

CITY OF SAN ANTONIO  
DEPARTMENT OF CAPITAL IMPROVEMENTS MANAGEMENT SERVICES  
DEPARTMENT OF AVIATION



PROJECT NAME: RUNWAY 12R – 30L ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

PROJECT NO. 33-00178 & 33-00193  
DATE: May 31, 2016

**ADDENDUM NO. 1**

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This addendum shall be included in, and be considered a part of the plans and specification for the above named project. The Contractor shall be required to sign an Acknowledgement of the receipt of this Addendum at the time he receives it. The Acknowledgement must also be submitted with the bid package.

Addendum No. 1 is issued to notify you of the revisions and/or corrections to the following items that were posted on the CoSA website and/or included in the hard copy of the bid packages.

1. In Division A, **Remove** '010 Invitation for Bids (IFB) and Contractor Signature Page' in its entirety and **replace** with the attached '010 Invitation for Bids (IFB) and Contractor Signature Page', dated May 31, 2015, Addendum No. 1.
2. In Division C, Page 6, part 2. **Modify** (Timetables) – [sponsor must insert established goal] should state 47.8%
3. In Division C, Page 7, part 4. **Modify** [sponsor must insert state, county, and city] should read "State of Texas, Bexar County and City of San Antonio"
4. In Division C, Page 8, A3.3 - **Modify** Breach of Contract Terms "Owner" should read "City". "Contract Documents" should read "Agreement". [Contractor I Consultant] should read "Contractor"
5. In Division C, Buy American Certification, **Remove** page 10 and 11 (Certificate of Buy American Compliance for Total Facility)
6. In Division C, page 11, A4.3.2 **Modify** "bidder or offeror should read "Contractor". "Bidder" should read "Contractor"
7. In Division C, page 38, under A12.3.2 **Modify** (Disadvantaged Business Enterprises) – Prompt Payment, Change {specify number} to "ten (10)" and {Name of recipient} to "the City". Also change {specify the same number as above} to "ten (10)"
8. In Division C, page 39, **Change** {Name of Recipient} to "City". Under A12.3.3 Race/Gender Neutral Language **Change** [Insert Name of Owner] to "City"
9. In Division C, page 49, A16.3 **Modify** Contract Clause, [contractor I consultant] should just read "Contractor"
10. In Division C, page 62, A24.3 **Modify** Trade Restriction Certification, final paragraph, Offeror/Contractor should read "Contractor", Owner should read "City". Page 63 **Replace** Offeror with "Contractor" and "Owner" with "City"
11. From the Website – "Change or Addition of subcontractors" form - remove page 3 and 4.

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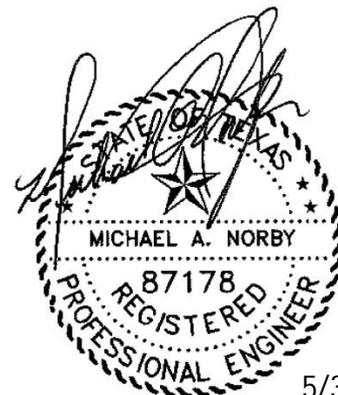
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12. Drawings: **Remove** the following plan sheets and **Replace** with the attached sheets:

Sheet Number	Sheet Title	Description
1	C1.1	COVER SHEET
6	C1.6	SUMMARY OF QUANTITIES
7	C1.7	SUMMARY OF QUANTITIES
12	C2.1	OVERALL PHASING PLAN
15	C3.1	DEMOLITION PLAN - TAXIWAY J - BASE BID
18	C6.1	PLAN AND PROFILE - TAXIWAY J - BASE BID
19	C7.1	JOINT LAYOUT PLAN - TAXIWAY J - BASE BID
22	C9.1	GRADING AND DRAINAGE PLAN - TAXIWAY J - BASE BID
28	C11.1	PAVEMENT MARKING PLAN - TAXIWAY J - BASE BID
43	E1.6	ELECTRICAL LAYOUT PLAN - BASE BID
48	E1.11	ELECTRICAL LAYOUT PLAN - BASE BID
93	C5.2	GEOMETRIC LAYOUT PLAN - TAXIWAY J - ALTERNATE 1
94	C5.3	GEOMETRIC LAYOUT PLAN - TAXIWAY J - ALTERNATE 1
95	C6.2	PLAN AND PROFILE - TAXIWAY J - ALTERNATE 1
100	C9.4	GRADING AND DRAINAGE PLAN - TAXIWAY J – ALTERNATE 1
101	C9.5	GRADING AND DRAINAGE PLAN - TAXIWAY J – ALTERNATE 1
103	C11.4	PAVEMENT MARKING PLAN - TAXIWAY J - ALTERNATE 1
104	C11.5	PAVEMENT MARKING PLAN - TAXIWAY J - ALTERNATE 1
106	C12.6	STORM WATER POLLUTION PREVENTION PLAN - TAXIWAY J - ALTERNATE 1
120	C7.5	JOINT LAYOUT PLAN - TAXIWAY G - ALTERNATE 2
121	C8.4	PAVEMENT ELEVATION PLAN - TAXIWAY G-ALTERNATE 2
132	C3.6	DEMOLITION PLAN - TAXIWAY G - ALTERNATE 3
133	C3.7	DEMOLITION PLAN - TAXIWAY G - ALTERNATE 3
138	C6.4	PLAN AND PROFILE - TAXIWAY G - ALTERNATE 3

**List of Attachments**

- 1) Addendum Number One (1) Acknowledgement Form
- 2) 'Pre-Bid Meeting Agenda'
- 3) 'Pre-Bid Meeting Sign in Sheets'
- 4) 'Pre-Bid Meeting Power Point Presentation'
- 5) 'DBE Informational Sheet from Pre-Bid Meeting'
- 6) '010 Invitation for Bids (IFB) and Contractor Signature Page', dated May 31, 2015, Addendum No. 1
- 7) Revised Plan Sheet drawings (24 sheets)



5/31/2016

**END OF ADDENDUM NO. 1**

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**PROJECT NAME:** RUNWAY 12R – 30L ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

**PROJECT NO.** 33-00178 & 33-00193  
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**ADDENDUM NO. 1**

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**Contractor Questions:** (For information only, the answers do not change or modify the contract documents in any manner)

1. **Q:** Is there an opportunity to work at night?  
**A:** Yes. The contractor can work day or night. The Contractor will need to work with the airport to identify the operational needs required by the airport during for working hours.
2. **Q:** Will January 1 be the start date?  
**A:** The Base Bid work will begin January 3rd (January 1, 2017 is a Sunday and the 2<sup>nd</sup> is a holiday) and must be completed in 75 days. Alternate 1, if awarded, can be worked on at the same time as the base bid but the base bid will still need to be completed in the required days. Bid alternates 2 and 3 will have to be worked on independently. These two phases cannot be combined with each other or any other phase.
3. **Q:** Can Alternate 2 be worked on when the Runway is closed?  
**A:** No, Alternates 2 and 3 must be worked on separately.
4. **Q:** When is the NTP?  
**A:** The NTP is anticipated to go to Council on October 14<sup>th</sup> and within 10 days, an Administrative NTP will be issued. Check on lead time for lights and generator. Earliest date for a Pre Con will be in October.
5. **Q:** Is this contract a Calendar day contract?  
**A:** Yes – Work is available 7 days a week.
6. **Q:** Is the 14 day rule in affect for Badging?  
**A:** Yes, if a construction worker is on the airfield for 14 days (Total during this contract) they must become badged.
7. **Q:** Are the subcontractors required to have insurance?  
**A:** Yes, Article XI - Insurance and Bonds – 11.1 Contractor’s Liability Insurance - Section 11.1.1
8. **Q:** Is there a way to identify stockpile location?  
**A:** 2 locations have been identified and are shown on sheet C2.1
9. At this point a statement was made that the gates the contractor wants to use during construction must be identified and approved before construction. They can use different ones, however, it takes 45 days to get approval through the TSA for these gates.
10. **Q:** Is there a height restriction on the Runway for construction equipment?  
**A:** The only height restrictions on this runway would be in the vicinity of the intersection of Runway 4-22. Anything completed within the RSA for Runway 4-22 or within the Part 77



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Surfaces will have to be evaluated and planned for time and duration during this project. These areas will need to be completed during timeframes as outlined and coordinated with the airport.

11. **Q:** Does there have to be a central concrete batch plant?  
**A:** According to the plans and specifications, the Contractor is required to produce enough material to meet the requirements of the contract documents. How this is completed is up to the contractor. In addition, there is no additional room on airport property for a Contractor staging area. This will have to be located off site at a location each contractor will determine. All requirements for materials will still have to be met including the time durations for P-501 concrete.
12. **Q:** How is the stage in area allowance paid out?  
**A:** The staging area is paid for the same as mobilization?
13. **Q:** Can the soils report be retrieved for pavement thickness?  
**A:** We have attached portions of the soils report pertaining to these areas. If additional information is required, the full geotechnical report will be made available in Kimley-Horn's local San Antonio Office.
14. **Q:** How are utilities identified on the airfield?  
**A:** The existing utilities are located to the best of our knowledge based on as-built information. This information has been combined and is depicted in the plans for this project. It is the Contractor's responsibility to locate and identify any and all utilities prior to construction. The airport maintenance department is willing to mark initially the known electrical lines and the FAA is willing to locate their lines as well. Any additional lines shall be identified and located by the Contractor.
15. **Q:** Who is responsible to identify these?  
**A:** It is the Contractor's responsibility to locate and identify any and all utilities prior to construction. The airport maintenance department is willing to mark initially the known electrical lines and the FAA is willing to locate their lines as well. Any additional lines shall be identified and located by the Contractor.

**CITY OF SAN ANTONIO**

Receipt of **Addendum Number One (1)** is hereby acknowledged for plans and specifications for construction of **Runway 12R – 30L Electrical Improvements and Terminal Area Taxiway Improvements (Package 4)** for which bids will be opened on **Tuesday, June 14, 2015**.

THIS ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH THE BID PACKAGE.

COMPANY NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

PRINT NAME/TITLE: \_\_\_\_\_



# CITY OF SAN ANTONIO AVIATION DEPARTMENT

## INVITATION FOR BID RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4) (Project # 33-00178 & 33-00193)

### PRE-BID MEETING

San Antonio International Airport  
Terminal A – Mezzanine Conference Room, 9800 Airport Blvd., San Antonio, TX 78216  
Thursday, May 26, 2016; 9:00 a.m.

1. Welcome and Introductions ..... Loyce D. Clark, Chief Asset & Planning Officer, Aviation Dept.
2. Background ..... Mike Norby, P.E., Kimley-Horn
3. Scope of Work ..... Mike Norby, P.E.
4. Wage & Labor Compliance ..... Maria Godina, TCI Dept.
5. DBE Program ..... Lisa Brice, Aviation Dept.
6. Security/ Badge & ID..... Gregory Maggard, Aviation Dept.
7. Airfield Driver’s License ..... TBD, Aviation Dept.
8. Environmental Stewardship..... Candyce Selby P.E., Aviation Dept.
9. Invitation for Bid (IFB) Schedule..... Dulce Bares, Aviation Dept.
  - a) Deadline for Questions ----- Friday, June 3, 2016, 4:00 p.m.
  - b) **IFB SUBMITTALS DUE ----- Tuesday, June 14, 2016, 2:00 p.m.**
    - NOTE 1: Late Bids will not be accepted!
    - NOTE 2: SAT will present the information to the FAA to determine the amount of the award.
  - c) Council Consideration ----- October 2016
  - d) Submittal Instructions
    - Hand Delivery: Office of City Clerk, City Hall, 100 Military Plaza, 2nd Floor
    - No Signature = Unresponsive
  - e) Required Documents per IFB
10. Addenda..... Mike Norby, P.E.
11. Questions & Answers
12. Parking Ticket Validation
13. Site Visit

NOTE: Visitors to City Hall are required to enter through the east side of the building. The public will pass through a metal detector and x-ray machine located in the lobby. All packages, purses and carried items will be scanned during regular business hours of 7 a.m. to 7 p.m. After the public proceeds through the metal detector, they will sign in and receive a visitor’s badge. For those that might require the use of a ramp, entry is available on the south side of the building (Dolorosa side). Security will meet the visitor in the basement with a hand scanner.

Please anticipate this security screening changes and allow ample time for delivery of proposal responses. The City is NOT responsible for late delivery of any proposal responses.



**RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)**

**PRE-BID MEETING**  
Thursday, May 26, 2016; 9a.m.

Name	Organization	Phone Number	E-Mail Address
BARRY HAYNIE	COSA OPS	908-8278	
Kao Lin Che	COSA - Av - P/O	207-3506	KaoLin.Che@sanantonio.gov brandon@jerdonlp.com
Kathryn Tennell	Jerdon	590-1110	
Graham Lomas	GLC	825-1989	gahel@glc-tx.com
Candace Selby	COSA-ESD	207-3518	candace.selby@sanantonio.gov
MARK McCLARTY	COSA - AF/MTC	207-3538	MARK.McCLARTY@SANANTONIO.GOV
Barbara Trevino	COSA - Aviation SBD	207-3592	Barbara.Trevino@sanantonio.gov
Dennis Fiemeyer	COSA Aviation	207 3401	
Corey Nees	Fugro Consultants	536-3300	cnees@fugro.com
Johnnie Flores	F+W Electrical	210-426-9583	
James Frasier	F&W Electrical	830-216-4919	JLF@fandwelectrical.com



**RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)**

**PRE-BID MEETING**

Thursday, May 26, 2016; 9a.m.

Name	Organization	Phone Number	E-Mail Address
DEVIN MANKE	IHC	469-215-6759	mankecl@IHCQUALITY.COM
Randy Jenkins	Kimley Horn	623 693-3130	randy.jenkins@kimley-horn.com
Clint Henson	Jordan Foster	210-889-0728	chenson@jordanfosterconstruction.com
CLINT LANCASTER	JORDAN FOSTER	830.214.5099	clancaster@jordanfosterconstruction.com
Ben Arnold	Archer western	512 839 9357	barnold@walshgroup.com
PAT PLUENWEKE	ARCHER WESTERN	512 619-5238	PPLUENWEKE@WALSHGROUP.COM
GREGORY MAGGARD	AVI-SECURITY	210-414-3612 210-207-3435	GREGORY.MAGGARD@SANANTONIO.GOV
Mario Valdez	J3	(210) 417-8964	Mario.Valdez@J3Co.com
Chris Ryes	J3	210-421-7521	Chrispl.Ryes@J3co.com
Steve Reeder	Kimley-Horn	602 906 1379	Steve.Reeder@kimley-horn.com
Mike Norby	Kimley-Horn	602 944-5500	Mike.Norby@kimley-horn.com
Daniel Kershner	Fugro	210 655 9516	dkershner@fugro.com

Please Leave Business Card.



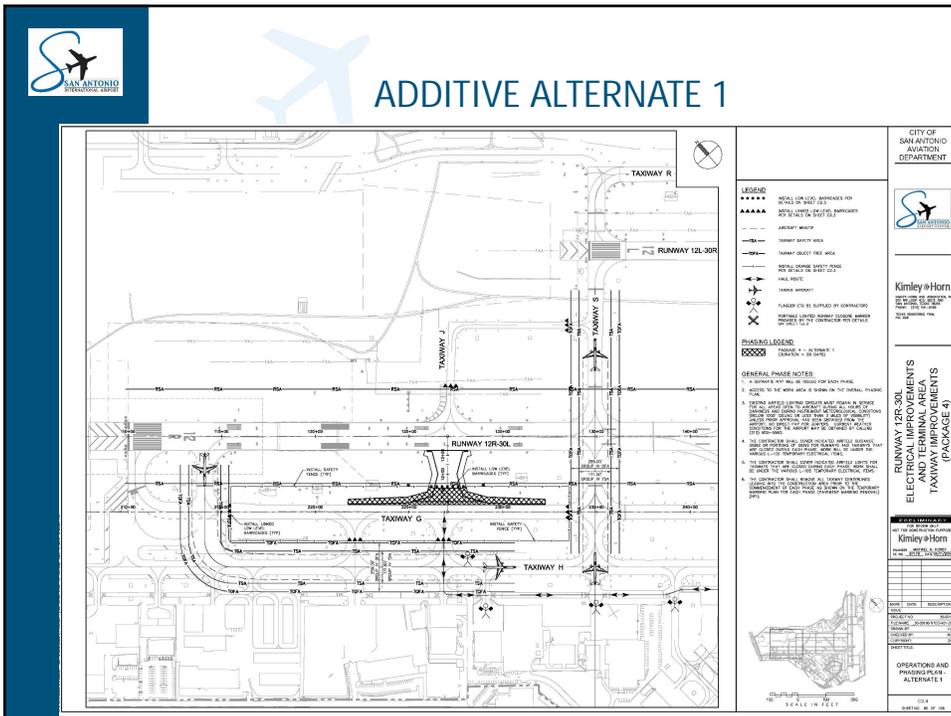
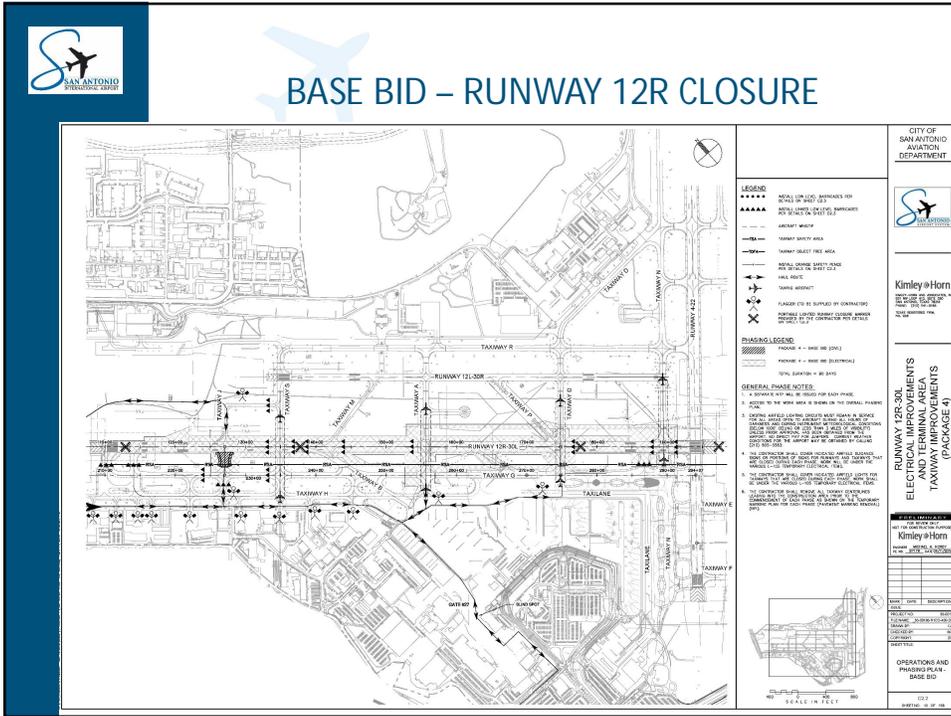
**RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)**

**PRE-BID MEETING**  
Thursday, May 26, 2016; 9a.m.

Name	Organization	Phone Number	E-Mail Address
David Taylor	Southwest Concrete Paving	(512) 423-3293	dtaylor@texasnac.com
Marrin J. Johnson	SpawGlass Civil	210.207.2174	marrin.johnson@spawglass.com
Philip Betancourt	SpawGlass Civil	713-818-0216	philip.betancourt@spawglass.com
Debbie Drew	CO SA - Aviation	210-207-3896	debbie.drew@sanantonio.gov
Steven Leas	CO SA - Aviation	210-207-1603	Steven.Leas@sanantonio.gov











**WAGE & LABOR COMPLIANCE**

**Maria Godina**  
**Transportation & Capital Improvements Dept.**

7



**DBE PROGRAM**

**Lisa Brice**  
**Aviation Department**

8



**SECURITY / BADGE & I.D.**

**Gregory Maggard**  
**Aviation Department**

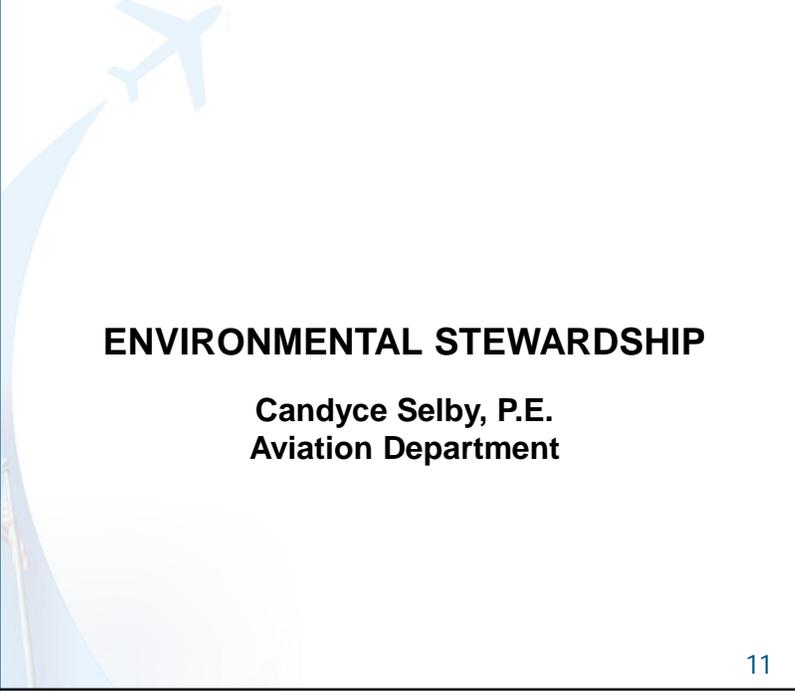
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**AIRFIELD DRIVER'S LICENSE**

**Aviation Department**

10



**ENVIRONMENTAL STEWARDSHIP**

**Candyce Selby, P.E.**  
**Aviation Department**

11



**INVITATION FOR BID - SCHEDULE**

**Dulce Bares**  
**Aviation Department**

12



# FORM 010 – INVITATION FOR BID

CITY OF SAN ANTONIO

Issued By: Aviation Department  
ID NO.: 33-00178 & 33-00193

Date Issued: May 4, 2016

## FORMAL INVITATION FOR BIDS (IFB) and CONTRACT Runway 12R – 30L Electrical Improvements and Terminal Area Taxiway Improvements (Package 4)

Sealed bids, subject to the Terms and Conditions of this Invitation for Bids and other contract provisions, will be received at the Office of the City Clerk, City Hall, 100 Military Plaza, 2nd floor San Antonio, TX 78205 until 2:00 P.M. CST on Tuesday, June 14, 2016 (*solicitation deadline*) and publicly read aloud at in City Council Chambers, 114 W. Commerce, Municipal Plaza Building. Bids must be submitted in a sealed envelope and clearly marked with the due date of bid, bidder name, Project Name and ID NO. The City is not responsible for submissions not clearly and appropriately marked. Late submissions will be rejected and returned to bidder. A Non-Mandatory Pre-Bid meeting will be held at the San Antonio International Airport, 9800 Airport Blvd., San Antonio, TX 78216 in Terminal A – Merzanne Conference Room on Thursday, May 26, 2016 at 9:00 A.M. A site visit will be made after the Pre-Bid meeting. Deadline for questions is June 3, 2016 at 4:00 P.M.

**This invitation includes the following Contract Documents:**

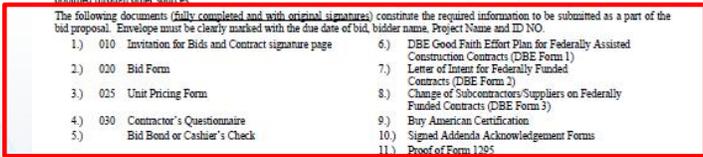
- |   |   |
|---|---|
| 010 Invitation for Bids and Contract Signature Page | 075 Performance Bond                              |
| 020 Bid Form  | 076 Payment Bond                                  |
| 025 Unit Pricing Form                               | 080 DBE Good Faith Effort Plan                    |
| 030 Contractor's Questionnaire                      | 081 General Conditions for Construction Contracts |
| 040 Standard Instructions to Respondent             | ▪ Wage Decision                                   |
| 041 Certificate of Interested Parties               | ▪ Aviation Supplemental Conditions                |
| 060 Supplemental Conditions                         |   |

Plans, Specifications and Special Conditions may be purchased at a cost of \$100.00 per set (tax included) from the office of Kimley-Horn and Associates, 601 NW Loop 410, Suite 350, San Antonio, TX 78216. Phone: (210) 541-9166. No refund will be made for plan sets that are returned. Changes to Plans, Specifications and Special Conditions will be included in an addendum and will be posted on the web at <http://www.sanantonio.gov/procurement/biddingcontractopportunities.aspx> along with this solicitation. Bidder understands and agrees that bidder is responsible for obtaining addenda and adhering to all requirements in addenda. City is not responsible for incorrect information obtained through other sources.

The following documents (fully completed and with original signatures) constitute the required information to be submitted as a part of the bid proposal. Envelope must be clearly marked with the due date of bid, bidder name, Project Name and ID NO.

- |   |   |
|---|---|
| 1.) 010 Invitation for Bids and Contract signature page | 6.) DBE Good Faith Effort Plan for Federally Assisted Construction Contracts (DBE Form 1) |
| 2.) 020 Bid Form  | 7.) Letter of Intent for Federally Funded Contracts (DBE Form 2)                          |
| 3.) 025 Unit Pricing Form                               | 8.) Change of Subcontractors/Suppliers on Federally Funded Contracts (DBE Form 3)         |
| 4.) 030 Contractor's Questionnaire                      | 9.) Buy American Certification  |
| 5.) Bid Bond or Cashier's Check                         | 10.) Signed Addenda Acknowledgement Forms   |
|   | 11.) Proof of Form 1285   |

Required Bid Documents



# FORM 010 – INVITATION FOR BID

**This is a Qualified Low Bid Solicitation.** It is understood and agreed that the work is to be substantially completed on or before 90 calendar days (if only Base Bid is awarded), or 690 calendar days (if Base Bid and Alternates awarded). This project does not include hazardous environmental work. This project requires 2 project sign(s).

This project will have funding from a Federal Aviation Administration (FAA) Grant. *The award and subsequent issuance of Notice to Proceed for construction of this project are contingent upon the City's receipt of FAA funding. The award of a contract, if it is to be awarded, will be made within 120 calendar days of the date specified for the public bid opening.*

**Wage Decision** – Respondent shall meet the prevailing wage rate requirements established for this contract and shall reference the wage decision posted with this solicitation on the City's website.

The undersigned, by his/her signature, represents that he/she is authorized to bind the bidder to fully comply with Contract Documents for the amount(s) shown on the accompanying bid sheet(s). The work proposed to be done shall be accepted when fully completed and finished to the entire satisfaction of the City. The undersigned certifies all prices contained in this bid have been carefully checked and are submitted as correct and final. The Bidder by submitting this bid and signing below, acknowledges that he/she has received & read the entire Bid and Contract document and agrees to be bound by the terms therein, has received all Addenda, and agrees to the terms, conditions, and requirements of the bidder's bid proposal and all documents listed in TABLE A above and the enabling Ordinance and associated documentation that form the entire Contract upon approval by the City Council.

Required Signature

Official Name of Company (legal): \_\_\_\_\_

Original Signature of Person Authorized to Sign Bid/Contract / \_\_\_\_\_ Date \_\_\_\_\_ Signer's Name: \_\_\_\_\_  
(Please Print or Type)

Form 010 Invitation for Bids (IFB) and Contract Signature Page



## FORM 040 – STANDARD INSTRUCTIONS TO RESPONDENTS

### 12. RESTRICTION ON COMMUNICATION

Respondents are prohibited from communicating with City staff and City officials regarding this solicitation with the following exceptions:

Deadline for Questions to Consultant:  
Friday, June 3rd  
4:00 p.m.

Deadline for Questions on DBE:  
Friday, June 3rd

- (a) Questions or other communication at the pre-submittal conference are allowed.
- (b) Written questions and comments concerning this solicitation shall be sent to the consultant, Mr. Mike Norby, P.E., 601 NW Loop 410, Suite 350, San Antonio, Texas 78216-5595, Tel: 210-541-9166, email address: [mike.norby@kimley-horn.com](mailto:mike.norby@kimley-horn.com), and a copy to Mr. Kao-Lin Chen, P.E., the City's Aviation Department, Planning and Development Division at 457 Sandau Road, San Antonio, Texas 78216, Tel: 210-207-3506 and email address: [kaolin.chen@sanantonio.gov](mailto:kaolin.chen@sanantonio.gov). Questions received after the stated deadline will not be answered.
- (c) Respondent and/or its agent(s) are encouraged to contact the Aviation Department's DBE Liaison Officer for assistance or clarification with issues specifically related to the DBE policy and/or completion of the required DBE forms, prior to Respondent's submittal. Point of Contact person is Ms. Lisa Brice, Tel: 210-207-3505 and email address: [lisa.brice@sanantonio.gov](mailto:lisa.brice@sanantonio.gov). Ms. Brice may designate other members of the Aviation staff to address DBE issues raised by Respondent. After the solicitation's closing date, no contact is permitted by Respondent to the Aviation Department, DBE Liaison Office. The City reserves the right to contact Respondent over DBE issues after the solicitation closing date.
- (d) Respondents shall provide responses to any questions asked of them by the Staff Contact Person before and after responses are received and opened.

Answers by Consultant and/or City will be given in writing to all prospective Respondents in Addendum form. All provisions and requirements of such addenda will supersede or modify affected portions of the Project Plans and/or Specifications. All addenda will be incorporated in and bound with the Contract documents. No other explanation or interpretation will be considered official or binding upon the City. All addenda will be posted on the City's website with this solicitation. It is respondent's responsibility to obtain addenda.

Violation of this provision by Respondent or his or her agent may lead to disqualification of its offer from consideration.



# QUESTIONS?

## Terminal Area Taxiway Improvements Package 4

Pre-Bid Meeting: May 26, 2016



### **I. DBE Program - Disadvantaged Business Enterprise Program**

- Purpose: To facilitate DBE participation for contractual opportunities at San Antonio Airport System.
- DBE contract specific goal that has been established on this project is **9.4%** of the total dollar value of the contract.
- The goal is set based on relative availability of certified DBE firms in relation to the universe in specific trades in the primary market. The primary market is San Antonio metropolitan statistical area however participation is open for all DBE certified firms from anywhere in state or the nation

### **II. Good Faith Effort Plan**

- Proposers must submit a Good Faith Effort Plan in proposal detailing their efforts to include DBEs as part of their team (DBE Form 1) and Letter of Intent (DBE Form 2).
- Small Business staff can assist you with information on where to find certified firms if needed.

### **III. Certified Vendor Information**

- Please visit the South Central Texas Regional Certification Agency (SCTRCA) at [www.sctrca.org](http://www.sctrca.org) and Texas Unified Certification Program at [www.dot.state.tx.us](http://www.dot.state.tx.us)

### **IV. Central Vendor Registry (CVR)/San Antonio eProcurement System (SAePS)**

- All contractors/consultants and their subcontractors/ sub-consultants wishing to do business with the City must first register in the CVR/ SAePS
- To begin the registration process, please go to <http://www.sanantonio.gov/purchasing/SAePS.aspx>
- For technical assistance please call (210) 207-0118

DBE firms must complete certification before bid submittal

For additional information, contact Lisa Brice at 210.207.3505 or [Lisa.Brice@sanantonio.gov](mailto:Lisa.Brice@sanantonio.gov), Barbara Trevino at 210.207.3592 or [Barbara.Trevino@sanantonio.gov](mailto:Barbara.Trevino@sanantonio.gov) or Joe Gonzales at 210.207.3826 or [Joseph.Gonzales2@sanantonio.gov](mailto:Joseph.Gonzales2@sanantonio.gov)

CITY OF SAN ANTONIO AVIATION DEPARTMENT  
9800 Airport Blvd. San Antonio, TX 78216 | Phone 210.207.SAIA (7242) | Fax 210.207.3500

#### **Our Mission:**

To innovatively manage our airports to provide a positive customer experience while supporting economic development.

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# CITY OF SAN ANTONIO

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Issued By: Aviation Department  
ID NO.: 33-00178 & 33-00193

Date Issued: May 4, 2016  
Revised: May 31, 2015, Addendum No. 1

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## (010) FORMAL INVITATION FOR BIDS (IFB) to CONTRACT Runway 12R-30L Electrical Improvements and Terminal Area Taxiway Improvements (Package 4)

Sealed bids, subject to the Terms and Conditions of this Invitation for Bids and other contract provisions, will be received at the Office of the City Clerk, City Hall, 100 Military Plaza, San Antonio, Tx 78205 until **2:00 P.M. CST on Tuesday, June 14, 2016** (*solicitation deadline*) and publicly read aloud in **City Council Chambers, 114 W. Commerce, Municipal Plaza Building**. Bids must be submitted in a sealed envelope and clearly marked with the due date of bid, bidder name, Project Name and ID NO. The City is not responsible for submissions not clearly and appropriately marked. Late submissions will be rejected and returned to bidder. A Non-Mandatory Pre-bid meeting will be held at **San Antonio International Airport - Terminal A – Mezzanine, 9800 Airport Boulevard, San Antonio, TX 78216, Thursday, May 26, 2016 at 9:00 A.M.** A site visit will be made after the Pre-Bid Meeting. Deadline for questions is Monday, June 6, 2016 at 4:00 P.M.

**This invitation includes the following Contract Documents, which are divided into seven (7) sections (Division A – G):**

*Division A City Bid Documents*

010	Invitation for Bids and Contract Signature Page	075	Performance Bond
020	Bid Form	076	Payment Bond
025	Unit Pricing Form	077	DBE Good Faith Effort Plan
030	Contractor's Questionnaire		
040	Standard Instructions to Respondent	081	General Conditions for Construction Contracts
041	Certificate of Interested Parties (TEC Form 1295)	105	Wage Decisions
060	Supplemental Conditions	110	Aviation Supplemental Conditions

*Division B Additional Requirements from the Aviation Department*

*Division C Special Requirements from the FAA*

*Division D Construction Specification from the FAA*

*Division E Additional Technical Specifications for the Project*

*Division F Geotechnical Engineering Study*

*Division G FAA Advisory Circulars for the Project*

Plans, Specifications and Special Conditions may be purchased at a cost of **\$100.00** per set (tax included) from the office of **Kimley-Horn and Associates, 601 NW Loop 410, Suite 350, San Antonio, TX 78216, Phone: (210) 541-9166**. No refund will be made for plan sets that are returned. Changes to Plans, Specifications and Special Conditions will be included in an addendum and will be posted on the web at <http://www.sanantonio.gov/purchasing/biddingcontract/opportunities.aspx> along with this solicitation. Bidder understands and agrees that bidder is responsible for obtaining addenda and adhering to all requirements in addenda. City is not responsible for incorrect information obtained through other sources.

The following documents (fully completed and with original signatures) constitute the required information to be submitted as a part of the bid proposal:

- |         |   |      |  |
|---------|---|------|--|
| 1.) 010 | Invitation for Bids and Contract Signature Page | 6.)  | DBE Good Faith Effort Plan for Federally Assisted Construction Contracts (DBE Form 1)  |
| 2.) 020 | Bid Form  | 7.)  | Letter of Intent for Federally Funded Contracts (DBE Form 2) , Change of Subcontractors/Suppliers on Federally Funded Contracts (DBE Form 3) |
| 3.) 025 | Unit Pricing Form                               | 8.)  | Change of Subcontractors/Suppliers on Federally Funded Contracts (DBE Form 3)  |
| 4.) 030 | Contractor's Questionnaire                      | 9.)  | Buy American Certification   |
| 5)      | Bid Bond  | 10.) | Signed Addenda Acknowledgement Forms   |
|         |   | 11.) | Proof of Form 1295   |

**This is a Qualified Low Bid Solicitation.** It is understood and agreed that the work is to be substantially completed on or before **75** calendar days (if only Base Bid is awarded), or **210** calendar days (if Base Bid and all Alternates awarded). This project does not include hazardous environmental work. This project requires **2** project sign(s).

This project will have funding from a Federal Aviation Administration (FAA) Grant. ***The award and subsequent issuance of Notice to Proceed for construction of this project are contingent upon the City's receipt of FAA funding. The award of a contract, if it is to be awarded, will be made within 120 calendar days of the date specified for the public bid opening.***



# SAN ANTONIO INTERNATIONAL AIRPORT SAN ANTONIO, TEXAS

CITY OF  
SAN ANTONIO  
AVIATION  
DEPARTMENT



**Kimley-Horn**  
KIMLEY-HORN AND ASSOCIATES, INC.  
601 NW LOOP 410, SUITE 350  
SAN ANTONIO, TEXAS 78216  
PHONE: (210) 541-9166  
TEXAS REGISTERED FIRM,  
NO. 928



**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**

**PROJECT DESCRIPTION**

WORK INCLUDES GRADING, PAVING, MARKING, SIGNAGE AND LIGHTING FOR THE FOLLOWING:

**BASE BID:**  
REHABILITATION AND NEW CONSTRUCTION OF PAVEMENTS ON THE AIRFIELD. THE PAVEMENTS TO BE REHABILITATED ARE AS FOLLOWS:

- TAXIWAY J - PORTION OF TAXIWAY CONNECTOR FROM RUNWAY 12R-30L EDGE TO A POINT JUST BEYOND THE RUNWAY 12R-30L RSA
- DRAINAGE IMPROVEMENTS
- RUNWAY 12R-30L - ELECTRICAL IMPROVEMENTS

**ALTERNATE 1:**

- TAXIWAY J - PORTION OF TAXIWAY CONNECTOR BETWEEN RUNWAY 12R-30L RSA AND CONNECTING TO TAXIWAY G
- ELECTRICAL IMPROVEMENTS

**ALTERNATE 2:**

- TAXIWAY G - PANEL REPLACEMENT/RECONSTRUCTION AT INTERSECTION OF TAXIWAY A
- ELECTRICAL IMPROVEMENTS

**ALTERNATE 3:**

- TAXIWAY G - RECONSTRUCTION AT INTERSECTION OF TAXIWAY D
- ELECTRICAL IMPROVEMENTS

## RUNWAY 12R-30L ELECTRICAL IMPROVEMENTS AND TERMINAL AREA TAXIWAY IMPROVEMENTS (PACKAGE 4)

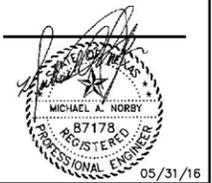
PROJECT NO. 33-00178 & 33-00193  
FAA AIP 3-48-0192-XX-2015

**ISSUED FOR BID**

**\*DURING THIS CONSTRUCTION RUNWAY  
12R-30L WILL BE REMARKED (AIRPORT  
FORCES) TO RUNWAY 13R-31L**

**PREPARED FOR:**  
CITY OF SAN ANTONIO AVIATION DEPARTMENT  
9800 AIRPORT BOULEVARD  
SAN ANTONIO, TX 78216  
PH: (210) 207-SAIA (7242)

**PREPARED BY:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
601 NW LOOP 410, SUITE 350  
SAN ANTONIO, TX 78216-5595  
PH: (210) 541-9166  
FAX: (210) 541-8699



▲	5/31/16	ADDENDUM 1					
MARK	DATE	DESCRIPTION					
ISSUE:							
PROJECT NO:		33-00193					
FILE NAME:		33-00193-R1G-001-D00					
DRAWN BY:		CAD					
CHECKED BY:		MAN					
COPYRIGHT:		2016					
SHEET TITLE:							

COVER SHEET

K:\PHK\_Aviation\191628001-San Antonio\CADD\_Package\_4\33-00193-R1G-001-D00.dwg April 11, 2016 Robinson, Brandon

SUMMARY OF QUANTITIES

BASE BID (TAXIWAY J)

Item	Specification Number	Bid Item Description	Quantity	Unit
<b>BASE BID</b>				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Contractor Staging Area	1	Allow
3	100.3	Insurance and Bonds	1	LS
4	100.4	Airside Safety and Security / Traffic Control	1	LS
5	101.1	Preparing Right-of-Way	1	LS
6	540.1	Storm Water Pollution Prevention Plan	1	LS
7	GP 60-05	Field Office and Curing Facilities	1	LS
8	P-100-2.1	Contractor Quality Control	1	LS
9	P-101-5.1	Portland Cement Concrete Pavement Removal, Including Thickened Edge and Reinforcement	2,650	SY
10	P-101-5.3	Cement-Treated Base Removal	2,650	SY
11	P-101-5.4	Concrete Pavement Saw Cut (Full Depth)	382	LF
12	P-151-4.1	Clearing and Grubbing	2.08	AC
13	P-151-4.2	Remove Existing Storm Drain Pipe	32	LF
14	P-151-4.3	Remove Existing Catch Basin or Manhole	2	EA
15	P-152-4.1	Unclassified Excavation (Estimated)	4,120	CY
16	P-155-8.1	Lime-Treated Subgrade, 6" Depth (P-155)	4,670	SY
17	P-155-8.2	Lime	100	TON
18	P-208-5.1	Aggregate Base Course, 13" Depth (P-208)	660	SY
19	P-208-5.1	Temporary Aggregate Base Course, 8" Depth (P-208)	170	SY
20	P-304-8.1	Cement-Treated Base Course, 8" Depth (P-304)	1,500	SY
21	P-304-8.2	Cement-Treated Base Course, 16" Depth (P-304)	3,200	SY
22	P-401-8.1	Temporary HMA Pavement (5" Surface Course)	50	TON
23	P-403-8.1	HMA Pavement (3" Surface Course)	240	TON
24	P-403-8.2	Temporary HMA Pavement (9" Base Course)	80	TON
25	P-501-8.1	Portland Cement Concrete Pavement, 16" Depth	3,000	SY
26	P-604-6.1	Preformed Sealer, 1/2-inch Joint	3,350	LF
27	P-604-6.2	Preformed Sealer, 1-inch Joint	310	LF
28	P-604-6.3	Hot Applied Edge Seal	480	LF
29	P-620-5.1	Reflective Yellow Taxiway Pavement Markings, Waterborne	1,810	SF
30	P-620-5.2	Reflective White Runway Pavement Markings, Waterborne	900	SF
31	P-620-5.3	Non-Reflective Black Pavement Markings, Waterborne	2,620	SF
32	P-620-5.4	Reflective Surface Painted Holding Position Signs, Waterborne	860	SF
33	P-620-5.5	Pavement Marking Obliteration	2,120	SF
34	P-620-5.6	Temporary Reflective Yellow Taxiway Pavement Markings, Waterborne	490	SF
35	T-904-5.1	Sodding, 2" Depth (T-904)	10,040	SY
36	T-905-5.1	Top Soil, 2" Depth (T-905)	560	CY
37	D-705-5.1	Underdrain System	1	LS
38	D-751-5.2	Adjust Existing Manhole/Inlet	1	EA
39	L-100-5.3	Electrical Demolition	0.10	LS
40	L-105-6.2	Base Bid Twy J Temporary Jumpers, Lighting and Signage	1	LS
41	L-108-5.1	L-824, Type C, 1/C #8, 5 kV Cable	4,100	LF
42	L-108-5.2	L-824, Type C, 1/C #6, 5 kV Cable	1,000	LF
43	L-108-5.3	Bare, 1/C #6, Counterpoise Wire	3,100	LF
44	L-110-5.1	Single-way 2" Conduit, Direct Buried	1,340	LF
45	L-110-5.3	Multiple-way (6) 2-inch Conduits, Direct Buried	80	LF
46	L-110-5.5	Single-way 2" Conduit, Concrete Encased	300	LF
47	L-110-5.6	Multiple-way (4) 2-inch HDPE Conduits, Directional Bored	580	LF
48	L-110-5.7	Multiple-way (6) 2-inch HDPE Conduits, Directional Bored	400	LF
49	L-110-5.9	System Drain, (1) 2" Conduit, Concrete Encased	350	LF
50	L-115-5.1	New Concrete Handhole, Type I, Furnished & Installed	4	EA
51	L-115-5.3	Two-Can Junction Can Plaza, Furnished & Installed	4	EA
52	L-850-4.3	Salvage and Reinstall In-pavement L-850C Runway Edge Light with New Isolation Transformer on New or Existing Base	1	EA
53	L-858-5.1	New Size 3, 1-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	2	EA
54	L-858-5.3	New Size 3, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA

55	L-858-5.4	New Size 3, 4-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA
56	L-861T-4.3	Salvage and Reinstall L-861T Quartz Taxiway Edge Light with New Isolation Transformer on New Base	18	EA
57	L-867/868-6.1	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in New Asphalt Shoulder	12	EA
58	L-867/868-6.2	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in Non-Paved Shoulder	7	EA
59	L-867/868-6.3	Size "B" L-868 Base Can - "Standard Installation (New PCCP)"	1	EA
60	L-867/868-6.5	New Size "B" L-867 Blank Base Can Cover	3	EA
61	L-867/868-6.10	Concrete Foundation for 1-Module Sign	2	EA
62	L-867/868-6.11	Concrete Foundation for 2-Module Sign	2	EA
63	L-867/868-6.12	Concrete Foundation for 3-Module Sign	1	EA
64	L-867/868-6.13	Concrete Foundation for 4-Module Sign	1	EA

ALTERNATE 3 (TAXIWAY D)

Item	Specification Number	Bid Item Description	Quantity	Unit
<b>ALTERNATE 1</b>				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Contractor Staging Area	1	Allow
3	100.3	Insurance and Bonds	1	LS
4	100.4	Airside Safety and Security / Traffic Control	1	LS
5	101.1	Preparing Right-of-Way	1	LS
6	540.1	Storm Water Pollution Prevention Plan	1	LS
7	GP 60-05	Field Office and Curing Facilities	1	LS
8	P-100-2.1	Contractor Quality Control	1	LS
9	P-101-5.1	Portland Cement Concrete Pavement Removal, Including Thickened Edge and Reinforcement	7,170	SY
10	P-101-5.2	Bituminous Pavement Removal	1,180	SY
11	P-101-5.3	Cement-Treated Base Removal	8,340	SY
12	P-101-5.4	Concrete Pavement Saw Cut (Full Depth)	1,284	LF
13	P-101-5.5	AC Pavement Saw Cut (Full Depth)	55	LF
14	P-151-4.1	Clearing and Grubbing	1.54	AC
15	P-151-4.2	Remove Existing Storm Drain Pipe	377	LF
16	P-151-4.3	Remove Existing Catch Basin or Manhole	1	EA
17	P-152-4.1	Unclassified Excavation (Estimated)	7,000	CY
18	P-155-8.1	Lime-Treated Subgrade, 6" Depth (P-155)	10,670	SY
19	P-155-8.2	Lime	230	TON
20	P-208-5.1	Aggregate Base Course, 13" Depth (P-208)	800	SY
21	P-304-8.1	Cement-Treated Base Course, 8" Depth (P-304)	2,400	SY
22	P-304-8.2	Cement-Treated Base Course, 16" Depth (P-304)	8,500	SY
23	P-403-8.1	HMA Pavement (3" Surface Course)	390	TON
24	P-501-8.1	Portland Cement Concrete Pavement, 16" Depth	8,230	SY
25	P-604-6.1	Preformed Sealer, 1/2-inch Joint	6,840	LF
26	P-604-6.2	Preformed Sealer, 1-inch Joint	950	LF
27	P-604-6.3	Hot Applied Edge Seal	740	LF
28	P-620-5.1	Reflective Yellow Taxiway Pavement Markings, Waterborne	2,930	SF
29	P-620-5.3	Non-Reflective Black Pavement Markings, Waterborne	3,160	SF
30	P-620-5.4	Reflective Surface Painted Holding Position Signs, Waterborne	860	SF
31	P-620-5.5	Pavement Marking Obliteration	1,780	SF
32	T-904-5.1	Sodding, 2" Depth (T-904)	7,440	SY
33	T-905-5.1	Top Soil, 2" Depth (T-905)	410	CY
34	D-701-5.3	66" RGRC, Class V	16	LF
35	D-701-5.4	Concrete Pipe Collar	2	EA
36	D-751-5.1	Catch Basins	1	EA

37	D-751-5.2	Adjust Existing Manhole/Inlet	1	EA
38	L-100-5.3	Electrical Demolition	0.20	LS
39	L-105-6.5	Alternate 3 Temporary Jumpers, Lighting and Signage	1	LS
40	L-108-5.1	L-824, Type C, 1/C #8, 5 kV Cable	4,000	LF
41	L-108-5.2	L-824, Type C, 1/C #6, 5 kV Cable	600	LF
42	L-108-5.3	Bare, 1/C #6, Counterpoise Wire	2,600	LF
43	L-110-5.1	Single-way 2" Conduit, Direct Buried	1,130	LF
44	L-110-5.3	Multiple-way (6) 2-inch Conduits, Direct Buried	180	LF
45	L-110-5.5	Single-way 2" Conduit, Concrete Encased	690	LF
46	L-110-5.7	Multiple-way (6) 2-inch HDPE Conduits, Directional Bored	140	LF
47	L-110-5.9	System Drain, (1) 2" Conduit, Concrete Encased	380	LF
48	L-115-5.2	Extend Handhole To New Grade	1	EA
49	L-115-5.4	Extend Two-Can Junction Can Plaza To New Grade	1	EA
50	L-852-4.1	Remove and Relocate In-pavement L-852A Taxiway Centerline Light with New Isolation Transformer on New Base	13	EA
51	L-858-5.5	Remove and Relocate Size 3, Any-Module Airside Guidance Sign, Installed on New Foundation	3	EA
52	L-861T-4.2	Salvage and Reinstall L-861T LED Taxiway Edge Light with New Isolation Transformer on New Base	15	EA
53	L-867/868-6.1	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in New Asphalt Shoulder	13	EA
54	L-867/868-6.2	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in Non-Paved Shoulder	4	EA
55	L-867/868-6.3	Size "B" L-868 Base Can - "Standard Installation (New PCCP)"	17	EA
56	L-867/868-6.4	Size "B" L-868 Base Can - "Core Drill New PCCP" Installation at Joint or Sawcut	2	EA
57	L-867/868-6.5	New Size "B" L-867 Blank Base Can Cover	2	EA
58	L-867/868-6.6	New Size "B" L-868 Blank Base Can Cover	6	EA
59	L-867/868-6.12	Concrete Foundation for 3-Module Sign	1	EA
60	L-867/868-6.13	Concrete Foundation for 4-Module Sign	1	EA
61	L-867/868-6.14	Concrete Foundation for 2+4-Module Sign	1	EA

CITY OF  
SAN ANTONIO  
AVIATION  
DEPARTMENT



**Kimley-Horn**

KIMLEY-HORN AND ASSOCIATES, INC.  
601 NW LOOP 410, SUITE 350  
SAN ANTONIO, TEXAS 78216  
PHONE: (210) 541-9166  
TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



Δ	5/31/16	ADDENDUM 1
		RE-ISSUED SHEET
MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	33-0019X	
FILE NAME:	_33-00193-R1GN003-D00	
DRAWN BY:	CAD	
CHECKED BY:	MAN	
COPYRIGHT:	2016	
SHEET TITLE:		

SUMMARY OF  
QUANTITIES

**SUMMARY OF QUANTITIES**

CITY OF  
SAN ANTONIO  
AVIATION  
DEPARTMENT



**Kimley-Horn**  
KIMLEY-HORN AND ASSOCIATES, INC.  
601 NW LOOP 410, SUITE 350  
SAN ANTONIO, TEXAS 78216  
PHONE: (210) 541-9166  
TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



**BASE BID (ELECTRICAL IMPROVEMENTS)**

Item Number	Specification Number	Bid Item Description	Quantity	Unit
<b>BASE BID</b>				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Contractor Staging Area	1	Allow
3	100.3	Insurance and Bonds	1	LS
4	100.4	Airside Safety and Security / Traffic Control	1	LS
5	101.1	Preparing Right-of-Way	1	LS
6	540.1	Storm Water Pollution Prevention Plan	1	LS
7	GP 60-05	Field Office and Curing Facilities	1	LS
8	P-100-2.1	Contractor Quality Control	1	LS
9	L-100-5.1	ALCMS Modifications (Manufacturer Allowance)	1.00	LS
10	L-100-5.2	ALCMS Modifications Contractor Effort	1.00	LS
11	L-100-5.13	Electrical Demolition	0.40	LS
12	L-100a-3.1	Photometric Testing	1.00	LS
13	L-105-6.1	Base Bid Rwy 13R-31L Temporary Jumpers, Lighting and Signage	1	LS
14	L-108-5.1	L-824, Type C, 1/C #8, 5 kV Cable	18,500	LF
15	L-108-5.2	L-824, Type C, 1/C #6, 5 kV Cable	89,400	LF
16	L-108-5.3	Bare, 1/C #6, Counterpoise Wire	3,100	LF
17	L-110-5.1	Single-way 2" Conduit, Direct Buried	1,140	LF
18	L-110-5.3	Multiple-way (6) 2-inch Conduits, Direct Buried	350	LF
19	L-110-5.4	Multiple-way (8) 2-inch Conduits, Direct Buried	510	LF
20	L-110-5.7	Multiple-way (6) 2-inch HDPE Conduits, Directional Bored	700	LF
21	L-110-5.8	Multiple-way (8) 2-inch HDPE Conduits, Directional Bored	360	LF
22	L-111-5.1	Furnish and Install Packaged 480/277 Volt Engine Generator, Controls and Exhaust System for West ALV	1	LS
23	L-111-5.2	Remove and Dispose of Existing 480V West ALV Engine Generator, Controls, and Exhaust System	1	LS
24	L-111-5.3	Furnish Temporary Engine Generator	2	WK
25	L-115-5.1	New Concrete Handhole, Type I, Furnished & Installed	7	EA
26	L-115-5.3	Two-Can Junction Can Plaza, Furnished & Installed	7	EA
27	L-850-4.1	New In-pavement L-850A Runway Centerline Light with New Isolation Transformers on Existing or Modified Base	168	EA
28	L-850-4.2	Salvage and Reinstall In-pavement L-850B Runway TDZ Light with New Isolation Transformer on Existing Base	180	EA
29	L-850-4.3	Salvage and Reinstall In-pavement L-850C Runway Edge Light with New Isolation Transformer on New or Existing Base	14	EA
30	L-858-5.3	New Size 3, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA
31	L-858-5.4	New Size 3, 4-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	2	EA
32	L-862-4.1	Salvage and Reinstall Elevated L-862 Runway Edge Light with New Isolation Transformer on Existing Base	74	EA
33	L-862-4.2	Salvage and Reinstall Elevated L-862E Runway Threshold/End Light with New Isolation Transformer on Existing Base	16	EA
34	L-867/868-6.2	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in Non-Paved Shoulder	2	EA
35	L-867/868-6.5	New Size "B" L-867 Blank Base Can Cover	4	EA
36	L-867/868-6.7	New Size "B" L-868 Flange Ring and Spacer	168	EA
37	L-867/868-6.8	Core Drill Replace L-868 in (E) PCCP	80	EA
38	L-867/868-6.9	Core Drill L-868 Extension in (E) PCCP	20	EA
39	L-867/868-6.12	Concrete Foundation for 3-Module Sign	1	EA
40	L-867/868-6.13	Concrete Foundation for 4-Module Sign	2	EA

**ALTERNATE 1 (TAXIWAY J)**

Item Number	Specification Number	Bid Item Description	Quantity	Unit
<b>ALTERNATE 1</b>				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Contractor Staging Area	1	Allow
3	100.3	Insurance and Bonds	1	LS
4	100.4	Airside Safety and Security / Traffic Control	1	LS
5	101.1	Preparing Right-of-Way	1	LS
6	540.1	Storm Water Pollution Prevention Plan	1	LS
7	GP 60-05	Field Office and Curing Facilities	1	LS
8	P-100-2.1	Contractor Quality Control	1	LS
9	P-101-5.1	Portland Cement Concrete Pavement Removal, Including Thickened Edge and Reinforcement	1,330	SY
10	P-101-5.2	Bituminous Pavement Removal	170	SY
11	P-101-5.3	Cement-Treated Base Removal	1,490	SY
12	P-101-5.4	Concrete Pavement Saw Cut (Full Depth)	369	LF
13	P-101-5.5	AC Pavement Saw Cut (Full Depth)	60	LF
14	P-151-4.1	Clearing and Grubbing	1.94	AC
15	P-152-4.1	Unclassified Excavation (Estimated)	7,830	CY
16	P-155-8.1	Lime-Treated Subgrade, 6" Depth (P-155)	6,130	SY
17	P-155-8.2	Lime	130	TON
18	P-208-5.1	Aggregate Base Course, 13" Depth (P-208)	1,010	SY
19	P-304-8.1	Cement-Treated Base Course, 8" Depth (P-304)	3,200	SY
20	P-304-8.2	Cement-Treated Base Course, 16" Depth (P-304)	3,200	SY
21	P-403-8.1	HMA Pavement (3" Surface Course)	520	TON
22	P-501-8.1	Portland Cement Concrete Pavement, 16" Depth	2,890	SY
23	P-604-6.1	Preformed Sealer, 1/2-inch Joint	2,780	LF
24	P-604-6.2	Preformed Sealer, 1-inch Joint	530	LF
25	P-604-6.3	Hot Applied Edge Seal	1,020	LF
26	P-620-5.1	Reflective Yellow Taxiway Pavement Markings, Waterborne	2,890	SF
27	P-620-5.3	Non-Reflective Black Pavement Markings, Waterborne	4,080	SF
28	P-620-5.4	Reflective Surface Painted Holding Position Signs, Waterborne	860	SF
29	P-620-5.5	Pavement Marking Obliteration	830	SF
30	T-904-5.1	Sodding, 2" Depth (T-904)	9,390	SY
31	T-905-5.1	Top Soil, 2" Depth (T-905)	520	CY
32	D-705-5.1	Underdrain System	1	LS
33	L-100-5.3	Electrical Demolition	0.20	LS
34	L-105-6.3	Alternate 1 Temporary Jumpers, Lighting and Signage	1	LS
35	L-108-5.1	L-824, Type C, 1/C #8, 5 kV Cable	2,390	LF
36	L-108-5.3	Bare, 1/C #6, Counterpoise Wire	1,400	LF
37	L-110-5.1	Single-way 2" Conduit, Direct Buried	1,210	LF
38	L-110-5.9	System Drain, (1) 2" Conduit, Concrete Encased	180	LF
39	L-858-5.2	New Size 3, 2-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA
40	L-858-5.3	New Size 3, 3-Module Airside LED Guidance Sign, Installed on Any Foundation or Base Assembly	1	EA
41	L-861T-4.1	New L-861T LED Taxiway Edge Light with New Isolation Transformer on New Base	14	EA
42	L-861T-4.3	Salvage and Reinstall L-861T Quartz Taxiway Edge Light with New Isolation Transformer on New Base	8	EA
43	L-867/868-6.1	Size "B" L-867 Base Can for Any New, Reinstalled or Future Fixture in New Asphalt Shoulder	13	EA

**ALTERNATE 2 (TAXIWAY G)**

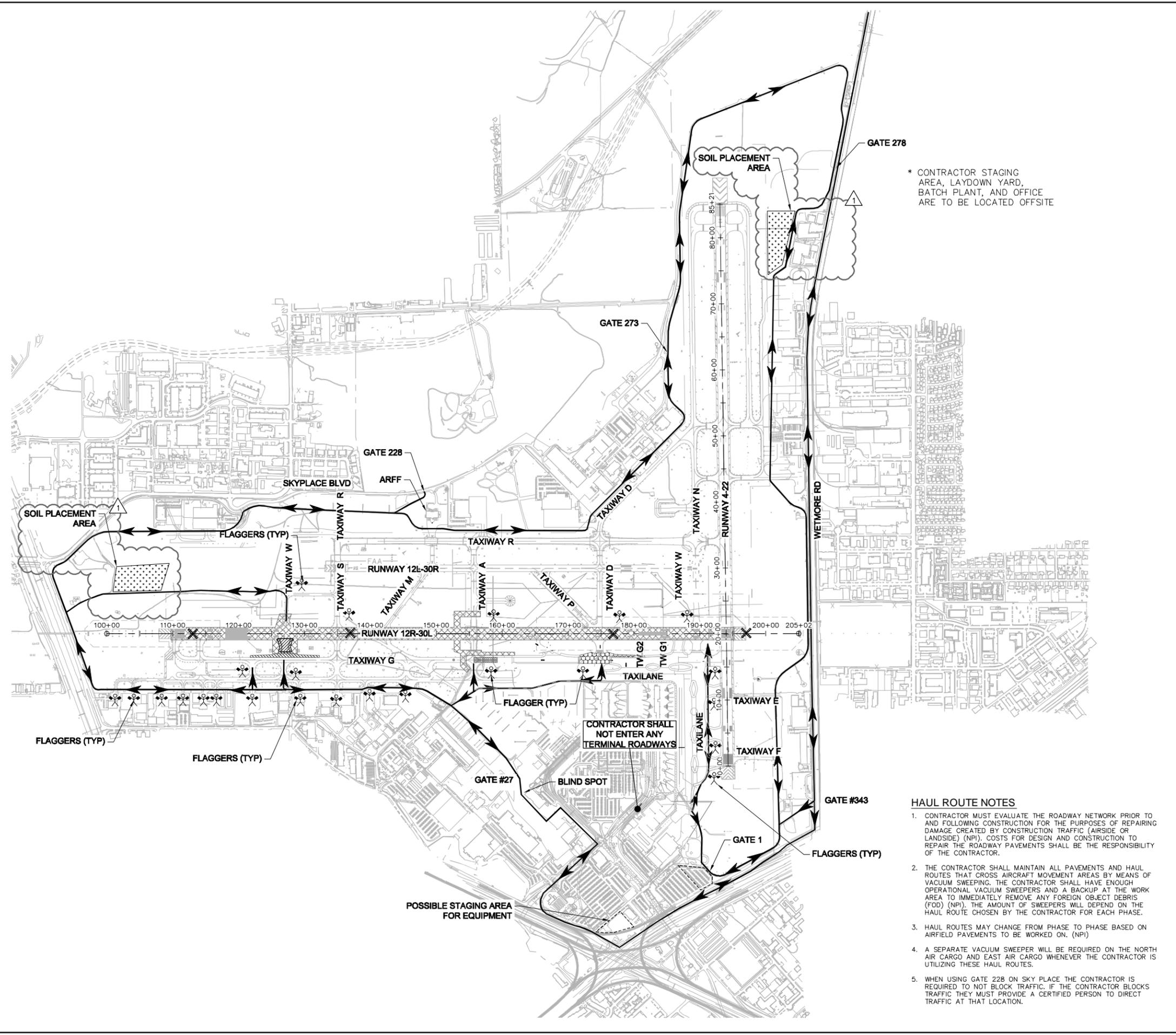
Item Number	Specification Number	Bid Item Description	Quantity	Unit
<b>ALTERNATE 2</b>				
1	100.1	Mobilization/Demobilization	1	LS
2	100.2	Contractor Staging Area	1	Allow
3	100.3	Insurance and Bonds	1	LS
4	100.4	Airside Safety and Security / Traffic Control	1	LS
5	101.1	Preparing Right-of-Way	1	LS
6	540.1	Storm Water Pollution Prevention Plan	1	LS
7	GP 60-05	Field Office and Curing Facilities	1	LS
8	P-100-2.1	Contractor Quality Control	1	LS
9	P-101-5.1	Portland Cement Concrete Pavement Removal, Including Thickened Edge and Reinforcement	3,070	SY
10	P-101-5.3	Cement-Treated Base Removal	3,070	SY
11	P-101-5.4	Concrete Pavement Saw Cut (Full Depth)	520	LF
12	P-151-4.1	Clearing and Grubbing	0.17	AC
13	P-152-4.1	Unclassified Excavation (Estimated)	165	CY
14	P-155-8.1	Lime-Treated Subgrade, 6" Depth (P-155)	3,230	SY
15	P-155-8.2	Lime	70	TON
16	P-208-5.1	Aggregate Base Course, 13" Depth (P-208)	510	SY
17	P-304-8.2	Cement-Treated Base Course, 16" Depth (P-304)	3,200	SY
18	P-501-8.1	Portland Cement Concrete Pavement, 16" Depth	3,070	SY
19	P-604-6.1	Preformed Sealer, 1/2-inch Joint	2,120	LF
20	P-604-6.2	Preformed Sealer, 1-inch Joint	360	LF
21	P-620-5.1	Reflective Yellow Taxiway Pavement Markings, Waterborne	420	SF
22	P-620-5.3	Non-Reflective Black Pavement Markings, Waterborne	810	SF
23	P-620-5.5	Pavement Marking Obliteration	270	SF
24	T-904-5.1	Sodding, 2" Depth (T-904)	820	SY
25	T-905-5.1	Top Soil, 2" Depth (T-905)	50	CY
26	L-100-5.3	Electrical Demolition	0.10	LS
27	L-105-6.4	Alternate 2 Temporary Jumpers, Lighting and Signage	1	LS
28	L-108-5.1	L-824, Type C, 1/C #8, 5 kV Cable	1,300	LF
29	L-108-5.3	Bare, 1/C #6, Counterpoise Wire	500	LF
30	L-110-5.5	Single-way 2" Conduit, Concrete Encased	380	LF
31	L-110-5.9	System Drain, (1) 2" Conduit, Concrete Encased	120	LF
32	L-852-4.1	Remove and Relocate In-pavement L-852A Taxiway Centerline Light with New Isolation Transformer on New Base	4	EA
33	L-867/868-6.3	Size "B" L-868 Base Can - "Standard Installation (New PCCP)"	6	EA
34	L-867/868-6.4	Size "B" L-868 Base Can - "Core Drill New PCCP" Installation at Joint or Sawcut	2	EA
35	L-867/868-6.6	New Size "B" L-868 Blank Base Can Cover	4	EA

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Δ	5/31/16	ADDENDUM 1
MARK	DATE	DESCRIPTION
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FILE NAME:	_33-00193-R1GN003-D00	
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**SUMMARY OF QUANTITIES**

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\* CONTRACTOR STAGING AREA, LAYDOWN YARD, BATCH PLANT, AND OFFICE ARE TO BE LOCATED OFFSITE

CONTRACTOR SHALL NOT ENTER ANY TERMINAL ROADWAYS

**HAUL ROUTE NOTES**

1. CONTRACTOR MUST EVALUATE THE ROADWAY NETWORK PRIOR TO AND FOLLOWING CONSTRUCTION FOR THE PURPOSES OF REPAIRING DAMAGE CREATED BY CONSTRUCTION TRAFFIC (AIRSIDE OR LANDSIDE) (NPI). COSTS FOR DESIGN AND CONSTRUCTION TO REPAIR THE ROADWAY PAVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE CONTRACTOR SHALL MAINTAIN ALL PAVEMENTS AND HAUL ROUTES THAT CROSS AIRCRAFT MOVEMENT AREAS BY MEANS OF VACUUM SWEEPING. THE CONTRACTOR SHALL HAVE ENOUGH OPERATIONAL VACUUM SWEEPERS AND A BACKUP AT THE WORK AREA TO IMMEDIATELY REMOVE ANY FOREIGN OBJECT DEBRIS (FOD) (NPI). THE AMOUNT OF SWEEPERS WILL DEPEND ON THE HAUL ROUTE CHOSEN BY THE CONTRACTOR FOR EACH PHASE.
3. HAUL ROUTES MAY CHANGE FROM PHASE TO PHASE BASED ON AIRFIELD PAVEMENTS TO BE WORKED ON. (NPI)
4. A SEPARATE VACUUM SWEEPER WILL BE REQUIRED ON THE NORTH AIR CARGO AND EAST AIR CARGO WHENEVER THE CONTRACTOR IS UTILIZING THESE HAUL ROUTES.
5. WHEN USING GATE 228 ON SKY PLACE THE CONTRACTOR IS REQUIRED TO NOT BLOCK TRAFFIC. IF THE CONTRACTOR BLOCKS TRAFFIC THEY MUST PROVIDE A CERTIFIED PERSON TO DIRECT TRAFFIC AT THAT LOCATION.

**LEGEND**

- BASE BID ELECTRICAL/CIVIL (90 DAYS)
- ALTERNATE 1 BID (80 DAYS)
- ALTERNATE 2 BID (45 DAYS)
- ALTERNATE 3 BID (60 DAYS)
- CONTRACTOR FIELD OFFICE, STAGING AND STORAGE AREA
- SOIL PLACEMENT AREA
- HAUL ROUTE
- PORTABLE LIGHTED RUNWAY CLOSURE MARKER (PROVIDED BY THE CONTRACTOR)
- FLAGGER (TO BE SUPPLIED BY CONTRACTOR)
- WING WALKER (TO BE SUPPLIED BY AIRLINES)

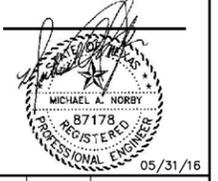
**GENERAL NOTES**

1. RUNWAY 4-22 AND 12R-30L WILL NOT BE CLOSED AT THE SAME TIME.
2. BECAUSE THE BATCH PLANT IS LOCATED OFFSITE, IT IS THE INTENT TO PROVIDE ENOUGH ENTRANCES AND OPTIONS FOR THE CONTRACTOR TO CHOOSE THEIR DESIRED HAUL ROUTE FOR ENTERING THE PROJECT LOCATION. THE CONTRACTOR WILL HAVE TO PROVIDE NECESSARY FLAGGERS (NPI) AND SWEEPERS (NPI) NECESSARY FOR EACH PHASE. ANY CHANGES TO THE HAUL ROUTES WILL NEED TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE AIRPORT IMMEDIATELY. THE AIRPORT ALSO RESERVES THE RIGHT TO CHANGE/ALTER THE ROUTE DUE TO UNKNOWN CIRCUMSTANCES. NO ADDITIONAL PAYMENT WILL BE MADE FOR ALTERING THE ROUTE.
3. THE CONTRACTOR SHALL BE AWARE THAT CONSTRUCTION WILL BE ADJACENT TO ACTIVE AIRCRAFT OPERATIONS. CONSTRUCTION TRAFFIC SHALL YIELD TO AIRCRAFT AT ALL TIMES. THE CONTRACTOR SHALL NOT MOVE ANY EQUIPMENT ON ANY ACTIVE AIRPORT OPERATIONS AREA WITHOUT AN OPERATIONS OR MAINTENANCE STAFF ESCORT. DELAYS AND PRECAUTIONS RESULTING FROM AIRCRAFT MOVEMENTS SHOULD BE EXPECTED. EXPENSES ASSOCIATED WITH ANY DELAYS ARE INCIDENTAL TO THE PROJECT (NPI).
4. PORTABLE LIGHTED RUNWAY CLOSURE MARKERS (LIGHTED "X") WILL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT, REFER TO DETAIL 1, SHEET C2.3.
5. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN LOW PROFILE BARRICADES, LIGHTS AND FLAGS FOR RUNWAY/TAXIWAY CLOSURES AS INDICATED ON THE CONSTRUCTION PHASING PLANS, REFER TO DETAIL SHEET C2.3. THE CONTRACTOR SHALL PLACE THE LOW PROFILE BARRICADES AS SHOWN ON EACH PHASING PLAN OR AS DIRECTED BY THE SAT OPERATIONS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING PROPER POSITIONING OF LOW PROFILE BARRICADES THROUGHOUT THE DURATION OF THE PROJECT (NPI).
6. THE CONTRACTOR SHALL COORDINATE WITH OPERATIONS AND MAINTENANCE STAFF TO COVER AND PROTECT ANY EXISTING GUIDANCE SIGNS AND EDGE LIGHTS ASSOCIATED WITH CLOSED RUNWAYS AND TAXIWAYS. DAMAGE TO SIGNS AND EDGE LIGHTS SHALL BE REPLACED AT THE CONTRACTOR EXPENSE (NPI).
7. THE CONTRACTOR SHALL REMOVE THE LOW PROFILE BARRICADES AND UNCOVER THE GUIDANCE SIGNS AND EDGE LIGHTS UPON COMPLETION OF THE PROJECT. DAMAGE TO SIGNS AND EDGE LIGHTS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE (NPI).
8. CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE OFFSITE BATCH PLANT LOCATION. ALL MEASURES TO SECURE THE BATCH PLANT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF ANY OF THE TEMPORARY STAGING AREAS ASSOCIATED WITH THE PROJECT (NPI). FENCING WILL NOT BE ALLOWED TO BE ANCHORED INTO EXISTING PAVEMENT.
10. THE CONTRACTOR SHALL PROVIDE LICENSED GATE GUARDS IN ACCORDANCE WITH THE AIRPORTS STANDARDS AND REQUIREMENTS. COST FOR PROVIDING GATE GUARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS GUARD WILL NOT HAVE AUTHORITY OVER AIRPORT SECURITY WHILE ON DUTY. (NPI)
11. ALL VEHICLES WILL BE SUBJECT TO SEARCH BEFORE ENTERING THE SECURED AREA.
12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE CONTRACTOR SHALL PROVIDE APPROPRIATE TXDOT WARNING SIGNS PRIOR TO THE PROJECT ENTRANCE NOTIFYING THE TRAVELING PUBLIC. THESE SIGNS WILL BE REVIEWED AND APPROVED BY THE ENGINEER/AIRPORT AND BE PROVIDED FOR THE DURATION OF THE PROJECT. THESE SIGNS ARE CONSIDERED INCIDENTAL TO THE PROJECT. (NPI)
13. ALL MATERIAL REMOVED FROM THE PROJECT SHALL REMAIN ON AIRPORT PROPERTY AT A DESIGNATION TO BE DETERMINED BY THE AIRPORT, ENVIRONMENTAL, AND THE ENGINEER. THIS MATERIAL SHALL BE SPREAD, COMPACTED AND SEEDED TO THE SATISFACTION OF THE ENGINEER. (NPI)
14. RUNWAY 12R-30L WILL BE RENUMBERED TO RUNWAY 13R-31L DURING THIS SAME RUNWAY CLOSURE. AIRPORT FORCES WILL RENUMBER THE RUNWAY, CHANGE SIGNING NOT ASSOCIATED WITH THIS PROJECT, AND PAINT NEW HOLD POSITION MARKINGS AT ALL INTERSECTIONS. CONTRACTOR MUST PROVIDE ACCESS TO AIRPORT MAINTENANCE PERSONNEL TO ACCOMPLISH THIS WORK.



**Kimley-Horn**  
 KIMLEY-HORN AND ASSOCIATES, INC.  
 601 NW LOOP 410, SUITE 350  
 SAN ANTONIO, TEXAS 78216  
 PHONE: (210) 541-9166  
 TEXAS REGISTERED FIRM,  
 NO. 928

**RUNWAY 12R-30L  
 ELECTRICAL IMPROVEMENTS  
 AND TERMINAL AREA  
 TAXIWAY IMPROVEMENTS  
 (PACKAGE 4)**



MARK	DATE	DESCRIPTION
Δ	5/31/16	ADDENDUM 1
		RE-ISSUED SHEET

ISSUE:

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**OVERALL PHASING PLAN**





**Kimley-Horn**

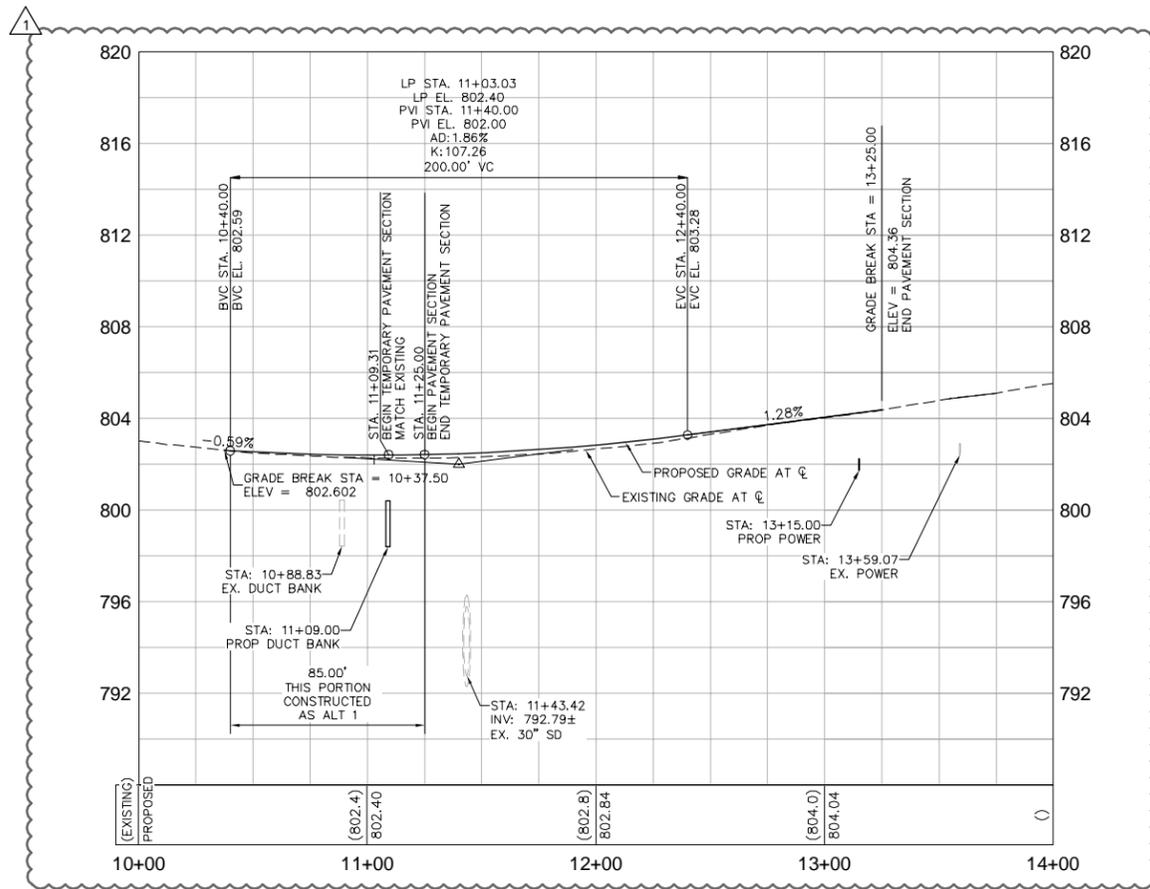
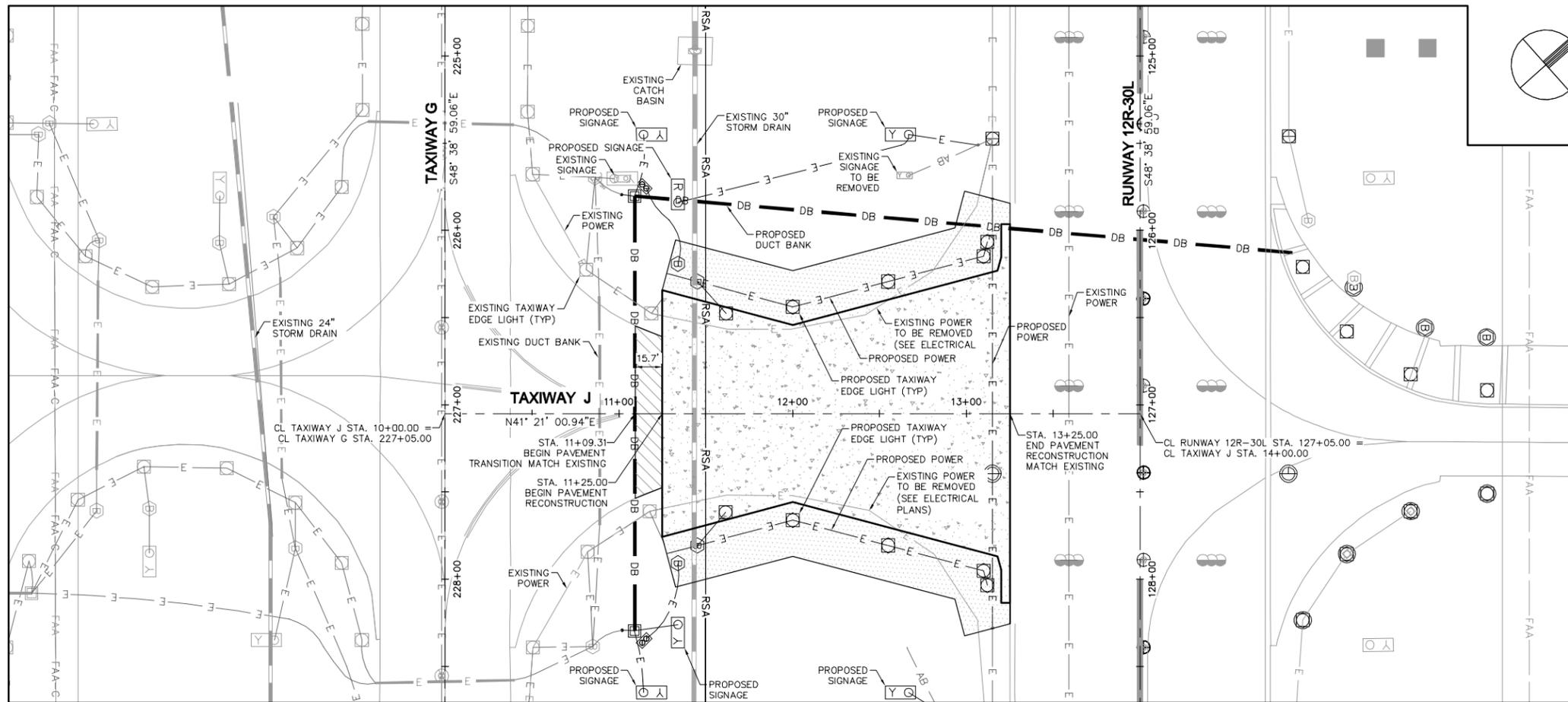
KIMLEY-HORN AND ASSOCIATES, INC.  
601 NW LOOP 410, SUITE 350  
SAN ANTONIO, TEXAS 78216  
PHONE: (210) 541-9166  
TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**

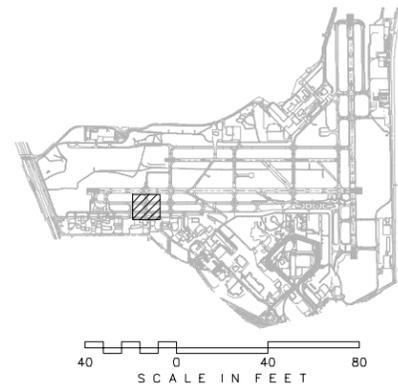


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**PLAN AND PROFILE -  
TAXIWAY J -  
BASE BID**



SCALE  
IN FEET  
(VERTICAL)





**Kimley-Horn**

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NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



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**JOINT LAYOUT  
PLAN -  
TAXIWAY J -  
BASE BID**

**LEGEND**

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION

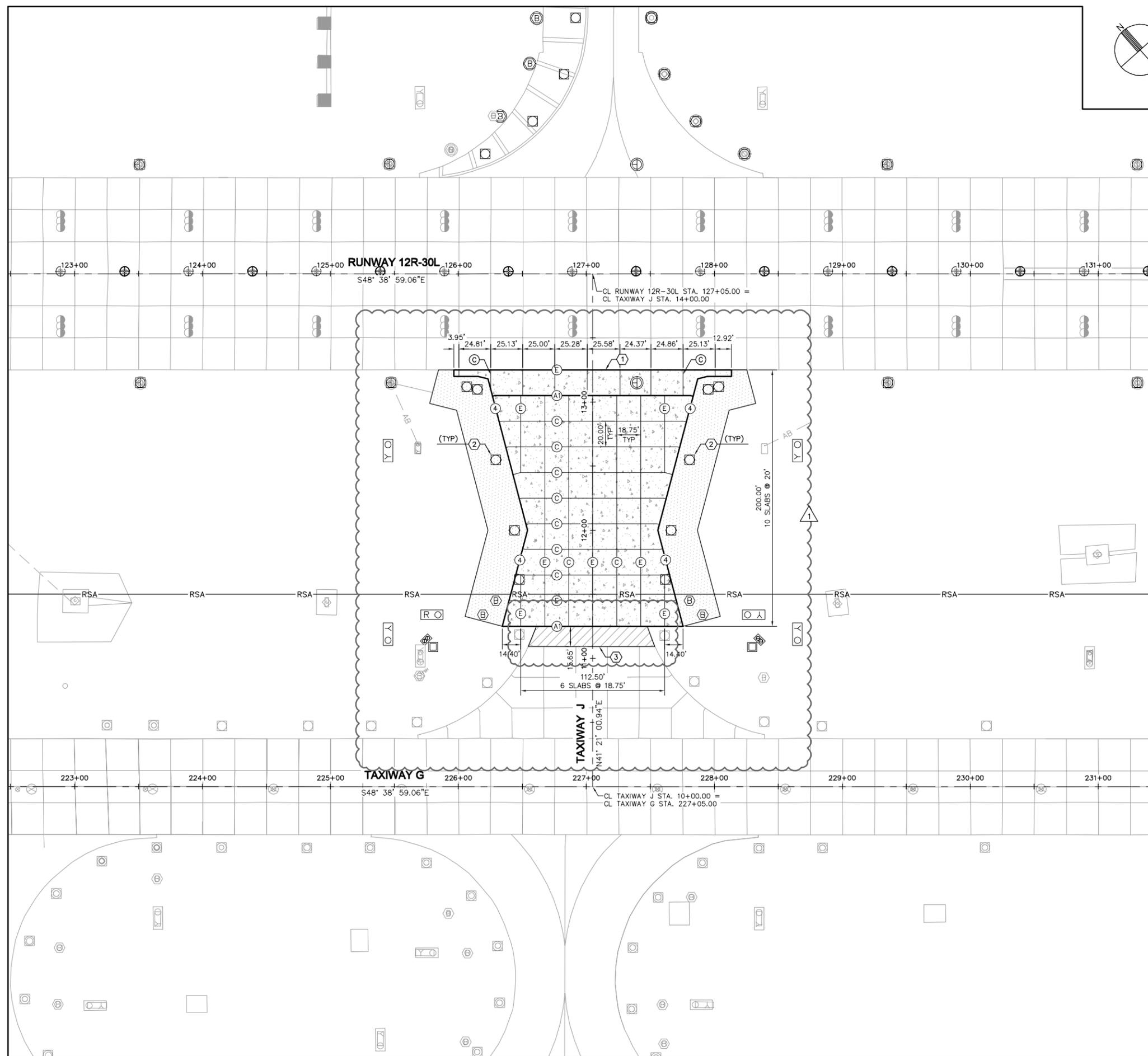
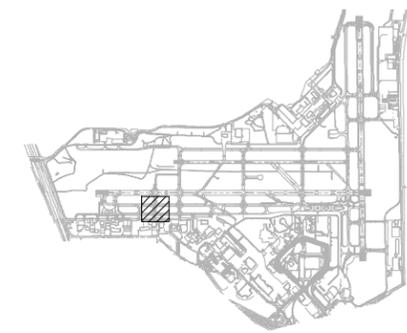
- (A) JOINT TYPE A, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (A1) JOINT TYPE A1, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (C) JOINT TYPE C, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (E) JOINT TYPE E, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (4) EDGE SEAL TYPE 4, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS

**GENERAL NOTES**

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. TYPE C AND TYPE E JOINTS MAY BE INTERCHANGED WITH APPROVAL FROM THE ENGINEER.
3. PORTLAND CEMENT CONCRETE PAVEMENT (P-501) JOINTS SHALL NOT VARY MORE THAN 1/2-INCH FROM THEIR DESIGNATED HORIZONTAL POSITION AND SHALL BE TRUE TO LINE WITH NOT MORE THAN 1/4-INCH VARIATION IN 10-FEET. ANY JOINT(S) THAT ARE NOT PARALLEL OR PERPENDICULAR, OTHER THAN IRREGULAR SLABS, SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE AIRPORT.
4. ALL SAWCUT DEBRIS FROM THE WIDENING OF THE JOINTS SHALL BE REMOVED FROM THE CONCRETE SURFACE IMMEDIATELY AFTER SAWCUTTING BY VACUUMING THE SLURRY.
5. DOWEL BARS SHALL NOT VARY IN ALIGNMENT BY MORE THAN TWO-PERCENT (2%) OR 0.40" IN EACH PLANE. MISALIGNED DOWEL BARS BY MORE THAN THE SPECIFIED TOLERANCE SHALL REQUIRE THE PCOP TO BE REMOVED ON EACH SIDE OF THE DOWEL BARS AT NO ADDITIONAL COST TO THE AIRPORT.
6. CONTRACTOR TO COORDINATE WITH THE ENGINEER FOR JOINTING AROUND ELEC./COMM. MANHOLES THAT ARE TO REMAIN IN PLACE.
7. ALL PCOP PANELS ARE REINFORCED PER DETAIL 6, SHEET C7.2

**CONSTRUCTION NOTES**

- ① SAWCUT AND MATCH EXISTING JOINT SPACING AND ELEVATION
- ② REFER TO ELECTRICAL PLANS (SERIES E)
- ③ SAWCUT AND MATCH EXISTING ELEVATION





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**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



**LEGEND**

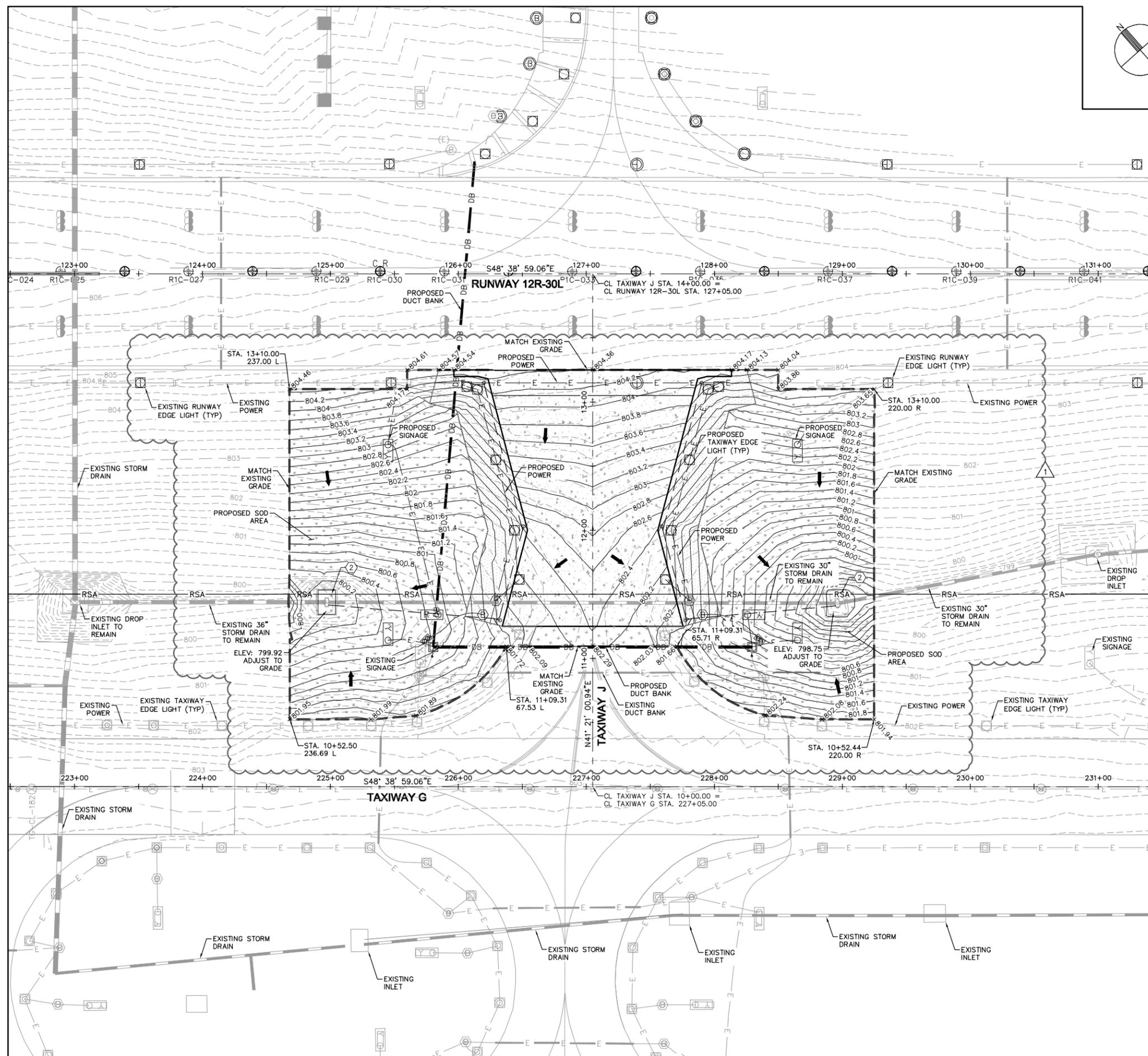
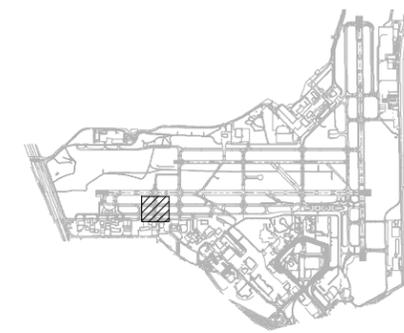
- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- PROPOSED SOD AREA
- PROPOSED SIGN
- DIRECTION OF FLOW
- 780 EXISTING CONTOUR
- 780 PROPOSED CONTOUR
- GRADING LIMITS
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- EXISTING INLET
- PROPOSED UNDERDRAIN CLEANOUT
- PROPOSED UNDERDRAIN
- PROPOSED STORM DRAIN PIPE
- EXISTING STORM DRAIN PIPE

**GENERAL NOTES**

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.
5. EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK IN ANY AREA.
6. ALL STATIONS AND OFFSETS REFER TO THE APPROPRIATE RUNWAY OR TAXIWAY STATIONING.
7. DESIGN CONTOURS REPRESENT FINISHED GRADE (PAVEMENT AND GRADING). CONTOURS AND PERCENT OF SLOPE ARE APPROXIMATE AND ARE SHOWN AS SUPPLEMENTAL INFORMATION ONLY.

**CONSTRUCTION NOTES**

- ① INSTALL SINGLE CATCH BASIN, SEE SHEET C9.2 FOR DETAILS
- ② ADJUST TO GRADE, SEE SHEET C9.3 FOR DETAILS



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MARK	DATE	DESCRIPTION
Δ	5/31/16	ADDENDUM 1 RE-ISSUED SHEET
ISSUE:		
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FILE NAME:	33-00193-R1CG-101-D00	
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**GRADING AND  
DRAINAGE PLAN -  
TAXIWAY J -  
BASE BID**



**Kimley-Horn**

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601 NW LOOP 410, SUITE 350  
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PHONE: (210) 541-9166  
TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



5/31/16	ADDENDUM 1	
	RE-ISSUED SHEET	
MARK	DATE	DESCRIPTION
ISSUE:		
PROJECT NO:	33-0019X	
FILE NAME:	33-00193-R1CM-101-D00	
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PAVEMENT  
MARKING PLAN -  
TAXIWAY J -  
BASE BID

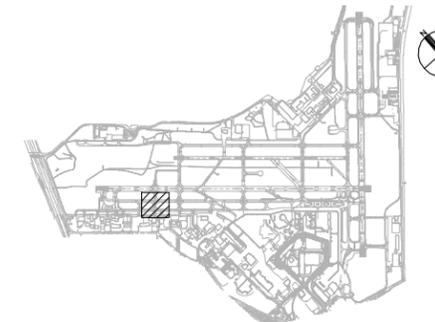
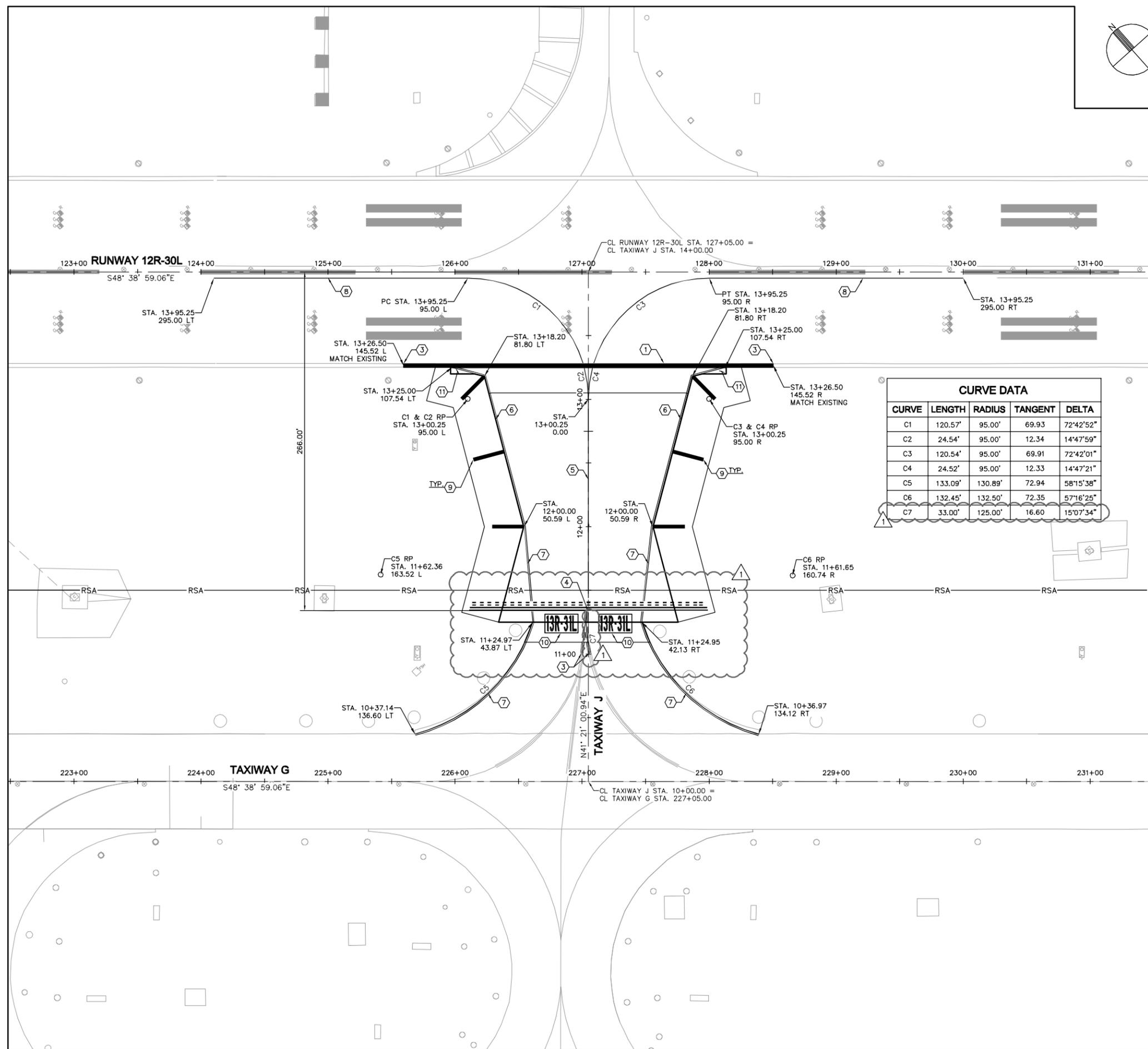
**GENERAL NOTES**

- PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340-1. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
- THE CONTRACTOR SHALL REMOVE CURING MATERIALS FROM THE PCC PRIOR TO THE APPLICATION OF MARKINGS.
- CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
- PROVIDE DOUBLE APPLICATION OF ALL NEW PAVEMENT MARKINGS (2 COATS INCLUDED IN PER S.F. PRICE)
- ALL PERMANENT MARKINGS, LOCATED ON PCC, SHALL HAVE A SIX-INCH (6") WIDE BLACK BORDER. (NO DIRECT PAY)
- EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL MARKINGS THAT WILL BE RE-STRIPED ON THIS PROJECT, HOWEVER ADDITIONAL MARKINGS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER.
- SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEEPED BEFORE APPLYING NEW MARKINGS.
- ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
- REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.

**CONSTRUCTION NOTES**

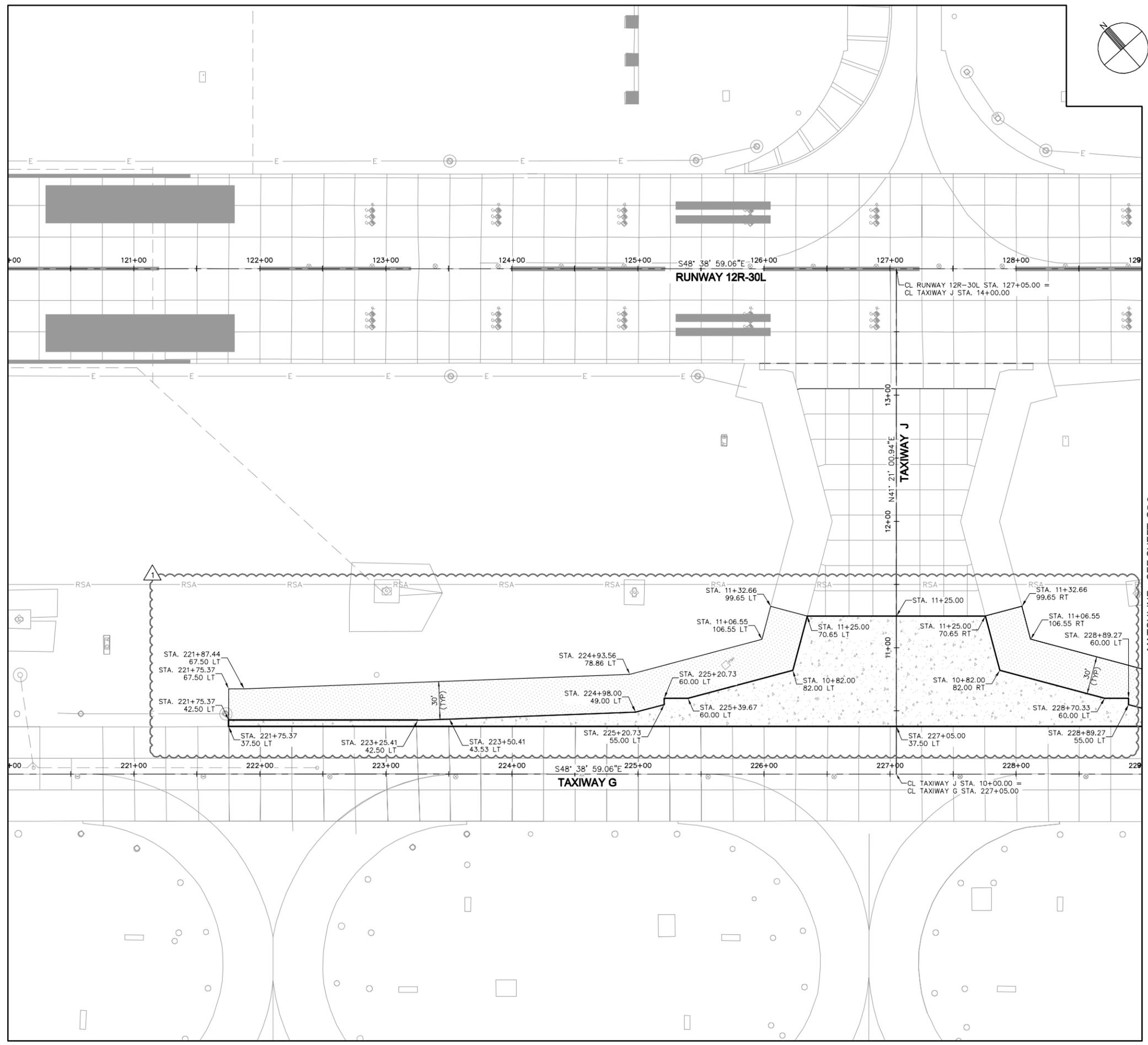
- APPLY THIRTY-SIX INCH (36") WIDE SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
- APPLY SOLID YELLOW CLOSED TAXIWAY PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
- MATCH EXISTING MARKING
- APPLY ENHANCED RUNWAY HOLDING POSITION PAVEMENT MARKING PER DETAIL 4, SHEET C11.2
- APPLY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
- APPLY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
- APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
- REFER TO DETAIL 5, SHEET C11.2 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
- APPLY THIRTY-SIX INCH (36") WIDE SOLID YELLOW TAXIWAY SHOULDER PAVEMENT MARKING PER DETAIL 1, SHEET C11.3
- APPLY SURFACE PAINTED HOLD POSITION SIGN PER DETAIL 2, SHEET C11.3
- APPLY BLACK PAINT TO PCC PAVEMENT THAT LIES OUTSIDE OF TAXIWAY EDGE MARKINGS (NPI)

CURVE DATA				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C1	120.57'	95.00'	69.93	72°42'52"
C2	24.54'	95.00'	12.34	14°47'59"
C3	120.54'	95.00'	69.91	72°42'01"
C4	24.52'	95.00'	12.33	14°47'21"
C5	133.09'	130.89'	72.94	58°15'38"
C6	132.45'	132.50'	72.35	57°16'25"
C7	33.00'	125.00'	16.60	15°07'34"



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MATCHLINE - SEE SHEET C5.3

**LEGEND**

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION

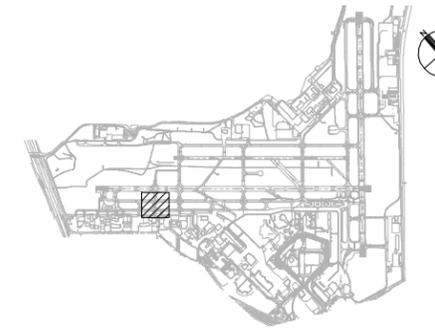
**GENERAL NOTES**

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.
3. REFER TO SHEETS C4.1 - C4.5 FOR TYPICAL SECTIONS.



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TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



MARK	DATE	DESCRIPTION
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**GEOMETRIC  
LAYOUT PLAN -  
TAXIWAY J -  
ALTERNATE 1**





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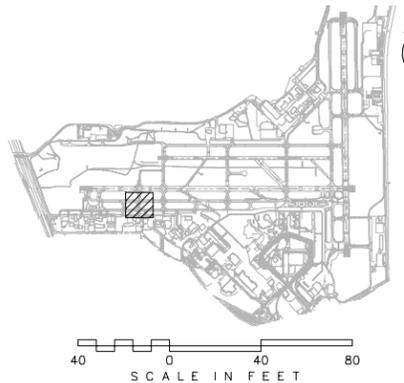
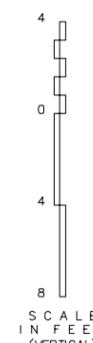
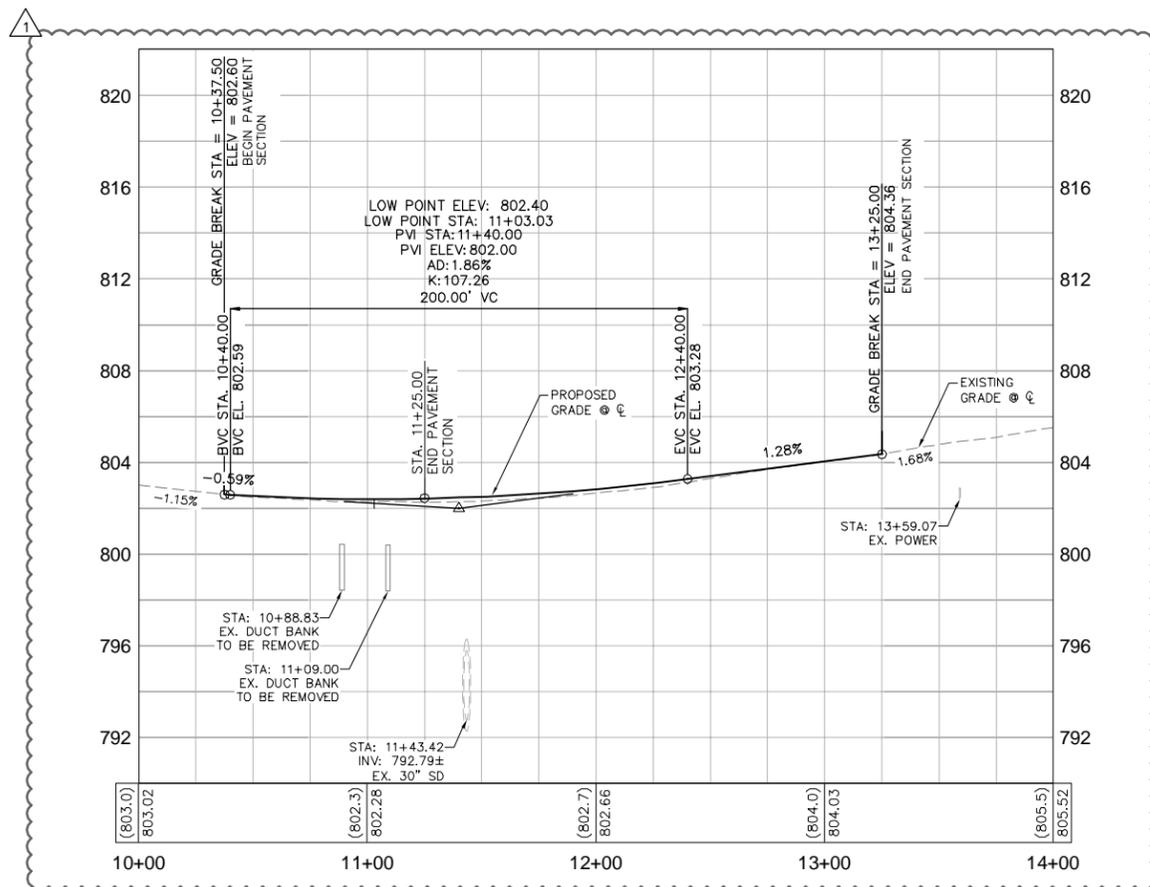
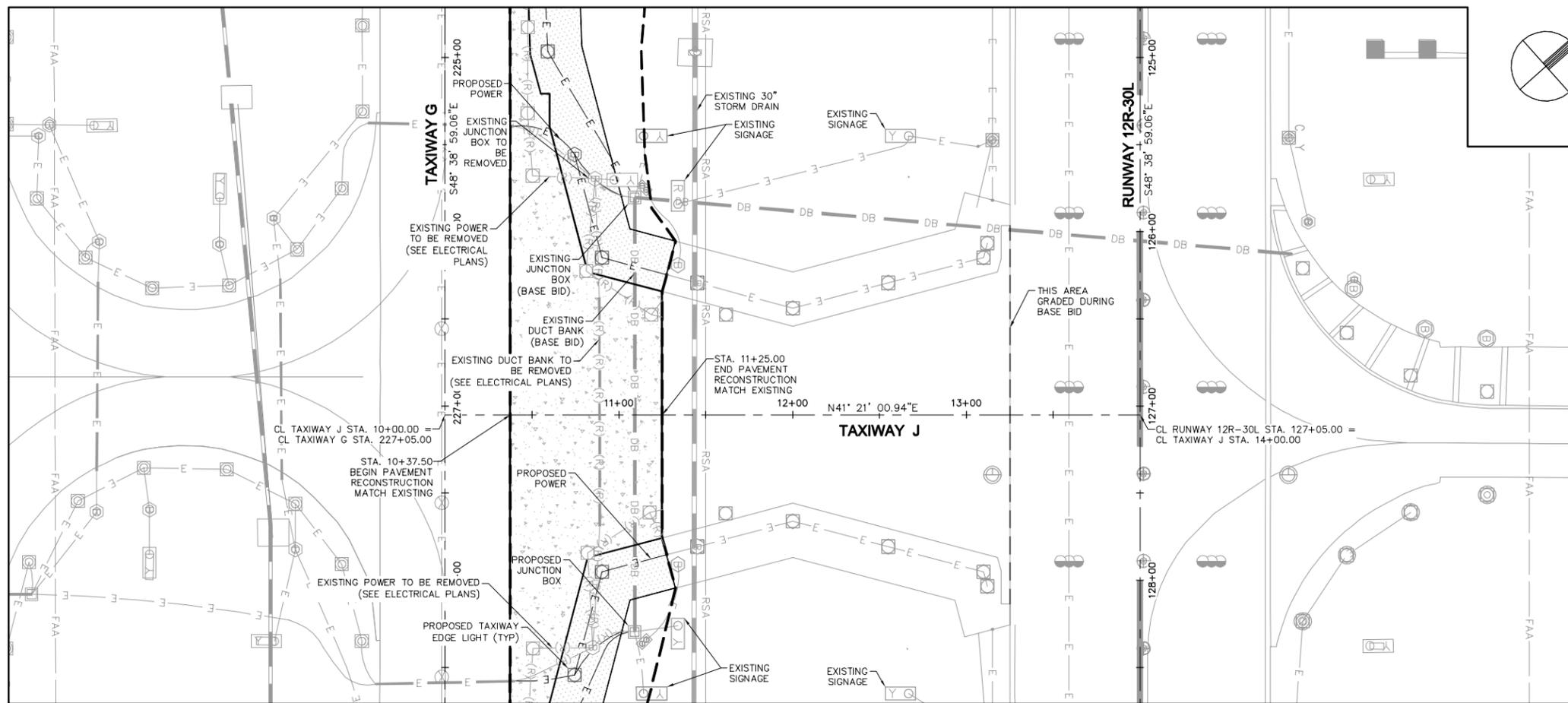
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RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)



MARK	DATE	DESCRIPTION
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PLAN AND  
PROFILE -  
TAXIWAY J -  
ALTERNATE 1



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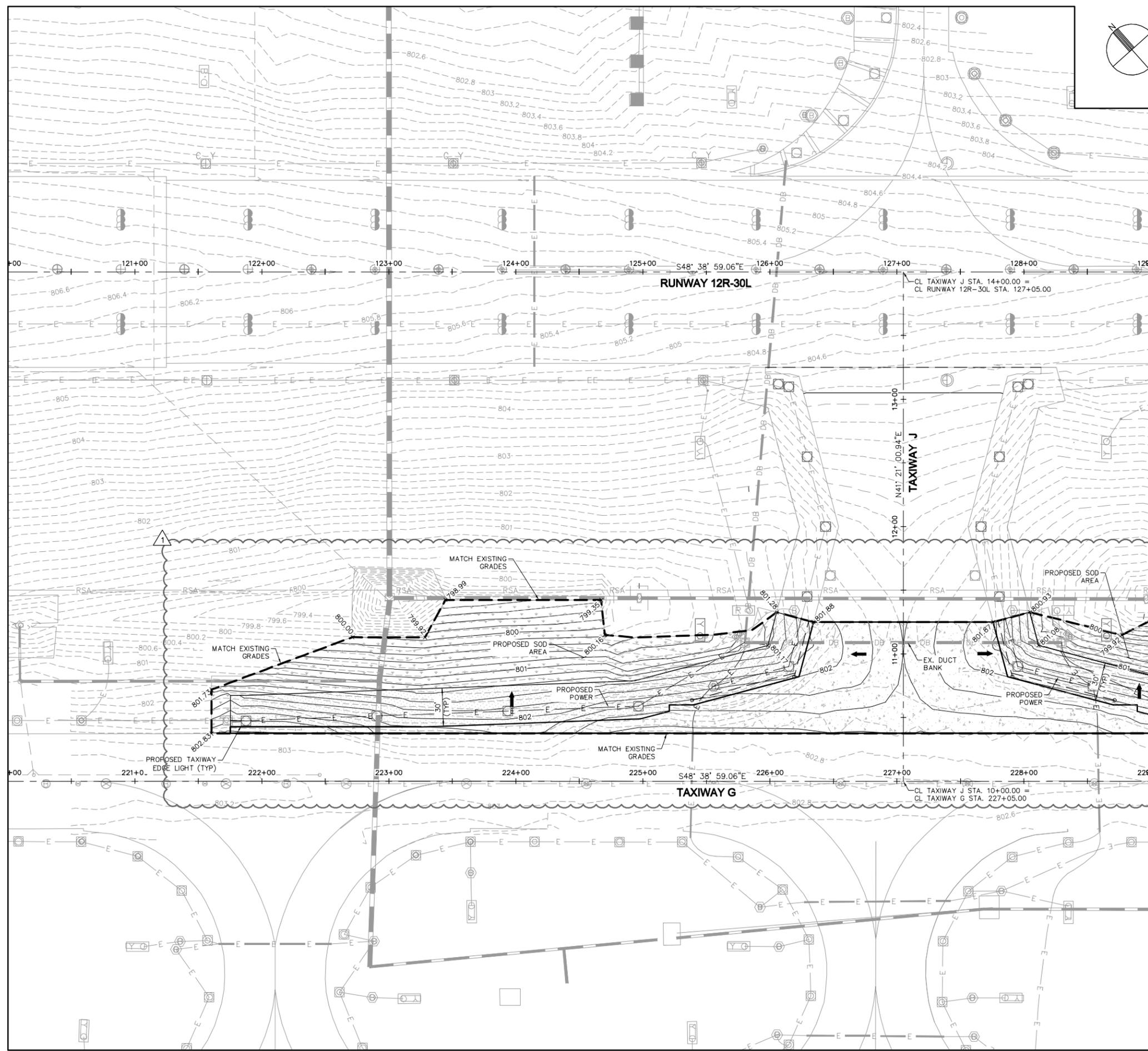
**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



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**GRADING AND  
DRAINAGE PLAN -  
TAXIWAY J -  
ALTERNATE 1**

C9.4  
SHEET NO. 100 OF 195



**LEGEND**

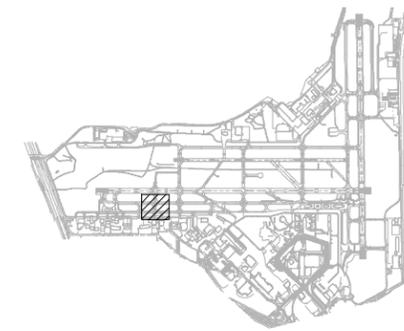
- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- PROPOSED SOD AREA
- PROPOSED SIGN
- DIRECTION OF FLOW
- 780 EXISTING CONTOUR
- 780 PROPOSED CONTOUR
- GRADING LIMITS
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- EXISTING INLET
- PROPOSED UNDERDRAIN CLEANOUT
- PROPOSED UNDERDRAIN
- PROPOSED STORM DRAIN PIPE
- EXISTING STORM DRAIN PIPE

**GENERAL NOTES**

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
3. CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.
5. EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCING WORK IN ANY AREA.
6. ALL STATIONS AND OFFSETS REFER TO THE APPROPRIATE RUNWAY OR TAXIWAY STATIONING.
7. DESIGN CONTOURS REPRESENT FINISHED GRADE (PAVEMENT AND GRADING). CONTOURS AND PERCENT OF SLOPE ARE APPROXIMATE AND ARE SHOWN AS SUPPLEMENTAL INFORMATION ONLY.

**CONSTRUCTION NOTES**

- ① INSTALL SINGLE CATCH BASIN, SEE SHEET C9.2 FOR DETAILS
- ② ADJUST TO GRADE, SEE SHEET C9.3 FOR DETAILS







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NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**

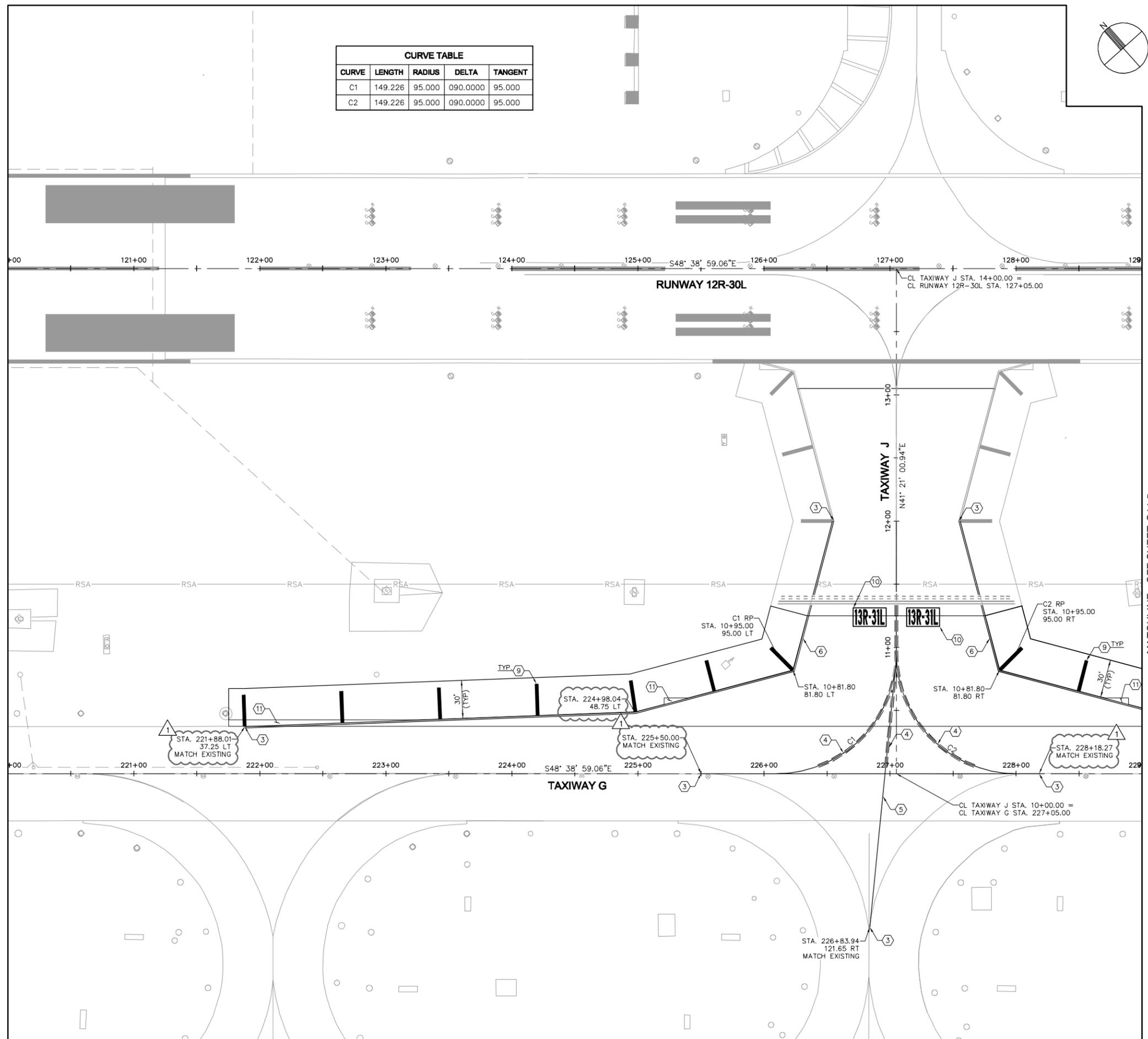
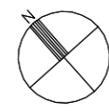


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**PAVEMENT  
MARKING PLAN -  
TAXIWAY J -  
ALTERNATE 1**

C11.4  
SHEET NO. 103 OF 195

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C1	149.226	95.000	090.0000	95.000
C2	149.226	95.000	090.0000	95.000



MATCHLINE - SEE SHEET C11.5

**LEGEND**

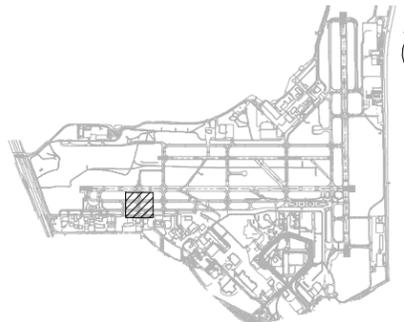
- ⊕ RUNWAY CENTERLINE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- ⊖ RUNWAY EDGE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- RUNWAY TOUCHDOWN ZONE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- ⊕ TAXIWAY CENTERLINE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS
- ⊖ TAXIWAY EDGE LIGHT, REFER TO ELECTRICAL PLANS (SERIES E) FOR DETAILS

**GENERAL NOTES**

1. PAVEMENT MARKING DETAILS SHALL CONFORM TO THE LATEST EDITION OF THE FEDERAL AVIATION ADMINISTRATION'S ADVISORY CIRCULAR AC-150/5340-1. IF A CONFLICT OCCURS BETWEEN THESE PLANS AND THE ADVISORY CIRCULAR, THE ADVISORY CIRCULAR SHALL TAKE PRECEDENCE.
2. THE CONTRACTOR SHALL REMOVE CURING MATERIALS FROM THE PCC PRIOR TO THE APPLICATION OF MARKINGS.
3. CONTRACTOR TO SURVEY EXISTING PAVEMENT MARKINGS SHOWN OUTSIDE OF PAVING LIMITS AND TO REINSTALL AT THOSE LOCATIONS UNLESS SPECIFIED OTHERWISE.
4. PROVIDE DOUBLE APPLICATION OF ALL NEW PAVEMENT MARKINGS (2 COATS INCLUDED IN PER S.F. PRICE)
5. ALL PERMANENT MARKINGS, LOCATED ON PCC, SHALL HAVE A SIX-INCH (6") WIDE BLACK BORDER. (NO DIRECT PAY)
6. EVERY EFFORT HAS BEEN MADE TO ACCURATELY DEPICT ALL MARKINGS THAT WILL BE RE-STRIPED ON THIS PROJECT, HOWEVER ADDITIONAL MARKINGS MAY BE REQUIRED AT THE DIRECTION OF THE ENGINEER.
7. SURFACES THAT ARE OBSTRUCTED DUE TO DEBRIS OR FLAKING PAINT SHALL BE THOROUGHLY CLEANED AND SWEEPED BEFORE APPLYING NEW MARKINGS.
8. ENGINEER TO REVIEW AND APPROVE PAVEMENT MARKING LAYOUT BEFORE MARKING IS PERFORMED.
9. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.

**CONSTRUCTION NOTES**

- 1) APPLY THIRTY-SIX INCH (36") WIDE SOLID WHITE RUNWAY EDGE LINE PAVEMENT MARKING PER DETAIL 1, SHEET C11.2
- 2) APPLY SOLID YELLOW CLOSED TAXIWAY PAVEMENT MARKING PER DETAIL 6, SHEET C11.2
- 3) MATCH EXISTING MARKING
- 4) APPLY ENHANCED RUNWAY HOLDING POSITION PAVEMENT MARKING PER DETAIL 4, SHEET C11.2
- 5) APPLY SIX INCH (6") WIDE SOLID YELLOW TAXIWAY CENTERLINE PAVEMENT MARKING PER DETAIL 2, SHEET C11.2
- 6) APPLY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
- 7) APPLY TEMPORARY DOUBLE SIX INCH (6") WIDE SOLID YELLOW TAXIWAY EDGE PAVEMENT MARKING PER DETAIL 3, C11.2
- 8) REFER TO DETAIL 5, SHEET C11.2 FOR RUNWAY/TAXIWAY INTERSECTION INFORMATION
- 9) APPLY THIRTY-SIX INCH (36") WIDE SOLID YELLOW TAXIWAY SHOULDER PAVEMENT MARKING PER DETAIL 1, SHEET C11.3
- 10) APPLY SURFACE PAINTED HOLD POSITION SIGN PER DETAIL 2, SHEET C11.3
- 11) APPLY BLACK PAINT TO PCC PAVEMENT THAT LIES OUTSIDE OF TAXIWAY EDGE MARKINGS (NPI)

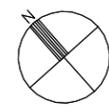
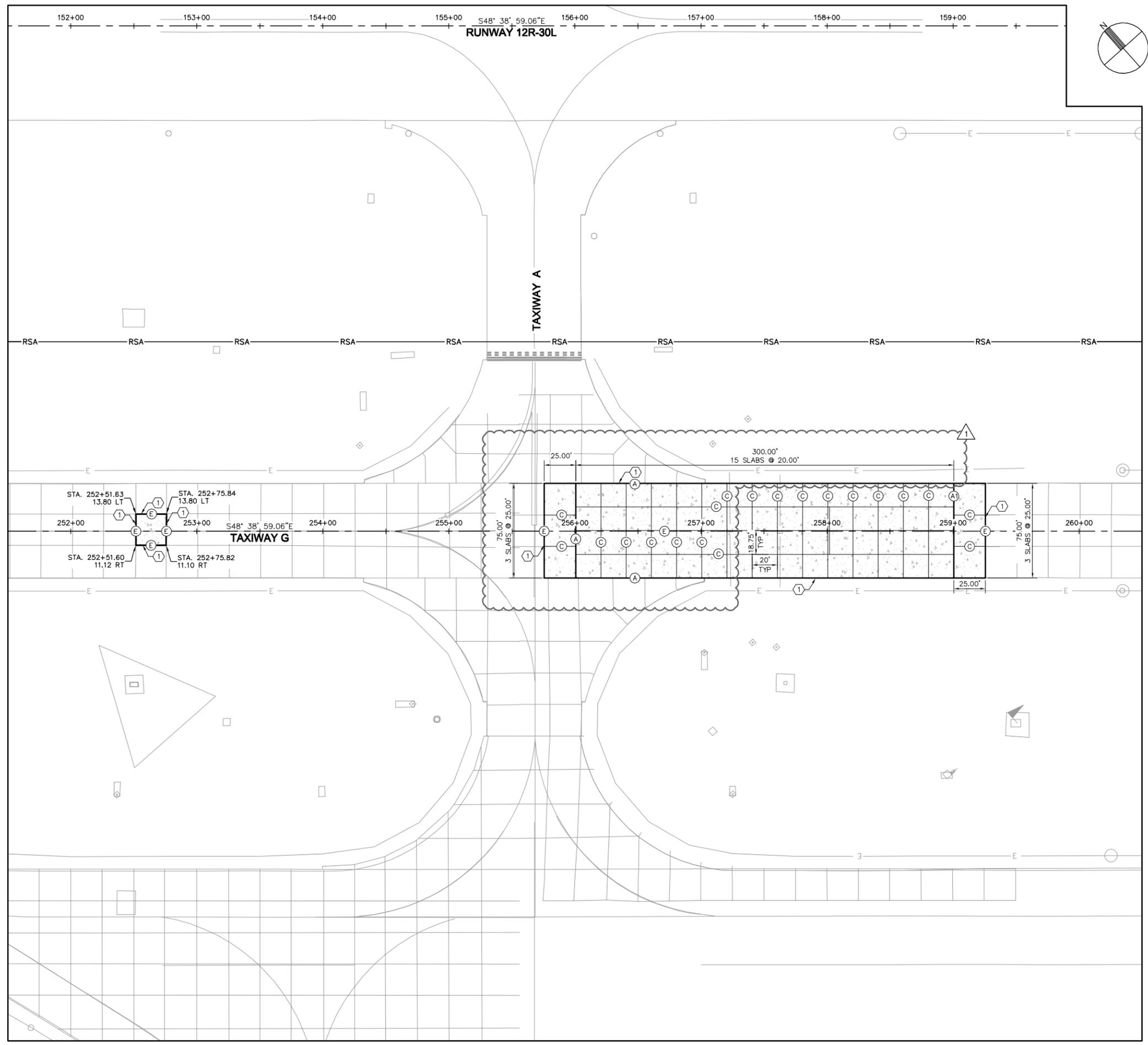


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**LEGEND**

- PORTLAND CEMENT CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE TRANSITION
- ASPHALT CONCRETE SHOULDER PAVEMENT
- ASPHALT CONCRETE TRANSITION
- (A) JOINT TYPE A, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (A1) JOINT TYPE A1, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (C) JOINT TYPE C, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (E) JOINT TYPE E, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS
- (4) EDGE SEAL TYPE 4, REFER TO SHEET C7.2 FOR PAVEMENT JOINT DETAILS

**GENERAL NOTES**

1. REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
2. TYPE C AND TYPE E JOINTS MAY BE INTERCHANGED WITH APPROVAL FROM THE ENGINEER.
3. PORTLAND CEMENT CONCRETE PAVEMENT (P-501) JOINTS SHALL NOT VARY MORE THAN 1/2-INCH FROM THEIR DESIGNATED HORIZONTAL POSITION AND SHALL BE TRUE TO LINE WITH NOT MORE THAN 1/4-INCH VARIATION IN 10- FEET. ANY JOINT(S) THAT ARE NOT PARALLEL OR PERPENDICULAR, OTHER THAN IRREGULAR SLABS, SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE AIRPORT.
4. ALL SAWCUT DEBRIS FROM THE WIDENING OF THE JOINTS SHALL BE REMOVED FROM THE CONCRETE SURFACE IMMEDIATELY AFTER SAWCUTTING BY VACUUMING THE SLURRY.
5. DOWEL BARS SHALL NOT VARY IN ALIGNMENT BY MORE THAN TWO-PERCENT (2%) OR 0.40\"/>

**CONSTRUCTION NOTES**

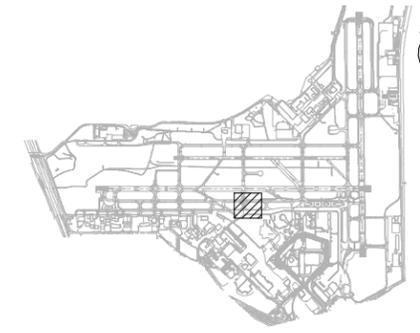
- ① SAWCUT AND MATCH EXISTING JOINT SPACING AND ELEVATION
- ② REFER TO ELECTRICAL PLANS (SERIES E)
- ③ SAWCUT AND MATCH EXISTING ELEVATION

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TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**

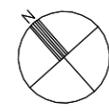
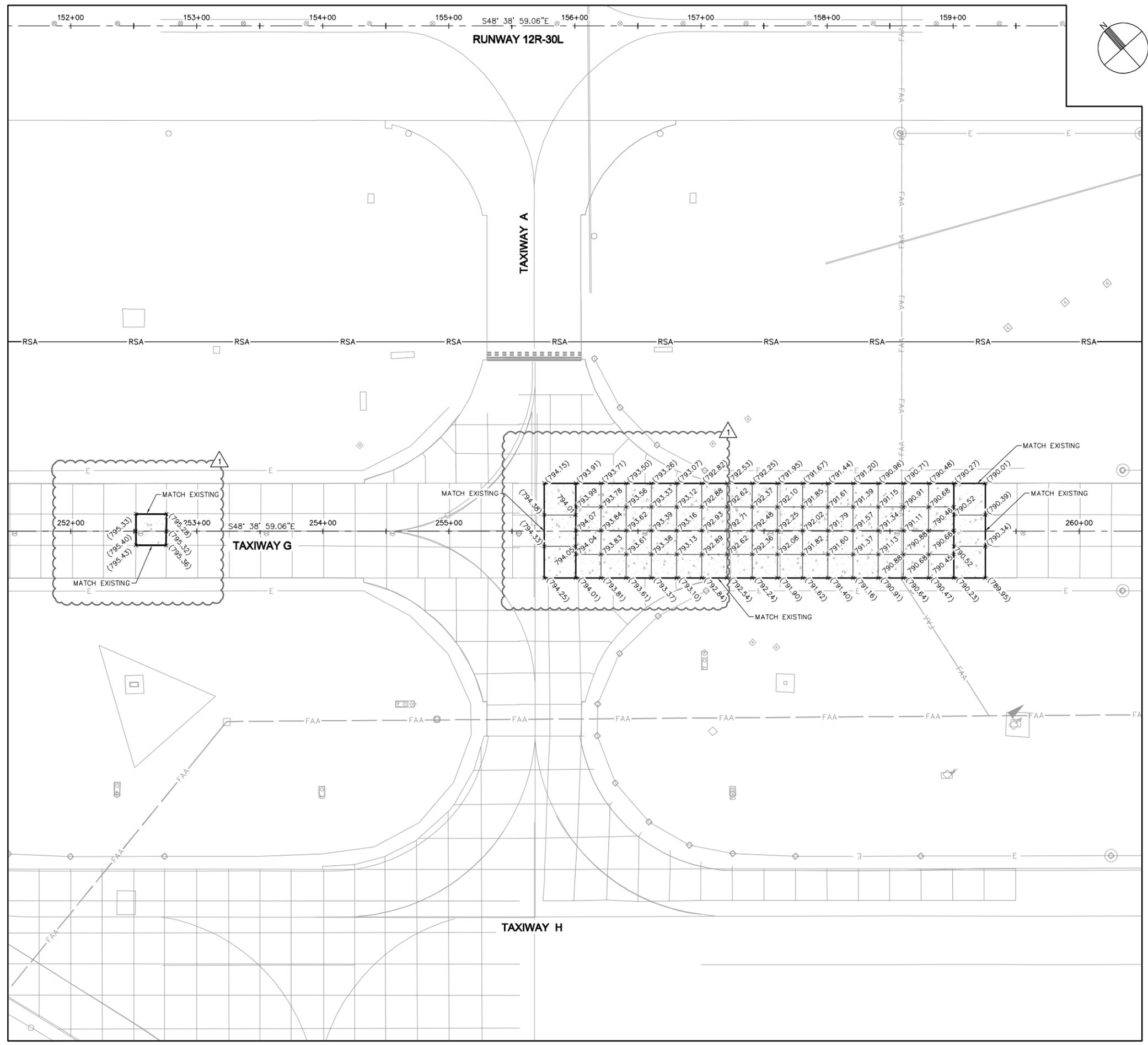


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**JOINT LAYOUT  
PLAN - TAXIWAY G  
- ALTERNATE 2**

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**LEGEND**

	PORTLAND CEMENT CONCRETE PAVEMENT
	PORTLAND CEMENT CONCRETE TRANSITION
	ASPHALT CONCRETE SHOULDER PAVEMENT
	ASPHALT CONCRETE TRANSITION
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION

- GENERAL NOTES**
- REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
  - PAVEMENT ELEVATIONS SHOWN ARE BASED ON JOINT LAYOUT, REFER TO PAVEMENT JOINT LAYOUT PLANS (SERIES C7).
  - REFER TO GRADING AND DRAINAGE PLAN (SERIES C9) FOR ADDITIONAL GRADING INFORMATION.
  - CONTRACTOR SHALL MATCH EXISTING PAVEMENT ELEVATIONS AS SHOWN ON PLAN. IF EXISTING ELEVATIONS DIFFER FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
  - REFER TO ELECTRICAL PLANS (SERIES E) FOR AIRFIELD LIGHTING, SIGNING, AND ELECTRICAL FEATURES.

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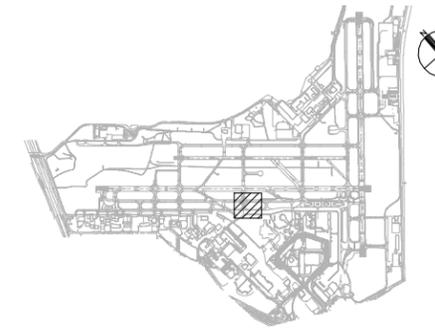
**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



5/31/16	ADDENDUM 1	
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PAVEMENT  
ELEVATION PLAN -  
TAXIWAY G -  
ALTERNATE 2

C8.4  
SHEET NO. 121 OF 195





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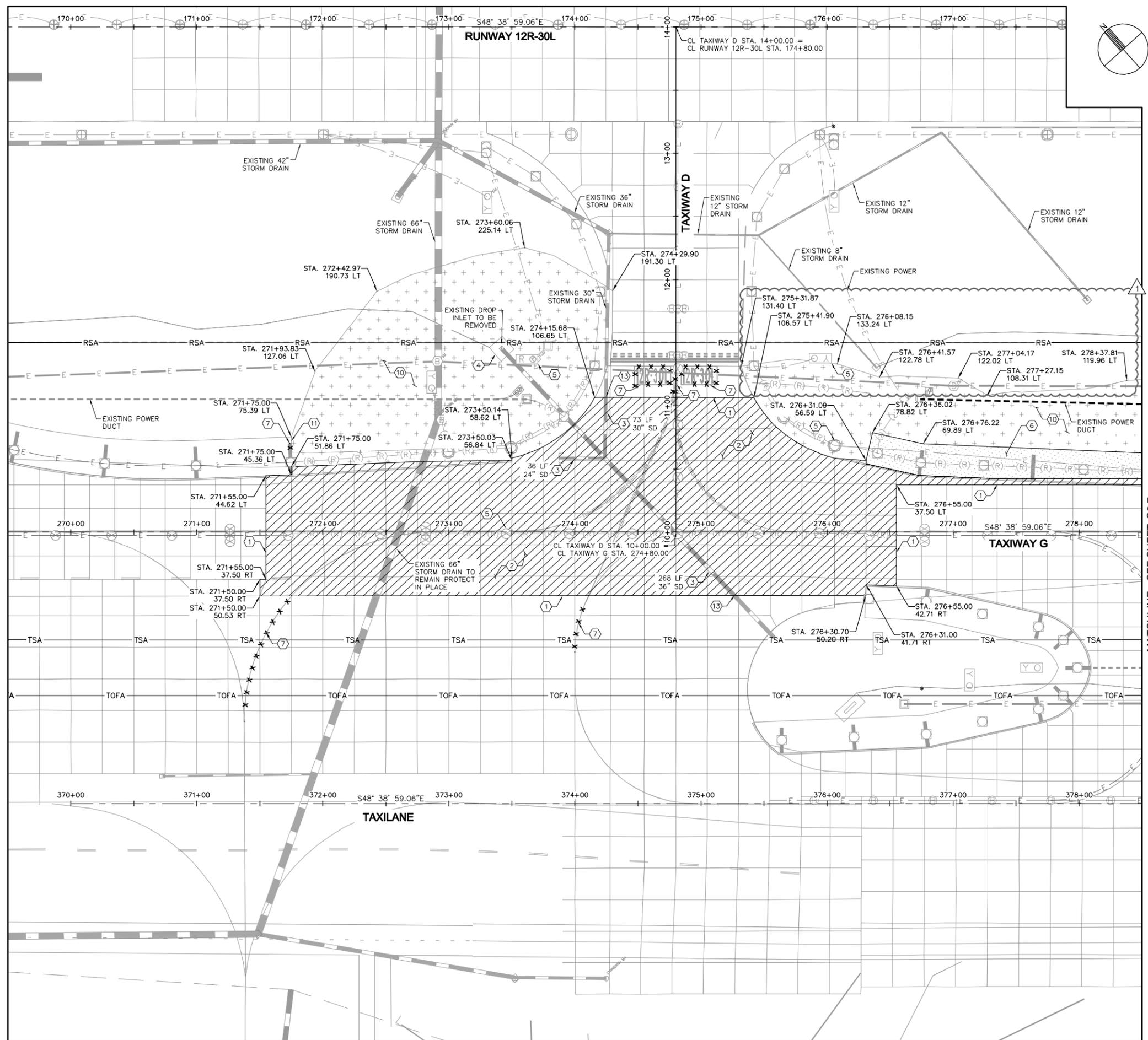
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PHONE: (210) 541-9166  
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**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



5/31/16	ADDENDUM 1	
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**DEMOLITION PLAN -  
TAXIWAY G -  
ALTERNATE 3**

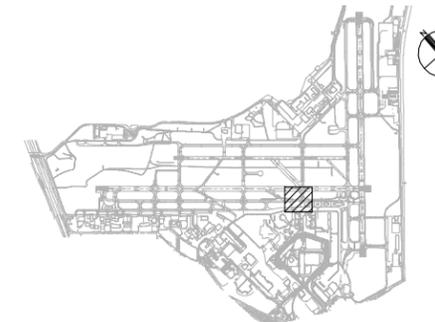


**LEGEND**

- PORTLAND CEMENT CONCRETE PAVEMENT REMOVAL
- CLEAR AND GRUB (P-101)
- FULL DEPTH AC PAVEMENT REMOVAL BY MILLING
- 2" AC PAVEMENT REMOVAL BY MILLING
- STORM DRAIN REMOVAL
- PAVEMENT MARKING OBLITERATION

- GENERAL NOTES**
- EXISTING UTILITY INFORMATION SHOWN ON THE PLANS CONCERNING THE TYPE, SIZE, AND LOCATION WERE COMPILED BASED ON THE UTILITY RECORDS AVAILABLE TO THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A UTILITY LOCATOR AND VERIFY THE ACTUAL LOCATION OF UTILITIES PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS NOTED OR SPECIFIED OTHERWISE. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. UTILITIES INTERFERING WITH CONSTRUCTION SHALL BE RESET OR RELOCATED BY THE UTILITY COMPANY CONCERNED UNLESS NOTED OTHERWISE.
  - REFER TO SHEET C1.11 FOR HORIZONTAL AND VERTICAL CONTROL.
  - REFER TO ELECTRICAL PLANS (SERIES E) FOR ELECTRICAL DEMOLITION.
  - DOUBLE SAWCUT IS REQUIRED ALONG PCC REMOVAL LIMITS TO PROTECT EXISTING PCC PAVEMENT TO REMAIN (NPI).
  - STATIONING IS BASED ON TAXIWAY G CENTERLINE STATIONING.

- CONSTRUCTION NOTES**
- SAWCUT EXISTING PCC PAVEMENT - FULL DEPTH
  - REMOVE AND DISPOSE OF EXISTING PCC PAVEMENT OFFSITE
  - REMOVE AND DISPOSE OF EXISTING STORM DRAIN PIPE, LIMITS OF REMOVAL PER PLAN
  - REMOVE AND DISPOSE OF EXISTING DRAINAGE STRUCTURE
  - REFER TO ELECTRICAL PLANS (SERIES E)
  - REMOVE AND DISPOSE OF EXISTING AC PAVEMENT OFFSITE
  - PAVEMENT MARKING TO BE OBLITERATED
  - FULL DEPTH AC PAVEMENT REMOVAL BY MILLING
  - 2" AC PAVEMENT REMOVAL BY MILLING
  - CLEAR AND GRUB
  - SAWCUT EXISTING AC PAVEMENT
  - PROTECT IN PLACE
  - INSTALL PIPE CAP



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MATCHLINE - SEE SHEET C3.7





**Kimley-Horn**

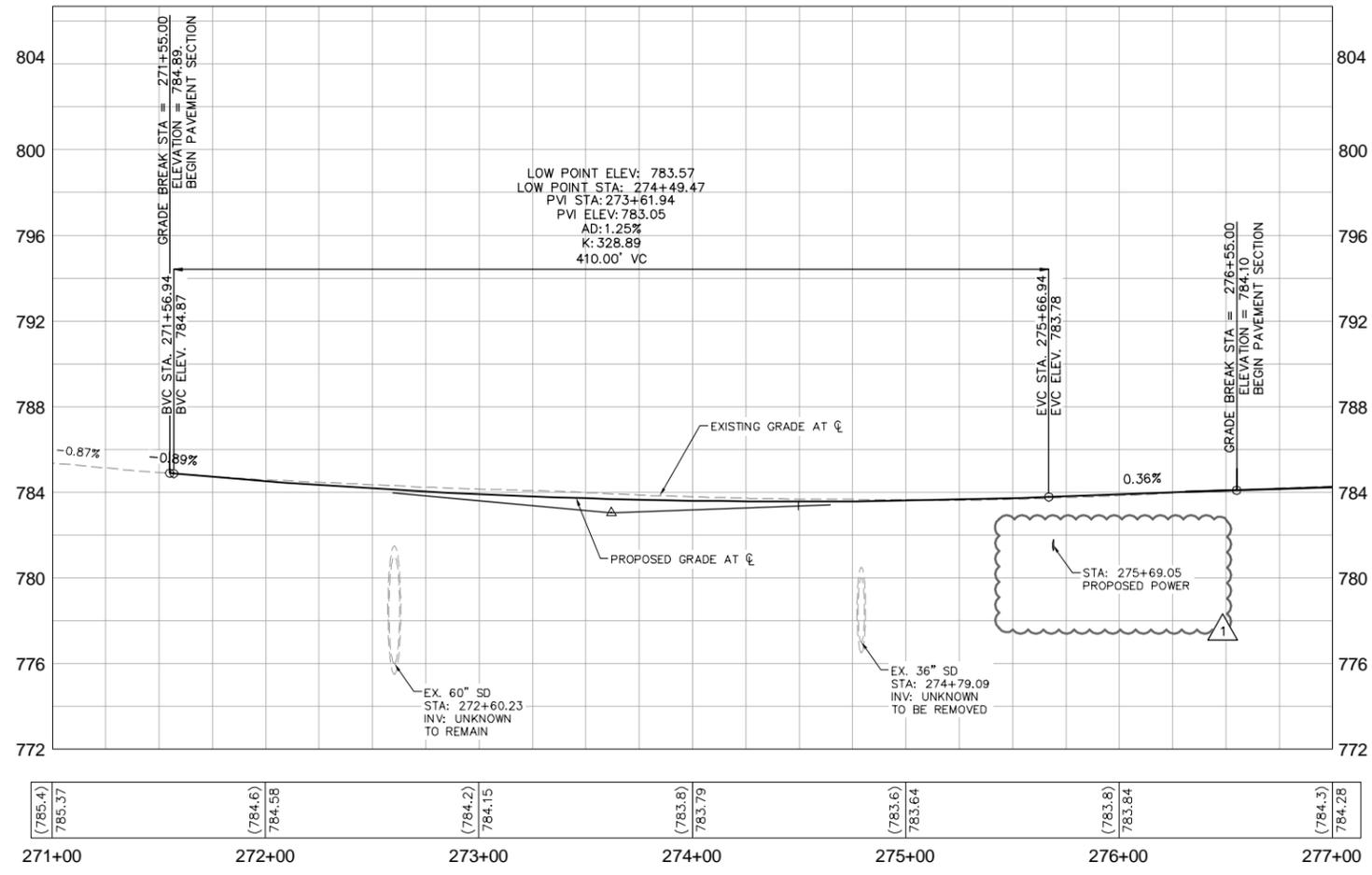
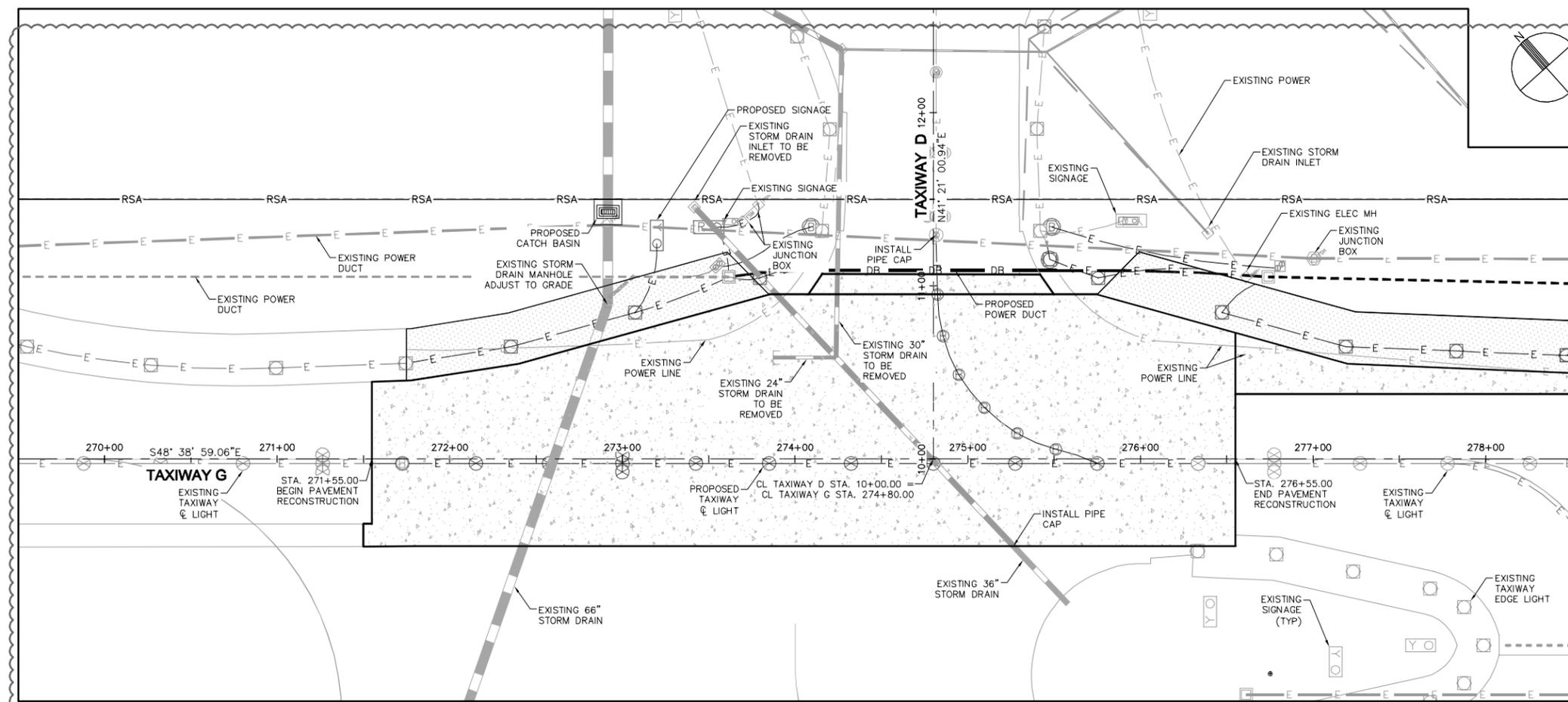
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SAN ANTONIO, TEXAS 78216  
PHONE: (210) 541-9166  
TEXAS REGISTERED FIRM,  
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**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**

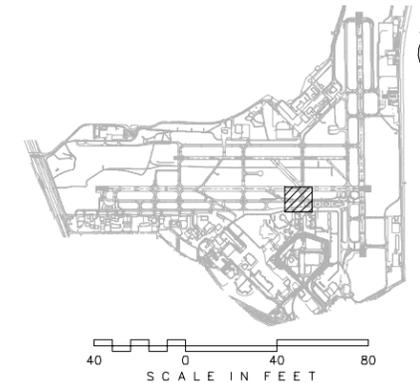


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**PLAN AND  
PROFILE -  
TAXIWAY G -  
ALTERNATE 3**



SCALE  
IN FEET  
(VERTICAL)



K:\P\K\_Aviation\191628001 - San Antonio\CADD\PACKAGE\_A\33-00193-R1CP-101-D03.dwg April 11, 2016 Macra\_sarrett



**Kimley-Horn**

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TEXAS REGISTERED FIRM,  
NO. 928

**RUNWAY 12R-30L  
ELECTRICAL IMPROVEMENTS  
AND TERMINAL AREA  
TAXIWAY IMPROVEMENTS  
(PACKAGE 4)**



**FIXTURE, SIGN & CIRCUIT CONSTRUCTION NOTES**

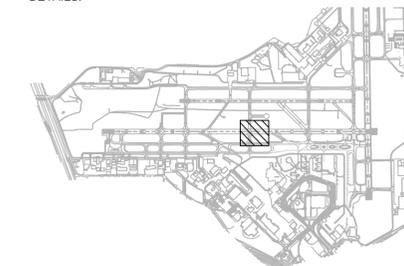
- ① EXISTING LIGHT, PROTECT IN PLACE.
- ② EXISTING SIGN, PROTECT IN PLACE.
- ③ EXISTING MANHOLE, HANDHOLE OR PULLBOX, PROTECT IN PLACE.
- ④ EXISTING DUCT, PROTECT IN PLACE. IF NOTED INSTALL NEW CONDUCTOR(S) AS INDICATED. SEE E4 SERIES CIRCUIT MAPS.
- ⑤ EXISTING CONDUIT, PROTECT IN PLACE. IF NOTED INSTALL NEW CONDUCTOR(S) AS INDICATED. SEE E4 SERIES CIRCUIT MAPS.
- ⑥ EXISTING BASE CAN, PROTECT IN PLACE.
- ⑬ FURNISH AND INSTALL BLANK COVER: FUTURE L-804 RUNWAY GUARD LIGHT.
- ⑰ FURNISH AND INSTALL BLANK COVER: FUTURE L-862S RUNWAY STOP BAR LIGHT.
- ⑳ REINSTALL SALVAGED L-862 RUNWAY EDGE LIGHT WITH NEW L-830.
- ㉓ NEW L-850A RUNWAY CENTERLINE LIGHT WITH (2) NEW 100 W, 20A L-830S.
- ㉔ SALVAGE & REINSTALL SIZE 3 SIGN WITH NEW L-830 ON NEW CONCRETE FOUNDATION.
- ㉗ INSTALL NEW CONCRETE DUCT MARKER AT DUCT CHANGE OF DIRECTION PER SPECIFICATIONS.

**BASE CAN, FOUNDATION & CONDUIT NOTES**

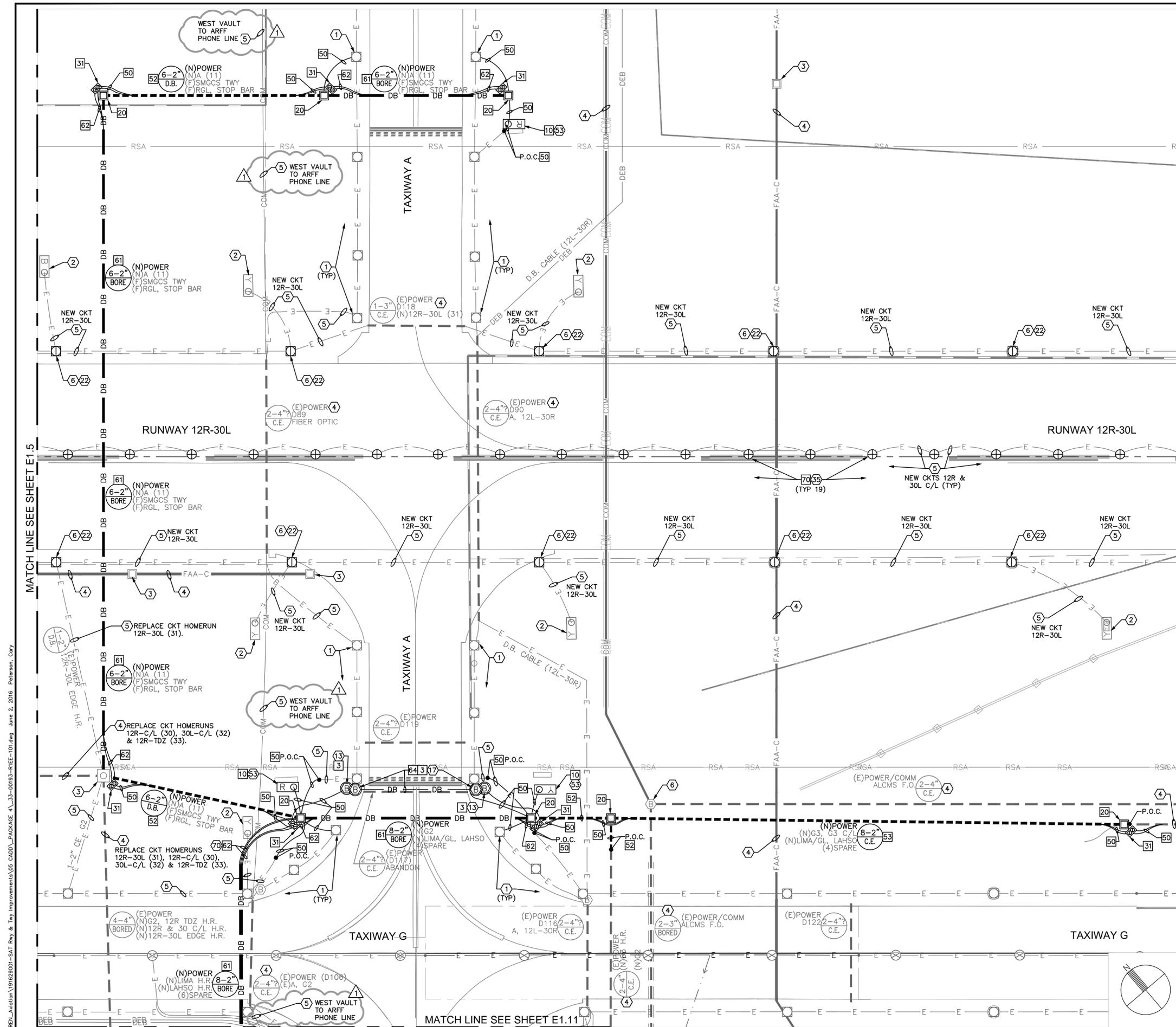
- ③ NEW L-867 BASE CAN IN UN-PAVED SHOULDER.
- ⑩ NEW CONCRETE SIGN FOUNDATION. SEE DATA TABLES IN E2 SERIES DRAWINGS FOR LOCATION & DETAIL DATA.
- ⑳ NEW PRECAST CONCRETE HANDHOLE. SEE DATA TABLES IN E2 SERIES DRAWINGS FOR LOCATION & DETAIL DATA.
- ㉓ NEW 2-CAN JUNCTION CAN PLAZA. SEE DETAILS ON DRAWING E3.8.
- ⑤① NEW 1-2" PVC, D.B. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
- ⑤② NEW DUCT, D.B. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
- ⑤③ NEW DUCT, C.E. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
- ⑥① DIRECTIONAL BORE HDPE DUCT UNDER EXISTING PAVEMENT: MINIMUM 36-INCHES BELOW PAVEMENT SURFACE.
- ⑥② NEW 1-2" HDPE (OR PVC WITH HDPE TRANSITION), D.B. (ITEM L-110). NEW CONDUCTORS (ITEM L-108).
- ⑥④ DIRECTIONAL BORE 1-2" HDPE UNDER EXISTING PAVEMENT: APPROXIMATELY 36-INCHES BELOW PAVEMENT SURFACE. LONGITUDINAL LOCATION SHALL BE DIRECTLY BETWEEN THE BASE CANS INSTALLED AT EACH END.
- ⑦① MODIFY OR REPLACE EXISTING L-868B BASE CAN FOR IN-PAVEMENT RUNWAY CENTERLINE LIGHT, SEE DETAILS ON DRAWING E3.2. APPLIES TO ALL RUNWAY CENTERLINE BASES WEST OF TAXIWAY B AND OTHERS AS DIRECTED BY THE OWNER.

**GENERAL NOTES**

1. SEE DRAWING E2.2 AND DATA TABLES FOR NEW FIXTURE, HANDHOLE, JUNCTION CAN, BASE CAN, AND SIGN FOUNDATION LOCATIONS.
2. SEE E0 SERIES DRAWINGS FOR TEMPORARY CIRCUITS AND FIXTURES.
3. SEE CIRCUIT MAPS E4 SERIES DRAWINGS FOR NEW OR MODIFIED CIRCUITS.
4. SEE E6 SERIES DRAWINGS FOR ELECTRICAL DEMOLITION PLANS.
5. SEE DRAWING E3.6 FOR DUCT CONFIGURATIONS AND INSTALLATION DETAILS.



**ELECTRICAL  
LAYOUT PLAN -  
BASE BID**



K:\REN\_Aviation\191626201-SAT Rwy & Twy Improvements\05 DADD\_LP\PACKAGE 4\_33-00193-R1EE-101.dwg June 2, 2016 Peterson, Cory

