

June 26, 2023 AGENDA ITEM #8

Discuss and consider approving an amendment extending the existing completion contract with Roy Jorgensen Associates, Inc. for performance based maintenance services on Mobility Authority roadways and related Texas Department of Transportation facilities

Strategic Plan Relevance:

Department:	Engineering
Contact:	Mike Sexton, P.E., Acting Director of Engineering
Associated Costs:	\$79,430,520.52 (\$1,000,000.00 in
	contingency funds for change orders included)
Funding Source:	FY 2024 Operating Budget
Action Requested:	Consider and act on draft resolution

Project Description/Background: The Performance Based Maintenance Contract (PBMC) includes routine Maintenance Services and associated items on existing and future Authority roadways and adjacent Texas Department of Transportation (TxDOT) frontage roads/general purpose lanes from right-of-way (ROW) to ROW (Project). The contract includes 183A Toll, 290 Toll, Express 1 Toll, 71 Toll, 45 Toll, 183 Toll, 183A Phase III Project and 183 North Project.

Routine maintenance services include but are not limited to maintenance of pavement, bridges, walls, traffic operations (signs, signals, lighting, striping, delineation), slopes, roadside (mowing, landscaped areas, litter), shared use paths (SUP's), trailheads, and Mobility Authority building facilities, including the 183A Traffic Incident Management Center, existing and future maintenance yard buildings, existing and future In-Lane Processing (ILP) buildings, and emergency generators located at or near toll gantries.

The term of this Contract will include an initial 5-year term (60 months), terminating June 30, 2028, with two additional 5-year renewal options to extend the initial term to a maximum of 15 years (180 months).

The Mobility Authority is reimbursed for maintenance of adjacent TxDOT frontage roads/general purpose lanes through an interlocal agreement (ILA) with TxDOT.

Previous Actions/Brief History of the Project/Program – Board Resolution No. 20-026 authorized the Executive Director to negotiate and execute the PBMC for existing and future Mobility Authority Roadways and related facilities and for adjacent TxDOT roadways with DBi Services, LLC ("DBi"). On October 22, 2021, DBi ceased maintenance operations, and on October 23, 2021, the Mobility Authority issued a notice of default to DBI for failure to perform work in accordance with the Contract.

In order to ensure the safe and continued operations of Mobility Authority facilities and related TxDOT facilities previously maintained by DBi, through the issuance of Resolution No. 21-066 dated October 27, 2021 and Resolution No. 20-071 dated November 17, 2021, the Board authorized the Executive Director to procure emergency maintenance services in an amount not to exceed \$750,000 and to spend up to an additional \$3,000,000.

The Surety awarded the completion contract to Roy Jorgensen Associates, Inc. which expires June 30, 2023.

<u>Financing</u>: FY 2024 Operating Budget

<u>Action requested/Staff Recommendation</u>: Staff recommends to authorize the Executive Director to extend the existing agreement with Roy Jorgensen Associates, Inc. for performance based maintenance services, with a not to exceed fee of \$78,430,520.52 and authorize the Executive Director, or his designee, to utilize up to \$1,000,000.00 in contingency funds for change orders. Under this agreement, Roy Jorgensen Associates, Inc. will provide performance based maintenance services for all existing and future Authority roadways and adjacent Texas Department of Transportation (TxDOT) frontage roads/general purpose lanes from right-of-way (ROW) to ROW (Project).

Backup provided:

Draft Resolution Contract amendment

GENERAL MEETING OF THE BOARD OF DIRECTORS OF THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

RESOLUTION NO. 23-0XX

APPROVING AN AMENDMENT TO THE COMPLETION CONTRACT WITH ROY JORGENSEN ASSOCIATES, INC. FOR PERFORMANCE BASED MAINTENANCE SERVICES ON MOBILITY AUTHORITY ROADWAYS AND RELATED FACILITIES

WHEREAS, by Resolution No. 20-026 dated April 29, 2020, the Board approved a contract with DBi Services, LLC ("DBi") for performance-based maintenance services on Mobility Authority roadways and related Texas Department of Transportation ("TxDOT") facilities (the "Contract"); and

WHEREAS, on October 22, 2021, DBi ceased maintenance operations, and on October 23, 2021, the Mobility Authority issued a notice of default to DBi for failure to perform work in accordance with the DBi contract; and

WHEREAS, the DBi contract included certain payment and performance bonds issued by Berkshire Hathaway Specialty Insurance Company ("Surety") to insure the performance of the maintenance services under the terms of the Contract in the event of a default by DBi; and

WHEREAS, the Surety proposed a completion contractor to take over the original performance-based maintenance services contract through the term of the performance bond period and awarded the completion contract to Roy Jorgensen Associates, Inc. ("Completion Contract") through June 30, 2023; and

WHEREAS, the Completion Contract provides for an initial 5-year term (60 months), terminating June 30, 2028, with two additional 5-year renewal options to extend the initial term to a maximum of 15 years (180 months); and

WHEREAS, the Executive Director and Roy Jorgensen Associates, Inc. have negotiated a proposed amendment to the Completion Contract, a copy of which is attached hereto as <u>Exhibit A</u>; and

WHEREAS, the Executive Director recommends the execution of the proposed amendment extending the completion contract through June 30, 2028 in an amount not to exceed \$78,430,520.52, including for performance-based maintenance services on all existing and future Authority roadways and adjacent Texas Department of Transportation (TxDOT) frontage roads/general purpose lanes from right-of-way (ROW) to ROW; and

WHEREAS, the Executive Director requests that the Board authorize an additional \$1,000,000.00 as contingency to be implemented as necessary through change orders issued by the Executive Director.

NOW THEREFORE, BE IT RESOLVED that the Board hereby authorizes the Executive Director to execute an amendment with Roy Jorgensen Associates, Inc. extending the Completion Contract through June 30, 2028 in an amount not to exceed \$79,430,520.52, for performance-based maintenance services or all existing and future Authority roadways and adjacent TxDOT frontage roads/general purpose lanes and adjacent right-of-way, in the form or substantially the same form attached hereto as <u>Exhibit A</u>; and

BE IT FURTHER RESOLVED, that the Board authorizes \$1,000,000.00 in contingency funds to be used at the Executive Director's discretion for change orders necessary for the effective implementation of the performance-based maintenance amendment.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of June 2023.

Submitted and reviewed by:

Approved:

James M. Bass, Executive Director

Robert W. Jenkins, Jr. Chairman, Board of Directors

Exhibit A

SYSTEM-WIDE PERFORMANCE BASED MAINTENANCE CONTRACT

20PROGXXX02N Amendment #1





Central Texas Regional Mobility Authority

System-Wide Performance Based Maintenance

Contract No. 20PROGXXX02M

Amendment #1

June 20, 2023

Contract Document Contents, cont'd

CONTRACT DOCUMENT CONTENTS

I. <u>CONTRACT DOCUMENTS</u>

- A. Contract Document Checklist
- B. Prequalification
- C. Site Location Map
- D. Instructions to the Contractor
- E. Bid Item Completion Examples
- F. Price Proposal Form and Estimated Pay Schedule
- G. Non-Collusion Affidavit, Debarment Affidavit, and Child Support Statement
- H. Proposal Bond N/A
- I. Contract Agreement
- J. Performance Bond
- K. Payment Bond
- L. Receipt of Addenda N/A
- M. Engineer Seals

II. <u>SPECIFICATIONS</u>

- N. General Notes
- O. Special Provisions
- P. Special Specification 7667RMA: Performance Based Maintenance
- Q. Special Specification 7668RMA: Snow and Ice Control
- R. Special Specification 7669RMA: Lane Closures
- S. Special Specification 7671RMA: Work Order Allowance

III. <u>EXHIBITS</u>

- Exhibit 1 Abbreviations and Definitions
- Exhibit 2 Performance Measurement Table Roadway
- Exhibit 3 Performance Measurement Table Building and Facilities
- Exhibit 4 Condition Assessment
- Exhibit 5 Liquidated Damages for Non-compliance
- Exhibit 6 Drainage Performance Measures
- Exhibit 7 VUEWorks Procedures

Contract Document Contents, cont'd

IV. <u>MAINTENANCE MAPS</u>

183A Phase III Project
183A Toll
183 North Project
183 Toll (Bergstrom Expressway)
290 Toll (Manor Expressway)
Express 1 Toll (MoPac Express)
71 Toll
45 Toll

Central Texas Regional Mobility Authority

System-Wide Performance Based Maintenance

Contract No. 20PROGXXX02M

I. Contract Documents

Amendment #1

June 20, 2023

TABLE OF CONTENTS

Page

A.	Contra	ct Document Checklist	.1
B.	Prequa	lification	.3
C.	Site Lo	cation Map	.7
D.		tions to the Contractor	
	D.1	Authorized Representatives of the Authority	.9
	D.2	Reference Documents	.9
	D.3	Public Information Act; Disclosure of Information	.9
	D.4	DBE Participation Goal	10
	D.5	Debarment	10
	D.6	Conflict of Interest Policies	11
	D.7	Contract Schedule	11
	D.8	Bonding	11
	D.9	Pre-Proposal Meetings – Not Applicable	12
	D.10	One-on-One Meetings	12
	D.11	RFP Addenda and Clarification Notices – Not Applicable	12
	D.12	Submittal Requirements	12
		D.12.1 Due Date, Time, and Location	12
		D.12.2 General Format – Not Applicable	12
		D.12.3 Quantities – Not Applicable	12
	D.13	Disqualification – Not Applicable	12
	D.14	Contract Deliverables Requirements – Not Applicable	12
	D.15	Certification and Documentation	12
		D.15.1 Included in Appendices of Technical Proposal	12
	D.16	Price Proposal Requirements – Not Applicable	13
		D.16.1 Execution and Delivery of the Contract	13
	D.17	Authority Rights	13
E.	Bid Ite	m Completion Examples	16
F.	Price P	Proposal Form and Estimated Pay Schedule	18
Form A	A-1: Noi	n Collusion Affidavit Form A-2: Debarment Affidavit Form A-3: Support Statement	
G.		A-1 – Non-Collusion Affidavit, Form A-2 – Debarment Affidavit; A-3 – Child Support Statement	22
H.	Form A	A-4 – Proposal Bond – Not Applicable	25
I.	Contra	ct Agreement	27

i

Table of Contents, cont'd

I	Performance Bond	33
	Payment Bond	
	Form A-5 – Receipt of Addenda – Not Applicable	
M.	Engineer Seals	
List	of Tables	

Table 1: Procurement Milestones	••	1	1
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Page

A. CONTRACT DOCUMENT CHECKLIST

Prior to executing the contract the Contractor should review the checklist below to ensure that their contract package will be accepted.

Document Preparation:

- □ Have you been prequalified by the Authority to submit a proposal for this project?
- □ Is the Price Form you are submitting part of the approved Contract Documents you received from the Authority?
- □ Is the contract signed by your company representative?
- Do your Contract Documents comply with D.13 Submittal Requirements?
- □ Have you entered amounts for all bid items?
- Does the bid form document contain the proper number of bid items?

Document Submission:

- □ Are you aware of the time and date deadline for submission of contract documents?
- □ Are you aware of the proper delivery location for the Contract Documents?

Section B

Prequalification

B. PREQUALIFICATION

The Central Texas Regional Mobility Authority (Authority), a regional political entity, enters into an agreement for a System-wide Performance Based Maintenance contract to perform routine Maintenance Services and associated items on existing and future Authority roadways and adjacent Texas Department of Transportation (TxDOT) frontage roads/general purpose lanes from right-of-way (ROW) to ROW (Project). The system includes the following corridors:

- 183A Toll
- 290 Toll (Manor Expressway)
- Express 1 Toll (MoPac Express)
- 71 Toll
- 45 Toll
- 183 Toll (Bergstrom Expressway)
- 183A Phase III Project
- 183 North Project

The Project is more fully described in the following documents, including but not limited to the General Notes, Special Provisions, Special Specifications, Maintenance Maps, as well as the latest edition of the "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges" (Standard Specifications). The services to be provided are generally described as the supply of all materials, labor, equipment, fuel, tools, and incidentals necessary for the Performance Based Maintenance of the aforementioned facilities.

The term of this Contract will include an initial term through June 30, 2028, with two additional 5-year renewal options to extend the Initial Term.

The Contractor will consist of a prime firm under direct contract with the Authority, and subconsultants contracted to the prime firm providing services as defined by the prime.

Joint Ventures will not be allowed.

To enter into a contract, the Contractor must: (1) be prequalified by the Authority, (2) complete an Official Bid Form from the Authority.

The requirements for prequalification are:

1. Be in compliance with registration requirements established by the Texas Business Organizations Code, as administered by the Texas Secretary of State. See:

http://www.sos.state.tx.us/corp/index.shtml

- 2. <u>TxDOT Full Prequalification</u>. Be currently qualified via "Full Prequalification" by TxDOT for bidding on State projects or within the 90-day grace period for the preparation of a new qualification statement; or have submitted to TxDOT the Confidential Questionnaire and have it on file with TxDOT at least 10 days before the date proposals are due. Must be able to provide documentation upon request.
- 3. Shall not have been suspended or debarred by the Commission, Department, or any federal agency.
- 4. Show compliance with the Texas Family Code, Section 231.006. Ineligibility to Receive State Grants or Loans or Receive Payment on State Contracts.
- 5. <u>Authority Financial Prequalification</u>. In addition to the requirements of TxDOT for prequalification and Technical Qualification shown in Item 2, Article 2 of the 'Standard Specifications for Construction and Maintenance of Highway, Streets, and Bridges,' bidders will be required to submit concluded audited financial statements from the most recent three (3) calendar or fiscal years that demonstrates a cash flow greater than zero from operating activities for approval by the Authority. The financial statement should be delivered to Mary Temple (mtemple@ctrma.orgmailto:) and Michelle Stracener (michelle.stracener@atkinsglobal.com). The Contractor must have a bidding capacity per the TxDOT prequalification system of the Authority will only allow electronic proposals from bidders who are prequalified through TxDOT, and whose financial statements have been approved on or before 5:00 PM Central Standard Time (CST) on April 30, 2023.
- 6. Have a bidding capacity per the TxDOT prequalification system of \$80,000,000.

Upon completion of the prequalification process, the Contractor will be notified by the Authority whether or not the Contractor is eligible to enter into a contract.

The Authority has no responsibility or obligation for failure to timely satisfy the prequalification requirement. Satisfying all prequalification requirements by the applicable deadlines is the sole responsibility of the Contractor.

In addition, the Contractor must deliver the following documents by the due date. These forms have been included within the Appendices of the contract.

- Non-Collusion Affidavit
- Debarment Affidavit
- Child Support Statement
- Authority Conflict of Interest Disclosure Statement Form, if required

4

CONTRACT DOCUMENTS DUE:

Date:	April 30, 2023
Time:	4:00 PM CT
Location:	Central Texas Mobility Authority
	3300 N. IH-35, Suite 300
	Austin, Texas 78705

Standard Specifications, which will form an integral part of the proposed contract, are available online at the TxDOT website: <u>ftp://ftp.dot.state.tx.us/pub/txdot-info/des/spec-book-1114.pdf</u>

It is the policy of the Authority to encourage the participation of minorities and women. The commitment of the proposing entity to utilize historically underutilized business (HUB) will be considered in the contract evaluation process.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

James Bass, Executive Director

Section C Site Location Map C. SITE LOCATION MAP



Central Texas Regional Mobility Authority Site Location Map June 20, 2023 7

Amendment #1 Volume I – Proposal Documents System-wide Performance Based Maintenance CTRMA Contract #20PROGXXX02M

Section D

Instructions to Proposers

D. INSTRUCTIONS TO THE CONTRACTOR

D.1 Authorized Representatives of the Authority

The Authority has designated the following individual to be the Project Manager and Primary Contact for the Project:

John Jones Central Texas Regional Mobility Authority 3300 N. IH-35, Suite 300 Austin, TX 78705 Phone: (512) 568-2285 Email: jjones@ctrma.org

D.2 Reference Documents

The Authority has assembled Reference Information Documents (RIDs) about the Project. The documents will be available to the Contractor on the Mobility Authority's electronic document management site.

The Authority makes no representations or warranties as to the accuracy of the Project information being made available. The Authority shall not be liable for any defects, inaccuracies, or erroneous information made available to the proposing entities and/or their individual members.

The RIDs are not mandatory or binding to the contract. The Contractor is not entitled to rely on the RIDs as presenting a design, engineering, operating, or maintenance solution or other direction, means, or method for complying with the requirements of the Contract Documents, Governmental Approvals or Law.

D.3 Public Information Act; Disclosure of Information

The Authority is subject to and complies with the Texas Public Information Act (PIA). The contract and any other information provided to the Authority by the Contractor becomes the property of the Authority and may be subject to public disclosure under the PIA. If the Contractor considers any information it provides to the Authority to be proprietary, confidential, or otherwise exempt from disclosure under the PIA, the Contractor must clearly mark and label that information as Confidential. It is not acceptable to designate all or substantially all of the Contract Documents as Confidential; and the contract so marked will be returned to the Contractor without further consideration by the Authority.

The Authority will notify the Contractor if a request for public information is received that may require the Authority to disclose material that the Contractor has marked as Confidential and thus asserts is exempt from disclosure under the PIA. The Authority does not have and does not assume any obligation to assert or argue on behalf of the Contractor that any information provided to the Authority is exempt from required disclosure.

The Texas Attorney General provides additional information concerning requirements and procedures that govern potential disclosure of a third-party's confidential information under the PIA at this link:

https://www.texasattorneygeneral.gov/og/notice-statement-to-persons-whose-proprietaryinformation-is-requested

D.4 DBE Participation Goal

The DBE participation goal for this contract shall be 15% of the Contract Price. A DBE Performance Plan will be required for this contract as set forth in Special Specification 7667RMA, Performance Based Maintenance.

Anticipated areas of maintenance contracting opportunities are as follows:

Signing	Crash Attenuators	Concrete Repair
Illumination	Landscaping	Asphalt Repair
Signals	Drainage	Emergency Response
Striping	Bridges	Hazardous Material Clean-up
Painting	Bridge Inspection	Mowing
Guardrail	Structural Inspection	Sweeping, Debris and Litter

This list is not comprehensive but represents possible contracting opportunities.

A link to the list of qualified DBEs' can be found on TxDOT's website:

https://txdot.txdotcms.com/FrontEnd/VendorSearchPublic.asp?TN=txdot&XID=2340

D.5 Debarment

By submittal of a Proposal and subsequent execution of the Contract, the Contractor represents and certifies that it, its officers, its owners, and/or its employees who will be performing the Work have not been convicted or pleaded guilty to any state or federal offense involving fraud, corruption, or moral turpitude; and is not now listed by any state or federal agency as debarred, suspended, proposed for suspension or debarment, voluntarily excluded or otherwise ineligible from participating in this procurement process, or a state or federal procurement program.

If the Contractor is a corporation, partnership, or other form of business organization, the representations and certifications shall apply not only to the individual(s) who will be performing the Work, but also to the principal(s), officer(s), and owner(s) of the business organization.

The Contractor agrees to indemnify the Authority for any costs and expenses, including but not limited to audit costs, attorneys' fees, and expert witness fees that the Authority incurs due to any fraudulent statement made by the Contractor in regards to this certification.

D.6 Conflict of Interest Policies

the Contractor must comply with the Conflict of Interest disclosure policies adopted by the Board of Directors as Sections 101.064 through 101.069 of the Authority Policy Code, available for review at the Authority website:

https://www.mobilityauthority.com/about/policy-disclaimers/code

or by contacting the contract contact identified in Section D.1.

The Contractor and team members are required to complete, and to submit with the contract, the Authority's Conflict of Interest Disclosure Statement Form if the Contractor or a team member has a current or previous (defined as one terminating within 12 months prior to submission of the Contract Documents) business relationship with any of the Authority's key personnel. The disclosure shall include information on the nature of the relationship, the current status, and the date of termination or expected termination, if known, of the relationship. The Conflict of Interest Disclosure Statement Form is available to review and download from the Authority's website as an Appendix, at the link provided earlier in this section D.6.

D.7 Contract Schedule

The following dates are anticipated procurement milestones.

Table 1: Procurement Miles	stones
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Event	Date
Anticipated Execution of Contract/Issuance of Initial Notice to Proceed (NTP)	June 30, 2023
Contractor Commences Maintenance Services	July 1, 2023 12:00 AM CT
	(local time in Austin, TX)

All times and dates set forth above and stated elsewhere in this contract are subject to change at the Authority's sole discretion.

D.8 Bonding

A performance bond and a payment bond are required under Article 3.4.2 of the Standard Specifications. A warranty bond is not required for this contract.

The Contractor must provide a letter from the bonding surety indicating its willingness and ability to bond for the amount equivalent to the total contract amount and additional amounts included in the change orders thereafter.

D.9 Pre-Proposal Meetings – Not Applicable

D.10 One-on-One Meetings

The Authority will hold meetings with the Contractor as necessary.

Requests for Clarification.

The Authority will not be bound by, and the Contractor shall rely on, any oral communication or representation regarding documents included in the contract and shall not rely on any communication except written communications from the Authority.

D.11 RFP Addenda and Clarification Notices – Not Applicable

D.12 Submittal Requirements

D.12.1 Due Date, Time, and Location

The Contractor must deliver the contract to the Authority at the following address:

Central Texas Regional Mobility Authority 3300 N. IH-35, Suite 300 Austin, TX 78705

the contract must be received on or before 4:00 PM CT (local time in Austin, Texas) on June 26, 2023.

- **D.12.2** General Format Not Applicable
- **D.12.3** Quantities Not Applicable
- **D.13 Disqualification Not Applicable**

D.14 Contract Deliverables Requirements – Not Applicable

D.15 Certification and Documentation

In addition to the requirements outlined above, the Contractor shall provide the following forms and documentation with the Contract Documents.

D.15.1 Included in Appendices of Technical Proposal

- 1. <u>Non-Collusion Affidavit Form</u>: The Proposal shall include Form A-1, certifying that the Proposal is not the result of and has not been influenced by collusion.
- 2. <u>Debarment Affidavit Form</u>: The Proposal shall include Form A-2, certifying the Proposer is compliance with Section D.6, Debarment.
- 3. <u>Child Support Statement</u>: The Proposal shall include Form A-3, certifying the Proposer is compliance with Texas Family Code, Section 231.006.

12

D.16 Price Proposal Requirements – Not Applicable

D.16.1 Execution and Delivery of the Contract

After notice of award and reaching an agreement with the Contractor on the terms and conditions of a Contract to be executed by the parties, the Authority will deliver four sets of execution copies of the Contract to the Contractor. To execute the Contract, Contractor must satisfy the Authority's contract award requirements by executing and delivering the Contract together with all the other required documents described below, within 10 days of receipt of the execution copies of the executed copies of the Contract within 10 days of receipt of all required documents from the Contract within 10 days of receipt of all required documents from the Contractor.

The Contractor shall deliver the following required documents to the Authority upon issuance of Notice to Proceed (NTP):

- 1. Evidence of insurance required to be provided by the Contractor under the Contract.
- 2. Payment and Performance Bonds in the form attached to the Contract.

D.17 Authority Rights

Notwithstanding any language in this RFP to the contrary, the Authority reserves the right, in its sole discretion, to:

- 1. Investigate the qualifications of any the Contractor under consideration.
- 2. Seek or obtain data from any source that has the potential to improve the understanding and evaluation of the responses to this RFP.
- 3. Require confirmation of information furnished by the Contractor.
- 4. Require additional information from the Contractor concerning its contract deliverable.
- 5. Seek and receive clarification for a contract deliverable.
- 6. Require evidence of qualifications to perform the Work.
- 7. Reject any or all of the contract deliverables.
- 8. Waive or permit corrections to data submitted, provided those corrections do not materially affect the contract.
- 9. Cancel a contract signed by the contractor but not yet executed by the Authority.
- 10. Not issue NTP after execution of the contract.

The Authority assumes no obligations, responsibilities, and liabilities, fiscal or otherwise, to reimburse all or part of the costs incurred or alleged to have been incurred by parties considering a response to this contract. All of such costs shall be borne solely by the Contractor.

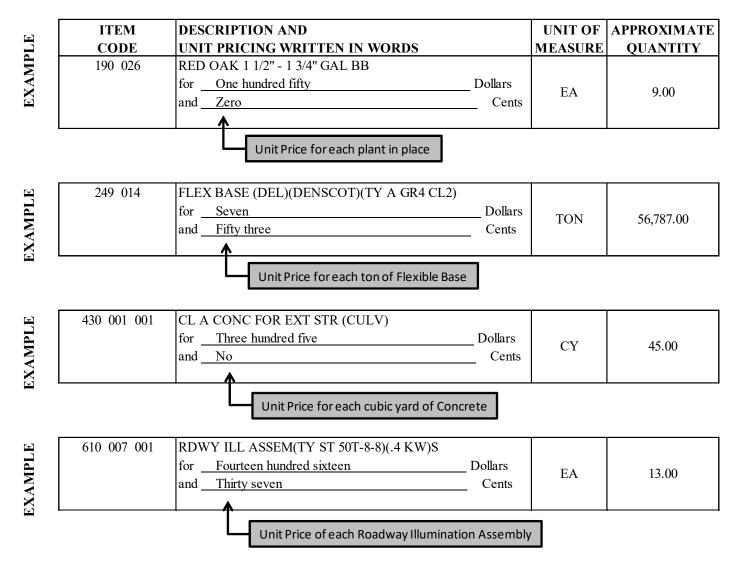
In no event shall the Authority be bound by, or liable for, any obligations with respect to the Project until such time (if at all) as a contract, in form and substance satisfactory to the Authority, has been

authorized by the Authority Board of Directors and executed by the Executive Director on behalf of the Authority, then, only to the extent set forth therein.

Section E

Bid Item Completion Examples

E. BID ITEM COMPLETION EXAMPLES



Section F

Price Proposal Form and Estimated Pay Schedule

F. PRICE PROPOSAL FORM AND ESTIMATED PAY SCHEDULE

PAY ITEM	DESCRIPTION	Unit	5-yr Qty	U	nit Price	FY24		FY25		FY26		FY27		FY28	5-yr Total Value
70070144 0004	PERFORMANCE BASED MAINTENANCE (183A TOLL)	МО	60	\$	02.000.00	\$ 1,125,600.00		4 470 004 00	\$	1,217,448.96	_	4 000 440 00	¢	1,316,792.80	\$ 6,096,612.67
	PERFORMANCE BASED MAINTENANCE (105A TOLL)	MO	60	ֆ \$		\$ 836,400.00		869,856.00		904,650.24		940,836.25		978.469.70	. , ,
7007 NWA 0002	PERFORMANCE BASED MAINTENANCE (250 TOLL)	WIO	00	φ	09,700.00	\$ 030,400.00	φ	809,830.00	φ	904,030.24	φ	940,630.23	φ	978,409.70	\$ 4,550,212.19
7667RMA 0003	``	МО	60	\$	119.000.00	\$ 1,428,000.00	\$	1,485,120.00	\$	1,544,524.80	\$	1,606,305.79	\$	1,670,558.02	\$ 7,734,508.62
	PERFORMANCE BASED MAINTENANCE (71 TOLL)	MO	60	\$	31,900.00	\$ 382,800.00		398,112.00		414,036.48		430,597.94		447,821.86	
	PERFORMANCE BASED MAINTENANCE(45 TOLL)	MO	60	\$,	\$ 196,800.00		204,672.00		212,858.88		221,373.24		230,228.16	
	PERFORMANCE BASED MAINTENANCE (183 TOLL)	MO	60	\$		\$ 1,080,000.00		1,123,200.00		1,168,128.00		1,214,853.12			\$ 5,849,628.36
	PERFORMANCE BASED MAINTENANCE (183A PH III	-				, ,,	T.	, , ,		,,	,	1 1		, ,	
7667RMA 0008	PROJECT)	MO	48	\$	48,400.00	\$-	\$	604,032.00	\$	628,193.28	\$	653,321.01	\$	679,453.85	\$ 2,565,000.14
	PERFORMANCE BASED MAINTENANCE (183 NORTH														
7667RMA 0009	PROJECT)	MO	36	\$	52,800.00	\$-	\$	-	\$	685,301.76	\$	712,713.83	\$	741,222.38	\$ 2,139,237.97
	PERFORMANCE BASED MAINTENANCE														
		MO	60	\$	41,600.00	\$ 499,200.00	\$	519,168.00	\$	539,934.72	\$	561,532.11	\$	583,993.39	\$ 2,703,828.22
	PERFORMANCE BASED MAINTENANCE (SUPs &														
	TRAILHEADS - 183A TOLL)	MO	60	\$	7,000.00	\$ 84,000.00	\$	87,360.00	\$	90,854.40	\$	94,488.58	\$	98,268.12	\$ 454,971.10
	PERFORMANCE BASED MAINTENANCE (SUPs &														
	TRAILHEADS - 290 TOLL)	MO	60	\$	11,500.00	\$ 138,000.00	\$	143,520.00	\$	149,260.80	\$	155,231.23	\$	161,440.48	\$ 747,452.51
	PERFORMANCE BASED MAINTENANCE (SUPs &					• • • • • • • • • •				107 570 50			•		
	TRAILHEADS - EXPRESS 1 TOLL)	MO	60	\$	10,600.00	\$ 127,200.00	\$	132,288.00	\$	137,579.52	\$	143,082.70	\$	148,806.01	\$ 688,956.23
	PERFORMANCE BASED MAINTENANCE (SUPs & TRAILHEADS - 71 TOLL)	MO	60	\$	5,300.00	\$ 63,600.00	¢	66,144.00	\$	68,789.76	<u>م</u>	71 641 26	¢	74,403.00	¢ 244.470.44
	PERFORMANCE BASED MAINTENANCE (SUPs &	IVIO	60	¢	5,300.00	\$ 03,000.00	¢	00,144.00	φ	00,709.70	φ	71,541.35	¢	74,403.00	\$ 344,478.11
	TRAILHEADS - 45 TOLL)	МО	60	\$	6,200.00	\$ 74,400.00	¢	77,376.00	¢	80,471.04	¢	83,689.88	¢	87,037.48	\$ 402,974.40
	PERFORMANCE BASED MAINTENANCE (SUPs &	WIO	00	Ψ	0,200.00	\$ 74,400.00	Ψ	11,310.00	Ψ	00,471.04	Ψ	05,005.00	ψ	07,007.40	φ 402,374.40
	TRAILHEADS - 183 TOLL)	МО	60	\$	14,200.00	\$ 170,400.00	\$	177,216.00	\$	184,304.64	\$	191,676.83	\$	199,343.90	\$ 922,941.36
	PERFORMANCE BASED MAINTENANCE (SUPs &			Ŷ	1,200.00	¢ 110,100.00	Ť	,210.00	Ť	101,001.01	Ť.	101,010.00	Ψ	100,010.00	• • • • • • • • • • • • • • • • • • • •
	TRAILHEADS - 183A PH III PROJECT)	MO	48	\$	19,000.00	\$-	\$	237,120.00	\$	246,604.80	\$	256,468.99	\$	266,727.75	\$ 1,006,921.54
	PERFORMANCE BASED MAINTENANCE (SUPs &				,							,		,	
7667RMA 0020	TRAILHEADS - 183 NORTH PROJECT)	MO	36	\$	18,000.00	\$-	\$	-	\$	233,625.60	\$	242,970.62	\$	252,689.45	\$ 729,285.67
	PERFORMANCE BASED MAINTENANCE														
7667RMA 0022	<u>,</u>	MO	60	\$	30,900.00	\$ 370,800.00	\$	385,632.00	\$	401,057.28	\$	417,099.57	\$	433,783.55	\$ 2,008,372.41
	PERFORMANCE BASED MAINTENANCE														
7667RMA 0023		MO	60	\$	19,500.00	\$ 234,000.00	\$	243,360.00	\$	253,094.40	\$	263,218.18	\$	273,746.90	\$ 1,267,419.48
	PERFORMANCE BASED MAINTENANCE														
7667RMA 0024	,,	MO	60	\$	8,000.00	\$ 96,000.00	\$	99,840.00	\$	103,833.60	\$	107,986.94	\$	112,306.42	\$ 519,966.97
70070144 0005					0.700.00			404 050 00		105 000 01		400 004 47	•	100 171 51	
7667RMA 0025	(LANDSCAPING - 45 TOLL) PERFORMANCE BASED MAINTENANCE	MO	60	\$	9,700.00	\$ 116,400.00	\$	121,056.00	\$	125,898.24	\$	130,934.17	\$	136,171.54	\$ 630,459.95
		MO	60	¢	18 600 00	¢ 222.200.00	¢	222 128 00	¢	041 410 10	¢	251 060 64	¢	061 110 40	¢ 4 200 022 20
7667RMA 0026	(LANDSCAPING - EXPRESS 1 TOLL) PERFORMANCE BASED MAINTENANCE	IVIO	60	\$	18,600.00	\$ 223,200.00	ð	232,128.00	\$	241,413.12	þ	251,069.64	\$	261,112.43	\$ 1,208,923.20
7667RMA 0028		МО	60	\$	23,900,00	\$ 286.800.00	\$	298,272.00	\$	310,202.88	\$	322.611.00	\$	335,515.44	\$ 1,553,401.31
	PERFORMANCE BASED MAINTENANCE	NIC	00	Ψ	20,000.00	φ 200,000.00	Ψ	200,212.00	Ψ	510,202.00	Ψ	522,011.00	Ψ	555,515.44	φ 1,000, 4 01.01
		МО	48	\$	11,800.00	s -	\$	147,264.00	\$	153,154.56	\$	159,280.74	\$	165,651.97	\$ 625,351.27
	PERFORMANCE BASED MAINTENANCE			Ψ	. 1,000.00	.	Ť	,2000	Ť		Ť	100,200.14	Ŷ	100,001.01	
7667PMA 0030	(LANDSCAPING - 183 NORTH PROJECT)	MO	36	\$	19,400.00	\$ -	\$	-	\$	251,796.48	\$	261,868.34	\$	272,343.07	\$ 786,007.89

Units of measure: EA - each; HR - hour; LS - lump sum; MO - month; Escalation Assumption = 4%. Annual costs to be revised in accordance with 9.5.1 Payment for Maintenance Services

Central Texas Regional Mobility Authority Price Proposal Form June 20, 2023

7667RMA 0032 VEGETATION PERFORMANC PERFORMANC 7667RMA 0034 VEGETATION PERFORMANC PERFORMANC 7667RMA 0038 VEGETATION 7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION	CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 290 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 71 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	Unit MO MO MO MO	5-yr Qty 60 60 60 60 60	\$ \$ \$	12,100.00	\$	355,200.00	\$ \$ \$	FY25 219,648.00 369,408.00 151,008.00	\$ \$ \$	FY26 228,433.92 384,184.32 157,048.32	\$	FY27 237,571.28 399,551.69 163,330.25	\$	FY28 247,074.13 415,533.76 169,863.46	\$ \$	5-yr Total Value 1,143,927.32 1,923,877.77 786,450.04
7667RMA 0032 VEGETATION PERFORMANC PERFORMANC 7667RMA 0034 VEGETATION 7667RMA 0036 VEGETATION 7667RMA 0038 VEGETATION 7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION	MANAGEMENT - 183A TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 290 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 71 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO MO MO	60 60 60	\$	29,600.00	\$ \$	355,200.00	\$	369,408.00	\$	384,184.32	\$	399,551.69	\$	415,533.76	\$	1,923,877.77
PERFORMANC 7667RMA 0034 VEGETATION PERFORMANC 7667RMA 0036 VEGETATION PERFORMANC 7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0042 VEGETATION 7667RMA 0042 VEGETATION	CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 290 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 71 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO MO MO	60 60 60	\$	29,600.00	\$ \$	355,200.00	\$	369,408.00	\$	384,184.32	\$	399,551.69	\$	415,533.76	\$	1,923,877.77
7667RMA 0034 VEGETATION PERFORMANC 7667RMA 0036 VEGETATION PERFORMANC 7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0042 VEGETATION 7667RMA 0042 VEGETATION	MANAGEMENT - 290 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 71 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO MO	60 60	\$	12,100.00	\$	145,200.00	\$,								, ,
7667RMA 0036 VEGETATION PERFORMANC 7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION PERFORMANC 7667RMA 0042 VEGETATION PERFORMANC	CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 71 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO MO	60 60	\$	12,100.00	\$	145,200.00	\$,								, ,
7667RMA 0036 VEGETATION PERFORMANC PERFORMANC 7667RMA 0040 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0040 VEGETATION	MANAGEMENT - 71 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO	60	\$,		151,008.00	\$	157,048.32	\$	163,330.25	\$	169,863.46	\$	786,450.04
7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0042 VEGETATION 7667RMA 0042 VEGETATION PERFORMANC	CE BASED MAINTENANCE (ROUTINE MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO	60	\$,		101,000.00	Ť	101,010.02	Ŷ	100,000.20	Ŷ	100,000.10	· ·	
7667RMA 0038 VEGETATION 7667RMA 0040 VEGETATION 7667RMA 0042 VEGETATION 7667RMA 0042 VEGETATION PERFORMANC	MANAGEMENT - 45 TOLL) CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE				14,300.00	\$	171,600.00										
7667RMA 0040 PERFORMANC VEGETATION PERFORMANC PERFORMANC	CE BASED MAINTENANCE (ROUTINE MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE				1,000.00	Ŷ		\$	178,464.00	\$	185,602.56	\$	193,026.66	\$	200,747.73	\$	929,440.95
7667RMA 0040 VEGETATION PERFORMANC 7667RMA 0042 VEGETATION PERFORMANC	MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO	60				,	Ť		Ť	100,002.00	Ŷ	100,020.000	Ŷ	200,1 11 10	•	
7667RMA 0040 VEGETATION PERFORMANC 7667RMA 0042 VEGETATION PERFORMANC	MANAGEMENT - EXPRESS 1 TOLL) CE BASED MAINTENANCE (ROUTINE	MO	60														
PERFORMANC 7667RMA 0042 VEGETATION PERFORMANC	CE BASED MAINTENANCE (ROUTINE			\$	27,500.00	\$	330,000.00	\$	343,200.00	\$	356,928.00	\$	371,205.12	\$	386,053.32	\$	1,787,386.44
7667RMA 0042 VEGETATION PERFORMANC			1	Ŷ	21,000.00	÷	000,000.00	Ÿ	0.0,200.00	Ť	000,020.00	Ŷ	01 1,200.12	Ŷ	000,000.02	•	.,,
7667RMA 0042 VEGETATION PERFORMANC																	
PERFORMANC		MO	60	\$	35,100.00	\$	421,200.00	\$	438,048.00	\$	455,569.92	\$	473,792.72	\$	492,744.43	\$	2,281,355.06
	CE BASED MAINTENANCE (ROUTINE			Ť	20,100.00	Ŷ	.2.,200.00	.		Ť		Ψ		Ψ		Ť	
1EGEI/(IIOI)	MANAGEMENT - 183A PH III PROJECT																
7667RMA 0044 TOLL)		MO	48	\$	10,500.00	\$	_	\$	131,040.00	\$	136,281.60	\$	141,732.86	\$	147,402.18	\$	556,456.64
		inio	-10	Ψ	10,000.00	Ψ		Ψ	101,040.00	Ψ	100,201.00	Ψ	141,702.00	Ψ	147,402.10	Ψ	000,400.04
PERFORMAN(CE BASED MAINTENANCE (ROUTINE																
	MANAGEMENT - 183 NORTH PROJECT)	MO	36	\$	20,900.00	\$	_	\$	-	\$	271,265.28	\$	282,115.89	\$	293,400.53	\$	846,781.70
	CE CONTROL (SHADOW VEHICLE)	HR	3600	\$,,	\$	43,200.00	\$	44,928.00	\$	46,725.12		48,594.12		50,537.89		233,985.13
7668RMA 0002 SNOW AND IC		HR	6200	\$		\$	62.000.00	\$	64,480.00	\$	67,059.20		69.741.57		72.531.23		335.812.00
7668RMA 0003 SNOW AND IC		HR	1600	\$		\$	40,000.00	\$. ,		43,264.00		44,994.56		46,794.34		216,652.90
7668RMA 0004 SNOW AND IC		HR	3600	\$		\$	28,800.00		29,952.00		31,150.08		32,396.08		33,691.93		155,990.09
7668RMA 0014 SNOW AND IC	· · · · · · · · · · · · · · · · · · ·	HR	500	\$		\$	21,500.00		22,360.00		23.254.40		24,184.58		25,151.96		116.450.94
	CE CONTROL SEASON (183A TOLL)	MO	25	\$		\$	76,000.00		79,040.00		82,201.60		85,489.66		88,909.25		411,640.51
	CE CONTROL SEASON (290 TOLL)	MO	25	\$,	\$	55,000.00	\$	57,200.00	\$	59,488.00		61,867.52		64,342.22		297,897.74
	CE CONTROL SEASON (EXPRESS 1			Ŷ	. 1,000.00	Ŷ	00,000.00	Ÿ	01,200.00	Ţ.	00,100.00	Ŷ	01,001102	Ŷ	01,012.22	÷	
7668RMA 0007 TOLL)		MO	25	\$	19,300.00	\$	96,500.00	\$	100,360.00	\$	104,374.40	\$	108,549.38	\$	112,891.35	\$	522,675.13
	CE CONTROL SEASON (71 TOLL)	MO	25	\$	· · · · · · · · · · · · · · · · · · ·	\$,	\$	24,960.00		25,958.40		26,996.74		28,076.61		129,991.74
	CE CONTROL SEASON (45 TOLL)	MO	25	\$		\$	14,000.00		14,560.00		15,142.40		15,748.10		16,378.02		75,828.52
	CE CONTROL SEASON (183 TOLL)	MO	25	\$	· · · · ·	\$	82,500.00	\$	85,800.00	\$	89,232.00		92,801.28		96,513.33		446,846.61
	CE CONTROL SEASON (183A PH III			Ť		Ŧ		Ŧ	,	Ť	,	-		-		-	,
7668RMA 0011 PROJECT)		MO	20	\$	8,000.00	\$	-	\$	41,600.00	\$	43,264.00	\$	44,994.56	\$	46,794.34	\$	176.652.90
	CE CONTROL SEASON (183 NORTH			Ť	1,111.50			-	,	1		-		-		-	,
7668RMA 0012 PROJECT)		MO	15	\$	20,000.00	\$	_	\$	_	\$	108,160.00	\$	112,486.40	\$	116,985.86	\$	337,632.26
	e – 2 Lane Road, No Shoulders (TY 1)	EA	5	\$		\$	1,500.00	\$	1,560.00		1,622.40		1,687.30		1,754.79		8,124.48
			-	Ť	.,	-	.,	-	.,	Ť	.,	-	.,	-	.,	Ť	-, - <u>-</u> II I V
7669RMA 0002 1 Lane Closure	e – 2 Lane Road, Paved Shoulders (TY 2)	EA	5	\$	1,600.00	\$	1,600.00	\$	1,664.00	\$	1,730.56	\$	1,799.78	\$	1,871.77	\$	8,666.12
7669RMA 0003 1 Lane Closure		EA	10	\$		\$	3,000.00	\$	3,120.00		3,244.80		3,374.59		3,509.58		16,248.97
7669RMA 0004 2 Lane Closure		EA	10	\$	· ·	\$	3,800.00	\$,		4.110.08		4.274.48		4,445,46		20.582.03
7669RMA 0005 Freeway 1 Land		EA	15	\$	1	\$		\$	12,480.00		12,979.20		13,498.37		14,038.30		64,995.87
7669RMA 0006 Freeway 2 Land		EA	10	\$,	\$	9,000.00		9,360.00		9,734.40		10,123.78		10,528.73		48,746.90
7669RMA 0007 Freeway 3 Land		EA	5	\$		\$	5.000.00	\$	5.200.00		5.408.00		5.624.32		5.849.29		27,081.61
7669RMA 0008 Freeway 4 Land		EA	5	\$	- ,	\$		\$	5,720.00		5,948.80		6,186.75		6,434.22		29,789.77

Units of measure: EA - each; HR - hour; LS - lump sum; MO - month; Escalation Assumption = 4%. Annual costs to be revised in accordance with 9.5.1 Payment for Maintenance Services

PAY ITEM	DESCRIPTION	Unit	5-yr Qty	Unit	t Price	FY24	FY25	FY26	FY27		FY28	5-yr Total Value
7669RMA 0009	Exit or Entrance Ramp Closure (TY 9)	EA	10	\$	3,000.00	\$ 6,000.00	\$ 6,240.00	\$ 6,489.60	\$ 6,749.18	\$	7,019.15	\$ 32,497.94
7669RMA 0010	Freeway Closure Sequence Daytime Only (TY 10)	EA	5	\$	5,000.00	\$ 5,000.00	\$ 5,200.00	\$ 5,408.00	\$ 5,624.32	\$	5,849.29	\$ 27,081.61
7669RMA 0011	Complete Freeway Closure (TY 11)	EA	5	\$	6,000.00	\$ 6,000.00	\$ 6,240.00	\$ 6,489.60	\$ 6,749.18	\$	7,019.15	\$ 32,497.94
7669RMA 0012	1 Lane Frontage Road Closure (TY 12)	EA	15	\$	1,500.00	\$ 4,500.00	\$ 4,680.00	\$ 4,867.20	\$ 5,061.89	\$	5,264.36	\$ 24,373.45
7669RMA 0013	2 Lane Frontage Road Closure (TY 13)	EA	15	\$	1,500.00	\$ 4,500.00	\$ 4,680.00	\$ 4,867.20	\$ 5,061.89	\$	5,264.36	\$ 24,373.45
7669RMA 0014	1 Lane Connecting Ramp Closure (TY 14)	EA	5	\$	2,000.00	\$ 2,000.00	\$ 2,080.00	\$ 2,163.20	\$ 2,249.73	\$	2,339.72	\$ 10,832.65
7669RMA 0015	2 Lane Connecting Ramp Closure (TY 15)	EA	5	\$	50.00	\$ 50.00	\$ 52.00	\$ 54.08	\$ 56.24	\$	58.49	\$ 270.82
7669RMA 0016	Work Area on Shoulder (TY 16)	EA	10	\$	1,500.00	\$ 3,000.00	\$ 3,120.00	\$ 3,244.80	\$ 3,374.59	\$	3,509.58	\$ 16,248.97
	Frontage Road Intersection with a 2-way Traffic Closure											
7669RMA 0017	on the Arterial Street (TY 17)	EA	5	\$	1,400.00	\$ 1,400.00	\$ 1,456.00	\$ 1,514.24	\$ 1,574.81	\$	1,637.80	\$ 7,582.85
7669RMA 0018	Turn Around Closure (TY 18)	EA	5	\$	400.00	\$ 400.00	\$ 416.00	\$ 432.64	\$ 449.95	\$	467.94	\$ 2,166.53
7669RMA 0019	Mobile Operation (TY 19)	HR	200	\$	250.00	\$ 10,000.00	\$ 10,400.00	\$ 10,816.00	\$ 11,248.64	\$	11,698.59	\$ 54,163.23
	Furnish Additional Truck Mounted Attenuator (TMA) (TY											
7669RMA 0020	20)	HR	200	\$	200.00	\$ 8,000.00	\$ 8,320.00	\$ 8,652.80	\$ 8,998.91	\$	9,358.87	\$ 43,330.58
	Furnish Additional Portable Changeable Message Sign											
7669RMA 0021	(PCMS) (TY 21)	DAY	15	\$	200.00	\$ 600.00	\$ 624.00	\$ 648.96	\$ 674.92	\$	701.92	\$ 3,249.79
7669RMA 0022	Pilot Vehicle and Operator (TY 22)	HR	40	\$	75.00	\$ 600.00	\$ 624.00	\$ 648.96	\$ 674.92	\$	701.92	\$ 3,249.79
7168RMA 0001	Vegetative Watering	GAL	200000	\$	0.50	\$ 20,000.00	\$ 20,800.00	\$ 21,632.00	\$ 22,497.28	\$	23,397.17	\$ 108,326.45
7671RMA 0001	Work Order Allowance	LS	5	\$ 50	00,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$	500,000.00	\$ 2,500,000.00
7658RMA 0001	INSTALL DEL ASSM (PEXCO FG300 28")	EA	2900	\$	105.00	\$ 60,900.00	\$ 63,336.00	\$ 65,869.44	\$ 68,504.22	\$	71,244.39	\$ 329,854.04
7658RMA 0002	INSTALL DEL POST (PEXCO FG300 28")	EA	2900	\$	85.00	\$ 49,300.00	\$ 51,272.00	\$ 53,322.88	\$ 55,455.80	\$	57,674.03	\$ 267,024.70
7658RMA 0003	INSTALL DEL ASSM (PEXCO FG300 36")	EA	60000	\$	105.00	\$ 1,260,000.00	\$ 1,310,400.00	\$ 1,362,816.00	\$ 1,417,328.64	\$	1,474,021.79	\$ 6,824,566.43
7658RMA 0004	INSTALL DEL POST (PEXCO FG300 36")	EA	60000	\$	85.00	\$ 1,020,000.00	\$ 1,060,800.00	\$ 1,103,232.00	\$ 1,147,361.28	\$	1,193,255.73	\$ 5,524,649.01
	Totals					\$ 12,715,150.00	\$ 14,364,812.00	\$ 16,469,553.60	\$ 17,108,335.74	\$ 1	7,772,669.17	\$ 78,430,520.52

Units of measure: EA - each; HR - hour; LS - lump sum; MO - month; Escalation Assumption = 4%. Annual costs to be revised in accordance with 9.5.1 Payment for Maintenance Services

Section G

Form A-1: Non Collusion Affidavit Form A-2: Debarment Affidavit Form A-3: Child Support Statement G. Form A-1 – Non-Collusion Affidavit, Form A-2 – Debarment Affidavit; Form A-3 – Child Support Statement Form A-2 – Debarment Affidavit

Form A-3 – Child Support Statement

H. FORM A-4 – PROPOSAL BOND – NOT APPLICABLE

Amendment #1 Volume I – Proposal Documents System-wide Performance Based Maintenance CTRMA Contract #20PROGXXX02M

Section I

Contract Agreement

I. CONTRACT AGREEMENT

THIS AGREEMENT, made this _____ day of _____, 2023, between the Central Texas Regional Authority, 3300 N. IH-35, Suite 300, Austin, TX 78705, hereinafter called the Authority and <u>Roy Jorgensen Associates, Inc.</u>, or his, its or their successors, executors, administrators and assigns, hereinafter called the Contractor.

WITNESSETH, that the Contractor agrees with the Authority for the consideration herein mentioned, and at his, its or their own proper cost and expense, to do all the Work and furnish all the materials, equipment, teams, and labor necessary to prosecute and complete and to extinguish all liens therefore, Contract No. <u>20PROGXXX02M</u>, entitled SYSTEM-WIDE PERFORMANCE BASED MAINTENANCE, in the manner and to the full extent as set forth in the Plans, Special Specifications, Special Provisions, Price Proposal (for the basis of award stated herein below), and other documents related to said Contract, which are on file at the office of the Authority and which are hereby adopted and made part of this Agreement as completely as if incorporated herein, and to the satisfaction of the Authority or its duly authorized representatives who shall have at all times full opportunity to inspect the materials to be furnished and the Work to be done under this Agreement.

This Contract is awarded on the basis of the Total Price Proposal of <u>Seventy-eight Million</u>, <u>Four Hundred Thirty Thousand</u>, Five Hundred Twenty Dollars and Fifty-two Cents.

In consideration of the foregoing premise, the Authority agrees to pay the Contractor for all items of work performed and materials furnished at the unit prices set forth in the Price Proposal submitted for this Contract, subject to any percentage reductions in the total Contract amount that may be named in the Price Proposal corresponding to the basis of award stated in the above paragraph, and subject to the conditions set forth in the Specifications.

The Contractor agrees as follows:

a. I/WE will not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin, except where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor.

I/WE agree to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

b. I/WE in any solicitations or advertising for employees placed by or on behalf of itself, will state that it is an equal opportunity employer.

c. Notices and advertisements and solicitations placed in accordance with federal law, rule, or regulation, shall be deemed sufficient for the purposes of meeting the requirements of this section.

d. Failure by Contractor to fulfill these requirements is a material breach of the Contract, which may result in the termination of this Contract, or such other remedy, as the Authority deems appropriate.

e. All work described in these documents will be completed within 5 years of Notice to Proceed #1.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement the day and year written above.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

By: _____

James M. Bass Executive Director

ROY JORGENSEN ASSOCIATES, INC.:

Address

By:_____

Printed Name & Title

(Affix Corporate Seal Here)

INFORMATION ABOUT PROPOSER ORGANIZATION

Proposer's business address:

No.)	(Str	eet)	(Floor or Suite)
City)	(State or Providence)	(ZIP or Postal Code)	(Country)
	ounty of Incorporation/Formatic	e	
	te signature block from below		of Award]
	nple signature block for corporative the proposer's name]	ation or limited liability com	ipany:
By:			
	Name:		
Title:			
	ignatures of additional general		ropriate]
	nple signature block for attorne the proposer's name]	y in fact:	
By:			
Print N	ame:		
	Attorney in Fact		

Additional Requirements:

- A. If the proposer is a corporation, enter state or country of incorporation in addition to the business address. If the proposer is a partnership, enter state or country of formation. If the proposer is a limited liability company, enter state or country of organization.
- B. Describe in detail the legal structure of the entity making the Proposal. If the proposer is a limited liability entity, attach full names and addresses of all equity holders and other financially responsible entities and the equity ownership interest of each entity. If the proposer is a limited liability company, include an incumbency certificate executed by a Secretary thereof in the form set on the following page listing each officer with signing authority and its corresponding office. Attach evidence to the Proposal and to each letter that the person signing has authority to do so.
- C. With respect to authorization of execution and delivery of the Proposal and the Agreements and validity thereof, if any signature is provided pursuant to a power of attorney, a copy of the power of attorney shall be provided as well as a certified copy of corporate or other appropriate resolutions authorizing said power of attorney. If the Proposer is a corporation, it shall provide evidence of corporate authorization in the form of a resolution of its governing body certified by an appropriate officer of the corporation. If the Proposer is a limited liability company, evidence of authorization would be in the form of a limited company resolution and a managing member resolution providing such authorization, certified by an appropriate officer of the managing member.
- D. The Proposer must also identify those persons authorized to enter discussions on its behalf with the Authority in connection with this Proposal, the Project, and The Agreement. The Proposer shall submit with its Proposal a power of attorney executed by the Proposer and each member, appointing and designating one or more individuals to act for and bind the Proposer in all matters relating to the Proposal.

INCUMBENCY CERTIFICATE

NAME

OFFICE

IN WITNESS WHEREOF, the undersigned has executed this Incumbency Certificate this ______ day of ______, 2023.

Secretary

Section J

Performance Bond

Bond #

Bond Effective Dates: 7/1/2023 - 6/30/2026

J. PERFORMANCE BOND

STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS: That

of the City of	County of
, and State of	, as principal, and
authorized under the laws of the S	tate of Texas to act as
surety on bonds for principals, are held and firmly bound unto the Central Tex	kas Regional Mobility
Authority (Authority), in the penal sum of Forty three Million Five Hundred	Forty nine Thousand
Five Hundred Fifteen Dollars and Sixty Cents (\$43,549,515.60) for the payn	nent whereof, the said
Principal and Surety bind themselves, their heirs, administrators, executors, s	successors, jointly and
severally, by these presents:	

WHEREAS, the Principal has entered into Contract No. 20PROGXXX02M Amendment #1 with the Authority, dated the ______ day of ______, 2023 (the "Contract"), to which the said Agreement, along with the Contract Documents referenced therein are hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform said Agreement and shall in all respects duly and faithfully observe and perform all and singular the covenants, conditions and agreements in and by the Agreement agreed and covenanted by the Principal to be observed and performed, and according to the true intent and meaning of said Agreement and the Contract Documents hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code, as amended and all liabilities on this bond shall be determined in accordance with the provisions of said Chapter to the same extent as if it were copied at length herein, except as relates to bond amounts, which shall follow bond amounts as outlined in the Contract.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the Work performed thereunder, or to the Contract Documents referenced therein, shall in anyway affect the obligations on this bond, and it does hereby waive notice of such change, extension of time, alteration or addition to the terms on the Agreement, or to the Work to be performed thereunder.

	e said Principal and Surety have signed and sealed this , 2023.
PRINCIPAL	SURETY
SIGNATURE	SIGNATURE
NAME & TITLE	NAME & TITLE
ADDRESS	ADDRESS
() PHONE NUMBER	
The name and address of the Resident .	Agency of Surety is:
TELEPHONE NUMBER	SIGNATURE OF LICENSED LOCAL RECORDING AGENT appointed to countersign on behalf of Surety (Required by Art. 21.09 of the Insurance Code)
*****	******************
I,	, having executed Bonds
SIGNATURE	
for	
NAME OF SURETY	do hereby affirm I have

verified that said Surety is now certified with Authority from either: (a) the Secretary of the Treasury of the United States if the project funding includes Federal monies; or (b) the State of Texas if none of the project funding is from Federal sources; and further, said Surety is in no way limited or restricted from furnishing Bond in the State of Texas for the amount and under conditions stated herein.

Section K

Payment Bond

Bond #

Bond Effective Dates: 7/1/2023 - 6/30/2026

K. PAYMENT BOND

STATE OF TEXAS COUNTY OF

KNOW ALL MEN BY THESE PRESENTS: That

	of the City of		(County
of	, and State of		, as Principal (here	inafter
referred to as the "Principal"), and			auth	orized
under the laws of the State of Texa	s to act as Suret	y on bonds for princi	ipals (hereinafter re	eferred
to as the "Surety"), are held and fin	rmly bound unt	o Central Texas Regi	ional Mobility Aut	hority,
(hereinafter referred to as the "Auth	nority"), in the p	enal sum of Forty the	ree Million Five Hu	undred
Forty nine Thousand Five Hundre	d Fifteen Dolla	rs and Sixty Cents (\$43,549,515.60	for the
payment whereof, the said Princip	pal and Surety	bind themselves, th	eir heirs, administ	trators,
executors, successors, and assigns,	jointly and seve	rally, by these presen	its:	

WHEREAS, the Principal has entered into Contract No. 20PROGXXX02M Amendment #1 with the Authority, dated the _____ day of _____, 2023, to _____ (hereinafter referred

to as the "Contract"), which said Contract and the Contract Documents incorporated therein are hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the Work provided for in said Contract, then, this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code, as amended and all liabilities on this bond shall be determined in accordance with the provisions of said Chapter to the same extent as if it were copied at length herein, except as relates to bond amounts, which shall follow bond amounts as outlined in the Contract.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work performed thereunder, or to the other Contract Documents accompanying the same, shall in anyway affect its obligation on this bond, and it does hereby waive notice of such change, extension of time, alteration or addition to the terms of the Contract, or to the Work to be performed thereunder or to the other Contract Documents accompanying the same.

PRINCIPAL	SURETY
SIGNATURE	SIGNATURE
NAME & TITLE	NAME & TITLE
ADDRESS	ADDRESS
() PHONE NUMBER	() PHONE NUMBER
The name and address of the Reside	ent Agency of Surety is:

(____) PHONE NUMBER

SIGNATURE OF LICENSED LOCAL RECORDING AGENT appointed to countersign on behalf of Surety (Required by Art. 21.09 of the Insurance Code)

Section L

From A-5 - Receipt of Addenda

Not Applicable

L. FORM A-5 – RECEIPT OF ADDENDA – NOT APPLICABLE

Section M

Engineer Seals

M. ENGINEER SEALS

ENGINEER SEAL

PROJECT NUMBER: 20PROGXXX02M

DESCRIPTION : System-wide Performance Based Maintenance HIGHWAY : System-wide COUNTY : Travis, Williamson, and Hays

The enclosed General Notes, Special Provisions, Special Specifications in this document have been selected by me, or under my responsible supervision as being applicable to this project. Alteration of a sealed document without proper notification to the responsible engineer is an offence under the Texas Engineering Practice Act.

TKhchell ,P.E.

The seal appearing on this document was authorized by Michelle E. Stracener, P.E. June 20, 2023

Central Texas Regional Mobility Authority

System-Wide Performance Based Maintenance Contract No. 20PROGXXX02M II. SPECIFICATIONS Amendment #1

June 20, 2023

TABLE OF CONTENTS

Page

N.	Gen	eral Notes	2
	N.1	General	2
		N.1.1 General Requirements	2
		N.1.2 General Maintenance Obligations	2
		N.1.3 License and Special Training Requirements	5
		N.1.4 Notice to Proceed	7
	N.2	Project Limits	9
	N.3	Coordination Meetings	10
	N.4	Stockpile, Storage and Equipment Sites	11
	N.5	Field Office and Laboratory	
	N.6	Work Provided by Others.	12
	N.7	Erosion and Sedimentation Control	
	N.8	Reference Documents	
		N.8.1 TxDOT Manuals, Governing Specifications and Special Provisions	14
		N.8.2 Existing Agreements	
	N.9	Current, Ongoing, and Proposed Construction Projects	
	N.10	Hurricane Evacuations	
		Environmental	
		Condition Assessments	
	N.13	Transition Requirements	17
		Item 658 – Delineator and Object Marker Assemblies	
		Item 7668RMA – Snow and Ice Control	
		Item 7671RMA – Work Order Allowance	
0.		CIAL PROVISIONS	
0.		1 : ABBREVIATIONS AND DEFINITIONS	
		A 2: INSTRUCTIONS TO BIDDERS	
		A 3: AWARD AND EXECUTION OF CONTRACT	
		A 4: SCOPE OF WORK	
		A 5: CONTROL OF THE WORK	
		A 6: CONTROL OF MATERIALS	
		17: LEGAL RELATIONS AND RESPONSIBILITIES	
		A 8: PROSECUTION AND PROGRESS	
		19: MEASUREMENT AND PAYMENT	
		A 168: VEGETATIVE WATERING	
		A 500: MOBILIZATION	
р			
Р.		CIAL SPECIFICATION 7667RMA – PERFORMANCE BASED MAINTENANCE	
	P.1	Description	
	P.2	Texas Department of Transportation (TxDOT) Standards	53

P.3		0 0	ents	
P.4			ANY 1	
P.5			cope of Work	
	P.5.1			
	P.5.2		nce Management Plan and Work Schedules	
	D C 2	P.5.2.1	Key Personnel; Qualifications of Employees	
	P.5.3		e Equipment	
	P.5.4		15	
	P.5.5			
	P.5.6		sure Notification and Traffic Control	
		P.5.6.1	Lane Closures	
	P.5.7		Maintenance	
		P.5.7.1	Localized Rutting	
		P.5.7.2	Localized Roughness	
		P.5.7.3	Failures	
		P.5.7.4	Edge drop-offs	
		P.5.7.5	Expansion Joints	
		P.5.7.6	Cracks in Asphalt	
		P.5.7.7	Curbs	77
	P.5.8	e		
		P.5.8.1	Pipes and Channels	
		P.5.8.2	Vegetative Filter Strips	79
		P.5.8.3	Swales	
		P.5.8.4	Detention Facilities	
		P.5.8.5	Hazardous Material Traps	79
		P.5.8.6	Water Quality Ponds	80
		P.5.8.7	Underground Detention	81
		P.5.8.8	Pump Stations	81
		P.5.8.9	Enclosure Areas	82
		P.5.8.10	Travel Way	82
		P.5.8.11	Underdrains	82
		P.5.8.12	Erosion and Siltation	82
	P.5.9	Structures	5	82
		P.5.9.1	Structure Inspections	82
		P.5.9.2	Bridge and Undercrossing Maintenance – Damage	83
		P.5.9.3	Bridge and Undercrossing Maintenance – Cleaning	84
		P.5.9.4	Bridge and Undercrossing Maintenance – General	84
		P.5.9.5	Bridge Expansion Joints	84
		P.5.9.6	Undercrossing Components	85
		P.5.9.7	Gantries and High Masts	85
		P.5.9.8	Pole and Foundation Supporting ITS Equipment (such as CCTV, RVSD and DMS signs)	86
		P.5.9.9	Non-bridge Class Culverts	

P.5.10	Pavement	Markings, Object Markers, Barrier Markers and Delineators	86
	P.5.10.1	New Striping	86
	P.5.10.2	Longitudinal Pavement Markings	87
	P.5.10.3	Non-longitudinal Pavement Markings	87
	P.5.10.4	Prefabricated Pavement Markings	87
	P.5.10.5	Mobile Retroreflectivity Data Collection (MRDC)	87
	P.5.10.6	Raised Reflective Pavement Markers	
	P.5.10.7	Delineators and Object Markers	88
	P.5.10.8	Delineators and Object Markers (used for delineation of the	0.0
D C 11	C 11	express lanes)	
P.5.11		ce, Safety Barriers and Impact Attenuators	
	P.5.11.1	Guard Fence	
	P.5.11.2	Concrete Safety Barrier	
	P.5.11.3	Cable Barrier Systems	
D = 10	P.5.11.4	Impact Attenuators	
P.5.12	-	ins	
	P.5.12.1	Signs, Supports and Assemblies – General	
	P.5.12.2	Signs, Supports and Assemblies – Small	
	P.5.12.3	Signs, Supports and Assemblies – Large	
	P.5.12.4	Warning and Regulatory Signs	
	P.5.12.5	Rate Change Signs	
P.5.13	U		
	P.5.13.1	Signal Inspections	
	P.5.13.2	Signal Maintenance – General	
	P.5.13.3	Traffic Signal Maintenance – Response	
	P.5.13.4	Video Imaging Vehicle Detection System (VIVDS)	
	P.5.13.5	Broad Band for Traffic Signals	
P.5.14		on	
	P.5.14.1	Illumination Inspection	
	P.5.14.2	Illumination Maintenance	
	P.5.14.3	Electrical Supply	
	P.5.14.4	Access Panels	
	P.5.14.5	High Mast	
	•	Walls and Sound Abatement	
P.5.16	-	n Management	
	P.5.16.1	Vegetation Height	
	P.5.16.2	Noxious Weeds	101
	P.5.16.3	Vegetation Encroachment	
	P.5.16.4	Vegetation Trimming	
	P.5.16.5	Loss of Vegetation	102
	P.5.16.6	Sight Lines	102
	<i>P.5.16.7</i>	Wildflowers	102
	P.5.16.8	Landscaped Areas	103

		P.5.16.9	Irrigation Management	.104
		P.5.16.10	Trees, Brush and Ornamentals	.105
	P.5.17	Sidewalks	, Shared Use Paths (SUP) and Trailheads	.105
		P.5.17.1	Sidewalks and Shared Use Paths (SUPs)	. 105
		P.5.17.2	Trailheads	. 106
	P.5.18	Embankm	ent and Slope Maintenance	. 106
	P.5.19	Sweeping,	Litter and Debris	.106
		P.5.19.1	Sweeping	.106
		P.5.19.2	Litter	.107
		P.5.19.3	Obstructions and Debris in Express Lanes	.108
		P.5.19.4	Obstructions and Debris	.108
	P.5.20	Miscellane	eous	.108
		P.5.20.1	Chain Link Fence	.108
		P.5.20.2	Encroachments	. 108
		P.5.20.3	Mailboxes	.108
		P.5.20.4	Graffiti	.108
		P.5.20.5	Aesthetic Features	. 109
	P.5.21	Incident M	lanagement	. 109
	P.5.22	Hazardous	Materials	.111
	P.5.23	Customer	Response	.112
	P.5.24	Environme	entally Sensitive Areas	
		P.5.24.1		
		P.5.24.2	Wetland Areas and Waters of the U.S.	.114
		P.5.24.3	Migratory Bird Treaty & Endangered Species Acts	
		P.5.24.4	Edwards Aquifer Recharge and Contributing Zones	
		P.5.24.5	Cultural Resources	.121
		P.5.24.6	Other Environmental Restrictions	.121
		-	nd Facility Maintenance – General	
			laintenance Services	
		•	liance	
	P.5.28		ent	
		P.5.28.1	Condition Assessments	
		P.5.28.2	Asset Condition Score	
	P.5.29	•		
		P.5.29.1	Ramp Up Period – Not Applicable	.130
SPE	CIAL SI	PECIFICA	TION 7668RMA – SNOW AND ICE CONTROL	.132
Q.1	Descrip	otion		.132
Q.2	Genera	1		.132
Q.3	Materia	ıls		. 133
Q.4	Equipm	nent and Per	rsonnel	.133
Q.5	Method	ls of Operat	ion and Equipment	.135
Q.6	Non-co	mpliance		.138
Q.7	Measur	ement		.138

Q.

	Q.8	Payment	
R.	SPE	CIAL SPECIFICATION 7669RMA – LANE CLOSURES	141
	R.1	Description	141
	R.2	Materials	141
	R.3	Construction	141
		Non-compliance	
	R.5	Measurement	
	R.6	Payment	
S.	SPE	CIAL SPECIFICATION 7671RMA – WORK ORDER ALLOWANCE	145
	S.1	Description	
	S.2	Materials, Equipment and Construction	
	S.3	Measurement and Payment	

List of Tables

Project Limits	9
Anticipated Projects	
Maintenance Management Plan Content and Outline	
Allowable Lane Closure Times	73
Summary of Signals	
Summary of Vegetation Management Areas	
Summary of Vegetation Management Areas	
Limited Maintenance Services	
Roadway Condition Assessment Groups	
Vehicles and Equipment	134
	Anticipated Projects Maintenance Management Plan Content and Outline Allowable Lane Closure Times Summary of Signals Summary of Vegetation Management Areas Summary of Vegetation Management Areas Limited Maintenance Services Roadway Condition Assessment Groups

Section N

General Notes

N. GENERAL NOTES

N.1 General

N.1.1 General Requirements

This Contract is for Maintenance Services of 183A Toll, 290 Toll (Manor Expressway), Express 1 Toll (MoPac Express), 71 Toll, 45 Toll, 183 Toll (Bergstrom Expressway), 183A Phase III Project, 183 North Project and ancillary facilities noted in section N.2 (each project or facility referred to generally as "Project" or collectively as the "Projects"). The Projects are located in Travis, Hays, and Williamson Counties.

It is the intent of the Central Texas Regional Mobility Authority (Authority) that the Contractor will perform all routine maintenance duties traditionally performed by the Authority in maintaining and operating the Projects except as noted in this Contract. It shall be the responsibility of the Contractor to ensure that they are completely aware of the traditional functions of the Authority.

Contractor shall provide all personnel, labor, materials, supplies, parts, equipment, electronic equipment, public and employee safety devices, components, tools, utilities and other items and services required to undertake and complete the Maintenance Services with exception of materials provided by the Authority, as noted in the Contract Documents. Contractor shall bear the risk of loss, damage, theft and vandalism of such materials, supplies, parts, equipment, devices, components, tools, utilities and other items with exception of the limitations noted in the Contract Documents.

The Authority will exempt Contractor vehicles, being used to provide Maintenance Services for this Contract, from toll assessment. A form will be provided to the Contractor which will include the specific vehicle information required for this exemption. This list will be reviewed quarterly at a minimum or as needed.

N.1.2 General Maintenance Obligations

Contractor shall take all necessary actions to achieve the following during Maintenance Services:

- Perform Maintenance Services in a proactive manner to prevent excessive and unanticipated deterioration of the Projects and its appurtenances. If excessive deterioration of the Projects elements occurs, perform all repairs necessary to bring elements to an acceptable condition as approved by the Authority's Project Manager at no additional cost to the Authority.
- 2) Minimize delay and inconvenience to Users and, to the extent the Contractor is able to control, users of Related Transportation Facilities. Perform Maintenance Services in a manner that recognizes that the safety of the public, convenience of the traveling public and providing a safe work environment for all maintenance workers are of prime importance. Repair of damage that is a potential hazard to the public must be initiated with appropriate resources (traffic control, materials, personnel, equipment, etc.) as prescribed in the Contract Documents. The Authority's good faith determination of the

existence of such danger will be deemed conclusive in the absence of clear and convincing evidence to the contrary.

- Identify and manage incidents and correct all Defects and damages from Incidents to include cleanup of spilled cargo, removal and disposal of damaged and unsalvageable materials, obtaining required permits, etc.
- 4) Monitor and observe weather and weather forecasts to proactively deploy resources to minimize delays and potential safety hazards due to heavy rains, snow, ice, or other severe weather events.
- 5) Remove debris, including litter, graffiti, animals, and coordinate with Traffic Incident Management (TIM) Center, at (512) 450-6326 between 6:00 AM to 7:30 PM, Monday through Friday, for removal of abandoned vehicles or equipment from the Project right-of-way (ROW).
- 6) Minimize the risk of damage, disturbance, or destruction of third-party property during the performance of maintenance activities. Damage, disturbance, or destruction of third-party property resulting from the performance of maintenance activities is the responsibility of the Contractor.
- 7) Locate underground utilities for Maintenance Services associated with this specification. Failure to locate, resulting in damage, will be the responsibility of the Contractor.
- 8) Coordinate with other contractors, cities, counties, state, and local law enforcement, utilities, fire departments, health services and other state and federal agencies. Prepare, maintain and periodically update the contact list of all relevant agencies and jurisdiction.
- 9) Perform systematic Project inspections and maintenance in accordance with the provisions of Contractor's Maintenance Management Plan (MMP) in accordance with the Contract Documents.
- 10) Perform Maintenance Services in accordance with time requirements in accordance with the Contract Documents. Time requirements listed herein will be measured from discovery or notification until the Performance Measure is met. Days are defined as Calendar Days. The term "immediately" is defined as less than 1 hour. The periods stated will be deemed to start upon the date Contractor's first obtained knowledge of, or first reasonably should have known of, the defect. For this purpose, Contractor will be deemed to have first obtained knowledge of the failure not later than the date of delivery of the initial notice to Contractor.
- 11) Contractor will investigate reports and complaints on the condition of the Project received from all sources. Contractor will record such reports and complaints as maintenance records together with details of all relevant inspections and actions taken to rectify defects, including temporary protective measures and repairs.
- 12) Use the Authority's Computerized Maintenance Management System (CMMS), for tracking and logging work as required by the Contract Documents and Electronic Document Management System (EDMS), for contract reporting and documentation.

Cooperate with the railroads and comply with all of their requirements including obtaining any necessary agreements, insurance and training before performing work on or near railroad property.

Protect all areas of the ROW from destruction. Exercise care to prevent damage to trees, vegetation, and other natural surroundings. Restore any area disturbed, as a result of the Contractor's operations, to the condition as originally constructed.

Damage to existing assets due to the Contractor's operations will be repaired at the Contractor's expense.

The Authority will obtain environmental permits when required. Display permits at the work location. Do not initiate work in or near creeks, streams, or wetlands without previous approval. If approval is required, the Authority Project Manager must be notified at least 45 Calendar Days before activities located near "Environmental Zones" as shown in the plans, unless otherwise directed by the Authority Project Manager. Do not initiate soil disturbing work in the Edwards Aquifer Recharge or Contributing Zones without prior approval. The Authority Project Manager must be notified at least 45 Calendar Days before soil disturbance located on the Edwards Aquifer Recharge or Contributing Zones as shown in the plans, unless otherwise directed by the Authority Project Manager. Emergency repair or in-kind repairs will not require the above notification.

Implement best management practices (BMPs) associated work to comply with environmental commitments per the Authority's maintenance programs.

All damaged material will become property of the Contractor to be removed and properly disposed of off the ROW.

It is the Contractor's responsibility to ensure familiarity with the existing site conditions and all aspects of the Contract prior to responding to the Proposal.

Overhead and underground utilities exist in the vicinity of the project. The exact location of underground utilities is not known. Adhere to 16TAC§18.1, the Texas Railroad Commission rules requiring all parties to use the Texas One Call system for locating utilities before excavations of more than 16 inches in depth.

The Contractor will be responsible for locating the Authority owned underground irrigation lines, power and communication conduit and duct bank runs and performing line locates, as needed, within 48 hours of notice. This work will be compensated under the applicable pay items.

Contact Texas811 at Texas811.org or (800) 545-6005 for exact locations at least 48 hours prior to commencing any work that might affect existing utilities. Not all area utility companies are registered with Texas811. It is the responsibility of the Contractor to contact those area utility companies.

In addition to contacting utilities, the Contractor shall contact TxDOT personnel at aus_locate@txdot.gov to determine duct bank locations at least 48 hours prior to commencing

4

any work that might affect existing duct bank. In the event of system damage, notify TxDOT/CTECC at (512) 974-0883 within one hour of occurrence.

In the event the Authority's communication fiber is damaged, notify the Authority Project Manager within 30 minutes. The Authority will mobilize to perform emergency repairs. Costs for emergency repairs to reinstate communication services will be the responsibility of the Contractor.

The Contractor is responsible for any utilities damaged while performing Maintenance Services. In the case of damage to TxDOT or Authority communications infrastructure, repairs shall begin immediately. Repairs shall be completed within 8 hours of occurrence at no cost to TxDOT or Authority. In the event the Contractor does not complete repairs in a timely manner, repairs will be made by the affected agency. Costs for emergency repairs performed by the affected agency to reinstate communication services will be the responsibility of the Contractor.

N.1.3 License and Special Training Requirements

The Contractor shall possess the appropriate qualifications, certifications, or licenses Contractor shall record and maintain certification documentation, identifying certified personnel and provide all records by posting in the Authority's electronic document management system (EDMS) prior to commencement of Work. License updates due to renewals and/or personnel change shall be submitted in the same manner.

<u>Bridge Maintenance Inspector</u>: Contractor will have personnel that have taken and passed the TxDOT's Maintenance Bridge Inspection Course (MNT127) for Maintenance Section Inspector and Maintenance Section User as described in the MBITS 1.0 User Manual. As an alternative, certification through NHI Course 130108 Bridge Maintenance (FHWA-NHI-103108) may apply.

<u>Capital Metro Railroad Work Zone Training</u>: The Contractor Project Manager and appropriate staff will attend and become certified in Railroad Work Zone Training as provided by the railroad or their approved training provider. There shall be no crossings of the railroad's tracks without the presence of a "Railroad Worker-in- Charge", as approved by the railroad.

<u>Confined Space Training</u>: Comply with the TxDOT course SFH110 Confined Space Safety training course covering OSHA 1910.146, TxDOT standards and OSHA 1910.47.

<u>Electrical</u>: The applicable electrical requirements are shown in Item 7.18 of the Standard Specifications. Submit current and valid license and certification documentation and update accordingly to ensure that documentation is valid for all persons performing electrical work on this Contract.

<u>Emergency Management</u>: Comply with the applicable training and certification requirements per HSPD-5 for National Incident Management System (NIMS) Training. Employees involved in emergency/incident response must complete IS-700, IS-100 and IS-200.

<u>Engineering</u>: The Contractor shall have engineers licensed in the State of Texas available or on call 24 hours a day, 7 days a week for the duration of the contract with the ability to physically

report to the Project within 1 hour to support Maintenance Services and timeliness requirements per the Contract Documents.

<u>Fire Suppression</u>: The Contractor shall use individuals certified by National Fire Protection Association (NFPA) to perform annual fire protection testing.

<u>Hazardous Materials</u>: Contractor will have personnel trained and certified at least to the minimum requirements established under the current guidelines of OSHA 1910.120 (HAZWOPER Training). As an alternative, certification equivalent to NFPA 472 (Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents) may apply.

<u>HVAC</u>: All personnel performing HVAC work must be registered technicians who have obtained certification through the Texas Department of Licensing and Registration (TDLR) in performing air conditioning and refrigeration work.

<u>Irrigators</u>: Possess an irrigator's license or employ a subcontractor that employs a person who possesses an irrigator's license issued by the Texas Commission on Environmental Quality to perform landscape irrigation system maintenance and repair. Submit current and valid license and certification documentation and update accordingly to assure that documentation is valid for all persons performing work on this Contract. Persons possessing a license shall supervise maintenance and repair of the irrigation system. Utilize licensed or certified personnel in other areas as required by local, state, or federal legislation.

<u>Pesticide/Herbicide Applicator</u>: Comply with the latest version of the TxDOT's Herbicide Operation Manual. Possess a license or employ a person who possesses a Texas Department of Agriculture (TDA) Commercial Pesticide/Herbicide Applicator License in the 3A and 5 categories, to apply pesticide/herbicide within the highway system, as required. Provide the Authority with documentation of license before beginning of Maintenance Services.

<u>Safety Manager</u>: Designation as a Construction Health and Safety Technician (CHST) or higher certification issued by the Board of Certified Safety Professionals (BCSP). Completed the Occupational Safety and Health Administration (OSHA) 30-hour Safety and Health Course. Training and current certification for cardiopulmonary resuscitation (CPR) and First Aid.

<u>Traffic Control</u>: Comply with the applicable training requirements per Special Provision 007-001. Submit current and valid certification documentation and update accordingly to assure that documentation is valid for all persons performing traffic control work on this Contract.

<u>Traffic Signals</u>: Comply with the applicable electrical requirements as shown in Item 7.18.1.3 of the Standard Specifications. Submit current and valid license and certification documentation and update accordingly to assure that documentation is valid for all persons performing electrical work on this Contract.

<u>Turf and Landscaping</u>: Contractor shall have personnel who are either an American Society of Horticulture Science (ASHA) certified horticulturist; a Texas Nursery and Landscape Association (TNLA) certified nursery professional; or a Texas Master Certified Nursery

6

Professional (TXMCNP). Also, an International Society of Arboriculture Certified Arborist (ISA) and a turf agronomist are required.

<u>VIVDS</u>: Contractor will have personnel attend TRF450 TxDOT Roadway Illumination & Electrical Installations and TRF453 TxDOT Elect Requirements Install Traffic Signals training course, provided by TxDOT, and obtain an Item 7 Card certification.

<u>VUEWorks®</u>: VUEWorks® Asset Management Software user license for the appropriate number of users required to manage data entry for the Contractor will be provided by the Authority.

The Authority does not intend to contract for, pay for, or receive any professional services which are in violation of any professional licensing or registration Laws, and by execution of this Agreement, the Contractor acknowledges that the Authority has no such intent. It is the intent of the Parties that the Contractor is fully responsible for furnishing the professional services of the Project as provided in this Agreement through itself and/or subcontracts as or with licensed and/or registered professional service firm(s). Any references in the Contract Documents to the Contractor's responsibilities or obligations to "perform" the professional services portions of the Maintenance Services shall be deemed to mean that the Contractor shall "furnish" the professional services for the Project.

N.1.4 Notice to Proceed

The Authority will issue the Initial Notice to Proceed (NTP) no later than June 30, 2023. The Contractor will begin providing Maintenance Services on July 1, 2023 at 12:00 AM Central Time, terminating June 30, 2028, with two additional 5-year renewal options to extend the Initial Term to a maximum of 15 years (180 months). The Initial Term includes the mobilization and material procurement period of the original agreement and shall continue for a period of 5 years, unless terminated earlier in accordance with the terms of this Contract. Proposed dates for subsequent NTPs can be found in Table 2.1: Project Limits.

The Contractor will be allowed the opportunity to review a new Project subject to future NTP and provide comment on or around the date of substantial completion of construction of each subsequent Project noted in Table N.2.1. This review will be coordinated by the Authority and shall be a non-binding advisement for Authority consideration and incorporation at its sole discretion. At the direction of the Authority's Project Manager, the Contractor may be responsible for correction of construction deficiencies as recognized by CTRMA. In this case, the Contactor will receive compensation for this work.

The Authority, in its sole and absolute discretion, shall have the option to extend the term of this Contract by an amendment to this Contract approved by the Authority's Board of Directors. If the Authority elects to exercise its option right, the Authority shall indicate intent to renew in writing prior to expiration of the current contract term.

For this Contract, the Office of Record will be:

Central Texas Regional Mobility Authority Offices 3300 N. IH-35, Suite 300 Austin, TX 78705

N.2 Project Limits

Maintenance Services will be provided on the following Projects:

	Project Limits					
Description	Limits	Centerline Miles	Mainlane Lane Miles	General Purpose Lane Miles	Frontage Lane Miles	Estimated NTP Date
183A Toll	From: RM 620 To: US 183	10.5	78.3	0	56.4	6/2023
290 Toll (Manor Expressway)	From: US 183 To: East of Parmer Ln.	6.3	51.1	0.5	47.6	6/2023
Express 1 Toll (MoPac Express)	From: Parmer Ln. To: Cesar Chavez St.	11.6	46.7	75.6	47.7	6/2023
71 Toll	From: West of Thornberry Rd. To: East of SH 130	4.7	13.8	28.9	3.1	6/2023
45 Toll	From: Loop 1 To: FM 1626	5.0	18.9	2.8	1.8	6/2023
183 Toll (Bergstrom Expressway)	From: 290 Toll (Manor Expressway) To: 71 Toll	8.9	67.5	0	61.6	6/2023
183A PHIII Project ⁽¹⁾	From: CR 258/CR 213 To: US 183	4.8	25.3	0	27.8	2025
183 North Project ⁽¹⁾	From: RM 620 To: East of Express 1 Toll	7.9	44.4	61.9	56.3	2026
	Total Miles ⁽¹⁾	59.7	346.00	169.7	302.3	

Table N.2.1: Project Limits

Notes:

1) Quantities based on the latest information available.

The specific Project limits are as shown on the attached maintenance maps. The Project limits shall include all areas within the ROW, to include but not limited to, all assets within the main lanes, general purpose lanes, frontage roads, ramps, islands, medians, turn-arounds, cross streets, roadside and facilities, unless otherwise noted.

Facilities locations are as follows:

 Authority buildings/facilities
 183A Toll Traffic Incident Management Center Authority Maintenance Facilities
 Toll In-Lane Processing (ILP) buildings

Amendment #1 Volume II – Specifications System-wide Performance Based Maintenance CTRMA Contract #20PROGXXX02M Emergency generators Trailheads

- 2) Shared-Use Paths
- 3) The Project limits on the cross streets shall generally be as follows:
 - a. To the ROW line or the set-back ROW line on intersecting highways, county roads and city streets.
 - b. Interchange areas as shown on the attached plans.

Maintenance of roadside within the UPRR ROW will be required on Express 1 Toll. This work will include the following Element Categories as described in Exhibit 2, as applicable:

- 1) Element P.5.16.1 Vegetation Height
- 2) Element P.5.19.2 Litter
- 3) Element P.5.19.4 Obstructions and Debris

The maintenance contractor is not responsible for maintenance of the tracks or the area within the tracks.

N.3 Coordination Meetings

Prior to beginning of Maintenance Services, a pre-work meeting is required between the Contractor, the Authority, TxDOT, and other stakeholders.

Monthly meetings will be required between the Contractor and the Authority to review work reporting for the previous month, work scheduled for the current month and other planning and coordination needs.

Contractor will be required to attend meetings, including Austin-area Incident Management for Highways (AIMHigh), as a representative or partner of the Authority as requested.

N.3.1 Dispute Resolution

Partnering will be encouraged in preference to formal dispute resolution mechanisms. Partnering in this context is intended to be a voluntary, nonbinding procedure available for use by the Mobility Authority and the Contractor to resolve any issues that may arise during performance of the Maintenance Services.

The Mobility Authority and the Contractor will set up a formalized process to resolve any issues that arise in connection with this contract. The process will include an issues resolution ladder to resolve questions at the appropriate organizational levels. Any questions that cannot be resolved by use of the issues resolution ladder will be referred to the Mobility Authority's Executive Director to resolve. Within 10 business days after the Mobility Authority receives notice of the dispute, the Mobility Authority must schedule a meeting with the party submitting the notice and any other appropriate party.

The Mobility Authority will work with the Contractor at the first partnering session in the development of an issue resolution matrix.

During the resolution of an issue, the Mobility Authority and the Contractor will not hinder work under the contract and such work will proceed.

N.4 Stockpile, Storage and Equipment Sites

No equipment or material will be allowed on the Authority or TxDOT ROW, unless otherwise approved by the Authority Project Manager. Contractor shall secure maintenance facilities, yards, and stockpile areas off the Authority and TxDOT ROW, unless otherwise approved by the Authority Project Manager. The following Authority maintenance yards shall be used for snow and ice activities:

290 Toll Maintenance Yard 8824 Old Manor Road Austin, TX 78724

183A Toll Maintenance Yard 2605 183A Toll Road Cedar Park, TX 78613

Remove all equipment, construction debris and project related surplus material from the Authority and TxDOT ROW to keep the work site in a neat and presentable condition at all times.

The Contractor will have access to materials currently stockpiled by the Authority for use in providing Maintenance Services. Within 30 days of Initial NTP, the Authority and the Contractor shall review and document the current inventory at the Authority stockpile locations. The Contractor shall be required to maintain stockpile inventory through the duration of the contract. Failure to replace these items will result in the issuance of liquidated damages. Refer to Exhibit 5 Noncompliance Liquidated Damages for non-compliance liquidated damage amount. A final inventory shall be conducted as part of the Contractor's Transition Plan.

All damaged material will become property of the Contractor and will be removed and properly disposed of off the Authority and TxDOT ROW.

Maintenance of elements within the stockpile, storage and equipment yards shall be in accordance with the applicable specifications in these Contract Documents.

N.5 Field Office and Laboratory

No later than the date specified in the Initial NTP to commence Maintenance Services, furnish one Type E Field Office structure in accordance with Item 504 in the 2014 Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges that will allow for co-location of Contractor and Authority personnel within a 20-mile radius of the Authority main office. The structure shall have at least 600 square feet of gross floor area in room(s) 8 feet high. Partition the floor area into at least three interconnected rooms with doors, two exterior doors, and at least two windows in each room. Provide fully equipped, indoor restrooms with toilet and hot and cold running water. The structure will include business class ethernet system internet services with minimum 100 megabyte/sec download and 10 megabyte/sec upload with Wi-Fi signal, minimum of 3 desks, 6 chairs, and a storage cabinet. The cabinet will be lockable and a minimum of 3 feet wide by 2 feet deep by 3 feet high. A color printer/copier capable of printing on 11-x-17-inch paper will be required. A motion sensitive outdoor light for security purposes will be required. Submit proposed office equipment for approval prior to acquisition. The cost of the field office and all required equipment will be subsidiary to other bid items.

Space heaters are not considered adequate heating.

Provide a monthly drinking water cooler with hot and cold taps and a monthly drinking water service, unless approved otherwise.

All offices will include cleaning at least once a week. The cleaning will include sweeping and mopping of floors, cleaning the toilet and lavatory, and emptying wastebaskets. Maintain and repair any structure or equipment contained herein. Consider subsidiary to the pertinent Items.

Failure to provide and maintain a field office as required will be subject to liquidated damages as shown in Exhibit 5, Liquidated Damages for Non-Compliance.

N.6 Work Provided by Others

There will be items performed by the Authority's System Integrator at each Project toll and ITS locations, as well as the 183A Toll Traffic Incident Management (TIM) Center as described in Special Specification 7667RMA, Section P.5.25.1. Specifically, the operations and maintenance of toll equipment, ITS equipment, and fiber optic cables will be the responsibility of the System Integrator.

Certain Project elements, associated with tolling and ITS, are the responsibility of the Contractor and are included in this Contract. The following will be the Contractor's responsibility as part of the Maintenance Services scope of work:

- 1) Emergency generators (after manufacturer warranty expires). Prior to the expiration of the manufacturer's warranty, the System Integrator is responsible for emergency generator maintenance.
- 2) Toll gantry ILP buildings, pad, and maintenance pull-off area. Tolling equipment inside the ILP building is not included in the Contractor's scope of work.
- 3) Toll gantry structure and pad. This includes signing and lightning protection devices, but excludes tolling equipment and fiber optic cable.
- 4) Fiberglass reinforced concrete pavement in tolling zone
- 5) Underground cable vaults and ground boxes within the tolling zone
- 6) Duct bank/conduits with in Project limits

- 7) Metal beam guard fence repairs, bollards, fencing, mowing, sweeping, and other typical routine maintenance roadway items
- 8) ITS pole structures, foundations, and lightning protection for cameras, detector, and dynamic message signs. ITS equipment and fiber optic cables are excluded.

When working in and around the tolling zones, ITS equipment, and 183A Toll Field Operations Building, extensive coordination with the Authority its tolls and ITS System Integrator will be required such that tolling and ITS functions are not disrupted.

N.7 Erosion and Sedimentation Control

Implement Best Management Practices (BMPs) associated with Maintenance Services encompassed in this Contract to comply with environmental commitments per TxDOT's Maintenance Programs. Refer to the following link for a summary of BMPs that apply to Maintenance Program activities:

https://ftp.dot.state.tx.us/pub/txdot-info/env/mnt-bmp.pdf

All maintenance activities shall have the proper erosion and sedimentation controls. The Contractor shall prepare documents in accordance with the Storm Water Pollution Prevention Plan (SW3P). The Contractor is responsible for placing and maintaining all required erosion and sedimentation controls.

For all work over or near bodies of water (lakes, rivers, ponds, creeks, etc.):

Keep on site a universal spill kit adequate for the body of water and the work being performed. No debris is allowed to fall into a body of water. Debris that falls into the water must be removed at the end of each work day. Debris that falls into the floodway must be removed at the end of each work week or prior to a rain event. This work is subsidiary.

N.8 Reference Documents

Unless otherwise approved by the Authority Project Manager, work performed and materials used under this Contract shall conform to the latest version of the Authority and TxDOT manuals, standards, specifications, special specifications, and special provisions, policies and procedures and their addenda. Comply with all environmental laws, rules, and regulations. All modified standards used in the original construction of the Projects are available with the RIDs. Review the Authority and TxDOT's website to assure that the latest standards, specifications, policies, procedures, etc., are being used.

Notify the Authority Project Manager immediately if any errors, omissions, or discrepancies are discovered in these documents so that necessary corrections or interpretations can be made. Failure to promptly notify the Authority Project Manager will constitute a waiver of all claims for misunderstandings or ambiguities that result from the errors, omissions, or discrepancies discovered.

N.8.1 TxDOT Manuals, Governing Specifications and Special Provisions

TxDOT Manuals include, but are not limited to, the following:

- 1) Roadway Design Manual
- 2) Maintenance Operations Manual
- 3) Roadside Vegetation Management Manual
- 4) Traffic Control Standard Sheets Book
- 5) Traffic Operations Manual
- 6) Texas Standard Specifications for Construction of Highways, Streets and Bridges; 2014 and applicable Special Provisions and Special Specifications, found at: <u>http://www.txdot.gov/business/resources/txdot-specifications.html</u>
- 7) Manual of Testing Procedures
- 8) Texas Manual on Uniform Traffic Control Devices for Streets and Highways (TMUTCD)
- 9) Sign Crew Field Book.
- 10) Utility Accommodation Policy
- 11) Departmental Material Specifications (DMS)
- 12) Material Producer List
- 13) TxDOT Standard Sheets
- 14) TxDOT Seal Coat Manual
- 15) Public Assistance Guide Federal Emergency Management Agency (FEMA) 322
- 16) Emergency Relief Manual Federal Highway Administration (FHWA)

TxDOT Department manuals can be found on the TxDOT internet site at:

http://www.dot.state.tx.us/business/manuals_publications.htm.

Standard Plan Sheets are available at http://www.dot.state.tx.us/business/standardplanfiles.htm.

Additional sheets, if required, will be furnished to the Contractor.

N.8.2 Existing Agreements

The Authority has agreements with governmental entities and third parties concerning the Projects included in this Contract. A summary of existing agreements indicating locations and responsibilities of others within these areas are provided below:

Municipal Maintenance Agreements exist for the following municipalities:

1) City of Austin

Multiple Use Agreements include:

1) City of Austin - Loop 1 Hike and Bike Trail from Enfield Road to the Colorado River

Interlocal Agreements include:

- 1) City of Austin Express 1 Toll Sound Wall 3 east of Loop 1 and the Union Pacific Railroad from Northland Drive (RM 2222) to Mohawk Road
- 2) City of Austin Maintenance of continuous illumination

Other Agreements include:

- 1) Missouri Pacific Railroad Loop 1 Common Use Drainage Agreement
- City of Austin Construction Access and License for SH 71 Toll Lanes Project (Maintenance of the SUP)

These agreements have been provided in the RIDs.

The presence of these agreements does not relieve the Contractor from meeting Performance Measures associated with these items included in the contract.

N.9 Current, Ongoing, and Proposed Construction Projects

Corridor	Description of Work	Anticipated Year
183A Toll	183A Phase II Small Sign Replacement	2023
290 Toll	290E Wall Improvements/Repairs	2023
290 Toll	Slab Stabilization for 290E	2023
71 Toll	71 East Large Guide Signs	2023
183 Toll	Slab Stabilization for 183S	2024
183A Toll	MBGF Improvements - Project #2	2024
290 Toll	290E Eastbound Mainlane Slab Jacking	2024
290 Toll	290E Large & Small Sign Replacement	2024
290 Toll	Slab Stabilization for 290E	2024
Express 1 Toll	MoPac PFC Fog Seal and Surface Repair	2024
290 Toll	Slab Stabilization for 290E	2025
183N Project	Slab Stabilization for 183N	2026
290 Toll	Slab Stabilization for 290E	2026
71 Toll	SH 71 TOM - Flexible Pavement	2026
Express 1 Toll	MoPac PFC - Flexible Pavement w/delineator replacement	2026
183N Project	Slab Stabilization for 183N	2027
290 Toll	Slab Stabilization for 290E	2027
Express 1 Toll	SB Windsor Exit Ramp	2027
183 Toll	Truss Bridge Aesthetics & Lighting (Montopolis Bridge)	2028

Table N.9.1: Anticipated Projects

Additional compensation will not be provided for improvements to the Project and will be considered subsidiary to the pay items provided.

N.10 Hurricane Evacuations

In cases of hurricane evacuations or other natural disasters, the Contractor shall coordinate with TxDOT and local agencies in the implementation of the State Emergency Management Plan, which can be found at <u>http://www.statutes.legis.state.tx.us/Docs/GV/htm/GV.418.htm</u>. This shall include assistance in the preparation and implementation of a hurricane lane reversal plan (contraflow), including the pre-staging of necessary traffic control manpower and material. Additional Traffic Control materials, in compliance with the State Emergency Management Plan, will be provided by the Authority. The Contractor will be paid utilizing SS7671RMA Work Order Allowance. Contractor shall maintain local access from reversed lanes. A copy of the US 290 Contraflow Plan can be found with the RIDs.

N.11 Environmental

Perform maintenance in environmentally sensitive areas. Environmental requirements are provided in the Special Specification 7667RMA Section P.5.13 Environmental.

N.12 Condition Assessments

Condition assessments will be performed on at least 20% of the total lane miles for each Project. Frequencies are described in Exhibit 4, Roadway Condition Assessment Frequency. Penalties will be calculated based upon the results of the condition assessments.

The Authority will establish Auditable Sections referenced to the Texas Reference Marker (TRM) System used by TxDOT, as shown in the plans. Project limits are shown on the maintenance maps included in the Contract Documents. The Contract Documents identify the boundaries of each Auditable Section.

The Authority will audit and monitor the activities described in the MMP to assess the Contractor's performance. All statements contained in the MMP shall be of an auditable nature, as described in this Section N.13.

The Contractor must meet the performance standards listed in Tables 2 and 3, Performance and Measurement. A performance measure will not be considered complete until all requirements are met (e.g., time, material compliance, work compliance, specification compliance, etc.). Meeting performance measures will not relieve the Contractor of the responsibility to monitor and maintain the Projects and all of the appurtenances in accordance with the Contractor's MMP or as required herein.

A Category 1 Defect is a defect which requires prompt attention to mitigate the potential hazard presented to the traveling public, potential risk of structural deterioration, potential risk of damage to a third party's property or equipment, or potential risk of damage to the environment. A Category 2 Defect is any defect other than a Category 1 Defect.

N.13 Transition Requirements

At the expiration of the Maintenance Term or any earlier termination of this Contract, the Contractor shall ensure and certify in writing that (1) the Maintenance Elements meet the Asset Condition Score requirements (2) the Project can be safely used for its intended purpose and that the Maintenance Services have been performed in accordance with the terms of the Contract Documents, Governmental Approvals and applicable Law, (3) there are no Hazardous Materials located within the ROW due to the actions, omissions, negligence, willful misconduct, or breach of applicable Law or contract by the Contractor or any Contractor-Related Entity, and (4) there is no litigation pending regarding the Maintenance Services or the Project by any Contractor-Related Entity. The Contractor shall develop a Transition Plan as set forth in SS7667RMA Section P.5.2 Maintenance Management Plan.

N.14 Item 658 – Delineator and Object Marker Assemblies

Delineators placed between general purpose and tolled lanes shall be replaced every 2 years at the direction of the Authority Project Manager. This work will be paid by the applicable bid item under Item 658, "Delineator and Object Marker Assemblies." Lane closures associated with this work will be paid by the applicable bid item under Item 7669RMA, "Lane Closures."

N.15 Item 7668RMA – Snow and Ice Control

The winter weather season is typically from November through March. However, no additional payment will be made for events outside of this time frame.

N.16 Item 7671RMA – Work Order Allowance

This fixed amount will be included in the total bid price, as explained under Section S.3 Measurement and Payment.

Section O

Special Provisions to Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges 2014

PREFACE

The "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges" of the Texas Department of Transportation (TxDOT), 2014, copies of which can be made available upon request and are available online at

<u>http://www.txdot.gov/business/resources/txdot-specifications.html</u>, as amended and augmented by the Special Provisions following, shall govern the performance of the Contract. These specifications hereby are made part of the Contract as fully and with the same effect as if set forth at length herein.

Attention is directed to the fact that any other documents printed by TxDOT modifying or supplementing said "Standard Specifications," such as Standard Supplemental Specifications, Special Provisions (by TxDOT), Notice to Bidders, etc., do not form a part of this Contract nor govern its performance, unless specifically so-stated in the Supplemental Specifications herein contained.

References made to specific section numbers in these Special Provisions, or in any of the various documents that constitute the complete Contract Documents shall, unless otherwise denoted, be construed as referenced to the corresponding section of the "Standard Specifications" issued by the TxDOT in 2014.

The following provisions represent modifications to the corresponding sections of the TxDOT Specifications, described above, and relate exclusively to the Central Texas Regional Authority Contracts. In case of conflicting requirements between the TxDOT Specifications and these modifications, these modifications shall govern. Any applicable provision in the TxDOT Specifications or Specifications not amended by and not in conflict with any Special Specifications or Special Provision contained herein shall be in full effect.

All modifications contained herein are additions to the provisions of the designated sections of TxDOT Specifications unless the text specifically identifies a requirement to be an amendment to, deletion of or substitution for a provision in TxDOT Specifications.

O. SPECIAL PROVISIONS

ITEM 1: ABBREVIATIONS AND DEFINITIONS

The ABBREVIATIONS AND DEFINITIONS set forth in Exhibit 1 of these Contract Documents are intended to supplement Abbreviations and Definitions set forth in Item 1 of the Standard Specifications; <u>provided</u>, <u>however</u>, that an abbreviation or definition set forth in Exhibit 1 shall supersede and control over any abbreviation or definition that is also set forth in Item 1 of the Standard Specifications.

Whenever in TxDOT Specifications and Standard Drawings the term, "Department" or "State" appears, it shall be replaced by the term, "Authority." Similarly, the term, "Executive Director" shall be replaced by the term, "Executive Director of the Authority."

Whenever in TxDOT Specifications and Standard Drawings the term, "Department" or "Texas Department of Transportation" appears, it shall be replaced by the term, "Authority," except in references to said Texas Department of Transportation as being the author of certain Specifications and Standard Drawings.

Whenever in TxDOT Specifications and Standard Drawings the term, "District Engineer" appears, it shall be replaced by the term, "Director of Engineering of the Authority."

ITEM 2: INSTRUCTIONS TO BIDDERS

For this Contract, Item 002, "Instruction to Bidders," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

2.2 Eligibility of Bidders

Delete this section in its entirety and follow the instructions included in the Instructions to Proposers in the RFP.

2.3 Issuing Proposal Forms

Delete this section in its entirety and substitute the following:

The Authority will issue a proposal form to a prequalified proposer if the Proposer demonstrates prequalification based on requirements stated in the Instructions to Proposers in the RFP. A proposal form printed directly from the Authority's website is for informational purposes only and will not be accepted as an official proposal form.

The Authority will not issue a proposal form if one or more of the following apply:

- The Proposer is suspended or debarred by the Authority, Texas Transportation Commission, TxDOT, or any federal agency
- The Proposer cannot show compliance with the Texas Family Code, Section 231.006. Ineligibility to Receive State Grants or Loans or Receive Payment on State Contracts
- The Proposer has not fulfilled the requirements for prequalification
- The Proposer does not have the available bidding capacity
- The Proposer or a subsidiary or affiliate of the Proposer has received compensation from the Authority to participate in the preparation of the plans or specifications on which the proposal or Contract is based

2.5 Examining Documents and Work Locations

Replace the third paragraph with the following:

Immediately notify the Authority of any error or omission discovered in any part of the proposal form and Contract documents. In the event a word, phrase, clause, or other portion of the plans, specifications, or other contract documents is alleged to be ambiguous, the Proposer shall submit to the Authority's Project Manager a written notice of same prior to the date of receipt of bids, and request an interpretation thereof. The Authority may issue an addendum when appropriate.

Add the following paragraphs:

The Proposers are encouraged to visit the Project site to form their own conclusions regarding access requirements, effort required to perform the tasks, and other information needed to

21

prepare their proposal. Prior to visiting the site, a Proposer shall notify the Authority's Project Manager of the time and date of the Proposer's visit.

2.6 Preparing the Bid

Delete this section in its entirety and follow the instructions included in the Instructions to Proposers in the RFP.

2.9.3 Submittal of Bid

Delete this section in its entirety and follow the instructions included in the Instructions to Proposers in the RFP.

2.10 Opening and Reading of Bids

Delete this section in its entirety.

2.11.5 Consideration of Unit Prices

Delete this section in its entirety.

2.13 Tie Bids

Delete this section in its entirety.

ITEM 3: AWARD AND EXECUTION OF CONTRACT

For this Contract, Item 003, "Award and Execution of Contract," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

3.1 Award of Contract

3.1.1 Award

Delete this section in its entirety and follow the instructions included in the Instructions to Proposers in the RFP.

3.3 Disadvantage Business Enterprise (DBE)/Small Business Enterprise (SBE)

Add the following:

The DBE participation goal for this contract shall be 15% of the Contract Price. A DBE Performance Plan will be required for this contract as set forth in Special Specification 7667RMA, Performance Based Maintenance.

3.4 Execution of Contract

3.4.2 Bonds

The first sentence is voided and replaced by the following:

Execute and date performance and payment bond with powers of attorney as security for the faithful performance for each 5-year NTP as administered per section N.1.4 Notice to Proceed. Three performance and payment bonds shall be issued for each 5-year NTP:

3.4.2.1 Year 1 bonds shall be in the amount of the estimated annual contract price for the first 3 years (sum of years 1-3) and shall be for a term of 3 years.

3.4.2.2 Year 2 bonds shall be in the amount of the estimated annual contract price for the next 3 years (sum of years 2-4) and shall be for a term of 3 years.

3.4.2.3 Year 3 bonds shall be in the amount of the estimated annual contract price for the next 3 years (sum of years 3-5) and shall be for a term of 3 years.

No new bonds will be issued in years 4 and 5. Renewal and/or replacement of bonds with the same or different sureties shall be acceptable provided that the required security is continuously maintained and in full force and effect. Renewal bonds shall be furnished at least 120 days before end of years 1 and 2. If renewal bonds are not furnished on the due date the Contractor may then be declared to be in default of this contract.

Liability under each bond is not cumulative (i.e. once year 2 bond is issued, year 1 bond would not cover years 2 and 3, etc.). At the successful completion of year 1 and 2, the Mobility Authority agrees to return year 1 and 2 bonds including a release on Mobility Authority

letterhead releasing the surety from all past, present, and future liability under the referenced bond.

3.4.3 Insurance

The third paragraph is deleted and replaced by the following:

Provide the Authority with Certificates of Insurance verifying the types and amounts of coverage shown in Table 1, listing TxDOT and the Authority as additional insured on each certificate. Satisfactory evidence, in triplicate, of all required insurance coverage, including special endorsements, shall be forwarded to the Authority for approval within 14 Calendar Days after the date of written notice of Award of Contract. All insurance coverage must be approved by the Authority before the Contract will be executed by the Authority.

Delete Table 2 and replace with the following:

Type of Insurance	Amount of Coverage	
Commercial General Liability Insurance	Including products/completed operations liability and contractual liability, in the amount of \$1,000,000 per occurrence for bodily injury and property damage	
Business Automobile Policy	In the amount of \$1,000,000 per occurrence for bodily injury and property damage	
Worker's Compensation	Providing statutory benefits, and Employers Liability with limits of \$1,000,000	
Excess Liability Insurance	In the amount of \$5,000,000 per occurrence and aggregate	

Table 2: Insurance Requirements

Add the following:

3.4.3.1. The insurance specified shall be with an insurance company acceptable to the parties hereto and licensed to do business in the State of Texas and has a current policyholder's management and financial size category rating of not less that "A – X" according to A.M. Best's Insurance Reports Key Rating Guide; or otherwise approved in writing by the Authority. All insurance must be obtained before any work is commenced and kept in effect until its completion.

3.4.3.2. Satisfactory evidence, in triplicate, of all required insurance coverages, including special endorsements, shall be forwarded to the Authority for approval within 14 Calendar Days after the date of written notice of Award of Contract. All insurance coverages must be approved by the Authority before the Contract will be executed by the Authority. The certificate and evidence must be consistent in all respects. The evidence of insurance shall be on the most recent Association for Cooperative Operations Research and Development (ACORD) form, without disclaimer. Each required certificate must meet the requirements of Texas Insurance Code Chapter 1811 and, to the extent permitted under applicable Laws, state

the identity of all carriers, named insureds and additional insureds, state the type and limits of coverage, deductibles and termination provisions of the policy, include as attachments all additional insured endorsements, and be signed by an authorized representative of the insurance company shown on the certificate or its agent or broker. Each required evidence of insurance must be personally and manually signed by a representative or agent of the insurance company shown on the evidence of insurance with proof that the signer is an authorized representative or agent of such insurance company and is authorized to bind it to the coverage, limits and termination provisions shown on the evidence. The evidence of insurance must be original, state the signer's company affiliation, title and phone number, state the identity of all carriers, named insureds and additional insureds, state the type and limits of coverage, list deductibles, include the required subrogation waiver, contain conforming termination provisions of the policy and other essential policy terms, list and describe all endorsements, include as attachments all additional insured endorsements, and otherwise be in form reasonably satisfactory to the Authority.

3.4.3.3. The Authority's approval of insurance furnished by the Contractor, or its failure to disapprove such insurance shall not relieve the Contractor of full responsibility for liability, damages and accidents as set forth elsewhere herein.

3.4.3.4. All policies required above shall include an endorsement requiring 30 days prior written notice to the Authority before any change or cancellation is made effective.

3.4.3.5 The Contractor shall timely pay the premiums for all policies of insurance required under this Contract. Subject to <u>Section 3.4.3 Table 2</u>, the Authority shall have no liability for any deductibles, self-insured retentions, and amounts in excess of the coverage provided. In the event that any required coverage is provided under a self-insured retention, the entity responsible for the self-insured retention shall have an authorized representative issue a letter to the Authority, at the same time the insurance policy is to be procured, stating that it shall protect and defend the Authority to the same extent as if a commercial insurer provided coverage for the Authority.

3.4.3.6 Each insurance policy shall provide that the coverage is primary and noncontributory coverage with respect to all named or additional insureds, except for coverage that by its nature cannot be written as primary. Any insurance or self-insurance beyond that specified in this Contract that is maintained by an insured or any such additional insured shall be excess of such insurance and shall not contribute with it.

3.4.3.7 Contractor shall promptly deliver to the Authority a certificate of insurance and copies of all endorsements with respect to each renewal policy, as necessary to demonstrate the maintenance of the insurance coverages required under this Contract. Such certificate shall be delivered prior to the expiration date of any policy.

3.4.3.8 Upon the Authority's request, the Contractor shall deliver to The Authority: (a) a complete certified copy of each insurance policy or modification, or renewal or

replacement insurance policy and all endorsements thereto, and (b) satisfactory evidence of payment of the premium therefore.

3.4.3.9. The Authority waives all rights against the Contractor-Related Entities, and Contractor waives all rights against the Indemnified Parties, for any claims to the extent covered by insurance obtained pursuant to this Item 3, except such rights as they may have to the proceeds of such insurance. If Contractor is deemed to self-insure a claim or loss under Item 3.4.3, then Contractor's waiver shall apply as if it carried the required insurance. Contractor shall require all Subcontractors to provide similar waivers in writing each in favor of all other Persons enumerated above. Subject to Section 3.4.3.2, each policy, including workers' compensation if permitted under the applicable workers' compensation insurance Laws, shall include a waiver of any right of subrogation against the Indemnified Parties or the insurers consent to the insured's waiver of recovery in advance of loss. However, no waiver of subrogation rights under any policy providing professional liability coverage to the insured's shall be required of any Party.

The Contractor's Subcontractors are subject to the insurance requirements set forth in Special Provision 8.2 Subcontracting.

3.4.6 Railroad Documents

Add the following:

The Contractor shall procure and maintain additional insurance coverage and requirements, including Railroad Protective Liability Insurance, prior to working adjacent to and entry upon railroad premises, and shall maintain in full force until the end of the Contract, Insurance policies shall name the Authority, the Authority's Consultants, and the railroad as named insured. All such policies shall be written for a minimum term of 1 year and renewed annually for the duration of the Contract. All insurance policies shall be in a form acceptable to the railroad. The minimum amounts of coverage shall be the greater of the policy limits required by the railroad and the Contract. The original insurance policies shall be furnished to the railroad at least 10 days prior to commencement of the Work or as required by the railroad. The right to increase the limits of liability, which will become the Contractor's responsibility, for both the public liability and property damage coverage during the life of the agreement.

The corporate name and address of the railroad in whose name the Railroad(s) Protective Liability Policy is to be issued, is as follows:

Capital Metropolitan Transportation Authority 2910 East 5th Street Austin, Texas 78702

Union Pacific Railroad (UPRR) 24125 Aldine Westfield Road Spring, TX 77373-9015

ITEM 4: SCOPE OF WORK

4.4 Changes in the Work

The fourth paragraph is deleted and replaced by the following:

A significant change in the character of the work occurs when:

the character of the work for any item as altered differs materially in kind or nature from that in the Contract

Due to the nature of this work, this Contract is considered non-site-specific.

If the changes require additional working days to complete the Contract, Contract working days will be adjusted in accordance with Item 8, "Prosecution and Progress."

ITEM 5: CONTROL OF THE WORK

For this Contract, Item 005, "Control of the Work," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Add the following:

Cooperate with the railroads and comply with all of their requirements including obtaining any necessary agreements and/or training they require before performing work on railroad property.

If work is to be performed inside the Railroad ROW, then the Contractor will coordinate with the Railroad for a Railroad Flagger.

Provide a 72-hour advance email notice to AUS_Locate@txdot.gov to request illumination, traffic signal, ITS, or toll equipment utility locates.

5.1 Authority of The Engineer

Add the following:

5.1.1 Role of the General Engineering Consultant (GEC)

The Authority will utilize a GEC to assist in its management of this Contract. The GEC is an independent contractor and is authorized by the Authority to provide the management and technical direction for this Contract on behalf of the Authority, provided that the GEC is not an agent of the Authority. All the technical and administrative provisions of the Contract shall be managed by the GEC, and the Contractor shall comply with all of the GEC's directives that are within the purview of the Contract. Decisions concerning Contract amendments and adjustments, such as time extensions and Change Orders, shall be made by the Executive Director or his designee, unless otherwise specified; however, requests for such amendments or adjustments shall be made through the GEC, who shall forward such requests to the Executive Director or his designee with its comments and recommendations.

Should any dispute arise between the GEC and the Contractor, concerning the conduct of this Contract, either party may request a resolution of said dispute by the Executive Director or his designee, whose decision shall be final.

5.4 Coordination of Plans, Specifications, and Special Provisions

This Section is supplemented by the following:

The Contract Documents shall follow the order of precedence as follows:

The term "Contract Documents" shall mean the documents listed in <u>Section 5.4.1</u>. Each of the Contract Documents is an essential part of the agreement between the Parties, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are intended to be complementary and to describe and provide for a complete contract.

5.4.1 Subject to Sections 5.4.2 through 5.4.4, in the event of any conflict among the Contract Documents, the order of precedence shall be as set forth below:

- Change Orders and amendments to this Contract (except for amendments to the Maintenance Specification, which amendments shall have the order of priority as set forth in <u>clause (3)</u> below);
- 2) This Contract (including all documents except SS 7667RMA and Exhibits 2 and 3, subject to Section 5.4.3);
- 3) SS7667RMA (Maintenance Specification) and all attachments thereto;
- 4) Exhibits 2 and 3; and
- 5) Contractor Commitments in the Contractor's Maintenance Management Plan (MMP)

5.4.2 Notwithstanding the order of precedence among Contract Documents set forth in <u>Section 5.4.1</u>, in the event and to the extent that MMP expressly specifies that it is intended to supersede specific provisions of the Contract Documents, the MMP shall have precedence over the specified provisions. Moreover, if the Proposal includes statements, offers, and terms that can reasonably be interpreted as offers to provide higher quality items than otherwise required by the Contract Documents or to perform services or meet standards in addition to or better than those otherwise required, or otherwise contains statements, offers, and terms that the Authority considers to be more advantageous than the requirements of the other Contract Documents, Contractor's obligations hereunder shall include compliance with all such statements, offers, and terms that shall have priority over the requirements of the other Contract Documents.

5.4.3 Notwithstanding the order of precedence among Contract Documents set forth in <u>Section</u> <u>5.4.1</u>, if a Contract Document contains differing provisions on the same subject matter than another Contract Document, the provisions that establish the higher quality, manner, or method of performing the Maintenance Services or use more stringent standards will prevail. Further, in the event of a conflict among any standards, criteria, requirements, conditions, procedures, specifications, or other provisions applicable to the Project or Maintenance Services established by reference to a described manual or publication within a Contract Document or set of Contract Documents, the standard, criterion, requirement, condition, procedure, specification or other provision offering higher quality or better performance will apply, unless the Authority in its sole discretion, approves otherwise in writing. If either Party becomes aware of any such conflict, it shall promptly notify the other Party of the conflict. The Authority shall issue a written determination respecting which of the conflicting items is to apply promptly after it becomes aware of any such conflict.

5.5 Cooperation of Contractor

At the end of the first paragraph add the following:

The Contractor shall obtain at the Contractor's expense all necessary copies of TxDOT Manuals, Standard Specifications, Standard Drawings and other reference documents required to perform Maintenance Services.

5.11 Final Cleanup

Add the following after the second sentence of the second paragraph:

All damaged materials shall become the property of the Contractor, except as may be otherwise specifically required, and shall be legally disposed of by the Contractor away from the right of way (ROW).

ITEM 6: CONTROL OF MATERIALS

For this Contract, Item 006, "Control of Materials," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

6.1 Source Control

This section is deleted in its entirety.

6.4 Sampling, Testing, and Inspection

This section is deleted in its entirety and replaced by the following:

Quality Control testing of all materials, construction items, or products incorporated in the work shall be performed by the Contractor according to the contract specifications at the Contractor's expense.

Quality Assurance sampling and testing for acceptance will be performed by the Authority Construction Representative/Observer in accordance with the Quality Control (QC)/Quality Assurance (QA) program. The cost of such tests will be incurred by the Authority and coordinated by the Authority Construction Representative/Observer.

6.7 Department-furnished Materials

This Section is supplemented by the following:

Any materials supplied by the Authority that are damaged as a result of improper handling or storage by the Contractor shall be replaced in kind by the Contractor at no cost to the Authority. Invoices for the replacement of materials delivered to the site shall show actual prices for such materials.

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

For this Contract, Item 007, "Legal Relations and Responsibilities," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Add the following:

Project closures during key dates and/or special events are prohibited. See notes for Item 502 for the key dates and/or special events.

Refer to the Environmental Permits, Issues and Commitments (EPIC) plan sheets for additional requirements and permits.

When any abandoned well is encountered, cease maintenance operations in this area and notify the Engineer who will coordinate the proper plugging procedures. A water well driller licensed in the State of Texas must be used to plug a well.

Erosion control and stabilization measures must be initiated immediately in portions of the site where maintenance activities have temporarily ceased and will not resume for a period exceeding 14 calendar days. Track all exposed soil, stockpiles, and slopes. Tracking consists of operating a tracked vehicle or equipment up and down the slope, leaving track marks perpendicular to the direction of the slope. Re-track slopes and stockpiles after each rain event or every 14 days, whichever occurs first. This work is subsidiary.

Perform maintenance of vehicles or equipment at designated maintenance sites. Keep a spill kit on-site during fueling and maintenance. This work is subsidiary.

Suspend all activities within 50-feet of any significant recharge features, such as sinkholes, caves, or any other subterranean openings that are discovered during Maintenance Services or core sampling. Do not proceed until the designated geologist or TCEQ representative is present to evaluate and approve remedial action.

Project Specific Location (PSL) in Edwards Aquifer Recharge and Contributing Zone. Obtain written approval from the Engineer for all on or off right of way PSLs not specifically addressed in the plans. Provide a signed SW3P sketch of the location 30 business days prior to use of the PSL. Include a list of materials, equipment and portable facilities that will be stored at the PSL. The sketch should include erosion controls, temporary fuel storage tanks, identify the property boundaries and include site owner information.

PSL in USACE Jurisdictional Area. Do not initiate activities in a PSL associated with a U.S. Army Corps of Engineers (USACE) jurisdictional area that have not been previously evaluated by the USACE as part of the permit review of a Project subject to the Maintenance Services provided under this Contract. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Associated defined here means materials are delivered to or from the PSL. The jurisdictional area includes all waters of the U.S. including wetlands or associated wetlands affected by activities associated with the Maintenance Services. Special restrictions may

be required for such work. Consult with the USACE regarding activities, including PSLs that have not been previously evaluated by the USACE. Provide the Authority with a copy of all USACE coordination and approvals before initiating activities.

Proceed with activities in PSLs that do not affect a USACE jurisdictional area if self-determination has been made that the PSL is non-jurisdictional or proper clearances have been obtained in USACE jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of a Project subject to the Maintenance Services provided under this Contract. Document any determinations that PSL activities do not affect a USACE jurisdictional area. Maintain copies of PSL determinations for review by the Authority or any regulatory agency. The Contractor must document and coordinate with the USACE, if required, before any excavation material hauled from or embankment material hauled into a USACE jurisdictional area by either (1) or (2) below.

- 1. **Restricted Use of Materials for the Previously Evaluated Permit Areas.** When an area within the project limits has been evaluated by the USACE as part of the permit process for a Project subject to the Maintenance Services provided under this Contract:
 - a. suitable excavation of required material in the areas shown on the plans and cross sections as specified in Standard Specification Item 110, Excavation is used for permanent or temporary fill within a USACE jurisdictional area;
 - b. suitable embankment from within the USACE jurisdictional area is used as fill within a USACE evaluated area;
 - c. Unsuitable excavation or excess excavation that is disposed of at an approved location within a USACE evaluated area.
- 2. **Contractor Materials from Areas Other than Previously Evaluated Areas.** Provide the Authority with a copy of all USACE coordination and approvals before initiating any activities in a jurisdictional area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:
 - a. Standard Specification Item 132, Embankment is used for temporary or permanent fill within a USACE jurisdictional area;
 - b. Unsuitable excavation or excess excavation that is disposed of outside a USACE evaluated area.

Work over or near Bodies of Water (Lakes, Rivers, Ponds, Creeks, etc.). Keep on site a universal spill kit adequate for the body of water and the work being performed. No debris is allowed to fall into a body of water. Debris that falls into the water must be removed at the end of each work day. Debris that falls into the floodway must be removed at the end of each work week or prior to a rain event. This work is subsidiary.

Patrol vehicles must be clearly marked to correspond with the officer's agency and equipped with appropriate lights to identify them as law enforcement. For patrol vehicles not owned by a law enforcement agency, markings will be retroreflective and legible from 100 feet from both sides and the rear of the vehicle. Lights will be high intensity and visible from all angles.

For work paid under Section 9.7, "Payment for Extra Work and Force Account Method", a maximum combined rate of \$70 per hour for the law enforcement personnel and the patrol vehicle will be allowed. Any scheduling fee is subsidiary per Standard Specification 502.4.2.

Cancel law enforcement personnel when an event is canceled. Cancellation, minimums or "show up" fees will not be paid, for work paid under Section 9.7, "Payment for Extra Work and Force Account Method", when cancellation is made 12 hours prior to beginning of the event. Failure to cancel within 12 hours will not be cause for payment for cancellation, minimums, or "show up" time. Payment of actual "show up" time to the event site due to cancellation will be on a case by case basis at a maximum of 2 hours per officer.

For work paid under Section 9.7, "Payment for Extra Work and Force Account Method", alterations to the cancellation and maximum rate must be approved by the Engineer or predetermined by official policy of the officers governing authority.

7.3 Laws to be Observed

The first paragraph is deleted in its entirety and replaced by the following:

The Contractor shall comply with all applicable federal, state and local laws, statutes, codes, ordinances, rules and regulations, and the orders and decrees of any court, or administrative bodies or tribunals in any manner affecting the performance of this Contract, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, nondiscrimination, licensing laws and regulations, the Authority's enabling legislation (Chapter 370 of the Texas Transportation Code), and all amendments and modifications to any of the foregoing, if any. When required, the Contractor shall furnish the Authority with satisfactory proof of its compliance therewith.

7.15 Responsibility for Damage Claims

This section is supplemented by the following:

THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE AUTHORITY AND ITS OFFICERS, DIRECTORS, EMPLOYEES, ENGINEERS, AND AGENTS WHICH, FOR THE PURPOSES OF THIS CONTRACT, SHALL INCLUDE THE AUTHORITY'S GEC, GENERAL COUNSEL, BOND COUNSEL, FINANCIAL ADVISORS, TRAFFIC AND REVENUE ENGINEERS, TOLL OPERATIONS/COLLECTIONS FIRMS, AND UNDERWRITERS (COLLECTIVELY THE "INDEMNIFIED PARTIES") FROM ANY CLAIMS, COSTS, OR LIABILITIES OF ANY TYPE OR NATURE AND BY OR TO ANY PERSONS WHOMSOEVER, AND FROM ALL LIABILITY AND DAMAGES FOR ANY INJURY OR DAMAGE TO ANY PERSON OR PROPERTY TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS, ERRORS, OR OMISSIONS OF THE CONTRACTOR OR ITS OFFICERS, DIRECTORS, EMPLOYEES, SUBCONSULTANTS AND AGENTS WITH RESPECT TO THE CONTRACTOR'S PERFORMANCE OF THE WORK TO BE ACCOMPLISHED UNDER THIS CONTRACT OR ACTIONS AND FROM ANY CLAIMS ARISING OR AMOUNTS RECOVERED UNDER ANY LAWS, INCLUDING WORKERS' COMPENSATION AND THE TEXAS TORT CLAIMS ACT. IF THE INDEMNIFIED PARTIES ARE FOUND, INDIVIDUALLY OR COLLECTIVELY, TO BE PARTIALLY AT FAULT, CONTRACTOR SHALL NEVERTHELESS INDEMNIFY THE INDEMNIFIED PARTIES FROM AND AGAINST THE CLAIMS RELATING TO PERCENTAGE OF FAULT ATTRIBUTABLE TO THE CONTRACTOR, ITS EMPLOYEES, AGENTS, OR CONTRACTORS, OR TO THEIR CONDUCT.

THE AUTHORITY HEREBY RESERVES AND DOES NOT WAIVE ANY GOVERN-MENTAL IMMUNITY RIGHTS, INCLUDING ANY RIGHTS UNDER CHAPTER 101, TEXAS CIVIL PRACTICES AND REMEDIES CODE (THE TEXAS TORT CLAIMS ACT) REGARDING ANY ACTIONS OR CLAIMS.

7.17.1 Reimbursable Repair

This section is deleted in its entirety and replaced by the following:

Force Majeure Events. The Contractor will repair any damage resulting from a Force Majeure Event as defined in Exhibit 1, Abbreviations and Definitions. The first \$25,000 in costs incurred by the Contractor to repair damages resulting from a Force Majeure event is the sole responsibility of the Contractor and those costs will not be reimbursed by the Authority or by any third party. The Contractor will be reimbursed by the Mobility Authority for repair costs that exceed \$25,000 if the Contractor seeks and receives written approval from the Authority prior to commencing that work in accordance with the Standard Specifications, Item 4.4, Changes in Work. Reimbursement for repair costs that exceed \$25,000 will be made with the monthly payment to the Contractor after the work is completed. The Engineer reserves the right to reject the proposal and perform the work by other means outside of this Contract.

At the written request of the Authority, the Contractor shall prepare documentation in the required form and content to apply on behalf of the Authority for reimbursement of any loss that occurs on the highway as well as Emergency Relief Funds (ER) from the FHWA in the event of a Presidential Disaster Declaration. Should the Authority receive funds as a result of these claims or ER projects, reimbursements will be paid to the Contractor as applicable.

The Contractor's unreimbursed liability for repair costs under this section is limited to a maximum cost of \$50,000 per year, for all Force Majeure Events occurring during a calendar year.

Stolen Items. Contractor will replace any items stolen from the highway, bridge, or roadside. The Contractor's unreimbursed liability for stolen items is limited to a maximum cost of \$50,000 per year.

Exclusions. The following items or tasks are excluded from the Contract:

- 1) Intelligent Transportation System (ITS) devices, including, but not limited to, cameras, dynamic message signs, and radar sensing vehicle detectors (RSVDs)
- 2) Executing agreements, such as utility permits, driveway permits, multiple use agreements, construction and maintenance agreements, and other similar type agreements

- 3) Items related to the electronic tolling equipment
- 4) Maintenance and operations of Traffic Incident Management (TIM) Center control room and technology room software, hardware, and associated equipment
- 5) Management of managed lanes toll operations
- 6) All areas maintained by others as outlined in the General Notes and Maintenance Maps
- 7) Encampment areas

Performance Standards. Use the performance standards listed in Exhibits 2 and 3 "Performance Measures" for the various categories. The performance standards are not the only evaluation criterion that the Authority will use to evaluate performance. The fact that the performance standards are met shall not relieve the Contractor of its responsibility to constantly monitor and maintain each Project and all of its elements and characteristics.

The safety of the traveling public and maintaining uninterrupted traffic flow is of the utmost importance and shall take priority over any other work. Damage that could endanger the traveling public or cause further deterioration of the Projects shall be repaired or mitigated immediately. If routine maintenance is unsatisfactory, resulting in further deterioration of Project that result in major maintenance work, the Contractor shall be responsible to repair roadway facilities to its previous condition at no additional cost.

The term "minimal" as used in the performance standards means damage that does not affect the safety of the traveling public, does not cause further deterioration of the Project, does not reduce the comfort of the traveling public and is not unsightly.

Annual maintenance inspections are conducted by the GEC between October and February of each year. The Authority shall require the GEC to conduct an inspection of the Projects, at least once in the fiscal year following substantial completion of the initial project in each fiscal year thereafter. Inspections will consist of all assets within the ROW. A list of deficiencies that are identified by the GEC will be provided to the Authority. The Contractor may be asked to address deficiencies identified on the list that are considered subsidiary to Contract bid items.

The Authority will inspect or evaluate the work on a continuing basis. If the Work is not in compliance with this special specification, charges as outlined in Table 1 "Performance Measures" will be assessed.

7.17.2 Appurtenances

This Section and Subsections are deleted in their entirety and replaced by the following:

7.17.2 Unreimbursed Repair

The Contractor may pursue claims against third parties to recover the Contractor's expenses and other damages incurred to repair or replace assets damaged or destroyed by such third parties. The Contractor shall pursue such claims in accordance with all applicable state and federal laws and Authority policy. The Contractor's liability for nonreimbursed claim(s) will be limited to a

maximum of \$50,000 per incident. The Authority will reimburse the Contractor for nonreimbursed claims due to third party damages in excess of \$50,000 per incident. The Contractor must provide evidence of due diligence in pursuit of the unreimbursable claim. Authority reimbursement will be in accordance with Article 9.7, Payment for Extra Work and Force Account Method.

7.17.5 Relief from Maintenance

This section and all subsections are deleted in their entirety.

ITEM 8: PROSECUTION AND PROGRESS

For this Contract, Item 008, "Prosecution and Progress," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

8.2 Subcontracting

Delete paragraphs 4 and 5 with no replacement.

Add the following:

Except as noted below, the consent to sublet any part of the work, or obtain supplies, shall not be construed to be an approval of the said subcontract, supply contract or any of its terms, but shall operate only as an approval of the making of a subcontract or supply contract between the Contractor and Subcontractor or Supplier. The Subcontractor agrees, as a condition of entering into a subcontract on the project, that the Contractor shall make no claim whatsoever against the Authority, the Engineer, or any of their officers, servants, agents or employees for any work performed or thing done by reason of said subcontract, or for any other cause whatsoever that may arise by reason of the relationship created between the Contractor and Subcontractor unless the proposed Subcontractor furnishes a statement to the effect that said Subcontractor is acquainted with all provisions of the Contract and agrees thereto.

Sublet work shall not begin until approval thereof has been secured from the Engineer. It is understood, however, that any consent by the Engineer for the subletting of any of the work under the Contract in no way relieves the Contractor from the Contractor's full obligations under the Contract. The Contractor shall be responsible for all acts of omissions of any Subcontractor or Supplier.

8.4 Temporary Suspension of Work or Working Day Charges

Delete section and replace with the following:

Should the Executive Director or his designee desire to suspend the Contract (or a portion of the Work) but not terminate the Contract, the Executive Director or his designee may provide written notification to the Contractor, giving ten (10) business days prior notice. Both parties may waive the ten (10) business day notice requirement in writing.

The Contract may be reinstated and resumed in full force and effect within thirty (30) days of receipt of written notice from the Executive Director or his designee to resume the work. Both parties may waive the thirty (30) day notice in writing.

The Authority shall have no liability for work performed or costs incurred prior to the date authorized by the Executive Director or his designee to begin work, during periods when work is suspended, or after the completion of the Contract.

8.6 Failure to Complete Work On Time

This section supplemented with the following.

8.6.1 Liquidated Damages for Lane Closures

8.6.1.1 Contractor acknowledges and agrees that because of the unique nature of the Projects, the fact that the Projects are an essential part of the Texas highway system, and the fact that inconvenience to the traveling public will be one of the significant impacts of any failure by Contractor to perform the Maintenance Services in an efficient and timely manner, it is impracticable and extremely difficult to ascertain and determine the actual Losses which would accrue to the Authority and the public in such event. Consequently, the Contractor agrees to pay the Authority the sums of money ("Liquidated Damages for Lane Closures") as deemed compensation to the Authority resulting from Contractor's failure to meet the Lane Closure restrictions set forth in Exhibit 5 Liquidated Damages for Noncompliance, Table 5.1 Lane Closure Liquidated Damages. Contractor further acknowledges and agrees that such amounts are in the nature of liquidated damages and not a penalty and that such sums are reasonable under the circumstances existing as of the Effective Date. Contractor shall not be required to pay Liquidated Damages for Lane Closures if the Authority, in its discretion, determines that the applicable Lane Closure is required in connection with an Incident or Emergency. In the case of such Incident or Emergency, the Contractor shall respond to such Incident or Emergency and assess the level of personnel and resources necessary to safely secure the area in accordance with the Contract Documents.

8.6.1.2 Contractor shall pay to the Authority a liquidated amount as set forth in Exhibit 5, Table 5.1, for any Lane Closure that occurs in connection with the performance of Maintenance Services, if the Lane Closure violates the requirements in an approved Traffic Control Plan applicable to such Maintenance Services.

8.6.2 Liquidated Damages for Failure to Meet Performance Requirements

8.6.2.1 Contractor acknowledges and agrees that because of the unique nature of the Project, the fact that the Projects are an essential part of the Texas highway system, and the fact that inconvenience to the traveling public will be one of the significant impacts of any failure by Contractor to perform the Maintenance Services in an efficient and timely manner and properly maintain the Projects, it is impracticable and extremely difficult to ascertain and determine the actual Losses, which would accrue to the Authority and the public in the event of such failure. Consequently, the Contractor agrees to pay the Authority the sums of money set forth in Exhibit 5, Liquidated Damages, for noncompliance as deemed compensation to the Authority resulting from Contractor's failure to meet the performance requirements as described in the Contract Documents. Contractor further acknowledges and agrees that such amounts are in the nature of liquidated damages and not a penalty and that such sums are reasonable under the circumstances existing as of the Effective Date.

8.6.2.2 Liquidated Damages shall be payable by Contractor to the Authority within ten (10) Business Days after Contractor's receipt of an invoice therefore from the Authority. In lieu of

reimbursement, the Authority may elect, in its sole discretion, to deduct such amounts from any amounts payable to Contractor under this Contract.

8.7.1 Declaration of Default

Delete the fourth bullet and replace with the following.

fails to perform the work in accordance with the Contract Documents resulting in Liquidated Damages for an Element or Category for six consecutive condition assessment cycles for a monthly assessment and two consecutive condition assessment cycles for a quarterly assessment.

8.7.2 Wrongful Default

This section is deleted in its entirety.

8.8 Termination of Contract

Delete section and subsections and replace with the following:

The Contract may be terminated before the stated completion date by any of the following conditions:

- 1) by mutual agreement and consent, in writing from both parties;
- 2) by the Executive Director or his designee by notice in writing to the Contractor as a consequence of failure by the Contractor to perform the Maintenance Services set forth herein in a satisfactory manner;
- 3) by either party, upon the failure of the other party to fulfill its obligations as set forth herein, following thirty (30) days written notice and opportunity to cure;
- by the Executive Director or his designee for his convenience and in its sole discretion, not subject to the consent of the Contractor, by giving thirty (30) days written notice of termination to the Contractor; or
- 5) by satisfactory completion of all Maintenance Services and obligations described herein.

8.8.1 Measurement

Should the Executive Director or his designee terminate this Contract as herein provided, no fees other than fees due and payable at the time of termination shall thereafter be paid to the Contractor. In determining the value of the work performed by the Contractor prior to termination, the Executive Director or his designee shall be the sole judge. Compensation for work at termination will be based on a percentage of the work completed at that time. Should the Executive Director or his designee terminate this Contract under Item 8.7, "Default of Contract", the Contractor shall not incur costs during the thirty-day notice period in excess of the amount incurred during the preceding thirty (30) days.

8.8.2 Value of Completed Work

If the Contractor defaults in the performance of this Contract or if the Executive Director or his designee terminates this Contract for fault on the part of the Contractor, the Executive Director or his designee will give consideration to the following when calculating the value of the completed work: (1) the actual costs incurred (not to exceed the rates set forth in the applicable Work Authorization) by the Contractor in performing the work to the date of default; (2) the amount of work required which was satisfactorily completed to date of default; (3) the value of the work which is usable to the Authority; (4) the cost to the Authority of employing another firm to complete the required work; (5) the time required to employ another firm to complete the work; (6) delays in opening a revenue generating project and costs (including lost revenues) resulting therefrom; and (7) other factors which affect the value to the Authority of the work performed.

8.8.3 Calculation of Payments

The Executive Director or his designee shall use the fee structure established by the Contract Documents in determining the value of the work performed up to the time of termination. Nothing herein shall preclude the Executive Director or his designee from offsetting against amounts earned for work completed prior to termination costs resulting from the termination or the circumstances leading to the termination.

8.8.4 Surviving Requirements

The termination of this Contract and payment of an amount in settlement as prescribed above shall extinguish the rights, duties, and obligations of the Authority and the Contractor under this Contract, except for those provisions that establish responsibilities that extend beyond the Contract period, including without limitation the provisions of 9.12.1, "Indemnification by the Contractor".

8.8.5 Payment of Additional Cost

If termination of this Contract is due to the failure of the Contractor to fulfill its Contract obligations, the Authority may take over the performance of Maintenance Services and prosecute the work to completion, and the Contractor shall be liable to the Authority for any additional cost to the Authority.

ITEM 9: MEASUREMENT AND PAYMENT

For this Contract, Item 009, "Measurement and Payment," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

9.5 **Progress Payments**

Delete this section of the Specifications in its entirety and substitute the following:

9.5.1 Payment for Maintenance Services

9.5.1.1 During the term of this Contract, in full consideration for the performance by the Contractor of its duties and obligations under the Contract Documents, the Authority shall pay the amounts determined as set forth in Section 9.5.1.2, as adjusted in accordance with Section 9.5.1.3 ("Maintenance Price") subject only to such additions to and deductions from the compensation as may be provided for pursuant to SS7671RMA or Section 4.4 Changes in the Mork. The Maintenance Price shall be paid in accordance with this Section 9.5.1. The Maintenance Price (and the individual components thereof) shall be increased or decreased only by a Change Order issued in accordance with SS7671RMA, Section 4.4 Changes in the Work or by an amendment to this Contract. No portion of the Maintenance Price shall be payable on account of services provided: (a) prior to issuance of Initial NTP1, or (b) after the termination, expiration or non-renewal of the term of this Contract.

9.5.1.2 Contractor shall be paid for Maintenance Services provided under this Contract, a monthly payment as set forth in <u>the Price Proposal Form</u>. Such amount shall be payable in arrears pursuant to Draw Requests submitted on the first day of each month of such Maintenance Term year.

9.5.1.3 If the Authority elects to exercise a renewal option for Maintenance Services, the bid prices will be adjusted annually, based on changes in the Employment Cost Index ECI) Series ID CIU2010000000000I (not seasonally adjusted) as published by the U.S. Department of Labor, Bureau of Labor Statistics, Table 5 Employment Cost Index for total compensation, for private industry workers, by occupational group and industry (not seasonally adjusted) <u>https://www.bls.gov/news.release/eci.t05.htm</u>. The adjusted bid prices will take effect on the Maintenance Services renewal commencement date. The procedure for determining the adjustment to bid prices shall be as follows:

(a) The ECI for the month, three months prior to the month in which this Contract is executed will establish the Base Index (BI); and

(b) The bid prices for the ensuing renewal period shall be adjusted in the same month, annually, using March indices, published in April, by multiplying the bid price by the ECI for the month, three months prior to the month in which the extension year commences and dividing such amount by the Base Index, on an annual basis.

(c) The formula that reflects the foregoing is: Adjusted Bid Price = (Bid Price) x ECI/(BI).

If the Authority exercises a renewal option, then the contractor will only be paid 25% of the Mobilization items in the initial year of each renewal term. The Mobilization bid price will be adjusted based on the procedure described herein.

9.5.2 Invoicing and Payment

9.5.2.1 On the fifteenth Business Day of each month, Contractor shall submit to the Authority an electronic copy of a Draw Request in the form provided at the Pre-Construction Meeting for Maintenance Services performed for the preceding month and meeting all requirements specified herein. Each Draw Request shall be executed by Contractor's Authorized Representative and QC Manager. Each Draw Request shall be organized to account for applicable reimbursement requirements and to facilitate the reimbursement process.

9.5.2.2 Within ten (10) Business Days after the Authority's receipt of a complete Draw Request, the Authority will review the Draw Request and all attachments and certificates thereto, and shall notify Contractor of the amount approved for payment and the reason for disapproval of any remaining invoiced amounts or of any other information set forth in the Draw Request. Contractor may include such disapproved amounts in the next month's Draw Request after correction of the deficiencies noted by the Authority and satisfaction of the requirements of the Contract Documents related thereto. Upon receipt of a Draw Request that complies with all invoice requirements set forth in this Contract, the Authority shall make a good faith effort to pay the amount, which is due and payable within thirty (30) days. If the Authority disputes a request for payment by the Contractor, the Authority is otherwise entitled to withhold or deduct. The basis for any such dispute must be stated in writing within thirty (30) days after the Authority's receipt of the monthly Draw Request. No payment by the Authority shall, at any time, preclude the Authority from showing that such payment was incorrect, or from recovering any money paid in excess of those amounts due hereunder.

9.5.2.3 The Authority may deduct from each payment and the Final Payment the following:

- (a) Any Authority or third party Losses for which Contractor is responsible hereunder or any Liquidated Damages for Lane Closures that have accrued as of the date of the application for payment;
- (b) If a notice to stop payment, claim or Lien is filed with the Authority, due to Contractor's failure to pay for labor or materials used in the Maintenance Services, money due for such labor or materials will be withheld from payment to the Contractor;
- (c) Any sums, including the Authority's Recoverable Costs, expended by the Authority in performing any of Contractor's obligations under the Contract Documents that Contractor has failed to perform; and
- (d) Any other sums which the Authority is entitled to recover from Contractor under the terms of this Contract;

9.5.2.4 The failure by the Authority to deduct any of these sums from a payment shall not constitute a waiver of the Authority's right to such sums.

9.5.3 Payment to Subcontractors

9.5.3.1 No later than ten Days after receipt of payment from the Authority, Contractor shall promptly pay each Subcontractor, out of the amount paid to Contractor on account of such Subcontractor's portion of the Maintenance Services, the amount to which such Subcontractor is entitled, less any retainage provided for in the Subcontract, and any other offsets and deductions provided in the Subcontract or by Law. No later than ten days after satisfactory completion of all Maintenance Services to be performed by a Subcontractor, including provision of appropriate releases, certificates and other evidence of the Subcontractor's compliance with its Subcontract and all applicable requirements of the Contract Documents, Contractor shall pay to the Subcontractor moneys withheld in retention from the Subcontractor. Such payment shall be made promptly following satisfaction of the foregoing requirements, even if the Maintenance Services to be performed by Contractor is not completed.

9.5.3.2 For the purpose of <u>Section 9.5.3</u>, satisfactory completion shall have been accomplished when:

- (a) the Subcontractor has fulfilled the Subcontract requirements and the requirements under the Contract Documents for the subcontracted Maintenance Services, including the submission of all submittals required by the Subcontract and the Contract Documents; and
- (b) the Maintenance Services performed by the Subcontractor have been inspected and approved in accordance with the Contract Documents and the final quantities of the Subcontractor's work have been determined and agreed upon.

9.5.3.3 The inspection and approval of a Subcontractor's work does not eliminate or impair Contractor's responsibility for the Maintenance Services. Any delay or postponement of payments to Subcontractors from the above-referenced time frames may occur only for good cause following written approval by the Authority. The Authority shall have no obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by Law. Interest on late payments to Subcontractors shall be Contractor's responsibility, and shall not be a part of the Maintenance Price.

9.5.4 Disputes

Failure by the Authority to pay any amount in dispute shall not alleviate, diminish or modify in any respect Contractor's obligation to perform under the Contract Documents, and Contractor shall not cease or slow down its performance under the Contract Documents on account of any such amount or dispute. Any Claim or Dispute regarding such payment shall be resolved pursuant to <u>Section N.3.1</u> of the General Notes. Upon resolution of such Claim or Dispute, each Party shall promptly pay to the other any amount owing.

9.7 Payment for Extra Work and Force Account Method

The following new Section 9.7.1.9 is added to the end of Article 9.7.1:

Prior Contract of Authority Required. Work performed on a "Force Account" basis must be agreed upon by the Authority. The Authority will not be liable for the cost of work allegedly performed on a "Force Account" basis unless agreed upon in writing by the Authority prior to the commencement of such work.

The following new section is added to Item 9:

9.11 Documents and Records

9.11.1 Reporting Requirements

9.11.1.1 Contractor shall deliver to the Authority financial and narrative reports, statements, certifications, budgets and information as and when required under the Contract Documents corresponding to the Authority fiscal year, beginning July 1 and ending June 30.

9.11.1.2 Contractor shall cooperate and provide, and shall cause the Subcontractors to cooperate and provide, such information as is necessary or requested by the Authority to assist or facilitate the submission by the Authority of any documentation, reports or analysis required by the State, FHWA and/or any other Governmental Entity with jurisdiction over the Project.

9.11.1.3 All reports and information delivered by Contractor under <u>Sections 9.11.1.3</u> and <u>9.11.1.4</u> shall also be delivered electronically, to the extent electronic files exist, and be suitable for posting on the web.

9.11.2 Maintenance of, Access to and Audit of Records

9.11.2.1 All Claims or Disputes filed against the Authority shall be subject to audit at any time following the filing of the Claim or Dispute. The audit may be performed by employees of the Authority or by an auditor under contract with the Authority. No notice is required before commencing any audit within 60 days after termination of this Contract. Thereafter, the Authority shall provide 20 days notice to Contractor, any Subcontractors or their respective agents before commencing an audit. Contractor, Subcontractors or their agents shall provide adequate facilities, acceptable to the Authority, for the audit during normal business hours. Contractor, Subcontractors or their agents shall cooperate with the auditors. Failure of Contractor, Subcontractors or their agents to maintain and retain sufficient records to allow the auditors to verify all or a portion of the Claim or Dispute or to permit the auditor access to the books and records of Contractor, Subcontractors or their agents shall constitute a waiver of the Claim or Dispute and shall bar any recovery thereunder.

9.11.2.2 At a minimum, the auditors shall have available to them the following documents:

- 1) Daily time sheets and supervisor's daily reports;
- 2) Union agreements;
- 3) Insurance, welfare, and benefits records;
- 4) Payroll registers;
- 5) Earnings records;

- 6) Payroll tax forms;
- 7) Material invoices and requisitions;
- 8) Material cost distribution work sheets;
- 9) Equipment records (list of company equipment, rates, etc.);
- 10) Subcontractors' (including Suppliers') invoices;
- 11) Subcontractors' and agents' payment certificates;
- 12) Canceled checks (payroll, Subcontractors and Suppliers);
- 13) Job cost reports;
- 14) Job payroll ledger;
- 15) General ledger;
- 16) Cash disbursements journal;
- 17) All documents that relate to each and every Claim or Dispute, together with all documents that support the amount of damages as to each Claim or Dispute; and
- 18) Work sheets used to prepare the Claim or Dispute establishing the cost components for items of the Claim or Dispute, including labor, benefits and insurance, materials, equipment, subcontractors, all documents that establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals.

9.11.2.3 Full compliance by Contractor with the provisions of this <u>Section 9.11.2</u> is a contractual condition precedent to Contractor's right to seek relief under <u>General Notes Section N.3.1</u> <u>Dispute Resolution.</u>

9.11.2.4 Contractor represents and warrants the completeness and accuracy of all information it or its agents provides in connection with this <u>Section 9.11.4</u>, and shall cause all Subcontractors to warrant the completeness and accuracy of all information such Subcontractors or their agents provides in connection with this <u>Section 9.11.2</u>.

9.11.2.5 The Authority's rights of audit include the right to observe the business operations of Contractor and its Subcontractors to confirm the accuracy of books and records.

9.11.2.6 Nothing in the Contract Documents shall in any way limit the constitutional and statutory powers, duties and rights of elected State officials, including the independent rights of the State auditor, in carrying out his or her legal authority. Contractor understands and acknowledges that: (a) the State or Authority auditor may conduct an audit or investigation of any Person receiving funds from the State directly under this Contract or indirectly through a Subcontract, (b) acceptance of funds directly under this Contract or indirectly through a Subcontract acts as acceptance of the authority of the State or Authority auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds, and (c) a Person that is the subject of an audit or investigation must provide

the State or Authority auditor with access to any information the State or Authority Auditor considers relevant to the investigation or audit.

9.11.3 Retention of Records

Contractor shall maintain all records and documents relating to the Maintenance Services, including copies of all original documents delivered to the Authority, and the Project in the Authority Offices in Travis County, Texas until four (4) years after termination of this Contract. All records and the then-current electronic document control system shall be provided to the Authority at the time of the expiration of the Maintenance Term or earlier termination of the Contract, Contractor shall notify the Authority where such records and documents are kept. Notwithstanding the foregoing, all records which relate to Claims or Disputes being processed or actions brought under the dispute resolution provisions hereof shall be retained and made available until such Claims or Disputes have been finally resolved. Records to be retained include all books, electronic information and files and other evidence bearing on Contractor's costs under the Contract Documents. Contractor shall make these records and documents available for audit and inspection to the Authority, at Contractor's offices in Travis County, Texas, at all reasonable times, without charge, and shall allow such Persons to make copies of such documents, at no expense to Contractor. If approved by the Authority, photographs, microphotographs or other authentic reproductions may be maintained instead of original records and documents.

9.11.4 Public Information Act; Disclosure of Information

The Authority is subject to and complies with Government Code, Chapter 552, the Texas Public Information Act ("PIA"). Any information provided to the Authority by the Contractor may be subject to public disclosure under the PIA. If the Contractor considers any information it provides to the Authority to be proprietary, confidential, or otherwise exempt from disclosure under the PIA, the Contractor must clearly mark and label that information as and thus asserts is exempt from disclosure under the PIA. The Authority does not have and does not assume any obligation to assert or argue on behalf of the Contractor that any information provided to the Authority is exempt from required disclosure.

The Contractor shall not disclose information obtained from the Authority under this Contract without the express written consent of the Executive Director or his designee. All employees of the Contractor and its subconsultants performing Maintenance Services may be required to sign a non-disclosure and confidentiality agreement.

The Contractor is required to make any information created or exchanged with the Authority pursuant to this Contract, and not otherwise excepted from disclosure under the PIA as determined by the Authority, available in a format that is accessible by the public at no additional charge to the Authority.

9.11.5 Ownership and Use of Documents

Notwithstanding any provision in this Contract or in common law or statute to the contrary all of the plans, tracings, estimates, specifications, computer records, discs, tapes, proposals,

sketches, diagrams, charts, calculations, correspondence, memoranda, survey notes, and other data and materials, and any part thereof, created, compiled or to be compiled by or on behalf of the Contractor, including all information prepared for or posted on the Authority's website and together with all materials and data furnished to it by the Authority, are and at all times shall be and remain the property of the Authority and shall not be subject to any restriction or limitation on their further use by or on behalf of the Authority. The Contractor hereby assigns any and all rights and interests it may have in the foregoing to the Authority, and Contractor hereby agrees to provide reasonable cooperation as may be requested by the Authority in connection with the Authority's efforts to perfect or protect rights and interests in the foregoing; and if at any time demand be made by the Authority for any of the above materials, records, and documents, whether after termination of this Contract or otherwise, such shall be turned over to the Authority without delay. The Authority hereby grants the Contractor a revocable license to retain and utilize the foregoing materials for the limited purpose of fulfilling Contractor's obligations under this Contract, said license to terminate and expire upon the earlier to occur of (a) the completion of Services described in this Contract or (b) the termination of this Contract, at which time the Contractor shall deliver to the Authority all such materials and documents. If the Contractor or a subconsultant desires later to use any of the data generated or obtained by it in connection with the Projects or any other portion of the work product resulting from the Services, it shall secure the prior written approval of the Executive Director or his designee. The Contractor shall retain its copyright and ownership rights in its own back-office databases and computer software that are not developed for the Authority or for purposes of this Contract. Intellectual property developed, utilized, or modified in the performance of Maintenance Services for which the Contractor is compensated under the terms of this Contract shall remain the property of the Authority, the Contractor hereby agrees to provide reasonable cooperation as may be requested by the Authority in connection with the Authority's efforts to perfect or protect such intellectual property. The Authority retains an unrestricted license for software packages developed in whole or in part with Authority funds.

The Contractor shall maintain all other documents described in this <u>Section 9.11.5</u> in accordance with the requirements of <u>Section 9.11.2</u> and shall deliver copies to the Authority.

All documents and electronic files prepared by the Contractor and all documents furnished to the Contractor by the Authority shall be delivered to the Authority upon request or as required by the Contract Documents or upon request if not otherwise required to be delivered, with an indexed set delivered to the Authority as a condition to Final Payment. The Contractor, at its own expense, may retain copies of such documents or any other data which it has furnished the Authority under this Contract, but further use of the data is subject to express written permission by the Executive Director or his designee.

The Contractor: (1) will not release any data created or collected under this Contract except to its subconsultants as necessary to complete the Contract; (2) shall include a provision in all subcontracts which acknowledges the Authority's ownership of the data and prohibits its use for any use other than the project identified in this Contract; and (3) is responsible for any improper use of the data by its employees, officers, or subconsultants, including costs, damages, or other

liability resulting from improper use. Neither the Contractor nor any subconsultants may charge a fee for any portion of the data created by the Authority.

9.12 Indemnification; Releases

9.12.1 Indemnification by the Contractor

9.12.1.1 SUBJECT TO SECTION 9.12.2, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE AUTHORITY AND ITS OFFICERS, DIRECTORS, EMPLOYEES, ENGINEERS, AND AGENTS WHICH, FOR THE PURPOSES OF THIS CONTRACT, SHALL INCLUDE THE AUTHORITY'S GEC, GENERAL COUNSEL, BOND COUNSEL, FINANCIAL ADVISORS, TRAFFIC AND REVENUE ENGINEERS, TOLL OPERATIONS/COLLECTIONS FIRMS, AND UNDERWRITERS (COLLECTIVELY THE "INDEMNIFIED PARTIES") FROM ANY CLAIMS, COSTS, OR LIABILITIES OF ANY TYPE OR NATURE AND BY OR TO ANY PERSONS WHOMSOEVER, TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS, ERRORS, OR OMISSIONS OF THE CONTRACTOR OR ITS OFFICERS, DIRECTORS, EMPLOYEES, SUBCONSULTANTS AND AGENTS WITH RESPECT TO THE CONTRACTOR'S PERFORMANCE OF THE WORK TO BE ACCOMPLISHED UNDER THIS CONTRACT OR ACTIONS RESULTING IN CLAIMS AGAINST THE INDEMNIFIED PARTIES. IN SUCH EVENT, THE CONTRACTOR SHALL ALSO INDEMNIFY AND HOLD HARMLESS THE AUTHORITY AND THE INDEMNIFIED PARTIES FROM ANY AND ALL REASONABLE AND NECESSARY EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, INCURRED BY THE AUTHORITY IN LITIGATING OR OTHERWISE RESISTING SAID CLAIMS, COSTS OR LIABILITIES. IN THE EVENT THE AUTHORITY AND/OR ANY OF THE INDEMNIFIED PARTIES, IS/ARE FOUND TO BE PARTIALLY AT FAULT, THE CONTRACTOR SHALL, NEVERTHELESS, INDEMNIFY THE AUTHORITY FROM AND AGAINST THE PERCENTAGE OF FAULT ATTRIBUTABLE TO THE CONTRACTOR OR ITS OFFICERS, DIRECTORS, EMPLOYEES, SUBCONSULTANTS AND AGENTS OR TO THEIR CONDUCT.

9.12.2 Right to Rely

The Contractor hereby acknowledges and agrees that it is the Contractor's obligation to perform the Maintenance Services in accordance with the Contract Documents and that the Indemnified Parties are fully entitled to rely on the Contractor's performance of such obligation. The Contractor further agrees that any certificate, review and/or approval by the Authority and/or others hereunder shall not relieve the Contractor of any of its obligations under the Contract Documents or in any way diminish its liability for performance of such obligations or its obligations under this <u>Section 9.12</u>.

ITEM 168: VEGETATIVE WATERING

For this Contract, Item 168, "Vegetative Watering," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

168.4 Measurement

This Section is replaced by the following:

This item will be measured by the gallon as applied.

ITEM 500: MOBILIZATION

For this Contract, Item 500, "Mobilization," of the Standard Specification, is hereby amended with respect to the clause cited below, and no other clauses or requirements of this Item are waived or changed hereby.

500.1 Description

Delete the second paragraph.

500.3 Payment

This Section is replaced by the following:

The partial payments, described below, will apply to the applicable value per Project as each NTP is issued, independently. Except for Contracts with callout or emergency work, mobilization will be paid in partial payments as follows:

- Payment will be made upon presentation of a paid invoice for the payment of performance bonds and required insurance,
- Payment will be made upon verification of documented expenditures for plant and facility setup. The combined amount for all these facilities will be no more than 10% of the mobilization lump sum per applicable Project or 1% of the value per Project, whichever is less,
- When 1% of the value per Project is earned, 50% of the mobilization lump sum bid per applicable Project or 5% of the value per Project, whichever is less, will be paid. Previous payments under this Item will be deducted from this amount,
- When 5% of the value per Project is earned, 75% of the mobilization lump sum bid per applicable Project or 10% of the value per Project, whichever is less, will be paid. Previous payments under the Item will be deducted from this amount,
- When 10% of the value per Project is earned, 90% of the mobilization lump sum bid per applicable Project or 10% of the value per Project, whichever is less, will be paid. Previous payments under this Item will be deducted from this amount,
- 90 days prior to the end of the Contract Term, 97% of the mobilization lump sum bid per applicable Project will be paid. Previous payments under this Item will be deducted from this amount, and
- Payment for the remainder of the lump sum bid per applicable Project for "Mobilization" will be made after all submittals are received, final quantities have been determined and when any separate vegetative establishment and maintenance, test, and performance periods provided for in the Contract have been successfully completed.

For Projects with extended maintenance or performance periods, payment for the remainder of the lump sum bid for "Mobilization" will be made 6 months after final acceptance.

Section P

Special Specification 7667RMA Performance Based Maintenance

P. SPECIAL SPECIFICATION 7667RMA – PERFORMANCE BASED MAINTENANCE

P.1 Description

Perform all work required for Maintenance Services to maintain and operate the Projects and the appurtenances and future additions within the ROW. This includes, but is not limited to, mainlanes, express lanes, general purpose/frontage roadways, shoulders, ramps, intersections, roadsides, bridges, drainage structures, traffic operations, shared-use paths, and trailheads. Performance Measurement, Condition Assessment and associated Noncompliance Liquidated Damages are provided in Exhibits 2 through 5.

P.2 Texas Department of Transportation (TxDOT) Standards

This specification encompasses all roadway maintenance functions in TxDOT's Maintenance Function Codes, Code Chart 12, located in the Reference Information Documents (RIDs). Contractor to use Code Chart 12 in tracking all incidents and replacements in the Authority's CMMS.

P.3 Existing Agreements

Should new signals or illumination be installed by the Authority or others during the life of this Contract, the maintenance and operation of new signals will become part of the Contractor's responsibility at no additional compensation, including new continuous illumination in unincorporated areas or through incorporated areas with municipal populations of less than 50,000.

P.4 Materials

Unless otherwise directed by the Authority, all materials must be replaced in-kind and in accordance with the applicable standard. If the asset cannot be repaired, replace with like system according to the latest TxDOT standards.

Furnish documentation indicating material compliance with TxDOT Specifications.

Use materials from prequalified producers as shown on the Construction Division (CST) of TxDOT material producers list. Use the following website to view this list: https://www.txdot.gov/business/resources/producer-list.html.

New innovative materials may be used if approved by Authority Project Manager. Failures of innovative materials will be the responsibility of the Contractor.

P.5 Work Methods/Scope of Work

P.5.1 General

Ensure that proper coordination exists with other Contractors, cities, counties, state and local law enforcement, utilities, fire departments, medical facilities, and other state and federal agencies,

etc. Prepare, maintain, and periodically update a contact list of all relevant agencies and jurisdictions.

Contact information for the Authority Facility and Roadway Maintenance Manager will serve as Project Manager for the System-wide Performance Based Maintenance Contract. Contact information will be provided to the Contractor at the time of NTP.

In accordance with Item 5.5, "Cooperation of Contractor," the Contractor shall Contractor shall designate in writing a competent, English-speaking Maintenance Manager and ensure the Maintenance Manager or designated representative is available at all times and able to receive instructions from the Engineer or authorized Department representatives and to act for the Contractor.

All vehicles, to include subcontractors, shall have contractor identification conspicuously displayed on both sides of the exterior. Identification shall consist of a vehicle identification number and company name. No unmarked vehicles will be allowed. Provide vehicles that are licensed, inspected, in good working condition and calibrated as required for specialty equipment.

Equip all equipment with highly visible omnidirectional flashing warning lights.

If the Contractor fails to provide Maintenance Services resulting in excessive and unanticipated deterioration of the Projects or Projects appurtenances, the Contractor shall repair the Projects or Projects appurtenances to a condition commensurate with the Projects or Projects appurtenance characteristics, traffic volume, and age at no additional cost.

Time requirements listed herein shall be measured from discovery or notification until the Work Description is completed. Days are defined as calendar days. The term "immediately" shall be defined as less than 1 hour.

In order to comply with federal regulations, the Contractor shall furnish a train spotter any time work is performed within 20 feet of the railroad tracks. The spotter cannot be one of the regular crew members. The spotter must be specifically assigned to this duty. The spotter must be close enough to the crew members, so they can hear his commands. The train spotter will not be paid for directly, but will be subsidiary to the other bid items. Training will be as required by and in coordination with the proper railroad authority, prior to performing work on railroad property. Union Pacific Railroad (UPRR) and Capital Metropolitan Transportation Authority (CapMetro) lines cross the Project. Refer to maintenance maps for railroad locations.

P.5.2 Maintenance Management Plan and Work Schedules

The MMP is an umbrella document that describes the Contractor's managerial approach, strategy and quality procedures to maintain the Project and achieve all requirements of this Item, further explained in the plans. The MMP defines the process for maintenance of the Project throughout the Maintenance Term and will incorporate all required plans and procedures as indicated in the contract and will not repeat the contract specification. The MMP will include an organizational diagram explaining the project administration, key personnel, names, contact details, titles and job roles.

As part of the MMP, submit monthly and annual work schedules to the Authority Project Manager. The work schedules must include all work identified in the Contractor's assessment (e.g., specifically identified by type, location, and detailed enough to locate) of the roadway and its appurtenances to provide Maintenance Services, normal operation/cyclical work, work necessary to meet the Performance Measures, other Contract work directed by the Authority Project Manager, work directed by the Authority Project Manager through Change Order, work resulting from bridge inspections, and work related to public service requests or customer complaints. Submit the Monthly Work Schedules by the end of each month for work planned during the following month. Submit the Annual Work Schedule within 30 Calendar Days from the notice to begin Maintenance Services and within 30 days of the contract anniversary date each year. Any deficient item noted within condition assessments will be incorporated into the Monthly Work Schedule following the condition assessment and corrected to meet requirements of this Item and applicable Performance Measures. The Monthly Work Schedule must be in sufficient detail to provide adequate information to the Authority Project Manager of the date, time, work to be performed, traffic control plans to be implemented for each respective work activity, specific location along each roadway, and specific duration of work activities.

All subsequent updates will occur each year as noted in the Plans by engaging in an interactive process of discussion between the Authority, Contractor, and other agencies (as necessary) whereby lessons learned from past experience can be implemented for future use. Submit changes for the Authority Project Manager's review. The Authority Project Manager will meet with the Contractor within 30 Calendar Days after submittal to discuss revisions and clarifications to reach agreement(s). Resubmit the Plans to the Authority Project Manager within 15 Calendar Days following this meeting.

The MMP content will be organized as described in the following table:

Section	Plan Content		
MAINTENANCE MANAGEMENT PLAN			
I. Project Administration Plan			
Document needed, in	pcesses and procedures for administration of the project in accordance with Contract s. This plan will be updated one month prior to the Initial NTP anniversary each year, or as corporating lessons learned from the previous year. The Project Administration Plan must it is not limited to, the following:		
I.A. Organizational Diagram and Staffing Plan			
I.A.1	Organizational Diagram: Indicate the lines of communications and responsibilities of the project administration.		
I.A.2	Staffing Plan: Include a description for each personnel of their name, contact details, titles and job roles. Clearly describe the functions and responsibilities of each staff member listed Ensure all shifts have, as a minimum, one on-site Shift Safety Representative.		
	Key Personnel (to include resumes):		
	<u>Maintenance Manager</u> – Demonstrate at least five years of experience successfully managing performance based maintenance of urban freeways. The qualifying experience used to evaluate the Maintenance Manager must include the following:		
I.A.3	 Developing and managing work plans, budgets and schedules Developing and managing personnel and subcontractors Implementing programs including but not limited to monitoring and inspecting, vegetation management, snow and ice prevention and traffic management Emergency management experience Environmental mitigation 		
	<u>Safety Manager</u> – Demonstrate five years of progressive safety experience, education may be substituted for experience on a year for year basis, 3 years of which must be safety management experience on highway construction or maintenance projects. Meet requirements noted in Section N.1.3, License and Special Training Requirements.		
	Quality Manager – Show the Quality Manager reporting directly to the Contractor's principals.		
	<u>Technical Lead</u> – Demonstrate 5 years of technical experience with CMMSs and staff training. Once the Authority has provided initial training, this person will serve in support role for the Authority's CMMS training and day to day support of the Contractor's field staff as well as new personnel.		
I.A.4	Facilities: Provide a description and location of the facilities that will be utilized for this contract.		
I.A.5	Subcontractors: Identify any subcontractor that is proposed to assist in completing the work. Describe the Work activity anticipated to be performed by subcontractors and their experience in performing those activities on projects of a similar nature. Also, determine what resources the subcontractor will be providing.		
I.B. Proce	dures to Meet Performance Requirements		
accomplisi	of the following items; include approach, plan, capabilities, and means to be used in hing the Work and methods of ensuring compliance with the Specifications. Describe the overall and equipment required and their availability.		
I.B.1.	<u>Procedures</u> : Describe the procedures used in managing and conducting activities according the MMP and Performance Measures.		
I.B.2.	I.B.2. Reporting: Include a plan for reporting/recording roadway damage, conditions and completion status.		

Section	Plan Content	
	Include plans for carrying out work identified as part of the procedures for managing and conducting activities. Work schedules shall include, 1) all planned Work for addressing deficiencies identified in Contractor's Assessment of roadway to provide Maintenance Services, 2) Work necessary to meet Performance Measures, 3) Work as directed thru Change Order, 4) Work from bridge inspections, and 5) Work related to public service requests and complaints.	
	The Monthly Work Schedule shall include the Work to be performed, dates, and times of the Work with traffic control plans to be implemented for each respective Work activity. Resources: Explain the capabilities, materials, equipment, and number of employees	
I.B.3.	necessary to accomplish the tasks comprising of the work. Provide specifics on crew sizes and approximate frequencies of activities and inspections, including, but not limited to, roadway and roadside maintenance crews, pavement marking maintenance crews, bridge maintenance crews, landscaping crews, attenuator crews, and lighting maintenance crews covering all Work addressed in the Special Specification.	
	Action Plan: Describe the action plan for maintaining and improving Asset Condition Scores. Include a plan for reporting/recording roadway damage, conditions and completion status.	
I.B.4.	Describe how the plans within the Project Administration Plan will be coordinated and tracked.	
	Describe how roadway damage, conditions, and completion status will be reported and recorded utilizing a Computerized Maintenance Management System (CMMS).	
I.C. Computerized Maintenance Management System (CMMS)		
I.C.1.	<u>CMMS Data Entry</u> : Use the Authority's CMMS to track and validate work performed. Provide dedicated staff that is capable of, but not limited to, producing configured reports, auditing work order data entry and familiarity with databases. Follow the procedures for data entry in Exhibit 7. Explain how this will be accomplished.	
I.C.2.	<u>CMMS Training Coordination</u> : Explain how the Contractor will provide staff within 7 days of NTP for Authority's CMMS training during the 30 day mobilization period. Staff will include the Technical Lead and dedicated staff as noted in section I.D.1.	
I.C.3.	<u>CMMS Quality Control</u>: Explain how the Contractor will ensure accurate data entry to include, but not limited to, using the Function Codes and units of measure in Function Code Chart 12. It should include the following details: a) date(s) of work b) location d) starting and ending GPS coordinates for items of length e) Element, Element Type, and Condition f) Function code g) Quantity of work, description of activities and specific notes h) asset damage details for third-party claims, including documentation i) where the Contractor is called to perform traffic control, clean-up or damage repair j) anything that causes damage to an appurtenance on the ROW k) separate entries for time of Contractor discovery, time of notification of Contractor, notify name and affiliation, time to respond, description and quantity of Work performed, and time of Work completion to each Performance Measure.	
	Explain how the Contractor will ensure timely entry of complaints and service requests from all customers.	
II. Lane Closure Notification and Traffic Control Plan		
Explain the processes and procedures for planning and implementing traffic control in accordance with Contract Documents. This plan will be updated one month prior to the Initial NTP anniversary each year, or as needed, incorporating lessons learned from the previous year. The Communications Plan must include, but is not limited to, the following:		
II.A.	Notification: Explain how lane closure notifications, including all of the pertinent information, will be processed in accordance with Contract Documents. Explain how lane closures will be kept to an absolute minimum.	

	Plan Content
	Explain the process for securing concurrence prior placement of any traffic control devices for implementation of the traffic control plan.
	Implementation of TCP : Explain how the Contractor will perform work in conformance with the TMUTCD and TxDOT TCP Standards.
II.B.	Explain how the Contractor will provide all advance warning signs. Electronic portable message signs and flashing arrow panels shall be provided and available at all times during traffic control operations.
	Explain how the Contractor will furnish stand-by units that are in good condition as a contingency plan.
	<u>Management of TCP</u> : Explain how the Contractor will actively manage TCP to ensure immediate action is taken to modify closures/traffic control if backup (roadway queuing) becomes unreasonable. Have in place, a contingency plan of how this will occur.
II.C.	Explain how the Contractor will consider inclement weather prior to implementing the lane closure.
	Explain how the Contractor will ensure that all traffic control devices are removed upon completion of work.
III. Vegeta	ation Management Plan
approach,	ncorporating lessons learned from the previous year. For each of the following items; include plan, capabilities, and means to be used in accomplishing the Work and methods of ensuring we with the Specifications. Describe the overall manpower and equipment required and their /.
III.A. Vege	
	etation Management
	etation Management Explain how the contractor will maintain vegetation at the specified height in designated areas noted in the plans, maintain sight lines, encroachments, perform necessary trimming, address loss of vegetation, mowing cycles and wildflowers in accordance with the Contract Documents. Describe a program for ensuring optimal soil conditions to promote healthy establishment of desirable vegetation growth and noxious weed prevention to include but not limited to annual soil testing to be conducted between November and February of each year, and fertilization cycles for grass, landscaping areas, trees and other plants. Show how this plan shall be administered by personnel trained as required in Section N.1.3 License and Special Training Requirements for Turf and Landscaping.
III.B. Aest	Explain how the contractor will maintain vegetation at the specified height in designated areas noted in the plans, maintain sight lines, encroachments, perform necessary trimming, address loss of vegetation, mowing cycles and wildflowers in accordance with the Contract Documents. Describe a program for ensuring optimal soil conditions to promote healthy establishment of desirable vegetation growth and noxious weed prevention to include but not limited to annual soil testing to be conducted between November and February of each year, and fertilization cycles for grass, landscaping areas, trees and other plants. Show how this plan shall be administered by personnel trained as required in Section N.1.3 License and Special Training
III.B. Aest	Explain how the contractor will maintain vegetation at the specified height in designated areas noted in the plans, maintain sight lines, encroachments, perform necessary trimming, address loss of vegetation, mowing cycles and wildflowers in accordance with the Contract Documents. Describe a program for ensuring optimal soil conditions to promote healthy establishment of desirable vegetation growth and noxious weed prevention to include but not limited to annual soil testing to be conducted between November and February of each year, and fertilization cycles for grass, landscaping areas, trees and other plants. Show how this plan shall be administered by personnel trained as required in Section N.1.3 License and Special Training Requirements for Turf and Landscaping.
	Explain how the contractor will maintain vegetation at the specified height in designated areas noted in the plans, maintain sight lines, encroachments, perform necessary trimming, address loss of vegetation, mowing cycles and wildflowers in accordance with the Contract Documents. Describe a program for ensuring optimal soil conditions to promote healthy establishment of desirable vegetation growth and noxious weed prevention to include but not limited to annual soil testing to be conducted between November and February of each year, and fertilization cycles for grass, landscaping areas, trees and other plants. Show how this plan shall be administered by personnel trained as required in Section N.1.3 License and Special Training Requirements for Turf and Landscaping.

III.C.2. Maintenance of Records: Describe a plan for maintaining records and proof of purchase of all herbicides used, a material approval process, the Contractor's Herbicide license or licensed subcontractor, plans to wash equipment prior to beginning mowing operations in accordance with Contract Documents.

Section	Plan Content		
IV. Quality Management Plan			
accordanc anniversar	e processes and procedures for ensuring quality of Maintenance Services and deliverables in e with Contract Documents. This plan will be updated one month prior to the Initial NTP y each year, or as needed, incorporating lessons learned from the previous year. The Quality ent Plan must include, but is not limited to, the following:		
IV.A. Quality Management Plan			
	<u>QMP Policies and Procedures</u>: Explain and describe the system, policies, and procedures that address the Maintenance Services. The QMP must provide documented evidence of monitoring compliance, measurement where applicable, and analysis of processes assuring quality and improvement through preventative/corrective action of the Maintenance Services.		
IV.A.1.	Explain specific procedures and/or work instructions detailing: the organizational chart for quality management personnel, their roles, authorities and line reporting relationships, description of roles and responsibilities of all quality management personnel and those who have authority to stop activities, resumes of all quality management personnel, process steps for the services delivered, forms/records supplying evidence of process execution for each Maintenance Services activity.		
	Explain general descriptions of the inspection and test plans, including timing and frequency of testing, that will be used to meet the quality control requirements of the maintenance services.		
IV.A.2.	<u>QMP Staffing</u> : Include provisions explaining the quality management staff will only perform QC inspections and activities to ensure compliance of the Maintenance Services. The quality management staff shall have no responsibilities in planning and performance of the Maintenance Services.		
	<u>Management of QMP</u> : Explain management commitment to quality by including the following aspects: control of quality records, management reviews, providing adequate resources, measurement of customer satisfaction, internal audits to review the performance of the system, control of nonconforming products and services, and a process to seek continual improvement of the QMP.		
IV.A.3.	Describe how organization will ensure response to customer needs and expectations as described in the Communications Plan. Describe quality management reports to be developed in the Authority's CMMS for on going QM.		
	Explain a plan for submitting nonconformance reports within 7 days of their issuance and within 7 days of their resolution. This shall include notifying the Authority of a Nonconforming Work within 2 days of discovering Nonconforming Work or when QM reports in the Authority's CMMS indicate more than 25% nonconformance.		
IV.A.4.	<u>QMP Reporting</u> : Provide procedures for the Quality Manager to prepare an annual report of		
IV.A.5.	<u>QMP Revisions</u> : Include provisions to revise the QMP when the quality management organization detects a repeating or fundamental nonconformance in work performed or the manner in which Maintenance Services are tested, or when the Authority advises the Contractor of such a problem.		
	Explain the procedures for submitting QMP changes for the Authority Project Manager's review.		

Section	Plan Content		
IV.B. Docu	IV.B. Document Management Plan		
	Explain how the Contractor will utilize the Authority's Electronic Document Management System (EDMS) to store, catalog, and retrieve all contract documents. This shall include an outline of a document management plan that describes the EDMS approach and file structur Show compliance with the requirements of the Texas State Records Retention Schedule <u>https://www.tsl.texas.gov/slrm/rrs4</u> .		
	Explain how quality records will be made immediately available to the Authority for review upon request. Contractor shall include procedures for providing all records to the Authority at the time of the expiration or earlier termination of the Contract.		
V. Safety	and Health Plan		
Describe the Health & Safety Plan and safety standards that will be followed in accordance with the Contract Documents. Identify significant development difficulties that may be anticipated in performing the Work and indicate how those difficulties will be resolved.			
	Safety and Health Plan Policies and Procedures: Provide a safety policy, objectives and goals for communication of safety and obligations of all personnel to maintain a safe and healthy workplace. Contain policies to require adherence to a 100% drug/alcohol free work zone.		
V.A.	Describe the Contractor's policies, plans, training programs, Work site controls, and Emergency Management Plans for the safety and health of personnel and the public.		
	Describe the Contractor's system that allows employees to notify management personnel of conditions that appear potentially hazardous, and to receive appropriate responses without fear of reprisal.		
V.B.	Safety and Health Plan Staffing: Define the roles and responsibilities of the Safety Manager and safety staff, the hierarchal relationship between Safety Manager and other employees, and how responsibility and accountability for safety and health will be incorporated on all levels. Identify personnel and responsible staff who will implement, maintain, and enforce the Safety and Health Plan rules and policies. Identify a Shift Safety Representative (SSR). Demonstrate the SSR has three years of progressive safety experience and general competency in the safety disciplines related to the Work.		
	Identify the Safety Manager responsible for carrying out the Safety & Health Plan and required certifications.		
V.C.	Incident Response Plan: Explain how Incident Response Plans for the safety of the personnel involved in the Work and the general public affected by the work will be included in this plan.		
	Contain procedures for: addressing all potential hazards that may be encountered by employees, enforcement and training of safe work practices, plans for emergencies including drills, and ensuring all personnel, whether employed by the Contractor or not, visiting the Project is equipped with proper PPE.		
V.D.	<u>Management of the Safety and Health Plan</u> : Describe methodology for evaluating effectiveness and measuring success in meeting the goals and objectives of the Safety and Health Plan to include forms/records supplying evidence of process execution for each Maintenance Services activity.		
	unications Plan		
Explain the processes and procedures for communication of information between the Contractor and Authority in accordance with Contract Documents. This plan will be updated one month prior to the Initial NTP anniversary each year, or as needed, incorporating lessons learned from the previous year. The Communications Plan must include, but is not limited to, the following:			

Section	Plan Content	
VI.A.	<u>Agency Coordination</u> : Explain how the Contractor will develop coordinated support between all relevant entities, coordination of all operational issues affecting the Work, and updating affected agencies regarding the status of the Work.	
	Explain the communication and coordination of emergency response, traffic control, security, and operational issues affecting the Work and associated feeders and exits to the Work site. This should include routing and access changes as well as changes in Work that may create a greater likelihood of a particular emergency.	
VI.B.	<u>Response to Complaints and Service Requests</u> : Describe how the organization will comply to Complaints and Services Requests as Described in the Contract Documents.	
	Explain how the contractor will respond to unexpected requests, notify of any changes in personnel, and notify Authority before and after any changes are made to the Contract Documents.	
	Explain procedures for ensuring: the contractor is in contact with a customer within the timeframes set forth in the contract, work associated with customer notification is scheduled to meet performance measures, follow-up with the customer and estimated completion date is provided to the customer as Described in the Contract Documents.	
VII. Incident Management Plan		
IMP shall include procedures for the Contractor's response to emergencies and coordination with the Authority, TxDOT, the Texas Department of Public Safety (Texas DPS), and other responding agencies and Emergency Services. This shall include procedures to handle all likely events that are Incidents or Emergencies. Develop a comprehensive IMP to ensure that the Contractor has considered, planned, addressed, and trained for all likely natural and man-made events or situations that are Incidents or Emergencies, and has established protocols, procedures, and guidelines to mitigate the impacts, and respond to and recover from all such events. This plan will be updated one month prior to the Initial NTP anniversary of each year, or as needed, incorporating lessons learned from the previous year. The IMP must include, but is not limited to, the following:		
	IMP Procedures: IMP shall include a provision to immediately notify the Authority Project Manager about accidents and incidents requiring a lane closure. Coordination needs to be made with the Authority, other agencies, emergency agencies and the public regarding the establishment and implementation of detour routes. This includes Texas DPS, Combined Transportation, Emergency & Communications Center (CTECC), Traffic Incident Management (TIM) Center and any other affected agencies.	
VII.A.	IMP shall include procedures for the submission of incident/event reports.	
	IMP shall include procedures for incident/event management including: assessment by Authority Project Manager, securing the site, necessary resources needed, ensuring response time of <15 mins, handling hazmat, protecting infrastructure from damage, traffic control, repairs, and debris removal.	
	Describe the provisions for "catastrophic" events that will need multi-day lane closures.	

Section	Plan Content	
VII.B.	IMP Staffing: Describe procedures for providing personnel/ materials/ equipment on-site and ready to perform traffic control, debris removal and cleanup, hazard mitigation, and other work necessary to restore mobility within 90 minutes upon notification. Describe procedures for restoring mobility within 60 minutes for Managed Lanes. Describe procedures for disposal of debris off of the ROW within 48 hours after the cleanup has been completed.	
	Describe role of Incident Scene Commander for all major incidents, serving as a point of contact for the Authority, meet reporting requirements and participate in meetings, debriefs, etc., as described in the Contract Documents.	
	Describe plans for providing an engineer to perform a damage assessment of the incident within 60 minutes, including how the engineer will determine temporary repairs, lanes that can be opened to traffic and other engineering support necessary to restore mobility as quickly as possible.	
VII.C.	Management of IMP: Provide a plan for reviewing the IMP with the Authority following each emergency response event.	
VII.C.	Describe how the IMP will be updated every year with discussion from the Authority and other agencies. This should include information gathered from past experiences.	
VIII. Hazar	dous Material Management Plan	
the Contra the Contra each year,	blan for the safe handling, storage, treatment and/or disposal of hazmat brought onsite either by octor, encountered or brought onto the Project by a third party or otherwise, in accordance with oct Documents. This plan will be updated by one month prior to the Initial NTP anniversary of or as needed, incorporating lessons learned from the previous year. The HazMat Plan must it is not limited to, the following:	
	HazMat Plan Procedures: Explain Procedures for identifying and documenting contaminated areas as well as mitigation of contamination. This should include a Spill Response Plan and procedures for training for individuals on how to mitigate incidents involving contamination. Explain the procedures for appropriate storage and disposal of waste encountered or disposed of on the Project.	
VIII.A.	Explain the procedures for handling waste upon discovery of hazmat. It shall include provisions for abiding by the regulations of OSHA for hazmat recognition by employees.	
	Explain how the Contractor will document and report progress and maintain communication with the Mobility Authority for cleanup/removal on a daily basis and to document due diligence in accordance with HazMat response procedures.	
VIII.B.	HazMat Plan Staffing : Explain the individuals responsible for implementation of this plan. Explain the procedures for training personnel for responding to and mitigating Incidents	
Involving contamination or waste and procedures for a Hazardous Materials training module. VIII.C. Management of HazMat Plan: Explain procedures for updating the Material Safety Data Sheets (MSDS) per OSHA requirements for all chemicals used on the Project.		
IX. Snow a	and Ice Control Plan	
to fully per the contrac ice from th	and Ice Control Plan will demonstrate compliance with Special Specification 7188 and the ability form snow and ice control for snow and ice season. The plan will include sections demonstrating ctor's ability to obtain any additional equipment and/or personnel necessary to remove snow and re roadway if conditions warrant. This plan will be updated by August 1st of each year ing lessons learned from the previous snow and ice season. The Plan must demonstrate the	
Contractor's ability to monitor upcoming weather events and coordination with the Authority for deployment of labor and equipment, in anticipation of the Authority's first attempt of notification. The Snow and Ice Control Plan must include, but is not limited to, the following:		

Section	Plan Content	
IX.A.	S&I Control Plan Preparation: Provide procedures and provisions for conducting the required annual dry run and preparation meeting. This shall include the plans for preparing equipment for the dry run as detailed in the plans. Include a mobilization plan for a Winter Weather Event (WWE), including locations, equipment, personnel, other resources and timing as required in the plans. This mobilization plan shall include resources for the proper traffic control when responding to a WWE.	
	Provide a plan for ensuring equipment will be equipped with AVL and GPS and be incorporated into an AVL system that the Mobility will have access to. Provide procedures for ensuring that all equipment will be equipped with a two-way radio and cell phone. Describe procedures for ensuring all drivers have the necessary licenses and/or certifications for operation of equipment.	
IX.B.	S&I Control Plan Staffing and Resources : Provide an on-duty supervisor with experience in managing and directing snow and ice control programs for all snow and ice events as the Authority's point of contact.	
	Provide procedures for ensuring that sufficient resources will be under contract to perform snow and ice removal operations. This will include all snow and ice control materials (other than snow and ice materials provided by the Authority), personnel, equipment and fuel.	
	Provide a plan detailing the equipment that the Contractor will provide for implementation of the Snow and Ice Control Plan. This shall include at least the minimum equipment required as shown in the plans.	
	Provide procedures for monitoring stockpiles of snow and ice materials, communicating this with the Authority, and the handling and storage of these materials.	
IX.C.	S&I Control Plan Reporting: Include procedures for conducting an inventory as required in the specifications. Include procedures for the cleanup process after the event has cleared. Provide procedures for submitting payment for each snow and ice event as detailed in the specifications.	
	Management of S&I Control Plan: Describe the Contractor's approach to providing an After Action Report to evaluate effectiveness of their response within 7 calendar days of the end of an event.	
IX.D.	Describe approach for evaluating the operational plan performance to better optimize route assignments and promote continuous improvement.	
	Describe how this optimization will be incorporated into an updated by August 1st of each year incorporating lessons learned from the previous snow and ice season.	
X. Transit	ion Plan	
Contractor	e processes and procedures for transition of the project and document delivery between the r and Authority in accordance with Contract Documents. This plan will be updated 180 days prior t termination, or as needed. The Transition Plan must include, but is not limited to, the following:	
X.A.	Transition Plan Procedures: Provide procedures and plans for providing the following 90 days prior to maintenance transfer: a maintenance transition punch list, list and status of equipment Warranties, Vendors' test reports, Contractor's test reports, As-builts for any designs corresponding to Maintenance Services, maintenance records, copies of warranties and service contracts, list of purchased spare parts, and an inventory of Authority stockpiled materials.	
X.B.	<u>Transition Plan Implementation</u> : Provide procedures for coordinating the identification of punch list items including: estimated completion dates, responsible parties, and items that must be completed prior to transfer of Maintenance Services.	

Section	Plan Content		
X.C	Transition Plan Reporting: Provide procedures for assurance and written certification for Section N.13, Transition Requirements to guarantee 1) Asset Condition Score requirements have been met, 2) the Project can be safely used for its intended purpose, 3) Hazardous Materials located within the ROW, and 4) there is no litigation pending regarding the Maintenance Services or the Project by and Contractor-Related Entity. Entity.		
XI. Value A	XI. Value Added Concept		
will enhance of the Prop limited to the product the as determin Added Cor scope, per the Proposs costs wher the price p	brief narrative discussing any proposed product, service, or value added idea for the project that the Authority's abilities to implement the Project. The narrative should include an explanation poser's rationale for any concept listed. Value Added Concepts eligible for consideration shall be hose deviations from requirements of the RFP that result in performance and quality of the end at is equal to or better than the performance and quality of the end product absent the deviation, ned by the Authority in its sole discretion. A concept is not eligible for consideration as a Value incept if, in the Authority's sole judgment, it is premised upon or would require a reduction in formance, or reliability in the Work. If the Value Added Concept will increase the Proposal Price, eer shall include the cost breakdown for installation, maintenance costs and future replacement in and if applicable. The additional cost of implementing such a concept shall NOT be included in roposal.		
through ou how the Co	Provide narrative showing commitment to fully integrating meaningful DBE participation for this Contract through outreach, technical assistance/supportive services, compliance monitoring and reporting. Explain how the Contractor proposes to accomplish maximum DBE participation through an organized outreach, solicitation, and subcontracting plan.		
Conortation	DBE Outreach Program: Provide narrative for DBE outreach programs showing the Contractor's good faith efforts in meeting the DBE participation goal to include the following:		
XII.A.	 Holding DBE project informational meetings. Project and contracting advertisements in local and minority publications. Collaboration with other organizations to present/advertise project opportunities. Collaboration with TxDOT's Programs for DBE's such as PAVED, TBOD and the local TUCP. Participation at DBE-related events and conferences. Project Marketing Collateral. Other outreach or activities performed or plans to perform throughout the term of the Contract. 		
XII.B	DBE Plan Participation: Provide subcontractor information, annual expected DBE participation and scope of work for meeting the DBE participation goal		
XII.C	participation and scope of work for meeting the DBE participation goal. DBE Plan Reporting: Provide procedures for tracking, documenting and reporting DBE outreach and participation. Reporting will be required at least annually in the approved form, provided by the Authority.		

P.5.2.1 Key Personnel; Qualifications of Employees

Within 30 days of issuance by the Authority of Initial NTP, Contractor shall obtain the Authority's written approval of any changes to Key Personnel as presented in the Proposal.

During the Contract Term, Contractor shall promptly notify the Authority in writing of any proposed changes in any Key Personnel. Contractor shall not change, or permit any change in, any Key Personnel without the prior written consent of the Authority. Before Contractor replaces any Key Personnel, the Authority shall be given the opportunity to interview and approve the replacement candidate(s). The Contractor's request to replace any Key Personnel shall include a

proposed replacement, with equivalent or better qualifications, who shall be available within 7 days after the Authority's approval.

All individuals performing Maintenance Services shall have the skill and experience and any licenses or certifications required to perform the Maintenance Services assigned to them. If the Authority determines, in its sole discretion, that any Person employed by Contractor or any Subcontractor is not performing the Maintenance Services in a proper and skillful manner or is detrimental to the progress of the Maintenance Services and/or the Project, then, at the written request of the Authority, Contractor shall remove such Person from the Project and such Person shall not be reemployed on the Project without the prior written approval of the Authority.

Contractor shall designate in writing a field representative who shall have on-site field and office authority to represent and act for Contractor. That representative shall be present at the job site at all times while Maintenance Services are actually in progress. Contractor shall provide phone and e-mail addresses for all Key Personnel. The Contractor shall have key personnel available or on call 24 hours a day, 7 days a week for the duration of the contract with the ability to physically report to the Project within 1 hour to support Maintenance Services and timeliness requirements per the Contract Documents.

Contractor acknowledges and agrees that the award of this Maintenance Agreement to Contractor was based, in large part, on the qualifications and experience of the personnel listed in the Proposal and Contractor's commitment that such individuals would be available to undertake and perform the Maintenance Services. Contractor represents, warrants, and covenants that such individuals are available for and will fulfill the roles identified for them in the Proposal in connection with the Maintenance Services. Unless otherwise agreed to by the Authority in writing, individuals filling Key Personnel roles shall be available for the Maintenance Services and shall maintain active involvement in the prosecution and performance of the Maintenance Services in accordance with the approved MMP.

If any of the approved individuals filling the Key Personnel roles are not available for the Maintenance Services and do not undertake or perform the Maintenance Services because such individual(s) has/have been replaced after approval thereof pursuant to this Section P.5.2.1, as appropriate, Contractor acknowledges that the Authority, the Maintenance Services and the Project will suffer significant and substantial Losses and that it is impracticable and extremely difficult to ascertain and determine the actual Losses, which would accrue to the Authority in such event. Therefore, if such individuals filling the Key Personnel roles are not available or not actively involved in the prosecution and performance of the Maintenance Services, as determined by the Authority in its sole discretion, and until individual has been replaced by an individual approved by the Authority, Contractor agrees to pay the Authority a liquidated damage amount as noted in Exhibit 5, Liquidated Damages for Non-compliance, as deemed compensation to the Authority for such Losses for the following Positions:

- 1) Maintenance Manager
- 2) Safety Manager
- 3) Quality Control Manager

4) Technical Lead

Contractor shall not be liable for liquidated damages under this Section P.5.2.1 if (a) Contractor removes or replaces such personnel at the direction of the Authority; (b) such individual is unavailable due to death, retirement, injury or no longer being employed by the applicable Contractor-Related Entity (provided that moving to an affiliated company shall not be considered grounds for avoiding liquidated damages); or (c) Contractor identifies the replacement for any Key Personnel within 30 Days after issuance of Initial NTP, <u>provided</u>, <u>however</u>, in each such case, Contractor shall promptly propose to the Authority a replacement for such personnel, approval of which individual shall be subject to the Authority's written consent. Following any Authority-approved substitution or replacement of a Key Personnel pursuant to the terms hereof, the new individual shall be considered a Key Personnel for all purposes under this Agreement, including the provisions of this Section P.5.2.1 relative to liquidated damages.

Contractor acknowledges and agrees that the Key Personnel positions are of critical importance to the Authority and the Project. In addition to the approval rights of the Authority and liquidated damages set forth in this Section P.5.2.1, if an individual in a Key Personnel position leaves that position for a reason other than as set forth in <u>clauses (a)–(c)</u> of this Section P.5.2.1, the Authority shall have the right to terminate this Maintenance Agreement for default under TxDOT Item 8.7, unless Contractor provides the Authority a replacement acceptable to the Authority within 30 Days after the earlier of (a) the date on which such individual has left his/her position; or (b) Contractor or the Authority becomes aware that such individual intends to leave his/her position.

P.5.3 Electronic Equipment

The following are the minimum recommended requirements for the Authority's CMMS user work station.

- 2.0 Ghz or faster processor Windows based device
- 4 GB RAM
- Wired 100baseT network connection, and/or Wireless a/b/g/n, and/or cellular carrier access card (see network section)
- 1280 x 800 resolution highly recommended
- Keyboard and mouse
- Windows 8 operating system or higher
- Chrome, Edge, Firefox or Microsoft Internet Explorer Version 11

Mobile Operation Systems to run the mobile version of the Authority's CMMS

- iOS 11+, Android 5.0+, or Windows 10 version 16299.0+
 - Note: MobileVUE® not available on Windows
- Minimum 100 MB storage
- Permissions to Location, Camera, Storage, Wi-Fi connections
- Built-in navigation app (optional for the mobile version)

Information on the current CMMS is available in the RIDs. The CMMS is a standard .NET webbased application that runs on MS Internet Information Server 7.0 or greater with no special requirements beyond any other IIS web application. The following are the minimum recommended requirements for a typical network. Most networks in use today meet these requirements.

Internal Network for any type of implementation

- IP network protocol
- Wired network to client computers: 10baseT, 100baseT or 1000baseT switched network Server backbone: 1000baseT (1gigabit) or faster connection
- Wireless network: 802.11x compatible with Wi-Fi Protected Access (WPA) or better security

For field syncing:

• Wireless or Cellular carrier network capable of 4G or faster (AT&T, Sprint, Verizon and others can accommodate this within their coverage areas.) 4G or faster is highly recommended for an optimal experience.

P.5.4 Inspections

Contractor shall establish inspection procedures and a plan to implement a program of inspections of the Project to be included within the Maintenance Services and Work Plans that:

- 5) verifies the continuing safety of the Project for Users;
- 6) prioritizes Category 1 Defects;
- ensures that all Category 1 Defects are identified and repaired such that the potential hazard to Users is mitigated within the period given in the column entitled "Category 1 Mitigation" in Exhibits 2 and 3;
- 8) ensures that all Category 1 Defects are identified and permanently remedied within the period given in the column entitled "Category 1 Temporary Repair" in <u>Exhibits 2 and 3</u>;
- 9) identifies Category 2 Defects to be included for repair within Contractor's Work Plans;
- 10) ensures that all Category 2 Defects are identified and permanently repaired within the period given in the column entitled "Category 2 Permanent Repair" in Exhibits 2 and 3;
- 11) is responsive to reports or complaints received;
- 12) takes account of Incidents and Emergencies affecting the Project;
- 13) monitors the effects of extreme weather conditions; and
- 14) collates data to monitor performance of the Project and to establish priorities for future Maintenance Services.

Contractor shall ensure that personnel performing inspections of road pavements and structures are certified as inspectors and/or raters in accordance with TxDOT's Pavement Management Information System (PMIS) program or applicable certifying agency for the type of inspection being performed. Inspections, reviews, and testing performed in respect of Maintenance Services shall only be performed by personnel with appropriate training and qualifications, using appropriate equipment that is accurately calibrated and maintained in good operating condition as required by applicable specifications.

The periods stated in <u>Exhibits 2 and 3</u> under the headings of Category 1 Defects and Category 2 Defects shall be deemed to start upon the date Contractor first obtained knowledge of, or first reasonably should have known of, the defect. For this purpose Contractor shall be deemed to first obtain knowledge of the failure not later than the date of delivery of the initial notice to Contractor. Contractor shall investigate reports and complaints on the condition of the Project received from all sources. Contractor shall record such reports and complaints as Maintenance Records together with details of all relevant inspections and actions taken in respect of Defects, including temporary protective measures and repairs.

In performing inspections to identify Category 1 and Category 2 Defects, Contractor shall, for any Maintained Element, conform at a minimum to the inspection standards set forth for that Maintained Element in the column entitled "Inspection and Measurement Method" on Exhibits 2 and 3.

Contractor shall perform general inspections in accordance with the MMP so that the repairs of all Defects are included in planned programs of work.

Contractor shall record details of the manner of inspection (e.g., center lane closure or shoulder), the weather conditions and any other unusual features of the inspection.

P.5.5 Reporting

The following are required to be reported to the Authority Project Manager:

1) <u>Work Accomplished</u>. The Contractor shall utilize the Authority's CMMS, to track and validate Work performed, and compliance with timeliness, etc. Input required data in the system within 4 hours of notification and completion of Work. Contractor shall complete QC of data entry by the end of each month. CTRMA will generate a monthly report by close of business on the 3rd of each month. If the 3rd is not a business day, then the report will be made available the following business day. This report will be reviewed against the monthly work schedule to determine if work was accomplished.

If notice of system outage is received, the Contractor shall be prepared to maintain records of reporting until the system is available and data entry can be updated.

The Authority will train users to access, modify, save, and print standard and customized reports and queries.

The CMMS will track work using the Function Codes and units of measurement in the TxDOT's Function Code Chart 12, including but not limited to:

- a) Date or dates of the work
- b) Location (Roadway, Beginning and Ending reference marker)
- c) When referencing items with length (such as guardrail), provide both starting and ending Texas Reference Marker (TRM)
- d) Element and Element Type
- e) Function code and associated work order for the applicable performance measure
- f) The quantity of work performed, description of activities, specific notes as needed
- g) Associated asset damage details for third-party claims, including documentation required for supporting the claim
- h) Where the Contractor is called to perform traffic control, clean up or damage repair including, but not limited to, accidents involving any Contractor or subcontractor personnel, equipment, barricades or tools, traffic accidents within the limits, or in the vicinity, of any
- i) Also record the notifying party name and organization affiliation, time to respond, description and quantity of Work performed, and time of Work completion for each Performance Measure
- 2) <u>Complaints/Service Requests.</u> The Contractor and the Authority will have the ability to process, administer, and manage all maintenance-related complaints and service requests within the Authority's CMMS. The Contractor's role will be to complete the work associated with the complaint or service request in accordance with the standards and time limits set forth in this specification. If the Contractor receives any complaints or service requests directly, he/she will enter the request into the Authority's CMMS within 4 hours of notification.
- Accidents. The Contractor shall immediately notify the Authority Project Manager of any of the following accidents involving or otherwise observed by the Contractor's personnel and populate the data in the Authority's CMMS in the format provided within 4 hours of discovery:
 - a) Accidents involving Contractor or subcontractor personnel, equipment, barricades or tools;
 - b) Traffic accidents within the limits or in the vicinity of any work being performed by the Contractor or its subcontractors;
 - c) Accidents/incidents causing fatalities, numerous injuries, significant property damage, or the closing of roads, streets, or highways.
 - d) Highway accidents involving any fatality;

- e) Any accident involving a school bus;
- f) Any incident that causes a major highway to be closed, except for closures (maintenance, construction, etc.) where the public has been notified in advance via newspaper, radio or television announcements;
- g) Accidents creating significant media interest. <u>If there are any questions from the</u> <u>media the contractor shall call the Authority's Contract Manager (telephone numbers</u> <u>will be furnished the Contractor) to discuss the accident and the need for reporting.</u>
- h) Any incident that causes major damage to highway facilities;
- i) Hazardous material spills; In addition, provide documentation that the city or county environmental office and the Texas Commission on Environmental Quality (TCEQ) have been notified;
- j) Accidents that cause an evacuation. Evacuation is defined as the requirement to remove people from near the scene of the accident to protect them from hazardous material or endangerment from fire or other dangers that may be caused by the result of the accident.
- k) All bridge failures or closures;
- 1) Any chain reaction accident involving more than 10 vehicles, regardless of the number of fatalities, injuries or length of time the highway is closed; and
- m) Hazardous weather conditions.
- 4) <u>Third Party Claims</u>. The Contractor will repair any damage due to incidents or accidents caused by a Third Party. All Reporting shall be entered into the Authority's CMMS no later than the 15th of each month, information from the previous month on any accident or incident related to work being performed, including, but not limited to any accident involving the traveling public that causes damage to an appurtenance or fixture within the ROW.

Include the following information as a minimum:

- a) Date and time of the accident/incident;
- b) Location of the problem (e.g., city, county, highway);
- c) Description of the damage;
- d) At least 2 clear digital photographs of the damage to highway appurtenances;
- e) Digital photographs of traffic control items;
- f) A copy of incident/accident report(s) (police, fire, sheriff, DPS, eyewitness, etc.);

- g) Action taken to address the incident;
- h) Documentation of traffic control in place at location;
- i) Date(s) repairs are completed;
- j) Repair invoice with details, cost breakdown, and a summary, including total price, of work performed;
- k) Weather and road conditions;
- 1) Type of hazardous materials, if applicable;
- m) Number of fatalities or injuries, if applicable; and

P.5.6 Lane Closure Notification and Traffic Control

Perform traffic control for all work, condition assessments, and emergency operations. Provide lane closures for Authority, TxDOT or law enforcement functions such as pavement evaluation, accident reconstruction, bridge inspections, pavement coring, traffic counter maintenance, etc. Perform traffic control in conformance with the latest edition of Texas Manual on Uniform Traffic Control Devices (TMUTCD), latest edition, current TxDOT Barricade and Construction Standards (BC), Work Zone Standards (WZ), and TxDOT Traffic Control Plan Standard Sheets (TCP). All warning signs shall be factory made and in satisfactory condition. Unique work situations may require the preparation of individual traffic control plans (TCPs). Submit Contractor-proposed TCP changes, signed and sealed by a licensed professional engineer, for approval. The engineer may develop, sign, and seal Contractor-proposed changes. Changes must conform to guidelines established in the TMUTCD using approved products from the TxDOT's Compliant Work Zone Traffic Control Device List. Contractor shall implement necessary procedures and devices for lane closures within express lanes.

Locations that could pose a potential hazard to the traveling public must be signed and delineated using appropriate traffic control devices, such as signs, drums, cones, etc.

When the BC, WZ, TCP, or TMUTCD uses the word "should", the word is considered to be replaced with "must" under this Item. The Contractor must present requests for deviation from this replacement to the Authority Project Manager before implementation for approval.

Electronic portable changeable message signs (PCMS) shall be provided as part of the traffic control operations. Provide backups and keep operational and available on the job site at all times during traffic control operations. When the closure is active, revise the message to reflect the actual condition during the closure, such as "RIGHT LN CLOSED XXX FT".

A Truck Mounted Attenuator (TMA) in accordance with the TMUTCD Typical Applications will be used when installing and removing a TCP setup.

Use advance warning flashing arrow panels for the closing of traffic lanes. Furnish stand-by unit(s), in good working condition, ready for immediate use.

Maintain access to all streets and driveways at all times.

Furnish advisory speed signs in sufficient numbers as directed. Maintain sufficient manpower to revise traffic control as directed.

Cover any existing sign(s) which conflict with temporary traffic control operations.

All traffic control devices shall be removed from job sites upon completion of work.

The Contractor shall be responsible for all lane closures except for the following:

- 1) Lane closures associated with toll collection equipment repair or replacement, unless otherwise directed by Authority Project Manager
- 2) Lane closures requested by the Authority outside of the scope of this specification

In the event the Contractor is required to provide traffic control for this work, the Contractor will be compensated under Special Specification 7669RMA.

P.5.6.1 Lane Closures

Lane Closure Notifications (LCN) will be required as part of the Contractor's TCP. Lane closures will require prior approval from the Authority Project Manager, except in cases of emergency. Notify the Authority Project Manager 72 hours in advance of scheduled lane closures using the Authority's electronic lane closure notice workflow. Notify the Authority Project Manager of any emergency lane closures by phone with follow-up documentation. An emergency is defined as an incident or damage to the facility that could endanger the traveling public, impede normal traffic flow, or cause further deterioration of the highway system.

Any work activity requiring the implementation of temporary traffic control (TTC), as indicated within the TMUTCD, within the traveled way must be limited to the hours indicated in the plans for lane closures including mobile operations except TTC required for incidents. In the event that scheduled lane closures extend into hours outside of the allowable closure time, lane closure penalties will be accessed. A schedule summarizing late charges per lane per lane rental period is included in Exhibit 5, Liquidated Damages for Non-compliance, with the exception of TTC required for incidents.

Any lanes closed without notifying the Authority Project Manager or lane closures extending beyond the allowable closure times without the Authority Project Manager's approval will be considered as nonperformance and subject to Liquidated Damages as outlined in this document. Submit LCNs and secure concurrence prior to the publication of any notices or placement of any traffic control devices for implementation of the traffic control plan.

- 1) The Contractor shall provide the following information for all LCNs:
 - a) Date the LCN is submitted to the Authority
 - b) Purpose of the closure
 - c) Start and end dates of the closure
 - d) Start and end times of the closure

- e) Lanes/Roads to be closed
- f) TCP to be used
- g) Limits of the closure (must be identified by names of the street/road, no station numbers will be used)
- h) Detour routes, if required
- 2) If TCP is not a standard TxDOT or TMUTCD plan sheet, submit a written TCP depicting exact traffic control device locations for prior approval by the Authority Project Manager
- 3) An operational description of the work to be performed and the reason traffic must be affected
- 4) Contingency plan

Notify the Authority Project Manager, immediately upon removal of the closure(s).

Submit a cancellation of any lane closures, no later than noon on the day preceding the proposed work.

Coordinate mainlane closures with adjacent projects.

Take immediate action to modify closures/traffic control if backup (roadway queuing) becomes unreasonable (greater than 1/2 mile, or as requested by the Authority Project Manager). Have in place, a contingency plan of how this will occur.

Consider inclement weather prior to implementing the lane closure. Do not set up any lane closures when the pavement is wet prior to the installation, unless otherwise directed.

Barrels will be required on mainlane closures. Cones will not be allowed on mainlane closures unless otherwise approved.

Unless otherwise approved by the Authority Project Manager, lane closures will only be at the following times:

Sunday		9:00 pm to 11:59 pm
Monday	12:00 am to 5:00 am	9:00 pm to 11:59 pm
Tuesday	12:00 am to 5:00 am	9:00 pm to 11:59 pm
Wednesday	12:00 am to 5:00 am	9:00 pm to 11:59 pm
Thursday	12:00 am to 5:00 am	9:00 pm to 11:59 pm
Friday	12:00 am to 5:00 am	
Saturday		

Table P.5.6.1.1: Allowable Lane Closure Times

Emergency lane closures are not subject to the above time restrictions. Emergency lane closures will be set up and picked up as directed by the Authority Project Manager.

Daytime frontage road lane closures will also be allowed from 10:00 AM to 3:00 PM, Monday through Friday, except where noted as prohibited or as approved by the Authority Project Manager.

Provide sequential arrow boards for each lane closure. Provide stand-by unit(s) in good working condition at the jobsite ready for immediate use. Additional devices may be needed to supplement these requirements.

Shadow and trail vehicles are required for all mobile operations. Arrow boards, shadow and trail vehicles will not be paid separately but considered subsidiary to other bid items.

If requested by the Authority's Project Manager, provide full-time, off-duty uniformed certified law enforcement officer(s) in officially marked vehicle for each lane closure as part of the traffic control operations. Officers must be able to show proof of certification by the Texas Commission on Law Enforcement Officers Standards.

Keep the number, length, and duration of lane closures to an absolute minimum. Should an emergency occur, such as vehicle accidents, structural failures, etc., take steps to work continuously to open the entire roadway, as soon as possible. Maximum distance of lane closures shall be 2 miles and there shall be a minimum distance of 2 miles between lane closures unless approved otherwise by the Authority Project Manager. No two consecutive exit or entrance ramps may be closed unless approved by the Authority Project Manager or during an emergency. The Authority Project Manager has the authority to deny a lane closure that would cause substantial delay to the traveling public in the case of a special event or other public activity.

At locations requiring lane closures, appropriate portable changeable message boards will be placed for a period of 72 hours prior to the closure, or as directed for quick response repairs. The Authority Project Manager will approve the actual message to appear on the boards. Portable changeable message boards shall be removed from ROW immediately following lane closure work.

All lane closures including mainlane, ramp, frontage road, shoulder, and cross street closures are prohibited during the events listed below unless special permission is granted by the Authority and TxDOT:

- 1) Circuit of the Americas Formula 1 Race
- 2) Austin City Limits Music Festival
- 3) South By Southwest
- 4) Up to 10 days (per year) of The Star of Texas Fair and Rodeo (as directed by the Authority)
- 5) On any other high traffic days or holidays (up to 10 days per year) as determined by the Authority

For the following days or events, lane closures are not permitted after 3:00 PM on the day preceding and on the day of:

- 1) University of Texas (UT) home football games
- 2) UT Graduation Day

For any events at the Cedar Park Events Center on 183A Toll, lane closures from the event center to 2 miles south of the event center are not permitted 2 hours preceding the start time of an event, and 2 hours following the end time of an event. Event dates for which this restriction will be warranted will be determined on a monthly basis, as the event calendar is available. Restrictions on future Projects may be needed as directed by the Authority Project Manager.

For the following holiday weekends, lane closures and Maintenance Services, which restricts or interferes with traffic, will not be allowed from 12 noon on the day preceding to 9 AM on the day after:

- 1) Good Friday & Easter Weekend
- 2) Memorial Day/Memorial Day weekend
- 3) Labor Day/Labor Day weekend
- 4) July 4th weekend if July 4th is on a Friday, Saturday, Sunday, or Monday

For the following holidays, lane closures and Work that restricts or interferes with traffic are not permitted 1 day before and 1 day after:

- 1) Thanksgiving Day through Sunday
- 2) Christmas Eve/Christmas Day

For the following holidays, lane closures and Work that restricts or interferes with traffic are not permitted the day before and the day of:

- 1) July 4th if it is on a Tuesday, Wednesday, or Thursday
- 2) New Year's Day

P.5.7 Pavement Maintenance

Contractor is not responsible for Maintenance Services associated with improving ride quality on existing pavement. However, the Contractor is responsible for ride quality for repair work as indicated in Exhibit 2 for Element P.5.7 Pavement as a result of localized rutting and failures.

P.5.7.1 Localized Rutting

Repairs for localized rutting shall be limited to 1000 feet per lane.

P.5.7.2 Localized Roughness

Variation between any 2 contacts on 10-foot straight edge will not exceed ¹/₄" between the repairs and existing pavement.

P.5.7.3 Failures

The Contractor shall proactively maintain pavements with the goal to preserve the flexible and rigid pavements to the originally constructed or updated condition for the duration of the contract. Contractor will be required to submit a pavement design to the Authority Project Manager for approval prior to planned removal or replacement of pavement structure.

Contractor shall replace pavement in-kind, at a minimum. Contractor shall submit pavement mix designs to Authority Project Manager for approval prior to performing work. Any modifications to existing pavement designs shall be reviewed and approved by the Authority Project Manager prior to placement.

The Authority Project Manager will review the proposed design modifications and provide needed revisions and clarifications. The Contractor shall resubmit the design modifications to the Authority Project Manager within 15 days following this meeting. The Authority Project Manager shall approve or disapprove the design modifications within 15 days following resubmittal, if necessary. The Contractor shall prevent delays in scheduled work by submitting proposed design modifications in a timely manner, accommodating this review process.

The contractor shall maintain all areas where a pavement failure has occurred to prevent damage to third parties, until a permanent repair can be made. The Contractor will be compensated for repairs exceeding the quantity thresholds mentioned in this section.

Perform repairs of pavement distress and failures in flexible pavement continuously measured up to 1000 feet in length full lane width each. Pavement distress and failures will be identified as defined in TxDOT PMIS Rater's Manual criteria for flexible pavement surfaces. Types of repairs included but not limited to potholes, depressions, failures, and raveled or damaged pavement edges. Where flexible pavement meets approach slab, perform pavement repairs to prevent rainfall runoff from entering under approach slab. The Contractor shall proactively monitor pavement and notify the Engineer when any 1000 feet in length, full lane width has patches on more than 30% of the area.

Perform repairs of pavement distress and failures in rigid pavement continuously measured up to 100 feet in length full lane width each. Pavement distress and failures will be identified as defined in TxDOT PMIS Rater's Manual criteria for concrete pavement and approach slabs. Types of repairs included but not limited to spalls, partial and full-depth failures will be performed in accordance with TxDOT Specifications and as specified in the plans. Perform temporary repairs using polymeric materials in accordance with TxDOT Departmental Materials Specification. The Contractor shall proactively monitor pavement and notify the Engineer when any 500 feet in length, full lane width has patches on more than 30% of the area.

P.5.7.4 Edge drop-offs

Maintain edges to less than a 2-inch drop-off from the pavement. Backfill and compact the pavement edges with approved Type A materials unless approval is given for Type B materials.

Backfill and compact the pavement edges to produce a smooth surface adjacent to the pavement with no vertical edges before opening to traffic.

P.5.7.5 Expansion Joints

Perform cleaning and sealing, when seal is damaged or no longer bonding, of expansion joints between approach slabs and concrete pavement. Repair polymer concrete expansion joints with material meeting TxDOT Department Materials Specifications unless otherwise approved. If the expansion joint is:

- 1) greater than one-half inch wide, but the seal is damaged, remove the existing seal, clean, and seal the joint; or
- less than one-half inch wide, resize the joint to the appropriate dimension shown in TxDOT standard JS-94, Concrete Paving Details Joint Seals, unless otherwise approved, by sawing concrete on sliding side of joint and clean and seal joint.

P.5.7.6 Cracks in Asphalt

Rubber asphalt crack sealer will be utilized. Material supplied will be class B, polymer modified binder. This sealant will be heated to a minimum of 350 degrees Fahrenheit but no higher than 400 degrees Fahrenheit. Prior to starting work, a sample of rubber asphalt shall be submitted for testing. Work shall not commence until the material has passed specification testing, or as otherwise directed by Authority Project Manager.

Class B rubber asphalt crack sealing materials will not be applied when the pavement temperature is 40 degrees Fahrenheit and falling. This material can be applied when the pavement temperature is 40 degrees Fahrenheit and rising. Fill all cracks greater than 0.5 inch wide and 1.0 inch deep with fine aggregate prior to the application of sealant.

Sealant material should not be applied on raised pavement markings or markers.

A light coat of fine aggregate shall be applied to cracks after sealing and prior to opening to traffic to prevent tracking, or as directed. The Contractor shall be responsible for any cleanup if any tracking should occur.

At a minimum, crack seal up to 50% of all asphalt roadway sections each year, as needed. Sections with Permeable Friction Course (PFC) are excluded.

P.5.7.7 <u>Curbs</u>

Curbs and gutter shall be free of defects (i.e., cracks, broken, unsealed joints, misalignments, settlements, etc.). Keep all gutters, inlets, storm drain systems, traffic barrier drainage slots, etc., and their appurtenances clear and functioning and free of debris, trees and brush. Immediately investigate any ponding on the roadway. Immediately remove any obstructions shown to cause ponding. Keep all grates, tops of inlets and storm sewer pipe inlet connections intact, unbroken, and open. Kill and remove all weeds and undesirable vegetation using an approved herbicide program to keep vegetation from encroaching upon the curb and gutter.

P.5.8 Drainage

Perform maintenance of drainage and drainage appurtenances (culverts, pipes, channels, easements, inlets, grates, curb and gutter, storm drain systems, bridge drains, pump station wells and baskets, mitigation sites, detention, retention, and water quality ponds, hazardous material traps, ditches, traffic barrier drainage slots, etc.) in ROW.

Investigate and remediate any drainage related issue that could affect the health and welfare of the public.

Litter located within the water quality and detention facilities is defined as trash, wastepaper, garbage or other items that have been washed into the facility and described as, but not limited to, scrap metal, paper, wood, plastic, glass products, bottle caps, ring-pull tabs, cigarette butts, feces, and animal remains. A list of ponds is provided in the RIDs. This list does not include ponds that may be included on future Projects not currently open to traffic.

Please note that portions of the CTRMA roadway system are regulated by the TCEQ for storm water discharges under the TCEQ Small Municipal Separate Storm Sewer System (MS4) General Permit TXR040000. The regulated area is currently limited to portions of 183A and the 290 E Maintenance Yard but may expand in the future. The TCEQ authorization number for the MS4 is TXR040652. This MS4 permit includes requirements for contractor training, disposal of waste material, pollution prevention measures, deicing, herbicide use, among other things. The Storm Water Management Program (SWMP) document includes the details of the guidance provided under the MS4 general permit. The updated SWMP can be found on CTRMA's website: https://www.mobilityauthority.com/projects/programs-green-initiatives20190815. Hazardous materials for MS4 reporting are described in section P.5.22 Hazardous Materials.

Exhibit 6, Drainage Performance Measures, will summarize the locations, frequencies and specific performance measures for sections P.5.8.2 through P.5.8.6.1.

P.5.8.1 <u>Pipes and Channels</u>

Clear and maintain cross road and side road drainage structures that have more than 20% of the cross-sectional area silted. Use an approved method for any repair work performed to the structures. Keep all culverts, pipes, channels, inlets, storm drain systems, ditches, traffic barrier drainage slots, etc., and their appurtenances clear and functioning and free of debris, trees and brush. Immediately investigate any ponding on the roadway. Immediately remove or rectify any obstructions shown to cause ponding.

Keep all grates, tops of inlets, and storm sewer pipe inlet connections intact, unbroken, and open. Repair or replace separated or crushed pipes. Pavement underdrains and related clean-outs shall be maintained in good operating conditions at all times.

Grade to the original lines and grades all ditch or channel erosion and siltation located within the ROW or drainage easements that adversely affects the drainage. Install sodding, seeding, fertilizer, compost, erosion control blankets, silt fences, rock berms, etc., to allow repaired areas to revegetate.

Remove debris when it accumulates in drainage conveyances as a consequence of high flow. Maintain channel in original condition and keep free of undesired vegetation, trees, and brush. Remove debris that interferes with stream flow in channels. Maintain riprap in its original configuration or modified as approved. Keep riprap free of undesirable vegetation. Repair or replace damaged or undermined riprap. Repair foundation riprap failures, undermining, or scouring.

P.5.8.2 Vegetative Filter Strips

Vegetation growth shall be limited to 4 inches. Maintain such that no erosion or damage to the vegetation is present. Remove all grass clippings, woody growth, litter, debris and obstructions. Ensure no sediment has accumulated upstream and overland sheet flow has not been disrupted.

P.5.8.3 <u>Swales</u>

Vegetation growth shall be limited to 4 inches. Maintain such that no erosion or damage to the vegetation is present. Remove all grass clippings, woody growth, litter, debris, obstructions and sediment buildup.

P.5.8.4 Detention Facilities

Pickup, remove, and dispose of litter and debris a minimum of once every 30 days.

Maintain and keep water quality and detention facilities free of undesirable vegetation. Woody vegetation should be removed when observed because the roots can damage or compromise the liner.

Clean detention ponds when design capacity is reduced by 20%.

Mowing shall include upper stage, side slopes, embankment and emergency spillway. Vegetation height must be kept below 8 inches.

Access roads and perimeter shall be kept clear and accessible.

P.5.8.5 <u>Hazardous Material Traps</u>

Inspect, maintain and clean hazardous material traps (HMTs), water quality ponds and detention facilities in accordance with approved TCEQ permit and contract specifications.

Post rainfall inspections: drain stormwater from HMTs on the first working day after a significant rainfall event. Valves must be closed after HMTs are drained. Ensure proper operation of valves. Contact the Authority Project Manager in the event of petroleum or hazardous material spill inside or outside of HMTs.

Pickup, remove and dispose of litter from the HMTs, water quality ponds and detention facilities as per specifications. Litter is defined as trash, wastepaper, garbage or other items, including but not limited to; scrap metal, paper, wood, plastic, glass products, bottle caps, ring-pull tabs, cigarette butts, feces and animal remains, which have been washed into the facility. Control vegetation in clay bottom facilities. Maintain water quality ponds so that there is no standing water 48 hours

after a rain event. These inspections must be documented on an approved checklist form to be provided by the Authority Project Manager.

P.5.8.6 <u>Water Quality Ponds</u>

Inspect, maintain and clean water quality ponds and detention facilities in accordance with approved TCEQ Edwards Aquifer Protection Program (EAPP) permit. Water quality pond inspection and maintenance and repair requirements vary depending on the type of pond and the TCEQ EAPP permit's Inspection, Maintenance & Repair Plan. The specific inspection, maintenance and repair requirements are located in the EAPP permit (i.e., Water Pollution Abatement Plan (WPAP), Contributing Zone Plan (CZP) or Exception Request Plan (EXP)). TCEQ inspection and maintenance requirements for the subject ponds will be provided in the RIDs. The Maintenance Contractor shall perform maintenance activities accordingly. If structural defects are found, immediately notify the Authority Project Manager. General maintenance requirements are including but not limited to those described below.

After a 1-inch rainfall, water quality ponds should be checked to ensure the filtration basin drains as designed.

Maintain the water quality ponds so that vegetation growth is between four (4) and eighteen (18) inches at all times. Vegetation that is mowed or cut shall be removed from the basin. Vegetation in cracks and joints shall be removed.

No unvegetated area exceeds 10 square feet. Remove all diseased or dead vegetation. Maintain such that all nuisances such as insects, weeds, odors, and algae are not present.

Mowing shall include upper stage, side slopes, embankment and emergency spillway. Vegetation height must be kept below 8 inches.

Maintain such that accumulated sediment is less than 20% of the allocated volume of the sedimentation basin.

Ensure no presence of accumulated sediment in the inlet structure.

Maintain such that sediment does not impact the performance of appurtenances such as forebays, inlet and outlet works, splitter boxes, sediment traps and underdrain piping.

Ensure no signs of sediment erosion or re-suspension.

Turn the top 2 inches of the sand filtration surface by mechanical means to aerate, promoting drainage, at least once every two years or as directed by the Authority Project Manager.

Maintain such that the structural integrity of basin is maintained and no damage to structural elements is present. Repair cracks, voids, and undermining. Ensure no subsidence, leakage, or cracking is present along pond embankment.

Erosion problems inside or downstream shall be repaired and replanted.

Access roads and perimeter of the water quality and detention ponds shall be kept clear and accessible.

P.5.8.6.1 Logic Controller

Logic controllers have been installed as a component of the water quality ponds on 45 Toll and may be installed on future corridors.

Ensure external indicators cellular modem and antenna are operating properly. Repair any damage to the controller or circuitry.

Ensure the battery has no corrosion, the terminals are securely fastened and is charging/discharging properly.

Maintain the solar panel so that it is free of damage, dust and debris. The solar panel shall be facing in the southerly direction.

Maintain the inverter, power supplies, relays, indicating lights and electric components so they are in good condition, free of corrosion, damage, or water. Check fuses for all electronic devices.

Maintain the power meter of service entrance power controller so that it is free of damage and the emergency on/off switch is operating properly.

Repair any damage or corrosion of components such as pipe supports, plug valves, actuator or wiring.

Ensure structural components function as designed. Ensure the outfall structure lid opens and closes properly and manual valves open and close by hand. Ensure no water intrusion in the vault.

Ensure the components such as the outfall structure, valve/actuator and capacitive level sensor are free of scaling, debris or trash.

P.5.8.7 <u>Underground Detention</u>

Maintain in accordance with TxDOT Special Specification 7228, "Maintenance of Underground Water Quality Facilities."

Perform hydraulic cleaning, vacuum removal and disposal of debris and litter in pond risers, material traps, splitter boxes, rock gabions, gabion mattress, sedimentation basins, sand filtration ponds, and outlet structures. Debris and litter are defined as dirt, trash, rocks, scrap metal, paper, wood, plastic, rubber, glass products, foreign objects and other material not part of the drainage system.

P.5.8.8 <u>Pump Stations</u>

Maintain in accordance with TxDOT Item 764, "Pump Station and Drainage System Cleaning."

Perform hydraulic cleaning, vacuum removal and disposal of debris in drain inlets, pump station wells, basket and inlet pipes, downspouts, sumps, storm sewers, and slotted drains. Debris is defined as dirt and other material not part of the drainage system. Perform visual inspections supplemented by cameras utilizing closed-circuit television (CCTV) for inspections where required to inspect buried pipe work to ensure proper drainage every 6 mo. with the first test due

60 Calendar Days before the anniversary of the date as stated in the written notice of authorization to begin Maintenance Services.

P.5.8.9 Enclosure Areas

Keep enclosure areas free of vegetative and debris to allow clear access. These areas shall be treated to prevent pests. The Authority will provide access secured enclosure areas.

P.5.8.10 Travel Way

The contractor shall take preventative measures to ensure drainage is free of debris, sediment or other blockage prohibiting proper drainage, prior to weather events. Monitor roadway conditions (including on the road monitoring) during weather conditions that could cause flooding; report status to the Authority Project Manager; respond and implement traffic control; and remedy, to the extent practicable, flooding of roadways impacted by rainfall events. Remove debris from the roadway and channels to an approved place in the roadside to the extent necessary to restore the roadway to safe travel.

P.5.8.11 Underdrains

Maintain underdrains and related clean-outs in good operating conditions at all times in accordance with original construction.

P.5.8.12 Erosion and Siltation

Repair erosion before it is deeper than 12 inches. Provide sodding and seeding for erosion control, fertilizer, erosion control devices, and soil retention blankets as necessary to allow natural vegetation to re-establish after repairs. Perform temporary erosion, sedimentation, and environmental.

P.5.9 Structures

The Contractor shall proactively maintain highway and pedestrian bridge elements including approach slabs, railing, deck, superstructures, and substructures. Contractor is also required to conduct highway and pedestrian bridge inspections.

P.5.9.1 Structure Inspections

TxDOT has separate contracts to conduct Routine Safety Inspections of all bridges every 24 months. Those inspections are evaluated utilizing the National Bridge Inspection Standards (NBIS) and are conducted by others. Copies of those inspection reports will be provided and will indicate needed bridge maintenance work that the Contractor may need to address.

To supplement the bridge inspections conducted by others, the Contractor is required to perform visual highway and pedestrian bridge maintenance inspections every year, at a minimum, to monitor bridges for needed repairs and damage caused by over-height loads, other vehicular accident damages or other damage caused by settlement, deterioration or natural causes. More frequent inspections shall be performed, as described in the MMP, to address other maintenance activities.

Perform inspections and submit inspection findings:

- 1) within the first 90 Calendar Days after the Initial NTP date to begin Maintenance Services.
- 2) with personnel that have taken and passed TxDOT's Maintenance Bridge Inspection Course (MNT127) or approved equivalent. Submit evidence of successful course completion within 60 Calendar Days after the date of Initial Notice to Proceed to begin Maintenance Services or 30 Calendar Days after course completion, applicable to the date of course completion; and
- 3) when notified that damage has occurred due to impact, incident or any other cause; after a rainfall event that may have caused damage to the bridge, as determined by the Authority Project Manager; and every 24 months or as stated in the plans.

Provide inspection reports in accordance with TxDOT's Maintenance Bridge Inspection Tracking System (MBITS) within 14 Calendar Days following each inspection. Refer to the MBITS 1.0 User Manual and Inspection Sheet.

Measure and report the bridge clearance measurements for "Actual Clearance," "Signed Clearance," nature of any sign work performed, and when it was done annually. Maintain records indicating dates of and observations during inspections.

When damage to a highway bridge structure or overpass is discovered, the safety of the traveling public will be of immediate concern. Immediately establish detours if there is any question about the ability of the structure to function in a safe manner.

Notify the Authority Project Manager when there is any question about the ability of the structure to function in a safe manner within 1 hour. Establish detours when directed by the Authority Project Manager.

P.5.9.2 Bridge and Undercrossing Maintenance – Damage

Design and perform all highway and pedestrian bridge and undercrossing repairs. Obtain approval in writing for all major repairs, whether caused by collision, natural disasters, or normal deterioration before the work is begun, except that shoring or other temporary measures may be performed to stabilize a structure before the final repair method is approved. Sign and seal all plan sheets by a Texas Licensed Professional Engineer. Use the most current TxDOT specifications for repairs and materials unless otherwise approved by the Authority Project Manager.

When damage to a structure discovered, the safety of the traveling public shall be of immediate concern. Immediately establish detours if there is any question about the ability of the structure to function in a safe manner. Perform an inspection immediately when bridge or undercrossing sustains major damage.

Notify the Authority immediately if a structure suffers major damage.

Immediately respond and begin repairing or replacing damaged bridge rail, concrete parapets, approach guardrail, end treatments, or attenuators that will no longer function as designed. Immediately install warning signs, protective devices, and temporary railing.

P.5.9.3 Bridge and Undercrossing Maintenance – Cleaning

Keep structure free of undesirable vegetation. Perform removal and disposal of debris from drainage systems, caps, bearings, substructure, riprap, etc., including, but not limited to, bat guano and other animal droppings.

Perform sweeping, vacuuming, and removal of deicing chemicals, rock, debris, etc., from bridge deck, parapets, railing, joints, backwalls, caps, joints, and bearings per Exhibit 2 Performance and Measurement Table – Roadway and within 30 days from the last application of deicing chemicals unless another ice event is predicted within 2 weeks of the 30 day deadline.

The Contractor shall perform structural concrete cleaning and coating with color matched Class V Finish for restoration of damaged, faded, mildewed, fire damaged, or otherwise discolored concrete surfaces on bridges and rails on an annual basis.

P.5.9.4 Bridge and Undercrossing Maintenance – General

Perform maintenance and repair of highway and pedestrian bridge and undercrossing curbs, parapets, sidewalks, sidewalk joints, bridge rails, beam protection system, illumination, signage including mounting hardware, etc.

Repair spalls or damaged areas on bridge decks. Keep drains clean and functional. Check joints with a 10-foot straightedge to ensure the riding surface is within 1/4 inch, or as approved by the Authority Project Manager.

Ensure steel beams are straight with minimal cosmetic damage or rust. Ensure steel fasteners are tight in place, with none missing. Ensure concrete beams have minimal unrepaired damage, spalls, or cracks. Repair any superstructure damage. Keep bearing assemblies clean and functional.

Ensure columns, pilings and caps have minimal unrepaired damage, spalls, cracks, or scaling. Repair any substructure damage. Keep abutment and bent caps clean with minimal debris.

Perform maintenance of channels or water crossings including, but not limited to:

- 1) repair channel erosion, scour, sediment buildup, culvert end treatment safety features, and slope or channel stabilization measures (e.g., riprap, gabions, etc.);
- 2) vegetation management to include control of encroachment on bridges; and
- 3) removal of debris.

P.5.9.5 Bridge Expansion Joints

Perform cleaning and sealing of highway and pedestrian bridge expansion joints. Make repairs or modifications to prevent entry of roadway runoff entering under the approach slab. Correct any approach slab settlement.

Perform vacuuming of highway and pedestrian bridge joints to remove debris during roadway sweeping operations. Perform cleaning and sealing, when seal is damaged or no longer bonding, of bridge deck armor and expansion joints. If the expansion joint is greater than 1/2 inch wide, but the seal is damaged, remove the existing seal, clean and seal the joint. Repair polymer concrete expansion joints with material meeting TxDOT Department Materials Specifications, unless otherwise approved. Submit material information for review and approval. If permanent repairs cannot be initiated within 1 hr., fill hole created by failed expansion joint with containerized asphalt.

P.5.9.6 Undercrossing Components

Undercrossings have been installed on Express 1 Toll.

Maintain the fire protection system and components in accordance with the operations and maintenance manual provided in the RIDs. Ensure no visible damage of the fire stand pipe. Ensure all caps and covers are secured. Ensure no visible water leaks or damage to the fire hydrant. Ensure the valve is shut, secured and isolated.

Ensure the fire suppression system responds to tests as specified; address issues discovered during annual fire protection system tests (alarms, tamper switches, fire pumps, water motor alarm, flow tests); ensure indicator lights function properly.

Replace the air pre-filter and particulate and coalescing filter once per year or every 1000 hours, whichever comes first. Once replaced, follow the operations and maintenance manual instructions for resetting the filter system.

Maintain the components of the electrical distribution and tunnel lighting system so that it functions properly. LED lighting fixtures (.15kW HPS Eqv) are mounted near the top of the walls and shall be replaced in-kind unless otherwise approved by the Authority Project Manager.

Ensure the support elements and anchorages do not show signs of distress, such as cracking and evidence of pull-out.

Maintain such that there is no loose concrete, damaged, broken or deteriorated support fasteners for lighting fixtures or utilities over the roadway. This would warrant a Cat 1 mitigation response.

All concrete surfaces shall be free of delamination, spalling, cracks, efflorescence, corrosion, collision damage, bulged areas and active leakage.

Maintain structural elements such as tunnel liner, tunnel roof girders, concrete portals and concrete slab-on-grade ensuring they are free from damage or defects.

P.5.9.7 Gantries and High Masts

Provide the portable power drive assembly for any high mast lighting work. Ensure gantry and high mast assemblies are structurally sound and all winch and safety equipment is correctly functioning and maintained without rusting or corrosion.

P.5.9.8 Pole and Foundation Supporting ITS Equipment (such as CCTV, RVSD and DMS signs)

Ensure sure the pole and foundations are structurally sound and free of defects. In accordance with the Performance Measures.

P.5.9.9 Non-bridge Class Culverts

Maintain structures with an opening measured along the center of the roadway of less than 20 feet between undercopings of abutments or springlines of arches or extreme ends of openings or multiple boxes.

P.5.10 Pavement Markings, Object Markers, Barrier Markers and Delineators

Remove existing longitudinal pavement markings, as directed, before placing new pavement markings that will result in 180 or more mils (not including glass beads). Black paint/thermo will not be allowed.

Water-blasting is the only approved method to remove existing pavement markings and graphics. Equipment must be capable of removing markings from grooved concrete surfaces and/or surface treatments without causing damage to the pavement and must be equipped with a vacuum recovery system fully integrated with the blasting component eliminating the possibility of uncontained run-off blasting water and/or debris. Contractor is responsible for disposing of pulverized debris and water in accordance with federal, state, and local regulations and for any fees associated with the disposal.

See the TxDOT's TMUTCD and Pavement Marking Standard Sheets for striping details.

Restriped areas must be a minimum of 1,000 feet, with no less than 500 feet between restriped areas.

Place materials, as applicable, to the existing longitudinal pavement markings, and perform work in accordance with TxDOT Specifications, unless otherwise required in the plans to be alternate materials governed by another special specification included in the Contract.

When the raised portion of a profile marking is placed as a separate operation from the pavement marking, the raised portion must be placed first then covered with TY I marking materials.

P.5.10.1 New Striping

Perform placement and maintenance of pavement markings. When temporary pavement repairs are performed, place temporary pavement markings before opening to traffic and place permanent markings within 14 Calendar Days.

New type I marking retroreflectivity must be measured by the contractor and meet minimum retroreflectivity values for edge line markings, centerline or no passing barrier-line, and lane lines in accordance with TxDOT Specifications.

P.5.10.2 Longitudinal Pavement Markings

Placement of Longitudinal Pavement Markings (centerline, lane line, and edge line). Replace pavement markings when:

- 1) retroreflectivity, performed during Mobile Retroreflectivity Data Collection (MRDC), does not meet the minimum reflectivity requirements (MRR) of 175 mcd/m2/lx for white and 125 mcd/m2/lx for yellow.
- 2) length, width, shape, size, color, and configuration does not meet minimum requirements.

P.5.10.3 Non-longitudinal Pavement Markings

Placement of Non-Longitudinal Pavement Markings (Stop bars, crosswalks, arrows, symbols, shapes, graphics, channel lines, exit and entrance gores, etc.)

Replace non-longitudinal pavement markings when 25% or more of a marking is damaged or missing (e.g., length, width, shape, configuration, lack of reflectivity, etc.).

P.5.10.4 Prefabricated Pavement Markings

Prefabricated pavement markings may be installed on future corridors. Manufacturer's information will be provided. Prefabricated markings shall be maintained in accordance with the applicable specifications. Prefabricated pavement markings will be subject to MRDC and performance requirements in accordance with TxDOT Standard Specifications.

P.5.10.5 Mobile Retroreflectivity Data Collection (MRDC)

Perform MRDC for all lane line, edge line, and centerline or no passing barrier-line pavement markings every 6 mo. with the first test due 60 Calendar Days before the anniversary of the Initial NTP date to begin Maintenance Services. Perform MRDC in accordance with Special Specification 6291, "Mobile Retroreflectivity Data Collection for Pavement Markings", unless otherwise superseded by an alternate Special Specification included in the contract. Provide data to the Authority Project Manager within seven (7) Calendar Days of completion.

A marking will be considered to meet the mobile retroreflectivity (MR) if:

- 1) the combined average retroreflectivity measurement for a one-mile segment meets the MRR; and
- 2) no more than 10% of the retroreflectivity measurement values are below the MR value within the 1 mi. segment.

P.5.10.6 Raised Reflective Pavement Markers

Perform an initial inspection of all raised pavement markers within 30 Calendar Days of Initial NTP to begin Maintenance Services. Perform inspection, both during the day and at night, every 6 mo. and 60 Calendar Days before the end of the contract.

Night inspections must be performed using a passenger vehicle with headlights set on low beam and 4 markers must be reflective when placed on 80-foot spacing or 8 markers must be reflective

when placed on 40-foot spacing. Provide documentation to Authority Project Manager. RPMs (including traffic buttons where placed) must be functional when viewed at night in accordance with the performance measures. A functional marker is both visible and conspicuous. Repair all deficiencies noted in the inspection report and provide Authority Project Manager documentation of corrected deficiencies.

At a minimum, perform full replacement of raised pavement markers every 24 mo. on all roadbeds, simultaneously.

Responsibility for damage to RPMs directly related to snow and ice control operations will be compensated in accordance with Special Specification 7668RMA Snow and Ice Control.

Repair damage to roadway surfaces such as spalling, shelling, etc., resulting from the removal of pavement markers.

P.5.10.7 Delineators and Object Markers

Perform day and night inspections of all object markers and delineators per performance measures outlined in Exhibit 2, Performance and Measurement Table Roadway. Provide documentation to Authority Project Manager. Repair all deficiencies noted in the inspection report and provide Authority Project Manager documentation of corrected deficiencies.

Repair, replace, and clean defective barrier markers, delineators and object markers in accordance with TxDOT Specifications and latest standard plan sheets. Items will be considered defective if they are not reflective, are not vertical, or missing, not meeting minimum standards. Match existing type when replacing unless otherwise approved.

Damage to object markers and delineators by snow and ice control operations are the Contractor's responsibility. Considered subsidiary to item.

P.5.10.8 Delineators and Object Markers (used for delineation of the express lanes)

In addition to the performance measures for Delineators and Object Markers, the Contractor is to perform weekly inspections of delineators to ensure pylons/flexible delineators are meeting performance requirements. Replace missing or damage delineators in accordance with the timeliness requirements in Exhibit 2 Performance and Measurement Table - Roadway.

A full replacement shall be conducted every two (2) years, unless otherwise directed by the Authority Project Manager and will be paid in accordance with the applicable contract bid items.

Express lane delineation is installed on Express 1 Toll and 71 Toll and is planned for installation on the 183 N Project.

P.5.11 Guard Fence, Safety Barriers and Impact Attenuators

Perform maintenance of roadside traffic safety appurtenances (e.g., concrete traffic barrier, metal beam guard fence, etc.), including cleaning, replacing or tightening bolts, repairing or adjusting to maintain proper operation.

Repairs of roadside traffic safety appurtenances must be straight, in the original alignment, and made with the same material as the original fabrication to provide an adjoining color and finish match and minimize damaged appearance unless otherwise approved or directed. Repairs and replacement of traffic safety appurtenances must have the appropriate delineation for proper operation.

All repair of rail will comply with the appropriate rail standards.

P.5.11.1 Guard Fence

Inspect and adjust guardrails and end treatments, as necessary, to ensure proper operations. Immediately remove debris and install warning signs and temporary barriers. Repair or replace nonfunctioning guardrail and/or end treatment. Replace in-kind unless otherwise noted. Upgrade to the latest standards, including end treatments, when repair length of guardrail damage exceeds 50% of the total cost. Costs will be determined by using the most current 3-month District Average for Highway Maintenance Contracts or Statewide if District is not available from the following website: <u>https://www.txdot.gov/business/letting-bids/average-low-bid-unit-prices.html</u>

Cut all guard fence bolts protruding from the back of the guard posts such that no more than $\frac{3}{4}$ inch remains behind the nut. Cut the bolt with a saw so that the nut can be removed from the bolt. Cutting with a cutting torch will not be allowed. Cut these bolts the same day as repaired. Provide cold galvanizing to treat cut bolts.

Inspect guardrail and tighten bolts or adjust as necessary to ensure proper operation.

P.5.11.2 Concrete Safety Barrier

Immediately respond and mitigate or temporarily repair damaged safety barrier. Repair or replace damaged safety barrier that will no longer function as designed. Straighten misaligned safety barrier and repair any safety barrier with broken edges. Repair spalls and damaged areas. Remove scuffs, skid, or tire marks greater than 5 square feet. Immediately remove debris and install warning signs.

Repair or replace any pavement damaged in the process of installing, moving, or removing barrier sections at the Contractor's expense.

P.5.11.3 Cable Barrier Systems

Immediately respond and mitigate or temporarily repair damaged cable barrier. Repair or replace damaged cable barrier system that will no longer function as designed as recommended by the manufacturer's specifications. Immediately remove debris and install warning signs upon discovery of damage.

Maintain cable barrier so that it is free of debris, vegetation growth or other obstacles within area of impact recovery. Maintain cable barrier at the correct tension and ensure cable anchor system is properly maintained and operational.

P.5.11.4 Impact Attenuators

Clean, adjust, and inspect attenuators as necessary to ensure proper operation. Immediately remove debris and install warning signs and temporary barriers if needed. Repair, replace or reset nonfunctioning attenuators. Replace damaged attenuators in accordance with the latest TxDOT standards, unless otherwise approved. Remove and properly dispose of any parts that are not reusable.

When an attenuator system is repaired, clean the entire length of the attenuator system of dirt or debris prior to completing work. Ensure the impact attenuator is properly marked and that object marker is clean.

P.5.12 Traffic Signs

The Authority will provide details for all non-standard signs.

All damaged materials replaced will become the property of the contractor for proper disposal.

Provide a mechanical digger capable of digging through various types of soils, rocks, and road materials, including concrete. The digger may be self-propelled or mounted on a truck, as long as the machine functions to the satisfaction of the Authority Project Manager. The depth shall be as indicated on the standard detail sheets.

Install new signs at new locations as directed. This work, and other pertinent items, will be compensated in accordance with Section 9.7, "Payment for Extra Work and Force Account Method", when approved. The Contractor shall install riprap around new large sign foundations as shown in the latest TxDOT Standards.

P.5.12.1 Signs, Supports and Assemblies – General

All sign placement locations, legends and size shall be in accordance with the TMUTCD and the TxDOT Sign Crew Field Book. Verify existing signs for placement requirements and sign legend requirements that may have changed since original installation. Install signs in accordance with current requirements.

Perform maintenance, repairs or replacement of signs, assemblies and overhead supports. Sign design (size, legend, and content), lateral placement, sign posts, sign foundations, and sign support systems must be in accordance with Sign Mounting Detail (SMD) and Typical Sign Requirements (TSR) standard sheets and TxDOT Specifications.

Maintain all sign posts vertical with all break-away sign mounts clear of silt or other debris that could impede break-away features.

Perform monthly day and night sign inspections of all signs. Replace all signs not meeting standards or minimum retroreflectivity levels shown in the TMUTCD. Maintain a log of inspection finding to include roadway, designation, roadbed, direction, reference marker with offset, and global positioning system (GPS) coordinates and submit a report in a format acceptable by the Authority Project Manager. Due date in the 15th Calendar Day of each month, performing the first inspection within 30 Calendar Days after beginning Maintenance Services.

All signs that are replaced shall include sign identification decals affixed to the back of the sign and filled-out by the Contractor per TxDOT Standard Specifications.

P.5.12.2 Signs, Supports and Assemblies – Small

Triangular slip base that use set screws to secure the post will require 1 of the set screws to penetrate the post by drilling a hole in the post at the location of the screw. All set screws must be treated with anti-seize compound.

If replacing one or more signs in a "rack" (multiple signs mounted on single post), replace all signs to assure that they are similar in material and appearance during day and night.

P.5.12.3 Signs, Supports and Assemblies - Large

Immediately begin repair or removal of damaged overhead sign structures which present a Category 1 Defect. Install temporary signs, which may include changeable message signs. Replace overhead sign structures and signs that are damaged. As directed by the Authority Project Manager, replacement of damaged large guide signs (overhead and ground mounted) that fall outside the maintenance map limits are included in the Contractor scope of work.

Knocked down or damaged signs shall be immediately removed from the ROW within 48 hours of discovery. All exposed sign footings will be delineated. Repair and replace damaged signs and posts. Replace damaged sign mounts with the same type of mount as on the existing sign being replaced or as approved.

Reinstall large signs knocked down with no sign face damage. Wash sign faces prior to reinstallation. Install temporary ground-mounted signs for damaged exit signs immediately.

Where riprap exists, replace damaged riprap around reconstructed large sign foundations as shown on the applicable standard or as directed.

Replace bridge vertical clearance signs when measurements do not reflect signed clearance following bridge inspection, as directed.

P.5.12.4 Warning and Regulatory Signs

Install temporary signs immediately upon discovery or notification of damaged, non-functioning warning or regulatory signs.

Contractor shall be responsible for updating and installing new or relocating speed limit signs within the limits of the project, as directed by the Authority Project Manager, based on findings and recommendations of future engineering and traffic studies. In the event speed limit signs are relocated, abandoned sign bases shall be removed and disposed of by the Contractor. The Contractor shall have all speed limit signs in place within 14 working days after the direction by the Authority Project Manager is given. No changes in speed limit signs shall occur unless directed or approved by the Authority.

P.5.12.5 Rate Change Signs

Contractor shall install Authority rate change plaques/stickers/signs in conformance with Authority directed timeline.

The Authority will notify the Contractor annually, by November 1, of rate change value to be included on the Authority provided panels. All rate change signs shall be installed prior to 6:00 AM on December 31, each year. Installation may begin as early as 72 hours prior, as approved by the Authority Project Manager. Example toll rate revision details are include in the RIDs.

P.5.13 Signals

Perform traffic signal inspection and maintenance. Work excludes responsibility for utility costs.

P.5.13.1 Signal Inspections

Perform signal system inspection findings for:

- 1) All signal system inspection within the first 60 Calendar Days after beginning Maintenance Services and every 12 months thereafter and 30 days prior to Contract termination whichever is sooner.
- 2) Place a log book in the controller cabinet and keep a record of each trouble call reported. Notify the Authority Project Manager of each trouble call immediately.
- 3) Document all inspections and corrective actions for each intersection in a separate log book. Report all findings.
- 4) Check controllers, memory management unit (MMU) or conflict monitors, detector units (conventional, VIVDS and radar), relays, uninterruptible power supplies, railroad preemption issues, pedestrian signal heads and accessible pedestrian signal (APS) units for proper function with certified testers.
- 5) Inspect traffic signal and pedestrian heads for damage, proper alignment, dirt, debris, etc., for proper operation.
- 6) Check cabinet filters at least once every 6 months and clean if necessary. Replace cabinet filters every 2 years.
- 7) Conduct inspections by certified signal technician.

P.5.13.2 Signal Maintenance – General

Maintain signals so that they perform as they were originally designed. Perform repair work with equivalent material, or as approved, in accordance with the TxDOT Specifications. Report all findings and Work performed to the Authority Project Manager.

Perform maintenance, repairs or replacement of traffic detection devices every 6 mo. The Authority will be responsible for providing signal timing and phasing diagrams.

Keep interior of controller cabinets in a neat and clean condition at all times.

Program the signal timing and operational phasing as directed by the Authority Project Manager. Repair signal pole and controller cabinet damage. Perform tightening of bolts on foundations. Repair traffic signal safety lighting for proper alignment and operation.

Project	Cross Street	Signal	RMA ID	TRM	Description
		Туре			
183A Toll	Crystal Falls Pkwy	Traffic	SGNL- 0000003	494.26	NB 183A FR at Crystal Falls Pkwy
183A Toll	Crystal Falls Pkwy	Pedestrian	SGNL- 0000029	494.25	SB 183A FR NE Corner
183A Toll	Crystal Falls Pkwy	Traffic	SGNL- 0000005	494.26	WB Crystal Falls Pkwy NE Corner
183A Toll	Crystal Falls Pkwy	Pedestrian	SGNL- 0000035	494.26	SB 183A FR NW Corner
183A Toll	Crystal Falls Pkwy	Pedestrian	SGNL- 0000025	494.26	NB 183A FR NE Corner
183A Toll	Crystal Falls Pkwy	Traffic	SGNL- 0000012	494.28	SB 183A FR at Crystal Falls Pkwy
183A Toll	Crystal Falls Pkwy	Traffic	SGNL- 0000028	494.28	EB Crystal Falls Pkwy SW Corner
183A Toll	Crystal Falls Pkwy	Pedestrian	SGNL- 0000027	494.28	SB 183A FR SW Corner
183A Toll	Crystal Falls Pkwy	Pedestrian	SGNL- 0000032	494.29	NB 183A FR SW Corner
183A Toll	Crystal Falls Pkwy	Pedestrian	SGNL- 0000015	494.29	NB 183A FR SE Corner
183A Toll	Hero Way	Pedestrian	SGNL- 0000010	492.41	SB 183A FR NE Corner
183A Toll	Hero Way	Pedestrian	SGNL- 0000013	492.41	SB 183A FR NW Corner
183A Toll	Hero Way	Traffic	SGNL- 0000009	492.42	WB Hero Way at NB 183A FR
183A Toll	Hero Way	Pedestrian	SGNL- 0000034	492.43	SB 183A FR SW Corner
183A Toll	Hero Way	Traffic	SGNL- 0000019	492.44	NB 183A FR
183A Toll	Hero Way	Traffic	SGNL- 0000020	492.44	SB 183A FR
183A Toll	Hero Way	Pedestrian	SGNL- 0000037	492.44	NB 183A FR NE Corner
183A Toll	Hero Way	Traffic	SGNL- 0000002	492.45	EB Hero Way at SB 183A FR

 Table P.5.13.2.1: Summary of Signals

Project	Cross Street	Signal Type	RMA ID	TRM	Description
183A Toll	Hero Way	Pedestrian	SGNL- 0000017	492.46	NB 183A FR SW Corner
183A Toll	Hero Way	Pedestrian	SGNL- 0000036	492.46	NB 183A FR SE Corner
183A Toll	RM 2243	Traffic	SGNL- 0000052	492.8	WB RM2243 at SB 183A FR
183A Toll	RM 2243	Traffic	SGNL- 0000044	492.81	NB 183A FR NW Corner
183A Toll	RM 2243	Traffic	SGNL- 0000040	492.81	SB 183A FR SE Corner
183A Toll	RM 2243	Pedestrian	SGNL- 0000042	492.82	EB RM 2243 TO SB 183A FR
183A Toll	RM 2243	Traffic	SGNL- 0000043	492.83	SB 183A FR TO EB RM 2243
183A Toll	San Gabriel Pkwy	Traffic	SGNL- 0000006	491.42	SB 183A FR
183A Toll	San Gabriel Pkwy	Traffic	SGNL- 0000008	491.43	WB San Gabriel Pkwy at SB 183A FR
183A Toll	San Gabriel Pkwy	Traffic	SGNL- 0000024	491.44	NB 183A FR NE Corner
183A Toll	San Gabriel Pkwy	Traffic	SGNL- 0000039	491.44	NB 183A FR SE Corner
183A Toll	Scottsdale Dr	Traffic	SGNL- 0000016	495.26	NB 183A FR NE Corner
183A Toll	Scottsdale Dr	Traffic	SGNL- 0000031	495.26	SB 183A FR SW Corner
183A Toll	Scottsdale Dr	Pedestrian	SGNL- 0000011	495.26	SB 183A FR NW Corner
183A Toll	Scottsdale Dr	Pedestrian	SGNL- 0000023	495.26	SB 183A FR NE Corner
183A Toll	Scottsdale Dr	Pedestrian	SGNL- 0000041	495.26	NB 183A FR NE Corner
183A Toll	Scottsdale Dr	Traffic	SGNL- 0000026	495.27	WB Scottsdale Dr at SB 183A FR
183A Toll	Scottsdale Dr	Traffic	SGNL- 0000018	495.28	WB Scottsdale Dr at NB 183A FR

Project	Cross Street	Signal Type	RMA ID	TRM	Description
183A Toll	Scottsdale Dr	Traffic	SGNL- 0000030	495.28	EB Scottsdale Dr at SB 183A FR
183A Toll	Scottsdale Dr	Traffic	SGNL- 0000014	495.28	EB Scottsdale Dr at NB 183A FR
183A Toll	Scottsdale Dr	Pedestrian	SGNL- 0000021	495.28	NB 183A FR SW Corner
183A Toll	Scottsdale Dr	Pedestrian	SGNL- 0000038	495.28	NB 183A FR SE Corner
290 Toll	Johnny Morris Rd	Beacon	SGNL- 0000045	591.00	EB US 290, 1000' advanced warning
290 Toll	Johnny Morris Rd	Beacon	SGNL- 0000046	591.00	EB US 290, 1000' advanced warning
290 Toll	Arterial A	Beacon	SGNL- 0000047	590.38	WB US 290, 1000' advanced warning
290 Toll	Arterial A	Beacon	SGNL- 0000048	590.38	WB US 290, 1000' advanced warning
Express 1 Toll	Windsor Rd	Beacon	SGNL- 0000050	438.01	SB Windsor Rd Off- Ramp
Express 1 Toll	Windsor Rd	Beacon	SGNL- 0000049	438.19	SB Windsor Rd Off- Ramp
Express 1 Toll	Windsor Rd	Beacon	SGNL- 0000051	438.13	NB Windsor Rd On- ramp on SUP
45 Toll	FM 1626	Traffic	SGNL- 0000022	519.93	SB FM 1626
45 Toll	FM 1626	Traffic	SGNL- 0000033	519.93	EB 45 Toll and NB FM 1626 (2 Masts)
45 Toll	Near FM 1626	Beacon	SGNL- 0000001	520.09	EB 45 Toll
45 Toll	Near FM 1626	Beacon	SGNL- 0000004	520.09	EB 45 Toll

Perform traffic signal and pedestrian heads repair, proper alignment, cleaning, etc., for proper operation. Repair or replace back plates as needed. Back plates will be black aluminum.

Maintenance of the following traffic signals will be the responsibility of the Contractor:

Signals on future corridors will be identified once installed.

The remainder of the traffic and pedestrian signals are the responsibility of others.

Damaged poles requiring replacement shall be powder coated, where existing, for replacement in-kind.

P.5.13.3 <u>Traffic Signal Maintenance – Response</u>

Perform routine traffic signal system maintenance including response to notices of operational malfunctions and damage. Respond to locations when notices are received of operational malfunctions and damage within 2 hours for Category 1 Defects as defined in the performance measures noted in Exhibit 2, Performance and Measurement Table. Ensure contingency plans are in place to rectify Category 1 Defects not immediately repairable to assure alternative traffic control is provided during a period of failure.

Immediately repair operational problems with traffic detection systems. Repair or replace inoperable vehicle detection cameras and other detection devices. Repair or replace inoperable vehicle detection camera controllers.

Coordinate with permit coordinator regarding movement of oversize overweight vehicles within the Projects covered in this specification.

Maintenance coordination may be required with the Texas Department of Motor Vehicles Oversize/Overweight Permits Office for the passage of permitted loads/oversized vehicles.

P.5.13.4 Video Imaging Vehicle Detection System (VIVDS)

Perform maintenance to include replacement of damaged VIVDS cameras onto the mast arms with the attachment mechanisms provided with the camera system. Place the traffic signal cable (TY A) (3-conductor) (16 AWG) and the VIVDS communication cable coaxial in continuous and separate runs from each VIVDS camera to the controller.

Aim and adjust the cameras, install the cables and VIVDS cards into the controller cabinet and complete any other necessary work to bring the traffic signal into operation.

Provide the traffic signal cable and coaxial cable above and any incidentals necessary to install them.

Provide VIVDS system components to include the cameras, monitor and cards. The VIVDS system also contains the attachment mechanisms needed to attach the cameras to the mast arms.

Provide and install all cables necessary to provide complete VIVDS operation. Provide a minimum of 10 cables to direct connect the notebook to the VIVDS port.

The Vision Processing Unit (VPU) operational software will be stored internally in flash memory and be capable of being updated without the removal and replacement of memory devices.

Provide surge protection in the controller cabinet protecting the camera video and power inputs/outputs. All surge protection will be din rail mounted.

Install the VIVDS detection zones as directed. Have certified personnel on site at the time of the signal turn-on to assist with the installation of detection zones.

The video output from the C/VPU will be in color or black/white with active detection zones overlaid on full motion video.

Contractor will respond to customer service inquiries immediately to perform needed repairs.

P.5.13.5 Broad Band for Traffic Signals

Perform maintenance to included replacement of damaged broad band ethernet cable as approved by the Authority Project Manager. Install the ethernet cable in a continuous run from the antenna to the radio in the controller cabinet.

Install cable so that none of it is exposed.

Provide the latest version of the applicable SSR diagnostic software to the Authority.

Contractor will respond to customer service inquiries immediately to perform needed repairs.

P.5.14 Illumination

Perform inspection and maintenance of highway illumination (roadway, high mast lighting, and underpass lighting). The Contractor is not responsible for utility costs.

P.5.14.1 Illumination Inspection

Perform monthly day and night inspections of luminaires and submit a report in a format acceptable to the Authority Project Manager. Identify each outage by pole number if present, roadway designation, mainlane, ramp, frontage road, direction, mile marker with offset, and global positioning system (GPS) coordinates. Due date is the 15th Calendar Day of each month, performing the first inspection within 30 Calendar Days after beginning Maintenance Services.

P.5.14.2 Illumination Maintenance

Repair or replace all deficiencies, including the electrical system, noted in the monthly inspection report, with equivalent material found on the material producer list (MPL). Material not found on the MPL will not be allowed. Maintenance of illumination assemblies will include, but not be limited to, replacement of lamps, LED optics, fuses, fuse holder, starting aid, surge protection device, photocells, ballasts, drivers and other work required to keep lights operational. Conform to the latest edition of the National Electric Code (NEC) as adopted by the Texas Department of Licensing and Regulation, local utility requirements, the requirements of this Item, and other TxDOT standards as applicable.

Repair, replace, and re-aim illumination assemblies, induction fluorescent fixtures, luminaire poles, luminaire arms, wiring, high mast luminaires, lamps, fuses, fuse holder, starting aid, photocells, ballasts, overhead sign lighting, underpass fixtures, etc., to maintain operation.

Perform the following, but not limited to, to maintain operation:

- 1) maintenance of all foundation anchor bolts, nuts, and washers;
- 2) prep and touch up rust spots with cold galvanizing spray;
- 3) plumb fixture;

- 4) repair or replace damaged ground boxes;
- 5) repair or replace damaged conduit;
- 6) replace damaged foundations;
- 7) replace damaged transformer bases and covers;
- 8) repair shorts or open circuits;
- 9) replace damaged or missing hand hole covers;
- 10) install or replace fused disconnect;
- 11) fill gearbox lubrication reservoir;
- 12) lubricate grease fittings;
- 13) adjust brake mechanism to proper torque;
- 14) repair cable drum deficiencies;
- 15) repair or replace all wire rope and cables with deterioration;
- 16) repair welds around baseplate and ground sleeve for visible cracks;
- 17) prep and touch up rust spots with cold galvanizing spray;
- 18) replace lamps and clean fixtures;
- 19) replace ballasts;
- 20) replace aviation warning lamps;
- 21) repair short or open circuits; and
- 22) raise high mast ring to proper position.

Perform cleaning of LED optics reflectors, glass lenses and refractors (glassware) at the same time as any maintenance or repair work is performed on an illumination assembly. Relevel roadway illumination fixtures. Re-aim high mast illumination.

Remove, repair/replace luminaire poles knocked down from ROW within 48 hours of discovery.

All illumination equipment shall be replaced in kind or as approved by the Authority Project Manager. Use of powder coated poles shall be required, where existing, for replacement in-kind on 71 Toll, 290 Toll, 183A Toll, and SH 45 SW.

Refer to municipal maintenance agreements for commitments provided with the RIDs.

P.5.14.3 Electrical Supply

Maintain the entire illumination system powered from a service point. Some of these luminaires may exist outside the work limits. Repair or replace damaged electrical conductors and cables in all parts of the illumination system, including, but not limited to, those in poles, T-bases, ground boxes, conduits, and cabinets. Record drawings and construction plans that show illumination systems is provided in the RIDs.

P.5.14.4 Access Panels

Ensure 100% of access panels and covers are present and secured. Replace all missing and damaged panels and covers with equivalent material.

P.5.14.5 <u>High Mast</u>

Provide the portable power drive assembly for the high mast lighting work. Ensure high mast assemblies are structurally sound and all winch and safety equipment is correctly functioning and maintained without rusting or corrosion.

P.5.15 Retaining Walls and Sound Abatement

Maintain retaining and sound walls as designed including keeping the drain holes, underdrain system, and/or weep holes clear and functioning as intended. Monitor reinforced earth walls and notify the Authority of any notable movement or loss of backfill and repair as approved. Kill and remove all weeds and undesirable vegetation using an approved herbicide program. Repair damaged retaining wall panels and copings.

Maintain access doors or gates to enclosure areas. Maintain aesthetic features of walls and touchup paint as applicable.

Upon discovery, immediately notify the Authority Project Manager of any notable movement or other issues that may affect structural integrity of reinforced earth walls.

P.5.16 Vegetation Management

Perform vegetation management within the ROW including, but not limited to, the roadside, landscaped areas, mitigation areas, channel easements, ditches, etc.

Unless otherwise indicated, mow entire ROW width. Complete a mowing cycle after the first frost unless otherwise directed. Do not use equipment that damages the pavement or turf in any way.

The Contractor shall remove all equipment from the ROW at the completion of each mowing cycle. Equipment shall not be left within 30 feet of the edge of travel lane.

All rotary mowers must be equipped with either safety chains or the manufacturer's safety device to prevent damage to property caused by flying debris propelled out from under the mower. Approved deflection devices must be spaced side by side around the mower's front, sides and rear.

Additional watering may be needed shall be approved by the Authority Project Manager and will be paid in accordance with the Item 168, "Vegetative Watering."

Information on TxDOT pest management and vegetation regulations can be found on the following websites:

TxDOT Roadside Vegetation Management Manual

http://onlinemanuals.txdot.gov/txdotmanuals/veg/index.htm

TxDOT 2019 Herbicide Operations Manual (or current version)

http://ftp.dot.state.tx.us/pub/txdot-info/mnt/herbicide-manual.pdf

Mowing operations will be conducted in a manner that will not damage State ROW.

Maintenance within heavily wooded areas will be limited to removal of litter and debris. These areas will be identified in the field and approved by the Authority Project Manager.

Use tractor mounted mowers in large open areas. Use suitable smaller riding or push-type mowers in areas around shrubs and trees in landscaped areas. Remove grass from curbs by trimming to the back of the curb.

Payment for all vegetation management activities within the areas designated as Routine Vegetation Management shall include the applicable activities to include, but not limited to, as described herein, routine and landscape mowing, control of noxious weeds, trimming and other vegetation management.

Estimated quantities are as summarized below.

Project	Vegetation Management (Acres)		
183A Toll	264.20		
290 Toll (Manor Expressway)	165.10		
Express 1 Toll (MoPac Express)	261.30		
71 Toll	161.30		
45 Toll	184.40		
183 Toll (Bergstrom Expressway)	174.80		
183A PHIII Project	130.2		
183 North Project	88.80		
Total =	1430.10		

Table P.5.16.1: Summary of Vegetation Management Areas

P.5.16.1 Vegetation Height

Following approval, begin and continuously mow vegetation to meet the requirements of this Item. Landscape mow areas are designated in the plans. Maintain vegetation height in accordance with Exhibit 2, Performance and Measurement Table.

P.5.16.2 Noxious Weeds

Control noxious weeds and undesirable trees before they exceed maximum vegetation height, per designated areas, with the materials and application rates in the latest version of TxDOT's Department Herbicide Operations Manual, unless otherwise approved. Control other noxious weeds as specified in the plans.

Johnson Grass shall be considered a noxious weed.

Conduct all herbicide operations in the appropriate use category and in accordance to Texas Department of Agriculture requirements. Provide the Authority with documentation of licenses before beginning the work. Spray equipment must be in good operating condition and calibrated to deliver the appropriate application rates as required. Sufficiently agitate tank to keep dry substance herbicides in spray suspension. Periodically check the equipment is delivering the calibrated spray solution.

Turf shall be maintained to ensure a solid, healthy grass stand virtually free of weeds and undesirable grasses. The Contractor shall include a Herbicide Management Plan as part of their MMP. Reference TxDOT's herbicide program to control noxious weeds and to eliminate grass in pavement or concrete. Use only the herbicides listed in the Herbicide Operations Manual. Equipment shall be thoroughly cleaned between each use. Materials are subject to material approval process. Contractor shall maintain records and proof of purchases of herbicides used for Maintenance Services.

P.5.16.3 Vegetation Encroachment

Vegetation encroachment shall be prevented into or on paved shoulders, mainlanes, sidewalks, pavers, islands, riprap, traffic barrier and curbs. All hand trimming shall be performed in concurrence with the mowing operation.

Keep all surfaces such as riprap (concrete slope protection) joints, cracks and hardscapes free from vegetation growth.

P.5.16.4 Vegetation Trimming

Mow as close as possible to all fixed objects exercising extreme care not to damage trees, plants, shrubs, signs, delineators or other appurtenances which are part of the facility. Hand trimming or chemical control around such objects shall be required to include removal of small woody plants. Immediately remove grass and trimmings in the gutter and roadway and dispose of properly.

Any damage caused by the Contractor's operation will be repaired/replaced at the Contractor's expense. The Authority has the authority to charge the Contractor for any damage not repaired.

P.5.16.5 Loss of Vegetation

Implement erosion control measures as necessary (slope stabilization, seeding, mulching, soil retention blankets, etc.) to support revegetation of barren areas.

P.5.16.6 Sight Lines

Perform spot mowing at intersections, ramps or other areas as needed or as directed to maintain visibility of appurtenances, safety, and sight distance. Do not use equipment that damages the pavement or turf in any way.

P.5.16.7 Wildflowers

Preserve wildflowers in accordance with the guidelines in the TxDOT's Mowing Specifications, Herbicide Operations Manual, and Vegetation Management Manual. The Contractor shall avoid

mowing all wildflower areas during the growth of wildflowers, before seeds have matured, unless otherwise directed by the Authority Project Manager.

P.5.16.8 Landscaped Areas

Maintain landscape bed/areas at their originally constructed condition. Provide and replace plants in landscaped areas that are damaged or dead. Use plants of the original species, size and characteristics or approved substitutes. Work in designated landscape areas includes, but is not limited to mowing, litter pickup, irrigation system operation and maintenance, plant maintenance, pruning, insect, disease and pest control, fertilization, mulching, bed maintenance and watering. Implement appropriate fertilizer schedules to ensure healthy growth.

Remove and replace damaged or dead plants, trees, and brush in landscaped areas. Remove all vines from trees and shrubs before applying herbicide. Remove or replace any dead and unacceptable plants as their condition becomes apparent. A plant is considered dead or unacceptable when more than 20% of the foliage or branches are dead. Use trees, shrubs, ornamentals, and vines of the original species, size and characteristics or approved substitutes. The Contractor's liability for replacement of damaged or dead plants in landscaped areas, trees, shrubs, ornamentals, and vines will be limited to a maximum of \$50,000 per year.

Landscape edging shall be free of defects (misalignments, cracks, settlement, etc.). Turf between landscape bed ribbon curb and back of curb on frontage roads shall be maintained at a finished height of between 5 and 8 inches. Other limits for landscape mowing will be shown in the plans and mowing maps in the RIDs. These areas are the retaining walls down to and including the street curb. This will also contain all areas and gaps in-between the beds. Beds containing native grasses shall be maintained as appropriate for the grass species and shall not be subject to the same height requirements as turf areas outside of the beds.

Estimated quantities are as summarized below.

Project	Landscape Beds (Acres)	Landscape Mowing (Acres)
183A Toll	5.30	11.90
290 Toll (Manor Expressway)	9.50	22.90
Express 1 Toll (MoPac Express)	4.50	33.30
71 Toll	8.40	13.80
45 Toll	0.90	17.90
183 Toll (Bergstrom Expressway)	26.90	24.50
183A PHIII Project	TBD	0.00
183 North Project	TBD	0.00
Total =	55.50	124.40

Table P.5.16.8.1: Summary of Landscape Areas

Any area of bare soil within planting beds, large shrub rings, or tree rings shall have mulch added. Mulch shall be maintained at a settled depth of 3 inches. Replacement mulch shall be shredded hardwood mulch.

Irrigate all plants adequately to maintain optimum supply of moisture within the root zone. If the irrigation system is inoperative, hand watering shall be accomplished from an approved source, until the irrigation system is repaired. Corridors where no irrigation is available shall be hand watered and will be compensated through Item 168, "Vegetative Watering." Compensation for hand watering will not be compensated where irrigation is available. Do not apply water with a force that will displace mulch, cause soil erosion or is applied so quickly that it cannot be absorbed by the mulch and plants.

Maintain object markers at water meter and valve locations.

Adjust or replace stakes and guywires as required for stabilizing trees.

Maintain all plant beds so that they are weed free at all times. Nylon string trimmers (weedeaters) are not allowed within the planting beds. Do not spray any herbicide in or near the planted areas. Replace any plant that is damaged or killed by herbicide application.

Keep plants free of insects and disease.

Trim plants to ensure they do not interfere with vehicles or sight distance, inhibit the visibility of signs, signals, or lights or impede upon pedestrian pathways. Immediately trim plants that block the view of regulatory signs or impose a potential hazard to traffic. Pruning should be in accordance with American National Standards Institute (ANSI) guidelines to optimize their health/growth.

Include provisions for additional landscape maintenance requirements, noted in Exhibit 3, Performance and Measurement Table – Building and Facility Maintenance, Section P.5.25.J.2 TIM, at the 183A Toll Traffic Incident Management Center.

P.5.16.9 Irrigation Management

Immediately repair all irrigation systems that are malfunctioning. If malfunction occurs, hand watering shall be accomplished from an approved source, until the irrigation system is repaired and replace any plants that have been lost or damaged due to a system malfunction. Correct washouts and other problems as they occur.

Water on any road surface resulting from an irrigation leak or break constitutes an emergency repair. During system failure and repairs, the Contractor shall continue to meet the irrigation requirements of the plant material by a method acceptable to the Authority at no additional cost.

The Contractor is responsible for having all backflow devices inspected and certified annually in accordance with local municipality and TCEQ requirements and make any repairs discovered at no additional costs to the Authority.

If required by the Authority, the Contractor shall observe local water restrictions. Rain sensors shall be monitored and maintained to ensure they are positioned and functioning properly.

P.5.16.10 Trees, Brush and Ornamentals

The limits of tree trimming and brush removal shall include the complete width of the ROW or as directed by the Authority Project Manager.

Prune trees and brush to optimize their health and growth and prohibit interference with vehicles, pedestrians, sight distance, drainage within channels or visibility of signs and signals. Vertical clearances will be as specified in the plans. Remove damaged or dead trees, branches and brush unless shown in the plans as a non-maintenance area. Non-maintenance areas include native forests and wetlands.

Perform all tree trimming and brush removal by cutting. Flailing equipment is not allowed. Use hand methods or other means of removal if doing work by mechanical methods is impractical. Treat all cuts with approved tree dressing. Pushing of trees and brush will not be allowed. Cease all activities for a period of 48 hours following any rainfall event totaling greater than 2 inches, unless directed otherwise by the Authority Project Manager.

Unless shown otherwise in the plans, perform trimming or removal for areas within 30 feet of edge of pavement. Trim or remove to provide minimum of 5 feet of horizontal clearance and 7 feet of vertical clearance for the following: sidewalks, paths, guard fence, rails, signs, object markers, and structures. Vertical clearance over parking spaces shall be no less than 10 feet. Trim to provide a minimum vertical clearance under all trees, in accordance with the current standard.

Brush burning will not be permitted.

Do not deposit wood chips in developed areas (i.e., flower beds, landscaped areas) or in front of homes. Do not obstruct drainage facilities when spreading chips on the ROW. Disinfection of tools will be required as specified when trimming oak trees.

All tree trimming and brush removal will be accomplished within the limits described above, regardless of location of main stem or tree trunk.

Tree trimming and brush removal will be conducted between September 16th through February 28th unless otherwise directed by the Authority Project Manager.

P.5.17 Sidewalks, Shared Use Paths (SUP) and Trailheads

P.5.17.1 Sidewalks and Shared Use Paths (SUPs)

Allow no unsealed cracks or joints. Maintain shared use paths to ensure that there is no vertical displacement.

Upon completion of a mowing cycle, all grass within 4 feet of the sidewalk/SUP and trailheads shall have a finished height as described in Exhibit 2, Performance and Measurement Table. When the back of curb is within 15 feet of the SUP, this area shall be included as SUP mowing. Kill and remove all weeds and undesirable vegetation using an approved herbicide program. Turf shall not be allowed to encroach on any paved surfaces along the SUP. Keep the shared use path neatly edged. Grass clippings are not permitted on any paved surface. Excessive grass clippings

remaining on the turf shall be removed by raking, bagging or blowing them outside of the view from the shared use path/trailhead. Clumps of grass shall not be visible from the shared use path/trailhead.

P.5.17.2 Trailheads

At trailheads, empty trash cans, pet waste bins and replace bags in pet waste disposal bins. Keep recreational equipment, any park bench seating, and trailhead related signing clean, and repair or replace as needed. Maintain lighting that may be present at trailheads. Remove graffiti per specifications.

P.5.18 Embankment and Slope Maintenance

Embankment and slopes will be maintained with no erosion. Repair erosion or damage by filling to bring the ROW back to the lines and grades as originally constructed, or as approved by the Authority Project Manager. Repair ruts using an approved method. Replace vegetation by sodding, seeding, fertilizer, compost, erosion control blankets, silt fences, rock berms, etc., to allow repaired areas to revegetate.

Keep all riprap (concrete slope protection) joints and cracks free from vegetation. Drain holes/weep holes must be clear and functional. Repair or replace damaged or undermined riprap.

Mitigate or barricade slope failures and repair slope failures to approximately conform to the original cross-section and revegetate. Slope or embankment failures with the potential to become a hazard to the traveling public that impedes drainage, or that pose a potential risk of structural failure are considered an emergency.

P.5.19 Sweeping, Litter and Debris

Perform cleaning and sweeping of highways and litter and debris removal.

Immediately remove dead animals that can be handled by one person. Dispose of large animals at an approved site. Conceal dead animals from view of the traveling public during transport. Properly dispose of all dead animals. Refer to TxDOT's Standard Operating Procedure No. 001-18: Disposal of Dead Animals. For live animals, contact local law enforcement immediately. Ensure that live animals are removed safely from the ROW.

Immediately remove dead animals that can be handled by one person. Conceal dead animals from view of the traveling public during transport. For live animals, contact local law enforcement immediately for safe removal. Ensure that live animals are removed safely from the ROW.

If any items are found on the ROW that contain personal information, notify the owner and allow the owner the opportunity to pick up the items prior to destroying.

P.5.19.1 Sweeping

Perform hand sweeping in areas which restrict the use of sweeping equipment and other hard to reach areas, including, but not limited to: high curbed areas, bullpens, behind and/or next to

retaining walls, behind and underneath guardrail and attenuators, around bridge and structure columns, sidewalks on structures, sidewalks along the roadway (within the ROW), concrete riprap, behind concrete safety barrier, gore areas, all parking areas and access paths and other areas under structures before accumulation greater than 18 inches wide.

The Contractor will have no less than 2 (two) trailing sweepers per operation.

Contractor shall take measures to ensure debris from sweeping operations does not clog drainage inlets.

Establish cyclical sweeping cycles of the entire Project as part of the MMP, in addition to necessary spot sweeping to ensure a uniform appearance of the facility. One sweeping cycle will be required per month at a minimum. For the 290 Toll and 71 Toll Projects, a minimum of 2 sweeping cycles will be required per month.

Do not stockpile swept material on ROW prior to disposal. Remove and dispose of accumulated material within the same day.

Dispose of material off the ROW at an approved landfill, in accordance with applicable federal, state and local regulations.

Remove aggregate that is placed on roadways as part of deicing operations.

Care shall be taken to prevent damage to traffic counter tubes that may be placed on the roadway. Any damage caused by the Contractor's operation will be repaired or replaced at the Contractor's expense.

Wet the pavement during sweeping operations to control the dust for the improved visibility of operations and safety of the traveling public.

All sweepers must have a panel Type "B" (60" x 30") Arrow Display properly mounted and operating on the vehicle.

P.5.19.2 Litter

Keep the ROW in a neat condition and the appearance virtually free of litter. Pick up large litter items before mowing operations. Dispose of all litter and debris collected at an approved solid waste site.

Pick up and remove bagged litter from the ROW on the same day of collection. Immediately pick up, remove, and dispose of litter spills that occur between cycles. Pick up, remove, and dispose of litter and debris from ponds.

Remove all hazardous material discovered on the highway system in accordance with federal, state and local regulations. Report any hazardous material findings.

Contractor must retain records for sites used for disposal of solid waste (litter, debris, dead animals, etc.). Contractor must be able to provide records upon the Authority's request.

P.5.19.3 Obstructions and Debris in Express Lanes

Remove any litter or debris, obstructing a lane, considered Cat 1 Mitigation in accordance with Exhibit 2, Performance and Measurement Table within 30 minutes of discovery or notification.

P.5.19.4 Obstructions and Debris

Remove debris from drain openings (barrier drain slots) in concrete safety barriers and inlet openings. Remove any obstructions or blockage behind concrete safety barrier drain openings which prohibit the flow of runoff drainage. Remove debris and obstructions from roadway and clear zone. Do not stockpile debris, etc., on the ROW before disposal.

Immediately remove any litter or debris considered Cat 1 Mitigation in accordance with Exhibit 2, Performance and Measurement Table.

P.5.20 Miscellaneous

P.5.20.1 Chain Link Fence

Perform maintenance of chain link fence. Immediately mitigate or temporarily repair if potential hazards (such as uncontained livestock) could exist to the traveling public. Repair or replace damaged fencing or gates, including, but not limited to decorative, barbed wire, wire, vinyl, and chain link as well as locks where applicable. All gates shall remain locked unless otherwise directed.

P.5.20.2 Encroachments

Remove signage and any non-standard mailbox assembly ROW encroachments not authorized by the Authority. Notify the Authority Project Manager when other ROW encroachments are discovered. This includes political signs, advertising signs, vehicles, etc.

P.5.20.3 Mailboxes

Install approved resident supplied mailboxes on Contractor furnished, and approved, post, mounting hardware, and delineation. Installation of mailbox will be performed at time of removal. Install compliant mailboxes that are supplied by the residents/ property owner within 3 days when requested. Provide written notification and coordinate with mailbox owners to remove and replace any noncompliant mailbox or supports that are installed on ROW within 10 days.

P.5.20.4 Graffiti

Remove gang related and potentially offensive (vulgar, sexually or racially oriented, etc.) graffiti immediately. Use an approved method of removal. Perform removal method in a manner that restores the surface to an appearance similar to adjoining surfaces and that does not damage surface or coating. Collect all debris resulting from the cleaning process and remove from ROW at the end of each day.

P.5.20.5 <u>Aesthetic Features</u>

Maintain ornamental or aesthetic features, signs, lighting, etc. Repair or replace damaged features. Aesthetic features include but are not limited to the following.

- 1) Decorative stacked stone walls
- 2) Emblems
- 3) Or other aesthetics features

P.5.21 Incident Management

Perform incident management and report in the Authority's CMMS within 4 hours of notification and completion of Work. An incident will be defined as an event that disrupts the normal operations of the roadway and flow of traffic. Examples include, but are not limited to accidents, utility line failures, flooding, and lane blockage.

When receiving initial notification, obtain information about incident to determine the necessary equipment for traffic control, debris removal, etc., and respond to the incident.

The Contractor is required to provide an Incident Scene Commander at all major incidents. A major incident, unless otherwise defined by the Authority Project Manager, is any incident resulting in the need for the Contractor to close a lane of traffic. The Incident Scene Supervisor will serve as the Authority's point of contact for response to the incident scene, obtain necessary information to mobilize equipment and personnel, clear/repair roadway and roadside to return the roadway to normal traffic flow, and initiate equipment and personnel response upon notification.

The Incident Scene Commander must be certified as a traffic control supervisor (TCS) by the ATSSA, or approved equal, and:

- 1) participate in scheduled meetings with law enforcement, fire departments, wrecker services, environmental cleanup crews, etc., to develop close cooperation between these entities, improve response and incident clearance time; and debrief after major events;
- 2) serve as the Authority's point of contact for response to the incident scene(s);
- 3) provide support to the lead agency;
- 4) obtain necessary information to mobilize equipment and personnel, upon contact, to clear or repair the roadway and roadside to return the roadway to normal traffic flow; and initiate equipment and personnel response upon notification;
- 5) report to the scene of major incidents and remain on the scene overseeing the Contractor's resources assisting the lead agency in the clearance of incidents;
- 6) supervise implementation of traffic control;
- 7) maintain contingency plans for incidents involving live animals;

- 8) coordinate detour routes for freeway closures so that traffic movement is accommodated;
- 9) communicate condition updates to the Authority Project Manager upon notification and each hour thereafter until the incident is resolved or cleared; and
- 10) oversee implementation of traffic control at incidents.

Coordination and communication with the Authority Project Manager will include the following:

- 1) Immediately notify the Authority Traffic Incident Management Center and the Authority Project Manager about accidents or incidents that require any lane closures.
- 2) Provide the Authority status updates as conditions change.
- 3) For incidents that meet these criteria for reporting within 8 hours of the incident per the Authority's Incident Alert Bulletin, contact the Authority Project Manager, District's Maintenance Administrator or Director of Operations immediately, within 1 hour of the incident by email and phone.
- 4) Coordination with Authority and other agencies to establish or implement detour routes.
- 5) Coordination with the Authority, Texas DPS and other appropriate agencies.
- 6) Participation in meetings, including Austin-area Incident Management for Highways (AIMHigh), as a representative or partner of the Authority as requested.

If the incident/event management includes catastrophic events the Incident Scene Commander will:

- 1) Provide engineer(s) to perform damage assessment within 60 minutes upon discovery or notification. The engineer(s) will be responsible for assessing damage, determining and providing plans for temporary repairs (as approved by Authority), determining what lanes can be safely opened to traffic, and providing any engineering support necessary to restore mobility as quickly as possible.
- 2) Secure the site and/or provide assistance as required.
- 3) Provide necessary manpower, emergency response equipment, supplies, materials, etc., to perform the work.
- 4) Upon notification of the incident, follow procedures to provide a maximum response time of 15 minutes to initiate action by Contractor. The contractor shall contact the Authority Project Manager within the 15 minute timeframe to report all measures to be instituted by Contractor to initiate traffic control within 45 minutes of notice of the Incident for assessment and to begin implementation of necessary traffic control measures.
- 5) Ensure compliance with applicable local, state, and federal regulations for the containment, handling and disposing of hazardous material.

- 6) Implement measures to protect or isolate damaged infrastructure and to restore the roadway or structure to a safe condition.
- 7) Initiate traffic control including short term lane closures, long term lane closures, detour routes, implementation and maintenance.
- 8) Initiate measures to mitigate impacts to mobility.
- 9) Perform emergency repairs and permanent repairs as approved by the Authority Project Manager.
- 10) Removal of debris.

Immediately begin removal and clean-up of any debris from roadway. Contractor shall have personnel/ materials/ equipment on-site and ready to perform traffic control, debris removal and cleanup, hazard mitigation, and other work necessary to restore mobility within 90 minutes upon notification. Reporting shall be completed in CTRMA's CMMS within 90 minutes. If access is restricted while responding to a major incident, the response requirement may be extended as directed by the Authority Project Manager. Properly dispose of debris off of the ROW within 48 hr. after the cleanup has been completed.

Within 2 days after completion of an emergency response event, the Authority and the Contractor will meet to discuss potential improvements to the response procedures.

P.5.22 Hazardous Materials

When hazardous materials are encountered during cleaning and sweeping operations, the Contractor is responsible for taking the appropriate safety precautions and providing the appropriate equipment to protect their employees. Discovery of hazardous materials shall be reported in the Authority's CMMS within 4 hours of notification and completion of Work. These hazardous materials shall include illicit discharges such as illegal dumping, septic tank leakage, failed sanitary sewer connections, spills from roadway accidents, improper chemical disposal in addition to other materials considered.

When hazardous materials are dispersed at an incident or discovered on the ROW, provide support to the lead agency and notify the appropriate local, state, or federal governmental regulatory agency.

Provide the responsible party, of the hazardous material, the opportunity to perform the removal of the hazardous material. If the responsible party does not initiate steps to remove the material, re-notify the appropriate local, state, or federal governmental regulatory agency for direction. If the responsible party of the hazardous material does not remove the material, notify the Authority Project Manager.

In accordance with 30 TAC Chapter 327 Spill Prevention and Control, the reportable quantity for petroleum products or used oil is 25 gal. For other hazardous material spills, refer to 30 TAC Chapter 327.4 for the applicable reporting quantity.

P.5.23 Customer Response

Contract or shall assist the Authority in public relations activities including notification of Authority personnel of lane closures, documenting and addressing customer service inquiries, comments, compliments and complaints from the public and local entities. Customer inquiries shall be reported in the Authority's CMMS within 4 hours of notification and resolution.

The Contractor shall ensure communication of Project information between the Contractor's organization and the Authority as follows:

- 1) Maintain communication for the exchange of information between the Contractor, Authority, and other involved agencies.
- 2) Coordinate support through interaction with local, State, federal governmental entities, as well as other entities, for safe and efficient maintenance.
- 3) Communicate and coordinate emergency response, traffic control, security, and operational issues affecting the Work, and associated feeders and exits to the Work site.
- 4) Update affected agencies regarding the status of the Work, and associated system feeders and exits, to assure safe and timely response to emergency events. As a minimum, this shall include off-site and on-site traffic routing changes, and changes to Work site access and changes in the Work that may create a greater likelihood of occurrence of a particular type of emergency.
- 5) Ensure compliance with 1) Reporting, 2) Complaints/Service Requests, analyze and understand customer needs and expectations, as well as the relevant statutory and regulatory requirements.
- 6) Ensure the Contractor is in contact with each customer within 48 hours after their initial notification to gain understanding of complaint/nature of contact or additional information, if necessary.
- 7) Schedule Work associated with the customer notification to meet performance measures, as applicable.
- 8) Follow-up with the customer within 3 days of the scheduled Work providing an expected completion date.

The Contractor shall recognize the following as customers:

- 1) Authority and the Authority's representatives
- 2) TxDOT and TxDOT's representatives
- 3) Combined Transportation, Emergency, & Communications Center (CTECC)
- 4) highway Users

- 5) individual landowners and municipalities affected by the Contract
- 6) staff in the Contractor's organization, suppliers, and subcontractors
- 7) emergency services agencies

P.5.24 Environmentally Sensitive Areas

P.5.24.1 Karst Preserve Areas

There are karst preserve areas that exist within or adjacent to the Authority's and TxDOT's ROW. Maintain the ROW areas which are adjacent to the following karst preserve areas by avoiding the use of potential contaminants, including but not limited to fertilizers, pesticides, and herbicides. Particular care should be made to avoid disturbance of the ROW in these areas. All maintenance activities are prohibited within these areas. Consult the Authority Project Manager if soil disturbance or invasive species removal is necessary. Spot removal of invasive species may be performed by hand at the direction of the Authority Project Manager.

1) 183A Toll - Karst Feature Locations

The ROW area between Stations 765+00 to 850+00 and surrounding properties fall within U.S. Fish and Wildlife Service (USFWS) karst zones 1 and 2 - an area known to contain federally listed endangered species.

The Contractor's attention is directed to Stations 769+00 and 785+25 where the southbound mainlane and southbound frontage road travel lanes are split. A 2.2-acre section at the north end is to be mowed, and a 0.8-acre section adjacent to Lakeline Boulevard is maintained landscape area. The remaining 7 acres of vegetation within this 10-acre median will not be disturbed. Particular care should be made to avoid damaging Big Oak Cave (approximately located at Station 781+50 250'RT CL) and its subsurface hydrologic basin. Unauthorized entry of any cave, particularly Big Oak Cave, is prohibited by law. Any suspected entry of any cave within the ROW shall be reported to the Authority Project Manager.

183A Toll is located primarily in the Edwards Aquifer Contributing Zone but is within the Recharge Zone at its southern limit. As such, all work performed must be in compliance with the Edwards Aquifer Rules and any applicable TCEQ guidance.

2) 290 Toll - No Karst Features

No karst preserves areas are within the 290 Toll or US 290 ROW limits. 290 Toll is not within the Edwards Aquifer Recharge Zone.

3) Express 1 Toll – Karst Feature Locations

Karst features were found to exist between US 183 and Lady Bird Lake but were considered insignificant with regard to their potential to lead to subsurface void space or suitable habitat for karst invertebrates. A portion of the Express 1 Toll/Loop 1 falls within the Edwards Aquifer

Recharge Zone. As such, all work performed in this area must be in compliance with the Edwards Aquifer Rules and any applicable TCEQ guidance.

4) 71 Toll – No Karst Features

No karst preserves areas are within the 71 Toll/SH 71 ROW limits. 71 Toll/SH 71 is not within the Edwards Aquifer Recharge Zone.

5) 45 Toll – Karst Feature Locations

Karst features were found to exist within the 45 Toll ROW. The surface drainage basins of three sensitive features (F-55, F-23 [Hat Sink], and Flint Ridge Cave) are located in close proximity to the ROW. Flint Ridge Cave is the largest of these features. Its opening is located 150 feet outside the ROW to the east, but the ROW overlaps with the drainage area to the cave. Please refer to the environmental documents provided in the RIDs. These documents detail the locations and requirements of these features.

6) 183 Toll (Bergstrom Expressway) – No Karst Features

No karst preserves areas are within the 183 Toll/US 183S ROW limits. 183 Toll is not within the Edwards Aquifer Recharge Zone.

7) 183A Phase III Project – Karst Features

US 183A Phase III lies within Karst Zone 3 (low probability of endangered cave species) and Karst Zone 4 (no probability of endangered cave species). Consultation with the USFWS would not be required. US 183A Phase III is located within the Edwards Aquifer Contributing Zone. As such, all work performed must be in compliance with the Edwards Aquifer Rules and any applicable TCEQ guidance.

8) 183 North Project – Karst Features

The majority of the 183 North Mobility Project is located in Zone 1 (areas known to contain endangered cave species). Zones 2, 3 and 4 are found along the southern end of the project area. There is one known cave within the project area (Jug Cave); however, this cave had been previously filled by the construction of 183A and the USFWS considers it destroyed. Critical habitat has not been designated by the USFWS for the four endangered karst invertebrates found in the project vicinity.

US 183 North is located within the Edwards Aquifer Recharge Zone. As such, all work performed must be in compliance with the Edwards Aquifer Rules and any applicable TCEQ guidance.

P.5.24.2 Wetland Areas and Waters of the U.S.

There are wetland areas that exist within the Authority and TxDOT's ROW. Landscape maintenance at these sites will be minimal to maintain the native characteristics of the vegetative community.

Limit active maintenance practices such as herbicides and pesticide application within 500 feet of the mitigation areas. Maintain, replace, or place "No Mow" signs at the edge of the wetland areas to prohibit mowing in the wetland areas within 30 days of date time charges begin as stated in the written notice of authorization to begin work.

Limit any necessary seeding, or sodding, of grasses or planting of woody vegetation in these mitigation areas to the species as shown in the plans. Other species may be used upon approval.

1) 183A Toll – Waters of the U.S.

Six creek crossings on 183A Toll are considered a water of the U.S., including South Brushy Creek, Spanish Oak Creek, Tributary to Spanish Oak Creek, North Brushy Creek, Blockhouse Creek, and Cottonwood Creek. No wetlands are known to exist in the project area.

2) 290 Toll – Waters of the U.S.

The Middle Walter E. Long Tributary, Walnut Creek Tributary 4, Walnut Creek Tributary 5, Walnut Creek, Walnut Creek Tributary 3, Decker Creek Tributary 2, Gilleland Creek 1C, Gilleland Creek have been identified as jurisdictional waters of the US. There are currently no wetlands in the project area.

3) Express 1 Toll – Waters of the U.S.

Walnut Creek, Walnut Creek Tributary 9, Walnut Creek Tributary 7A, Shoal Creek, Foster Branch, and Johnson Creek crossings are jurisdictional waters of the U.S. There are currently no wetlands located within the project area.

4) 71 Toll – Waters of the U.S.

Onion Creek and Carson Creek crossings on 71 Toll are jurisdictional waters of the U.S. A review of the National Wetland Inventory confirmed that there are no wetlands located within the proposed project area.

5) 45 Toll – Waters of the U.S.

Waters of the United States (U.S.) present in the state-owned ROW include Danz Creek, Danz Creek Split, and Bear Creek. Field investigations confirmed that no wetlands exist within the project area.

6) 183 Toll (Bergstrom Expressway) – Wetlands and Waters of the U.S.

The environmental assessment for 183 Toll/US 183S provides information on the locations of jurisdictional areas within the ROW. The nine jurisdictional streams along this roadway consist of an unnamed ephemeral tributary to Little Walnut Creek, three unnamed ephemeral tributaries to Walnut Creek, two named intermittent streams (Montopolis Tributary and Carson Creek, which is intersected twice), two perennial streams (Little Walnut Creek and Boggy Creek), and one perennial river (the Colorado River). Little Walnut Creek, Boggy Creek, and the Colorado River are currently spanned by bridges on US 183. Additionally, the unnamed tributaries

(Streams 1, 3, 4, and 5) are culverted under US 183, as is the Montopolis Tributary (Stream 8). Carson Creek within the project area exists as a concrete-lined channel, as do portions of the Montopolis Tributary. In addition to these jurisdictional waterways, wetlands exist within the project area. These exist within the Montopolis Tributary channel on both the east and west side of the existing culvert under US 183. Three emergent wetlands are also associated with and hydrologically connected to the Colorado River: two adjacent to and one within the bounds of the ordinary high-water mark. Consult with the Mobility Authority before any required activities take place within these jurisdictional areas.

7) 183A Phase III Project – Wetlands and Waters of the U.S.

Four potentially jurisdictional waters of the US and one wetland were identified within the project area. The potentially jurisdictional waters include one perennial waterway (the South Fork of the San Gabriel River) and three intermittent tributaries to the South Fork of the San Gabriel River. There is also one small linear wetland adjacent to one of these three intermittent tributaries (Crossing #2 near Whitewing Drive). Avoid active maintenance practices such as herbicides and pesticide application within 500 feet of the wetland area. Mowing is prohibited within the wetland.

The environmental documents for the 183A Phase III Project have been provided in the RIDs. Environmental compliance requirements are included in the posted documents.

8) 183 North Project – Wetlands and Waters of the U.S.

There are a total of 11 surface water features are found in the 183 North project area. They include three jurisdictional waters of the United States (U.S.) (Lake Creek, Shoal Creek and a tributary to Shoal Creek), six wetland sites (three of which are potentially jurisdictional; three are isolated and non-jurisdictional), and two open water sites (one of which is potentially jurisdictional; one is non-jurisdictional). Avoid active maintenance practices such as herbicides and pesticide application within 500 feet of the wetland areas. Mowing is prohibited within the wetlands.

The environmental documents for the 183 North Project have been provided in the RIDs. Environmental compliance requirements are included in the posted documents.

P.5.24.3 Migratory Bird Treaty & Endangered Species Acts

The contract maintenance limits are subject to the Migratory Bird Treaty Act. More information is available on the Federal Fish & Wildlife website:

http://www.fws.gov/migratorybirds/RegulationsPolicies/mbta/mbtintro.html

Migratory birds and bats may be nesting within the project limits and concentrated on roadway structures such as bridges and culverts. Notify the Engineer, if any occupied bird nests are identified in the path of any vegetation removal or trimming. According to the Migratory Bird Treaty Act, it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported,

transported, carried or received any migratory bird, part, nest, egg or product manufactured or not.

Migratory bird nesting season occurs between March and September. Woody vegetation clearing and tree trimming throughout the designated areas may occur only between September 16 and February 28, outside the nesting season. Submit a plan (including description of work, proposed dates, and location) 2 weeks before the trimming or clearing date. Prevent migratory birds from re-nesting between and obtain approval for woody vegetation removal from March 1 to September 15 for migratory birds. All methods used for the removal of old nesting areas and the prevention of re-nesting must be submitted to the Authority within 30 business days before beginning work. Obtain approval throughout the year in the areas designated as endangered species habitats. Maintain the native characteristics of the vegetative community.

If active nests are encountered on-site, all activity within 50 feet of the nest must stop. Contact the Authority Project Manager to determine how to proceed.

Migratory birds and bats may be nesting within the project limits and concentrated on roadway structures such as bridges and culverts. Notify the Authority Project Manager, if any occupied bird nests are identified in the path of any vegetation removal or trimming. According to the Migratory Bird Treaty Act, it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product manufactured or not.

1) 183A Toll – Golden-Cheeked Warbler

Additionally, the 183A Toll maintenance limits are subject to the Endangered Species Act, due to the potential presence of the endangered Golden-cheeked Warbler. Four areas along the 183A Toll Project had been identified as Potential Endangered Species Habitat. The approximate limits of these areas are between Sta. 410 to 435, Sta. 485 to 500, Sta. 635 to 685 and Sta. 755 to 790. Woody vegetation clearing and tree trimming throughout the designated areas shall occur only between September 1 and January 31, outside the nesting season. Submit a plan (including description of work, proposed dates and location) two weeks prior to trimming or clearing date. Obtain approval from the Authority Project Manager for woody vegetation removal from February 1 to August 31.

2) 290 Toll - No Habitat Identified

No habitat for any federally listed threatened or endangered species, or any state-listed endangered species, was identified in the project area.

3) Express 1 Toll - No Habitat Identified

No habitat for any federally listed threatened or endangered species, or any state-listed endangered species, was identified in the project area.

4) 71 Toll – Texas Fatmucket

Texas Fatmucket specimens have been found in Onion Creek inside the project area. This mussel is listed as a stage endangered species by Texas Parks and Wildlife Department (TPWD) and as a candidate species by the USFWS.

5) 45 Toll – No Habitat Identified

No habitat for any federally listed threatened or endangered species, or any state-listed endangered species, was identified in the project area.

6) 183 Toll (Bergstrom Expressway) - No Habitat Identified

No occupied habitat for any federally listed threatened or endangered species, or any state-listed endangered species, was identified in the project area during preparation of the environmental assessment. Appendix 2 of the environmental assessment lists species that have the potential for occurrences in Travis County. However, this list is updated over time with newly listed or delisted species and updated lists are available at Texas Parks and Wildlife Department. Be aware that the Colorado River has the highest potential for protected species such as mollusks/mussels. Report any occurrences of protected species to the Mobility Authority.

7) 183A Phase III Project – Habitat for Several State-Listed Species

No habitat for any federally listed threatened or endangered species was identified in the project area. 183A Phase III is in the range of suitable habitat characteristics for a number of state-listed threatened species and Species of General Conservation Need (SGCNs). These species are listed below. Detailed procedures to avoid or minimize impacts are included in the Environmental Assessment document.

State-Listed Threatened Species

- false spike mussel (*Fusconia* [=Quadrula] *mitchelli*)
- Texas fawnsfoot (*Truncilla macrodon*)
- Texas pimpleback (*Quadrula petrina*)
- timber rattlesnake (Crotalus horridus)

Species of General Conservation Need (SGCNs)

- gravelbar brickellbush (Brickellia dentata)
- plateau loosestrife (*Lythrum ovalifolium*)
- plateau milkvine (*Matelea edwardsensis*)
- Texas almond (*Prunis minutiflora*)
- A mayfly (*Pseudocentroptiloides morihari*)
- Guadalupe bass (*Micropterus treculii*)
- southern crawfish frog (*Lithobates areolatus areolatus*)
- Texas garter snake (*Thamnophis sirtalis annectens*)
- western burrowing owl (*Athene cunicularia hypugaea*)

- cave myotis bat (*Myotis velifer*)
- plains spotted skunk (Spilogale putorius interrupta)
- 8) 183 North Project No Habitat Identified

No occupied habitat for any federally listed threatened or endangered species, or any state-listed endangered species, was identified in the project area during preparation of the environmental assessment.

P.5.24.4 Edwards Aquifer Recharge and Contributing Zones

There are maintenance areas within the Edwards Aquifer Recharge Zone or Contributing Zone and are subject to 30 TAC Chapter 213. This information can be found at the following website: <u>https://www.tceq.texas.gov/gis/metadata/edw_tsms_met.html</u>

Within the CTRMA roadway system, the following Edwards Aquifer areas have been identified:

1) 183A Toll

Within the ROW for 183A, the segments between stations 727+00 and 827+00 are included in the Edwards Aquifer Recharge Zone. The remaining area of the 183A ROW is within the Edwards Aquifer Contributing Zone (stations 270+00 to 727+00).

2) 290 Toll

None of the 290E ROW exists within the Edwards Aquifer Recharge Zone.

3) Express 1 Toll

A portion of the MoPac North ROW exists within the Edwards Aquifer Recharge/Transition Zone. The portions of the ROW within this zone include:

- 5+00 to 207+00
- 612+00 to 618+75

4) 71 Toll

None of the SH71 ROW exists within the Edwards Aquifer Recharge Zone.

5) 45 Toll

The entire 45SW ROW exists within the Edwards Aquifer Recharge/Transition Zone. The stations include:

- 190+00 (beginning or ROW to south) to 374+25
- 24+50 to 50+25 (NW)
- 24+50 to the intersection of MoPac South (NE)
- 6) 183 Toll (Bergstrom Expressway)

None of the 183 South ROW exists within the Edwards Aquifer Recharge Zone.

119

7) 183A Phase III Project

None of the 183A Phase III ROW exists within the Edwards Aquifer Recharge Zone. The entire length of 183A Phase III (stations 24+25 to 271+00) is included in the Edwards Aquifer Contributing Zone.

8) 183 North Project

The entirety of the 183N ROW exists within the Edwards Aquifer Recharge/Transition Zone. The stations for 183N are between 827+10 and 269+00.

For maintenance activities regulated under these rules, prepare the appropriate Edwards Aquifer Plan within 30 calendar days from Contract beginning, implementing water quality protections, and coordinating with the TCEQ as required by law.

Regulated activities include, but are not limited to, installation of aboveground or underground storage tank facilities, modification of existing water quality structures, and ground soil disturbing activities such as clearing and excavation within the Edwards Aquifer Recharge or Contributing Zones.

No temporary aboveground hydrocarbon and hazardous substance storage tank system shall be installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive recharge feature.

If sediment escapes the maintenance site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts to water quality (i.e., fugitive sediment in street being washed into surface streams or sensitive recharge features by the next rain).

Maintain and clean water quality ponds and detention facilities in accordance with approved TCEQ permit. Inspect and clean sedimentation and hazardous material traps once every month. Clean detention ponds when design capacity is reduced by 20%. Maintain filtration pond so that there is no standing water 48 hours after a rain event. All water quality ponds shall be inspected on an annual basis. These inspections shall be performed in accordance with Exhibit 6 Performance and Measurement Table - Drainage and submitted to the Authority Project Manager.

All spoils (excavated material) generated from the project site or imported to the project site must be stored on site with the proper erosion and sedimentation controls. For storage or disposal of spoils to another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for placement of fill material or mass grading prior to the placement of spoils at the other site.

Any soils contaminated during maintenance activities shall be transported from the site and properly disposed of offsite, off the Recharge Zone and off any area draining to the Recharge Zone of the Edwards Aquifer.

During maintenance activities, wastewater generated on site shall be collected by chemical toilets and shall be transported off the Recharge Zone.

If any significant recharge feature, such as sink-holes, caves, or any other subterranean opening is discovered during maintenance activities, all activities near the feature must be immediately suspended and may not proceed until the Authority Project Manager has evaluated the feature. The discovery may require TCEQ review and approval for the methods proposed to protect the aquifer from any potential adverse impacts.

Aboveground storage tanks kept on site for maintenance purposes shall be located over bermed impervious liners so as to not allow any leakage into underlying soils. Additionally, the containment shall be sized to capture 150% of the total volume of fluids stored on site within the storage area.

The Contractor will coordinate the site of any aboveground storage tank with TCEQ prior to placement. The Contractor will be responsible for annual coordination and approval from TCEQ if the storage tank is in place for more than 1 year.

Stockpiles of material, composting, or mulching will not be allowed within 300 feet of significant karst features, wetland, or creek/stream as indicated in the plan sheets. All such project specific locations will incorporate measures to eliminate stormwater pollution and sedimentation.

Contaminated water and contaminants are not allowed to enter the subsurface environment.

P.5.24.5 Cultural Resources

Avoid impacts to cultural resources that have been identified in NEPA documents. The resources that have been identified within the ROW include the Davidson-Littlepage Cemetery and the Historic Montopolis Truss Bridge, both of which occur on 183 Toll.

P.5.24.6 Other Environmental Restrictions

Some roadways within the CTRMA system have additional environmental restrictions. These include:

1) 45 Toll

Based on stakeholder input, CTRMA has committed to enhanced water quality protection on 45SW. Non-structural BMPs committed to by CTRMA include the following measures to avoid or minimize pollutants in the runoff from the roadway:

- No pesticide or herbicide use within the right-of-way;
- Vacuum truck utilization, as determined by the independent environmental compliance manager (described below);
- Periodic inspections of hazardous materials traps and other permanent BMPs at a frequency not less than required under TCEQ's Edwards Aquifer Rules (30 T.A.C. Chapter 213) and the 1990 Consent Decree;

- Any equipment fuel or hazardous material storage, even if short-term, will be performed within a containment area to prevent the possibility of accidental discharge to groundwater;
- Any equipment fueling will be performed at least 200 feet from the nearest sensitive karst feature and water crossing; and
- No use of fertilizers in natural buffers around sensitive karst features.

P.5.25 Building and Facility Maintenance – General

Routine and preventative maintenance shall be performed as needed to keep the building/facilities in good condition. Maintenance shall include interior, exterior, and grounds.

The Contractor shall be responsible for interior touch-up painting of facilities, as needed, which result from addressing any deficiencies that may develop in regard to interior walls and ceilings. Paint shall match color and specification of existing wall coverings. The Contractor shall be responsible for exterior touch-up painting of facilities, as needed, that result from addressing any deficiencies that may develop in regard to exterior painted surfaces. Paint shall match color and specification of existing wall coverings. It shall be the Contractor's responsibility to track, report and update running quantities installed in any fiscal year.

The Contractor shall perform structural concrete cleaning and coating with color matched Class V Finish for restoration of damaged, faded, mildewed, fire damaged, or otherwise discolored concrete surfaces, for the Field Operations Building, ILP buildings, exterior of toll lanes on an annual basis, or as directed by the Authority Project Manager.

Power outages at gantries, facilities, buildings, etc., shall be considered an Emergency.

Secure the areas where broken, damaged or malfunctioning assets could potentially cause harm to people. These measures should be maintained and remain in place until the asset has been repaired or replaced and the potential for harm has been eliminated.

The Contractor shall be responsible for the submission, payment and compliance with the terms of all fire, elevator, and wells, above or below ground fuel storage inspections, regulatory fees and/or permits. Shall any late fees/fines be assessed as a result of the Contractor's noncompliance with such requirement; the Contractor is responsible for the payment of such fees/fines. Copies of all permits, payment receipts, placards and correspondence shall be forwarded to the Authority within 5 Business Days of their receipt.

Routine and preventative maintenance shall be performed on all buildings and facilities to be kept clean and neat in appearance. It shall be the Contractor's daily responsibility to perform any needed repairs that may be observed during the performance of this Contract. The Contractor will be responsible for all day-to-day routine maintenance work involving, but not limited to, such items as:

- 1) Load Bearing Masonry and Veneer Walls
- 2) Railings and Stairs

- 3) Wood Cabinetry, paneling, backerboard, and blocking
- 4) Waterproofing and Insulation
- 5) Roofing systems including all curbs and penetrations
- 6) Exterior Finish Systems such as Plasters, Stuccos, and Coating Systems
- 7) Metal Panel Exterior Wall Systems
- 8) Interior and Exterior Joint Sealants
- 9) Doors, Windows. Glazing, Mirrors and Hardware
- 10) Interior and exterior coiling and sectional overhead doors and operators
- 11) Interior building finishes including gypsum board, paints, wall coverings, tile, suspended ceilings, resilient flooring and base, and carpet
- 12) Interior and exterior signage
- 13) Toilet and Shower Compartments, Partitions, Fittings and Accessories
- 14) Flagpoles, and flags (including the raising and lowering or half-mast presentations as required by State officials, and proper disposal when required)
- 15) Fire protection systems, backflow valves, extinguishers and alarm systems
- 16) Lockers, Shelving and Storage units
- 17) Kitchen and Laundry Equipment
- 18) Window Treatments (including window tinting), Louver Blinds and Shades
- 19) Elevator and chairlift systems including annual inspection' reporting and certification
- 20) Electrical systems
- 21) Plumbing systems
- 22) Utilities (sewer, gas, electric, and water)
- 23) Lavatory fixtures
- 24) Toilets
- 25) HVAC systems
- 26) Loading dock equipment
- 27) Sump pumps installed at any location
- 28) Water heaters
- 29) Boilers and chemical water treatment (including any boiler maintenance and/or repair on installed systems along with any requirements for inspection and certification)

123

- 30) Air compressors
- 31) Exhaust fans
- 32) Energy management systems
- 33) Interior and exterior lighting systems
- 34) All lighting associated with equipment and systems. This includes indicator or panel lighting and remote monitoring controls or control systems.
- 35) Lightning protection systems
- 36) Pest control

Building and Facilities maintenance tasks exclude the following:

- 1) Security systems (including cameras, card readers, panic buttons, and door opening devices)
- 2) Tolls and ITS collections systems
- 3) Data and voice communication system and all networks
- 4) Traffic Incident Management Center control room and technology room software, hardware, and other IT-related equipment

Buildings and facilities to be maintained under this contract include:

183A Traffic Incident Management Center

Contractor shall be responsible for maintaining and providing janitorial services at the 183A Toll Traffic Incident Management Center located on 104 N. Lynnwood Trail, Cedar Park. Maintenance is to include landscaping and ground maintenance, including the parking area and outdoor lighting. The Authority's System Integrator is responsible for maintaining ITS related equipment in the technology and control room, therefore, these items are excluded from the Contractor's scope of work. As-built plans for the field operations building are included with the RIDs.

Maintenance Facility Buildings

Contractor shall be responsible for maintaining maintenance facility buildings designated for each Project. Included in the scope is external on-site appurtenances and landscaping and ground maintenance, including any detention ponds that may be present. Plans for maintenance facilities are included with the RIDs.

Toll In-Lane Processing Buildings

Contractor shall be responsible for maintaining Toll ILP buildings, all associated external appurtenances, and maintenance pull-out areas/driveways. The Authority's System Integrator is responsible for maintaining toll related equipment within the buildings and are excluded from the Contractor's scope of work. Plans showing the locations of ILP buildings are included with the RIDs.

Mainlane and ramp gantry ILP areas and trailheads shall be maintained in accordance with the performance requirements for the roadway including litter pickup and sweeping. Maintenance of buildings and facilities shall include both interior and exterior pest control, landscape maintenance, and the cleaning of all floors to manufacturer recommendations.

Emergency Backup Generators

Contractor shall be responsible for maintaining all emergency backup generators and all associated appurtenances on the system. A list of generators is included with the RIDs.

The Contractor will be responsible for routine maintenance of generators on future corridors, as described herein. Repairs of warrantied parts within the manufacturer's warranty term (1 year after installation and acceptance of the initial installation), will be the responsibility of the Authority's System Integrator. Once the manufacturer's warranty expires, all repairs will be the responsibility of the Contractor, to include full replacement if warranted.

Emergency generators will be maintained per manufacturer's recommendations. Maintenance for generators shall include but is not limited to the elements below. Also refer to Exhibit 3, Performance Measures – Section 14 Facilities:

- Cooling System: Radiator/heater exchange inspected for leaks, damage, and debris. Louver inspection for proper operation. Visual inspection of coolant. Inspect hoses for deterioration/tightened. Inspect fan drive pulley for excessive wear. Inspect fan belts for wear and adjust tension. Inspect jacket water heater. Water pump inspected for leaks/noises. The following generally follow a 3-year cycle: drain, flush, and replace coolant; replace thermostats; replace fan belts; and replace hoses.
- 2) Fuel System: Inspected for leaks, fuel level, and condition of fuel. Drain water from fuel tank or water separator. Inspect fuel lines for leaks/tighten. Inspect governor oil level. Check fuel filter for damage/leaks. Inspect fuel pressure gauge to confirm operation. Inspect and replace fuel filter.
- 3) Air Induction and Exhaust System: Inspect air filter service indicator. Inspect air filter and clean. Inspect Air Inlet System (air filter housing, seals and gaskets). Exhaust manifold inspected for damage, loosened hardware, leaks, and wet-stacking. Exhaust system inspected (silencer and piping, rain cap, supports). Check turbocharger for oil leak/unusual noises. Replace air filter as needed (generally a 3-year cycle).
- 4) Lube Oil System: Inspect oil level and check for contamination. Check oil pressure gauge. Inspect pre-lube pump. Inspect crankcase breather. Obtain oil sample for analysis. Change oil and replace filters. Inspect gaskets and seals. Inspect crankcase breather.
- 5) Starting System: Inspection of battery, battery charger, starting motor, and alternator. Replace batteries and alternator belt as needed (generally a 3-year cycle).
- 6) Engine Monitor and Safety Controls: Check for loose connections/deterioration of wires. Inspect remote annunciator panel. Test system alarms.
- 7) Control Panel: Start controls. Check voltmeter operation, ammeter operation, and frequency meter operation. Inspect circuit breakers for movement.

Fuel for generators shall be procured by the Contractor through utilization of the Authority's established vendor contract. The Authority will be responsible for the fuel costs. Contractor is responsible for coordination of the fuel order and delivery. The fuel will be delivered to the site by the vendor. It is the Contractor's responsibility to monitor the generators' fuel levels at all times and ensure constant levels to provide no less than 12 hours of operating time. In the event of a hurricane or tropical storm "watch" or power service outage, the generator's fuel level shall exceed 12 hours of operating time. It shall be the Contractor's responsibility to ensure that fuel levels remain adequate until power is restored. In the event of a storm "watch" this requirement shall begin upon issuance of the "watch" by the National Hurricane Center and shall continue until such time as power is restored to each facility. Loss of power as a result of lack of fuel shall result in a Liquidated Damage as described in Exhibit 3, Performance Measures – Building and Facility Maintenance.

Maintenance frequencies may be daily, weekly, monthly, semiannually, or annually depending on the maintenance element. Minimum frequency for maintenance activities are provided in Exhibit 3 Performance Measures – Section 14 Facilities.

P.5.26 Limited Maintenance Services

At the Authority's sole discretion, an NTP for limited Maintenance Services may be issued at substantial completion of construction of each of the subsequent Projects noted in Table N.2.1 until an NTP is issued for the full scope of Maintenance Services for the applicable Project. Limited Maintenance Services are summarized as follows:

Table P.5.26.1: Limited Maintenance Services

ELEMENT CATEGORY	REF	ELEMENT
P.5.10 PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS	P.5.10.8	Delineators & Object Markers (used for delineation of the express lane)
	P.5.19.1	Sweeping
P.5.19 SWEEPING, LITTER AND DEBRIS	P.5.19.3	Obstructions and debris in Managed Lanes
P.5.21 INCIDENT MANAGEMENT	P.5.21	Incident Management
P.5.25.F. Tolling Facilities and Buildings – HVAC SYSTEMS	P.5.25.F.1	Air Conditioning Units
P.5.25.L EMERGENCY BACKUP GENERATORS	P.5.25.L.1	Generators
SNOW AND ICE CONTROL	See S	S7668 for Performance Measures

Refer to Section P.5.29, Payment for limited maintenance services compensation.

P.5.27 Non-compliance

If the work is not in compliance with reference specifications, standard details, this Item and/or Exhibits 2 and 3, Performance and Measurement, or as shown in the plans, Liquidated Damages

for non-compliance will be assessed per performance standard per location per occurrence as a payment reduction each month until the work is completed as described in Exhibit 5, Liquidated Damages for Non-Compliance. If the cause for assessment of Liquidated Damages for non-compliance is not remedied before the next inspection cycle, an escalation of 25% will be applied to the prior Liquidated Damage. Such deductions are considered non-payment for Maintenance Services not accomplished as required by this Item. If the plans do not allow lane closure(s) and lane closure(s) is required to perform the work, as determined by the Authority Project Manager, the timeframe will begin upon allowance of the lane closure instead of the time of notification or discovery, unless the Authority Project Manager allows the lane closure(s) to proceed. Lane closure assessment fees will be determined per the assessment schedule shown in the plans.

Prior to assessment of liquidated damages, the Authority will review planned work that has been recorded in the Authority's CMMS in accordance with the applicable timeliness requirements as set forth in in the performance measures summarized in Exhibits 2, 3 and 6. This work shall have been recorded in the CMMS within the required time for Contractor awareness reflected in inspection cycles per section P.5.4 Inspections. If scheduled work is performed within the timeliness requirement, deferred liquidated damages will be waived. If the Contractor fails to complete the work within the timeliness requirement, the liquidated damages will be deducted from the next scheduled payment.

P.5.28 Measurement

This Item will be measured by each Project on a per month basis and shown for applicable items.

The Authority will measure the Contractor's performance through the performance of condition assessments and attainment of performance standards.

P.5.28.1 Condition Assessments

The Authority will perform a condition assessment in accordance with the frequencies set forth in Exhibit 4, Condition Assessment Frequency for the Targets set forth in Exhibits 2, 3 and 6 for Performance and Measurement. The Contractor will be notified at least 7 Working Days before the date of condition assessments and is encouraged to accompany the Authority during the assessment. The condition assessment will randomly sample at least 20% of the centerline mile length of each roadway broken into 0.5-mile sections or portions thereof. The Projects will be assessed in groups as follows:

		SEGMENTS ⁽¹⁾	
PROJECT	ASSESSMENT GROUP	TOTAL POSSIBLE	20% RANDOM
183A Toll		22	5
290 Toll (Manor Expressway)	Group A	22	5

183 Toll (Bergstrom Expressway)		16	4
183 North Project		22	5
GROUP A TOTAL SEGMENTS		82	19
Express 1 Toll (MoPac Express)		28	6
45 Toll	Group B	17	4
71 Toll		7	2
183A Phase III Project		9	2
GROUP B TOTAL SEGMENTS		61	14

Note 1: The number of segments has been rounded up to the next whole segment.

Mitigation Areas, Water Quality Ponds, and Detention Facilities will be assessed separate from the roadway. Assessment of this element will consist of 100% of the inventory and is not subject to random selection.

P.5.28.2 Asset Condition Score

The Asset Condition Score (ACS), calculated in accordance with the measurement criteria, will be determined as set forth in Table P.5.28.1.2, below.

Score	Criteria
5	 Targets for individual Elements are almost entirely met (90% to 100% compliance with the relevant Targets for each Element within each Auditable Section), and Is fully functional and in nearly new condition, meeting or exceeding Performance Requirement.
4	• Targets for individual Elements are substantially met (less than 90% compliance and 80% or greater compliance with the relevant Targets for each Element within each Auditable Section), and
	Is functional and in good condition, meeting Performance Requirement.
3	• Targets for individual Elements are mostly met (less than 80% compliance and 70% or greater compliance with the relevant Targets for each Element within each Auditable Section), and
	• Is in fair condition, but suggesting need for early replacement, renewal or repair of individual Element and/or maintenance or operation improvement action to meet Performance Requirement.
2	• Targets for individual Elements are barely met (less than 70% compliance and 60% or greater compliance with the relevant Targets for each Element within each Auditable Section), or
	• In poor condition demonstrating need for immediate replacement, renewal or repair of individual Element and/or immediate change to Project Management

Table P.5.28.1.2 Asset Condition Score Criteria for Element Categories

	Plan (PMP).
1	• Targets for individual Elements are not met (less than 60% compliance with the relevant Targets for each Element within each Auditable Section), or
	• In very poor condition demonstrating need for immediate replacement, renewal or repair of individual Element and/or immediate change to PMP.

Notes to Table P.5.28.1.2:

1. The calculation of Asset Condition Score for an Element within an Element Category is demonstrated by the following example:

Assume there are 76 Auditable Sections, of these 20%, or 17 sections are audited each quarter. There are six Targets to be assessed for Element "Longitudinal Pavement Markings." There are therefore $6 \ge 17 = 102$ measurement records for pavement markings. If 85 of these measurement records meet the Target, there would be 83% compliance and an Asset Condition Score of four assigned for that Element.

- 2. After calculating the Asset Condition Scores for each Element, a mean score across Elements shall be determined for the Element Category. This mean score is calculated to 1 decimal point and also recorded.
- 3. "Mean" in this context shall be the arithmetic mean.
- 4. Where a measurement record relates to a service measured over time or an Element that is not represented in more than 25% of Auditable Sections then the Asset Condition Score will be based on the total service and not a 20% random sample. This applies to the performance measurement of Element Categories: Traffic Signals, Incident Response, Customer Service, Snow and Ice Control and Project Buildings or other Element Categories meeting the above criteria identified following establishment of the Auditable Sections.
- 5. Developer acknowledges that Asset Condition Score is a mechanism to benchmark the performance of the Project against the performance of other similar facilities and that TxDOT may, during the Term, alter the Asset Condition Score criteria to reflect Good Industry Practice.

P.5.29 Payment

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 "Performance Based Maintenance (Project)," "Performance Based Maintenance Landscaping (Project)," "Performance Based Maintenance Building/Facilities," "Performance Based Maintenance Shared Use Path and Trailheads (Project)," and "Performance Based Maintenance Routine Vegetation Management (Project)" within the ROW including main lanes, frontage roads, cross streets, ramps, collector distributors, direct connectors, turnarounds, easements, etc., as shown in the plans. This price will be full compensation for Maintenance Services. Maintenance Services will include all of the activities or services required, including but not limited to; all administrative, support services, utility work, procurement, manufacturing, supply, installation, construction, supervision, management, testing, verification, labor, materials, equipment, ordinary preventative, repair or replacement maintenance, documentation, and other duties and services to be furnished and provided by Contractor as required by the Contract, including all efforts necessary or appropriate to maintain, repair, preserve and protect the highway for its intended purposes in a safe and continually usable condition, except for those efforts which expressly specify will be performed by Persons other than the Contractor. Exceptions to these payments are stated below in this Section.

In the event an NTP is issued for Limited Maintenance Services, work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at 50% of the unit price bid for "Performance Based Maintenance (Project)".

The Contractor's failure to meet any of the requirements may result in deductions from the Contractor's monthly payment. Such deductions are considered nonpayment for work not accomplished as required by the Contract. Reductions in payment will include nonperformance liquidated damages provided in Exhibit 5, Liquidated Damages for Non-compliance.

The Authority reserves the right not to assess any or all deduction(s) if, in the Authority's sole discretion, the Authority determines that the circumstances surrounding any such failure(s) warrants that such deduction is waived. Such determination shall be fully documented by the Authority and adequately demonstrate the reason(s) for such waiver. The waiver of any current deduction(s) shall not affect the Authority's right to enforce future deduction(s) or take any other necessary actions.

The Authority may take steps to have the Work corrected. The Contractor will be notified in writing in advance of this intent providing the Contractor the opportunity and timeframe to make corrections prior to the Authority implementing actions. Once notified that the Authority is taking corrective action, refrain from performing Work on the item in question, unless otherwise approved. The costs associated with these measures will be deducted from any monies due to the Contractor.

P.5.29.1 Ramp Up Period – Not Applicable

Section Q

Special Specification 7668RMA Snow and Ice Control

Q. SPECIAL SPECIFICATION 7668RMA – SNOW AND ICE CONTROL

Q.1 Description

The use of chemicals, abrasives, and equipment to treat the pavement to prevent and remove snow and ice during a winter event with the goal of having all travel ways free and clear of snow and ice.

Q.2 General

The contractor shall maintain all pavement travel lanes, keeping them free of snow and ice so that traffic can proceed in a safe manner throughout the winter weather event. The contractor is to have a minimum the personnel, trucks, loaders, spreaders, liquid sprayers, and other equipment with appropriate operators to be fully equipped and ready for use as specified. However, the contractor understands additional equipment and personnel may be necessary to respond to snow and ice events, and the contractor will obtain the equipment and operators in a timely fashion as determined by the Central Texas Regional Mobility Authority (Authority).

The Contractor's Snow and Ice Control Plan shall demonstrate that sufficient resources under contract (including equipment, fuel, supplies, personnel, etc.) can fully perform snow and ice control for the upcoming snow and ice season. The plan shall include sections demonstrating the contractor's ability to obtain any additional equipment and/or personnel necessary to remove snow and ice from the roadway if conditions warrant. The plan shall be updated by August 1st of each year incorporating lessons learned from the previous snow and ice season. The Plan shall demonstrate the Contractor's ability to monitor upcoming weather events and coordination with the Authority for deployment of labor and equipment, in anticipation of the Authority's first attempt of notification.

A Snow and Ice Preparation Meeting will be held and lead by the Contractor the summer of each year (to include, but not limited to, the Contractor's project manager, Authority, and TxDOT to discuss work plan for the upcoming winter weather season. The first Snow and Ice Preparation Meeting shall be held within the month of September 2023.

A dry run conducted no later than November 1st of each year is required. At the dry run, equipment will be inspected for compliance with the numbers and types of equipment required per Contractor's Snow and Ice Control Plan, proper calibration, and proper operation. The Authority Project Manager is to give 2 weeks minimum notice for a dry run.

Within 7 calendar days of the end of an event, the contractor shall also provide an After Action Report to evaluate effectiveness of their response.

The winter weather season is typically from November through March. However, no additional payment will be made for events outside of this time frame.

Q.3 Materials

The procurement of snow and ice control materials (such as, but not limited to, granular Meltdown 20, Liquid Magnesium Chloride and Aggregate, Brine, etc.) will be the responsibility of the Contractor. However, purchase of snow and ice material will be through Authority purchase order. Contractor will be responsible for obtaining purchase order documentation from the Authority and directly coordinate with the vendor the delivery of materials, off-loading of materials, placement of material in designated stockpile locations, verifying that the material delivered matches what was expected, and providing any delivery tickets to the Authority within 48 hours of the receipt of the delivery. It is the responsibility of the Contractor to continually track and monitor snow and ice material at designated stockpile locations.

Contractor is required to stockpile material equivalent to 4 snow and ice days. Refer to General Notes Section N.5 Stockpile, Storage and Equipment Sites for stockpile requirements. Any unused material will be returned to the designated stockpile location.

Q.4 Equipment and Personnel

Provide all labor, tools, and equipment necessary during the winter weather event and maintain in good working condition. Provide all labor, tools, and equipment to mix and load anti-icing and/or de-icing materials onto equipment or trucks. This includes, but is not limited to, portable light towers, tanks, loaders, pumps, snow plow and de-icing and anti-icing trucks that are at a capacity to allow for efficient application of materials at the manufacturers' application rates. Provide reflection on anti-icing equipment, supervision trucks and heavy equipment.

The following are minimum vehicle and equipment requirements to be provided in correspondence with the Estimated NTP Dates show in Table N.2.1 Project Limits:

Facility	Granular Spreaders (On-site)	Granular Spreaders (2 hr Notice)	Granular Spreaders (Total Deployment)	Loaders (On-site)	Liquid Tank Sprayers (On-site)	Snow Plow (On-site)
183A Toll	1	2	3	1(1)	2	0
290 Toll	1	2	3	1(1)	2	0
Express 1 Toll	1	2	3	1(1)	2	0
71 Toll	1	0	1	1(1)	1	0
45 Toll	1	0	1	1(1)	1	0
183 Toll	1	2	3	1(1)	2	0
183A PH III	1	2	3	1(1)	2	0
183A N Project	1	2	3	1(1)	2	0
Non-dedicated	1	0	1	1	1	2
Total	9	12	21	5	15	2

Table Q.4.1: Vehicles and Equipment

Note 1: One loader and one light tower required per stockpile location.

Provide sufficient English speaking personnel to operate all required equipment at each location to spot operators and load material onto equipment. A sufficient number of mechanics are required to address truck, equipment or spreader malfunctions or failures before, during, and after an event.

All traffic control for snow and ice shall be in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD). Shadow vehicles shall be equipped with warning lights, truck mounted attenuator, arrow board, and sign CW21-10, "Work Convoy." Work vehicle shall be equipped with warning lights.

Provide Automatic Vehicle Location (AVL) with Global Positioning Satellite (GPS) devices for all equipment to be used on the roadway. The AVL system shall be internet based and the Authority shall have access to view the AVL system. The accuracy of the AVL devices shall be within 15 feet of the actual location of the equipment with data updated and transmitted at a minimum of every minute. Each vehicle/piece of equipment with an AVL device shall have an identifier as to the type of equipment, operator and contact number. If the AVL units are not functioning properly, personnel and equipment will not be considered as being on the job site until the AVL units are functioning properly. All time penalties will apply until the internet site logs the AVL data points, unless the Contractor notifies the Authority Project Manager of a temporary AVL functionality issue prior to an event.

If a temporary AVL issue exists, the Contractor will provide the Authority Project Manager, or designee, a mutually agreed upon form of verification to document that the equipment and personnel met the time requirements defined in the Contract. All data records of the AVL system

shall be maintained for at least 1 year. The Contractor shall provide the Authority Project Manager with backup copies of the data files upon request.

Operators shall possess appropriate driver's licenses and/or certifications. Contractor shall maintain equipment in good working condition and be prepared to work continuously for 24 hours a day until the winter weather event has concluded. Contractor shall furnish backup/ replacement operators and equipment as needed.

Provide an on-duty supervisor with experience in managing and directing snow and ice control programs for all snow and ice events as the Authority's point of contact. Supervisor shall maintain the ability to communicate with the Authority and contractor personnel. The supervisor shall maintain contact and communication with the Authority Project Manager throughout the event, adjusting his equipment and personnel as requested by the Authority Project Manager. The supervisor is responsible for notifying the Authority Project Manager of all breakdowns and repaired or replaced vehicles.

Each vehicle shall be equipped with a two-way radio and each operator shall have a cellular phone for use during a snow and ice event, capable of communicating with the supervisor and the Authority. A list of operators with corresponding vehicle number and cell phones shall be provided to the Authority prior to each Snow and Ice Control Season.

Q.5 Methods of Operation and Equipment

At each stockpile location designated by the Authority Project Manager, a call-out to a Winter Weather Event (WWE) will require the preparation and deployment of the following:

- 1) All labor, tools, equipment, and personnel necessary to mix and load anti-icing and/or de-icing materials onto equipment and trucks,
- 2) One front end loader equipped with a 2 cubic yard minimum bucket or equivalent equipment capable of loading material (including operator) (granular locations only)
- 3) One portable light tower equipped with four 1000-watt bulb minimum capability,
- 4) One pump with hoses capable of transferring liquid anti-icing materials from storage tanks to trucks equipped with 1,200-gallon tanks (liquid locations only),
- 5) A generator for power supply, and;
- 6) Traffic control devices in the case of road closure due to potentially hazardous conditions.

All items listed above are subsidiary to pertinent Items.

For corridors subject to the current NTP at the time of the weather event, the minimum quantity of equipment to be provided, as described in Table Q.4.1, shall be divided among all stockpile locations and prepared for deployment as follows:

- 1) Ten-yard-capacity trucks (including operating and spotting personnel) equipped with a minimum of an 8 cubic yard "V" Bottom, self-contained aggregate spreader with an approximate loaded weight of 24,000 lbs and a remote in-cab control will be required.
- 2) Trucks (including operating and spotting personnel) equipped with a minimum 1,200-gallon tank with a rear-mounted spray bar installed with straight stream nozzles that are capable of spraying 1–3 lanes in a single pass. The appropriate quantity and type of nozzle should be provided for each spray unit based on material type. A remote incab control will be required.
- 3) A snow plow shall be available for use at the direction of the Authority's Project Manager. The snow plow shall be 11 feet wide, equipped with a belted rubber snow deflector, headlights and shall be equipped with in-cab controls. In an effort to protect the pavement and markings, the blade shall be equipped with no less than 2" spacers, keeping the blade from making direct contact with the pavement surface.

There is currently a magnesium chloride tank located on the 183A Toll maintenance yard and the 290 Toll maintenance yard.

Contractor is required to have equipment for recirculating material in its storage tank per manufacturer's recommendation prior to application.

Prior to the Snow and Ice Control Season, the Contractor shall submit information documenting the source for equipment being provided such as rental or subcontract agreements. In addition, detailed vehicle information shall be provided, to included equipment make, model, VIN (if applicable), quantity, Project or yard to be served and whether that equipment is owned, rented or provided by subcontract. A list of all subcontractors, and the subcontract agreements, that will be assisting in snow and ice control operations must be submitted to the Authority with the Snow and Ice Control Plan.

If in the event that lanes are closed by any agency due to snow and ice conditions, if it is determined that the Contractor failed to take necessary actions to keep the lanes passable in the opinion of the Authority Project Manager, then lane-closure assessment fees will be charged as stated in section Q.6 Non-performance/Failure to Respond.

Contractor shall be mindful of the existing raised pavement markers (RPMs) while performing necessary snow and ice control measures. At the conclusion of the winter weather event, the Contractor shall perform a visual inspection, both day and night, to determine broken, missing, rotated, or nonreflective markers. The Contractor is responsible for replacing these markers within 30 days of the snow and ice event. The Mobility Authority will share 50% of the cost for replacement of markers damaged by snow and ice control activities.

Contractor shall also be mindful of existing flexible tubular delineators while performing snow and ice control measures, especially along the Express 1 Toll managed lanes and future tolled lanes utilizing this delineation. At the conclusion of the winter weather event, the Contractor shall remove excess dirt and snow and ice material that has accumulated on delineators. Contractor shall monitor weather conditions as noted in their Snow and Ice Control Plan in anticipation of mobilization by way of notification from the Authority. Contractor will be allowed a maximum of 2 hours to mobilize all equipment and personnel and report for work at the designated stockpile locations. The time to mobilize shall begin at the first attempt of notification by the Authority. Failure to mobilize within 2 hours shall result in the assessment of penalties.

As part of the response, the Contractor shall be required to pre-treat elevated structures, bridges, ramps, direct connector flyovers, and other known areas that are subject to freezing first, prior to the beginning of the winter weather event. Contractor shall continue treatment of the system throughout the duration of the event.

Contractor is responsible for continually monitoring weather conditions and making additional treatments, evaluating effectiveness of mobilized equipment, determining if additional equipment or personnel are needed, and mobilizing additional equipment and personnel as necessary until the risk of accumulation of ice, snow, or potentially hazardous conditions has dissipated and the roads are free and clear of ice and snow.

Contractor shall verify spread rates for materials prior to start of each snow and ice event per supplier's recommendations.

If the Authority determines that the roadway, bridge, ramp, etc., needs to be closed, the Contractor is required to provide, install, maintain, and remove all required signs and traffic control devices to detour traffic until the roadway, bridge, ramp, etc., can be opened to safe travel. Once the roadway, bridge, ramps, etc., are deemed safe for travel, the Contractor will remove all temporary signs and traffic control devices. This work is subsidiary to the other bid items for snow and ice control.

Immediately after a winter weather event has concluded, the Contractor shall report the following information, in an acceptable format and broken down by day to the Authority:

- 1) Total man-hours worked,
- 2) Amount of material applied (cubic yards) and/or (gal), and
- 3) Other information as requested by Authority Project Manager.

Contractor shall monitor and inventory all materials at a minimum every 8 hours and provides updates to the Authority. Within 2 hours of the completion of the winter weather event, deicing materials at the stockpile locations shall be inventoried and provided to the Authority. The Contractor shall coordinate restocking of materials in preparation of the next event.

Following a snow and ice event, the Contractor will be responsible for cleanup after the storms. This includes, but is not limited to, sweeping of snow and ice control material and removal of associated storage bags. This work shall be subsidiary to the other bid items for snow and ice control.

Within a week after the conclusion of a winter weather event, the Authority and the Contractor shall meet to evaluate the operational plan performance to better optimize route assignments and promote continuous improvement.

Q.6 Non-compliance

Failure to respond, arrive at designated stockpile locations, within 2 hours of notification and continually perform directed Work will result in the assessment of penalties as noted below. The time to respond will begin at the first attempt of notification.

- 1) Failure to submit updated Snow/Ice Plan: \$500/day
- 2) Failure to conduct a dry run by November 1: \$500/day
- 3) Failure to mobilize the appropriate personnel and vehicle/equipment within 2 hours of notification: \$2,000 per hour plus a \$750/hour/unit noncompliance assessment
- 4) Failure to provide supporting personnel at designated locations within allowable mobilization time = \$200 per personnel
- 5) Failure to replace nonworking vehicles/equipment within 1 hour: \$1,000/hour/unit until it is fixed or replaced
- 6) In the event travel lanes are open, but snow/ice still accumulated on the travel lane due to Contractor failing to take necessary actions to keep the lanes passable during a winter weather event: \$1,000 per lane-mile per hour
- 7) In the event that travel lanes are closed due to Contractor failing to take necessary action to keep lanes passable during a winter weather event: \$1,000 per lane-mile per hour
- 8) Failure to submit an After Action Report within 7 days of the end of the winter weather event: \$500/day

Q.7 Measurement

Work during a winter weather event will be measured by the hour for each truck, shadow vehicle, loader, and spray rig. Partial hours will be rounded to the nearest one-half hour of Work performed. Time charges begin when the equipment and personnel have responded and arrived at designated stockpile locations and ends when Work is complete and the Authority Project Manager has determined that the winter weather event is no longer a potential hazard to the traveling public.

Supply of all equipment during the winter weather season will be measured by the month for the applicable Project. The Authority Project Manager shall confirm the adequacy of equipment during the dry run.

Q.8 Payment

The Work performed during the winter weather event in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Snow and Ice

138

Control (Shadow Vehicle)," "Snow and Ice Control (Spreader)," "Snow and Ice Control (Plow)," "Snow and Ice Control (Loader)," and "Snow and Ice Control (Spray Rig)." These prices shall be full compensation for personnel, equipment, labor, fuel, tools and incidentals.

The work performed, and materials, equipment, and personnel furnished in accordance with this Item during the winter weather season shall be paid at the unit price bid for "Snow and Ice Control Season" by Project.

Section R

Special Specification 7669RMA Lane Closures

R. SPECIAL SPECIFICATION 7669RMA – LANE CLOSURES

R.1 Description

This Item covers installation, maintenance, and removal of lane closures that fall outside of routine maintenance activities described in Item 7667RMA, "Performance Based Maintenance." The estimated average total number of lane closures of any type listed in this special specification is anticipated to be no more than 10 per year.

R.2 Materials

Furnish barricades, signs, cones, arrow boards and other types of devices necessary to install and maintain the lane closures which conform to details shown on the plans, the Texas Manual on Uniform Traffic Control Devices (TMUTCD) the Compliant Work Zone Traffic Control Devices (CWZTCD) list, or as directed by Authority Project Manager.

Lane closures require the use of a Truck Mounted Attenuator (TMA).

R.3 Construction

Designate, in writing, a competent person to be responsible and available on the project site, or in the immediate area, to assure Traffic Control Plan (TCP) compliance. The Authority Project Manager will designate a qualified person to observe implementation and ensure TCP compliance.

Maintain traffic control devices by taking corrective action as soon as possible. Corrective action includes but is not limited to cleaning, replacing, or straightening devices. Maintain the devices such that they are properly positioned, spaced and legible, and that retroreflective characteristics meet requirements during darkness and rain.

The "Type" of traffic control to be implemented will be as described below and on the applicable plan sheets, General Notes or Specification Data Sheets.

Туре	Description	Unit
1	1 Lane Closure – 2 Lane Road, No Shoulders	EA
2	1 Lane Closure – 2 Lane Road, Paved Shoulders	EA
3	1 Lane Closure – 4 Lane Road	EA
4	2 Lane Closure – 4 Lane Road	EA
5	Freeway 1 Lane Closure	EA
6	Freeway 2 Lane Closure	EA
7	Freeway 3 Lane Closure	EA
8	Freeway 4 Lane Closure	EA
9	Exit or Entrance Ramp Closure	EA
10	Freeway Closure Sequence Daytime Only	EA
11	Complete Freeway Closure	EA
12	1 Lane Frontage Road Closure	EA
13	2 Lane Frontage Road Closure	EA
14	1 Lane Connecting Ramp Closure	EA
15	2 Lane Connecting Ramp Closure	EA
16	Work Area on Shoulder	EA
17	Frontage Road Intersection with a 2-way Traffic Closure on the Arterial Street	EA
18	Turn Around Closure	EA
19	Mobile Operation	HR
20	Furnish Additional Truck Mounted Attenuator (TMA)	HR
21	Furnish Additional Portable Changeable Message Sign (PCMS)	Day
22	Pilot Vehicle and Operator	HR

R.4 Non-compliance

	Late Charges (Per Lane)	
Lane Rental Period	183A, Manor Expy/US 290, SH 71 Express, SH 45SW	MoPac/Loop 1
0–15 minutes	\$ 1,000.00	\$ 3,000.00
15–30 minutes	\$ 1,000.00	\$ 3,000.00
30–45 minutes	\$ 1,000.00	\$ 3,000.00
45–60 minutes	\$ 1,000.00	\$ 3,000.00
Every additional 15-minute interval after 1 hour	\$ 2,000.00	\$ 6,000.00
	Late charges are cumulative	

For example: If the contractor has one lane of traffic closed on MoPac until Monday at 5:32 a.m., the contractor is 32 minutes outside of the allowable lane closure period. The late charges will be accrued as follows:

1 lane closed \times [\$3,000 + \$3,000 + \$3,000] = \$9,000

Emergency lane closures are not subject to lane rental charge assessments.

R.5 Measurement

Lane Closure types 1 through 18 will be measured by the each. Lane Closure types 19, 20, and 22 will be measured by the hour. Lane Closure type 21 will be measured by the day.

R.6 Payment

The work performed and materials furnished in accordance with the Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Lane Closures," of the type and class. This price is full compensation for furnishing all labor, materials, supplies, equipment, and incidentals. The unit prices listed for each pay item above are fixed amounts and shall not be changed by the Contractor.

Law Enforcement required by the Authority Project Manager will be subsidiary to Item.

Section S

Special Specification 7671RMA Work Order Allowance

S. SPECIAL SPECIFICATION 7671RMA – WORK ORDER ALLOWANCE

S.1 Description

This item is to be used for Central Texas Regional Mobility Authority (Authority) directed changes and is intended for contingency purposes to be utilized at the Authority's sole discretion. There is no obligation to utilize the funds associated with this Item, therefore, may or may not get used.

Alterations, changes, additional or unforeseen work having no quantity or price provided in the Contract will be paid at a negotiated price. Where the cost is negotiated, the Contractor shall submit an estimate to the Authority in terms of labor, materials, equipment, overhead with a time impact analysis and other expenses incurred solely as a result of the alteration, change, additional or unforeseen work.

S.2 Materials, Equipment and Construction

Materials, equipment, and construction means and methods will be dependent upon the scope of the Authority requested work order. Contractor shall coordinate with the Authority on work order requirements and obtain approval prior to commencement of work.

S.3 Measurement and Payment

The Authority has established a lump sum amount for this Item. The lump sum bid amount will be automatically included in the bid form and cannot be changed. This fixed amount will be included in the total bid price.

The work performed and materials furnished in accordance with the Item will be paid at a negotiated price per work order. The price is full compensation for furnishing all labor, materials, supplies, equipment, and incidentals.

Central Texas Regional Mobility Authority

System-Wide Performance Based Maintenance

Contract No. 20PROGXXX02M

III. Exhibits

Amendment #1

June 20, 2023

TABLE OF CONTENTS

Exhibit 1 – Abbreviations and Definitions	1
Exhibit 2 – Performance Measurement Table – Roadway	17
Exhibit 3 – Performance Measurement Table – Building and Facilities	33
Exhibit 4 – Condition Assessment	41
Exhibit 5 – Liquidated Damages for Non-compliance	47
Exhibit 6 – Drainage Performance Measures	55
Exhibit 7 – VUEWorks Procedures	68

EXHIBIT 1

ABBREVIATIONS AND DEFINITIONS

Unless otherwise specified, wherever the following abbreviations or terms are used in the Contract Documents, they shall have the meanings set forth below:

AASHTO	American Association of State Highway and Transportation Officials
ACORD	Association for Cooperative Operations Research and Development
AIMHigh	Austin-area Incident Management for Highways
AMRL	AASHTO Materials Reference Laboratory
ANSI	American National Standards Institute
APS	Accessible pedestrian signal
APWA	American Public Works Association
ASHA	American Society of Horticulture Science
ASTM	American Society of Testing and Materials
ATSSA	American Traffic Safety Services Association
Authority	Central Texas Regional Mobility Authority
AVL	Automatic Vehicle Locator
AWG	American Wire Gauge
BAFO	Best and Final Offer
BC	(TxDOT) Barricade and Construction (Standards)
BCSP	Board of Certified Safety Professionals
BI	Base Index
BI BMP	Base Index Best Management Practice
BMP	Best Management Practice
BMP CapMetro	Best Management Practice Capital Metropolitan Transportation Authority
BMP CapMetro CCTV	Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television
BMP CapMetro CCTV CERCLA	Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act
BMP CapMetro CCTV CERCLA CFR	Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations
BMP CapMetro CCTV CERCLA CFR CGA	Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance
BMP CapMetro CCTV CERCLA CFR CGA CHST	 Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance Construction Health and Safety Technician
BMP CapMetro CCTV CERCLA CFR CGA CHST CMCS	Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance Construction Health and Safety Technician Construction/Maintenance Contract System
BMP CapMetro CCTV CERCLA CFR CGA CHST CMCS CMMS	Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance Construction Health and Safety Technician Construction/Maintenance Contract System Computerized Maintenance Management System
BMP CapMetro CCTV CERCLA CFR CGA CHST CMCS CMMS CPR	Best Management PracticeCapital Metropolitan Transportation AuthorityClosed Circuit TelevisionComprehensive Environmental Response Compensation and Liability ActCode of Federal RegulationsCommon Ground AllianceConstruction Health and Safety TechnicianConstruction/Maintenance Contract SystemComputerized Maintenance Management SystemCardiopulmonary resuscitation
BMP CapMetro CCTV CERCLA CFR CGA CHST CMCS CMMS CPR CST	 Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance Construction Health and Safety Technician Construction/Maintenance Contract System Computerized Maintenance Management System Cardiopulmonary resuscitation Construction Division of TxDOT
BMP CapMetro CCTV CERCLA CFR CGA CHST CMCS CMMS CPR CST CST	 Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance Construction Health and Safety Technician Construction/Maintenance Contract System Computerized Maintenance Management System Cardiopulmonary resuscitation Construction Division of TxDOT Central Standard Time
BMP CapMetro CCTV CERCLA CFR CGA CHST CMCS CMMS CPR CST CST CST CTB	 Best Management Practice Capital Metropolitan Transportation Authority Closed Circuit Television Comprehensive Environmental Response Compensation and Liability Act Code of Federal Regulations Common Ground Alliance Construction Health and Safety Technician Construction/Maintenance Contract System Computerized Maintenance Management System Cardiopulmonary resuscitation Construction Division of TxDOT Central Standard Time Concrete Traffic Barrier

1

CWZTCD	Compliance Work Zone Traffic Control Devices
CZP	Contributing Zone Plan
DBE	Disadvantaged Business Enterprise
DMS	Departmental Material Specifications
DPS	Department of Public Safety
EAPP	Edwards Aquifer Protection Program
ECI	Employment Cost Index
EDMS	Electronic Document Management System
EMP	Emergency Management Plan
ENR CCI	Engineering News Record 20 City Construction Cost Index
EPD	Escrowed Proposal Documents
EPIC	Environmental Permits, Issues and Commitments
ER	Emergency Relief (Funds)
ESRC	Evaluation and Selection Recommendation Committee
EXP	Exception Request Plan
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTPS	Final Total Proposal Score
GAAP	Generally Accepted Accounting Principles
GEC	General Engineering Consultant
GIS	Geographical Information System
GPS	Global Positioning System
HCR	Highway Condition Report
HMMP	Hazardous Materials Management Plan
HMT	Hazardous material trap
HPS	High-pressure sodium
HUB	Historically Underutilized Business
IIS	Microsoft Internet Information Services 7.0
ILP	(Toll) In-Lane Processing
ISA	International Society of Arboriculture (Certified Arborist)
ISO	International Standards Organization
ITP	Instructions to Proposers
ITS	Intelligent Transportation System
IWP	Investigative Work Plan
kW	Kilowatt
LCN	Lane Closure Notification
LD	Liquidated damages

LED Light-emitting diode

- LOPP Lowest Option Price Proposal
- LPP Lowest Price Proposal
- MBITS Maintenance Bridge Inspection Tracking System
- MMIS Maintenance Management Information System
- MMP Maintenance Management Plan
- MMU Memory Management Unit
- MPL Material producer list
- MRDC Mobile Retroreflectivity Data Collection
- MRR Minimum reflectivity requirements
- MSDS Material Safety Data Sheet
- MS4 Municipal Separate Storm Sewer System
- NBIS National Bridge Inspection Standards
- NEC National Electrical Code
- NHI National Highway Institute
- NIMS National Incident Management System
- NTP Notice to Proceed
- OPP Option Price Proposal
- OSHA Occupational Safety and Health Administration
- PCMS Portable Changeable Message Sign
- PEC Price Evaluation Committee
- PFC Permeable Friction Course
- PIA Texas Public Information Act
- PMIS Pavement Management Information System
 - PP Price Proposal
 - PPS Price Proposal Score
 - PSL Project Specific Location
 - QA Quality Assurance
 - QC Quality Control
- QMP Quality Management Plan
- RFP Request for Proposal
- RFQ Request for Qualifications
- RID Reference Information Document
- RM Ranch to Market Road
- ROW Right-of-Way
- RPM Raised pavement markers
- RSE Road Side Equipment
- RSVD Radar sensing vehicle detector
- S20 (Standard) Soil Sample Form

SBE	Small Business Enterprise
SGCN	Species of General Conservation Need
SH	State Highway
SI	System Integrator
SIR	Site Investigative Report
SMD	Sign Mounting Detail
SSR	Shift Safety Representative
SUE	Subsurface Utility Engineering
SUP	Shared-use paths
SWMP	Storm Water Management Program
SW3P	Storm Water Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TCP	Traffic Control Plan
TCS	Traffic Control Supervisor
TDA	Texas Department of Agriculture
TDLR	Texas Department of Licensing and Registration
TEEX	Texas A&M Engineering Extension Service
Texas DPS	Texas Department of Public Safety
TIM	Traffic Incident Management (Center)
TMA	Truck Mounted Attenuator
TMC	Traffic Management Center
TMUTCD	Texas Manual on Uniform Traffic Control Devices
TNLA	Texas Nursery and Landscape Association
TPWD	Texas Parks and Wildlife Department
TRM	Texas Reference Marker
TS	Technical Score
TSR	Typical Sign Requirements
TTA	Texas Transportation Authority
TTC	Temporary Traffic Control
TxDOT	Texas Department of Transportation
TXMCNP	Texas Master Certified Nursery Professional
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
V2I	Vehicle-to-Infrastructure
VIN	Vehicle Identification Number
VIVDS	Video imaging vehicle detection system
VPU	Vision processing unit

- VS20 Volume Soil Sample Information Form
- WPA (Wi-Fi) Protected Access (Security)
- WWE Winter Weather Event
- WZ (TxDOT) Work Zone (Standards)

Affiliate(s) – shall mean:

- (a) any shareholder, member, partner or joint venture member of Contractor;
- (b) any Person that directly or indirectly through one or more intermediaries controls, or is controlled by, or is under common control with, Contractor, or any of its respective shareholders, members, partners or joint venture members; or
- (c) any Person for which ten percent or more of the equity interest in such Person is held directly or indirectly, beneficially or of record by (i) Contractor, (ii) any of the shareholders, members, partners or joint venture members of Contractor; or (iii) any Affiliate of Contractor under clause (b) of this definition.

For purposes of this definition, the term "control" shall mean the possession, directly or indirectly, of the power to cause the direction of the management of a Person, whether through voting securities, by contract, family relationship or otherwise. "Affiliated" shall mean having the status of an Affiliate.

Asset Condition Score – The score (from one to five) assigned by the Mobility Authority followed by the Audit Inspection, which records, for each Maintained Element and for all of the Auditable Sections audited in any period, the extent to which the Contractor has met the Target for each measurement record according to the criteria set forth in the Contract Documents.

Auditable Section – A defined section of the Project for the purpose of audit, inspection and measurement during performance of the Maintenance Services. An Auditable Section includes all travel lanes including mainlanes, ramps and frontage roads of the roadway operating in one direction over a length of 0.1 miles in length, together with all Maintained Elements of the Project associated with such 0.1 mile length.

Audit Inspection – A detailed inspection of the specified proportion of Auditable Sections undertaken monthly or quarterly by the Contractor as part of the Maintenance Services in accordance with the Contract Documents to establish an Asset Condition Score for each Maintained Element and verify compliance with the Performance Requirements.

Authorized Representative(s) – Shall have the meaning set forth in Section D.2 of the Instructions to Proposers.

Business Day(s) – Day(s) on which the Mobility Authority is officially open for business.

Category 1 Defect – A Defect which requires prompt attention to mitigate the potential hazard presented to the traveling public, potential risk of structural deterioration, potential risk of damage to a third party's property or equipment, or potential risk of damage to the environment.

Category 2 Defect – Any Defect other than a Category 1 Defect.

Claim(s) - (a) A demand by the Contractor, which is or potentially could be disputed by the Mobility Authority, for a time extension under the Contract Documents or payment of money or damages from the Mobility Authority to the Contractor, or (b) A demand by the Mobility Authority, which is or potentially could be disputed by the Contractor, for payment of money or damages from the Contractor to the Mobility Authority.

Code – The Texas Transportation Code, including specifically Chapter 223.

Communications Plan – Shall have the meaning set forth in Section P.5.7 of Special Specification 7667.

Consultant(s) – Means company or companies working directly for the Mobility Authority.

Contract – The agreement between the Mobility Authority and the Contractor establishing the obligations of the parties for furnishing of materials and performance of the work prescribed in the Contract Documents.

Contractor – The individual, partnership, limited liability company, corporation, or joint venture and all principals and representatives with which the Contract is made by the Mobility Authority.

Contractor Default - Shall have the meaning set forth in Section 8.7.1 of the Special Provisions.

Contract Documents – Elements of the Contract including, but not limited to the Proposal Documents, the Specifications, Exhibits, and Maps, bonds, change orders, and Change Orders or supplements to the aforementioned documents.

Contractor-Related Entity – (a) The Contractor, (b) the Contractor's partners, joint venturers and/or members, (c) Subcontractors (including Suppliers), (d) any other Persons performing any of the Maintenance Services, (e) any other Persons for whom the Contractor may be legally or contractually responsible, and (f) the employees, agents, officers, directors, members, managers, shareholders, representatives, consultants, successors, assigns and invitees of any of the foregoing.

Contractor Release of Hazardous Materials – Means (a) Release(s) of Hazardous Material, or the exacerbation of any such release(s), attributable to the actions, omissions, negligence, intentional misconduct, or breach of applicable Law or contract by any Contractor-Related Entity; (b) Release(s) of Hazardous Materials arranged to be brought onto the Site or elsewhere by any Contractor-Related Entity; regardless of cause, or (c) use, containment, storage, management, handling, transport and disposal of any Hazardous Materials by any Contractor-Related Entity in violation of the requirements of the Contract Documents or any applicable Law or Governmental Approval.

Day – Shall mean calendar day unless otherwise noted.

Dead or Damaged Trees/Plants – A tree is considered dead or damaged if more than 20% of foliage or branches are dead or damaged.

Defect – shall mean, in connection with the Maintenance Services, a defect, whether by design, construction, installation, repair, rehabilitation, reconstruction, operation, damage or wear, affecting the condition, use, functionality or operation of any Maintained Element, which would cause or have the potential to cause one or more of the following:

- (i) a hazard, nuisance or other risk to public or worker health or safety, including the health and safety of users of the Project;
- (ii) a structural deterioration of the affected Maintained Element or any other part of the Project affected by it;
- (iii) damage to the property or equipment of the Mobility Authority, TxDOT or a third party;
- (iv) damage to the environment;
- (v) failure of the affected Maintained Element to meet a Performance Requirement; or
- (vi) failure of a Maintained Element to meet the Target for a measurement record as set forth in the Performance and Measurement Table.

Dispute – Any Claim, dispute, disagreement or controversy between the Mobility Authority and the Contractor concerning their respective rights and obligations under the Contract Documents including concerning any alleged breach or failure to perform and remedies.

Draw Request(s) – A Draw Request and Certificate in the form to be provided by the Mobility Authority at the preconstruction meeting.

Effective Date – The date of the Contract or such other date as shall be mutually agreed upon in writing by the Mobility Authority and the Contractor.

Element – An individual component, system or subsystem of the Project, and shall include at a minimum a breakdown into the items described in the Exhibits 2 and 3 Performance and Measurement Table, further subdivided by Auditable Section where appropriate.

Element Category – Any of the element categories set forth Exhibits 2 and 3 Performance Measurement.

Emergency or Emergencies – In connection with the Maintenance Services, any unforeseen event affecting the Project, whether directly or indirectly which occurs on or originates from the Project or ROW and: (a) causes or has the potential to cause disruption to the free flow of traffic on the Project or a threat to the safety of the public or workers; (b) is an immediate or imminent threat to the long term integrity of any part of the infrastructure of the Project, to the environment or to Adjacent Work; or (c) is recognized by the Texas Department of Public Safety as an emergency.

Emergency Services – In connection with the Maintenance Services, law enforcement, ambulance service and other similar services from agencies with whom the Contractor establishes protocols for incident response, safety and security procedures, as set forth in the Emergency Management Plan.

Encroachment – A fixture that intrudes onto the ROW that has no legal right to exist there.

Engineer – The authorized representative(s) of the Mobility Authority's GEC designated to monitor the maintenance and/or construction work performed in connection therewith.

Environmental Laws – Any Law applicable to the Project or the Maintenance Services regulating or imposing liability or standards of conduct that pertains to the environment, Hazardous Materials, contamination of any type whatsoever, or environmental health and safety matters, and any lawful requirements and standards that pertain to the environment, Hazardous Materials, contamination of any type whatsoever, or environmental health and safety matters, set forth in any Government Approvals, other permits, licenses, approvals, plans, rules, regulations or ordinances adopted, or other criteria and guidelines promulgated, pursuant to Laws applicable to the Project, the Contractor or the Maintenance Services, as such have been or are amended, modified, or supplemented from time to time (including any present and future Change Orders thereto and reauthorizations thereof) including those relating to:

- (a) The manufacture, processing, use, distribution, existence, treatment, storage, disposal, generation, and transportation of Hazardous Materials;
- (b) Air, soil, surface and subsurface strata, stream sediments, surface water, and groundwater;
- (c) Releases of Hazardous Materials;
- (d) Protection of wildlife, Threatened or Endangered Species, sensitive species, wetlands, water courses and water bodies, historical, archeological, and paleontological resources, and natural resources;
- (e) The operation and closure of underground storage tanks;
- (f) Health and safety of employees and other persons; and
- (g) Notification, documentation, and record keeping requirements relating to the foregoing.

Without limiting the above, the term "Environmental Laws" shall also include the following:

- (i) The National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.), as amended;
- (ii) The Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601 et seq.), as amended;
- (iii) The Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 et seq.);
- (iv) The Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. §§ 11001 et seq.), as amended;
- (v) The Clean Air Act (42 U.S.C. §§ 7401 et seq.), as amended;
- (vi) The Federal Water Pollution Control Act, as amended by the Clean Water Act (33 U.S.C. §§ 1251 et seq.);
- (vii) The Resource Conservation and Recovery Act (42 U.S.C. §§ 6901, et seq.), as amended;
- (viii) The Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.), as amended;
- (ix) The Hazardous Materials Transportation Act (49 U.S.C. §§ 1801 et seq.), as amended;
- (x) The Oil Pollution Act (33 U.S.C. §§ 2701, et. seq.), as amended;
- (xi) The Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. §§ 136 et seq.), as amended;
- (xii) The Federal Safe Drinking Water Act (42 U.S.C. §§ 300 et seq.), as amended;
- (xiii) The Federal Radon and Indoor Air Quality Research Act (42 U.S.C. §§ 7401 et seq.), as amended;
- (xiv) The Occupational Safety and Health Act (29 U.S.C. §§ 651 et seq.);
- (xv) The Endangered Species Act (16 U.S.C. §§ 1531 et seq.), as amended;
- (xvi) The Fish and Wildlife Coordination Act (16 U.S.C. §§ 661 et seq.), as amended;
- (xvii) The National Historic Preservation Act (16 U.S.C. §§ 470 et seq.), as amended;
- (xviii) The Coastal Zone Management Act (33 U.S.C. §§ 1451 et seq.), as amended;
- (xix) The Texas Health and Safety Code, including Chapter 382 (the Clean Air Act), Chapter 383 (the Clean Air Financing Act), Chapter 361 (the Texas Solid Waste Disposal Act), Chapter 362 (the Solid Waste Resource Recovery Financing Act), Chapter 363 (the Municipal Solid Waste Act), Chapter 364 (the County Solid Waste Control Act), Chapter 370 (the Texas Toxic Chemical Release Reporting Act), Chapter 371 (the Texas Used Oil Collection, Management, and Recycling Act), Chapter 401 (the Texas Radioactive Materials and Other Sources of Radiation Act), Chapter 402 (the Texas Low-Level Radioactive Waste Disposal Authority Act), Chapter 502 (the Texas Hazard Communication Act), Chapter 505 (the Texas Manufacturing Project Community Right-To-Know-Act), Chapter 506 (the Texas Public Employer Community Right-To-Know-Act), and Chapter 507 (the Texas Non-manufacturing Facilities Community Right-To-Know-Act);

- (xx) The Texas Natural Resources Code, including Chapter 40 (the Texas Oil Spill Prevention and Response Act of 1991);
- (xxi) The Texas Water Code;
- (xxii) The Texas Parks and Wildlife Code;
- (xxiii) The Texas Agriculture Code, including Chapter 76 (Pesticide and Herbicide Regulation) and Chapter 125 (the Agricultural Hazard Communication Act);
- (xxiv) The Texas Asbestos Health Protection Act (Chapter 1954, Texas Occupations Code); and
- (xxv) The Surface Coal Mining and Reclamation Act (Chapter 134, Texas Natural Resources Act).

Error – An error, omission, inconsistency, inaccuracy, deficiency, flaw or other defect.

Escrowed Proposal Documents or **EPDs** – Shall have the meaning set forth in Section 9.11.1 of the Special Provisions.

Event of Default - Shall have the meaning set forth in Section 8.7.1 of the Special Provisions.

Exchange Act – Shall mean 15 U.S.C. § 78a et seq., as amended.

Executive Director – The Executive Director of the Mobility Authority.

Final Payment - The last payment made under the Contract.

Force Majeure Event – Any of the events listed in clauses (a) through (f) below, subject to the exclusions listed in clauses (i) through (vi) below, which materially and adversely affects Contractor's obligations, provided such events are beyond the control of the Contractor and are not due to an act, omission, negligence, recklessness, willful misconduct, breach of Contract or Law of the Contractor, and further that such event (or the effects of such events) could not have been avoided by the exercise of caution, due diligence, or reasonable efforts by Contractor:

- a) Any earthquake, tornado, or hurricane;
- b) Any man-made disaster, such as fires and explosions;
- c) Any epidemic, blockade, rebellion, war, riot, act of sabotage or civil commotion, or any national strikes;
- d) Any Change in Law which (1) requires Contractor to obtain a new major State or federal environmental approval not previously required, or (2) results in an increase in Contractor's costs of more than \$500,000;
- e) Issuance of a temporary restraining order or other form of injunction by a court that prohibits prosecution of a material portion of the Maintenance Services, except if arising out of, related to or caused by, the delay, act, omission, negligence, willful misconduct, recklessness or breach of Contract or Law by the Contractor; or
- f) Total failure of a bridge such that it requires replacement, except to the extent arising out of, related to or caused by, the negligence, willful misconduct, recklessness or breach of Contract or Law by the Contractor.

The term **"Force Majeure Event"** shall be limited to the matters listed above and specifically excludes from its definition the following matters which might otherwise be considered a Force Majeure Event:

- (i) any fire or other physical destruction or damage, caused by action of the elements, including lightning, explosion, drought, rain, flood, snow, ice, or storm; other than destruction or damage directly caused by earthquake, tornado, or hurricane;
- (ii) except as provided in clause (c) above, any strike, labor dispute, work slowdown, work stoppage, secondary boycott, walkout or other similar occurrence;
- (iii) the suspension, termination, interruption, nonrenewal, denial, or failure to obtain any Governmental Approval, except for any such matter falling within the scope of clause (d) or clause (e) above;
- (iv) any delay or cost risk for which coverage is to be provided through insurance required under the Contract or by law;
- (v) physical destruction or damage caused by acts of vandalism; and
- (vi) any delay related to matters not caused directly and solely by the Mobility Authority or beyond the direct and sole control of the Mobility Authority and not listed in clauses (a) through (f) above.

Good Industry Practice – The exercise of the degree of skill, diligence, prudence, and foresight which would reasonably and ordinarily be expected from time to time from a skilled and experienced designer, engineer, constructor or Contractor seeking in good faith to comply with its contractual obligations, complying with all applicable Laws and engaged in the same type of undertaking under circumstances and conditions similar to those within the same geographic area as the Project.

Governmental Entity/Entities – Any federal, State or local government and any political subdivision or any governmental, quasi-governmental, judicial, public or statutory instrumentality, administrative agency, authority, body or entity other than the Mobility Authority, in each case having jurisdiction over the party, the Project or, the Maintenance Services.

Hazardous - Source of danger; involving or exposing one to risk; harmful to health/safety

Hazardous Materials – Any element, chemical, compound, material or substance, whether solid, liquid or gaseous, which at any time is defined, listed, classified or otherwise regulated in any way under any Environmental Laws, or any other such substances or conditions (including mold and other mycotoxins or fungi) which may create any unsafe or hazardous condition or pose any threat to human health and safety. The term "**Hazardous Materials**" includes the following:

- (a) Hazardous wastes, hazardous material, hazardous substances, hazardous constituents, and toxic substances or related materials, whether solid, liquid, or gas, including substances defined as or included in the definition of "hazardous substance", "hazardous waste", "hazardous material", "extremely hazardous waste", "acutely hazardous waste", "radioactive waste", "radioactive materials", "bio-hazardous waste", "infectious waste", "toxic pollutant", "contaminant", "restricted hazardous waste", "infectious waste", "toxic substance", "toxic waste", "toxic material", or any other term or expression intended to define, list or classify substances by reason of properties harmful to health, safety or the indoor or outdoor environment (including harmful properties such as ignitability, corrosivity, reactivity, carcinogenicity, toxicity, reproductive toxicity, "TCLP toxicity" or "EP toxicity" or words of similar import under any applicable Environmental Laws);
- (b) Any petroleum, including crude oil and any fraction thereof, and including any refined petroleum product or any additive thereto or fraction thereof or other

petroleum derived substance; and any waste oil or waste petroleum byproduct or fraction thereof or additive thereto;

- (c) Any drilling fluids, produced waters and other wastes associated with the exploration, development or production of crude oil, natural gas or geothermal resources;
- (d) Any flammable substances or explosives;
- (e) Any radioactive materials;
- (f) Any asbestos or asbestos-containing materials;
- (g) Any lead and lead-based paint;
- (h) Any radon or radon gas;
- (i) Any methane gas or similar gaseous materials;
- (j) Any urea formaldehyde foam insulation;
- (k) Electrical equipment which contains any oil or dielectric fluid containing regulated levels of polychlorinated biphenyls;
- (l) Pesticides;
- (m) Any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any Governmental Entity or which may or could pose a hazard to the health and safety of the owners, operators, users or any Persons in the vicinity of the Project or to the indoor or outdoor environment; and
- (n) Soil, or surface water or ground water, contaminated with Hazardous Materials as defined above.

Hazardous Materials Management Plan – The plan prepared by Contractor for Hazardous Materials Management both within and outside the ROW, as more particularly described in Section P.5.10 of Special Specification 7667.

Immediately – Less than 1 hour.

Incident – A localized disruption to the free flow of traffic on or safety of users of the Project.

Indemnified Party(ies) – The Mobility Authority, TxDOT, the State, the Texas Transportation Commission, FHWA, and their respective successors, assigns, officeholders, officers, directors, agents, representatives, consultants and employees.

Initial Notice to Proceed Commencement Date – Shall have the meaning set forth in General Notes Section N.1.3 Notice to Proceed.

Lane Closure – Full or partial closure of any traffic lane in any portion of the Project and for any duration, including main lanes, ramps, direct connectors, frontage roads and cross roads.

Law or Laws – (a) Any statute, law, code, regulation, ordinance, rule or common law, (b) any binding judgment (other than regarding a Claim or Dispute), (c) any binding judicial or administrative order or decree (other than regarding a Claim or Dispute), (d) any written directive, guideline, policy requirement or other governmental restriction (including those resulting from the initiative or referendum process, but excluding those by the Mobility Authority within the scope of its administration of the Contract Documents) or (e) any similar form of decision of or determination by, or any written interpretation or administration of any of the foregoing by, any Governmental Entity, in each case which is applicable to or has an impact on the Project or the Maintenance Services,

whether taking effect before or after the Proposal Due Date, including Environmental Laws. "Law" or "Laws," however, exclude Governmental Approvals.

Lien – Any pledge, lien, security interest, mortgage, deed of trust or other charge or encumbrance of any kind, or any other type of preferential arrangement (including any agreement to give any of the foregoing, any conditional sale or other title retention agreement, any lease in the nature of a security instrument and the filing of or agreement to file any financing statement or similar notification under the Uniform Commercial Code or similar Law of any jurisdiction).

Liquidated Damages – Any of (i) Liquidated Damages included in Exhibit 5, Liquidated Damages for Non-compliance (ii) Liquidated Damages assessed in accordance with SS7668 Snow and Ice.

Logo Signing - Commercial gas, food, and lodging service locator signs.

Losses – Any loss, damage, injury, liability, obligation, cost, response cost, expense (including attorneys', accountants' and expert witnesses' fees and expenses (including those incurred in connection with the enforcement of any indemnity or other provision of the Contract)), fee, charge, judgment, penalty, fine or Third Party Claims. Losses include injury to or death of persons, damage or loss of property, and harm or damage to natural resources.

Maintained Element(s) – An element set forth in Exhibits 2 and 3 Performance Measurement.

Maintenance Management Plan – The plan prepared by the Contractor and approved by the Mobility Authority as set forth in Section P.5.2 of SS7666.

Maintenance Manager – The Contractor's manager who is responsible for overseeing and performing the Maintenance Services.

Maintenance Payment Bond – The payment bond delivered by the Contractor in the form attached to the Contract as Section K of the Proposal Documents.

Maintenance Performance Bond – The performance bond delivered by the Contractor in the form attached to the Contract as Section J of the Proposal Documents.

Maintenance Record(s) – All data in connection with maintenance of the Project including (a) all inspection and inventory records, whether generated by the Contractor or a third party, (b) any communication to and/or from the Mobility Authority or other third party, and (c) any information system (as may be introduced or amended by the Mobility Authority from time to time) in connection with maintenance of the Project that the Mobility Authority requires the Contractor to use or operate.

Maintenance Services – All of the activities or services required, including but not limited to; all administrative, support services, utility work, procurement, manufacturing, supply, installation, construction, supervision, management, testing, verification, labor, materials, equipment, ordinary preventative, repair or replacement maintenance, documentation, and other duties and services to be furnished and provided by Contractor as required by the Contract, including all efforts necessary or appropriate to maintain, repair, preserve and protect the highway for its intended purposes in a safe and continually usable condition, except for those efforts which expressly specify will be performed by Persons other than the Contractor. This encompasses all functions shown in Code Chart 12.

Maintenance Term – The Initial Maintenance Term of 5-years, or the first or second 1-year renewal option, as appropriate.

Maintenance Transition – The terms, conditions, requirements and procedures governing the conditions in which the Contractor is to deliver the Project upon expiration or termination of the Contract, as set forth in Section P.5.2 of SS7666.

Major Damage – Damage that affects the safety of the traveling public; that could lead to further deterioration of the facility; or that reduces the comfort of the traveling public or is unsightly.

Major Subcontract – A Subcontract in excess of \$250,000.

Major Subcontractor – A Subcontractor whose contract with the Contractor is a Major Subcontract.

Minimal/Minor Damage – Damage that does not affect the safety of the traveling public; does not cause further deterioration of the facility; does not reduce the comfort of the traveling public; and is not unsightly.

Mobility Authority – The Central Texas Regional Mobility Authority.

Nonconforming Work – Maintenance Services that do not conform to the requirements of the Contract Documents, the Governmental Approvals or applicable Law.

Notice of Partial Termination for Convenience – Written notice issued by the Mobility Authority to Contractor terminating part of the Maintenance Services of Contractor for convenience under Section 8.13.1 of the Special Provisions.

Notice of Termination for Convenience – Written notice issued by the Mobility Authority to Contractor terminating the Maintenance Services of Contractor for convenience under Section 8.13.1 of the Special Provisions.

Off-Peak Periods – All times not defined as Peak Periods.

Party – Contractor or the Mobility Authority, as the context may require, and "**Parties**" shall mean Contractor and the Mobility Authority, collectively.

Performance Requirement(s) – For each Maintained Element in connection with the Maintenance Services, the requirements set forth in the Performance and Measurement Table in the column headed "Performance Requirement" in Exhibits 2 and 3 Performance Measurement.

Person(s) – Any individual, corporation, joint venture, limited liability company, company, voluntary association, partnership, trust, unincorporated organization or Governmental Entity.

Plan or Plans – Means (only where capitalized) contract drawings, working drawings, supplemental drawings, detail sheets or exact reproductions thereof, which show the location, character, dimensions and details of the Maintenance Services to be done.

Pop outs – A piece of pavement missing; forming a hole in the surface of the concrete pavement. Can be round or oblong in shape.

Price Proposal – As described in Section D.18 of the Proposal Documents.

Price Proposal Form – As described in Section F of the Proposal Documents.

Project – Shall have the meaning set forth in the Request for Proposals included in the Contract Documents.

Proposal – Contractor's response to the RFP.

Proposal Documents – All documents as shown in the Contract Document Index.

Proposal Due Date – Shall mean June 15, 2015, 4:00 PM, CST, the deadline for submission of the Proposal to the Mobility Authority.

Public Information Act – Shall mean Chapter 552 of the Texas Government Code.

Punch outs – Structural failure in which a small segment of pavement is loosened from the main body and displaced downward under traffic. The punch-out is usually bounded by two closely spaced

transverse cracks, a longitudinal crack, and the pavement edge and sometimes by the branches of a Ycrack and the pavement edge. Although usually rectangular in shape, some punch outs may appear in other shapes.

QC Manager – Means the Contractor's quality control manager who is responsible to independently oversee and perform quality control for the Maintenance Services in accordance with the Maintenance Services QCP, as described more fully in SS7667RMA.

Reference Information Documents – Shall mean those documents listed in the Authority's electronic document management system. Except as expressly provided in the Contract Documents, the Reference Information Documents are not considered Contract Documents and were provided to Contractor for informational purposes only and without representation or warranty by the Mobility Authority.

Registered Professional Engineer – A person who is duly licensed and registered by the Texas Board of Professional Engineers to engage in the practice of engineering in the State.

Release(s) of Hazardous Materials – Shall mean any spill, leak, emission, release, discharge, injection, escape, leaching, dumping or disposal of Hazardous Materials into the soil, air, water, groundwater or environment, including any exacerbation of an existing release or condition of Hazardous Materials contamination.

Request for Proposals (RFP) – Shall have the meaning set forth in Section B of the Proposal Documents.

Restrictions – Operations that impede the smooth flow of traffic at posted speeds.

Roadbed – The graded portion of a highway prepared as foundation for the pavement structure and shoulders. On divided highways the depressed median type and the raised median type highways are considered to have two roadbeds, if there are frontage roads then there will be four roadbeds. Highways with a flush median are considered to have one roadbed, if there are frontage roads then there will be three roadbeds.

Rules – Sections 27.1-27.9 of Title 43, Texas Administrative Code.

Safety and Health Plan – Shall have the meaning set forth in Section P.5.6 of the SS7666.

Site – Shall mean ROW and any temporary rights or interests that the Contractor may acquire at its own cost and expense in connection with the Project.

Specifications – As described in Section N.10 of the Specifications Documents.

Specifications Documents – Grouping of documents as shown in the Contract Document Index

Standards – As described in Section N.10 of the Specifications Documents.

State – The State of Texas.

Subcontract(s) – Any agreement by Contractor with any other Person, Subcontractor or Supplier to perform any part of the Maintenance Services or provide any materials, equipment or supplies for any part of the Maintenance Services, or any such agreement at a lower tier, between a Subcontractor and its lower tier Subcontractor or a Supplier and its lower tier Supplier, at all tiers.

Subcontractor(s) – Any Person with whom Contractor has entered into any Subcontract to perform any part of the Maintenance Services or provide any materials, equipment or supplies for the Project on behalf of Contractor (and any other Person with whom any Subcontractor has further subcontracted any part of the Maintenance Services), at all tiers. **Supplier** – Any Person not performing work at or on the ROW which supplies machinery, equipment, materials, hardware, software, systems or any other appurtenance to the Project to Contractor or to any Subcontractor in connection with the performance of the Maintenance Services. Persons who merely transport, pick up, deliver or carry materials, personnel, parts or equipment or any other items or persons to or from the ROW shall not be deemed to be performing Maintenance Services at the ROW.

Surety(ies) – Each properly licensed surety company, insurance company or other Person approved by the Mobility Authority, which has issued any Maintenance Payment Bond or Maintenance Performance Bond.

Tangible Net Worth – The difference between (the sum of paid-in capital stock plus preferred stock plus retained earnings) less (the sum of treasury stock plus minority interest plus intangible assets e.g., goodwill, patents, licenses), all determined in accordance with Generally Accepted Accounting Principles and as interpreted by the Securities and Exchange Commission in connection with financial statements filed pursuant to the Securities Exchange Act of 1934.

Termination for Convenience – A termination pursuant to Section 8.13 of the Special Provisions.

Third Party Claims – Any and all claims, disputes, disagreements, causes of action, demands, suits, actions, judgments, investigations or proceedings brought by a Person that is not a Party with respect to damages, injuries, liabilities, obligations, losses, costs, penalties, fines or expenses (including attorneys' fees and expenses) sustained or incurred by such Person.

Threatened or Endangered Species – Any species listed by the USFWS as threatened or endangered pursuant to the Endangered Species Act, as amended, 16 U.S.C. §§ 1531, *et seq.* or any species listed as threatened or endangered pursuant to the State endangered species act.

Time and Materials Change Order – A Change Order issued in accordance with TxDOT Standard Specifications Item 9.7.

Traffic Control Plan – The plan prepared by Contractor for the management and control of traffic as described in Section P.5.12 of SS7666.

Transition Plan – Shall have the meaning set forth in Section P.5.2 of SS7666.

Work – Defined as set forth in "Maintenance Services". User(s) – means the registered owner of a vehicle traveling on the Project or any portion thereof.

Utility(ies) – A public, private, cooperative, municipal and/or government line, facility or system used for the carriage, transmission and/or distribution of cable television, electric power, telephone, telegraph, water, gas, oil, petroleum products, steam, chemicals, hydrocarbons, telecommunications, sewage, storm water not connected with the drainage of the Project, and similar substances that directly or indirectly serve the public. The term "Utility" or "utility" specifically excludes: (a) storm water facilities providing drainage for the ROW, (b) street lights and traffic signals, and (c) ITS and IVHS facilities. The necessary appurtenances to each utility facility shall be considered part of such utility. Without limitation, any Service Line up to and including the meter, connecting directly to a utility shall be considered an appurtenance to that utility, regardless of the ownership of such Service Line.

Exhibit 2

Performance and Measurement Table

Roadway

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation		Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.7 PAVE	EMENT MAINTENANG	CE (TxDOT's Pavement Management Information System Rater's M	lanual will l	be utilized to	define and id	entify the deficiency. Unless otherwise stated, pavement p	erfo
P.5.7.1	Localized Rutting		4 hours	7 days	3 months	Physical measurement with 10-foot straightedge used to measure rut depth for localized areas. Depth of rut at any location greater than 0.5 inch shall be recorded.	Re inc Re rut
P.5.7.2	Localized Roughness	Flexible Pavement, Concrete Pavement and Approach Slab	4 hours	7 days	1 month	Physical measurement with 10-foot straightedge used to measure discontinuities for temporary repairs.	Re
P.5.7.3	Failures		4 hours	7 days	3 months	Instances of failures exceeding the failure criteria set forth in the TxDOT PMIS Rater's Manual, including potholes, base failures, punchouts and jointed concrete pavement failures.	Re
P.5.7.4	Edge drop-offs		48 hours	N/A	1 month	Physical measurement of edge drop-off level compared to adjacent surface.	Re
		Expansion joints (between approach slabs and concrete pavement)				Physical measurement of joint opening.	Re
P.5.7.5	5.7.5 Expansion Joints	are: 1) free of dirt debris and vegetation, and 2) bonded and in good condition.	4 hours	7 days	3 months	Visual inspection to ensure joint is free of debris, vegetation and is bonded in good condition.	Re joi
P.5.7.6	Cracks in asphalt	Longitudinal or transverse crack.	N/A	N/A	3 months	Physical measurement of crack width and level difference of two sides of crack.	Re
P.5.7.7	Curbs	Curbs are free of defects.	N/A	N/A	3 months	Visual inspection	Re
P.5.8 DRAI	NAGE		1	-			
		Each element of the drainage system is maintained in its proper function by cleaning, clearing and/or emptying as appropriate from the point at which water drains from the travel way to the outfall or drainage way.				Visual inspection supplemented by CCTV where required to inspect buried pipe work.	Re cha
P.5.8.1	Pipes and Channels	Keep all barrier inlet drains, slotted drains, grates, tops of inlets, and storm sewer pipe inlet connections intact, unbroken, and open.	24 hours	N/A	1 month		Re top int
	r	1) Remove debris that interferes with stream flow in channels after storm events unless otherwise directed by the Engineer.				Visual inspection	Re
		2) Remove vegetation, including trees and brush that interfere with stream flow, from channels.					Re
		3) Maintain channel in original condition.					Re an
P.5.8.2	Vegetative Filter Strips	Maintain so that the BMP functions properly.	24 hours	N/A	1 month	See Exhibit 6 for inspection forms for vegetative filter strips	5.
P.5.8.3	Swales	Maintain so that the BMP functions properly.	24 hours	N/A	1 month	See Exhibit 6 for inspection forms for swales.	

Measurement Record

rformance measurement records relate to 0.5-mile sections.)

Record the percentage of wheel path length with ruts greater than 1.0 inch in depth in each Auditable Section.

Record instances where more than 5% of the lane by length contains rutting.

Record individual discontinuities greater than 1/4 inch.

Record occurrence of any failure.

Record instances of edge drop-off greater than 2 inches.

Record instances of joints less than 1/2 inch in opening width.

Record instances of damaged joints or debris and vegetation within the joint.

Record crack width greater than 1/4 inch.

Record defective length of curb.

Record instances where more than 20% of cross section of pipes and channels is blocked.

Record each occurrence of barrier inlet drains, slotted drains, grates, tops of inlets, and storm sewer pipe inlet connections are either: not intact, broken or blocked.

Record instances of debris interfering with stream flow.

Record instances of vegetation growth interfering with stream flow.

Record length where channel is not maintained to the original grades and dimensions of the original condition.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.8.4	Detention Facilities	Maintain so that the BMP functions properly.				See Exhibit 6 inspection forms for detention facilities.	-
		1) Remove litter and undesirable vegetation from mitigation areas.	24 hours				Re
		2) Ponds, detention facilities and HMTs will be kept clean and operational by the following:		N/A	1 month		Re
		a) Remove litter and debris.b) Mow and remove undesirable vegetation.				Visual inspection	Re
P.5.8.5		c) Maintain vegetation height below 8 inches.					Re
	Traps (HMTs)	d) Repair erosion greater than 6 inches.					Re
		3) Maintain water quality pond and HMTs so that there is no standing water 48 hours after a rain event.					Re ho
		4) Drain stormwater from HMTs on the first working day after a significant rainfall event and ensure proper operation of valves.	N/A	N/A	24 hours	Visual Inspection	Re sto rai
P.5.8.6	Water Quality Ponds	Maintain so that the BMP functions properly.	24 hours	N/A	1 month	See Exhibit 6 inspection forms for water quality ponds.	
P.5.8.6.1	Logic Controller	Maintain so that the BMP functions properly.	24 hours	N/A	1 month	See Exhibit 6 inspection forms for logic controller.	
P.5.8.7	Underground Detention	Maintain so that the BMP functions properly.	24 hours	N/A	1 month	See Exhibit 6 inspection forms for underground detention. V buried pipe work.	/isu
P.5.8.8	Pump Stations	Perform hydraulic cleaning, vacuum removal and disposal of debris in drain inlets, pump station wells, basket and inlet pipes, downspouts, sumps, storm sewers, and slotted drains. Debris is defined as dirt and other material not part of the drainage system.	24 hours	N/A	1 month	Visual inspection supplemented by CCTV where required to inspect buried pipe work.	Re
P.5.8.9	Enclosure areas	Maintain access doors or gates.	24 hours	N/A	1 month	Visual inspection supplemented by CCTV where required to inspect buried pipe work.	Re ma
		The travel way is free from water to the extent that such water would represent a hazard by virtue of its position and depth.	11	N / A		Visual inspection of water on surface during weather	Re
P.5.8.10	Travel Way	1) Maintain traffic drainage slots clear, functioning and free of debris.	1 hour	N/A	7 days	conditions that could cause flooding.	Re fur
		2) Maintain pavement edges are free of buildup.	48 hours	N/A	1 month	Visual inspection	Re
P.5.8.11	Underdrains	Maintain pavement underdrains and related clean-outs in good operating conditions at all times.	24 hours	N/A	3 months	Visual inspection	Re
P.5.8.12	Erosion or Siltation	Address erosion or siltation greater than 12 inches deep along ditches, swales, ponds, and channels.	24 hours	1 month	3 months	Visual inspection	Re

Measurement Record

Record instances of undesirable vegetation.

Record as follows:

Record instances where litter and debris are present.

Record instances where vegetation height exceeds 8 inches.

Record instances where erosion is greater than 6 inches.

Record instances where standing water is present for more than 48 hours after a rain event.

Record instances where records or visual inspection do not reflect stormwater was not drained on the first working day after a significant rainfall event or valves are not operating properly.

isual inspection supplemented by CCTV where required to inspect

Record length with less than 80% of cross section clear.

Record instances where access doors or gates are in need of maintenance.

Record instances of hazardous water ponding.

Record instances of traffic drainage slots that are not clear and/or functioning.

Record instances of buildup.

Record length of non-functioning drains.

Record length as measured along drainage system.

			Re	sponse to De	fects			
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method		
P.5.9 STRU	JCTURES							
	Bridge and	Deterioration		1 month	3 months		R sı	
P.5.9.2	Undercrossing Maintenance -		24 hours	7 days	1 month		R m	
	Damage	Damage		1 month	2 months		R ca	
	Maintenance -	Remove undesirable vegetation, debris and bird droppings.					R	
P.5.9.3	Undercrossing	Repair damaged, faded, mildewed, fire damaged, or otherwise discolored concrete surfaces on bridges and rails.	24 hours	N/A	7 days		R of	
r.3.9.3	Maintenance - Cleaning	Maintain special finishes so they are clean and perform to the appropriate standards.		1 month	3 months	Inspection and assessment in accordance with the	R pe	
		Clean bearings and bearing shelves.				requirements of:	Re	
		Ensure drainage components free of all debris and operates as intended.		N/A	7 days	TxDOT's Maintenance Bridge Inspection Tracking System.	R	
		Repair defects in pedestrian protection measure.	-				Re	
		Repair scour damage.					Re	
	Bridge and	Prevent and repair corrosion of rebar.					Re	
P.5.9.4	Undercrossing Maintenance -	Maintain paint systems.					re	
	General	Repair surface defects such as spalls, punch-outs or asphalt failures.	24 hours	1 month	3 months		Re fa	
		Maintain sliding and roller surfaces so they are clean and greased to ensure satisfactory performance. Additional advice contained in bearing manufacturers' instructions in the Structure Maintenance Manual shall be followed.					Re gr	
		1) Bridge expansion joints are free of:					Re m	
		a) dirt debris and vegetation,]			Inspection and assessment in accordance with the	Re	
P.5.9.5	Bridge Expansion Joints	b) no width greater than 1/2 inch,	1 hour	7 days	2 months	requirements of: TxDOT's Maintenance Bridge Inspection Tracking	Re in	
		c) defects in drainage systems,				System.	Re	
		d) loose nuts and bolts, and						Re
		e) defects in gaskets and seals.					Re	

Measurement Record

Record occurrences of condition rating below six (6) for any deck, superstructure or substructure.

Record occurrences of Condition State of 2 (out of 4) or 3 (out of 5) or more, as required in the TxDOT Bridge Inspection Manual.

Record instances of damage from a collision, natural disaster or other cause.

Record instances of undesirable vegetation, debris or bird droppings.

Record instances of damaged, faded, mildewed, fire damaged, or otherwise discolored concrete surfaces on bridges and rails.

Record instances where special finishes are not clean and/or performing to the appropriate standards.

Record instances where bearings and bearing shelves are not clean.

Record instances of blocked drainage holes in structural components.

Record instances of defects in pedestrian protection measure.

Record instances of scour damage.

Record instances of corrosion of rebar.

record instances of paint system failures.

Record instances of surface defects such as spalls, punch-outs or asphalt failures.

Record instances where sliding and roller surfaces are not clean and/or greased to ensure satisfactory performance.

Record occurrences of Condition State of 2 (out of 4) or 3 (out of 5) or more, as required in the TxDOT Bridge Inspection Manual.

Record instances of dirt debris and vegetation.

Record instances where the bridge expansion joint is greater than 1/2 inch wide.

Record instances of defects in drainage systems.

Record instances of loose nuts and bolts.

Record instances of defects in gaskets.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
		Maintain the fire protection system and components in accordance with the operations and maintenance manual.	1 hour	N/A	1 month	Inspection and assessment in accordance with the requirements of the operations and maintenance manual.	Re no ma
		Ensure the fire suppression system responds to tests as specified and address issues discovered during test.	N/A	N/A	48 hours	Inspection of records and visual inspection.	Re ad
		Replace the air pre-filter and particulate and coalescing filter once per year or every 1000 hours, whichever comes first.	1 hour	N/A	1 month	Inspection of records and visual inspection.	Re on
		Maintain the components of the electrical distribution and tunnel lighting system so that it functions properly.	N/A	N/A	48 hours	Inspection of records and visual inspection.	Re are
P.5.9.6	Undercrossing Components	Ensure the support elements and anchorages do not show signs of distress, such as cracking and evidence of pull-out.	1 hour	N/A	1 month		Re dis
		Maintain such that there is no loose concrete, damaged, broken or deteriorated support fasteners for lighting fixtures or utilities over the roadway.	1 hour	N/A	1 month		Re de ov
		All concrete surfaces shall be free of delamination, spalling, cracks, efflorescence, corrosion, collision damage, bulged areas and active leakage.	1 hour	N/A	1 month	Visual inspection	Re cra lea
		Maintain structural elements such as tunnel liner, tunnel roof girders, concrete portals and concrete slab-on-grade ensuring they are free from damage or defects.	1 hour	N/A	1 month		Re roo da
		1) Sign signal gantries, high masts are structurally sound and free of:					Re or
	Gantries and high	a) loose nuts and bolts,	241				Re
P.5.9.7	masts	b) defects in surface protection systems, and	24 hours	1 month	3 months	Visual inspection	Re
		c) Foundations and anchor bolts are in good condition.					Re de
	Pole and	1) Poles and foundations are structurally sound and free of:					Re
	foundation supporting ITS	a) loose nuts and bolts,					Re
P.5.9.8	equipment (such as CCTV, RVSD and	b) mounting posts are vertical, structurally sound and rust free, and	24 hours	1 month	3 months	Visual inspection	Re
	DMS signs)	c) Clean and free from debris and have clear access provided.					Re
		1) Non-bridge-class culverts are free of:				Visual inspection of structures with an opening measured	
P.5.9.9	Non-bridge class	a) vegetation and debris and silt,	24 hours	1 month	2 months	along the center of the roadway of less than 20 feet	Re
r.3.9.9	culverts	b) defects in sealant to movement joints, and	24 hours	1 month	n 3 months	between abutments, extreme ends of openings or multiple	Re
		c) scour damage				boxes.	Re

Measurement Record

Record instances where the fire protection system and components are not maintained in accordance with the operations and maintenance manual.

Record instances where issues discovered during test were not addressed.

Record instances where records indicate the filters were not replaced once a year or every 10,000 hours, whichever comes first.

Record instances where the electrical distribution and lighting system are not functioning properly.

Record instances of support elements and anchorages showing signs of distress, such as cracking or evidence of pull-out.

Record instances where loose concrete, damaged, broken or deteriorated support fasteners for lighting fixtures or utilities occur over the roadway.

Record instances where concrete surfaces show delamination, spalling, cracks, efflorescence, corrosion, collision damage, bulged areas or active leakage.

Record instances where structural elements such as tunnel liner, tunnel roof girders, concrete portals and concrete slab-on-grade ensuring show damage or defects.

Record instances of visual structurally deficient high mast light towers or gantries.

Record instances of loose assemblies.

Record number with defects in surface protection.

Record instances of foundations and anchor bolts exhibiting

deficiencies.

Record number structurally deficient.

Record number with loose assemblies.

Record number leaning or rusty.

Record number with debris or obstructed.

Record number with vegetation, debris and silt.

Record number with defects in sealant and movement joints.

Record number with scour damage.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.10 PAV	EMENT MARKINGS,	OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS					
		1) For repair work: placement of pavement markings within 14 days of opening to traffic.				Visual inspection and audit of records.	Re of o
P.5.10.1	New Striping	 2) Pavement markings are: a) clean and visible during the day and at night, b) whole and complete and of the correct color, type, width and length, and c) placed to meet the TMUTCD and TxDOT's Pavement Marking Standard Sheets 	N/A	N/A	14 days	Review of retroreflectivity testing records performed by the Contractor.	Red mc Red mc
		3) Striped areas must be a minimum of 1,000 feet, with no less than 500 feet between striped areas.	N/A	N/A	1 month	Visual inspection	Reo are
		 Pavement markings are: a) clean and visible during the day and at night, b) whole and complete and of the correct color, type, width and 				Mobile retroreflectometer, which uses 30 m geometry meeting the requirements described in ASTM E 1710.	Ree mc Ree mc
P.5.10.2	Longitudinal Pavement Markings	length, and c) placed to meet the TMUTCD and TxDOT's Pavement Marking Standard Sheets.	24 hours	1 month	6 months	Visual inspection	Red Red Red wit
		2) Restriped areas must be a minimum of 1,000 feet, with no less than 500 feet between restriped areas.	N/A	N/A	1 month	Visual inspection	Re
P.5.10.3	Non-longitudinal Pavement Markings	 Pavement markings are: a) clean and visible during the day and at night, b) whole and complete and of the correct color, type, width and length, and 	24 hours	1 month	6 months	Mobile retroreflectometer, which uses 30 m geometry meeting the requirements described in ASTM E 1710.	Re mc Re mc
	indi hingo	c) placed to meet the TMUTCD and TxDOT's Pavement Marking Standard Sheets.				Visual inspections.	Reo poi
P.5.10.4	Prefabricated Pavement Markings	Performance requirements will be in accordance with applicable striping performance measures as described herein.	See applica	ble response	time, inspectio	on and measurement records.	
		1) Raised reflective pavement markers, object markers and delineators are:					Re ma
		a) clean and clearly visible,					cor
	Raised Reflective	b) of the correct color and type,					sur
P.5.10.6		c) reflective or retroreflective as TxDOT standard,	N/A	N/A	6 months	Visual inspection	Ree
		d) correctly located, aligned and at the correct level, and					80- for
		e) are firmly fixed.					Re ph

Measurement Record

Record instances where permanent striping is not placed within 14 days of opening to traffic.

Record length not meeting the minimum retroreflectivity 250 ncd/sqm/lx for white.

Record length not meeting the minimum retroreflectivity 175 ncd/sqm/lx for yellow.

Record instances where striped areas are not 1,000 feet in length or areas between striped areas are less than 500 feet in length.

Record length not meeting the minimum retroreflectivity 175 ncd/sqm/lx for white.

Record length not meeting the minimum retroreflectivity 125 ncd/sqm/lx for yellow.

Record length with more than 5% loss of area of material at any point.

Record length with spread more than 10% of specified dimensions.

Record length not performing its intended function or not compliant with relevant regulations.

Record instances where restriped areas are not 1,000 feet in length or areas between restriped areas are less than 500 feet in length.

Record length not meeting the minimum retroreflectivity 175 ncd/sqm/lx for white.

Record length not meeting the minimum retroreflectivity 125 ncd/sqm/lx for yellow.

Record instances with more than 25% loss of area of material at any point.

Record instances where two or more markers associated with road markings indicating a lane designation that are ineffective in any 10 consecutive markers. (Ineffective includes missing, damaged, settled or sunk.)

Record instances where a minimum of four markers are not visible at 80-foot spacing when viewed under low beam headlights as indicated for a single lane designation.

Record non-uniformity (replacement rpms not having equivalent obysical or performance characteristics to adjacent markers).

			Re	sponse to Def	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.10.7	Delineators & Object Markers	 Delineators and object markers are: a) clean and visible, b) of the correct color and type, c) legible and reflective, and d) straight and vertical. 	N/A	N/A	1 month		Re Re lo
P.5.10.8	Delineators & Markers (used for delineation of the express lane)	 1) Object, barrier and mailbox markers and delineators are: a) clean and visible, b) of the correct color and type, c) legible and reflective, and d) straight and vertical. 	7 days	N/A	N/A	Visual Inspection (no more than three consecutive express lane delineators defective or missing).	Re vis Re lov Re
P.5.11 GUA	RD FENCE, SAFETY	BARRIERS AND IMPACT ATTENUATORS		1			L
P.5.11.1	Guard Fence	All guard fence is appropriately placed and correctly installed at the correct height and distance from roadway or obstacles. Installation and repairs must be carried out in accordance with TxDOT Standards.	24 hours	N/A	7 days	Visual inspection	Re Re Re
P.5.11.2	Concrete Safety Barrier	Safety barriers are maintained free of defects, spalls, broken edges and debris and properly aligned.	24 hours	7 days	1 month	Visual inspection	Re Re alia Re
P.5.11.3	Cable Barrier Systems	Cable barrier is maintained free of debris, vegetation growth or other obstacles within area of impact recovery. Cable barrier is maintained at correct tension and anchors are properly maintained.	24 hours	N/A	7 days	Visual Inspection.	Re in a Re Re Re
P.5.11.4	Impact Attenuators	All impact attenuators are free of damage, appropriately placed and correctly installed.	24 hours	N/A	14 days	Visual inspection	Re ine

Measurement Record

Record number of delineators dirty, not visible or missing.

Record instances when delineator is not of the correct color or type.

Record instances when delineator is not reflective when viewed under low beam headlights.

Record instances when delineator is leaning.

Record instances of any three consecutive delineators that are dirty, not visible or missing.

Record instances when delineator is not of the correct color or type.

Record instances when delineator is not reflective when viewed under low beam headlights.

Record instances when delineator is leaning.

Record instances of guard fence systems not correctly installed.

Record instances of guard fence with defects or out of alignment.

Record instances of guard fence not at correct height.

Record instances of concrete safety barrier not correctly installed.

Record instances of concrete safety barrier with defects or out of alignment.

Record instances of concrete safety barrier not at correct height.

Record instances of cable barrier not correctly installed or maintained in accordance with Manufacturer's specifications.

Record instances of cable barrier with defects or out of alignment.

Record instances of cable barrier not at correct height.

Record instances where impact recovery zone is obstructed.

Record instances of attenuators damaged, incorrectly placed or incorrectly installed.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.12 TRA	AFFIC SIGNS						
		1) Signs are clean, correctly located, clearly visible, legible,				Retroreflectivity Coefficient of retroreflectivity	Reo bea
		reflective, at the correct height, vertical and visually acceptable, free from rust, electrical and other defects.				Visibility Visual Inspection	Re vis
						Face Damage Visual Inspection	Re exł
P.5.12.1	Signs, Supports and Assemblies -	2) Sign placement in accordance with TxDOT Sign Crew Field Book.	24 hours	14 days	1 month	Placement Visual Inspection	Ree Sig
	General	3) All break-away sign mounts are clear of silt or other debris that could impede break-away features and must have correct stub heights.				Sign foundations Visual inspection	Re
		4) Sign information is of the correct size, location, type and wording to meet its intended purpose and any statutory requirements.				Sign Information Visual Inspection	Re loc
	Ciana Cumporta and	1) Repair or remove small sign and supports.	2 hour	24 hours	14 days	Visual inspection	Re
P.5.12.2	Signs, Supports and Assemblies - Small	2) Remove downed small roadside signs from ROW.	48 hours	N/A	N/A	Visual inspection	Re rer
		1) Repair or remove large sign and supports.	2 hour	24 hours	2 months	Visual inspection	Re
	Signs, Supports and	2) Overhead sign supports are visually acceptable and free of loose nuts, bolts and defects in surface protection.	24 hours	1 month	6 months	Visual inspection	Reo loo
P.5.12.3	Assemblies - Large	3) Repair or remove overhead sign structures and signs that present a safety hazard.	2 hour	24 hours	2 months	Audit of records	Re ado
		4) Remove downed roadside signs from ROW and delineate remaining footings.	48 hours	N/A	N/A	Visual inspection	Re fro
P.5.12.4	Warning and Regulatory Signs	Replace or repair non-functioning, warning and regulatory signs. Install temporary signs immediately upon discovery or notification.	2 hour	N/A	7 days	Visual inspection	Re
P.5.12.5	Rate Change Signs	Install CTRMA provided rate change plaques/stickers/signs.	N/A	N/A	N/A	Begin no sooner than 72 hours before scheduled rate change or within the timeframe directed by CTRMA.	Re
P.5.13 SIG	NALS						
		1) Notify the Engineer of each trouble call.	1 hour	N/A	N/A	Inspection of records	Re cal
		2) Check cabinet filters at least once every 6 mo. and clean if necessary.	N/A	N/A	6-month cycle	Audit of records	Re rec
P.5.13.1	Signal Inspections	3) Replace cabinet filters every 2 years.	N/A	N/A	2-year cycle	Audit of records	Re rec
		4) Traffic Detection Device Inspection Perform maintenance, repairs or replacement of traffic detection devices every 6 months.	N/A	N/A	6-month cycle	Audit of records	Reo rec

Measurement Record

Record instances where signs are not reflective when viewed under low beam headlights.

Record instances where signs are not clean, correctly located, clearly *v*isible or legible, signs with face damage greater than 5% of area.

Record instances where signs are not at vertical, correct height or exhibit visual structural defects or rust.

Record instances where signs not placed in accordance with TxDOT's Sign Crew Field Book including those twisted or leaning.

Record instances where sign foundations are not in compliance.

Record instances where sign information is not of the correct size, ocation, type or wording to meet its intended purpose.

Record instances of damaged or missing small signs.

Record instances where downed small roadside signs have not been removed from the ROW.

Record instances of damaged or missing large signs.

Record instances of visual structurally deficient overhead sign supports, oose assemblies or defects in surface protection.

Record instances when signs presenting a safety hazard are not addressed within the required time frame.

Record instances where downed roadside signs have not been removed rom the ROW.

Record instances of missing, warning or regulatory signs.

Record instances when not responsive to notification by CTRMA.

Record instances where the Engineer did not receive notice of a trouble call.

Record instances where maintenance inspection and activities are not ecording in the logbook.

Record instances where maintenance inspection and activities are not ecording in the logbook.

Record instances where maintenance inspection and activities are not recording in the logbook.

			Re	sponse to De	fects								
Ref	Element	Performance Requirement	Cat 1: Mitigation		Cat 2: Permanent Repair	Inspection and Measurement Method							
		1) Signals and their associated equipment are clean and visible, correctly aligned and operational.					Re co						
		2) Signals and their associated equipment are free from damage caused by accident or vandalism.					Re						
		3) Signals are visually acceptable and free of loose nuts and bolts, keep signal poles and controller cabinets tight on their foundations or pedestals and defects in surface protection systems.	-	24 hours	3 months	Visual inspection	Re or						
P.5.13.2	Signal Maintenance	4) Signals are in proper alignment, cleaning, etc. for proper operation. Repair or replace back plates will be black aluminum.					Re						
P.5.15.2	- General	5) Signal timing and operation is correct.	2 hours	N/A	24 hours	Timed measurements	Re						
		6) Perform maintenance, repairs or replacement of traffic detection devices every 6 months.	N/A	N/A	6 months	Audit of records	Re rec						
		7) Keep interior of controller cabinets in a neat and clean condition at all times.	N/A	N/A	1 month	Visual inspection	Re ree						
		8) Identification Marking Signals have identification markers and the telephone number for reporting faults are correctly located, clearly visible, clean and legible.	N/A	N/A	1 month	Visual inspection	Re are						
	Signal Maintenance - Response	1) Contingency plans are in place to rectify Category 1 defects not immediately repairable to assure alternative traffic control is provided during a period of failure.	2 hours	N/A	N/A		Re						
P.5.13.3		2) IMSA Level 2 certified signal technician must be available to respond to Category 1 defects.		2 hours	2 hours	2 hours	24 hours	7 days	Audit of records	Re av			
		3) Response to Notices Respond to locations when notices are received of operational malfunctions and damage within 2 hours for Category 1 Defects.		N/A	N/A		Re						
P.5.13.4	Video Imaging Vehicle Detection System (VIVDS)	Replace damaged VIVDs and ensure functioning as designed.	1 hour	N/A	TBD by repair needs	Visual inspection and inspection of records.	Re for						
P.5.13.5	Broad Band for Traffic Signals	Replace damaged broad band and ensure functioning as designed.	1 hour	N/A	TBD by repair needs	Visual inspection and inspection of records.	Re for						
P.5.14 ILLU	JMINATION												
P.5.14.2	Illumination	 All lighting is free from defects and provides acceptable uniform lighting quality. Luminaires are clean and correctly positioned. Lighting quality from a sidental demonstration of the second se	24 hours	N/A	1 month	Visual Day/Night time inspection or automated logs.	Re fui fui						
	Maintenance	3) Lighting units are free from accidental damage or vandalism.4) Poles are upright, correctly installed and visually acceptable.5) Foundations and anchor bolts are in good condition.		N/A	N/A	3 N/A	N/A	N/A	rs N/A	3 N/A		Visual Day/Night time inspection or automated logs.	Re
P.5.14.3	Electrical Supply	Electricity supply, feeder pillars, cabinets, switches and fittings are electrically, mechanically and structurally sound and functioning.	24 hours	7 days	1 month	Inspection of testing records to meet NEC regulations, visual inspection.	Re ins						
P.5.14.4	Access Panels	All access panels in place at all times.	24 hours	7 days	1 month	Visual Inspection	Re						
P.5.14.5	High Mast Lighting	1) All high mast luminaires functioning on each pole.	24 hours	48 hours	1 month								

Measurement Record

Record instances where signals are not clean and visible or are not correctly aligned or not in operation.

Record instances where signals are damaged.

Record instances of structurally deficient signals with loose assemblies or defects in surface protection.

Record instances where repairs are not made correctly.

Record instances where installations do not have correct signal timings.

Record instances where replacement of cabinet components is not recorded in the signal maintenance log for a particular location.

Record instances where maintenance inspection and activities are not recording in the logbook or the cabinet condition is not acceptable.

Record instances where identification markers or other information and are not easily readable.

Record instances when full contingency plans are not in place.

Record instances where IMSA Level 2 certified signal technician is not available to respond to a Category 1 defect.

Record instances where response time is not met.

Record instances where Contractor did not respond to Customer Inquiry for VIVDS not functioning properly, within timeframe.

Record instances where Contractor did not respond to Customer Inquiry for broad band not functioning properly, within timeframe.

Record instances with more than 2 consecutive lights are not functioning for continuous lighting and more than 1 light not functioning for safety lighting

Record instances of more than two consecutive lights out of order.

Record instances where inspection records are not showing safe installation and maintenance of electrical components.

Record instances of missing access panels.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
		2) All obstruction lights are present and working (if required).					Red pol
		3) Hand hole cover is secure with all bolts in place.				Annual inspection and night time inspections or	Red
		4) All winch and safety equipment is correctly functioning and maintained without rusting or corrosion.	-			automated logs.	Reo bei
P.5.15 RET	AINING WALLS AND	O SOUND ABATEMENT					
		Integrity and structural condition of the fence is maintained so that:					
		1) Address retaining backfill loss due to surface erosion.					Ree
	Retaining Walls	2) Maintain drain holes, underdrain systems, cleanouts and weep holes.				Visual inspection	Re
P.5.15	and Sound	3) Remove weeds and/or vegetation.	24 hours	14 days	1 month	Structural assessment if visual inspection warrants.	Ree
	Abatement	4) Maintain areas, including areas within the delineated screen walls, under bridges free of debris, clothing, bedding and other personal belongings of individuals using any part of CTRMA or TxDOT ROW as a habitat or refuge.				Structural assessment il visual inspection warrants.	Red
		5) Maintain aesthetic features including coatings, paint and logos.					Ree
P.5.16 VEG	ETATION MANAGEN	MENT					
P.5.16.1	Vegetation Height	Vegetation is maintained so that: 1) Height of grass and weeds is kept within the limits between 5 and 18 inches. Mowing begins before vegetation reaches 18 inches.				Physical measurement of height of grass and weeds.	Reo gra
P.5.16.2	Noxious Weeds	 Control noxious weeds and trees before them reaching 18 in height. A herbicide program is undertaken for application of herbicide to control noxious weeds during the seasons with the materials and application rates in the latest version of TxDOT's Herbicide Operations Manual. 				Visual inspection Visual Inspection with audit of process.	Pre Pre her wit
P.5.16.3	Vegetation Encroachment	Grass, vegetation or turf clippings do not encroach into or on pavement edges, paved surface, mow strips, culverts, sidewalks, islands, riprap, traffic barrier or curbs.	N/A	N/A	1 month		Red ont bar
P.5.16.4	Vegetation Trimming	Grass and vegetation trimmed around all fixed objects such as signs, metal beam guard fences, retaining walls, sidewalks, drainage flumes, curbs, etc. Trimmed areas are to be of identical height as adjoining turf.				Visual inspection	Rec wit
P.5.16.5	Loss of Vegetation	Barren areas are re-seeded and/or erosion control measures are put in place.	•				Reo res
P.5.16.6	Sight Lines	Perform spot mowing at intersections, ramps or other areas as needed or as directed to maintain visibility of appurtenances, safety, and sight distance. Do not use equipment that damages the pavement or turf in any way.	N/A	N/A	24 hours		Ree
P.5.16.7	Wildflowers	Wildflowers are preserved utilizing the guidelines in the mowing specifications and TDOT Roadside Vegetation Manual.				Visual inspection with audit of process.	Ree

Measurement Record

Record instances of two or more luminaires not working per high mast pole.

Record instances of unsecure compartment doors.

Record instances of winch and safety equipment not functioning or being maintained without corrosion/rusting.

Record instances where backfill loss is observed.

Record instances where drainage is not functioning properly.

Record instances where weeds and vegetation are present.

Record instances where debris is present due to habitat or refuge.

Record instances where aesthetic features are defective.

Record individual measurement areas where less than 95% of height of grass and weeds are between 5 and 18 inches.

Presences of noxious weeds exceeding a height of 18 inches.

Presence of noxious weeds or failure to provide complete and accurate nerbicide application records and proofs of purchase to the Authority within 7 days after the herbicide is applied.

Record occurrences of vegetation or grass clippings encroaching into or onto pavement, mow strips, culverts, sidewalks, islands, riprap, traffic barrier or curbs.

Record occurrences of instances of grass and vegetation around objects vith differing height than adjoining turf.

Record occurrences of barren areas greater than 100 SF without eseeding or erosion control measures.

Record instances of impairment of sight lines or sight distance.

Record instances where adherence to guidelines in the mowing specifications and TXDOT Roadside Vegetation Manual is not followed.

			Response to Defects		fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.16.8	Landscaped Areas	1) All landscaped areas are maintained to their originally constructed condition and free of defects. Landscaped areas are as designated in the plans.					Re or
		2) Mowing, litter pickup, irrigation system maintenance and operation, plant maintenance, pruning, insect, disease and pest control, fertilization, mulching, bed maintenance, watering is undertaken as per the Vegetation Management Plan and Contract Documents.	24 hours	7 days	1 month	Visual inspection	Re m an nc Do
		3) Maintain all plant beds so that they are weed free at all times.					Re
		4) The height of grass and weeds is kept between 5 and 8 inches. Mowing begins before vegetation reaches 8 inches.				Physical measurement of vegetation height.	Re gr
		5) Damaged or dead vegetation is removed and replaced with identical species.				Visual inspection	Re re
	Irrigation	1) Immediately repair all irrigation systems that are malfunctioning.					Re
P.5.16.9		2) All irrigation backflow devices inspected and certified annually in accordance with local municipality and TCEQ requirements.	24 hours	7 days	1 month	Visual Inspection	Re ar re

Measurement Record

Record instances where landscape areas are not maintained to their originally constructed condition and free from defects.

Record instances where mowing, litter pickup, irrigation system maintenance and operation, plant maintenance, pruning, insect, disease and pest control, fertilization, mulching, bed maintenance, watering are not maintained per the Vegetation Management Plan and Contract Documents.

Record instances of weeds.

Record individual measurement areas where less than 95% of height of grass and weeds are between 5 and 8 inches.

Record instances where damaged or dead vegetation has not been replaced.

Record instances where irrigation systems are not functioning.

Record instances where irrigation backflow devices are not inspected and certified in accordance with local municipality and TCEQ requirements.

		Re	sponse to De	fects		
Element	Performance Requirement	Cat 1: Mitigation		Cat 2: Permanent Repair	Inspection and Measurement Method	
	1) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards.					Re ace
Trees, Brush and Ornamentals	2) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance or inhibit the visibility of signs. Perform trimming or removal if within 30 feet of edge of pavement. Vertical clearances over parking spaces are less than ten feet (< 10 feet). For shared use path and sidewalks, vertical clearances are less than eight feet (< 7 feet).	24 hours	N/A	1 month	Visual inspection	Re sig
	3) Dead trees, brush, ornamentals and branches are removed and replaced with same size and identical species. Potentially dangerous trees or limbs are removed.					Re are
	4) All undesirable trees and vegetation are removed. Diseased trees or limbs are treated or removed by licensed contractors.					Re rei
EWALKS, SHARED U	ISE PATHS (SUP) AND TRAILHEADS					
	Maintain at a standard to be free of defects as follows:					Re
	1) unsealed cracks or joints,				Visual inspection	AD
	2) broken sections,					
	3) vertical displacement or misalignment,	24 hours	N/A	1 month		
	4) Remove weeds, keep neatly edged and turf at a finished height of between 5 and 8 inches.				Physical measurement of vegetation height.	Re gra ve
	5) Remove turf clippings or weeds on SUP and trailheads.				Visual inspection	Re tha tra
	Trees, Brush and Ornamentals	1) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards. 2) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance or inhibit the visibility of signs. Perform trimming or removal if within 30 feet of edge of pavement. Vertical clearances over parking spaces are less than ten feet (< 10 feet). For shared use path and sidewalks, vertical clearances are less than eight feet (< 7 feet).	Element Performance Requirement Cat 1: Mitigation 1) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards. 1) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance or inhibit the visibility of signs. Perform trimming or removal if within 30 feet of edge of pavement. Vertical clearances over parking spaces are less than ten feet (< 10 feet). For shared use path and sidewalks, vertical clearances are less than eight feet (< 7 feet).	Element Performance Requirement Cat 1: Mitigation 1) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards. 1) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance or inhibit the visibility of signs. Perform trimming or removal if within 30 feet of edge of pavement. Vertical clearances over parking spaces are less than en- feet (< 10 feet). For shared use path and sidewalks, vertical clearances are less than eight feet (< 7 feet).	ElementCat 1: MitigationTemporary RepairPermanent Repair1) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards.1) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards.1) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance or inhibit the visibility of signs. Perform trimming or removal if within 30 feet of edge of pavement. Vertical clearances over parking spaces are less than ten feet (< 10 feet). For shared use path and sidewalks, vertical clearances are less than eight feet (< 7 feet).	Element Performance Requirement Cat 1: Temporary Bitigation Cat 2: Temporary Repair Cat 2: Temporary Repair Cat 2: Temporary Repair Cat 2: Temporary Repair Cat 2: Temporary Repair Cat 2: Temporary Repair Cat 2:

Measurement Record

Record instances where trees, brush and ornamentals are trimmed in accordance with TxDOT standards.

Record instances where trees, brush and ornamentals are obstructing sight distance or inhibit the visibility of signs.

Record instances where dead trees, brush, ornamentals and branches are not removed and replaced.

Record instances where undesirable trees and vegetation are not removed.

Record instances where sidewalks and SUPs are not compliance with ADA requirements.

Record individual measurement areas where less than 95% of height of grass and weeds are between 5 and 8 inches. Mowing shall begin before vegetation reaches 8 inches.

Record occurrences of encroachment of vegetation or debris for more than 2 inches onto any curb or sidewalk located throughout each trailhead.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
		1) General - Trailhead areas are clean and neat in appearance.				-	Г
		Any other feature that may be present at trailheads that is not listed here shall default back to the corresponding criteria listed in elsewhere in this table.	24 hours	N/A	1 month	N/A	Re
		2) Site free of any visible litter, all litter properly disposed. Litter removed from the trailhead area and barrels before being allowed to accumulate outside of the barrels.		N/A			Ree ma
P.5.17.2	Trailheads	3) Trash barrels are painted and attached to their supports to prevent stealing.	N/A		24 hours	Viewel in our estion	Re pro
		4) Dog waste stations are clean and emptied to prevent foul smell or over filling. Replenish supply of new dog waste bags for use before empty.				Visual inspection	Reo em
		5) All curbs and pavement are edged, free from cracks, misalignments or broken edges.	24 hours				Red
		6) Benches, recreational equipment, signs, striping, illumination and all other amenities shall be maintained, cleaned and in proper working order.		N/A	1 month	Visual inspection	Red
		7) Lighting				Night time inspection	Re
P.5.18 EME	BANKMENT AND SLO	DPE MAINTENANCE					
		1) General: Slopes are maintained in general conformance to the original graded cross-sections, the replacement of landscaping materials, reseeding and re-vegetation for erosion control purposes and removal and disposal of all eroded materials from the roadway and shoulders.	24 hours	1 month	3 months		Rec orig Rec Rec ero
P.5.18	Embankment and					Visual inspection	Ree
	Slope Maintenance	2) Slope Failure: All structural or natural failures of the embankment and cut slopes of the Facility are repaired.	4 hours	14 days	3 months		Red
		3) Erosion: Slopes are maintained to prevent erosion leading to further deterioration.	24 hours	7 days	3 months		Red
		4) Permanent Erosion Control: Where permanent erosion control measures such as rock or concrete riprap are utilized: repair undermined or damaged erosion control measures.	24 hours	1 month	3 months		Reo rep
P.5.19 SWE	EEPING, LITTER AND) DEBRIS					
		Keep all surface and appurtenances (concrete riprap, mowstrips, in and around guardrail, all lane types to include shoulders, hardscapes, stamped concrete, gore areas, etc.) swept and clean.	24 hours	N/A	1 month	Visual inspection of buildup of dirt, ice rock, debris, etc. to accumulate greater than 18 inches wide or any areas where edgeline is not visible.	Red edg
P.5.19.1	Sweeping	Perform sweeping, vacuuming, and removal of deicing chemicals, rock, debris, etc. from bridge deck, parapets, railing, joints, backwalls, caps, joints, and bearings.	N/A	N/A	1 month*	Visual inspection *Note: Remove within 1 month unless another ice event is predicted within 2 weeks of the 1 month deadline.	Rec har wa

Measurement Record

Refer to criteria listed in other sections of this table.

Record instances where trailhead area and paved surfaces are not naintained clean and safe, with minimal obstruction.

Record occurrences where trash barrels are not painted and affixed properly.

Record occurrences where dog waste stations are not cleaned and emptied properly or waste bags are not replenished.

Record number of unsealed cracks > 1/2 inch.

Record occurrences of defects.

Record instances of trailhead lighting not functioning correctly.

Record instances where slopes are not maintained in conformance with original cross-section.

Record instances where landscape materials are not replaced.

Record instances where slopes are not reseeded and re-vegetated for erosion control.

Record instances where eroded material is not disposed of.

Record instances of slope failure.

Record length of erosion greater than 6 inches deep.

Record instances where inspection records show noncompliance for epair of undermined or damaged erosion control measures.

Record instances where accumulation is greater than 18 inches wide or dgeline is not visible.

Record instances where debris has not been cleared from traffic lanes, hard shoulders, verges and central reservations. footways and cycle ways.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.19.2	Litter	 Keep the right of way in a neat condition, remove litter regularly. Pick up large litter items before mowing operations. Dispose of all litter and debris collected at an approved solid waste site. 	24 hours	7 days	1 month	Visual inspection to confirm no more than 20 pieces of litter per roadside mile shall be visible when traveling at highway speed.	Re an tra
P.5.19.3	Obstructions in Express Lanes	Roadway and clear zone free from obstructions.	30 minutes	N/A	24 hours	Visual Inspection	Re
		1) Clear and remove obstructions from traffic lanes and clear zones, hard shoulders, mow strips, sidewalks, pedestrian paths and cycle ways.	1 hour	N/A			Re lan
P.5.19.4	Obstructions and Debris	2) Remove debris from traffic lanes and clear zones, hard shoulders, mow strips, sidewalks, pedestrian paths and cycle ways and clean drain openings in concrete traffic barrier and inlet openings.		N/A	24 hours	Visual Inspection	Re zoi cyc op
		3) Dispose of large animals at an approved site within 24 hours.					Re ac
P.5.20 MIS	CELLANEOUS					·	
		All fences are free of defects:	-				Re
P.5.20.1	Chain Link Fence	1) All posts are intact, erect and plumb.	24 hours	N/A	1 month	Visual inspection	
		2) Steel wire fabric is intact and fastened.3) Gates are intact and operational.					Re
		Remove encroachments from the ROW:					+
P.5.20.2	Encroachments	1) Non-standard mailboxes.	N/A	N/A	1 month	Visual inspection	Re
1 1012 012		2) Unauthorized signs.	N/A	N/A	24 hours		
P.5.20.3	Mailboxes	Install mailboxes as approved.	N/A	N/A	7 days	Visual inspection	Re
P.5.20.4	Graffiti	Graffiti is removed in a manner and using materials that restore the surface to a like appearance similar to adjoining surfaces.	N/A	N/A	72 hours	Visual inspection	Re ad
		Offensive graffiti removed immediately	1 hour	N/A	72 hrs		Re
P.5.20.5	Aesthetic Features	Repair damaged monuments, logos and aesthetics features.	24 hours	7 days	1 month	Visual inspection	Re

Measurement Record

Record instances where right of way does not appear in neat condition and more than 20 pieces of litter per roadside mile are visible when traveling at highway speed.

Record number of obstructions occurring in the express lane clear zone.

Record instances where obstructions has not been cleared from traffic lanes, hard shoulders, mow strips, sidewalks or cycle ways.

Record instances where debris was observed in traffic lanes and clear zones, hard shoulders, mow strips, sidewalks, pedestrian paths and cycle ways and clean drain openings in concrete traffic barrier and inlet openings.

Record instances of large animals not disposed of properly, in accordance with TxDOT Standard Operating Procedure No. 001-18.

Record instances where posts are missing, damaged, leaning.

Record instances where steel wire fabric is not intact or is not fastened.

Record instances where illegal signs or encroachments are present.

Record instances where mailbox is missing from post or non-standard.

Record instances where graffiti is not removed or paint does not match adjoining surfaces.

Record instances where offensive graffiti is present.

Record instances where aesthetics features are damaged or missing.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.21 INC	IDENT MANAGEME	NT					
		1) General: Respond to Incidents in accordance with the Emergency Management Plan.	1 hour	N/A	N/A		Re thi
		2) Communication and Reporting: Provide communication, coordination and reporting as described in the Contract Documents.	2 hours	N/A	N/A		Re
		3) Structure Assessment: Evaluate structural damage to structures and liaise with emergency services to ensure safe working in clearing the incident in accordance with the Emergency Management Plan.	1 hour	N/A	N/A		Reo pla
P.5.21	Incident Management	4) Temporary and Permanent Repair: Propose and implement temporary measures or permanent repairs to Defects arising from the Incident. Ensure the structural safety of any structures affected by the incident.	24 hours	N/A	1 month	Inspections and surveys as required by incident.	Red
		5) Management of Catastrophic Events:a) Initiate action upon notification of the incident.	15 minutes	N/A	N/A		Re
		b) Implement response measures on site upon notification of the incident.	45 minutes	N/A	N/A		Ree
		c) Restore mobility upon notification of the incident.	90 minutes	N/A	N/A		Reo noi
		d) Properly dispose of debris off of the ROW once cleanup efforts have been completed.	48 hours	N/A	N/A		Ree
P.5.22 HAZ	ARDOUS MATERIA	LS					
		For any hazardous materials spills, comply with the requirements of the Hazardous Materials Management Plan.	1 hour	Daily Reporting	Daily Reporting	Review and inspection of records	Re the
P.5.22	Hazardous Materials	Discovery of hazardous materials shall be reported in the					Re rec
		Authority's CMMS within 2 hours of notification and completion of Work.	2 hours	N/A	N/A	Review of records	Reo haz

Measurement Record

Record instances where inspection records show noncompliance with his plan.

Record instances where incident records in CTRMA's CMMS show noncompliance.

Record instances where incident records show noncompliance with this plan.

Record instances of noncompliance.

Record instances where records show noncompliance.

Record instances where inspection records show noncompliance.

Record instances where records in CTRMA's CMMS show noncompliance.

Record instances where inspection records show noncompliance.

Record instances where inspection records show noncompliance with he plan.

Record instances where discovery of hazardous materials is not recorded in the Authority's CMMS within 2 hours.

Record instances where completion of work to address discovery of hazardous materials is not recorded in the Authority's CMMS within 2 hours.

			Re	sponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation		Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.23 CUS	TOMER RESPONSE						
		Timely and effective response to customer inquiries and complaints in accordance with the Communications Plan:	N/A	N/A	48 hours		Re
		1) Contact the customer within 48 hours following initial customer inquiry.	N/A	N/A	40 11001 5		ini
		2) All work resulting from customer requests is scheduled within48 hours of customer contact.	N/A	N/A	48 hours		Re cu
P.5.23	Customer Response	3) Follow-up contact with the customer within 72 hours of initial inquiry.	N/A	N/A	72 hours	Inspection of records in accordance with the Communications Plan.	Re 72
		4) All customer concerns/requests are resolved to the Authority's satisfaction within 2 weeks of the initial inquiry.	N/A	N/A	2 weeks		Re Mo
		5) Response to unexpected requests for information, communicate changes or revisions to necessary Contractor personnel, notifying the Mobility Authority before and after changes are made to the Contract Documents.	24 hours	2 days	1 week		Re inf
P.5.24 ENV	VIRONMENTALLY SE	NSITIVE AREAS					
P.5.24.1	Karst Preserve Areas	Take particular care to avoid disturbance of the ROW in these areas, as identified in the plans.	N/A	N/A	1 month	Visual inspection of ROW and records.	Re dis
P.5.24.2	Wetland Mitigation Areas and Waters of the U.S.	For wetland mitigation areas shown in the plans, all required maintenance must be performed so that the native characteristics of the vegetative community are retained.	N/A	N/A	1 month	Visual inspection of ROW and records.	Re an are Re to Re
P.5.24.3	Migratory Bird Treaty and Endangered Species Act	Mitigation of Migratory Bird Treaty Act in accordance with this section and as shown in plans.	N/A	N/A	1 month	Visual inspection of ROW and records.	Re thu Fe Re voc cle Re ren Re occ or
P.5.24.4	Edwards Aquifer Recharge and Contributing Zones	Mitigation of Recharge and Contributing Zones in accordance with this section and as shown in plans.	N/A	N/A	1 month	Visual inspection of ROW and records.	Re co
P.5.24.5	Cultural Resources	Avoid impacts to cultural resources that have been identified in NEPA documents.	N/A	N/A	1 month	Visual inspection of ROW.	Re

Measurement Record

Record instances where customer is not contacted within 48 hours of initial inquiry.

Record instances where work is not scheduled within 48 hours of customer contact.

Record instances where follow-up with customer does not occur within 72 hours of initial inquiry.

Record instances where concerns/requests are not resolved to the Mobility Authority's satisfaction within 2 weeks of initial inquiry.

Record instances where response to unexpected requests for information at not met.

Record instances where karst areas, identified in plans, have been disturbed.

Record instances where active maintenance practices such as herbicides and pesticide application are not limited within 500 ft. of the mitigation areas.

Record instances where "No Mow" signs at the edge of the wetland areas to prohibit mowing in the wetland areas are not in place.

Record instances where non-native seeding or sodding is used.

Record instances where woody vegetation clearing and tree trimming throughout the designated areas is not limited to September 16 and February 28.

Record instances where a plan is not submitted (including description of work, proposed dates, and location) 2 weeks before the trimming or clearing date.

Record instances where approval is not obtained for woody vegetation removal from March 1 to September 15.

Record instances where there is failure to notify the Engineer, if any occupied bird nests are identified in the path of any vegetation removal or trimming.

Record instances of failure to implement water quality protections and coordinate with the TCEQ, as required by law.

Record instances where cultural resources have been impacted.

			Response to Defects		fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation		Cat 2: Permanent Repair	Inspection and Measurement Method	
P.5.24.6	Other Environmental Restrictions	Adherence with the environmental restrictions described in this section.	N/A	N/A	1 month	Visual inspection of ROW and records.	Ree

Measurement Record

Record instances of failure to implement water quality protections as required by this section.

Exhibit 3 Performance and Measurement Table **Building and Facility Maintenance**

			R	esponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	Measurement Record
P.5.25.A Toll	ing Facilities and	Buildings – GENERAL					
P.5.25.A.1	Water Leaks Safety Hazard	Any deficiency that presents a safety hazard.	24 hours	7 days	1 month	Visual Inspection	Record deficiency that presents a safety hazard.
P.5.25.A.2	Permits/Fees	Submission within 7 days or receipt, payment and compliance with fire, elevator, wells, above or below ground fuel storage inspections, regulatory fees and/or permits.	7 days	14 days	1 month	Visual Inspection	Record permits and fees in noncompliance.
P.5.25.A.3	Paint	Interior and exterior walls shall be painted as directed by the Engineer.	N/A	1 month	N/A	Visual Inspection	Record instances where painting is not carried out as directed by the Engineer.
P.5.25.A.4	Pest Control	Control of pests through scheduled treatment or as directed by the Engineer.	24 hours	48 hours	14 days	Visual Inspection	Record instances where pests or indication of pests are present.
P.5.25.B Toll	ing Facilities and	Buildings – RESTROOMS, BREAKROOMS, COUNTER TOPS, MOLDING, DRINKING FOU	NTAINS			- -	
P.5.25.B.1	Fixtures	 Ensure toilets, urinals, partitions, fixtures, faucets, drains, flush valves, sinks, countertops, cabinets, grab bars, water lines, valves, drinking fountains, water heater, dispensers, mirrors, vent or exhaust fans are damaged, function properly, clean and free of stains. 1) Free of leaks 2) Ensure fixture is properly secured 3) Ensure proper working order 	24 hours	3 days	14 days	Visual Inspection	Record instances where fixtures are exhibiting leaks, improperly secured and/or not in proper working order.
		No greater than ten percent (>10%) of each fixture dirty or stained					Record instances of fixture surfaces with defects >10%.
		Towel and paper dispensers filled					Record number of empty towel and paper dispensers.
P.5.25.C Toll	ing Facilities and I	Buildings – BUILDING INTERIOR					
		No significant damage to door, lock and/or door frame; Door shall be functional.	2 hours	2 days	N/A		Record instances of door not functioning properly.
P.5.25.C.1	Doors	Repair damage preventing door from being locked and securing the area. Security or guard service shall be obtained.	2 hours	24 hours	N/A	Visual Inspection	Record instances of damage preventing door from being locked or area not being secured.
		1) Free of cracks, dents, gouges, stains and no peeling paint affecting over five percent (>5%) of the surface.				Viewellungerstien	Record instances of surface with defects >5%.
	147 11	2) No greater than 5 feet of loose, missing, or damaged baseboards.	1	14.1	1 1	Visual Inspection	Record defective baseboard greater than 5 feet, measured by 1-foot length increments.
P.5.25.C.2	Walls	3) No more than five locations or 1 square foot of soil visible from 10 feet.	- 7 days	14 days	1 month	Visual Inspection from ten feet	Record instances with more than five locations with soil visible or any one location measuring 1 square foot or larger.
		4) No visible water damage, mold, or algae growth.	1			Visual Inspection	Record visible water damage, mold or algae growth.

Measurement Record
Record deficiency that presents a safety hazard.
Record permits and fees in noncompliance.
Record instances where painting is not carried out as directed by the Engineer.
 Record instances where pests or indication of pests are present.

			R	esponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	Measurement Record
		No more than five damaged and/or stained ceiling panels per facility.					Record instances of more than five deficient ceiling panels.
P.5.25.C.3	Ceilings	Replace or repair missing panels or damaged and/or missing support strips or other components.	7 days	14 days	1 month	Visual Inspection	Record number of missing or damaged panels or support strips.
		1) Clean and repair dirty, scratched, broken or cracked window.					Record window damage.
P.5.25.C.4	Windows	2) No greater than five percent (>5%) of surface area scratched or with heavy dirt build-up.	2 hours	1 day	2 day	Visual Inspection	Record instances of surface with defects >5%.
		1) No cracks greater than one-sixteenth of an inch (>1/16 inch) wide shall be sealed.				Measurement of crack width and level difference of two sides of crack	Record crack width greater than 1/16 inch.
P.5.25.C.5	Floors (Non- Carpeted)	2) No missing or damaged tiles, more than five per facility, should be replaced.	24 hours	7 days	1 month	Visual Inspection	Record instances of more than five missing tiles.
	Surpeteuj	3) No more than one square foot (>1 square foot) of soil or damage visible from ten feet (10').				Visual Inspection from ten feet	Record instances of >1 square foot of soil or damage.
P.5.25.C.6	Floors (Carpeted)	Carpet shall be maintained properly to provide safe walking conditions, and clear of all debris/stains.	3 days	7 days	14 days	Visual Inspection	Record number of occurrences of defects, debris or stains.
	Cabinata	1) No doors or hardware missing or non-functional.	7 days	14 days	1 month	Vieual Ingraction	Record number missing or non-functional.
P.5.25.C.7	25.C.7 Cabinets	2) No greater than five percent (>5%) of area with scratches or gouges.			1 month	Visual Inspection	Record instances of area with >5% defective.
	Euroituro	1) All units clean with no visible dirt and dust.	24 hours	2 days	7 dava	Visual Inspection	Record number of units with visible dirt and dust.
P.5.25.C.8	Furniture	2) Modular furniture, tables, chairs are securely fastened.		3 days	7 days	Manual Inspection	Record number not securely fastened.
P.5.25.D Toll	ing Facilities and B	uildings – STAIRWELL					
		1) Repair loose treads or rails.	24 hours	7 days	14 days	Visual Inspection	Record number of loose treads or rails.
		2) Remove debris on treads or landings that affects travel.					Record locations where debris affects travel.
P.5.25.D.1	Stairway	3) Repair damaged traction strips.					Record number of damaged traction strips.
		4) Repair broom finish on concrete stairs where traction is reduced.					Record areas where traction is reduced.
		5) Maintain stairway surfaces clean and free of soil buildup so that there is no soil build-up on greater than five percent (5%) of the stairway surfaces.					Record instances where >5% of stairway surfaces have soil build up.
P.5.25.E Tolli	ing Facilities and B	uildings – BUILDING EXTERIOR					
		Remove graffiti.				Visual Inspection	Record occurrences of graffiti.
P.5.25.E.1	Exterior Walls	No cracks greater than one-quarter inch (>1/16 inch) wide and more than one foot (>1') long.				Measurement of crack width and level difference of two sides of crack, length measured by the linear foot	Record number of cracks >1/16 inch wide and >1 foot long.
		Remove accumulation of dirt, mold, and/or mildew.	24 hours	3 days	7 days		Record areas with dirt, mold and or/mildew.
		Repair loose or missing trim.		c uujo	, uujo	Visual Inspection	Record number of loose or missing trim.
P.5.25.E.2	Exterior Doors	Repair or replace damaged or missing weather stripping, seals, or thresholds.	or thresholds.			Visual Inspection	Record occurrences of damaged or missing weather stripping, seals, or thresholds.
		Repair significant damage to door, lock and/or door frame; Door shall be functional.					Record instances of door not functioning properly.
	Patanian	Clean and repair dirty, scratched, broken or cracked window.					Record window damage.
P.5.25.E.3	Exterior Windows	No greater than five percent (>5%) of surface area scratched or with heavy dirt build-up.	2 hours	1 day	2 day	Visual Inspection	Record instances where >5% of surface area has heavy dirt build up.

			R	esponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	Measurement Record
		Repair cracks, openings, and separations.	24 hours	7 days	14 days		Record racks, openings and separations.
P.5.25.E.4	Roof	 Remove debris accumulations sufficient to obstruct drainage. Repair or replace loose or missing drain covers. Remove any debris, buckets or non-essential materials present on the roof. Repair loose or damaged flashing or coping. 	24 hours	3 days	N/A	Visual Inspection	Record number of deficiencies.
P.5.25.F Tolli	ing Facilities and Bu	uildings – HVAC SYSTEMS					
P.5.25.F.1	Air Conditioning	Repair any unit not providing adequate cooling and/or performs with excessive noise or vibration.	1 hour	4 hour	24 hours	Detection of sound or vibration from equipment	Record occurrence of AC Units not providing adequate cooling and/or performs with excessive noise or vibration.
F.3.23.F.1	Units	Room temperature in tolls equipment room is maintained at 70 degrees or less.	Thou	4 hour	24 hours	Measurement of room temperature above 70 degrees, as observed on thermostat	Record instances where the thermostat reads above 70 degrees Fahrenheit in toll equipment rooms.
P.5.25.F.2	Boilers	Boilers functioning as intended and/or is leaking.	24 hours	NI / A	7 dava	Defect measurement dependent on equipment	Record number of malfunctioning or leaking boilers.
P.5.25.F.3	Heating Units	Ensure units and/or component provide adequate heat.	24 hours	N/A	7 days	Defect measurement dependent on equipment	Record number of units and/or components not providing adequate heat.
P.5.25.G Toll	ing Facilities and Bu	uildings – ELECTRICAL SYSTEMS					
P.5.25.G.1	Panels and Breaker Boxes	No visible evidence of function failure; Doors are functional and/or secure. Breakers or blank panels are in place.				Visual Inspection	Record any evidence of function failure.
P.5.25.G.2	Outlet and Switches	Ensure outlets and/or switched function as intended; Ensure plates and/or covers are in place and/or secure.	24 hours	N/A	N/A	Defect measurement dependent on equipment	Record number of malfunctioning outlets or switches, misplaced or insecure plates and/or covers.
	Interior /	Exit, emergency, and/or stairway light in working order.					Record number of lights not working.
P.5.25.G.3	Exterior Lights	No greater than ten percent (>10%) of other lights not working.	3 days	N/A	N/A	Visual Inspection	Record instances where >10% of lights are not working.
P.5.25.G.4	Miscellaneous	Address issues identified with annual thermographic scan on panels and switchboards.	24 hours	3 days	7 days	Defect measurement dependent on equipment	Record defect identified with annual thermographic scan.
P.5.25.H Toll	ing Facilities and B	uildings – LIGHTNING PROTECTION					
P.5.25.H.1	Miscellaneous	No visible breaks in system.	3 days	N/A	N/A	Defect measurement dependent on equipment	Record occurrence of visible breaks in the system.
P.5.25.H.2	Lightning Protection System	Perform required inspections of lightning protection system.	N/A	N/A	7 days	Required Inspection	Record instances where inspection records indicate noncompliance.
P.5.25.I Tolli	ng Facilities and Bu	ildings – FIRE PROTECTION SYSTEMS					
P.5.25.I.1	Fire Alarm / Fire Suppression Systems	Ensure system responding to tests as specified; address issues discovered during semiannual and annual fire protection system tests (alarms, tamper switches, fire pumps, water motor alarm, flow tests); ensure indicator lights function properly.	24 hours	N/A	N/A	Defect measurement dependent on equipment	Record deficiency identified during annual fire protection testing.
P.5.25.I.2	Miscellaneous	No visible functional damage.	24 hours	N/A	N/A	Visual Inspection	Record instances of visible functional damage.
P.5.25.I.3	Fire Extinguishers	All present in specific locations. All have current inspections and service tags. All gauges show adequate readings.	N/A	N/A	7 days	Visual Inspection	Record instances where fire extinguishers are not present in specified locations or do not have current inspections, or showing inadequate readings.

Measurement Record
Record racks, openings and separations.
Record number of deficiencies.

			R	esponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	Measurement Record
P.5.25.J Tolli	ng Facilities and Bu	ildings – GROUNDS					
		No greater than 5% of total surface area has visible cracks, no expansion joints are missing.				Visual Inspection	Record instances of >5% of surface area with visible cracks or missing expansion joints.
		Free of visible open holes or structural failure.				Visual Inspection	Record number of open holes or structural failure.
P.5.25.J.1	Concrete Sidewalks, Curbs, and Ramps	Free of cracks measuring more than 1/8 inch wide.	24 hours	3 days	7 days	Measurement of crack width and level difference of two sides of crack	Record number of cracks >1/8 inch wide.
	una numpo	Ensure all ramps meet ADA standards.				Visual Inspection	Record number of ramps not meeting ADA standards.
		Joints shall not exceed ¼ inch rise at transition to existing sidewalk.				Measurement of joint rise at transition to sidewalk	Record number of joints exceeding 1/4 inch rise at transition to sidewalk.
		Turf must not exceed 4 inches in height.	N/A		7 days		Record areas exceeding 4 inches in height.
P.5.25.J.2	Turf and Plant Beds	100% of mulch (where present) must be contained and not missing within all plant beds.		N/A		Visual Inspection	Record areas where mulch should be present and is missing.
	Dead	Ensure less than 10% of plant beds have weed infestation and/or appear unhealthy.					Record instances where plant beds with weed infestation or unhealthy appearance is >10%.
	Turf and Plant Beds - Additional	Turf must be kept between 2 and 3 inches in height for all turf areas located at the Traffic Incident Management Center (TIM).	N/A	N/A	7 days	Visual Inspection	Record areas exceeding 3 inches in height.
		Turf at the TIM Center must be fertilized no more than twice per year (late March and September).	N/A	N/A N/A	1 month	Visual Inspection of records	Record instances where inspection records indicate noncompliance.
P.5.25.J.2 TIM	requirements for Traffic Incident Management	Turf grass edging along mow curbs, vehicular curbs, sidewalks, trails, drainage flumes, drain inlet boxes, electrical boxes and irrigation boxes shall be performed every cycle.	N/A			Visual Inspection	Record length where turf grass edging has not been performed.
	Center (TIM)	No vegetation in pavement joints.			10 days		Record occurrence of vegetation in pavement joint.
		Turf shall not be allowed to encroach along walls, sidewalks, islands, riprap or curbs and will be killed and removed.					Record length where turf is allowed to encroach.
		No dead or diseased tree limbs.					Record number of dead or diseased limbs.
P.5.25.J.3	Trees Scrubs	No tree limbs overhang building structures and/or hanging below 8' over all sidewalks and walkways.	24 hours	7 days	1 month	Visual Inspection	Record number of tree limbs in noncompliance.
P.5.25.J.4	Irrigation Control	No broken sprinkler heads or piping broken; Irrigation system, including control panel and water pump operate as intended.				Visual Inspection	Record instances of damage or irrigation system not functioning properly.
							Record instances where backflow and water devices are not clear of debris and vegetation.
P.5.25.J.5	Backflow Devices, Water Devices	Devices are clear of debris and vegetation; No visible water leaks; Inspection tags are current.	4 hours	24 hours	2 days	Visual Inspection	Record instances of water leaks.
							Record out of date inspection tags.
							Record visible damage.
P.5.25.J.6	Fire Stand Pipe	No visible damage; All caps/covers installed/secured.				Visual Inspection	Record instance where caps/covers are missing or not securely installed.

			R	esponse to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	Measurement Record
	Hose Bibs /						Record instances if visible water leaks or damage.
P.5.25.J.7	Spigots	No visible water leaks or damage; Device valve is shut, secured, and isolated.				Visual Inspection	Record instances of device valve not shut, secured or isolated.
P.5.25.J.8	Underground wells, Pumps,	Device is clear of debris and vegetation; No visible water leaks or damage to	4 hours	24 hours	2 days	Visual Inspection	Record instances where device is not clear of debris and/or vegetation.
г.3.23.j.0	and Control Panels	components; Units properly mounted.					Record instances of visible water leaks, damage to components or unit mounted improperly.
	Pavement	No potholes or depressions greater than 12 inches wide and 1 inch deep.		7 days		Measurement of width and depth of potholes	Record number of potholes greater than 12 inches wide and 1 inch deep.
P.5.25.J.9	Condition (Parking Area)	Ensure less than 10% of surface area and edges have visible expansion cracking, separated, and/or damaged.	24 hours	7 days	15 days	Visual Inspection	Record instances where >10% of surface area and edges have visible expansion cracking, are separated, and/or damaged.
P.5.25.J.10	Striping	No more than 10% of all striping is missing or faded.	7 days	14 days	1 month	Visual Inspection	Record instances where >10% of striping is missing or faded.
		No structural cracking, misalignment; Set bars are not protruding above finished					Record presence of structural cracking or misalignment.
P.5.25.J.11	Parking Stops	edge of parking stop.	24 hours	7 days	1 month	Visual Inspection	Record instances of set bars protruding above finish edge.
		Storm drain covers are securely fastened; no visible open holes, structural damage, or debris. All panels are securely attached to support structures per design standards; signs are					Record instances where covers are not fastened securely or presence of open holes.
P.5.25.J.12	Drainage					Visual Inspection	Record instances of structural damage.
							Record presence of debris.
P.5.25.J.13	Signage					Visual Inspection	Record instances where panels are not securely attached to support structures.
F.3.23.J.13	Sigliage	clearly legible, not faded, and are free of vandalism.					Record instances where signs are not clearly legible, are faded or are vandalized.
		Dense and lawyords are properly factored and functioning, eacher holts acquirely.	24 hours	7 days	1 month		Record instances where ropes and lanyards are not properly fastened and functioning.
P.5.25.J.14	Flagpole	Ropes and lanyards are properly fastened and functioning; anchor bolts securely fastened; No visible corrosion on anchor bolts and bases.				Visual Inspection	Report instances where anchor bolts are not securely fastened or are showing visible corrosion on bolts and bases.
							Report instances where railings, hardware and fence posts are not securely attached.
P.5.25.J.15	Fencing and Railings	All railings, hardware and fence posts are securely attached to structural element; No materials are damaged, cracked, or missing; Gates are secured.				Visual Inspection	Record instances where material is showing damage, cracking or missing.
							Record instances when gates are not secured.
P.5.25.K Toll	ILP Buildings, Mai	ntenance Yards		T	1		
P.5.25.K.1	Toll ILP Buildings / Maintenance Yards	Refer to applicable performance measures described for roofing, exterior walls, doors, interior walls, floors, ceiling, HVAC, electrical, fire, and grounds as described in this Section 14.	See applicable section	See applicable section	See applicable section	See applicable section	See applicable section.

			F	Response to De	fects		
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method	Measurement Record
P.5.25.L EME	RGENCY BACKUP	GENERATORS					
		Generator fuel levels shall be maintained at no less than 3/4 fuel capacity.				Visual inspection of fuel levels as indicated on fuel gauge.	Record number of generators with fuel level less than 40% for propane and less than 60% for diesel.
		Address unresponsive generator to automatic and/or manual start-up tests; address		N/A		Defect measurement dependent on equipment	Record instances when generators are unresponsive to start-up tests.
		transfer switch not responding to tests as specified.	2 hours		N/A		Record instances when transfer switch is unresponsive to tests.
		Doors and/or covers or generator and transfer switch shall be in place or secure.				Visual Inspection	Record number of defective or missing.
		Ensure indicator lights working.				Visual Inspection	Record number of nonfunctioning lights.
P.5.25.L.1	Generators	Perform quarterly maintenance or as required by manufacturer specifications. Service records shall be accessible.				Visual Inspection of records	Record instances where maintenance requirements are not met or recorded.
		Test generator and transfer switch; Tests performed by the 10th of each month. Provide Mobility Authority a copy of generator and transfer switch test results.	N/A	N/A	2 days	Required inspection	Record instances where inspection records indicate noncompliance.
		Load bank test all generators. Performed semiannually within five (5) days prior to the date of initial or last semiannual load test.	N/A	N/A	5 days	Defect measurement dependent on equipment	Record instances where inspection records indicate noncompliance.
		Any generator failing to meet load bank requirements per manufacturer's requirements shall be repaired and retested within seven (7) of the failed test.	N/A	N/A	7 days	Required inspection	Record instances where inspection records indicate noncompliance.
		Report, in writing, any failed test and passing test documents to the Mobility Authority within one (1) day after final test.	N/A	N/A	1 day	Review of inspection records	Record number of failed and passing tests not reported to the Authority in writing.
P.5.25.M Buil	lding Janitorial – T	WICE WEEKLY REQUIREMENTS					
		1) Walls - All walls shall be spot cleaned so that no dirt is present.					
		2) Doors - All doors (including hinges, frames, etc.) shall be dusted and spot cleaned so that no dirt is present.					
	Twice Weekly	3) Trash - Remove trash from inside trash receptacles and outside trash containers from buildings and facilities.					
P.5.25.M.1	Maintenance	4) Receptacles - Empty recycle receptacles.	N/A	N/A	2 days	Visual Inspection	Record instances of noncompliance.
		5) Carpets - Vacuum all carpet and remove stains and spots immediately.					
		6) Furniture - Dust furniture, windowsills and blinds.					
		7) Rest Rooms - Clean and disinfect every restroom and break room.					
		8) Amenities - Fill all soap, paper towel and toilet paper dispensers.					
P.5.25.N Buil	ding Janitorial – V	VEEKLY REQUIREMENTS					
		1) Windows - Clean inside windows, blinds, and glazing so that no dirt is present.					
	Weekly	2) Trash - Replace waste basket liners.					
P.5.25.N.1	Weekly Maintenance	3) Bathroom Fixtures - Clean and polish all bathroom wall and stall surfaces, doors, hinges, etc.	N/A	N/A	1 week	eek Visual Inspection	Record instances of noncompliance.
		4) Drains - Flush all floor drains and trap primers.					

			R	lesponse to De	fects	
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method
P.5.25.0 Buil	ding Janitorial – M	ONTHLY REQUIREMENTS	•			
P.5.25.0.1	Windows	Clean outside windows and glazing. Performed by the 10th of each month.				
P.5.25.0.2	Lighting	Test all emergency lighting fixtures; Repair any problems immediately. Performed by the 10th of each month.				
P.5.25.0.3	Fixtures	Check function of all faucets, hose bibs, toilets and flush valves. Performed by the 10th of each month.	N/A	N/A	1 month	Visual Inspection
P.5.25.0.4	HVAC	Change all HVAC filters. Performed every 90 days.				
P.5.25.0.5	Fans	Check operation of toilet exhaust fans. Performed by the 10th of each month.				
P.5.25.P Buil	ding Janitorial – TV	WICE ANNUAL REQUIREMENTS	•			·
P.5.25.P.1	Carpets	Shampoo all carpets. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.				
P.5.25.P.2	Buildings / Toll Gantry Surfaces	Power wash all exteriors of buildings and toll gantry surfaces. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.	-			Visual Inspection
P.5.25.P.3	Lightning Protection Systems	Inspect lightning protection systems. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.				
P.5.25.P.4	Fire Alarm	Perform fire alarm tests. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.	N/A	N/A	5 days	
P.5.25.P.5	Fire Protection System	Check operation of all fire protection system tamper switches. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.				Required inspection
P.5.25.P.6	HVAC	Perform manufacturers suggested HVAC maintenance inspections including operational pressure test of refrigeration equipment. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.				
P.5.25.P.7	Exhaust Fans	Check operation of all exhaust fans. Performed semiannually within five (5) days prior to the date of initial or last semiannual cleaning inspection or performed test.				
P.5.25.Q Buil	ding Janitorial – Al	NNUAL REQUIREMENTS				
P.5.25.Q.1	Walls	Inspect all interior and exterior walls and partitions for cracking. Performed annually within ten (10) days prior to the date of initial or last annual inspection.				
P.5.25.Q.2	Panels and Switchboards	Perform thermographic scan on all panels and switchboards. Performed annually within ten (10) days prior to the date of initial or last annual inspection.	N/A	N/A N/A 10 days		
P.5.25.Q.3	Fire Pumps	Check operation of fire pumps. Performed annually within ten (10) days prior to the date of initial or last annual inspection.			10 days	Required Inspection
P.5.25.Q.4	Fire Protection System	Inspect and check operation of entire Fire Protection System including alarms, sprinklers, backflow valves, etc. Performed annually within ten (10) days prior to the date of initial or last annual inspection.				

Central Texas Regional Mobility Authority

Exhibit 3 – Performance and Measurement Table, Bldg. and Facility Maintenance June 20, 2023

Record the presence of dirt on inside of window, blinds or glazing.

Record instances where emergency lighting is defective.

Record instances where fixtures are not functioning properly.

Record instanced where HVAC filters are not changed every 90 days.

Record instances where toilet exhaust fans are not functioning.

Record instances where carpets are not clean or exhibit spots or stains, or are not shampooed at the required frequency.

Record instances where building exteriors and gantry surfaces are not power washed or exhibit dirt and grime.

Record instances where inspection records indicate noncompliance.

Record instances where testing records indicate noncompliance.

Record instances where inspection records indicate noncompliance.

			Response to Defects			
Ref	Element	Performance Requirement	Cat 1: Mitigation	Cat 1: Temporary Repair	Cat 2: Permanent Repair	Inspection and Measurement Method
P.5.25.Q.5	Alarms	Perform flow test to insure proper operation of all alarms. Performed annually within ten (10) days prior to the date of initial or last annual inspection.				Required Inspection
P.5.25.Q.6	Gas Burning Equipment	Inspect all gas-burning equipment prior to the beginning of the heating season utilizing manufacturer's suggested checklist. Performed annually within ten (10) days prior to the date of initial or last annual inspection.	N/A	N/A	10 days	
P.5.25.Q.7	Backflow Devices	Inspect all potable/domestic water backflow devices and provide certification of inspection. Performed annually within ten (10) days prior to the date of initial or last annual inspection.				

Measurement Record

Record instances where inspection records indicate noncompliance.

Record instances where inspection records indicate noncompliance.

Record instances where inspection records indicate noncompliance.

Exhibit 4
Condition Assessment Frequency

		Assessment Frequency						
Element No.	Category	Monthly	Quarterly	Bi- Annually	Annually	As Required		
P.5.7 PAVE	MENT MAINTENANCE							
P.5.7.1	Localized Rutting	Х						
P.5.7.2	Localized Roughness	Х						
P.5.7.3	Failures	Х						
P.5.7.4	Edge drop-offs	Х						
P.5.7.5	Expansion joints	Х						
P.5.7.6	Cracks in asphalt	Х						
P.5.7.7	Curbs	Х						
P.5.8 DRAI	NAGE							
P.5.8.1	Pipes and Channels		Х					
P.5.8.2	Vegetative Filter Strips	Х	х	х	х	х		
P.5.8.3	Swales			х				
P.5.8.4	Detention Facilities	Х	х					
P.5.8.5	Hazardous Material Traps (HMTs)		Х			х		
P.5.8.6	Water Quality Ponds	Х	Х	х		х		
P.5.8.6.1	Logic Controller		Х	х		Х		
P.5.8.7	Underground Detention		Х			х		
P.5.8.8	Pump Stations		Х			х		
P.5.8.9	Enclosure Areas		Х					
P.5.8.10	Travel Way		Х			х		
P.5.8.11	Underdrains		Х					
P.5.8.12	Erosion or Siltation		Х					
P.5.9 STRU	CTURES							
P.5.9.2	Bridge Maintenance - Damage		X					
P.5.9.3	Bridge Maintenance - Cleaning		х					
P.5.9.4	Bridge Maintenance - General		х					
P.5.9.5	Bridge Expansion Joints		x					
P.5.9.6	Undercrossing Components		х			х		
P.5.9.7	Gantries and high masts		x					
P.5.9.8	Pole and foundation supporting ITS equipment		х					
P.5.9.9	Non-bridge class culverts		x					

Central Texas Regional Mobility Authority Exhibit 4 – Condition Assessment Frequency June 20, 2023

		Assessment Frequency					
Element No.	Category	Monthly	Quarterly	Bi- Annually	Annually	As Required	
	EMENT MARKINGS, OBJECT MARKERS, BARRIER				Allitually	Required	
P.5.10.1	New Striping					Х	
P.5.10.2	Longitudinal Pavement Markings		x			~	
P.5.10.3	Non-longitudinal Pavement Markings		x				
P.5.10.4	Prefabricated Pavement Markings		x				
P.5.10.6	Raised Reflective Pavement Markers		x				
P.5.10.7	Delineators & Object Markers	x	~				
P.5.10.8	Delineators & Markers (used for delineation of express lane)	x					
P.5.11 GUA	RD FENCE, SAFETY BARRIERS AND IMPACT ATT	ENUATORS			1	1	
P.5.11.1	Guard Fence	Х					
P.5.11.2	Concrete Safety Barrier	Х					
P.5.11.3	Cable Barrier Systems	Х					
P.5.11.4	Impact Attenuators	Х					
P.5.12 TRA	FFIC SIGNS	1		1	1	1	
P.5.12.1	Sign Supports and Assemblies - General	Х					
P.5.12.2	Sign Supports and Assemblies - Small	Х					
P.5.12.3	Sign Supports and Assemblies - Large	х					
P.5.12.4	Warning and Regulatory Signs	х					
P.5.12.5	Rate Change Signs					х	
P.5.13 SIGN	IALS						
P.5.13.1	Signal Inspections					х	
P.5.13.2	Signal Maintenance - General	х				х	
P.5.13.3	Signal Maintenance - Response	Х				х	
P.5.13.4	Video Imaging Vehicle Detection System (VIVDS)	Х				х	
P.5.13.5	Broad Band for Traffic Signals	Х				Х	
P.5.14 LIGH	ITING						
P.5.14.2	Illumination Maintenance	Х					
P.5.14.3	Electrical Supply	Х					
P.5.14.4	Access Panels	Х					
P.5.14.5	High Mast Lighting	Х					
P.5.15 RET	AINING WALLS AND SOUND ABATEMENT						
P.5.15	Retaining Walls and Sound Abatement		Х				
P.5.16 ROA	DSIDE MANAGEMENT	1			1	1	
P.5.16.1	Vegetation Height	х					
	s Regional Mobility Authority 42 Condition Assessment Frequency	Sy	stem-wide Pe			xhibits enance	

CTRMA Contract #20PROGXXX02M

		Assessment Frequency					
Element No.	Cotogowy	Monthly	Quantanky	Bi- Annually	Appuellu	As	
P.5.16.2	Category Noxious Weeds	Monthly X	Quarterly	Annually	Annually	Required	
P.5.16.3	Vegetation Encroachment	x					
P.5.16.4	Vegetation Trimming	x					
P.5.16.5	Loss of Vegetation	x					
P.5.16.6	Sight Lines	x					
P.5.16.7	Wildflowers					х	
P.5.16.8	Landscape Areas	x					
P.5.16.9	Irrigation Management	X					
P.5.16.10	Trees, Brush and Ornamentals	х					
P.5.17 SIDE	WALKS, SHARED USE PATHS AND TRAILHEADS						
P.5.17.1	Sidewalks and Shared Use Paths - General	Х					
P.5.17.2	Trailheads	х					
P.5.18 EMB	ANKMENT AND SLOPE MAINTENANCE	1					
P.5.18	Embankment and Slope Maintenance		Х				
P.5.19 SWE	EPING AND CLEANING			I	I	I	
P.5.19.1	Sweeping	Х					
P.5.19.2	Litter	х					
P.5.19.3	Obstructions and Debris in Express Lanes	х				х	
P.5.19.4	Obstructions and Debris	х				х	
P.5.20 MISC	CELLANEOUS						
P.5.20.1	Chain Link Fence	х					
P.5.20.2	Encroachments	х					
P.5.20.3	Mailboxes	х					
P.5.20.4	Graffiti	х					
P.5.20.5	Aesthetic Features	х					
P.5.21 INCI	DENT MANAGEMENT						
P.5.21	Incident Management	х				х	
P.5.22 HAZ	ARDOUS MATERIALS						
P.5.22	Hazardous Materials					х	
P.5.23 CUST	FOMER RESPONSE						
P.5.23	Customer Response	Х					
P.5.24 ENV	IRONMENTALLY SENSITIVE AREAS						
P.5.24.1	Karst Preserve Areas	Х					
P.5.24.2	Wetland Mitigation Areas and Waters of the U.S.	Х					

			Assess	sment Frequ	uency	
Element				Bi-	A 11	As
No. P.5.24.3	Category Migratory Bird Treaty & Endangered Species Act	Monthly X	Quarterly	Annually	Annually	Required
P.5.24.3 P.5.24.4	Edwards Aquifer Recharge and Contributing	X				
P.J.24.4	Zones	~				
P.5.24.5	Cultural Resources	х				
P.5.26.6	Other Environmental Restrictions	х				
SNOW AND	DICE CONTROL (see SS7668RMA)					
Р.5.25.А То	lling Facilities and Buildings – GENERAL					
P.5.25.A.1	Water Leaks/Safety Hazard		Х			
P.5.25.A.2	Permits/Fees		Х			
P.5.25.A.3	Paint		Х			
P.5.25.A.3	Pest Control		Х			
	lling Facilities and Buildings – RESTROOMS, BRE 5 FOUNTAINS	AKROOMS	S, COUNTEI	R TOPS, M	OLDING,	
P.5.25.B.1	Fixtures	Х				
Р.5.25.С То	Iling Facilities and Buildings – BUILDING INTERI	OR				
P.5.25.C.1	Doors	Х				
P.5.25.C.2	Walls	Х				
P.5.25.C.3	Ceilings	Х				
P.5.25.C.4	Windows	Х				
P.5.25.C.5	Floors (Non-Carpeted)	Х				
P.5.25.C.6	Floors (Carpeted)	Х				
P.5.25.C.7	Cabinets	х				
P.5.25.C.8	Furniture	х				
P.5.25.D To	lling Facilities and Buildings – STAIRWELL					
P.5.25.D.1	Stairway		Х			
Р.5.25.Е То	lling Facilities and Buildings - BUILDING EXTERI	OR				
P.5.25.E.1	Exterior Walls		х			
P.5.25.E.2	Exterior Doors		Х			
P.5.25.E.3	Exterior Windows		Х			
P.5.25.E.4	Roof		х			
Р.5.25.F То	lling Facilities and Buildings - HVAC SYSTEMS		-			
P.5.25.F.1	Air Conditioning Units		Х			
P.5.25.F.2	Boilers		x			
P.5.25.F.3	Heating Units		Х			
P.5.25.F.4	Air Handler		Х			

		Assessment Frequency					
Element				Bi-		As	
No.	Category	Monthly	Quarterly	Annually	Annually	Required	
P.5.25.F.5	Gas Lines & Valves		X				
P.5.25.F.6	Exhaust Fans		X				
P.5.25.F.7	Thermostat		X				
P.5.25.F.8	Control / Energy Management System		X				
P.5.25.F.9	Documentation		X				
P.5.25.F.10	Repairs		X				
	lling Facilities and Buildings - ELECTRICAL SYST	TEMS		I			
P.5.25.G.1	Panels and Breaker Boxes		Х				
P.5.25.G.2	Outlet and Switches		Х				
P.5.25.G.3	Interior / Exterior Lights		Х				
P.5.25.G.4	Miscellaneous		Х				
Р.5.25.Н Та	lling Facilities and Buildings - LIGHTNING PROT	ECTION	1	T	r		
P.5.25.H.1	Miscellaneous		Х				
P.5.25.H.2	Lightning Protection System		Х				
P.5.25.I Tol	ling Facilities and Buildings - FIRE PROTECTION	SYSTEMS					
P.5.25.I.1	Fire Alarm / Fire Suppression Systems		х				
P.5.25.I.2	Miscellaneous		Х				
P.5.25.I.3	Fire Extinguishers		х				
P.5.25.J To	ling Facilities and Buildings – GROUNDS						
P.5.25.J.1	Concrete Sidewalks, Curbs, and Ramps		Х				
P.5.25.J.2	Turf and Plant Beds		х				
P.5.25.J.3	Trees Scrubs		Х				
P.5.25.J.4	Irrigation Control		х				
P.5.25.J.5	Backflow Devices, Water Devices		Х				
P.5.25.J.6	Fire Stand Pipe		Х				
P.5.25.J.7	Hose Bibs / Spigots		Х				
P.5.25.J.8	Underground wells, Pumps, and Control Panels		Х				
P.5.25.J.9	Pavement Condition (Parking Area)		Х				
P.5.25.J.10	Striping		х				
P.5.25.J.11	Parking Stops		х				
P.5.25.J.12	Drainage		х				
P.5.25.J.13	Signage		х				
P.5.25.J.14	Flagpole		х				
P.5.25.J.15	Fencing and Railings		х				
	II II P Buildings Maintenance Vards		1	1	1	L	

P.5.25.K Toll ILP Buildings, Maintenance Yards

		Assessment Frequency				
Element No.	Category	Monthly	Quarterly	Bi- Annually	Annually	As Required
P.5.25.K.1	Toll ILP Buildings / Maintenance Yards	Х				
P.5.25.L EN	IERGENCY BACKUP GENERATORS					
P.5.25.L.1	Generators	Х				
P.5.25.M Bu	ilding Janitorial – TWICE WEEKLY REQUIREM	ENTS				
P.5.25.M.1	Twice Weekly Maintenance	Х				
P.5.25.N Bu	ilding Janitorial - WEEKLY REQUIREMENTS					
P.5.25.N.1	Weekly Maintenance	Х				
P.5.25.O Bu	ilding Janitorial - MONTHLY REQUIREMENTS		•			
P.5.25.O.1	Windows	Х				
P.5.25.O.2	Lighting	Х				
P.5.25.O.3	Fixtures	Х				
P.5.25.O.4	HVAC	Х				
P.5.25.O.5	Fans	Х				
P.5.25.P Bu	ilding Janitorial - TWICE ANNUAL REQUIREME	INTS				
P.5.25.P.1	Carpets		Х			
P.5.25.P.2	Buildings / Toll Gantry Surfaces		Х			
P.5.25.P.3	Lightning Protection Systems		Х			
P.5.25.P.4	Fire Alarm		Х			
P.5.25.P.5	Fire Protection System		Х			
P.5.25.P.6	HVAC		Х			
P.5.25.P.7	Exhaust Fans		Х			
P.5.25.Q Bu	ilding Janitorial - ANNUAL REQUIREMENTS					
P.5.25.Q.1	Walls		х			
P.5.25.Q.2	Panels and Switchboards		х			
P.5.25.Q.3	Fire Pumps		х			
P.5.25.Q.4	Fire Protection System		х			
P.5.25.Q.5	Alarms		Х			
P.5.25.Q.6	Gas Burning Equipment		х			
P.5.25.Q.7	Backflow Devices		Х			

EXHIBIT 5 LIQUIDATED DAMAGES FOR NON-COMPLIANCE

Table 5.1: Failure to Submit Deliverables Liquidated Damages

Deliverable Description	Due Date	Non- compliance Penalty	
	, v		
Maintenance Management Plan	Failure to resolve all resulting comments within 30 days of receiving comments from the Authority.	\$500/Day	
	Failure to make updates throughout the contract term within 30 days of notice from the Authority.	<i></i>	
Snow and Ice Plan	Failure to update plan by August 1 of each year.	\$100/Day	
	Reports		
Failure to Complete Scheduled Work	In accordance with Contract Documents.	¢1000/D	
Failure to Complete Revised Toll Rate Sign Installation	In accordance with Contract Documents.	\$1000/Day	
Annual Work Schedule	Within 30 days of receiving Initial NTP; update annually within 30 days of contract anniversary date.	\$100/Day	
Monthly Work Schedule	Within 30 days of receiving Initial NTP; updated by the first day of each month.		
Monthly Work Accomplishment Report	Due by the third business day of each month.	\$100/Day	
CMMS Data Entry	Recorded in the Authority's CMMS within 2 hours of notification or discovery.	\$100/ Occurrence	
Reporting Accidents	Report accidents as described in the Contract Documents within 2 hours of discovery.	\$100/Hour	
CCTV Inspection of Pump Stations and Storm Sewer Report	Every 6 months first test due 60 Calendar Days before the anniversary of the Initial NTP date to begin Maintenance Services.	\$500/Month	
Bridge Inspection Report	Every 24 months within the first 90 Calendar Days after the Initial NTP date to begin Maintenance Services.	\$1,000/Month	
	Every 12 months within the first 60 Calendar Days after beginning Maintenance Services.	\$1,000/Month	
Signal System Inspection Report	Place a log book in each controller cabinet to record each trouble call reported, documentation of all inspections, corrective actions and findings.	\$500/Occurrence	

Deliverable Description	Due Date	Non- compliance Penalty	
Illumination Inspection Report	Due by the 15th of each month; within the first 30 Calendar Days after beginning Maintenance Services.	\$100/Day	
Mobile Retroreflectivity Data Collection (MRDC) Report	Every 6 months within 60 Calendar Days before	\$500/Month	
Raised Pavement Markers Inspection Report	the Initial NTP date to begin Maintenance Services.	\$500/Month	
Soil Testing	Failure to submit results of annual soil testing.	\$1000/Month	
	Other Contract Requirements		
Field Office and Laboratory	To be provided in accordance with the Contract Documents.	\$500/Day	
Dequirements for the Authority's	Failure to provide personnel for training.	\$500/Day	
Requirements for the Authority's CMMS	Additional hours for training (90 days after issuance of NTP).	\$150/Hour	
Fertilization	Failure to implement fertilization recommendations.	\$1,000/Month	
Generator and HVAC Response	Failure to respond within 1 hour for Cat 1 Hazard Mitigation.	\$500/Hour	
Administrative	Failure to provide pricing for Work Orders or Change Orders within 5 working days of notice by the Authority.	\$500/Day	
Licensing and Special Training	Submitted through CTRMA's EDMS as noted in the Contract Documents.	\$100/Day	
Failure to Coordinate and Procure Initial Supply of Snow and Ice Control Material	Within 30 days upon receiving Initial NTP.		
Failure to Replace Stockpile Items	Monthly, unless otherwise directed. Coordination and procurement of Snow and Ice Control material shall be completed within a week after each winter weather event.	\$300/day	
All Other Deliverables	Submitted as noted in the Contract Documents.	\$500/Day	

Monthly Audit of Asset Condition Score (ACS)				
Score	Liquidated Damage			
Element Category identified in Exhibit 2 that achieves a monthly mean ACS of less than 3.5 and greater than 2.0	\$10,000			
Element Category identified in Exhibit 2 that achieves a monthly mean ACS equal to or less than 2.0 yet greater than 1.0	\$15,000			
<u>Element Category</u> identified in Exhibit 2 that achieves a monthly mean ACS of 1.0 or below	\$20,000			
<u>Element</u> identified in Exhibit 2 that achieves a monthly ACS equal to or less than 2.0 yet greater than 1.0	\$10,000			
<u>Element</u> identified in Exhibit 2 that achieves a monthly ACS of 1.0 or below	\$15,000			

Table 5.2: Roadway ACS Non-compliance for Elements Audited Monthly¹

Table 5.3 Roadway ACS Non-compliance for Elements Audited Quarterly¹

Quarterly Audit of Asset Condition Score (ACS)				
Score	Liquidated Damage			
Element Category identified in Exhibit 2 that achieves a quarterly mean ACS of less than 3.5 and greater than 2.0	\$20,000			
Element Category identified in Exhibit 2 that achieves a quarterly mean ACS equal to or less than 2.0 yet greater than 1.0	\$25,000			
Element Category identified in Exhibit 2 that achieves a quarterly mean ACS of 1.0 or below	\$35,000			
<u>Element</u> identified in Exhibit 2 that achieves a quarterly ACS equal to or less than 2.0 yet greater than 1.0	\$20,000			
Element identified in Exhibit 2 that achieves a quarterly ACS of 1.0 or below	\$25,000			

Note:

(1) Failure to record a deficiency in the CMMS system or failure to meet timeliness requirements, as noted in the Contractor's MMP, may result in an additional Liquidated Damage of \$500 per deficiency per location per occurrence. Failure to record or correct deficiencies noted as Cat 1 Mitigation within the timeliness criteria, as noted in the Contractor's MMP, may result in an additional penalty of \$1,000 per deficiency per location per occurrence.

Table 5.4 Roadway ACS Non-compliance for Elements Audited at Other Frequencies¹

Other Frequency Audit of Asset Condition Score (ACS)					
Score	Liquidated Damage				
Element Category identified in Exhibit 2 that achieves a quarterly mean ACS of less than 3.5 and greater than 2.0	\$20,000				
Element Category identified in Exhibit 2 that achieves a quarterly mean ACS equal to or less than 2.0 yet greater than 1.0	\$25,000				
Element Category identified in Exhibit 2 that achieves a quarterly mean ACS of 1.0 or below	\$35,000				
Element identified in Exhibit 2 that achieves a quarterly ACS equal to or less than 2.0 yet greater than 1.0	\$20,000				
Element identified in Exhibit 2 that achieves a quarterly ACS of 1.0 or below	\$25,000				

Table 5.5 Facilities ACS Non-compliance for Elements Audited Monthly¹

Monthly Facility Audit of Asset Condition Score (ACS)				
Score	Liquidated Damage			
Element Category identified in Exhibit 3 that achieves a monthly mean ACS of less than 3.5 and greater than 2.0	\$1,000			
<u>Element Category</u> identified in Exhibit 3 that achieves a monthly mean ACS equal to or less than 2.0 yet greater than 1.0	\$1,500			
<u>Element Category</u> identified in Exhibit 3 that achieves a monthly mean ACS 1.0 or below	\$2,000			
<u>Element</u> identified in Exhibit 3 that achieves a monthly ACS equal to or less than 2.0 yet greater than 1.0	\$1,000			
<u>Element</u> identified in Exhibit 3 that achieves a monthly ACS of 1.0 or below	\$1,500			

Note:

(1) Failure to record a deficiency in the CMMS system or failure to meet timeliness requirements, as noted in the Contractor's MMP, may result in an additional Liquidated Damage of \$500 per deficiency per location per occurrence. Failure to record or correct deficiencies noted as Cat 1 Mitigation within the timeliness criteria, as noted in the Contractor's MMP, may result in an additional penalty of \$1,000 per deficiency per location per occurrence.

Table 5.6 Facilities ACS Non-compliance for Elements Audited Quarterly¹

Quarterly Facility Audit of Asset Condition Score (ACS)					
Score	Liquidated Damage				
Element Category identified in Exhibit 3 that achieves a quarterly mean ACS of less than 3.5 and greater than 2.0	\$2,500				
Element Category identified in Exhibit 3 that achieves a quarterly mean ACS equal to or less than 2.0 yet greater than 1.0	\$3,000				
<u>Element Category</u> identified in Exhibit 3 that achieves a quarterly mean ACS of 1.0 or below	\$4,000				
Element identified in Exhibit 3 that achieves a quarterly ACS equal to or less than 2.0 yet greater than 1.0	\$2,500				
Element identified in Exhibit 3 that achieves a quarterly ACS of 1.0 or below	\$3,000				

Note:

(1) Failure to record a deficiency in the CMMS system or failure to meet timeliness requirements, as noted in the Contractor's MMP, may result in an additional Liquidated Damage of \$500 per deficiency per location per occurrence. Failure to record or correct deficiencies noted as Cat 1 Mitigation within the timeliness criteria, as noted in the Contractor's MMP, may result in an additional penalty of \$1,000 per deficiency per location per occurrence.

	Late Charges (Per Lane)			
Lane Rental Period	Remaining Corridors	Express 1 Toll		
0–15 minutes	\$ 1,000.00	\$ 3,000.00		
15–30 minutes	\$ 1,000.00	\$ 3,000.00		
30–45 minutes	\$ 1,000.00	\$ 3,000.00		
45–60 minutes	\$ 1,000.00	\$ 3,000.00		
Every additional 15-minute interval after 1 hour	\$ 2,000.00	\$ 6,000.00		
Late charges are cumulative				

Table 5.7 Lane Closure Non-compliance

For example: If the contractor has one lane of traffic closed on Express 1 Toll until Monday at 5:32 a.m., the contractor is 32 minutes outside of the allowable lane closure period. The late charges will be accrued as follows:

1 lane closed \times [\$3,000 + \$3,000 + \$3,000] = \$9,000

Emergency lane closures are not subject to lane rental charge assessments.

SS7668RMA Snow and Ice Control Liquidated Damages

Penalties are as described in SS7668RMA Snow and Ice Control Section Q.6 Non-Compliance.

Central Texas Regional Mobility Authority Exhibit 5 – Liquidated Damages for Non-compliance June 20, 2023

SS7669RMA Lane Closures Liquidated Damages

Penalties are as described in SS7668RMA Lane Closures Section R.4 Non-compliance.

Central Texas Regional Mobility Authority Exhibit 5 – Liquidated Damages for Non-compliance June 20, 2023

45 Toll Drainage				
Asset ID	ВМР Туре	Location TRM (Station)	Location Description	Inspection Requirement
45SW-P.5.8.6-Quarterly-Pond A		519.96 (192+50)	FM 1626 Intersection, in between MLs	Sediment is less than 6" in forebays and water quality basins
45SW-P.5.8.6-Quarterly-Pond B		520.60 (225+00)	Just west of Bliss Spillar Rd, underneath WB ML Bridge	Sediment does not result in standing water or decreased performance of BMP
45SW-P.5.8.6-Quarterly-Pond C		520.84 (238+00)	WB 45SW Ent Ramp from Bliss Spillar Rd, on outside shoulder	No signs of sediment erosion or re-suspension
45SW-P.5.8.6-Quarterly-Pond D		520.93 (241+00)	45SW WB outside shoulder, just west of Pond C	Drawdown time does not exceed 48 hours
45SW-P.5.8.6-Quarterly-Pond E		521.60 (278+00)	45SW WB outside shoulder, just east of Bear Creek	Sediment in inlet and outlet works is less than 3" and does not impact performance
45SW-P.5.8.6-Quarterly-Pond F		521.91 (294+00)	45SW WB oustide shoulder, just west of Bear Creek	Access roads and perimeter is kept clear and accessible
45SW-P.5.8.6-Quarterly-Pond G	Water Quality	523.27 (367+00)	Median Between DC's	Debris and litter are removed from site
45SW-P.5.8.6-Quarterly-Pond H		523.52 (2380+00)	Loop 1 intersection, NE Quadrant, underneath 45SW WB ML Bridge	No structural damage present
45SW-P.5.8.6-Quarterly-Pond I		523.40 (373+00)	Loop 1 intersection, SE Quadrant, in median between MLs	No vegetation in cracks and joints
45SW-P.5.8.6-Quarterly-Pond J		523.54 (2377+00)	Loop 1, NB, about .2 mi north of 45SW intersection	No subsidence, leakage, or cracking along pond embankment
45SW-P.5.8.6-Quarterly-Pond K		523.77 (2378+00)	Loop 1, NB, about .4 mi north of 45SW intersection	Nuisances such as insects, weeds, odors, algaes, etc. not present
45SW-P.5.8.6-Quarterly-Pond L		523.80 (2381+00)	Loop 1, SB, about .4 miles north of 45SW intersection	No standing water, unless it is part of the design
45SW-P.5.8.6-Quarterly-Pond M		523.68 (2379+00)	Loop 1, SB, about .2 miles north of 45SW intersection	No diseased or dead vegetation
45SW-P.5.8.6-Semi-annual-Pond A		519.96 (192+50)	FM 1626 Intersection, in between MLs	Sediment is less than 6" in forebays and water quality basins
45SW-P.5.8.6-Semi-annual-Pond B		520.60 (225+00)	Just west of Bliss Spillar Rd, underneath WB ML Bridge	Sediment does not result in standing water or decreased performance of BMP
45SW-P.5.8.6-Semi-annual-Pond C		520.84 (238+00)	WB 45SW Ent Ramp from Bliss Spillar Rd, on outside shoulder	No signs of sediment erosion or re-suspension
45SW-P.5.8.6-Semi-annual-Pond D		520.93 (241+00)	45SW WB outside shoulder, just west of Pond C	Drawdown time does not exceed 48 hours
45SW-P.5.8.6-Semi-annual-Pond E		521.60 (278+00)	45SW WB outside shoulder, just east of Bear Creek	Sediment in inlet and outlet works is less than 3" and does not impact performance
45SW-P.5.8.6-Semi-annual-Pond F		521.91 (294+00)	45SW WB oustide shoulder, just west of Bear Creek	Access roads and perimeter is kept clear and accessible
45SW-P.5.8.6-Semi-annual-Pond G	Water Quality	523.27 (367+00)	Median Between DC's	Debris and litter are removed from site
45SW-P.5.8.6-Semi-annual-Pond H		523.52 (2380+00)	Loop 1 intersection, NE Quadrant, underneath 45SW WB ML Bridge	No structural damage present
45SW-P.5.8.6-Semi-annual-Pond I		523.40 (373+00)	Loop 1 intersection, SE Quadrant, in median between MLs	No vegetation in cracks and joints
45SW-P.5.8.6-Semi-annual-Pond J		523.54 (2377+00)	Loop 1, NB, about .2 mi north of 45SW intersection	No subsidence, leakage, or cracking along pond embankment
45SW-P.5.8.6-Semi-annual-Pond K		523.77 (2378+00)	Loop 1, NB, about .4 mi north of 45SW intersection	Nuisances such as insects, weeds, odors, algaes, etc. not present
45SW-P.5.8.6-Semi-annual-Pond L		523.80 (2381+00)	Loop 1, SB, about .4 miles north of 45SW intersection	No standing water, unless it is part of the design
45SW-P.5.8.6-Semi-annual-Pond M		523.68 (2379+00)	Loop 1, SB, about .2 miles north of 45SW intersection	No diseased or dead vegetation

45 Toll, cont. Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
45SW-P.5.8.2-Quarterly-WB_519.89		519.89 (189+50)	NB FM 1626 inside before entrance to 45 WB	inspection reality concern
45SW-P.5.8.2-Quarterly-WB_519.91		519.91 (189+50)	NB FM 1626 inside after entrance to 45 WB	
45SW-P.5.8.2-Quarterly-WB_519.96-SB		519.96 - 519.97 (191+50)	East side of right turn from SB FM 1626 to WB 45	
45SW-P.5.8.2-Quarterly-WB_519.96-NB		519.96 - 519.97 (191+50)	North side of entrance from NB FM 1626 to WB SH45	
45SW-P.5.8.2-Quarterly-WB_520.06		520.06 - 520.21 (197+00 - 205+00)	WB ML inside, south of Bliss Spillar	
45SW-P.5.8.2-Quarterly-WB_520.20		520.20 - 520.54 (205+00 - 222+00)	SUP inside, east of Bliss Spillar	
45SW-P.5.8.2-Quarterly-WB_520.21		520.21 - 520.34 (205+00 - 211+75)	WB ML outside shoulder, south of Bliss Spillar	
45SW-P.5.8.2-Quarterly-WB_520.63		520.63 - 520.86 (227+00 - 239+20)	WB entrance ramp from Bliss Spillar Rd outside	
45SW-P.5.8.2-Quarterly-WB_520.76		520.76 - 520.80 (234+50 - 235+50)	WB ML outside shoulder, west of Bliss Spillar	
45SW-P.5.8.2-Quarterly-WB_520.87		520.87 - 520.92 (239+40 - 242+00)	WB entrance ramp outside, just north of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-WB_520.92		520.92 - 521.06 (242+25 - 249+75)	WB ML inside shoulder, north of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-WB_522.00		522.00 - 522.10 (300+00 - 305+00	WB ML outside shoulder, north of Bear Creek	
45SW-P.5.8.2-Quarterly-WB_523.05		523.05 - 523.24 (2354+50 - 2364+50)	WB ML outside shoulder approach to 45SW DC, east of MoPac	
45SW-P.5.8.2-Quarterly-WB_523.43		523.43 (375+00)	North end trail head, SUP outside between DCs	
45SW-P.5.8.2-Quarterly-EB_523.61		523.61 - 523.65 (1384+00 - 1386+00)	EB ML outside shoulder, west of MoPac	
45SW-P.5.8.2-Quarterly-EB_523.58		523.58 - 523.61 (378+00)	MoPac WB, ML left shoulder at begin of MoPac/45 south DC Near Pond H	Vegetation growth is limite
45SW-P.5.8.2-Quarterly-EB_523.29		523.29 - 522.98 (1367+00 - 1351+00)	EB ML outside shoulder, east of MoPac	
45SW-P.5.8.2-Quarterly-EB_523.39		523.39 - 522.97 (1372+50 - 1350+25)	SUP inside, east of MoPac	Free of bare spots or erosic
45SW-P.5.8.2-Quarterly-EB_522.97	Vegetative Filter Strips	522.97 - 522.74 (350+00 - 338+50)	SUP outside, about .9 miles west of Bear Creek	Free of accumulated sedim
45SW-P.5.8.2-Quarterly-EB_522.33		522.33 - 522.74 (317+00 - 338+50)	SUP inside, beginning just south of MoPac SB to 45SW EB DC	Overland sheet flow not dis
45SW-P.5.8.2-Quarterly-EB_522.31		522.31 - 522.25 (316+00 - 312+50)	SUP inside, about .5 miles west of Bear Creek	
45SW-P.5.8.2-Quarterly-EB_522.24		522.24 - 522.08 (312+00 - 303+60)	SUP outside, about .5 miles west of Bear Creek	Free of obstructions, debris
45SW-P.5.8.2-Quarterly-EB_522.07		522.07 - 522.02(303+30 - 300+50	SUP outside, about .1 miles west of Bear Creek	
45SW-P.5.8.2-Quarterly-EB_521.63		521.63 - 521.18(279+75 - 256+00)	EB ML outside shoulder, south side of Ponds D & E	
45SW-P.5.8.2-Quarterly-EB_521.15		521.15 - 520.92(254+25 - 242+25)	EB ML outside shoulder, east side of Ponds D & E	
45SW-P.5.8.2-Quarterly-EB_521.62		521.62 - 520.87 (280+00 - 240+40)	SUP Inside, begins at Pond E, ends at Pond D	
45SW-P.5.8.2-Quarterly-EB_520.84		520.84 - 520.80 (238+00 - 235+50)	SUP Inside, about .25 miles west of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-EB_520.80		520.80 - 520.78 (236+00 - 235+00)	SB ramp outside shoulder, about .2 miles west of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-EB_520.79		520.79 - 520.78 (235+25 - 234+75)	SUP Inside, about .1 miles north of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-EB_520.80		520.80 - 520.66 (235+75 - 228+75)	EB ML inside median, just north of Bliss Spillar	
45SW-P.5.8.2-Quarterly-EB_520.76		520.76 - 520.63 (234+70 - 228+00)	SUP Inside, begins about .18 miles west of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-EB_520.62		520.62 - 520.60 (227+30 - 226+40)	SUP Inside, just north of Bliss Spillar Rd.	
45SW-P.5.8.2-Quarterly-EB_520.54		520.54 (222+00)	SUP outside along Bliss Spillar, east side, underneath overpass	
45SW-P.5.8.2-Quarterly-EB_520.55		520.55 - 520.32 (223+00 - 211+00)	SUP inside, east of Bliss Spillar	
45SW-P.5.8.2-Quarterly-EB_520.30		520.30 - 520.23 (209+75 - 206+00)	SUP inside, about .3 miles west of FM1626 intersection	
45SW-P.5.8.2-Quarterly-EB_520.53		520.53 - 519.97 (221+7 - 5193+00)	SBML inside median, south of Bliss Spillar	
45SW-P.5.8.2-Quarterly-EB_519.94		519.94 (190+00)	SB FM 1626 inside at right turn for WB 45	
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disrupted

bris or litter

45 Toll, cont. Drainage									
Asset ID	ВМР Туре	Location TRM (Station)	Location Description	Inspection Requirement					
45SW-P.5.8.6.1-Quarterly-Pond A	Water Quality - Logic Controller	519.96 (192+50)	FM 1626 Intersection - Pond A	External indicators are operating properly Turn Program Logic Controller on and off, then a cycle initiated by triggering the level sensor Manually open and close the valve using the open/close push buttons at the Solar UPS and Black Valve					
45SW-P.5.8.6.1-Quarterly-Pond B			520.60 (225+00)	Just north of Bliss Spillar Rd - Pond B	Control Panel Any damage to controller and circuitry (corrosion, insect damage, water leaks, etc) Cellular modem and antenna are working properly (send test alert via Local/Remote switch)				
45SW-P.5.8.6.1-Quarterly-Pond C		520.84 (238+00)	WB SH 45 Ent Ramp - Pond C	Battery has no corrosion and the terminals are securely fastened Battery is charging/discharging properly Controller is reset at the end of inspection					
45SW-P.5.8.6.1-Quarterly-Pond D		520.93 (241+00)	SH 45 WB - Pond D	Any damage or vandalism to solar panel Remove dust or debris on solar panel Solar panel is facing southerly direction					
45SW-P.5.8.6.1-Quarterly-Pond E		Controller	Controller				521.60 (278+00)	SH 45 WB - Pond E	Any damage or vandalism to power meter of service entrance power controller Service entrance emergency on/off switch is operating properly by testing Any damage or corrosion to components Outfall structure lid is free of debris and opens and closes properly
45SW-P.5.8.6.1-Quarterly-Pond F			_			521.91 (294+00)	SH45WB - Pond F	Any water intrusion in the vault Corrosion on pipe supports Any corrosion or damage to plug valves, actuator, or wiring	
45SW-P.5.8.6.1-Quarterly-Pond G				523.27 (367+00)	Median Between DC's - Pond G	Any debris on valve/actuator Manual valve opens and closes by hand Any scaling or debris on capacitive level sensor			
45SW-P.5.8.6.1-Quarterly-Pond H		523.52 (2380+00)	Pond H, Loop 1 intersection, NE Quadrant	Inverter, power supplies, relays, indicating lights and electric components are in good condition, free of corrosion, damage, or water Check fuses for all electronic devices					

15 Toll, cont. Drainage								
Asset ID	ВМР Туре	Location TRM (Station)	Location Description	Inspection Requirement				
45SW-P.5.8.6.1-Semi-annual-Pond A		519.96 (192+50)	FM 1626 Intersection - Pond A	External indicators are operating properly Turn Program Logic Controller on and off, then a cycle initiated by triggering the level sensor				
45SW-P.5.8.6.1-Semi-annual-Pond B				520.60 (225+00)	Just north of Bliss Spillar Rd - Pond B	Manually open and close the valve using the open/close push buttons at the Solar UPS and Black Valve Control Panel Any damage to controller and circuitry (corrosion, insect damage, water leaks, etc) Cellular modem and antenna are working properly (send test alert via Local/Remote switch)		
45SW-P.5.8.6.1-Semi-annual-Pond C		520.84 (238+00)	WB SH 45 Ent Ramp - Pond C	Battery has no corrosion and the terminals are securely fastened Battery is charging/discharging properly Controller is reset at the end of inspection Any damage or vandalism to solar panel				
45SW-P.5.8.6.1-Semi-annual-Pond D		Water Quality - Logic Controller	Water Quality - Logic Controller		SH 45 WB - Pond D	Remove dust or debris on solar panel Solar panel is facing southerly direction		
45SW-P.5.8.6.1-Semi-annual-Pond E						521.60 (278+00)	SH 45 WB - Pond E	Any damage or vandalism to power meter of service entrance power controller Service entrance emergency on/off switch is operating properly by testing Any damage or corrosion to components Outfall structure lid is free of debris and opens and closes properly
45SW-P.5.8.6.1-Semi-annual-Pond F						521.91 (294+00)	SH45WB - Pond F	Any water intrusion in the vault Corrosion on pipe supports Any corrosion or damage to plug valves, actuator, or wiring
45SW-P.5.8.6.1-Semi-annual-Pond G			523.27 (367+00)	Median Between DC's - Pond G	Any debris on valve/actuator Manual valve opens and closes by hand Any scaling or debris on capacitive level sensor			
45SW-P.5.8.6.1-Semi-annual-Pond H		523.52 (2380+00)	Pond H, Loop 1 intersection, NE Quadrant	Inverter, power supplies, relays, indicating lights and electric components are in good condition, free of corrosion, damage, or water Check fuses for all electronic devices				

183A Toll Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
183A-P.5.8.2-Semi-annual-SB 490.64	Биг туре	490.64 - 492.24 (271+00 - 355+00)	SBFR - Inside shoulder. From South of US 183 Intersection to 2000' past beginning of mainlanes	
183A-P.5.8.2-Semi-annual-SB 491.72		491.72 - 491.87 (327+50 to 335+50)	North of CR 274 to just South of CR 274 along entrance ramp gore	
183A-P.5.8.2-Semi-annual-SB 491.87		491.87 - 491.95 (336+00 to 340+00)	CR 274 entrance ramp gore along Inside SBFR and Outside Ramp	
183A-P.5.8.2-Semi-annual-SB_491.96		491.96 - 492.00 (234+00 - 268+00)	SBFR - Inside shoulder from Riva Ridge Dr. to North of US 183 Intersection	
183A-P.5.8.2-Semi-annual-SB_492.4		492.4 - 492.79 (363+00 to 383+50)	SBFR - Inside shoulder. From South of Hero Way to RM 2243	
183A-P.5.8.2-Semi-annual-SB_492		492 - 492.08 (342+50 to 347+00)	North of CR 274 SB Entrance ramp Gore along outside SBML	
183A-P.5.8.2-Semi-annual-SB_492.7		492.7 - 492.74 (378+25 to 381+00)	South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB-492.75		492.75 - 492.8 (381+50 to 384+00)	Just South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB_492.95		492.95 - 493.34 (392+00 to 413+00)	SBFR - Inside shoulder. From ~0.1 mile South of RM 2243 to ~0.1 mile South of next Entrance Ramp	
183A-P.5.8.2-Semi-annual-SB_493.05		493.05 - 493.17 (397+50 to 404+25)	Just North of SBFR Entrance Ramp along inside SBFR	
183A-P.5.8.2-Semi-annual-SB_493.36		493.36 - 493.7 (414+00 to 431+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.3 miles	
183A-P.5.8.2-Semi-annual-SB_493.74		493.74 - 493.84 (433+00 to 439+50)	From Cul-de-sac on SBFR to just north of SB exit ramp along inside Frontage road	
183A-P.5.8.2-Semi-annual-SB 493.82		493.82 - 493.95 (437+00 to 445+00)	SBFR - Inside Shoulder. From ~0.1 mile S of Woodward St. to toll gantry on next exit ramp	
183A-P.5.8.2-Semi-annual-SB_493.96		493.96 - 494.08 (445+25 to 452+00)	Just South of SB exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.05		494.05 - 494.22 (450+00 to 459+00)	SBFR - Inside Shoulder. From end of Crystal Falls exit ramp to Crystal Falls Parkway	
183A-P.5.8.2-Semi-annual-SB_494.35		494.35 - 494.75 (466+00 to 487+00)	SBFR - Inside Shoulder. From end of Crystal Falls Pkwy Bridge to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-SB 494.62		494.62 - 494.75 (480+00 to 487+25)	Just north of Blockhouse Creek along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.93-FR		494.93 - 495 (494+50 to 507+00)	Just south of Blockhouse creek along outside SBFR	
183A-P.5.8.2-Semi-annual-SB 494.93-Ex		494.93 - 495.24(494+50 to 513+00)	Just south of Blockhouse creek along inside exit ramp	
183A-P.5.8.2-Semi-annual-SB_494.94		494.94 - 495 (496+50 to 500+00)	Just South of Blockhouse creek along outside SBML	
183A-P.5.8.2-Semi-annual-SB 495.1	Vegetative Filter	495.1 - 495.25 (505+00 to 513+00)	SBFR - Inside Shoulder. From ~0.2 miles South of Blockhouse Creek Bridge to Scottsdale Drive	Vegetation growth is limite
	Strips	495.31 - 495.61 (516+00 to 531+50)	SBFR - Inside Shoulder. From Scottsdale Dr. to end of next exit ramp	
		495.6 - 495.96 (530+75 to 550+50)	Just South of New Hope Drive exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB 495.62		495.62 - 495.74 (532+50 to 539+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.1 miles	
183A-P.5.8.2-Semi-annual-SB 496.36		496.36 - 496.77 (571+00 to 593+00)	SBFR - Inside Shoulder. From end of Cottonwood Creek Bridge to end of next entrance ramp	
183A-P.5.8.2-Semi-annual-NB_497		497 - 496.6 (604+25 to 582+00)	Just North of FM 1431 to South of Cottonwood Creek along outside NBML	
183A-P.5.8.2-Semi-annual-NB_496.68		496.68 - 496.44 (579+50 to 571+00)	NBFR - Inside Shoulder. From Entrance Ramp gore to Cottonwood Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_496		496 - 495.87 (557+50 to 543+00)	NBFR - Inside Shoulder. From ~0.2 miles N of New Hope Dr for ~0.25 mi	
183A-P.5.8.2-Semi-annual-NB 495.77		495.77 - 495.68 (538+00 to 532+50)	NBFR - Inside Shoulder. From Scottsdale Ramp ILP Bldg N for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB 495.6		495.6 - 495.39 (531+50 to 516+00)	NBFR - Inside Shoulder. From North of previous BMP to Scottsdale Dr	
183A-P.5.8.2-Semi-annual-NB_495.26		495.26 - 494.91 (512+00 to 499+00)	NBFR - Inside Shoulder. From Scottsdale Dr to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_494.75		494.75 - 494.34 (488+00 to 466+00)	NBFR - Inside Shoulder. From Blockhouse Creek Bridge to Crystal Falls Pkwy Bridge	
183A-P.5.8.2-Semi-annual-NB_494.27		494.27 - 494.07 (459+00 to 449+00)	NBFR - Inside Shoulder from Crystal Falls Pkwy Bridge to Next Entrance Ramp North	
183A-P.5.8.2-Semi-annual-NB_494.09		494.09 - 493.91 (452+50 to 443+00)	Near NB Ramp Toll Gantry along outside NBML	
183A-P.5.8.2-Semi-annual-NB 493.92		493.92 - 493.86 (446+00 to 439+00)	NBFR - Inside Shoulder From Crystal Falls Entrance ramp for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_493.82		493.82 - 493.6 (438+00 to 426+90)	Just North of NB Ramp Toll Gantry along Inside NBFR	
183A-P.5.8.2-Semi-annual-NB_493.77		493.77 - 493.33 (433+00 to 414+00)	NBFR - Inside Shoulder from Woodward to RM 2243 Exit Ramp	
183A-P.5.8.2-Semi-annual-NB 493.35		493.35 - 492.95 (413+00 to 392+00)	NBFR - Inside Shoulder from Prev. BMP to RM 2243 Left Turn Lane	
183A-P.5.8.2-Semi-annual-NB_492.79		492.79 - 490.62 (384+00 to 270+50)	NBFR - Inside Shoulder from RM 2243 to US 183 Intersection	
183A-P.5.8.2-Semi-annual-NB_492.07		492.07 - 492(345+50 to 342+25)	North of CR 269 Entrance Ramp to South of CR 274 Exit Ramp along outside NBML/Ramp	
183A-P.5.8.2-Semi-annual-NB_491.87		491.87 - 491.74 (335+50 to 328+50)	NB Exit ramp CR 274 Gore to South of CR 274 along inside ramp/FR	

nited to 4 inches

183A Toll, cont. Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
183A-P.5.8.2-Semi-annual-SB_490.64		490.64 - 492.24 (271+00 - 355+00)	SBFR - Inside shoulder. From South of US 183 Intersection to 2000' past beginning of mainlanes	
		491.72 - 491.87 (327+50 to 335+50)	North of CR 274 to just South of CR 274 along entrance ramp gore	
183A-P.5.8.2-Semi-annual-SB_491.87		491.87 - 491.95 (336+00 to 340+00)	CR 274 entrance ramp gore along Inside SBFR and Outside Ramp	
183A-P.5.8.2-Semi-annual-SB_491.96		491.96 - 492.00 (234+00 - 268+00)	SBFR - Inside shoulder from Riva Ridge Dr. to North of US 183 Intersection	
183A-P.5.8.2-Semi-annual-SB_492.4		492.4 - 492.79 (363+00 to 383+50)	SBFR - Inside shoulder. From South of Hero Way to RM 2243	
183A-P.5.8.2-Semi-annual-SB_492		492 - 492.08 (342+50 to 347+00)	North of CR 274 SB Entrance ramp Gore along outside SBML	
183A-P.5.8.2-Semi-annual-SB_492.7		492.7 - 492.74 (378+25 to 381+00)	South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB-492.75		492.75 - 492.8 (381+50 to 384+00)	Just South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB_492.95		492.95 - 493.34 (392+00 to 413+00)	SBFR - Inside shoulder. From ~0.1 mile South of RM 2243 to ~0.1 mile South of next Entrance Ramp	
183A-P.5.8.2-Semi-annual-SB_493.05		493.05 - 493.17 (397+50 to 404+25)	Just North of SBFR Entrance Ramp along inside SBFR	
183A-P.5.8.2-Semi-annual-SB_493.36		493.36 - 493.7 (414+00 to 431+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.3 miles	
183A-P.5.8.2-Semi-annual-SB_493.74		493.74 - 493.84 (433+00 to 439+50)	From Cul-de-sac on SBFR to just north of SB exit ramp along inside Frontage road	
183A-P.5.8.2-Semi-annual-SB_493.82		493.82 - 493.95 (437+00 to 445+00)	SBFR - Inside Shoulder. From ~0.1 mile S of Woodward St. to toll gantry on next exit ramp	
183A-P.5.8.2-Semi-annual-SB_493.96		493.96 - 494.08 (445+25 to 452+00)	Just South of SB exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.05		494.05 - 494.22 (450+00 to 459+00)	SBFR - Inside Shoulder. From end of Crystal Falls exit ramp to Crystal Falls Parkway	
183A-P.5.8.2-Semi-annual-SB_494.35		494.35 - 494.75 (466+00 to 487+00)	SBFR - Inside Shoulder. From end of Crystal Falls Pkwy Bridge to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-SB_494.62		494.62 - 494.75 (480+00 to 487+25)	Just north of Blockhouse Creek along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.93-FR		494.93 - 495 (494+50 to 507+00)	Just south of Blockhouse creek along outside SBFR	
183A-P.5.8.2-Semi-annual-SB_494.93-Ex		494.93 - 495.24(494+50 to 513+00)	Just south of Blockhouse creek along inside exit ramp	
183A-P.5.8.2-Semi-annual-SB_494.94		494.94 - 495 (496+50 to 500+00)	Just South of Blockhouse creek along outside SBML	All litter and debris are rem
183A-P.5.8.2-Semi-annual-SB_495.1	Vegetative Filter Strips	495.1 - 495.25 (505+00 to 513+00)	SBFR - Inside Shoulder. From ~0.2 miles South of Blockhouse Creek Bridge to Scottsdale Drive	
183A-P.5.8.2-Semi-annual-SB_495.31	50005	495.31 - 495.61 (516+00 to 531+50)	SBFR - Inside Shoulder. From Scottsdale Dr. to end of next exit ramp	Filter strip structures such a
183A-P.5.8.2-Semi-annual-SB_495.6		495.6 - 495.96 (530+75 to 550+50)	Just South of New Hope Drive exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB_495.62		495.62 - 495.74 (532+50 to 539+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.1 miles	
183A-P.5.8.2-Semi-annual-SB_496.36		496.36 - 496.77 (571+00 to 593+00)	SBFR - Inside Shoulder. From end of Cottonwood Creek Bridge to end of next entrance ramp	
183A-P.5.8.2-Semi-annual-NB_497		497 - 496.6 (604+25 to 582+00)	Just North of FM 1431 to South of Cottonwood Creek along outside NBML	
183A-P.5.8.2-Semi-annual-NB_496.68		496.68 - 496.44 (579+50 to 571+00)	NBFR - Inside Shoulder. From Entrance Ramp gore to Cottonwood Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_496		496 - 495.87 (557+50 to 543+00)	NBFR - Inside Shoulder. From ~0.2 miles N of New Hope Dr for ~0.25 mi	
183A-P.5.8.2-Semi-annual-NB_495.77		495.77 - 495.68 (538+00 to 532+50)	NBFR - Inside Shoulder. From Scottsdale Ramp ILP Bldg N for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_495.6		495.6 - 495.39 (531+50 to 516+00)	NBFR - Inside Shoulder. From North of previous BMP to Scottsdale Dr	
183A-P.5.8.2-Semi-annual-NB_495.26		495.26 - 494.91 (512+00 to 499+00)	NBFR - Inside Shoulder. From Scottsdale Dr to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_494.75		494.75 - 494.34 (488+00 to 466+00)	NBFR - Inside Shoulder. From Blockhouse Creek Bridge to Crystal Falls Pkwy Bridge	
183A-P.5.8.2-Semi-annual-NB_494.27		494.27 - 494.07 (459+00 to 449+00)	NBFR - Inside Shoulder from Crystal Falls Pkwy Bridge to Next Entrance Ramp North	
183A-P.5.8.2-Semi-annual-NB_494.09		494.09 - 493.91 (452+50 to 443+00)	Near NB Ramp Toll Gantry along outside NBML	
183A-P.5.8.2-Semi-annual-NB_493.92		493.92 - 493.86 (446+00 to 439+00)	NBFR - Inside Shoulder From Crystal Falls Entrance ramp for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_493.82		493.82 - 493.6 (438+00 to 426+90)	Just North of NB Ramp Toll Gantry along Inside NBFR	
183A-P.5.8.2-Semi-annual-NB_493.77		493.77 - 493.33 (433+00 to 414+00)	NBFR - Inside Shoulder from Woodward to RM 2243 Exit Ramp	
183A-P.5.8.2-Semi-annual-NB_493.35		493.35 - 492.95 (413+00 to 392+00)	NBFR - Inside Shoulder from Prev. BMP to RM 2243 Left Turn Lane	
183A-P.5.8.2-Semi-annual-NB_492.79		492.79 - 490.62 (384+00 to 270+50)	NBFR - Inside Shoulder from RM 2243 to US 183 Intersection	
183A-P.5.8.2-Semi-annual-NB_492.07		492.07 - 492(345+50 to 342+25)	North of CR 269 Entrance Ramp to South of CR 274 Exit Ramp along outside NBML/Ramp	
183A-P.5.8.2-Semi-annual-NB_491.87		491.87 - 491.74 (335+50 to 328+50)	NB Exit ramp CR 274 Gore to South of CR 274 along inside ramp/FR	

removed

ch as level spreaders are free of obstructions

183A Toll, cont. Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
183A-P.5.8.2-Semi-annual-SB_490.64		490.64 - 492.24 (271+00 - 355+00)	SBFR - Inside shoulder. From South of US 183 Intersection to 2000' past beginning of mainlanes	
183A-P.5.8.2-Semi-annual-SB_491.72		491.72 - 491.87 (327+50 to 335+50)	North of CR 274 to just South of CR 274 along entrance ramp gore	
183A-P.5.8.2-Semi-annual-SB_491.87		491.87 - 491.95 (336+00 to 340+00)	CR 274 entrance ramp gore along Inside SBFR and Outside Ramp	
183A-P.5.8.2-Semi-annual-SB_491.96		491.96 - 492.00 (234+00 - 268+00)	SBFR - Inside shoulder from Riva Ridge Dr. to North of US 183 Intersection	
183A-P.5.8.2-Semi-annual-SB_492.4		492.4 - 492.79 (363+00 to 383+50)	SBFR - Inside shoulder. From South of Hero Way to RM 2243	
183A-P.5.8.2-Semi-annual-SB_492		492 - 492.08 (342+50 to 347+00)	North of CR 274 SB Entrance ramp Gore along outside SBML	
183A-P.5.8.2-Semi-annual-SB_492.7		492.7 - 492.74 (378+25 to 381+00)	South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB-492.75		492.75 - 492.8 (381+50 to 384+00)	Just South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB_492.95		492.95 - 493.34 (392+00 to 413+00)	SBFR - Inside shoulder. From ~0.1 mile South of RM 2243 to ~0.1 mile South of next Entrance Ramp	
183A-P.5.8.2-Semi-annual-SB_493.05		493.05 - 493.17 (397+50 to 404+25)	Just North of SBFR Entrance Ramp along inside SBFR	
183A-P.5.8.2-Semi-annual-SB_493.36		493.36 - 493.7 (414+00 to 431+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.3 miles	
183A-P.5.8.2-Semi-annual-SB_493.74		493.74 - 493.84 (433+00 to 439+50)	From Cul-de-sac on SBFR to just north of SB exit ramp along inside Frontage road	
183A-P.5.8.2-Semi-annual-SB_493.82		493.82 - 493.95 (437+00 to 445+00)	SBFR - Inside Shoulder. From ~0.1 mile S of Woodward St. to toll gantry on next exit ramp	
183A-P.5.8.2-Semi-annual-SB_493.96		493.96 - 494.08 (445+25 to 452+00)	Just South of SB exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.05		494.05 - 494.22 (450+00 to 459+00)	SBFR - Inside Shoulder. From end of Crystal Falls exit ramp to Crystal Falls Parkway	
183A-P.5.8.2-Semi-annual-SB_494.35		494.35 - 494.75 (466+00 to 487+00)	SBFR - Inside Shoulder. From end of Crystal Falls Pkwy Bridge to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-SB_494.62		494.62 - 494.75 (480+00 to 487+25)	Just north of Blockhouse Creek along outside SBML	All litter and debris are rem
183A-P.5.8.2-Semi-annual-SB_494.93-FR		494.93 - 495 (494+50 to 507+00)	Just south of Blockhouse creek along outside SBFR	
183A-P.5.8.2-Semi-annual-SB_494.93-Ex		494.93 - 495.24(494+50 to 513+00)	Just south of Blockhouse creek along inside exit ramp	Filter strip structures such a
183A-P.5.8.2-Semi-annual-SB_494.94		494.94 - 495 (496+50 to 500+00)	Just South of Blockhouse creek along outside SBML	Vegetation growth is limite
183A-P.5.8.2-Semi-annual-SB_495.1	Vegetative Filter Strips	495.1 - 495.25 (505+00 to 513+00)	SBFR - Inside Shoulder. From ~0.2 miles South of Blockhouse Creek Bridge to Scottsdale Drive	
183A-P.5.8.2-Semi-annual-SB_495.31	3trips	495.31 - 495.61 (516+00 to 531+50)	SBFR - Inside Shoulder. From Scottsdale Dr. to end of next exit ramp	Check for erosion or damag
183A-P.5.8.2-Semi-annual-SB_495.6		495.6 - 495.96 (530+75 to 550+50)	Just South of New Hope Drive exit ramp along outside SBML	All litter and debris are rem
183A-P.5.8.2-Semi-annual-SB_495.62		495.62 - 495.74 (532+50 to 539+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.1 miles	
183A-P.5.8.2-Semi-annual-SB_496.36		496.36 - 496.77 (571+00 to 593+00)	SBFR - Inside Shoulder. From end of Cottonwood Creek Bridge to end of next entrance ramp	Filter strip structures are fre
183A-P.5.8.2-Semi-annual-NB_497		497 - 496.6 (604+25 to 582+00)	Just North of FM 1431 to South of Cottonwood Creek along outside NBML	
183A-P.5.8.2-Semi-annual-NB_496.68		496.68 - 496.44 (579+50 to 571+00)	NBFR - Inside Shoulder. From Entrance Ramp gore to Cottonwood Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_496		496 - 495.87 (557+50 to 543+00)	NBFR - Inside Shoulder. From ~0.2 miles N of New Hope Dr for ~0.25 mi	
183A-P.5.8.2-Semi-annual-NB_495.77		495.77 - 495.68 (538+00 to 532+50)	NBFR - Inside Shoulder. From Scottsdale Ramp ILP Bldg N for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_495.6		495.6 - 495.39 (531+50 to 516+00)	NBFR - Inside Shoulder. From North of previous BMP to Scottsdale Dr	
183A-P.5.8.2-Semi-annual-NB_495.26		495.26 - 494.91 (512+00 to 499+00)	NBFR - Inside Shoulder. From Scottsdale Dr to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_494.75		494.75 - 494.34 (488+00 to 466+00)	NBFR - Inside Shoulder. From Blockhouse Creek Bridge to Crystal Falls Pkwy Bridge	
183A-P.5.8.2-Semi-annual-NB_494.27		494.27 - 494.07 (459+00 to 449+00)	NBFR - Inside Shoulder from Crystal Falls Pkwy Bridge to Next Entrance Ramp North	
183A-P.5.8.2-Semi-annual-NB_494.09		494.09 - 493.91 (452+50 to 443+00)	Near NB Ramp Toll Gantry along outside NBML	
183A-P.5.8.2-Semi-annual-NB_493.92		493.92 - 493.86 (446+00 to 439+00)	NBFR - Inside Shoulder From Crystal Falls Entrance ramp for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_493.82		493.82 - 493.6 (438+00 to 426+90)	Just North of NB Ramp Toll Gantry along Inside NBFR	
183A-P.5.8.2-Semi-annual-NB_493.77		493.77 - 493.33 (433+00 to 414+00)	NBFR - Inside Shoulder from Woodward to RM 2243 Exit Ramp	
183A-P.5.8.2-Semi-annual-NB_493.35		493.35 - 492.95 (413+00 to 392+00)	NBFR - Inside Shoulder from Prev. BMP to RM 2243 Left Turn Lane	
183A-P.5.8.2-Semi-annual-NB_492.79		492.79 - 490.62 (384+00 to 270+50)	NBFR - Inside Shoulder from RM 2243 to US 183 Intersection	
183A-P.5.8.2-Semi-annual-NB_492.07		492.07 - 492(345+50 to 342+25)	North of CR 269 Entrance Ramp to South of CR 274 Exit Ramp along outside NBML/Ramp	
183A-P.5.8.2-Semi-annual-NB_491.87		491.87 - 491.74 (335+50 to 328+50)	NB Exit ramp CR 274 Gore to South of CR 274 along inside ramp/FR	

- emoved
- ch as level spreaders are free of obstructions
- ited to 4 inches
- nage to vegetation
- emoved
- e free of obstructions

183A Toll, cont. Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
183A-P.5.8.2-Semi-annual-SB_490.64		490.64 - 492.24 (271+00 - 355+00)	SBFR - Inside shoulder. From South of US 183 Intersection to 2000' past beginning of mainlanes	
		491.72 - 491.87 (327+50 to 335+50)	North of CR 274 to just South of CR 274 along entrance ramp gore	
183A-P.5.8.2-Semi-annual-SB_491.87		491.87 - 491.95 (336+00 to 340+00)	CR 274 entrance ramp gore along Inside SBFR and Outside Ramp	
183A-P.5.8.2-Semi-annual-SB_491.96		491.96 - 492.00 (234+00 - 268+00)	SBFR - Inside shoulder from Riva Ridge Dr. to North of US 183 Intersection	
183A-P.5.8.2-Semi-annual-SB_492.4		492.4 - 492.79 (363+00 to 383+50)	SBFR - Inside shoulder. From South of Hero Way to RM 2243	
183A-P.5.8.2-Semi-annual-SB_492		492 - 492.08 (342+50 to 347+00)	North of CR 274 SB Entrance ramp Gore along outside SBML	
183A-P.5.8.2-Semi-annual-SB_492.7		492.7 - 492.74 (378+25 to 381+00)	South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB-492.75		492.75 - 492.8 (381+50 to 384+00)	Just South of FM 2243 along inside shared use path	
183A-P.5.8.2-Semi-annual-SB_492.95		492.95 - 493.34 (392+00 to 413+00)	SBFR - Inside shoulder. From ~0.1 mile South of RM 2243 to ~0.1 mile South of next Entrance Ramp	
183A-P.5.8.2-Semi-annual-SB_493.05		493.05 - 493.17 (397+50 to 404+25)	Just North of SBFR Entrance Ramp along inside SBFR	
183A-P.5.8.2-Semi-annual-SB_493.36		493.36 - 493.7 (414+00 to 431+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.3 miles	
183A-P.5.8.2-Semi-annual-SB_493.74		493.74 - 493.84 (433+00 to 439+50)	From Cul-de-sac on SBFR to just north of SB exit ramp along inside Frontage road	
183A-P.5.8.2-Semi-annual-SB_493.82		493.82 - 493.95 (437+00 to 445+00)	SBFR - Inside Shoulder. From ~0.1 mile S of Woodward St. to toll gantry on next exit ramp	
183A-P.5.8.2-Semi-annual-SB_493.96		493.96 - 494.08 (445+25 to 452+00)	Just South of SB exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.05		494.05 - 494.22 (450+00 to 459+00)	SBFR - Inside Shoulder. From end of Crystal Falls exit ramp to Crystal Falls Parkway	
183A-P.5.8.2-Semi-annual-SB_494.35		494.35 - 494.75 (466+00 to 487+00)	SBFR - Inside Shoulder. From end of Crystal Falls Pkwy Bridge to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-SB_494.62		494.62 - 494.75 (480+00 to 487+25)	Just north of Blockhouse Creek along outside SBML	
183A-P.5.8.2-Semi-annual-SB_494.93-FR		494.93 - 495 (494+50 to 507+00)	Just south of Blockhouse creek along outside SBFR	
183A-P.5.8.2-Semi-annual-SB_494.93-Ex		494.93 - 495.24(494+50 to 513+00)	Just south of Blockhouse creek along inside exit ramp	
183A-P.5.8.2-Semi-annual-SB_494.94		494.94 - 495 (496+50 to 500+00)	Just South of Blockhouse creek along outside SBML	Free of erosion or damage
183A-P.5.8.2-Semi-annual-SB_495.1	Vegetative Filter Strips	495.1 - 495.25 (505+00 to 513+00)	SBFR - Inside Shoulder. From ~0.2 miles South of Blockhouse Creek Bridge to Scottsdale Drive	
183A-P.5.8.2-Semi-annual-SB_495.31		495.31 - 495.61 (516+00 to 531+50)	SBFR - Inside Shoulder. From Scottsdale Dr. to end of next exit ramp	Uniform overland flow not
183A-P.5.8.2-Semi-annual-SB_495.6		495.6 - 495.96 (530+75 to 550+50)	Just South of New Hope Drive exit ramp along outside SBML	
183A-P.5.8.2-Semi-annual-SB_495.62		495.62 - 495.74 (532+50 to 539+00)	SBFR - Inside Shoulder. From South of previous BMP for ~0.1 miles	
183A-P.5.8.2-Semi-annual-SB_496.36		496.36 - 496.77 (571+00 to 593+00)	SBFR - Inside Shoulder. From end of Cottonwood Creek Bridge to end of next entrance ramp	
183A-P.5.8.2-Semi-annual-NB_497		497 - 496.6 (604+25 to 582+00)	Just North of FM 1431 to South of Cottonwood Creek along outside NBML	
183A-P.5.8.2-Semi-annual-NB_496.68		496.68 - 496.44 (579+50 to 571+00)	NBFR - Inside Shoulder. From Entrance Ramp gore to Cottonwood Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_496		496 - 495.87 (557+50 to 543+00)	NBFR - Inside Shoulder. From ~0.2 miles N of New Hope Dr for ~0.25 mi	
183A-P.5.8.2-Semi-annual-NB_495.77		495.77 - 495.68 (538+00 to 532+50)	NBFR - Inside Shoulder. From Scottsdale Ramp ILP Bldg N for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_495.6		495.6 - 495.39 (531+50 to 516+00)	NBFR - Inside Shoulder. From North of previous BMP to Scottsdale Dr	
183A-P.5.8.2-Semi-annual-NB_495.26		495.26 - 494.91 (512+00 to 499+00)	NBFR - Inside Shoulder. From Scottsdale Dr to Blockhouse Creek Bridge	
183A-P.5.8.2-Semi-annual-NB_494.75		494.75 - 494.34 (488+00 to 466+00)	NBFR - Inside Shoulder. From Blockhouse Creek Bridge to Crystal Falls Pkwy Bridge	
183A-P.5.8.2-Semi-annual-NB_494.27		494.27 - 494.07 (459+00 to 449+00)	NBFR - Inside Shoulder from Crystal Falls Pkwy Bridge to Next Entrance Ramp North	
183A-P.5.8.2-Semi-annual-NB_494.09		494.09 - 493.91 (452+50 to 443+00)	Near NB Ramp Toll Gantry along outside NBML	
183A-P.5.8.2-Semi-annual-NB_493.92		493.92 - 493.86 (446+00 to 439+00)	NBFR - Inside Shoulder From Crystal Falls Entrance ramp for ~0.1 miles	
183A-P.5.8.2-Semi-annual-NB_493.82		493.82 - 493.6 (438+00 to 426+90)	Just North of NB Ramp Toll Gantry along Inside NBFR	
183A-P.5.8.2-Semi-annual-NB_493.77		493.77 - 493.33 (433+00 to 414+00)	NBFR - Inside Shoulder from Woodward to RM 2243 Exit Ramp	
183A-P.5.8.2-Semi-annual-NB_493.35		493.35 - 492.95 (413+00 to 392+00)	NBFR - Inside Shoulder from Prev. BMP to RM 2243 Left Turn Lane	
183A-P.5.8.2-Semi-annual-NB_492.79		492.79 - 490.62 (384+00 to 270+50)	NBFR - Inside Shoulder from RM 2243 to US 183 Intersection	
183A-P.5.8.2-Semi-annual-NB_492.07		492.07 - 492(345+50 to 342+25)	North of CR 269 Entrance Ramp to South of CR 274 Exit Ramp along outside NBML/Ramp	
183A-P.5.8.2-Semi-annual-NB_491.87		491.87 - 491.74 (335+50 to 328+50)	NB Exit ramp CR 274 Gore to South of CR 274 along inside ramp/FR	

ge to vegetation

not prevented by sediment at upstream boundary

183A Toll, cont. Asset ID BMP Type Location TRM (Station) Location Description Inspection Requirement 183A-P.5.8.6-1" Rainfall-Aggie 499.85 (754+50) North of Avery Ranch Blvd. 183A-P.5.8.6-1" Rainfall-Longhorn WQ 499.20 (718+50) East of Brushy Creek Loop 183A-P.5.8.6-1" Rainfall-Elbow 498.74 (695+00) South of Brushy Creek Loop under 183A-P.5.8.6-1" Rainfall-Lobo WQ 497.62 (636+00) South of Spanish Oak Creek, under mainlanes 497.10 (342+50) 183A-P.5.8.6-Semi-annual-Warrior South of RM 1431 183A-P.5.8.6-Semi-annual-Aztec 496.38 (336+00) South of Cottonwood Creek Water Quality 496.29 (327+50) 183A-P.5.8.6-Semi-annual-Eagle South of New Hope Drive, under ML bridge Litter and debris are not present in dividers 183A-P.5.8.6-Semi-annual-Bulldog 494.92 (335+50) South of Block House Creek 494.77 (345+50) 183A-P.5.8.6-Semi-annual-Badger North of Block House Creek 494.31 (438+00) 183A-P.5.8.6-Semi-annual-Red Raider South of Crystal Falls Pkwy 492.77 (452+50) North of RM 2243, under ML bridge 183A-P.5.8.6-Semi-annual-Dolphin 183A-P.5.8.6-Semi-annual-Wildcat 492.89 (604+25) South of RM 2243 under ML bridge 183A-P.5.8.6-1" Rainfall-Aggie 499.85 (754+50) North of Avery Ranch Blvd. 183A-P.5.8.6-1" Rainfall-Longhorn WQ 499.20 (718+50) East of Brushy Creek Loop 183A-P.5.8.6-1" Rainfall-Elbow 498.74 (695+00) South of Brushy Creek Loop under 183A-P.5.8.6-1" Rainfall-Lobo WQ 497.62 (636+00) South of Spanish Oak Creek, under mainlanes 183A-P.5.8.6-Semi-annual-Warrior 497.10 (342+50) South of RM 1431 183A-P.5.8.6-Semi-annual-Aztec 496.38 (336+00) South of Cottonwood Creek Water Quality 183A-P.5.8.6-Semi-annual-Eagle 496.29 (327+50) South of New Hope Drive, under ML bridge 183A-P.5.8.6-Semi-annual-Bulldog 494.92 (335+50) South of Block House Creek All trash and debris are removed 183A-P.5.8.6-Semi-annual-Badger 494.77 (345+50) North of Block House Creek 183A-P.5.8.6-Semi-annual-Red Raider 494.31 (438+00) South of Crystal Falls Pkwy 183A-P.5.8.6-Semi-annual-Dolphin 492.77 (452+50) North of RM 2243, under ML bridge 183A-P.5.8.6-Semi-annual-Wildcat 492.89 (604+25) South of RM 2243 under ML bridge 183A-P.5.8.6-1" Rainfall-Aggie 499.85 (754+50) North of Avery Ranch Blvd. Cracks, voids, and undermining of BMP is repaired 183A-P.5.8.6-1" Rainfall-Longhorn WQ 499.20 (718+50) East of Brushy Creek Loop Cracks and joints are free of vegetation 183A-P.5.8.6-1" Rainfall-Elbow 498.74 (695+00) South of Brushy Creek Loop under 183A-P.5.8.6-1" Rainfall-Lobo WQ 497.62 (636+00) South of Spanish Oak Creek, under mainlanes No signs of sediment erosion or re-suspension 183A-P.5.8.6-Semi-annual-Warrior 497.10 (342+50) South of RM 1431 Drawdown time does not exceed 48 hours 183A-P.5.8.6-Semi-annual-Aztec 496.38 (336+00) South of Cottonwood Creek Water Quality 496.29 (327+50) 183A-P.5.8.6-Semi-annual-Eagle South of New Hope Drive, under ML bridge 183A-P.5.8.6-Semi-annual-Bulldog 494.92 (335+50) South of Block House Creek Debris and litter are removed from site No structural damage present 183A-P.5.8.6-Semi-annual-Badger 494.77 (345+50) North of Block House Creek No vegetation in cracks and joints 183A-P.5.8.6-Semi-annual-Red Raider 494.31 (438+00) South of Crystal Falls Pkwy 183A-P.5.8.6-Semi-annual-Dolphin 492.77 (452+50) North of RM 2243, under ML bridge No standing water, unless it is part of the design L83A-P.5.8.6-Semi-annual-Wildcat 492.89 (604+25) South of RM 2243 under ML bridge

Vegetative growth does not exceed 18 inches in height.

Accumulated sediment is less than 20% of the allocated volume of the sedimentation basin

Upper stage, side slopes, embankment, and emergency spillway are mowed

No structural damage present (pipe, concrete drainage structure, retaining walls, etc.)

Erosion problems inside or downstream of BMP are repaired and replanted

Sediment is less than 6" in forebays and water quality basins

Sediment does not result in standing water or decreased performance of BMP

Sediment in inlet and outlet works is less than 3" and does not impact performance

If under-drain visual insp possible, sediment in under-drains does not restrict BMP flow

Access roads and perimeter is kept clear and accessible

No subsidence, leakage, or cracking along pond embankment

Nuisances such as insects, weeds, odors, algaes, etc. not present

No diseased or dead vegetation

183A Toll, cont. Asset ID	BMP Type	Leastion TDM (Chatien)	Location Decorintion	Increasing Denvironment
	ВМР Туре	Location TRM (Station) 499.85 (754+50)	Location Description	Inspection Requirement
183A-P.5.8.6-1" Rainfall-Aggie 183A-P.5.8.6-1" Rainfall-Longhorn WQ		499.85 (754+50)	North of Avery Ranch Blvd. East of Brushy Creek Loop	
183A-P.5.8.6-1" Rainfall-Elbow		498.74 (695+00)	South of Brushy Creek Loop under	
183A-P.5.8.6-1" Rainfall-Lobo WQ		497.62 (636+00)	South of Spanish Oak Creek, under mainlanes	
183A-P.5.8.6-Semi-annual-Warrior		497.10 (342+50)	South of RM 1431	
183A-P.5.8.6-Semi-annual-Aztec		496.38 (336+00)	South of Cottonwood Creek	
183A-P.5.8.6-Semi-annual-Eagle	Water Quality	496.29 (327+50)	South of New Hope Drive, under ML bridge	Accumulated sediment not
183A-P.5.8.6-Semi-annual-Bulldog		494.92 (335+50)	South of Block House Creek	
183A-P.5.8.6-Semi-annual-Badger		494.77 (345+50)	North of Block House Creek	
183A-P.5.8.6-Semi-annual-Red Raider		494.31 (438+00)	South of Crystal Falls Pkwy	
183A-P.5.8.6-Semi-annual-Dolphin		492.77 (452+50)	North of RM 2243, under ML bridge	
183A-P.5.8.6-Semi-annual-Wildcat		492.89 (604+25)	South of RM 2243 under ML bridge	
183A-P.5.8.6-1" Rainfall-Aggie		499.85 (754+50)	North of Avery Ranch Blvd.	
183A-P.5.8.6-1" Rainfall-Longhorn WQ		499.20 (718+50)	East of Brushy Creek Loop	
183A-P.5.8.6-1" Rainfall-Elbow		498.74 (695+00)	South of Brushy Creek Loop under	
183A-P.5.8.6-1" Rainfall-Lobo WQ		497.62 (636+00)	South of Spanish Oak Creek, under mainlanes	
183A-P.5.8.6-Semi-annual-Warrior		497.10 (342+50)	South of RM 1431	
183A-P.5.8.6-Semi-annual-Aztec	Water Quality	496.38 (336+00)	South of Cottonwood Creek	
183A-P.5.8.6-Semi-annual-Eagle	Water Quality	496.29 (327+50)	South of New Hope Drive, under ML bridge	Underdrain piping - no sedi
183A-P.5.8.6-Semi-annual-Bulldog		494.92 (335+50)	South of Block House Creek	
183A-P.5.8.6-Semi-annual-Badger		494.77 (345+50)	North of Block House Creek	
183A-P.5.8.6-Semi-annual-Red Raider		494.31 (438+00)	South of Crystal Falls Pkwy	
183A-P.5.8.6-Semi-annual-Dolphin		492.77 (452+50)	North of RM 2243, under ML bridge	
183A-P.5.8.6-Semi-annual-Wildcat		492.89 (604+25)	South of RM 2243 under ML bridge	
183A-P.5.8.6-1" Rainfall-Aggie		499.85 (754+50)	North of Avery Ranch Blvd.	
183A-P.5.8.6-1" Rainfall-Longhorn WQ		499.20 (718+50)	East of Brushy Creek Loop	
183A-P.5.8.6-1" Rainfall-Elbow		498.74 (695+00)	South of Brushy Creek Loop under	
183A-P.5.8.6-1" Rainfall-Lobo WQ		497.62 (636+00)	South of Spanish Oak Creek, under mainlanes	
183A-P.5.8.6-Semi-annual-Warrior		497.10 (342+50)	South of RM 1431	
183A-P.5.8.6-Semi-annual-Aztec	Water Quality	496.38 (336+00)	South of Cottonwood Creek	Filtersting books during with i
183A-P.5.8.6-Semi-annual-Eagle	Water Quality	496.29 (327+50)	South of New Hope Drive, under ML bridge	Filtration basin drains within
183A-P.5.8.6-Semi-annual-Bulldog		494.92 (335+50)	South of Block House Creek	
183A-P.5.8.6-Semi-annual-Badger		494.77 (345+50)	North of Block House Creek	
183A-P.5.8.6-Semi-annual-Red Raider		494.31 (438+00)	South of Crystal Falls Pkwy	
183A-P.5.8.6-Semi-annual-Dolphin		492.77 (452+50)	North of RM 2243, under ML bridge	
183A-P.5.8.6-Semi-annual-Wildcat		492.89 (604+25)	South of RM 2243 under ML bridge	

ot present in inlet structure

edimentation buildup or meets design drawdown time

thin 72 hours

Amendment #1 Volume III - Exhibits System-wide Performance Based Maintenance Contract CTRMA Contract #20PROGXXX02M

183A Toll, cont.			Drainage			
Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement		
183A-P.5.8.3-Semi-annual-NB_495.74		495.74 - 495.79 (540+00 to 541+50)	Outside NBFR ML Just South of Scottsdale Dr. Exit ramp			
183A-P.5.8.3-Semi-annual-NB_494.84		494.84 (492+00)	Perpendicular to roadway just south of Blockhouse Creek			
183A-P.5.8.3-Semi-annual-NB_493.58		493.58 - 493.5 (422+50 to 421+00)	Along inside NBFR			
183A-P.5.8.3-Semi-annual-NB_493.46		493.46 - 493.44 (419+50 to 418+50)	Along inside NBFR			
183A-P.5.8.3-Semi-annual-NB_493.41		493.41 - 493.4 (417+500 to 416+00)	Along inside NBFR			
183A-P.5.8.3-Semi-annual-NB_493.37		493.37 - 493.32(415+00 to 412+50)	Along inside NBFR			
183A-P.5.8.3-Semi-annual-NB_491.87		491.87 - 491.74 (336+00 to 328+00)	Near CR 274 NB exit ramp along inside exit ramp/FR	Vegetation growth is limited		
183A-P.5.8.3-Semi-annual-NB_491.71		491.71 - 491.6 (327+50 to 320+50)	South of CR 274 along inside FR			
183A-P.5.8.3-Semi-annual-NB_491.57	Swales	491.57 - 491.51 (320+00 to 317+00)	Just south of CR 274 near inside frontage road	Check for erosion or damage		
183A-P.5.8.3-Semi-annual-NB_491.58	Swales	491.58 - 491.44 (320+00 to 313+50)	Just south of CR 274 in median	All litter, debris, grass clippin		
183A-P.5.8.3-Semi-annual-SB_491.44		491.44- 491.58 (313+50 to 320+00)	Just south of CR 274 in median			
183A-P.5.8.3-Semi-annual-SB_491.63		491.63 - 491.71 (323+00 to 327+00)	Just south of CR 274 In median	Swales structures are free of		
183A-P.5.8.3-Semi-annual-SB_491.75		491.75 - 491.87 (327+75 to 335+25)	Along inside SB CR 274 entrance ramp			
183A-P.5.8.3-Semi-annual-SB_494.85		494.85 (492+00)	Across SBML just south of Blockhouse Creek			
183A-P.5.8.3-Semi-annual-SB_495.63		495.63 - 495.65 (533+00 to 534+00)	Outside SBML			
183A-P.5.8.3-Semi-annual-SB_495.7		495.7 - 495.72 (536+25 to 537+50)	Outside SBML			
183A-P.5.8.3-Semi-annual-SB_495.75		495.75 - 495.76 (539+00 to 540+00)	Outside SBML			
183A-P.5.8.3-Semi-annual-SB_495.94		495.94 - 495.95 (549+00 to 550+00)	Between SBML and SBFR			
183A-P.5.8.4-Quarterly-Bison		491.36 (308+00)	North of San Gabriel Pkwy			
183A-P.5.8.4-Quarterly-Jacques		497.40 (624+00)	South of RM 1431	Accumulated Sediment is les		
183A-P.5.8.4-Quarterly-Lobo DT	Dotontia	497.61 (636+00)	South of Spanish Oak Creek, under mainlane bridges			
183A-P.5.8.4-Quarterly-Cougar	Detention	498.60 (688+00)	North of Brushy Creek Rd, under mainlane bridges	Upper stage, side slopes, em		
183A-P.5.8.4-Quarterly-Longhorn DT		499.13 (717+00)	North of South Brushy Creek, east of exit ramp	All trash and debris are remo		
183A-P.5.8.4-Quarterly-Boilermaker		499.78 (750+00)	North of Avery Ranch, west of frontage road west of frontage road			
· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·		

183 North Project

Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
183N-P.5.8.6-Quarterly-LakeCreek 1A		501.38 (832 + 00)		
183N-P.5.8.6-Quarterly-LakeCreek 1B		501.45 (839 + 00)		
183N-P.5.8.6-Quarterly-LakeCreek 1C		501.47 (839 + 50)		Accumulated Sediment is less
183N-P.5.8.6-Quarterly-Hymeadow 2D1	Water Quality	502.01 (869 + 00)		Upper stage, side slopes, emb
183N-P.5.8.6-Quarterly-Hymeadow 2A		502.03 (869 + 50)		All trash and debris are remov
183N-P.5.8.6-Quarterly-Hymeadow 2C		502.07 (872 + 00)		
183N-P.5.8.6-Quarterly-Hymeadow 2B		502.07 (872 + 00)		
183N-P.5.8.6-1" Rainfall-LakeCreek 1A		501.38 (832 + 00)		
183N-P.5.8.6-1" Rainfall-LakeCreek 1B		501.45 (839 + 00)		
183N-P.5.8.6-1" Rainfall-LakeCreek 1C		501.47 (839 + 50)		
183N-P.5.8.6-1" Rainfall-Hymeadow 2D1	Water Quality	502.01 (869 + 00)		Filtration basin drains within
183N-P.5.8.6-1" Rainfall-Hymeadow 2A		502.03 (869 + 50)		
183N-P.5.8.6-1" Rainfall-Hymeadow 2C		502.07 (872 + 00)		
183N-P.5.8.6-1" Rainfall-Hymeadow 2B		502.07 (872 + 00)		

ted to 4 inches

age to vegetation

ppings and woody vegetation are removed

e of obstructions

less than 20% of the allocated volume of the sedimentation basin

embankment and emergency spillway are mowed

emoved

ess than 20% of the allocated volume of the sedimentation basin

mbankment and emergency spillway are mowed

noved

nin 72 hours

183 Toll			Drainage			
Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement		
183S-P.5.8.4-Monthly-CA1 Basin South		523.39 (4560+00)	NB, 0.2 miles north of Patton Ave, west of NBFR	Accumulated Sediment is less		
183S-P.5.8.4-Monthly-Zen Garden	Detention	520.10 (392+50)	NB, 0.25 miles north of Hudson St			
183S-P.5.8.4-Monthly-W5N	Detention	519.20 (352+50)	SB, 0.15 miles south of E MLK Jr Blvd	Upper stage, side slopes, em		
183S-P.5.8.4-Monthly-W5S		519.40 (358+50)	SB, 0.3 miles south of E MLK Jr Blvd	All trash and debris are remo		
183S-P.5.8.4-Annual-CA1 Basin South		523.39 (4560+00)	NB, 0.2 miles north of Patton Ave, west of NBFR	Sediment buildup is less than does not cause standing wate		
183S-P.5.8.4-Annual-Zen Garden		520.10 (392+50)	NB, 0.25 miles north of Hudson St	Vegetation within the basin s		
183S-P.5.8.4-Annual-W5N	Detention	519.20 (352+50)	SB, 0.15 miles south of E MLK Jr Blvd	Vegetation that is mowed or No unvegetated area exceed		
183S-P.5.8.4-Annual-W5S		519.40 (358+50)	SB, 0.3 miles south of E MLK Jr Blvd	Structural integrity of basin is		
183S-P.5.8.4-1" Rainfall-CA1 Basin South		523.39 (4560+00)	NB, 0.2 miles north of Patton Ave, west of NBFR			
183S-P.5.8.4-1" Rainfall-Zen Garden	Detention	520.10 (392+50)	NB, 0.25 miles north of Hudson St	Basin drawdown time is with		
183S-P.5.8.4-1" Rainfall-W5N	Detention	519.20 (352+50)	SB, 0.15 miles south of E MLK Jr Blvd	Basin drawdown time is with		
183S-P.5.8.4-1" Rainfall-W5S		519.40 (358+50)	SB, 0.3 miles south of E MLK Jr Blvd			
183S-P.5.8.7-Quarterly-CA1 Basin North	Underground Detention	523.29 (4560+00)	0.3 miles north of Patton Ave, east of NBFR	Evidence of debris and litter i sedimentation basins, sand fi		
183S-P.5.8.7-1" Rainfall-CA1 Basin North	Underground Detention	523.29 (4560+00)	0.3 miles north of Patton Ave, east of NBFR	Filtration basin drains within		

290 Toll

Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
290E-P.5.8.4-Monthly-Decker Road		592.66 (667+00)	South of EBFR, West of Decker Rd	
290E-P.5.8.4-Monthly-Culvert 6		592.73 (670+50)	South of EBFR, East of Decker Rd	Accumulated Sediment is les
290E-P.5.8.4-Monthly-EBFR West		592.72 (672+00)	North of EBFR, Under SH 130 DC Bridge	
290E-P.5.8.4-Monthly-EBFR East	Detention	592.80 (672+00)	North of EBFR, Under SH 130 DC Bridge	Upper stage, side slopes, em
290E-P.5.8.4-Monthly-Culvert 7		592.89 (1679+00)	South of EBFR, East of Entrance Ramp	All trash and debris are remo
290E-P.5.8.4-Monthly-Basin Z		593.39 (1705+00)	North of WBFR, East of SH 130 NBFR	
290E-P.5.8.4-Monthly-290E Maint Yard DT		590.39 (547+00)	South of EBFR, along Old Manor Rd	
290E-P.5.8.4-Annual-Decker Road		592.66 (667+00)	South of EBFR, West of Decker Rd	Sediment buildup is less than
290E-P.5.8.4-Annual-Culvert 6		592.73 (670+50)	South of EBFR, East of Decker Rd	does not cause standing wat
290E-P.5.8.4-Annual-EBFR West		592.72 (672+00)	North of EBFR, Under SH 130 DC Bridge	Vegetation within the basin s
290E-P.5.8.4-Annual-EBFR East	Detention	592.80 (672+00)	North of EBFR, Under SH 130 DC Bridge	Vegetation that is mowed or
290E-P.5.8.4-Annual-Culvert 7		592.89 (1679+00)	South of EBFR, East of Entrance Ramp	No unvegetated area exceed
290E-P.5.8.4-Annual-Basin Z		593.39 (1705+00)	North of WBFR, East of SH 130 NBFR	
290E-P.5.8.4-Annual-290E Maint Yard DT		590.39 (547+00)	South of EBFR, along Old Manor Rd	Structural integrity of basin is
290E-P.5.8.4-1" Rainfall-Decker Road		592.66 (667+00)	South of EBFR, West of Decker Rd	
290E-P.5.8.4-1" Rainfall-Culvert 6		592.73 (670+50)	South of EBFR, East of Decker Rd	
290E-P.5.8.4-1" Rainfall-EBFR West	Detention	592.72 (672+00)	North of EBFR, Under SH 130 DC Bridge	Basin drawdo
290E-P.5.8.4-1" Rainfall-EBFR East		592.80 (672+00)	North of EBFR, Under SH 130 DC Bridge	
290E-P.5.8.4-1" Rainfall-Culvert 7		592.89 (1679+00)	South of EBFR, East of Entrance Ramp	
290E-P.5.8.4-1" Rainfall-Basin Z		593.39 (1705+00)	North of WBFR, East of SH 130 NBFR	

ess than 20% of the allocated volume of the sedimentation basin

mbankment and emergency spillway are mowed

noved

han 6 inches in splitter boxes and basins, sediment traps are not full, sediment vater, sediment does not reduce basin capacity by more than 10%

in shall remain between 4 and 18 inches at all times

l or cut shall be removed from the basin

eds 10 square feet

n is maintained

vithin 24 hours (i.e., no standing water is allowed)

er in pond risers, material traps, splitter boxes, rock gabions, gabion mattress, d filtration ponds, and outlet structures

nin 72 hours

less than 20% of the allocated volume of the sedimentation basin

embankment and emergency spillway are mowed

moved

han 6 inches in splitter boxes and basins, sediment traps are not full, sediment vater, sediment does not reduce basin capacity by more than 10%

in shall remain between 4 and 18 inches at all times

d or cut shall be removed from the basin

eeds 10 square feet

in is maintained

wdown time is within 24 hours (i.e., no standing water is allowed)

290 Toll, cont.

Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
290E-P.5.8.4-1" Rainfall-290E Maint Yard DT	Detention	590.39 (547+00)	South of EBFR, along Old Manor Rd	
290E-P.5.8.6-Monthly-290E Maint Yard WQ	Water Quality	590.38 (547+00)	NW corner of Maintenance Yard	Accumulated paper, trash ar
				Inlet and outlet uninmpeded
				Sediment buildup is less thar
				does not cause standing wat
				Vegetation within the basin
				Vegetation that is mowed or
				No unvegetated area exceed
290E-P.5.8.6-Annual-290E Maint Yard WQ	Water Quality	590.38 (547+00)	NW corner of Maintenance Yard	Structural integrity of basin i
				Basin is draining the equivale
290E-P.5.8.6-1" Rainfall-290E Maint Yard WQ	Water Quality	590.38 (547+00)	NW corner of Maintenance Yard	allowed)

Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
71-P.5.8.4-Monthly-CA3-2		524.10 (15+00)	0.1 miles north of Dalton Ln, west of ent ramp to 183 NB	Accumulated Sediment is less
71-P.5.8.4-Monthly-CA3-1	Detention	523.90 (22+50)	0.2 miles north of Dalton Ln, east of ent ramp to 183 NB	Upper stage, side slopes, emb
71-P.5.8.4-Monthly-CA3-3	Detention	524.20 (122+50)	Inside NB 183 Ent ramp to 71 WB	
71-P.5.8.4-Monthly-Riverside		524.20 (111+50)	0.1 miles west of Airport Commerce Dr, south of WBFR	All trash and debris are removed
71-P.5.8.4-Annual-CA3-2		524.10 (15+00)	0.1 miles north of Dalton Ln, west of ent ramp to 183 NB	Sediment buildup is less than does not cause standing wate
71-P.5.8.4-Annual-CA3-1	Detention	523.90 (22+50)	0.2 miles north of Dalton Ln, east of ent ramp to 183 NB	Vegetation within the basin sl
71-P.5.8.4-Annual-CA3-3		524.20 (122+50)	Inside NB 183 Ent ramp to 71 WB	Vegetation that is mowed or o
71-P.5.8.4-Annual-Riverside		524.20 (111+50)	0.1 miles west of Airport Commerce Dr, south of WBFR	Structural integrity of basin is
71-P.5.8.4-1" Rainfall-CA3-2		524.10 (15+00)	0.1 miles north of Dalton Ln, west of ent ramp to 183 NB	
71-P.5.8.4-1" Rainfall-CA3-1	Detention	523.90 (22+50)	0.2 miles north of Dalton Ln, east of ent ramp to 183 NB	Basin drawdown time is withi
71-P.5.8.4-1" Rainfall-CA3-3	Detention	524.20 (122+50)	Inside NB 183 Ent ramp to 71 WB	Basin drawdown time is with
71-P.5.8.4-1" Rainfall-Riverside		524.20 (111+50)	0.1 miles west of Airport Commerce Dr, south of WBFR	

Express 1 Toll

Asset ID	BMP Type	Location TRM (Station)	Location Description	Inspection Requirement
N/A		N/A	N/A	N/A

and debris shall be removed as necessary to maintain proper operation

ded from vegetation, sediment, debris, or any other cause

han 6 inches in splitter boxes and basins, sediment traps are not full, sediment water, sediment does not reduce basin capacity by more than 10%

sin shall remain between 4 and 18 inches at all times

d or cut shall be removed from the basin

eeds 10 square feet

in is maintained

valent of the Water Quality Volume within 96 hours (i.e., no standing water is

ess than 20% of the allocated volume of the sedimentation basin

mbankment and emergency spillway are mowed

noved

an 6 inches in splitter boxes and basins, sediment traps are not full, sediment ater, sediment does not reduce basin capacity by more than 10%

n shall remain between 4 and 18 inches at all times

or cut shall be removed from the basin

eds 10 square feet

n is maintained

ithin 24 hours (i.e., no standing water is allowed)

EXHIBIT 7 VUEWorks Procedures

1. Reference Documents

- 1) Contract Documents
- 2) Work Order Activity List
- 3) CTRMA Activity & TxDOT Function Code Chart
- 4) Service Request Manual
- 5) Work Order Manual
- 6) WorkforceVUE Manual
- 7) Training Videos

2. VUEWorks Desktop

A Service Request (SR) is not required to create a Work Order (WO). It is intended for instances that require evaluation prior to a WO being created.

- 2.1. Select Add New Service Request from Service Request Menu
 - 1) Select the specific layer to choose the specific asset from the map and click the Done button.
 - 2) Populate the Type, Department, Group, and Issue fields using the picklist menus as provided and click the Create button.
 - 3) The location will be populated with the Travel Direction, Corridor, and Lane Type (*NB 183A FR*). Add the geographic location (Ex. at *New Hope Dr*) to the Description field to assist in locating the asset. Do Not edit the Location field. It should remain with the Toll Road name attributed for the asset selected. If no asset is required, you can manually populate with the lane label from the map or by selecting another asset near the work area, but it should be deleted after the Location field population if not required.
 - 4) The SR will be assigned to the person entering and should be changed to an individual or group with the button to the right to expedite response.
 - 5) On the Details tab, add the approximate Reference Marker (RM) from the Tenth RM displayed in the map. If between two TRMs, choose the nearest. You can also look at the attributes of the asset to see the assigned TRM.
 - 6) In the Description field on the Details tab, add a concise description with reported concern and location details (guard rail and attenuator damage or One-way sign down 250' N of 35th St overpass,).
 - 7) If notified by a caller, populate fields in the Caller Information block on the Details tab then click Save.
 - 8) If more information is needed, you can add in the Comments tab.

- 9) Click the SAVE button at the bottom and the SR will be assigned a SR number and notifications sent.
- 2.2. Evaluating a SR Created from WorkforceVUE
 - 1) Review the Type, Department, Group, Issue, Asset, and Location fields.
 - 2) Revise any of the fields that are incorrect or incomplete.
 - 3) Modify the location and asset from the map if needed. The location will then be populated with the location data associated with the specific asset. The snip below is an example of what will be shown when the location and asset are selected.

Select From	
Roadway CL 🗸	14.
Set Point 🗹 Lat/Lon: 30.520762, -97.815199 Assign Location 🗸 NB 183A TOLL Attach Assets 🖌 1 Asset(s) found: 183A PH I Include Associated Facility Asset	NB 183A TO
Done Cancel	S

- 4) Update description and response fields with any action taken. (*If an additional photo needs to be added, it can be manually added as document link to the SR in the Documents tab.*)
- 5) Assign the SR as appropriate for work completion and click the Save button.

2.3. Add New associated WO

- 1) Navigate to the WO tab on the SR then use the Add New button.
 - a) A new Create WO Order window will open. The Type, Department and Location fields from the associated SR will be populated in the new WO. The asset will also carry over if selected in the associated SR.
 - b) Populate or correct any of the header fields that are incomplete or incorrect. The Group and Activity Description fields are populated with a default and will need to be edited with the appropriate information.
 - c) Click the Create button.
 - d) Determine the Activity Description appropriate to the asset and priority. (CAT 1-M Urgent, Cat 1-T Temporary, Cat 2-P Permanent)
 - e) Verify the correct WO form is activated and corresponding information in the Details tab supports the intended work.
- 2) If the Location field is incorrect or empty, use the map icon to correct.

- 3) Assign the WO to the appropriate personnel.
- 4) If the work is associated to a Project, check the Associated with box and populate the Project fields.
- 5) Navigate to the Details tab and enter the following information.
 - a) If the work is associated to a bridge Follow-Up Action(FUA) report, populate the FUA fields.
 - b) Populate the Begin RM and End RM field. This information is required to save the WO. (*The CTRMA/TxDOT Function Codes and Unit of Measure fields are displayed along with the required response time.*)
 - c) Populate the Work Qty field paying attention to the Unit of Measure and select the appropriate Repair / Replace / Rout Maint / Call Out button. This information is required to close the WO.
 - d) If applicable, populate the fields in the Third-Party Claim section and attach any supporting documents on the Document tab.
 - e) After work is complete, change the Begin Date/Time and End Date/Time fields to reflect the actual work duration.
 - f) Change the Status to Closed and click the Save button.

If additional work is required, open the next level WO immediately. This can be done from the SR or any of the associated WOs. If this is a different work Activity, it is best to open from the SR rather than the first associated WO. Follow the same process in steps in 1-4.f. *(If additional WOs are created separately, they can be manually added to the SR for tracking).*

- 2.4. Create a New WO not Associated with a SR
 - 1) Select Add New Work Order from the Work Orders menu.
 - 2) Select the appropriate Type, Department, Group, and Activity Description from the picklist menus. Use the button next to the Location filed to Select an asset from the map. A window will open titled "Select From" and the appropriate asset Layer for the work to be performed should be selected. (*The asset type Layer for the appropriate asset must be turned on*). The asset selected will appear in a red circle on the map. After confirming the location and information is correct, click the Done button. If the location is incorrect, change it with the Location button and remove or add assets on the asset tab as needed. Then click the Create button.
 - 3) The new WO form will open and the prepopulated information should be reviewed and edited for accuracy. * Required to save ‡ Required to Close
 - 4) Select the appropriate Group from the picklist menu.
 - 5) Determine the Activity Description appropriate to the work type and priority. (CAT 1-M Urgent, Cat 1-T Temporary, Cat 2-P Permanent)

- 6) The Location will auto populate from the location data associated with the specific asset selected. Verify the WO pin location for accuracy if incorrect go to the "Location" button and edit.
- 7) Add Description providing details of work and location. (*Yield sign down, SB LOOP 1 GP, Right Lane at Windsor*). Do not add location details in the Location field. Place concise information in the Description field or if lengthy comments needed, place in the Comment tab.
- 8) Assign WO to the appropriate personnel for handling.
- 9) If the work is associated with a Project, check the "Associated with" box and populate the Project fields.
- 10) Begin/End Dates default to 8am of current day. These fields should be changed by the field techs or admins from the information provided from the field techs. This records the date and time work begins and ends and is required to close the WO.
- 11) If the work is associated with a bridge follow up action (FUA) report, populate the FUA fields.
- 12) Populate the RM information from the Tenth RM on the map and the Corridor field. These fields are required to Save the WO.
- 13) Select Repair / Replace / Rout Maint / Call Out. This is required to close the WO.
- 14) Populate the work Amt/Qty in accordance with the required Function Unit of Measure (UOM). This is required to close the WO.
- 15) If applicable, populate the fields in the Third-Party Claim section and attach any supporting documents in the Document tab.
- 16) Additional documents and photos can be uploaded through the Documents tab.
- 17) If additional comments are needed, add in the Comments tab.
- 18) If the WO is to remain open to complete additional work, click the Save button. A WO can be put in On Hold status for justified reasons but must be approved by the CTRMA Project Manager.
- 19) Verify the WO number populates in the top left corner and check box next to "Send Email Notifications".
- 20) After work is complete, update the work order, QC data entry, and assign to appropriate personnel for closing.
- 21) To close the WO, change the Status to Closed and Save. (*This is a permissions-based function*)

When a Cat 1-M activity is mitigated and requires additional work, a Cat 1-T (temporary repair) or Cat 2-P (permanent repair) WO must be opened immediately after closing the first WO.

2.5. Create WO Using the New Copy Feature

This feature is useful for work associated with multiple asset types that require different activity codes or roadbeds. Do not use this for WOs related to SRs, as it will add another WO to the list that is associated with the SR.

- 1) Open the WO you wish to copy and click the New Copy button at the bottom of Work Order.
- 2) A new WO number will be assigned.
- 3) The status of the new WO will be set to Open.
- 4) Check the details and the assets selected for the WO. These will copy as they were in the original WO and will need to be updated.
- 5) Update the WO information as needed.
- 6) Follow the same procedures for populating and closing as in section 2.4.

3. WorkforceVUE for SRs

3.1. <u>Submitting a Service Request from WorkforceVUE</u>

- 1) Open the WorkforceVUE app and select the Service Request module in your mobile device.
- 2) Select the Locate me compass arrow in the top right corner.
- 3) Make sure the asset group and subgroup are turned on for the type of work needed. Tap the green ADD button at the bottom right corner.
- 4) Populate the Type, Department, Group, and Issue fields from the menus provided.
- 5) Select the asset(s) on the GIS tab and tap CONTINUE.
- 6) Complete all known info in the Details tab.
- 7) The Location field will provide some selections from the map service. This is also a free typing field. It is recommended that it be populated with the Toll Road Name (TRN) which is the label on the roadway centerline in the map (*Ex. NB 183A TOLL*).
- 8) Tap the Documents & Photos black bar and select ADD to add a photo. Then Take Photo with your device or Choose Photo from your device. The photo shall be taken in landscape mode (wide angle) from a distance to help identify location. Preview photo tap Retake or Use Photo. Tap the <Back arrow.
- 9) Check all information entered and edit as needed. The Description field should include deficiency or concern, travel direction, corridor, lane type, and geographic feature. (Ex. *Guardrail damage NB 183A FR at New Hope Dr*).
- 10) Ensure the "Assigned to" field is correct then go back to the home screen showing your username and tap SYNC NOW. This will send the SR to the assigned employee's SR list and will remove form yours.

3.2. Evaluating the SR

- 1) Refer to Section 2.2.
- 3.3. <u>Creating the associated WO</u>

1) Refer to Section 2.3.

4. WorkforceVUE for WOs

4.1. Create New WOs

- 1) Open the WorkforceVUE app and select the Work Orders module in your mobile device.
- 2) Select the Locate me compass arrow in the top right Corner.
- 3) Populate the Type, Department, Group, and Activity Description using the picklist menus as provided.
- 4) Select the asset(s) on the GIS tab from the map and tap CONTINUE.
- 5) Complete all known info in the Details tab.
- 6) Tap the Documents & Photos black bar and select ADD. Then Take Photo with your device or Choose Photo from your device. The photo shall be taken in landscape mode (wide angle) from a distance to help identify location. Tap the <Back arrow.
- 7) Check all information entered and edit as needed. The comment format should include a deficiency or concern, travel direction, corridor, lane type, and geographic feature. Update with the action taken to correct the situation.

(EX. Guardrail damage NB 183A FR at New Hope Dr).

8) Ensure the Assigned to field is correct then go back to the home screen with your username and tap SYNC NOW. This will send the SR to the assigned employees WO list.

4.2. Edit Existing WOs in WFVUE

- 1) View the list of WOs assigned to you in WFVUE.
- 2) Tap on the WO being worked and systematically work from top to bottom. Check the WO pin location in the map thumbnail and edit if needed.
- 3) Tap the Back button then the Details tab. Edit all fields in the Details pane as needed. Include results of work performed in the Description field.
- 4) Revise the Begin/End Dates to report the work begin and end dates and times.
- 5) Edit the Work Amt/Qty if needed and check UOM in case calculations are needed.
- 6) After Details have been edited, tap the LINKED ASSETS tab if applicable. Tap the box next to each asset completed. You can also remove assets not applicable and/or add additional assets worked on that meet the WO criteria.

- 7) After work is complete and data entry has been completed/corrected, tap the DETAILS tab and change Status to the appropriate level.
- 8) If you do not have Close permissions, reassign to appropriate employee for QA and closing. This will remove the WO from your list and add to the newly assigned as well as VWs desktop application after sync.
 - a) A popup message will display to confirm pending settings "Work Order saved successfully". Click the OK button.
- 9) Click Back to the home screen with your username and tap SYNC NOW

5. Timeliness Requirements

1) The timeliness requirement in accordance with the performance measures in Exhibits 2, 3 and 6 will be dependent upon the determination of the WO activity chosen to address the deficiency. This timeliness will be measured in VUEWorks from the time the WO is logged in the system to the time the WO is closed. This timeframe shall include all necessary QC.

Central Texas Regional Mobility Authority

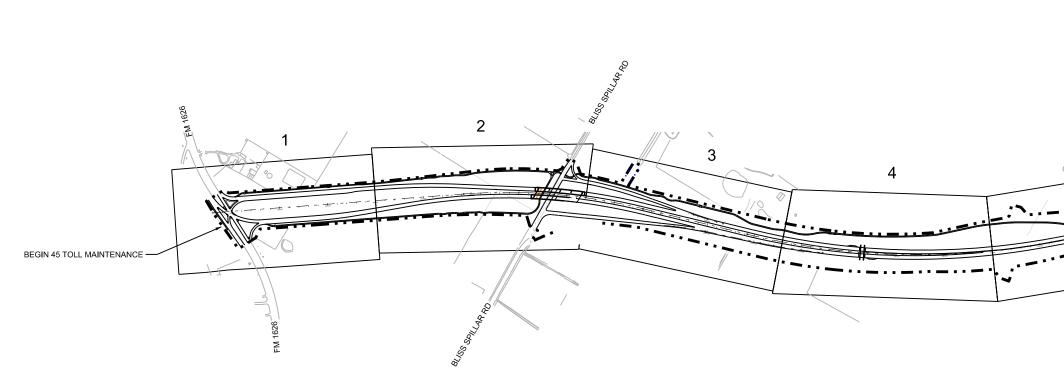
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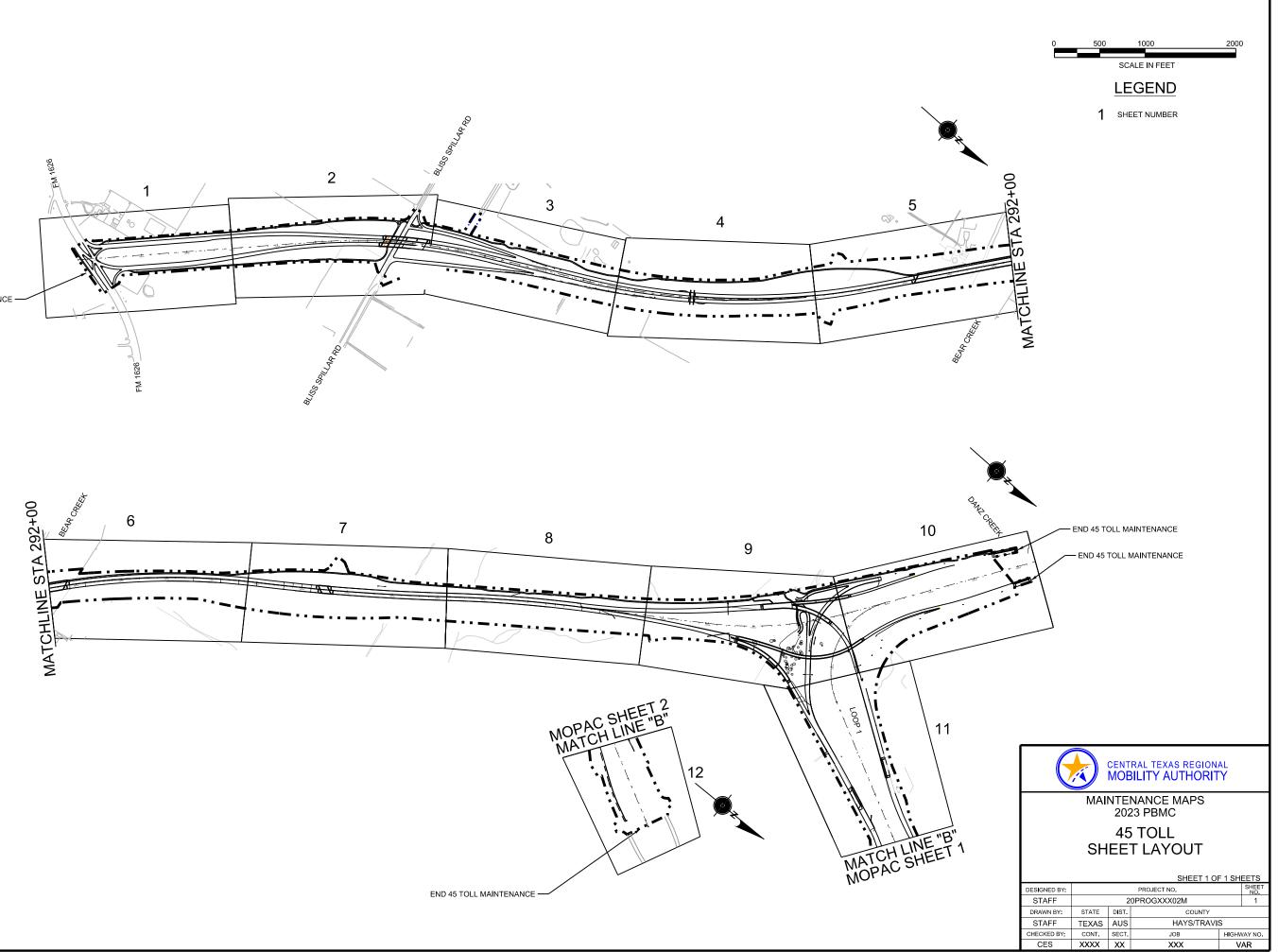
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IV. Maintenance Maps

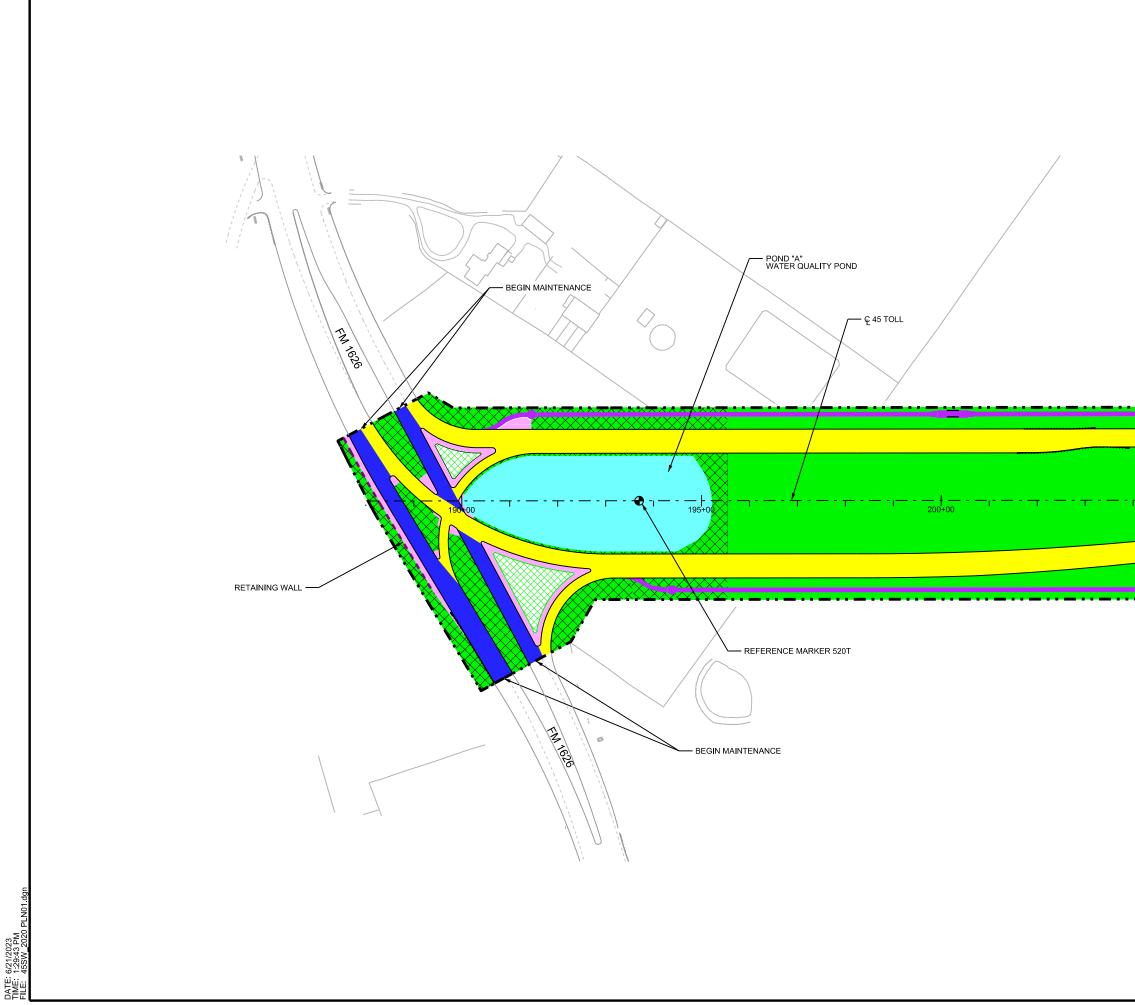
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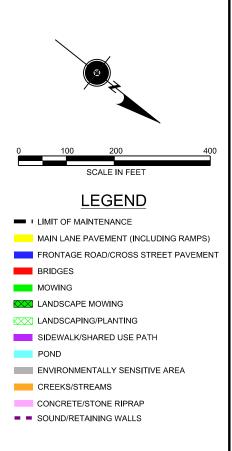
June 20, 2023





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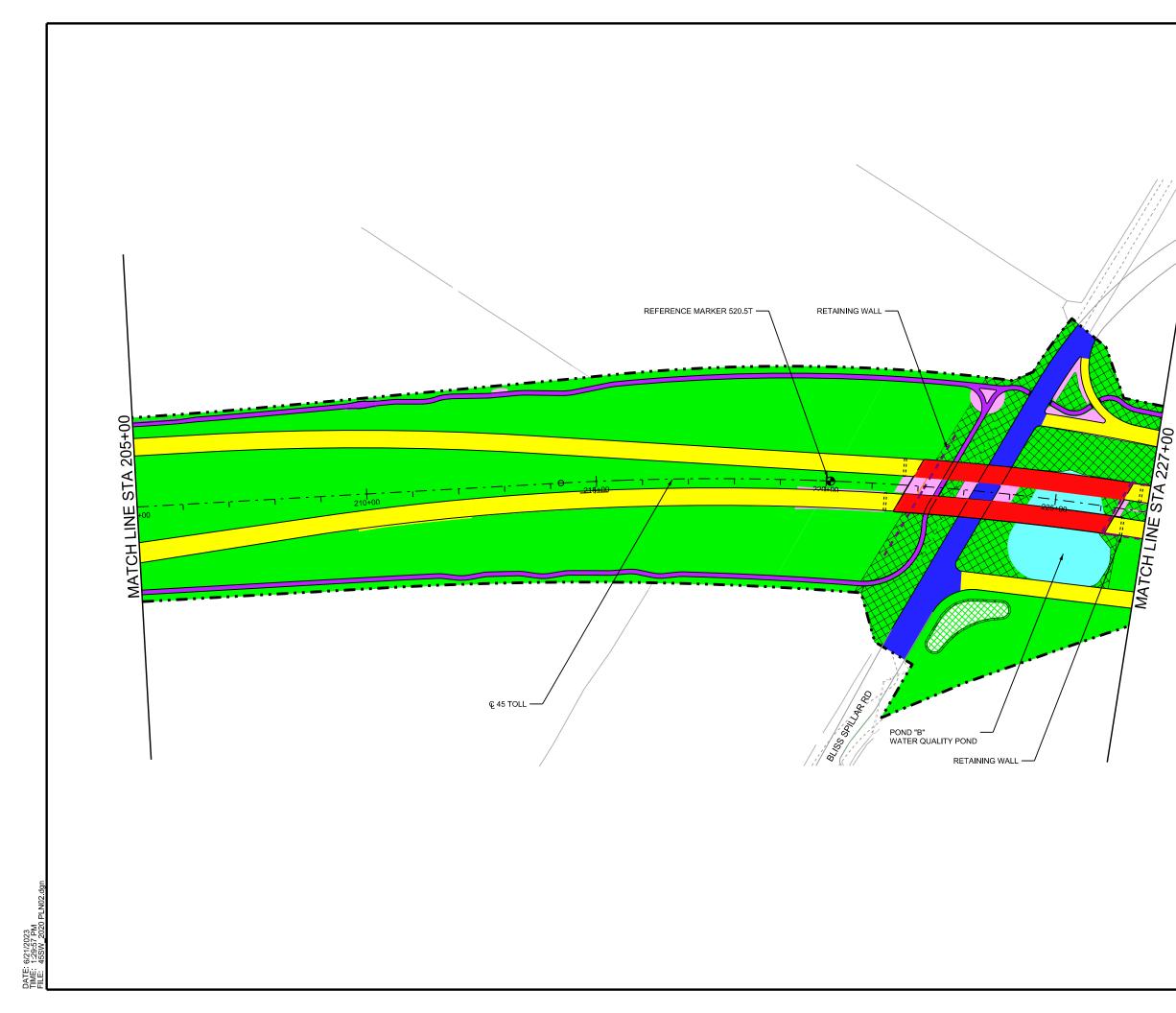


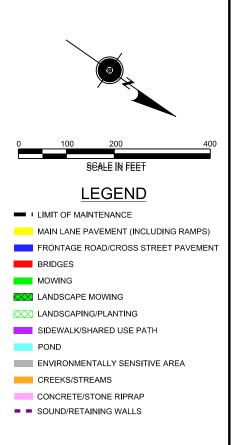
NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. ALL ADVANCE SIGNS RELATED TO THE TOLL FACILITY ARE INCLUDED IN THE CTRMA MAINTENANCE EXCLUDING SUPPORTS AND TRUSSES.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



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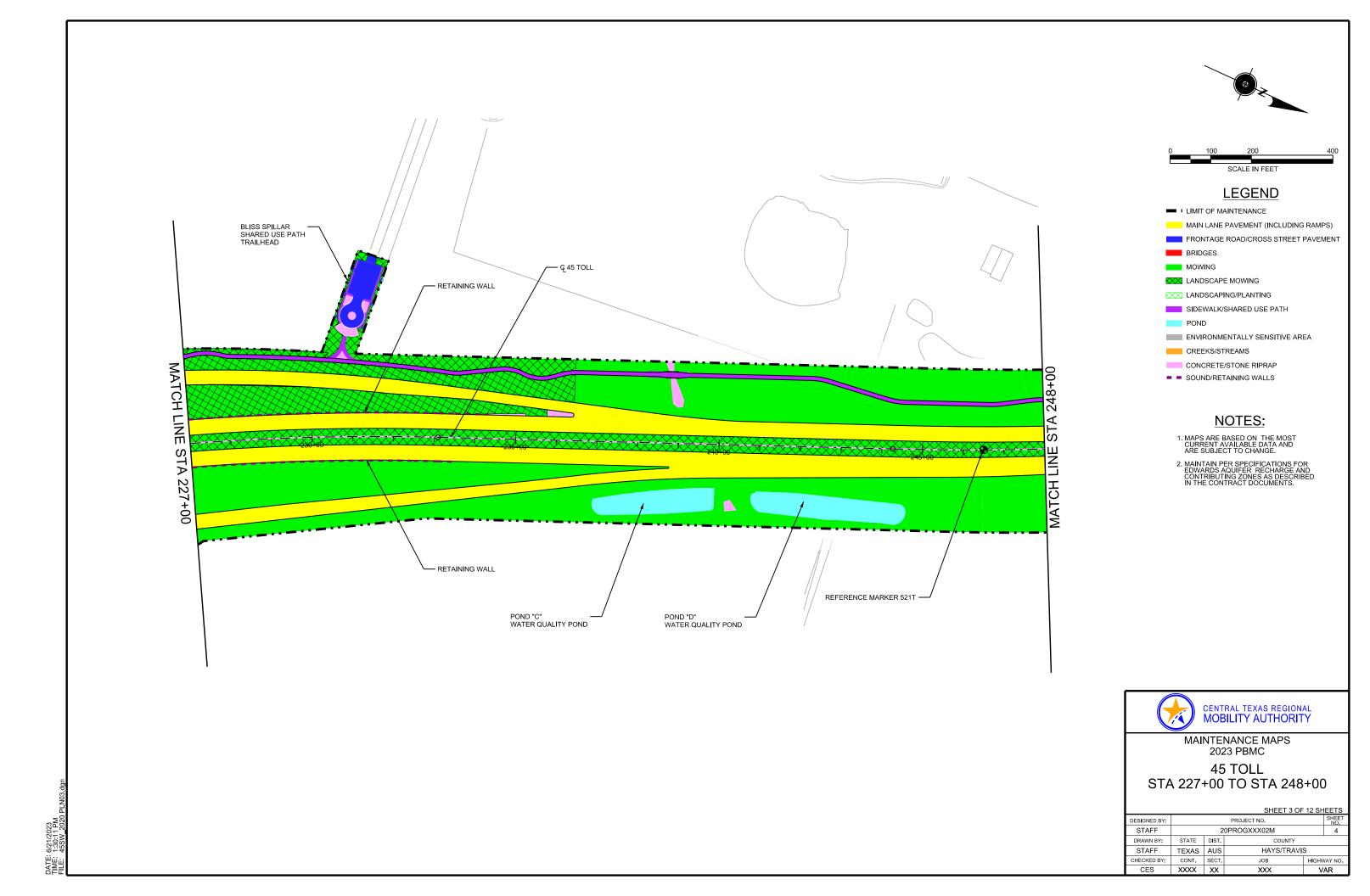
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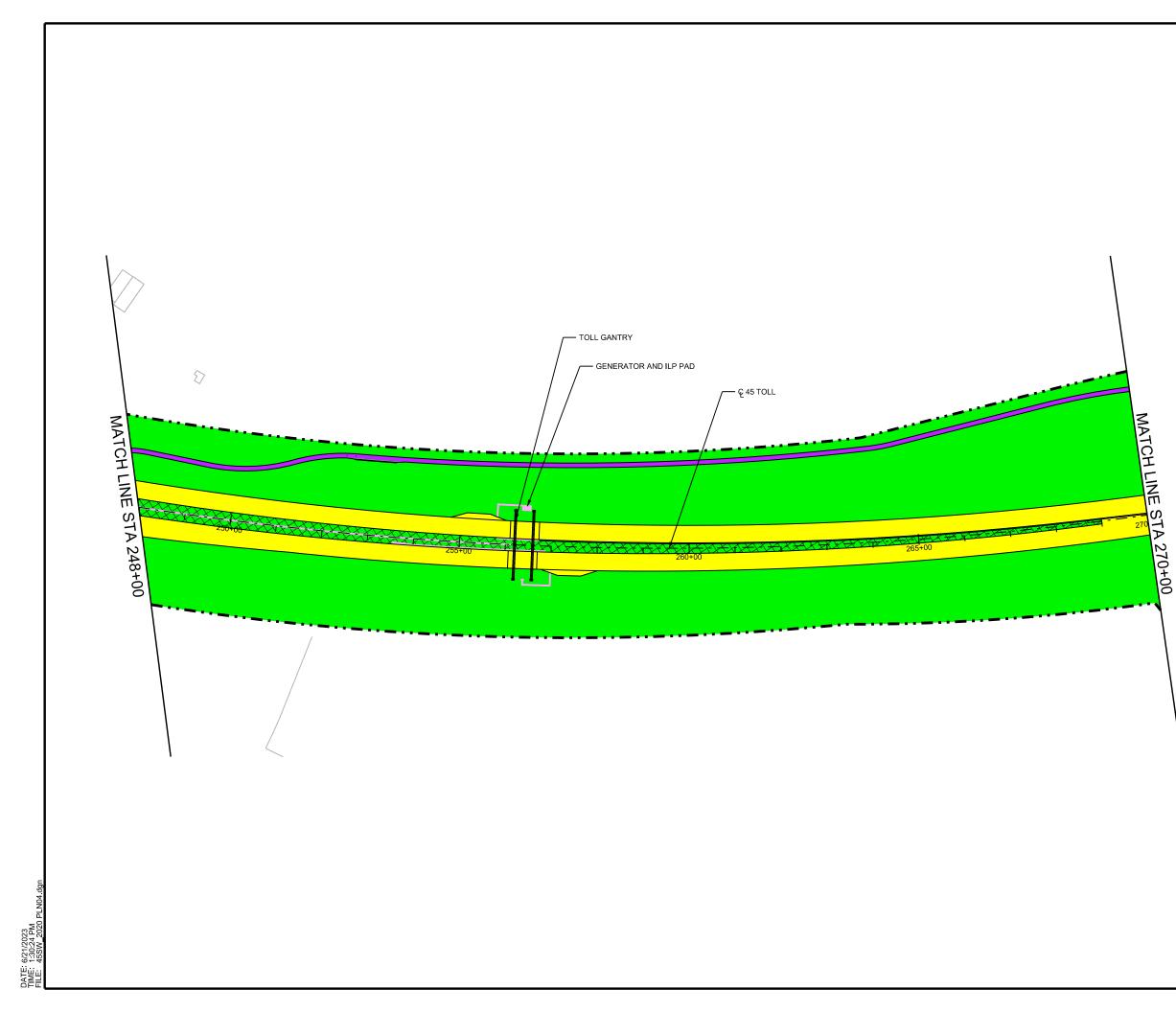
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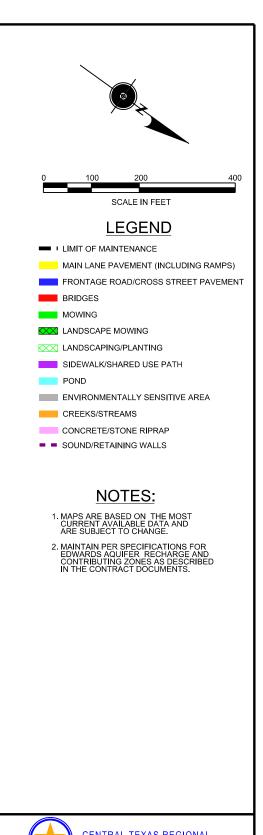


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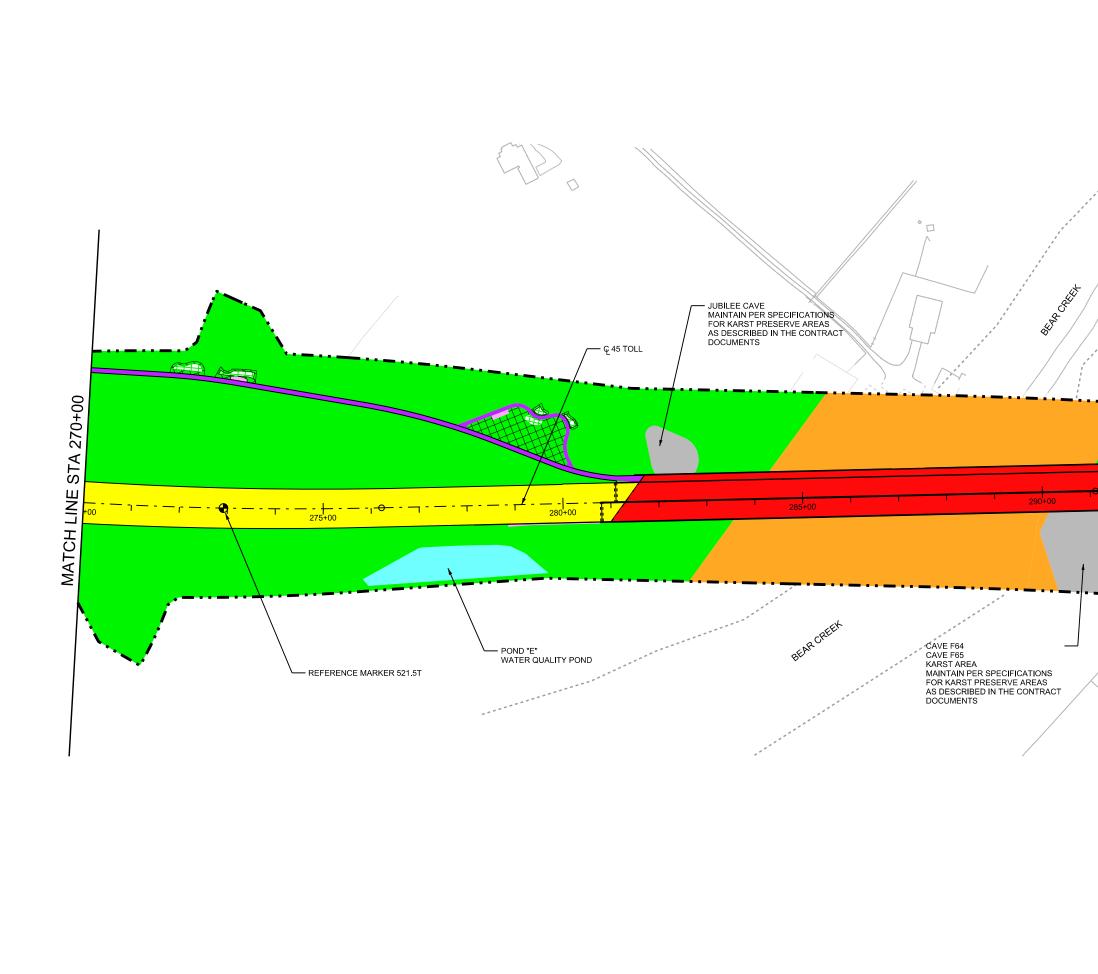
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DRAWN BY:	STATE	DIST.	COUNTY				
STAFF	TEXAS	AUS	HAYS/TRAVIS				
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.			
CES	XXXX	XX	XXX	VAR			



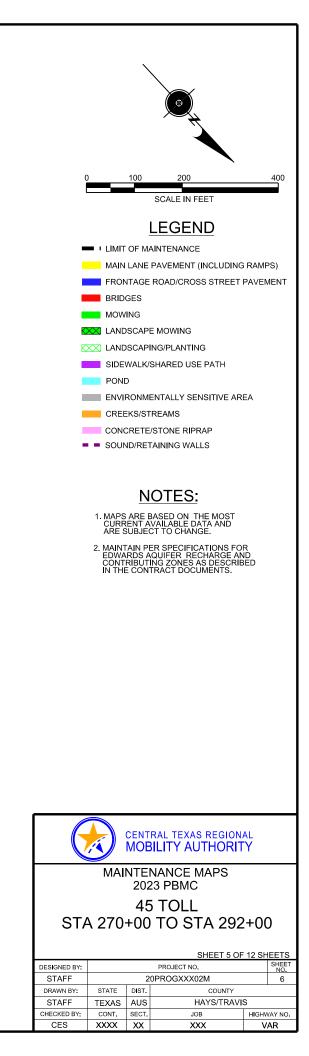




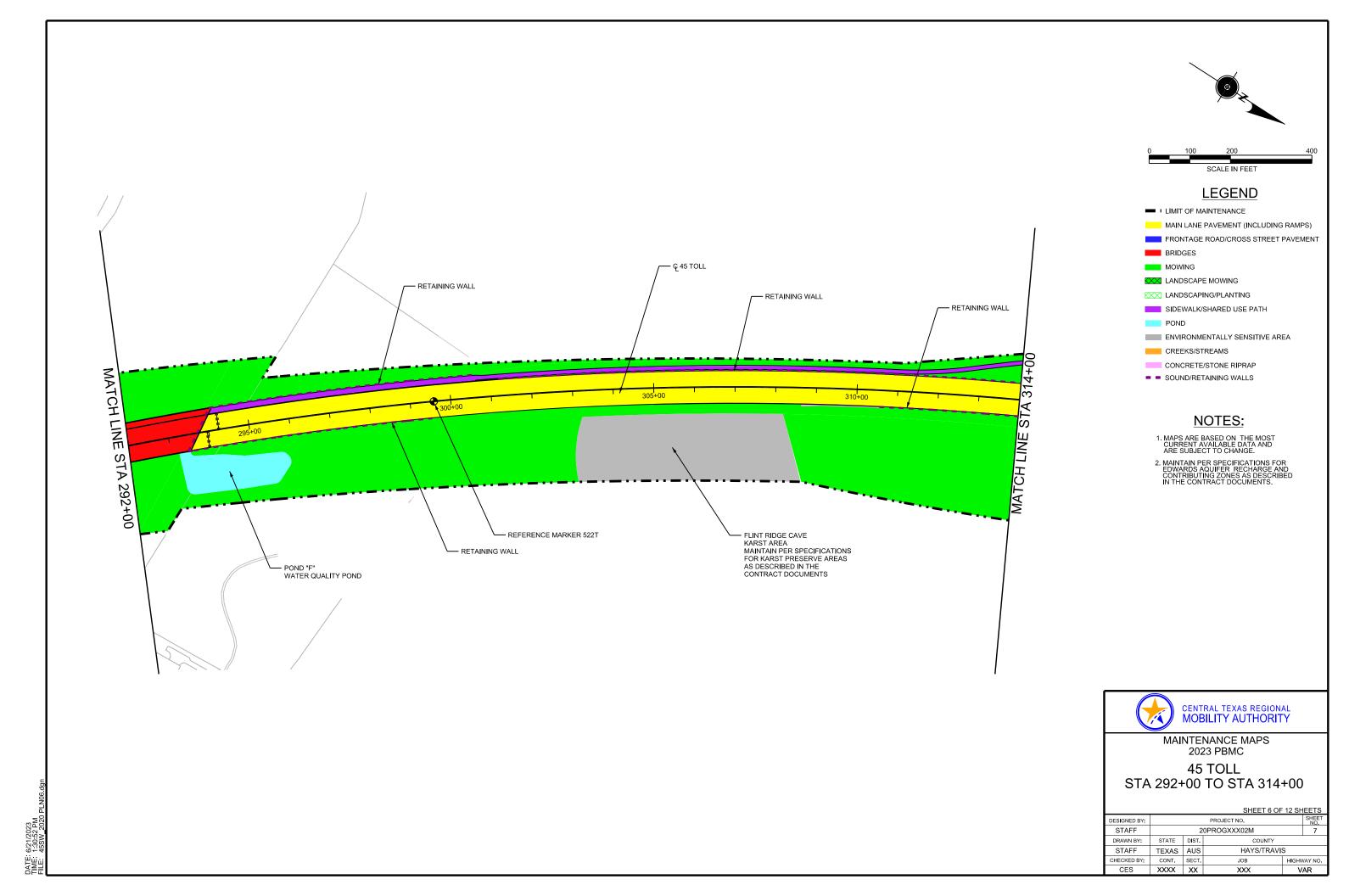


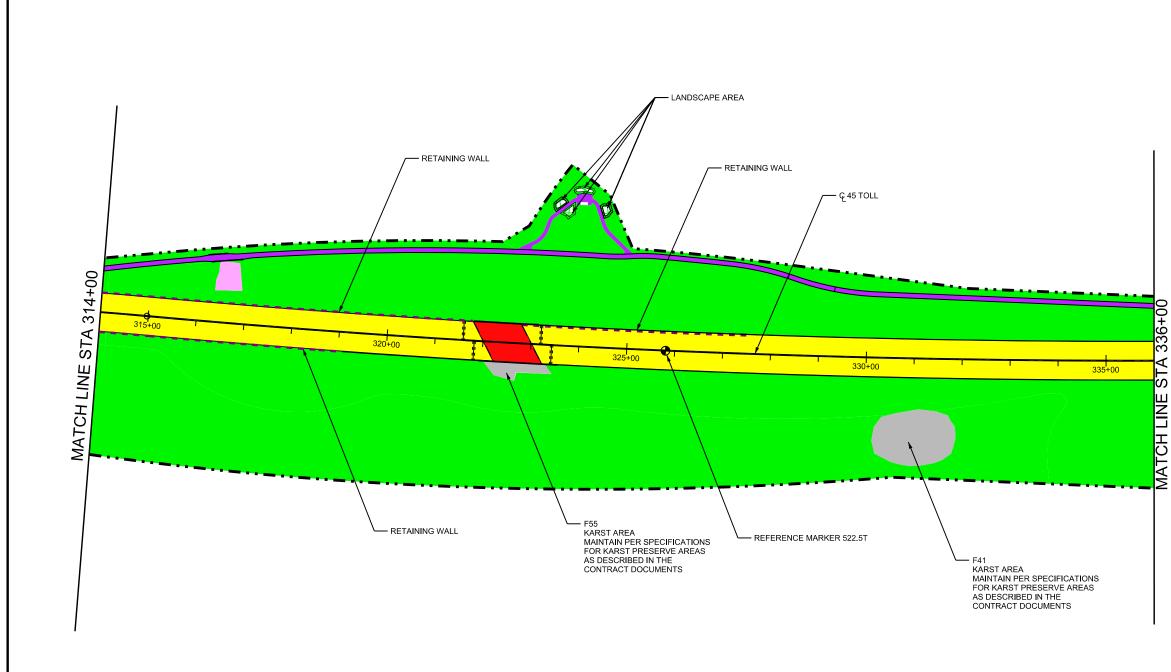


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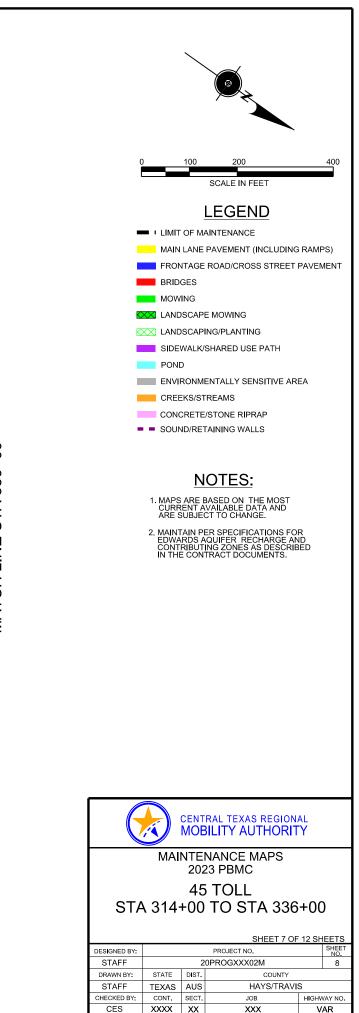


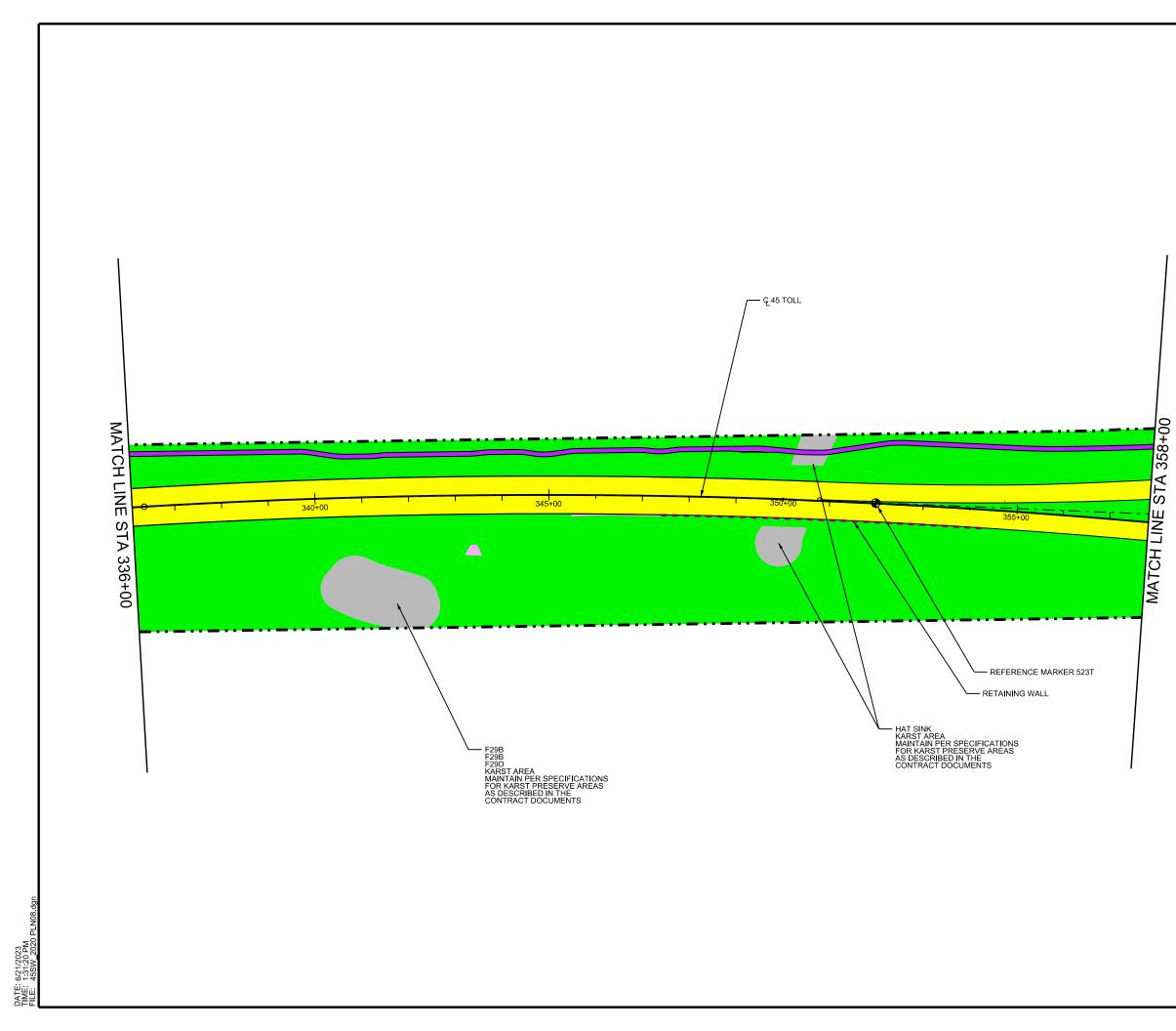
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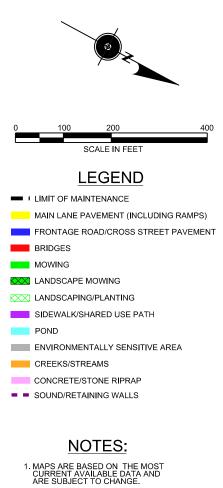






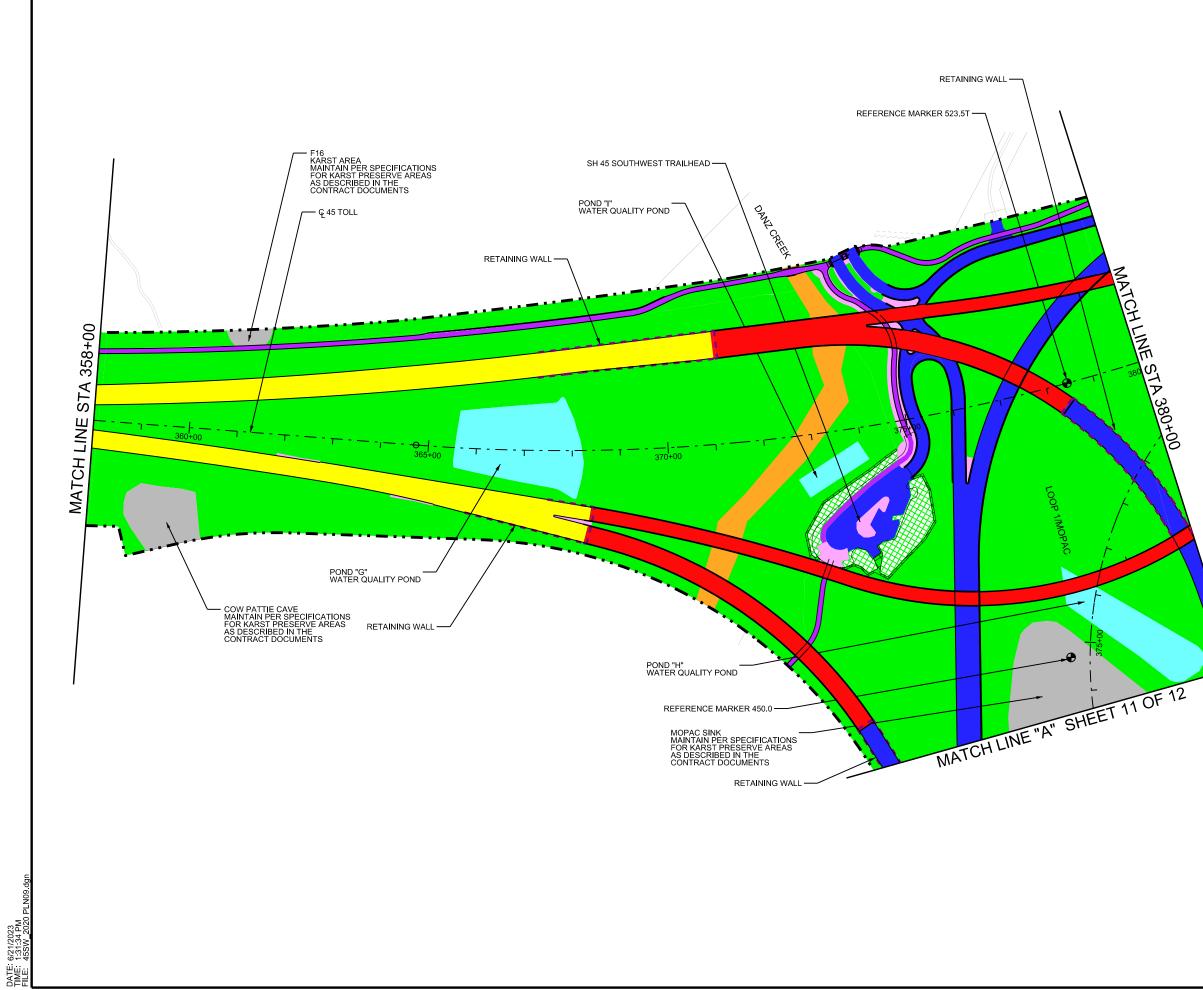






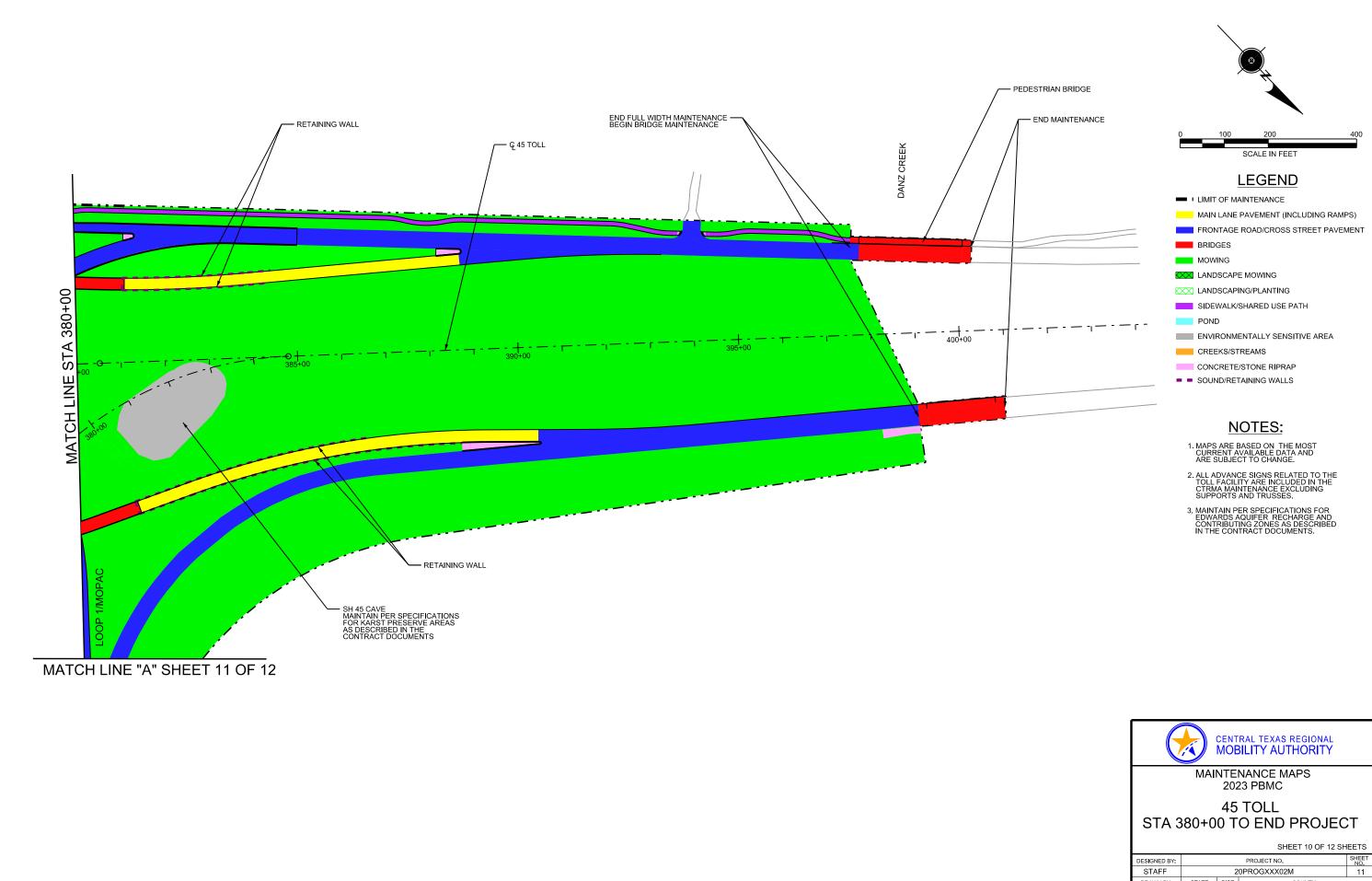
2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



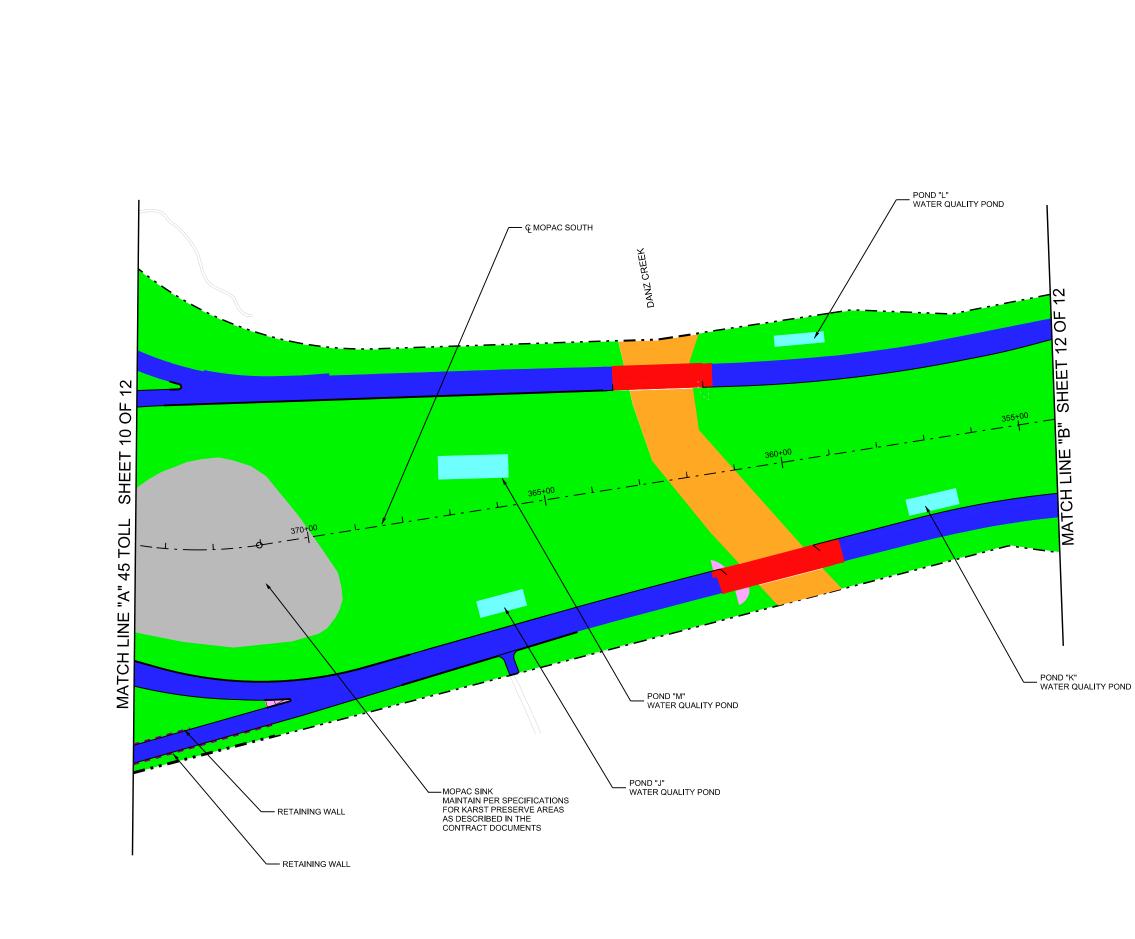




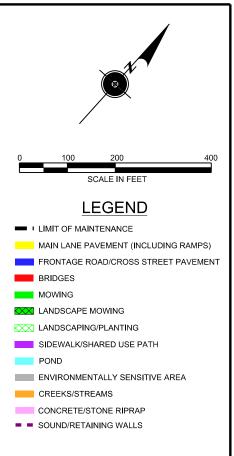
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STAFF	20PROGXXX02M 10						
DRAWN BY:	STATE DIST. COUNTY						
STAFF	TEXAS AUS HAYS/TRAVIS						
CHECKED BY:	CONT. SECT. JOB HIGHWAY NO.						
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CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY						
MAINTENANCE MAPS 2023 PBMC						
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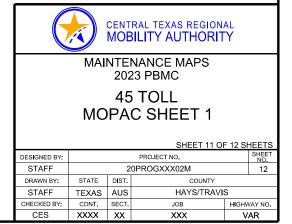


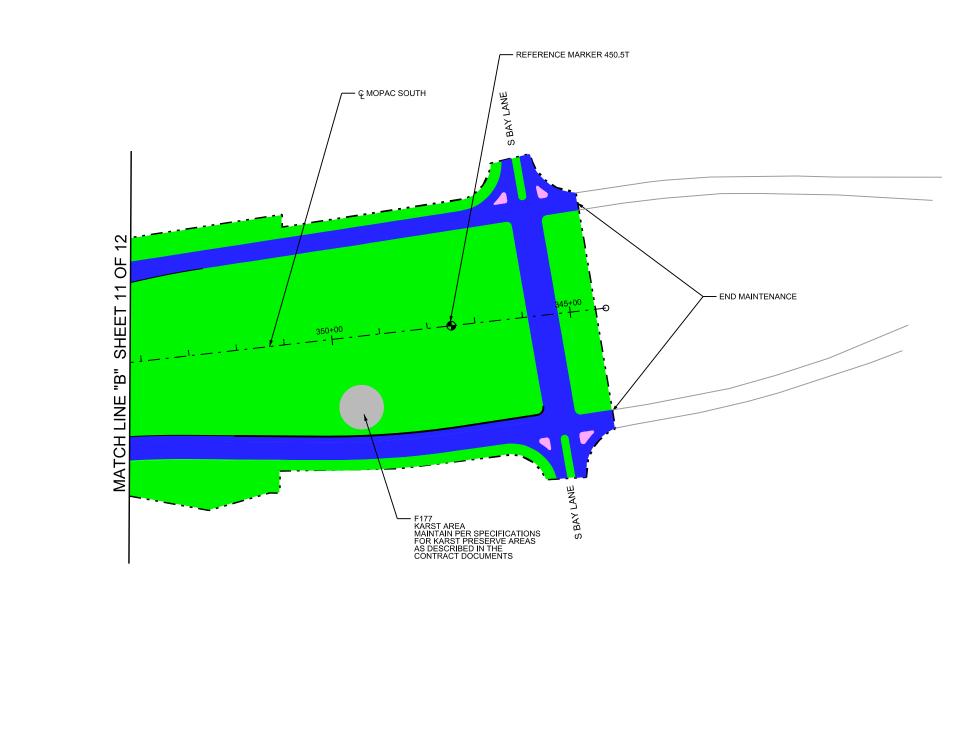
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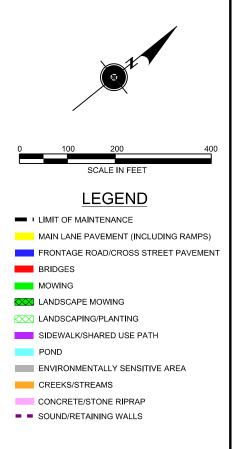
NOTES:

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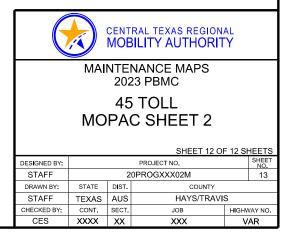


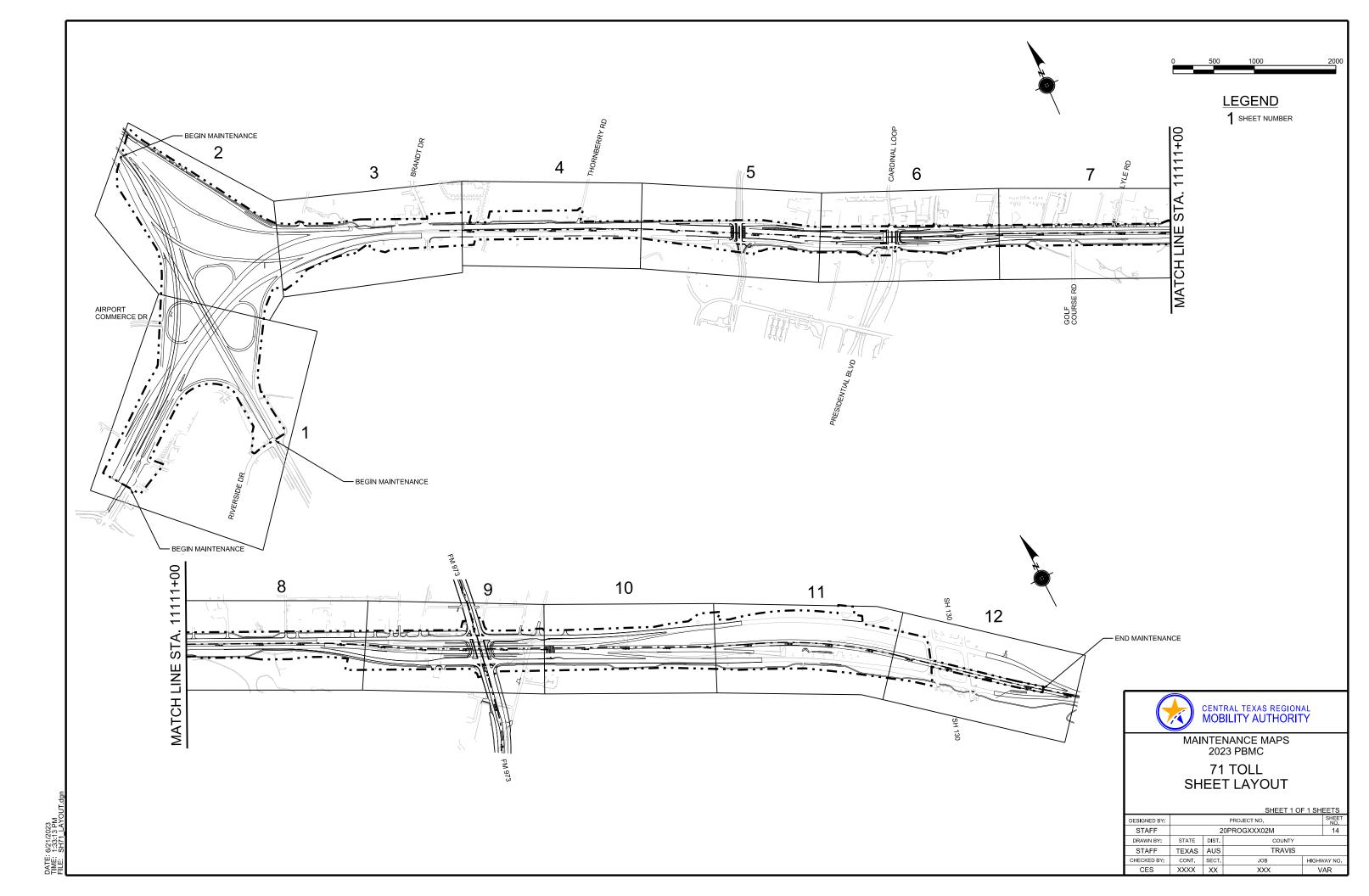
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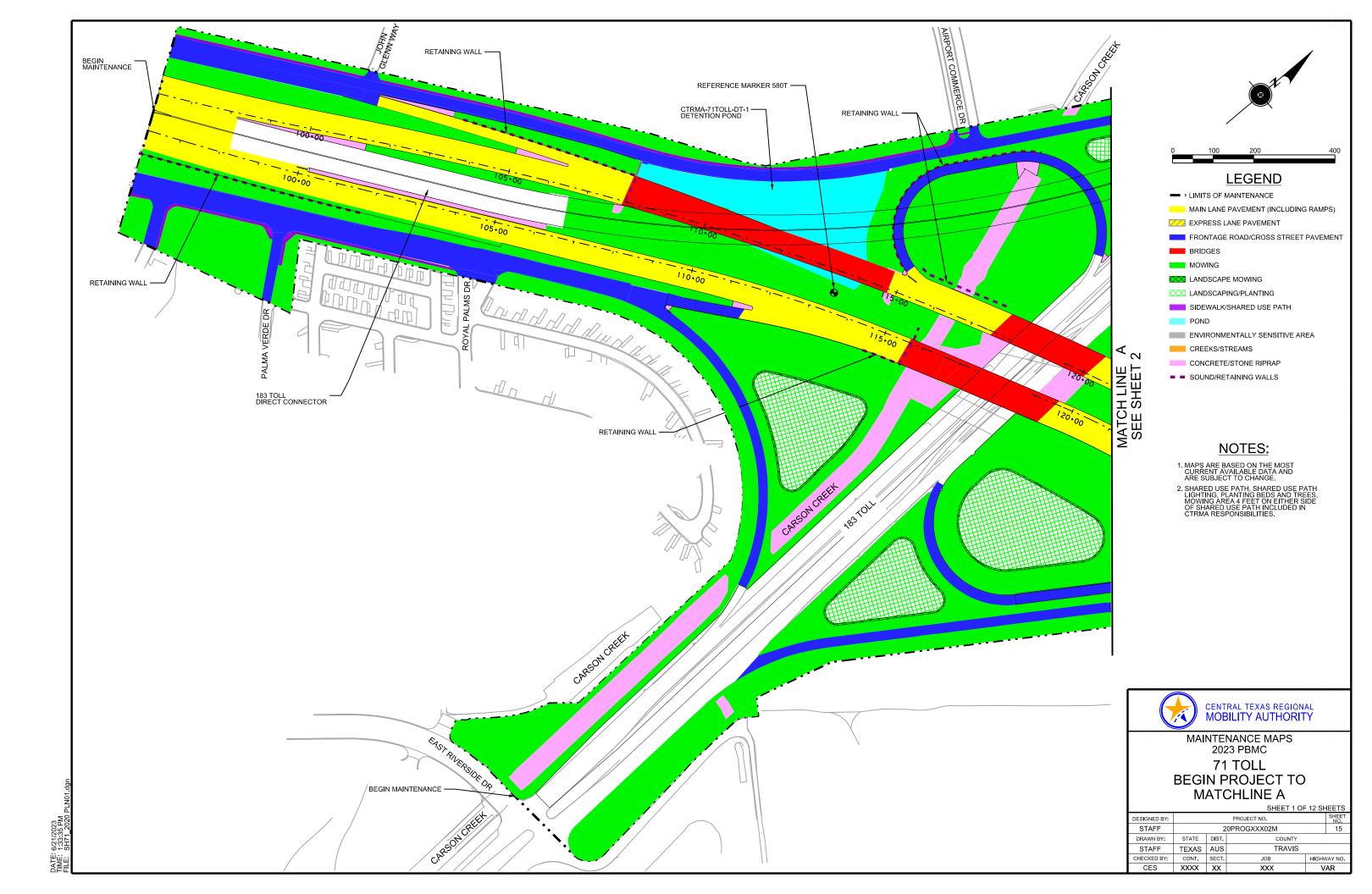


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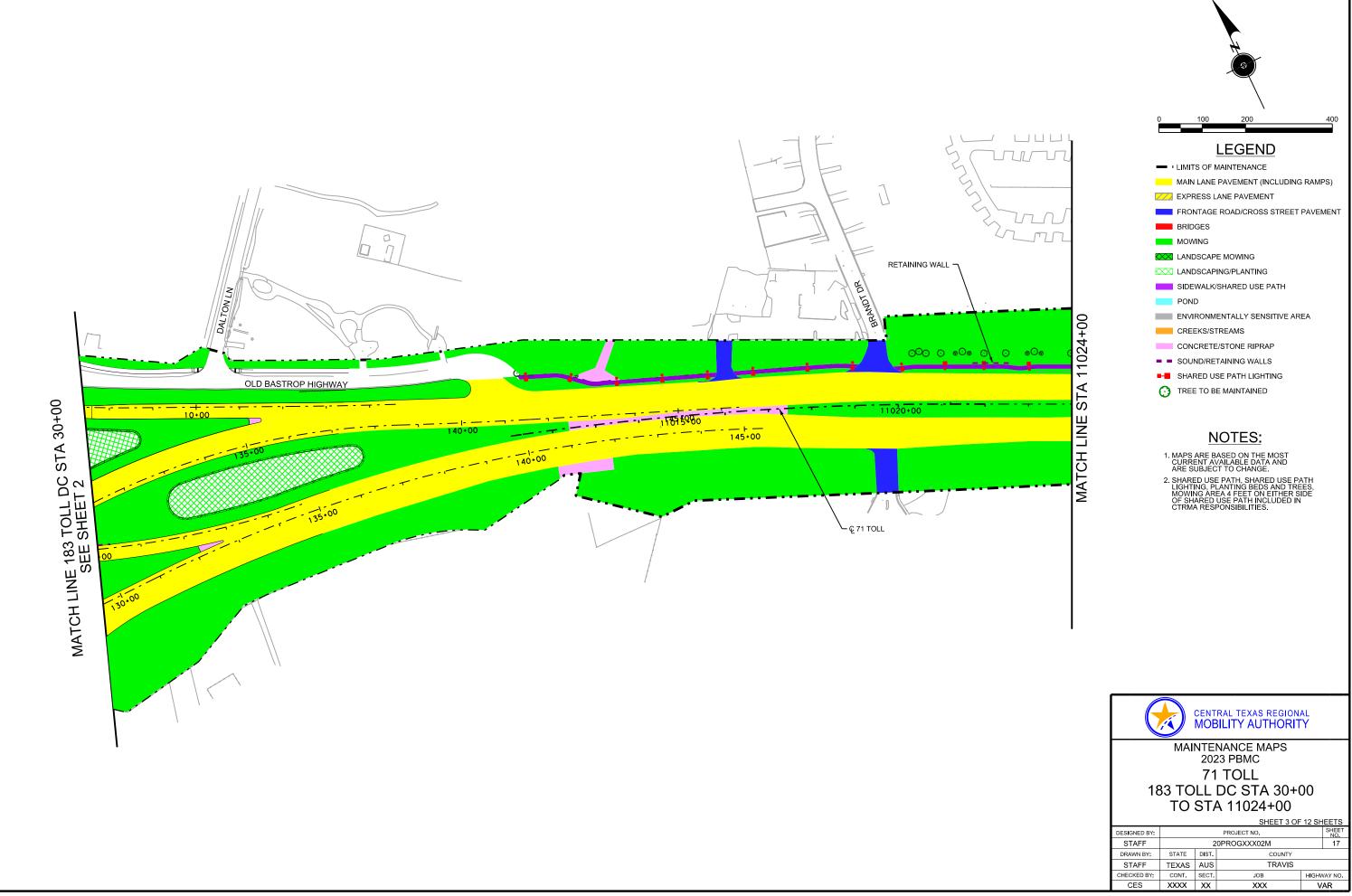
- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
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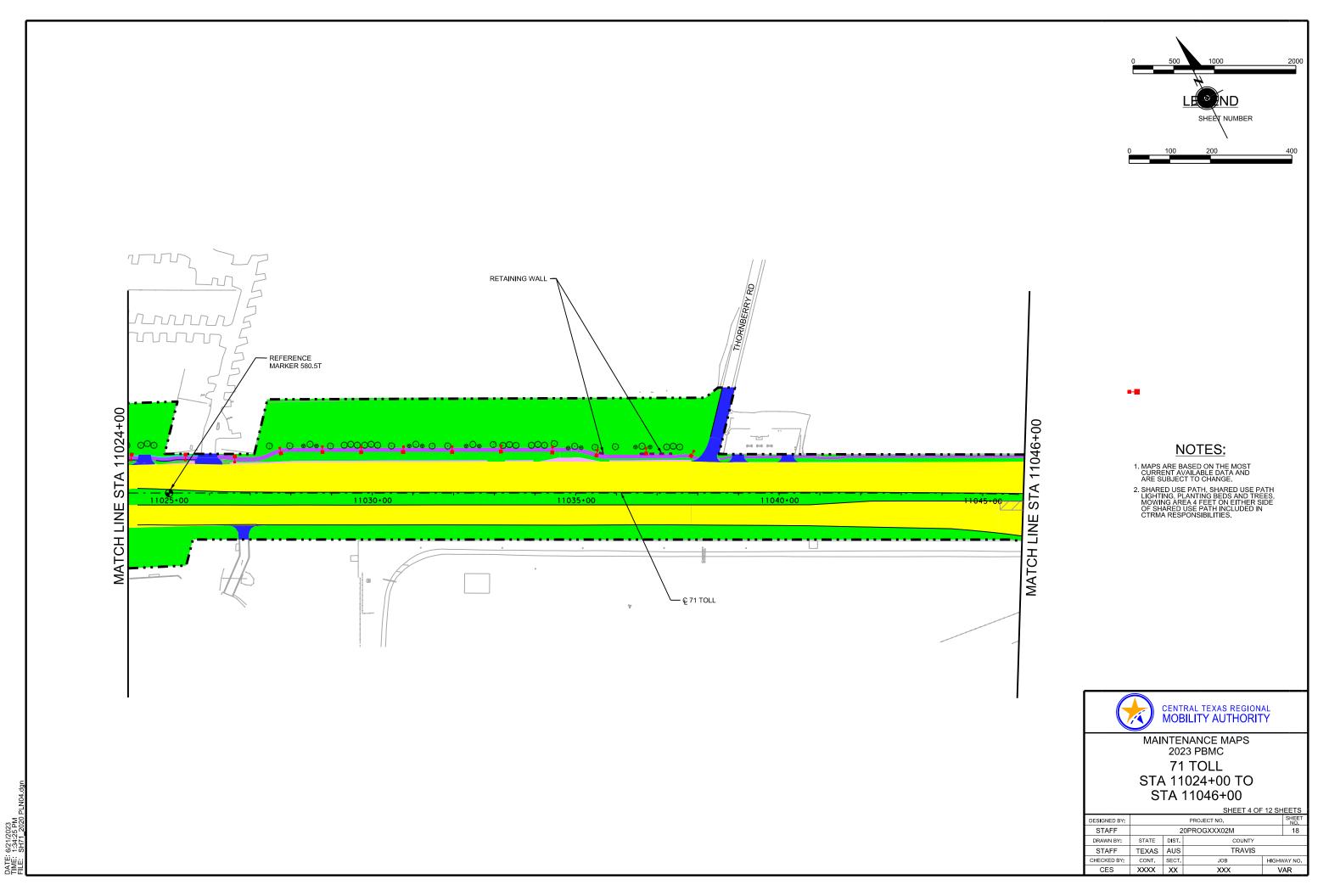


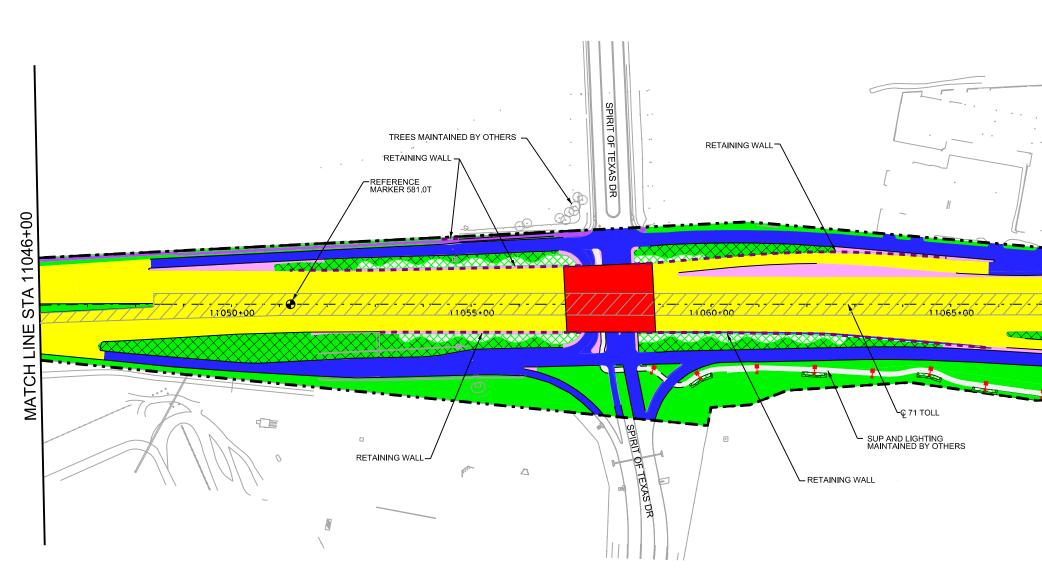


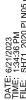


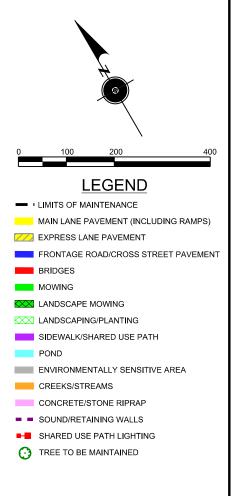
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NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. SHARED USE PATH, SHARED USE PATH LIGHTING, PLANTING BEDS AND TREES, MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED IN CTRMA RESPONSIBILITIES.



TRAVIS

JOB

XXX

HIGHWAY NO.

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STAFF

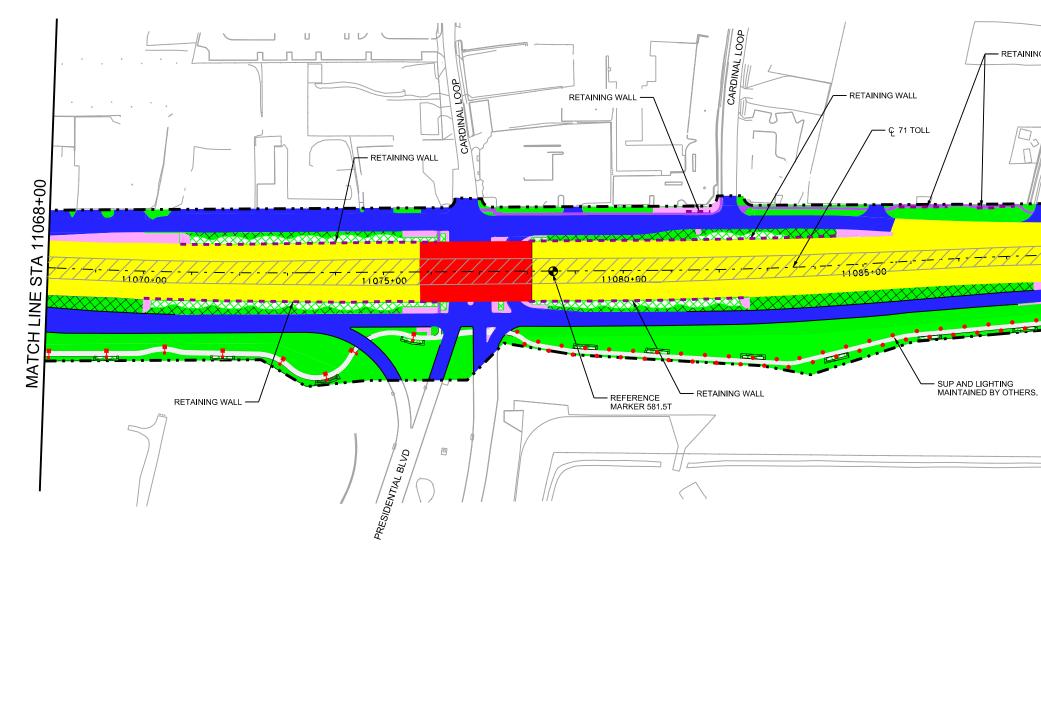
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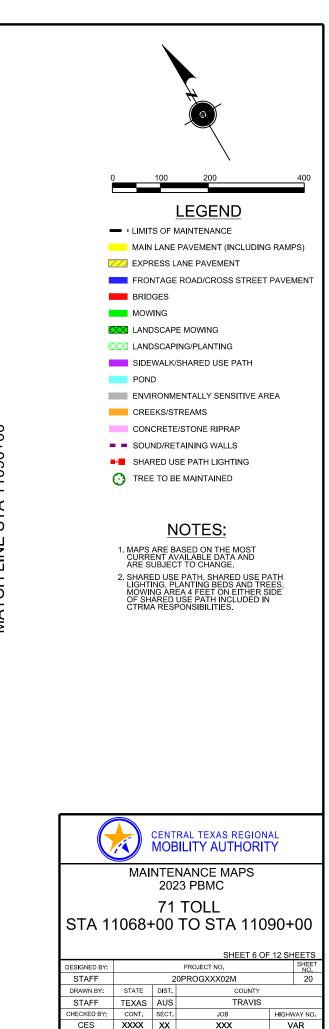
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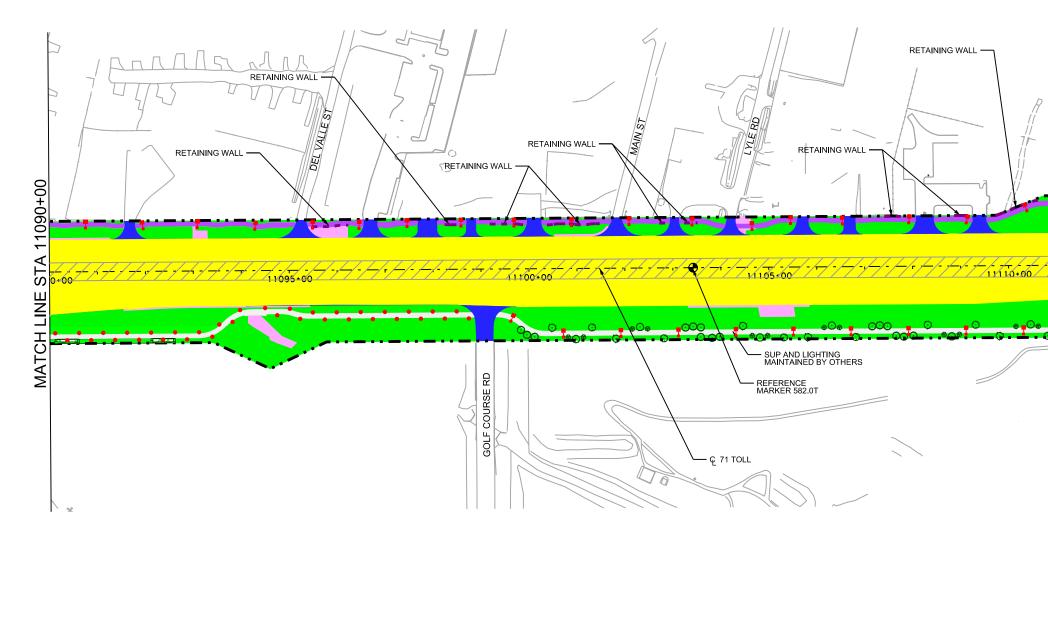
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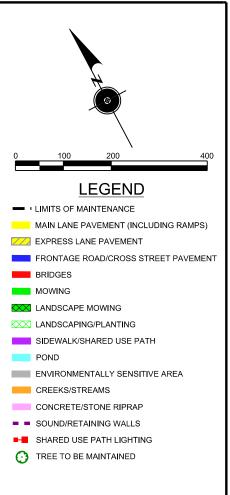


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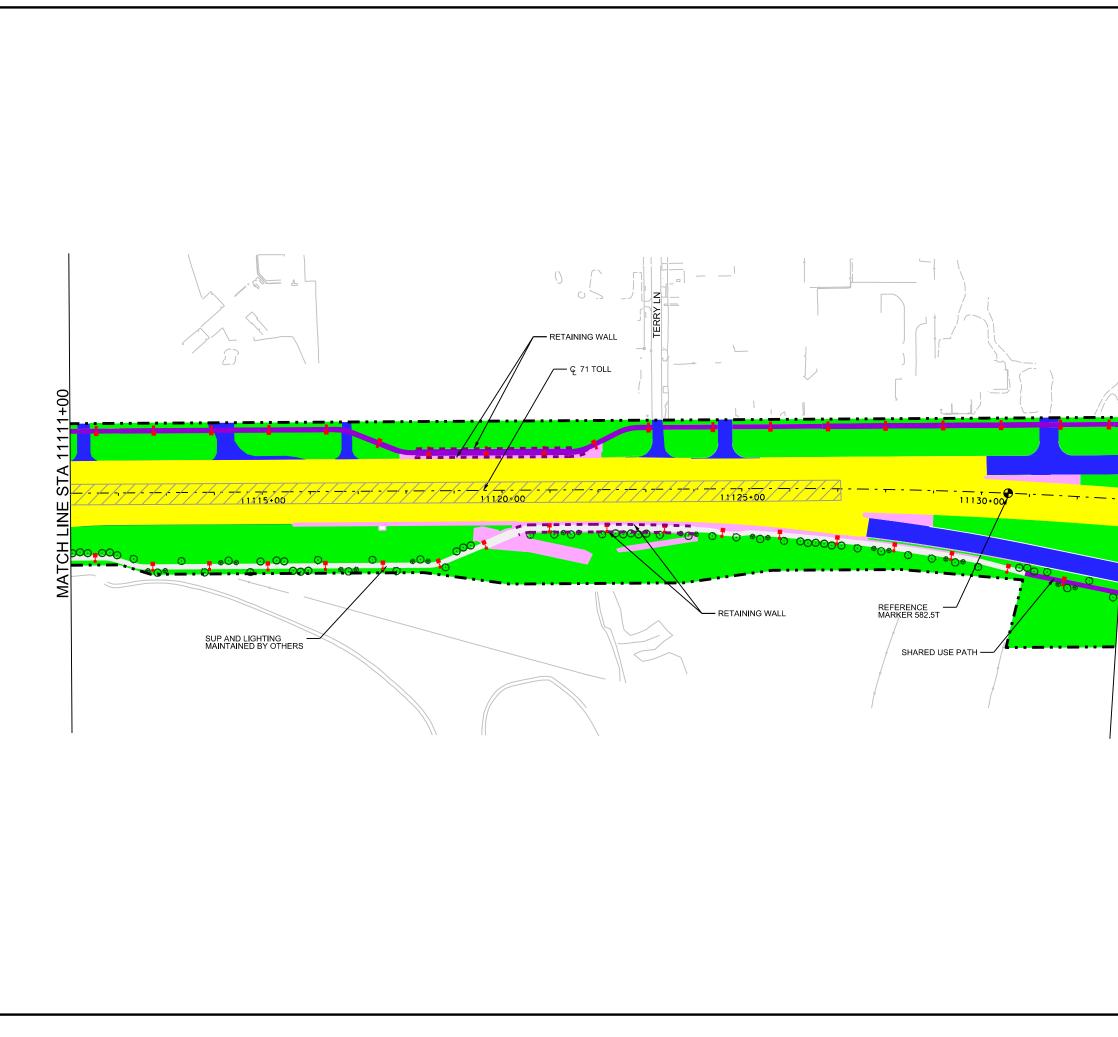


NOTES:

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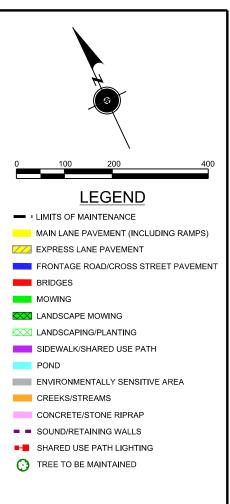


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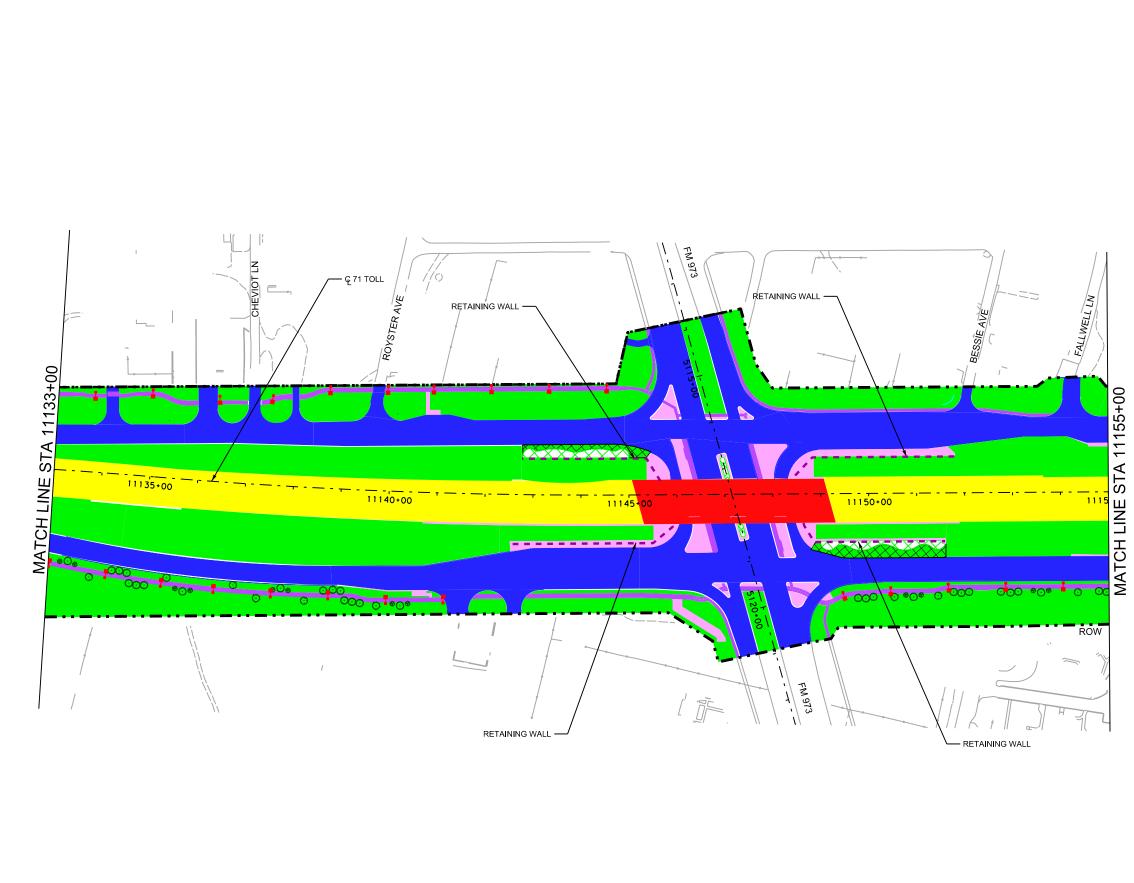


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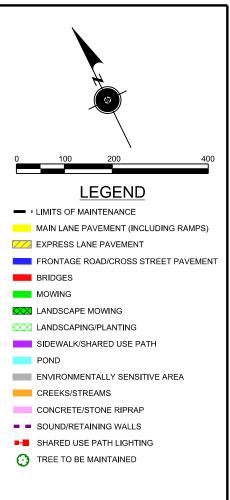
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- 2. SHARED USE PATH, SHARED USE PATH LIGHTING, PLANTING BEDS AND TREES, MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED IN CTRMA RESPONSIBILITIES.



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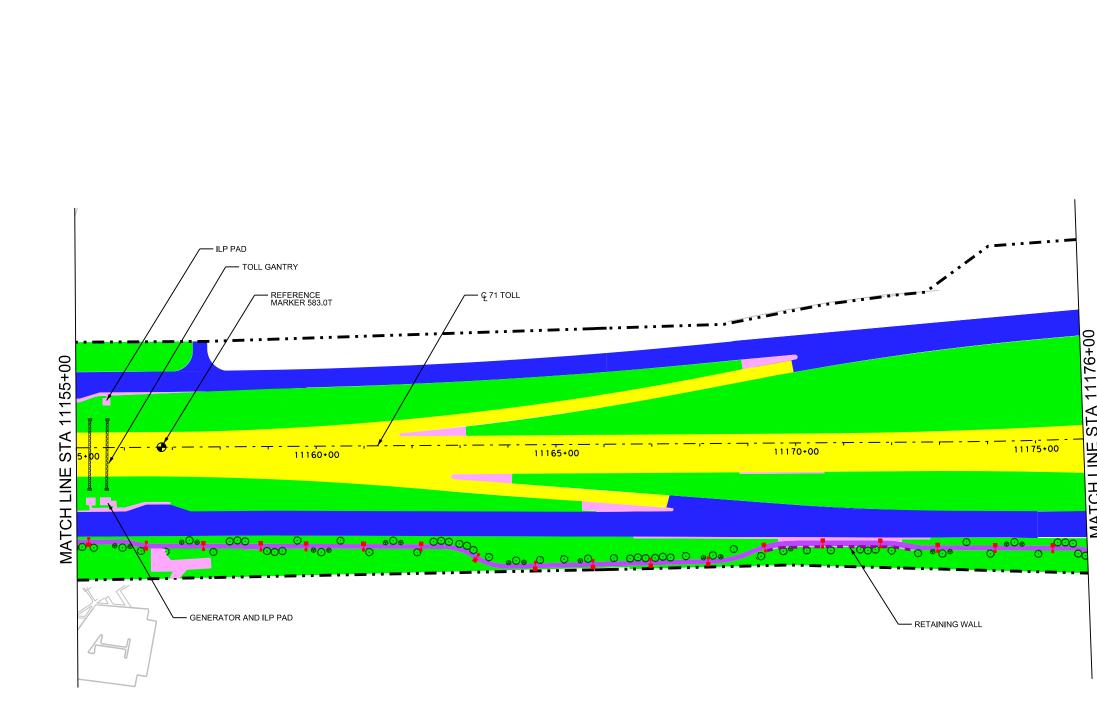


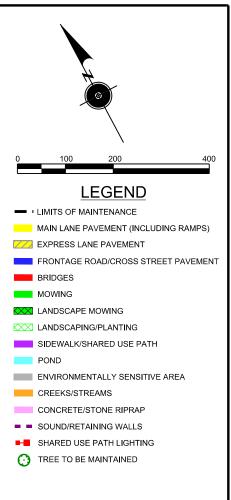
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- 2. SHARED USE PATH, SHARED USE PATH LIGHTING, PLANTING BEDS AND TREES, MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED IN CTRMA RESPONSIBILITIES.



11155+00 STA ROW



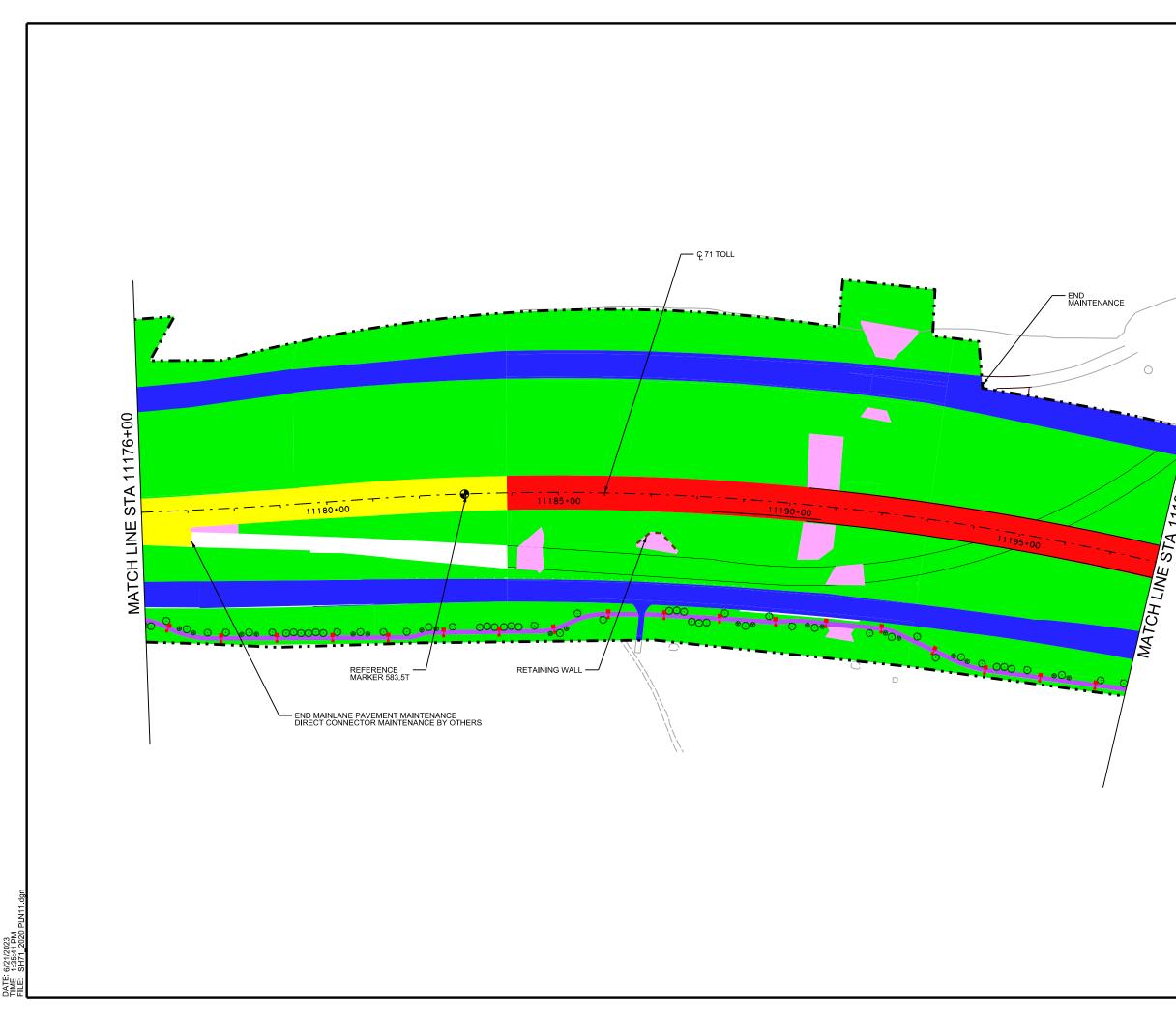


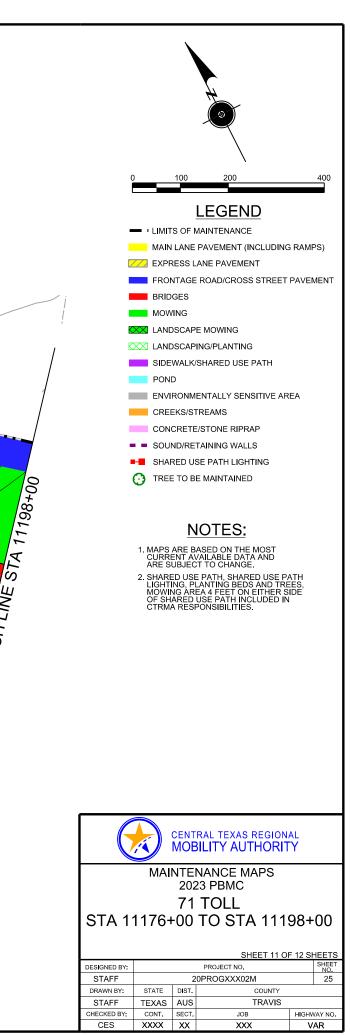
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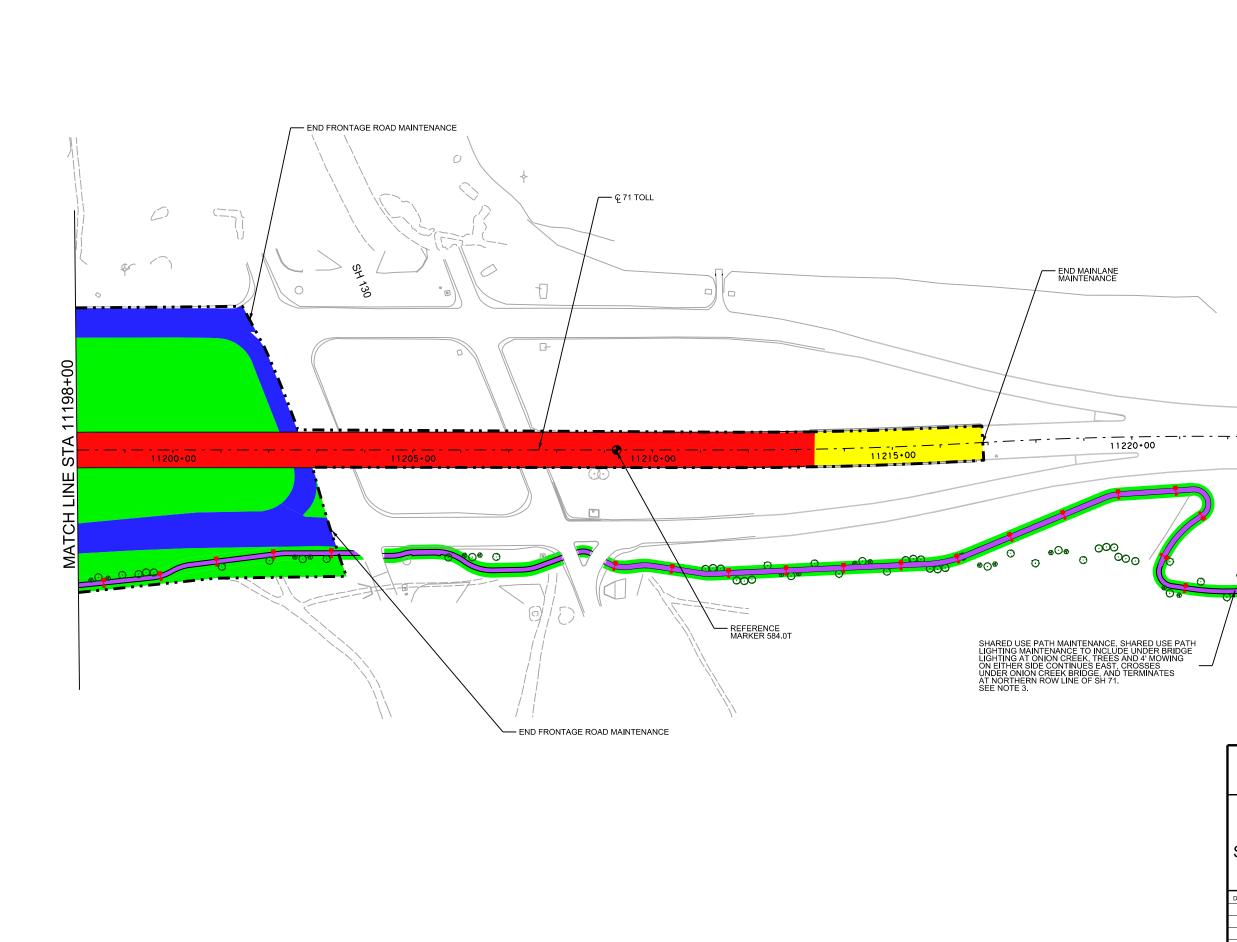
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- 2. SHARED USE PATH, SHARED USE PATH LIGHTING, PLANTING BEDS AND TREES, MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED IN CTRMA RESPONSIBILITIES.



STA 11176+ MATCH LINE

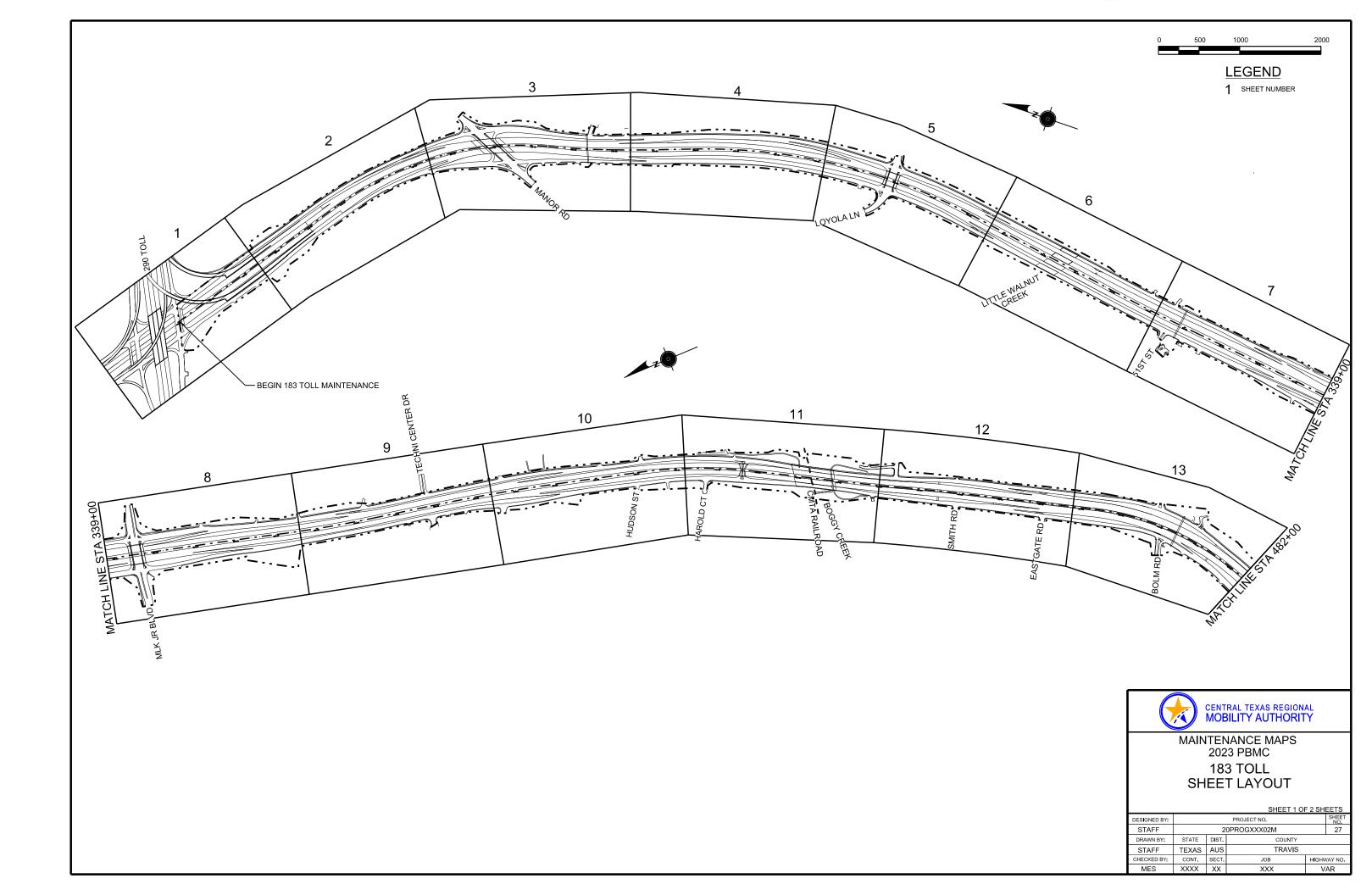


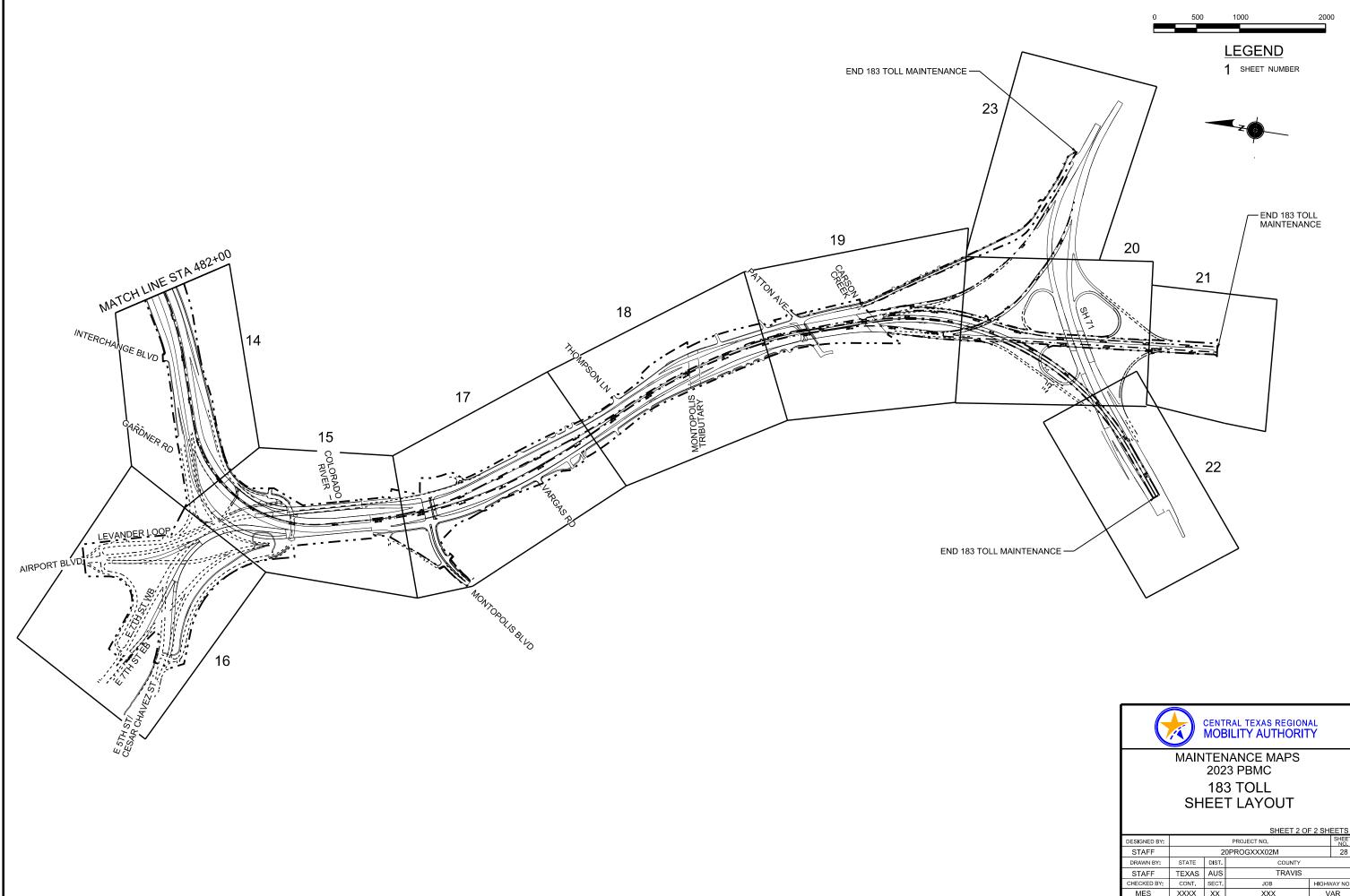




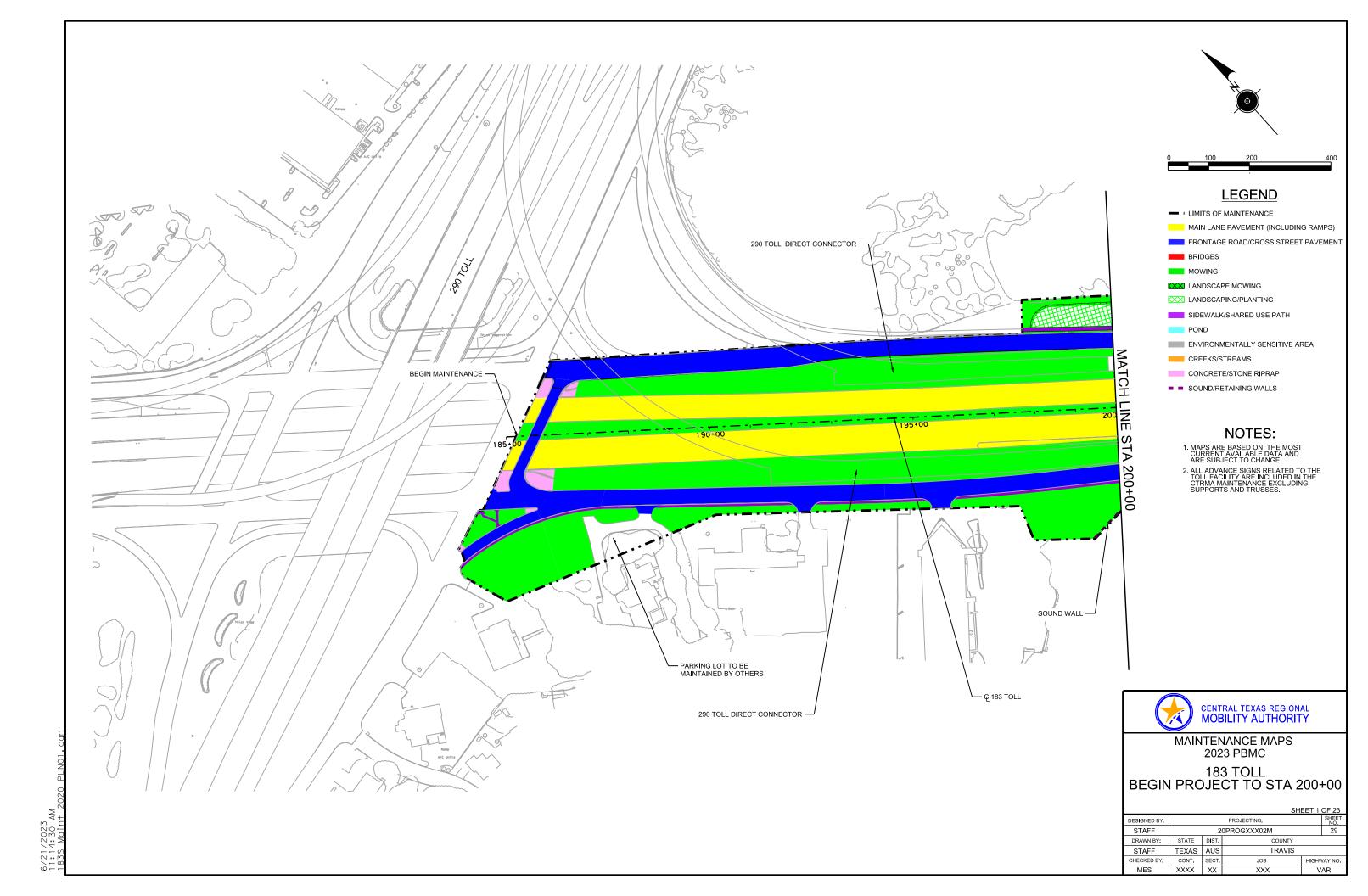


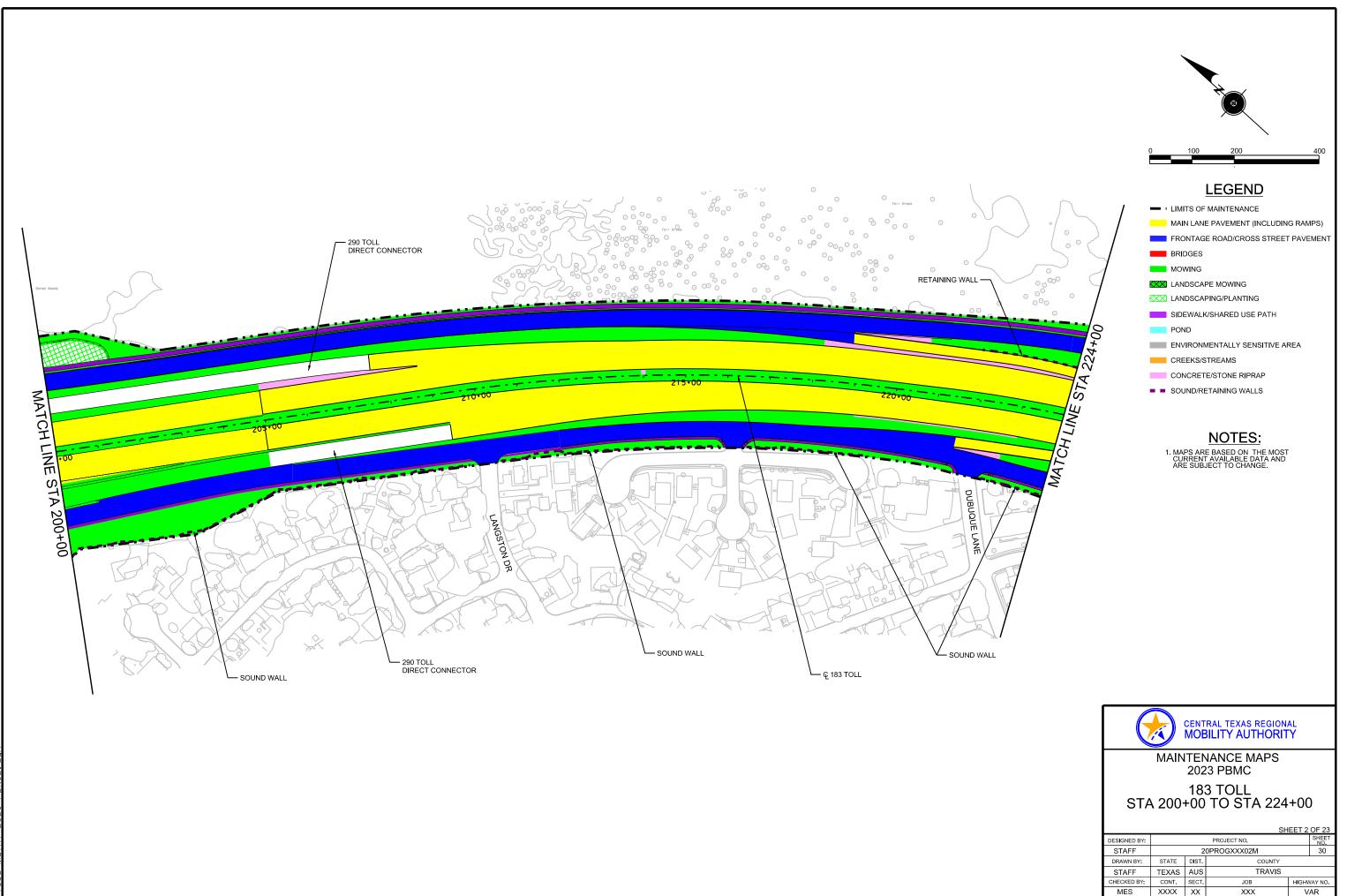
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STAFF	20PROGXXX02M 26						
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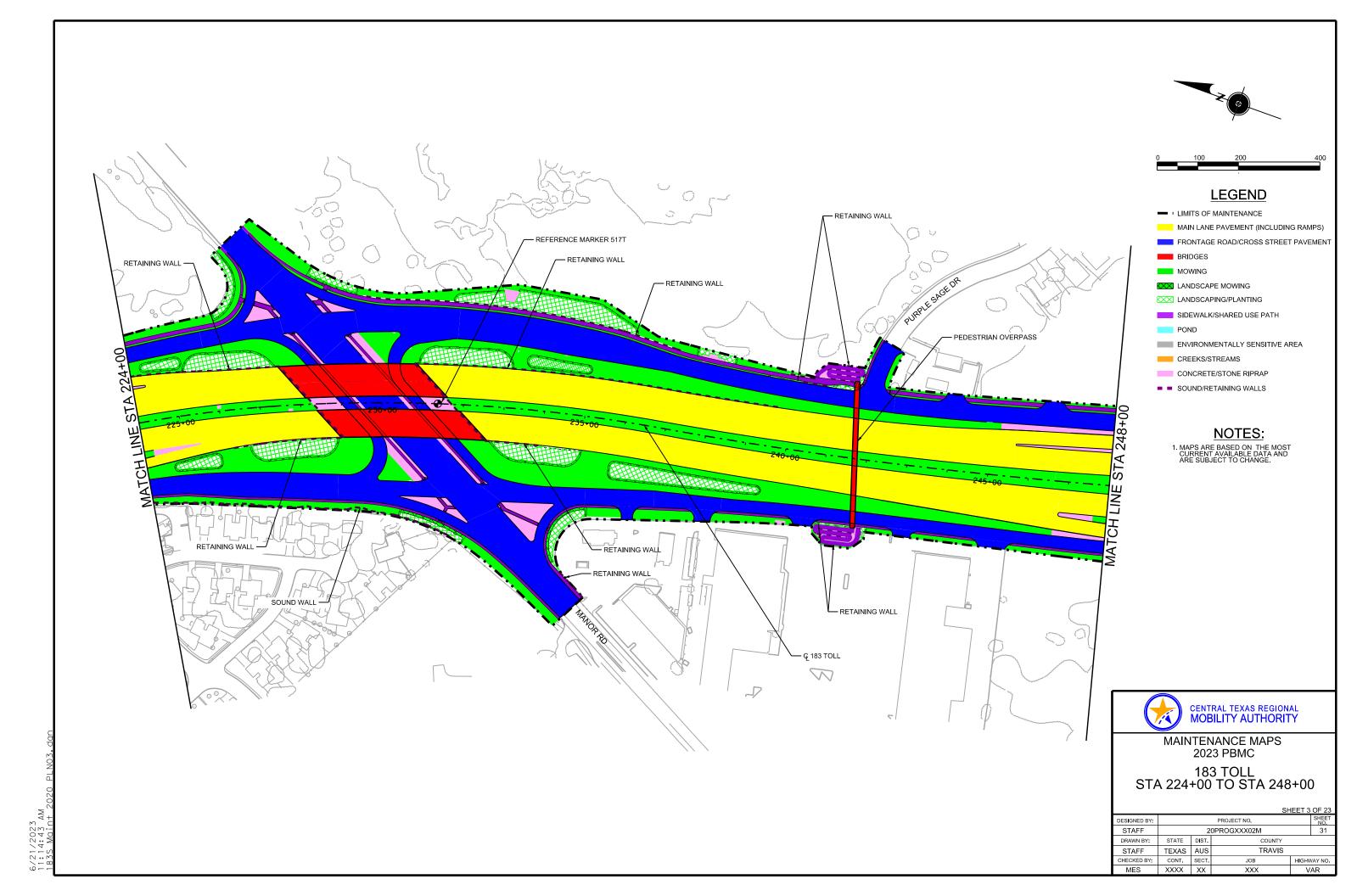
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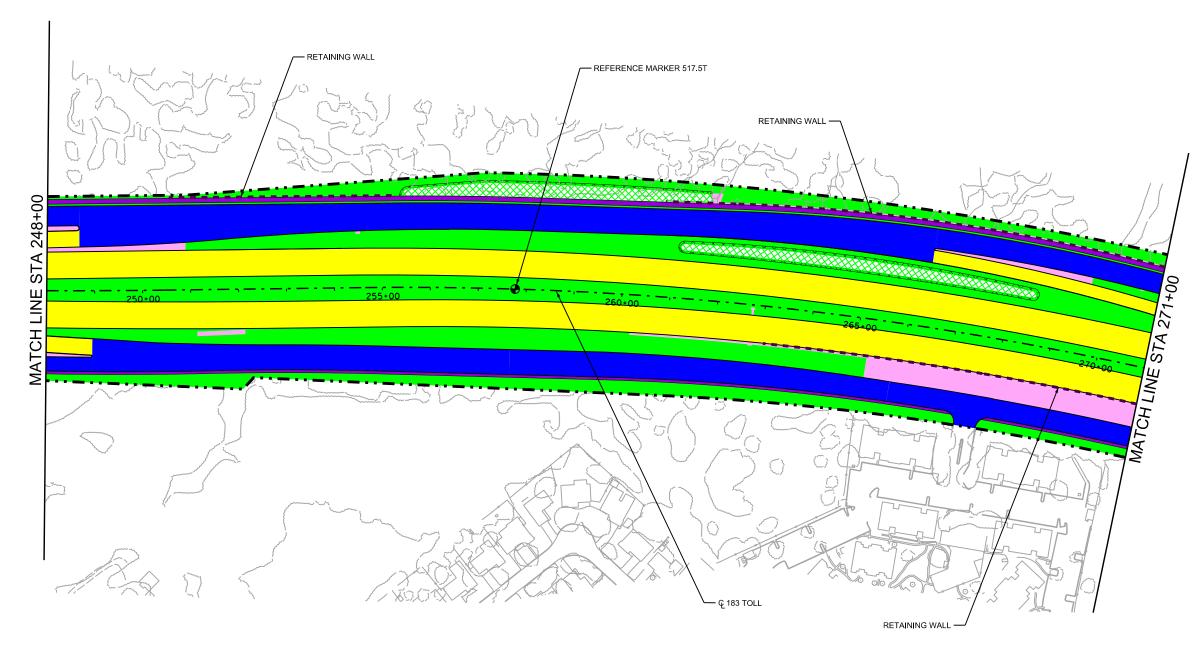




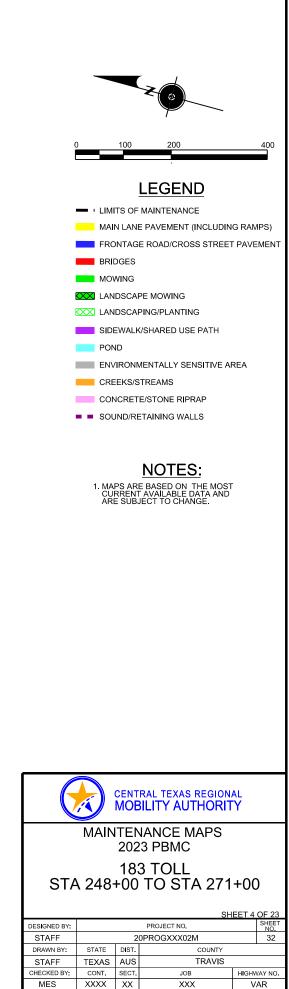
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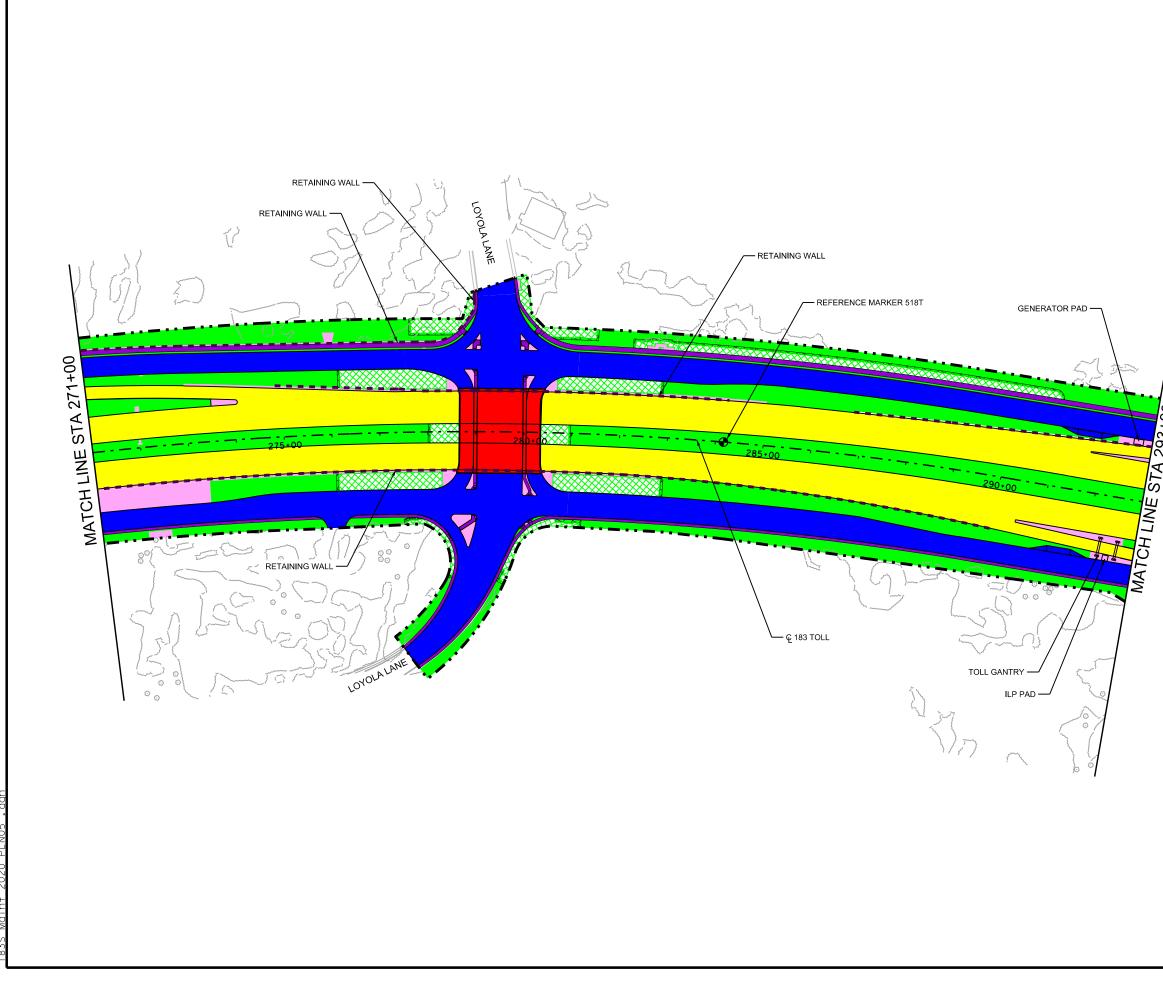


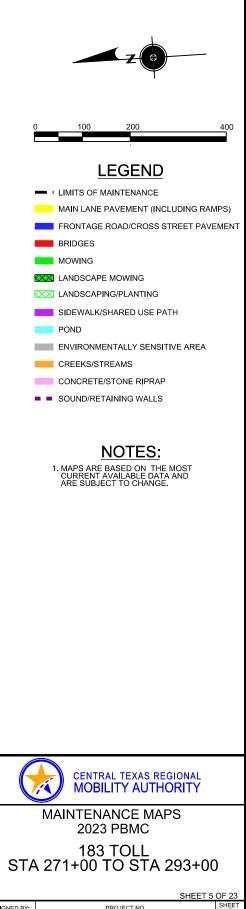
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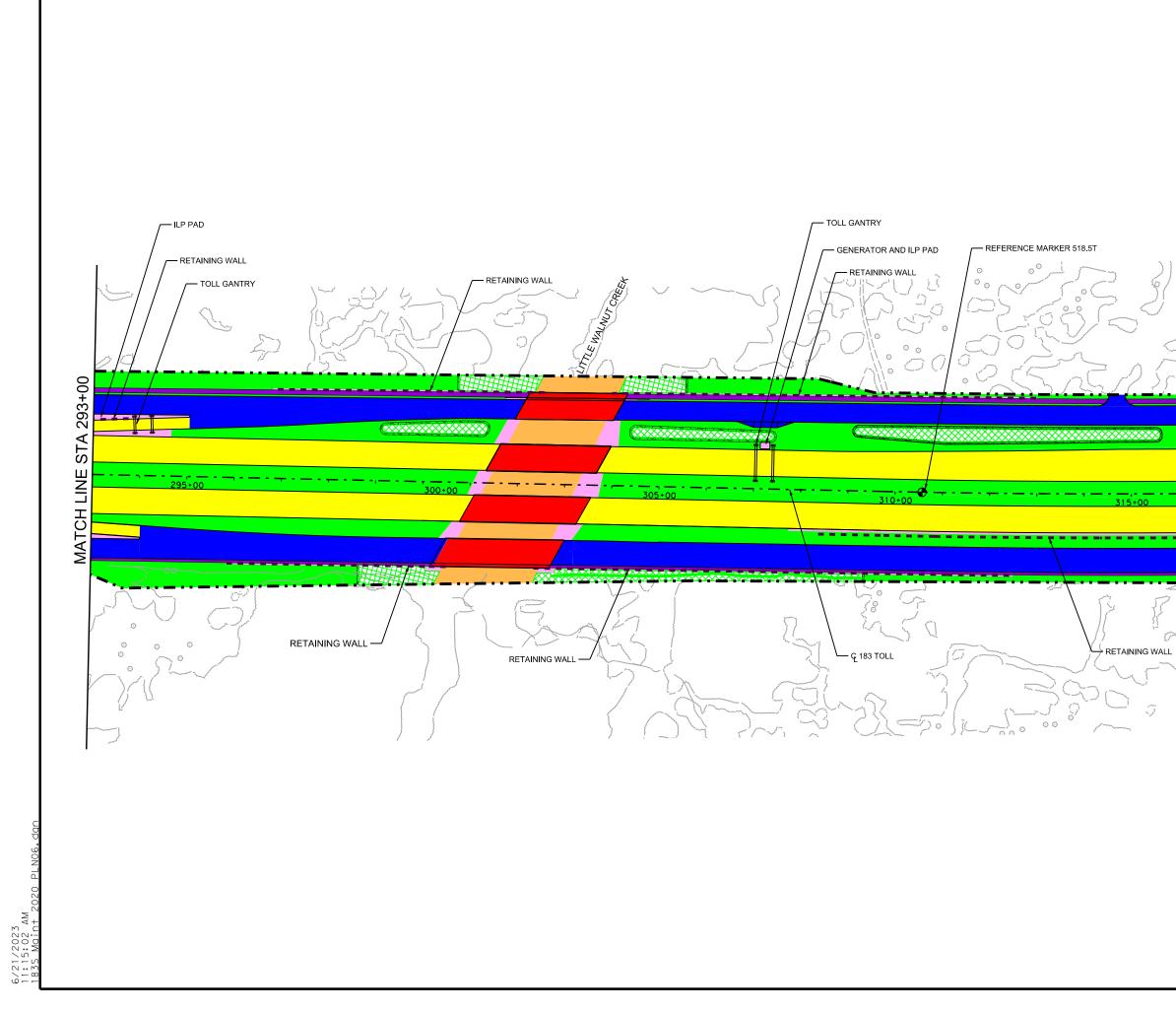


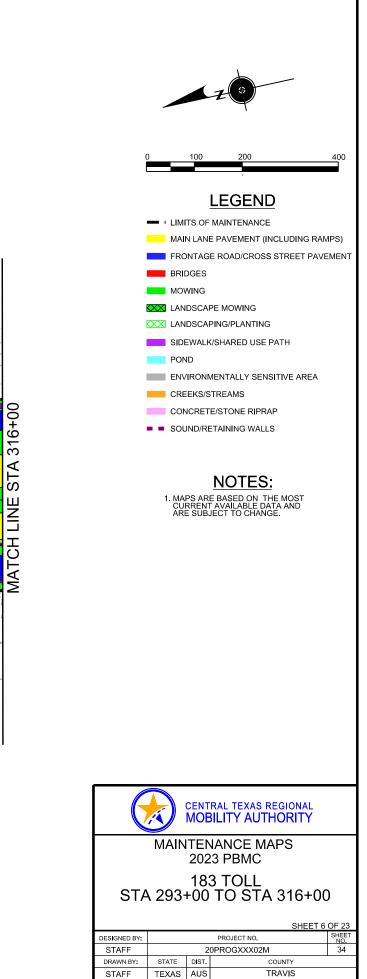
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SHEET 5 OF 23						
DESIGNED BY:		PROJECT NO.				
STAFF		20PROGXXX02M				
DRAWN BY:	STATE	DIST. COUNTY				
STAFF	TEXAS	TEXAS AUS TRAVIS				
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.	
MES	XXXX	XX	XXX	V.	AR	





CHECKED BY:

CONT. SECT.

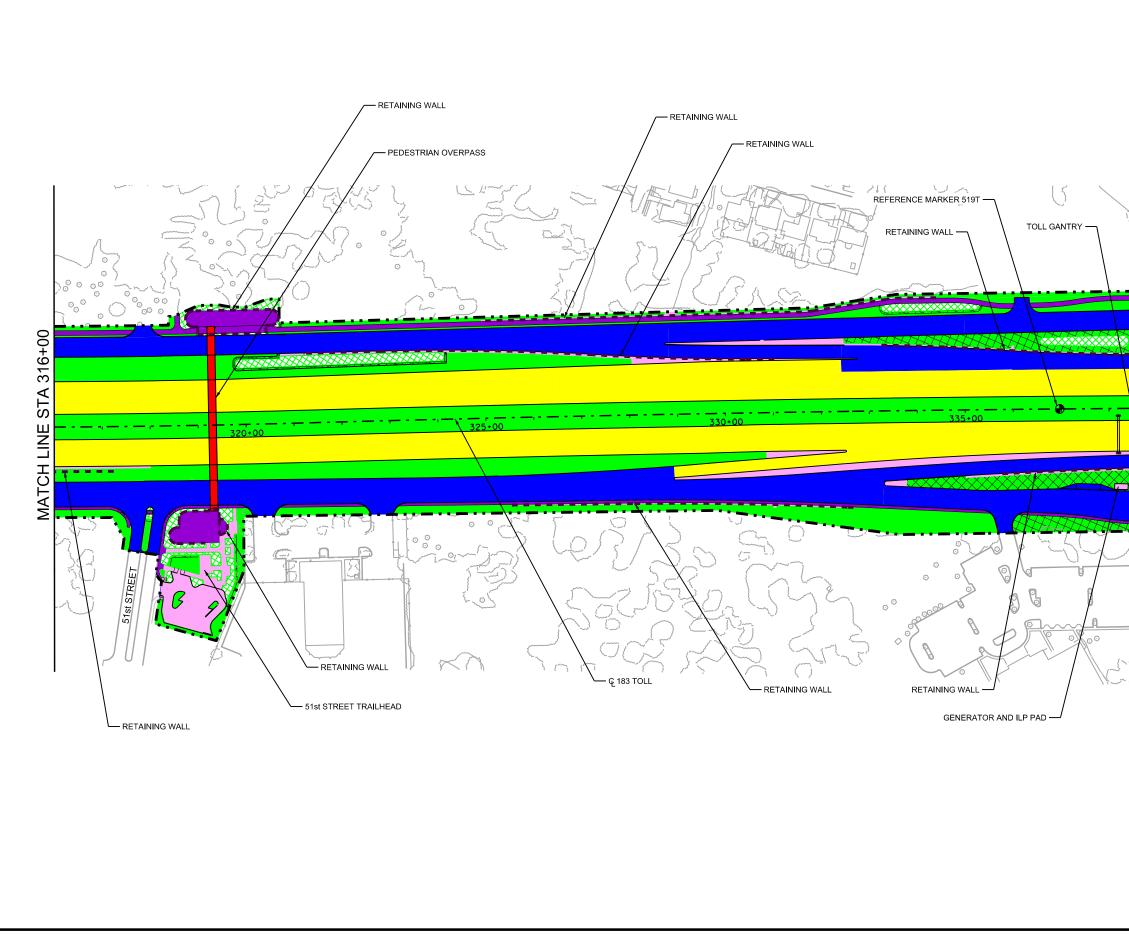
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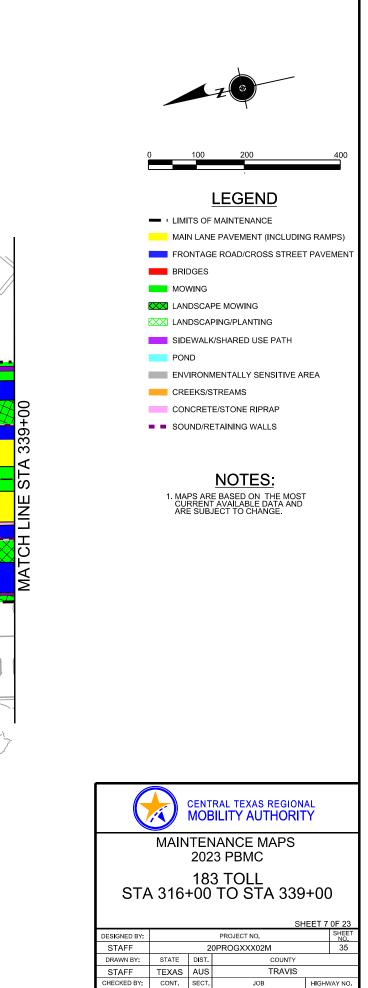
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HIGHWAY NO.

VAR



6/21/2023 11:15:09 AM 1835 Maint 2



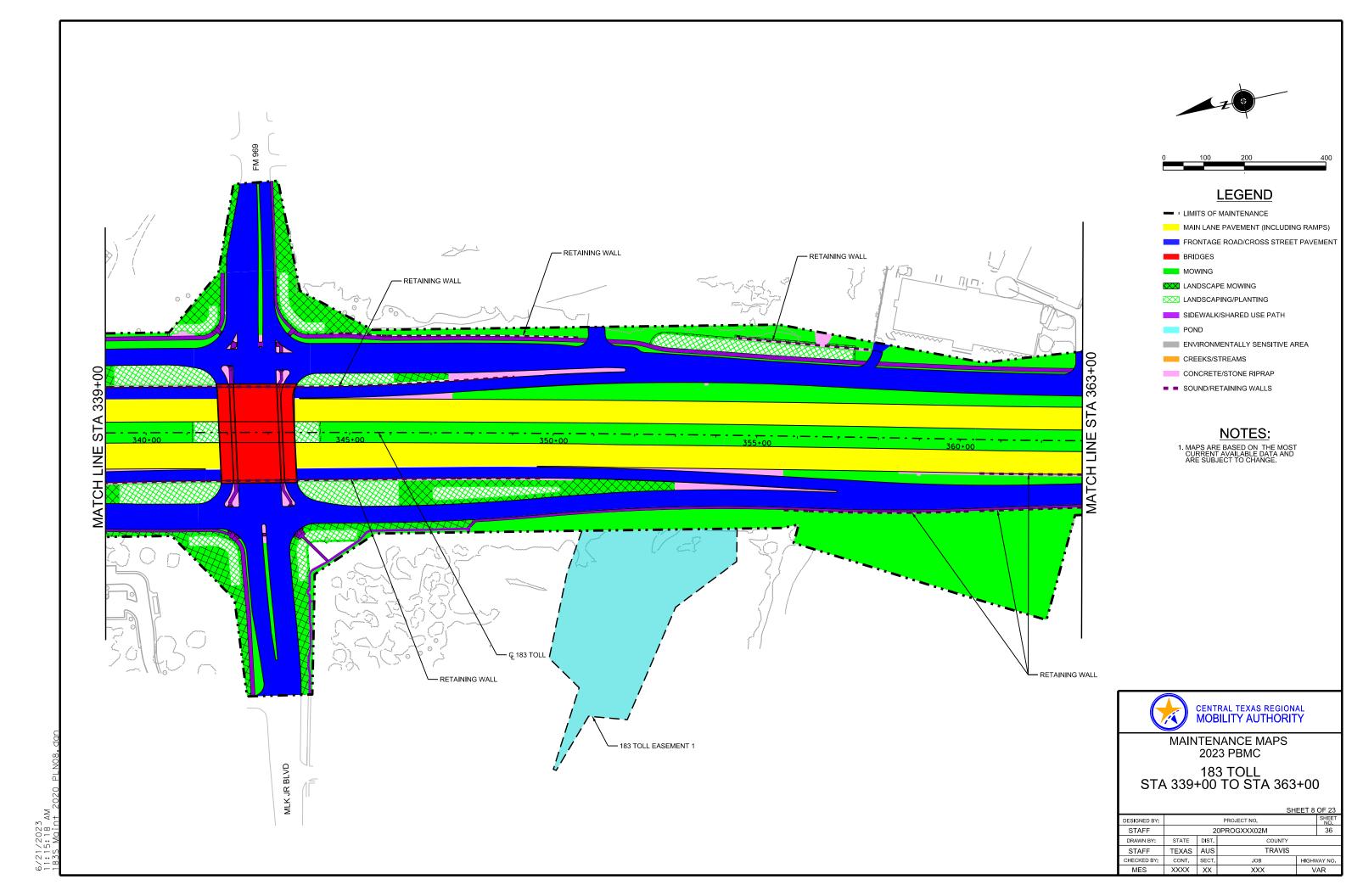
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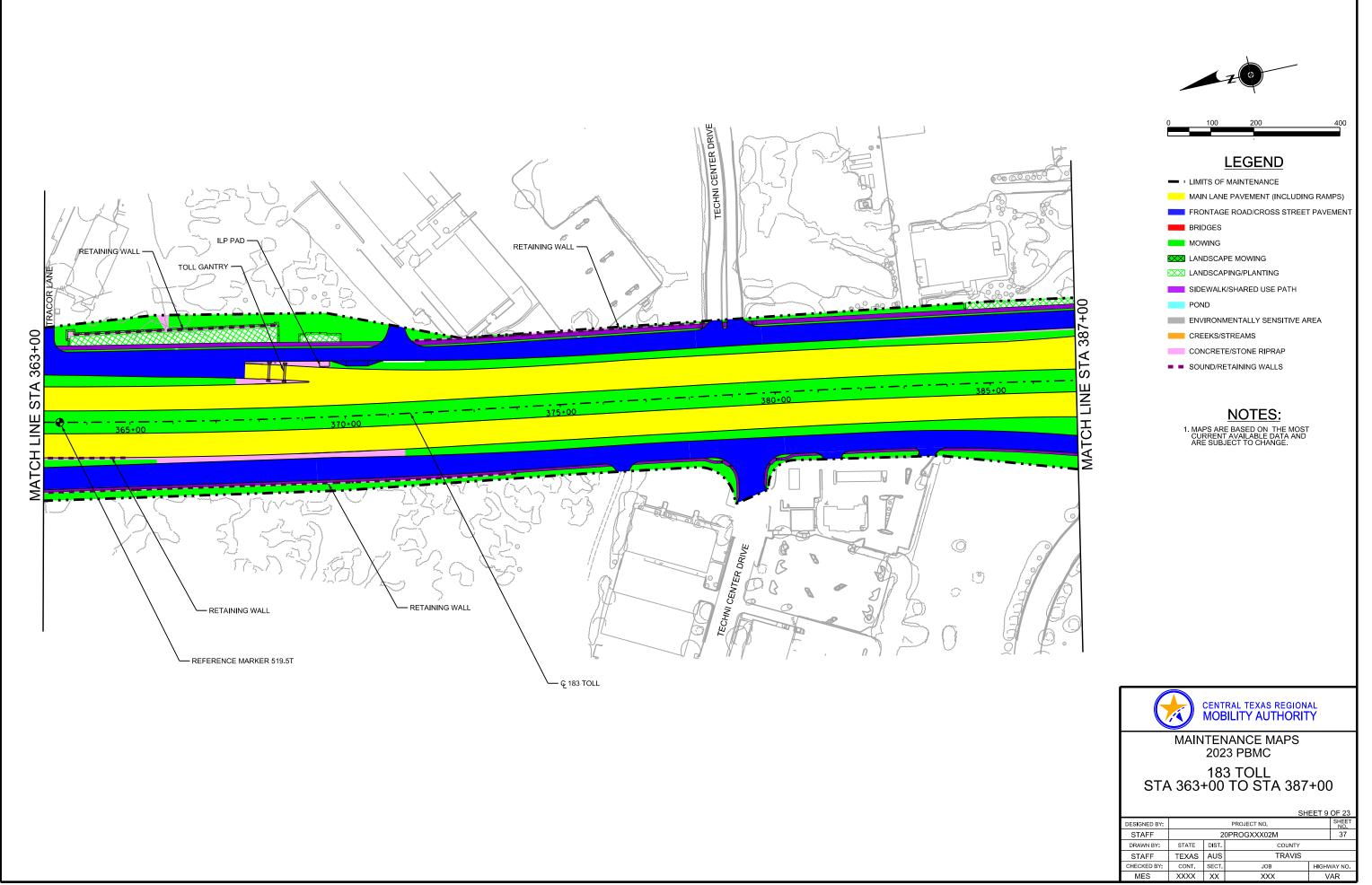
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MES XXXX XX

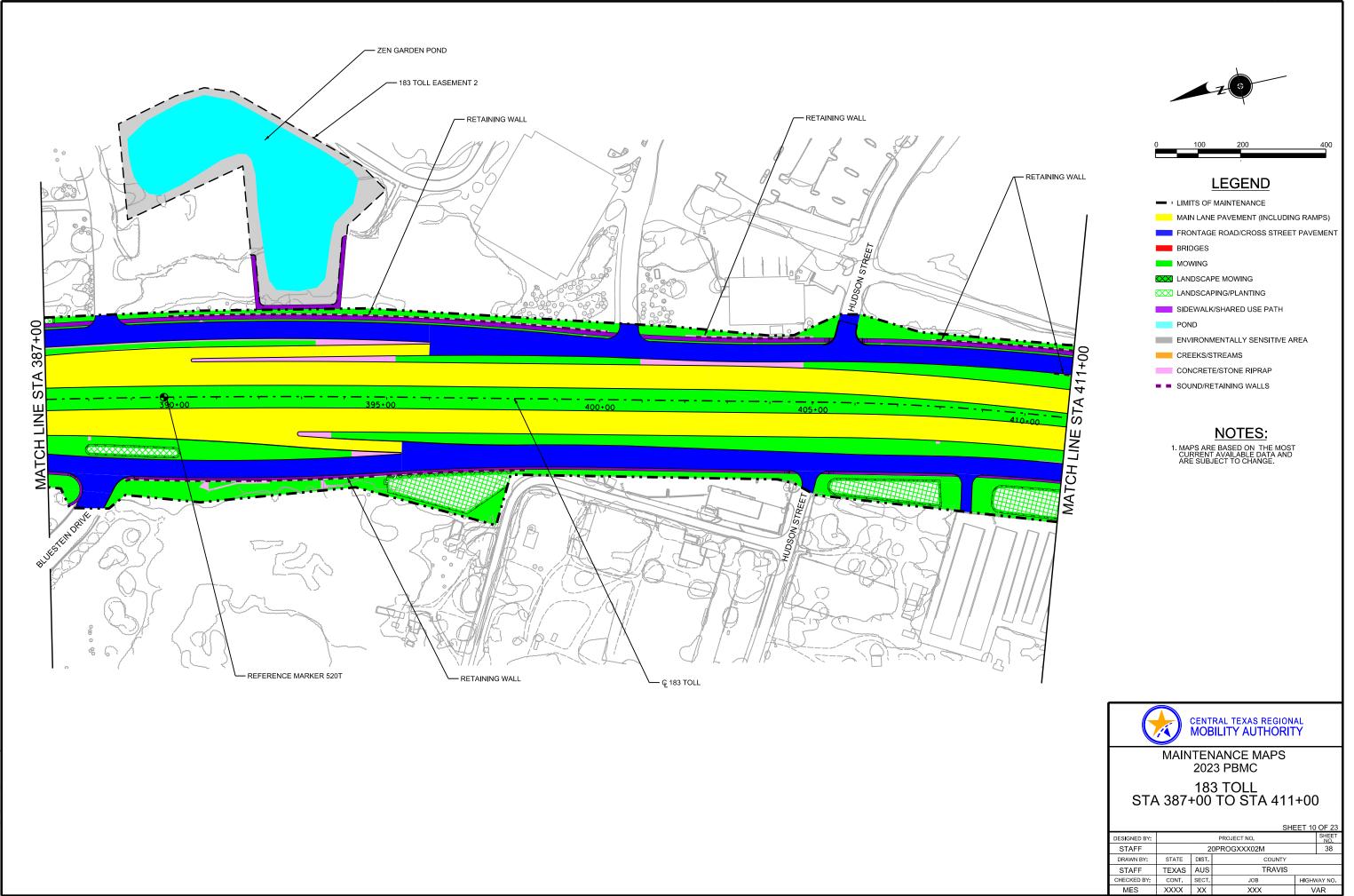
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VAR

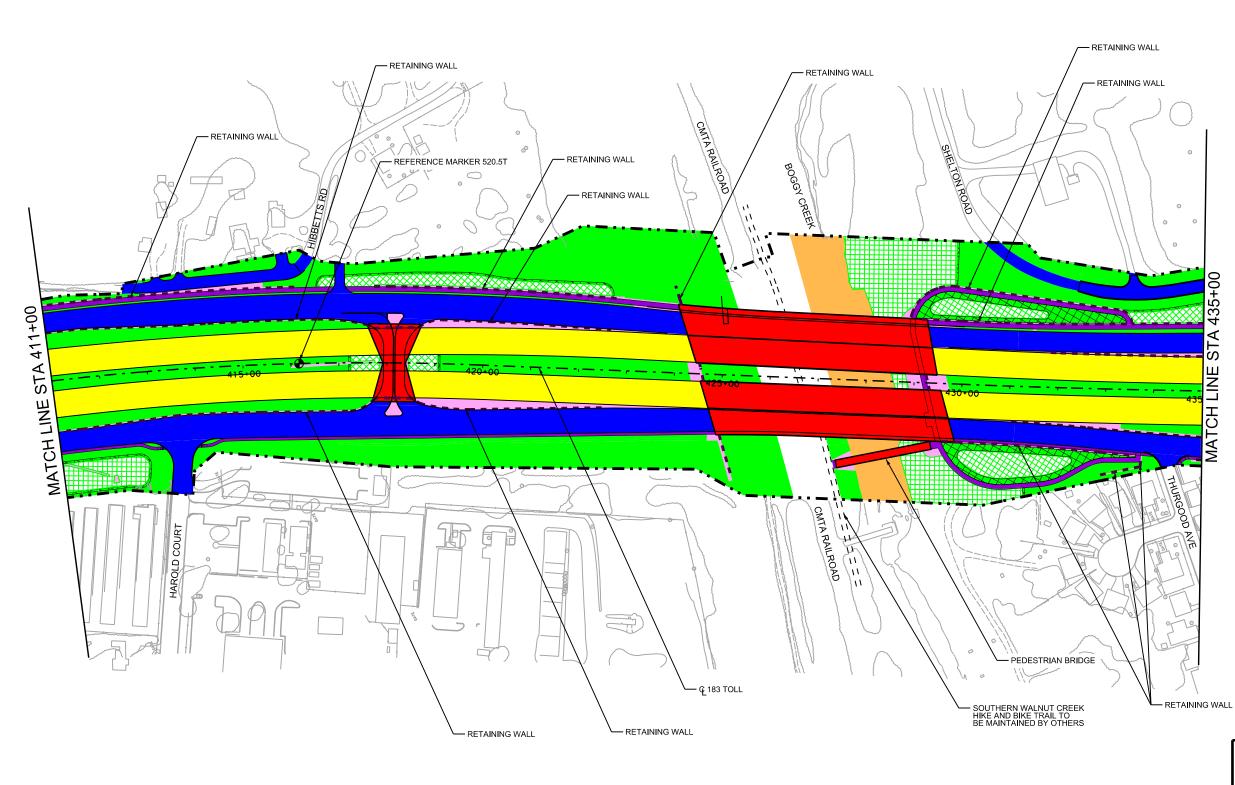




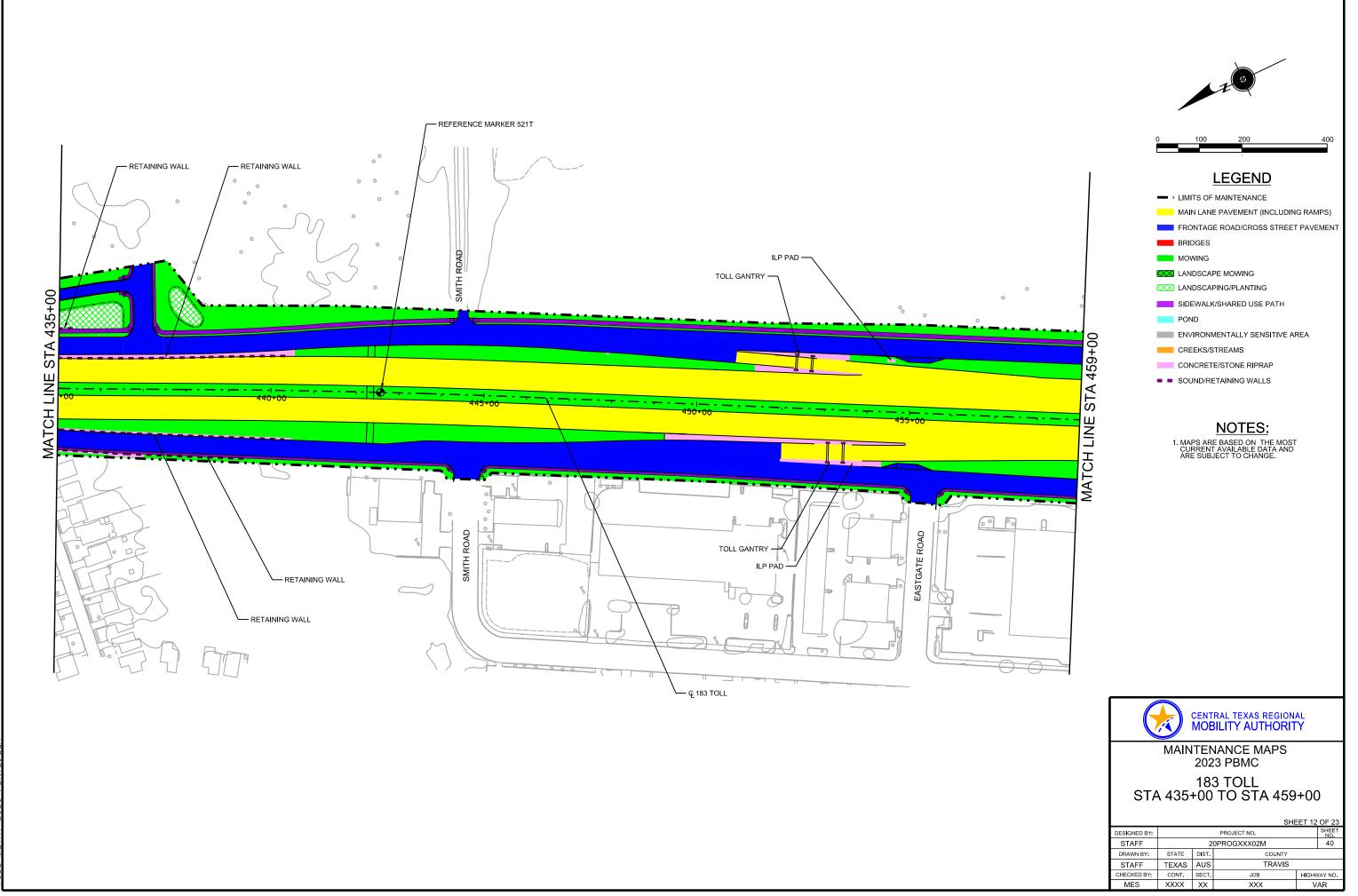
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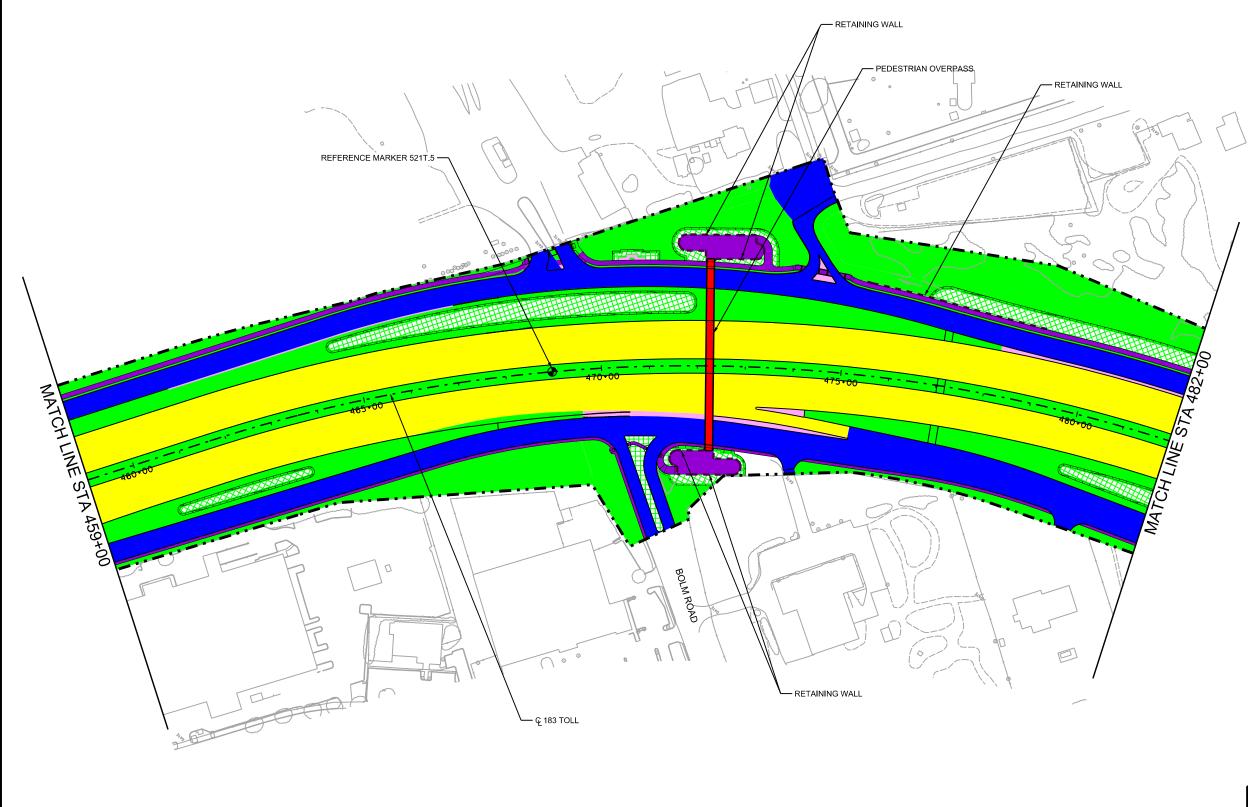
6/21/2023 11:15:34 AM 1835 Main+ 2020 PLN10.dar



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NOTES: 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.									
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY									
	MAIN								
2023 PBMC									
183 TOLL STA 411+00 TO STA 435+00									
			DDO ISOT NO		EET 11 OF 23				
DESIGNED BY: STAFF		1	PROJECT NO. 0PROGXXX0		39				
DRAWN BY: STAFF	STATE TEXAS	DIST. AUS		COUNTY TRAVIS					
CHECKED BY:	CONT.	SECT.	JC		HIGHWAY NO. VAR				
IVIL'O	~~~~	_ ^^		~~	VAR				

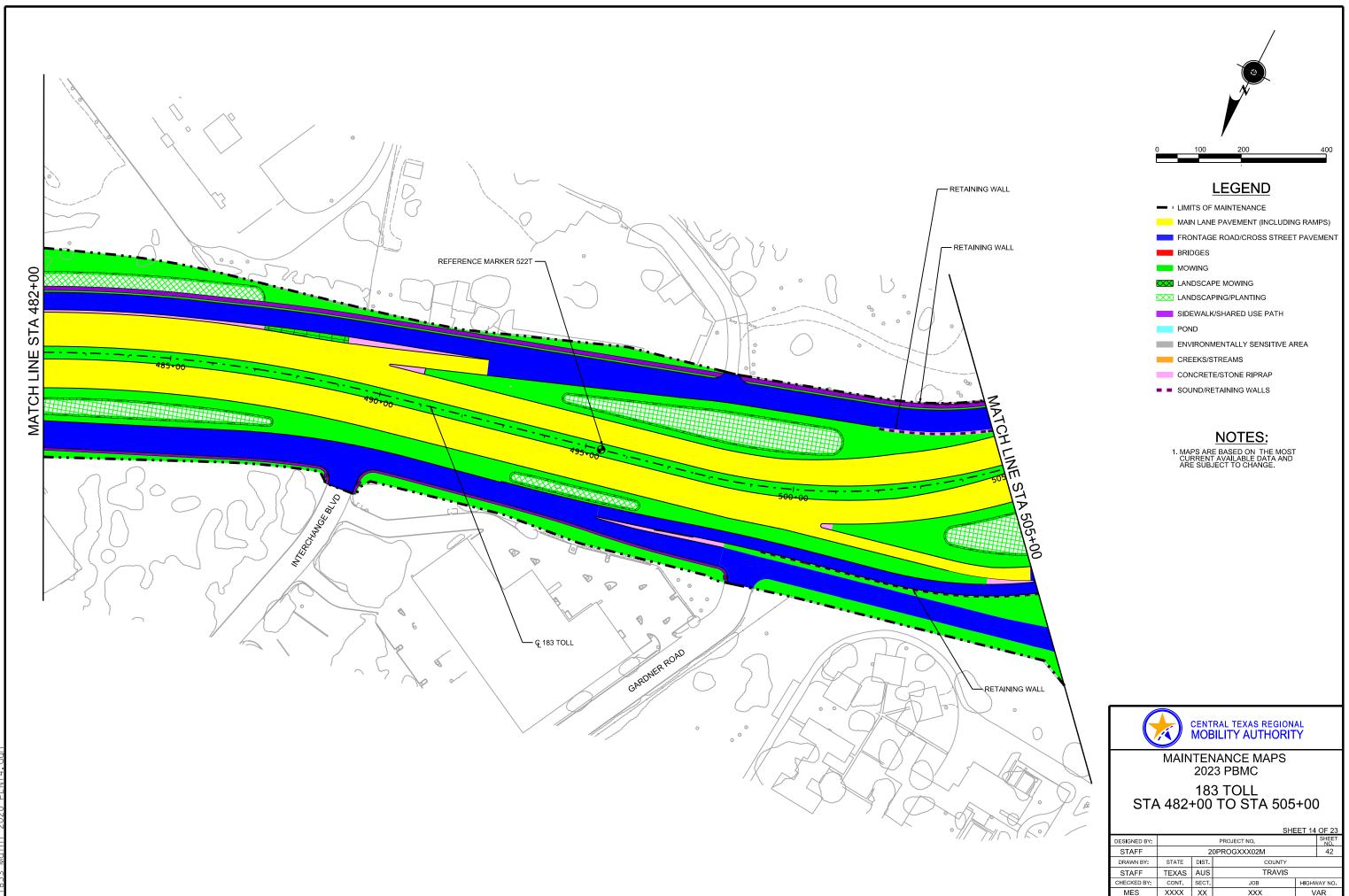


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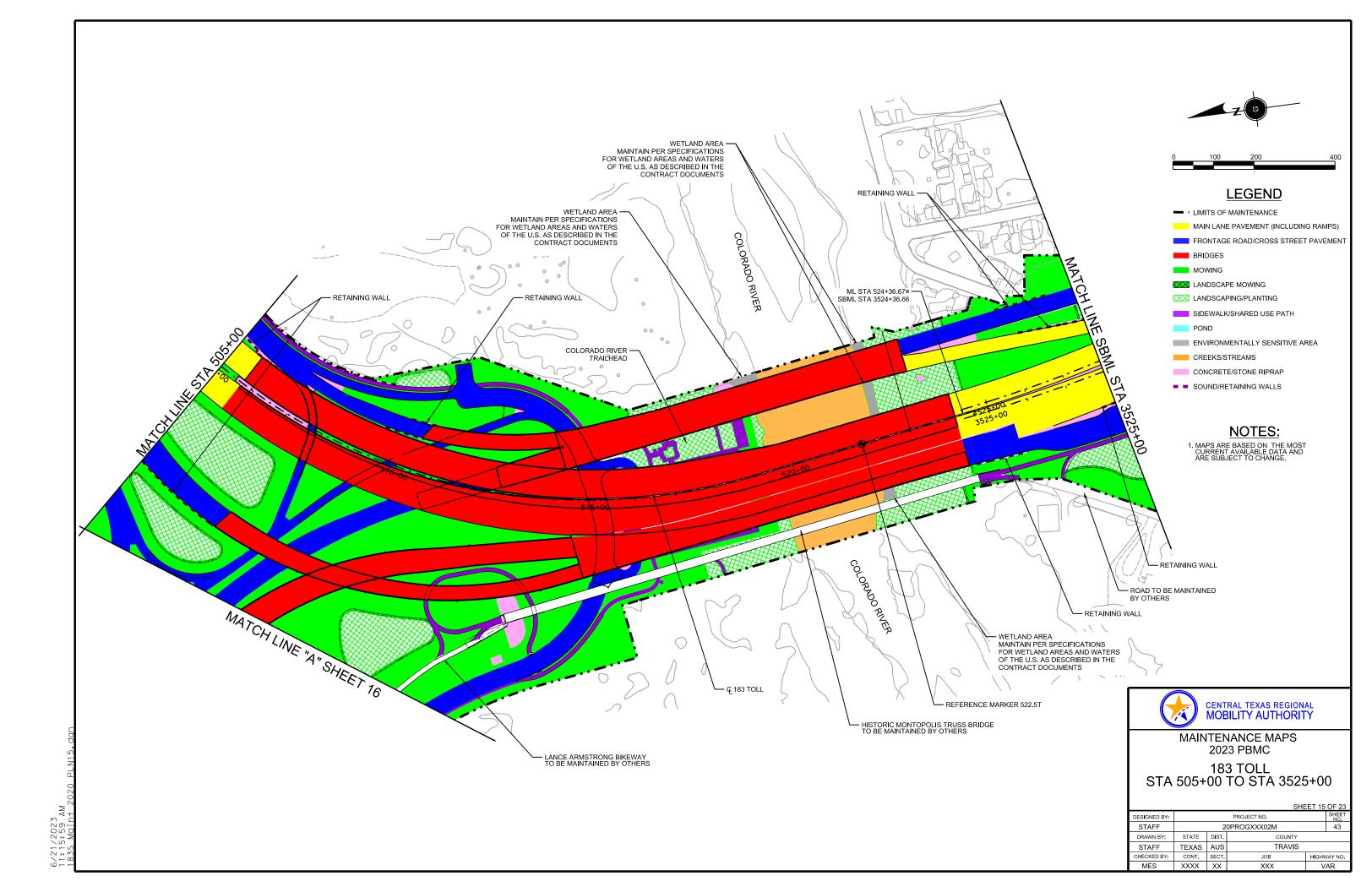


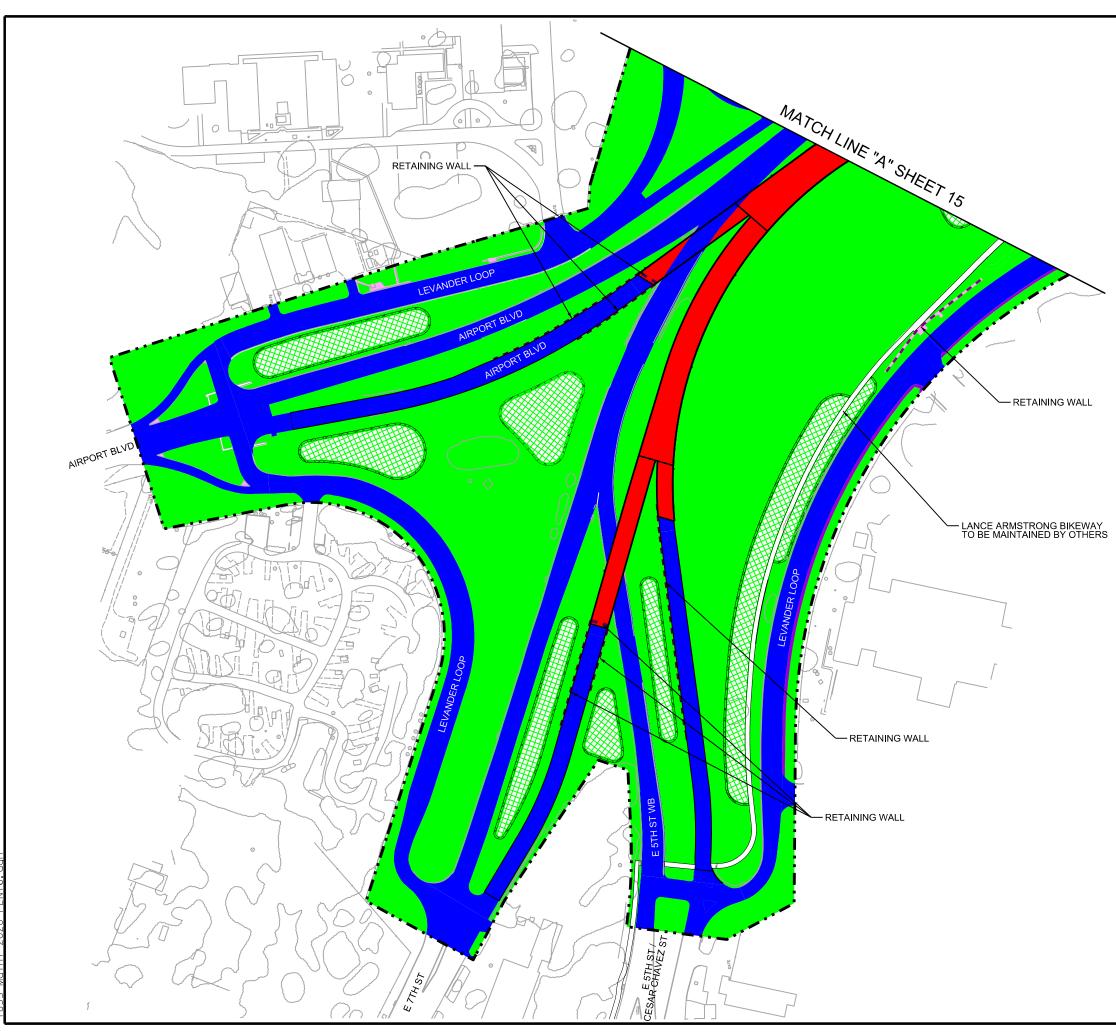




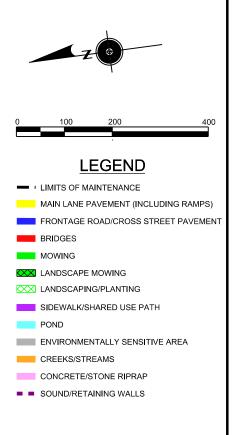


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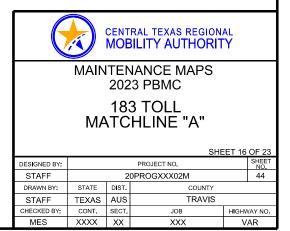


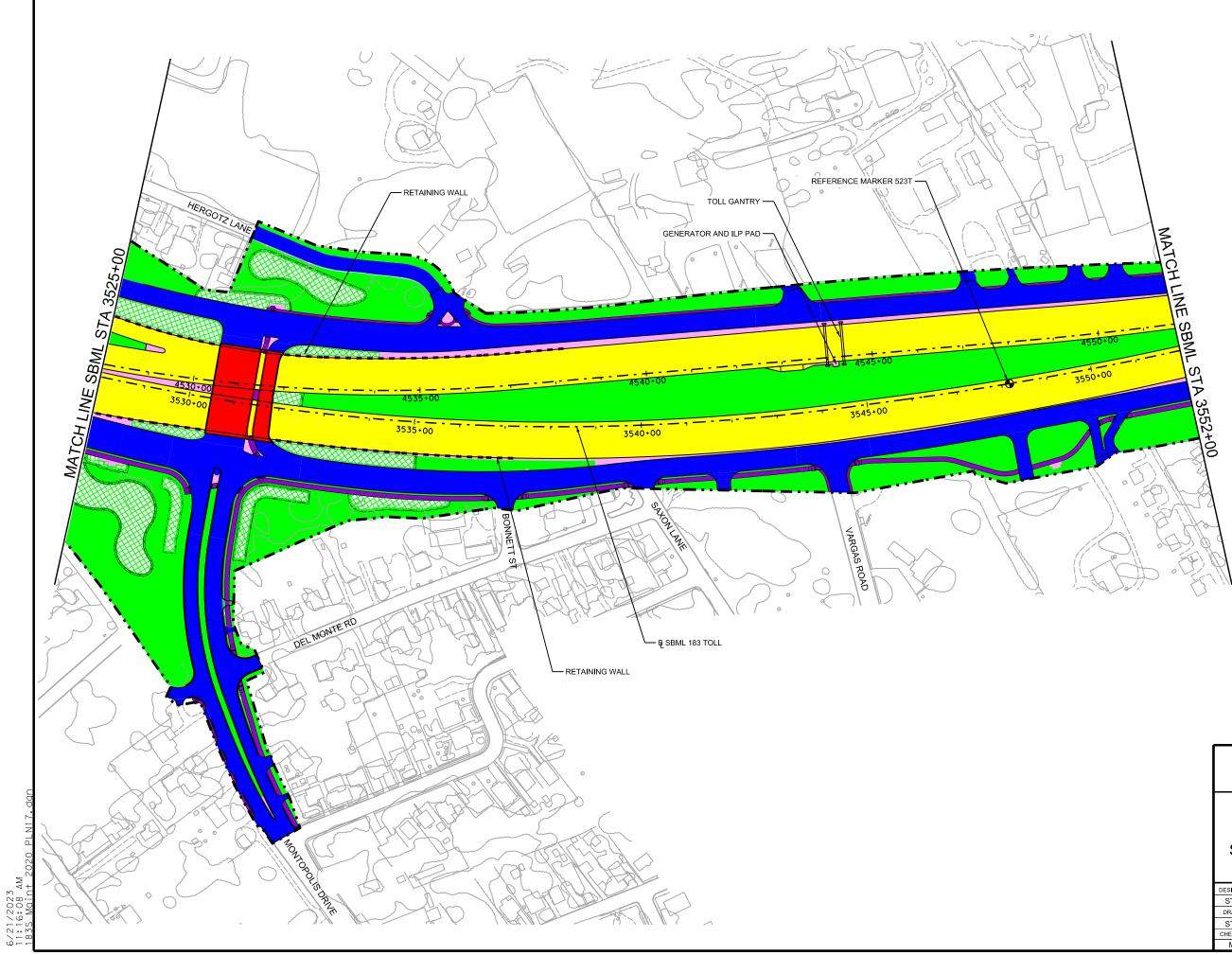
6/21/2023 11:16:03 AM 1835 Moint 2020 PLN16



NOTES:

1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.



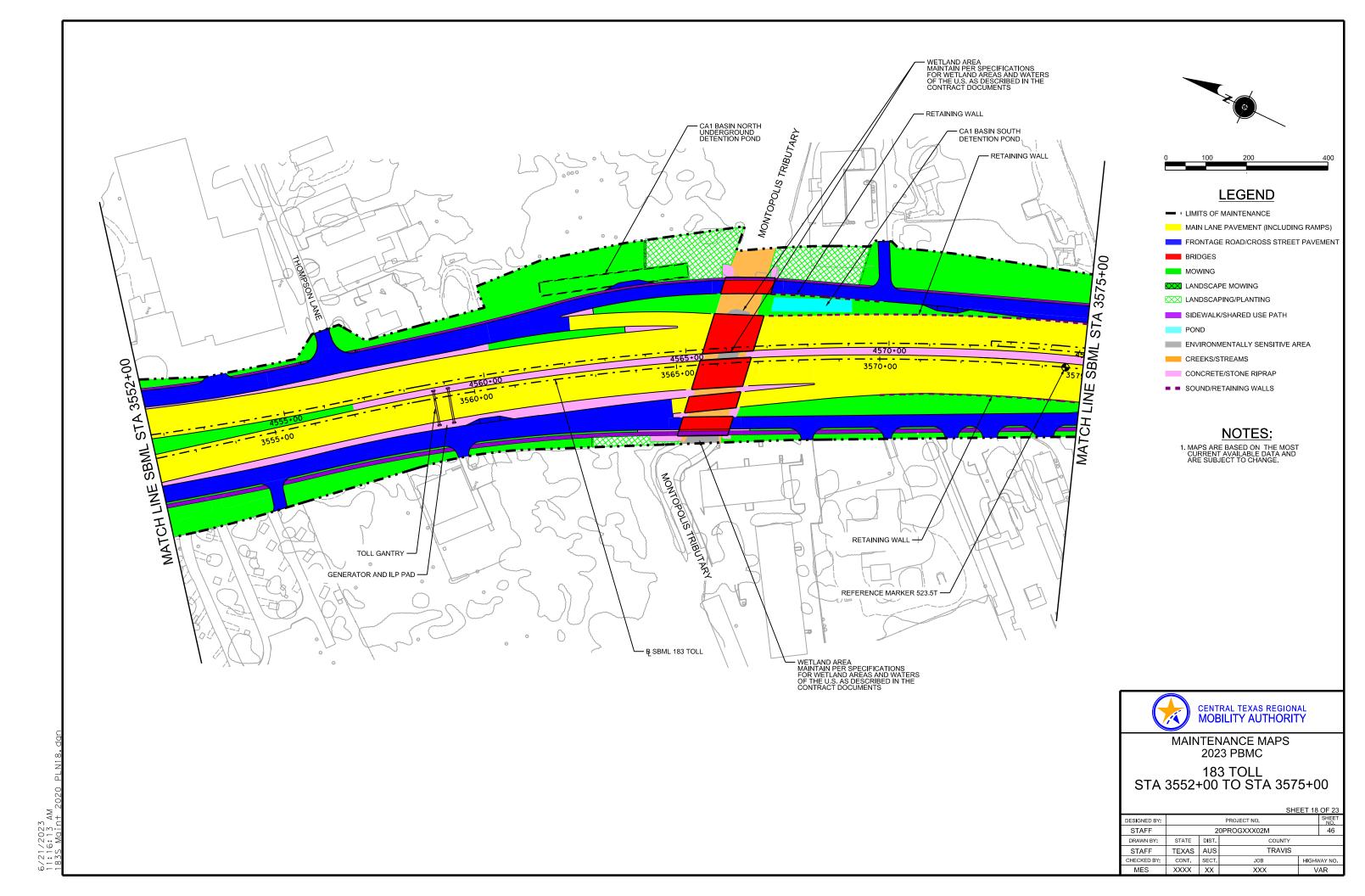


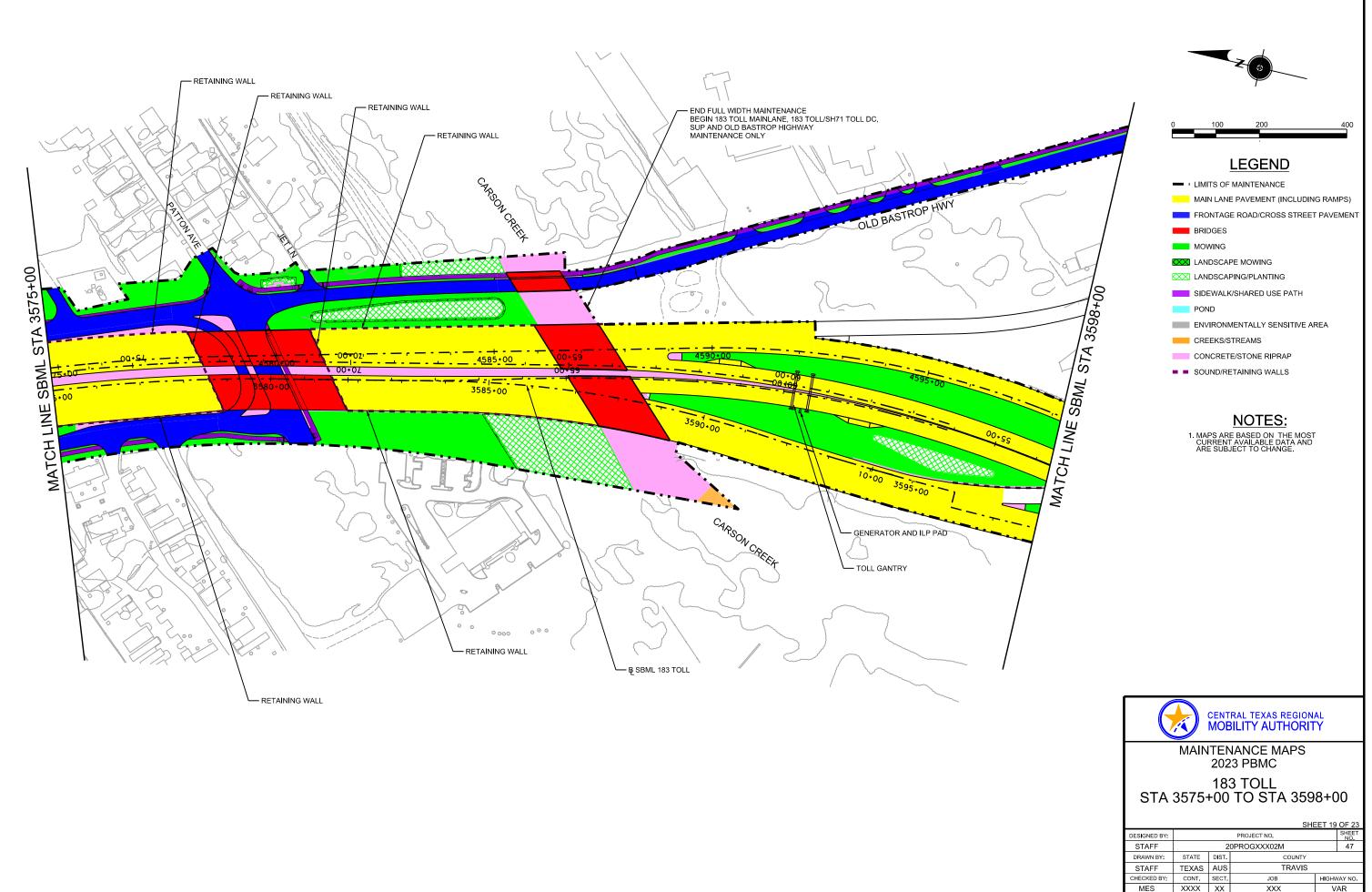


MAINTENANCE MAPS 2023 PBMC

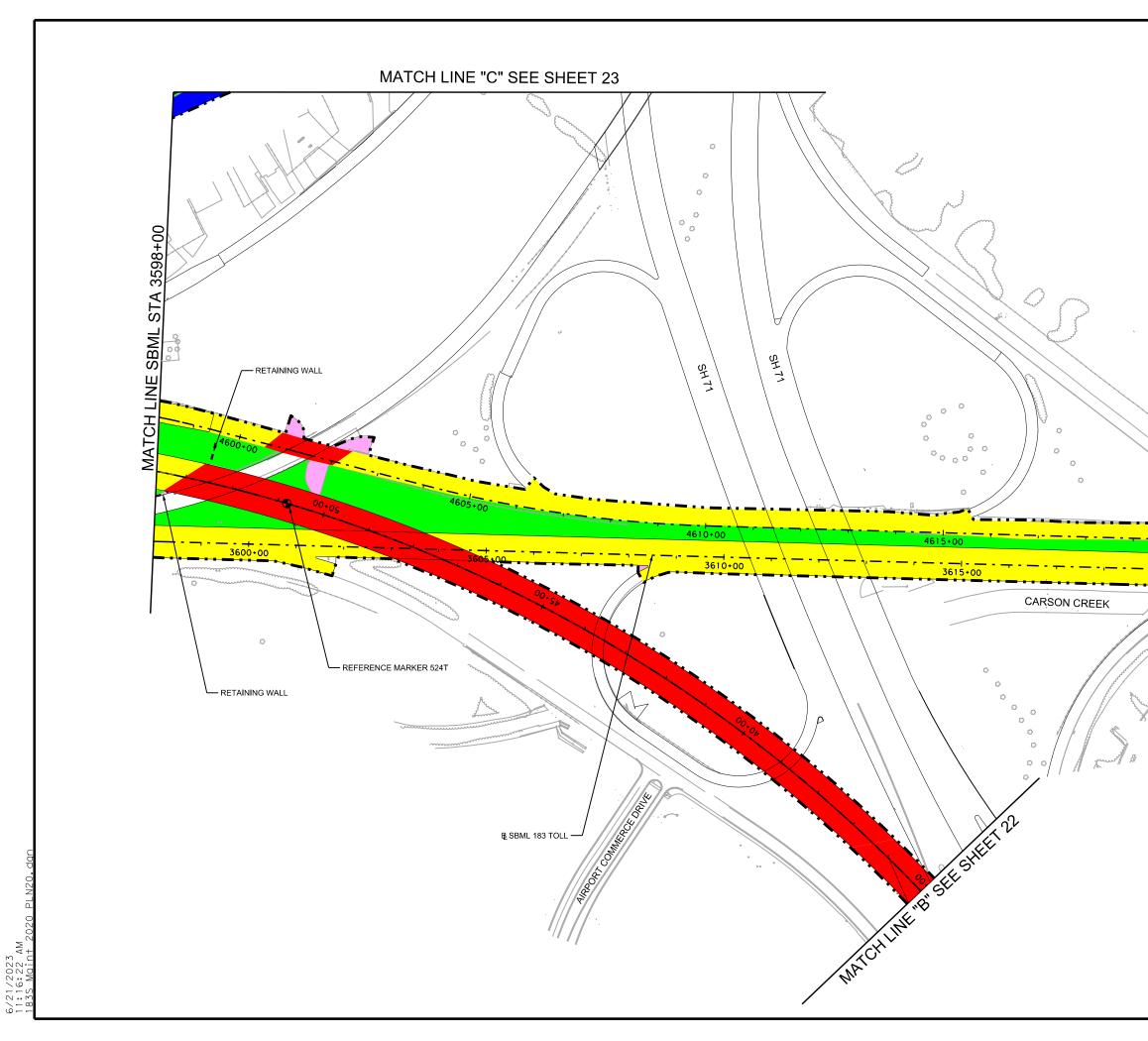
183 TOLL STA 3525+00 TO STA 3552+00

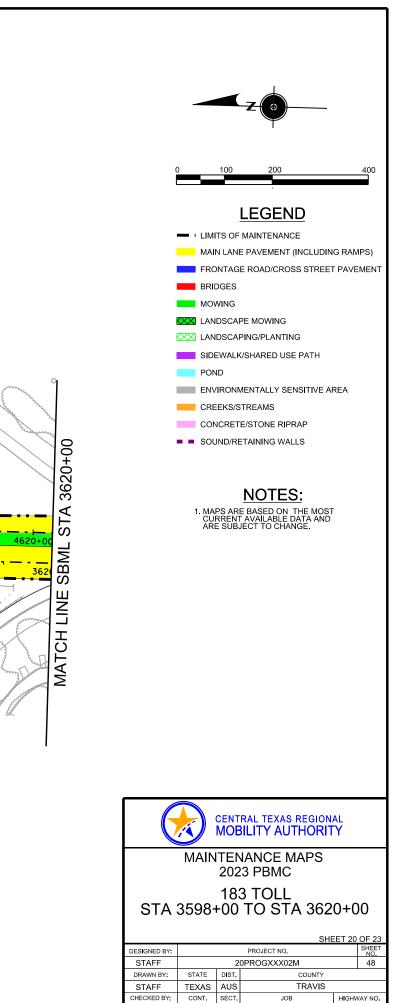
SHEET 17 OF 23							
DESIGNED BY:		PROJECT NO.					
STAFF		20PROGXXX02M 45					
DRAWN BY:	STATE DIST. COUNTY						
STAFF	TEXAS	TEXAS AUS TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.			
MES	XXXX	XX	XXX	VAR			





/21/2023 1:16:18 AM 830 Moint 2 3:

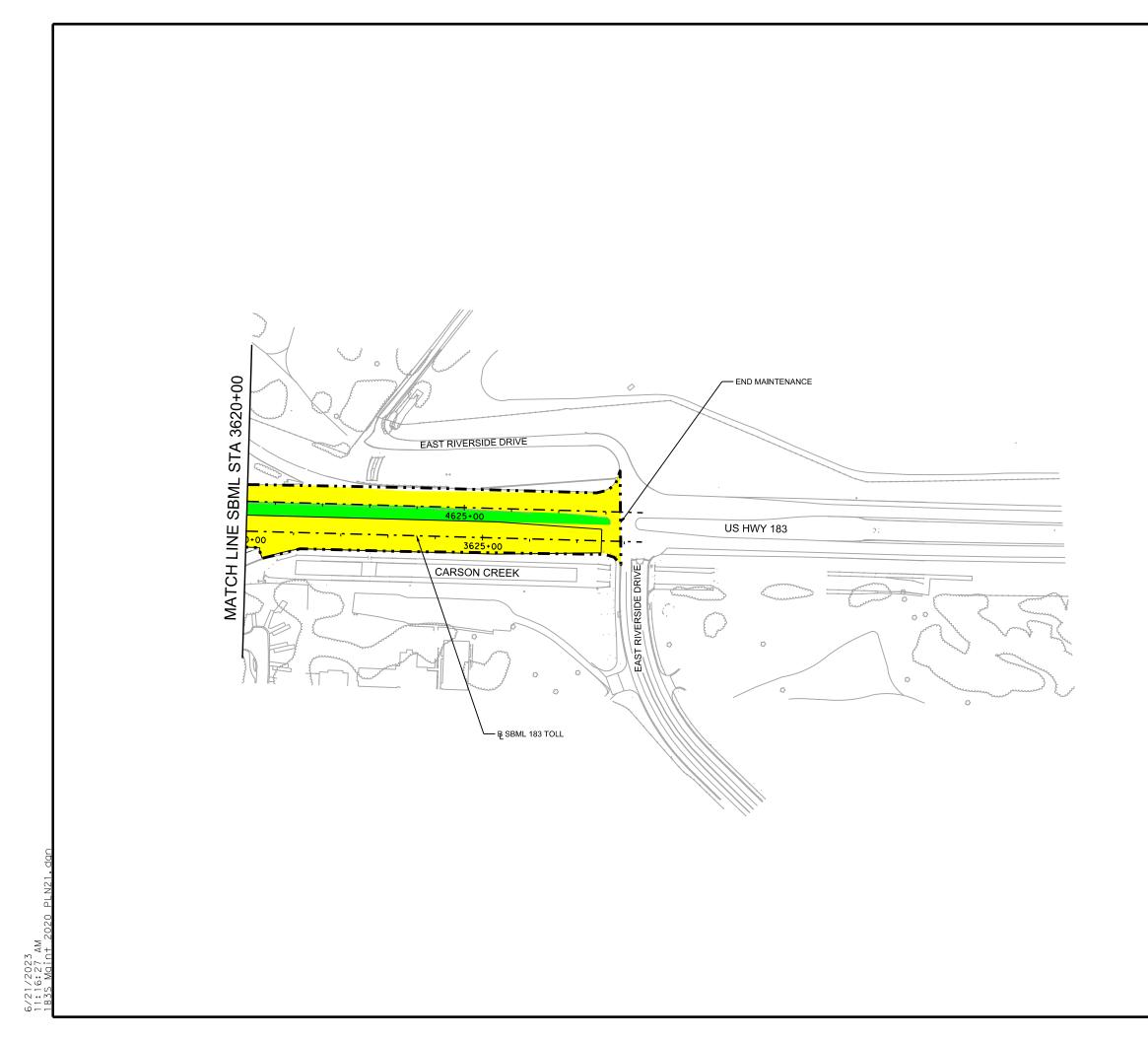


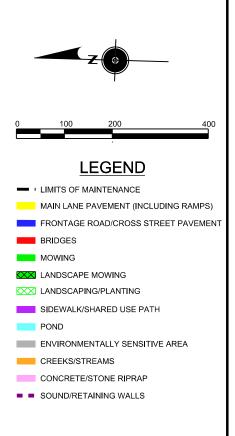


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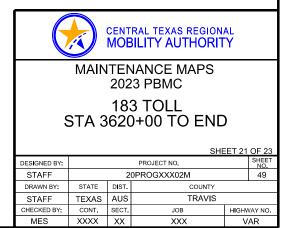
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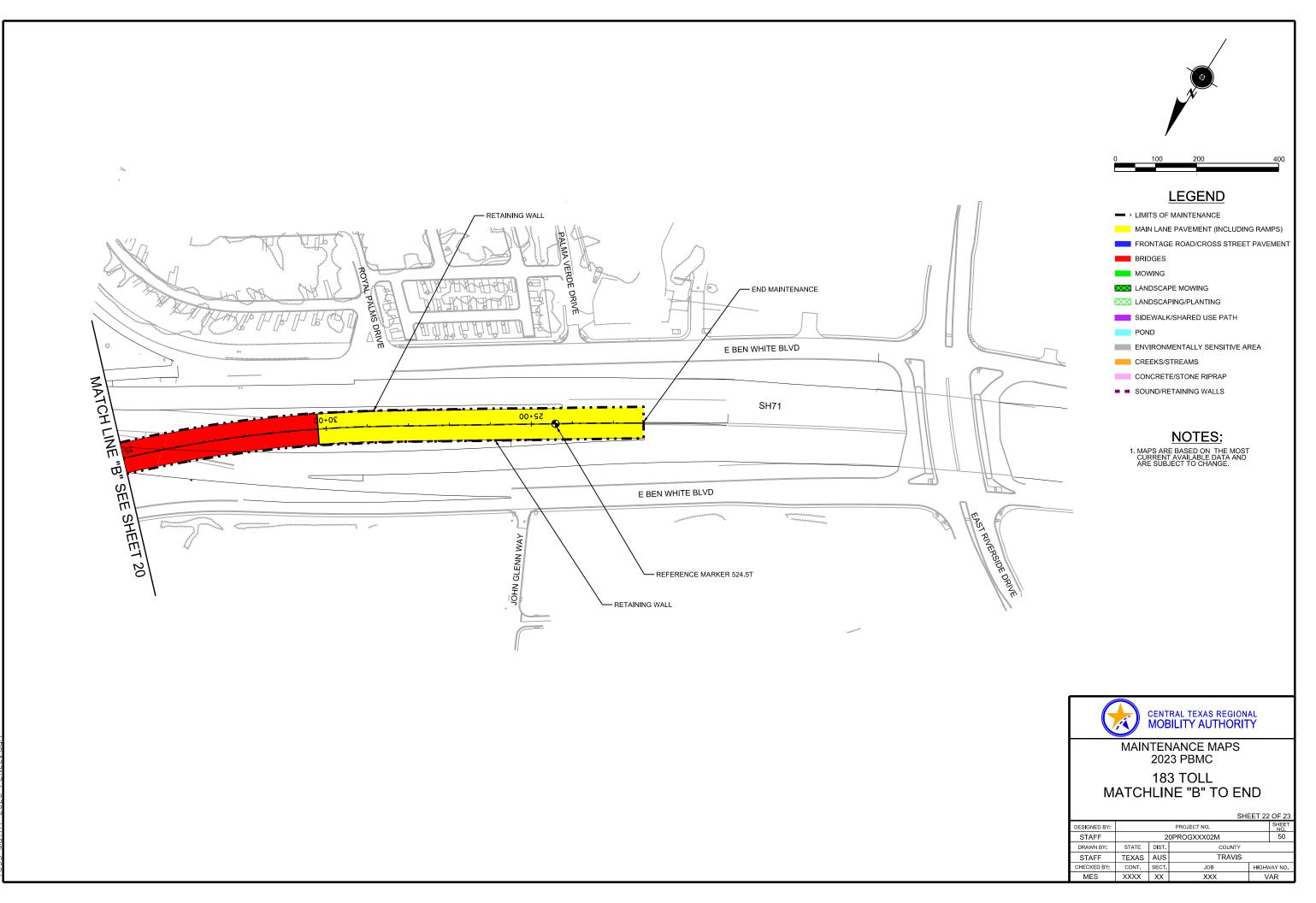
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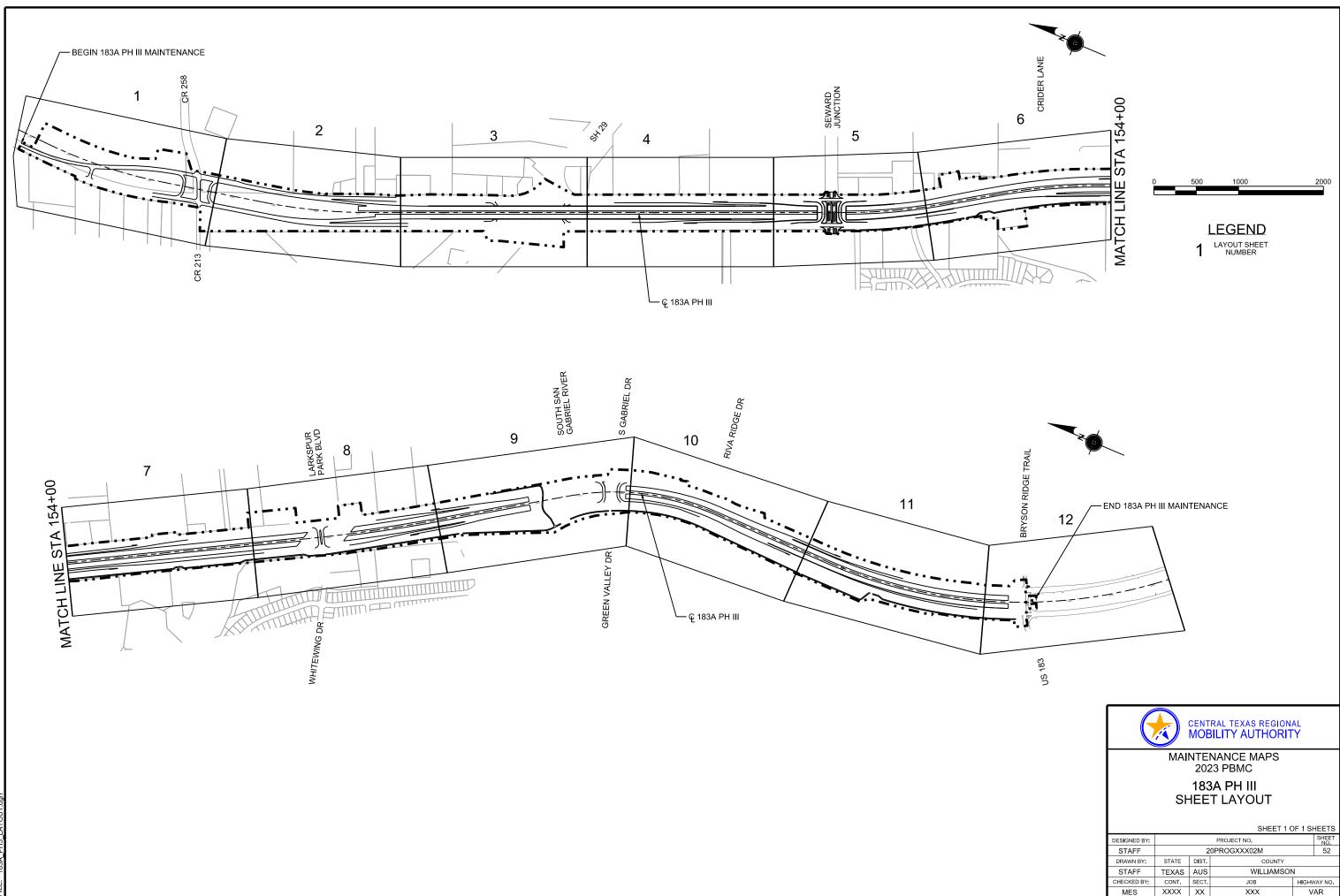
1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.



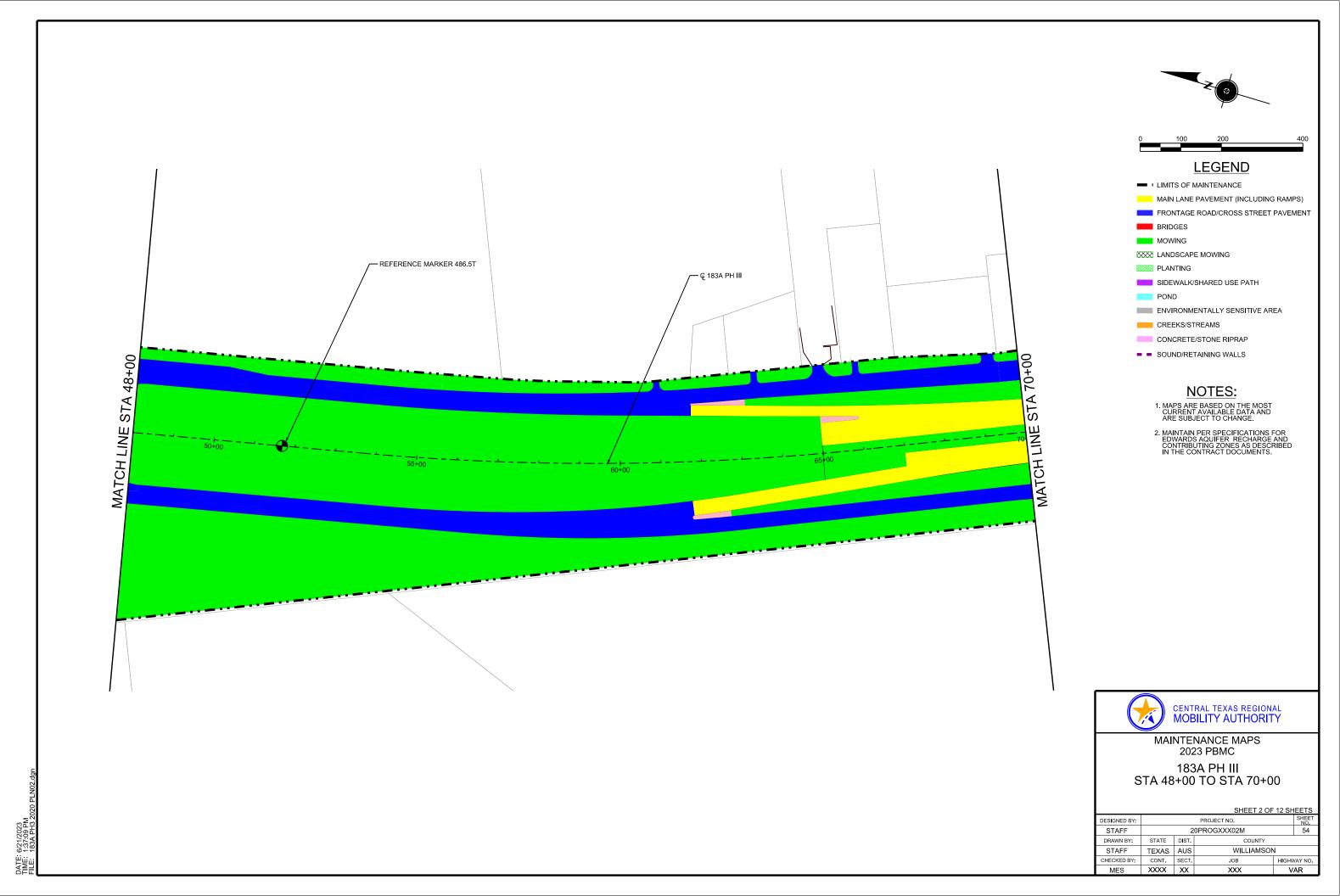


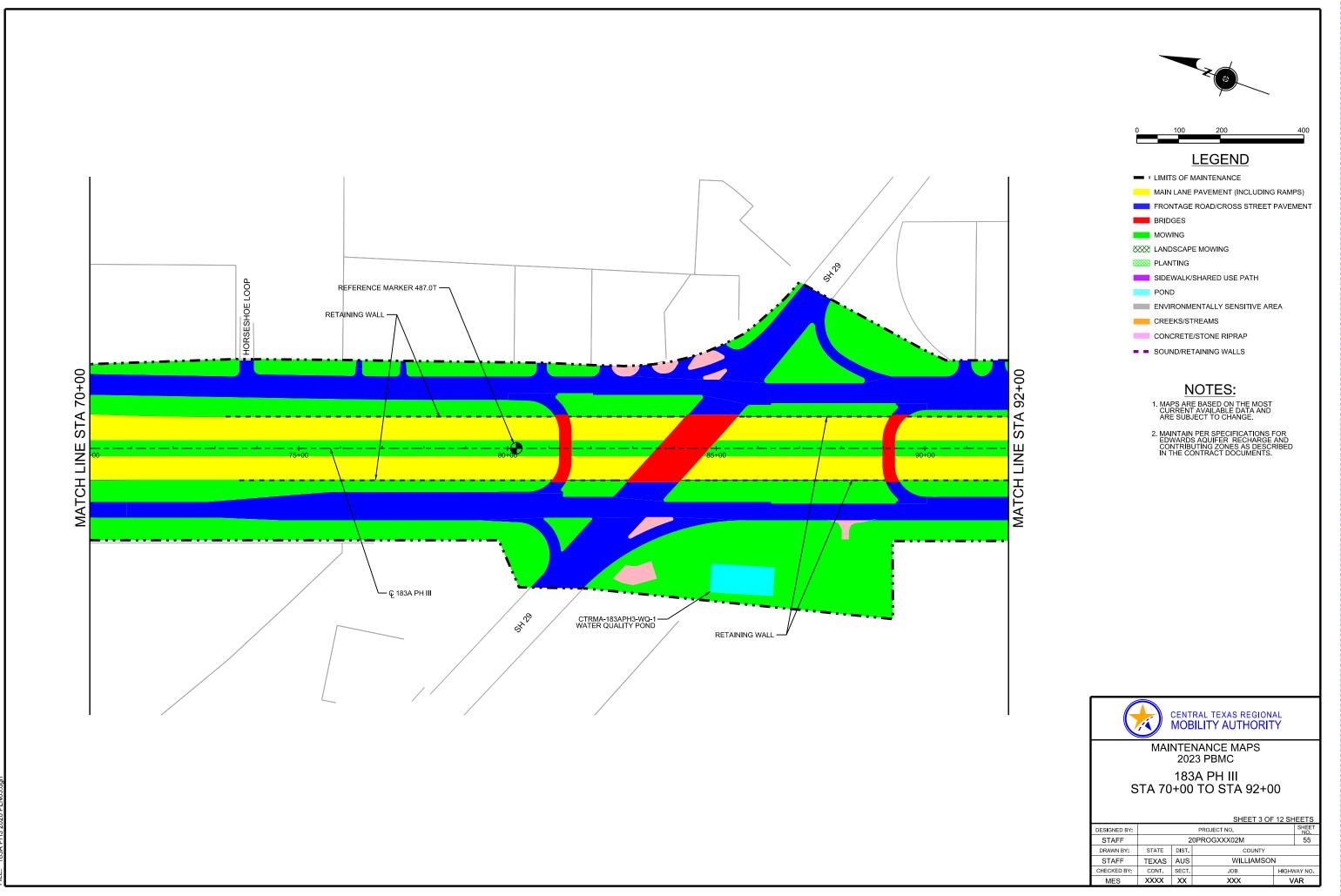


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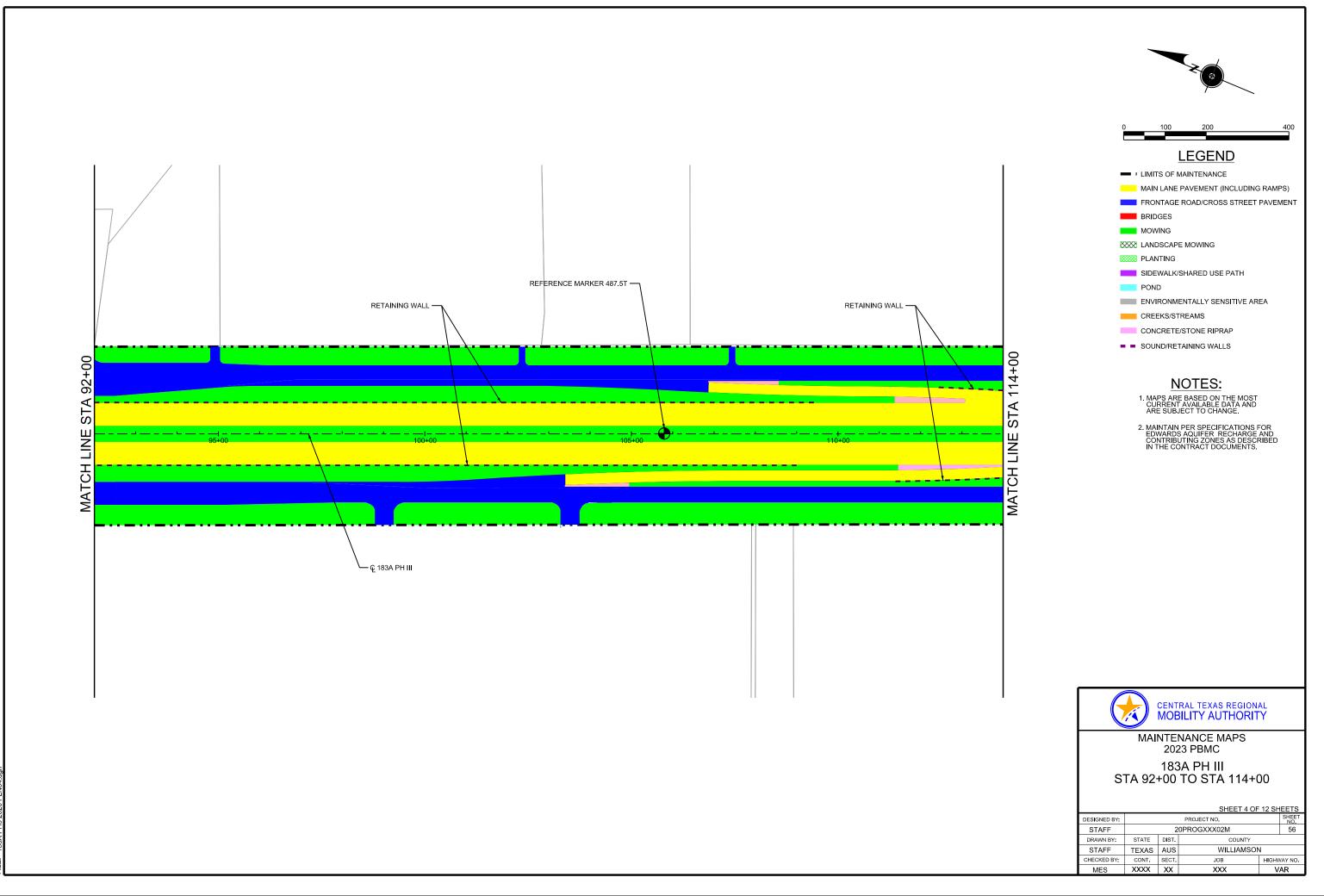




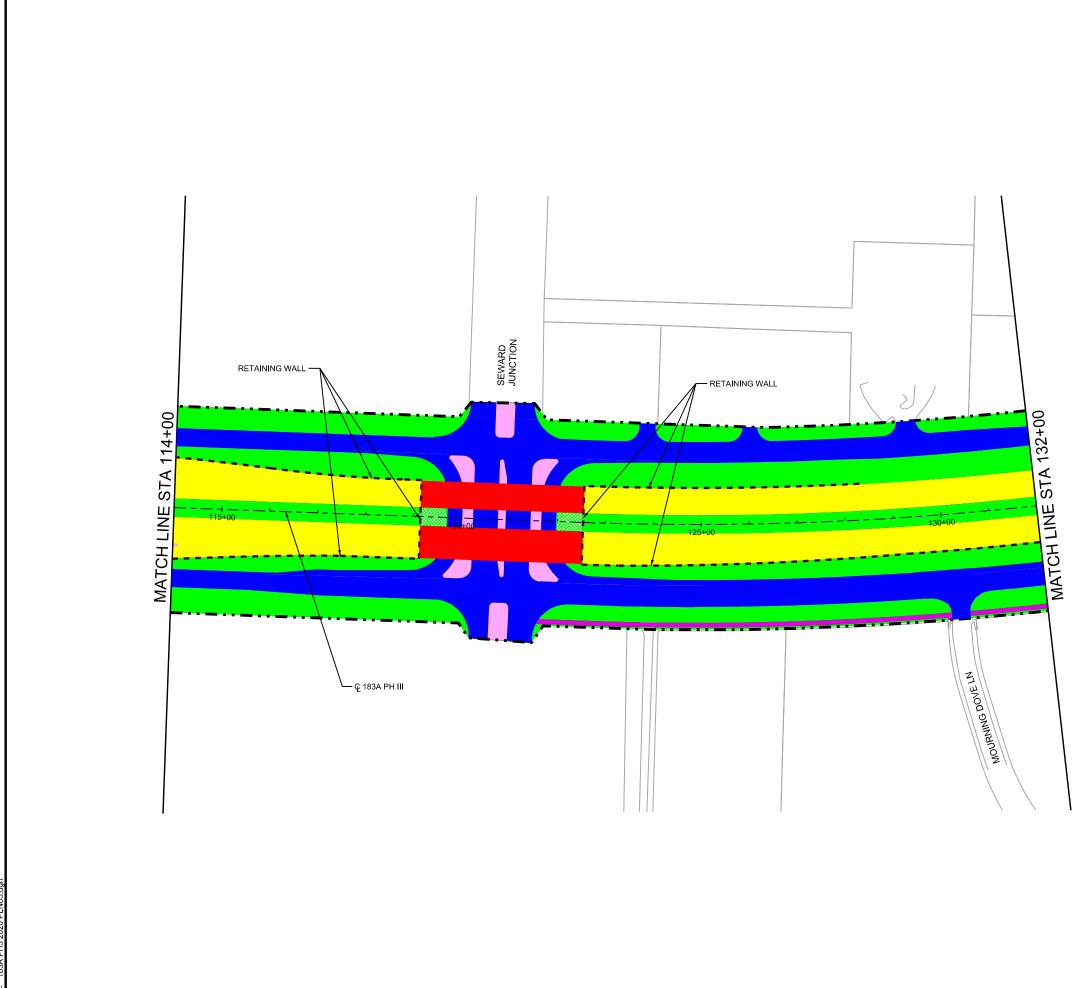




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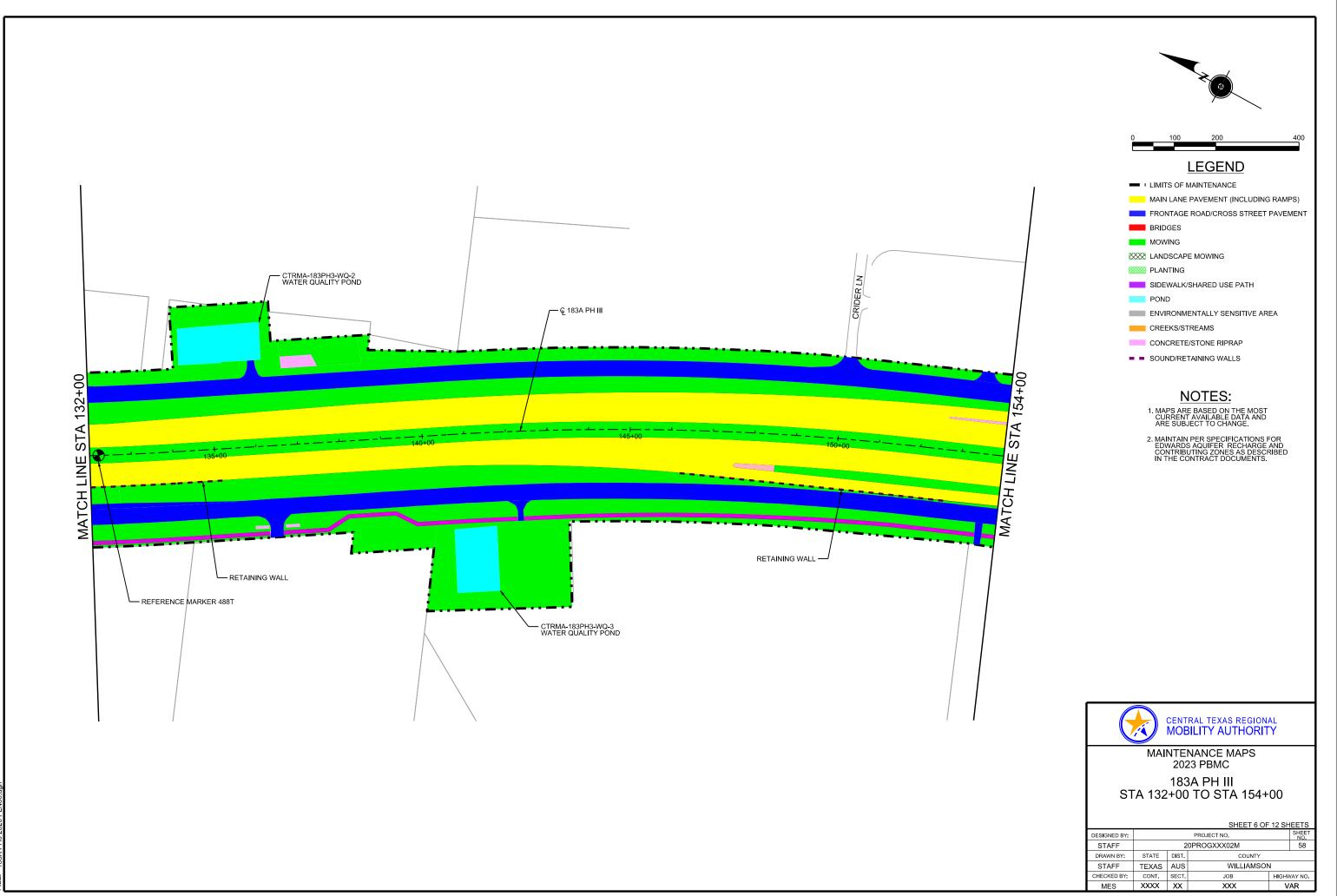
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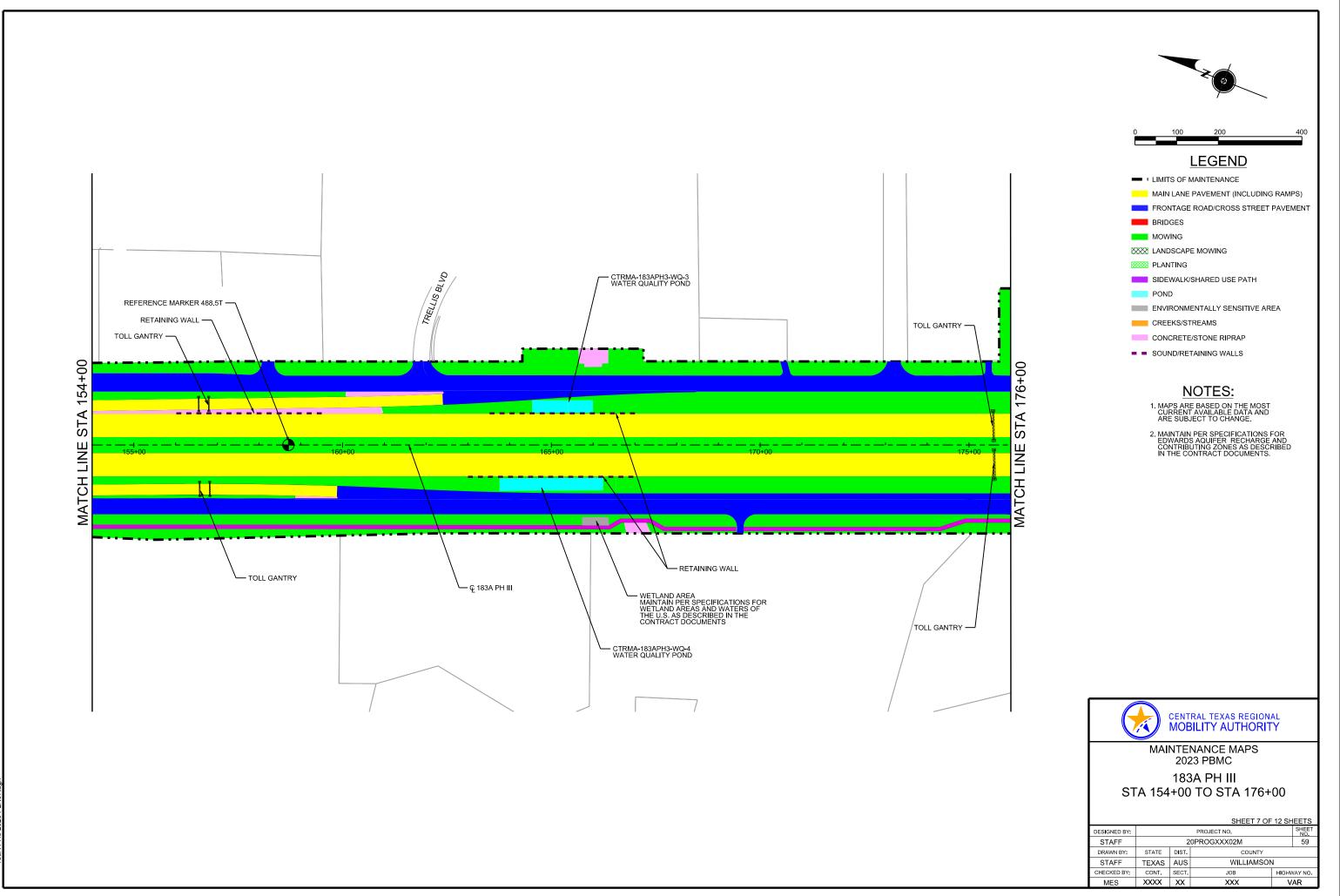
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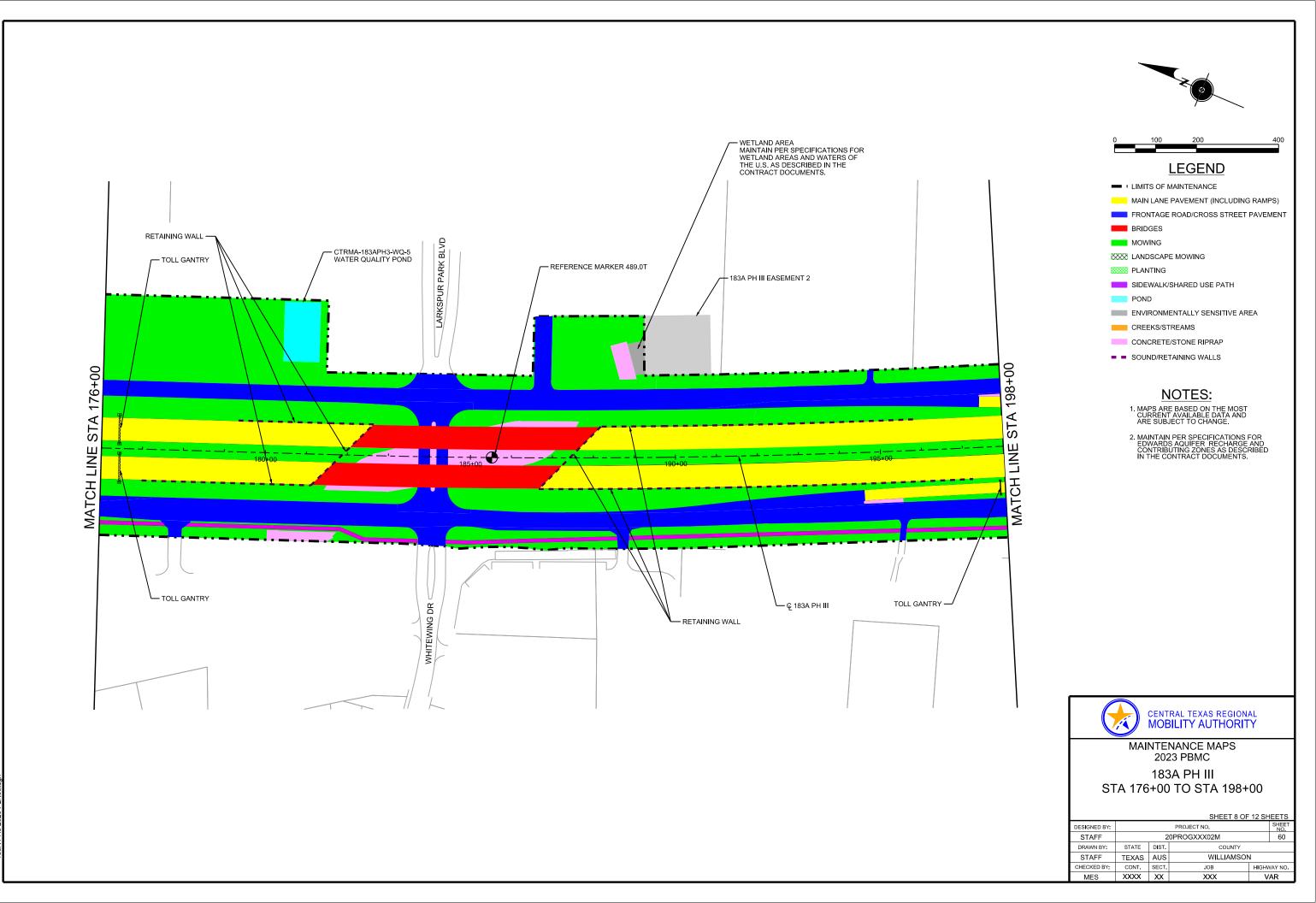




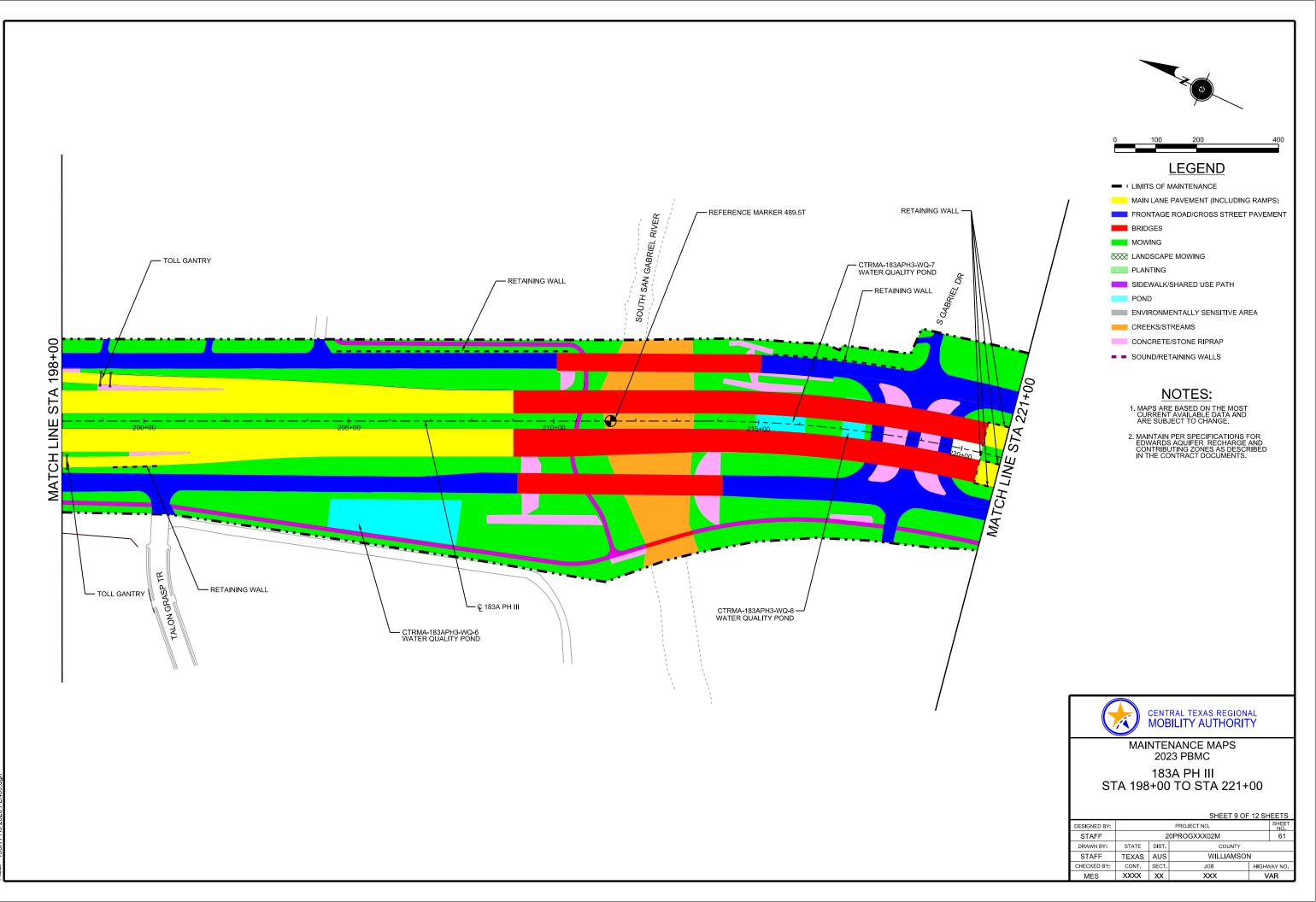


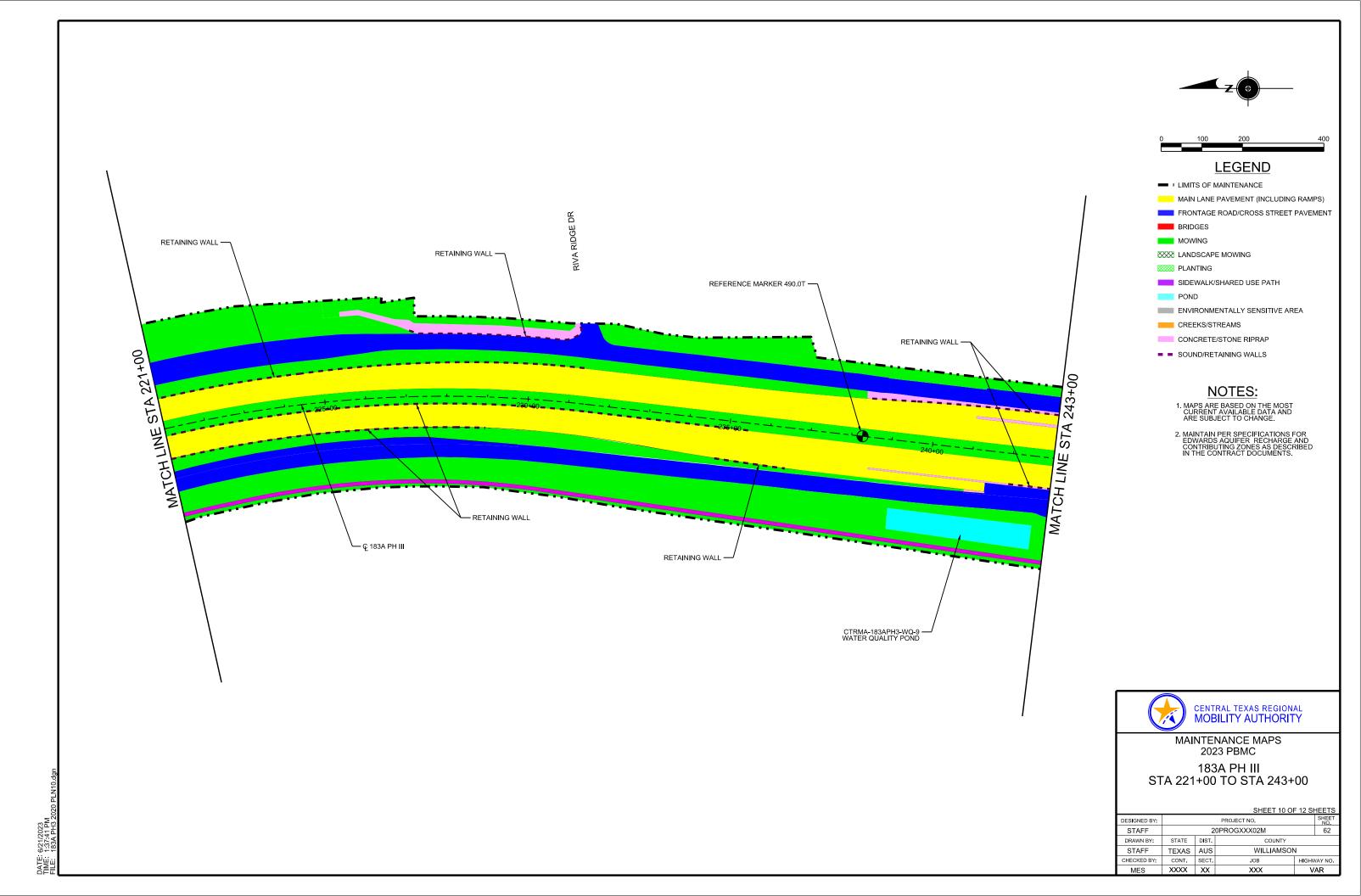
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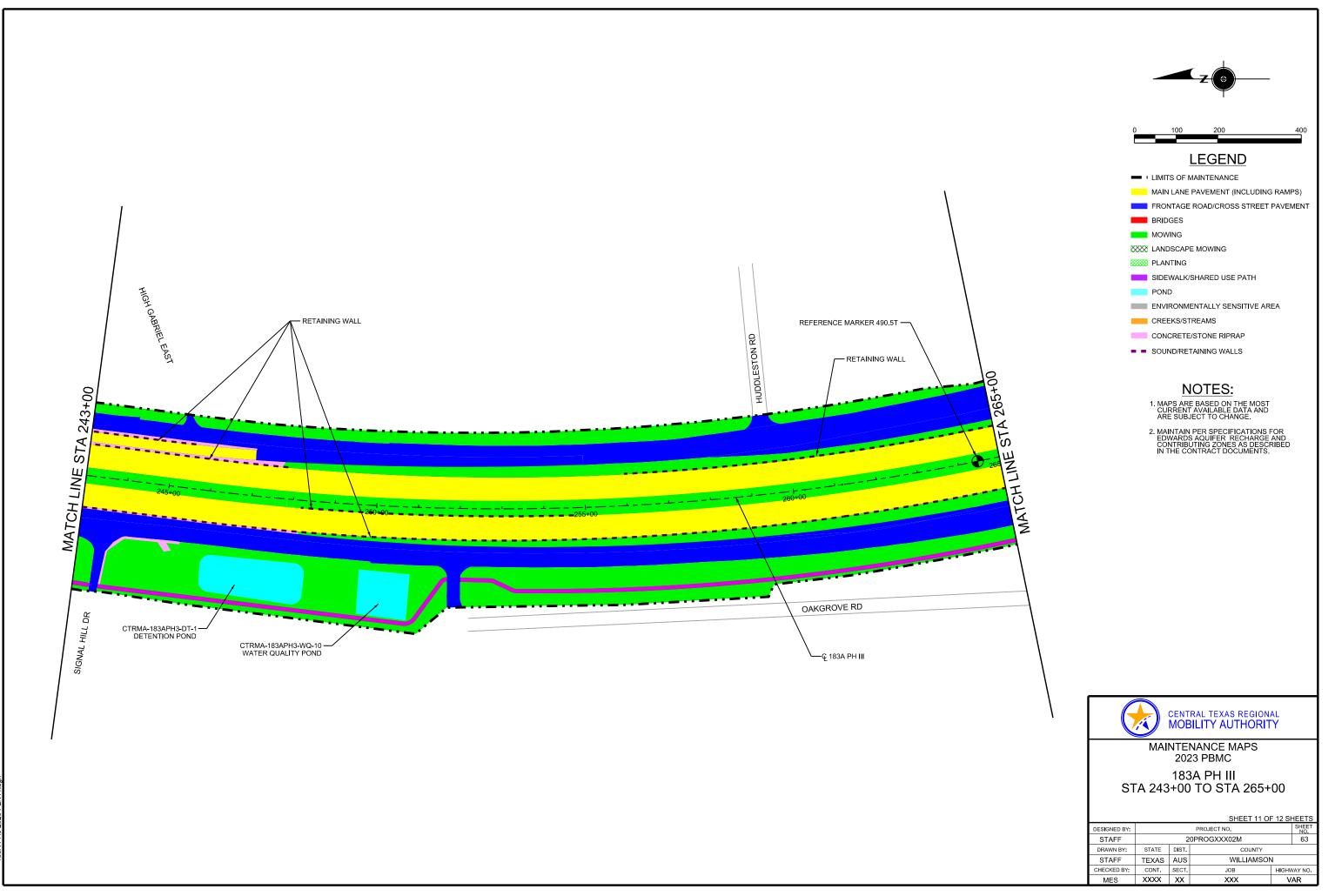




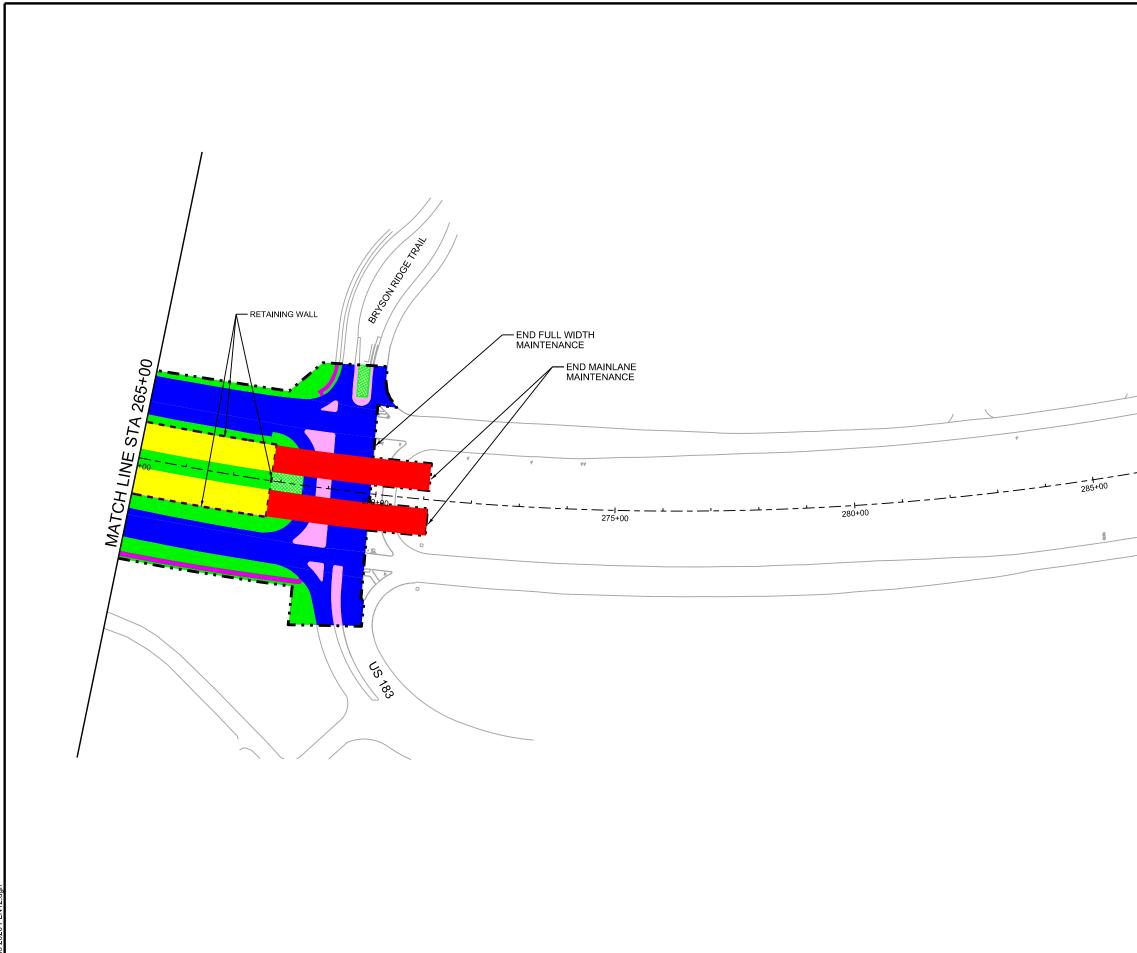
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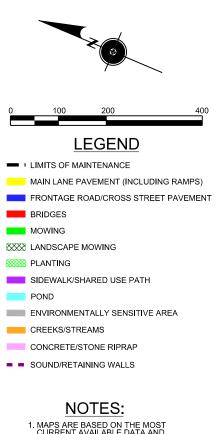




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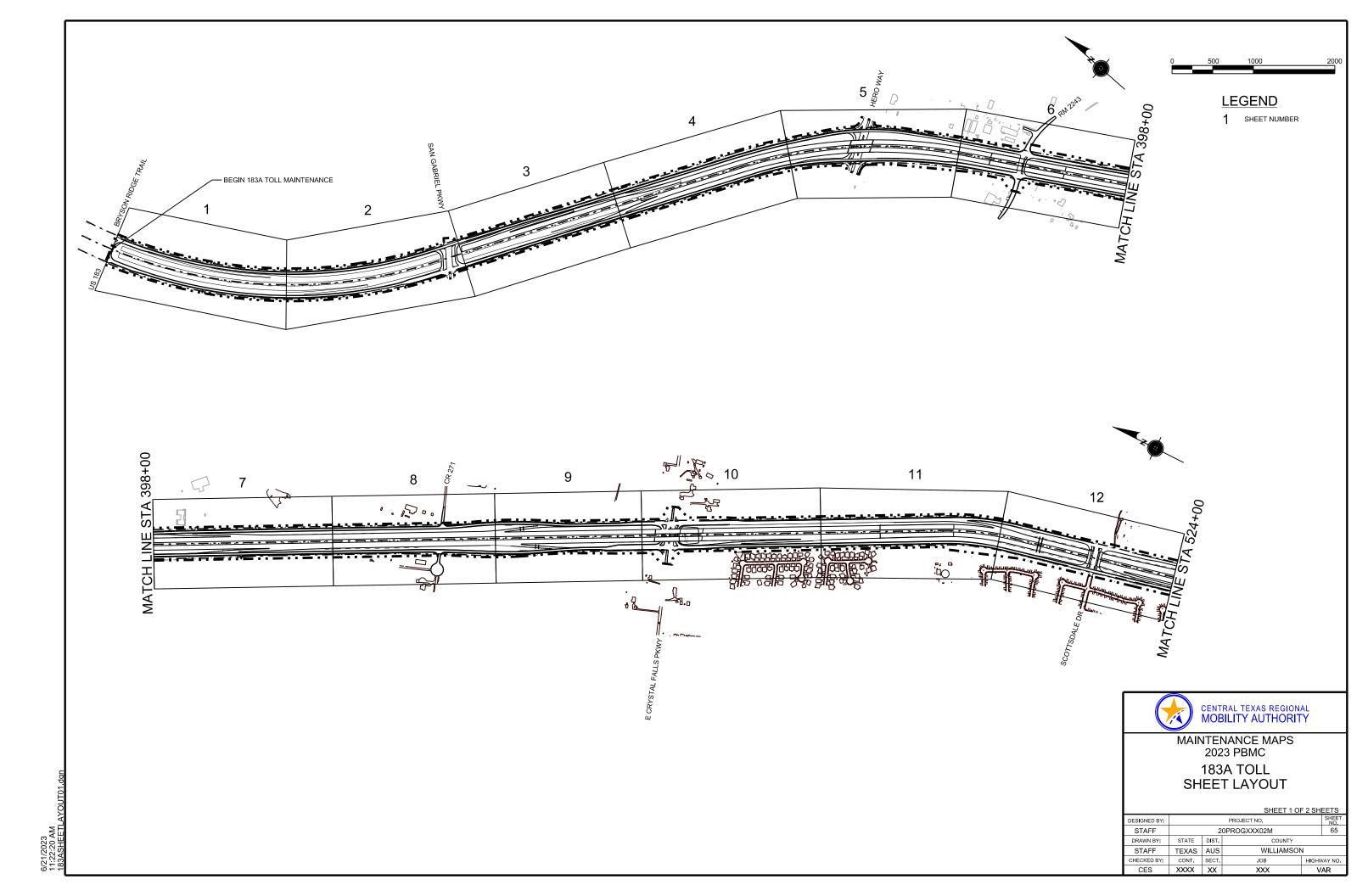


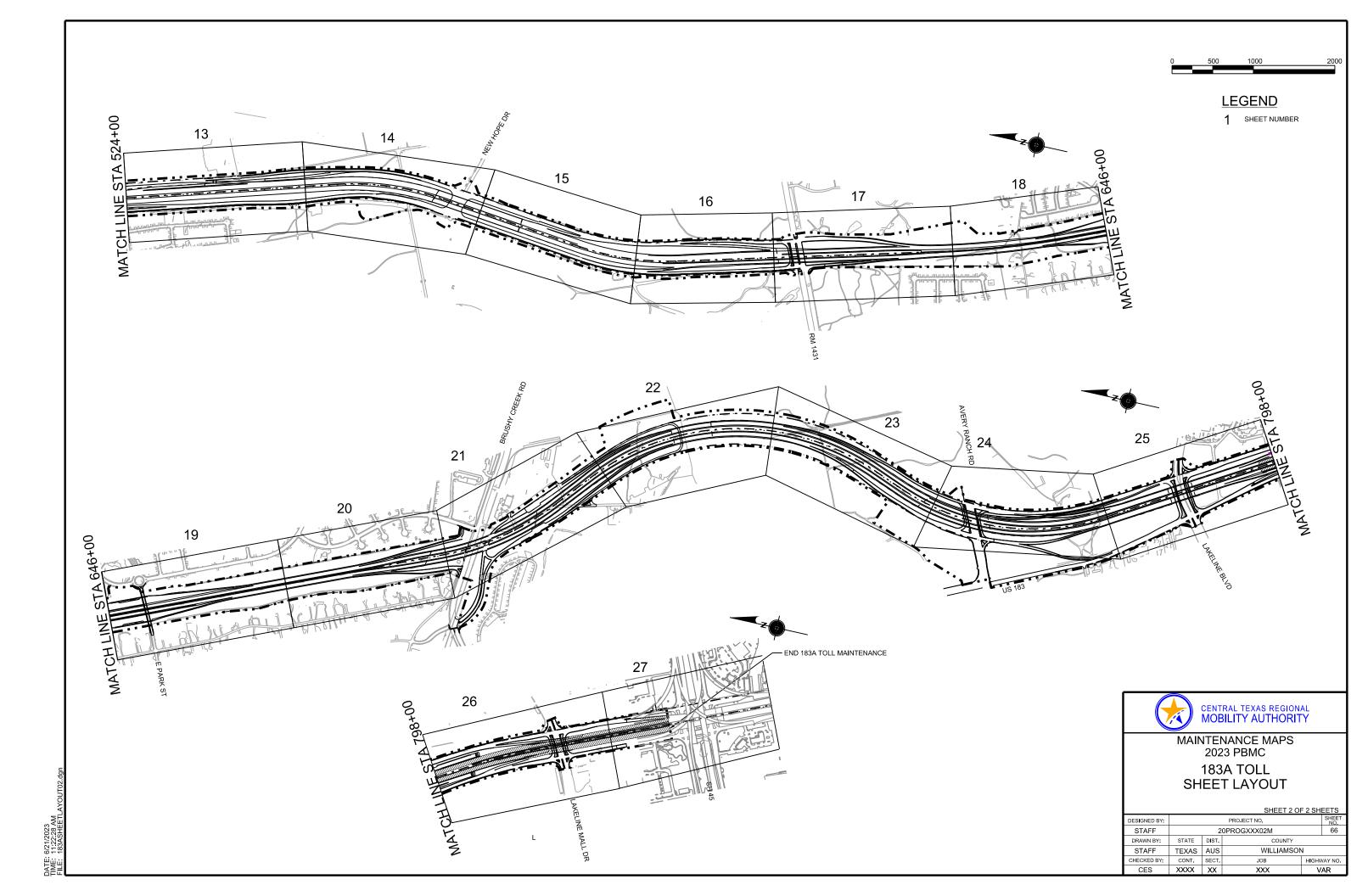
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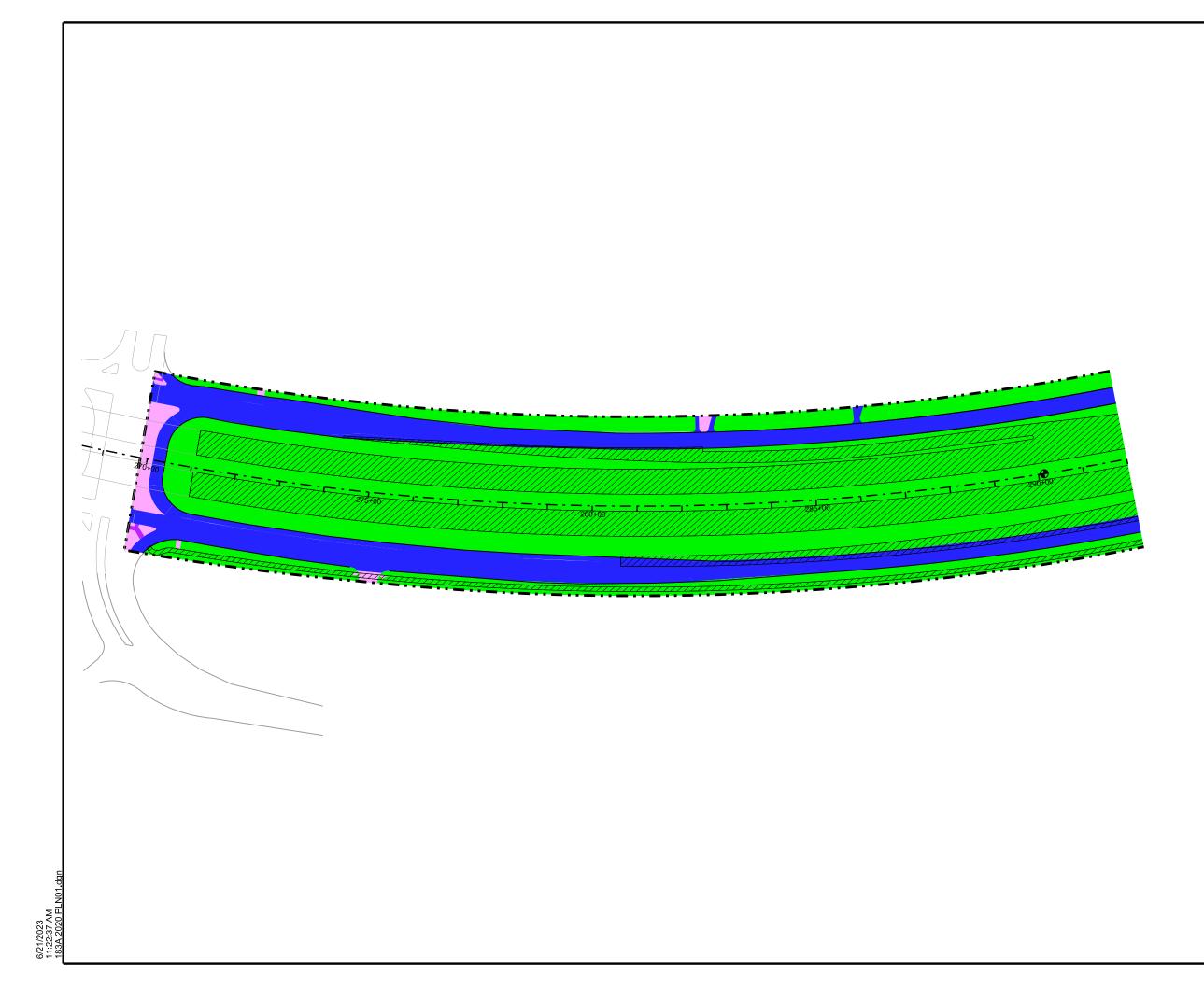


- MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
 ALL ADVANCE SIGNS RELATED TO THE TOLL FACILITY ARE INCLUDED IN THE CTRMA MAINTENANCE EXCLUDING SUPPORTS AND TRUSSES.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY								
MAINTENANCE MAPS 2023 PBMC								
183A PH III STA 265+00 TO END PROJECT SHEET 12 OF 12 SHEETS								
DESIGNED BY:	PROJECT NO.							
STAFF	20PROGXXX02M				64			
DRAWN BY:	STATE DIST. COUNTY							
STAFF	TEXAS AUS WILLIAMSON							
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.				
MES	XXXX	XXXX XX XXX VAR						

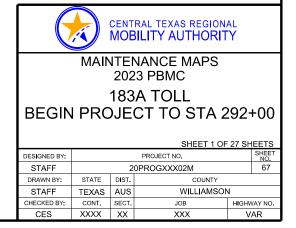


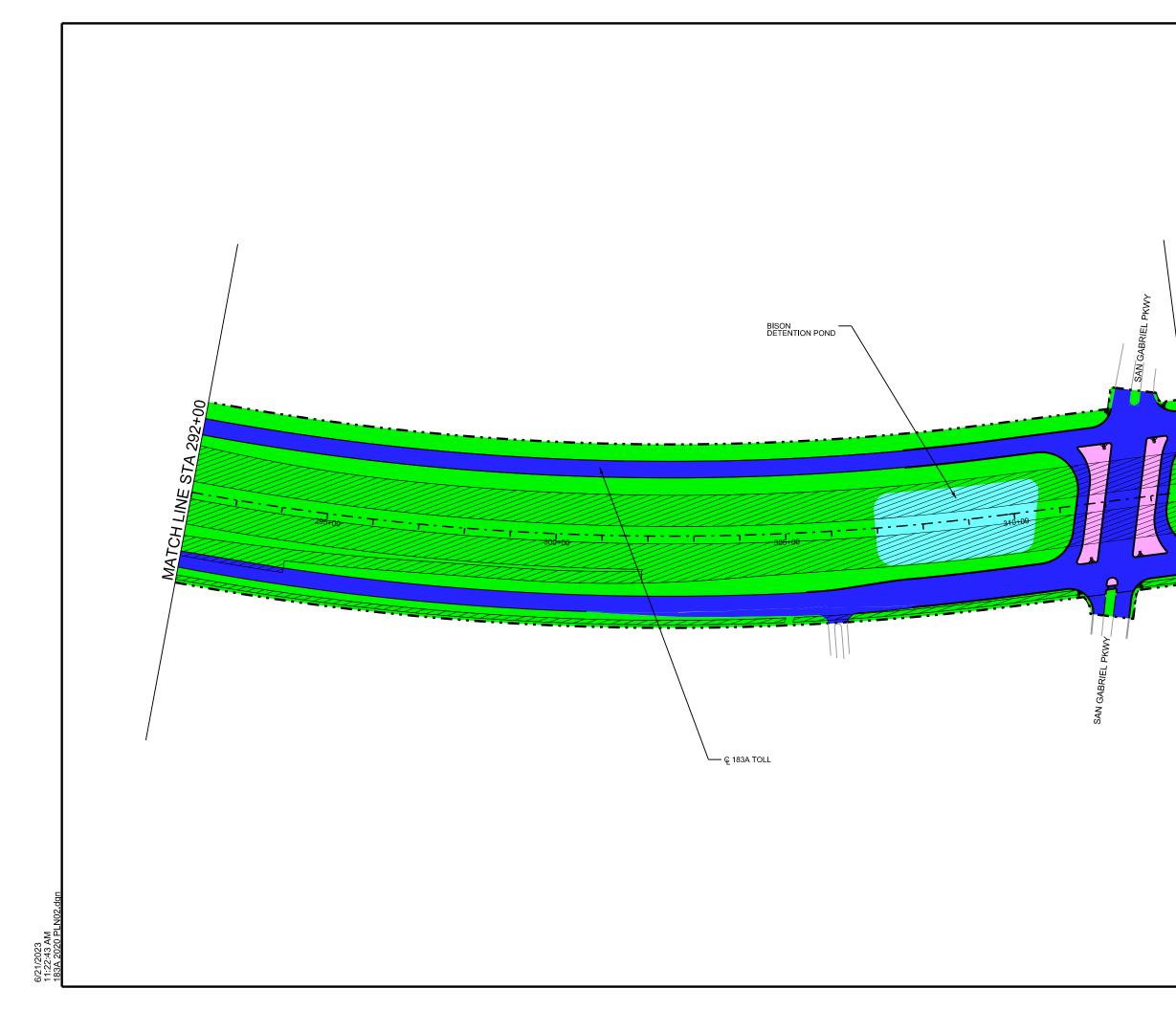




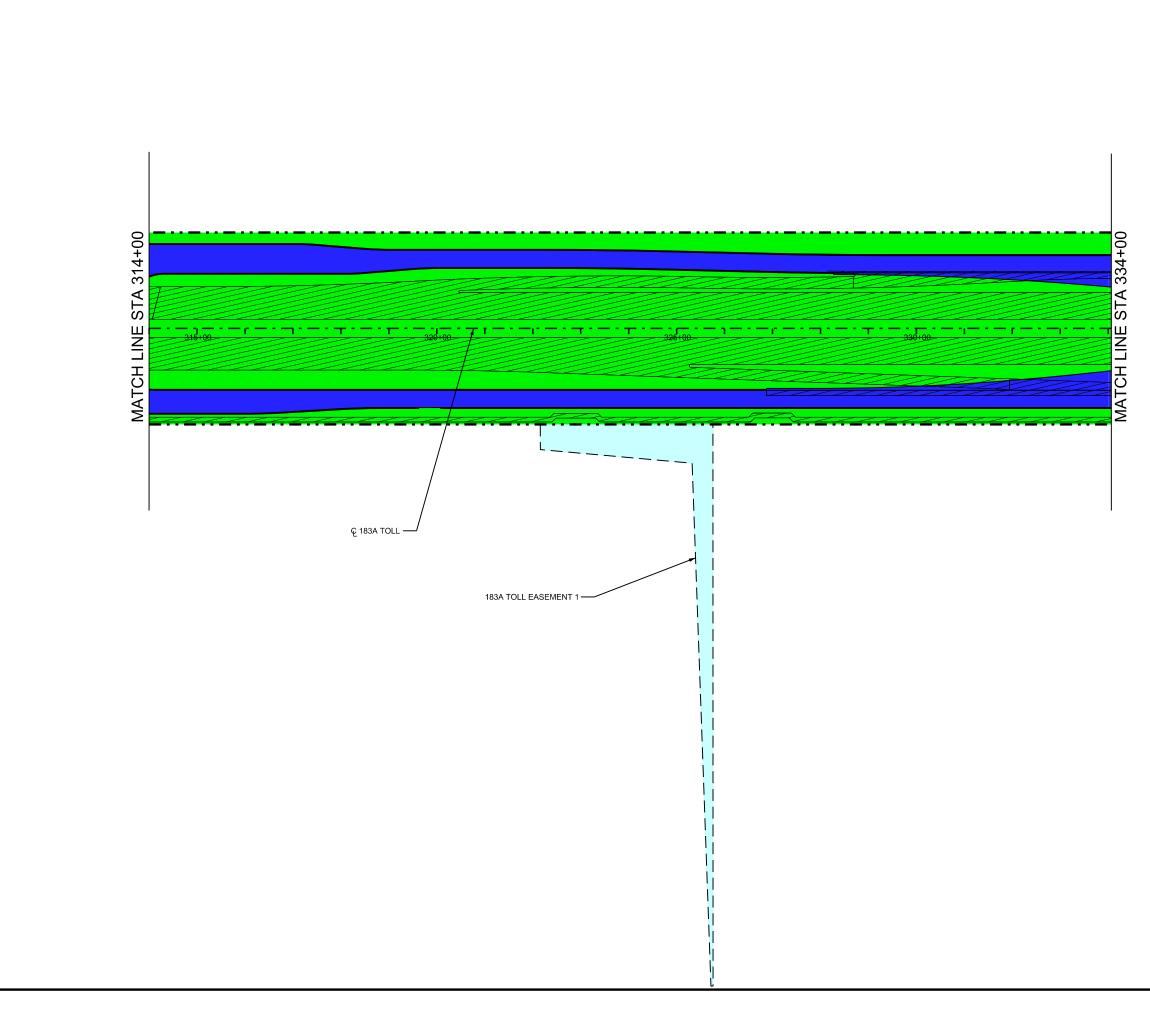


- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1

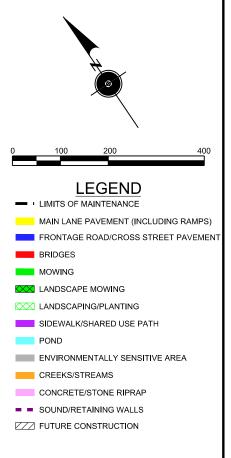




MATCH LINE STA 314+00	 10 20 00 10 20 10 20
	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
	MAINTENANCE MAPS 2023 PBMC 183A TOLL STA 292+00 TO STA 314+00
	SHEET 2 OF 27 SHEETS DESIGNED BY: PROJECT NO. SHEET NO. STAFF 20PROGXXX02M 68 DRAWN BY: STATE DIST. COUNTY STAFF TEXAS AUS WILLIAMSON CHECKED BY: CONT. SECT. JOB HIGHWAY NO. CES XXXX XX XXXX VAR



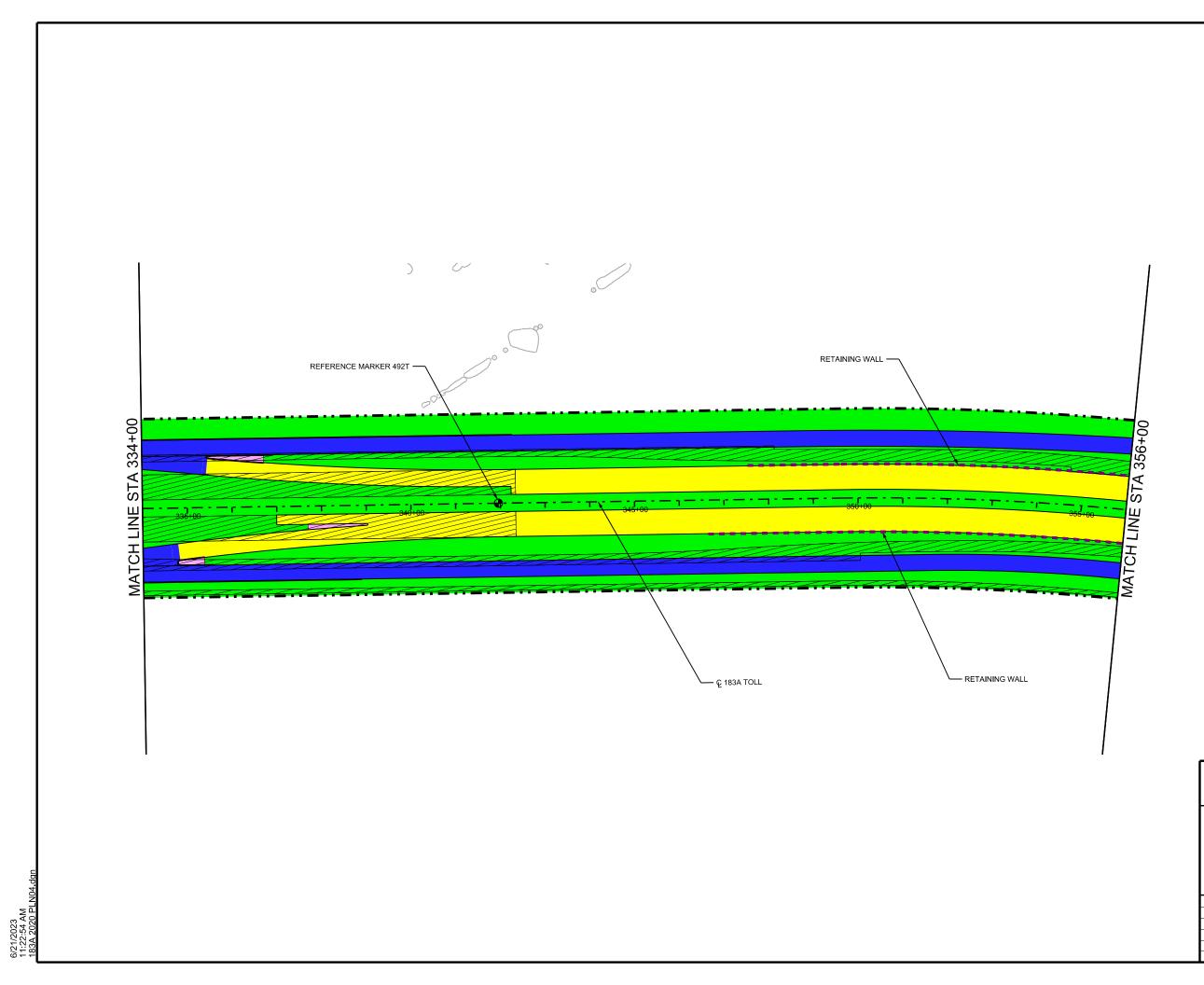
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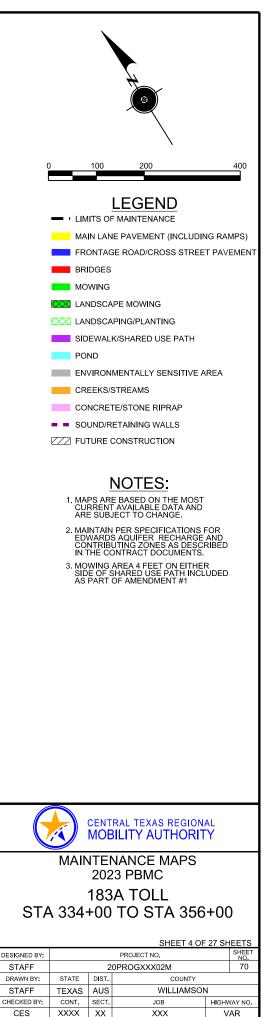


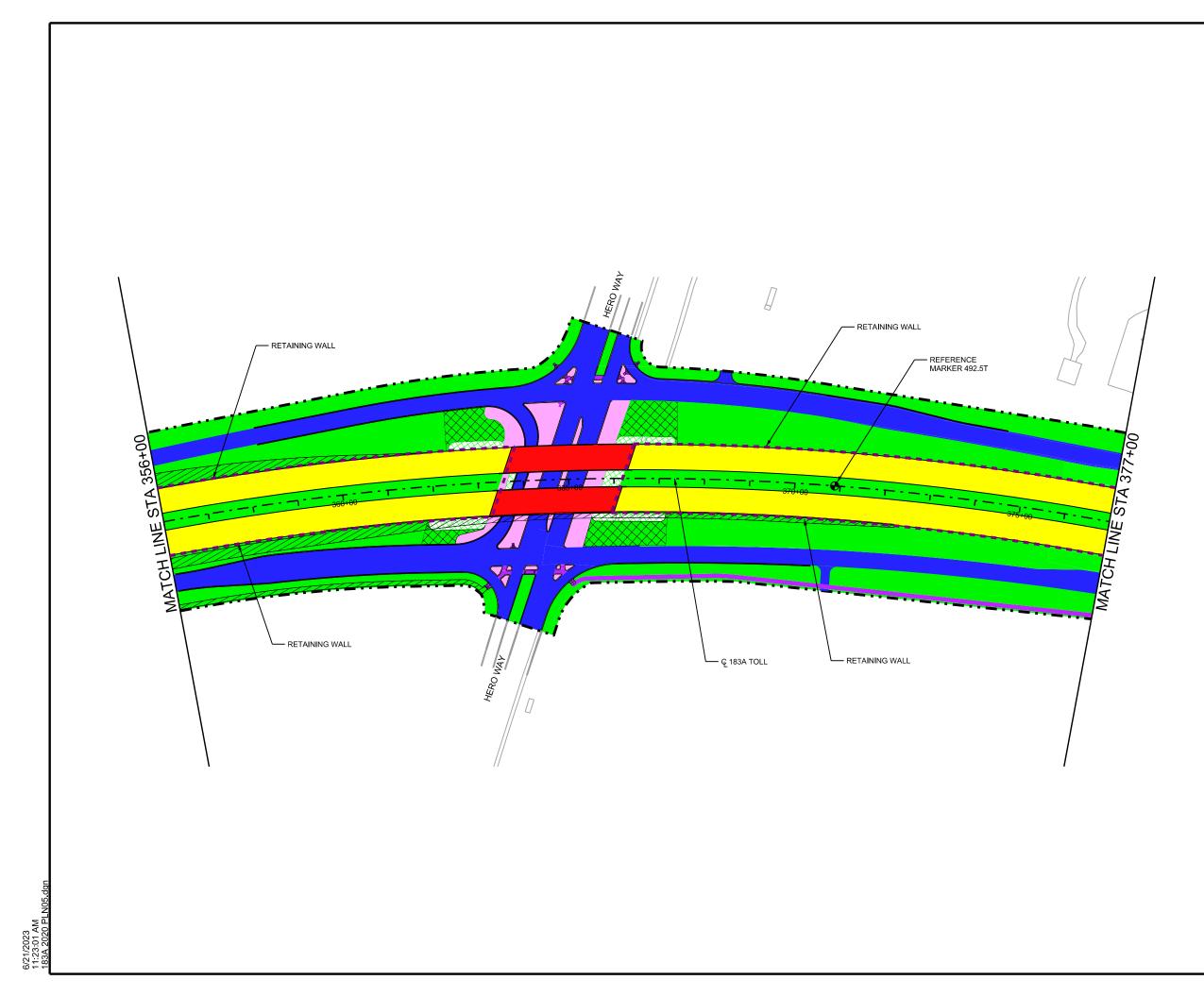
NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1





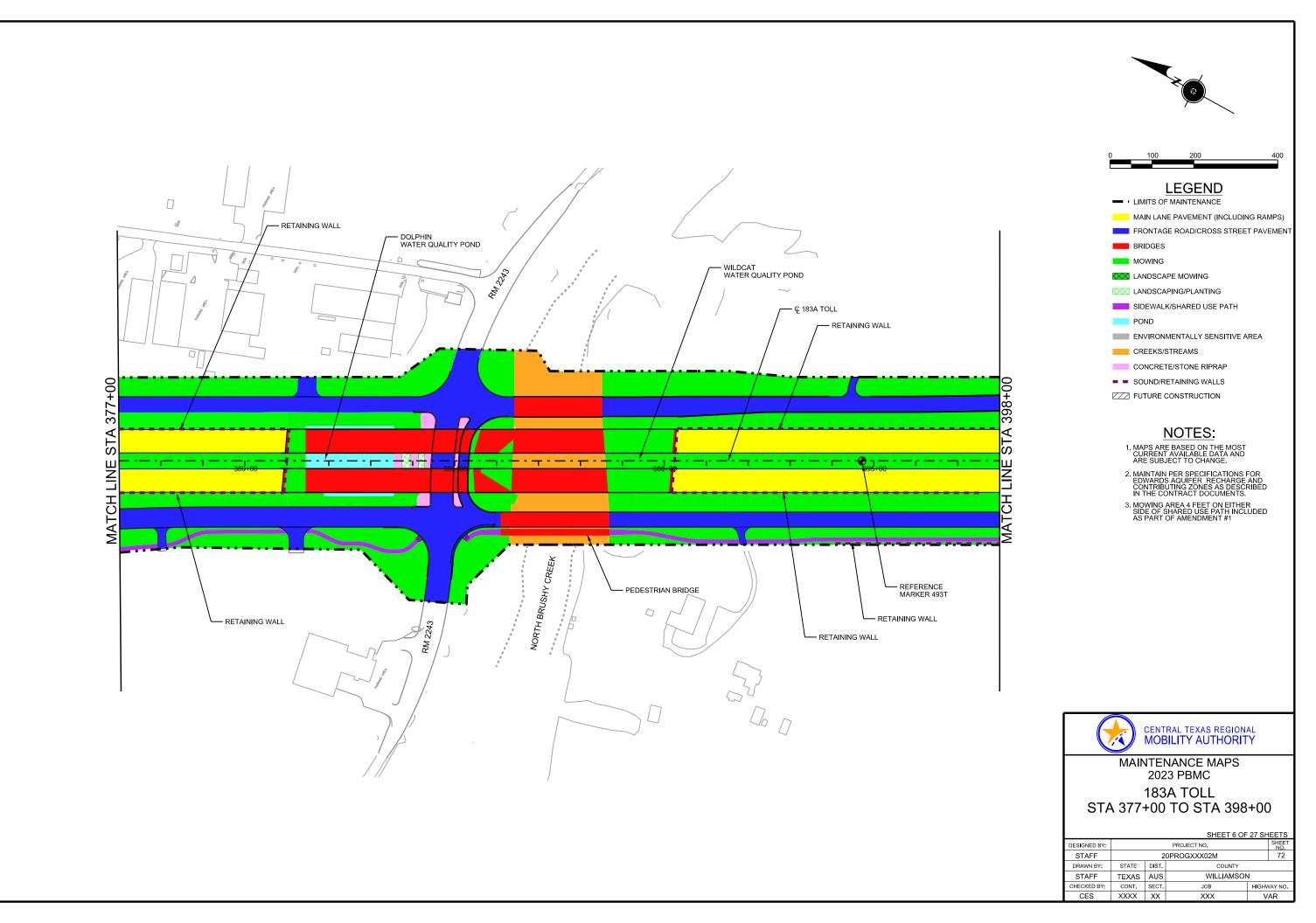


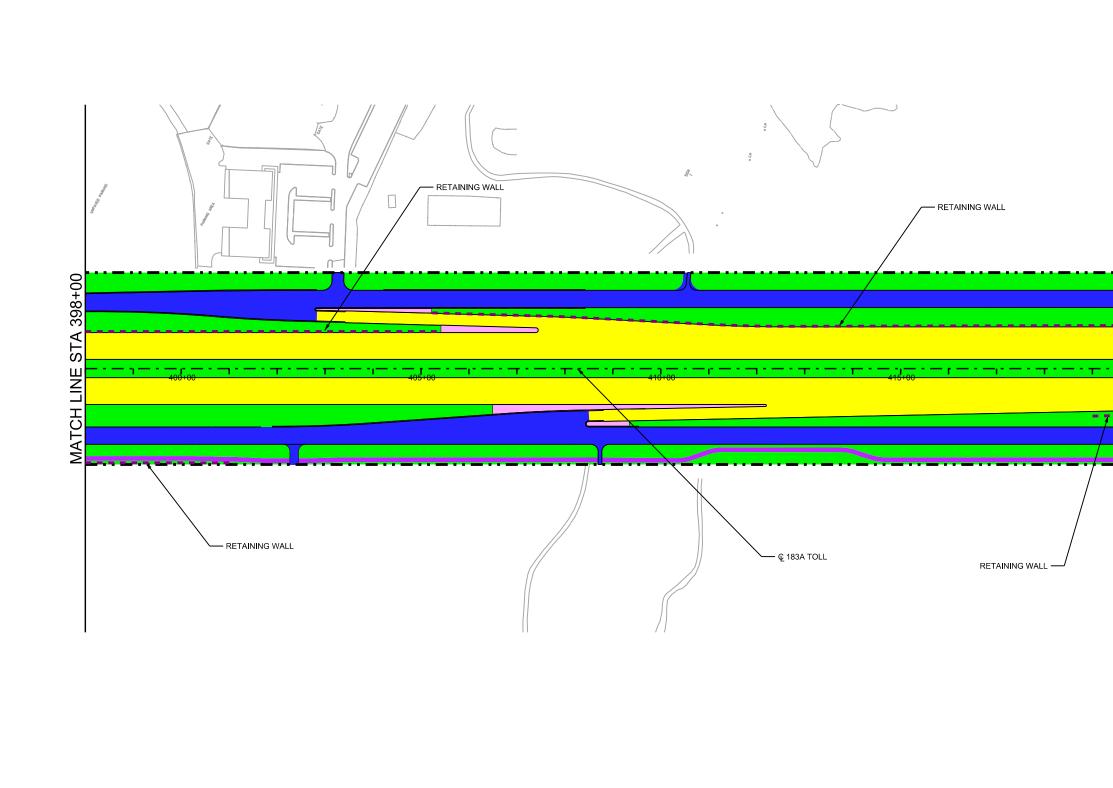


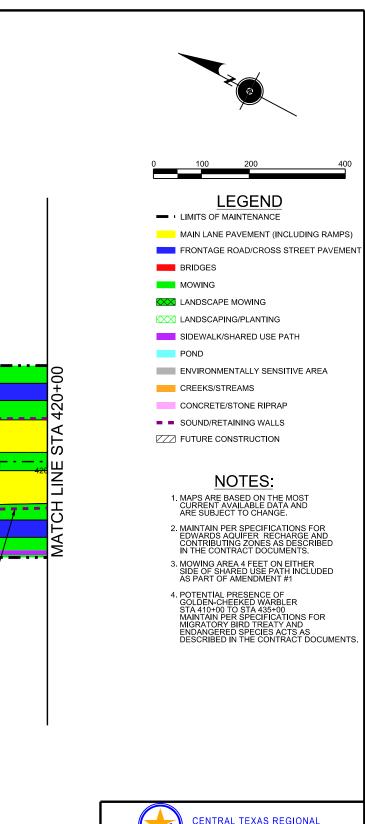
0	100 200 400					
_ .	LEGEND					
	MAIN LANE PAVEMENT (INCLUDING RAMPS)					
	FRONTAGE ROAD/CROSS STREET PAVEMENT					
	BRIDGES					
	MOWING					
\sim	LANDSCAPE MOWING					
\boxtimes	LANDSCAPING/PLANTING					
	SIDEWALK/SHARED USE PATH					
	POND					
	ENVIRONMENTALLY SENSITIVE AREA					
	CREEKS/STREAMS					
	CONCRETE/STONE RIPRAP					
	SOUND/RETAINING WALLS					
$\mathbb{Z}\mathbb{Z}$	FUTURE CONSTRUCTION					
	NOTES					

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1

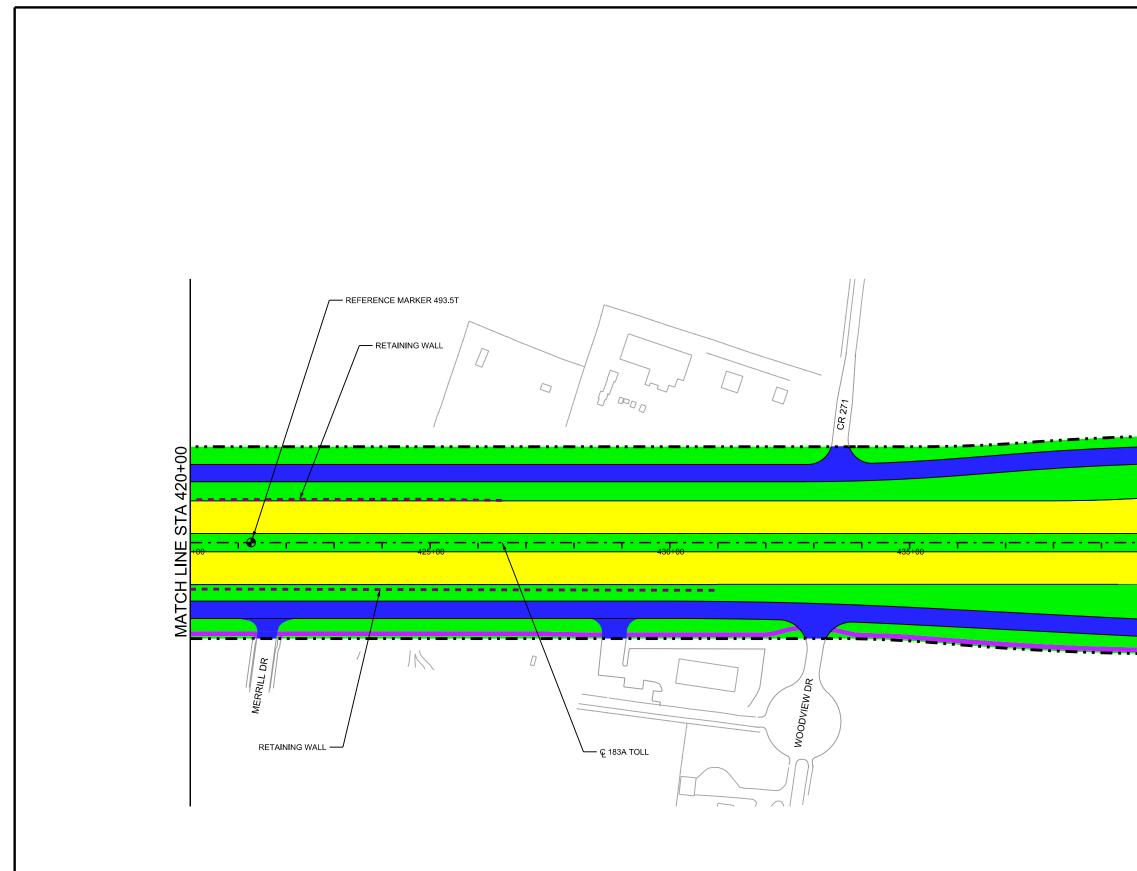


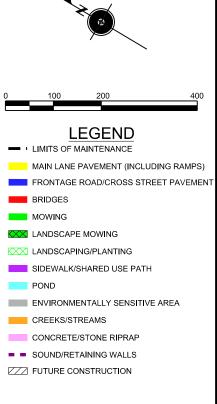










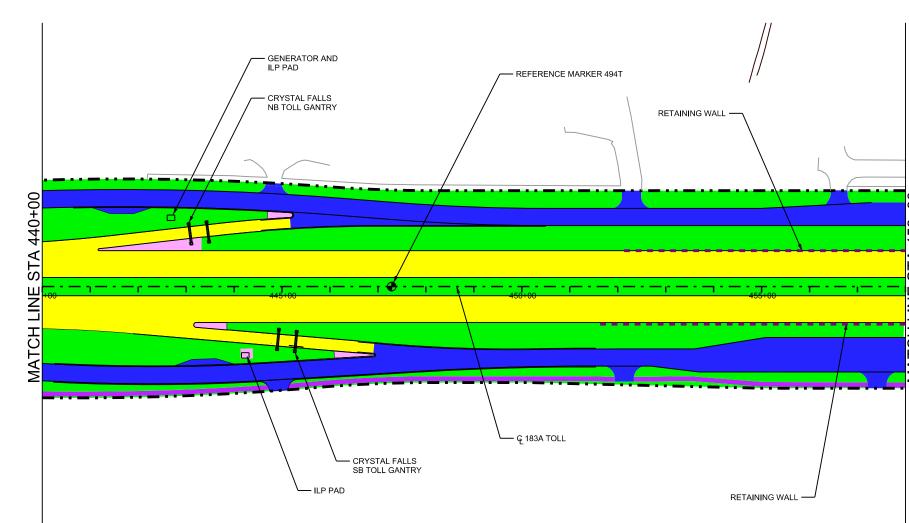


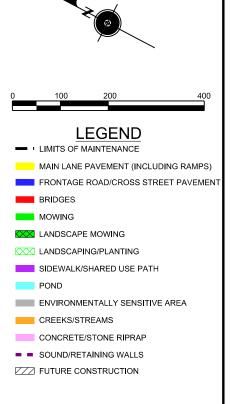
- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1
- 4. POTENTIAL PRESENCE OF GOLDEN-CHEEKED WARBLER STA 410+00 TO STA 435+00 MAINTAIN PER SPECIFICATIONS FOR MIGRATORY BIRD TREATY AND ENDANGERED SPECIES ACTS AS DESCRIBED IN THE CONTRACT DOCUMENTS.



SHEET & OF 27 SHEETS						
DESIGNED BY:		PROJECT NO.				
STAFF	20PROGXXX02M					
DRAWN BY:	STATE	DIST.	COUNTY			
STAFF	TEXAS	AUS	WILLIAMSON			
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.		
CES	XXXX	XX	XXX	VAR		

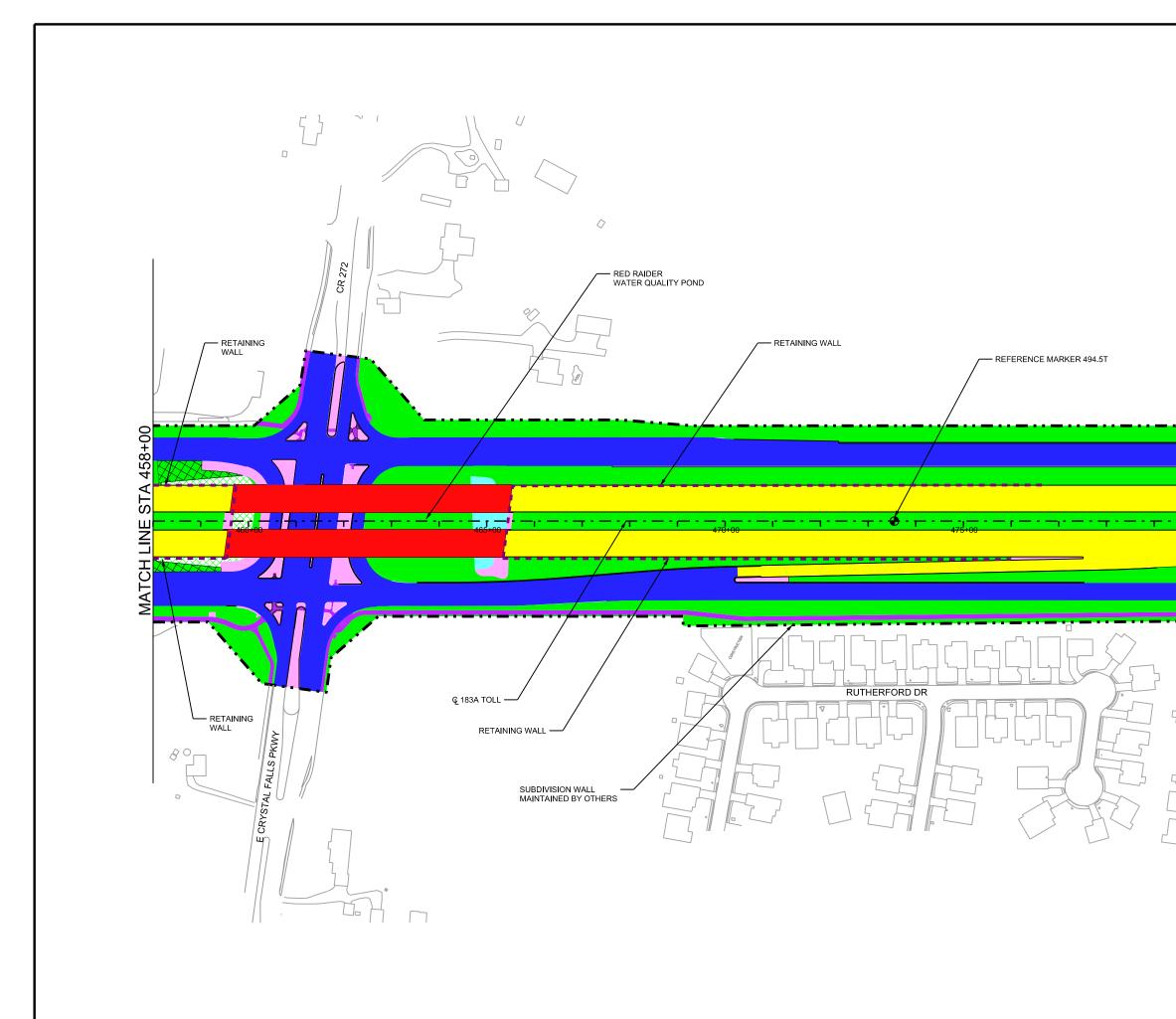
MATCH LINE STA 440+00

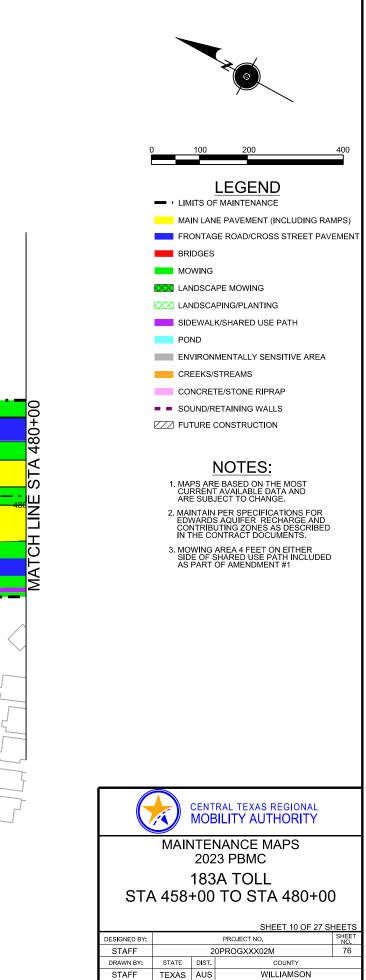




- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1







CHECKED BY:

CONT. SECT.

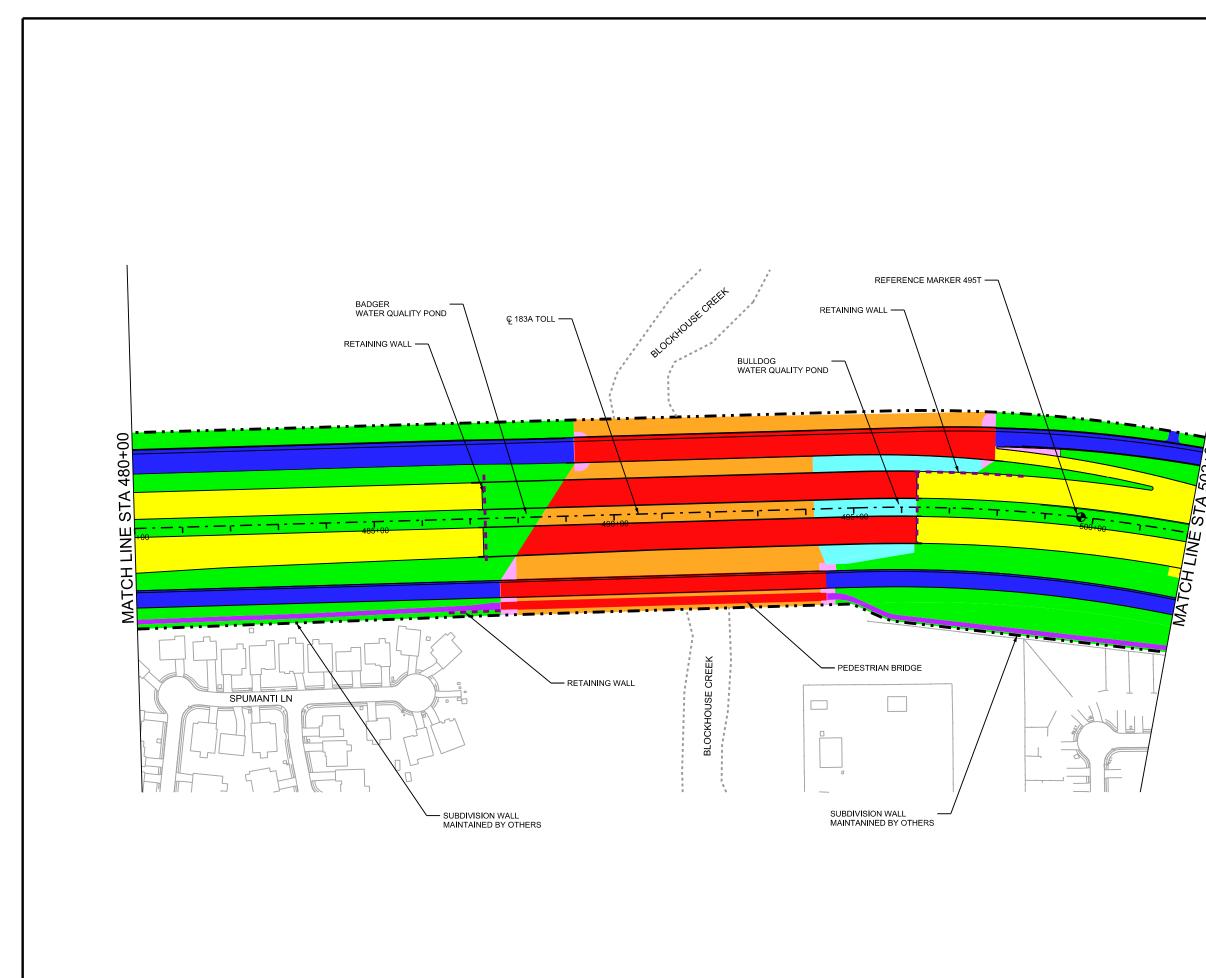
CES XXXX XX

JOB

XXX

HIGHWAY NO.

VAR

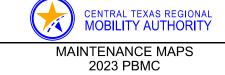


A CONTRACTOR
0 100 200 400
LEGEND - ILIMITS OF MAINTENANCE MAIN LANE PAVEMENT (INCLUDING RAMPS) FRONTAGE ROAD/CROSS STREET PAVEMENT BRIDGES MOWING LANDSCAPE MOWING LANDSCAPE MOWING LANDSCAPE MOWING LANDSCAPING/PLANTING SIDEWALK/SHARED USE PATH POND ENVIRONMENTALLY SENSITIVE AREA CREEKS/STREAMS CONCRETE/STONE RIPRAP
 SOUND/RETAINING WALLS FUTURE CONSTRUCTION MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1 POTENTIAL PRESENCE OF GOLDEN-CHEEKED WARBLER STA 485+00 TO STA 500+00 MAINTAIN PER SPECIFICATIONS FOR MIGRATORY BIRD TREATY AND ENDANGERED SPECIES ACTS AS DESCRIBED IN THE CONTRACT DOCUMENTS.

502

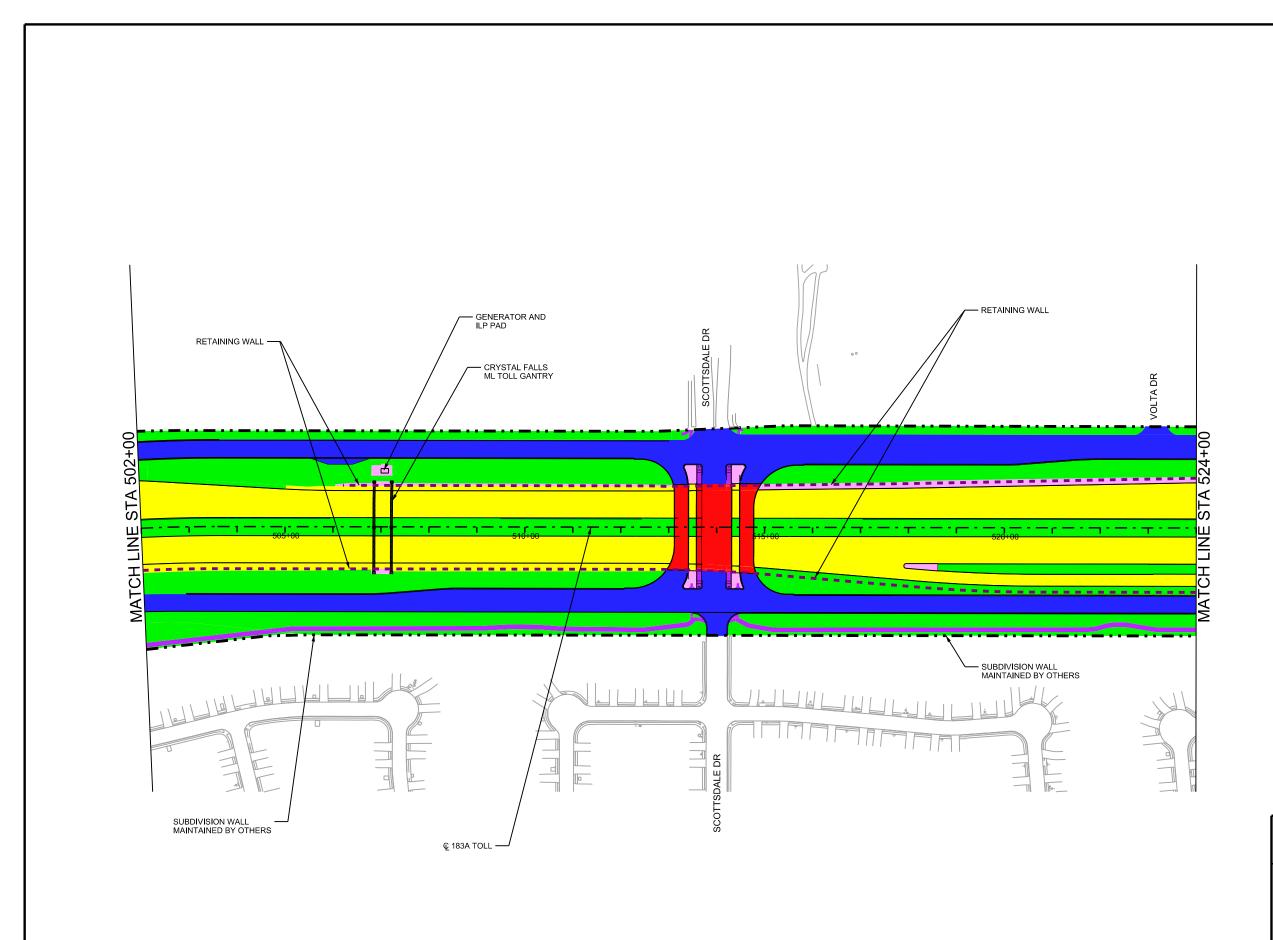
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183A TOLL STA 480+00 TO STA 502+00

SHEET 11 OF 27 SHEETS							
DESIGNED BY:		PROJECT NO.					
STAFF	20PROGXXX02M						
DRAWN BY:	STATE	DIST.	COUNTY				
STAFF	TEXAS	AUS	WILLIAMSON				
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.			
CES	XXXX	XX	XXX	VAR			



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0	100 200 400
	LEGEND
<u> </u>	
	MAIN LANE PAVEMENT (INCLUDING RAMPS)
	FRONTAGE ROAD/CROSS STREET PAVEMENT
	BRIDGES
	MOWING
\sim	LANDSCAPE MOWING
$\overline{\mathbf{X}}$	LANDSCAPING/PLANTING
	SIDEWALK/SHARED USE PATH
	POND
	ENVIRONMENTALLY SENSITIVE AREA
	CREEKS/STREAMS
	CONCRETE/STONE RIPRAP
	SOUND/RETAINING WALLS
ZZ	FUTURE CONSTRUCTION
	NOTEO

1

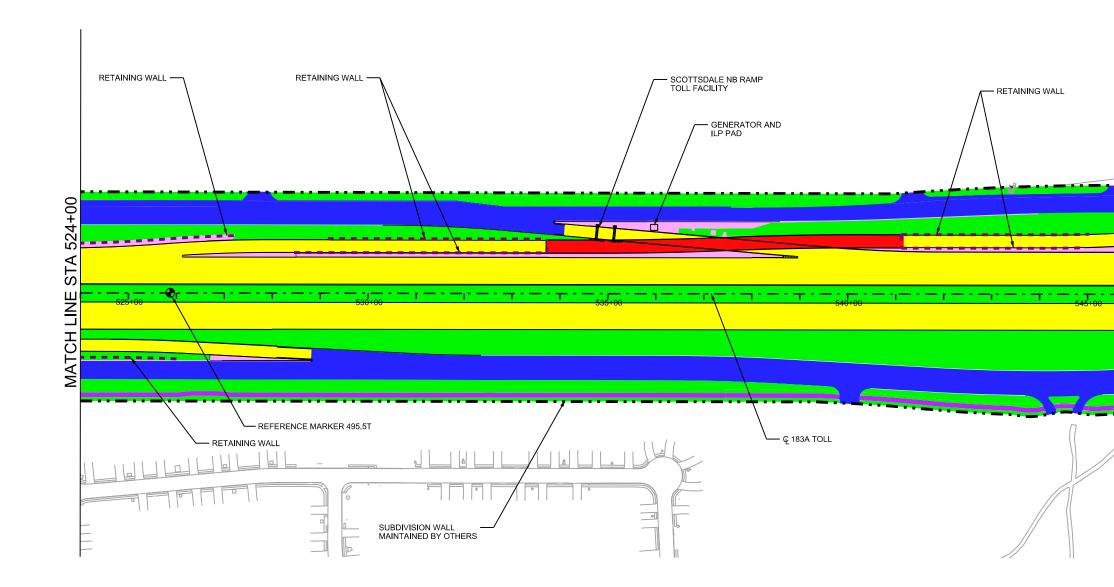
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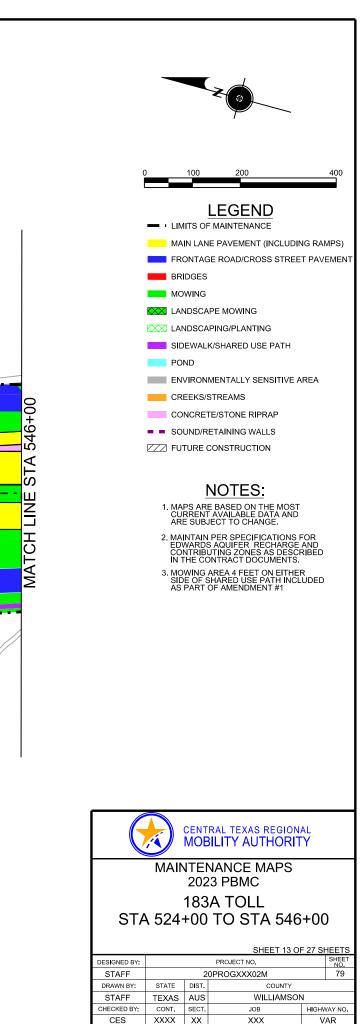
- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1

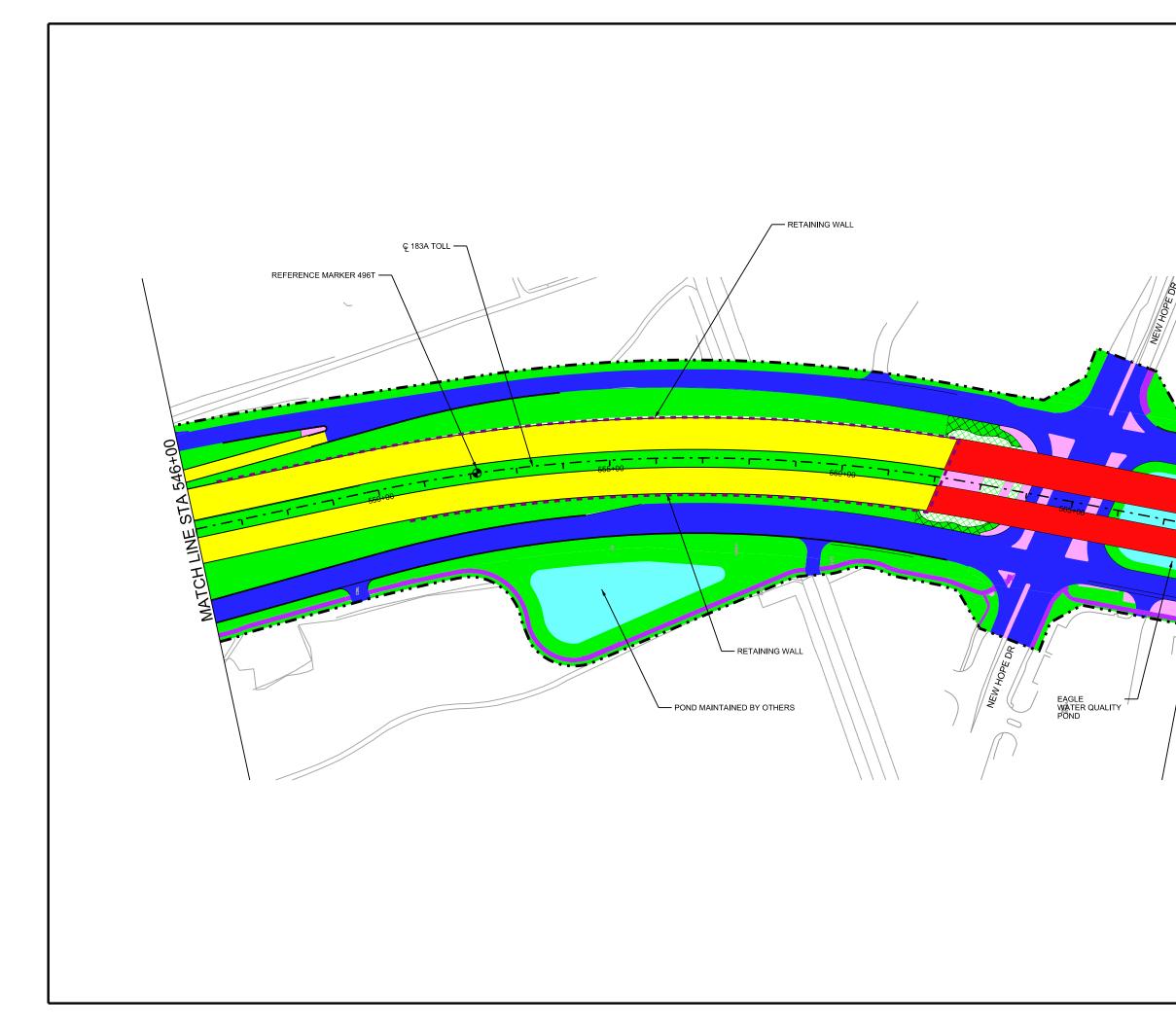


183A TOLL STA 502+00 TO STA 524+00

SHEET 12 OF 27 SHEETS							
DESIGNED BY:		PROJECT NO.					
STAFF		20PROGXXX02M					
DRAWN BY:	STATE	DIST.	COUNTY				
STAFF	TEXAS	AUS	WILLIAMSON				
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.			
CES	XXXX	XX	XXX	VAR			



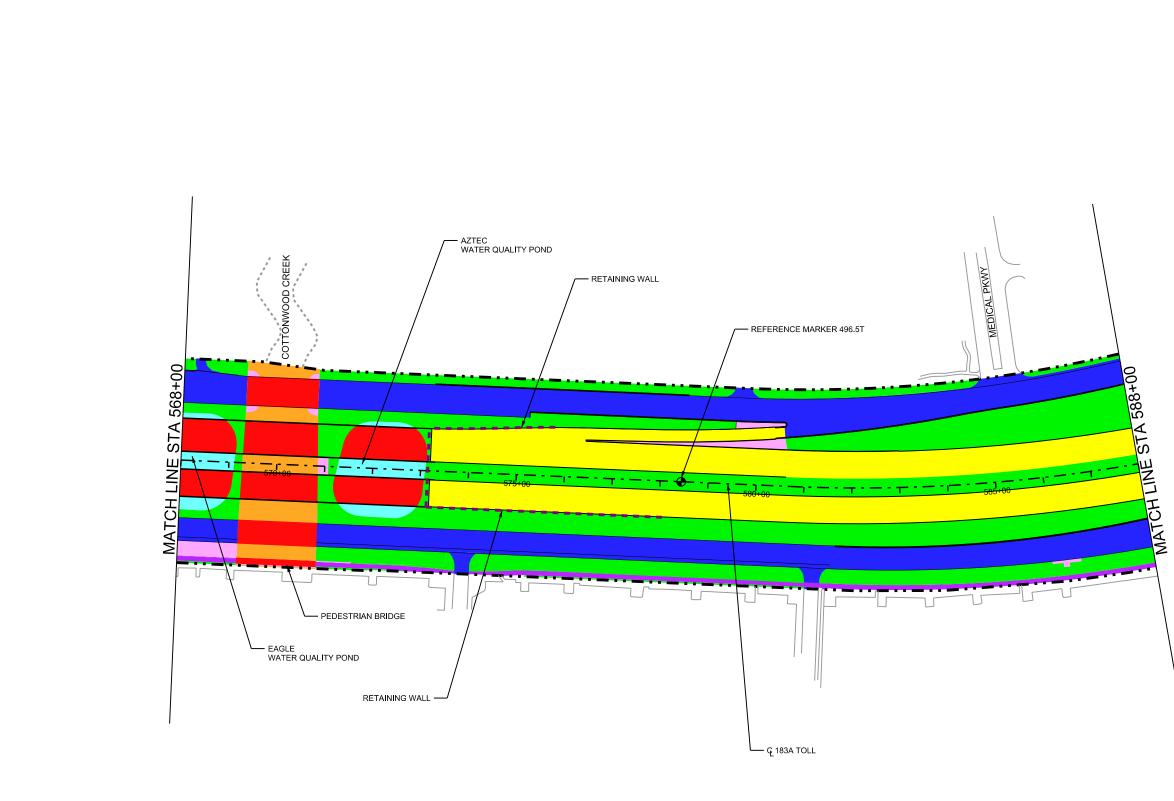




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	0	100	200	400
			<u>LEGEND</u>	
	—	· LIMITS C	OF MAINTENANCE	
		MAIN LA	NE PAVEMENT (INCLUDIN	IG RAMPS)
		FRONTA	GE ROAD/CROSS STREE	T PAVEMENT
1		BRIDGE	S	
	-		3	
1	\sim	LANDSC	APE MOWING	
	\sim	🛛 LANDSC	APING/PLANTING	
		SIDEWA	LK/SHARED USE PATH	
	_	POND		
		ENVIRO	NMENTALLY SENSITIVE A	RFA
		CREEKS		
	_	_	TE/STONE RIPRAP	
			RETAINING WALLS	
			CONSTRUCTION	
			NOTES:	
		1. MAPS A		
		CURREN ARE SUE	RE BASED ON THE MOST IT AVAILABLE DATA AND BJECT TO CHANGE.	
		2. MAINTAI	N PER SPECIFICATIONS I	OR
			S AQUIFER RECHARGE BUTING ZONES AS DESCI CONTRACT DOCUMENTS.	AND RIBED
		SIDE OF AS PAR1	GAREA 4 FEET ON EITHEI SHARED USE PATH INCL OF AMENDMENT #1	UDED
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		CEN	TRAL TEXAS REGION	AL
		🌒 мо	BILITY AUTHORIT	Y
	<u> </u>		NANCE MAPS	
	N		23 PBMC	
	OT 4 -			
	STA 5	946+0() TO STA 568	+00
			 :	
	DESIGNED BY:		SHEET 14 OI PROJECT NO.	F 27 SHEETS SHEET NO.
	STAFF		20PROGXXX02M	NO. 80
		TATE DIST		
		EXAS AUS ONT. SECT		N HIGHWAY NO.
		xxx xx	XXX	VAR

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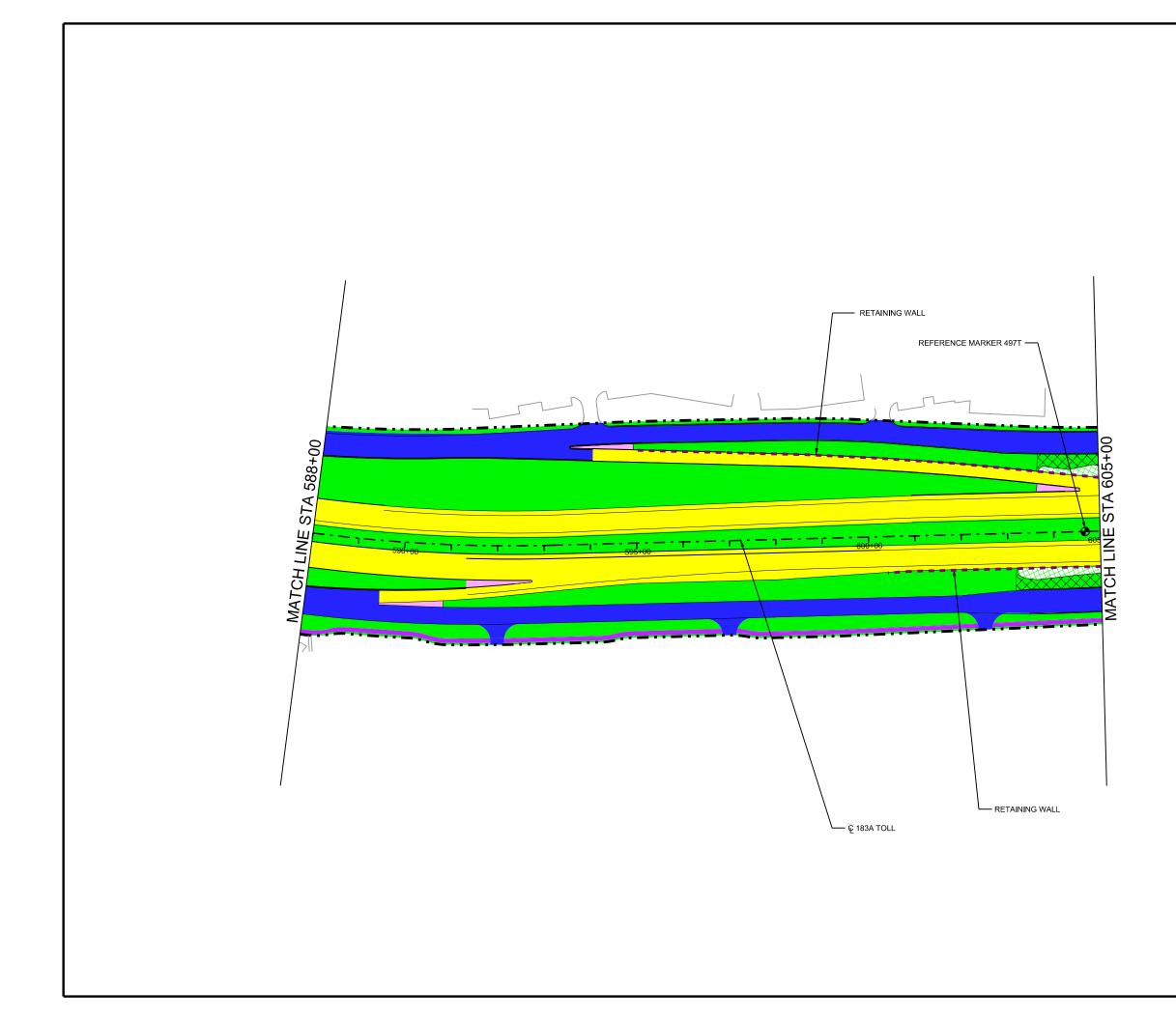
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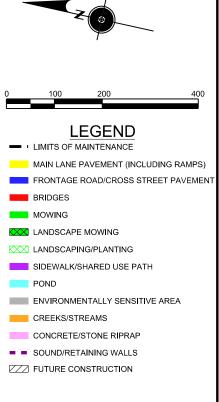




- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1

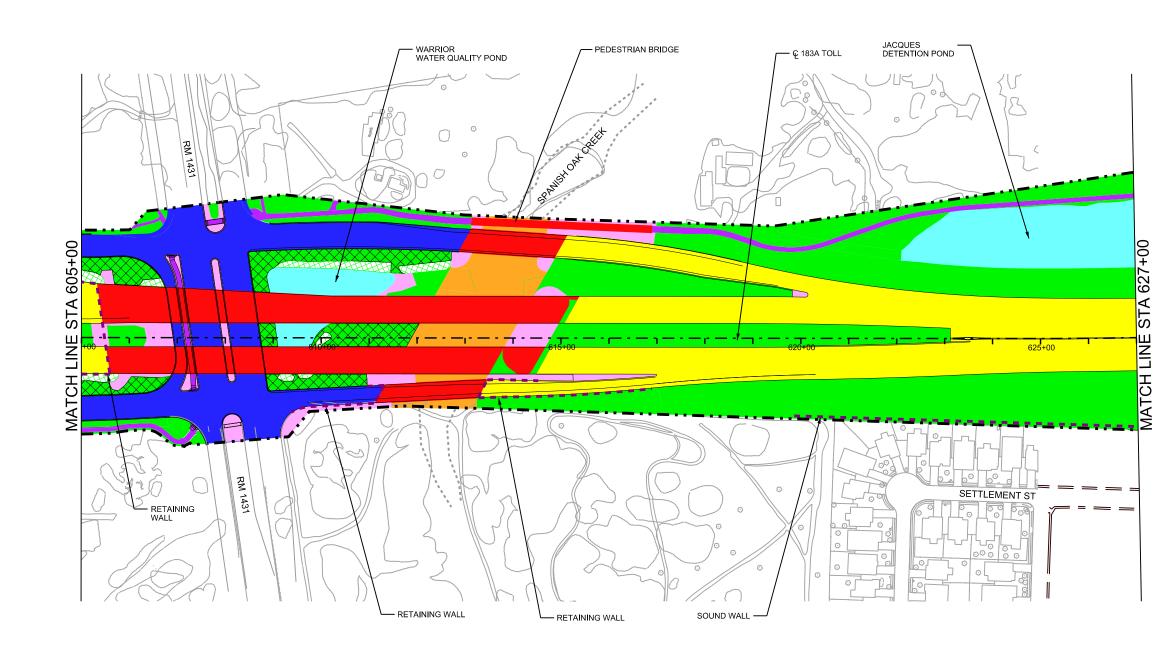






- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1







STA 627+00

ATCH LINE

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1



JOB

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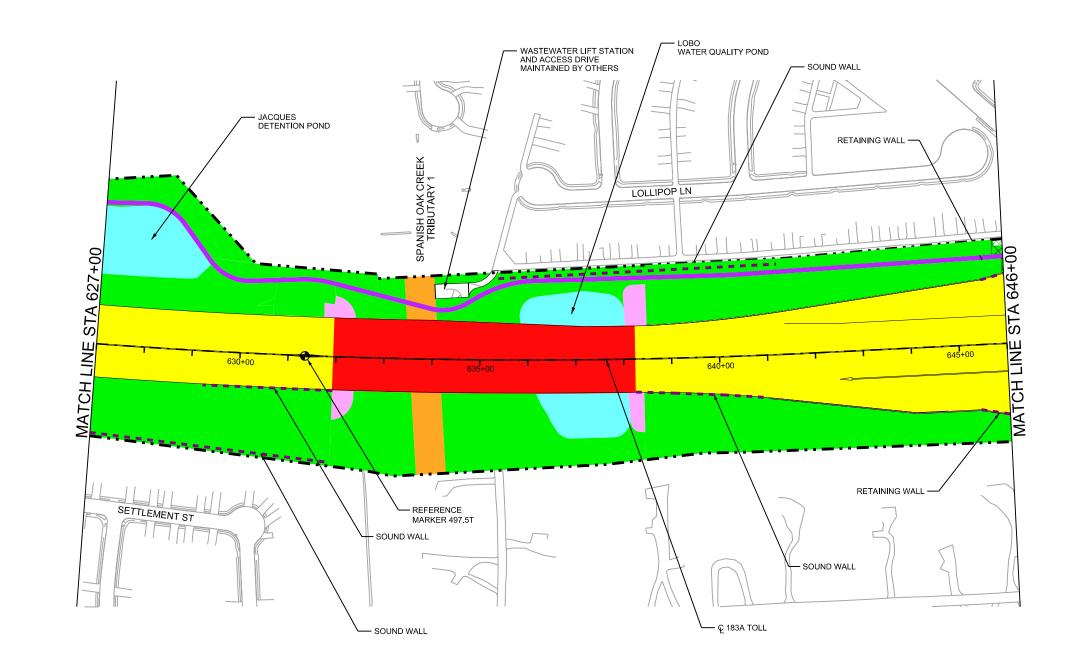
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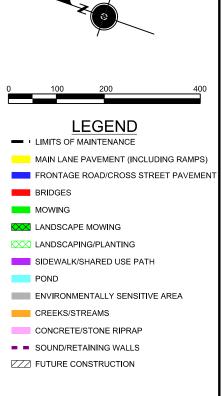
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CHECKED BY:

CONT. SECT.

CES XXXX XX

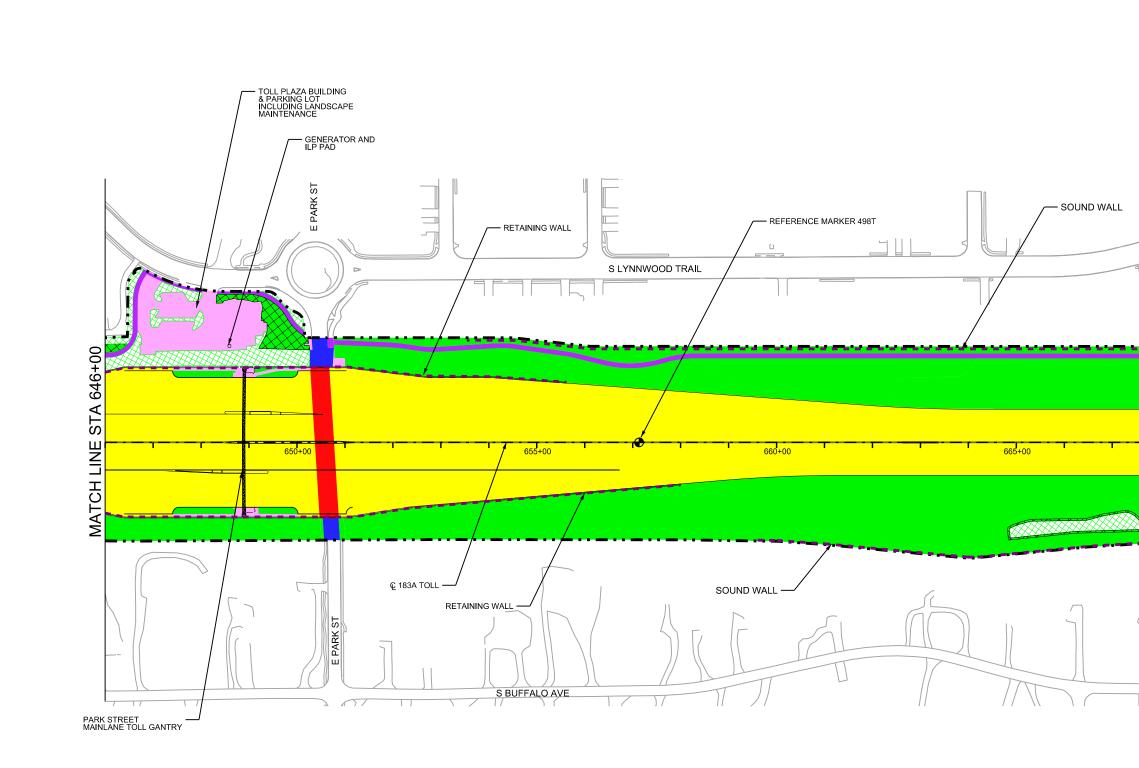


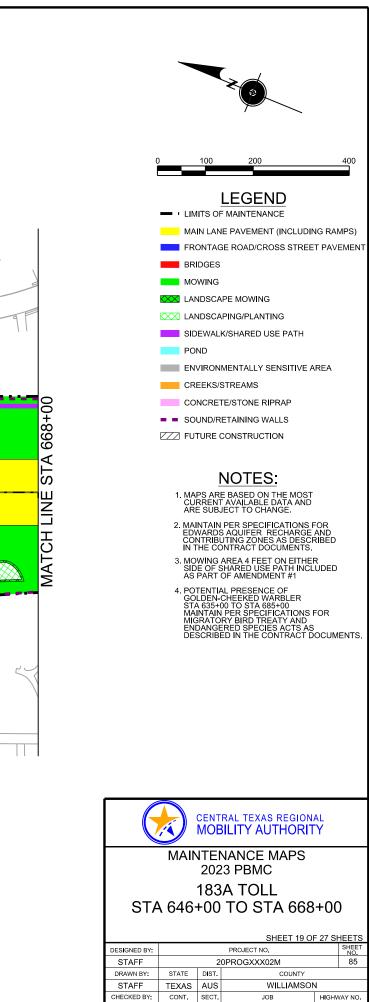


- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1
- 4. POTENTIAL PRESENCE OF GOLDEN-CHEEKED WARBLER STA 635+00 TO STA 685+00 MAINTAIN PER SPECIFICATIONS FOR MIGRATORY BIRD TREATY AND ENDANGERED SPECIES ACTS AS DESCRIBED IN THE CONTRACT DOCUMENTS.



	SHEET 18 OF 27 SHEETS							
DESIGNED BY:		PROJECT NO.						
STAFF		20PROGXXX02M						
DRAWN BY:	STATE	DIST.	COUNTY					
STAFF	TEXAS	AUS	WILLIAMSON					
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY N					
CES	XXXX	XX	XXX VAR		AR			



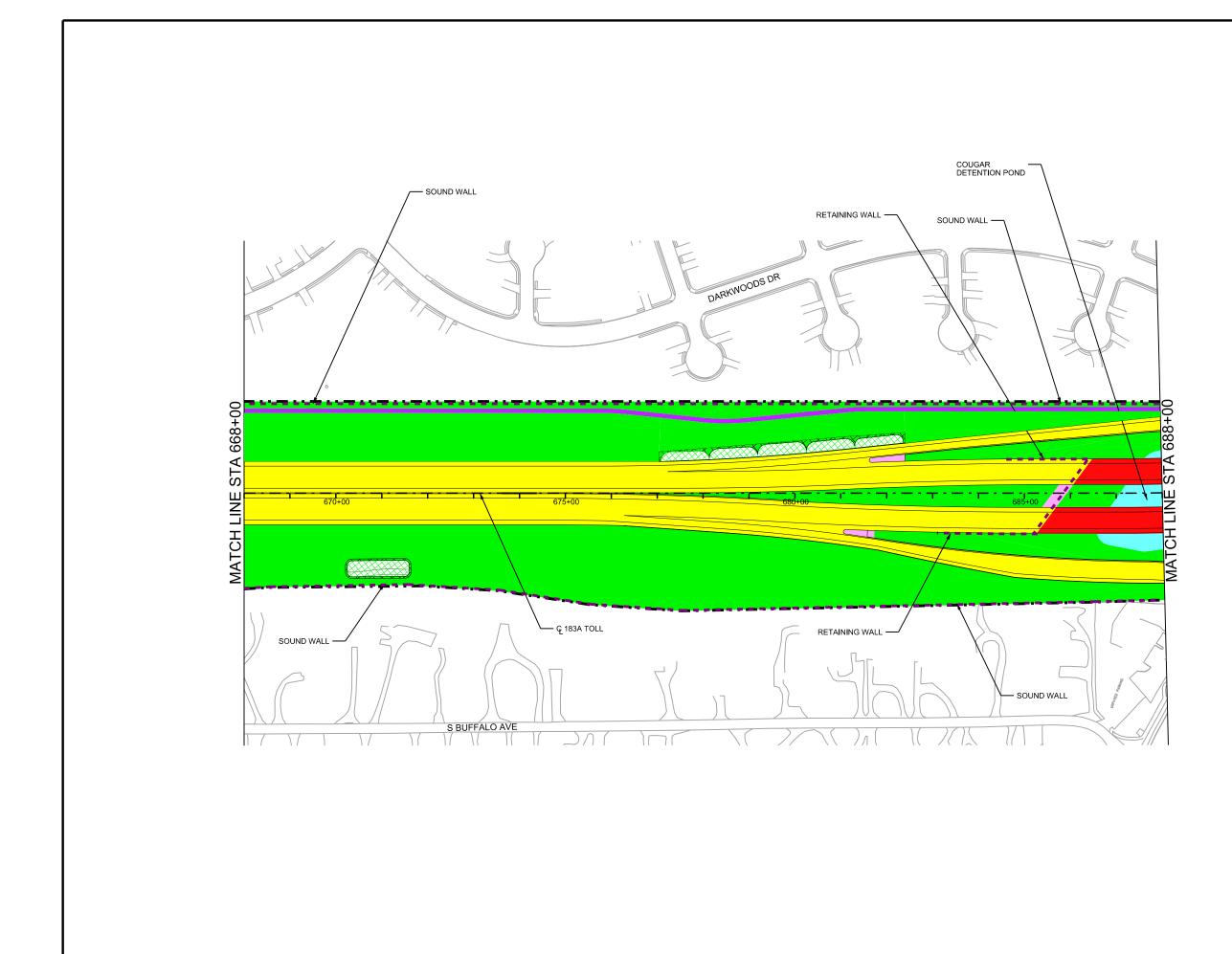


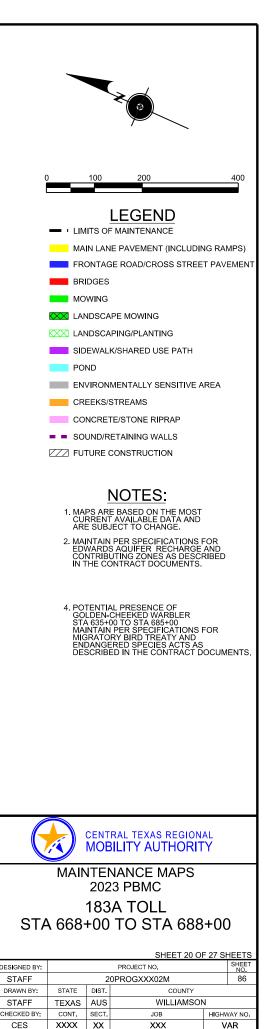
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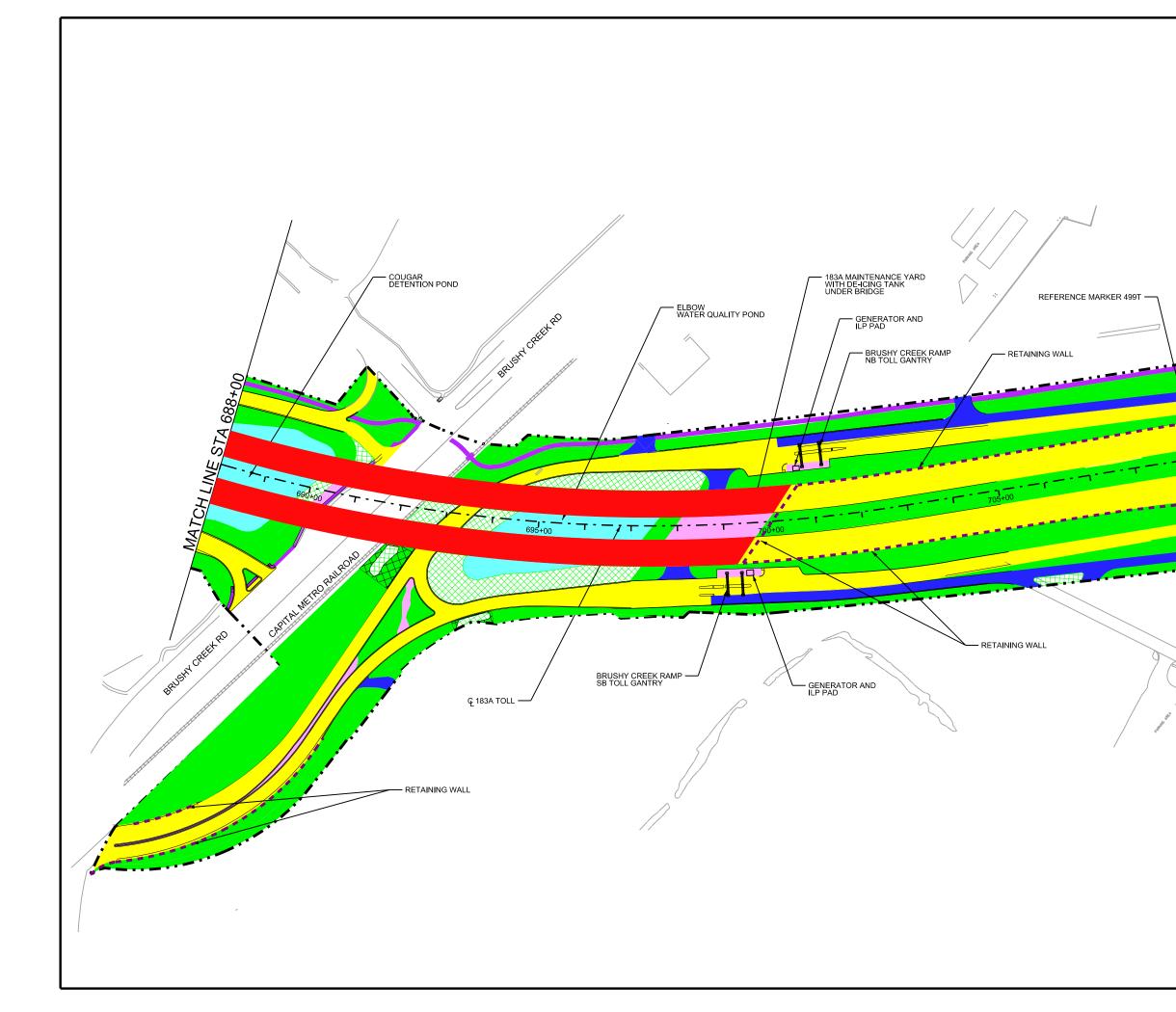
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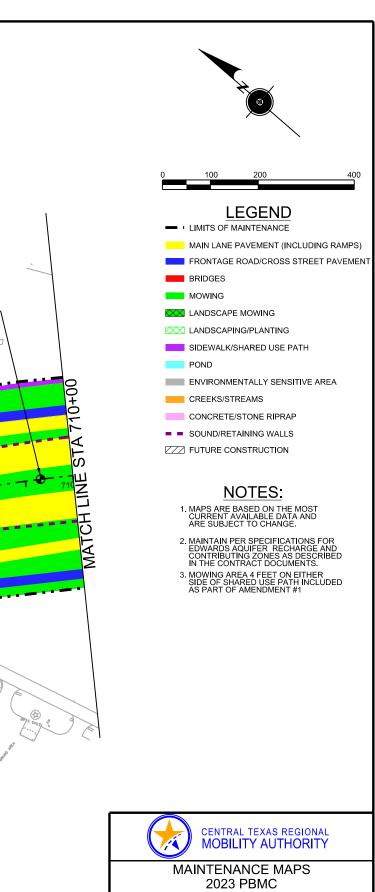
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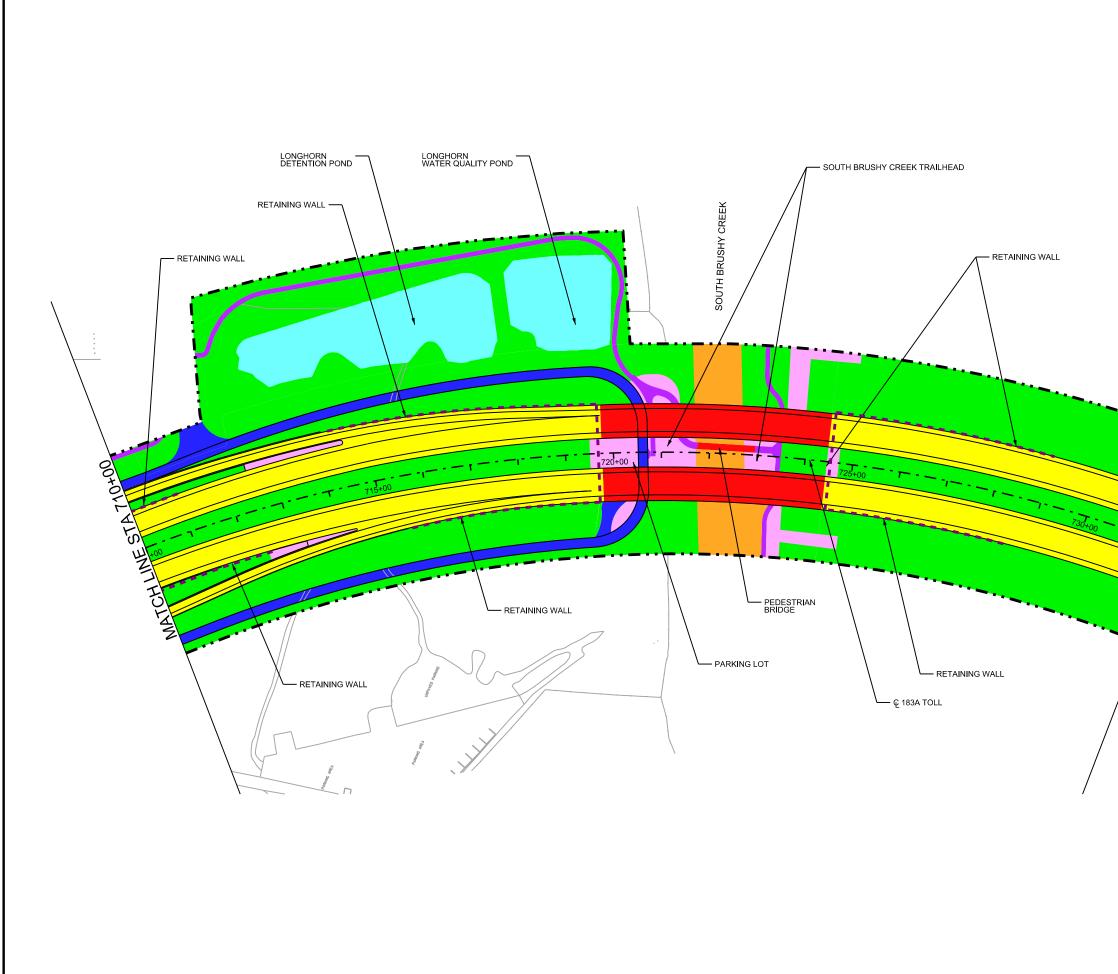




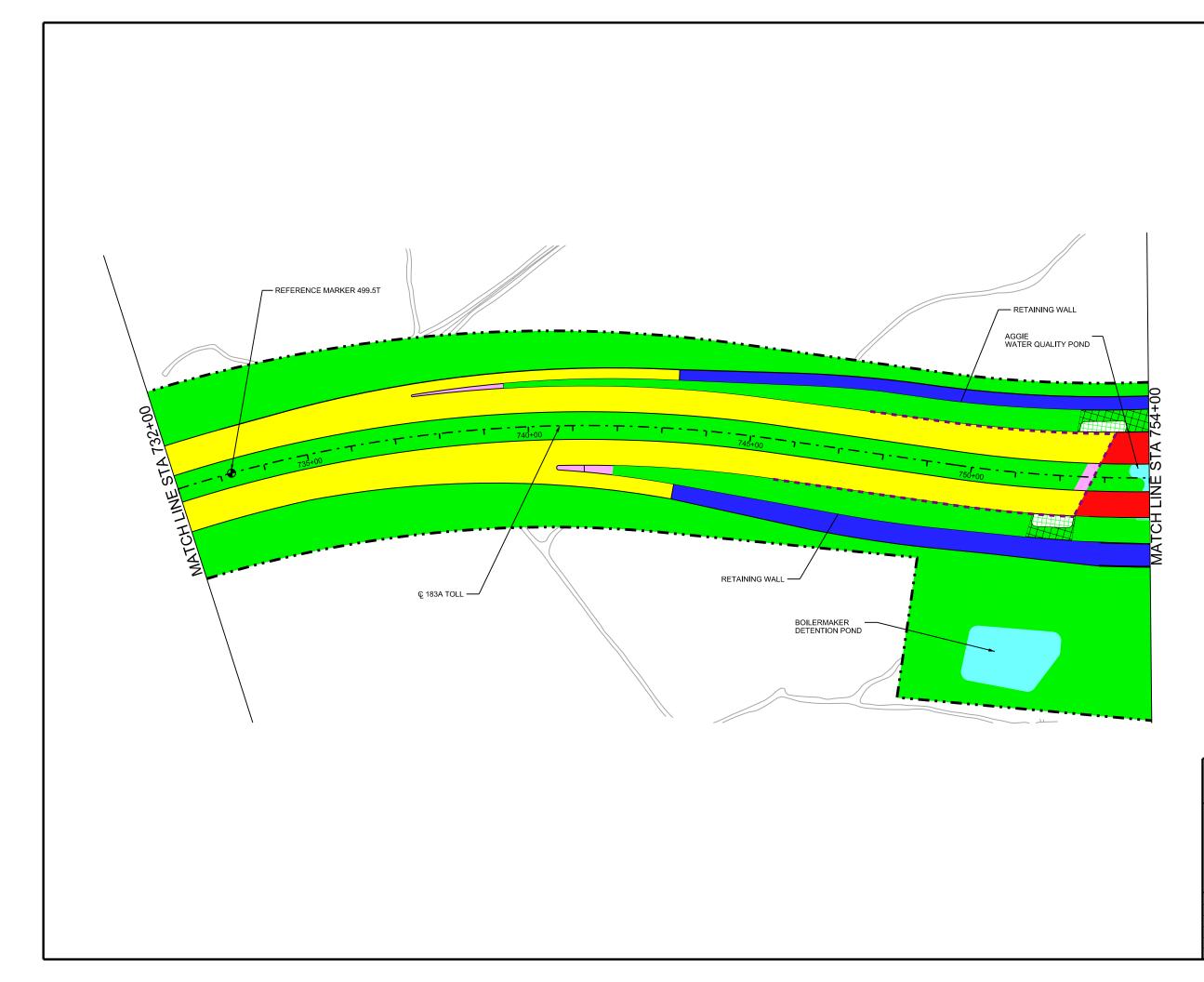


183A TOLL STA 688+00 TO STA 710+00

SHEET 21 OF 27 SHEETS							
DESIGNED BY:		PROJECT NO. SHEET NO.					
STAFF		20PROGXXX02M					
DRAWN BY:	STATE DIST. COUNTY						
STAFF	TEXAS	AUS	WILLIAMSON				
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO		VAY NO.		
CES	XXXX	XX	XXX	VAR			



March Line Sra 32+00	 10 20 40 20 40 <
	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY MAINTENANCE MAPS
	183A TOLL STA 710+00 TO STA 732+00
	SHEET 22 OF 27 SHEETS DESIGNED BY: PROJECT NO. SHEET NO. STAFF 20PROGXXX02M 88 DRAWN BY: STATE DIST. COUNTY STAFF TEXAS AUS WILLIAMSON CHECKED BY: CONT. SECT. JOB HIGHWAY NO. CES XXXX XX XXXX VAR





- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1



JOB

XXX

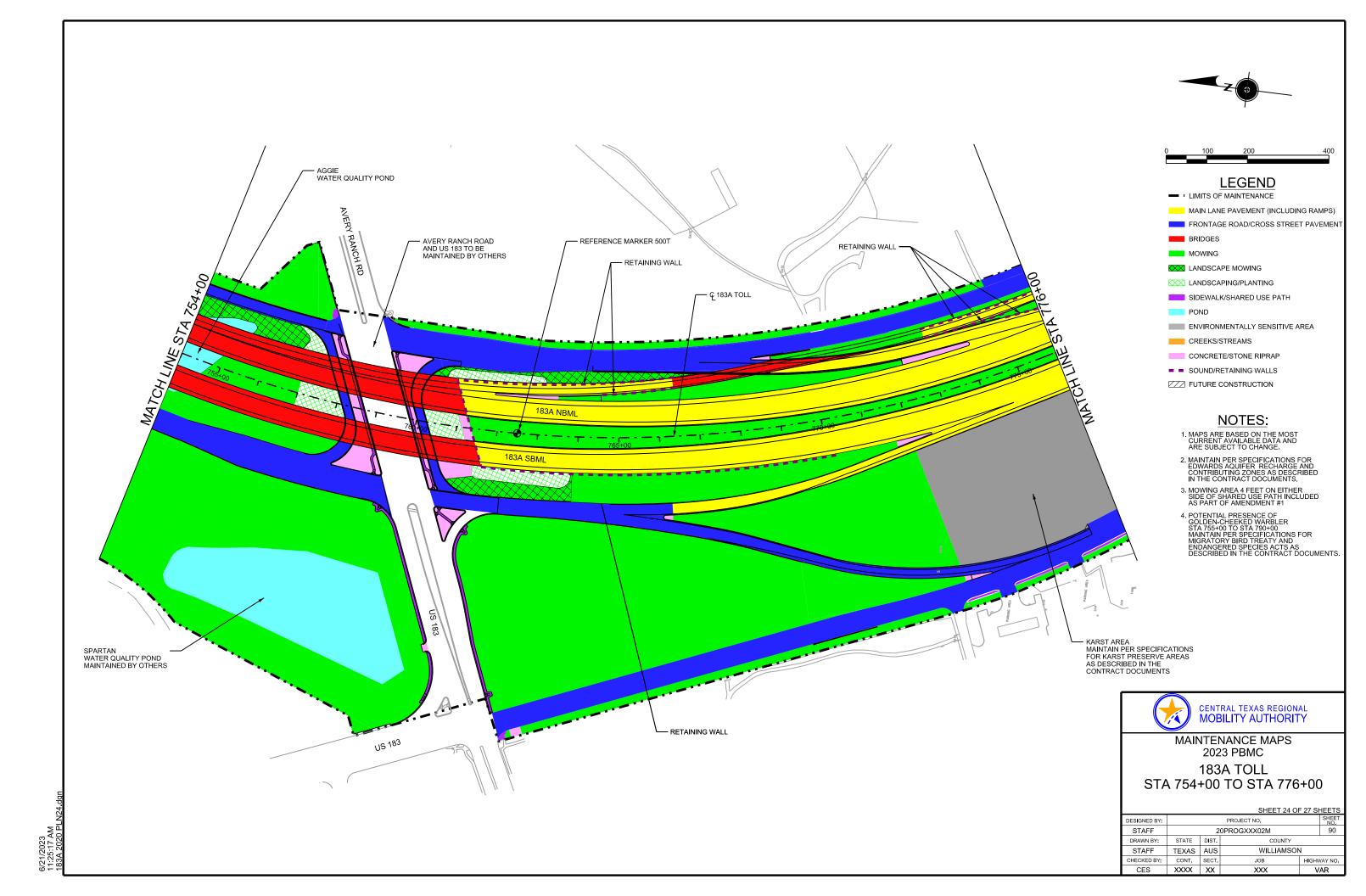
HIGHWAY NO.

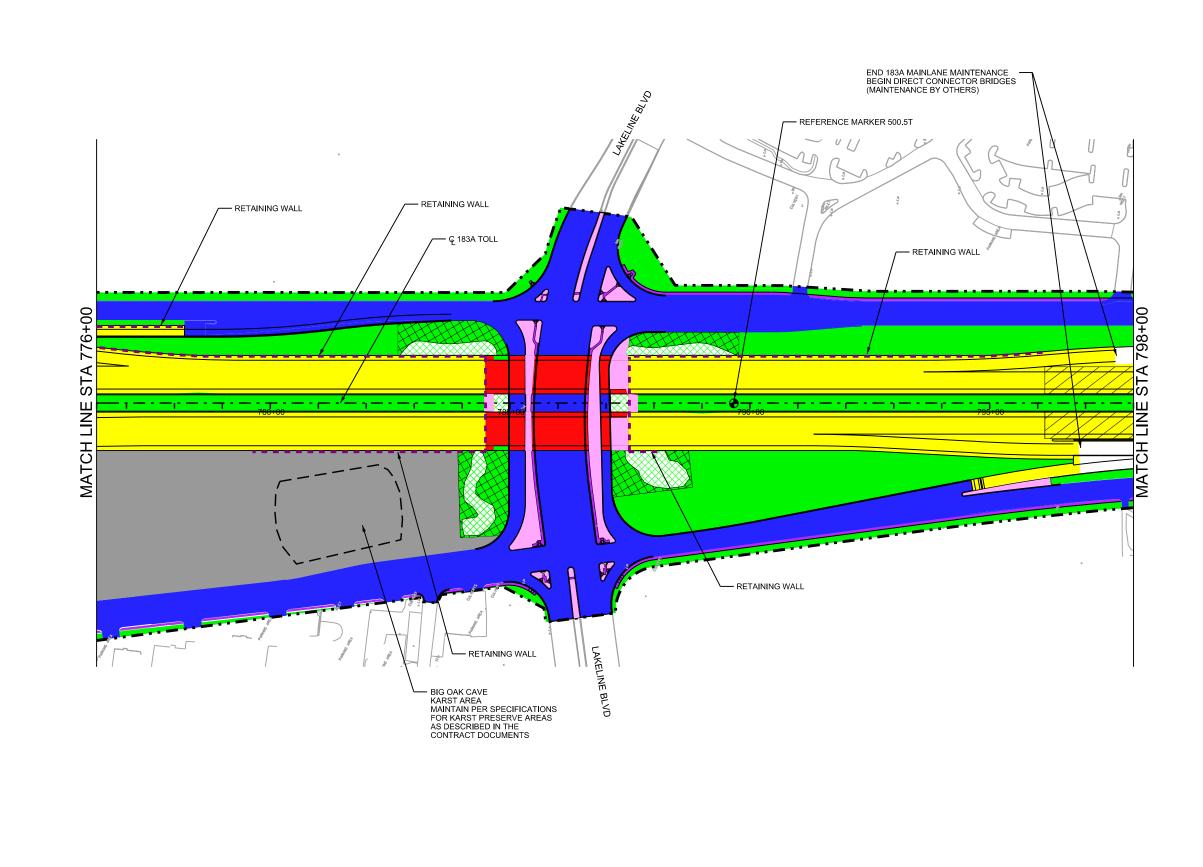
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CHECKED BY:

CONT. SECT.

CES XXXX XX



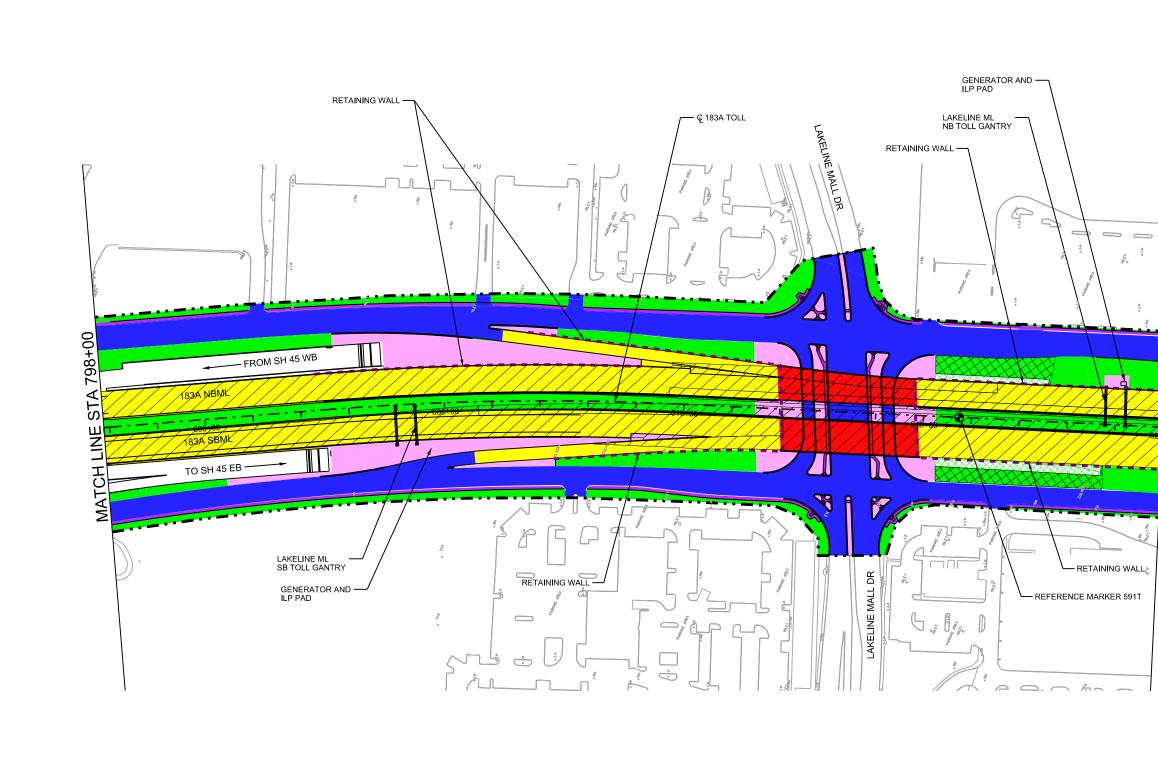




- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1
- 4. POTENTIAL PRESENCE OF GOLDEN-CHEEKED WARBLER STA 755+00 TO STA 799+00 MAINTAIN PER SPECIFICATIONS FOR MIGRATORY BIRD TREATY AND ENDANGERED SPECIES ACTS AS DESCRIBED IN THE CONTRACT DOCUMENTS.

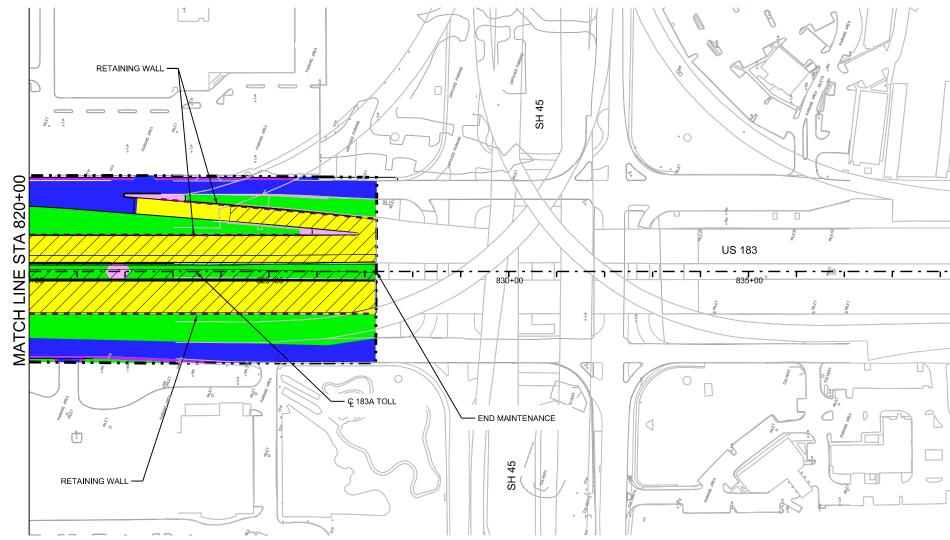


SHEET 25 OF 27 SHEETS								
DESIGNED BY:		PROJECT NO.						
STAFF		20PROGXXX02M						
DRAWN BY:	STATE	DIST.	DIST. COUNTY					
STAFF	TEXAS	AUS	WILLIAMSON					
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.				
CES	XXXX	XX	XXX	VAR				



6/21/2023 11.25.27 AM 183A 2020 PL

MATCH LINE STA 820+00	 10 20 40 20 40 <
	CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
	MAINTENANCE MAPS 2023 PBMC 183A TOLL STA 798+00 TO STA 820+00
	SHEET 26 OF 27 SHEETS DESIGNED BY: PROJECT NO. SHEET NO. STAFF 20PROGXXX02M 92 DRAWN BY: STATE DIST. COUNTY STAFF TEXAS AUS WILLIAMSON CHECKED BY: CONT. SECT. JOB HIGHWAY NO. CES XXXX XXX VAR

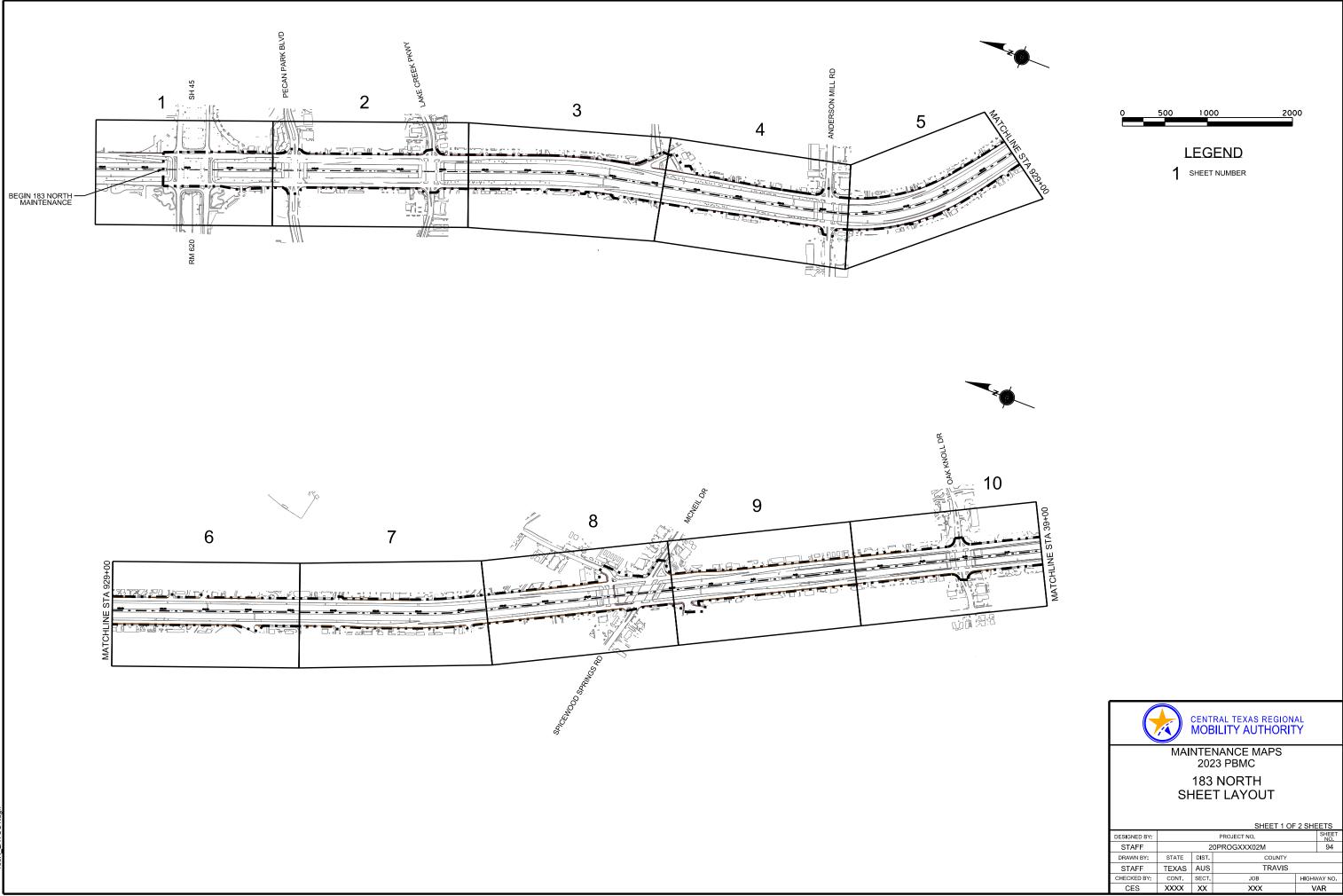


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0	100 200 400
	LEGEND LIMITS OF MAINTENANCE
	MAIN LANE PAVEMENT (INCLUDING RAMPS) FRONTAGE ROAD/CROSS STREET PAVEMENT
	BRIDGES MOWING
	LANDSCAPE MOWING LANDSCAPING/PLANTING SIDEWALK/SHARED USE PATH
	POND ENVIRONMENTALLY SENSITIVE AREA
	CREEKS/STREAMS CONCRETE/STONE RIPRAP
	SOUND/RETAINING WALLS FUTURE CONSTRUCTION

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.
- 3. MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AS PART OF AMENDMENT #1



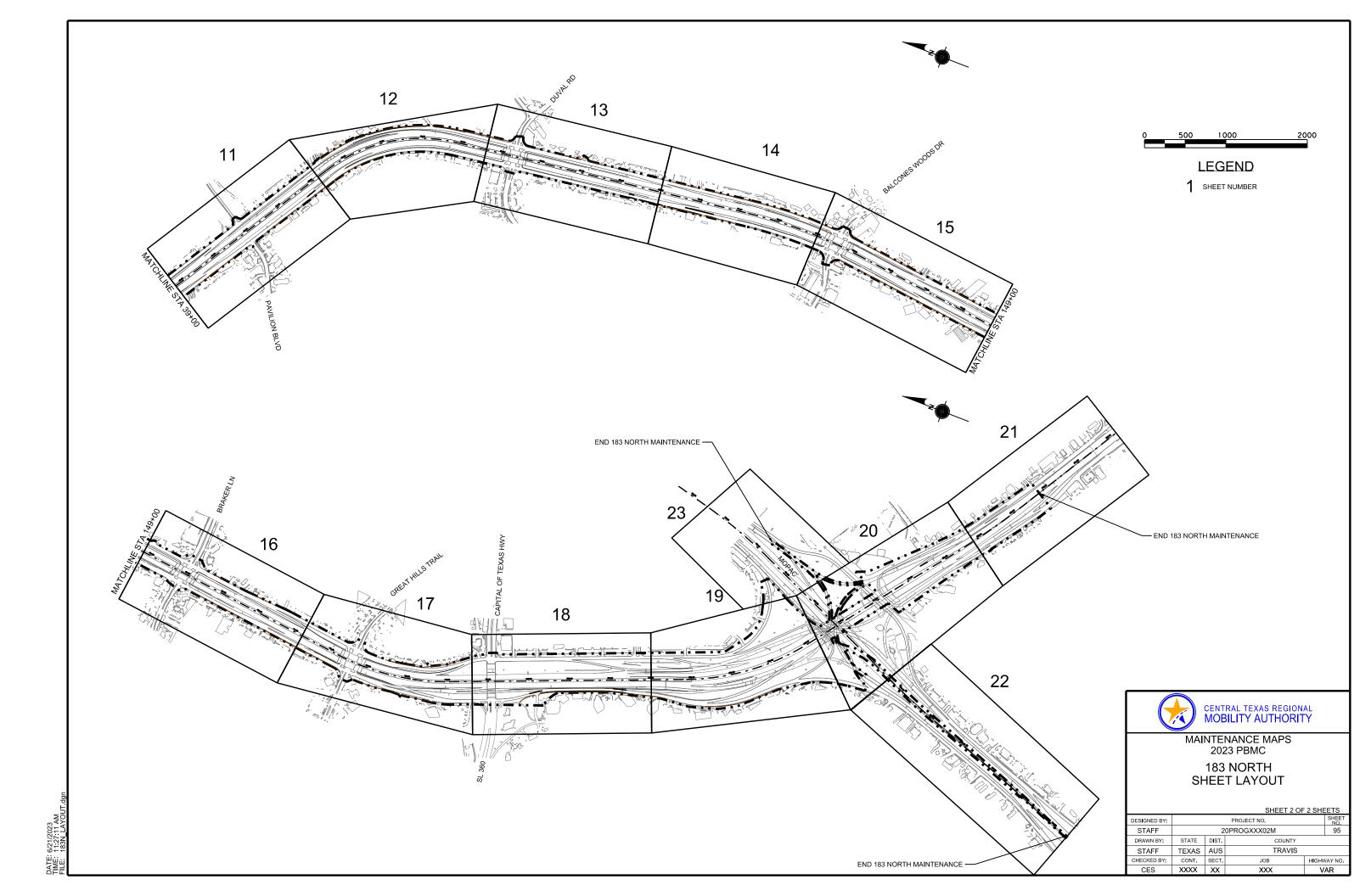


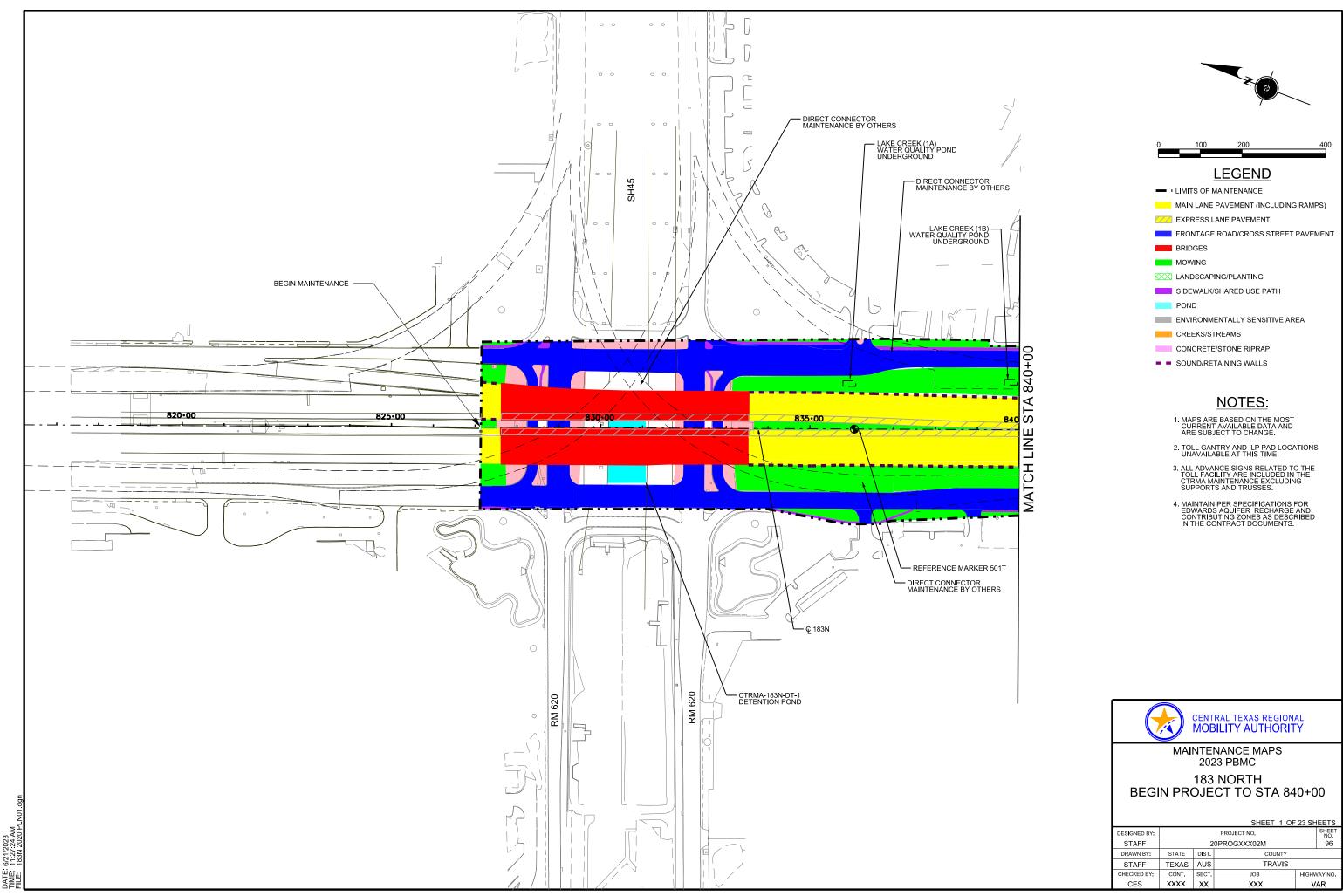


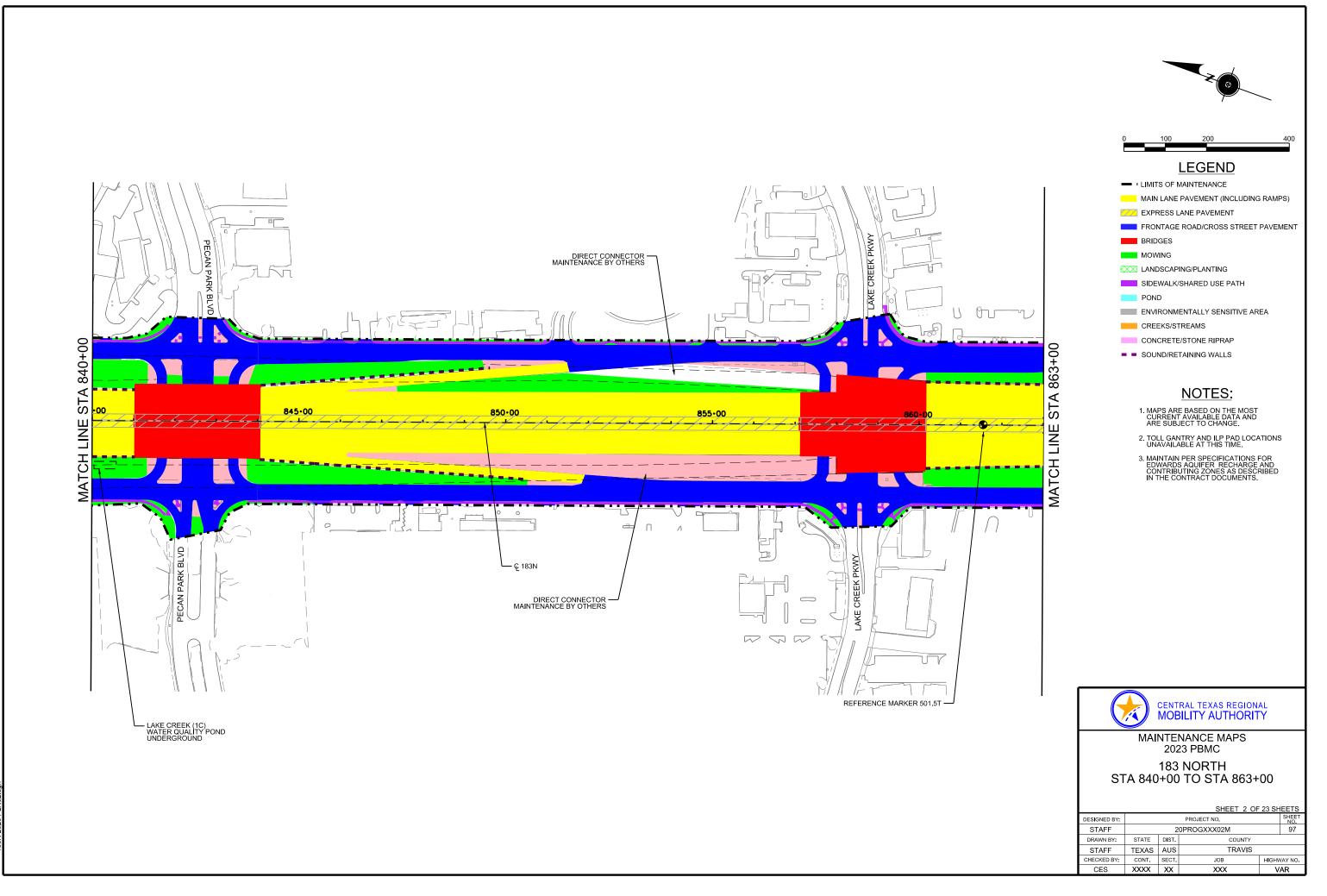
HIGHWAY NO.

JOB XXX

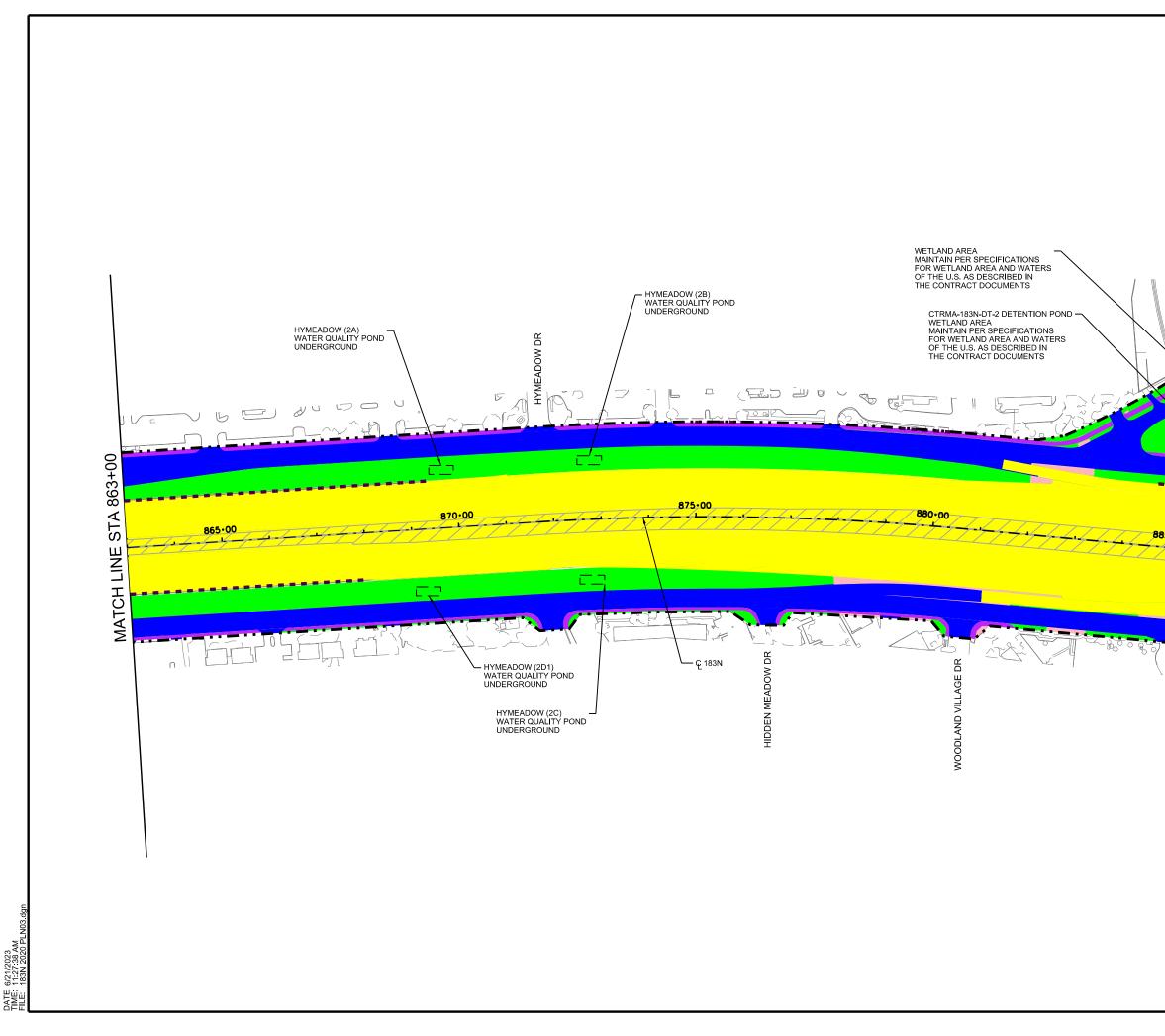
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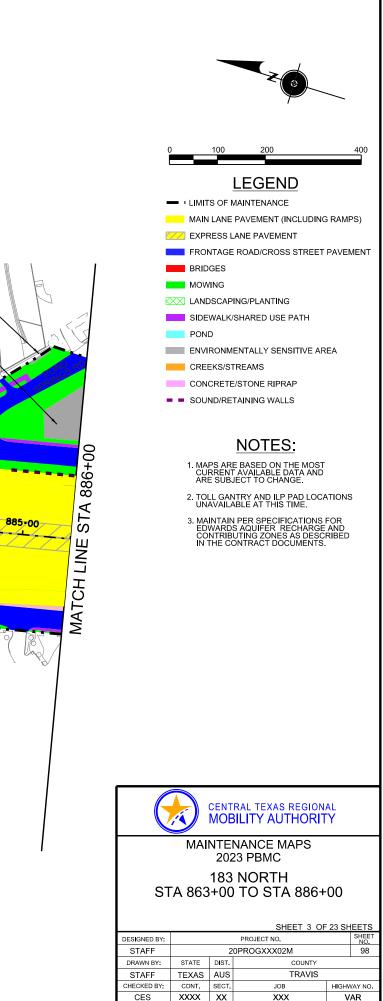


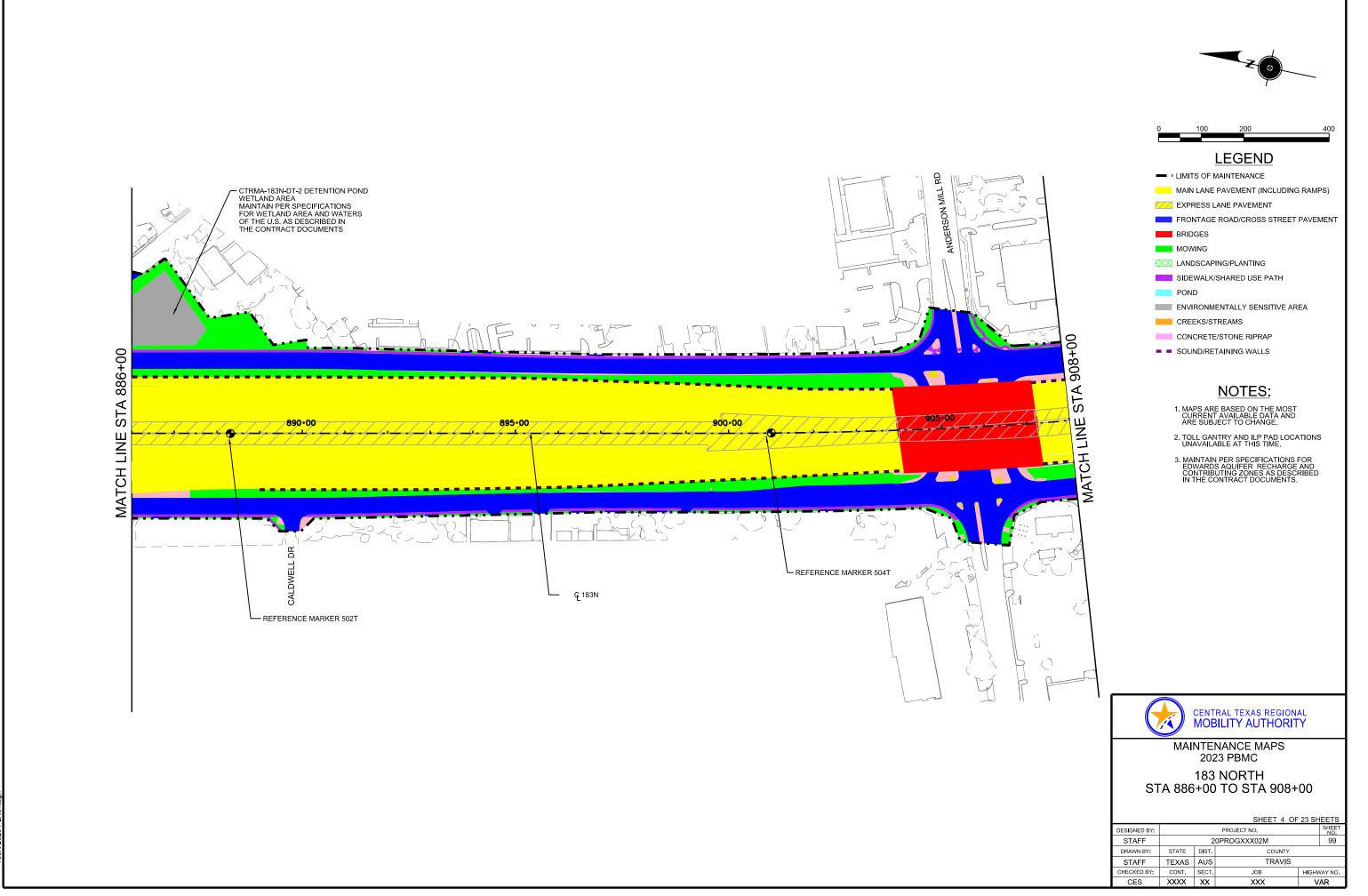




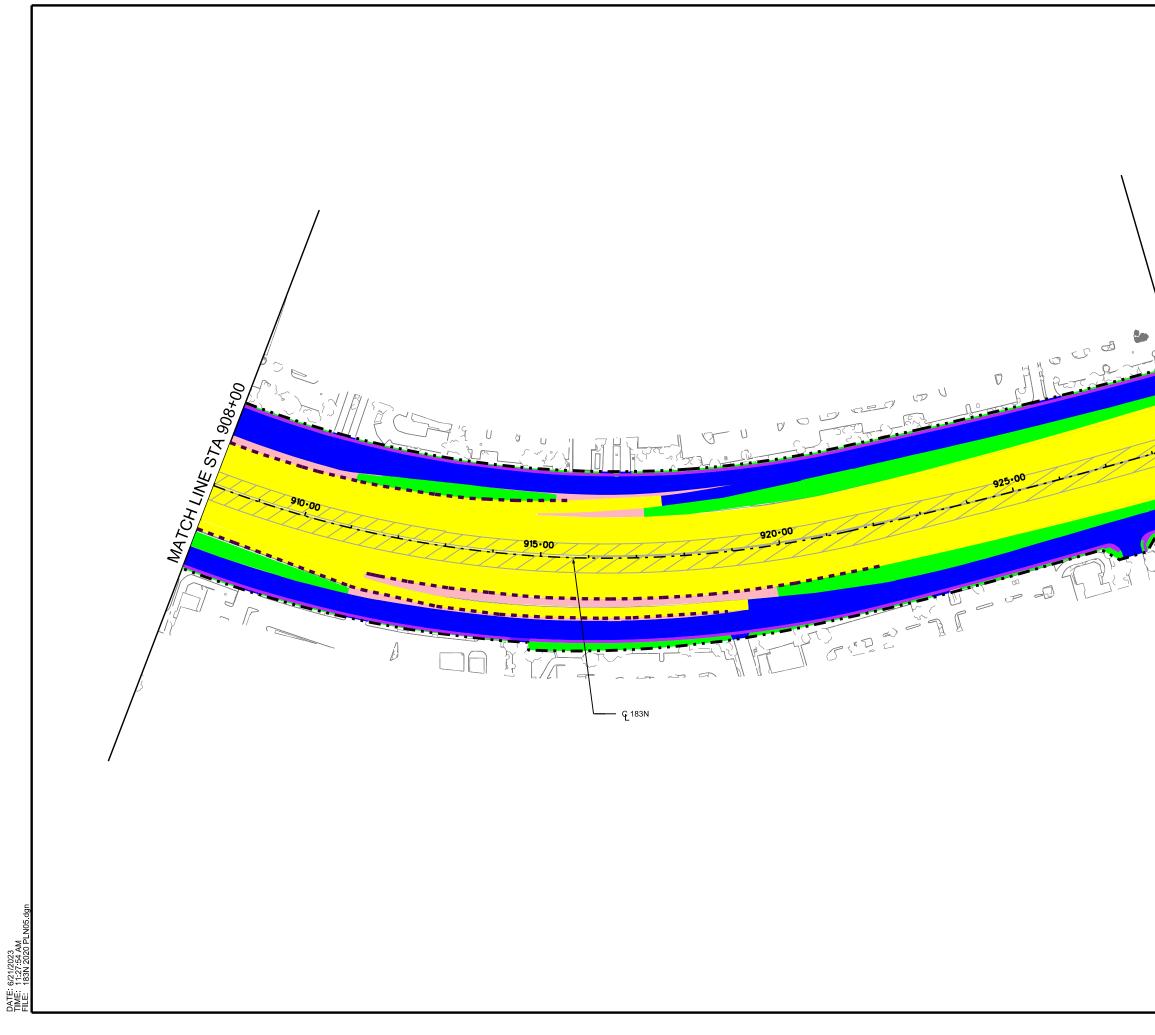
DATE: 6/21/2023 TIME: 11:27:31 AM FILE: 183N 2020 PI N02



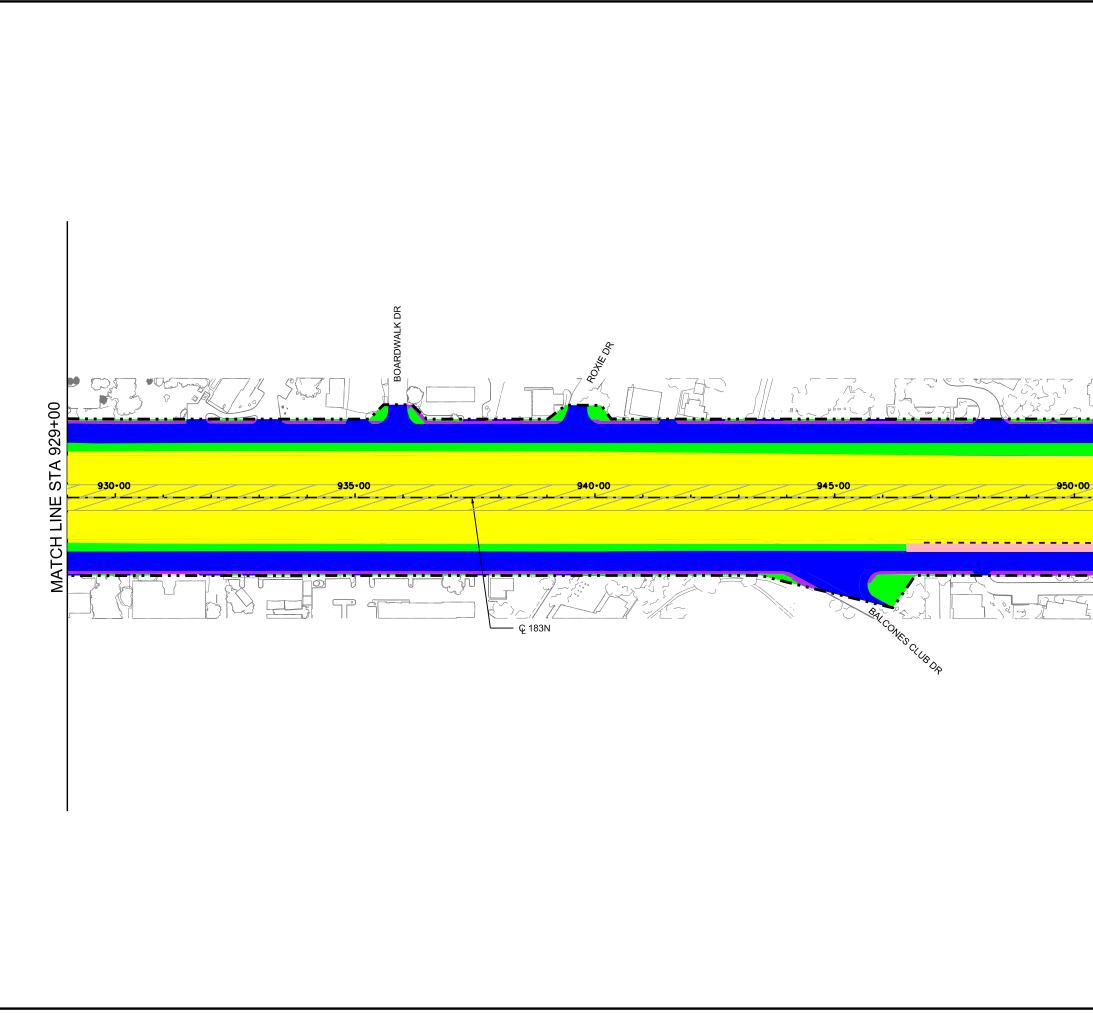




DATE: 6/21/2023 TIME: 11:27:46 AM FILE: 183N 2020 PI NO



MATCH LINE STA 929+00		 LIMIT MAIN EXPR FRON BRIDO MOW X LAND SIDE PONE SIDE CREE CONC SOUN 1. MAR CUN 2. TOL UNX 	S OF IN LANE EESS L ITAGE GES ING SCAP WALK/ O RONM CRETE CRETE ND/RE	200 200 LEGEND AINTENANCE PAVEMENT (INCLU ANE PAVEMENT (INCLU ENTALLY SENSITIV REAMS /STONE RIPRAP TAINING WALLS MOTES: BASED ON THE M AVAILABLE DATA ISTONE RIPRAP TAINING WALLS DESTINATION (INCLUSION) PER SPECIFICATION SAQUIFER RECHAN JING ZONES AS D INTRACT DOCUMENT	EEET P I E ARE OST AND	AVEMENT
			MOE	RAL TEXAS REG ILITY AUTHO NANCE MAPS	RIT	L
	ST		202 183	NORTH TO STA 92		00
	DESIGNED BY: STAFF DRAWN BY: STAFF CHECKED BY: CES	STATE TEXAS CONT. XXXX	2 DIST. AUS SECT. XX	SHEET PROJECT NO. DPROGXXX02M COUN TRAV JOB XXX	ITY /IS	23 SHEETS SHEET NO. 100 HIGHWAY NO. VAR



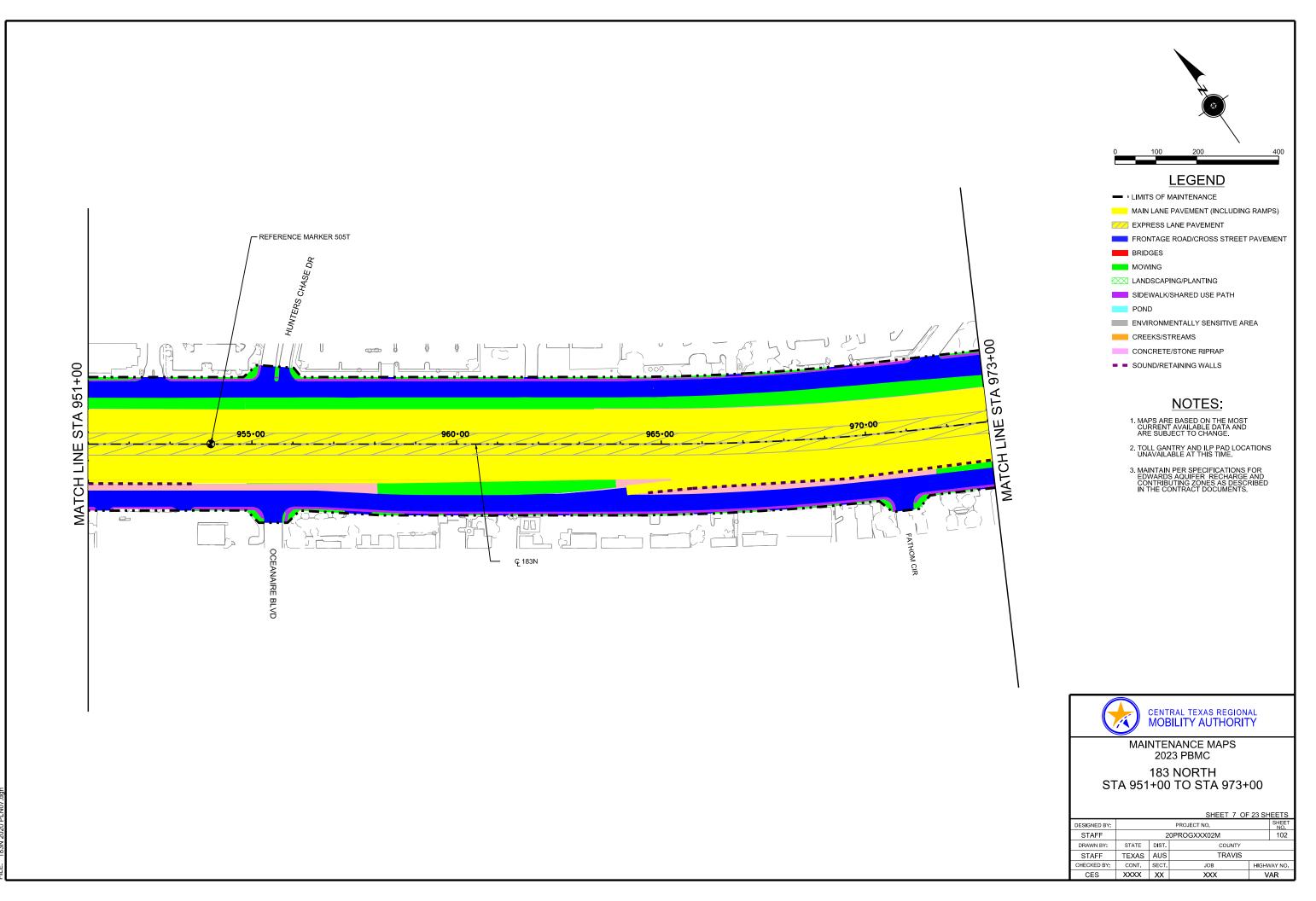
DATE: 6/21/2023 TIME: 11:28:24 AM



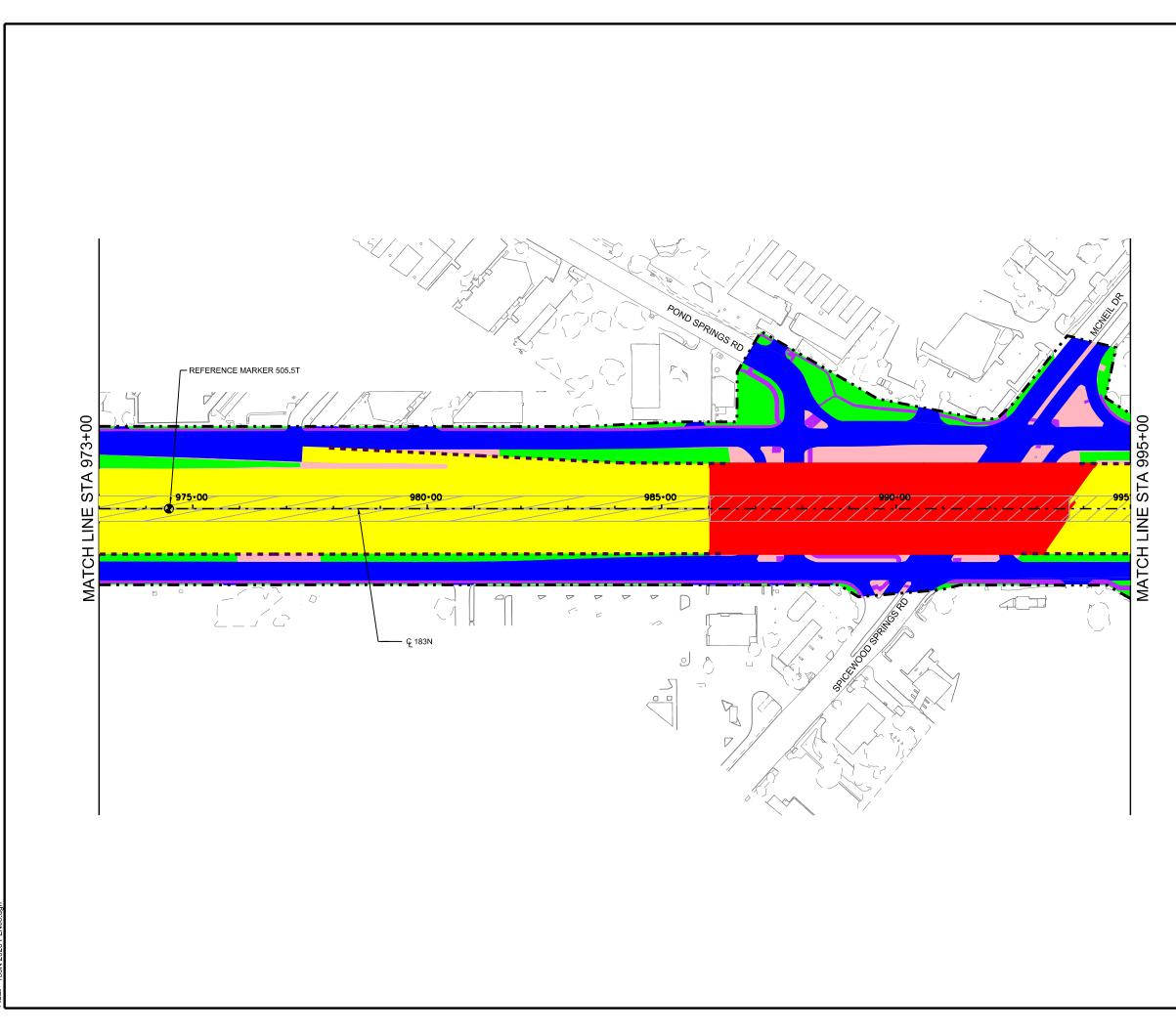
183 NORTH STA 929+00 TO STA 951+00

SHEET 6 OF 23 SHEETS								
DESIGNED BY:		PROJECT NO. SHEET NO.						
STAFF		20PROGXXX02M 10						
DRAWN BY:	STATE	STATE DIST. COUNTY						
STAFF	TEXAS AUS TRAVIS							
CHECKED BY:	CONT.	SECT.	. JOB HIGHWAY NO					
CES	XXXX	XX	XXX	VAR				

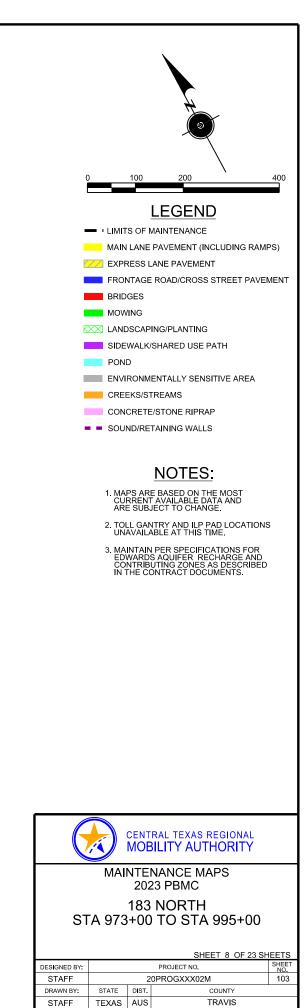
MATCH LINE STA 951+00



DATE: 6/21/2023 TIME: 11:28:33 AM EILE: 10001 DI NOT



DATE: 6/21/2023 TIME: 11:28:40 AM FILE: 18:3N 2020 DI NOS



CHECKED BY:

CES

CONT. SECT.

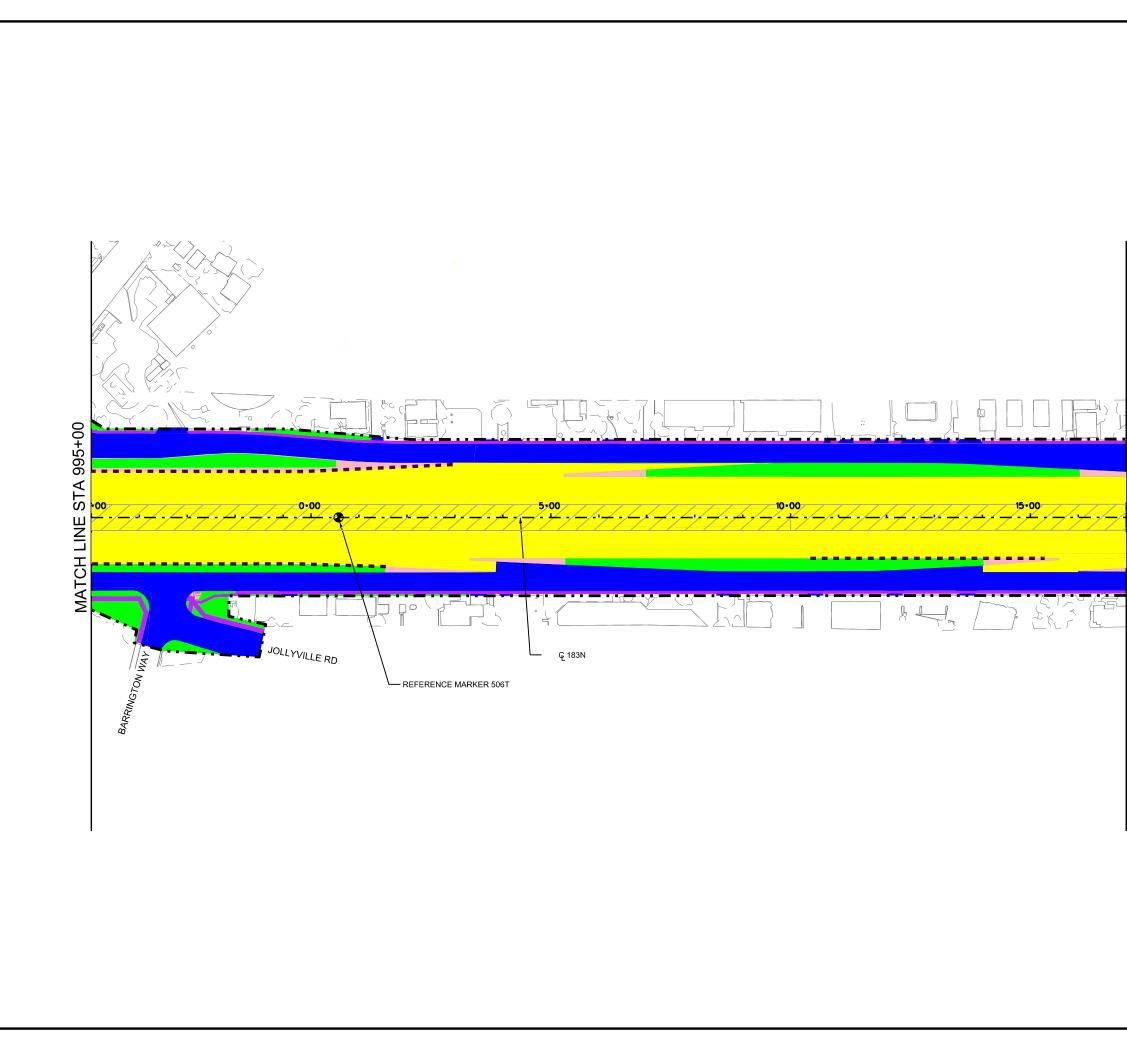
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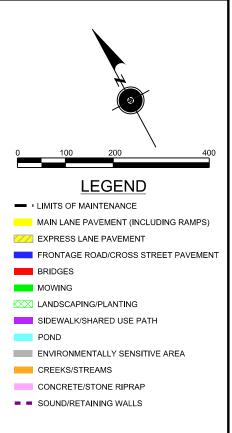
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HIGHWAY NO.

VAR



DATE: 6/21/2023 TIME: 11:28:46 AM FILE: 183N 2020 PI NO



NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



JOB

XXX

HIGHWAY NO.

VAR

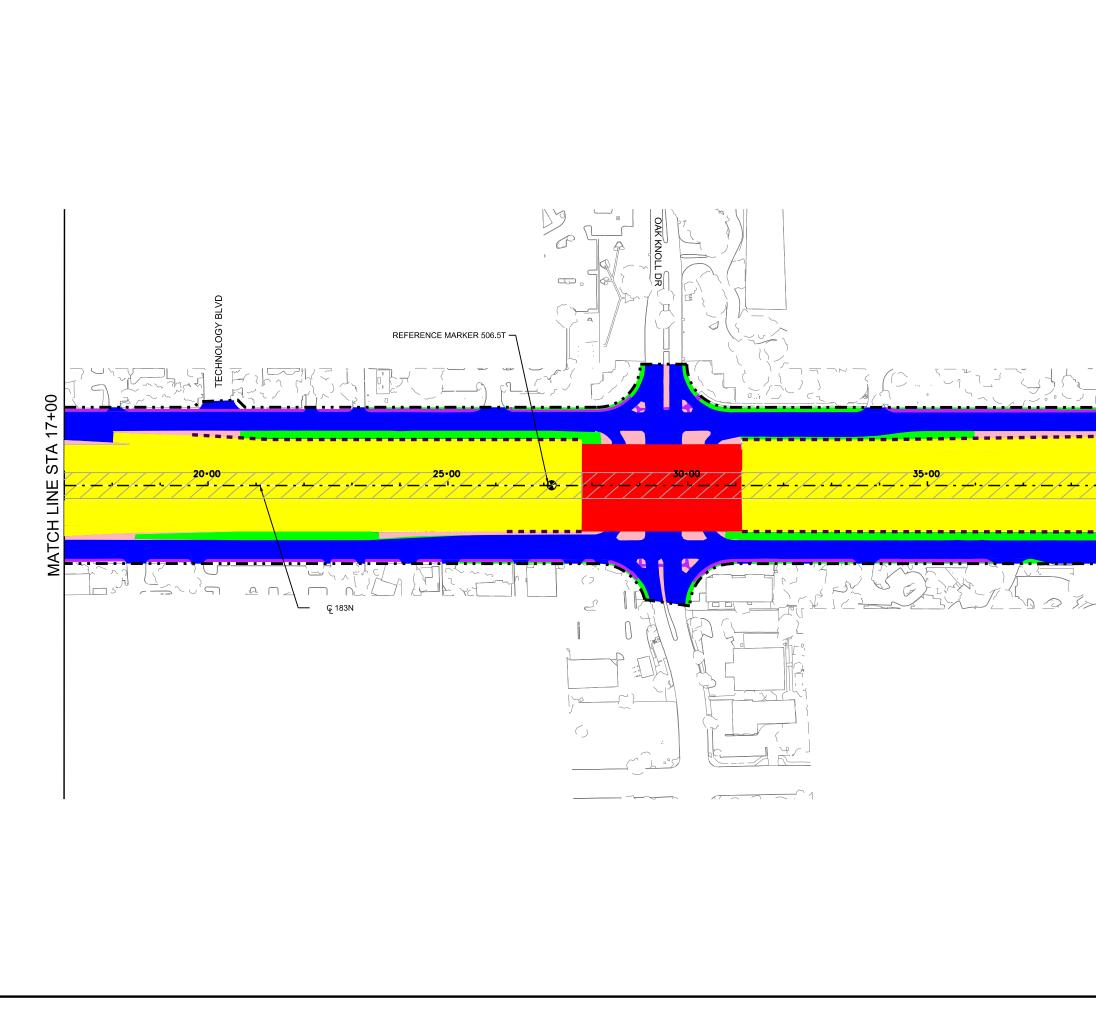
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CES

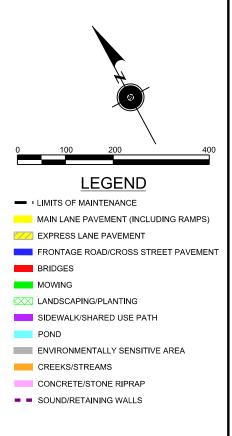
CONT. SECT.

XXXX XX

MATCH LINE STA 17+00



DATE: 6/21/2023 TIME: 11:28:52 AM FILE: 183N 2020 PI N1



NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



TRAVIS

HIGHWAY NO.

VAR

JOB

XXX

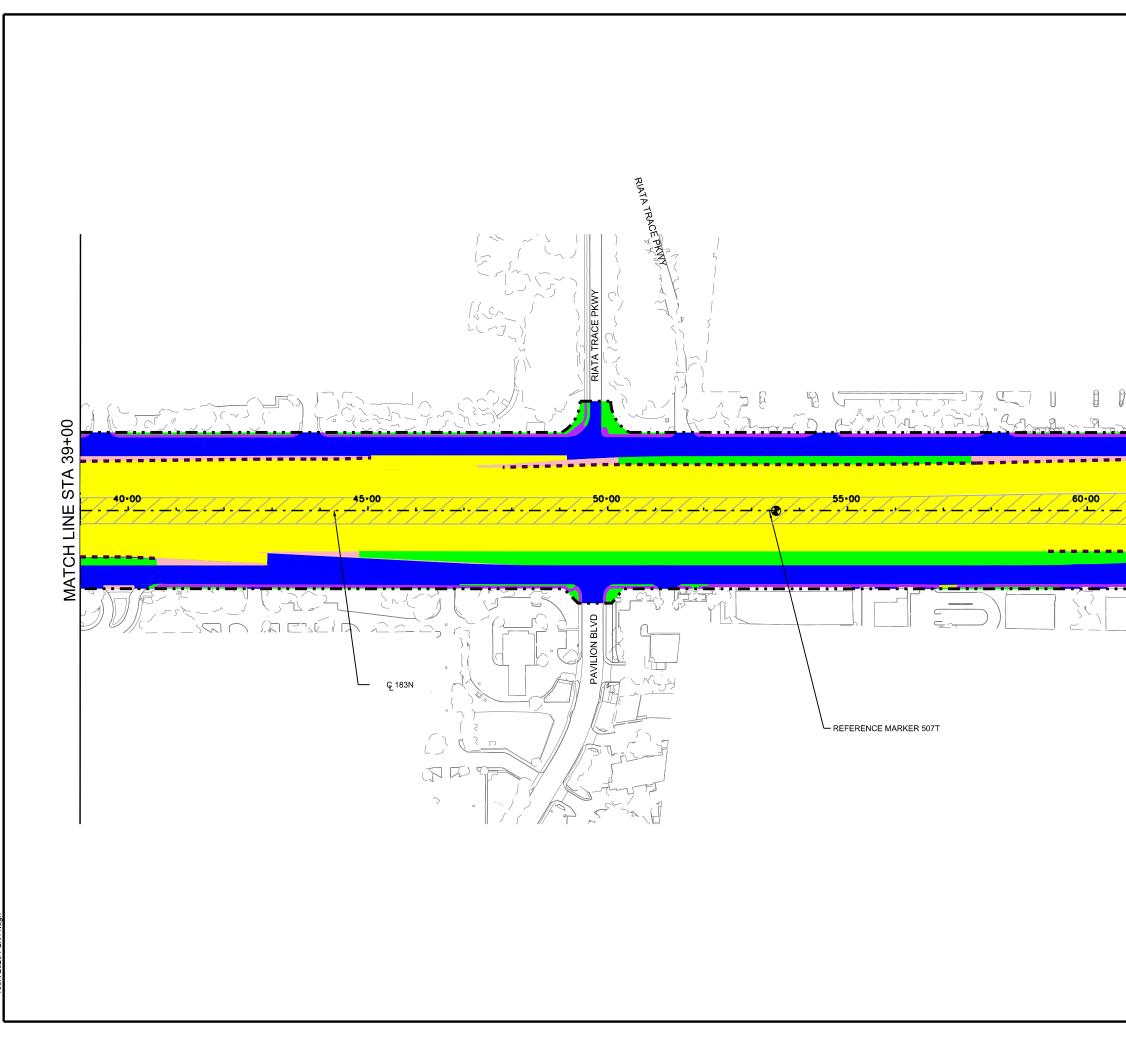
STAFF

CHECKED BY:

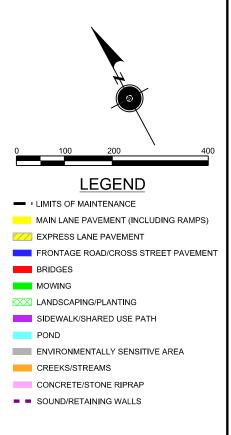
TEXAS AUS

CONT. SECT.

CES XXXX XX



DATE: 6/21/2023 TIME: 11:28:58 AM



NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



TRAVIS

HIGHWAY NO.

VAR

JOB

XXX

STAFF

CHECKED BY:

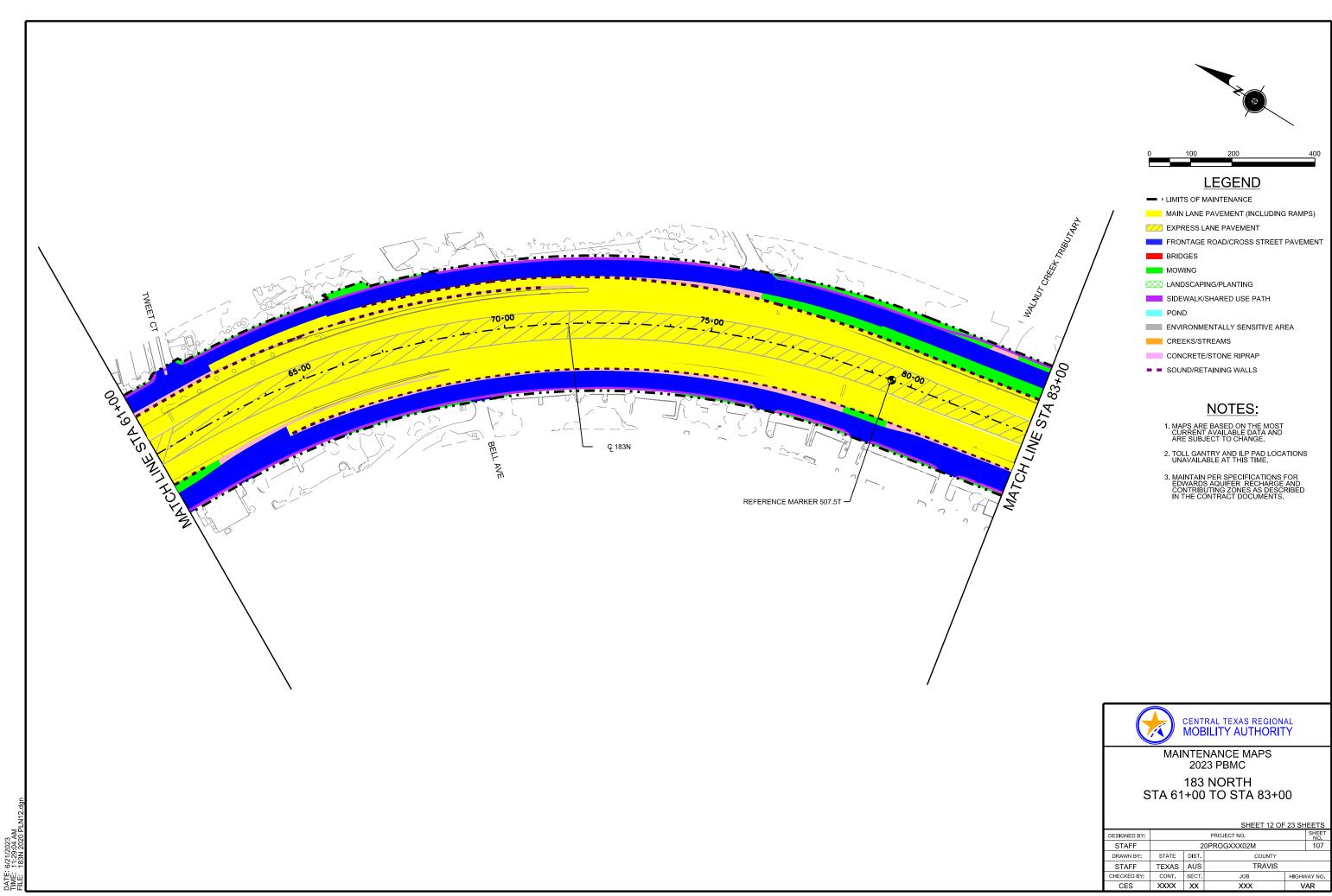
CES

TEXAS AUS

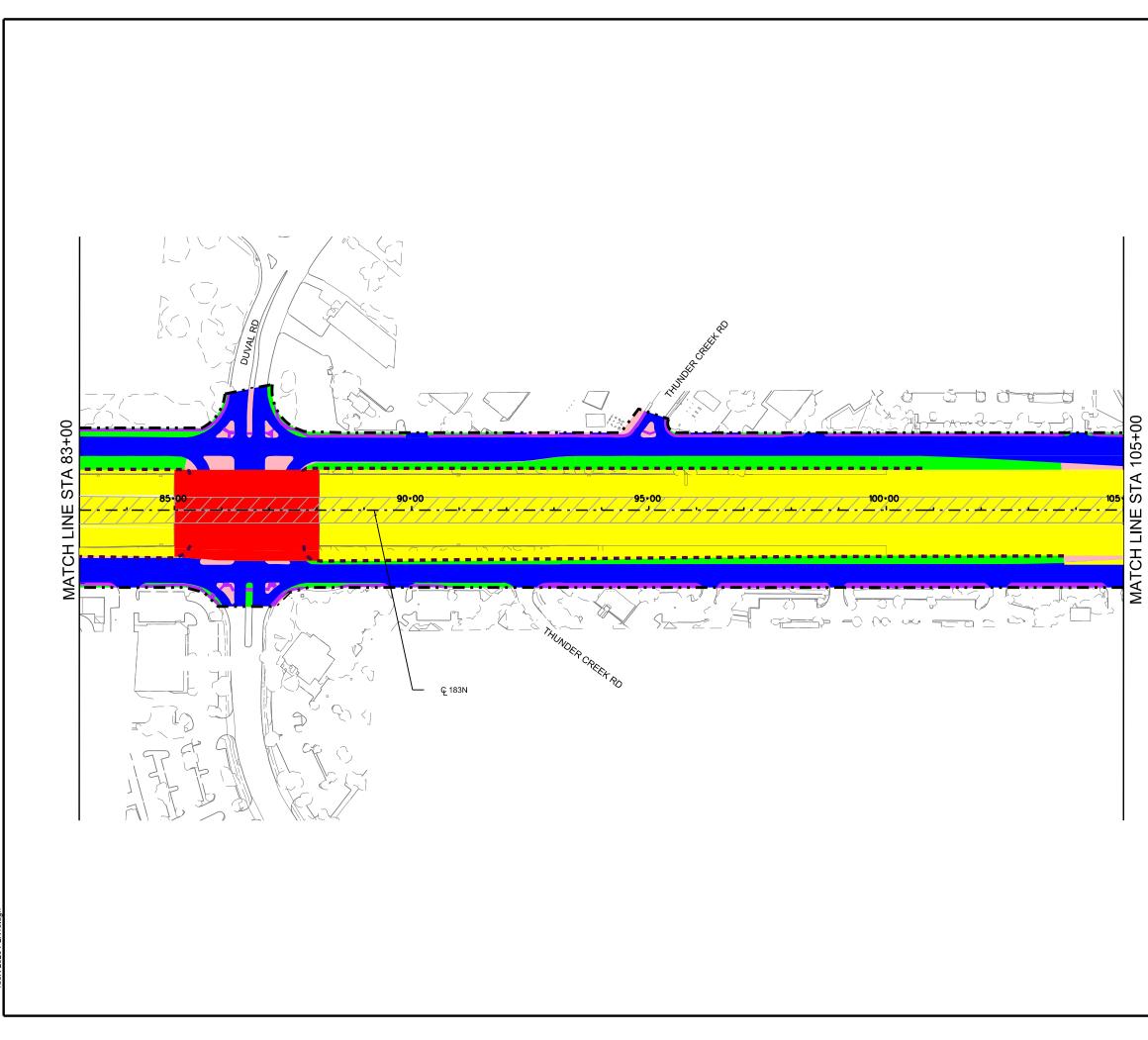
CONT. SECT.

XXXX XX

MATCH LINE STA 61+00



DESIGNED BY:			PROJECT NO.		SHEET NO.
STAFF		2	0PROGXXX02M		107
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	V	AR



DATE: 6/21/2023 TIME: 11:29:09 AM



NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



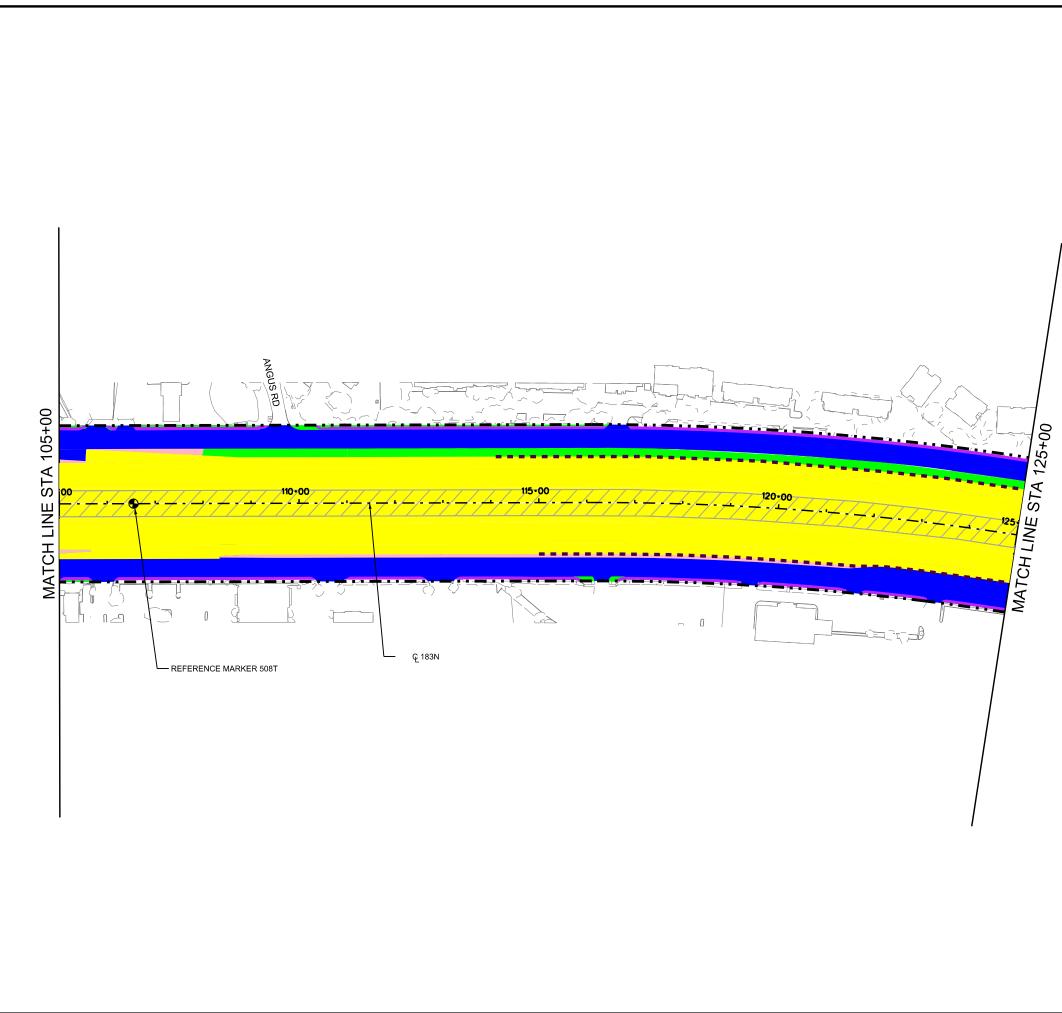
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VAR

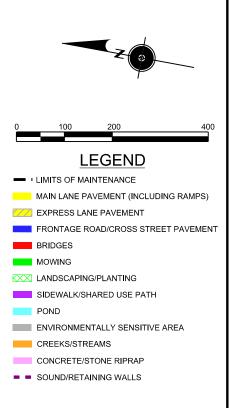
CES

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MATCH LINE



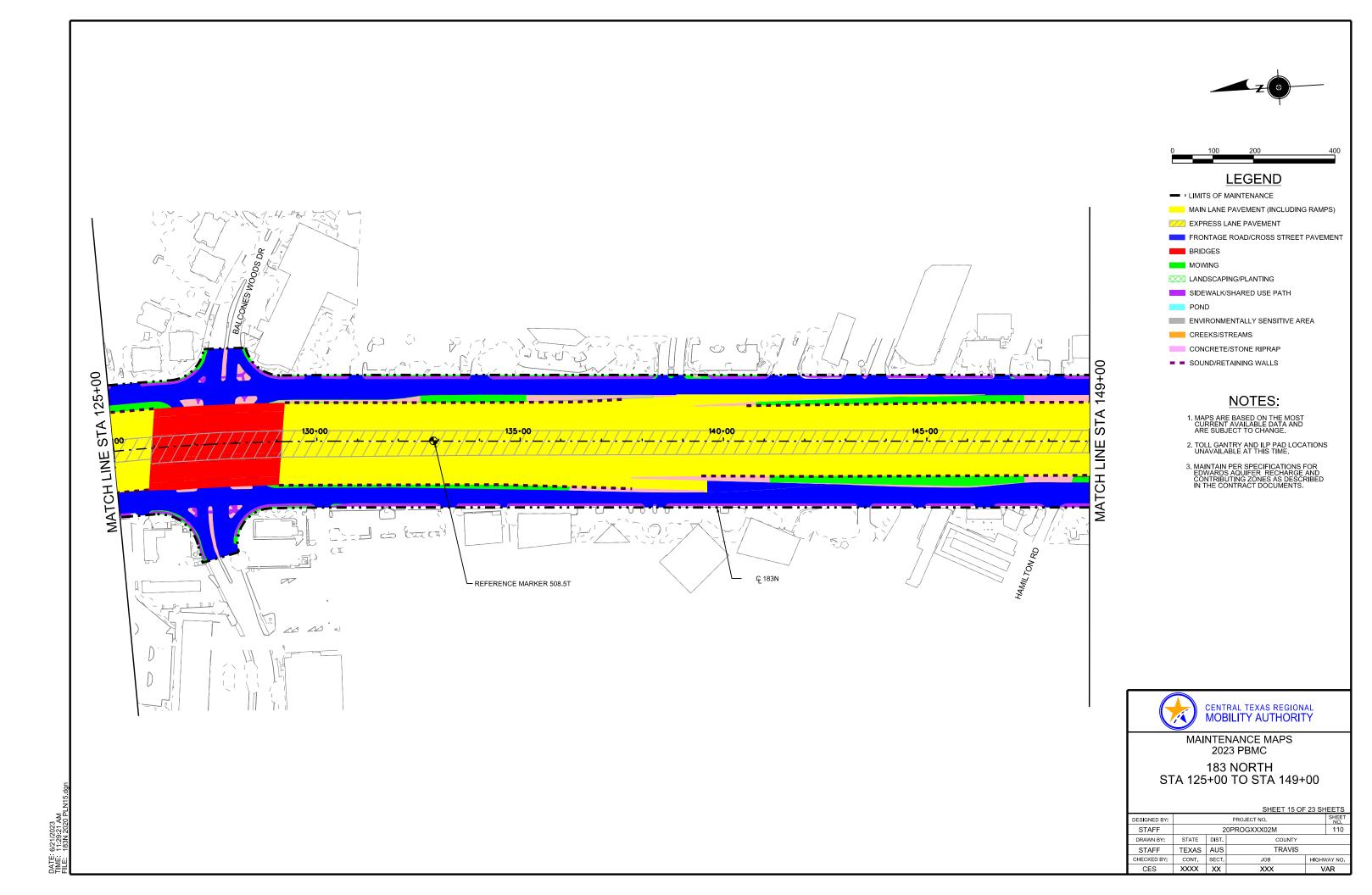
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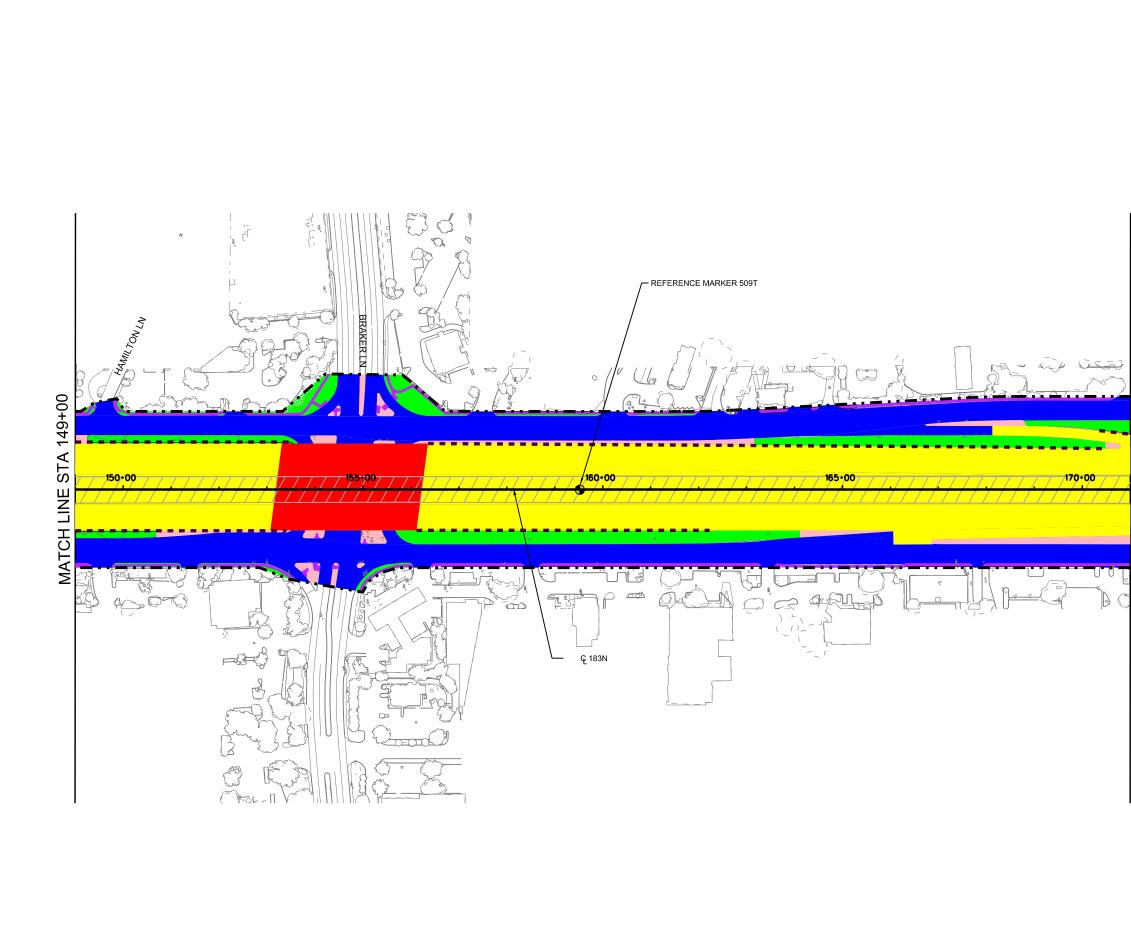


NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY							
MAINTENANCE MAPS 2023 PBMC							
		202					
183 NORTH STA 105+00 TO STA 125+00							
			SHEET 14 OF	- 23 S⊦			
DESIGNED BY:			PROJECT NO.		SHEET NO.		
STAFF		2	0PROGXXX02M		109		
DRAWN BY:	STATE	DIST.	COUNTY				
STAFF	STAFF TEXAS AUS TRAVIS						
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO.				
CES	XXXX	XX	XXX	v	'AR		





DATE: 6/21/2023 TIME: 11:29:26 AM FILF 183N 2020 DI N16



NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.

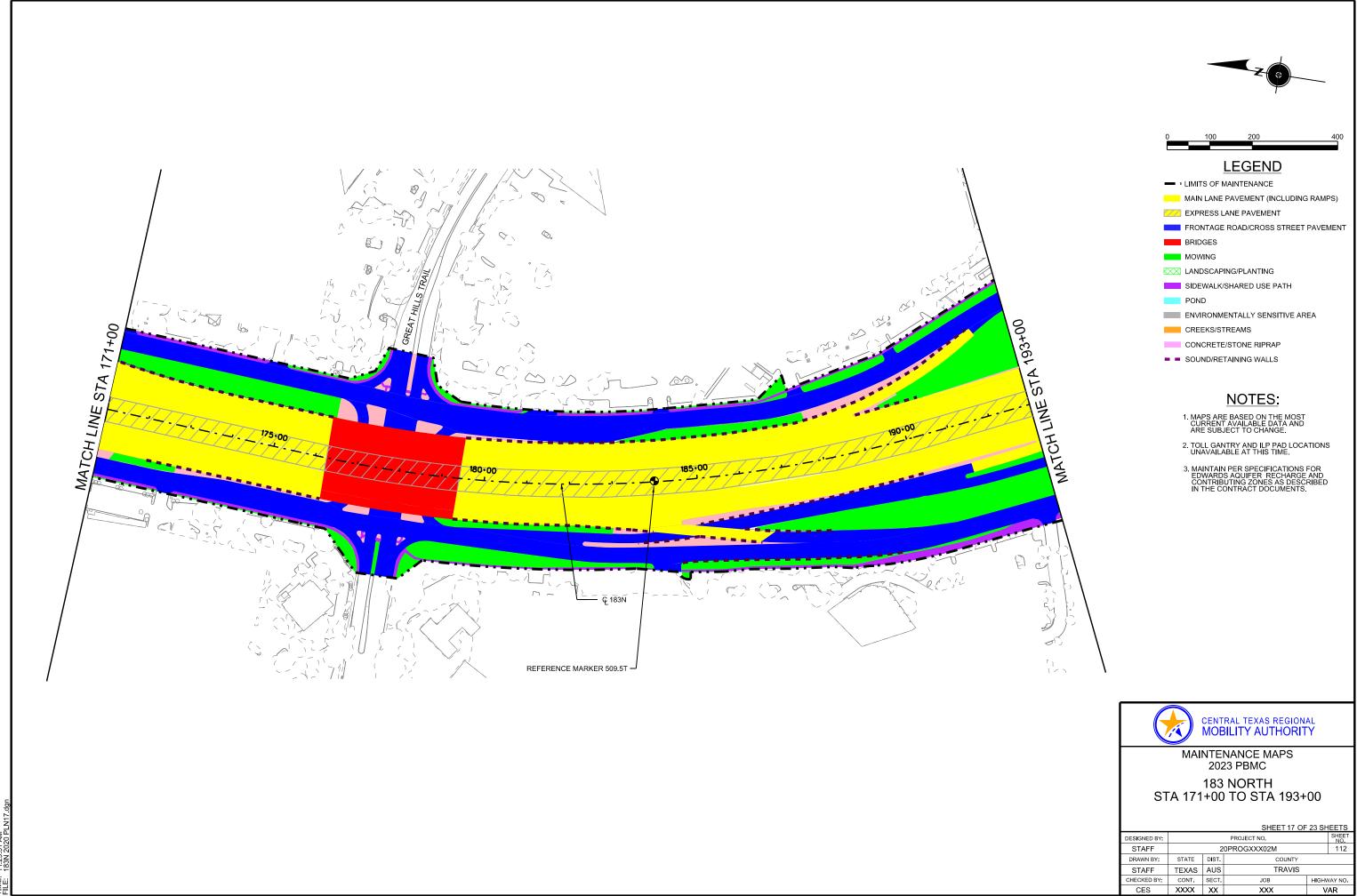


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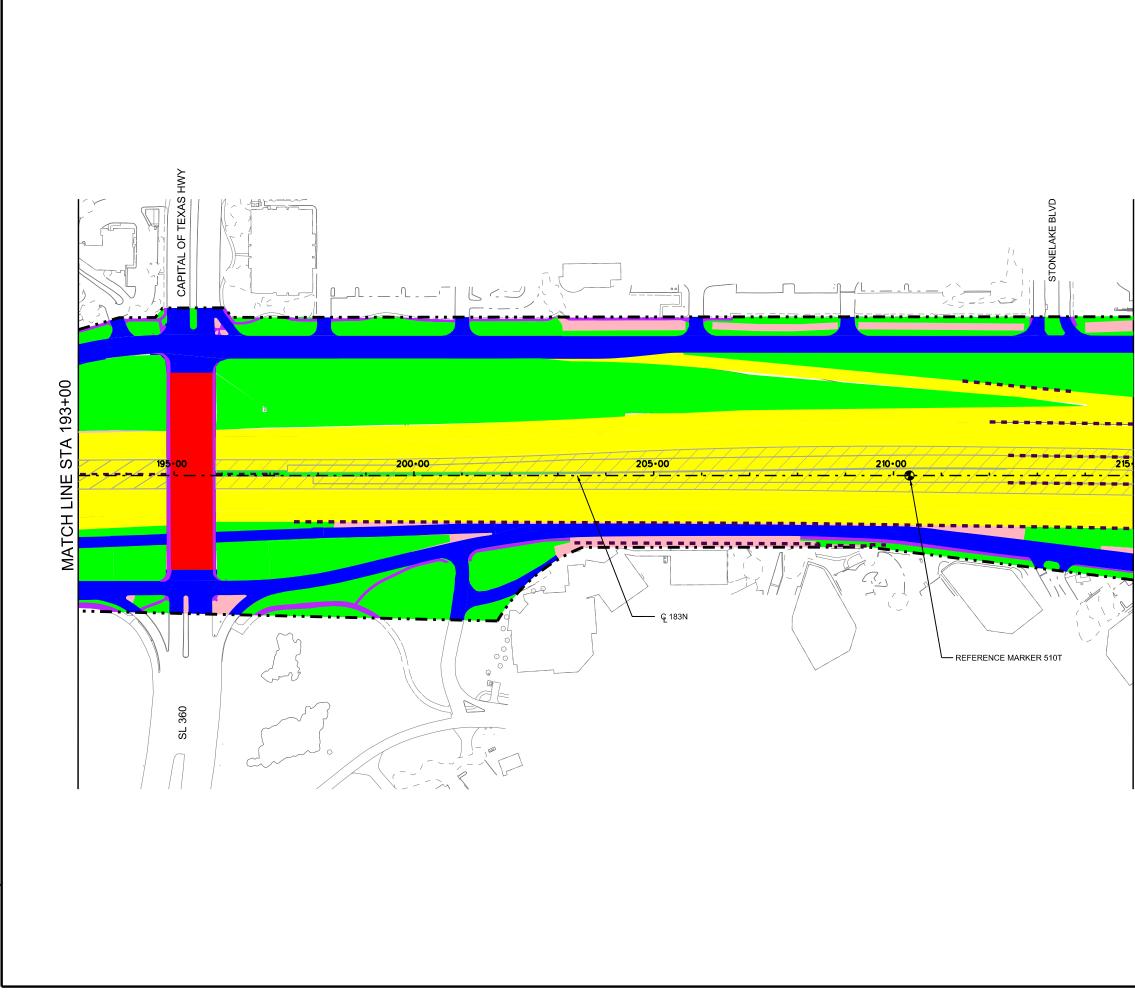
VAR

CES XXXX XX

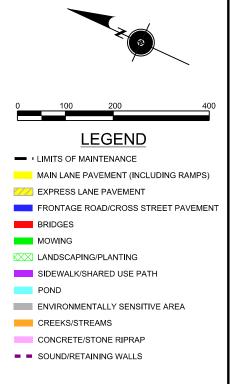
MATCH LINE STA 171+00



DATE: 6/21/2023 TIME: 11:29:31 AM



DATE: 6/21/2023 TIME: 11:29:37 AM



NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



JOB

XXX

HIGHWAY NO.

VAR

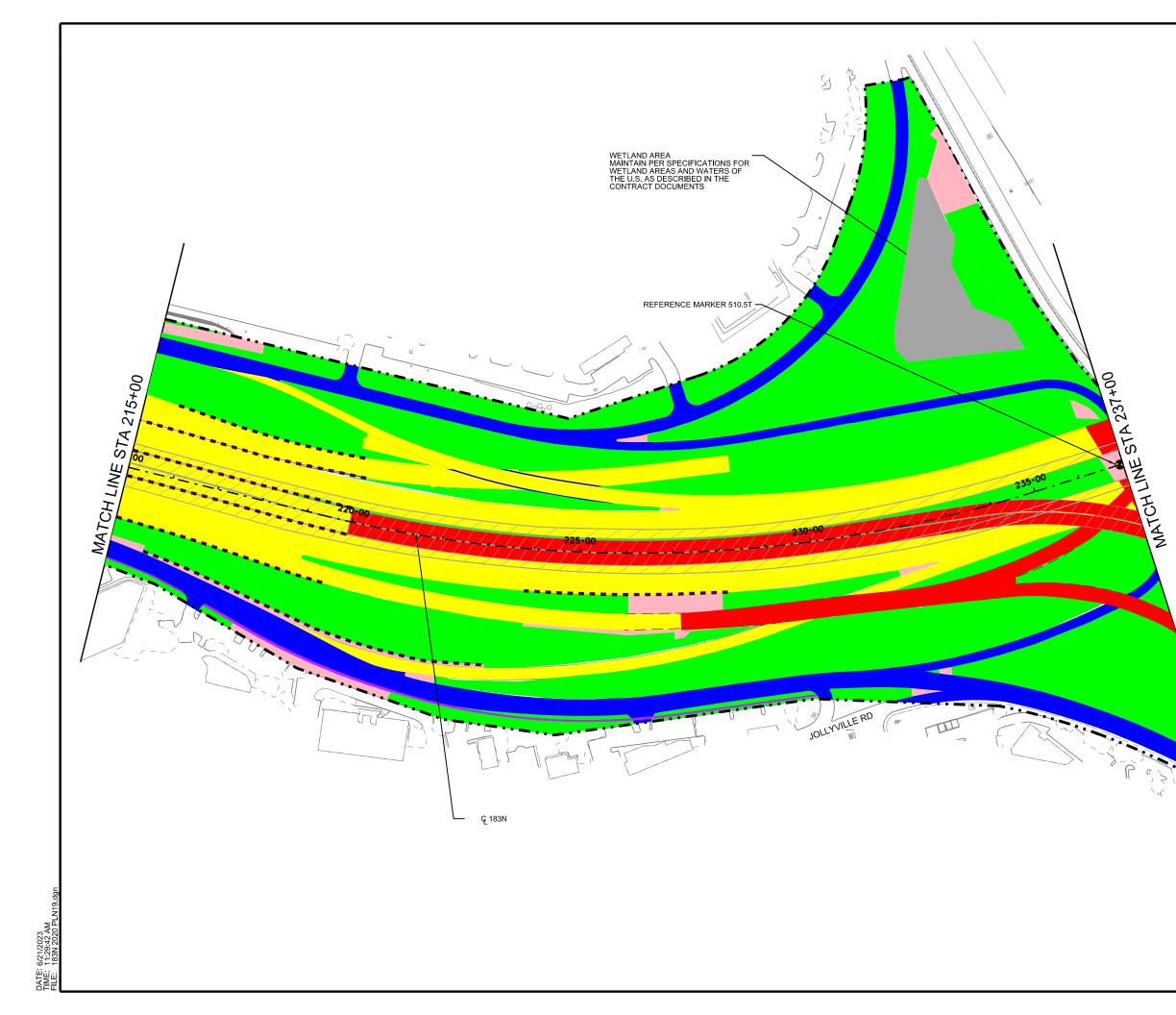
CHECKED BY:

CES

CONT. SECT.

XXXX XX

MATCH LINE STA 215+00



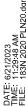


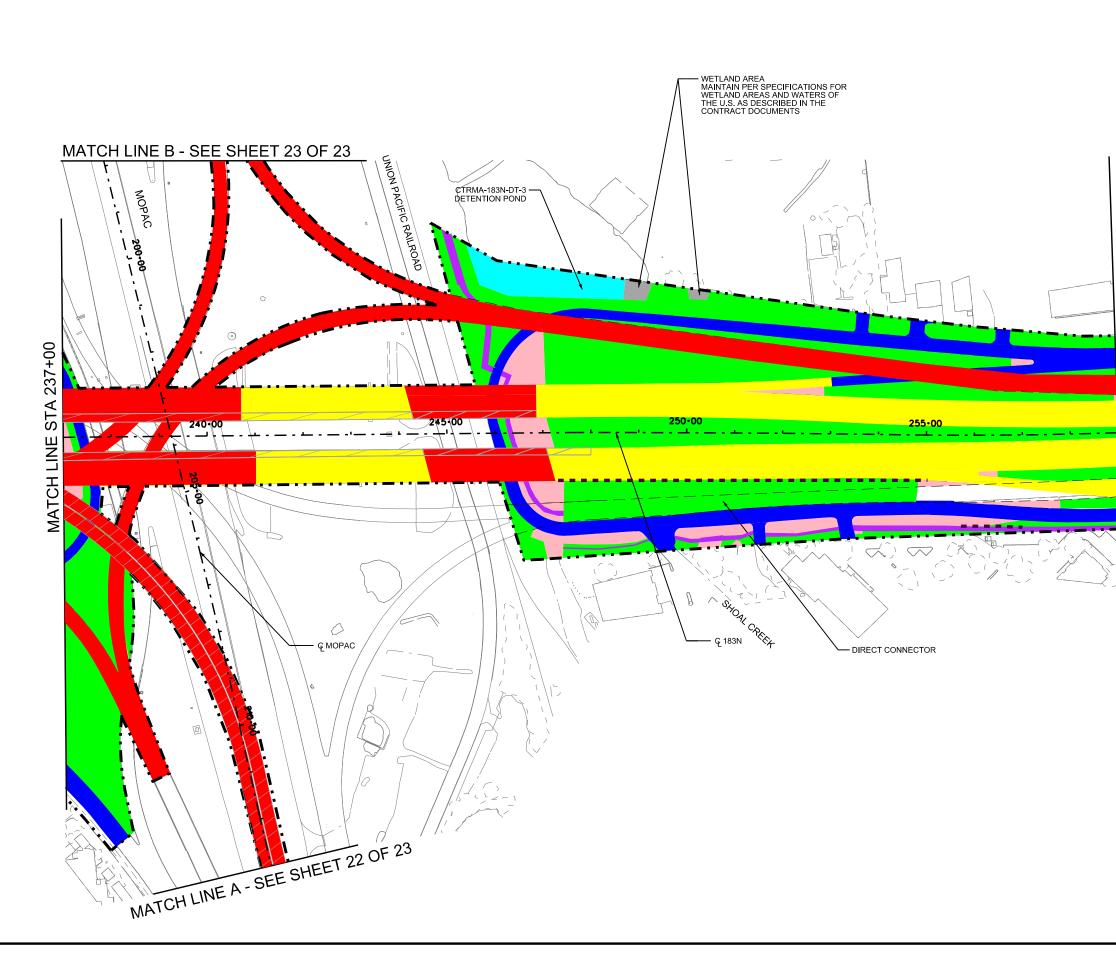


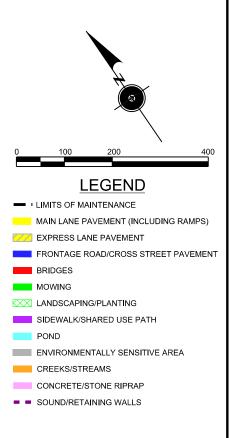
MAINTENANCE MAPS 2023 PBMC

183 NORTH STA 215+00 TO STA 237+00

SHEET 19 OF 23 SHEETS								
DESIGNED BY:		PROJECT NO. SHEET NO.						
STAFF		20PROGXXX02M 114						
DRAWN BY:	STATE DIST. COUNTY							
STAFF	TEXAS	EXAS AUS TRAVIS						
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO					
CES	XXXX	XX	XXX	VAR				





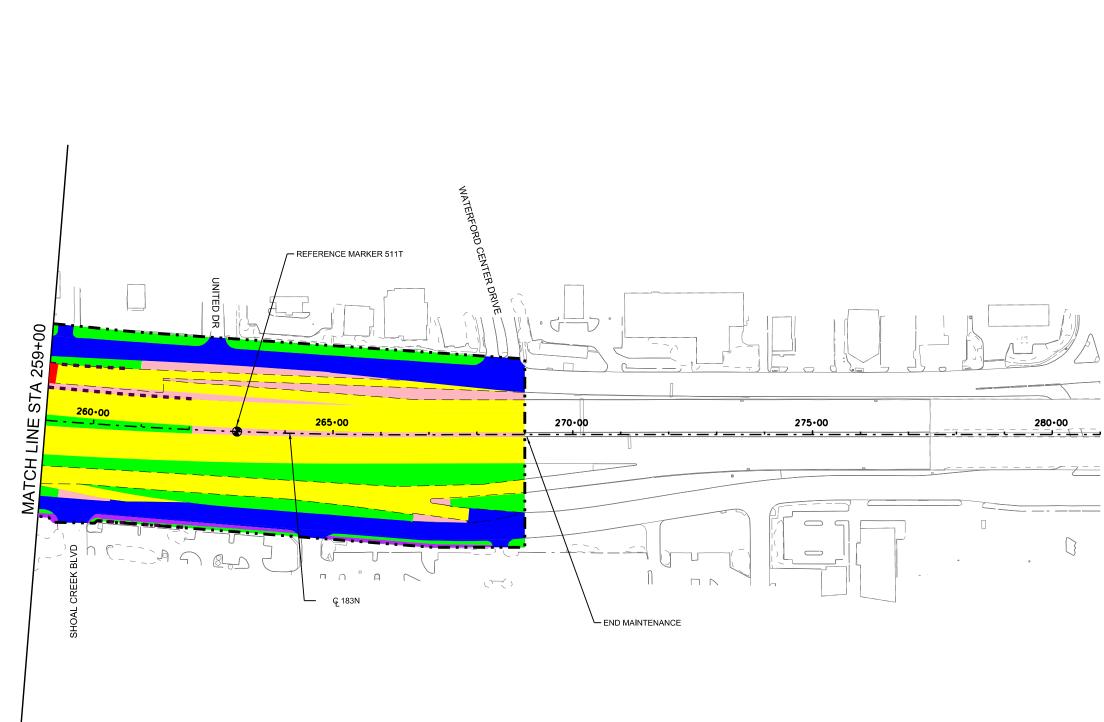


- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.

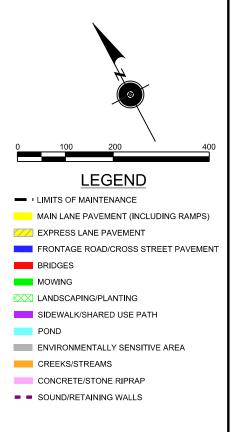


SHEET 20 OF 23 SHEETS					
DESIGNED BY:	PROJECT NO.				SHEET NO.
STAFF	20PROGXXX02M				115
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.	
CES	XXXX	XX	XXX	VAR	

MATCH LINE STA 259+00







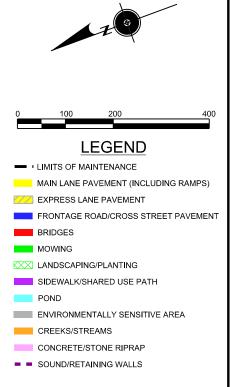


- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. ALL ADVANCE SIGNS RELATED TO THE TOLL FACILITY ARE INCLUDED IN THE CTRMA MAINTENANCE EXCLUDING SUPPORTS AND TRUSSES.
- 4. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY									
	MAI		NANCE MAPS						
		202	23 PBMC						
		102	NORTH						
с та	050.			-07	- 1				
I STA	259+	00 1	O END PROJ	ECT					
			SHEET 21 OF	23 SH	FETS				
DESIGNED BY:			PROJECT NO.	20 01	SHEET NO.				
STAFF		2	0PROGXXX02M		116				
DRAWN BY:	STATE	DIST.	COUNTY						
STAFF	TEXAS	AUS	TRAVIS						
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.				
CES	XXXX	XX	XXX	V	AR				

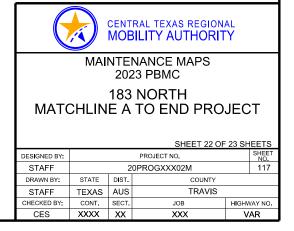


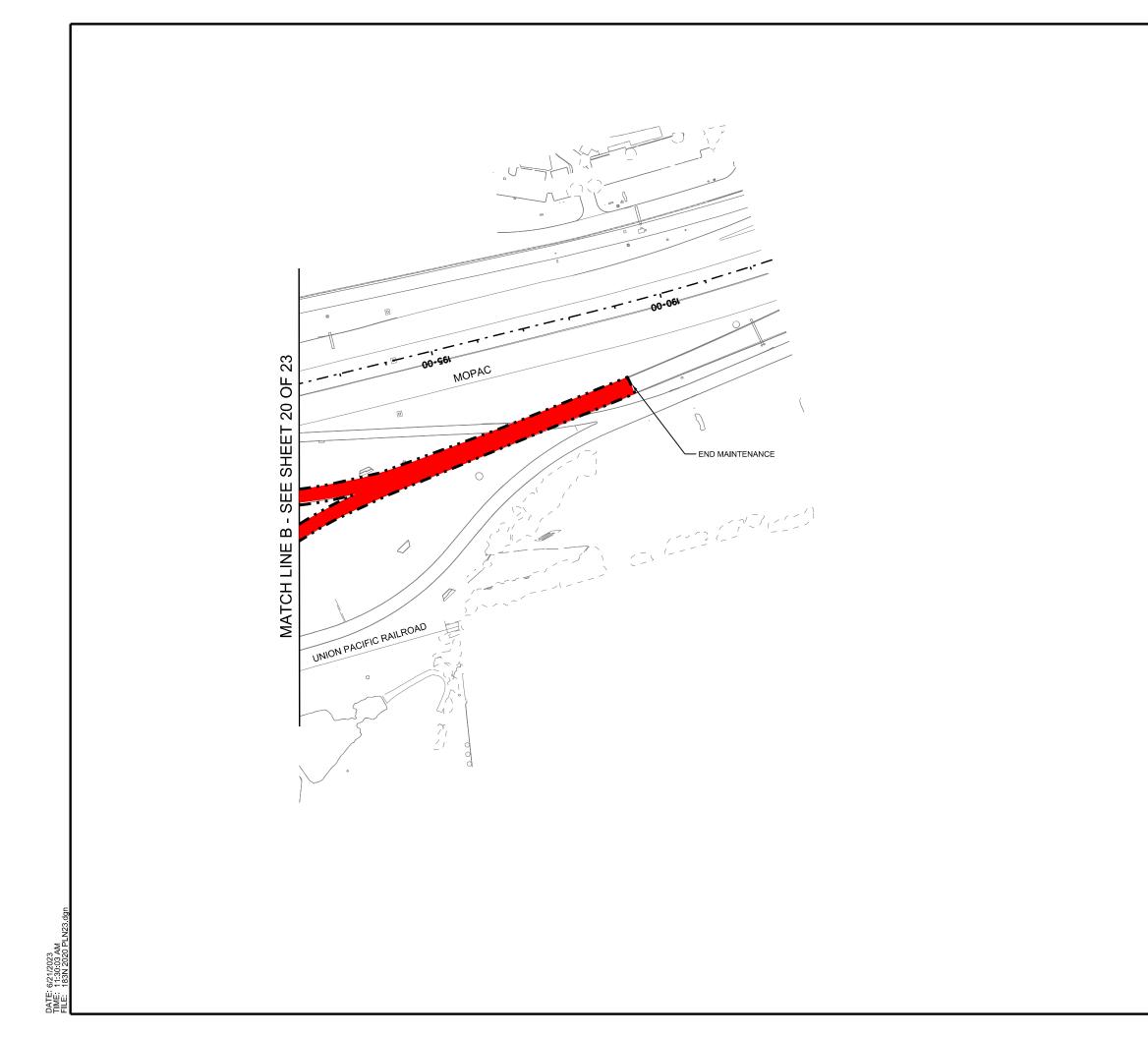
DATE: 6/21/2023 TIME: 11:29:58 AM

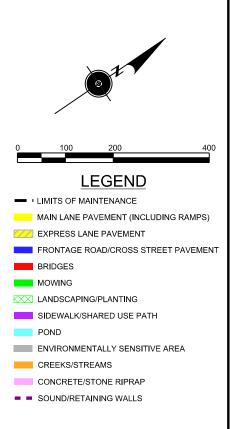


NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. ALL ADVANCE SIGNS RELATED TO THE TOLL FACILITY ARE INCLUDED IN THE CTRMA MAINTENANCE EXCLUDING SUPPORTS AND TRUSSES.
- 4. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.



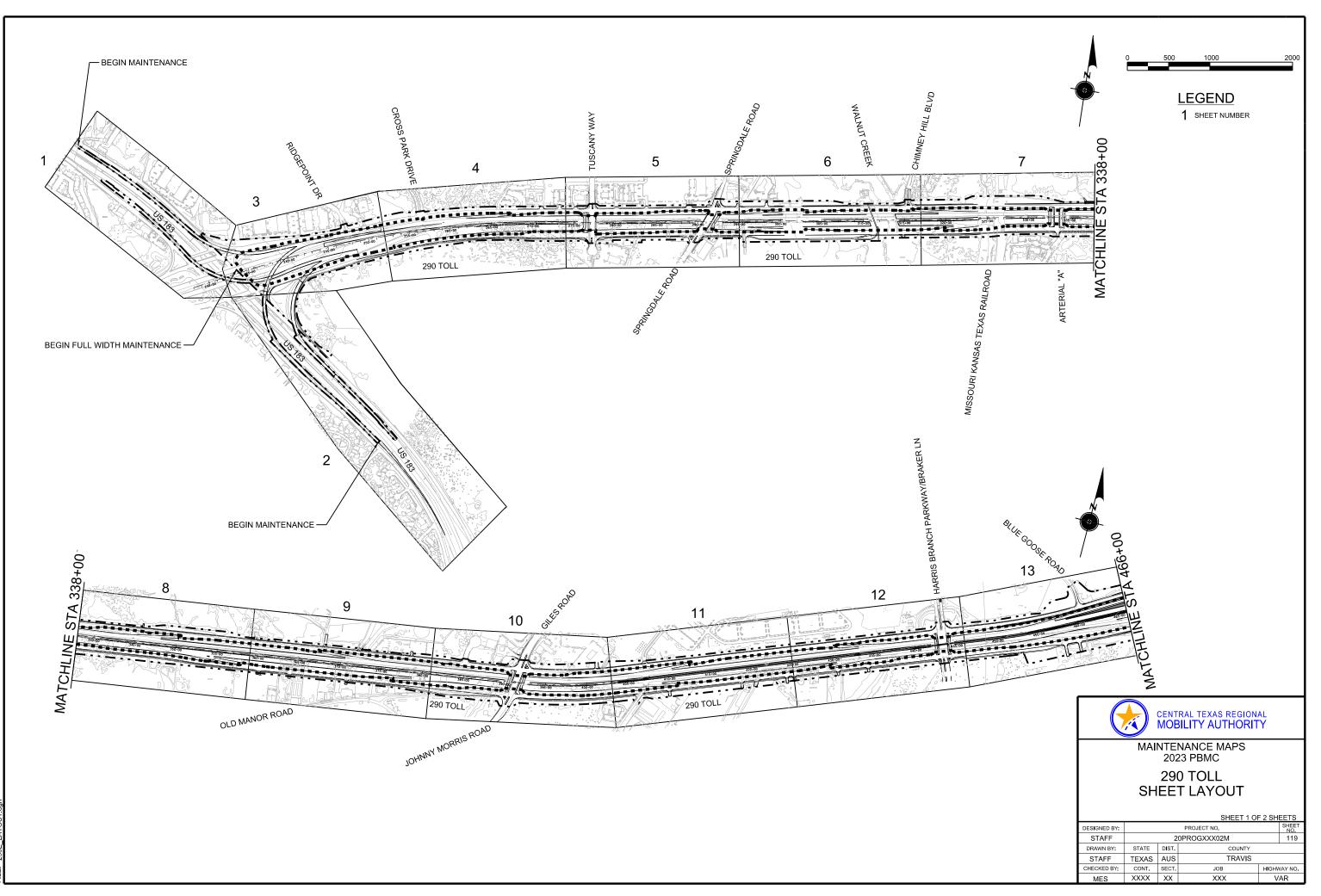




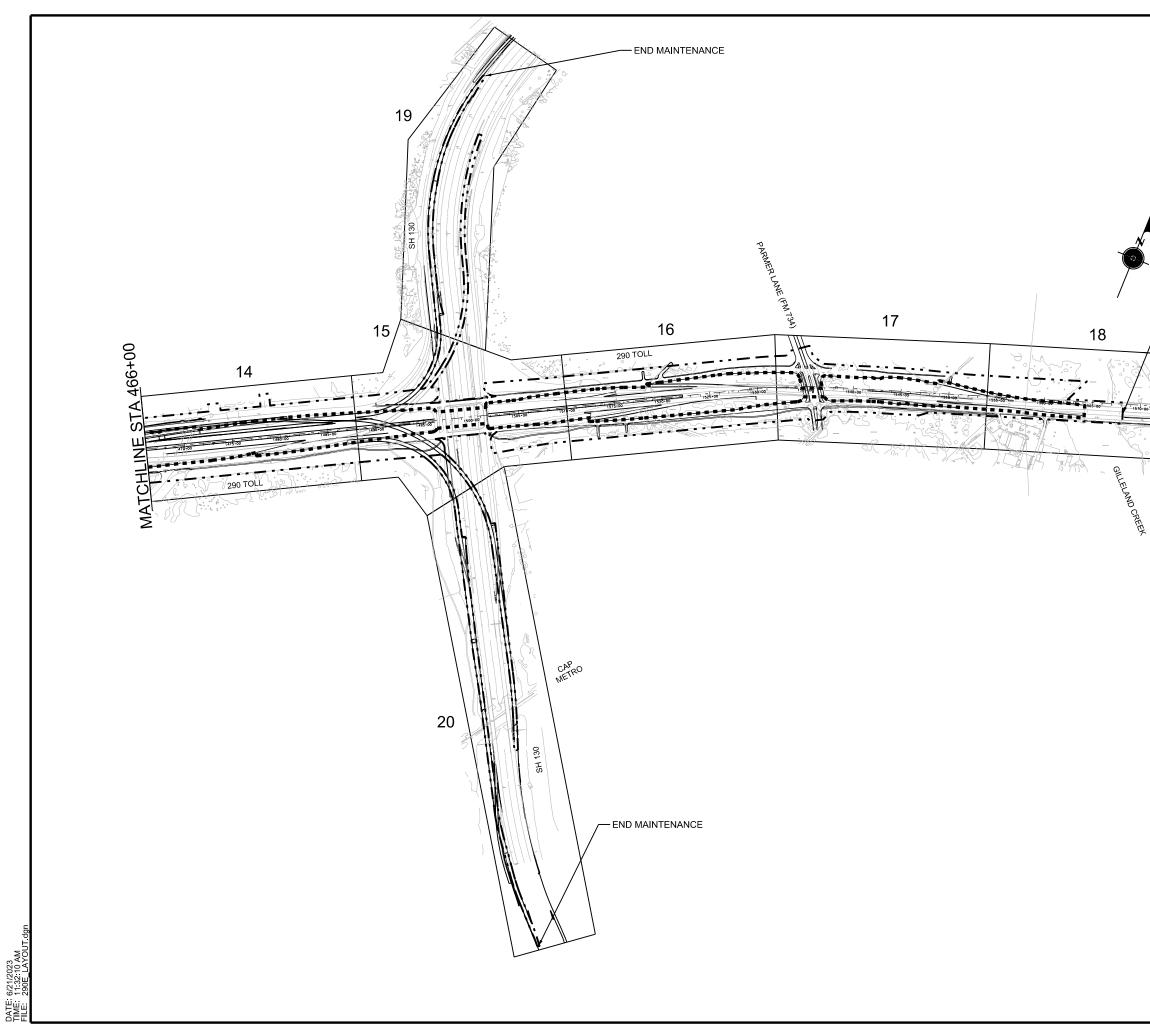
NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. TOLL GANTRY AND ILP PAD LOCATIONS UNAVAILABLE AT THIS TIME.
- 3. ALL ADVANCE SIGNS RELATED TO THE TOLL FACILITY ARE INCLUDED IN THE CTRMA MAINTENANCE EXCLUDING SUPPORTS AND TRUSSES.
- 4. MAINTAIN PER SPECIFICATIONS FOR EDWARDS AQUIFER RECHARGE AND CONTRIBUTING ZONES AS DESCRIBED IN THE CONTRACT DOCUMENTS.

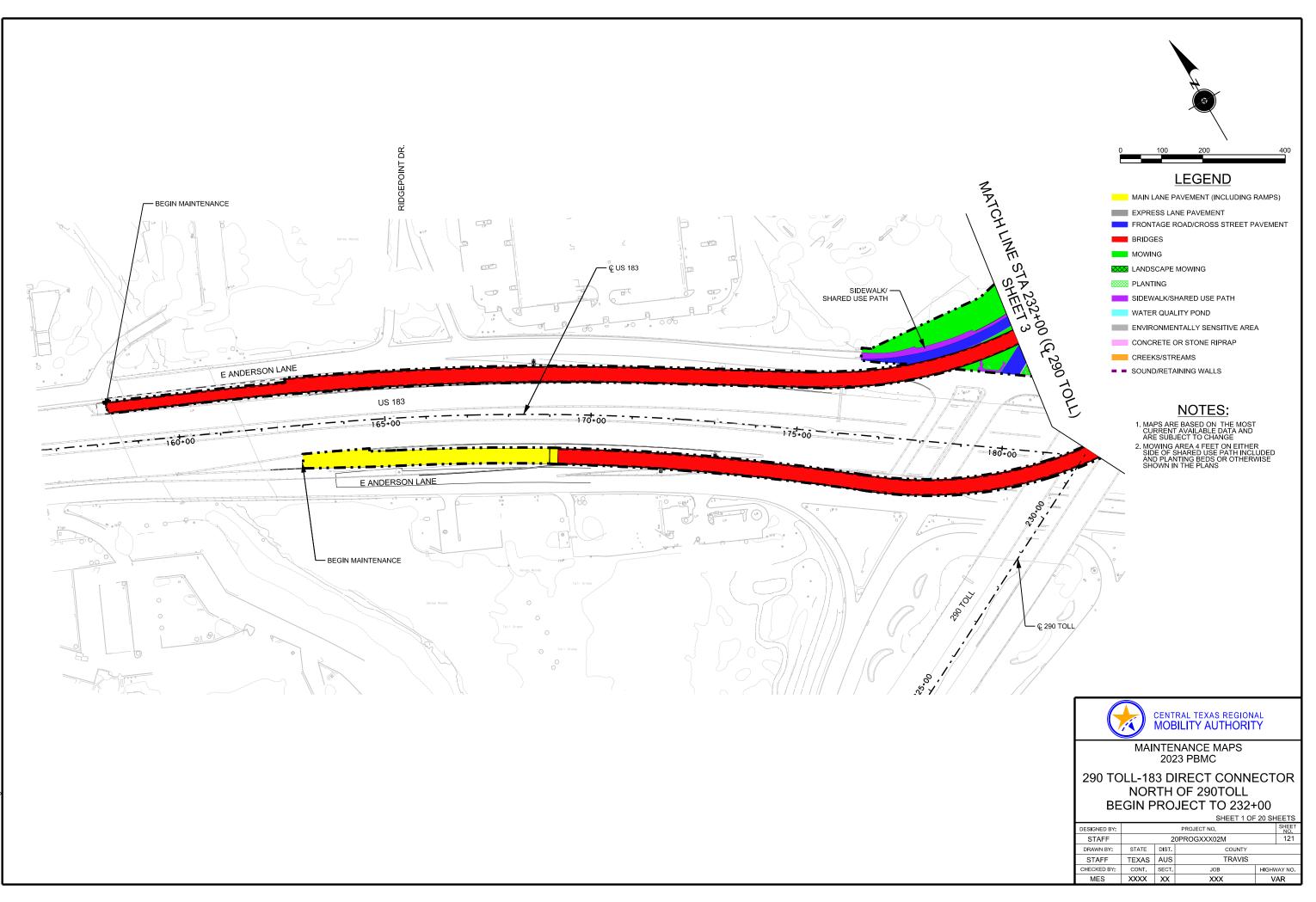
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY								
MAINTENANCE MAPS 2023 PBMC								
	183 NORTH MATCHLINE B TO END							
			SHEET 23 OF	⁻ 23 S⊦	IEETS			
DESIGNED BY:			PROJECT NO.		SHEET NO.			
STAFF		2	0PROGXXX02M		118			
DRAWN BY:	STATE	DIST.	COUNTY					
STAFF	TEXAS	AUS	TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.			
CES	XXXX	XX	XXX	V	AR			



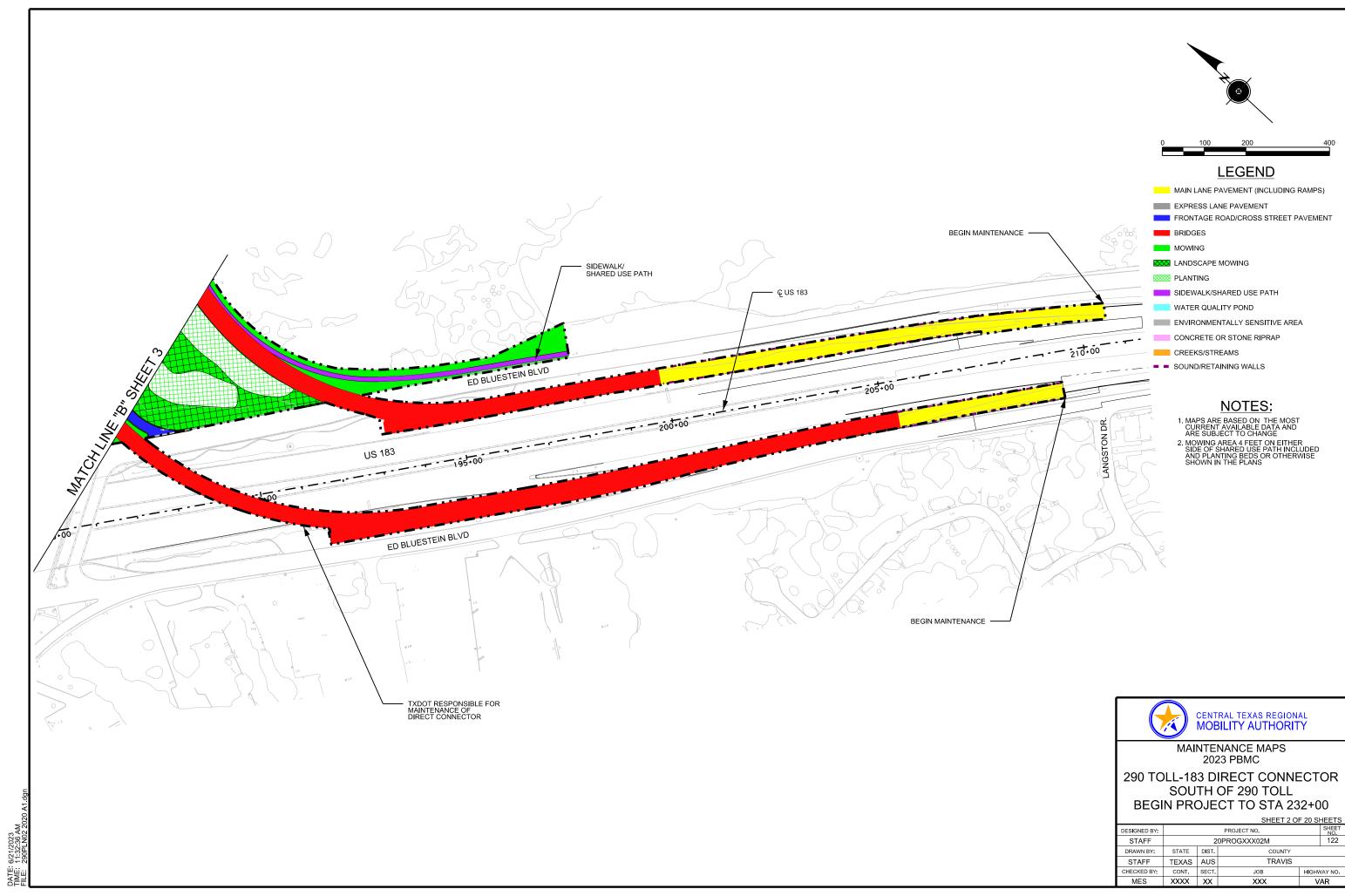
DATE: 6/21/2023 TIME: 11:32:02 AM FILE: 290F: 1 AVOLI



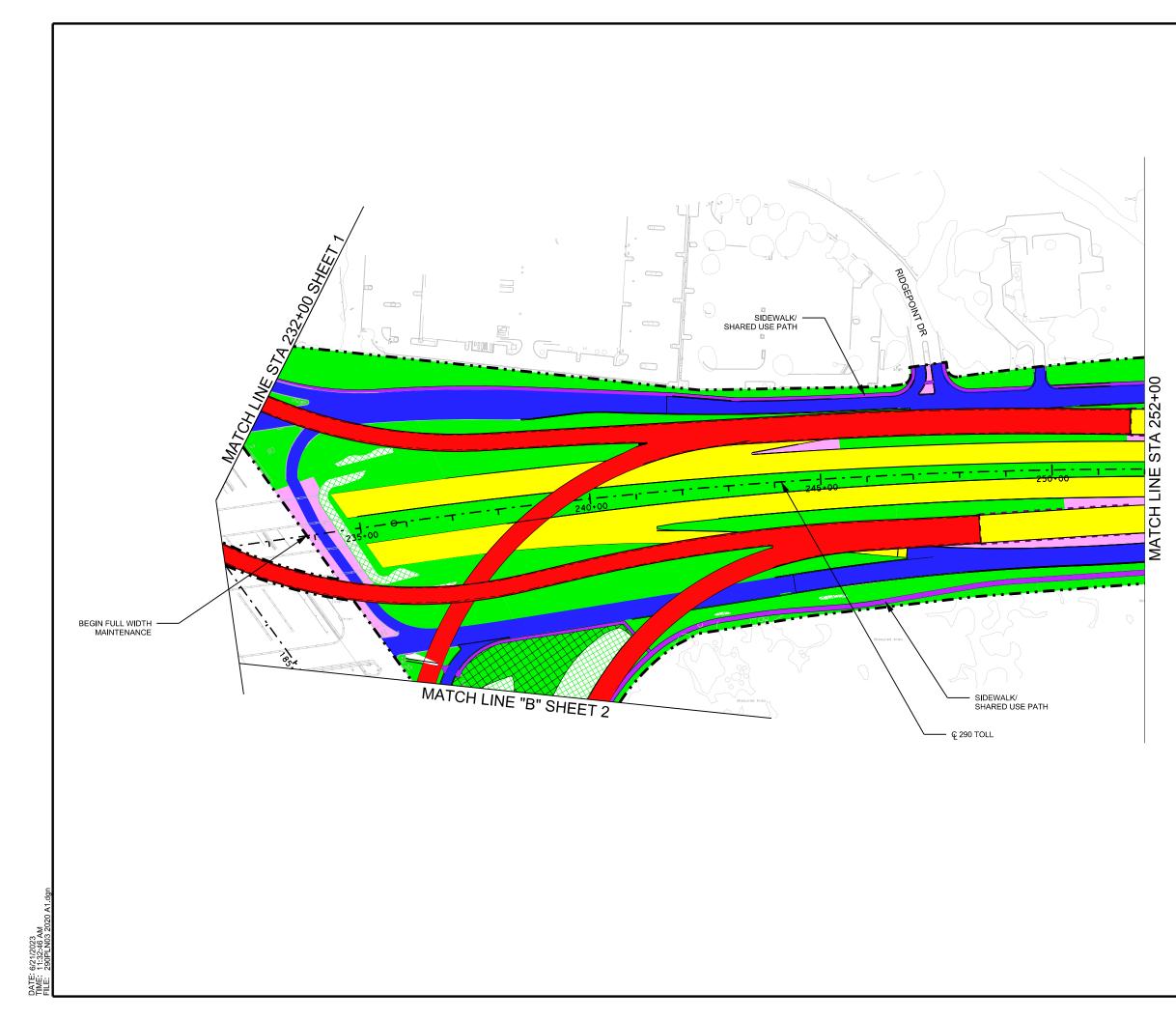
		0	500	1000	2000
				<u>EGEND</u> 1 SHEET NUMBER	
END MAINTENANCE					
1 1550					
			MOB	RAL TEXAS REGION	AL TY
			202 290	NANCE MAPS 3 PBMC) TOLL 7 LAYOUT	
	DESIGNED BY:			PROJECT NO. PROGXXX02M	SHEET NO. 120
	DRAWN BY: STAFF	STATE TEXAS	DIST. AUS	COUNTY TRAVIS	1
	CHECKED BY:	CONT.	SECT.	JOB XXX	HIGHWAY NO.

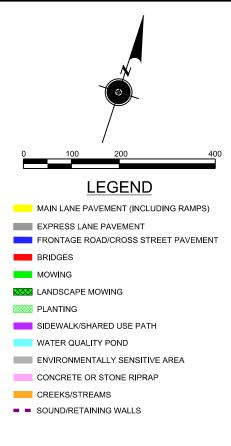


DATE: 6/21/2023 TIME: 11:32:25 AM FILE: 290PLN01 2020 A



CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY									
	MAINTENANCE MAPS 2023 PBMC								
290 TOLL-183 DIRECT CONNECTOR SOUTH OF 290 TOLL BEGIN PROJECT TO STA 232+00									
			SHEET 2 O	F 20 Sł	HEETS				
DESIGNED BY:			PROJECT NO.		SHEET NO.				
STAFF		2	0PROGXXX02M		122				
DRAWN BY:	STATE	DIST.	COUNTY						
STAFF	TEXAS	AUS	TRAVIS						
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.				





NOTES:

- I. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE
 MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AND PLANTING BEDS OR OTHERWISE SHOWN IN THE PLANS



TRAVIS

HIGHWAY NO.

VAR

JOB

XXX

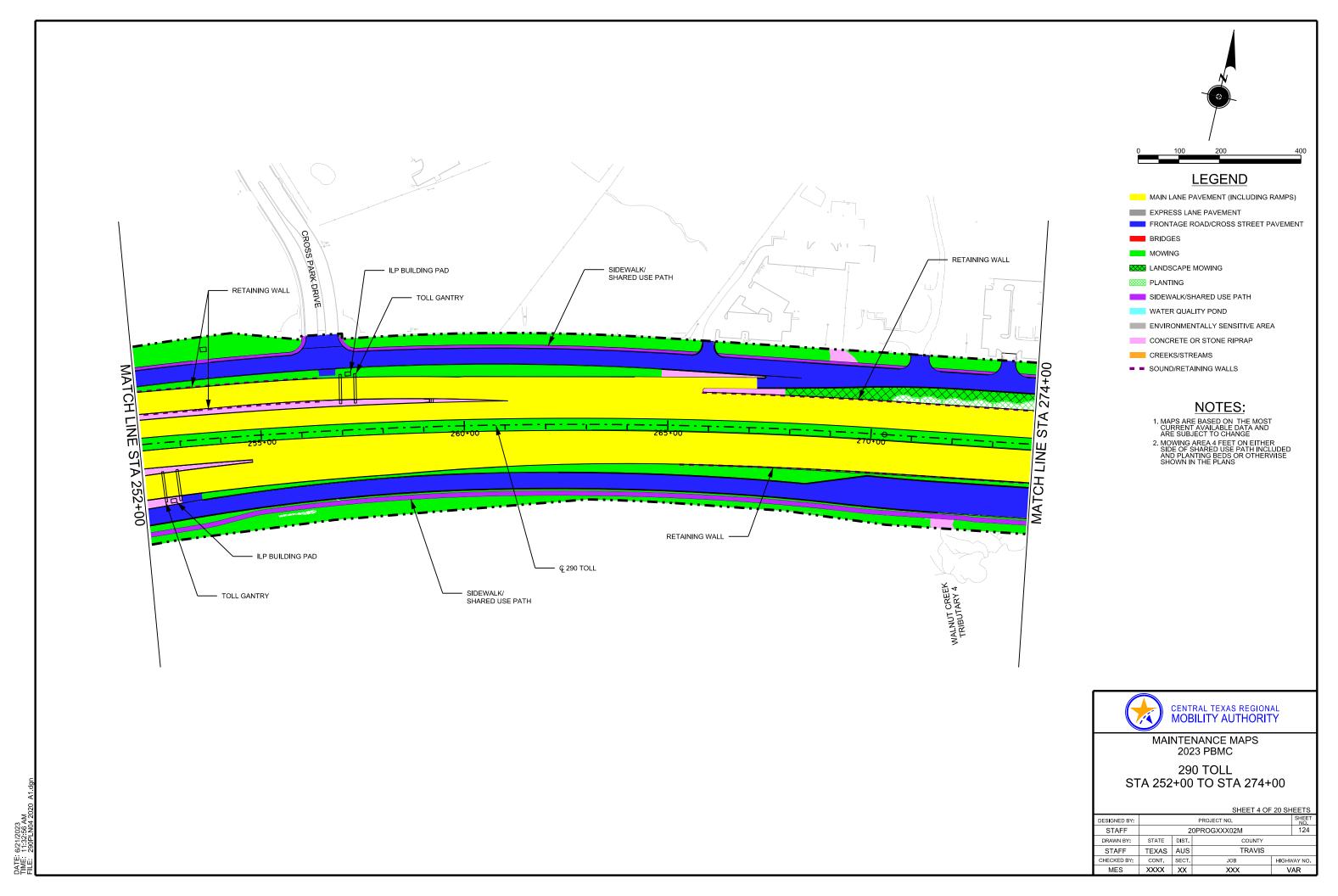
STAFF

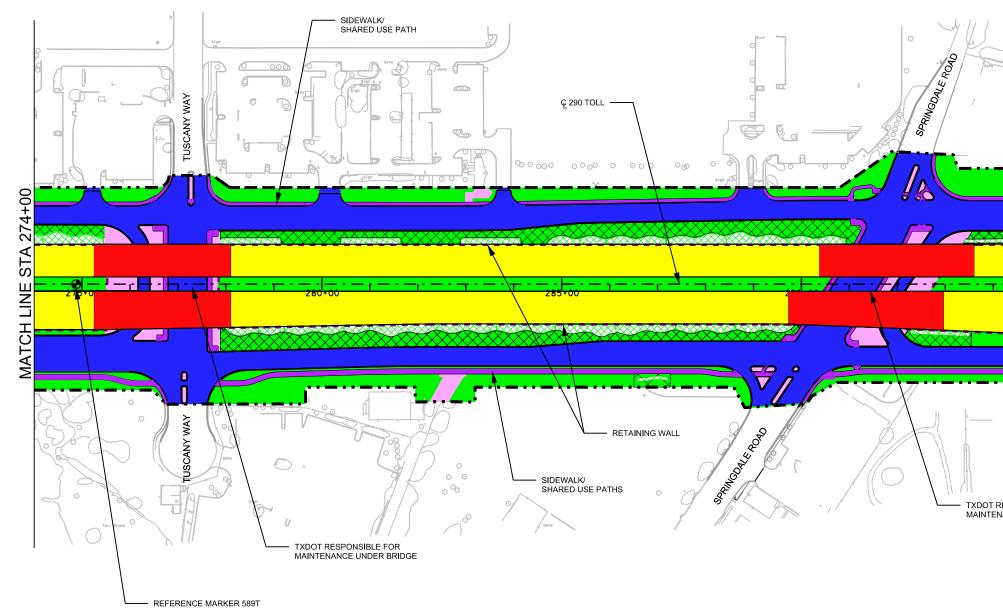
CHECKED BY:

TEXAS AUS

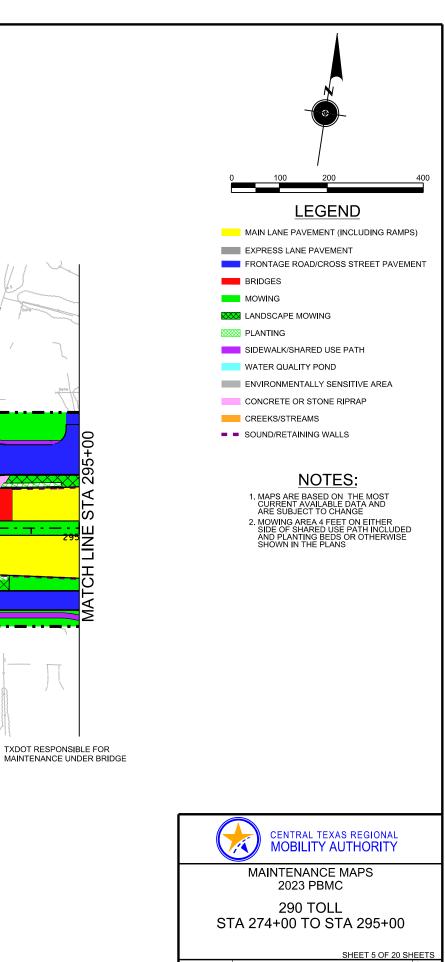
CONT. SECT.

MES XXXX XX

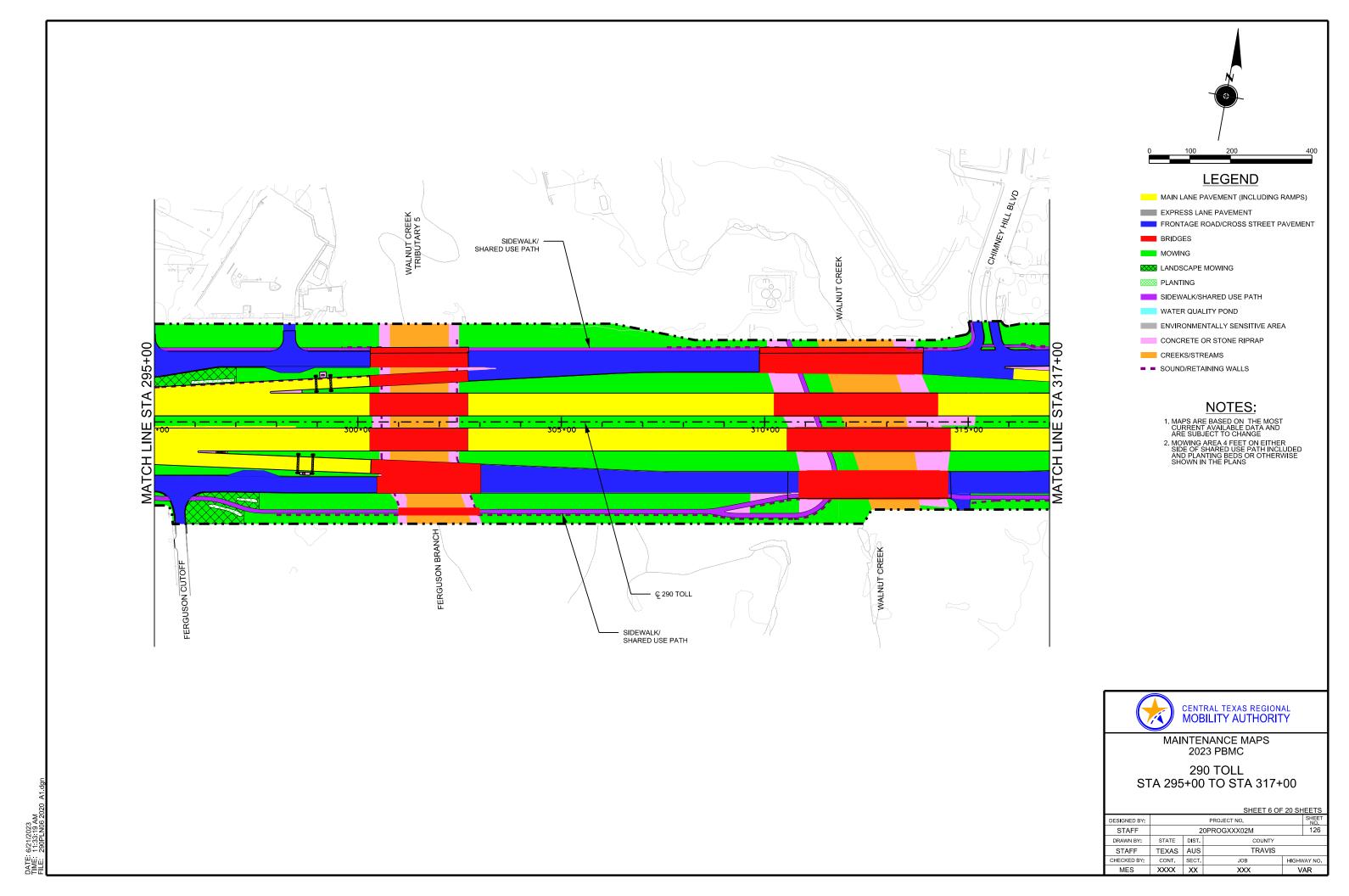


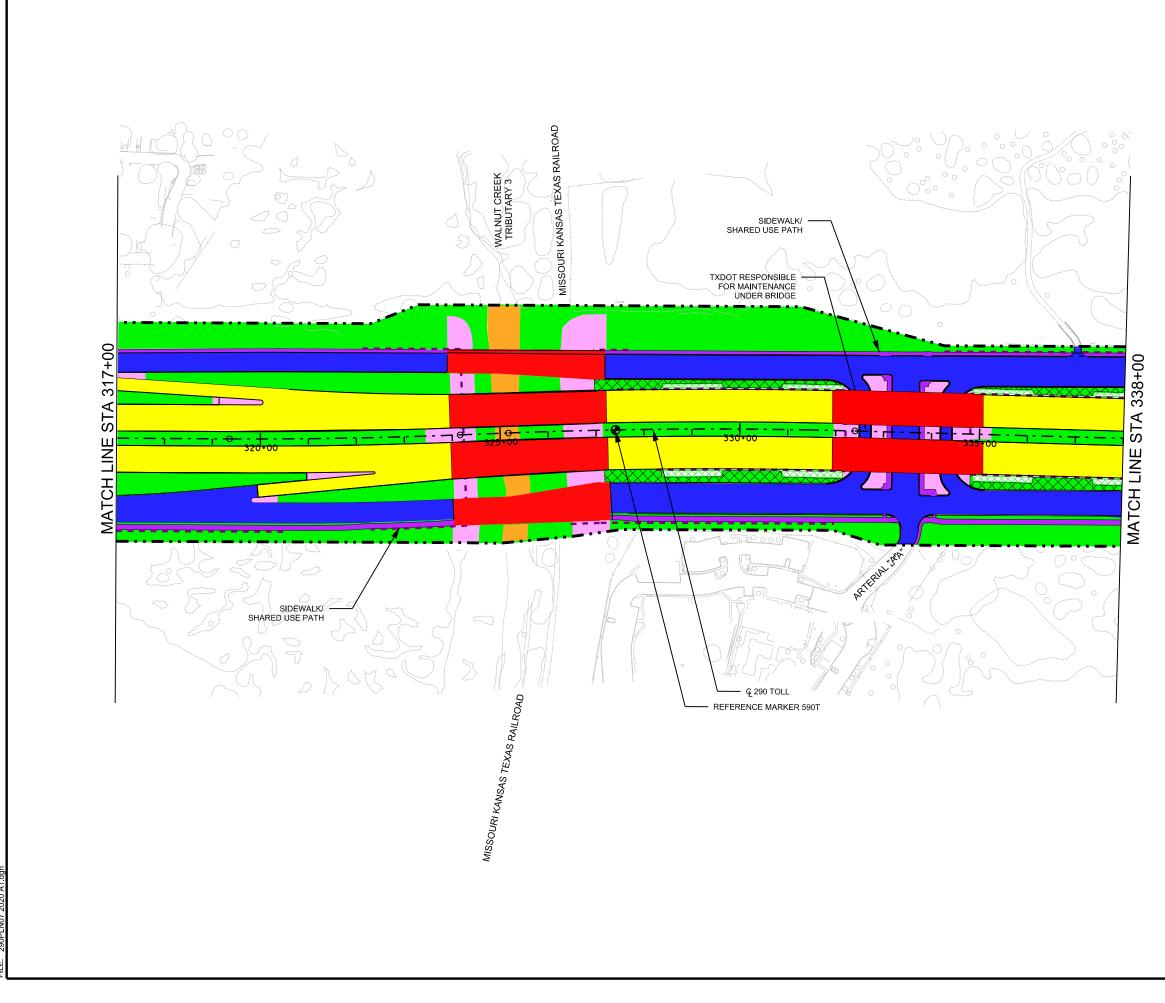


DATE: 6/21/2023 TIME: 11:33:09 AM FILE: 290PI N05 2020 A1

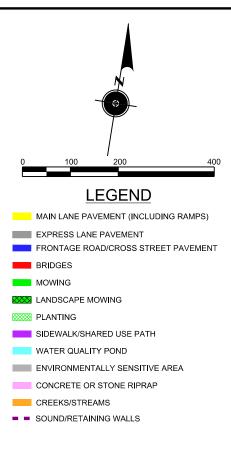


SHEET 5 OF 20 SHEETS								
	PROJECT NO.							
	20PROGXXX02M 12			125				
STATE	DIST. COUNTY							
TEXAS	AUS	TRAVIS						
CONT.	SECT.	JOB	HIGHWAY NO.					
XXXX	XX	XXX	VAR					
	TEXAS CONT.	STATE DIST. TEXAS AUS CONT. SECT.	PROJECT NO. 20PROGXXX02M STATE DIST. COUNTY TEXAS AUS TRAVIS CONT. SECT. JOB	PROJECT NO. 20PROGXXX02M STATE DIST. COUNTY TEXAS AUS TRAVIS CONT. SECT. JOB HIGHV				





DATE: 6/21/2023 TIME: 11:33:31 AM

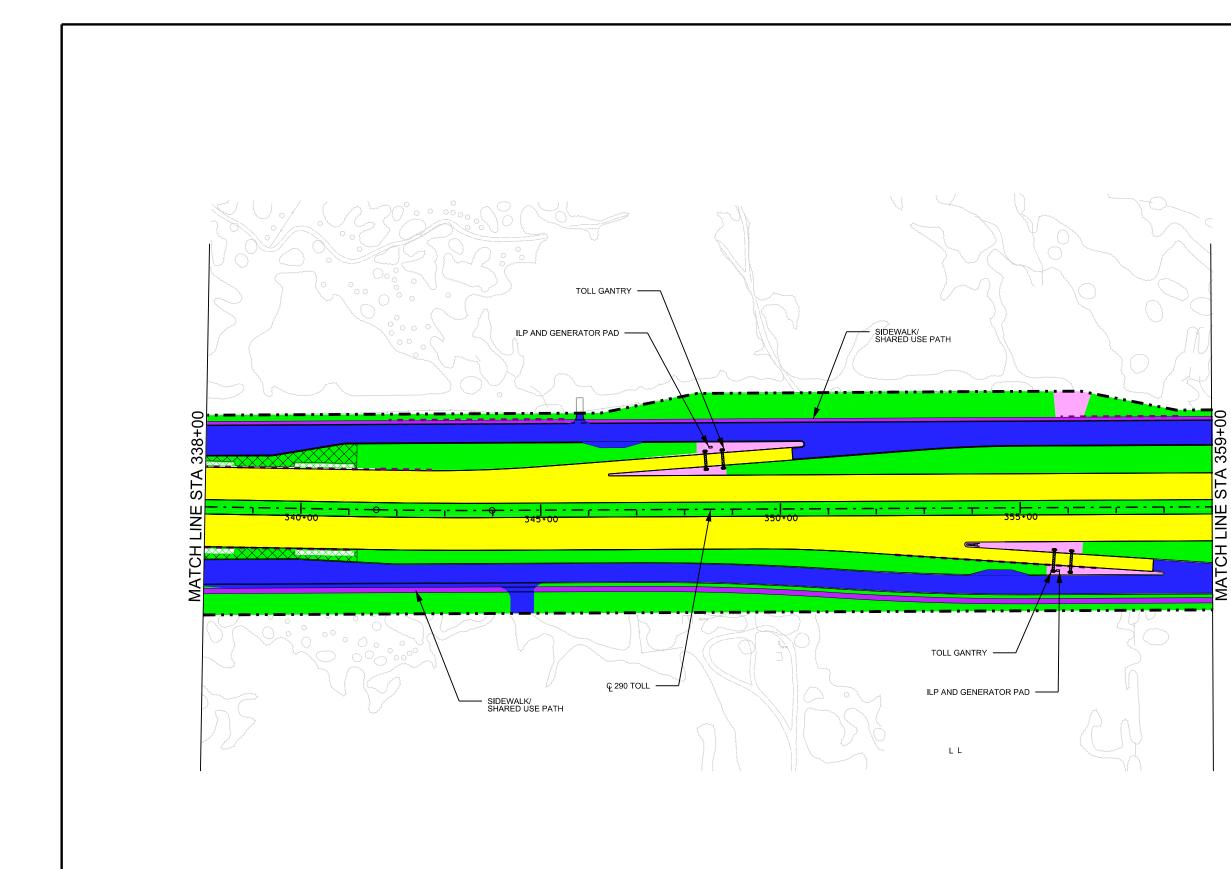


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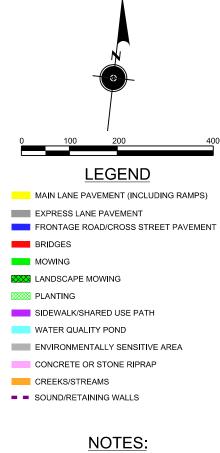
- I. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE
 MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AND PLANTING BEDS OR OTHERWISE SHOWN IN THE PLANS



DESIGNED BY:		PROJECT NO.				
STAFF		20PROGXXX02M				
DRAWN BY:	STATE	DIST.	COUNTY			
STAFF	TEXAS	AUS	TRAVIS			
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.		
MES	XXXX	XX	XXX	VAR		



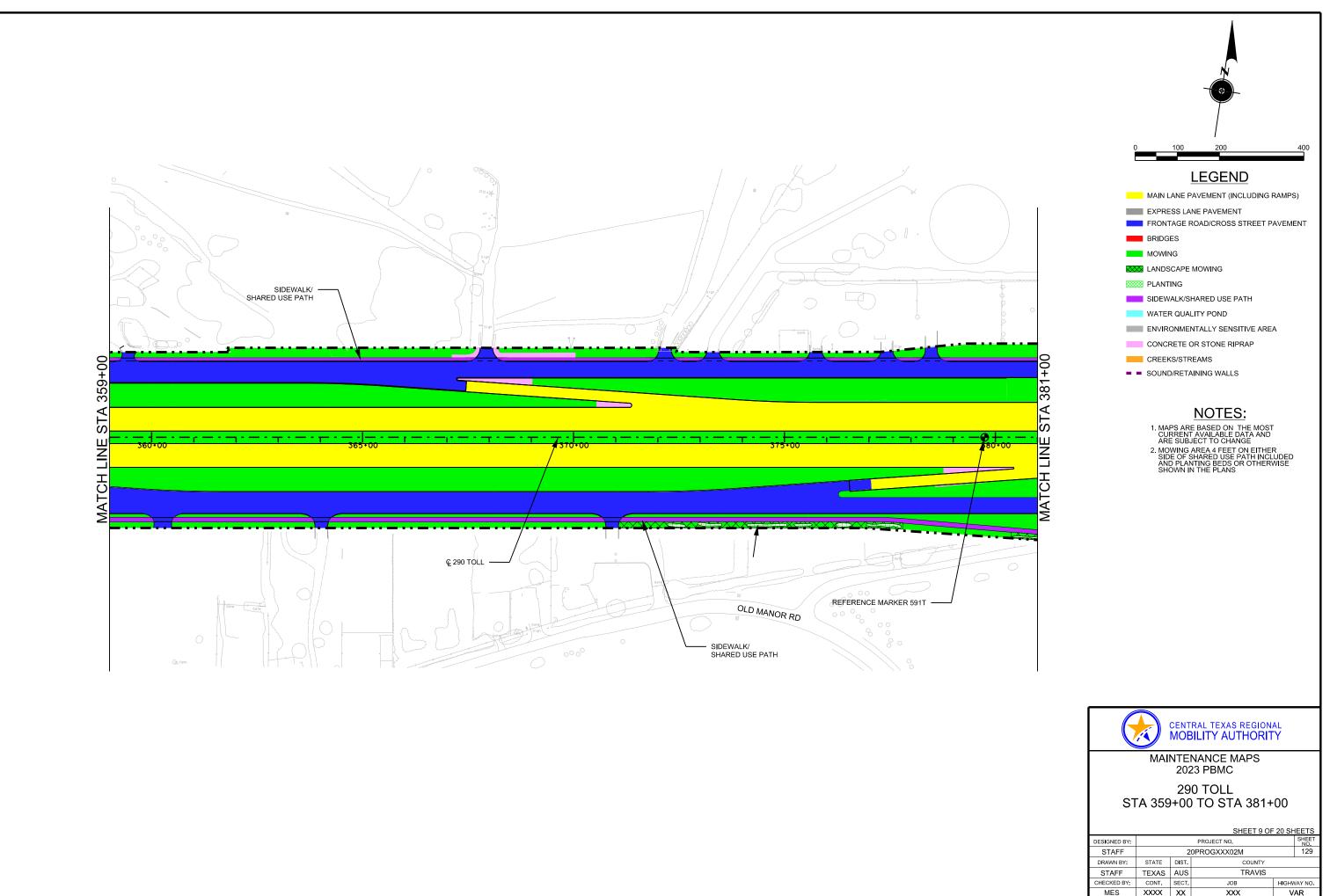
DATE: 6/21/2023 TIME: 11:33:47 AM



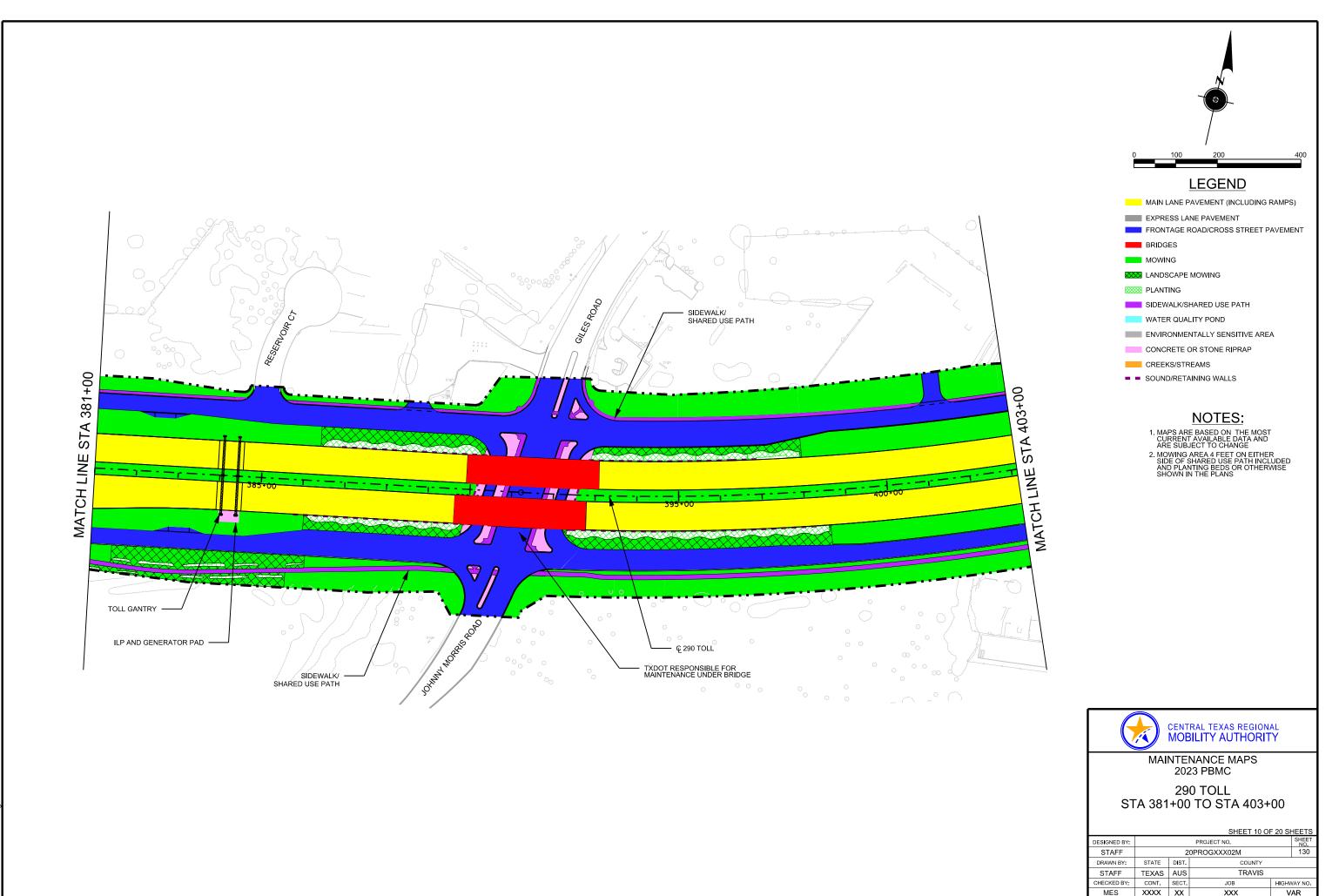
- I. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE
 MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AND PLANTING BEDS OR OTHERWISE SHOWN IN THE PLANS



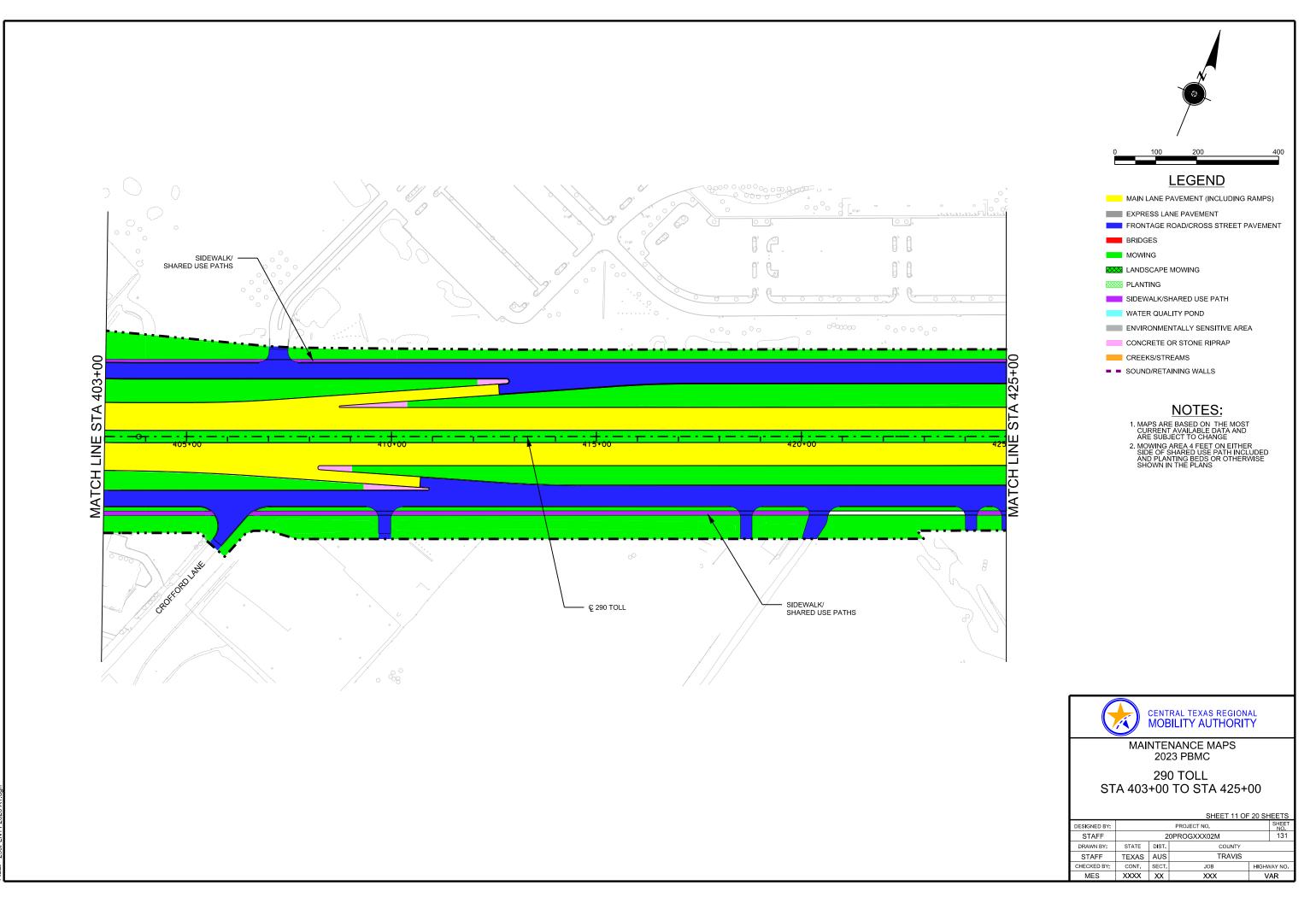
DESIGNED BY:		PROJECT NO.				
STAFF		20PROGXXX02M 12				
DRAWN BY:	STATE	DIST.	COUNTY			
STAFF	TEXAS	AUS	TRAVIS			
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.		
MES	XXXX	XX	XXX	VAR		



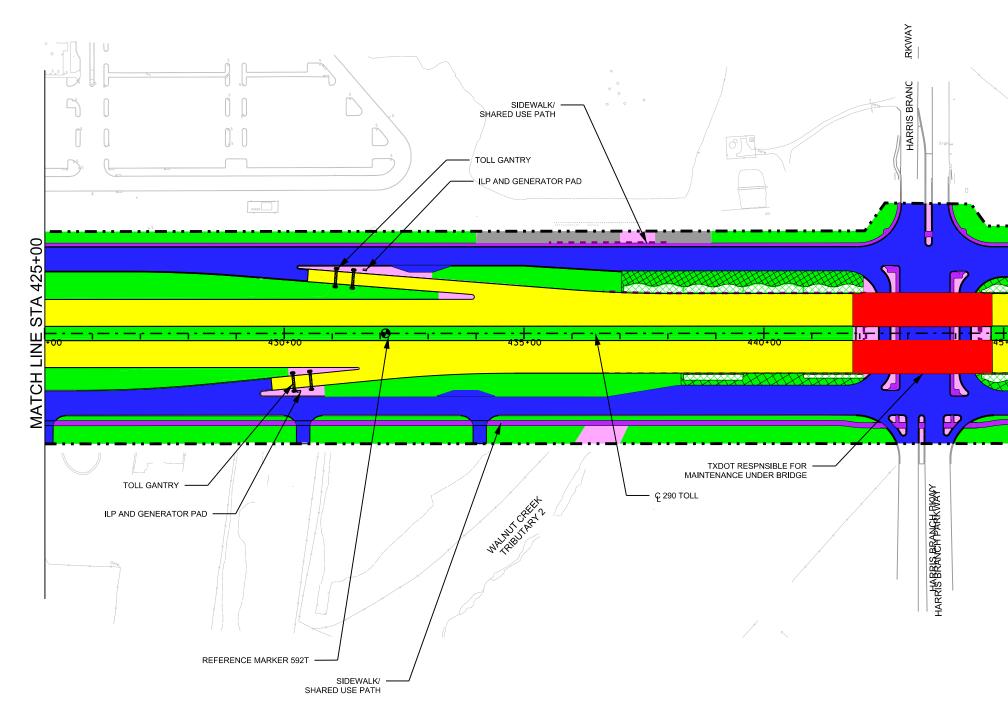
6/21/2023 11:33:56 AM DATE TIME



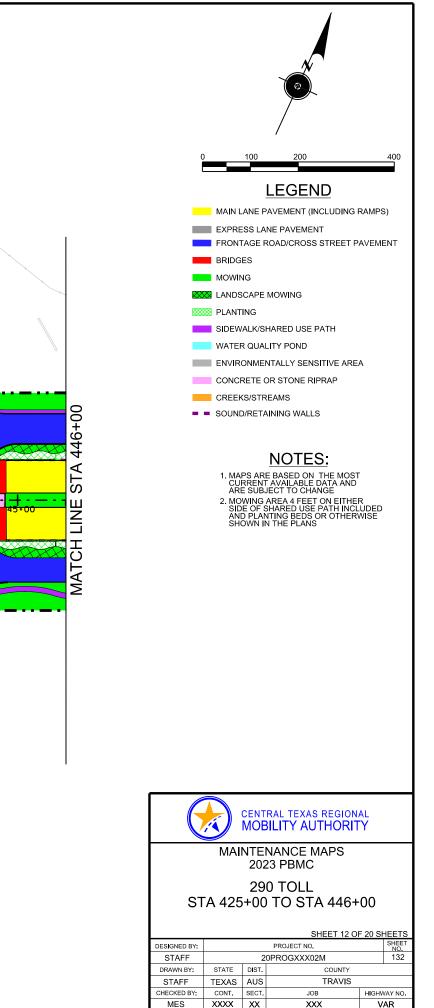
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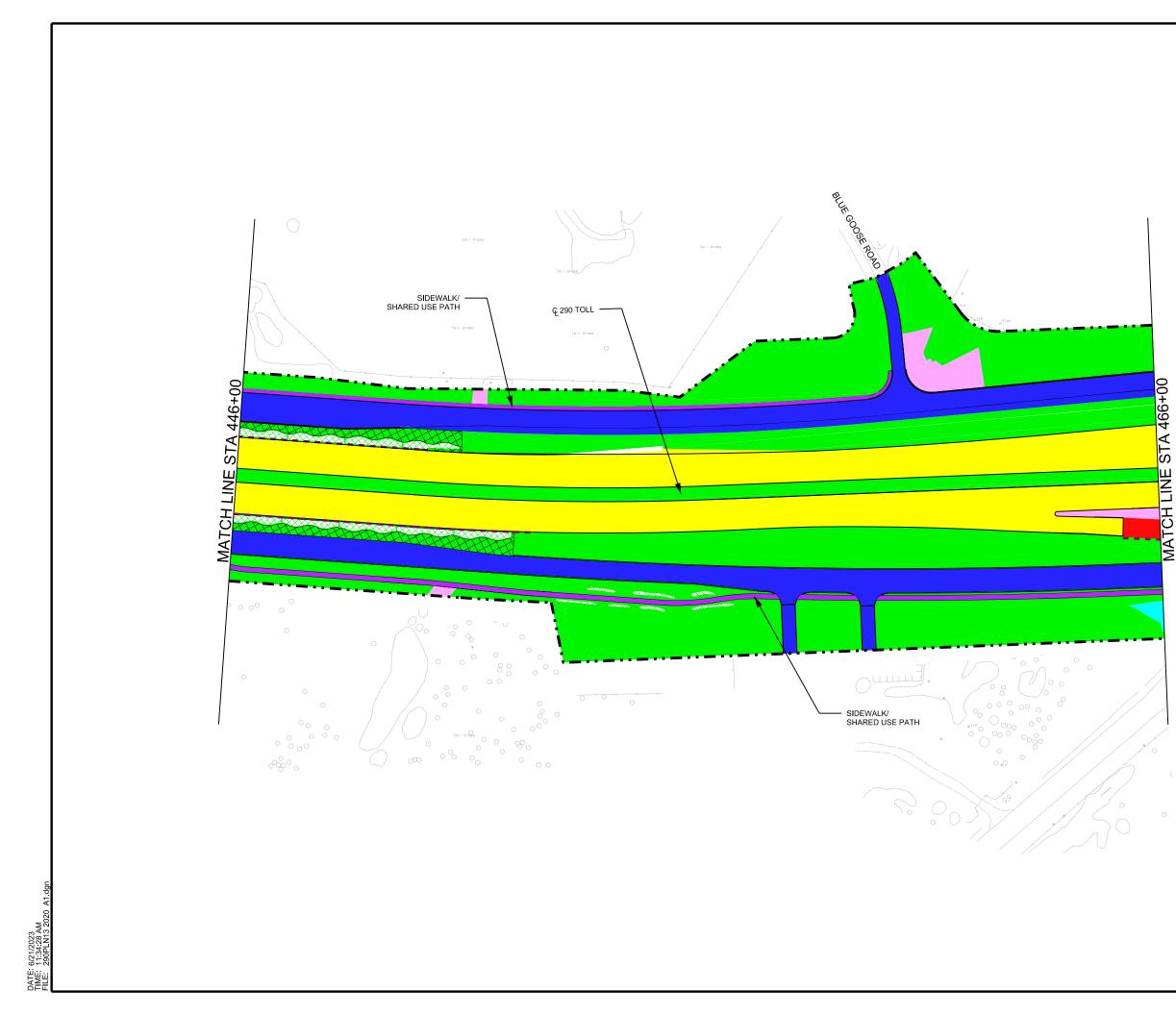


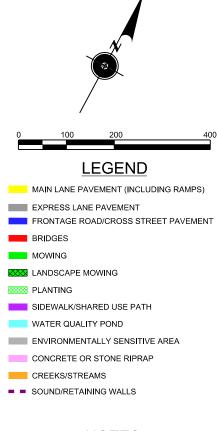
DATE: 6/21/2023 TIME: 11:34:13 AM FILE: 290PLN11 2020 A



DATE: 6/21/2023 TIME: 11:34:20 AM FILE: 290PLN12 2020 A1.







NOTES:

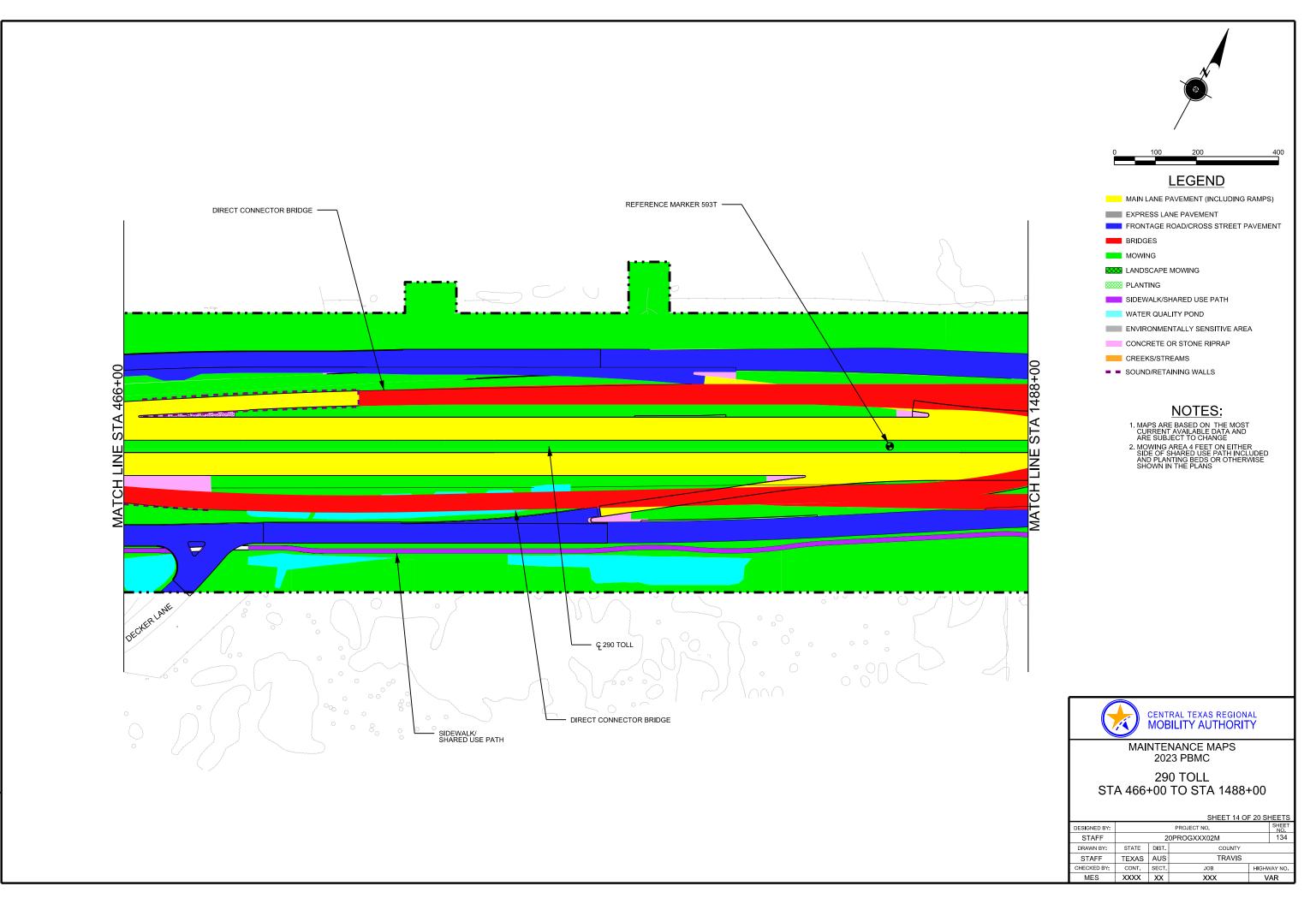
- I. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE
 MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AND PLANTING BEDS OR OTHERWISE SHOWN IN THE PLANS



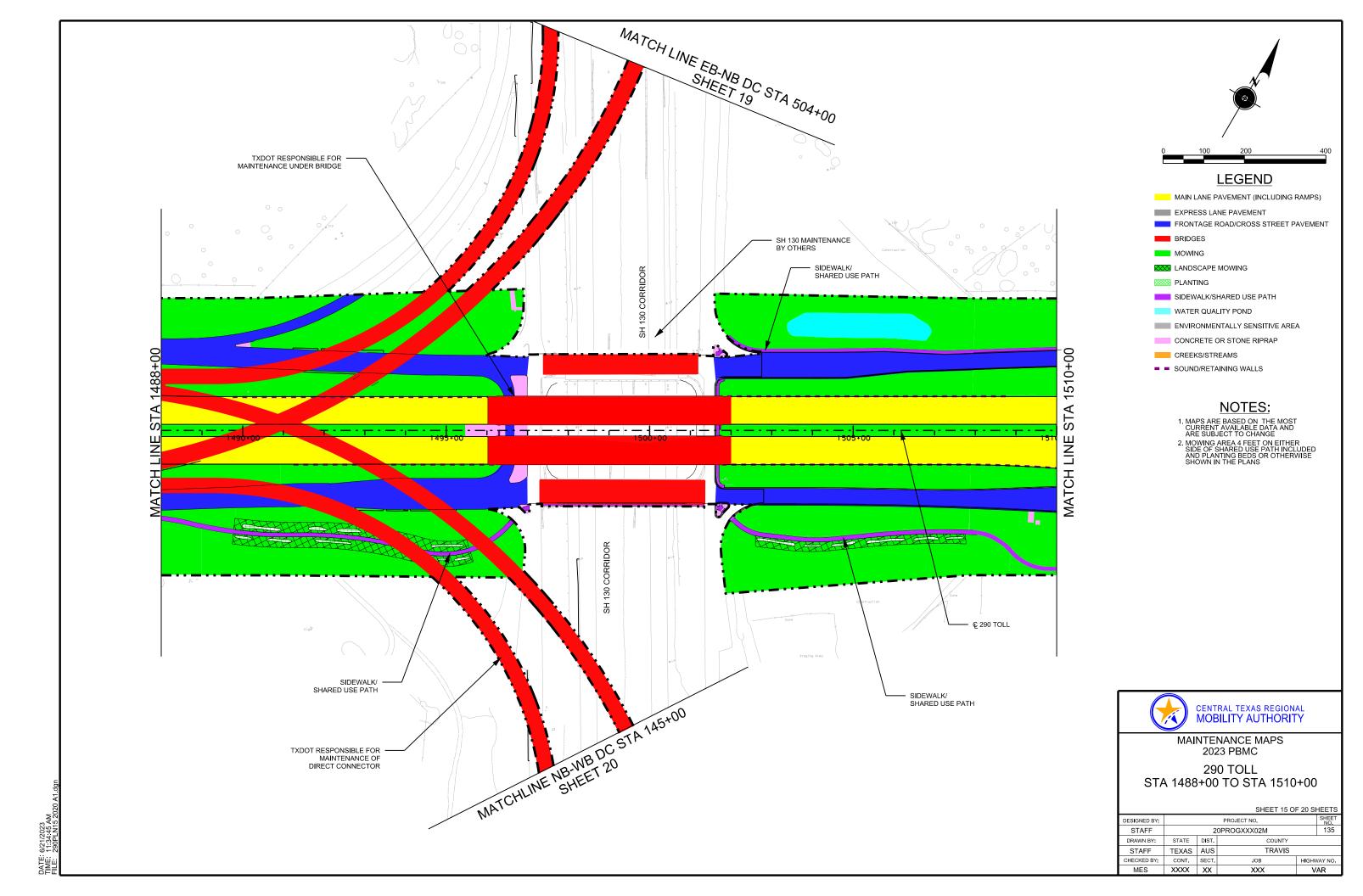
MAINTENANCE MAPS 2023 PBMC

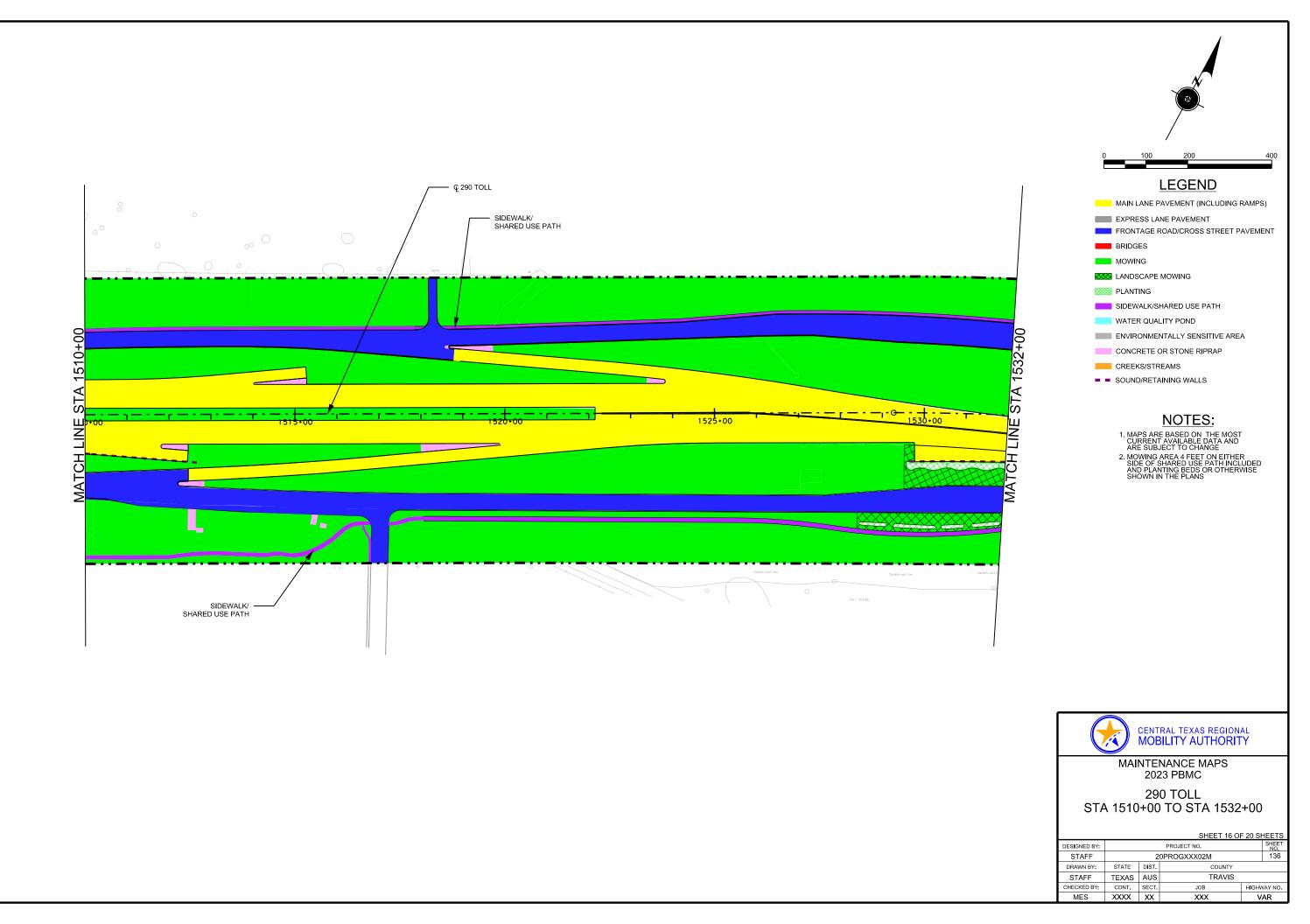
290 TOLL STA 446+00 TO STA 466+00

SHEET 13 OF 20 SHEETS								
DESIGNED BY:		PROJECT NO.						
STAFF		20PROGXXX02M 133			133			
DRAWN BY:	STATE	DIST.	COUNTY					
STAFF	TEXAS	AUS	TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.				
MES	XXXX	XX	XXX	VAR				

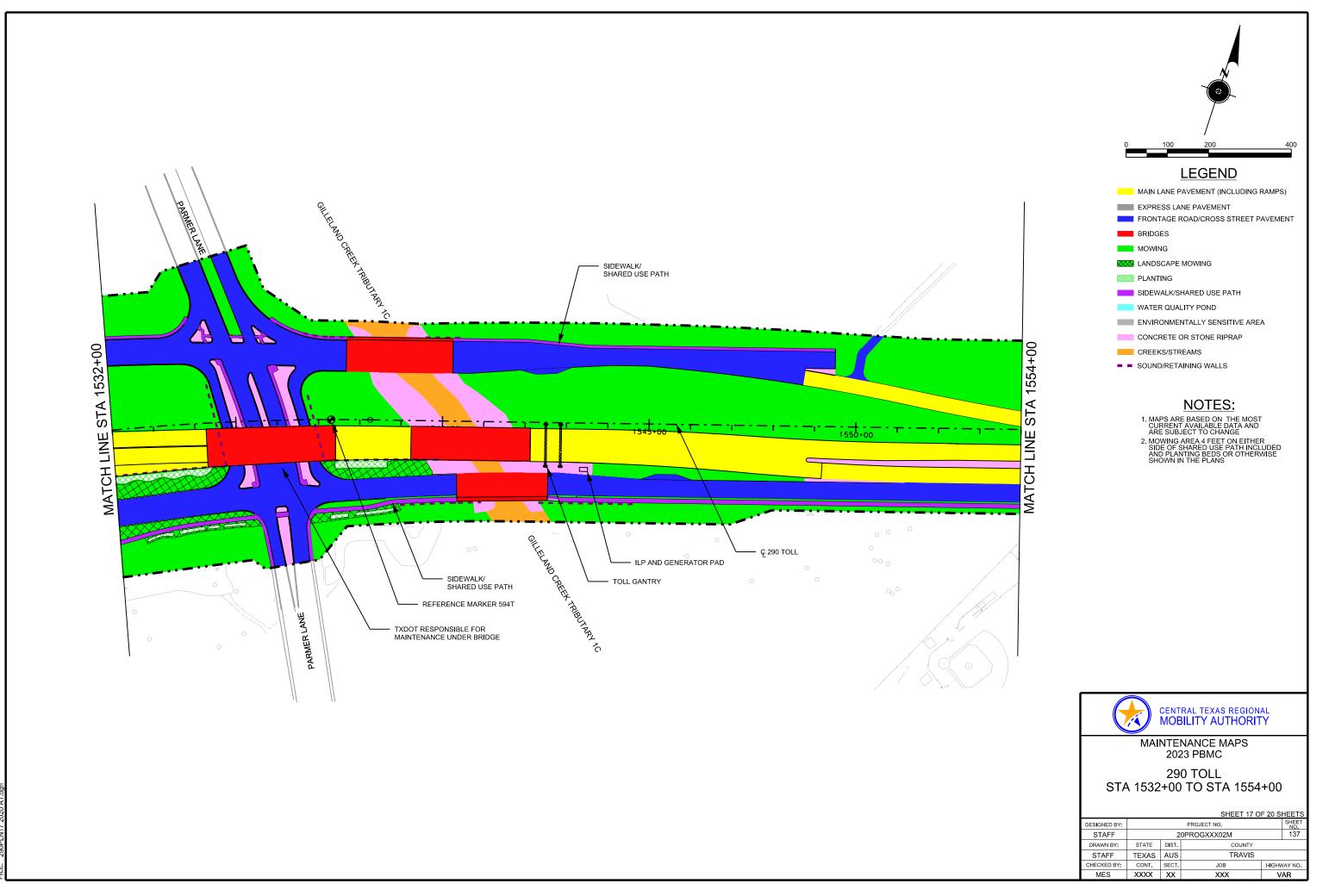


DATE: 6/21/2023 TIME: 11:34:37 AM FILE: 290PLN14 2020 /

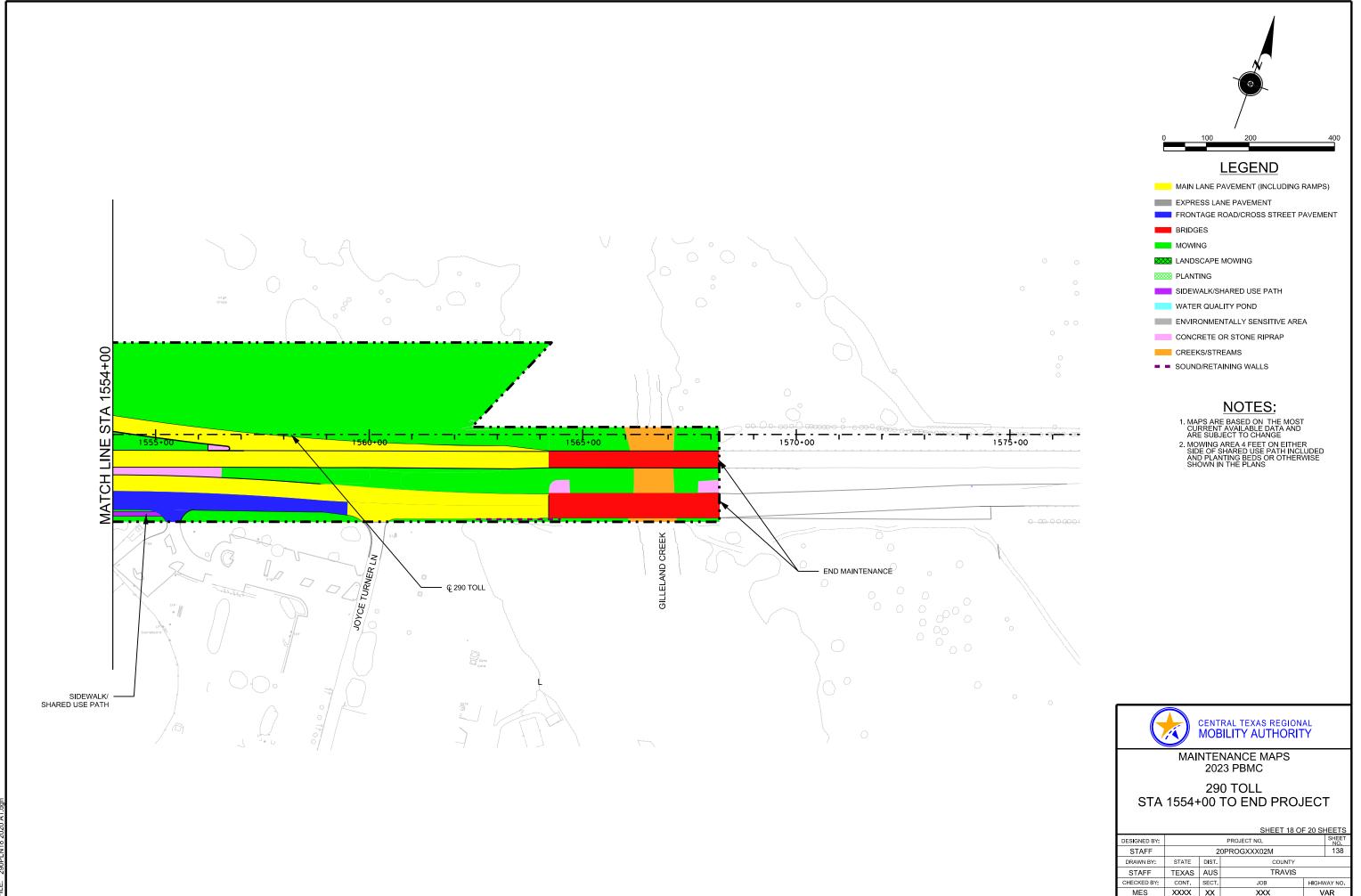




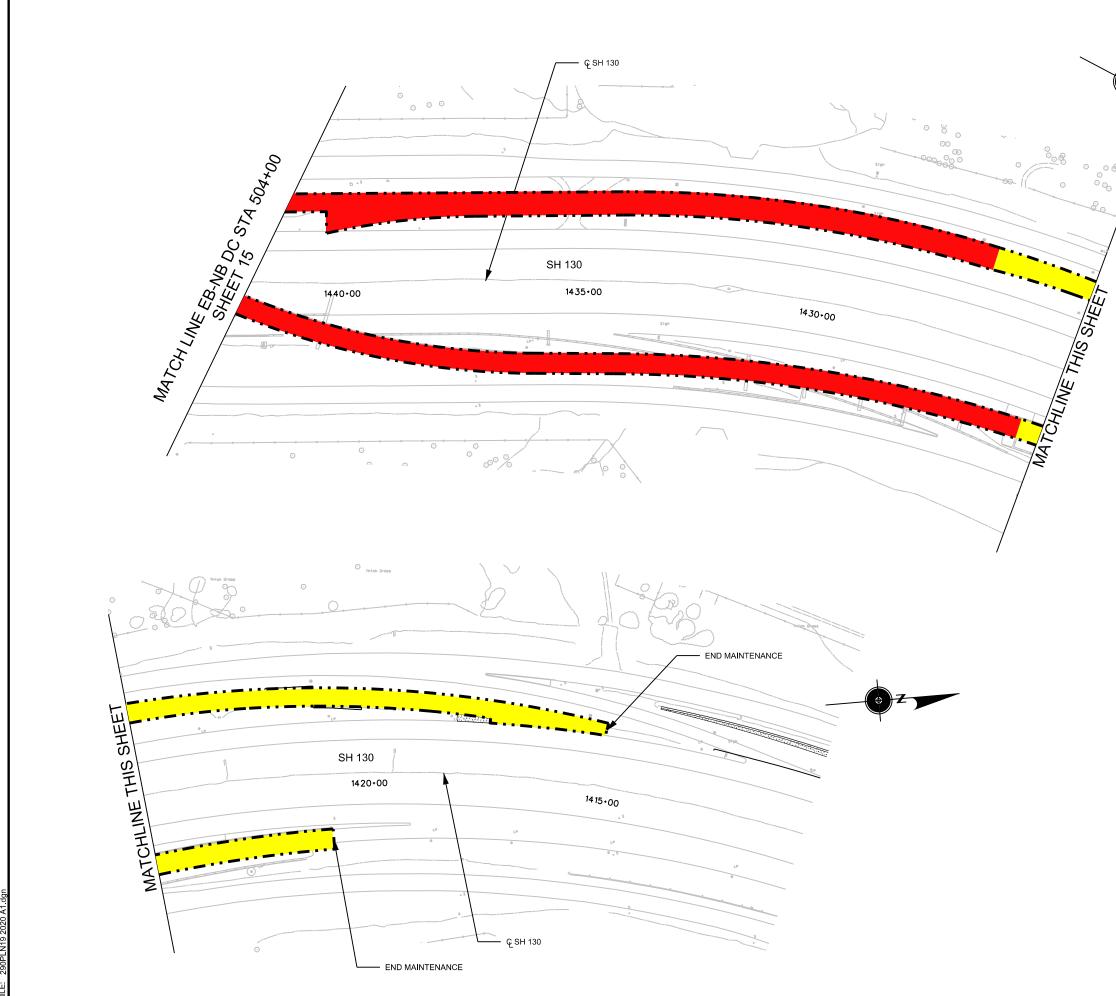
DATE: 6/21/2023 TIME: 11:34:52 AM FILE: 290PLN16 2020 A1.0



DATE: 6/21/2023 TIME: 11:35:01 AM EILE: 2001 N17 2020 /



DATE: 6/21/2023 TIME: 11:35:09 AM EILF: 290PLN18 2021



DATE: 6/21/2023 TIME: 11:35:18 AM FILF: 290PLN19 202



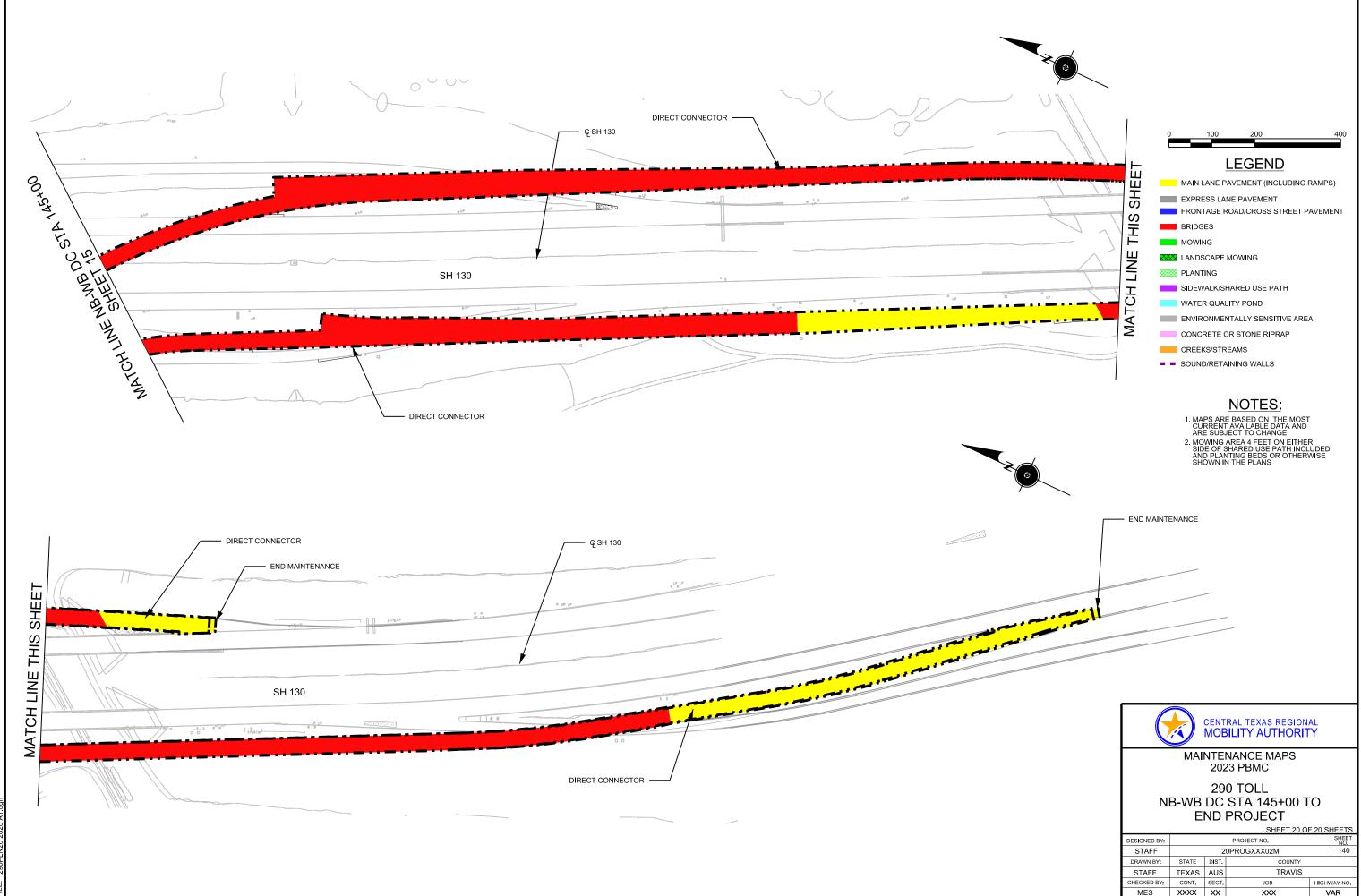




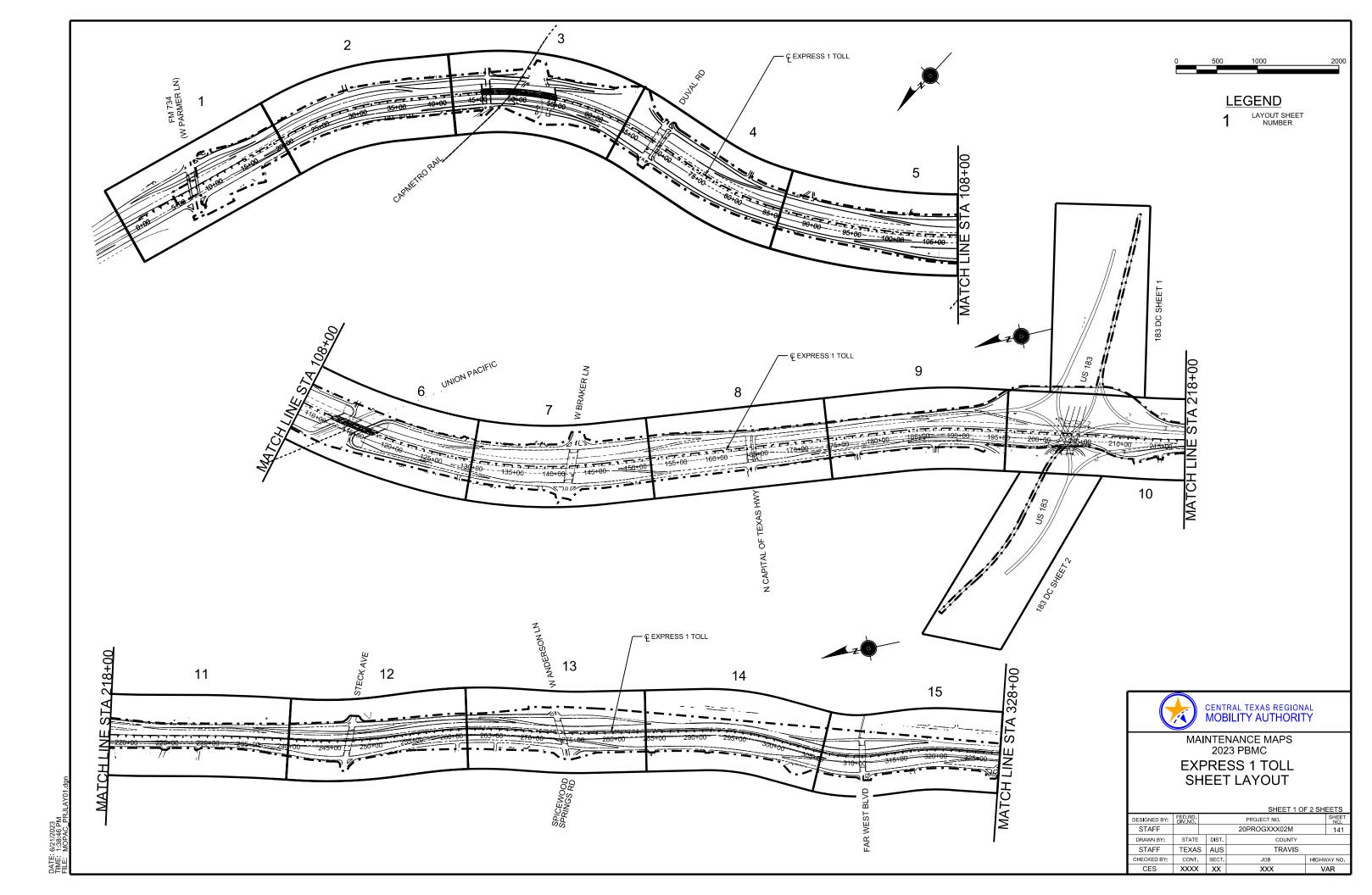
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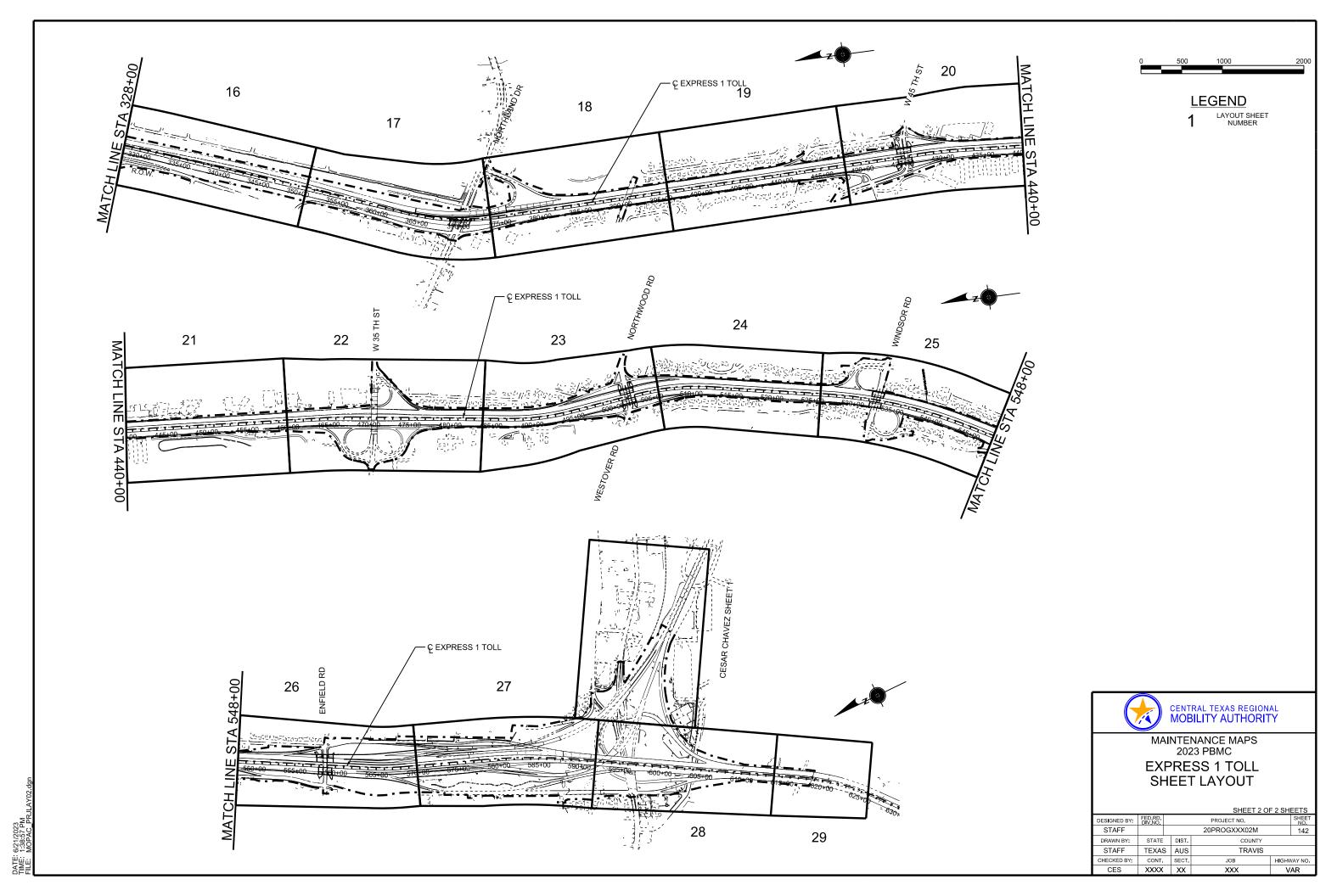
- I. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE
 MOWING AREA 4 FEET ON EITHER SIDE OF SHARED USE PATH INCLUDED AND PLANTING BEDS OR OTHERWISE SHOWN IN THE PLANS

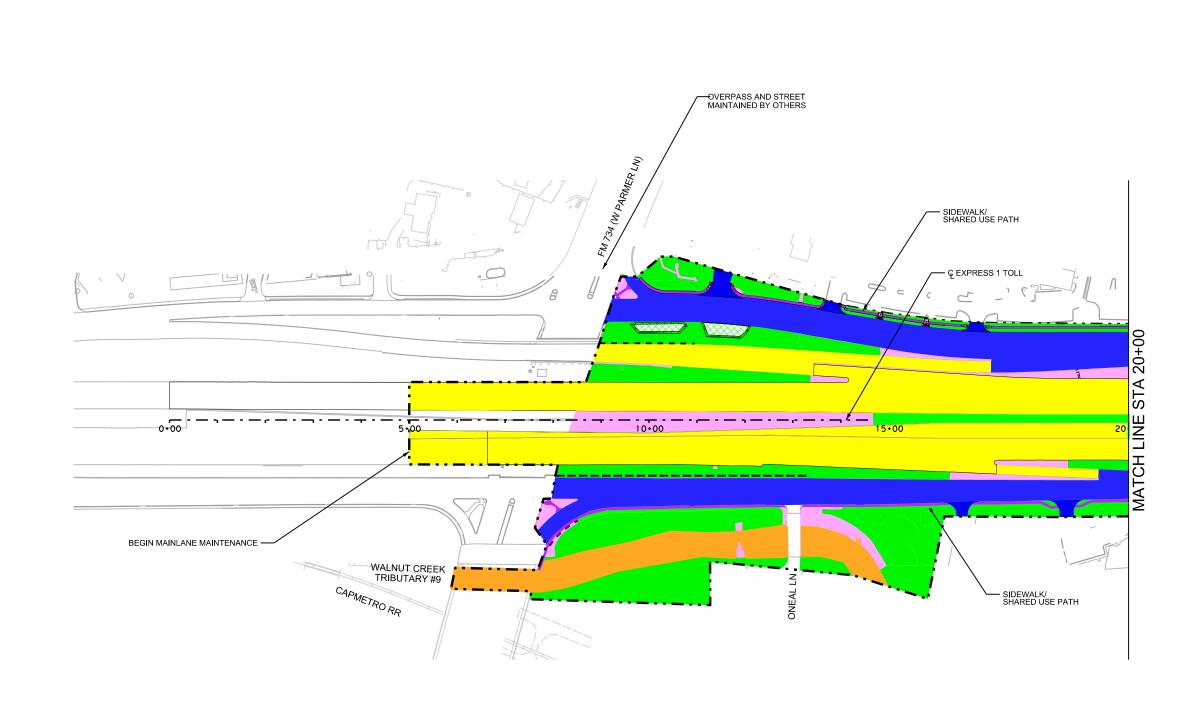
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY								
MAINTENANCE MAPS 2023 PBMC								
290 TOLL EB- NB DC STA 500+00 TO END PROJECT								
DESIGNED BY:			SHEET 19 C PROJECT NO.	1 20 3	SHEET NO.			
STAFF		2	0PROGXXX02M		139			
DRAWN BY:	STATE	DIST.	COUNTY					
STAFF	TEXAS	AUS	TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.			
MES	XXXX	XX	XXX	V	AR			

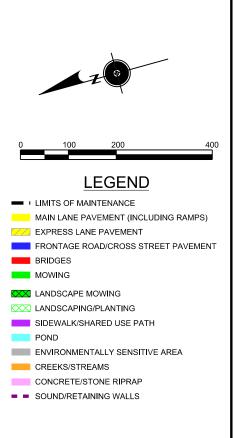


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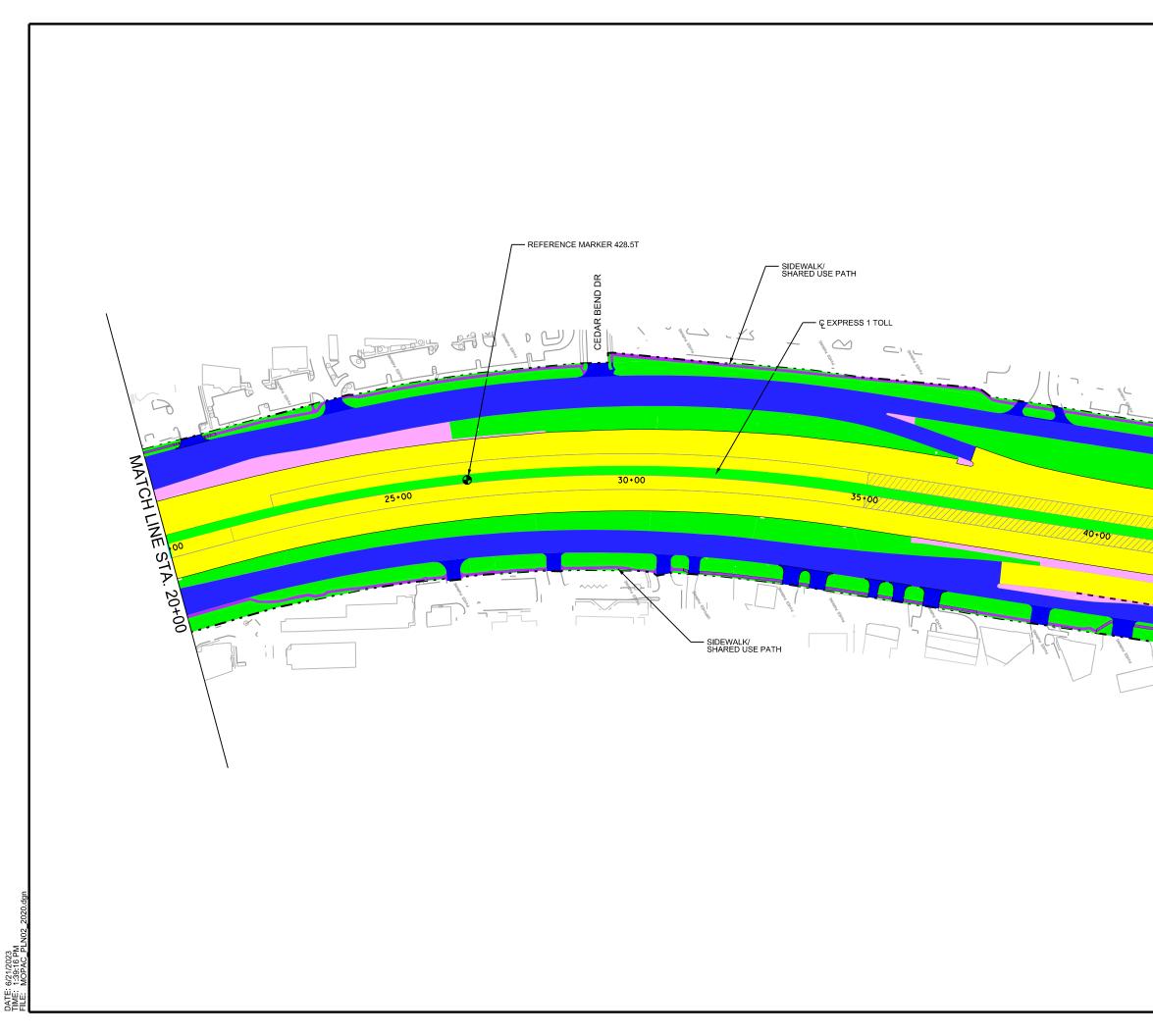


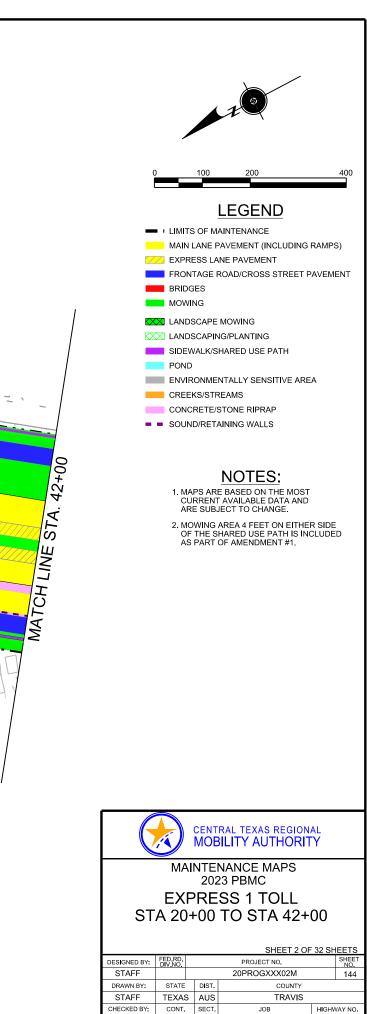
NOTES:

- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MOWING AREA 4 FEET ON EITHER SIDE OF THE SHARED USE PATH IS INCLUDED AS PART OF AMENDMENT #1.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY								
	MA	INTE	NANCE MAPS					
		202	23 PBMC					
	FXF	PRF	SS 1 TOLL					
			CT TO STA 2	$D \cap T$	00			
				201	00			
			SHEET 1 OF	: 32 S⊦	IEETS			
DESIGNED BY:	FED.RD. DIV.NO.		PROJECT NO.		SHEET NO.			
STAFF			20PROGXXX02M		143			
DRAWN BY:	STATE	DIST.	COUNTY					
STAFF	TEXAS	AUS	TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.			
CES	XXXX	XX	XXX	V	AR			

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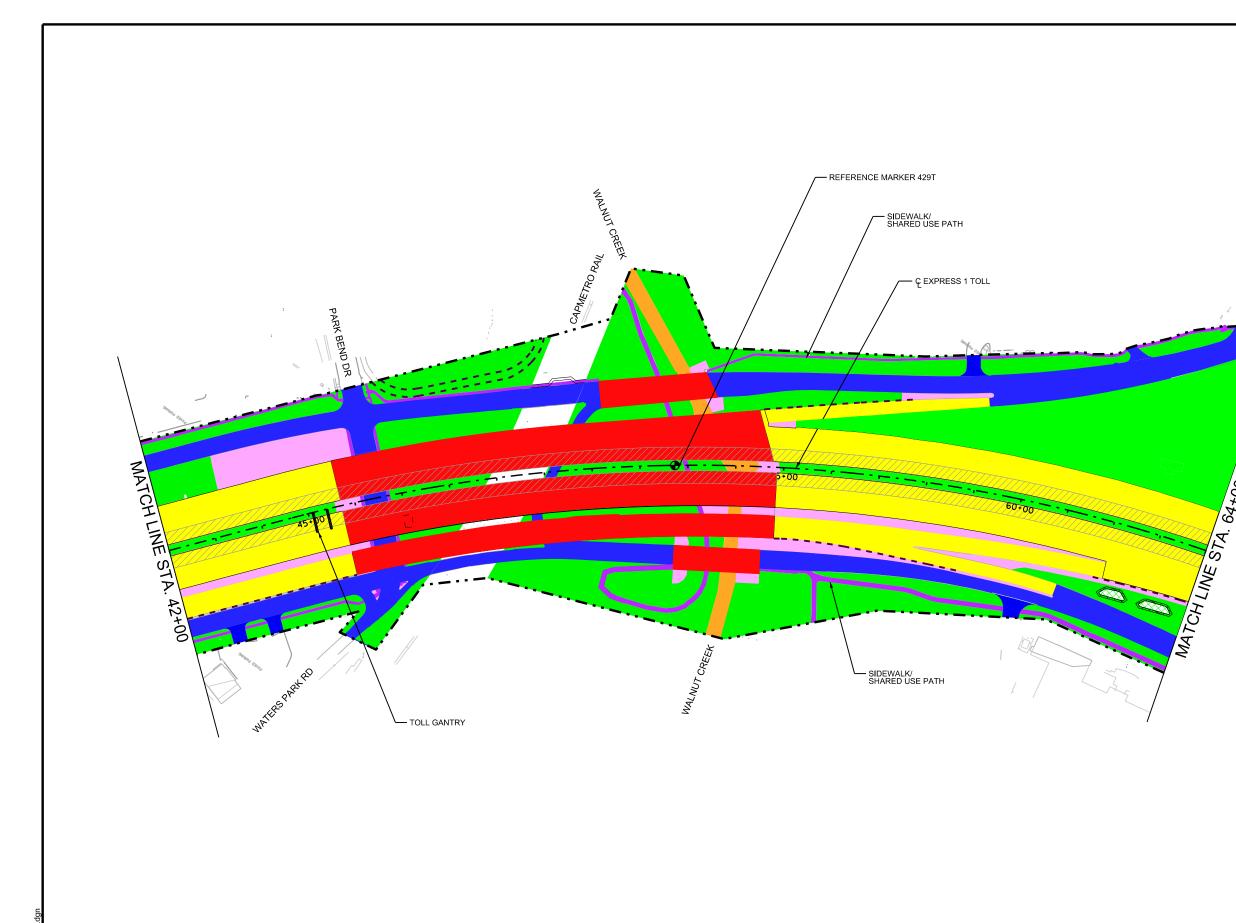




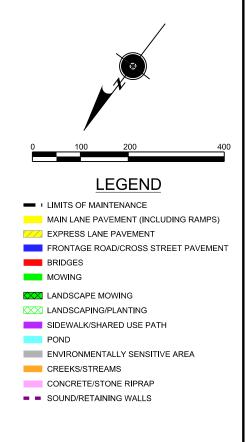
CES XXXX XX

XXX

VAR



DATE: 6/21/2023 TIME: 1:39:24 PM



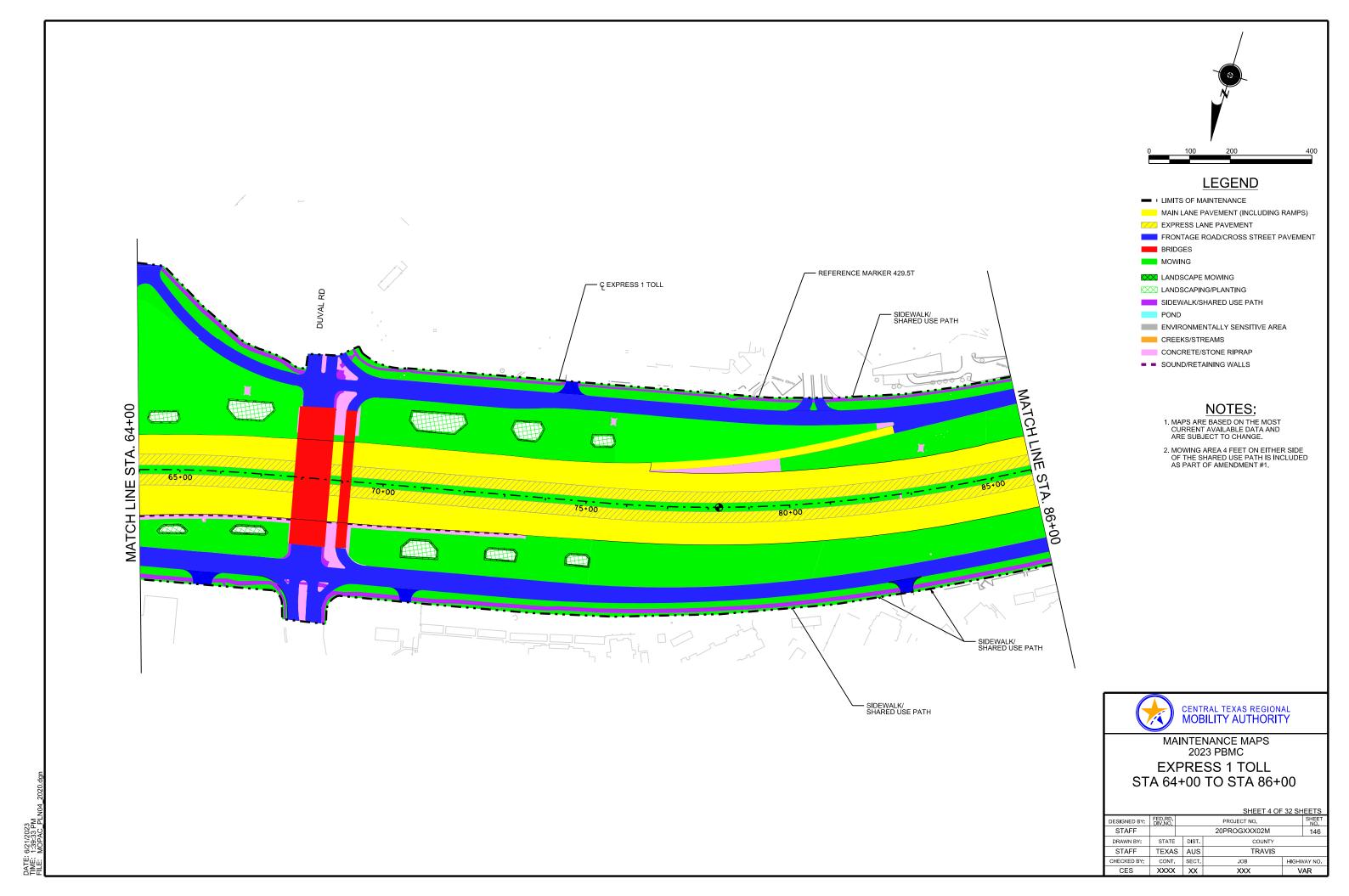
NOTES:

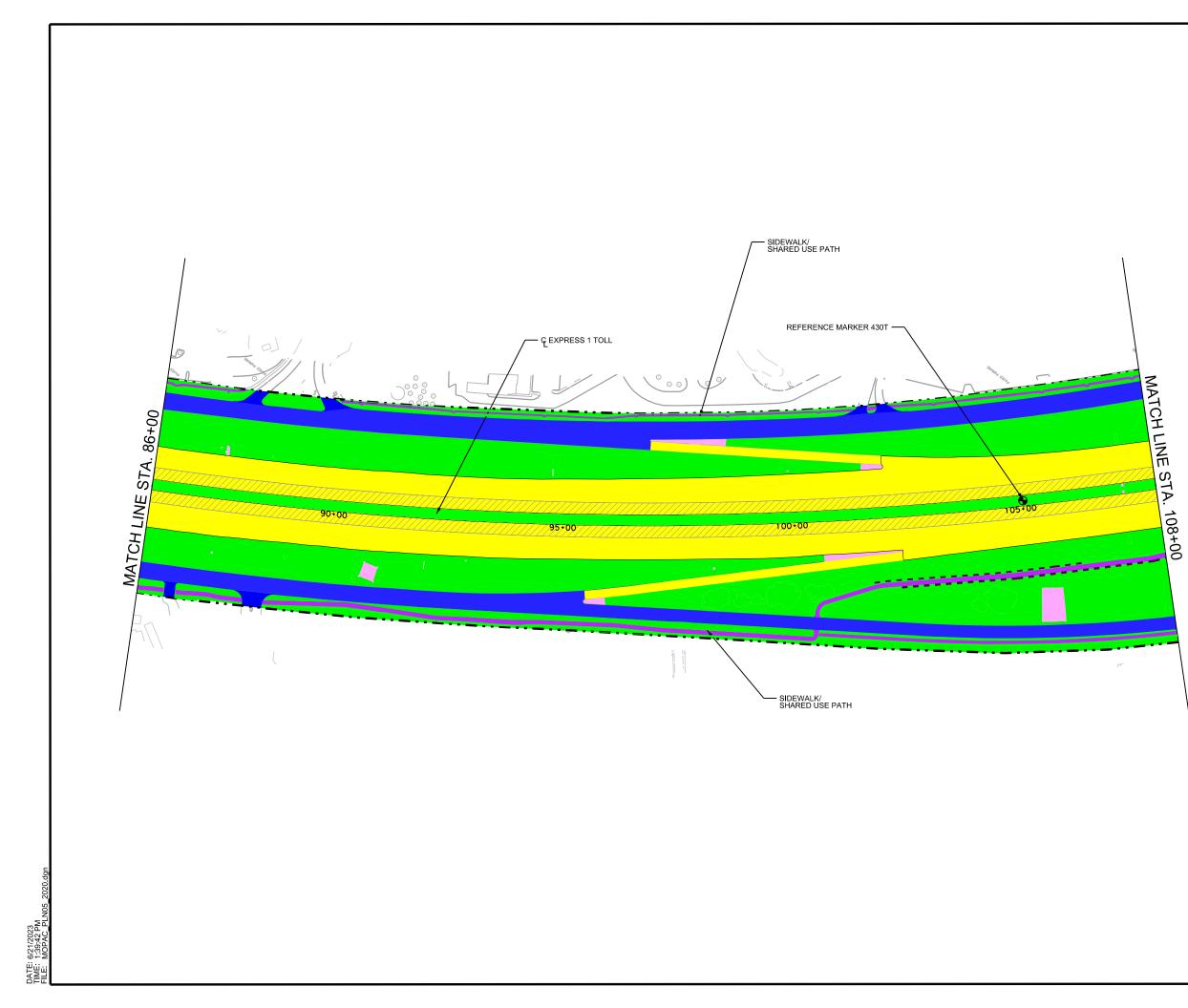
1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.

64+00

2. MOWING AREA 4 FEET ON EITHER SIDE OF THE SHARED USE PATH IS INCLUDED AS PART OF AMENDMENT #1.

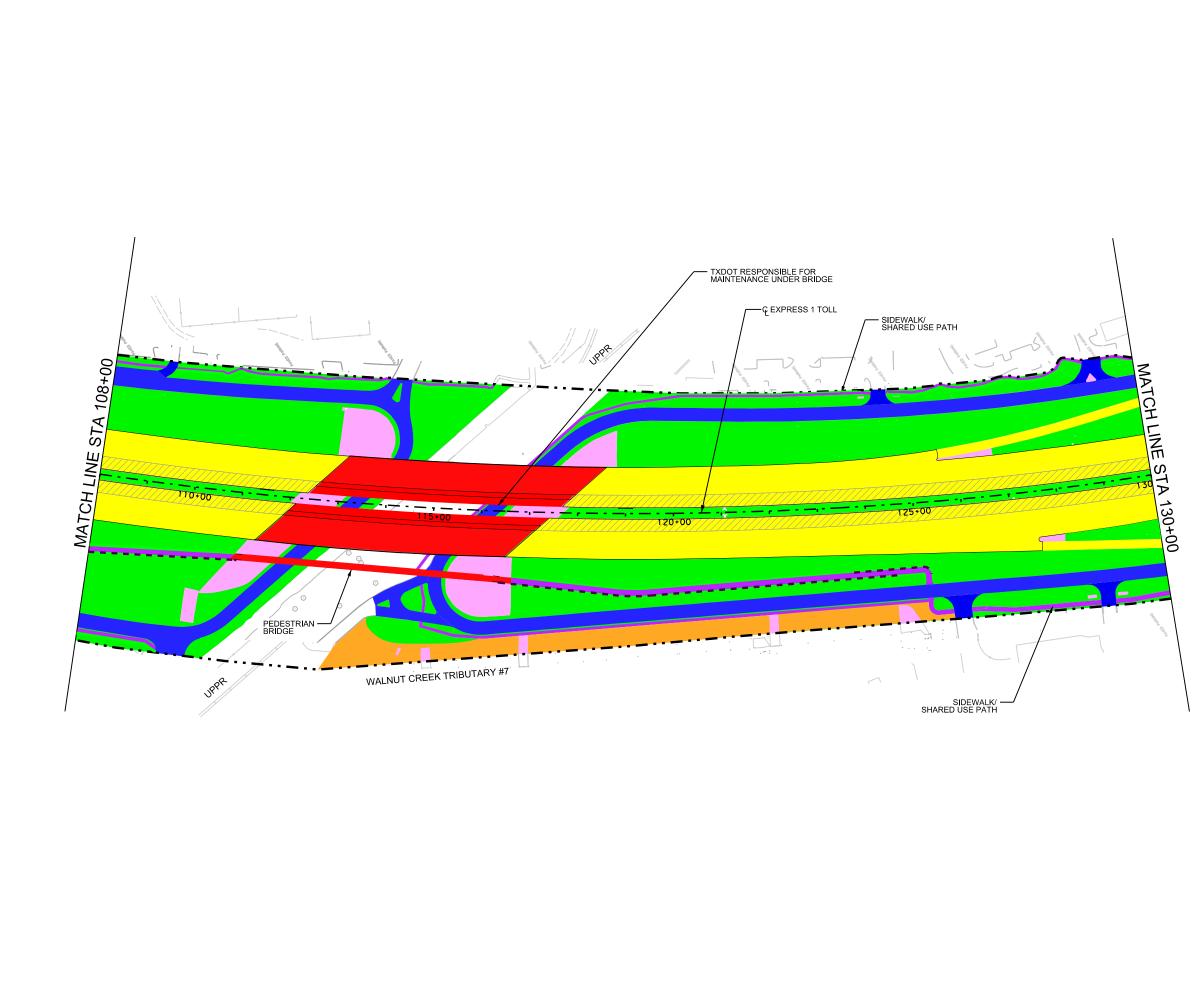
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY									
	MAINTENANCE MAPS								
		202	23 PBMC						
			SS 1 TOLL						
I ST	A 42	+00	TO STA 64+	00					
		•••							
			SHEET 3 OF	- 32 S⊦	IEETS				
DESIGNED BY:	FED RD. DIV.NO.		PROJECT NO.		SHEET NO.				
STAFF			20PROGXXX02M		145				
DRAWN BY:	STATE	DIST.	COUNTY						
STAFF	TEXAS	AUS	TRAVIS						
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.				
CES	XXXX	XX	XXX	v	AR				







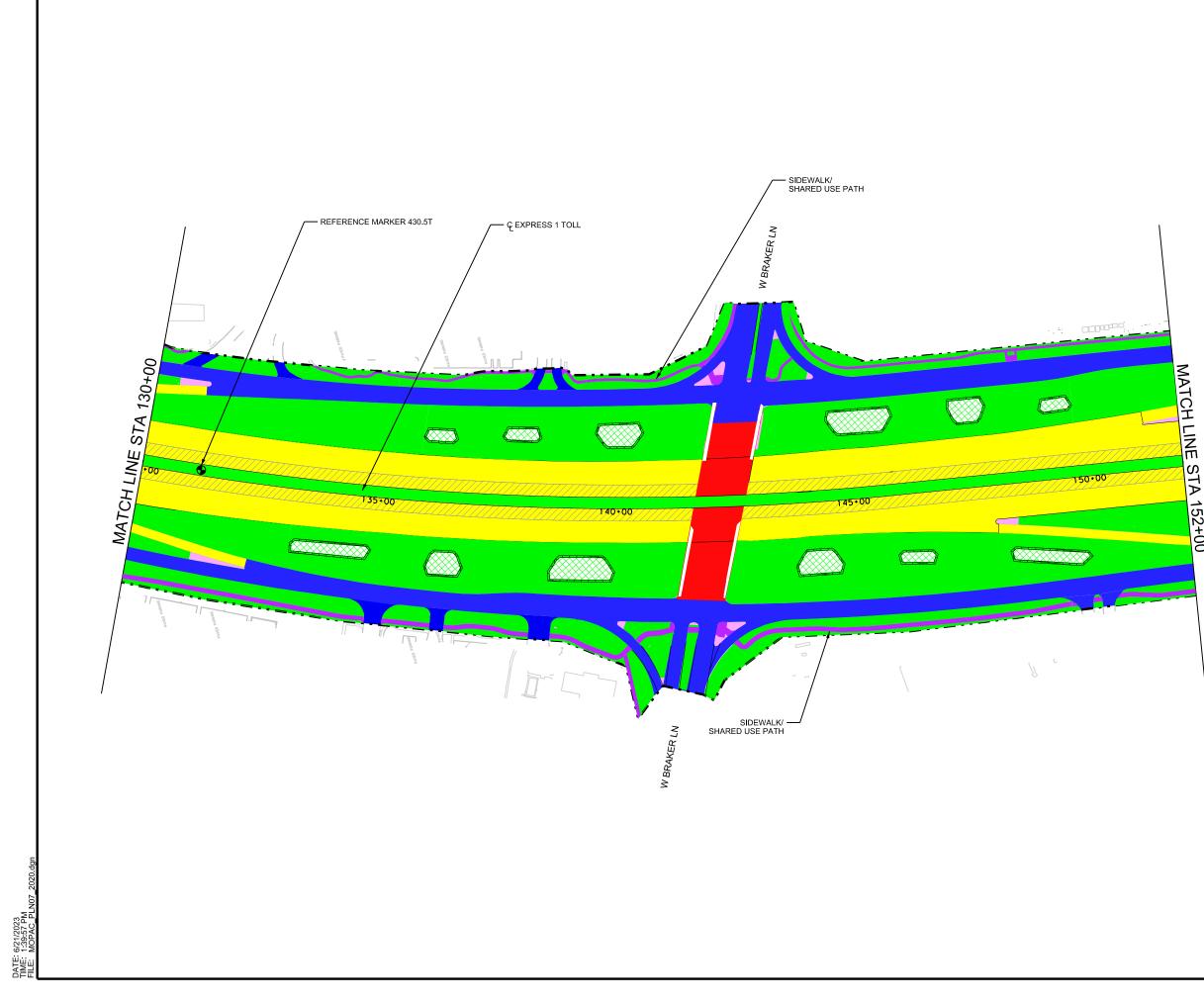
			RAL TEXAS REGION. BILITY AUTHORIT					
MAINTENANCE MAPS 2023 PBMC								
STA	EXPRESS 1 TOLL STA 86+00 TO STA 108+00							
DESIGNED BY:	FED.RD.		SHEET 5 OF PROJECT NO.	32 31	SHEET			
	DIV.NO.				NO.			
STAFF			20PROGXXX02M		147			
DRAWN BY:	STATE	DIST.	COUNTY					
STAFF	TEXAS	AUS TRAVIS						
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.			
CES	XXXX	XX	XXX	V	AR			

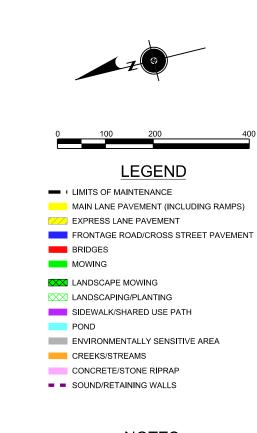


DATE: 6/21/2023 TIME: 1:39:49 PM



SHEET 6 OF 32 SHEETS							
DESIGNED BY:	FED RD DIV NO		PROJECT NO.		SHEET NO.		
STAFF			20PROGXXX02M		148		
DRAWN BY:	STATE	DIST. COUNTY					
STAFF	TEXAS	AUS TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.			
CES	XXXX	XX	XXX	VAR			





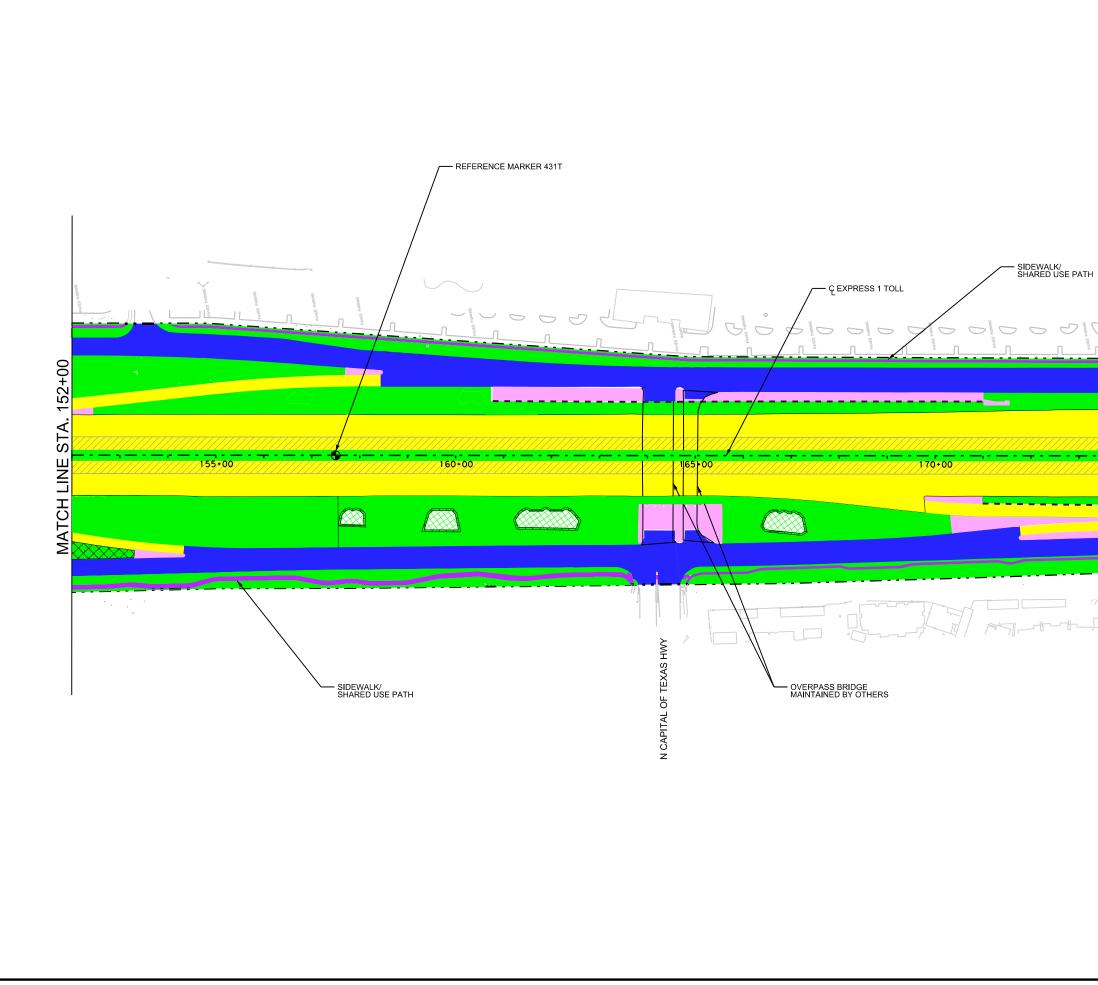


1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.

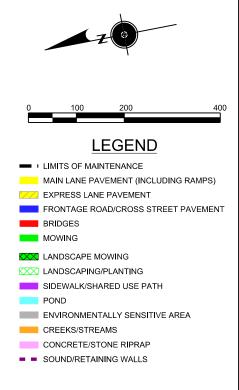
152+00

2. MOWING AREA 4 FEET ON EITHER SIDE OF THE SHARED USE PATH IS INCLUDED AS PART OF AMENDMENT #1.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY									
MAINTENANCE MAPS									
2023 PBMC									
EXPRESS 1 TOLL									
STA 130+00 TO STA 152+00									
SHEET 7 OF 32 SHEETS									
DESIGNED BY:	FED RD DIV NO	PROJECT NO.			SHEET NO.				
STAFF		20PROGXXX02M							
DRAWN BY:	STATE	DIST. COUNTY							
STAFF	TEXAS	S AUS TRAVIS							
CHECKED BY:	CONT.	SECT. JOB HIGHWAY NO			VAY NO.				
CES	XXXX	XX XXX VAR		AR					



DATE: 6/21/2023 TIME: 1:40:06 PM

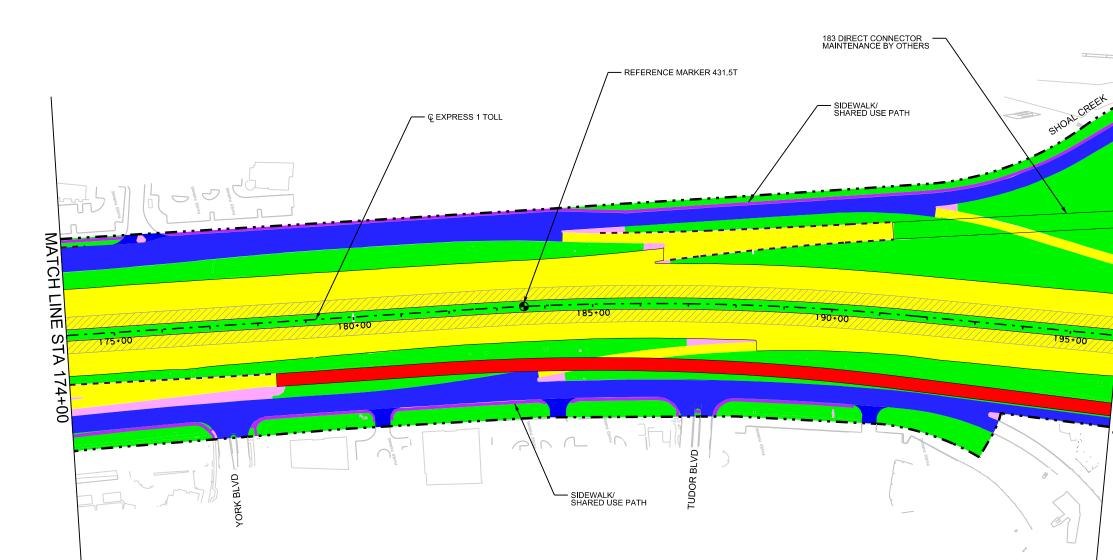




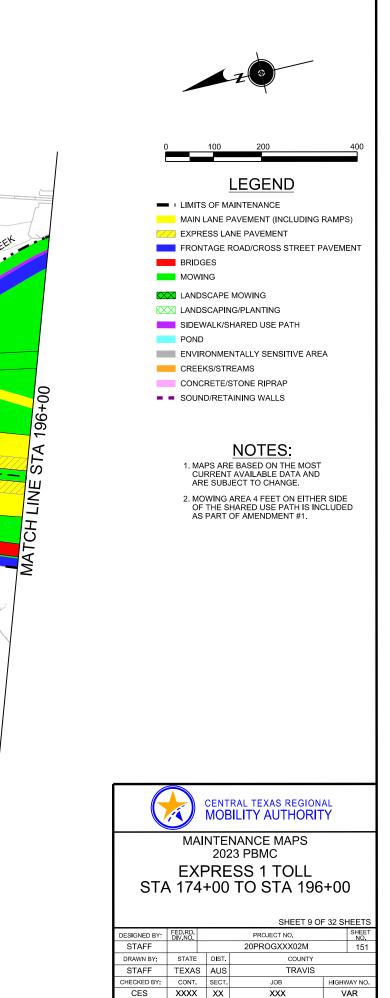
- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MOWING AREA 4 FEET ON EITHER SIDE OF THE SHARED USE PATH IS INCLUDED AS PART OF AMENDMENT #1.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY										
MAINTENANCE MAPS 2023 PBMC EXPRESS 1 TOLL STA 152+00 TO STA 174+00										
SHEET 8 OF 32 SHEETS										
DESIGNED BY:	FED RD DIV NO		PROJECT NO.							
STAFF		20PROGXXX02M								
DRAWN BY:	STATE	DIST. COUNTY								
STAFF	TEXAS	S AUS TRAVIS								
CHECKED BY:	CONT.	SECT. JOB HIGHWAY		VAY NO.						
CES	XXXX	XX	XXX	VAR						

MATCH LINE STA. 174+00

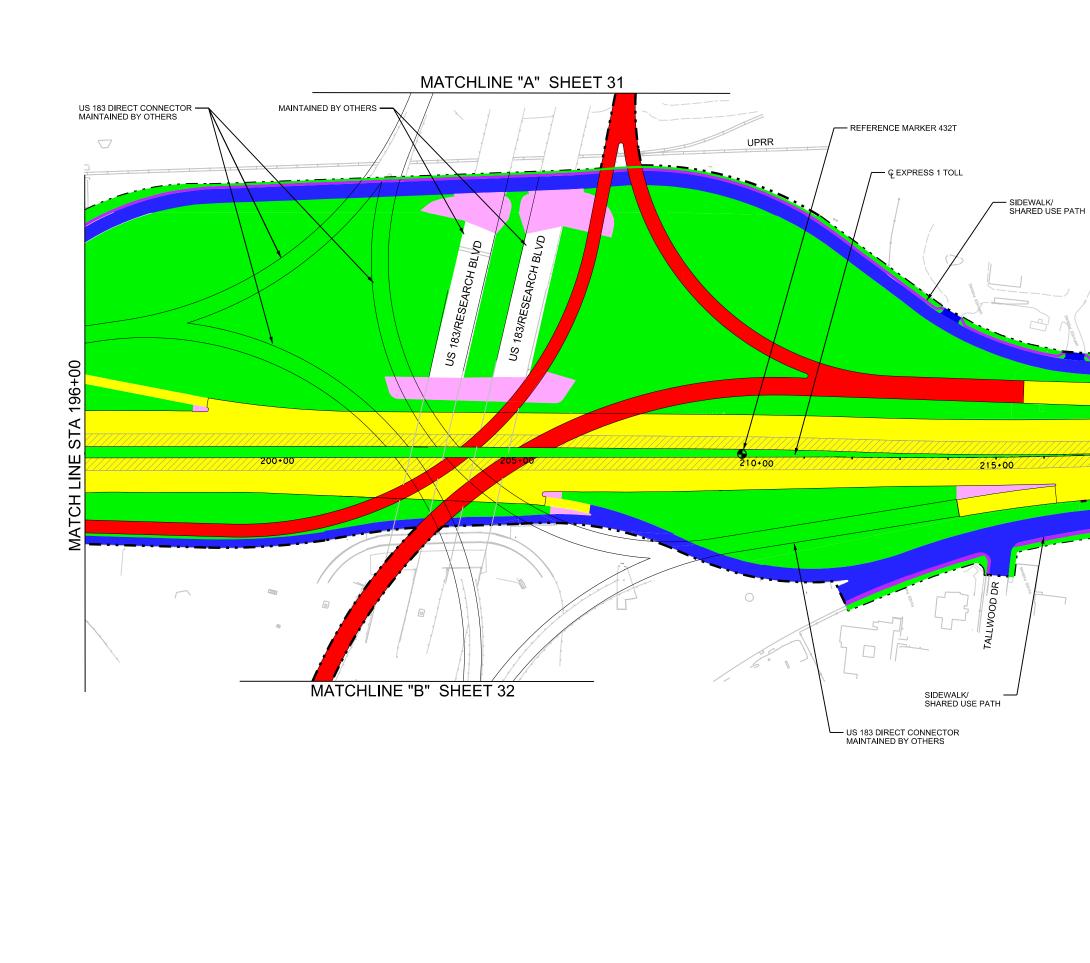


6/21/2023 1 40 11 PM MODAC BI DATE TIME



XXX

VAR

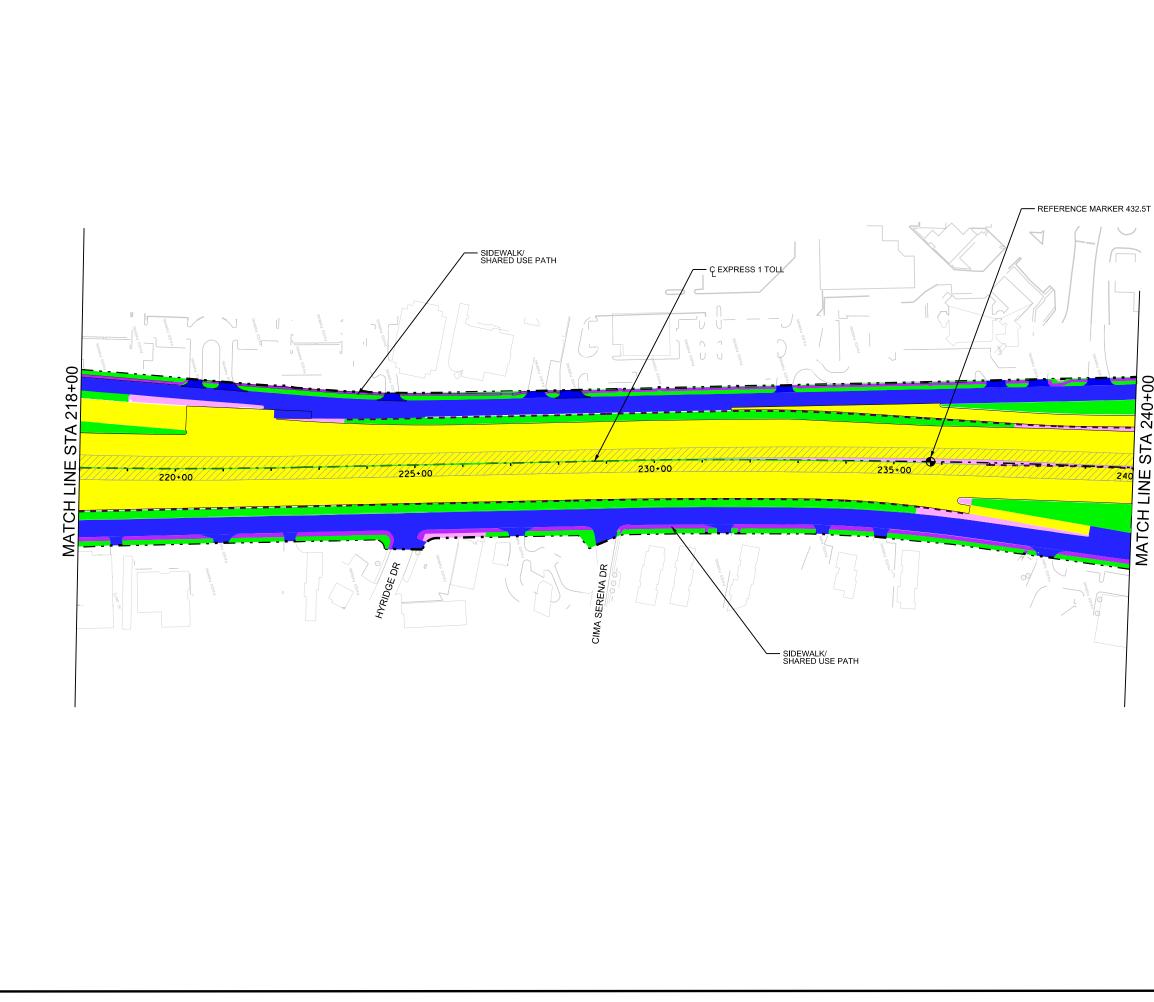


DATE: 6/21/2023 TIME: 1:40:19 PM



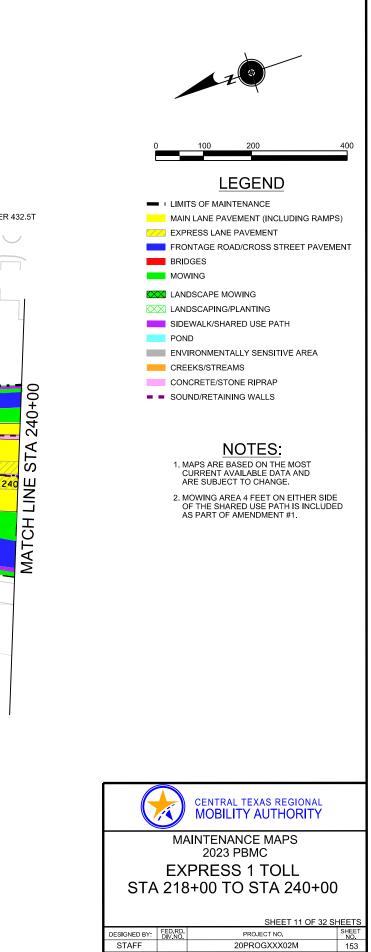
SHEET 10 OF 32 SHEETS					
DESIGNED BY:	FED RD. DIV NO		PROJECT NO.		
STAFF			152		
DRAWN BY:	STATE	DIST.			
STAFF	TEXAS	AUS TRAVIS			
CHECKED BY:	CONT.	SECT.	JOB	HIGHWAY NO.	
CES	XXXX	K XX XXX V		VAR	

MATCH LINE STA 218+00



6/21/2023 1 40 26 PM MOPAC PI

DATE TIME



DRAWN BY:

STAFF

CHECKED BY:

STATE DIST.

TEXAS AUS

CONT. SECT.

CES XXXX XX

COUNTY

TRAVIS

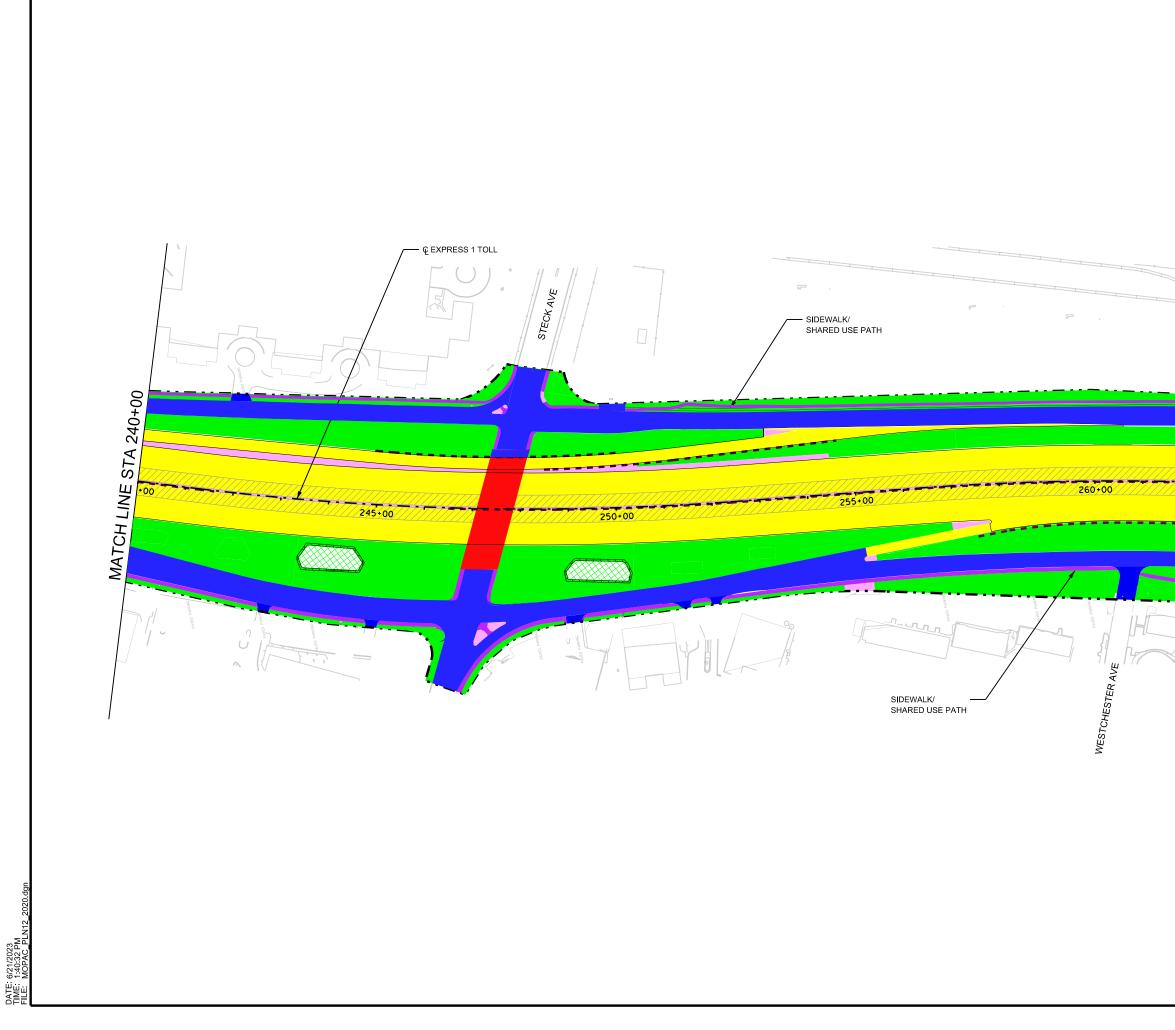
HIGHWAY NO.

VAR

JOB

XXX

24



MATCH LINE STA 262+00	<image/> <section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>
	MAINTENANCE MAPS 2023 PBMC EXPRESS 1 TOLL STA 240+00 TO STA 262+00
	SHEET 12 OF 32 SHEETS DESIGNED BY: FED.RD, DIV.NO, PROJECT NO. SHEET NO. STAFF 20PROGXXX02M 154 DRAWN BY: STATE DIST. COUNTY

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 STATE
 DIST.

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 AUS

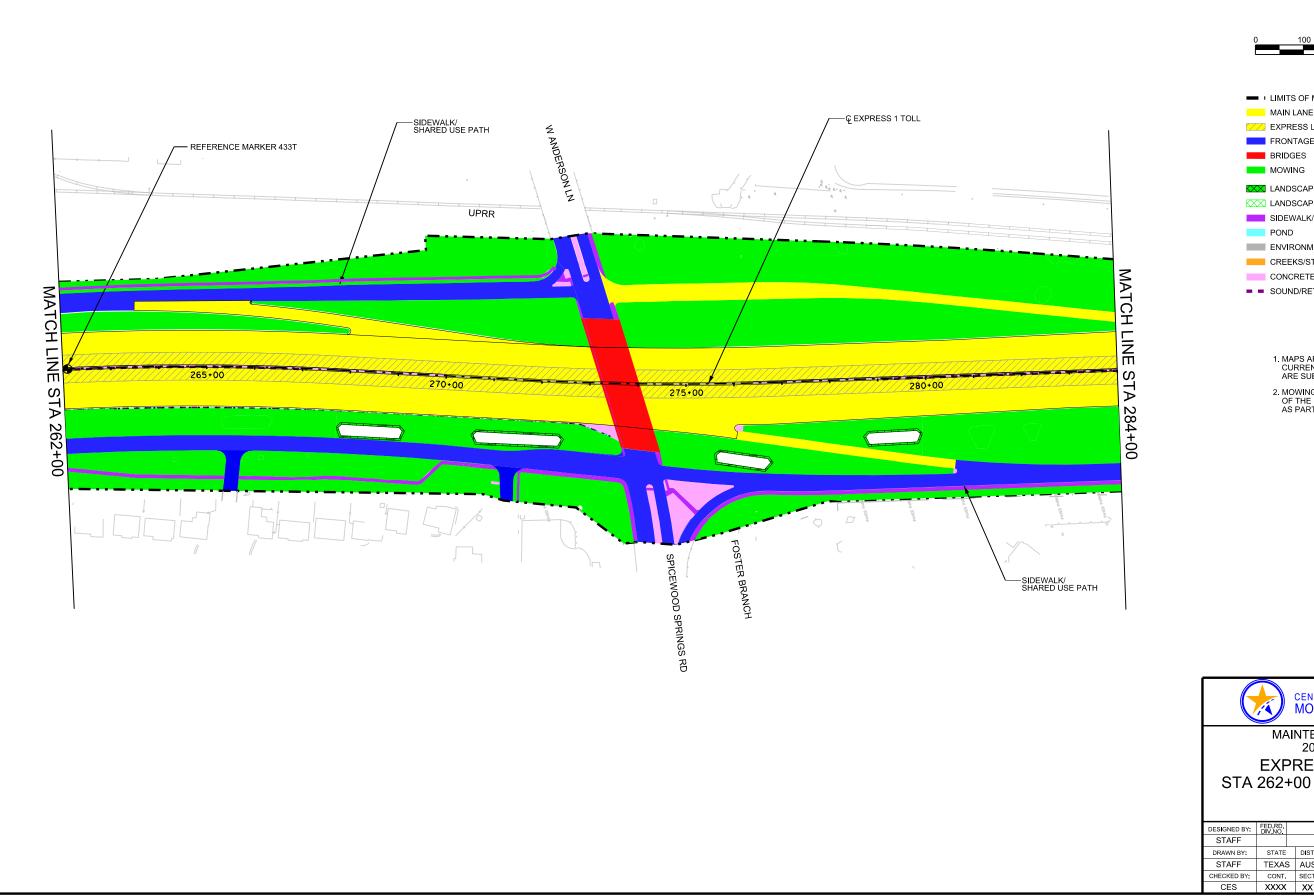
 CHECKED BY:
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 CES
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COUNTY

TRAVIS

JOB XXX HIGHWAY NO.

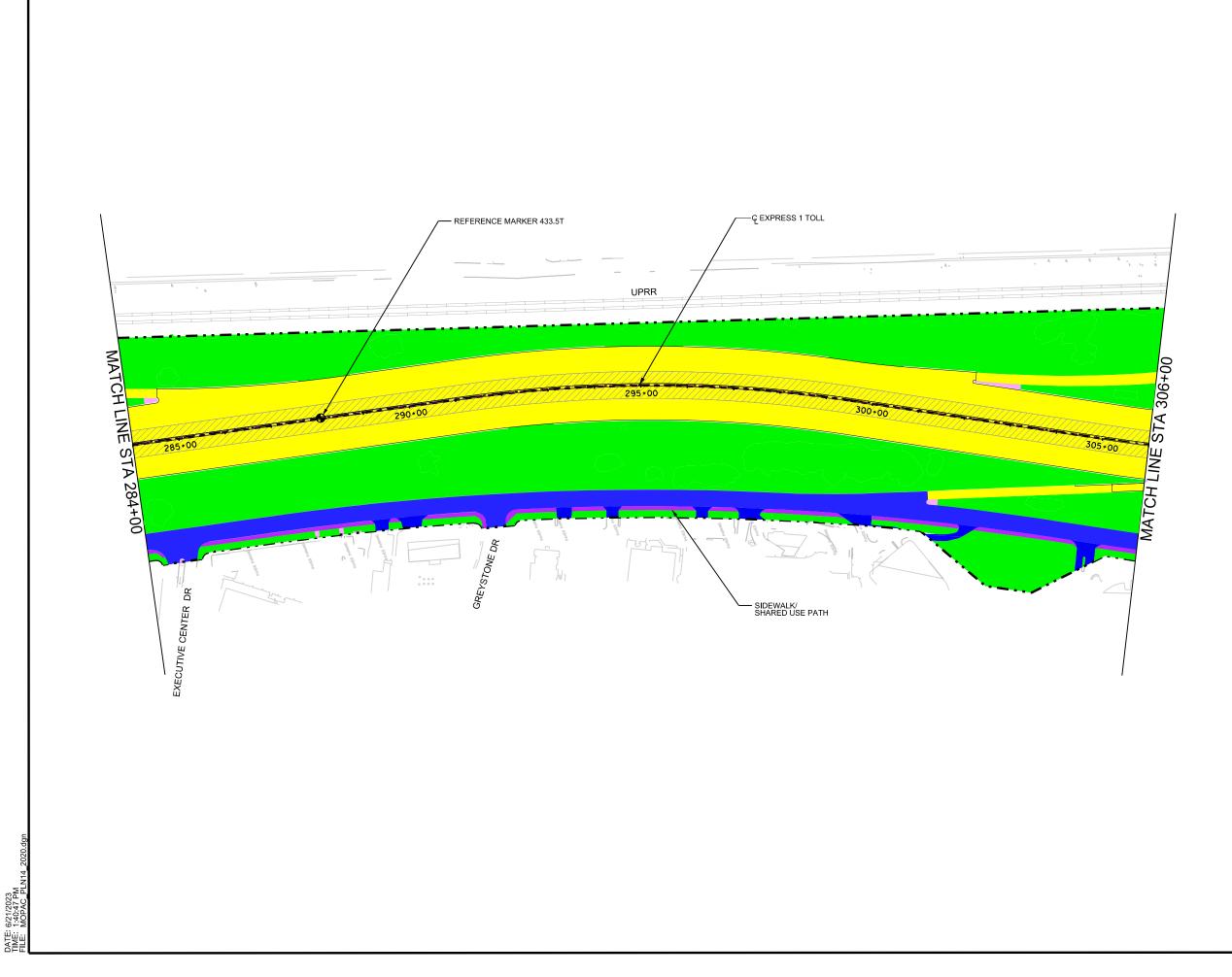


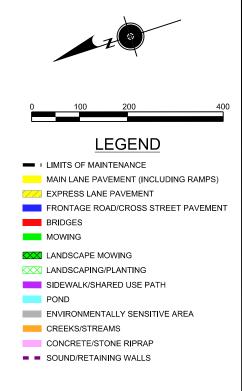
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	720
0	
	LEGEND
- '	LIMITS OF MAINTENANCE
	MAIN LANE PAVEMENT (INCLUDING RAMPS)
	EXPRESS LANE PAVEMENT
	BRIDGES
	MOWING
$\times\!\!\!\times$	LANDSCAPE MOWING
$\overline{\mathbf{X}}$	LANDSCAPING/PLANTING
	SIDEWALK/SHARED USE PATH
	POND
	ENVIRONMENTALLY SENSITIVE AREA
	CREEKS/STREAMS
	CONCRETE/STONE RIPRAP
	SOUND/RETAINING WALLS

- NOTES: 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
- 2. MOWING AREA 4 FEET ON EITHER SIDE OF THE SHARED USE PATH IS INCLUDED AS PART OF AMENDMENT #1.

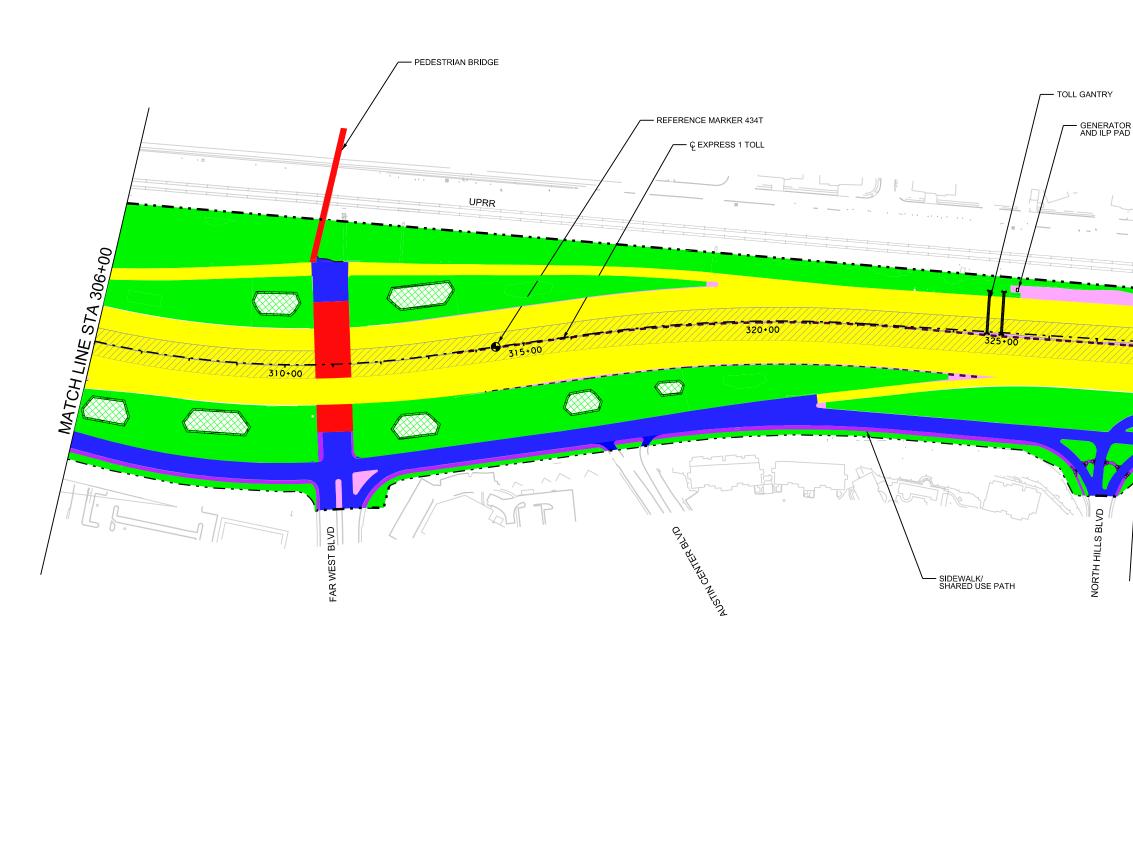
			RAL TEXAS REGION			
	MA		NANCE MAPS			
		202	23 PBMC			
	EXP	RES	SS 1 TOLL			
STA	262+	00 -	TO STA 284+	00		
0.7.						
			SHEET 13 OF	32 SHI		
DESIGNED BY:	FED.RD. DIV.NO.		PROJECT NO.		SHEET NO.	
STAFF			20PROGXXX02M		155	
DRAWN BY:	STATE	DIST. COUNTY				
STAFF	TEXAS	AUS	AUS TRAVIS			
CHECKED BY:	CONT.	SECT.	SECT. JOB HIGHWAY			
CES	XXXX	XX	XXX	V	AR	



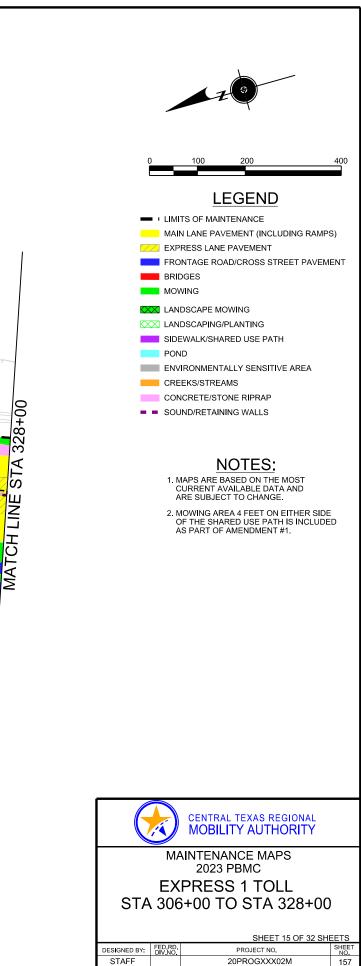


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- 2. MOWING AREA 4 FEET ON EITHER SIDE OF THE SHARED USE PATH IS INCLUDED AS PART OF AMENDMENT #1.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY							
MAINTENANCE MAPS 2023 PBMC							
EXPRESS 1 TOLL STA 284+00 TO STA 306+00							
			SHEET 14 O	F 32 SH	EETS		
DESIGNED BY:	FED.RD. DIV.NO.		PROJECT NO.		SHEET NO.		
STAFF			20PROGXXX02M		156		
DRAWN BY:	STATE	DIST.	COUNTY				
STAFF	TEXAS	AUS	AUS TRAVIS				
CHECKED BY:	CONT.	SECT.	JOB	HIGH	VAY NO.		
CES	XXXX	XX	XXX	V	'AR		



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STATE DIST.

TEXAS AUS

CONT. SECT.

CES XXXX XX

COUNTY

TRAVIS

HIGHWAY NO.

VAR

JOB

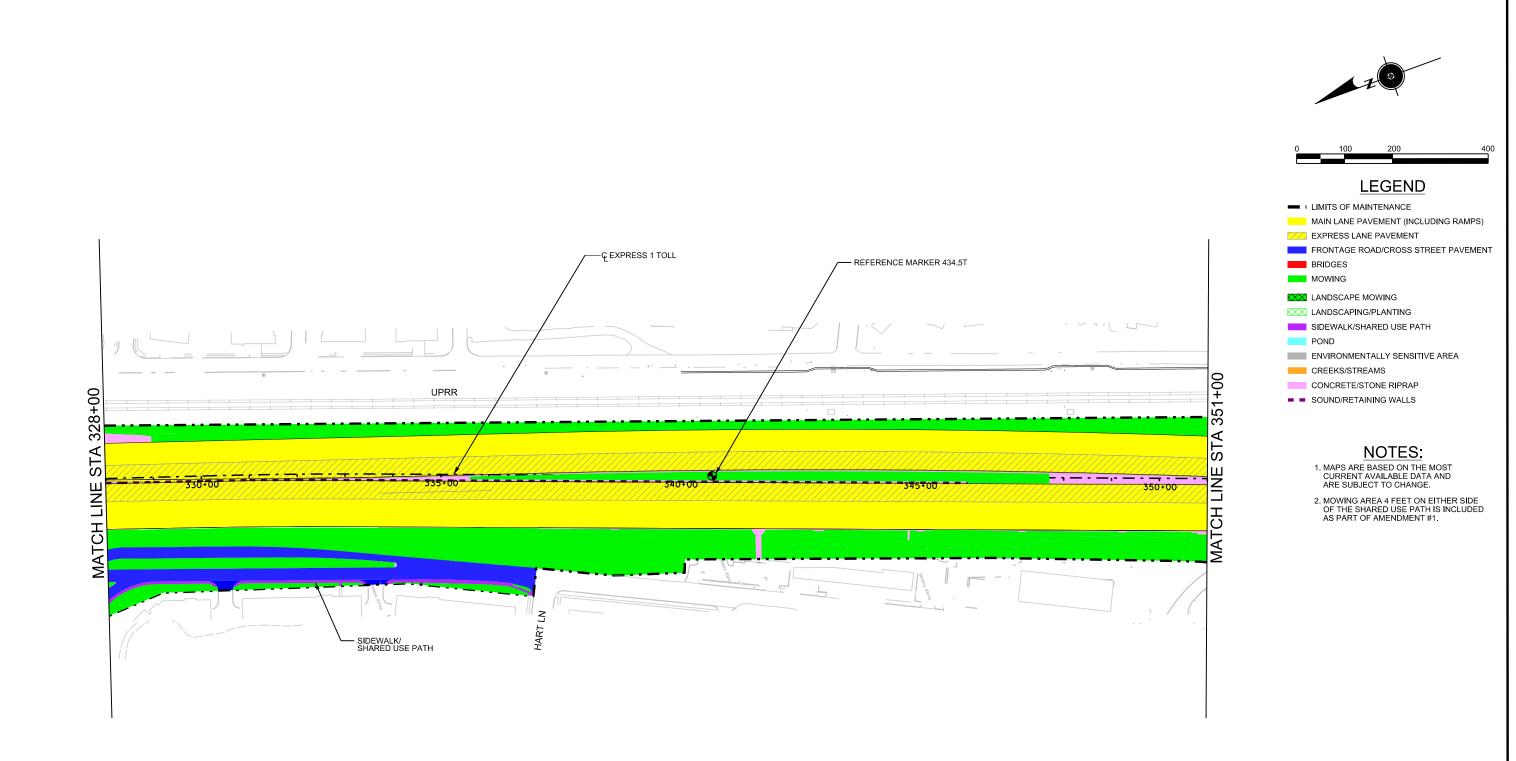
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DRAWN BY:

STAFF

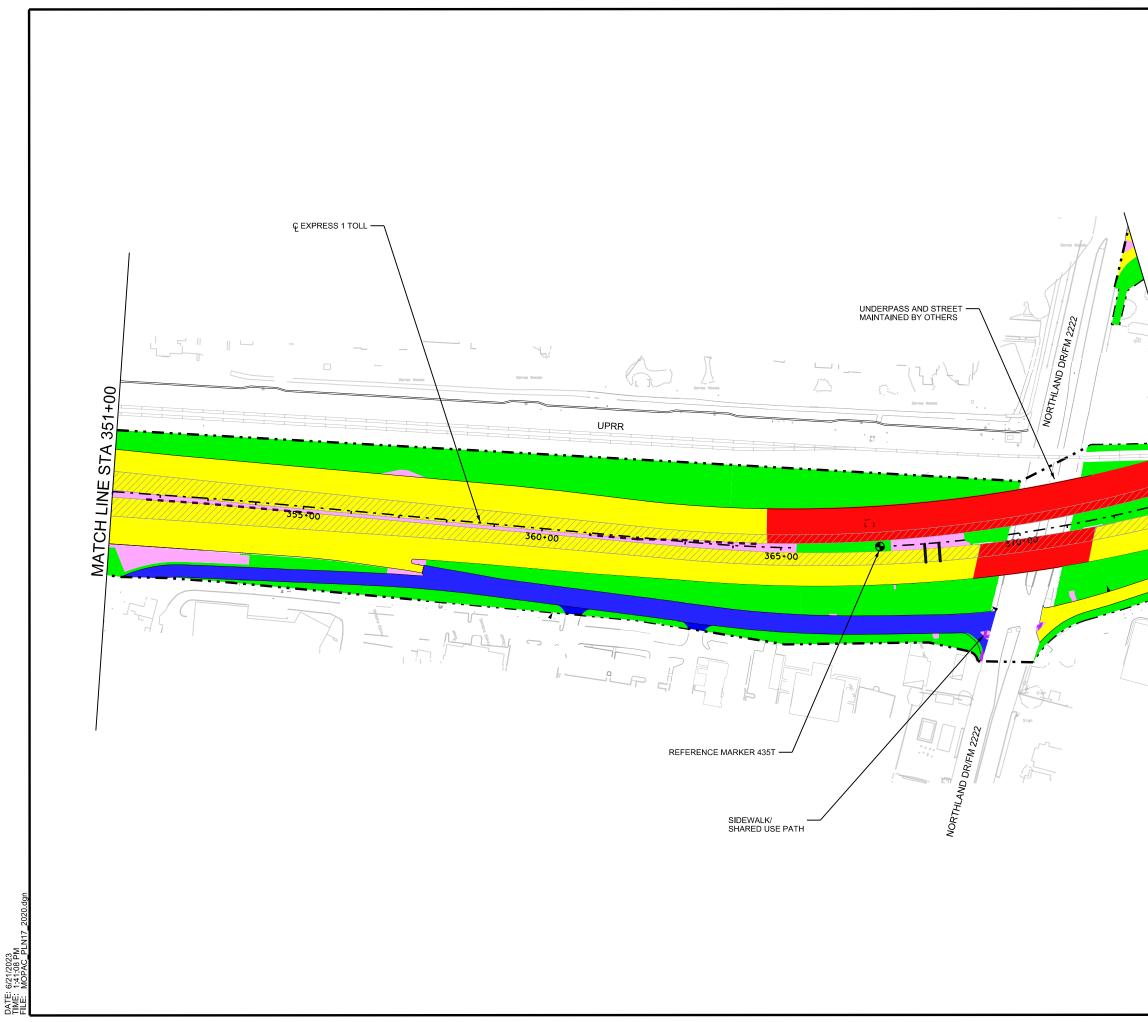
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MATCH LINE



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CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY						
	MAINTENANCE MAPS					
		202	23 PBMC			
	FXF	PRF	SS 1 TOLL			
I STA	. 328-	+00	TO STA 351	+00		
0.7	. 020	00		00		
			SHEET 16 OF	32 SH	EETS	
DESIGNED BY:	FED.RD. DIV.NO		PROJECT NO.		SHEET NO.	
STAFF			20PROGXXX02M		158	
DRAWN BY:	STATE	DIST.	COUNTY			
STAFF	TEXAS	AUS TRAVIS				
CHECKED BY:	CONT.	SECT. JOB HIGHWAY NO			VAY NO.	
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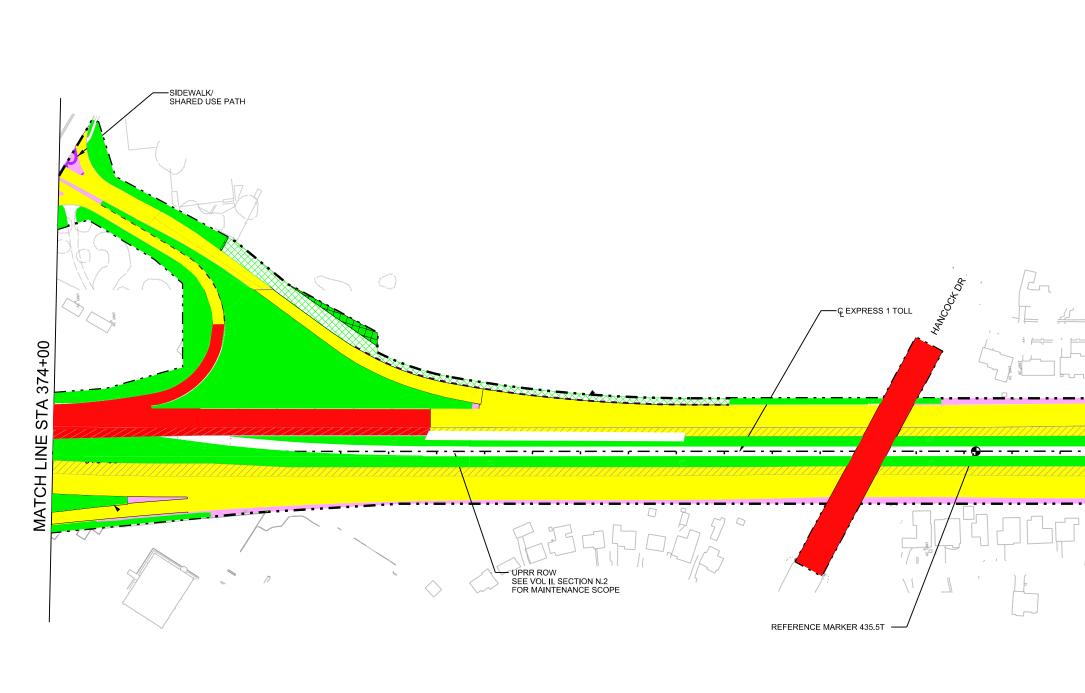
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- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
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CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY						
	MAINTENANCE MAPS					
		202	23 PBMC			
	FYE		SS 1 TOLL			
I STA	、351-	F00	TO STA 374	+00)	
			SHEET 17 OF	32 SHI	EETS	
DESIGNED BY:	FED RD. DIV.NO.		PROJECT NO.		SHEET NO.	
STAFF			20PROGXXX02M		159	
DRAWN BY:	STATE	DIST.	COUNTY			
STAFF	TEXAS	S AUS TRAVIS				
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.	
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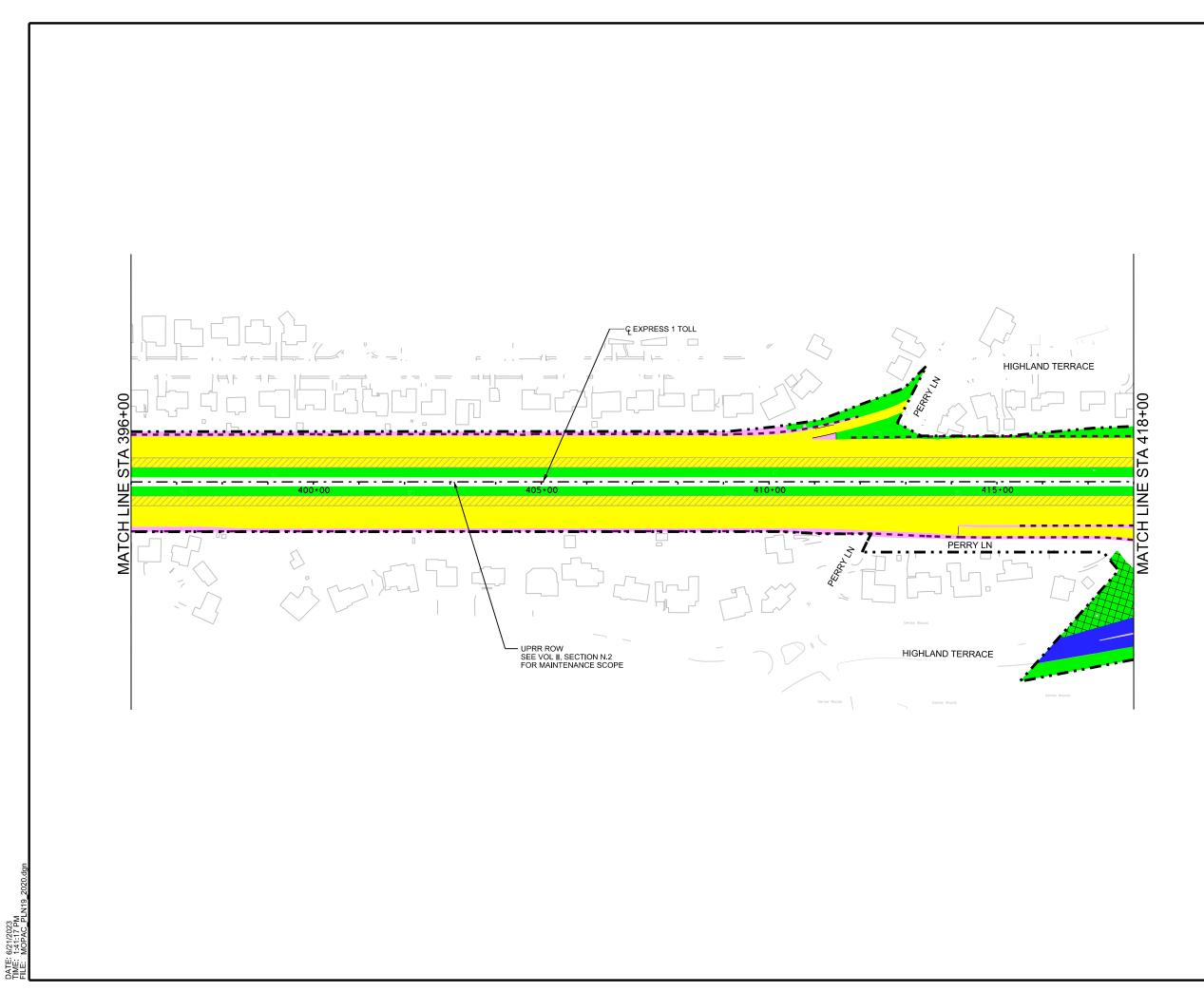


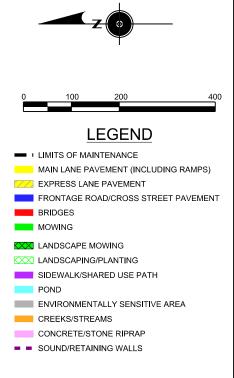


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CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY							
MAINTENANCE MAPS 2023 PBMC EXPRESS 1 TOLL STA 374+00 TO STA 396+00 SHEET 18 OF 32 SHEETS							
DESIGNED BY:	FED RD DIV NO		PROJECT NO.		SHEET NO.		
STAFF			20PROGXXX02M		160		
DRAWN BY:	STATE	DIST.	COUNTY				
STAFF	TEXAS	AUS TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGH	VAY NO.		
CES	XXXX	XX	XXX	V	AR		

MATCH LINE STA 396+00

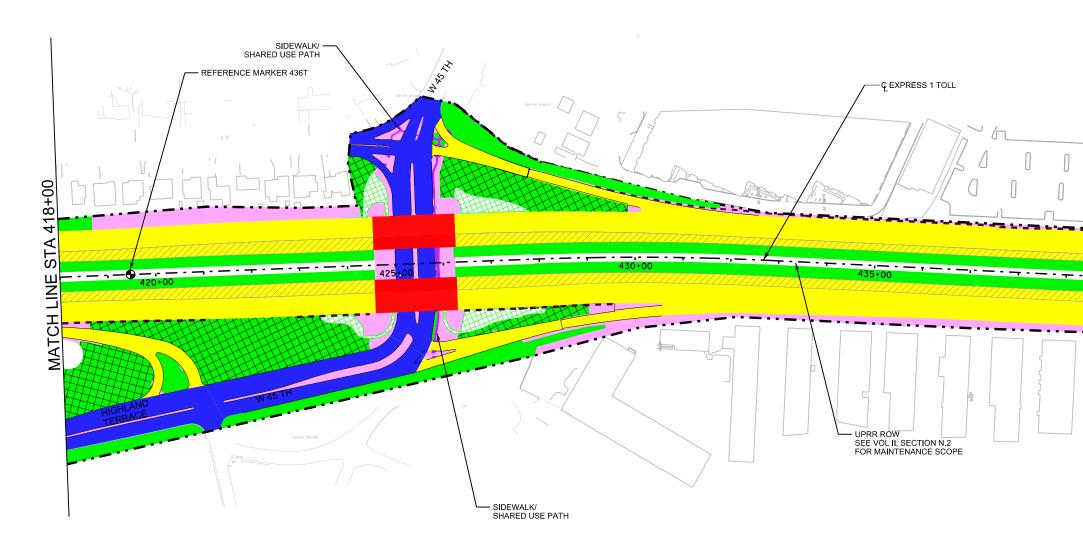


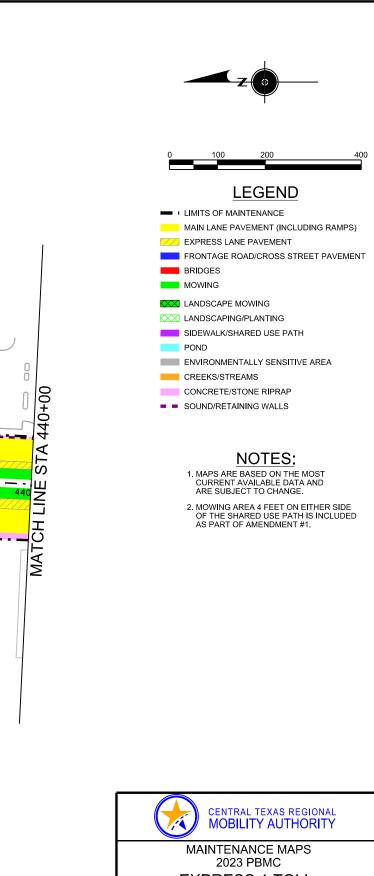




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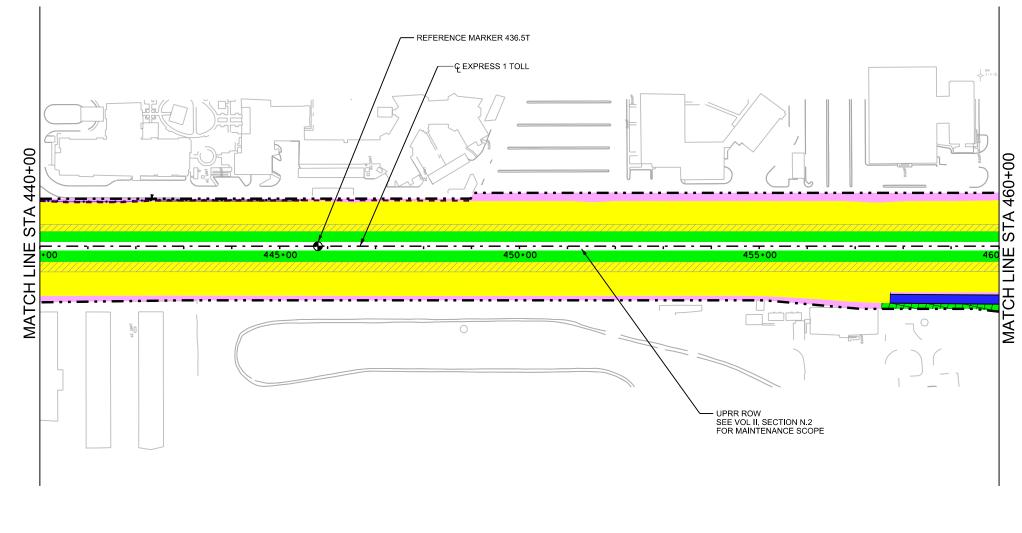
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY							
	MA	INTE	NANCE MAPS				
		202	23 PBMC				
	EXE	PRF	SS 1 TOLL				
SIA	1 390	+00	TO STA 418	+00			
			SHEET 19 OF	32 SHI	EETS		
DESIGNED BY:	FED RD DIV NO		PROJECT NO.		SHEET NO.		
STAFF			20PROGXXX02M		161		
DRAWN BY:	STATE	DIST. COUNTY					
STAFF	TEXAS	AUS TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.		
CES	XXXX	XX	XXX	V	AR		

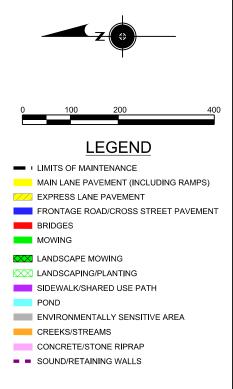




EXPRESS 1 TOLL STA 418+00 TO STA 440+00

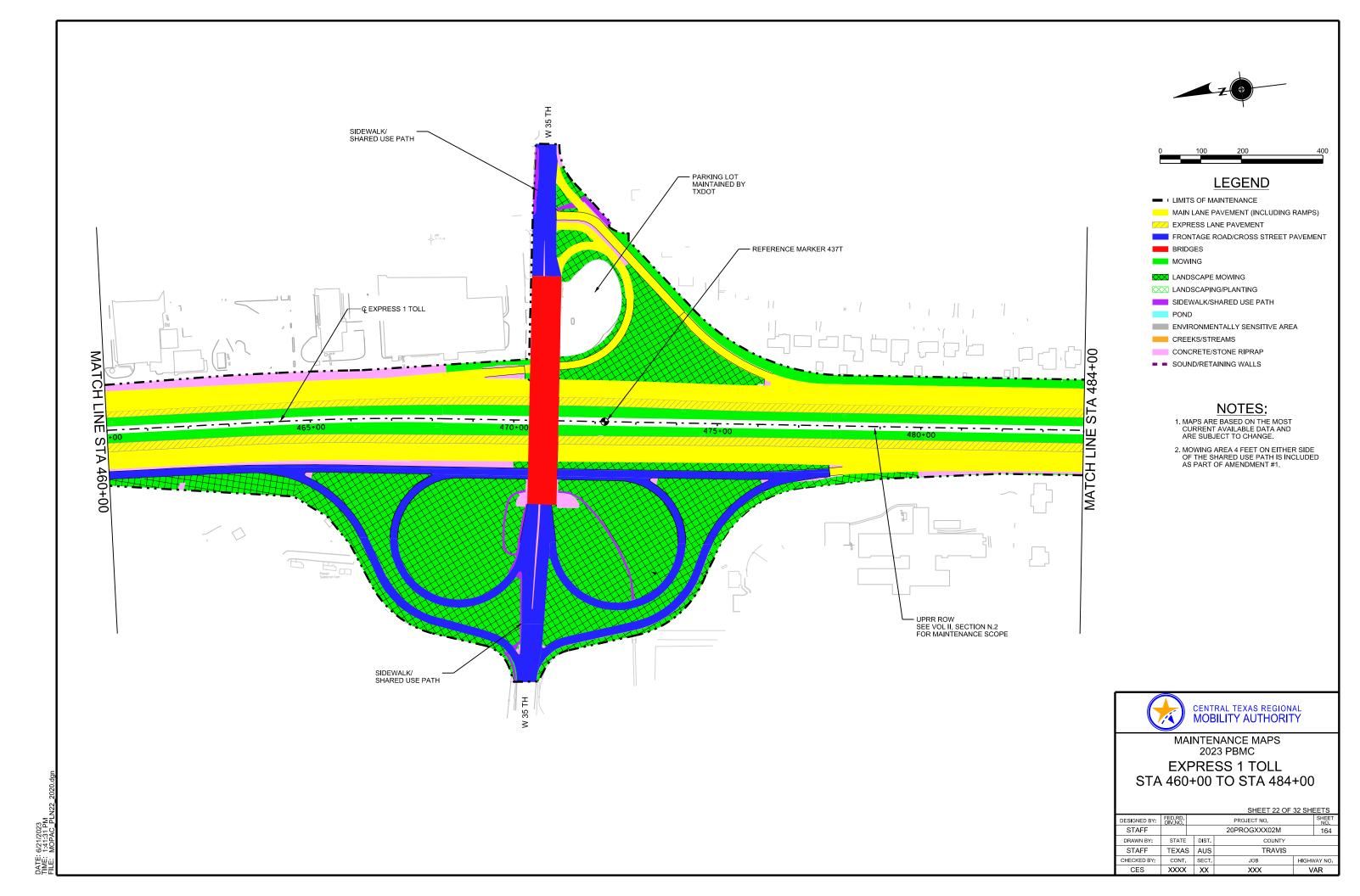
	SHEET 20 OF 32 SHEETS					
DESIGNED BY:	FED RD DIV NO		PROJECT NO.			
STAFF		20PROGXXX02M			162	
DRAWN BY:	STATE	DIST. COUNTY				
STAFF	TEXAS	AUS TRAVIS				
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CES	XXXX	XX	XXX	V	AR	

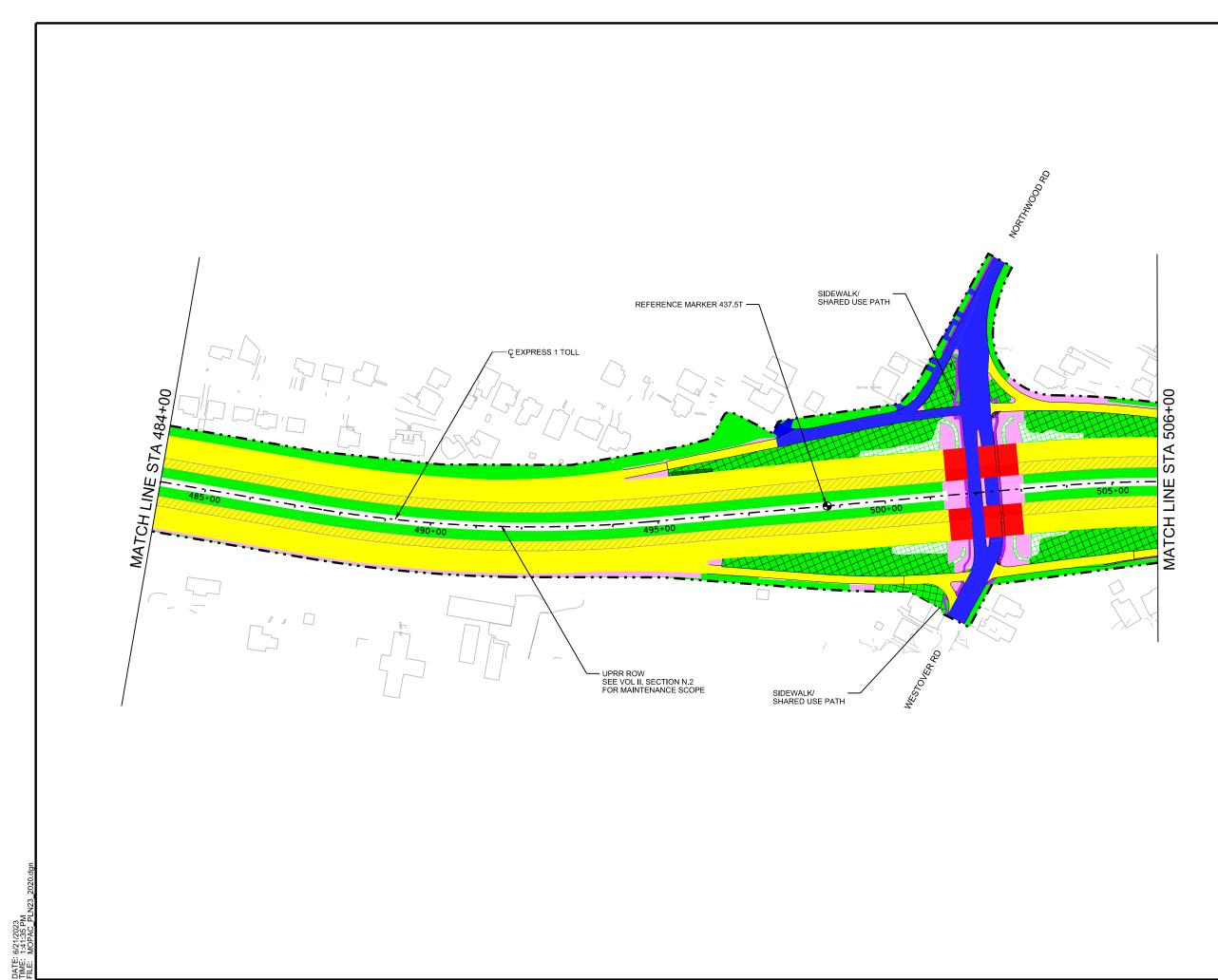


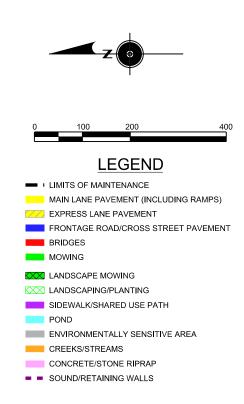


- 1. MAPS ARE BASED ON THE MOST CURRENT AVAILABLE DATA AND ARE SUBJECT TO CHANGE.
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CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY						
MAINTENANCE MAPS 2023 PBMC EXPRESS 1 TOLL STA 440+00 TO STA 460+00 SHEET 21 OF 32 SHEETS						
DESIGNED BY:	FED.RD. DIV.NO		PROJECT NO.		SHEET NO.	
STAFF			20PROGXXX02M		163	
DRAWN BY:	STATE	DIST.	COUNTY			
STAFF	TEXAS	S AUS TRAVIS				
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.	
CES	XXXX	XX	XXX	V	AR	



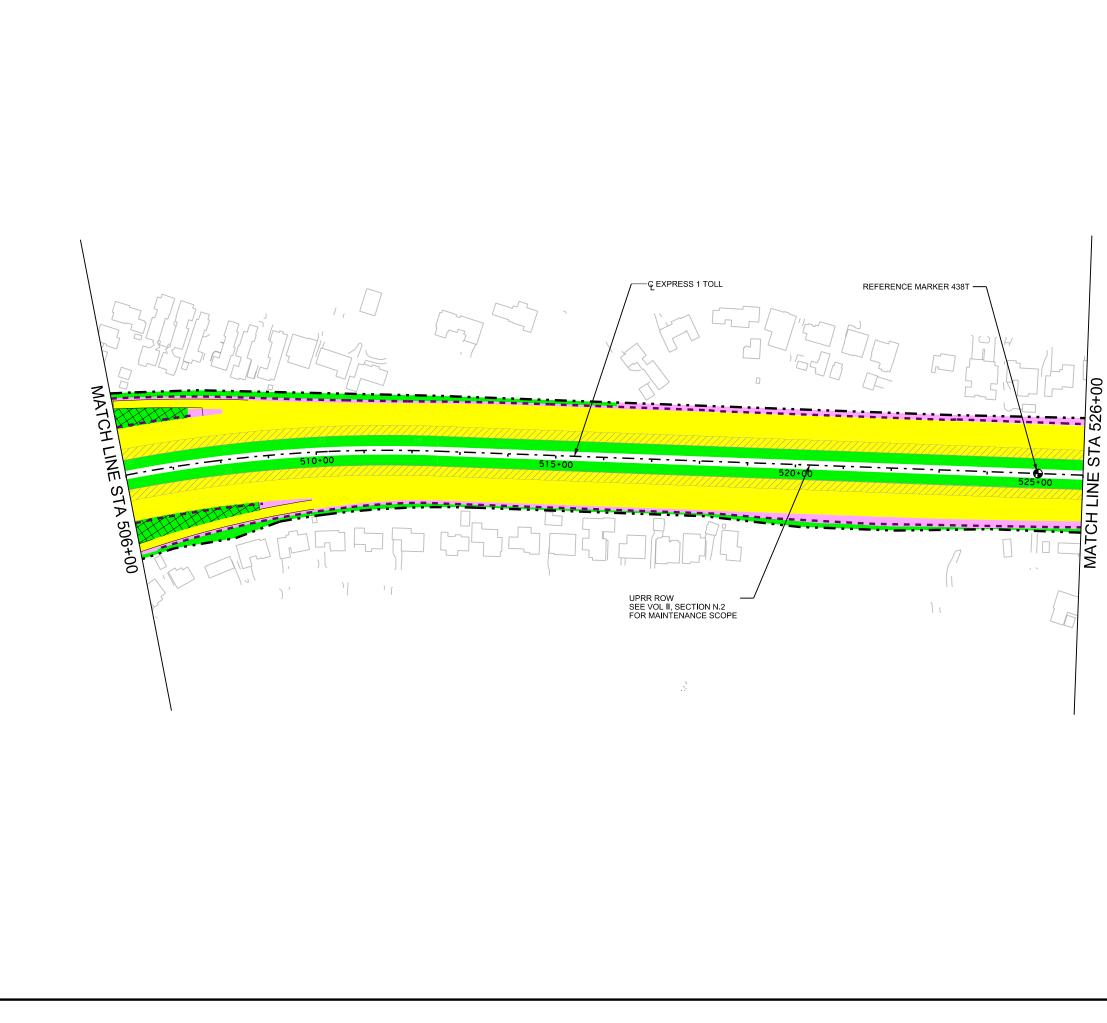




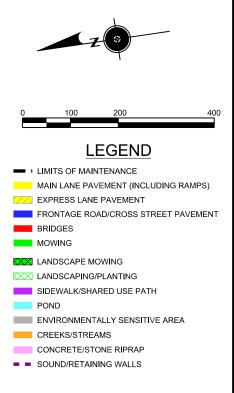


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			RAL TEXAS REGION. BILITY AUTHORIT				
	MAINTENANCE MAPS						
		202	23 PBMC				
	FXF	PRF	SS 1 TOLL				
			TO STA 506	. ^^			
	404-	-00	10 STA 500	+00			
			SHEET 23 OF	32 SHI	EETS		
DESIGNED BY:	FED RD. DIV NO		PROJECT NO.		SHEET NO.		
STAFF			20PROGXXX02M		165		
DRAWN BY:	STATE	DIST. COUNTY					
STAFF	TEXAS	S AUS TRAVIS					
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.		
CES	XXXX	XX	XXX	V	AR		



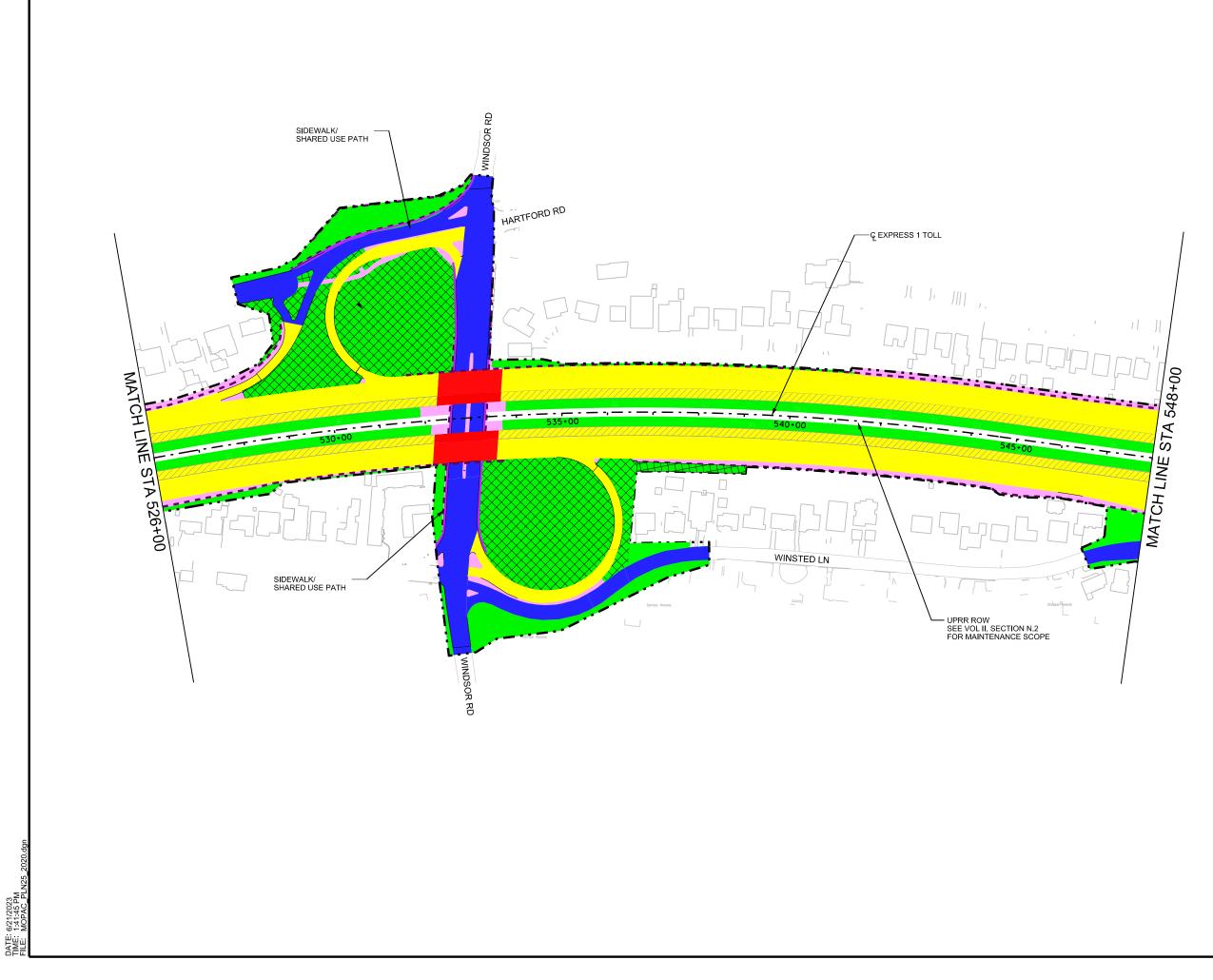
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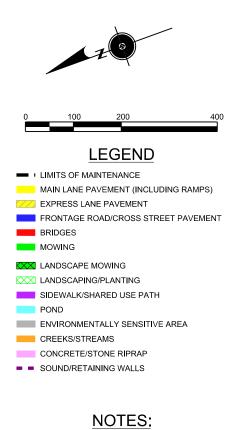




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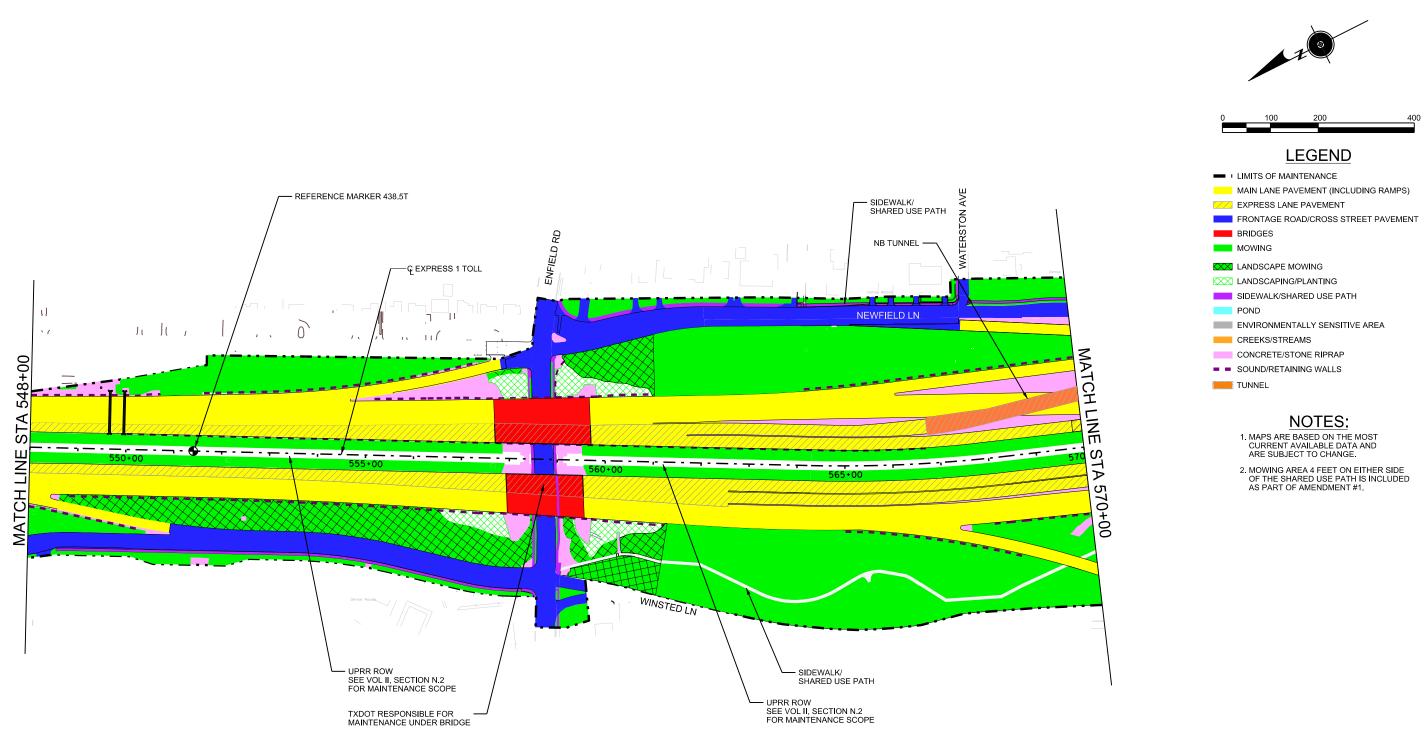
			RAL TEXAS REGION		
STA	EXI	202 PRE	NANCE MAPS 23 PBMC SS 1 TOLL TO STA 526 ⁻	+00	
	FED.RD.		SHEET 24 OF	32 SHI	ETS SHEET
DESIGNED BY:	DIV NO.		PROJECT NO.		NO.
STAFF			20PROGXXX02M		166
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	v	AR





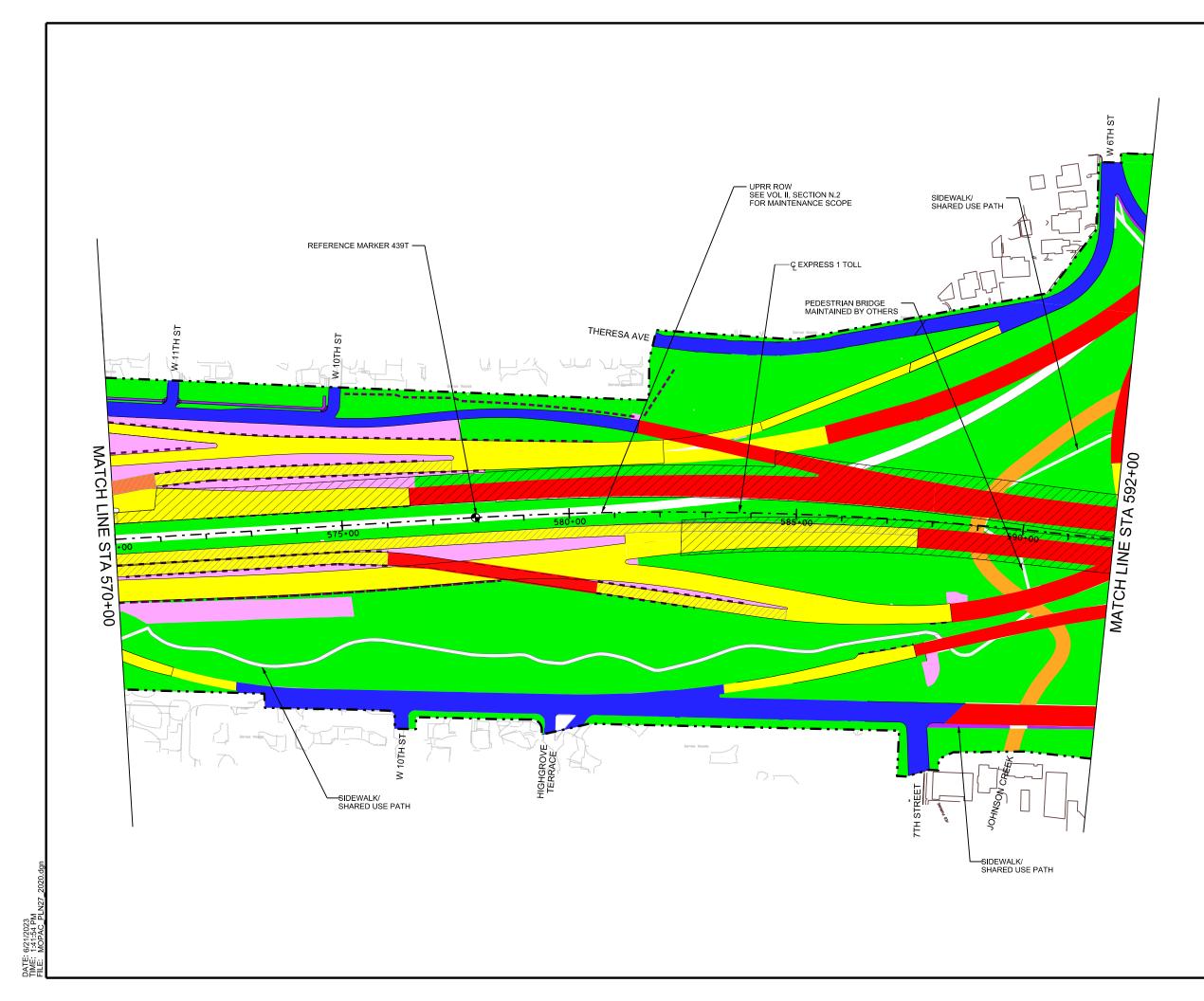
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			RAL TEXAS REGION		
	MA		NANCE MAPS 23 PBMC		
STA			SS 1 TOLL TO STA 548		
DESIGNED BY:	FED RD. DIV NO.		SHEET 25 OF PROJECT NO.	32 30	SHEET NO.
STAFF	DIV.NO.		20PROGXXX02M		167
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	V	AR



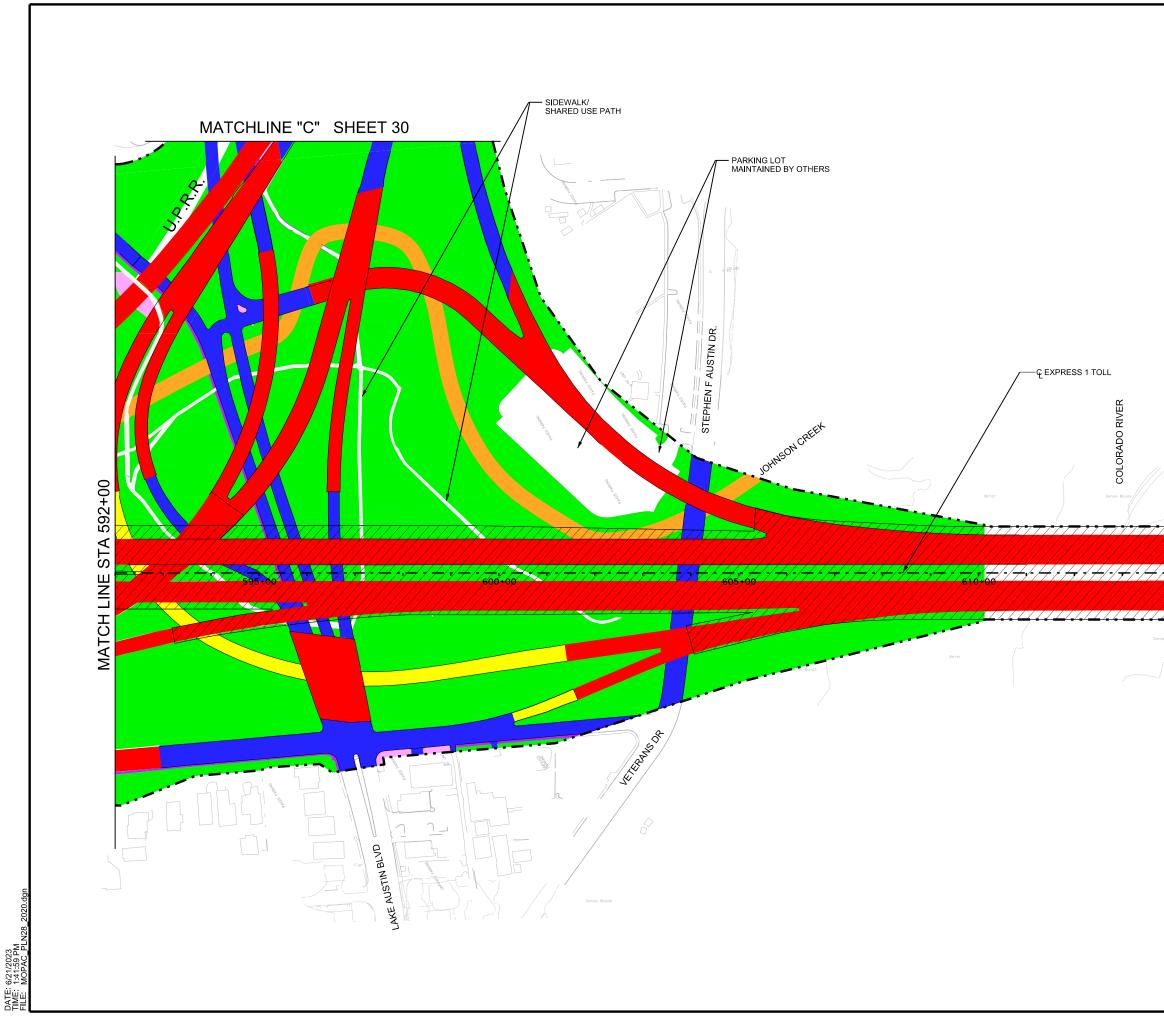


			RAL TEXAS REGION		
STA	EXI	202 PRE	NANCE MAPS 23 PBMC SS 1 TOLL TO STA 570	+00)
	FED.RD.		SHEET 26 OF	32 SH	EETS SHEET
DESIGNED BY:	DIV NO.		PROJECT NO.		NO.
STAFF			20PROGXXX02M		168
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	V	AR











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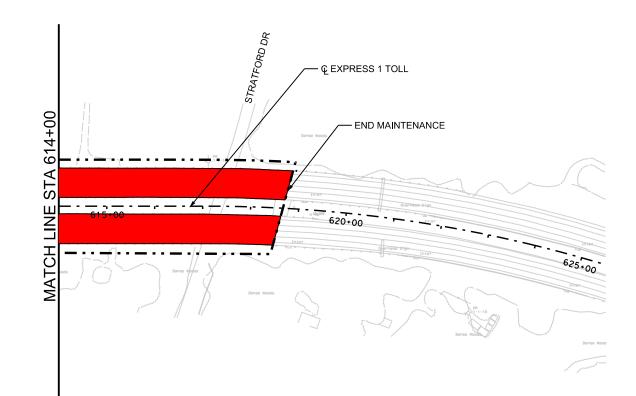


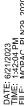
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CES XXXX XX

MATCH LINE STA 614+00





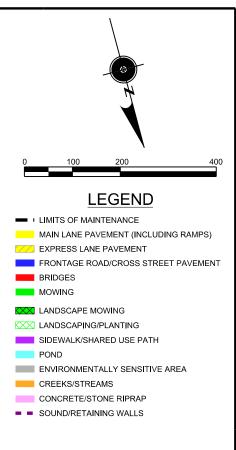




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			RAL TEXAS REGION. BILITY AUTHORIT		
	MA		NANCE MAPS 23 PBMC		
			SS 1 TOLL +00 TO END		HEETS
DESIGNED BY:	FED.RD. DIV NO		PROJECT NO.		SHEET NO.
STAFF			20PROGXXX02M		171
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	V	AR





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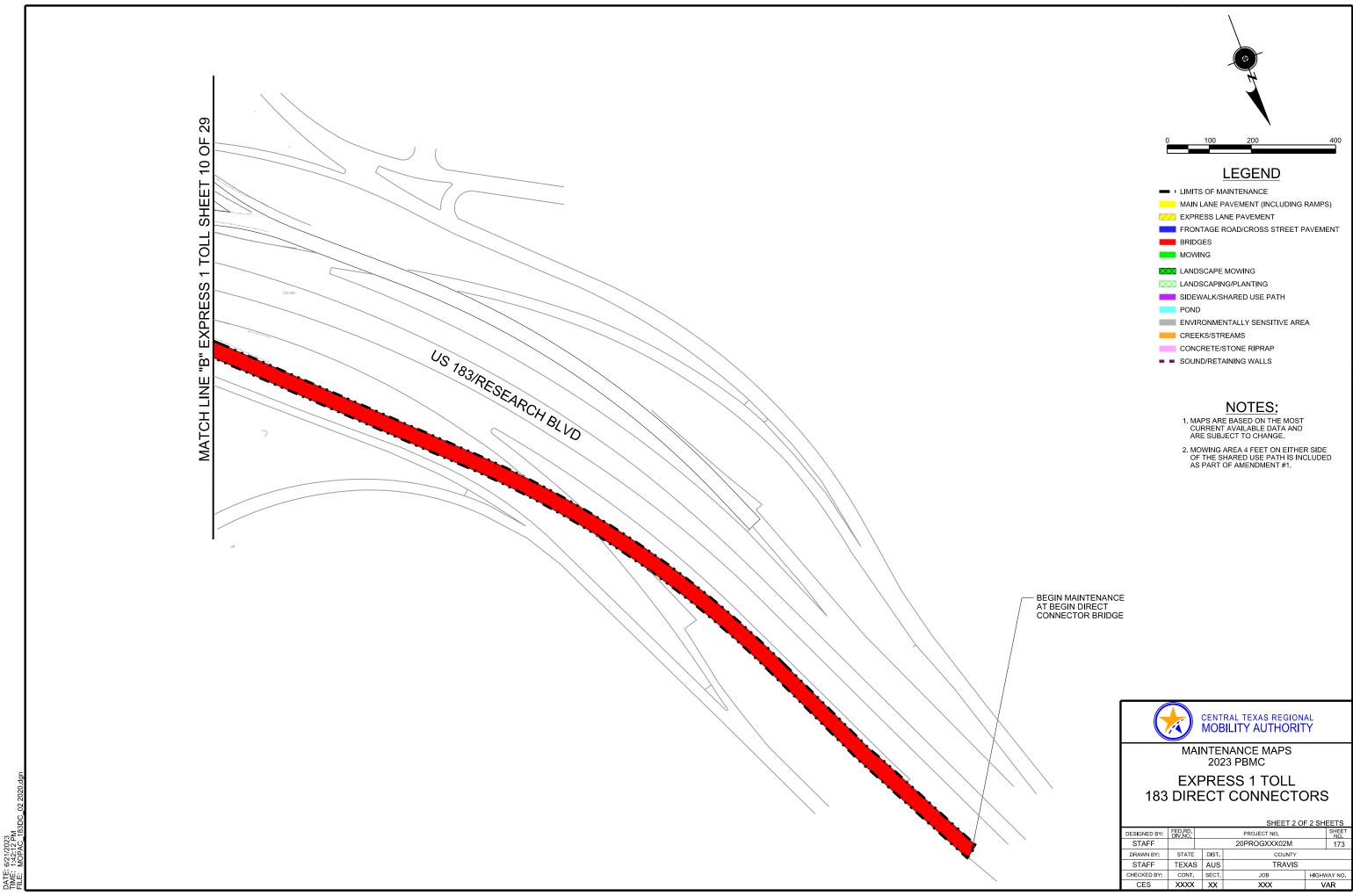


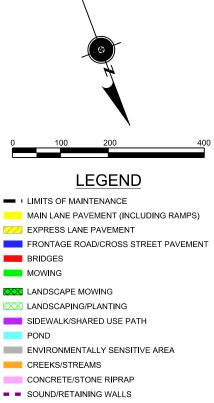
MAINTENANCE MAPS 2023 PBMC

EXPRESS 1 TOLL 183 DIRECT CONNECTORS

			SHEET 1 OF	= 2 SH	EETS
DESIGNED BY:	FED RD. DIV NO		PROJECT NO.		SHEET NO.
STAFF			20PROGXXX02M		172
DRAWN BY:	STATE	DIST.	COUNTY		
STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	V.	AR

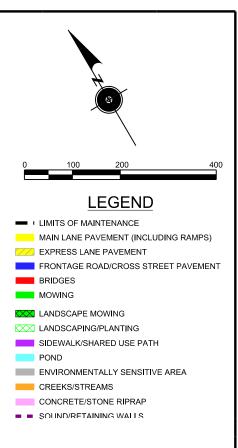








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NOTES:

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			RAL TEXAS REGION		
	MA		NANCE MAPS 23 PBMC		
			SS 1 TOLL R CHAVEZ	E 1 QU	EETQ
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STAFF	0.0.10.		20PROGXXX02M		174
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STAFF	TEXAS	AUS	TRAVIS		
CHECKED BY:	CONT.	SECT.	JOB	HIGHV	VAY NO.
CES	XXXX	XX	XXX	V	AR

DOT CROSSING RR COMPARY OWNING OPERATING RR RR RR RR # TYPE TRACK AT CROSSING COMPANY AT TRACK MP SUBDIVISI 764970R AT GRADE CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.70 CENTRA 7557988 AT GRADE CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA 7557988 AT GRADE CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA 7657988 AT GRADE CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA 7657988 AT GRADE CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA 7649708 STREET/ROAD HIGHWAY/ROADWAY VER DAY OF SWITCHING % OF ESTIMATED LA 7649708 LOOP 1 NBFR SL0001 34 2 100% 30
225929V HIGHWAY OVERPASS (O) CAPITAL METRO TRANSPAUTHORITY (CMTY) ATCK, AWRR 67.71 CENTRA 7657988 AT GRADE CAPITAL METRO TRANSPAUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA AT GRADE CAPITAL METRO TRANSPAUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA SCHEDULED TRANS MOVEMENTS CONTRACT COST DOT STREET/ROAD HIGHWAY/ROADWAY PER DAY PER DAY OF WORK WITHIN # NAME NAME AT CROSSING AT THIS CROSSING RR ROW
2592929V HIGHWAY OVERPASS (O) CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.71 CENTRA 2657988 AT GRADE CAPITAL METRO TRANSP AUTHORITY (CMTY) ATCK, AWRR 67.75 CENTRA WOFREGULARLY # 0F SWITCHING % OF ESTIMATED LA SCHEDULED TRANS MOVEMENTS CONTRACT COST DOT STREET/ ROAD HIGHWAY/ ROADWAY PER DAY PER DAY OF WORK WITHIN # NAME NAME AT CROSSING AT THIS CROSSING RR ROW
OFREGULARLY # OF SWITCHING % OF ESTIMATED LA DOT STREET/ROAD HIGHWAY/ROADWAY PER DAY PER DAY OF WORK WITHIN OF WORK WITHIN If This CROSSING AT THIS CROSSING R R ROW R ROW If This CROSSING If THIS CROS
SCHEEULED TRAINS MOVEMENTS CONTRACT COST DECONTRACT COST <thdecontract cost<="" th=""> <thdecontract cost<="" th="" th<=""></thdecontract></thdecontract>
925929V MOPAC EXPSWY SL 0001 11 0 100% 30
7657988 FM 1325 LP1 SBFR SL 0001 34 2 100% 30.

SCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any dis made by TxDD1 for any purpose whatsoever. TxDD1 assumes no responsibility for the conversion this standard to other formats or for incorrect results or damages resulting from its use.

LOCATIONS (AT GRADE, HIGHWAY OVERPASS,

OFREGULARLY # OF SWITCHING % OF ESTIMATED LATITUDE

SCHELULED TRAINS MOVEMENTS CONTRACT COST DEC DEGREES DEC DEGREES PER DAY PER DAY OF WORK WITHIN

RR CITY COUNTY

AUSTIN TRAVIS

30.410083 -97.7105114

30.4110887 -97.7106246

-97.710759

30.410748

67.68 CENTRAL AUSTIN TRAVIS

II. OTHER PROJECT WORK WITHIN RAILROAD RIGHTS-OF-WAY (ROW)

None

III. FLAGGING # of Days of Railroad Flagging Expected: 0

- On this project, night or weekend flagging is:
- Expected

X Not Expected

Flagging services will be provided by:

Railroad Company: TxDOT will pay flagging invoices

X Outside Party: Contractor will pay flagging invoices, to be reimbursed by CTMRA

Contractor must incorporate flaggers into anticipated construction schedule. The railroad requires a 30 day notice if their flaggers are to be utilized. If contractor falls behind schedule due to their own negligence and is not ready for scheduled flaggers, any flagging charges will be paid by Contractor.

Contact Information for Flagging:

CAP METRO
VINCENT SANDOVAL
(512)369-6049
vincent.sandoval@capmetro.org

IV. CONSTRUCTION WORK TO BE PERFORMED BY THE RAILROAD

On this project, construction work to be performed by a railroad company is: Required

X Not Required

Coordinate with TxDOT for any work to be performed by the railroad company. TxDOT must issue a work order for any work done by the rail road company prior to the work being performed.

V. RAILROAD INSURANCE REQUIREMENTS

Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted.

X Required for work within 50ft of Railroad ROW or UNDER or OVER Railroad

insurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad companies are involved and operate on their own separate rights of way, provide separate insurance policies in the name of each Railroad Company.

No direct compensation will be made to the contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items.

Type of Insurance	Amount of Coverage (Minimum)
Workers Compensation	\$500,000 / \$500,000 / \$500,000
Commercial General Liability	\$2,000,000 / \$4,000,000
Business Automobile	\$2,000,000 combined single limit
Railroad Protective Liability	\$2,000,000 / \$6,000,000

Required

In Case COII CAP AT 8

VI. C	CONTRACTOR'S	RIGHT-OF-ENTRY	(ROE)	AGREEMENT
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On this project, an ROE agreement is: Not Required

Required: TxDOT to assist in obtaining (see Item 5, Article 8.3)

With the following railroad companies:

X Required: Contractor to obtain (see Item 5, Article 8.4)

CAP METRO With the following railroad companies:

To view previously approved ROE agreement templates agreed upon between the State and railroad company, see:

http://www.txdot.gov/inside-txdot/division/traffic/samples.html

Approved ROE agreement templates are not to be modified by the Contractor.

Contractor shall not operate within railroad rights of way without an executed Construction & Maintenance agreement between the state and the railroad and an executed ROE agreement between the contractor and the railroad if required on project.

VII. RAILROAD COORDINATION MEETING

On this project, a Railroad Coordination Meeting is: X Not Required

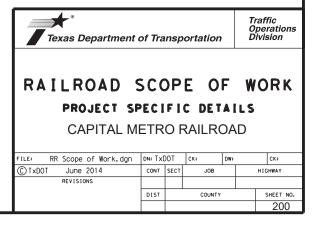
See Item 5, Article 8.1 for more details.

VIII. SUBCONTRACTORS

Contractor shall not subcontract work without written consent of TxDOT. Subcontractors are required to maintain the same insurance coverage as required of the Contractor.

IX. EMERGENCY NOTIFICATION

of	Rai	Irood	Emer	rgency	
ME	TRO	RAILF	ROAD	EMERGENCY	LINE
00-	772	-7677			



		LOCATIONS S, PEDESTRI					> ,	III. <u>FLAGGING</u>
								<pre># of Days of Railroad Flagging Expected:</pre>
								On this project, night or weekend flagging is:
								X Not Expected
			# OF REGULARLY	# OF SWITCHING	% OF ESTIMATED	LATITUDE	LONGITUDE	Flagging services will be provided by:
DOT	STREET/ ROAD	HIGHWAY/ ROADWAY	SCHEDULED TRAINS PER DAY		CONTRACT COST OF WORK WITHIN	DEC DEGREES		Railroad Company: TxDOT will pay flagging invoices
#	NAME	NAME AT CROSSING	AT THIS CROSSING	AT THIS CROSSING				X Outside Party: Contractor will pay flagging invoices, to be reimbursed by CTMRA
2543M 2544U	LOOP 1 SOUTH LOOP 1 NORTH	SL 0001 SL 0001	11	0	100%	30.4025 30.401975	-97.728578 -97.72854	Contractor must incorporate flaggers into anticipated construction schedule. The railroad requires a 30 day notice if their flaggers are to be utilized.
3975T N 5976A 5977G	HANCOCK DR WEST 45TH STREET	SL 0001 SL 0001 SL 0001	11 11 11	0	100% 100% 100%	30.335178 30.330809 30.321364	-97.755409 -97.755707 -97.755948	If contractor falls behind schedule due to their own negligence and is not
5978N 5979V	WEST 35TH STREET WESTOVER RD	SL 0001 SL 0001	11 11	0	100%	30.308997 30.300436	-97.757432	ready for scheduled flaggers, any flagging charges will be paid by Contractor.
5980P 5981W	WINDSOR RD ENFILED RD	SL 0001 SL 0001	11 11	0	100% 100%	30.292168 30.2859256	-97.760038 -97.7639188	
5982D S0 5131W	UUTH MOPAC EXPESSWAY HIGHWAY 1 RAMP	SL 0001 SL 0001	11 11	0	100% 100%	30.279408 30.277131	-97.767398 -97.767325	Contact Information for Flagging:
								RAILPROS FIELD SERVICES (877)315-0513 X116
								Upflag@railprosfs.COM
			LOF BERLY		W OFFICE AND	LATITUDE	LONGITUDE	
DOT	STREET/ ROAD	HIGHWAY/ ROADWAY	# OF REGULARLY SCHEDULED TRAINS PER DAY	# OF SWITCHING MOVEMENTS PER DAY	% OF ESTIMATED CONTRACT COST OF WORK WITHIN		LONGITUDE DEC DEGREES	IN CONSTRUCTION WORK TO BE REPEODINED BY THE DATI BOAD
#	NAME	NAME AT CROSSING	AF THIS CROSSING		RR ROW			IV. CONSTRUCTION WORK TO BE PERFORMED BY THE RAILROAD
22543M 22544U	LOOP 1 SOUTH LOOP 1 NORTH	SL 0001 SL 0001	11 11	0	100%	30.4025 30.401975	-97.728578 -97.72854	On this project, construction work to be performed by a railroad company is:
153975T 135976A 135977G	NORTH MOPAC EXPRSWY HANCOCK DR WEST 45TH STREET	SL 0001 SL 0001 SL 0001	11 11 11	0	100% 100% 100%	30.335178 30.330809 30.321364	-97.755409 -97.755707 -97.755948	Not Required
135978N 135979V	WEST 35TH STREET WEST OVER RD	SL 0001 SL 0001	11 11	0	100%	30.308997 30.300436	-97.757432 -97.758275	Coordinate with TxDOT for any work to be performed by the railroad company.
435980P 35981W	WINDSOR RD ENFILED RD	SL 0001 SL 0001	11 11	0	100%	30.292168 30.2859256	-97.760038 -97.7639188	TxDOT must issue a work order for any work done by the rail road company
435982D 75131W	SOUTH MOPAC EXPESSWAY HIGHWAY 1 RAMP	SL 0001 SL 0001	11	0	100%	30.279408 30.277131	-97.767398 -97.767325	prior to the work being performed.
A Mai	intenance inc	cludes joint	use area i	in center	median			
of	Nork at these	cludes joint e Crossings 1 ntract for ma	to Be Perf	ormed by (-:		
of	Nork at these	e Crossings 1	to Be Perf	ormed by (-:		V. RAILROAD INSURANCE REQUIREMENTS
of	Nork at these	e Crossings 1	to Be Perf	ormed by (*:		V. <u>RAILROAD INSURANCE REQUIREMENTS</u> Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted.
of	Nork at these	e Crossings 1	to Be Perf	ormed by (-:		Contractor shall provide the proper insurance as shown in the table below,
e of ' RA Ma	Work at these intenance co	e Crossings 1	to Be Perfo	ormed by (Contractor		OM)	Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. X Required for work within 50ft of Railroad ROW or UNDER or OVER Railroad Insurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad companies are involved and operate on their own separate rights of way, provide separate insurance policies in the name of
e of ' RA Ma	Work at these intenance co	e Crossings t	to Be Perfo	ormed by (Contractor		OW)	Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. X Required for work within 50ft of Railroad ROW or UNDER or OVER Railroad Insurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad companies are involved and operate on their own
of Ma	Work at these intenance co	e Crossings t	to Be Perfo	ormed by (Contractor		OW)	Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. X Required for work within 50ft of Railroad ROW or UNDER or OVER Railroad Insurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad companies are involved and operate on their own separate rights of way, provide separate insurance policies in the name of each Railroad Company. No direct compensation will be made to the contractor for providing the insurance coverages shown below or any deductibles. These costs are
of Ma	Work at these intenance co	e Crossings t	to Be Perfo	ormed by (Contractor		OW)	Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. Required for work within 50ft of Railroad ROW or UNDER or OVER Railroad Insurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad companies are involved and operate on their own separate rights of way, provide separate insurance policies in the name of each Railroad Company. No direct compensation will be made to the contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items.
of '	Work at these intenance co	e Crossings t	to Be Perfo	ormed by (Contractor		OM)	Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. Image: Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. Image: Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. Image: Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted. Image: Contractor shall provide the proper insurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad company is operating on the same right of way or where several railroad companies are involved and operate on their own separate rights of way, provide separate insurance policies in the name of each Railroad Company. No direct compensation will be made to the contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items. Type of Insurance Amount of Coverage (Minimum)
of ' A Ma	Work at these intenance co	e Crossings t	to Be Perfo	ormed by (Contractor		OW)	Contractor shall provide the proper insurance as shown in the table below, for work on the ROW or as noted.Image: Required for work within 50ft of Railroad ROW or UNDER or OVER RailroadInsurance policies must be issued for and on behalf of the Railroad. Where more than one Railroad Company is operating on the same right of way or where several railroad companies are involved and operate on their own separate rights of way, provide separate insurance policies in the name of each Railroad Company.No direct compensation will be made to the contractor for providing the insurance coverages shown below or any deductibles. These costs are incidental to the various bid items.Type of InsuranceAmount of Coverage (Minimum) \$500,000 / \$500,000Workers Compensation\$500,000 / \$500,000 / \$500,000

DATE:

CONTRACTOR'S RIGHT-OF-ENTRY (ROE) AGREEMENT

On this project, an ROE agreement is: Not Required

Required: TxDOT to assist in obtaining (see Item 5, Article 8.3)

With the following railroad companies: UPRR

Required: Contractor to obtain (see Item 5, Article 8.4)

With the following railroad companies:

To view previously approved ROE agreement templates agreed upon between the State and railroad company, see:

http://www.txdot.gov/inside-txdot/division/traffic/samples.html

Approved ROE agreement templates are not to be modified by the Contractor.

Contractor shall not operate within railroad rights of way without an executed Construction & Maintenance agreement between the state and the railroad and an executed ROE agreement between the contractor and the railroad if required on project.

RAILROAD COORDINATION MEETING

On this project, a Railroad Coordination Meeting is: Not Required

See Item 5, Article 8.1 for more details.

SUBCONTRACTORS

Contractor shall not subcontract work without written consent of TxDOT. Subcontractors are required to maintain the same insurance coverage as required of the Contractor.

EMERGENCY NOTIFICATION

In	Co	ose	of	Railroo	d	Emergenc	>y		
aı	L	UN	ION	PACIFIC	;	RAILROAD	EMERGENCY	LIN	ΙE
	1	١T	888	-877-726	57				

Texas Department		Traffic Operations Division				
RAILROAD S PROJECT SF UNION PAC	ECI	FI	C DET	A I	LS	
FILE: RR Scope of Work.dgn	dn: Tx[TOC	CK:	DW:	CK:	
CTxDOT June 2014	CONT	SECT	JOB		H1GHWAY	
REVISIONS						
10/2015	DIST	COUNTY			SHEET NO.	
					201	



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