BOLTED TO THE COVER UNTIL THE FORMWORK IS TO BE REMOVED. REMOVED GRATES MUST BE REINSTALLED IN THE SAME LOCATION AND ORIENTATION.

TYPE T FRAME INSTALLATION DETAIL
N.T.S.



DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE. SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | | | |
|-------------|----|----------------|-------|
| Designer: | HJ | Checked by: | JNG |
| Technician: | MA | ICE Proj. No.: | 18-46 |

Engineer of Record:

Notes:

| REVISIONS | | | |
|-----------|----------------|---------|----|
| No. | Description | Date | By |
| 1 | Addendum No. 1 | 6/25/19 | JG |
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Drawing Name:

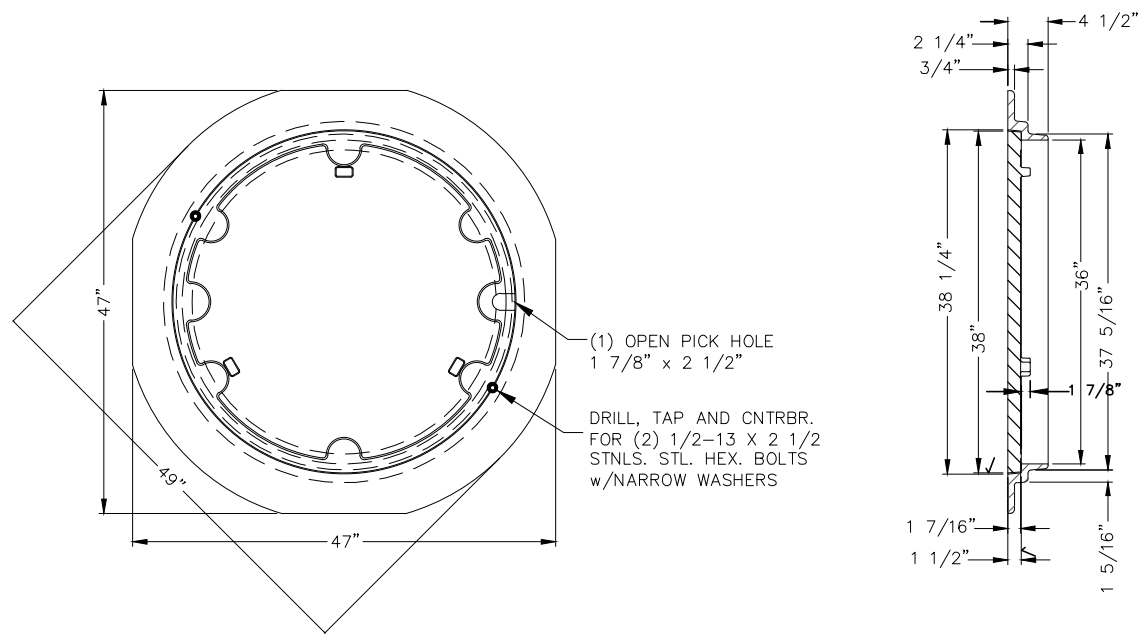
DRAINAGE DETAILS

FAA A.I.P. Project No.:

3-12-0081-029-2018

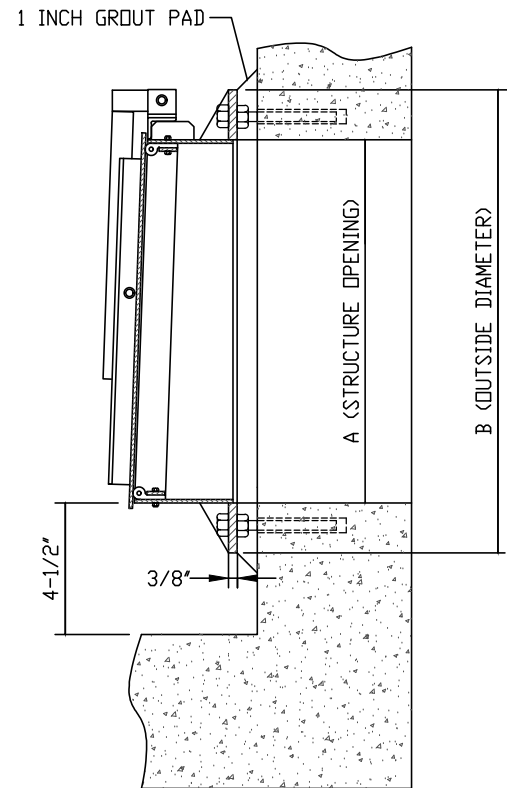
FDOT Project No.:

| | | | |
|-------|----------|---------------|------|
| Date: | MAY 2019 | Sheet Number: | C4.5 |
|-------|----------|---------------|------|



EXTRA HEAVY DUTY MANHOLE COVER AND FRAME

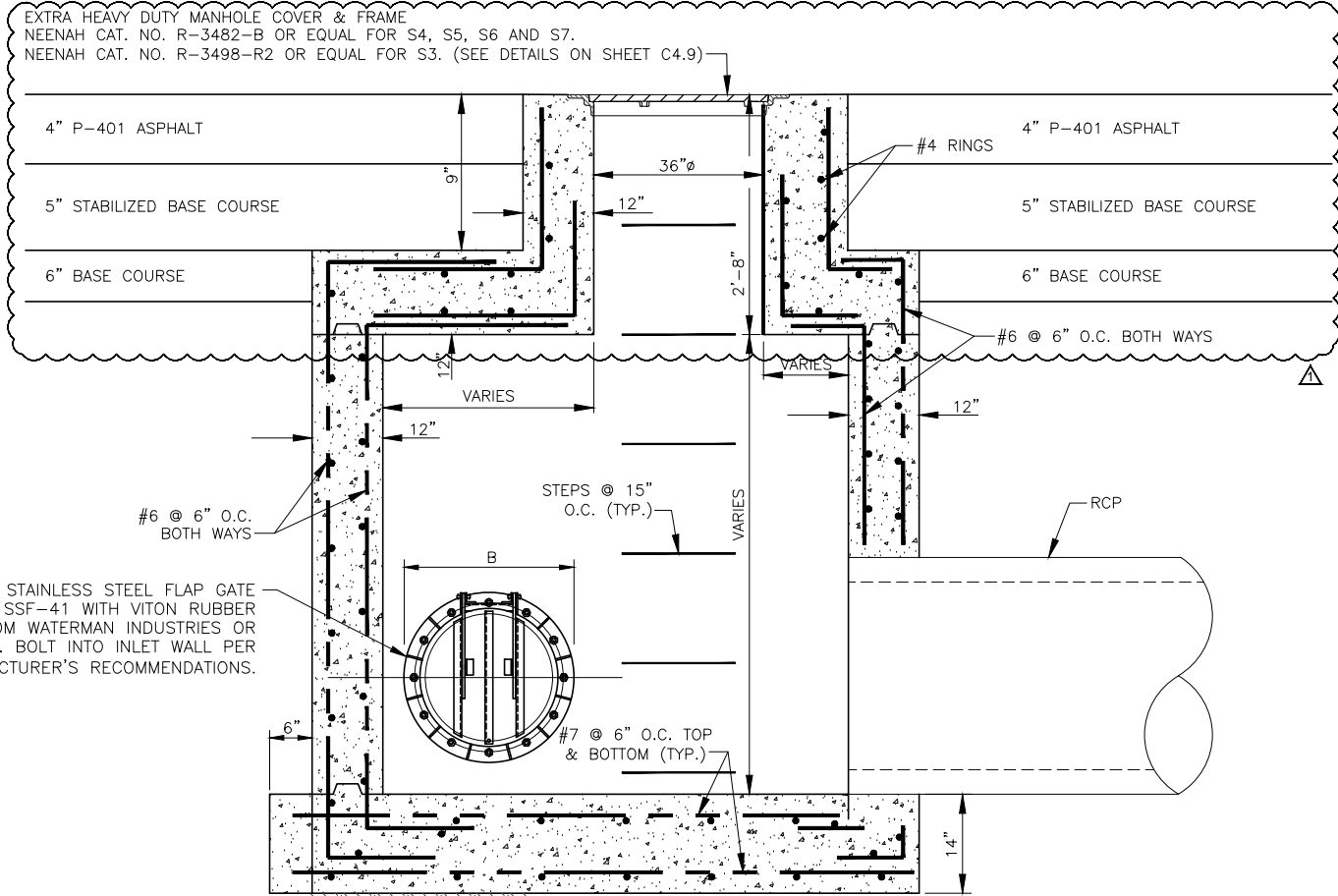
N.T.S.
COVER TO BE NEENAH R3492-B OR EQUAL. MUST BE RATED TO SUPPORT 100,000 LB WHEEL LOAD WITH 250 PSI TIRE PRESSURE.



FLAP GATE SECTION

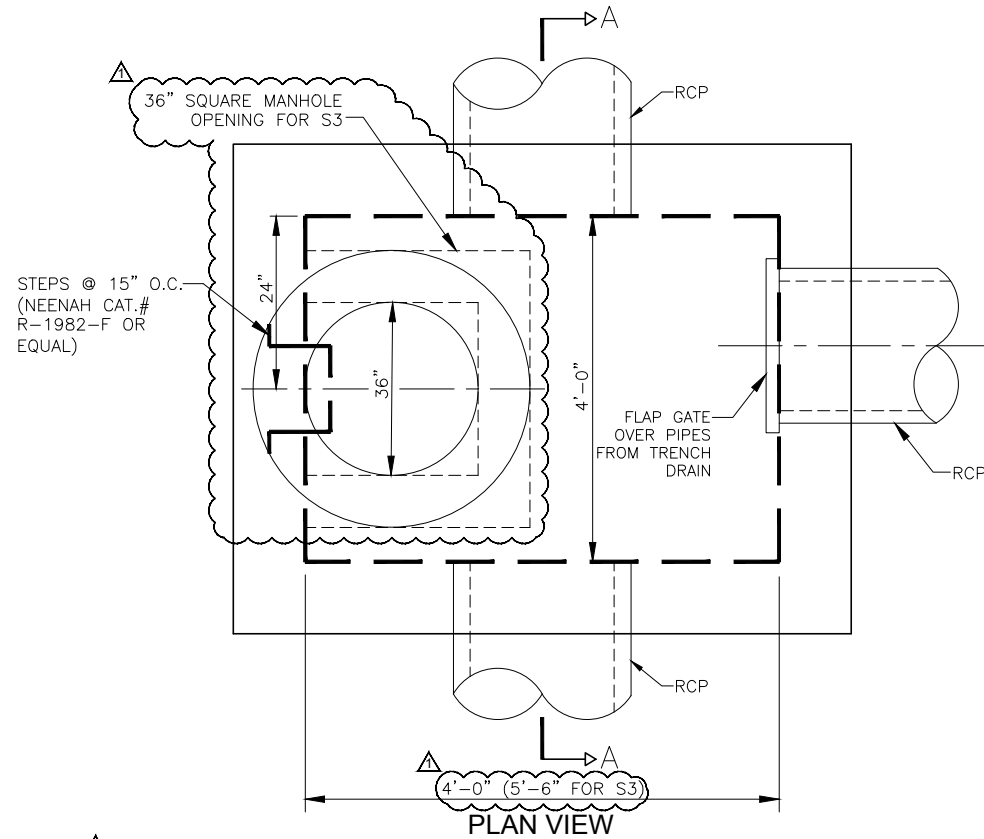
N.T.S.

| FLAP GATE DIMENSIONS | | | |
|----------------------|-----------|---------|---------|
| PIPE SIZE | GATE SIZE | A | B |
| 12" | 15" | 17" | 20 1/2" |
| 18" | 24" | 26 1/2" | 30 3/8" |
| 30" | 36" | 38 1/2" | 42 3/8" |
| 36" | 42" | 46" | 48 5/8" |



SECTION A-A

N.T.S.



PLAN VIEW

N.T.S.

AIRFIELD MANHOLE DETAILS (S3, S4, S5, S6 AND S7)

N.T.S.



DESTIN - FORT WALTON BEACH AIRPORT



Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | |
|-------------------|-------------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

Notes:

REVISIONS

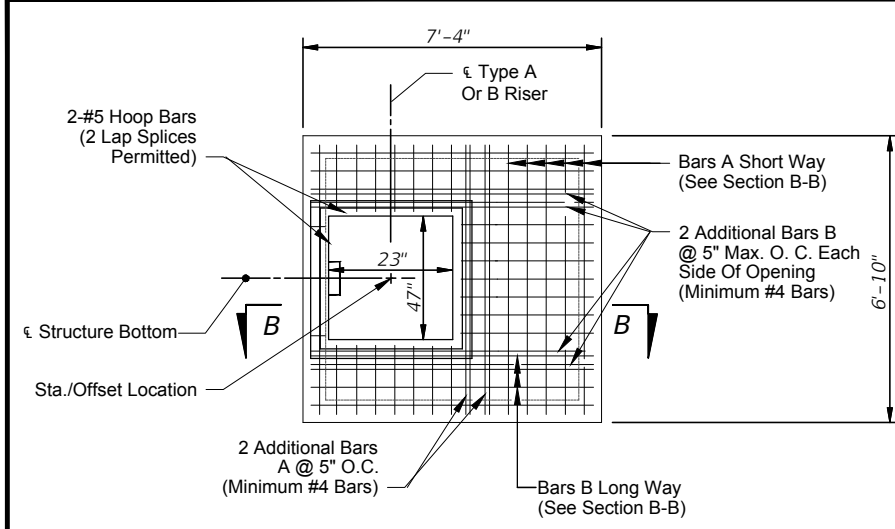
| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |
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Drawing Name:
DRAINAGE DETAILS

FAA A.I.P. Project No.:
3-12-0081-029-2018

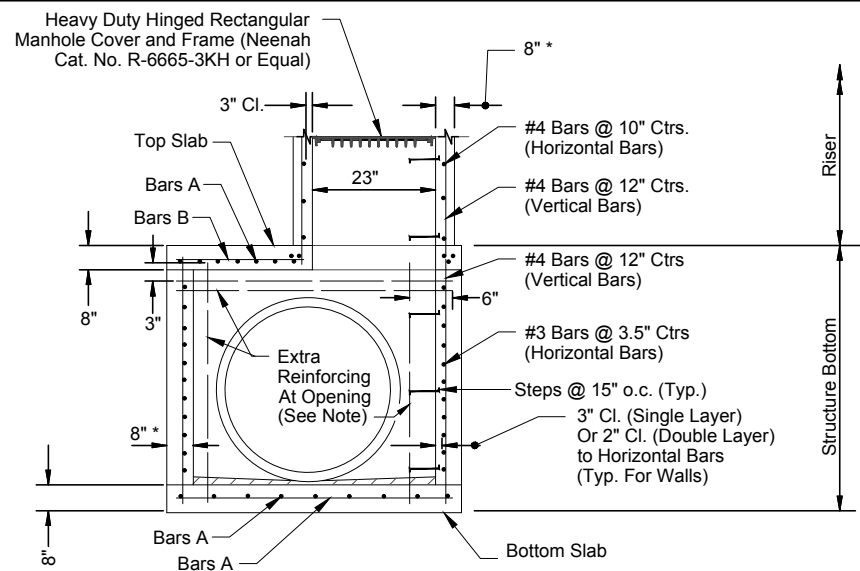
FDOT Project No.:
Date: **MAY 2019** Sheet Number: **C4.7**

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TOP SLAB REINFORCING STEEL DIAGRAM

Bars A: #4 Bars @ 6.5" Ctrs (Short Way)
 Bars B: #3 Bars @ 3.5" Ctrs (Long Way)

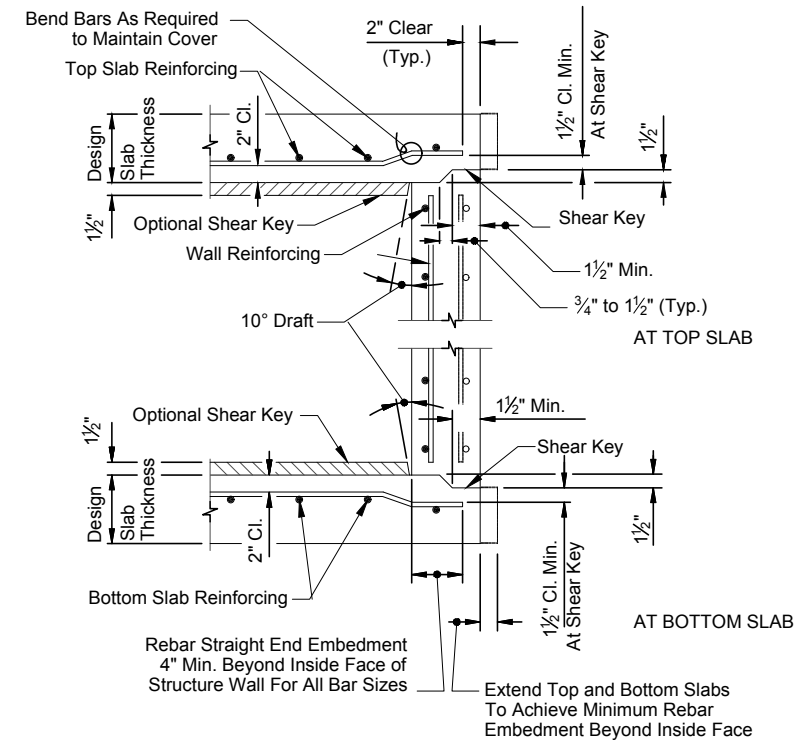


NOTE:
 Provide one extra #4 bar reinforcement each side of each opening and two extra #4 bars at 3" min. spacing above each opening.

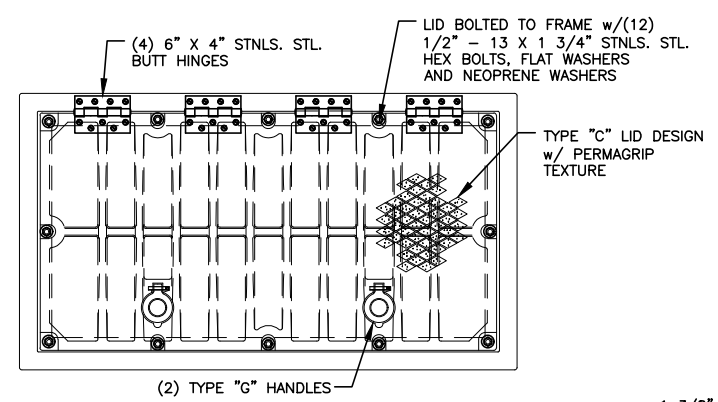
SECTION B-B
 * For Cast-In-Place. Can Be Reduced To 6" For Precast.

MANHOLE STRUCTURE S2

N.T.S.



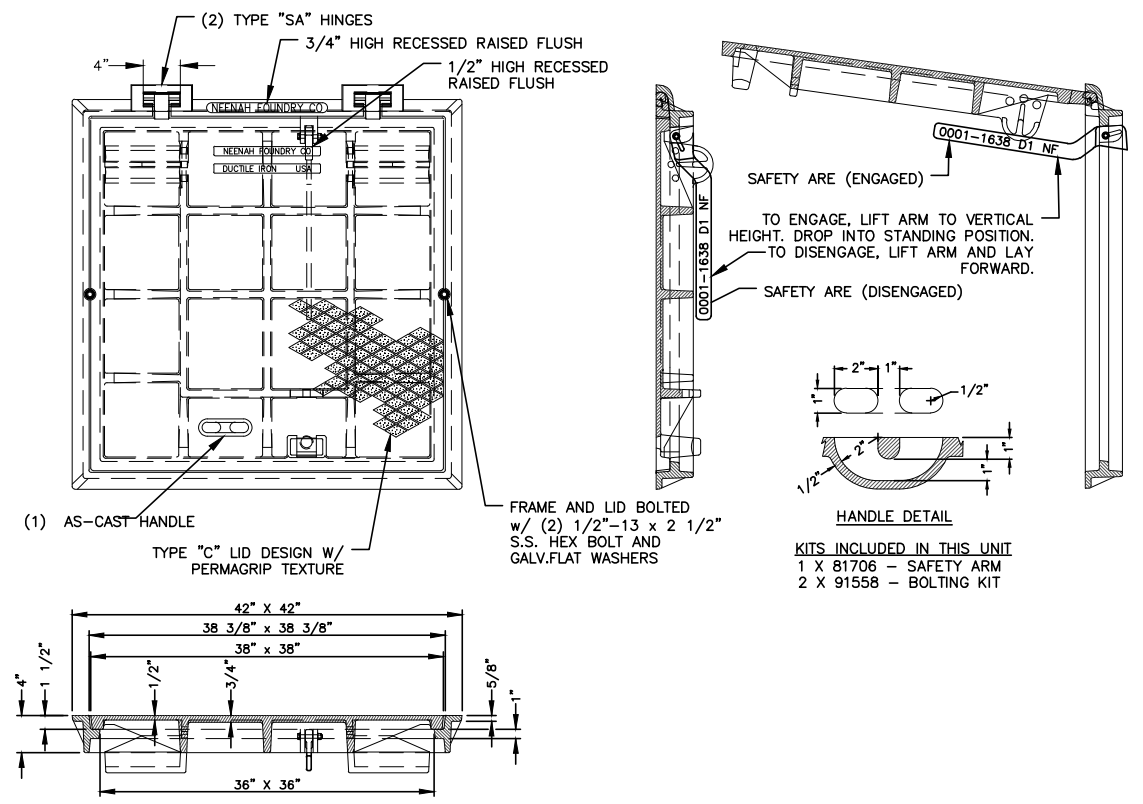
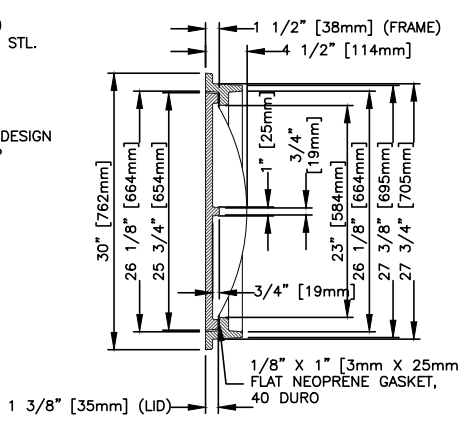
TYPICAL SLAB TO WALL DETAILS FOR PRECAST STRUCTURES



MANHOLE STRUCTURE S2 FRAME AND LID

NOTE:
 1. FRAME AND LID TO BE NEENAH CAT. NO. R-3498-R2 OR EQUAL.

N.T.S.



MANHOLE STRUCTURE S3 FRAME AND LID

NOTES:
 1. FRAME AND LID TO BE NEENAH CAT. NO. R-3498-R2 OR EQUAL.
 2. FRAME AND LID DIFFERING ONLY IN NON-ESSENTIAL DETAILS WILL BE ACCEPTABLE. FRAME AND LID TO BE RATED FOR 100,000 LB DUAL WHEEL LOAD WITH A TIRE PRESSURE OF 250 PSI.

N.T.S.



DESTIN - FORT WALTON BEACH AIRPORT



Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | |
|-------------|----------------|
| Designer: | Checked by: |
| HJ | JNG |
| Technician: | ICE Proj. No.: |
| MA | 18-46 |

Engineer of Record:

Notes:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |
| | Sheet Replaced | | |

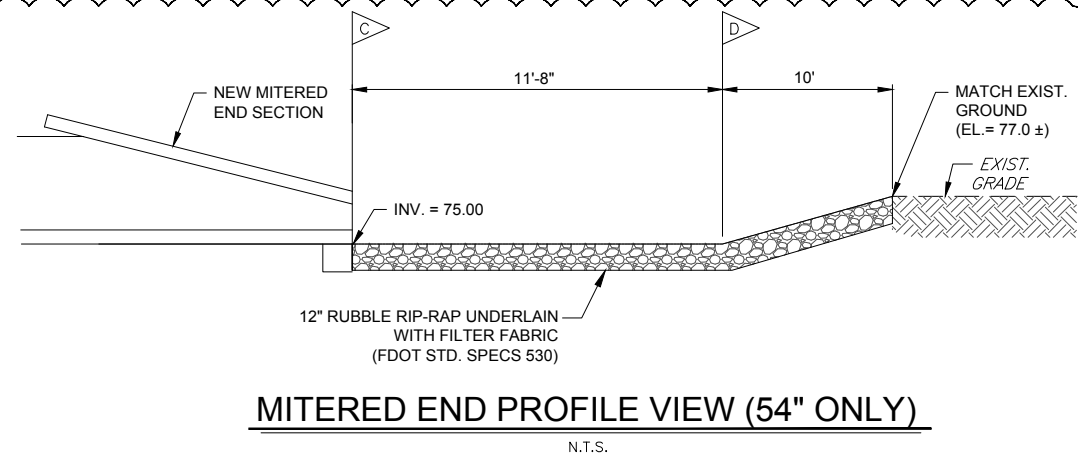
DRAINAGE DETAILS

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

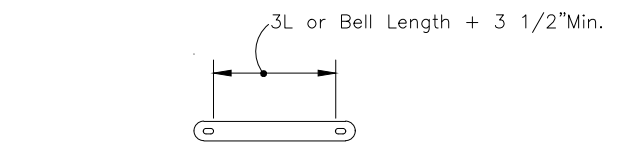
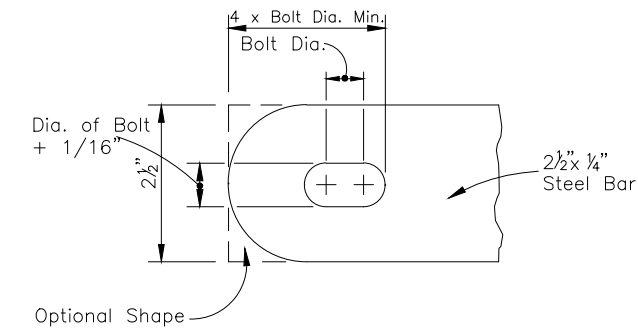
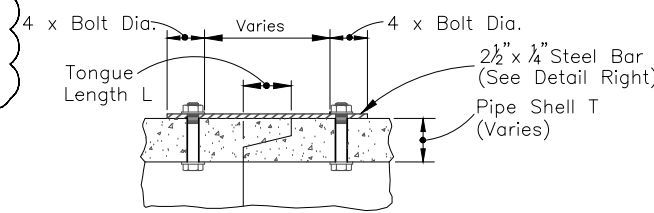
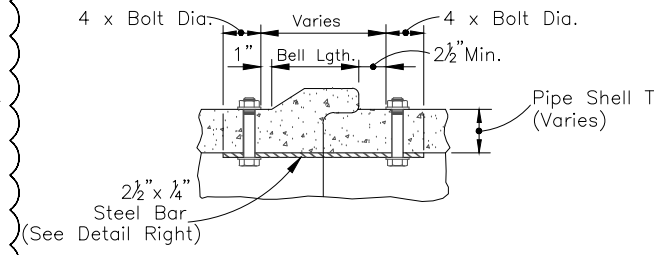
Date: **MAY 2019** Sheet Number: **C4.9**

| | DIMENSIONS | | | | | | | | | | | |
|-----------|------------|-------|-------|--------|-------|-----|-------|-------------|-------------|-------------|------------|-------|
| | D | A | B | C | E | F | G | M | | | | N |
| | | | | | | | | Single Pipe | Double Pipe | Triple Pipe | Quad. Pipe | |
| 2:1 SLOPE | 54" | 2.52' | 9.44' | 11.96' | 8.56' | 12' | 2.83' | 8.42' | 16.08' | 23.75' | 31.42' | 1.46' |
| 4:1 SLOPE | 15" | 2.27' | 4.09' | 6.36' | 4.03' | 8' | 1.22' | 4.63' | 7.21' | 9.79' | 12.37' | 1.19' |
| | 18" | 2.36' | 5.12' | 7.48' | 5.03' | 9' | 1.41' | 4.92' | 7.75' | 10.58' | 13.42' | 1.21' |
| | 24" | 2.53' | 7.18' | 9.71' | 7.03' | 11' | 1.73' | 5.50' | 8.92' | 12.33' | 15.75' | 1.25' |
| | 30" | 2.70' | 9.25' | 11.95' | 9.03' | 13' | 2.00' | 6.08' | 10.33' | 14.58' | 18.83' | 1.29' |



MITERED END PROFILE VIEW (54" ONLY)

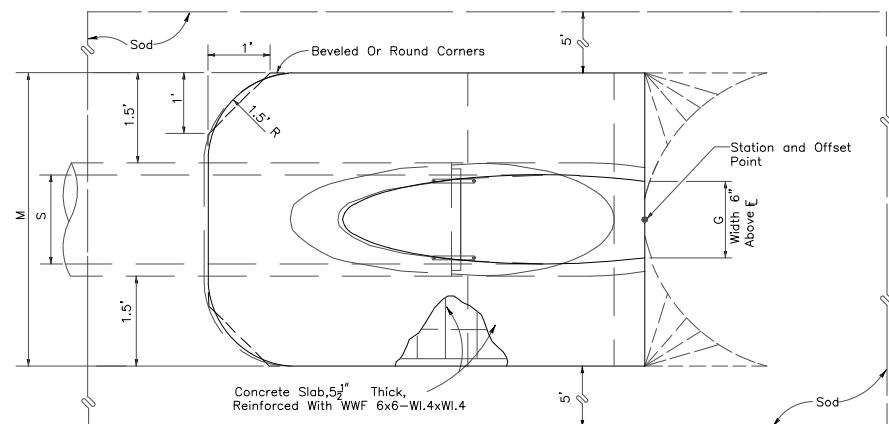
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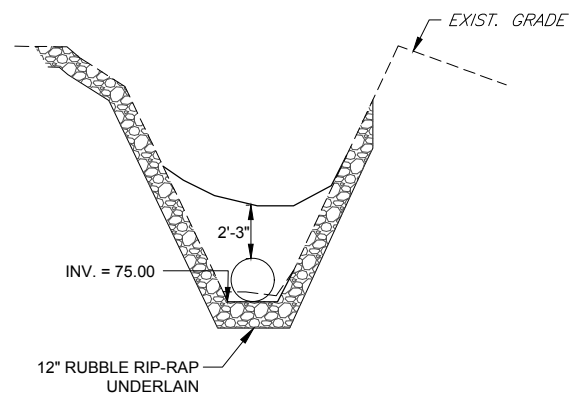
All bars, bolts, nuts and washers are to be galvanized steel.
 Bolt diameters shall be 3/8" for 15" to 36" pipe and 5/8" for 42" to 60" pipe.
 Two connectors required per joint, located 60" right and left of bottom center of pipe.
 Bolt holes in pipe shell are to be drilled.

CONCRETE PIPE CONNECTOR DETAIL FOR MITERED END SECTION

NTS

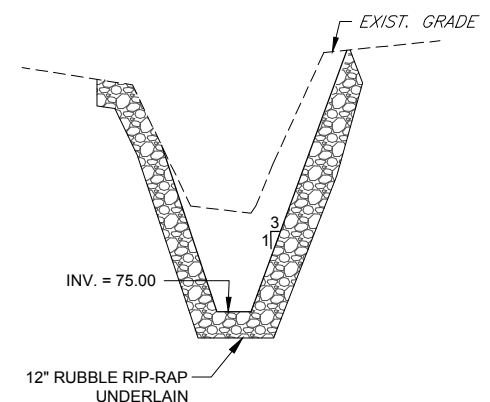


TOP VIEW-SINGLE PIPE



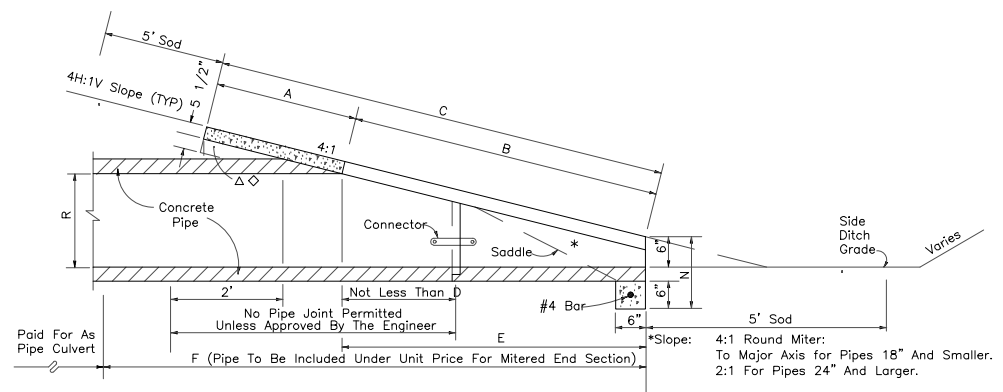
SECTION "C"

N.T.S.



SECTION "D"

N.T.S.



MITERED END SECTION

N.T.S.

*Slope: 4:1 Round Miter: To Major Axis for Pipes 18" And Smaller. 2:1 For Pipes 24" And Larger.
 4:1 Elliptical Miter: To Major Axis for Pipes 24"x38" And Smaller. 2:1 For Pipes 29"x45" And Larger.



DESTIN - FORT WALTON BEACH AIRPORT



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 5550 WEST IDLEWILD AVE. SUITE 102
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 CERTIFICATE OF AUTHORIZATION NO.: 30862

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| | |
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| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

Notes:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |
| | | | |
| | | | |
| | | | |
| | | | |

Drawing Name: DRAINAGE DETAILS

FAA A.I.P. Project No.: 3-12-0081-029-2018

FDOT Project No.:

Date: MAY 2019 Sheet Number: C4.10

File Path: Y:\Okaloosa County\WPS (Destin-FWB Airport)\18-46 VPS West Apron\CAAD-Draw\014-C4-C4.12 DRAINAGE DETAILS.dwg Date: 6/25/2019 11:50 AM

DRAINAGE STRUCTURE SCHEDULE

S1 CONSTRUCT FLARED END SECTION ON 54" RCP
STA. = 101+98.54
OFF. = 438.16'L
INV. = 75.00

S2 CONSTRUCT MANHOLE STRUCTURE S2
STA. = 101+80.84
OFF. = 231.97'L
GRATE EL. = 82.40
INV. EL. (54") = 75.0
INV. EL. (42") = 75.0
INV. EL. (36") = 75.8

S2-1 CONSTRUCT TYPE "4" AIRFIELD INLET
STA. = 101+56.18
OFF. = 55.49'L
GRATE EL. = 80.50
INV. EL. (36") = 76.0

S3 CONSTRUCT AIRFIELD MANHOLE
STA. = 102+12.01
OFF. = 109.28'L
RIM EL. = 81.82
INV. EL. (42") = 75.00
INV. EL. (36") = 75.50
INV. EL. (30") = 76.00

S3-1 CONSTRUCT AIRFIELD TRENCH DRAIN INLET
STA. = 102+08.14
OFF. = 40.63'L
GRATE EL. = 80.50
INV. EL. = 76.50

S4 CONSTRUCT AIRFIELD MANHOLE
STA. = 103+23.61
OFF. = 107.30'L
RIM EL. = 81.96
INV. EL. (36") = 75.71
INV. EL. (30") = 76.21
INV. EL. (18") = 77.21

S4-1 CONSTRUCT AIRFIELD TRENCH DRAIN INLET
STA. = 103+25.35
OFF. = 76.04'L
GRATE EL. = 81.80
INV. EL. = 77.80

S5 CONSTRUCT AIRFIELD MANHOLE
STA. = 104+46.61
OFF. = 107.16'L
RIM EL. = 82.52
INV. EL. (30") = 76.80
INV. EL. (18") = 77.80

S5-1 CONSTRUCT AIRFIELD TRENCH DRAIN INLET
STA. = 104+50.44
OFF. = 75.70'L
GRATE EL. = 82.40
INV. EL. = 78.40

S6 CONSTRUCT AIRFIELD MANHOLE
STA. = 105+59.11
OFF. = 107.04'L
GRATE EL. = 83.22
INV. EL.(30") = 77.50
INV. EL.(24") = 78.00
INV. EL.(18") = 78.50

S6-1 CONSTRUCT AIRFIELD TRENCH DRAIN INLET
STA. = 105+62.85
OFF. = 75.76'L
GRATE EL. = 83.25
INV. EL. = 79.25

S7 CONSTRUCT AIRFIELD MANHOLE
STA. = 106+52.89
OFF. = 156.94'L
RIM EL. = 83.92
INV. EL.(24") = 78.25
INV. EL.(18") = 79.25

S7-1 CONSTRUCT TRENCH DRAIN INLET
STA. = 106+52.98
OFF. = 147.99'L
GRATE EL. = 83.92
INV. EL. = 79.92

S7-2 CONSTRUCT TRENCH DRAIN INLET
STA. = 106+52.89
OFF. = 165.44'L
GRATE EL. = 83.92
INV. EL. = 79.92

S7-3 CONSTRUCT TYPE "D" INLET WITH FLAP GATE
OVER 12" RCP
STA. = 106+52.89
OFF. = 165.44'L
GRATE EL. = 83.92
INV. EL. (12" RCP) = 81.92
INV. (BOX) = 81.40

S8 CONSTRUCT STANDARD MANHOLE
STA. = 108+53.70
OFF. = 60.00'L
RIM EL. = 86.10
INV. EL. (SW) = 82.10
INV. EL. (E) = 82.10

S9 CONSTRUCT STANDARD MANHOLE
STA. = 108+51.93
OFF. = 51.49'R
RIM EL. = 86.40
INV. EL. = 82.40

S-9A CONSTRUCT 10 L.F. OF TRENCH DRAIN IN
EXIST. PCC PAVEMENT
STA. = 108+51.70
OFF. = 147.32'R
GRATE EL. = MATCH EXIST. PAVEMENT SURFACE
INV. EL. = 24" BELOW GRATE

S-9B CONSTRUCT 10 L.F. OF TRENCH DRAIN IN
EXIST. PCC PAVEMENT
STA. = 108+51.63
OFF. = 212.14'R
GRATE EL. = MATCH EXIST. PAVEMENT SURFACE
INV. EL. = 24" BELOW GRATE

S10 CONSTRUCT 4:1 MITERED END SECTION (M.E.S.)
ON 18" RCP
N:549712.96, E:1321663.73
INV. EL. = 78.20

S11 CONSTRUCT TYPE "C" INLET
N:549709.37, E:1321723.72
GRATE EL. = 82.50
INV. EL. = 78.4

S12 CONSTRUCT TYPE "C" INLET
N:549582.07, E:1321716.98
GRATE EL. = 81.70
INV. EL. = 78.4

S12A CONSTRUCT 4:1 MITERED END SECTION (M.E.S.)
ON 18" RCP
N:549584.81, E:1321664.31
INV. EL. = 78.00

S13 CONSTRUCT TYPE "C" INLET
N:549843.15, E:1321731.35
GRATE EL. = 82.70
INV. EL. = 78.4

S13A CONSTRUCT 4:1 MITERED END SECTION (M.E.S.)
ON 18" RCP
N:549846.27, E:1321676.79
INV. EL. = 78.50

S14 CONSTRUCT TYPE "C" INLET
STA. = 106+90.27
OFF. = 430.09'L
GRATE EL. = MATCH EXIST. PAVEMENT SURFACE
INV. EL. = MATCH EXIST. 30" RCP

S15 CONSTRUCT STANDARD MANHOLE
STA. = 108+40.27
OFF. = 355.07'L
RIM EL. = 87.20
INV. EL. = MATCH EXIST. 18" RCP

S16 CONSTRUCT TYPE "C" INLET
STA. = 106+78.76
OFF. = 350.23'L
GRATE EL. = 83.75
INV. EL. = 82.07

S17 CONSTRUCT TYPE "C" INLET
STA. = 106+78.76
OFF. = 315.23'L
GRATE EL. = 83.75
INV. EL. = 82.05

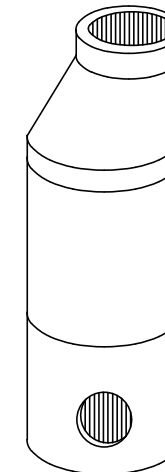
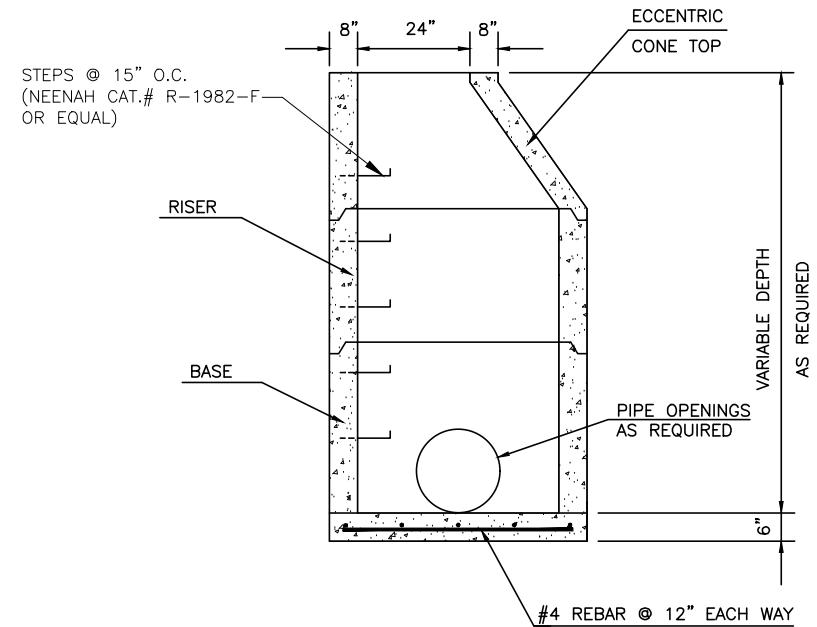
| DRAINAGE PIPE SCHEDULE | | | |
|------------------------|------|-------------------|--------|
| S-1 | S-2 | 54" CLASS III RCP | 244 LF |
| S-2 | S2-1 | 36" CLASS V RCP | 185 LF |
| S-2 | S-3 | 42" CLASS V RCP | 153 LF |
| S-3 | S3-1 | 30" CLASS V RCP | 66 LF |
| S-3 | S-4 | 36" CLASS V RCP | 121 LF |
| S-4 | S4-1 | 18" CLASS V RCP | 28 LF |
| S-4 | S-5 | 30" CLASS V RCP | 125 LF |
| S-5 | S5-1 | 18" CLASS V RCP | 28 LF |
| S-5 | S-6 | 30" CLASS V RCP | 113 LF |
| S-6 | S6-1 | 18" CLASS V RCP | 28 LF |
| S-6 | S-7 | 24" CLASS V RCP | 107 LF |
| S-7 | S7-1 | 18" CLASS V RCP | 5 LF |
| S-7 | S7-2 | 18" CLASS V RCP | 5 LF |
| S-7 | S-8 | 18" CLASS V RCP | 217 LF |
| S-8 | S-9 | 18" CLASS III RCP | 106 LF |
| S-9 | S-9A | 12" DIP | 90 LF |
| S-9A | S-9B | 12" DIP | 57 LF |
| S7-3 | S-16 | 12" CLASS V RCP | 68 LF |
| S-16 | S-17 | 12" CLASS III RCP | 33 LF |
| S-14 | S-15 | 18" CLASS III RCP | 164 LF |
| S-10 | S-11 | 18" CLASS III RCP | 56 LF |
| S-12A | S-12 | 18" CLASS III RCP | 48 LF |
| S-13A | S-13 | 18" CLASS III RCP | 51 LF |
| S-18 | S-19 | 24" CLASS III RCP | 195 LF |
| S-19 | S-20 | 24" CLASS III RCP | 255 LF |
| S-20 | S-21 | 24" CLASS III RCP | 40 LF |

S18 CONSTRUCT 4:1 MITERED END SECTION (M.E.S.)
ON 24" RCP
N:549953.20, E:1321677.43
INV. EL. = 78.00

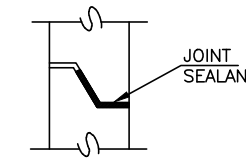
S19 CONSTRUCT STANDARD MANHOLE
N:549964.70, E:1321872.63
RIM EL. = 83.30
INV. EL. = 79.00

S20 CONSTRUCT TYPE "C" INLET
N:549949.39, E:1322125.82
GRATE EL. = 83.60
INV. EL. = 80.00

S21 CONSTRUCT TYPE "C" INLET
N:549947.02, E:1322167.04
GRATE EL. = 84.00
INV. EL. = 80.30



ISOMETRIC VIEW



JOINT DETAIL

NOTES:

- 1) STRUCTURE MAY BE CAST INPLACE OR PRECAST.
- 2) IF STRUCTURE DEPTH EXCEEDS 4'-6" METAL STEPS ARE TO BE PLACED ON WALL.
- 3) WALLS SHALL BE REINFORCED WITH WIRE MESH AT 0.2 IN. SQ./FT.
- 4) BOTTOM SLAB AND CAP SHALL BE REINFORCED WITH #4 REBAR AT 12" O.C. EACH WAY.
- 5) PROVIDE MANHOLE FRAME AND LID RATED FOR H-20 LOADING.

STANDARD MANHOLE DETAILS

N.T.S.



DESTIN - FORT WALTON BEACH AIRPORT



Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | |
|-------------------|-------------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

Notes:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |
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Drawing Name:
DRAINAGE DETAILS

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

| | |
|--------------------------|-------------------------------|
| Date: MAY 2019 | Sheet Number: C4.12 |
|--------------------------|-------------------------------|



DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE, SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

Designer: HJ Checked by: JNG

Technician: MA ICE Proj. No.: 18-46

Engineer of Record:

Notes:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |
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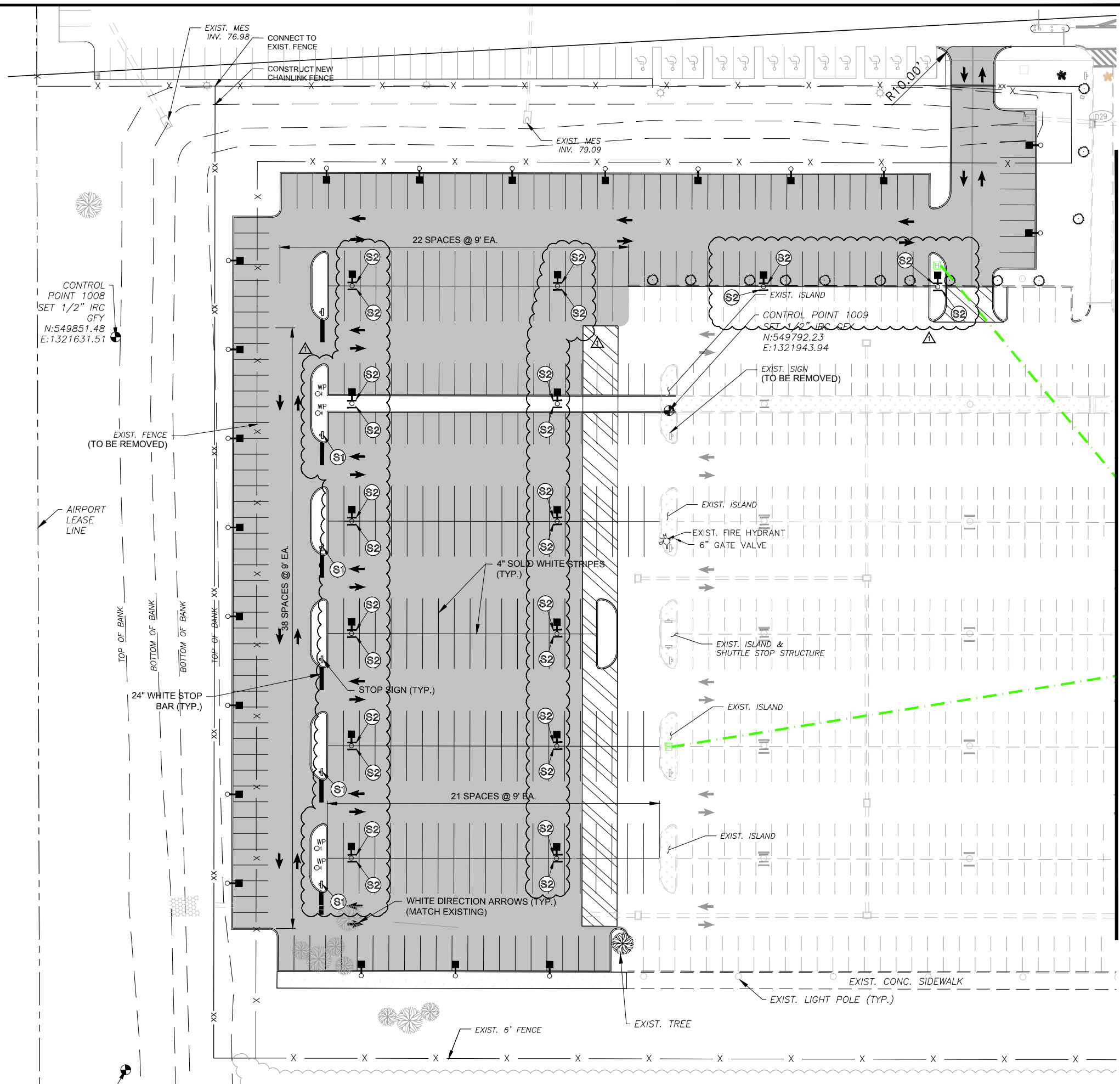
Drawing Name:
MARKING AND SIGNAGE PLAN NO. 1

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

Date: **MAY 2019** Sheet Number: **C7.3**

MATCH LINE SHEET C7.4



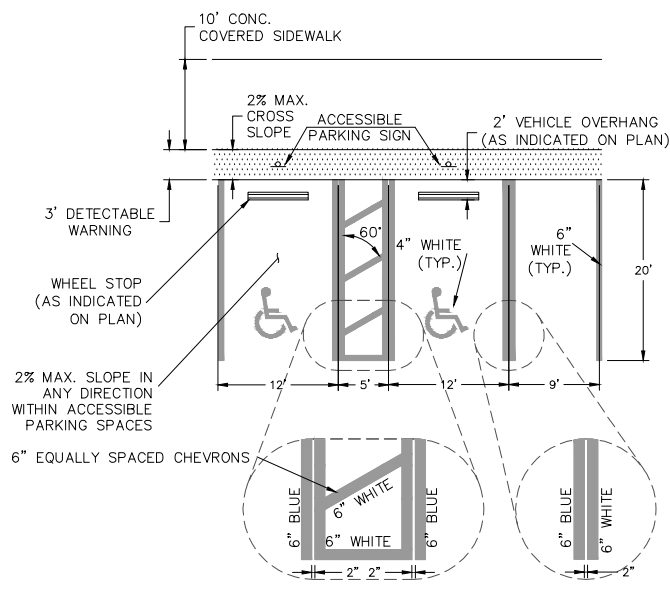
| SIGN SUMMARY | | | | |
|--------------|--------|--------|------------|-------------|
| SIGN STYLE | MUTCD | LEGEND | DIMENSIONS | SIGN TOTALS |
| (S1) | R1-1 | | 30" x 30" | 5 |
| (S2) | CUSTOM | | 24" x 18" | 4 |

NOTE:
1. ALL ROADWAY AND PARKING LOT MARKINGS ARE TO BE CONSTRUCTED TO FDOT DESIGN STANDARDS 2019 INDEX NO. 17346 UNLESS OTHERWISE NOTED.

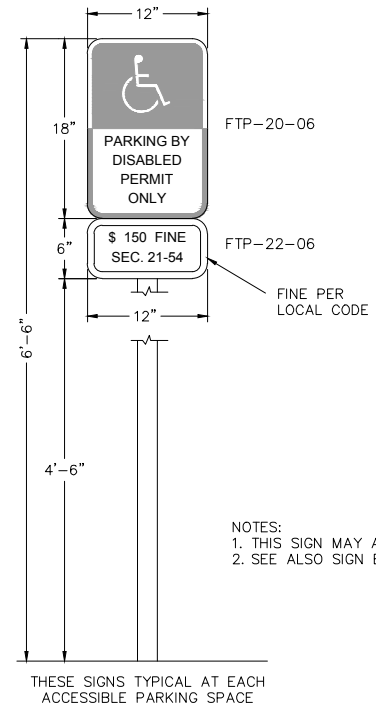
NOTE:
PARKING LOT AND BLACK OUTLINE MARKINGS ARE TO BE NON-REFLECTORIZED (WITHOUT GLASS BEADS). ALL OTHER APRON MARKINGS ARE TO BE REFLECTORIZED.

File Path: Y:\Okaloosa County\WPS (Destin-FWB Airport)\18-46 VPS West Apron\CADD\019-C7.17.5-MARKING AND SIGNAGE AND REMOVAL PLANS.dwg Date: 6/26/2019 7:41 AM

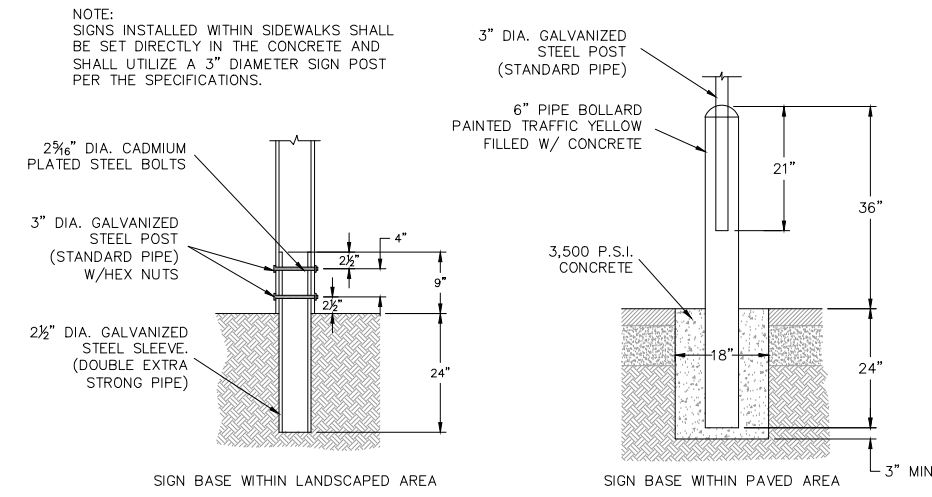
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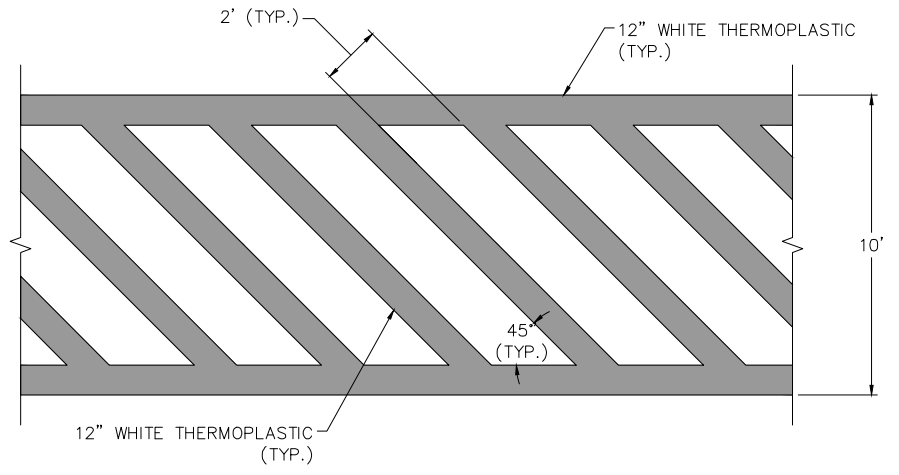
ACCESSIBLE STRIPING
N.T.S



ACCESSIBLE PARKING SIGN
N.T.S



SIGN BASE
N.T.S



CROSSWALK MARKING DETAIL
N.T.S



DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE. SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | |
|-------------------|-------------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

Notes:

| REVISIONS | | | |
|-----------|----------------|---------|----|
| No. | Description | Date | By |
| ▲ | Addendum No. 1 | 6/25/19 | JG |
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Drawing Name:
PARKING LOT MARKING AND SIGNING DETAILS

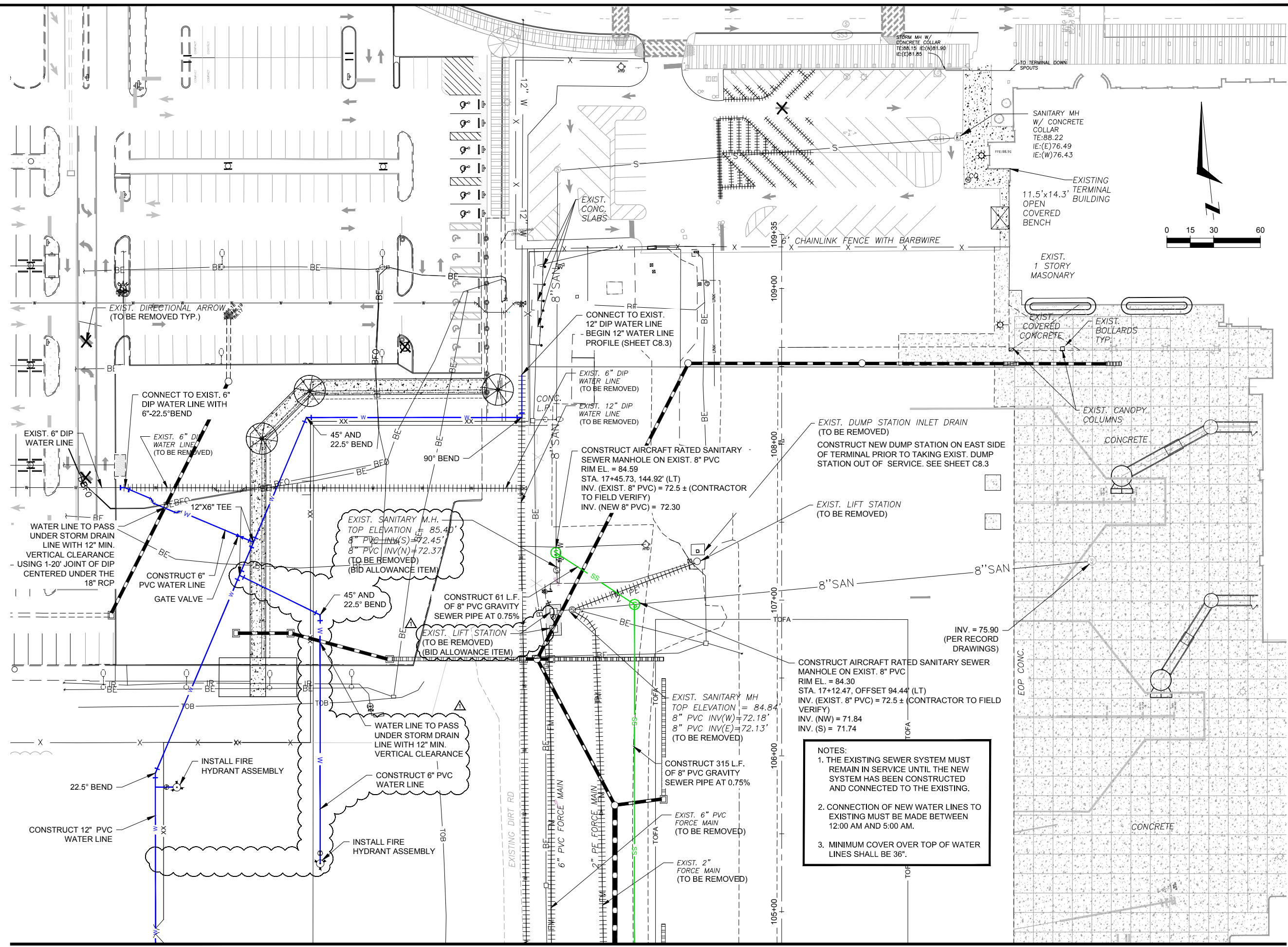
FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

Date:
MAY 2019

Sheet Number:
C7.7

File Path: Y:\Ocalaosa County\WPS\Destin-FWB Airport\18-46 VPS West Apron\CADD\dwg\021-C3-1-8-5-WATER AND SANITARY SEWER PLANS.dwg Date: 6/25/2019 2:17 PM



DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
 5550 WEST IDLEWILD AVE. SUITE 102
 TAMPA, FLORIDA 33634 (813) 330-2701
 CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

| | |
|-------------|----------------|
| Designer: | Checked by: |
| HJ | JNG |
| Technician: | ICE Proj. No.: |
| MA | 18-46 |

Engineer of Record:

Notes:
 1. SEE SHEET C4.1 FOR LEGEND.

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |

Drawing Name:
WATER AND SANITARY SEWER PLAN NO.1

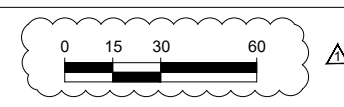
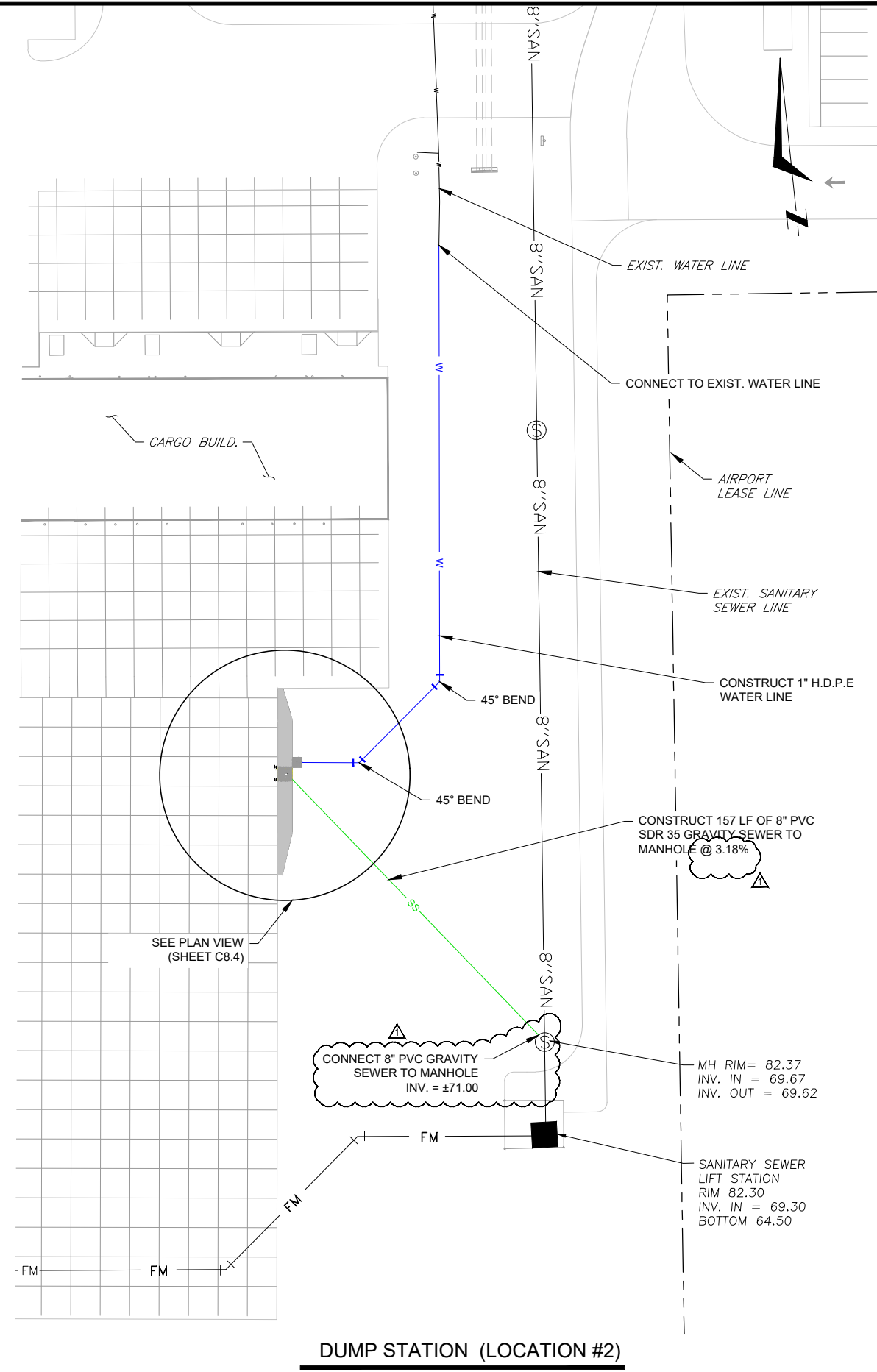
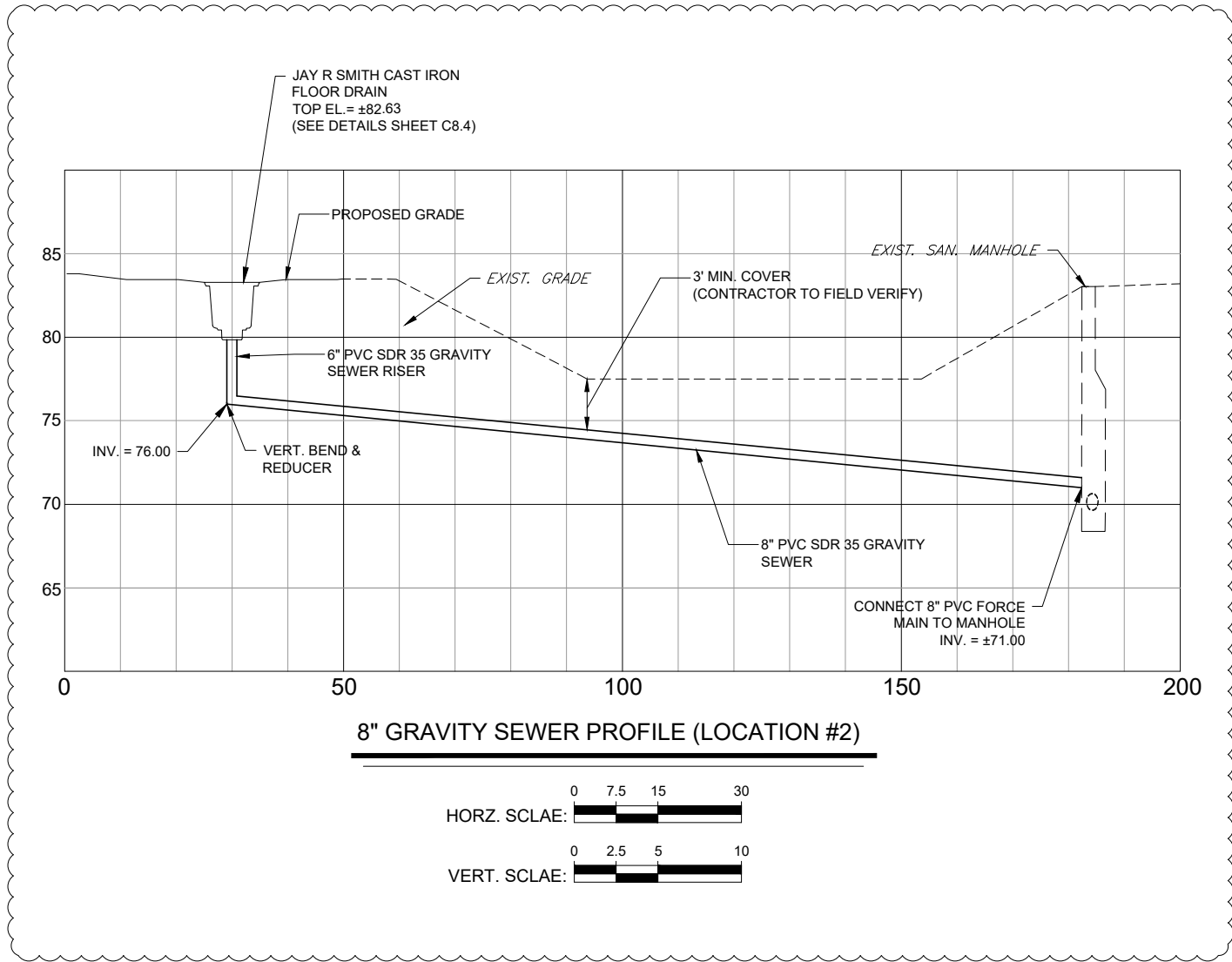
FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

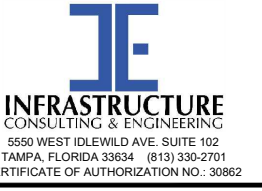
Date: **MAY 2019** Sheet Number: **C8.1**

MATCH LINE SHEET C8.2

File Path: Y:\Okaloosa County\WPS\Design\FWS Airport\18-46 WPS West Apron\CADD\dwg\021-C3-1-8-5-WATER AND SANITARY SEWER PLANS.dwg Date: 6/27/2019 10:05 AM



DESTIN - FORT WALTON BEACH AIRPORT



Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**

| | |
|----------------|----------------------|
| Designer: HJ | Checked by: JNG |
| Technician: MA | ICE Proj. No.: 18-46 |

Engineer of Record:

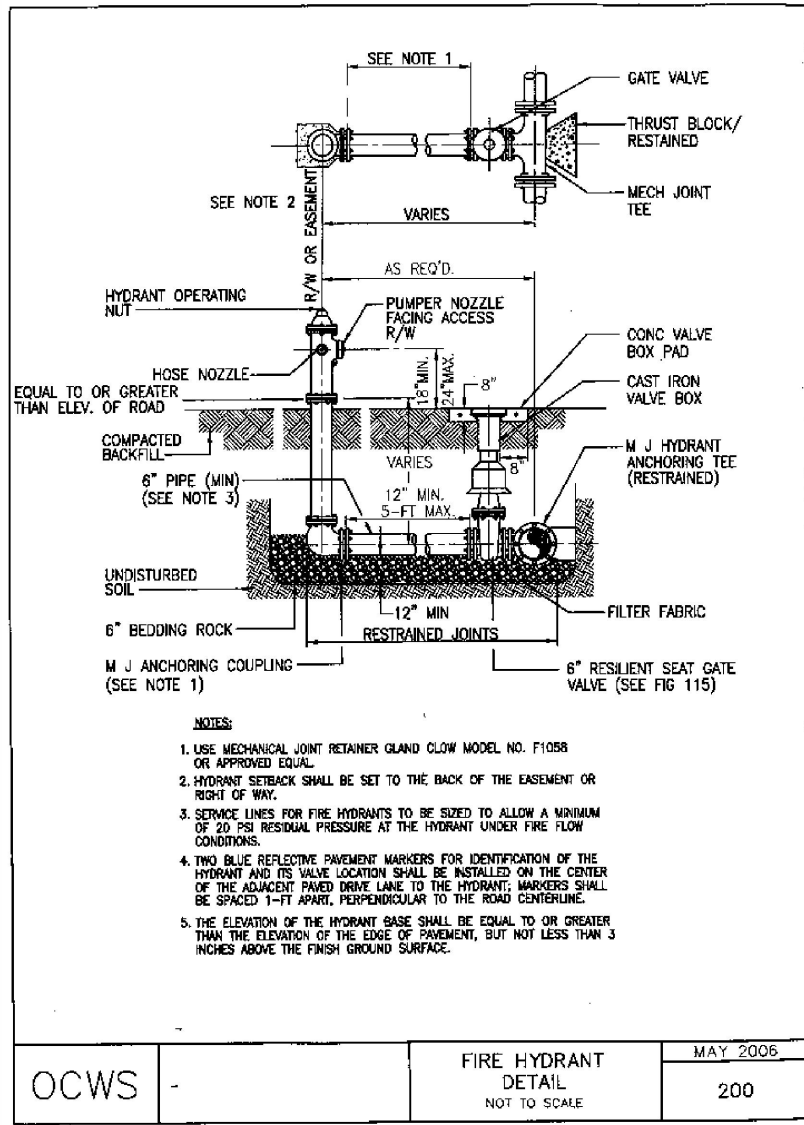
Notes:
 1. SEE SHEET C4.1 FOR LEGEND.

| REVISIONS | | | |
|-----------|----------------|---------|----|
| No. | Description | Date | By |
| 1 | Addendum No. 1 | 6/25/19 | JG |
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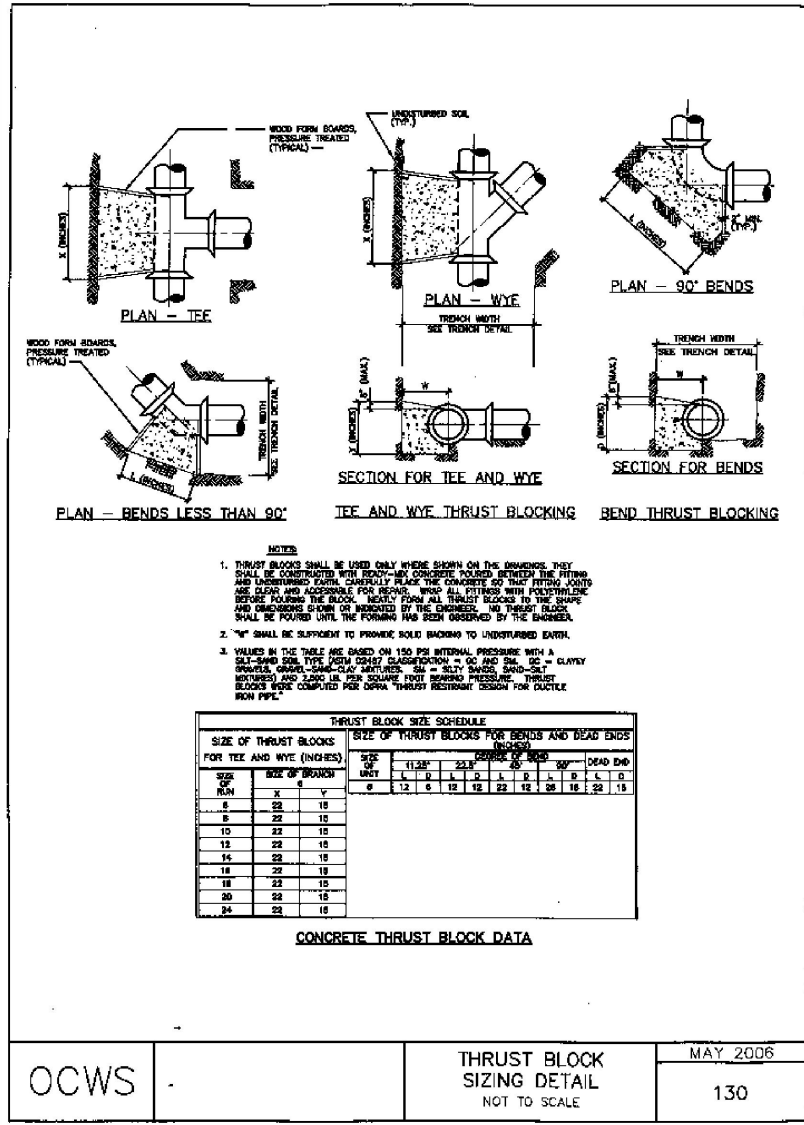
Drawing Name: **WATER AND SANITARY SEWER PLAN NO. 3**

FAA A.I.P. Project No.: **3-12-0081-029-2018**

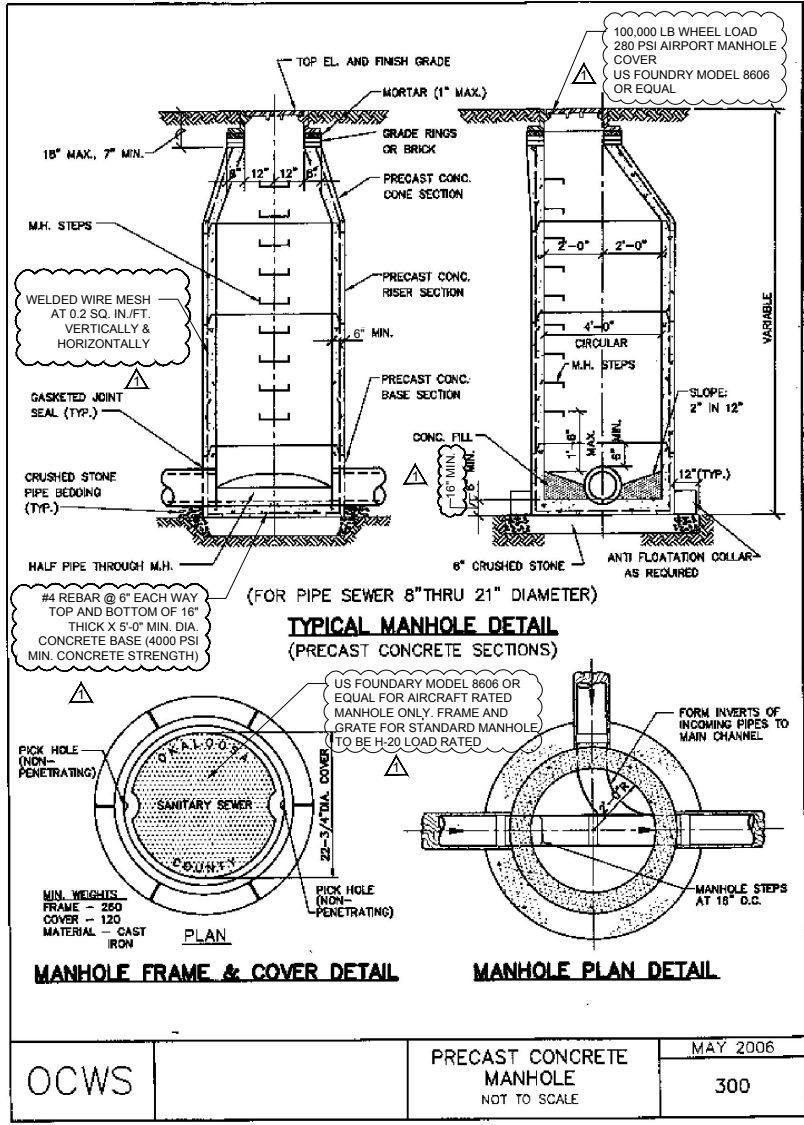
Date: **MAY 2019** Sheet Number: **C8.3**



| | | |
|------|-------------------------------------|-----------------|
| OCWS | FIRE HYDRANT DETAIL NOT TO SCALE | MAY 2006 200 |
|------|-------------------------------------|-----------------|



| | | |
|------|--|-----------------|
| OCWS | THRUST BLOCK SIZING DETAIL NOT TO SCALE | MAY 2006 130 |
|------|--|-----------------|

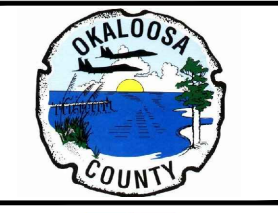


| | | |
|------|--|-----------------|
| OCWS | PRECAST CONCRETE MANHOLE NOT TO SCALE | MAY 2006 300 |
|------|--|-----------------|

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP

| MAIN PIPE SIZE | HORIZ. BENDS | | | TEES | | | | | | REDUCERS | | | | | | PLUGS & VALVES | | |
|----------------|--------------|-----|-------|------|-----|-----|--------|-----|-----|----------|-----|-----|--------|-----|-----|----------------|-----|-----|
| | 90° | 45° | 22.5° | SIZE | | | LENGTH | | | SIZE | | | LENGTH | | | | | |
| 36 | 100 | 42 | 20 | x36 | x30 | x24 | x20 | x16 | x12 | x10 | x8 | x6 | x57 | x24 | x20 | x16 | x12 | 188 |
| 30 | 88 | 37 | 18 | x30 | x24 | x20 | x16 | x12 | x10 | x8 | x6 | x57 | x20 | x16 | x12 | x10 | x8 | 162 |
| 24 | 75 | 31 | 15 | x24 | x20 | x16 | x12 | x10 | x8 | x6 | x57 | x16 | x12 | x10 | x8 | x6 | x57 | 135 |
| 20 | 65 | 27 | 13 | x20 | x16 | x12 | x10 | x8 | x6 | x57 | x12 | x10 | x8 | x6 | x57 | x10 | x8 | 116 |
| 16 | 54 | 22 | 11 | x16 | x12 | x10 | x8 | x6 | x57 | x10 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | 96 |
| 12 | 43 | 18 | 8 | x12 | x10 | x8 | x6 | x57 | x10 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | 75 |
| 10 | 37 | 15 | 7 | x10 | x8 | x6 | x57 | x10 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | x57 | 63 |
| 8 | 30 | 13 | 6 | x8 | x6 | x57 | x10 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | 53 |
| 6 | 24 | 10 | 5 | x6 | x57 | x10 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | 41 |
| 4 | 17 | 7 | 3 | x4 | x57 | x10 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | x57 | x8 | x6 | 29 |

- NOTES:**
- RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS.
 - ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
 - ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 - PIPE SIZES ARE GIVEN IN INCHES.
 - RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 - LENGTHS SHOWN ARE FOR A TEST PRESURE OF 180 PSI.



Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

Designer: HJ
Checked by: JNG

Technician: MA
ICE Proj. No.: 18-46

Engineer of Record:

REVISIONS

| No. | Description | Date | By |
|-----|----------------|---------|----|
| 1 | Addendum No. 1 | 6/25/19 | JG |

Drawing Name:
UTILITY DETAILS

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

Date: MAY 2019
Sheet Number: C8.8



Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

Designer: DE Checked by: DR

Technician: LM ICE Proj. No.: 18-46

Engineer of Record:

JOHN B. ADAMS JR., P.E.
FL P.E. NO. 53963

| REVISIONS | | | |
|-----------|-------------|------|----|
| No. | Description | Date | By |
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Drawing Name:
PUMP STATION NOTES

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

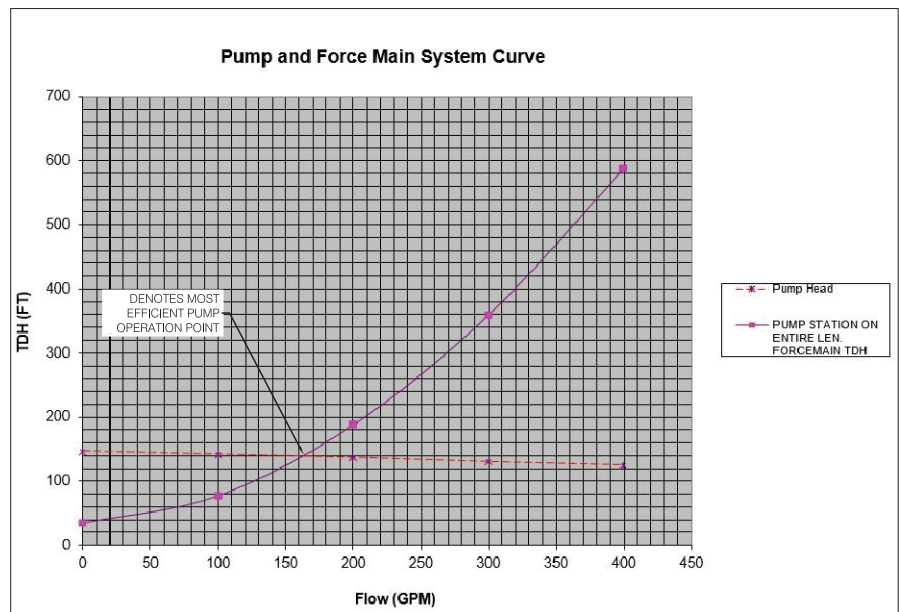
Date: MAY 2019 Sheet Number: C9.0

MODEL: S4K – Solids Handling Sewage Pump

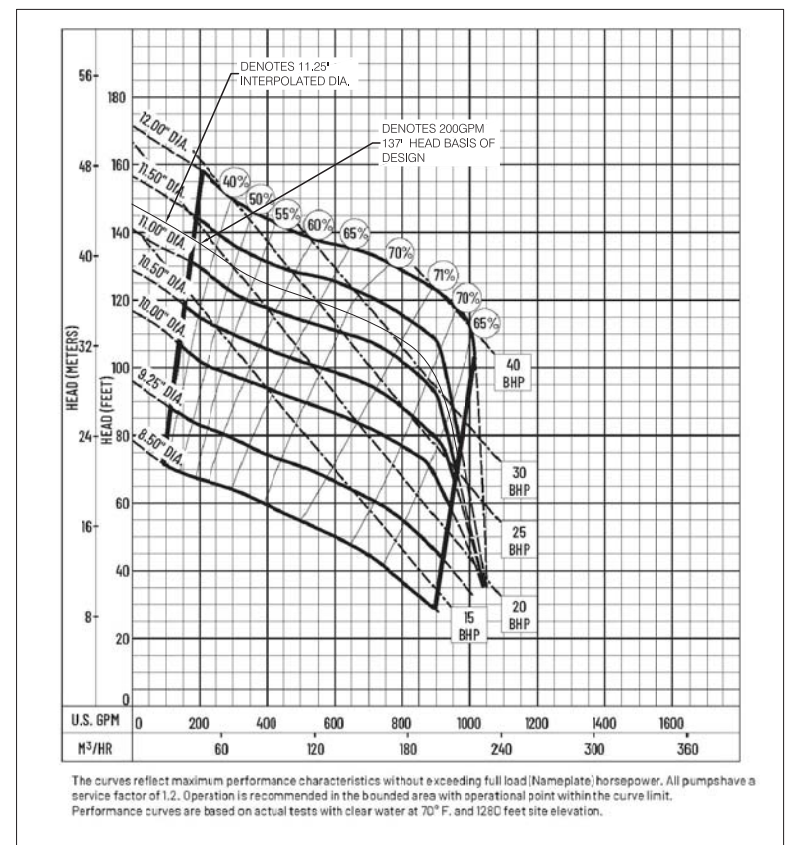
| | | | | |
|----------------------------|---|------------|--------|--------|
| R.P.M. | 1750 | | | |
| MOTOR TYPE | ENCLOSED, OIL COOLED INDUCTION, VFD SUITABLE | | | |
| MOTOR DESIGN NEMA TYPE | B (3ø) | | | |
| GENERAL INSULATION CLASS | H | | | |
| STATOR WINDING CLASS | H | | | |
| MAXIMUM STATOR TEMPERATURE | 356°F (180°C) | | | |
| MOTOR PROTECTION | BI-METALLIC, TEMPERATURE SENSITIVE DISC, SIZED TO OPEN AT 130°C AND AUTOMATICALLY RESET @ 96-68°C DIFFERENTIAL, ONE IN SINGLE PHASE, TWO IN THREE PHASE | | | |
| ELECTRICAL RATINGS | HEAT | 24VDC | 115VAC | 230VAC |
| | SENSOR | 5AMPS | 5AMPS | 5AMPS |
| | SEAL FAIL | 300VAC 5mA | | |
| VOLTAGE TOLERANCE | ±10% | | | |

| HP | PHASE | PHASE | REC CODE | ST | TELL (L) (IN) | TELL (L) (MM) | TELL (L) (CM) | TELL (L) (M) | TELL (L) (FT) | TELL (L) (IN) | TELL (L) (MM) | TELL (L) (CM) | TELL (L) (M) | TELL (L) (FT) | TELL (L) (IN) | TELL (L) (MM) | TELL (L) (CM) | TELL (L) (M) | TELL (L) (FT) | |
|-----|-------|-------|----------|----|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|---------------|--|
| 200 | 3 | J | 1.2 | | 48.3 | 56.3 | 334 | | | | | | | | | | | | | |
| 230 | 3 | J | 1.2 | | 46 | 52 | 290 | | | | | | | | | | | | | |
| 460 | 3 | J | 1.2 | | 23 | 26 | 145 | | | | | | | | | | | | | |
| 575 | 3 | J | 1.2 | | 18.8 | 19.6 | 116 | | | | | | | | | | | | | |
| 200 | 3 | G | 1.2 | | 62.5 | 75 | 334 | | | | | | | | | | | | | |
| 230 | 3 | G | 1.2 | | 54.4 | 65.2 | 290 | | | | | | | | | | | | | |
| 460 | 3 | G | 1.2 | | 27.2 | 32.6 | 145 | | | | | | | | | | | | | |
| 575 | 3 | G | 1.2 | | 21.7 | 25.1 | 116 | | | | | | | | | | | | | |
| 200 | 3 | J | 1.2 | | 78.3 | 92.2 | 575 | | | | | | | | | | | | | |
| 230 | 3 | J | 1.2 | | 68 | 80 | 500 | | | | | | | | | | | | | |
| 460 | 3 | J | 1.2 | | 34 | 40 | 250 | | | | | | | | | | | | | |
| 575 | 3 | J | 1.2 | | 27.2 | 32.1 | 200 | | | | | | | | | | | | | |
| 200 | 3 | H | 1.2 | | 92.2 | 110.7 | 575 | | | | | | | | | | | | | |
| 230 | 3 | H | 1.2 | | 80.2 | 96.3 | 500 | | | | | | | | | | | | | |
| 460 | 3 | H | 1.2 | | 40.1 | 48.1 | 250 | | | | | | | | | | | | | |
| 575 | 3 | H | 1.2 | | 32.1 | 38.5 | 200 | | | | | | | | | | | | | |
| 200 | 3 | G | 1.2 | | 105 | 128.3 | 580 | | | | | | | | | | | | | |
| 230 | 3 | G | 1.2 | | 52.5 | 64.1 | 290 | | | | | | | | | | | | | |
| 460 | 3 | G | 1.2 | | 42 | 51.3 | 232 | | | | | | | | | | | | | |
| 575 | 3 | G | 1.2 | | | | | | | | | | | | | | | | | |

2 PUMP INFORMATION
C9.0 N.T.S.



3 5 BHP PUMP CURVE
C9.0 N.T.S.



1 5 BHP PUMP CURVE
C9.0 N.T.S.

GENERAL NOTES
FURNISH AND INSTALL SUBMERSIBLE PUMPS:

SEWAGE PUMP:
AIR FILLED MOTOR DESIGNED FOR SEWAGE APPLICATION WITH CLASS F INSULATION. RATED FOR TWENTY (20) STARTS PER HOUR.
HAVE DUAL MECHANICAL SHAFT SEALS (SILICON CARBIDE ON SILICON CARBIDE) LOCATED COMPLETELY OUT OF THE PUMPAGE, IN A SEPARATE OIL FILLED CHAMBER. THE MECHANICAL SEALS ARE PROTECTED BY TWO (2) LIP SEALS, ONE ON THE LOWER WETTED END AND THE SECOND ON THE MOTOR END – TOTAL OF FOUR (4) SEAL SURFACES.
HIGH TEMPERATURE BALL BEARINGS RATED FOR A LIFE EXPECTANCY OF 50,000 HOURS (UPPER BALL BEARING – SINGLE ROW TYPE AND THE LOWER BALL BEARING – DOUBLE ROW TYPE).
THE PUMP SHALL BE DESIGNED SO THAT THE PUMP SHAFT HORSEPOWER (BHP) SHALL NOT EXCEED MOTOR RATED HORSEPOWER THROUGHOUT THE ENTIRE OPERATING RANGE OF THE PUMP PERFORMANCE CURVE.
SINGLE PHASE MOTORS SHALL BE DUAL WOUND, CAPACITOR START–RUN AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260). THREE PHASE MOTORS SHALL BE DUAL WOUND AND CAPABLE OF OPERATING ON 208/230 VOLT WITH A 10% TOLERANCE VOLTAGE (190 TO 260) OR OPERATE ON 460 VOLT BY CHANGING THE MOTOR LEADS INSIDE THE PUMP.

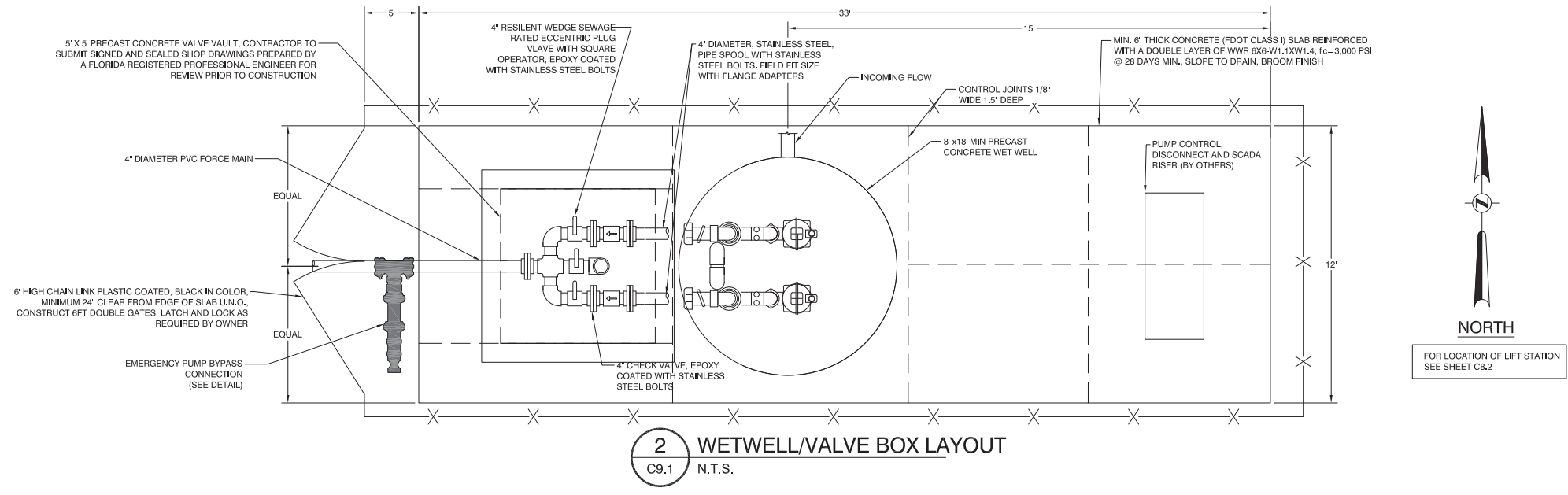
CONCRETE WET WELL:
WET WELL CONSTRUCTION SHALL BE PRECAST MONOLITHIC WITH BASE SLAB IN ACCORDANCE WITH A.S.T.M. C-478.
WET WELL SECTIONS SHALL BE JOINED USING "RAMNECK" JOINT MATERIAL AND SHALL BE FREE FROM SEEPAGE PRIOR TO ACCEPTANCE. PROVIDE "EZ-WRAP" BUTYL ADHESIVE TAPE PER MANUFACTURER'S RECOMMENDATIONS T EACH WETWELL SECTION EXTERIOR JOINT CIRCUMFERENCE

INTERIOR OF WET WELL AND PIPING INSIDE WET WELL SHALL BE FACTORY OR "FIELD" EPOXY COATED TO A MINIMUM 30 MIL SURFACE DRY THICKNESS. EPOXY SEALER PRIME COATING AND FINISH COATING SHALL BE NSP 100 AND NSP120, RESPECTIVELY, CARBOLINE, OR UTILITY APPROVED EQUAL. IF THE WET WELL IS FACTORY EPOXY COATED, TOUCH-UP "FIELD" COATING SHALL BE REQUIRED.

ALUMINUM HATCH:
FOR WET–WELL ACCESS REFER TO C9.1
(FOR 1–1/4" TO 2" DISCHARGE HEADER SYSTEM) SHALL BE 26" X 36" X 18" WITH 17" X 30" LID. THE BOX AND LID SHALL BE FIBERGLASS COMPOSITE (H-10 TRAFFIC RATED).
(FOR 3" OR 4" DISCHARGE HEADER SYSTEM) SHALL BE 35" X 46" X 24" WITH 30" X 48" ALUMINUM COVER, REINFORCED FOR LOAD RATING OF 150 LBS/FT WITH LOCKING DEVICE FOR HASP TYPE PADLOCK.

ACCESSORIES:
STAINLESS STEEL #304 – GUIDE RAILS, UPPER GUIDE RAIL BRACKETS, CABLE HOLDER, ANCHOR BOLTS
SHALL BE BRASS SEWAGE SWING CHECK VALVES WITH CLEAN–OUT PORTS AND BRASS GATE VALVES.
4 " SCHEDULE 80 PVC.
FLOAT SWITCHES: UL LISTED SJ ELECTRO MODEL (SJ 30 SWENO).
PUMP SUPPLIER SHALL PROVIDE SUBMERSIBLE PUMPS, SLIDE RAIL ASSEMBLIES, CONTROL PANEL, JUNCTION BOX, FLOAT SWITCHES, ALUMINUM HATCH(S) AND ACCESSORIES TO INSURE PROPER OPERATION AND WARRANTY.
THE COMPLETE PACKAGE PUMPING STATION SHALL HAVE PUMP BASES, RAIL ASSEMBLIES AND DISCHARGE PIPING ASSEMBLED BY TECHNICAL SALES CORPORATION READY TO SHIP FOR FIELD INSTALLATION.
1. 1 TO 1 FILLET FIELD INSTALLED

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DESTIN - FORT WALTON BEACH AIRPORT



INFRASTRUCTURE CONSULTING & ENGINEERING
5550 WEST IDLEWILD AVE, SUITE 102
TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name: **CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS**
Designer: DE Checked by: DR
Technician: LM ICE Proj. No.: 18-46

Engineer of Record: **ARO ENGINEERING**
CERTIFICATE NO. 28919

JOHN B. ADAMS JR., P.E.
FL P.E. NO. 53963

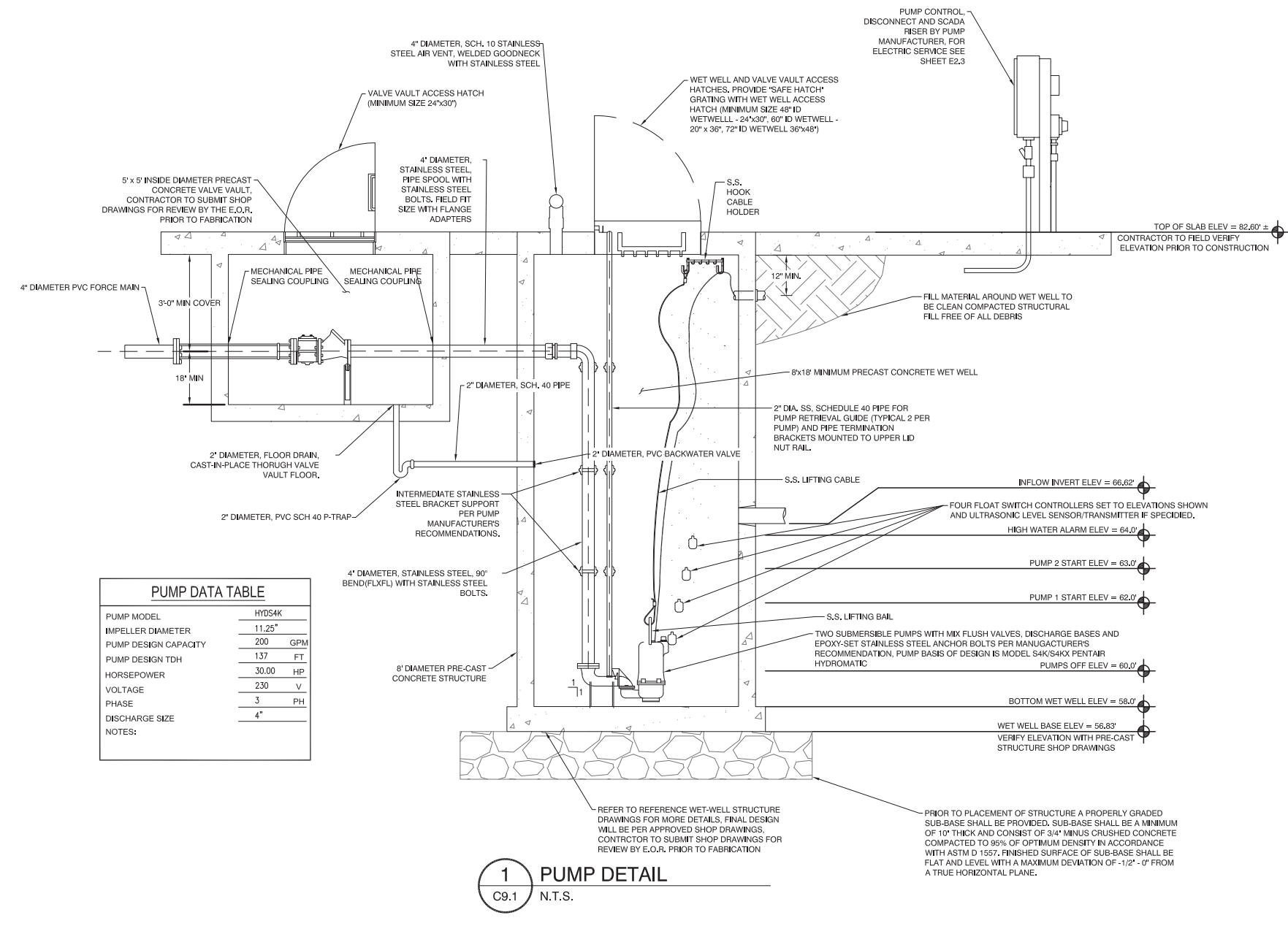
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Drawing Name: **PUMP STATION SECTION AND LAYOUT**
FAA A.I.P. Project No.: **3-12-0081-029-2018**

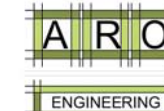
FDOT Project No.:
Date: **MAY 2019** Sheet Number: **C9.1**



PUMP DATA TABLE

| | |
|----------------------|----------|
| PUMP MODEL | HYD54K |
| IMPELLER DIAMETER | 11.25" |
| PUMP DESIGN CAPACITY | 200 GPM |
| PUMP DESIGN TDH | 137 FT |
| HORSEPOWER | 30.00 HP |
| VOLTAGE | 230 V |
| PHASE | 3 PH |
| DISCHARGE SIZE | 4" |
| NOTES: | |

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civil, structural & coastal engineering
780 94TH AVE. N. SUITE 102, ST. PETERSBURG, FL 33707
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TAMPA, FLORIDA 33634 (813) 330-2701
CERTIFICATE OF AUTHORIZATION NO.: 30862

WET WELL NOTES:

- SOIL BORINGS USED IN PREPARATION OF THESE PLANS WAS TAKEN TO 10FT DEPTH. NO GROUND WATER ENCOUNTERED IN THE BORINGS. CONTRACTOR TO NOTIFY E.O.R. IF GROUND WATER CONDITIONS ARE DIFFERENT. IF GROUND WATER CONDITIONS ARE FOUND TO BE DIFFERENT BOYANCY WILL NEED TO BE CONSIDERED IN WET WELL DESIGN.
- CONTRACTOR TO PROVIDE A WET WELL DESIGN SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER TO E.O.R. PRIOR TO FABRICATION

Project Name:
**CONSTRUCT WEST APRON
EXPANSION AND
INFRASTRUCTURE AT VPS**

| | |
|-------------------|-------------------------|
| Designer: DE | Checked by: DR |
| Technician: LM | ICE Proj. No.: 18-46 |

Engineer of Record:

CERTIFICATE NO. 28919

JOHN B. ADAMS JR., P.E.
FL P.E. NO. 53963

Notes:

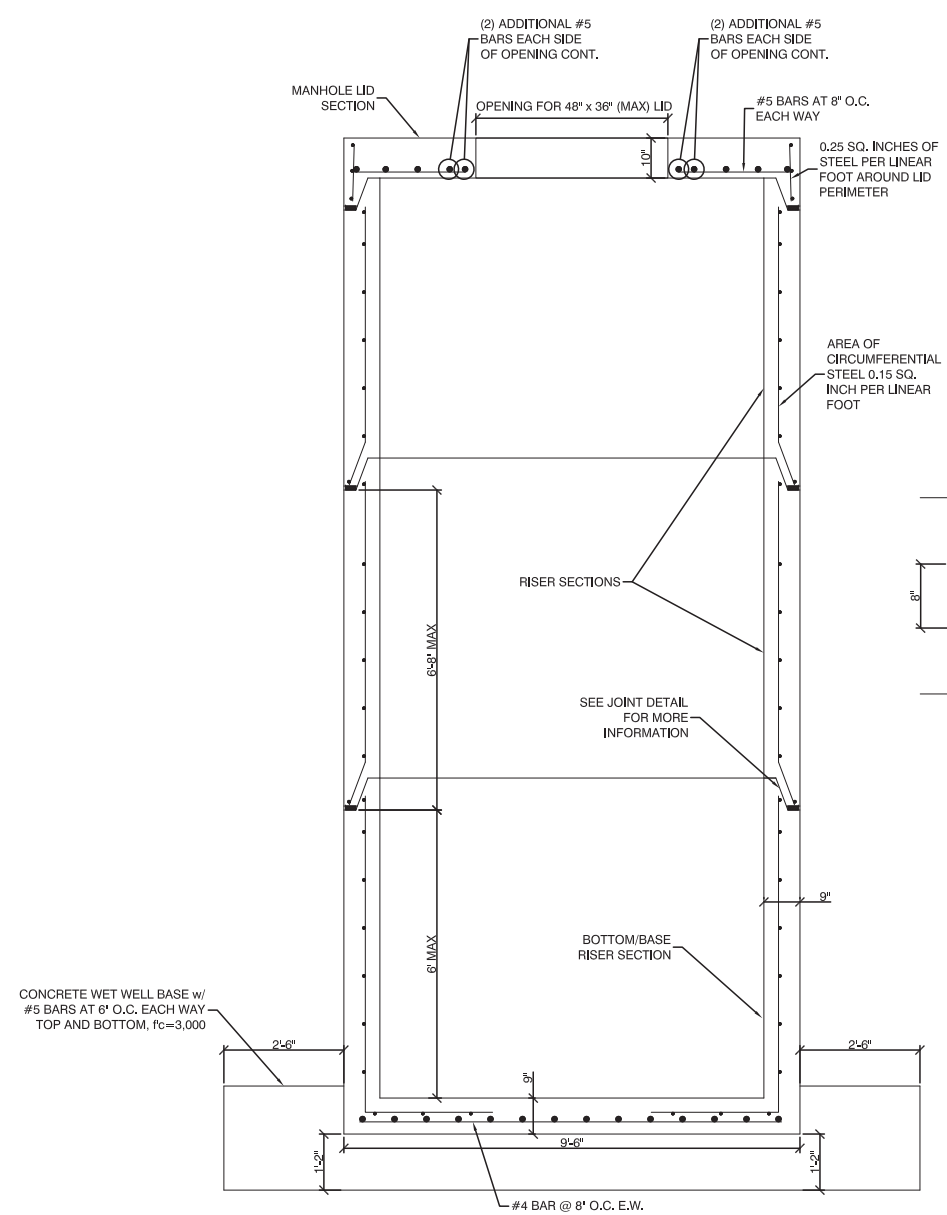
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Drawing Name:
PUMP STATION DETAILS

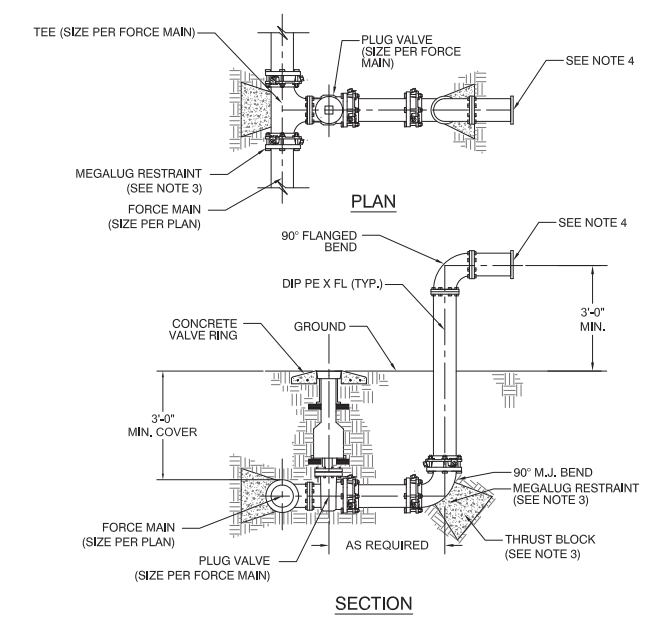
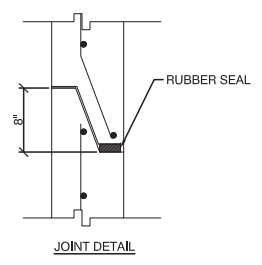
FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

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| Date: MAY 2019 | Sheet Number: C9.2 |
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2
C9.2 N.T.S.
**PRE-CAST WET WELL DETAIL
(FOR REFERENCE ONLY)**



1
C9.2 N.T.S.
**EMERGENCY BYPASS PUMP
CONNECTION ASUS DWG NO. SP-1E**

NOTES:

- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH AMERICAN STATES UTILITY SERVICES, INC. (ASUS) STANDARDS AND SPECIFICATIONS.
- ALL DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ASUS SPECIFICATIONS.
- ALL BELOW GRADE FITTINGS SHALL BE RESTRAINED JOINT.
- BLIND FLANGE, COORDINATE WITH UTILITY FOR DIRECTION TO FACE.
- ALL PIPE RESTRAINT SHALL BE PER ASUS STANDARD DETAILS AND SPECIFICATIONS.



DESTIN - FORT WALTON BEACH AIRPORT



Project Name: CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

Designer: AHC Checked by: BLB
Technician: DHM Proj. No.: ICE18DESTINAIR

Engineer of Record: DAVID H. MELVIN, INC. Consulting Engineers



Notes:

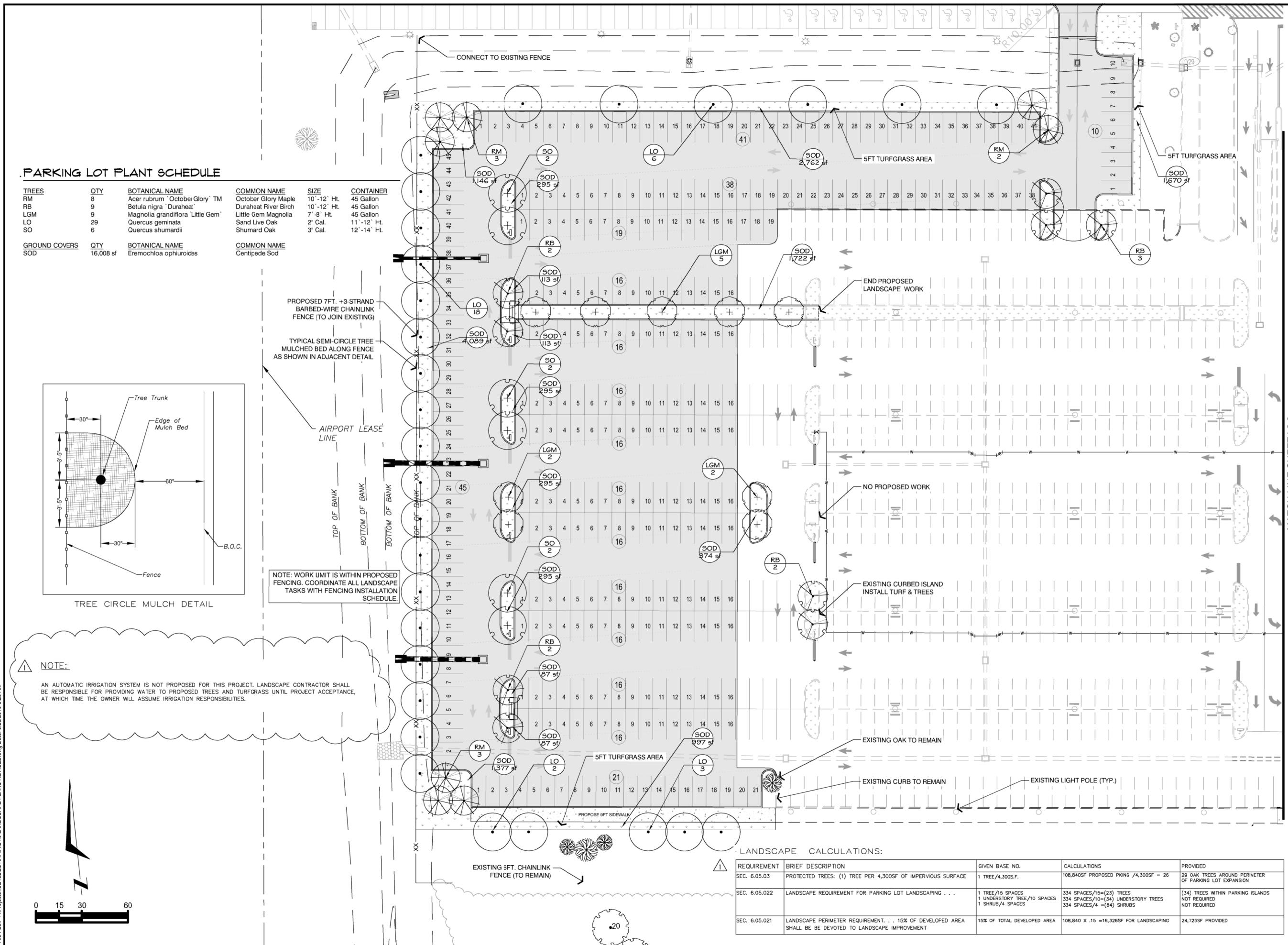
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| No. | Description | Date | By |
| 1. | Addendum #1 | 6/19/19 | AHC |

Drawing Name: LANDSCAPE PLAN NO. 1

FAA A.I.P. Project No.: 3-12-0081-029-2018

FDOT Project No.:

Date: MAY 2019 Sheet Number: L1.0



LANDSCAPE CALCULATIONS:

| REQUIREMENT | BRIEF DESCRIPTION | GIVEN BASE NO. | CALCULATIONS | PROVIDED |
|---------------|--|---|--|--|
| SEC. 6.05.03 | PROTECTED TREES: (1) TREE PER 4,300SF OF IMPERVIOUS SURFACE | 1 TREE/4,300SF. | 108,840SF PROPOSED PKING /4,300SF = 26 | 29 OAK TREES AROUND PERIMETER OF PARKING LOT EXPANSION |
| SEC. 6.05.022 | LANDSCAPE REQUIREMENT FOR PARKING LOT LANDSCAPING . . . | 1 TREE/15 SPACES 1 UNDERSTORY TREE/10 SPACES 1 SHRUB/4 SPACES | 334 SPACES/15=(23) TREES 334 SPACES/10=(34) UNDERSTORY TREES 334 SPACES/4 =(84) SHRUBS | (34) TREES WITHIN PARKING ISLANDS NOT REQUIRED NOT REQUIRED |
| SEC. 6.05.021 | LANDSCAPE PERIMETER REQUIREMENT. . . 15% OF DEVELOPED AREA SHALL BE DEVOTED TO LANDSCAPE IMPROVEMENT | 15% OF TOTAL DEVELOPED AREA | 108,840 X .15 =16,326SF FOR LANDSCAPING | 24,725SF PROVIDED |

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MATCH LINE SHEET L2.0



DESTIN - FORT WALTON BEACH AIRPORT



Project Name: CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS
 Designer: AHC Checked by: BLB
 Technician: DHM Proj. No.: ICE18DESTINAIR

Engineer of Record: DAVID H. MELVIN, INC. Consulting Engineers



Notes:

| REVISIONS | | | |
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| No. | Description | Date | By |
| 1. | Addendum #1 | 6/19/19 | AHC |
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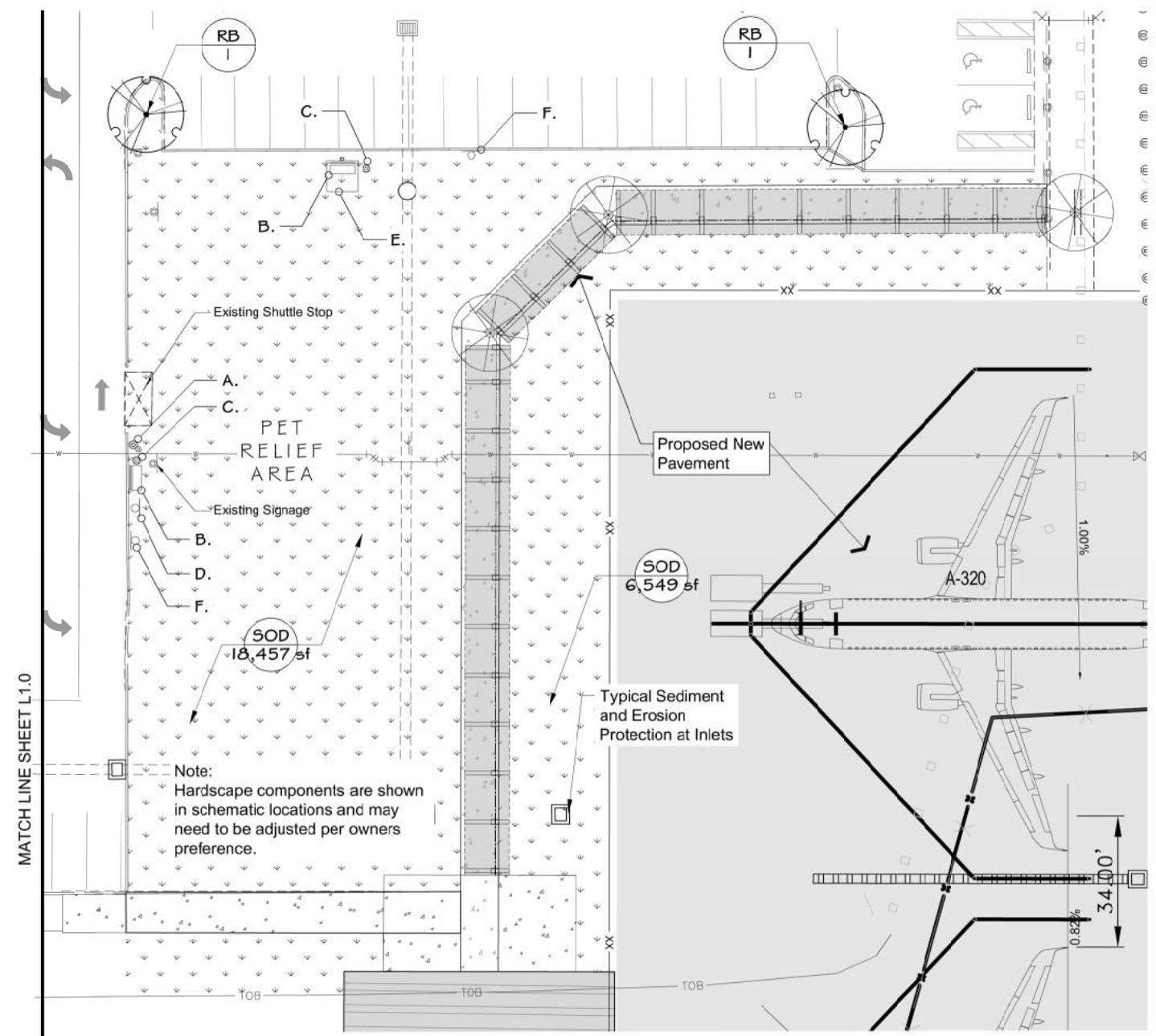
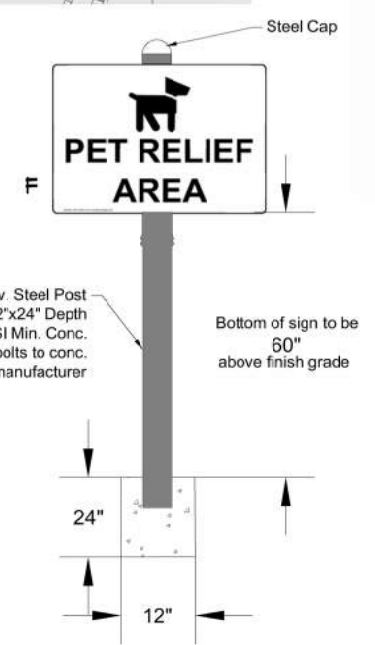
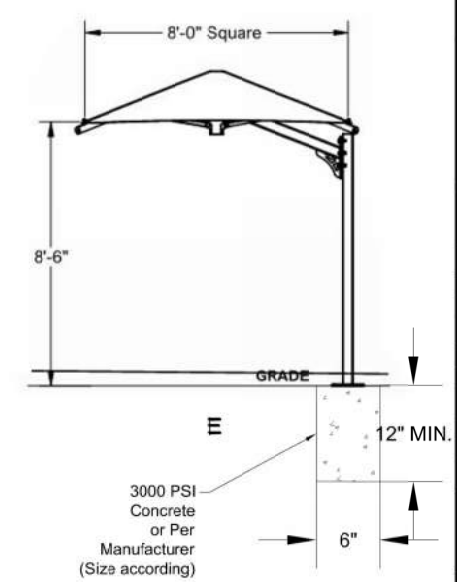
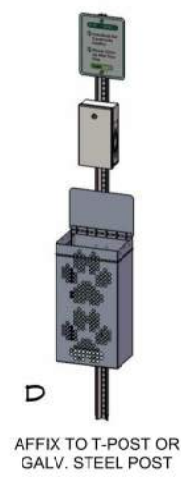
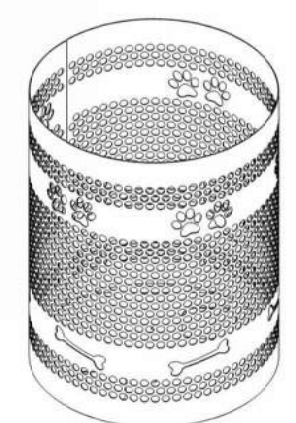
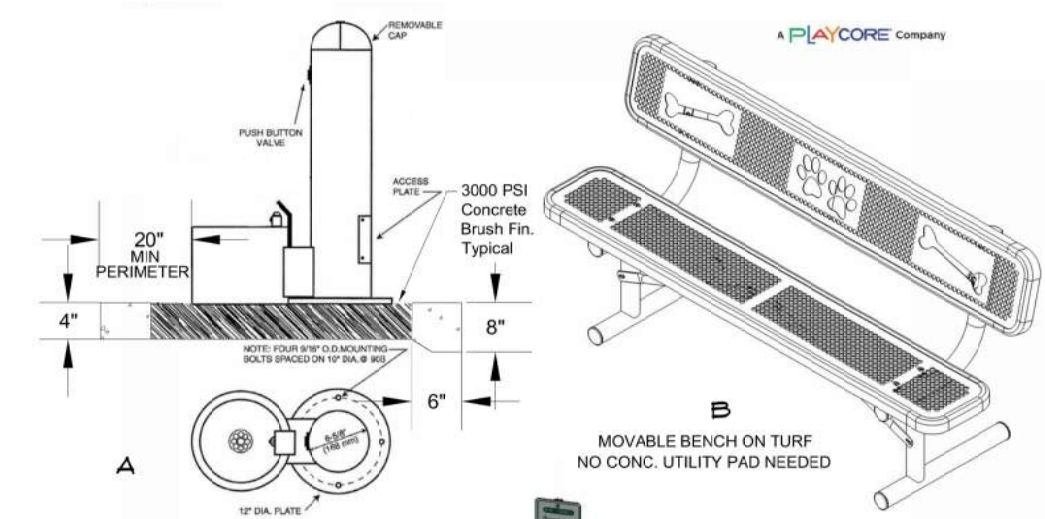
Drawing Name: LANDSCAPE PLAN NO. 2

FAA A.I.P. Project No.: 3-12-0081-029-2018
 FDOT Project No.:

Date: MAY 2019 Sheet Number: L2.0

HARDSCAPE SCHEDULE PET RELIEF AREA

| CODE | QTY | DESCRIPTION | MODEL/MANUFACTURER |
|------|-----|---|------------------------------------|
| A. | 1 | FIDO & ME WATER FOUNTAIN | ULTRASITE- PBARK-498 |
| B. | 2 | 6 FT. BENCH W/BACK, PERFORATED W/ LASER CUT PAW PRINTS & BONES | ULTRASITE-PBARK-9406-P6 |
| C. | 2 | TRASH RECEPTACLE 32 GAL W/ PAW PRINTS, PLASTIC LINER, ROLLED FLAT TOP AND IN-GROUND KIT | ULTRASITE-PL-32, FTR-32-08, IG KIT |
| D. | 1 | PET WASTE STATION, NO RECEPTACLE BLUE OR GREEN WITH SIGN OPTION | ULTRASITE-PBARK-488, IG KIT |
| E. | 1 | 8'x8' CANTILEVERED UMBRELLA SHADE 8' EAVE HEIGHT WITH POWDER-COATED FRAME | ULTRASHADE-M-SHADE |
| F. | 2 | PET RELIEF AREA SIGN (SEE DETAIL) | OSHA SYMBOL ONE-28880 |

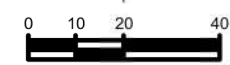


PLANT SCHEDULE PET RELIEF AREA

| TREES | CODE | QTY | BOTANICAL NAME | COMMON NAME | SIZE |
|-------|------|-----|-------------------------|----------------------|------|
| | RB | 2 | Betula nigra 'Duraheat' | Duraheat River Birch | --- |

| GROUND COVERS | CODE | QTY | BOTANICAL NAME | COMMON NAME | SIZE |
|---------------|------|-----------|------------------------|---------------|------|
| | SOD | 26,036 sf | Eremochloa ophiurcides | Centipede Sod | --- |

NOTE:
 AN AUTOMATIC IRRIGATION SYSTEM IS NOT PROPOSED FOR THIS PROJECT. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO PROPOSED TREES AND TURFGRASS UNTIL PROJECT ACCEPTANCE, AT WHICH TIME THE OWNER WILL ASSUME IRRIGATION RESPONSIBILITIES.



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GENERAL NOTES:

- PLANS ARE INTENDED TO DEPICT THE RLA DESIGNER'S BEST DESIGN INTENT AND KNOWN SITE CONDITIONS. SOME MINOR ADJUSTMENTS MAY BE REQUIRED IF FIELD ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL NOTIFY OWNERS REPRESENTATIVE AND RECEIVE APPROVAL AND SUBSEQUENTLY ACCURATELY RECORD ADJUSTMENTS AND QUANTITIES ON AS-BUILT PLANS.
- CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY UNFORESEEN SITE CONDITIONS. (COMPACTED SOIL/SUBGRADE, DEBRIS, ROADWAY BASE, MATERIALS, POOR DRAINAGE, UTILITY CONFLICTS, ETC.) PRIOR TO PROCEEDING WITH LANDSCAPE INSTALLATION.
- ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE GENERAL CONTRACTOR AND OWNERS REPRESENTATIVE.
- ALL AREAS OUTSIDE THE CONSTRUCTION LIMITS THAT ARE DAMAGED OR DISTURBED BY THE LANDSCAPE CONTRACTORS OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE LANDSCAPE CONTRACTOR AT THEIR EXPENSE.
- THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. THE CONTRACTOR SHALL NOT DISTURB OR STORE MATERIALS OR EQUIPMENT ON ANY WETLANDS, NATURAL ECOSYSTEM AREAS, OR WITHIN THE DRILLING OF EXISTING TREES.
- THE CONTRACTOR SHALL RESTRICT PERSONNEL, THE USE OF EQUIPMENT AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION. ANY OFF-SITE STORAGE AREA WILL REQUIRE PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL NOT CAUSE CONDITIONS OF EROSION OR SEDIMENTATION DISCHARGE ON ROADWAY AT ANY TIME DURING CONSTRUCTION.
- PRODUCT SAMPLES AND DATA SHEETS SHALL BE SUBMITTED FOR ALL PROPOSED MATERIALS, INCLUDING BUT NOT LIMITED TO STAKING AND BRACING KITS, MYCORRHIZAL SOIL INOCULANT, FERTILIZER, PINE STRAW MULCH, TOPSOIL AND BLENDED SOIL FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO DELIVERY TO SITE.
- SUBMITTALS AND NOTIFICATIONS: NON-COMPREHENSIVE (EXAMPLE ONLY)
 - A. PLANT MATERIAL DELIVERY-CORRESPOND IN WRITING; EMAIL OR OTHERWISE
 - B. UNFORESEEN SITE CONDITIONS-CORRESPOND IN WRITING; EMAIL OR OTHERWISE
 - C. TREE CERTIFICATIONS-FROM NURSERY ASSURING SPECIES TRUE TO SPECIFIED CULTIVAR AND SPECIES
 - D. PRODUCT SAMPLES (MULCH, FERTILIZER, HERBICIDE, ADDITIVES) ETC.
 - E. BACKFILL BLENDED SOIL MIXTURE ANALYSIS
 - F. TREE STAKING MATERIALS
- ALL AREAS INADVERTENTLY DISTURBED AND NOT SPECIFICALLY DESIGNATED ON PLANS, SHALL BE RE-PLANTED AT THE COST OF THE CONTRACTOR. ALL DAMAGED AND/OR DISTURBED AREAS SHALL BE RESTORED TO PREVIOUS CONDITIONS OR BETTER. ANY DISTURBED AREAS TO RECEIVE TURF SHALL BE SMOOTHLY GRADED AND FIRM WITH POSITIVE DRAINAGE PRIOR TO THE INSTALLATION OF SOD.
- THE CONTRACTOR IS REQUIRED TO COMPLY WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL MANUAL. THE COST OF EROSION CONTROL SHALL BE INCLUDED IN THE COST OF THE PROJECT.
- ALL CONTRACTORS SHALL BE REQUIRED TO COMPLETELY REMOVE ALL TRASH, DEBRIS AND EXCESS MATERIALS FROM THE WORK AREA AND THE PROPERTY (ESPECIALLY AT ALL CURB, GUTTERS AND SIDEWALKS) DAILY DURING INSTALLATION.

PLANTING NOTES:

- SCOPE OF WORK:
THIS WORK SHALL CONSIST OF PERFORMING MINOR CLEARING AND GRUBBING AS NEEDED, SOIL PREPARATION, FINISH GRADING, TREE AND TURFGRASS INSTALLATION, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TESTING AND ANY APPROVALS, WARRANTY, MAINTENANCE AND OTHER APURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT. PLANTING INSTALLATION SHALL CONFORM AT MINIMUM TO THE DETAILS PROVIDED WITHIN THESE PLANS.
- ALL PLANTING AREAS ADJACENT TO PAVEMENT SHALL HAVE A FINISH GRADE OF SOIL NO LESS THAN 1" BELOW THE TOP PAVEMENT/CURB.
 - THOROUGHLY ERADICATE AND SPRAY TO KILL EXISTING LANDSCAPE GRASS AND WEED SURFACE. HAND GRUB AND THOROUGHLY RAKE ALL PROPOSED GROUND COVER AND GRASS AREAS AS NEEDED TO ERADICATE WEED ROOTS. REFER TO THE CLEARING, GRUBBING AND THE PREPARATION NOTES.
 - ALL PLANT MATERIAL SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL GRADABLE NURSERY PLANTS SHALL BE FLORIDA #1 OR BETTER AS DESCRIBED IN "GRADES AND STANDARDS FOR NURSERY PLANTS", STATE OF FLORIDA LATEST EDITION. CONTAINER GROWN PLANTS: A MIN. OF 80% OF THE CONTAINER ROOTBALL MUST BE BOUND BY THE ROOT SYSTEM. ENCIRCLING OR "RING" ROOTS ARE PROHIBITED AND PLANTS WILL BE REJECTED.
 - PLANTING SIZE DETERMINATION-SHADE TREES: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.
 - SHRUBS: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE AVERAGE HEIGHT OF THE TOP OF THE PLANT. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE SHRUB MASS. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH.
 - THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE A MINIMUM OF 10 BUSINESS DAYS PRIOR TO DELIVERY OF TREES AND SHRUBS SO THAT A REPRESENTATIVE MAY BE PRESENT TO VERIFY PLANT MATERIALS MEET FLORIDA NO. 1 STANDARDS. DOCUMENT CONFORMANCE PER SECTION 580-2.1.1 SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE JUDGED. FAILURE TO MEET MINIMUM SIZE ON ANY PLANT WILL RESULT IN REJECTION OF THAT PLANT. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, WELL BRANCHED, FREE OF DISEASE, INSECT EGGS, AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION. ALL ROOT BOUND PLANTS SHALL BE REJECTED.
 - ALL MATERIALS SHALL BE WARRANTED THROUGH FINAL ACCEPTANCE OF PROJECT. COST OF WARRANTED MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE OF THE MATERIAL UNLESS OTHERWISE INSTRUCTED AND INDICATED ON BID FORM.
 - NO SUBSTITUTIONS OF SPECIFIED PLANT MATERIALS WILL BE PERMITTED UNLESS APPROVED BY THE OWNERS REPRESENTATIVE LANDSCAPE ARCHITECT OR ASSIGNEES. IF ANY CHANGES ARE PROPOSED TO THE DESIGN (PLANT TYPES, SIZE, LOCATION OR SPACING, PLANT ARRANGEMENTS, BEDLINE DESIGN, ETC.) THE OWNER'S REP SHALL BE CONTACTED FOR APPROVAL.
 - THIS LINE HAS INTENTIONALLY BEEN LEFT BLANK

PLANTING NOTES CONTINUED:

- THE TREE GUYING DETAIL IN THESE PLANS SHALL BE ADHERED TO AND ANY DEVIATIONS MUST BE APPROVED BY THE PROJECT RLA IN WRITING AFTER SUBMITTING SHOP DRAWING DESCRIPTIONS.
- PLANTING BED PREPARATION:
 - STAKE LOCATIONS, LIMITS OF PLANTS AND PLANTING BEDS SHALL REFLECT PLANS TO THE GREATEST EXTENT POSSIBLE. COORDINATE WITH OWNER'S REPRESENTATIVE TO VIEW LAYOUT AND BED OUTLINES ON-SITE. CONTRACTOR SHALL MAKE MODIFICATIONS AS MAY BE REQUESTED.
 - HERBICIDE APPLICATION: FOR PROPOSED TURF AREAS AND MULCH BED AREAS, BEGIN TURF SPRAYING PROCESS A MIN. OF 30 DAYS PRIOR TO PLANTING AS FOLLOWS: SPRAY AREAS TO BE KILLED WITH GLYPHOSATE PER MANUFACTURER'S RECOMMENDATIONS. 7 DAYS AFTER SPRAYING, CLOSE MOW TO 1" HEIGHT. 14 DAYS AFTER CLOSE MOWING, RE-SPRAY WITH GLYPHOSATE PER MANUFACTURER'S RECOMMENDATIONS. 7 DAYS AFTER RE-SPRAYING, PROCEED WITH TURF REMOVAL IN PROPOSED SOD AREAS. LEAVE KILLED TURF IN PLACE FOR PROPOSED MULCH BEDS. PROPOSED INDIVIDUAL TREE RINGS DO NOT REQUIRE HERBICIDE APPLICATION.
 - TURF AND OTHER MATERIAL SHALL BE THOROUGHLY REMOVED PRIOR TO THE PLANTING AND BACKFILL PROCESS.
 - EXCAVATE PLANTING PITS AT DIAMETER/SIZE DETAILED. THE DEPTH OF THE HOLE SHALL BE 2" SHALLOWER THAN THE ROOTBALL; THEN DIG DEEPER AROUND THE HOLE'S PERIMETER, CREATING A FIRM CENTRAL PLATEAU SO THAT EXCESS WATER WILL FLOW AWAY FROM ROOTBALL.
 - WHERE PLANTING BEDS ARE PROPOSED, CLEAR AND GRUB TO A MIN., DEPTH OF 4" AS NEEDED. REMOVE REMNANT PLANTS AND STUMPS/DEBRIS AS NEEDED. EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
 - PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANTING BEDS. THE HERBICIDE ACTIVE INGREDIENTS SHALL BE SUITABLE FOR CONTROL OF ANNUAL AND PERENNIAL BROADLEAF WEEDS AND GRASSES. THE HERBICIDE SHALL BE APPLIED BY HAND PER MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION METHOD, TIMING AND APPLICATION RATE SHALL BE STRICTLY ADHERED TO.
 - PLACE THE ROOTBALL ON THE PLATEAU, MAKING SURE IT IS 2" HIGHER THAN THE SURROUNDING SOIL. FILL IN PLANTING PIT WITH BLENDED SOIL BACKFILL MIXTURE. SEE NOTE 23 ON THIS SHEET FOR SPECIFICS AND REQUIREMENTS.
 - FILL AND TAMP LIGHTLY AROUND EACH AND EVERY PLANT. FLUSH WITH WATER AND MAKE ADJUSTMENTS TO PROVIDE PROPERLY SET PLANT MATERIAL WITH THE TOP OF THE ROOTBALL EVEN WITH FINISHED GRADE AND WITH ROOT FLARE 1" ABOVE GRADE FOR TREES. INSTALL FERTILIZER PER MANUFACTURER RECOMMENDATIONS.
 - BUILD SAUCER TO CONTAIN WATER AROUND EACH PLANTING PIT. REMOVE EXCESS EXCAVATED SOIL FROM THE SITE.
 - ESTABLISH FINISHED PRE-MULCHED GRADE.
 - SPREAD PINE STRAW ACROSS ENTIRE BED TO A DEPTH OF 3". PINE STRAW SHALL BE FRESH SLASH OR LONGLEAF PINE STRAW. SHRUB BEDS AND TREE RINGS SHALL HAVE A 3"-4" STRAW DEPTH AFTER MANICURE AND COMPACTION; 1" AT CURB- PAVEMENT EDGES.
 - PROPOSED SOD AREAS SHALL BE RAKED SMOOTH, SPREAD TOPSOIL (AVG. 2" DEPTH) ACROSS PROPOSED SOD AREAS TO ESTABLISH PRE-FINISHED GRADE., PLACE SOD WITH STAGGERED JOINTS AND SEAMS TIGHTLY BUTTED TOGETHER. PEG IN PLACE WHERE MOVEMENT OR SLIPPAGE IS A CONCERN.
 - MULCH - SHALL BE FRESH SLASH OR LONGLEAF PINE STRAW. SHRUB BEDS AND TREE RINGS SHALL HAVE 3" PINE STRAW DEPTH AFTER MANICURE AND COMPACTION; 1" AT CURB, TAMP EDGES DOWN WITH FOOT OR HAND TAMPER.
 - "BLENDED SOIL" SHALL CONSIST OF 1/3 MUSHROOM COMPOST OR PEAT, 1/3 COMPOSTED COW MANURE AND 1/3 COMPOSTED BARK.
 - PLANTING BACKFILL MIXTURE FOR TREES AND SHRUBS/GRASSES SHALL CONSIST OF 30% BLENDED SOIL AND 70% EXISTING SOIL. ALL PLANTING BACKFILL MIXTURES ARE SUBJECT TO OWNER'S REPRESENTATIVE APPROVAL. MIX THOROUGHLY PRIOR TO INSTALLATION. SOIL REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR. CONTRACTOR MUST LOAD, HAUL, AND SPREAD ALL TOPSOIL AND ANY OTHER SOIL ADDITIVES AS REQUIRED.
 - WHERE TREES ARE PLANTED IN ROWS OR LIKE-KIND GROUPS, THEY SHALL BE UNIFORM IN SIZE AND SHAPE. SHRUB MASSES AND GROUNDCOVERS SHALL BE TRIANGULARLY SPACED AT SPACING SHOWN ON PLANTING PLANS.
 - GROUPS OF SHRUBS SHALL BE PLACED IN A CONTINUOUS MULCH BED WITH SMOOTH CONTINUOUS LINES. ALL MULCHED BED EDGES SHALL BE CURVILINEAR IN SHAPE FOLLOWING THE CONTOUR OF THE PLANT MASS. TREES LOCATED WITHIN FOUR FEET OF SHRUB BEDS SHALL SHARE SAME MULCH BED.
 - ALL PLANT MATERIAL SHALL BE SPACED AND LOCATED PER PLAN. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF AREA AND PLANS, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER OR LANDSCAPE ARCHITECT. FAILURE TO NOTIFY OF CONFLICTS SHALL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE MATERIAL.
 - CONTRACTOR TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS TO NOT IMPEDE DRAINAGE AWAY FROM BUILDINGS. IF SIGNIFICANT RELOCATIONS ARE REQUIRED, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH RELOCATIONS KNOWN TO THE OWNER OR LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY OF PLANT MATERIALS.
 - TREE STAKING AND GUYING SHALL BE DONE PER DETAILS. CONTRACTOR SHALL ENSURE THAT TREES REMAIN VERTICAL AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD. GUYING AND STRAPPING SHALL BE REMOVED AFTER ONE GROWING SEASON.
 - CROWN OF ROOT BALL SHALL BE HIGHER (AFTER SETTLING) THAN ADJACENT SOIL.
 - IF ANY PLANT MORTALITY OCCURS DURING PROJECT INSTALLATION, DEAD PLANTS ARE TO BE REMOVED FROM THE JOB BY THE CONTRACTOR WEEKLY. CONTRACTOR SHALL MAINTAIN AN UPDATED, COMPREHENSIVE LIST OF ALL DEAD MATERIALS REMOVED AND PRESENT A COPY OF THE LIST TO THE OWNER AND OWNER'S REPRESENTATIVE AT THE END OF EVERY MONTH DURING THE CONTRACT PERIOD.
 - TRUNK LOCATIONS OF LARGE MATURING TREES MUST BE A MIN. OF 25 FT FROM O.H. POWER LINES.
 - CONTRACTOR SHALL SUPPLY AMENDMENTS AND FERTILIZERS AS APPROPRIATE TO ENSURE PROPER ESTABLISHMENT AND THRIVING GROWTH OF PLANT MATERIAL.

FOR BIDDING PURPOSES, FERTILIZER FOR INITIAL INSTALLATION OF TREES, SHRUBS AND GROUNDCOVER IS ASSUMED TO BE CONTROLLED RELEASE FERTILIZER WITH A 15-9-12 ANALYSIS AND CONTAINING TRACE ELEMENTS Mg, S, B, Cu, Fe, Mn, Mo, AND Zn. FERTILIZER GRANULES SHALL BE COMPOSED OF DRY NUTRIENTS ENCAPSULATED IN MULTIPLE LAYERS OF POLYMERIC RESIN.

FOR INSTALLATION OF SOD, FERTILIZER IS ASSUMED TO BE CONTROLLED RELEASE FERTILIZER WITH A 16-4-8 ANALYSIS.

SOURCE FOR N SHALL BE RESIN-COATED UREA OR RESIN COATED AMMONIUM SALTS. MN, Zn, AND Cu SHALL BE SULFATE FORMS. Fe SHALL BE GRANULAR CHELATED IRON.

APPLICATION RATES ARE PROVIDED AS RECOMMENDATIONS ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE APPROPRIATE FERTILIZER/ AMENDMENTS TO ENSURE PROPER ESTABLISHMENT AND VIGOR OF PLANT MATERIAL.

1.0 OZ PER EA 1 GALLON PLANT CONTAINER 3.0 OZ PER EA 3 GALLON CONTAINER 9.0 OZ PER EA 15 GALLON CONTAINER
48.0 OZ PER EA TREE SOD AREAS: 6LBS/1000SF

BIDDER NOTE:

AN AUTOMATIC IRRIGATION SYSTEM IS NOT PROPOSED FOR THIS PROJECT. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO PROPOSED TREES AND TURFGRASS UNTIL PROJECT ACCEPTANCE, AT WHICH TIME THE OWNER WILL ASSUME IRRIGATION RESPONSIBILITIES. CONTRACTOR IS EXPECTED TO HAND-WATER ALL MATERIAL VIA A WATER TRUCK AND THE USE OF "GATOR BAGS" OR EQUIVALENT ON ALL TREES IS REQUIRED. THESE BAGS SHALL REMAIN AFTER FINAL ACCEPTANCE FOR USE BY THE OWNER. CONTRACTOR IS RESPONSIBLE FOR SECURING A WATER SOURCE FOR IRRIGATION WATER AS AN ON-SITE WATER SOURCE MAY OR MAY NOT BE AVAILABLE. ON-SITE FIRE HYDRANTS ARE A POTENTIAL SOURCE OF IRRIGATION WATER, HOWEVER LANDSCAPE CONTRACTOR WOULD BE RESPONSIBLE FOR THE COORDINATION OF SUCH SOURCE WITH THE PRIME CONTRACTOR.

SUGGESTED GUIDELINES FOR MAINTENANCE:

THE FOLLOWING OPERATIONS SHALL BE PERFORMED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD. THE CONSTRUCTION PERIOD SHALL BE FROM THE TIME OF INSTALLATION UP TO FINAL PROJECT COMPLETION AND ACCEPTANCE. NOTE, SOME TASKS MAY NEED TO BEGIN UPON GROUND BREAKING. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROPER MAINTENANCE, SURVIVAL, AND CONDITION OF ALL NEWLY INSTALLED LANDSCAPE ITEMS UNDER THIS CONTRACT DURING THIS PERIOD OF TIME. UPON PROJECT ACCEPTANCE THE OWNER SHALL ASSUME RESPONSIBILITY OF THE MATERIAL.

- MOWING
 - MOWING OF ALL NEWLY PLANTED SOD SHALL BE PERFORMED THROUGHOUT THE WARRANTY PERIOD. AT A MINIMUM, MOW WEEKLY APRIL THROUGH SEPTEMBER AND MONTHLY OCTOBER THROUGH MARCH. CONTRACTOR SHALL MOW ALL NEWLY PLANTED TURFGRASS AREAS AND/OR PERENNIAL PEANUT, AS WELL AS A 6 FT AREA AROUND ALL PLANTING BEDS.
- FERTILIZER
 - APPLY ONCE TO TREES, SHRUBS AND GROUNDCOVERS DURING THE WARRANTY PERIOD AND TWICE TO SOD OR PERENNIAL PEANUT AREAS. SEE GENERAL NOTES FOR APPLICATION RATES. APPLY IN THE SPRING AND AUTUMN UNLESS OTHERWISE DIRECTED BY COUNTY REPRESENTATIVE.
- EDGING
 - A. EDGING SHALL BE DONE ON A REGULAR BASIS, MONTHLY, TO COINCIDE WITH THE MAINTENANCE SCHEDULE. WHERE BEDS ADJUT TURF OR ROADWAY, EDGE WITH A MECHANICAL EDGER. CARE SHALL BE TAKEN NOT TO SCAR CONCRETE OR OTHER HARDSCAPE SURFACES WITH EDGING EQUIPMENT. PLANT BEDS AND TREE RINGS INSTALLED UNDER THIS CONTRACT SHALL BE KEPT CLEAN AND WELL DEFINED IN ORDER TO PREVENT ENCROACHMENT BY TURFGRASSES AND/OR PERENNIAL PEANUT.
 - B. EDGING ALL TREE RINGS AND PLANTING BEDS AT EACH MAINTENANCE VISIT AS NEEDED TO PREVENT ENCROACHMENT OF PLANT MATERIAL INTO GROUNDCOVER AND ROADWAY AREAS.
- WEEDING
 - WEEDING OF NEWLY PLANTED AREAS SHALL BE DONE MONTHLY AT A MINIMUM. WEEDS SHALL BE IMMEDIATELY REMOVED FROM PLANTING AREAS. WEED REMOVAL SHALL BE DONE MANUALLY (HAND PULLED) AND HERBICIDES MAY BE UTILIZED IN PROBLEM AREAS. APPLICATION OF HERBICIDES SHALL BE DONE WITH EXTREME CAUTION AS TO PREVENT ANY POTENTIAL DAMAGE TO THE LANDSCAPE ELEMENTS. A MINIMUM OF ONE PRE-EMERGENT HERBICIDE APPLICATION WILL BE REQUIRED. NO PERENNIAL WEED SEEDLINGS OR TINY WEEDS SHALL BE ALLOWED, THAT ARE VISIBLE TO THE EYE, WITHIN THE PERENNIAL PEANUT AREAS. VISUAL MONITORING IS CRITICAL AND HAND PULLING OF TAPROOT IS REQUIRED.
- HERBICIDE/PESTICIDE
 - A. ALL PERSONNEL INVOLVED IN THE APPLICATION OF CHEMICALS ARE TO RECEIVE PROPER TRAINING AND FOLLOW THE OPERATING GUIDELINES PROVIDED BY THE FDOT FOR CHEMICAL CONTROL. CONTACT THE LOCAL COUNTY AGRICULTURAL EXTENSION SERVICE FOR ADDITIONAL INFORMATION REGARDING HERBICIDE, PESTICIDE AND REQUIRED LICENSES.
 - B. ANY INVASIVE, EXOTIC SPECIES (PER FLORIDA EXOTIC PEST PLANT COUNCIL CAT. 1 & 2 LISTS) FOUND DURING THE MAINTENANCE PERIOD SHALL BE REMOVED.
 - C. PROVIDE PLANT MATERIAL INSECT AND DISEASE CONTROL INSPECTIONS CONTINUALLY DURING THE WARRANTY PERIOD AND TREAT AS NECESSARY.
- PRUNING
 - A. SELECTIVE PLANT PRUNING (HAND PRUNING, NOT SHEARING) SHALL BE THE PRIMARY METHOD OF SHAPE AND SIZE CONTROL AND SHALL BE PERFORMED AS NECESSARY ON ALL TREES AND SHRUBS TO ENSURE THE HEALTH AND VIGOR THROUGHOUT THE WARRANTY PERIOD.
 - B. CRAPE MYRTLE TREES MAY BE TIP PRUNED DURING THE GROWING SEASON (CUTS THROUGH SMALLER DIAMETER BRANCHES 1 YEAR OLD OR LESS) POLLARDING (ANNUAL REMOVAL OF ALL SPROUTS) AND TOPPING (REMOVAL OF LARGE DIAMETER WOOD) ARE NOT ACCEPTABLE PRUNING METHODS.
 - C. NATIVE GRASSES SHALL BE CUT BACK IN EARLY MARCH AS NEEDED TO MAINTAIN A NEAT APPEARANCE.
- MULCH
 - A. INSTALLED MULCH SHALL BE FRESH LONGLEAF OR SLASH PINESTRAW MULCH ONLY, APPLIED CONTINUOUSLY THROUGHOUT PLANTING BEDS. MAINTAIN MULCH RINGS EQUAL IN DIAMETER TO PLANTING FOR TREES; MIN. 6" CIRCLE IN OPEN GRASS AREAS AND 42"-48" MIN IN PARKING ISLANDS.. SUPPLEMENT ALL MULCHING AS NECESSARY TO MAINTAIN A 3" COMPRESSED DEPTH THROUGHOUT THE WARRANTY PERIOD.
- SPECIAL CARE REQUIREMENTS
 - A. PROTECT ANY HARDSCAPE ELEMENTS DURING WARRANTY ACTIVITIES FROM DAMAGE. ENSURE AREAS ADJACENT TO MAINTENANCE ACTIVITIES ARE CLEANED AND SWEEP AFTER MAINTENANCE WORK IS ACCOMPLISHED AT EACH MAINTENANCE VISIT. USE APPROVED BMP'S FOR PROTECTION OF ALL INLETS FROM SEDIMENTATION AND DEBRIS.
- WORK ZONE CONTROL PLAN
 - A. APPROVED TRAFFIC CONTROL MEASURES SHALL BE UTILIZED DURING ALL MAINTENANCE ACTIVITIES.
- STAKING
 - A. CONTRACTOR SHALL MAINTAIN ALL TREE STAKING DURING THE MAINTENANCE PERIOD.
 - B. OWNER SHALL REMOVE ALL ABOVE GROUND STAKING AT THE END OF ONE YEAR.
- EARTH SAUCERS TO RETAIN WATER
 - A. REMOVE, GRADE SMOOTH, AND RE-MULCH AT THE END OF ONE YEAR.
- PLANT/TREE REPLACEMENT
 - A. TREES: ALL TREES SHALL BE FLORIDA #1 GRADE AT FINAL ACCEPTANCE. THE CONTRACTOR IS NOT EXPECTED TO REPLACE ANY GIVEN TREE OR TREES AT THEIR OWN EXPENSE MORE THAN TWICE. PRIOR TO ANY REPLACEMENTS BEYOND LIMIT, A FIELD REVIEW CAN BE CONDUCTED BY THE R.L.A. OR OWNER'S REPRESENTATIVE UPON REQUEST BY CONTRACTOR TO ASSESS CAUSE OF MORTALITY TO ANY PARTICULAR SPECIES THAT HAS REACHED ITS REPLACEMENT LIMIT.

UTILITY NOTES:

- THE LOCATION OF UNDERGROUND FACILITIES SHOWN IN THE PLANS IS BASED UPON INFORMATION PROVIDED BY OTHERS AT THE TIME OF THE PLANS PREPARATION, LOCATIONS SHOWN ARE APPROXIMATE, AND THIS INFORMATION SHOULD NOT BE ASSUMED TO BE COMPREHENSIVE.
- THE LOCATIONS OF THE OVERHEAD UTILITIES SHOWN ON THE PLANS ARE BASED ON LIMITED AVAILABLE INFORMATION AT THE TIME OF PLAN PREPARATION AND SHOULD BE CONSIDERED APPROXIMATE.
- THE CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND/OR ALL UTILITY COMPANIES (VIA SUNSHINE ONE CALL) PRIOR TO CONSTRUCTION AND NO UTILITY SHALL BE RELOCATED. RATHER, THE PROPOSED PLANTING LOCATIONS SHALL BE ADJUSTED TO ACCOMMODATE THE EXISTING UTILITY. THE OWNERS REPRESENTATIVE SHALL NEGOTIATE ANY UTILITY CONFLICTS.
- THE LANDSCAPE CONTRACTOR SHALL VERIFY AND MAINTAIN THE VISIBLE LOCATION OF ALL UTILITIES DURING CONSTRUCTION. ALL EXCAVATION WITHIN 5 FT. OF UTILITIES SHALL BE DONE BY HAND. MAINTAIN SURFACE MARKINGS, FLAGS, ETC. OF UTILITY LOCATIONS, RE-LOCATE IF NEEDED. RECORD ACCURATELY ON AS-BUILT DRAWINGS WHEN NEAR PROJECT COMPONENTS.



DESTIN - FORT WALTON BEACH AIRPORT



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CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

Designer: AHC Checked by: BLB

Technician: DHM Proj. No.: ICE18DESTINAIR

Engineer of Record:
DAVID H. MELVIN, INC.
Consulting Engineers



Notes:

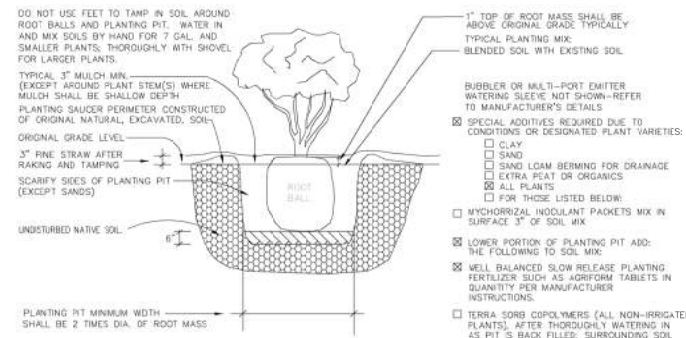
| REVISIONS | | | |
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| No. | Description | Date | By |
| 1. | Addendum #1 | 6/19/19 | AHC |
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Drawing Name:
GENERAL AND PLANTING NOTES

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

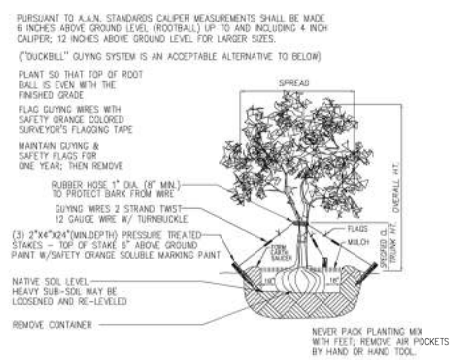
Date: **MAY 2019** Sheet Number: **L3.0**



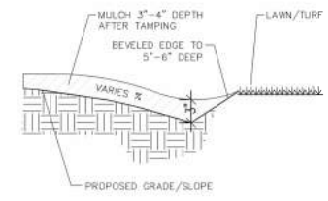
NOTES:
 PRUNE ANY BROKEN, FRAYED, ROOTS. STRAIGHTEN, SPREAD OUT, AND PRUNE ANY CIRCULAR ROOT-BOUND PLANTS; VERY TIGHT, ROOT BOUND PLANTS WILL NOT BE ACCEPTED. IN ALL WEATHER CONDITIONS, HAND WATER EACH PLANT AS PIT IS BACK FILLED, INCLUDING THE SATURATION OF SURROUNDING SOIL.

WARNING:
 DO NOT RELY ON SURFACE OR DRIP IRRIGATION TO PROVIDE SUFFICIENT WATER TO NEW PLANTINGS, ESPECIALLY IN HOT DRY PERIODS IN GROWING SEASON. INSTALLED IN DRY SURROUNDING SOILS. SOME HAND WATERING MAY BE NEEDED. CLOSE MONITORING OF SOIL MOISTURE IS NECESSARY, ESPECIALLY DURING THE FIRST SERIES OF GROWING SEASONS. NOTIFY OWNERS REPRESENTATIVE OF ANY DRAINAGE PROBLEMS, UNFORESEEN SUBSURFACE OBSTACLES, BAD PLANTING SOIL, ETC. THAT BECOME APPARENT DURING IMPLEMENTATION AND MAINTENANCE PERIOD.

SOIL PIT PLANTING DETAIL
 BL BEARWOOD, FL RLA



TREE PLANTING / GUYING DETAIL
 N.T.S.



TYPICAL PLANTING BED/LAWN EDGE AND MULCH DEPTH
 N.T.S.



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 CERTIFICATE OF AUTHORIZATION NO.: 30862

Project Name:
CONSTRUCT WEST APRON EXPANSION AND INFRASTRUCTURE AT VPS

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| Designer: AHC | Checked by: BLB |
| Technician: | DHM Proj. No.: ICE18DESTINAIR |

Engineer of Record:
DAVID H. MELVIN, INC.
Consulting Engineers

Notes:

| REVISIONS | | | |
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| 1. | Addendum #1 | 6/19/19 | AHC |
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Drawing Name:
PLANTING DETAILS

FAA A.I.P. Project No.:
3-12-0081-029-2018

FDOT Project No.:

Date:
MAY 2019

Sheet Number:
L4.0