

ADDENDUM NO. 2

PROJECT MANUAL

2020 AIRPORT PAVEMENT, DRAINAGE, AND FENCING IMPROVEMENTS  
TXDOT CSJ NO. 2014MASON  
MASON COUNTY AIRPORT  
MASON, TEXAS

Bids will be received until 2 P.M., local time, October 22, 2020.

This Addendum to the Project Manual is issued to modify, explain, or correct the original Contract Documents and Specifications for Mason County Airport 2020 Airport Pavement, Drainage, and Fencing Improvements (TxDOT CSJ No. 2014 MASON) and is hereby made part of the Contract Documents.

A. NONMANDATORY PREBID CONFERENCE MEETING DOCUMENTS

1. Attached is a nonmandatory Prebid Conference Meeting Agenda and Minutes that include Q &A.

B. CONTRACTOR QUESTIONS RECEIVED AFTER PREBID

1. Can the Contractor burn excess cleared material on the airport property?

Yes, the County will allow it. Contractor shall notify Engineer and County of when they plan to burn. If there is a County burn ban in effect, the County will provide special permission to allow burning.

2. Where can the Contractor place excess excavated or graded material?

The Contractor should salvage excess excavated material to the County Road Maintenance yard, directly adjacent to the airport property. Drawing Sheet 15 refers to this. This Note applies to all excavated materials on the Project.

3. Will the Contractor be responsible for pavement that crumbles at the runway edge, as part of edge grading operations?

Contractor must use care in conducting edge grading. Contractor will not be responsible for unavoidable damage if it is determined that proper care was taken in the Contractor's methods of conducting this work.

4. The HUB goal for this project of 11.2% per fiscal year, equivalent to basically 11.2% of the Base Bid Amount, Base Bid + Alternate, or some other number?

For 2014MASON the 11.2% HUB goal should be calculated based on the combined amount of Schedule 1 Base Bid and Schedule 2 Base Bid. Once a conditional award is made the HSP plans can be modified and finalized based on what Base Bids and Alternates are actually awarded.

5. Please clarify if the fence, which starts in Phase 1, must be complete prior to subsequent phases, or can work concurrently.

Work can occur concurrently throughout the duration of the Project.

6. Gate details are different than expected.

Please bid what is called out on Drawings and Specifications. The Specification has more details on the gate, which may be helpful.

7. Drawing Sheet 30 calls for gate posts at 1320 feet minimum, is this accurate?

The Drawing Sheet should call for 1,320 feet MAXIMUM spacing as called for in the Specification. See the updated sheet attached with this Addendum.

8. Should there be staples or some means of securing the predator apron to the ground?

A callout has been included on Sheet 30 for means of securing the predator apron to the ground. See the updated sheet attached with this Addendum.

ADDITIONAL NOTE: Contractor should plan to work on fencing on the north side of the airport property, adjacent to Airport Road, ONLY when the runway is closed. Pending a determination from the FAA, work may be allowed in this area with the runway open, but we cannot guarantee this at this time.

#### C. BID FORM

1. REPLACE the existing bid form with the attached revised bid form. Revisions to reflect changes to quantities.

#### D. SPECIFICATIONS

1. TXDOT Item 467–Safety End Treatment
  - a. ADD the attached Specification.

#### E. DRAWINGS

1. SHEET NO. 2–GENERAL NOTES, LEGEND, & SHEET INDEX

REPLACE the existing Sheet No. 2 with the attached revised Sheet No. 2.

2. SHEET NO. 4–PROJECT LAYOUT PLAN

REPLACE the existing Sheet No. 4 with the attached revised Sheet No. 4.

3. SHEET NO. 5–QUANTITIES SHEET

REPLACE the existing Sheet No. 5 with the attached revised Sheet No. 5.

4. SHEET NO. 10–CSPP (CLOSED RUNWAY)

REPLACE the existing Sheet No. 10 with the attached revised Sheet No. 10.

5. SHEET NO. 12–RW 36 TURNAROUND GRADING

REPLACE the existing Sheet No. 12 with the attached revised Sheet No. 12.

6. SHEET NO. 19A–SAFETY END TREATMENT

ADD the attached as Sheet No. 19A.

7. SHEET NO. 22–EROSION CONTROL PLAN

REPLACE the existing Sheet No. 22 with the attached revised Sheet No. 22.

8. SHEET NO. 30–GAME–PROOF FENCE DETAILS

REPLACE the existing Sheet No. 30 with the attached revised Sheet No. 30.

\*\*\*\*\*  
**BIDDERS MUST ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE  
SPACE PROVIDED IN THE BID FORM**  
\*\*\*\*\*

Dated at Brenham, Texas  
October 15, 2020

STRAND ASSOCIATES, INC.®  
1906 Niebuhr Street  
Brenham, TX 77833  
TBPE No. F-8405





Minutes  
Nonmandatory Prebid Conference  
2020 Airport Pavement, Drainage, and Fencing Improvements  
Texas Department of Transportation CSJ No. 2014MASON  
Mason County Airport  
October 6, 2020, 2 P.M.

Present	Representing	Contact
Judge Jerry Bearden	Mason County Airport (Owner)	Tel: 325-347-5556 E-mail: county.judge@co.mason.tx.us
Jim Boies (Pilot)	Mason County Airport	Tel: 325-347-5443 E-mail: gjboies.54@gmail.com
Robert Parr, Pilot	Mason County Airport	Tel: 713-854-5134 E-mail: robbparr@cs.com
David Beaver, Pilot	Mason County Airport	Tel: 713-851-8960 E-mail: beaverair@swbell.net
Tom Doell, Pilot	Mason County Airport	Tel: 214-707-9413 E-mail: tom@thedoellcompany.com
Don Daniel, Pilot	Mason County Airport	Tel: 325-248-1502 E-mail: txdon@aol.com
Ed Mayle, Project Manager	Texas Department of Transportation (TxDOT)	Tel: 512-416-4528 E-mail: ed.mayle@txdot.gov
Roy Garrison (via phone)	Hurricane Fence Company	Tel: 956-423-8364 E-mail: roy3@hurricanefencetx.com
Dennis Benavides	Benavides Fencing	Tel: 830-307-0805
Mark McDonald	Kwest Group	Tel: 214-771-2034 E-mail: markmcdonald@kwestgroup.com
Jenny Martin	Sealcoat Specialists	Tel: 830-329-6266 E-mail: jenny.sealcoat@outlook.com
Roddy Martin	Sealcoat Specialists	Tel: 210-428-7553 E-mail: roddy.sealcoat@outlook.com
Taylor Jordan (via phone)	Lone Wolf Construction	Tel: 817-739-5735 E-mail: taylorj@lone-wolf-construction.com
Tom Hart, P.E.	Strand Associates, Inc. <sup>®</sup> (Engineer)	Tel: 979-836-7937 ext. 6235 E-mail: tom.hart@strand.com

1. Introductions

- a. Mason County Airport (Airport)–Judge Jerry Bearden
- b. Texas Department of Transportation–Ed Mayle, Project Manager
- c. Strand Associates, Inc.<sup>®</sup>–Tom Hart, P.E.
- d. Roll call of all attendees–Others in the room and on the phone introduced themselves.

2. General Project Description and Overview

- a. Project Description
  - (1) Schedule 1 Base Bid–Construct the Runway (RW) 36 turnaround; rehabilitate and mark RW 18-36, stub taxiway (TW), and apron and construct drainage improvements.
  - (2) Schedule 1 Alternate Bid No. 1–Construct RW 36 turnaround and hangar access taxiways (HATs) using concrete instead of asphalt.



- (3) Schedule 2 Base Bid—Install a game-proof perimeter fence.
  - (4) Will clearing trees on the east side of the Airport be part of this project?
    - (a) None other than the clearing associated with installation of the fence.
  - (5) Will this project include a runway extension?
    - (a) No. That may be done on a future project.
  - (6) Will the entire runway be repaved?
    - (a) No.
  - (7) Will it be possible to build new hangars on the east side of the Airport?
    - (a) Although not part of this project, they may be part of a future project.
  - (8) What is the Runway Safety Area width?
    - (a) The Runway Safety Area is a total of 120 feet.
  - (9) Will the box culvert be a hazard to airplanes that may run off the runway?
    - (a) The box culvert extends out to the edge of the Runway Safety Area and will be graded over the top.
  - (10) Will the future electrical project accommodate runway widening?
    - (a) Although not part of this project, it will accommodate runway widening.
  - (11) It appears there are more cracks on the pavement than are quantified in the drawings for bid. How will this be handled?
    - (a) Only cracks larger than 1/4-inch will be routed and sealed. Cracks should not be routed and sealed without first determining with the resident project representative (RPR) or Engineer which cracks are to be addressed. This will be done in the field with the contractor. Please see notes on Plan Sheet 20.
  - (12) Where are the gates located on the new fence?
    - (a) Please see Plan Sheet 29.
  - (13) Will there be a cattle guard at the main gate?
    - (a) No.
  - (14) Why are fence linestyles different on Plan Sheet 29?
    - (a) The hatched area overlaying the new fence line represents a portion of fence that will be removed. Please refer to the legend on Plan Sheet 29.
- b. Bidders must bid on both Schedules and Alternates.
- c. Historically Underutilized Business (HUB) Annual Procurement Utilization Goal and HUB Subcontracting Plan (HSP)
- (1) The HUB goal is 11.2 percent.
  - (2) TxDOT has determined that subcontracting opportunities are probable for this Notice to Bidders (NTB). As a result, the Bidder (respondent) must submit an HSP with its proposal. The HSP is required whether a Bidder (respondent) intends to subcontract or not. In the HSP, a Bidder (respondent) must indicate whether it is a Texas-certified HUB. Being a certified HUB does not exempt a Bidder (respondent) from completing the HSP requirement.
- d. Sealed bids for the construction of the airport improvements at the Airport need to be addressed and delivered to Judge Jerry Bearden, County Courthouse, 201 Fort McKavitt Street, Mason, TX 76856. Bids will be received until 2 P.M., October 22, 2020, and then publicly opened and read. Any bid received after the closing time will be returned unopened.



e. General Provisions

- (1) Contract Time—120 calendar days for any combination of Base and Alternate Bid Improvements.
- (2) Liquidated Damages—\$500 per calendar day.
- (3) Bid form should be completed online and then signed with ink.
- (4) Each bidder must be prequalified. Prequalification must be completed by October 22, 2020. TxDOT stated that the prequalification can be included with the bid.

3. Addenda

a. Addendum No. 2 will include the following:

- (1) Sign-in sheet.
- (2) Prebid Conference Agenda.
- (3) Issues or clarification from the Prebid Conference.
- (4) Revised grading and added storm sewer on the RW 36 end.

b. Deadlines for the Bidder's (respondent) questions and final addendum—It was asked by Engineer, and agreed to by TxDOT, that the final deadline for the contractor's questions should be at 12 P.M. on October 14, 2020.

If there are any additions or comments, please call me at 979-836-7937 ext. 6235.

Prepared and respectfully submitted by Tom R. Hart, P.E.

Enclosure

c/enc: All Participants

Sign-in sheet  
 2014 MASON Pre-Bid  
 2020 Airport Improvements

Name	Representing	Phone	email
Tom Hart	Strand Associates	979-836-7937	tomhart @strand.com
Ed Mayle	TXDOT, AVN	512-416-4528	ed.mayle@txdot.gov
Jerry Bearden	Mason County Judge	325-347-5556 - countyjudge@masoncountyga.gov	
Jim Boies	PILOT	325-347-5443	gjboies54 @gmaacsm
Robert PAIR	Pilot	713-854-5134	robbpair@cs.com
DAVID BEAVER	PILOT	713 851 8960	BEAVERAIR@ SWBELL.NET
TOM DOELL	PILOT	214-707-9413	tom@the doellcompany.com
DON DANIEL	PILOT	325 248 1502	txdon@ACL.COM
Dennis Benavides	Benavides fencing	830-307-0805	
MARK McDonald	Kwest Group	214-771-2034	Mark McDonald e @kwestgroup.com
Jenny Martin	Seacoat Spec.	830-329-6266	jenny.seacoat@outlook.com
Roddy Martin	Seacoat Spec.	210-428-7553	roddy.seacoat@outlook.com

# Item 467

## Safety End Treatment



### 1. DESCRIPTION

Furnish, construct, and install safety end treatments for drainage structures, or install or replace pipe runners or pipe runner assemblies on existing drainage structures.

### 2. MATERIALS

2.1. **General.** Furnish materials in accordance with the following.

- Item 420, "Concrete Substructures,"
- Item 421, "Hydraulic Cement Concrete,"
- Item 432, "Riprap,"
- Item 440, "Reinforcement for Concrete,"
- Item 442, "Metal for Structures,"
- Item 445, "Galvanizing,"
- Item 460, "Corrugated Metal Pipe," and
- Item 464, "Reinforced Concrete Pipe."

Use Class C concrete for cast-in-place and precast concrete units unless otherwise shown on the plans. Furnish cast-in-place or precast safety end treatments unless otherwise shown on the plans. Furnish Class B concrete for concrete riprap unless otherwise shown on the plans. Provide galvanized steel for prefabricated metal end sections in accordance with Item 460, "Corrugated Metal Pipe."

Furnish pipe runners in accordance with the following:

- ASTM A1085;
- ASTM A53, Type E or S, Grade B;
- ASTM A500, Grade B; or
- API 5L, Grade X42.

Furnish plates and angles in accordance with ASTM A36. Furnish nuts and bolts in accordance with ASTM A307. Galvanize pipes, plates, angles, nuts, and bolts in accordance with Item 445, "Galvanizing."

2.2. **Fabrication.** Fabricate cast-in-place concrete units and precast units in accordance with Item 420, "Concrete Substructures." Provide either prefabricated metal end sections or mitered CMP when specified for the pipe structure unless otherwise shown on the plans.

Provide one of the following when reinforced concrete pipe (RCP) is specified for the pipe structure, unless otherwise shown on the plans:

- mitered RCP or
- precast safety end treatment (SET) units. Provide riprap only if the plans specifically require it for this alternative.

2.2.1. **SET Types.**

2.2.1.1. **Type I.** Provide Type I SET consisting of reinforced concrete headwalls or wingwalls and pipe runners in accordance with the details shown on the plans when required.



- 2.2.1.2. **Type II.** Provide Type II SET in accordance with the details shown on the plans consisting of the following:
- CMP or RCP mitered to the proper slope, concrete riprap and pipe runners, when required;
  - prefabricated metal end sections, concrete riprap and pipe runners, when required; or
  - precast SET units, concrete riprap, when required, and pipe runners, when required.
- 2.2.2. **Lifting Holes.** Provide no more than 4 lifting holes in each section for precast units. Lifting holes may be cast, cut into fresh concrete after form removal, or drilled. Provide lifting holes large enough for adequate lifting devices based on the size and weight of the section. The maximum hole diameter is 3 in. at the inside surface of the wall and 4 in. at the outside surface. Cut no more than 1 longitudinal wire or 2 circumferential wires per layer of reinforcing steel when locating lift holes. Repair spalled areas around lifting holes.
- 2.2.3. **Marking.** Clearly mark the following on each precast unit, mitered CMP, mitered RCP, or metal end section before shipment from the casting or fabrication yard:
- the date of manufacture,
  - the name or trademark of the manufacturer, and
  - the type and size designation.
- 2.2.4. **Storage and Shipment.** Store precast units on a level surface. Do not place any loads on precast units until the design strength is reached. Do not ship units until design strength requirements have been met.
- 2.2.5. **Causes for Rejection.** Precast units may be rejected for not meeting any one of the specification requirements. Individual units may also be rejected for fractures or cracks passing through the wall or surface defects indicating honeycombed or open texture surfaces. Remove rejected units from the project and replace with acceptable units meeting the requirements of this Item.
- 2.2.6. **Defects and Repairs.** Occasional imperfections in manufacture or accidental damage sustained during handling may be repaired. The repaired units will be acceptable if they conform to the requirements of this Item and the repairs are sound and properly finished and cured in conformance with pertinent specifications. Repair damaged galvanizing in accordance with Section 445.3.5., "Repairs."

---

### 3. CONSTRUCTION

- 3.1. **General.** Remove portions of existing structures in accordance with Section 420.4.8., "Extending Existing Substructures." Drill, dowel, and grout in accordance with Item 420, "Concrete Substructures." Furnish concrete riprap in accordance with Item 432, "Riprap."
- Provide riprap on all prefabricated metal end sections.
- 3.2. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures." Take special precautions in placing and compacting the backfill to avoid any movement or damage to the units. Bed precast units on foundations of firm and stable material accurately shaped to conform to the bases of the units.
- 3.3. **Placement of Precast Units.** Provide adequate means to lift and place the precast units. Fill lifting holes with mortar or concrete and cure. Precast concrete or mortar plugs may be used.
- 3.4. **Connections.** Make connections to new or existing structures in accordance with the details shown on the plans. Furnish jointing material in accordance with Item 464, "Reinforced Concrete Pipe."
- Also remove a length of the existing pipe from the headwall to the joint when removing existing headwalls as shown on the plans or as approved. Re-lay the removed pipe if approved, or furnish and lay a length of new pipe.
- 3.5. **Install or Replace Pipe Runners or Assemblies.** Install or replace individual pipe runners or pipe runner assemblies on existing drainage structures as indicated on the plans.

---

#### 4. MEASUREMENT

SETs of all types will be measured by each barrel of each structure end.

Pipe runners or pipe runner assemblies installed or replaced on existing structure will be measured by each installed or replaced on each structure end.

---

#### 5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the various designations of "Safety End Treatment" specified as follows:

- SET (Type I) (Barrel Span) (Wall Height) (Slope, Horizontal:Vertical) (Orientation, Cross or Parallel)
- SET (Type I) (Pipe Diameter or Design) (Slope, Horizontal:Vertical) (Orientation, Cross or Parallel)
- SET (Type II) (Pipe Diameter or Design) (Pipe Material) (Slope, Horizontal:Vertical) (Orientation, Cross or Parallel)
- SET (Pipe Runner)
- SET (Pipe Runner Assembly)

For payment purposes, the wingwall heights of Type I SETs for box culverts will be rounded to the nearest foot.

This price is full compensation for constructing, furnishing, transporting, and installing the end treatments; pipe runners, or pipe runner assemblies, connecting to existing structure; breaking back, removing and disposing of portions of the existing structure, removing and disposing of existing pipe runner or pipe runner assemblies, and replacing portions of the existing structure as required to make connections; excavation and backfill; furnishing concrete, reinforcing steel, corrugated metal pipe or reinforced concrete pipe, and pipe runners; and concrete riprap, nuts, bolts, plates, angles, equipment, labor, tools, and incidentals.

The removal and re-laying of existing pipe or the furnishing of new pipe to replace existing pipe will not be paid for directly but will be considered subsidiary to this Item.

The mitered length of CMP or RCP that is a part of the SET (Type II) will not be paid for directly but will be considered subsidiary to this Item. The limits for payment for pipe will be as shown on the plans and paid for in accordance with the pertinent bid item.

The limits of riprap to be included in the price bid for each SET will be shown on the plans. Any riprap placed beyond the limits shown will be paid in accordance with Item 432, "Riprap." Riprap between multiple precast SET units will be required as shown on the plans and is included in the price bid for SET.

When precast SETs are provided as an option to mitered RCP, riprap aprons will not be required unless the plans specifically require riprap aprons for precast SET units. The plans will show the limits of the riprap to be included with the precast SET for payment.

PROJECT GENERAL NOTES:

1. AIRPORT INFORMATION:

- A. AIRPORT NAME: MASON COUNTY AIRPORT
- B. FAA IDENTIFIER: T92
- C. AIRPORT CTAF/UNICOM: 122.9
- D. AIRPORT OWNER: MASON COUNTY
- E. AIRPORT OPERATOR NAME: JERRY BEARDEN
- PHONE NUMBER: (325) 347-5556
- F. RPR NAME: TBD
- PHONE NUMBER: TBD

2. DEFINITIONS:

- A. NOTICE TO ARMEN (NOTAM): DEFINED AS A NOTICE CONTAINING INFORMATION (NOT KNOWN SUFFICIENTLY IN ADVANCE TO PUBLICIZE BY OTHER MEANS) CONCERNING THE ESTABLISHMENT, CONDITION, OR CHANGE IN ANY COMPONENT (FACILITY, SERVICE, OR PROCEDURE OF, OR HAZARD IN THE NATIONAL AIRSPACE SYSTEM) THE TIMELY KNOWLEDGE OF WHICH IS ESSENTIAL TO PERSONNEL CONCERNED WITH FLIGHT OPERATIONS. NOTAMS CAN BE VIEWED AT NOTAMS.AIM.FAA.GOV/NOTAMSEARCH
- B. OBJECT FREE AREA (OFA): AN AREA ON THE GROUND CENTERED ON THE RUNWAY, TAXIWAY, OR TAXILANE CENTERLINE PROVIDED TO ENHANCE SAFETY OF AIRCRAFT OPERATIONS BY HAVING THE AREA FREE OF OBJECTS EXCEPT FOR THOSE OBJECTS THAT NEED TO BE LOCATED IN THE OFA FOR AIR NAVIGATION OR AIRCRAFT GROUND MANEUVERING PURPOSES.
- C. OBSTACLE FREE ZONE (OFZ): THE AIRSPACE BELOW 150 FT ABOVE THE ESTABLISHED AIRPORT ELEVATION AND ALONG THE RUNWAY AND EXTENDED RUNWAY CENTERLINE THAT IS REQUIRED TO BE CLEAR OF ALL OBJECTS, EXCEPT FOR FRANGIBLE VISUAL NAVAIDS THAT NEED TO BE LOCATED IN THE OFZ BECAUSE OF THEIR FUNCTION, IN ORDER TO PROVIDE CLEARANCE PROTECTION FOR AIRCRAFT LANDING OR TAKING OFF FROM THE RUNWAY AND FOR MISSED APPROACHES. THE OFZ IS SUBDIVIDED AS FOLLOWS: RUNWAY OFZ (ROFZ), INNER APPROACH OFZ, INNER TRANSITIONAL OFZ, AND PRECISION OFZ (POFZ). REFER TO CURRENT EDITION OF FAA AC NO. 150/5300-13 FOR GUIDANCE ON OFZ.
- D. RUNWAY SAFETY AREA (RSA): A DEFINED SURFACE SURROUNDING THE RUNWAY PREPARED OR SUITABLE FOR REDUCING THE RISK OF DAMAGE TO AIRPLANES IN THE EVENT OF AN UNDERSHOOT, OVERSHOOT, OR EXCURSION FROM THE RUNWAY, IN ACCORDANCE WITH AC 150/5300-13.
- E. TAXIWAY SAFETY AREA (TSA): A DEFINED SURFACE ALONGSIDE THE TAXIWAY PREPARED OR SUITABLE FOR REDUCING THE RISK OF DAMAGE TO AN AIRPLANE UNINTENTIONALLY DEPARTING THE TAXIWAY, IN ACCORDANCE WITH AC 150/5300-13.

3. COMMONLY USED TERMS:


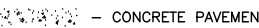

- A. AC --- ADVISORY CIRCULAR
  - B. CFR --- CODE OF FEDERAL REGULATIONS
  - C. CSPP --- CONSTRUCTION SAFETY AND PHASING PLAN
  - D. CTAF --- COMMON TRAFFIC ADVISORY FREQUENCY
  - E. FAA --- FEDERAL AVIATION ADMINISTRATION
  - F. FOD --- FOREIGN OBJECT DEBRIS
  - G. RPR --- RESIDENT PROJECT REPRESENTATIVE
  - H. ROFA --- RUNWAY OBJECT FREE AREA
  - I. ROFZ --- RUNWAY OBSTACLE FREE ZONE
  - J. RSA --- RUNWAY SAFETY AREA
  - K. TOFA --- TAXIWAY/TAXILANE OBJECT FREE AREA
  - L. TSA --- TAXIWAY/TAXILANE SAFETY AREA
  - M. TxDOT --- TEXAS DEPARTMENT OF TRANSPORTATION AVIATION DIVISION
4. ALL CONSTRUCTION SHALL COMPLY WITH CURRENT EDITION OF FAA AC NO. 150/5370-2, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
5. SEE THE CONTRACT DOCUMENTS AND SPECIFICATION BOOK FOR ADDITIONAL SAFETY REQUIREMENTS.
6. CONTRACTOR SHALL PROVIDE THE ENGINEER A PRELIMINARY PROJECT CONSTRUCTION SCHEDULE BY PHASE AT LEAST 4 DAYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THIS SCHEDULE WILL BE REVIEWED BY TxDOT, AIRPORT OPERATOR, AND ENGINEER, THEN DISCUSSED AT THE PRE-CONSTRUCTION CONFERENCE. A FINAL DETAILED PROJECT SCHEDULE, BROKEN DOWN BY PHASE, IS REQUIRED TO BE SENT TO THE ENGINEER NO LATER THAN 10 CALENDAR DAYS AFTER THE NOTICE TO PROCEED DATE.
7. CONTRACTOR'S PROJECT SCHEDULE SHOULD BE COMPLETED IN MICROSOFT PROJECT OR SIMILAR SCHEDULING SOFTWARE. CONTRACTOR SHALL UPDATE THIS PROJECT SCHEDULE EVERY MONTH AND SUBMIT WITH EACH PAY REQUEST SUBMITTAL. PAY REQUEST WILL NOT BE APPROVED UNTIL AN UPDATED SCHEDULE IS SUBMITTED. THIS IS DONE TO KEEP ALL PARTIES AWARE OF MONTH TO MONTH CONSTRUCTION PROGRESS.

- 8. CONTRACTOR SHALL NOT USE THE TERMINAL BUILDING NOR ITS RELATED FACILITIES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN TOILET FACILITY.
- 9. CONTRACTOR IS RESPONSIBLE FOR OBTAINING SUFFICIENT WATER FOR CONSTRUCTION OF PROJECT IMPROVEMENTS.
- 10. ALL MONUMENTS FOR THIS PROJECT'S HORIZONTAL AND VERTICAL CONTROL ARE SHOWN ON THE "PROJECT LAYOUT PLAN" SHEET. CONTRACTOR SHALL VERIFY CONDITION OF ALL MONUMENTS BEFORE CONSTRUCTION BEGINS. CONTRACTOR SHALL PERFORM LEVEL LOOP OF ALL MONUMENTS USED AND PROVIDE RESULTS TO THE ENGINEER BEFORE CONSTRUCTION COMMENCES (NO SEPARATE PAY). ANY MONUMENTS DISTURBED SHALL BE REPLACED TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- 11. UTILITY LINES SHOWN ON THE PLANS ARE SHOWN FOR THE PURPOSE OF MAKING THE CONTRACTOR AWARE THAT THEY EXIST. NEITHER THE RESPECTIVE UTILITY PROVIDERS NOR THE ENGINEER GUARANTEES THE ACCURACY THEREOF.
- 12. ANY AND ALL EXISTING UTILITY LINES, PAVEMENT, LIGHTING FIXTURES, HANGARS, FENCES, ETC., INTENDED TO REMAIN, WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 13. ALL CONTRACTOR OPERATIONS WITHIN THE AIRPORT PROPERTY SHALL BE SCHEDULED AND COORDINATED THROUGH THE RPR AND AIRPORT OPERATOR A MINIMUM OF 48 HOURS PRIOR TO COMMENCING OPERATIONS.
- 14. NOTAM'S WILL BE ISSUED BY THE AIRPORT OPERATOR AS NECESSARY. ONLY THE AIRPORT OPERATOR MAY INITIATE OR CANCEL NOTAMS ON AIRPORT CONDITIONS AND IS THE ONLY ENTITY THAT CAN CLOSE OR OPEN A RUNWAY. THE AIRPORT OPERATOR MUST COORDINATE THE ISSUANCE, MAINTENANCE, AND CANCELLATION OF NOTAMS ABOUT AIRPORT CONDITIONS RESULTING FROM CONSTRUCTION ACTIVITIES WITH TENANTS AND THE LOCAL AIR TRAFFIC FACILITY (CONTROL TOWER, APPROACH CONTROL, OR AIR TRAFFIC CONTROL CENTER), AND MUST EITHER ENTER THE NOTAM INTO NOTAM MANAGER, OR PROVIDE INFORMATION ON CLOSED OR HAZARDOUS CONDITIONS ON AIRPORT MOVEMENT AREAS TO THE FAA FLIGHT SERVICE STATION (FSS) SO IT CAN ISSUE A NOTAM.
- 15. CONTRACTOR SHALL NOTIFY THE RPR OF AIRPORT/RUNWAY CLOSURES A MINIMUM OF TWO WEEKS IN ADVANCE OF THE CLOSURE.
- 16. CONTRACTOR SHALL INSTALL CLOSED RUNWAY MARKERS AT EACH RUNWAY END PRIOR TO STARTUP OF ANY WORK LOCATED WITHIN THE ROFZ. CLOSED RUNWAY MARKERS SHALL NOT BE INSTALLED UNTIL THE APPROPRIATE NOTAM CLOSING THE RUNWAY HAS BEEN ISSUED BY THE AIRPORT OPERATOR.
- 17. ALL AIRFIELD LIGHTING ASSOCIATED WITH A CLOSED RUNWAY SHALL BE TURNED OFF PRIOR TO STARTUP OF ANY WORK WITHIN THE ROFZ.
- 18. THE ROFZ IS SHOWN ON THE SHEETS TITLED "PROJECT LAYOUT PLAN" AND "CSPP". CONTRACTOR SHALL REFRAIN FROM OPERATING EQUIPMENT AND VEHICLES WITHIN THE LIMITS OF THE ROFZ WHILE RUNWAY IS ACTIVE.
- 19. IN ACCORDANCE WITH AC 150/5370-2, STOCKPILED MATERIALS AND EQUIPMENT STORAGE ARE NOT PERMITTED WITHIN THE RSA AND ROFZ, AND IF POSSIBLE SHOULD NOT BE PERMITTED WITHIN THE ROFA OF AN OPERATIONAL RUNWAY. THE CONTRACTOR MUST ENSURE THAT STOCKPILED MATERIALS AND EQUIPMENT ADJACENT TO THESE AREAS ARE PROMINENTLY MARKED AND LIGHTED DURING HOURS OF RESTRICTED VISIBILITY OR DARKNESS. THIS INCLUDES DETERMINING AND VERIFYING THAT MATERIALS ARE STABILIZED AND STORED AT AN APPROVED LOCATION SO AS NOT TO BE A HAZARD TO AIRCRAFT OPERATIONS AND TO PREVENT ATTRACTION OF WILDLIFE AND DEVELOPMENT OF FOD.
- 20. STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT AS A RESULT OF AIRCRAFT BLAST OR WIND. MATERIAL SHALL NOT BE STORED NEAR AIRCRAFT TURNING AREAS OR MOVEMENT AREAS.
- 21. STOCKPILES SHALL NOT BE PLACED WITHIN ANY WATER OF THE UNITED STATES, INCLUDING WETLANDS.
- 22. CONTRACTOR SHALL REFRAIN FROM OPERATING EQUIPMENT ON AIRFIELD PAVEMENT (I.E. RUNWAYS, TAXIWAYS, APRON, ETC.) EXCEPT AS ABSOLUTELY NECESSARY TO CONSTRUCT PROJECT IMPROVEMENTS. ANY AREAS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 23. REMOVED MATERIALS, UNLESS NOTED FOR SALVAGE, SHALL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE LAWS. MATERIALS DESIGNATED FOR SALVAGE SHALL REMAIN THE PROPERTY OF THE AIRPORT OWNER AND SHALL BE DELIVERED, IN GOOD CONDITION, TO A LOCATION ON THE AIRPORT AS DESIGNATED BY THE AIRPORT OPERATOR.
- 24. WASTE SHALL BE DISPOSED IN A LICENSED LANDFILL. SPOIL SHALL BE PLACED IN UPLANDS FREE OF THREATENED AND ENDANGERED SPECIES.

- 25. WASTE AND LOOSE MATERIALS, COMMONLY REFERRED TO AS FOD, ARE CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEARS, PROPELLERS, AND JET ENGINES. THE CONTRACTOR SHALL NOT LEAVE OR PLACE FOD ON OR NEAR ACTIVE AIRCRAFT MOVEMENT AREAS. FOD TRACKED ONTO THESE AREAS MUST BE CONTINUOUSLY REMOVED BY THE CONTRACTOR DURING CONSTRUCTION.
- 26. CONTRACTOR SHALL CAREFULLY CONTROL AND CONTINUOUSLY REMOVE FOD THAT MIGHT ATTRACT WILDLIFE.
- 27. OPEN-FLAME WELDING OR TORCH-CUTTING OPERATIONS SHALL BE PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS ARE PROVIDED AND HAVE BEEN APPROVED BY THE ENGINEER.
- 28. CONSTRUCTION VEHICLES, CONSTRUCTION EQUIPMENT, OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL AT THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH 3'X3' ORANGE AND WHITE CHECKERED FLAGS AND FLASHING YELLOW LIGHTS (ACCEPTABLE TO THE AIRPORT OPERATOR AND THE ENGINEER).
- 29. CONTRACTOR SHALL HAVE A PERSON ON CALL 24 HOURS A DAY FOR EMERGENCY MAINTENANCE OF AIRPORT HAZARDOUS LIGHTING AND BARRICADES. THE CONTRACTOR SHALL SUBMIT A LIST OF EMERGENCY CONTACTS TO THE ENGINEER (IN THE ORDER IN WHICH THEY SHOULD BE CALLED) PRIOR TO THE PRE-CONSTRUCTION CONFERENCE.
- 30. NO CONSTRUCTION MAY OCCUR WITHIN THE ROFZ/TOFA WHILE THE RUNWAY/TAXIWAY IS OPEN FOR AIRCRAFT OPERATIONS.
- 31. CONTRACTOR MUST PROMINENTLY MARK OPEN TRENCHES AND EXCAVATIONS AT THE CONSTRUCTION SITE WITH RED OR ORANGE FLAGS, AS APPROVED BY THE ENGINEER, AND LIGHT THEM WITH RED LIGHTS DURING HOURS OF RESTRICTED VISIBILITY OR DARKNESS.
- 32. OPEN TRENCHES OR EXCAVATIONS ARE NOT PERMITTED WITHIN THE RSA/TSA WHILE THE RUNWAY/TAXIWAY IS OPEN. IF THE RUNWAY/TAXIWAY IS OPENED BEFORE EXCAVATIONS ARE BACKFILLED, THE CONTRACTOR SHALL COVER THE EXCAVATIONS APPROPRIATELY. COVERINGS FOR OPEN TRENCHES OR EXCAVATIONS SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE HEAVIEST AIRCRAFT OPERATING ON THE RUNWAY.
- 33. CONTRACTOR SHALL USE HIGHLY REFLECTIVE LOW-PROFILE BARRICADES TO BARRICADE TAXIWAYS LEADING TO CLOSED RUNWAYS, TAXIWAYS, AND/OR APRONS. THE CONTRACTOR SHALL MARK ALL BARRICADES WITH RED LIGHTS, EITHER STEADY BURNING OR FLASHING, AND MUST MEET THE LUMINANCE REQUIREMENTS OF THE TxDOT HIGHWAY DEPARTMENT. BATTERIES POWERING LIGHTS WILL LAST LONGER IF LIGHTS FLASH. LIGHTS MUST BE MOUNTED ON BARRICADES AND SPACED AT NO MORE THAN 10 FEET. LIGHTS MUST BE OPERATED BETWEEN SUNSET AND SUNRISE AND DURING PERIODS OF LOW VISIBILITY WHENEVER THE AIRPORT IS OPEN FOR OPERATIONS. THEY MAY BE OPERATED BY PHOTOCCELL, BUT THIS MAY REQUIRE THAT THE CONTRACTOR TURN THEM ON MANUALLY DURING PERIODS OF LOW VISIBILITY DURING DAYTIME HOURS.
- 34. IN THE EVENT THAT UNANTICIPATED ARCHEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER AND TxDOT PROJECT MANAGER, AND THE TxDOT PROJECT MANAGER WILL CONTACT PROFESSIONAL ARCHEOLOGISTS TO INITIATE POST-REVIEW DISCOVERY PROCEDURES UNDER PROVISIONS OF 36 CRF 800.13.
- 35. IN THE EVENT THAT UNANTICIPATED HAZARDOUS MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL CEASE AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER AND TxDOT PROJECT MANAGER.
- 36. ALL STAGING EQUIPMENT, STOCKPILES, ETC. WILL BE SITED SO THAT NO FAA PART 77 SURFACES OR RUNWAY/TAXIWAY OBJECT FREE AREAS ARE OBSTRUCTED. THE ENGINEER OR AIRPORT MANAGER SHALL BE CONTACTED FOR VERIFICATION.

SHEET INDEX	
SHEET NO.	SHEET TITLE
1	TITLE SHEET, PROJECT LOCATION MAP, & VICINITY MAP
2	GENERAL NOTES, LEGEND, & SHEET INDEX
3	AIRPORT LAYOUT DRAWING
4	PROJECT LAYOUT PLAN
5	QUANTITIES SHEET
6	SOIL BORING LAYOUT
7	BORE LOG DATA ( B-1 TO B-4)
8	BORE LOG DATA ( B-5 TO B-8)
9	CSPP (OPEN RUNWAY)
10	CSPP (CLOSED RUNWAY)
11	PAVEMENT DEMO SHEET
12	RW 36 TURNAROUND GRADING
13	PAVING DETAILS I
14	PAVING DETAILS II
15	CROSS DRAINAGE PLAN & PROFILE STA 0+00 TO STA 5+00
16	CHANNEL DRAINAGE PLAN & DETAILS
17	TxDOT SRR STONE RIPRAP
18	TxDOT SCP-8 SINGLE BOX CULVERTS PRECAST
19	TxDOT FW-0 CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS
19A	TxDOT PSET-SC PRECAST SAFETY END TREATMENT TYPE II ~ CROSS DRAINAGE
20	PAVEMENT IMPROVEMENT PLAN
21	PAVEMENT DESIGN SECTIONS
22	STORM WATER POLLUTION PREVENTION PLAN (SW3P)
23	TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES (SILT FENCE AND CONSTRUCTION EXIT)
24	TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES (ROCK FILTER DAMS)
25	TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES
26	PAVEMENT MARKING PLAN I
27	PAVEMENT MARKING PLAN II
28	PAVEMENT MARKING DETAILS
29	FENCING LAYOUT
30	GAME-PROOF FENCE DETAILS
31	CANTILEVER GATE DETAILS
32	GAME-PROOF FENCE WATER GAP DETAILS

EXISTING FEATURES LEGEND

SYMBOLS:	DESCRIPTION:	SYMBOLS:	DESCRIPTION:	SYMBOLS:	DESCRIPTION:	SYMBOLS:	DESCRIPTION:
— x — x — x — x —	FENCE	— s — s — s — s —	SEWER LINE	●	CONCRETE MONUMENT	☆	METER POLE OR LIGHT
— . . . — . . . —	DITCH	— w — w — w — w —	WATER LINE	⊕	FIRE HYDRANT	☉	UTILITY POLE
— T — T — T — T —	TELEPHONE LINE	— / — / — / — / —	TOP/TOE OF SLOPE	■	GAS METER	←	GUY WIRE
— OE — OE — OE — OE —	OVERHEAD ELECTRICAL LINE	— FO — FO — FO — FO —	FIBER OPTIC LINE	○	GAS RISER	⊗	SHRUB/BUSH/HEDGES
— UE — UE — UE — UE —	UNDERGROUND ELECTRICAL LINE		BRUSH	⊗	GAS VALVE	⊙	TREE (CANOPY NOT MEASURED UNLESS SHOWN OTHERWISE)
— G — G — G — G —	GAS LINE	○	IRON PIPE OR ROD	□	MAILBOX	⊕	STORM SEWER MANHOLE
				—	STREET SIGN	⊖	TELEPHONE PEDESTAL
				⊖	CLEANOUT	○	TELEPHONE RISER
				○	SEWER MANHOLE	⊕	TELEPHONE MANHOLE
						⊖	WATER METER
						⊗	WATER VALVE
						*	SPRINKLER HEAD
						⊗	IRRIGATION VALVE
						△	SURVEY CONTROL
						◆	TBM BENCHMARK
						— / — /	ASPHALT PAVEMENT
							CONCRETE PAVEMENT
							GRAVEL PAVEMENT



DATE:					
REVISIONS					
ADDENDUM NO. 2					
NO.	1				

GENERAL NOTES, LEGEND, & SHEET INDEX

MASON COUNTY AIRPORT  
2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS

JOB NO.  
4494.001

PROJECT MGR.  
TH

TBPE No. F-8405



STRAND ASSOCIATES

SHEET  
2

File: S:\BREC\4400-4494\Drawings\CAD\Design\ Pavement\General Notes.dwg Time: Oct 15, 2020 9:27am

**1 PRIMARY AIRPORT CONTROL STATION (PAC)**  
 PID=BN0825 PAC  
 ELEV.=1500.6

LOCATION: STAINLESS STEEL ROD IN SLEEVE APPROX. 36.4 FT. WEST OF THE CENTER OF RW 18-36, 99.7 FT. NORTHWEST OF THE FIRST RUNWAY LIGHT SOUTHEAST OF THE CONNECTOR. (CONTRACTOR SHALL VERIFY).

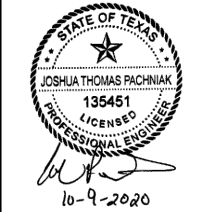
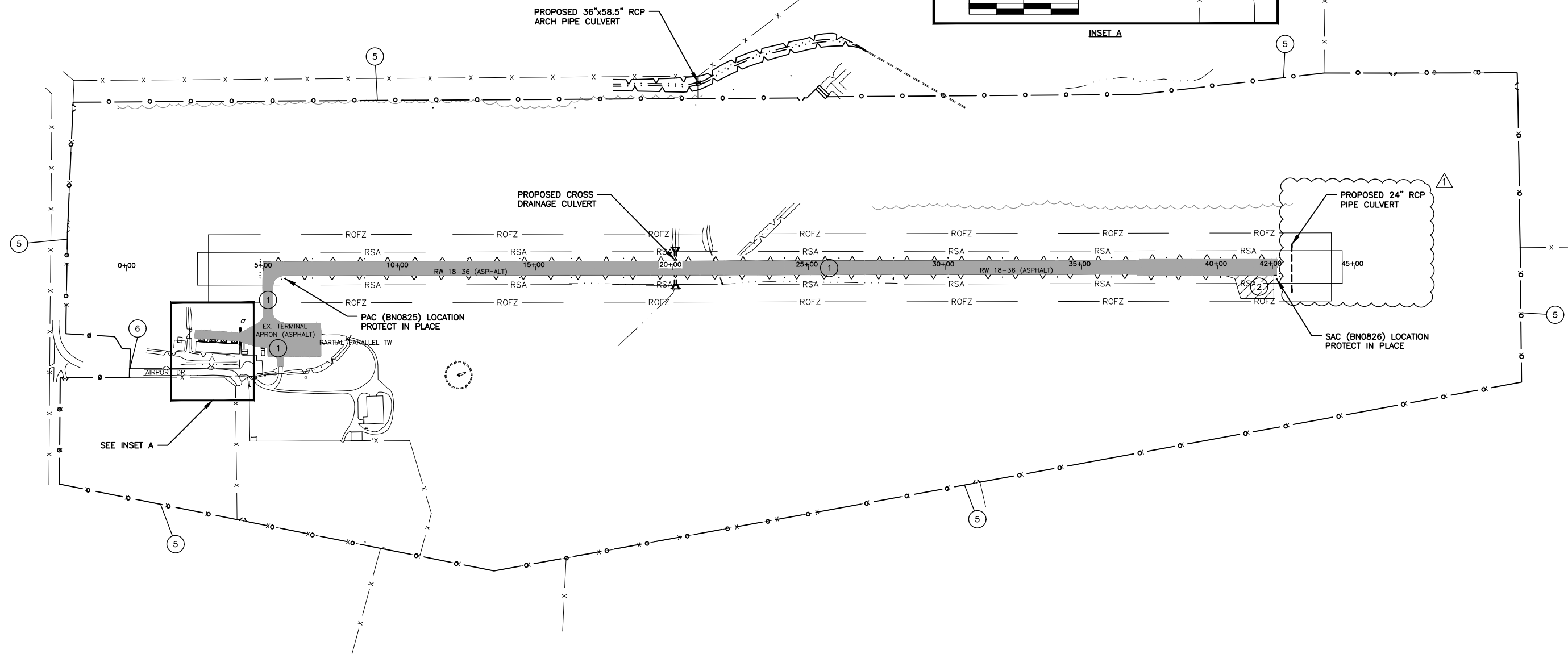
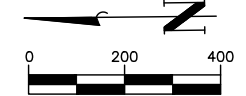
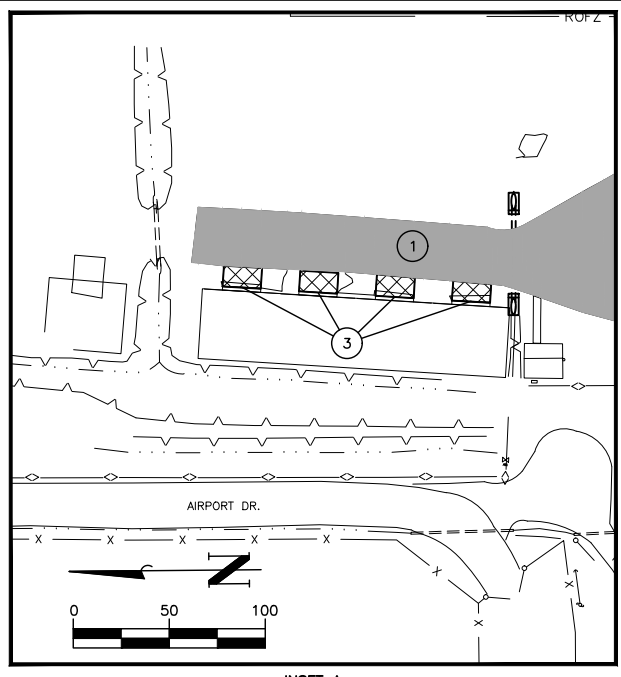
**2 SECONDARY AIRPORT CONTROL STATION (SAC)**  
 PID=BN0826 SAC  
 ELEV.=1496.7

LOCATION: STAINLESS STEEL ROD IN SLEEVE APPROX. 44.3 FT. WEST OF THE CENTER OF RW 18-36, 14.1 FT. WEST OF THE SW CORNER OF RW 18-36, 14.4 FT. NW OF THE MOST WESTERLY RW END LIGHT, AND IN LINE WITH THE RUNWAY 36 END. (CONTRACTOR SHALL VERIFY).

**NOTES:**

- CONTRACTOR SHALL PERFORM LEVEL LOOP OF ALL BENCHMARKS AND PROVIDE RESULTS TO ENGINEER BEFORE BEGINNING CONSTRUCTION (NO SEPARATE PAY).
- CONTRACTOR SHALL PROTECT IN PLACE PAC AND SAC THROUGHOUT THE DURATION OF CONSTRUCTION. IF IT APPEARS CONSTRUCTION ACTIVITIES WILL REQUIRE DISTURBING THE PAC OR SAC, COORDINATE WITH ENGINEER PRIOR TO ANY OF THESE ACTIVITIES.
- LOCATIONS AND ELEVATIONS AS PER NGS DATASHEET. CONTRACTOR SHALL VERIFY.

WORK ITEM DESCRIPTIONS	
1	REHABILITATE AND MARK RW 18-36, STUB TAXIWAY, AND APRON (SCHEDULE 1, BASE BID)
2	CONSTRUCT RW 36 TURNAROUND (SCHEDULE 1, BASE BID) (SCHEDULE 1, ALTERNATE BID NO. 1)
3	CONSTRUCT HAT EXTENSION TO EXISTING HANGARS (SCHEDULE 1, BASE BID) (SCHEDULE 1, ALTERNATE BID NO. 1)
4	CONDUCT RUNWAY EDGE GRADING (SCHEDULE 1, BASE BID)
5	INSTALL GAME-PROOF PERIMETER FENCE (SCHEDULE 2, BASE BID)
6	INSTALL MANUALLY OPERATED CANTILEVER SLIDING GATE (SCHEDULE 2, BASE BID)



DATE:	
REVISIONS	
ADDENDUM NO. 2	
NO.	1

**PROJECT LAYOUT PLAN**

**MASON COUNTY AIRPORT**

**2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS**

JOB NO.  
4494.001

PROJECT MGR.  
TH

TBPE No. F-8405

STRAND ASSOCIATES

SHEET  
4

File: S:\BCE\4494-4494\Drawings\CAD\Design\ Pavement\Project Layout.dwg    Title: Oct. 15, 2020    9:22am

MASON COUNTY AIRPORT  
 2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS  
 TxDOT CSJ NO. 2014MASON  
 STRAND JOB NO. 4494.001  
 PROJECT QUANTITIES



PAY ITEM	FAA/TxDOT ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	FINAL QUANTITY
<b>Schedule 1 Base Bid: Construct RW 36 Turnaround; Rehabilitate and mark RW 18-36, Stub Taxiway, and Apron; and construct drainage improvements.</b>					
1	Section 105	Mobilization	LS	1	
2	Special	Install runway closure markers	LS	1	
3	TxDOT 506	Construction exit (install, maintain, remove)	SY	105	
4	TxDOT 506	Temporary sediment control fence (install, maintain, remove)	LF	350	
5	TxDOT 506	Rock Filter Dam (install, maintain, remove) (Type 2)	LF	110	
6	P-101	Remove and salvage existing asphalt pavement (average 2-inch to 2.5-inch depth)	SY	135	
7	SS-G-700	Remove and dispose of existing 30-inch corrugated metal pipe (CMP)	LF	132	
8	SS-G-700	Remove and dispose of existing 42-inch x 30-inch corrugated metal pipe (CMP)	LF	122	
9	SS-G-700	Remove and salvage existing grate inlet	EA	2	
10	P-152	Runway Edge Grading	LF	7,180	
11	P-152	Unclassified excavation	CY	900	
12	P-101	Mobilization/demobilization for asphalt crack sealing	LS	1	
13	P-101	Route, clean, and crack seal asphalt pavement cracks	LF	15,000	
14	TxDOT 247	Crushed aggregate base (Ty A, Gr 1-2)(10-inch) placed in two lifts	SY	1,560	
15	P-602	Prime Coat (SS-1 @ 0.20 gal/sy)	GAL	312	
16	P-602	Sterilant (Soil sterilant @ 15 lb/acre)	LB	5	
17	TxDOT 340	Dense-Graded Hot-Mix Asphalt (SQ) (TY D) (SAC B) (PG 64-22)(3 inch thick)	TON	260	
18	P-631	Refined coal tar emulsion slurry seal	SY	26,130	
19	TxDOT 432	Riprap (Stone common)(Dry)(12-inch)	CY	25	
20	TxDOT 432	Riprap (Concrete)(5-inch)	CY	7	
21	TxDOT 464	36-inch by 58.5-inch Reinforced Concrete Pipe Arch Pipe (Class III)	LF	32	
22	TxDOT 464	24-inch Reinforced Concrete Pipe (Class III)	LF	150	
23	TxDOT 462	Concrete Box Culvert (8 ft x 3 ft)	LF	122	
24	TxDOT 466	Wingwall (FW-0) (HW=4 FT)	EA	2	
25	TxDOT 467	SET (TY II) (24-inch) (6:1) (Cross)	EA	2	
26	P-620	Permanent runway or taxiway painting (white)	SF	15,549	
27	P-620	Permanent runway or taxiway painting (yellow)	SF	450	
28	SS-L-118	Taxiway retroreflector (type I, style II)(bi-directional)(green)	EA	10	
29	TxDOT 164	Cellulose fiber mulch seeding (perm)(urban)(clay)	SY	10,690	
30	TxDOT 168	Vegetative watering	MG	300	
31	L-110	4-inch Underground PVC Conduit (Type I)	LF	400	
<b>Schedule 1 Alternate Bid No. 1: Construct RW 36 Turnaround and HATs using concrete in lieu of asphalt.</b>					
A1.1	P-152	Unclassified excavation	CY	-305	
A1.2	TxDOT 360	Reinforced concrete pavement (6-inch thick)	SY	1460	
A1.3	TxDOT 340	Dense-Graded Hot-Mix Asphalt (SQ) (TY D) (SAC B) (PG 64-22)(3 inch thick)	TON	-260	
A1.4	TxDOT 247	Crushed aggregate base (Ty A, Gr 1-2)(10-inch)	SY	-1560	
<b>Schedule 2 Base Bid: Install game-proof perimeter fence.</b>					
1	Section 105	Mobilization	LS	1	
2	SS-G-700	Remove and dispose of existing barbed-wire or game fencing and clear/grub fence lines	LF	9050	
3	SS-G-700	Remove and dispose of existing pipe rail fence	LF	105	
4	SS-G-700	Remove and dispose of existing gates	EA	6	
5	SS-F-164	Game-proof fencing	LF	13850	
6	SS-F-164	Predator apron along bottom of game-proof fencing	LF	13850	
7	F-162	Manually-operated cantilever gate	EA	1	
8	SS-F-164	Game-proof double swing gate (24' opening)	EA	7	
9	SS-F-164	Game-proof fencing water gap	EA	1	

PAY ITEM NOTES:

1. FAA/TxDOT ITEMS DENOTED AS "SPECIAL" REFERENCE PLAN SHEET DETAILS AND/OR NOTES ONLY, AND DO NOT REFERENCE ANY SPECIFICATION INCLUDED IN THE CONTRACT DOCUMENTS.
2. ITEMS NOT SPECIFICALLY LISTED ON THE BID FORM ARE CONSIDERED SUBSIDIARY TO RELATED ITEMS OF WORK.
3. EXCESS EXCAVATED MATERIAL (P-152) IS TO BE HAULED OFF SITE.

DATE:	
REVISIONS	
ADDENDUM NO. 2	
NO.	1

**QUANTITIES SHEET**  
**MASON COUNTY AIRPORT**  
**2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS**

**JOB NO.**  
 4494.001  
**PROJECT MGR.**  
 TH  
**TBPE No. F-8405**  
  
**STRAND ASSOCIATES**  
**SHEET**  
 5

**GENERAL PHASING NOTES (CLOSED RUNWAY):**

- RUNWAY CLOSURE MARKERS SHALL BE INSTALLED/REMOVED AS NEEDED BASED ON WORK BEING PERFORMED WITHIN THE ROFZ. SEE "PROJECT GENERAL NOTES" FOR MORE INFORMATION ON AIRPORT CONSTRUCTION SAFETY.
- CONTRACTOR MAY CLOSE RUNWAY AS FOLLOWS:  
 RUNWAY CLOSED FOR 4 WEEKS MAXIMUM FOR SCHEDULE 1 BASE BID  
 OR  
 6 WEEKS MAXIMUM IF SCHEDULE 1 ALTERNATE BID NO. 1 IS AWARDED.
- AFTER RUNWAY PAVEMENT IS REPLACED, ALL CLOSURES SHALL EXCLUDE WEEKENDS AS FOLLOWS: THE AIRPORT SHALL REMAIN OPEN ON WEEKENDS, STARTING AT 5 PM ON FRIDAYS THROUGH 8 AM ON MONDAYS, UNLESS APPROVED BY THE ENGINEER.
- THESE CONSTRUCTION PHASES ARE PRELIMINARY. CONTRACTOR SHALL PROVIDE THE ENGINEER A PRELIMINARY PROJECT CONSTRUCTION SCHEDULE, BY PHASE, AT LEAST 4 DAYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THIS SCHEDULE WILL BE REVIEWED BY TXDOT, AIRPORT OPERATOR, AND ENGINEER, THEN DISCUSSED AT THE PRE-CONSTRUCTION CONFERENCE. A FINAL DETAILED PROJECT SCHEDULE, BROKEN DOWN BY PHASE, IS REQUIRED TO BE SENT TO THE ENGINEER NO LATER THAN 10 CALENDAR DAYS AFTER THE NOTICE TO PROCEED DATE.
- ALL HANGAR OWNERS/TENANTS SHALL BE NOTIFIED BY THE AIRPORT OPERATOR A MINIMUM OF 2 WEEKS PRIOR TO START OF CONSTRUCTION TO ALLOW RELOCATION OF AIRCRAFT. CONTRACTOR SHALL GIVE THE AIRPORT OPERATOR SUFFICIENT NOTICE TO BEGIN CONTACTING HANGAR OWNERS/TENANTS.
- CONTRACTOR SHALL BEGIN SEEDING OPERATIONS AS SOON AS FINAL GRADING HAS BEEN ACHIEVED IN DISTURBED AREAS. CONTRACTOR MAY REMOVE EROSION CONTROL DEVICES AND CLOSE OUT THE PROJECT ONLY AFTER 70% MINIMUM VEGETATIVE COVER IS ACHIEVED AND AFTER RECEIVING APPROVAL IN WRITING FROM THE ENGINEER.

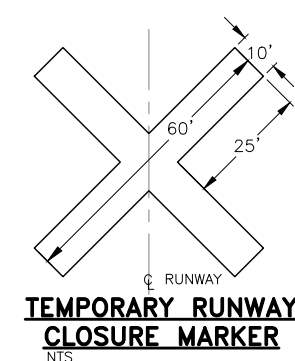
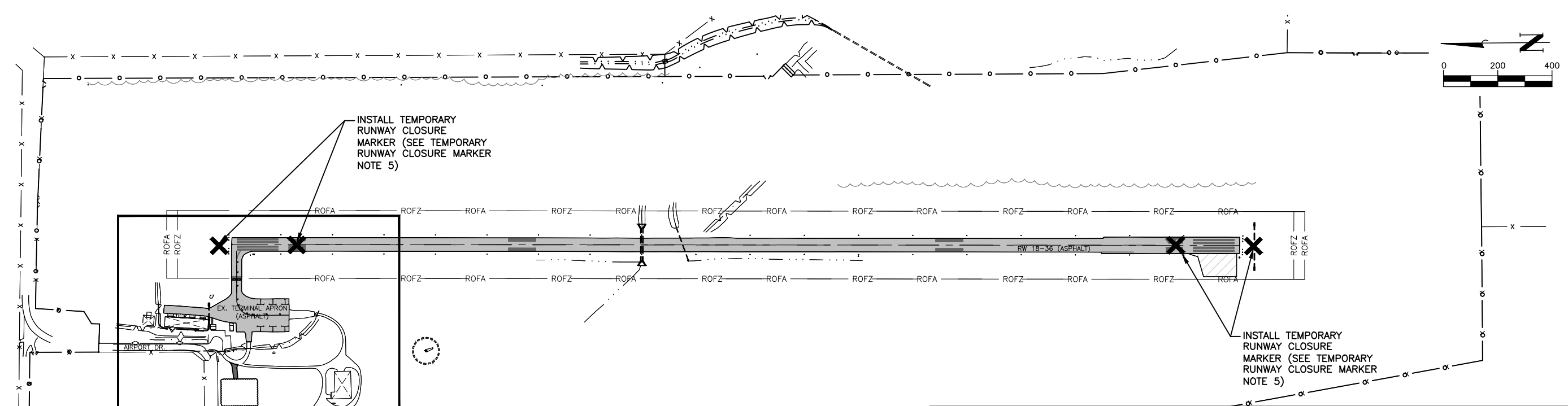
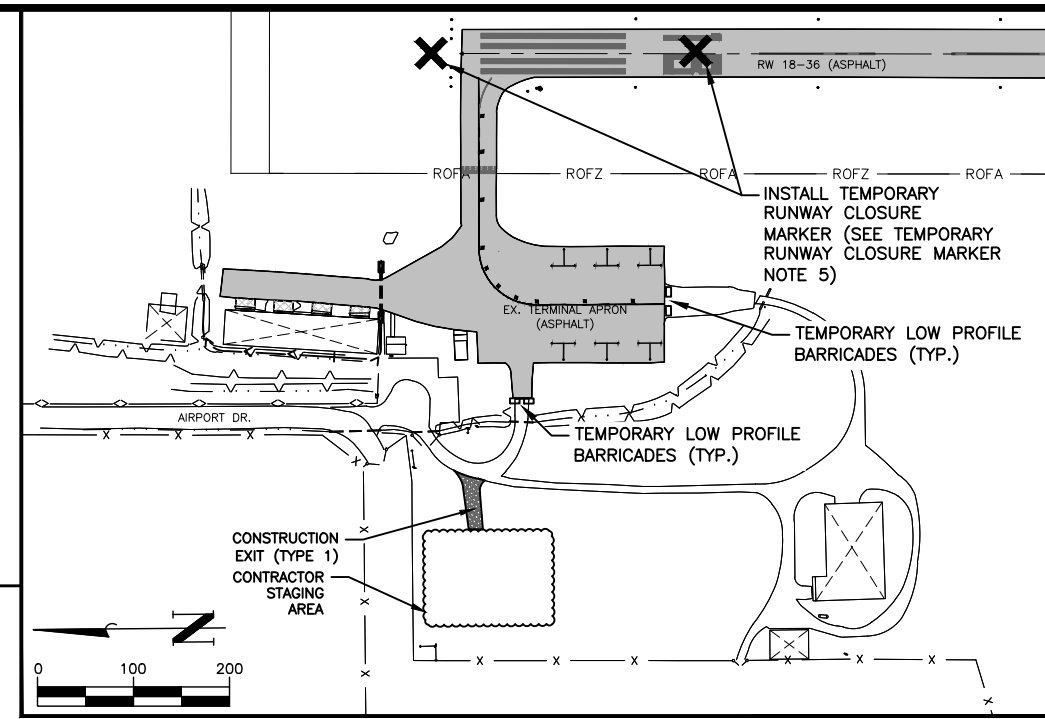
**PHASE II CONSTRUCTION ACTIVITIES (RW CLOSED)**

- CLOSE RW 18-36.
- ROUTE, CLEAN, AND CRACK SEAL ALL EXISTING PAVEMENT.
- REMOVE EXISTING CULVERT PIPES, CONSTRUCT BOX CULVERT AND ASSOCIATED GRADING, AND RE-PAVE RUNWAY.
- CONSTRUCT TURNAROUND, DRAINAGE, AND ASSOCIATED GRADING.
- CONSTRUCT RUNWAY EDGE GRADING.
- P-631 ALL EXISTING PAVEMENT.

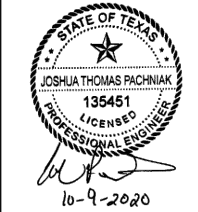
**PHASE IV CONSTRUCTION ACTIVITIES (RW CLOSED)**

- CLOSE RW 18-36.
- MARK RW 18-36, TAXIWAY, AND APRON.
- OPEN RW 18-36.

NOTE: IF ALTERNATE BID NO. 1 IS NOT AWARDED, SCHEDULE MAY BE ALTERED AT CONTRACTOR'S OPTION SO THAT ALL ASPHALT PAVING ACTIVITIES OCCUR ON THE SAME DAY.



- NOTES:**
- CONTRACTOR SHALL NOTIFY THE RPR OF AIRPORT/RUNWAY CLOSURES AT LEAST TWO WEEKS IN ADVANCE OF THE RUNWAY CLOSURE. THE CONTRACTOR SHALL VERIFY THAT THE APPROPRIATE NOTAMS ARE IN EFFECT AND HANGAR OWNERS HAVE BEEN NOTIFIED PRIOR TO INSTALLING RUNWAY CLOSURE MARKERS AND OPERATING INSIDE THE ROFZ. THE CONTRACTOR SHALL COORDINATE WITH THE RPR TO ENSURE TIMELY CANCELLATION OF NOTAMS ONCE THE RUNWAY CLOSURE IS NO LONGER NEEDED. RUNWAY CLOSURE MARKERS SHALL BE REMOVED PRIOR TO NOTAM CANCELLATION.
  - WHEN THE RUNWAY IS CLOSED, ALL AIRFIELD LIGHTING SHALL BE TURNED OFF.
  - THE RUNWAY SHALL BE CLOSED ONLY WHILE CONSTRUCTION ACTIVITIES OR EQUIPMENT ARE WITHIN THE ROFZ.
  - TEMPORARY RUNWAY CLOSURE MARKERS SHALL BE FABRIC COLORED SOLID AVIATION YELLOW.
  - TEMPORARY RUNWAY CLOSURE MARKERS SHALL BE LOCATED ON THE NUMERALS AT BOTH RUNWAY ENDS. IF WORK IS BEING PERFORMED IN THE NUMBER LOCATION, THEN RUNWAY CLOSURE MARKERS ARE TO BE PLACED JUST OFF THE END OF THE RUNWAY PAVEMENT.
  - TEMPORARY RUNWAY CLOSURE MARKERS SHALL BECOME THE PROPERTY OF THE AIRPORT UPON PROJECT COMPLETION.



DATE:	
REVISIONS	
ADDENDUM NO. 2	
NO.	1

**CSPP (CLOSED RUNWAY)**  
**MASON COUNTY AIRPORT**  
**2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS**

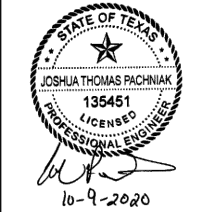
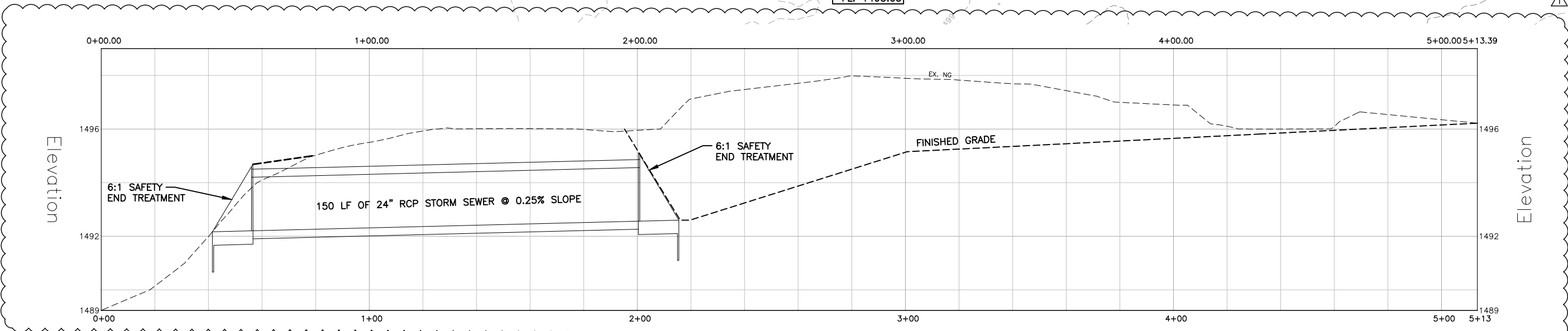
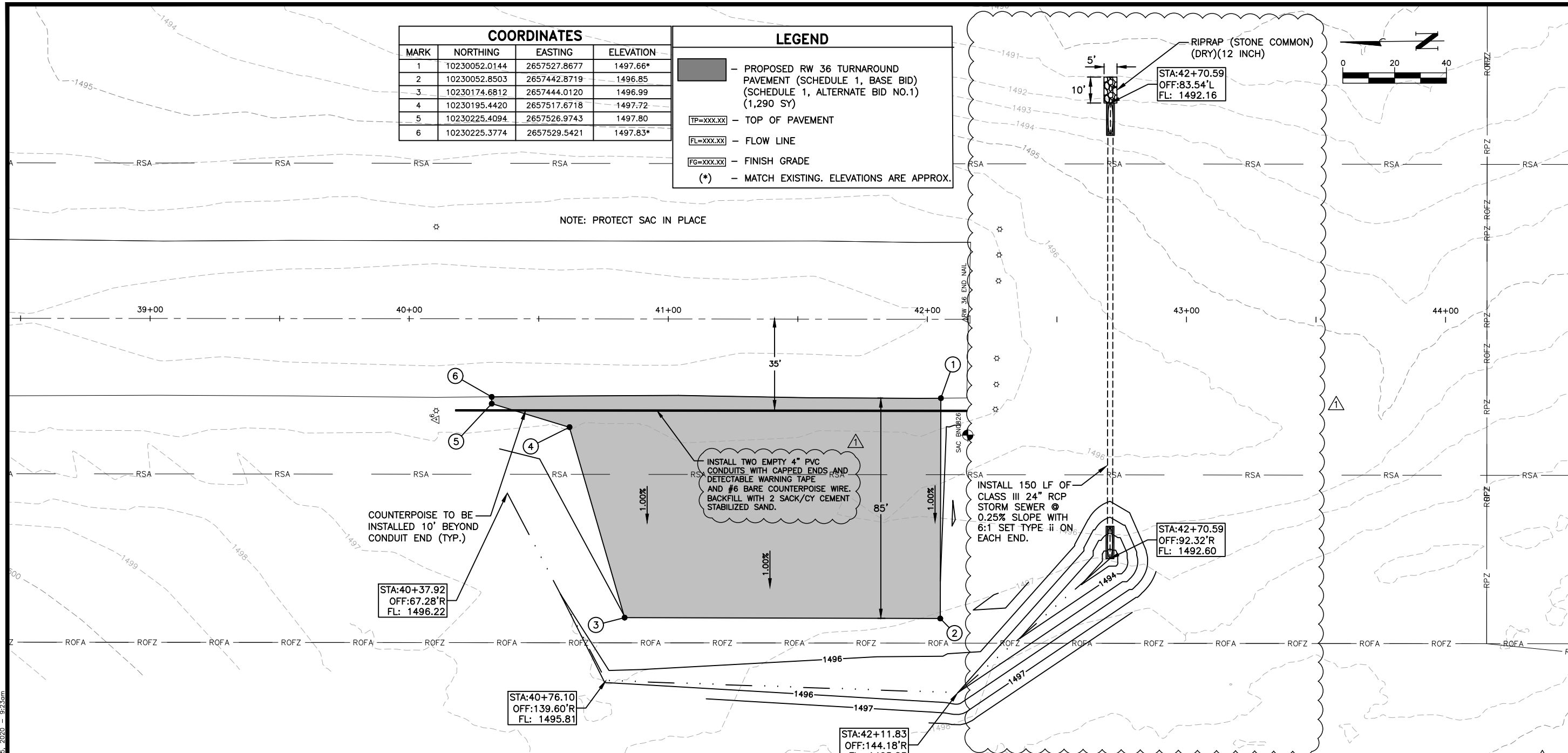
**JOB NO.**  
 4494.001  
**PROJECT MGR.**  
 TH  
**TBPE No. F-8405**  
  
**STRAND ASSOCIATES**  
**SHEET**  
 10

File: S:\BEE\_V440-4494\Drawings\CAD\Design\ Pavement\CSPP.dwg    Date: 10/15/2020    9:22am

COORDINATES			
MARK	NORTHING	EASTING	ELEVATION
1	10230052.0144	2657527.8677	1497.66*
2	10230052.8503	2657442.8719	1496.85
3	10230174.6812	2657444.0120	1496.99
4	10230195.4420	2657517.6718	1497.72
5	10230225.4094	2657526.9743	1497.80
6	10230225.3774	2657529.5421	1497.83*

LEGEND	
	PROPOSED RW 36 TURNAROUND PAVEMENT (SCHEDULE 1, BASE BID) (SCHEDULE 1, ALTERNATE BID NO.1) (1,290 SY)
	TP=XXX.XX - TOP OF PAVEMENT
	FL=XXX.XX - FLOW LINE
	FG=XXX.XX - FINISH GRADE
(*)	MATCH EXISTING. ELEVATIONS ARE APPROX.

NOTE: PROTECT SAC IN PLACE



NO.	REVISIONS	DATE:
1	ADDENDUM NO. 2	

**RW 36 TURNAROUND GRADING**  
**MASON COUNTY AIRPORT**  
**2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS**

JOB NO. 4494.001  
PROJECT MGR. TH  
TBPE No. F-8405

SHEET 12

File: S:\BCE\4494\Drawings\4494\001\Drawings\CAD\Design\ Pavement\Grading.dwg, Date: Oct 15, 2020, 9:23am

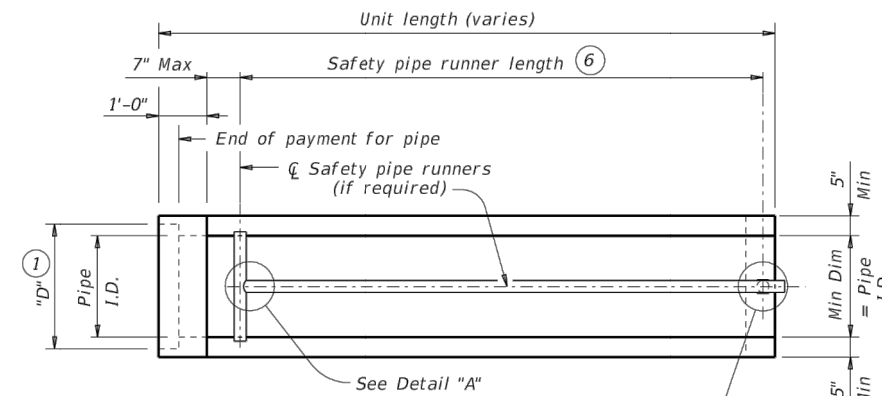
## REQUIREMENTS FOR CULVERT PIPES AND SAFETY PIPE RUNNERS

Pipe I.D.	RCP Wall "B" Thickness	TP Wall Thickness (8)	"D" (1)	Slope	Min Length of Unit	Single Pipe		Multiple Pipes		
						Skew	Pipe Runners Required	Skew	Pipe Runners Required	
12"	2"	1.15"	17.00"	3:1	2' - 11"	≤ 45°	No	≤ 45°	No	
					4:1					3' - 6"
					6:1					4' - 9"
15"	2 1/4"	1.30"	20.50"	3:1	3' - 8"	≤ 45°	No	≤ 45°	No	
					4:1					4' - 7"
					6:1					6' - 5"
18"	2 1/2"	1.60"	24.00"	3:1	4' - 6"	≤ 45°	No	≤ 45°	No	
					4:1					5' - 8"
					6:1					8' - 0"
24"	3"	1.95"	31.00"	3:1	6' - 2"	≤ 45°	No	= 30°	No	
					4:1					7' - 10"
					6:1					11' - 3"
30"	3 1/2"	2.65"	38.50"	3:1	7' - 10"	= 15°	No	= 15°	No	
					4:1					10' - 1"
					6:1					14' - 8"
36"	4"	2.75"	45.50"	3:1	9' - 5"	= 0°	No	= 0°	Yes	
					4:1					12' - 3"
					6:1					17' - 11"
42"	4 1/2"	N/A	52.50"	3:1	11' - 1"	≥ 0°	Yes	≥ 0°	Yes	
					4:1					14' - 5"
					6:1					21' - 2"

## SAFETY PIPE RUNNER DIMENSIONS

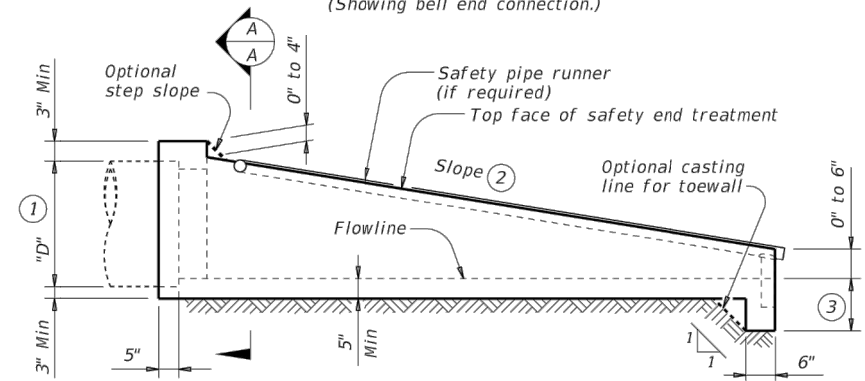
Max Safety Pipe Runner Length	Required Pipe Runner Size		
	Pipe Size	Pipe O.D.	Pipe I.D.
11' - 2"	3" STD	3.500"	3.068"
15' - 6"	3 1/2" STD	4.000"	3.548"
20' - 10"	4" STD	4.500"	4.026"
35' - 4"	5" STD	5.563"	5.047"

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



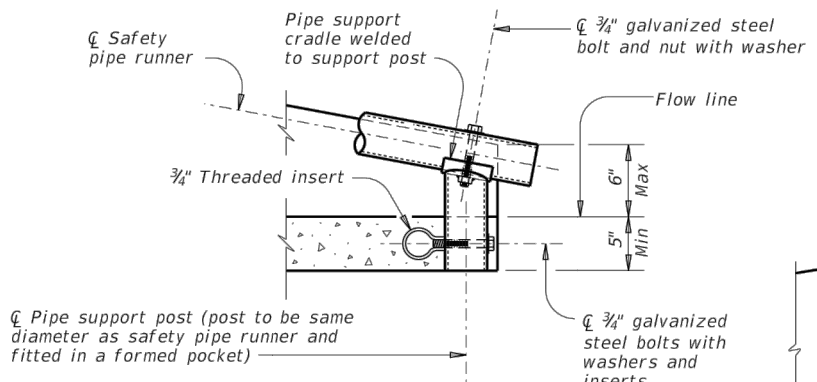
### PLAN

(Showing bell end connection.)



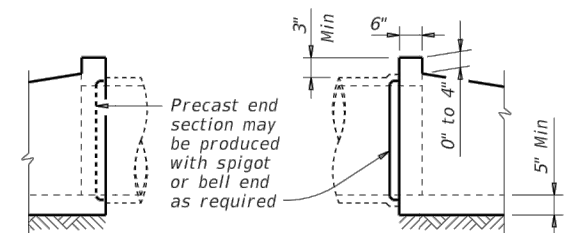
### LONGITUDINAL ELEVATION

(Showing bell end connection.)



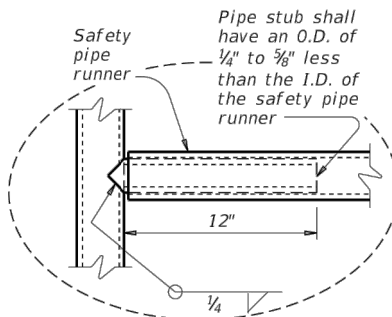
### END DETAIL FOR INSTALLATION OF SAFETY PIPE RUNNERS

(If required)

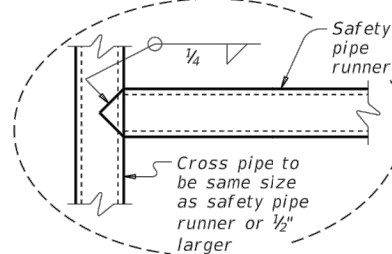


### OPTIONAL JOINT FOR RCP

(Showing joint between RCP and precast safety end treatment)



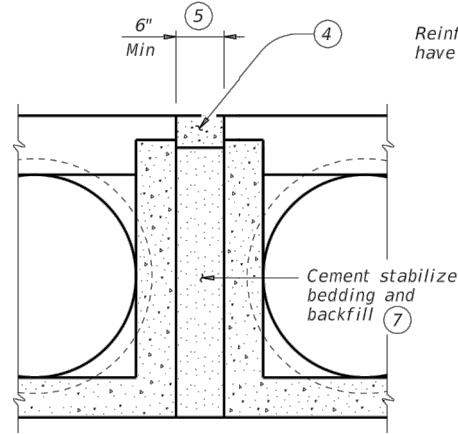
### OPTION A



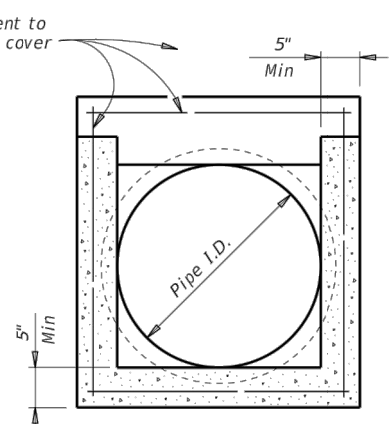
### OPTION B

### DETAIL A

(If required)

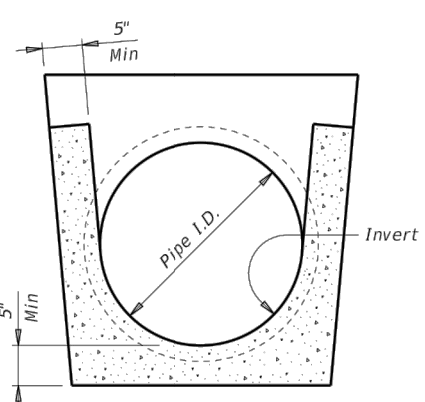


### MULTIPLE PIPE INSTALLATION

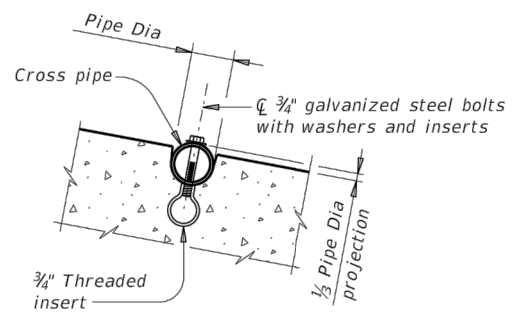


### OPTION WITH SQUARE BOTTOM

### SECTION A-A



### OPTION WITH INVERT BOTTOM



### INSTALLATION DETAIL FOR SAFETY PIPE RUNNERS

(If required)

- 1 Dimension "D" is based on reinforced concrete pipe (RCP) meeting the requirements of ASTM C-76, Class III, (RCP Wall "B" thickness). Adjust "D" for any other wall thickness used. For thermoplastic pipe (TP) take into account the annular space requirements for grouted connections.
- 2 Slope as shown elsewhere in plans. Slope of 3:1 or flatter is required for vehicle safety.
- 3 Toewall to be used only when dimension is shown elsewhere in the plans.
- 4 Fill the top 4" of void between precast end treatments with concrete riprap. Concrete riprap is considered subsidiary to the Item 467, "Safety End Treatment".
- 5 Adjust clear distance between pipes to provide for the minimum distance between safety end treatments.
- 6 Measured along slope.
- 7 Provide cement stabilized bedding and backfill in accordance with the Item 400, "Excavation and Backfill for Structures". Bedding and backfill is considered subsidiary to the Item 467, "Safety End Treatment". When concrete riprap is specified around the safety end treatment, backfill as directed by Engineer.
- 8 Thermoplastic pipe wall thickness may vary. Adjust accordingly. Thermoplastic pipe requires the safety end treatments to have a bell end for grouted connections.

### GENERAL NOTES:

Precast safety end treatment for reinforced concrete pipe (RCP), and thermoplastic pipe (TP) may be used for TYPE II end treatment as specified in Item "Safety End Treatment".

When precast safety end treatment is used as a Contractor's alternate to mitered RCP, riprap will not be required unless noted otherwise on the plans.

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Manufacture this product in accordance with Item 467, "Safety End Treatment" except as noted below:

A. Provide minimum reinforcing of #4 at 6" (Grade 40) or #4 at 9" (Grade 60) each way or 6"x6" - D12 x D12 or 5"x5" - D10 x D10 welded wire reinforcement (WWR).

B. For precast (steel formed) sections, provide Class "C" concrete (f'c = 3,600 psi).

At the option and expense of the Contractor, the next larger size of safety end treatment may be furnished as long as the "D" dimension cast is that of the required size of pipe.

Pipe runners are designed for a traversing load of 1,800 Lbs at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.

Provide safety pipe runners, cross pipes, pipe support posts, and pipe stubs meeting the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.

Galvanize all steel components except reinforcing steel after fabrication. Repair galvanizing damaged during transport or construction in accordance with the specifications.

Connect RCP using the Optional Joint for RCP detail shown or in accordance with Item 464 "Reinforced Concrete Pipe". Connect TP by grouting. See PBGC standard for grouted connections with TP and precast safety end treatment.

**Texas Department of Transportation**  
Bridge Division Standard

## PRECAST SAFETY END TREATMENT TYPE II ~ CROSS DRAINAGE

### PSET-SC

FILE: psetscs-20.dgn	DN: RLW	CK: KLR	DW: JTR	CK: GAF
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.



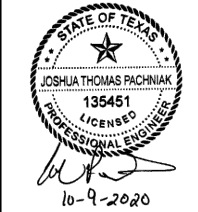
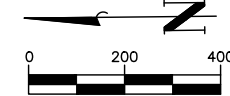
**EROSION CONTROL NOTES:**

1. CONTRACTOR STAGING AREAS AND CONSTRUCTION EXIT LOCATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY. THEIR FINAL LOCATIONS ARE DETERMINED DURING THE PRE-CONSTRUCTION CONFERENCE, BASED ON CONTRACTOR INPUT.
2. THE RPR WILL PERFORM A REGULARLY SCHEDULED SW3P INSPECTION EVERY 7 CALENDAR DAYS AND AFTER MORE THAN 1/2-INCH RAINFALL EVENT.
3. REMOVE SILT FENCE FROM ROFZ PRIOR TO OPENING RUNWAY.
4. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT (NO SEPARATE PAY).
5. CONTRACTOR SHALL IMMEDIATELY RESTORE ANY DAMAGED EROSION CONTROL DEVICES (NO SEPARATE PAY).
6. CONTRACTOR SHALL IMMEDIATELY ADJUST EROSION CONTROL DEVICES AS DIRECTED BY THE ENGINEER (NO SEPARATE PAY).
7. CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY SILT OR DEBRIS FROM DRAINAGE STRUCTURES AND PIPES (NO SEPARATE PAY).
8. CONTRACTOR SHALL MONITOR EROSION CONTROL DEVICES DURING HEAVY RAINFALL EVENTS TO ENSURE ADJACENT BUILDINGS, HANGARS, OR OTHER STRUCTURES ARE NOT FLOODED DUE TO RUNOFF FLOW RESTRICTION CAUSED BY EROSION CONTROL DEVICES (NO SEPARATE PAY).
9. CONTRACTOR SHALL MAINTAIN A PAVEMENT SWEEPER, WITH NYLON BRISTLES ONLY, ON-SITE FOR THE DURATION OF THE PROJECT (NO SEPARATE PAY).
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PAVED SURFACES IN A CLEAN CONDITION AND SHALL MAKE ADDITIONAL

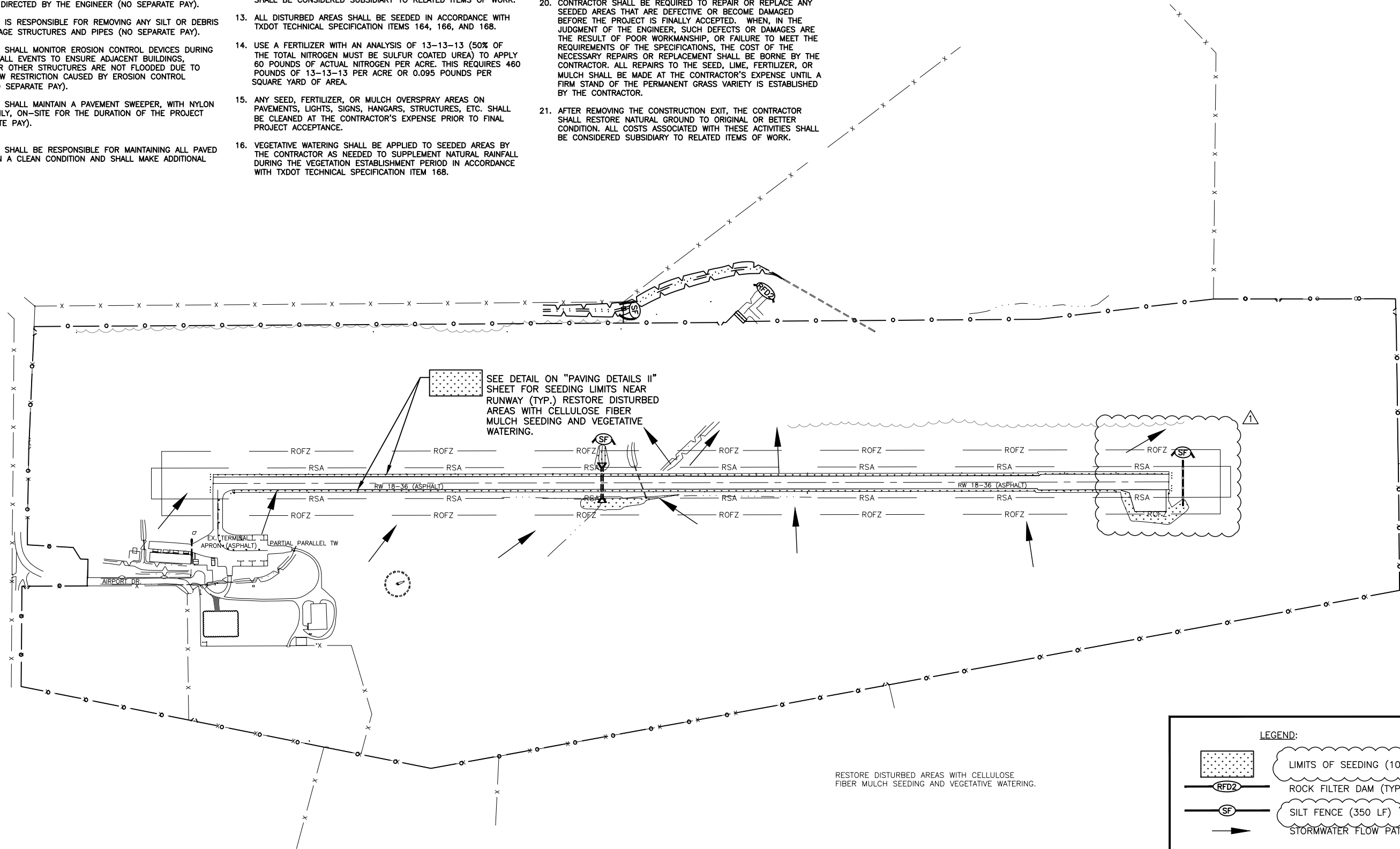
11. PRIOR TO COMMENCEMENT OF GRADING OPERATIONS, EXCAVATION AND/OR EMBANKMENT AREAS SHALL BE STRIPPED OF EXISTING TOPSOIL (4-INCH DEPTH). STRIPPED TOPSOIL SHALL BE STOCKPILED IN AN AREA NEAR THE GRADING AREA AND IN ACCORDANCE WITH STOCKPILING REQUIREMENTS IN THE "PROJECT GENERAL NOTES." EXCAVATION/EMBANKMENT AREAS SHALL THEN BE BROUGHT TO FINAL GRADE ELEVATION MINUS TOPSOIL DEPTH (4-INCH DEPTH). CONTRACTOR SHALL REINCORPORATE STOCKPILED TOPSOIL AND BRING GRADING AREAS TO FINAL GRADE ELEVATIONS. ALL COSTS ASSOCIATED WITH THESE ACTIVITIES SHALL BE CONSIDERED SUBSIDIARY TO FAA SPECIFICATION P-152 PAY ITEMS, AS LISTED ON THE BID FORM. EXCEPTION: RUNWAY EDGE GRADING WILL BE PAID SEPARATELY.
12. IN ACCORDANCE WITH THE "PROJECT GENERAL NOTES," EXCAVATED OR DEMOLISHED MATERIALS UNSUITABLE FOR INCORPORATION INTO THE FINISHED PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR. ALL COSTS ASSOCIATED WITH THESE ACTIVITIES SHALL BE CONSIDERED SUBSIDIARY TO RELATED ITEMS OF WORK.
13. ALL DISTURBED AREAS SHALL BE SEEDED IN ACCORDANCE WITH TXDOT TECHNICAL SPECIFICATION ITEMS 164, 166, AND 168.
14. USE A FERTILIZER WITH AN ANALYSIS OF 13-13-13 (50% OF THE TOTAL NITROGEN MUST BE SULFUR COATED UREA) TO APPLY 60 POUNDS OF ACTUAL NITROGEN PER ACRE. THIS REQUIRES 460 POUNDS OF 13-13-13 PER ACRE OR 0.095 POUNDS PER SQUARE YARD OF AREA.
15. ANY SEED, FERTILIZER, OR MULCH OVERSPRAY AREAS ON PAVEMENTS, LIGHTS, SIGNS, HANGARS, STRUCTURES, ETC. SHALL BE CLEANED AT THE CONTRACTOR'S EXPENSE PRIOR TO FINAL PROJECT ACCEPTANCE.
16. VEGETATIVE WATERING SHALL BE APPLIED TO SEEDED AREAS BY THE CONTRACTOR AS NEEDED TO SUPPLEMENT NATURAL RAINFALL DURING THE VEGETATION ESTABLISHMENT PERIOD IN ACCORDANCE WITH TXDOT TECHNICAL SPECIFICATION ITEM 168.

17. PLAN QUANTITY OF VEGETATIVE WATERING IS BASED ON THE APPLICATION OF A TOTAL OF 1.3 GALLONS OF WATER EACH WEEK FOR EACH SQUARE YARD OF AREA THAT IS SEEDED. ESTABLISHMENT TIME IS ESTIMATED TO BE 12 WEEKS FOR PERMANENT SEED MIXES. TEMPORARY SEEDING WILL REQUIRE LESS TIME FOR ESTABLISHMENT.
18. IF SEEDING QUANTITIES NEED TO BE ADJUSTED DUE TO FINAL CONDITIONS, COORDINATE WITH ENGINEER. ADDITIONAL QUANTITIES WILL NOT BE APPROVED FOR DISTURBED AREAS NOT NECESSARY TO COMPLETE PROJECT SCOPE.
19. CONTRACTOR SHALL PROVIDE A SCHEDULE AND COORDINATE WATERING CYCLES AND RATES PER CYCLE WITH THE ENGINEER. OBTAIN APPROVAL IF THE QUANTITY OF WATER TO BE APPLIED IS EXPECTED TO EXCEED PLAN QUANTITY. ADJUST THE AMOUNT OF WATER APPLIED WITH EACH CYCLE AND THE NUMBER OF CYCLES EACH WEEK ACCORDING TO ACTUAL SITE CONDITIONS. DROUGHT OR OTHER CONDITIONS, AS DETERMINED BY THE ENGINEER, MAY REQUIRE THE APPLICATION OF SUPPLEMENTAL VEGETATIVE WATERING DURING HOURS OTHER THAN NORMAL WORKING HOURS.
20. CONTRACTOR SHALL BE REQUIRED TO REPAIR OR REPLACE ANY SEEDED AREAS THAT ARE DEFECTIVE OR BECOME DAMAGED BEFORE THE PROJECT IS FINALLY ACCEPTED. WHEN, IN THE JUDGMENT OF THE ENGINEER, SUCH DEFECTS OR DAMAGES ARE THE RESULT OF POOR WORKMANSHIP, OR FAILURE TO MEET THE REQUIREMENTS OF THE SPECIFICATIONS, THE COST OF THE NECESSARY REPAIRS OR REPLACEMENT SHALL BE BORNE BY THE CONTRACTOR. ALL REPAIRS TO THE SEED, LIME, FERTILIZER, OR MULCH SHALL BE MADE AT THE CONTRACTOR'S EXPENSE UNTIL A FIRM STAND OF THE PERMANENT GRASS VARIETY IS ESTABLISHED BY THE CONTRACTOR.
21. AFTER REMOVING THE CONSTRUCTION EXIT, THE CONTRACTOR SHALL RESTORE NATURAL GROUND TO ORIGINAL OR BETTER CONDITION. ALL COSTS ASSOCIATED WITH THESE ACTIVITIES SHALL BE CONSIDERED SUBSIDIARY TO RELATED ITEMS OF WORK.

22. CONTRACTOR SHALL CONTINUE WATERING SEEDED AREAS TO ESTABLISH VEGETATIVE GROWTH UNTIL 70% PERMANENT VEGETATIVE COVERAGE IS ACHIEVED.
23. COMPLY WITH REQUIREMENTS OF SWPPP.



DATE:	
REVISIONS	
ADDENDUM NO. 2	
NO.	1



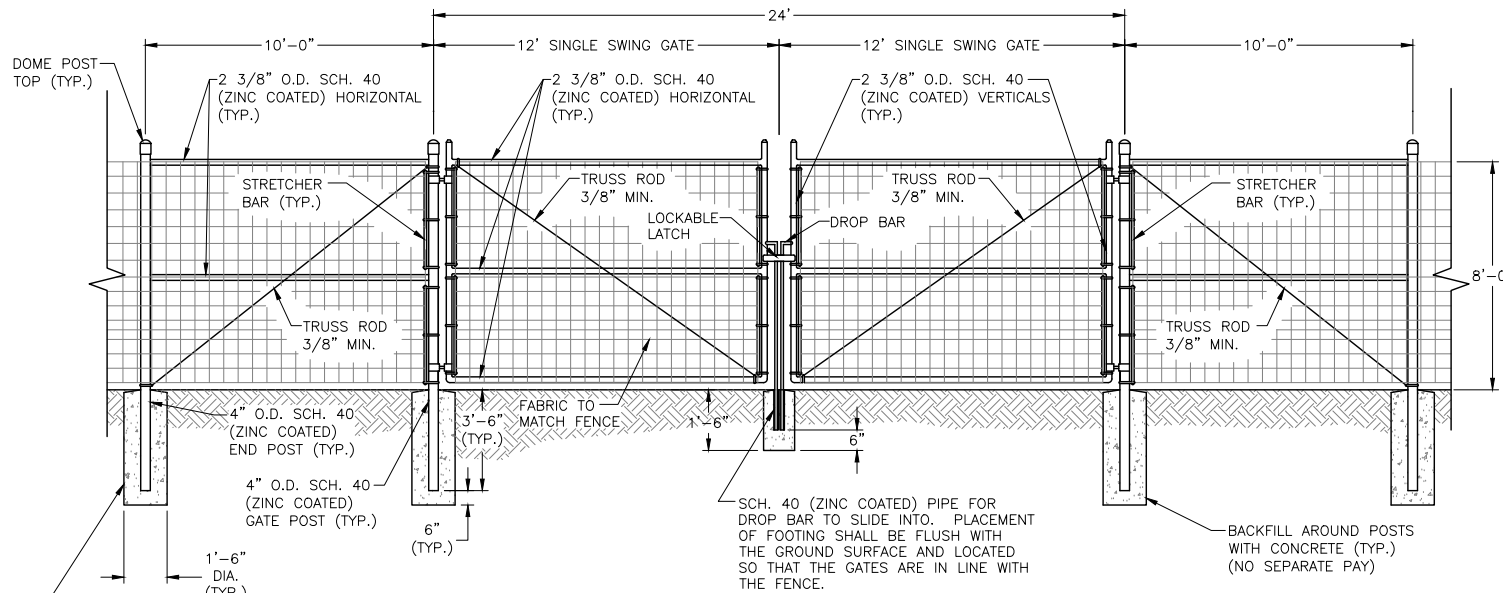
**EROSION CONTROL PLAN**  
**MASON COUNTY AIRPORT**  
**2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS**

**JOB NO.**  
4494.001  
**PROJECT MGR.**  
TH  
**TBPE No. F-8405**



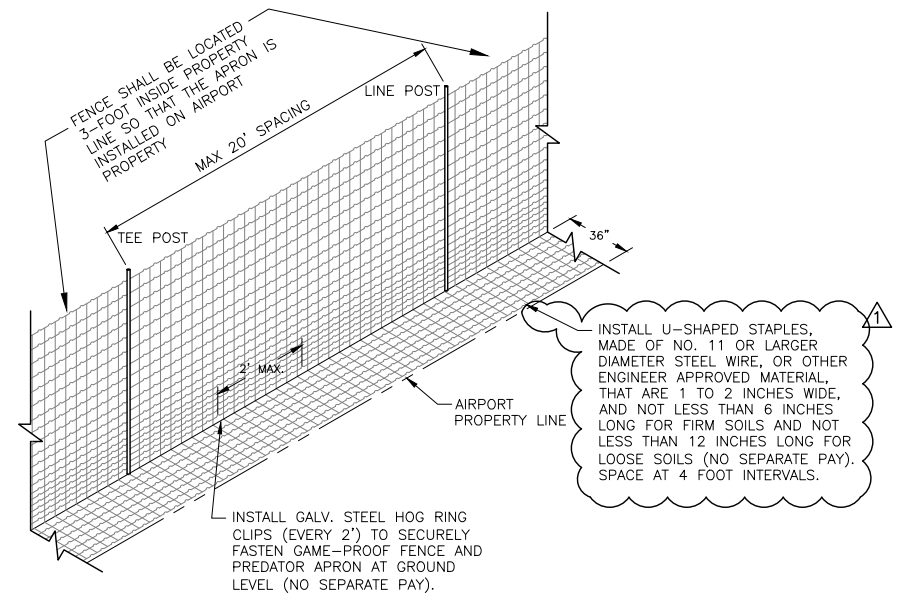
**SHEET**  
22

File: S:\BCE\4494-4499\4494\001\Drawings\CAD\Design\ Pavement\ Erosion Control.dwg Time: Oct 15, 2020 9:23am

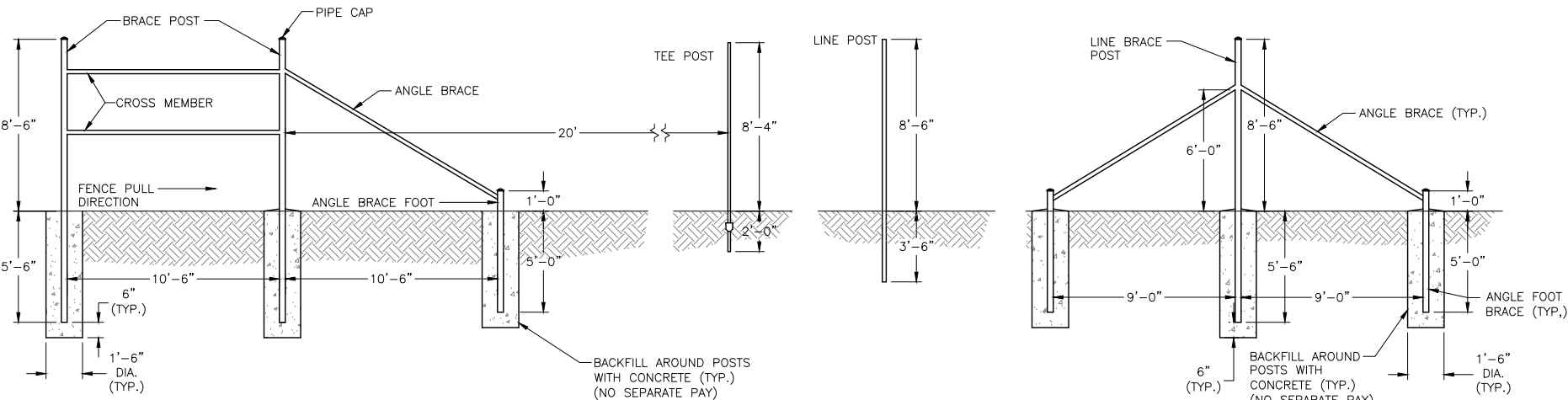


NOTES:  
 1. MANUFACTURER SHALL BE RESPONSIBLE FOR PROVIDING FRAME MEMBERS SIZED TO PROVIDE PROPER SUPPORT TO HANDLE 70 MPH MIN. WIND LOADS.  
 2. PAYMENT WILL BE MADE FOR EACH 24' OPENING DOUBLE GATE, AND INCLUDES TWO INDIVIDUAL SINGLE SWING GATES.

**GAME-PROOF FENCE DOUBLE SWING GATE DETAIL**  
 NTS



**GAME-PROOF PREDATOR APRON FENCE DETAIL**  
 NTS



END BRACE		
ITEM	QUANTITY	DESCRIPTION
BRACE POSTS	2	14' X 3 1/2" SCH 40 GALVANIZED PIPE
CROSS MEMBERS	2	10'-6" X 2 3/8" SCH 40 GALVANIZED PIPE
ANGLE BRACE	1	12' X 2 3/8" SCH 40 GALVANIZED PIPE
ANGLE BRACE FOOT	1	6" X 3 1/2" SCH 40 GALVANIZED PIPE
PIPE CAPS	3	3 1/2" PIPE CAPS OR CONCRETE PLUGS

LINE AND TEE POSTS	
ITEM	DESCRIPTION
TEE POSTS	MINIMUM - 10'-4" 1.33 LBS/FT GALVANIZED
LINE POSTS	MINIMUM - 12' X 2 3/8" SCH 40 GALVANIZED PIPE

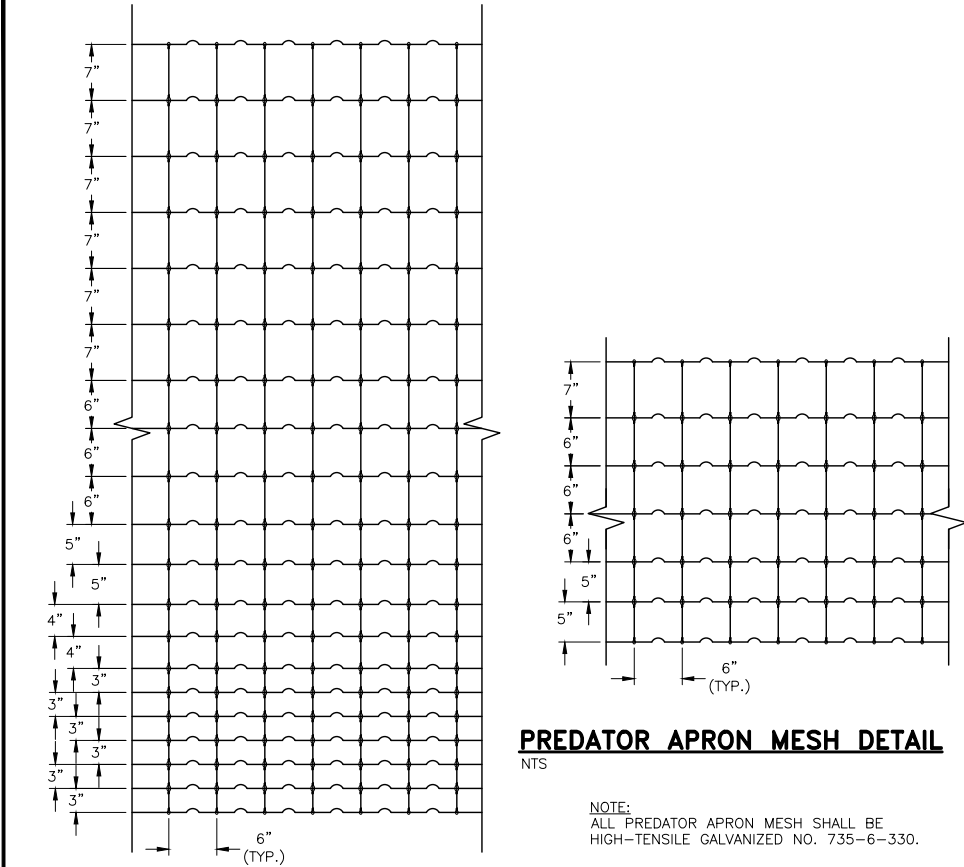
LINE BRACE		
ITEM	QUANTITY	DESCRIPTION
BRACE POST	1	14' X 3 1/2" SCH 40 GALVANIZED PIPE
ANGLE BRACE	2	11' X 2 3/8" SCH 40 GALVANIZED PIPE
ANGLE BRACE FOOT	2	6" X 3 1/2" SCH 40 GALVANIZED PIPE
PIPE CAPS	3	3 1/2" PIPE CAPS OR CONCRETE PLUGS

**END BRACE NOTES:**  
 1. SET THE END POST AND PULL A GUIDE WIRE TO THE END POST OF THE NEXT BRACE.  
 2. SET THE NEXT POST AND THE ANGLE FOOT BRACE AT 10'-6" AND 10'-6", RESPECTIVELY.  
 3. MEASURE THE INSIDE BRACE WIDTH, THEN CUT AND SADDLE THE TWO CROSS MEMBERS. POSITION THE TOP CROSS MEMBER BETWEEN THE 2ND AND 3RD WIRES OF THE FENCE FABRIC. THE MIDDLE CROSS MEMBER IS SET HALF THE DISTANCE BETWEEN THE GROUND AND THE TOP CROSS MEMBER. SET THE MIDDLE CROSS MEMBER SO THAT IT WILL FALL BETWEEN THE HORIZONTAL WIRES OF THE FABRIC. WELD SOLID.  
 4. MEASURE THE WIDTH FROM THE ANGLE FOOT BRACE (APPROX 9" ABOVE THE GROUND) TO THE TOP CROSS MEMBER. CUT AND SADDLE THE ANGLE BRACE AND WELD SOLID.  
 5. CAP ALL PIPE WITH CEMENT OR A PRESSED STEEL PIPE CAP.  
 6. BRUSH ALL WELDS AND TREAT WITH GALV MATCH PLUS OR APPROVED EQUAL TO PREVENT RUST.  
 7. AN END BRACE MUST BE USED AT LOCATIONS WHERE THERE IS A DEFLECTION ANGLE IN THE FENCE ALIGNMENT.

**LINE AND TEE POST NOTES:**  
 1. SET THE LINE POSTS USING 20' SPACING AS A GUIDELINE. IN ROUGH TERRAIN A CLOSER POST SPACING WILL BE REQUIRED. A LINE POST SHOULD BE PLACED ON TOP OF HIPS AND IN THE BOTTOM OF ALL DIPS. THE RATIO OF TEE POSTS TO LINE POSTS SHALL NOT EXCEED 4 TO 1 (100' MAXIMUM BETWEEN LINE POST).  
 2. CAP ALL PIPE WITH CEMENT OR A PRESSED STEEL PIPE CAP.

**LINE BRACE NOTES:**  
 1. SPACE AT 1320' MAXIMUM WIRE BETWEEN THE TWO END BRACES. SET THE MIDDLE BRACE POST ON THIS LINE.  
 2. PULL A GUIDE WIRE BETWEEN THE TWO END BRACES. SET THE MIDDLE BRACE POST ON THIS LINE.  
 3. SET THE ANGLE BRACE POSTS 9' FROM THE BRACE POSTS ON EITHER SIDE IN LINE WITH THE FENCE LINE GUIDE WIRE.  
 4. MEASURE THE WIDTH FROM THE ANGLE FOOT BRACE (APPROX. 9" ABOVE THE GROUND) TO THE BRACE POST (APPROX 6' ABOVE THE GROUND). CUT AND SADDLE THE ANGLE BRACE AND WELD SOLID.  
 5. CAP ALL PIPE WITH CEMENT OR A PRESSED STEEL PIPE CAP. BRUSH ALL WELDS AND TREAT WITH GALV MATCH PLUS OR APPROVED EQUAL TO PREVENT RUST.

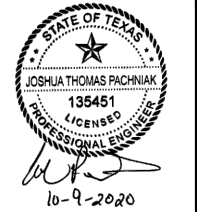
**GAME-PROOF FENCE**  
 NTS



**PREDATOR APRON MESH DETAIL**  
 NTS

**GAME-PROOF FENCE GENERAL NOTES:**

1. ALL GAME-PROOF FENCE MESH SHALL BE HIGH-TENSILE GALVANIZED NO. 2096-6-330.
2. ALL POSTS SHALL BE GALVANIZED, SCH. 40 STEEL POSTS, EXCEPT TEE POSTS.
3. ALL CONCRETE ASSOCIATED WITH INSTALLATION OF GAME-PROOF FENCING SHALL MEET THE REQUIREMENTS OF TxDOT ITEM 421.



NO.	REVISIONS	DATE:
1	APPENDUM NO. 2	

**GAME-PROOF FENCE DETAILS**  
 MASON COUNTY AIRPORT  
 2020 AIRPORT PAVEMENT, DRAINAGE AND FENCING IMPROVEMENTS

**JOB NO.**  
 4494.001  
**PROJECT MGR.**  
 TH  
**TBPE No. F-8405**  
  
**STRAND ASSOCIATES**  
**SHEET**  
 30