Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 12-1
Environmental Permits, Issues, and Commitments (EPIC Sheets)

Attachment 12-1: I-35 NEX Central - Environmental Permits, Issues and Commitments (EPICs)

Environmental Discipline	NEPA Commitments	Contract References
Waters of the U.S. (Section 404)	- Evaluate Section 404 impacts per Final Design - Obtain/comply with necessary Section 404 permit - Deliver, monitor, maintain all required mitigation	- General Conditions 4.2.4.2.2 - DB Specifications 12.2.5.1
Archeological Resources	- Cease Work in immediate area, secure site from further intrusion, and notify TxDOT immediately if archeological materials are discovered	- General Conditions 4.2.4.2.9
State Threatened & Endangered (T&E)Species & Species of Greatest Conservation Neeed (SGCN)	- Review T&E species lists for species/habitat changes since authorization of Environmental Approvals - Implement & maintain the following Section 1 BMPs of the TxDOT/TPWD MOU: - Texas horned lizard - Texas garter snake - Spot-tailed earless lizard - Plains spotted skunk - Texas tortoise - Freshwater mussel - Terrestrial reptile - Fish - Bat - Bird - Water quality - Implement & maintain the following Section 2 BMPs of the TxDOT/TPWD MOU: - Bat - If T&E species are found during construction, cease Work in immediate area, do not harm species nor its habitat, and notify TxDOT immediately	- General Conditions 4.2.4.2.5 - General Conditions 4.2.4.2.5.1
Federal Threatened & Endangered Species	- Review T&E species lists for species/habitat changes since authorization of Environmental Approvals - Survey discovered karst features for listed invertebrates prior to continuing Work in immediate area - Comply with USFWS void discovery protocols and conservation measures - If T&E species are found during construction, cease Work in immediate area, do not harm species nor its habitat, and notify TxDOT immediately	- General Conditions 4.2.4.2.6.1
Karst Features	- Survey discovered karst features for listed invertebrates prior to continuing Work in immediate area - Comply with with USFWS conservation measures	- DB Specifications 12.2.5.2
Water Quality	- Comply with Sections 401 & 402 of the Clean Water Act - Comply with TCEQ TPDES Construction General Permit - Design, install, & maintain SWPPP BMPs - Implement & maintain the Section 1 Water Quality BMPs of the TxDOT/TPWD MOU - Submit Notice of Intent (NOI) & Notice of Termination (NOT) to TCEQ - Limit and/or phase clearing of vegetation	- General Conditions 4.2.4.2.2 - General Conditions 4.2.4.2.3 - DB Specifications 12.2.5.1
Noise	- Construct noise barriers as required - Minimize construction noise - Minimize night-time construction noise through appropriate mitigation practices	- General Conditions 4.2.4.2 - General Conditions 4.2.4.2.7 - DB Specifications 21.2.8
Hazardous Materials	- Conduct additional Hazardous Materials investigations of "high risk sites", as necessary, to identify if construction activities will encounter contaminants - Inspect, identify, test, notify, amend notifications as necessary, pay notification fees, and abate for any Hazardous Materials encountered within the project limits - Coordinate with utility companies prior to utility relocations - Complete ACM & LBP surveys for existing bridges and buildings to be demolished & abate in accoradnce with state & federal regulations - Notify Department of State Health Services 10 days prior to abatement and/or demolition activities - Notify TxDOT of any unanticipated Hazardous Materials discovered - Prevent, minimize, control, & abate the spill of hazardous materials	- General Conditions 4.2.3.3 - General Conditions 4.2.4.2.11 - General Conditions 4.2.4.3.1 - General Conditions 4.8 - DB Specifications 12.2.5.4 - DB Specifications 12.2.5.5
VIA Transit	- Provide VIA a minimum of 30 days notice prior to impacting existing VIA bus stops	- DB Specifications 26.2.1.1
Road Closures/Detours/Traffic Delays	- Notify city and local public safety officials of proposed road closures and/or detours - Notify adjacent neighborhoods and property owners of anticipated traffic delays - Notify traveling public of traffic modifications utilizing informative signage - Design road closures & detours in compliance with Texas Manual on Uniform Traffic Control Devices	- DB Specifications 26.2.1 - DB Specifications 26.2.1.1
Air Quality	- Implement dust control measures - Prevent, control, & mitigate fugitive noxious/toxic vapors - Utilize TERP to the fullest extent practicable	- DB Specifications 12.2.5.7
Property Access	- Maintain access to adjacent properties at all times during and after construction	-DB Specifications 12.2.5.9
Migratory Bird Treaty Act	- Remove old nests from structures between October 1 & February 15 - Prevent migratory birds from nesting between February 15 & October 1 - Avoid adverse impacts on protected migratory birds, active nests, eggs, and/or young discovered on Site - If species are present, cease Work in immediate area and notify TxDOT	- General Conditions 4.2.4.2.6.1
Vegetation	- Use minimization & avoidance to preserve vegetation to the greatest extent possible - Make efforts to protect trees that are not in conflict with construction, especially those trees located near the edge of construction areas - PSLs shall avoid riparian areas - Reseed/revegetate in accordance with TxDOT Specifications, TCEQ CGP, Executive Order 13112 on Invasive Species, & Executive Memorandum on Beneficial Landscaping	- DB Specifications 12.2.5.3 - DB Specifications 12.2.5.8 - General Conditions 4.2.4.2.5.1
ROW Acquisition	- Acquire ROW in accordance with: - Uniform Relocation Assistance Real Property Acquisition Policies Act of 1970, amended in 1987 - TxDOT's Right-of-Way Acquisition and Relocation Assistance Program	- DB Specifications 15.2.1

Floodplains	- Hydraulic design shall be in accordance with current FHWA & TxDOT design policies - Hydraulic design shall comply with 23 CFR 650 - Comply with Executive Order 11988 - Design shall permit conveyance of 100-year flood without causing significant damage to the facility, stream or other property - Design would not increase base flood elevation to a level that would violate flooplain ordinances - Coordinate with local floodplain administrator	-DB Specifications 20.2.2 -DB Specifications 20.3.5.1 -DB Specifications 20.3.5.4.2
Federal Aviation Administration (FAA)	- Coordinate with FAA to obtain airway highway clearance no later than 45 days prior to start of construction	- DB Specifications 12.2.5.6
Project Specific Locations (PSLs)	- Ensure regulatory compliance of all PSLs	- DB Specifications 12.2.5.8
Aesthetics	- Design aesthetic components in adherance with the December 2005 San Antonio District Urban Design Themes for Bexar and Outlying Counties	- DB Specifiactions 23.1.1

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 14-1
Utility Adjustment Forms

Texas Department of Transportation
Form DB-ROW-U-AdjCheck
REV 07/2018

UTILITY ADJUSTMENT CHECKLIST

(To be included with Utility Assembly Submittal)

U-No.: _____

District: _____

Utility Owner: _____

County(ies): _____

CSJ No(s).: R-_____ C-_____

Project Limits: _____ to _____

Federal ROW Project No.: _____

Reimbursement (*check one (1) box*): Actual Cost ☐ Lump Sum ☐ Non-Reimbursable ☐

Alternate Procedure Approval Date: _____

Description of Work (*Approximate from/to stationing and line type*):

Estimated Start Date: _____, 20_____

Estimated Completion or Duration: _____, 20_____

Estimated Total Adjustment Costs: $0.00

Estimated Betterment (*in dollars and calculated %*): $0.00 0%

Estimated Accrued Depreciation: $0.00

Estimated Salvage: $0.00

Credits and Vouchers: $0.00

Eligibility Ratio (*calculated and supported %*) $0.00 0%

Noteworthy Issues/Items: _____

ASSEMBLY PACKAGE

1. Have the required number of Utility Adjustment Assemblies of which the TxDOT Copy is color coded, been submitted?

   Yes ☐ No ☐ N/A ☐

2. Have the following forms been submitted?

PUAA/UAAA:	Yes ☐	No ☐	N/A ☐
UJUA:	Yes ☐	No ☐	N/A ☐
Statement - Contract Work:	Yes ☐	No ☐	N/A ☐
U-1 Affidavit:	Yes ☐	No ☐	N/A ☐
Quitclaim Deed:	Yes ☐	No ☐	N/A ☐
UM/UDC Sign Off:	Yes ☐	No ☐	N/A ☐

3. Are all forms submitted complete and correct for the situation/circumstance of the Utility Adjustment?

   Yes ☐ No ☐ N/A ☐

TRANSMITTAL MEMO

4. If the Adjustment has unique characteristics, does the transmittal include explanations and clarifications?

   Yes ☐ No ☐ N/A ☐

5. Has a recommendation for approval been stated?

   Yes ☐ No ☐ N/A ☐

6. If the Utility Adjustment is in more than one (1) RCSJ (Local Jurisdictional Boundary), have the percentages in each jurisdiction been detailed?

   Yes ☐ No ☐ N/A ☐

UTILITY ADJUSTMENT AGREEMENT

7. Have language modifications to the utility agreement been approved by TxDOT?

Yes ☐ No ☐ N/A ☐

8. Has the Utility consultant-engineering contract been reviewed and approved by the Developer's Utility Manager (UM)?

Yes ☐ No ☐ N/A ☐

UTILITY ADJUSTMENT PLANS AND SPECIFICATIONS

9. Plans folded so as to fit into 8.5" x 11" file?

Yes ☐ No ☐ N/A ☐

10. Have the Utility Adjustments been designed for the Proposed Configuration?

Yes ☐ No ☐ N/A ☐

11. Project or vicinity plan provided?

Yes ☐ No ☐ N/A ☐

12. Have the plans for the Utility Adjustment been sealed by a Registered Professional Engineer (PE)?

Yes ☐ No ☐ N/A ☐

13. Has the Utility Owner signed the cover sheet of the plans verifying review and approval, if Developer is responsible for Engineering on either Owner Managed or Developer Managed Agreement?

Yes ☐ No ☐ N/A ☐

14. Backfill requirements met (item 400 referenced)?

Yes ☐ No ☐ N/A ☐

15. If excavation is required, do the plans included a note on OSHA trench excavation protection?

Yes ☐ No ☐ N/A ☐

16. Is a note provided in the plans that the adjustment will conform with the TMUTCD?

Yes ☐ No ☐ N/A ☐

17. If the adjustment involves a plastic water, sanitary sewer, or gas line, has a metal detection wire been included in the estimate or with detailed in the plans?

Yes ☐ No ☐ N/A ☐

18. Has Barlow's Formula information been submitted for un-encased high pressure pipelines? (The Barlow's calculation must be provided by the utility owner. The following information is required to complete Barlow's formula. S=Yield Strength, Wall thickness = t, Outside Diameter = D, Design Factor = F. Maximum Operating Pressure must also be given and compared to the pressure calculated with Barlow's. The Barlow calculation must be shown with the submission.)

Yes ☐ No ☐ N/A ☐

19. If the pipeline is un-encased, is there adequate coating, wrapping and cathodic protection?

Yes ☐ No ☐ N/A ☐

20. Information on plans sufficient and adequate to:

Determine necessity and justification of proposed work?

Yes ☐ No ☐ N/A ☐

Demonstrate Utility Accommodation Rules compliance?

Yes ☐ No ☐ N/A ☐

Indicate highway stationing, existing and proposed ROW, offsets from proposed ROW, existing and proposed grades, and edge of pavement lines?

Yes ☐ No ☐ N/A ☐

Provide any other necessary or essential information such as pressure, flow, offset, type, condition, wall thickness, specifications etc.?

Yes ☐ No ☐ N/A ☐

21. Is this Utility Adjustment within ROW project limits or directly related to work required within project limits?

Yes ☐ No ☐ N/A ☐

22. Are any of the proposed utility facilities installed longitudinally within a control of access?

Yes ☐ No ☐ N/A ☐

COST ESTIMATE

23. Has the Developer's Utility Design Coordinator located on the plans the major items of material listed on the estimate by scaling or stationing?

Yes ☐ No ☐ N/A ☐

24. If the agreed sum method has been marked, has a detailed, itemized estimate and matching plans been provided?

Yes ☐ No ☐ N/A ☐

25. Is the estimate properly and adequately itemized and detailed?

Yes ☐ No ☐ N/A ☐

26. Are overheads and loadings checked for reasonableness?

Yes ☐ No ☐ N/A ☐

27. Replacement utility ROW charges justified and supported?

Yes ☐ No ☐ N/A ☐

28. Eligibility ratio calculated and recommended?

Yes ☐ No ☐ N/A ☐

29. Betterment credit applicable?

Yes ☐ No ☐ N/A ☐

If yes, is credit calculated and applied properly?

Yes ☐ No ☐ N/A ☐

30. Accrued Depreciation credit applicable?

Yes ☐ No ☐ N/A ☐

If yes, is credit calculated and applied properly?

Yes ☐ No ☐ N/A ☐

31. Salvage credit applicable?

Yes ☐ No ☐ N/A ☐

If yes, is credit applied properly?

Yes ☐ No ☐ N/A ☐

32. Estimate extensions checked?

Yes ☐ No ☐ N/A ☐

AFFIDAVIT OF PROPERTY INTEREST

33. Proof of compensable property interest established by utility where applicable?

Yes ☐ No ☐ N/A ☐

If yes, according to the "**Real Property Interest**" paragraph of the PUAA:

Does the estimate detail reimbursement for "New Property" interest?

Yes ☐ No ☐ N/A ☐

Does the estimate detail compensation for relinquishing "Existing Property" interest?

Yes ☐ No ☐ N/A ☐

Did the utility owner provide a letter stating that they will quitclaim their property interest at no costs or an agreed sum if new utility property interests are not being acquired?

Yes ☐ No ☐ N/A ☐

34. Have the parcel ID numbers to be Quitclaimed been identified?

Yes ☐ No ☐ N/A ☐

35. Has the owner provided a signed letter of intent to Quitclaim, and has a copy of the correct Quitclaim Deed(s) been submitted?

Yes ☐ No ☐ N/A ☐

R.O.W. MAPS

36. Approved and current ROW Maps on file with project office?

Yes ☐ No ☐ N/A ☐

37. Have the existing and proposed utility facilities been plotted on the ROW map and attached to this assembly?

Yes ☐ No ☐ N/A ☐

COMMENTS: _____

Prepared by: _____ _____
Utility Design Coordinator Date

Recommended for Approval by: _____ _____
Quality Control Date

Approved by: _____ _____
Utility Manager Date

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

PROJECT UTILITY ADJUSTMENT AGREEMENT
(DB Contractor-Managed)

Agreement No.: _____-U-_____

THIS AGREEMENT, by and between [DB Contractor], hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT", is authorized to design, construct, operate, maintain, and improve projects as part of the state highway system throughout the State of Texas, all in conformance with the applicable provisions of Chapters 201, 203, 222, 223, 224 and 228 of the Texas Transportation Code, as amended; and

WHEREAS, TxDOT proposes to construct a project identified as [Project Name] (the "Project") and classified as either Interstate, Toll or Traditional (meaning eligibility based on existing compensable interest in the land occupied by the facility to be relocated within the proposed highway right of way limits) as indicated below (*check one (1) box*). Reimbursement will be authorized by the type of project selected below in conformance with §203.092 of the Transportation Code,

☐ Interstate

☐ Toll

☐ Traditional

; and

WHEREAS, pursuant to that certain Design-Build Contract ("DBC") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, finance, operate and maintain the Project and adhere to all requirements in the DBC; and

WHEREAS, the DB Contractor's duties pursuant to the DBC include causing the relocation, removal or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"), subject to the provisions herein; and

WHEREAS, the Project may receive Federal funding, financing and/or credit assistance; and

WHEREAS, the DB Contractor has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Project (and/or with the Ultimate Configuration of the Project), and the Owner has requested that the DB Contractor undertake the Adjustment of the Owner Utilities as necessary to accommodate the Project (and the Ultimate Configuration) and the Owner agrees that the "Project" will be constructed in accordance with §203.092 of the Texas Transportation Code, as amended, and 23 CFR 645 Subpart A (Utility Relocations, Adjustments and Reimbursement); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*:

_____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the DB Contractor and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the DB Contractor and the Owner agree as follows:

1. **Preparation of Plans.** [*Check one (1) box that applies:*]

☐ The DB Contractor has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The DB Contractor represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), as set forth in 43 Texas Administrative Code Part 1, Chapter 21, Subchapter C, *et seq.* (the "UAR"). By its execution of this Agreement or by the signing of the Plans, the Owner hereby approves and confirms that the Plans are in compliance with the "standards" described in Paragraph 3(a)(4).

☐ The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The Owner represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), as set forth in 43 Texas Administrative Code Part 1, Chapter 21, Subchapter C, *et seq.* (the "UAR"). By its execution of this Agreement, the DB Contractor and the Owner hereby approve the Plans. The Owner also has provided to the DB Contractor a Utility plan view map illustrating the location of existing and proposed Utility facilities on the DB Contractor's right of way map of the Project. With regard to its preparation of the Plans, the Owner represents as follows *[check one (1) box that applies]*:

☐ The Owner's employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner's typical costs for such work.

☐ The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Project for comparable work for the Owner.

2. **Review by TxDOT.** The parties hereto acknowledge and agree as follows:

(a) Upon execution of this Agreement by the DB Contractor and the Owner, the DB Contractor will submit this Agreement, together with the attached Plans, to TxDOT for its review and approval as part of a package referred to as a "Utility Assembly". The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to all parties, to respond to any comments made by TxDOT thereon. Without limiting the generality of the foregoing:

(1) The Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the DB Contractor in response to TxDOT comments within **14 Business Days** after receipt of such modifications; and

(2) If the Owner originally prepared the Plans, the Owner agrees to modify the Plans in response to TxDOT comments and to submit such modified Plans to the DB Contractor for its comment and/or approval (and re-submittal to TxDOT for its comment and/or approval) within **14 Business Days** after receipt of TxDOT's comments.

The Owner's failure to timely respond to any modified Plans submitted by the DB Contractor pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the DB Contractor shall have the right to modify the Plans for the Owner's approval as if the DB Contractor had originally prepared the Plans. The process set forth in this paragraph will be repeated until the Owner, the DB Contractor and TxDOT have all approved this Agreement and the Plans.

(b) The parties hereto acknowledge and agree that TxDOT's review, comments and approval of a Utility Assembly or any component thereof shall constitute TxDOT's approval of the location and manner in which a Utility Assembly will be installed, adjusted, or relocated within the State Highway right of way (the "ROW"), subject to the DB Contractor and the Owner's satisfactory performance of the Adjustment work in accordance with the approved Plans. TxDOT has no duty to review Owner Utilities or components for their quality or adequacy to provide the intended Utility service.

3. **Design and Construction Standards.**

(a) All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:

(1) All applicable local and State Laws, regulations, decrees, ordinances and policies, including the UAR, the *Utility Manual* issued by TxDOT (to the extent its requirements are mandatory for the Utility Adjustment necessitated by the Project, as communicated to the Owner by the DB Contractor or TxDOT), the requirements of the DBC, and the policies of TxDOT;

(2) All Federal Laws, regulations, decrees, ordinances and policies applicable to projects receiving Federal funding, financing and/or credit assistance, including without limitation, 23 CFR 645 Subpart A and B; and the Buy America provisions of 23 U.S.C. §313 and 23 CFR 635.410. The Utility Owner shall supply, upon request by the DB Contractor or TxDOT, proof of compliance with the aforementioned Laws, rules and regulations prior to the commencement of construction;

(3) The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work;

(4) The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to Utility facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the DB Contractor in writing; and

(5) Owner agrees that all service matters must be placed outside of the State ROW.

(b) Such design and construction also shall be consistent and compatible with:

(1) The DB Contractor's current design and construction of the Project;

(2) The Ultimate Configuration for the Project; and

(3) Any other Utilities being installed in the same vicinity.

The Owner acknowledges receipt of Project plans and Ultimate Configuration documents from the DB Contractor as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

(c) The plans, specifications, and cost estimates contained in Exhibit A shall identify and detail all Utility facilities that the Owner intends to abandon in place rather than remove, including material type, quantity, size, age and condition. No facilities containing hazardous or contaminated materials may be abandoned, but shall be specifically

identified and removed in accordance with the requirements of subparagraph (a). It is understood and agreed that the DB Contractor shall not pay for the assessment and remediation or other corrective action relating to soil and ground water contamination caused by the Utility facility prior to the removal.

4. **Responsibility for Costs of Adjustment Work.** With the exception of any Betterment (hereinafter defined), the parties shall allocate the cost of any Adjustment between themselves as identified in Exhibit A and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A.

5. **Construction by the DB Contractor.**

(a) The Owner hereby requests that the DB Contractor perform the construction necessary to adjust the Owner Utilities and the DB Contractor hereby agrees to perform such construction. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 16).

(b) The DB Contractor shall retain such contractor or contractors as are necessary to adjust the Owner Utilities.

(c) The DB Contractor shall obtain all permits necessary for the construction to be performed by the DB Contractor hereunder, and the Owner shall cooperate in that process as needed.

6. **Reimbursement of Owner's Indirect Costs.**

(a) DB Contractor agrees to reimburse the Owner its share, if applicable, of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in Exhibit A. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 90% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

(b) The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below [*check only one (1) box*]:

☐ (1) Actual related indirect costs accumulated in accordance with:

(i) A work order accounting procedure prescribed by the applicable Federal or State regulatory body, or

(ii) Established accounting procedure developed by the Owner and which the Owner uses in its regular operations

*(either (i) or (ii) referred to as "**Actual Cost**")*, OR

☐ (2) The agreed sum of $_____ ("**Agreed Sum**") as supported by the analysis of the Owner's estimated costs attached hereto as part of Exhibit A.

(c) All indirect costs charged to the DB Contractor by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to similar work performed by or for the Owner at the Owner's expense. The DB Contractor's performance of the Adjustment work hereunder and payment of the DB Contractor's share of the Owner's costs pursuant to this Agreement, if applicable, shall be full compensation to the Owner for all costs incurred by the Owner in adjusting the Owner Utilities (including without limitation, costs of relinquishing and/or acquiring right of way).

7. **Advancement of Funds by Owner for Construction Costs.**

(a) Advancement of Owner's share, if any, of estimated costs, Exhibit A shall identify all estimated engineering and construction-related costs, including labor, material, equipment and other miscellaneous construction items. Exhibit A shall also identify the Owner's and DB Contractor's respective shares of the estimated costs. The Owner shall advance to the DB Contractor its allocated share, if any, of the estimated costs for construction and engineering work to be performed by the DB Contractor, in accordance with the following terms:

☐ The Adjustment of the Owner's Utilities does not require advancement of funds.

☐ The Adjustment of the Owner's Utilities does require advancement of funds and the terms agreed to between the DB Contractor and the Owner are listed below.

[Insert terms of advance funding to be agreed between DB Contractor and Owner]

_____

(b) Adjustment Based on Actual Costs or Agreed Sum

[*Check the one (1) appropriate provision, if advancement of funds is required*]:

☐ The Owner is responsible for its share of the DB Contractor's actual cost for the Adjustment, including the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement, (i) the Owner shall pay to the DB Contractor the amount, if any, by which the actual cost of the Betterment (as determined in Paragraph 9(b)) *plus* the actual cost of Owner's share of the Adjustment (based on the allocation set forth in Exhibit A) exceeds the estimated cost advanced by the Owner, or (ii) the DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable.

☐ The Agreed Sum is the agreed and final amount due for the Adjustment, including any Betterment, under this Agreement. Accordingly, no adjustment (either up or down) of such amount shall be made based on actual costs.

8. **Invoices.** On invoices prepared by either the Owner or the DB Contractor, all costs developed using the "**Actual Cost**" method described in Paragraph 6(b)(1) shall be itemized in a format allowing for comparisons to the approved estimates, including listing each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice, together with (i) such supporting information to substantiate all invoices as reasonably requested, and (ii) such waivers and releases of liens as the other party may reasonably require, shall be submitted to the other party at the address for notices stated in Paragraph 21, unless otherwise directed pursuant to Paragraph 22.

The Owner and the DB Contractor shall make commercially reasonable efforts to submit final invoices no later than 120 days after completion of work. The Owner and the DB Contractor hereby acknowledge and agree that any costs submitted to the other party within 12 months following completion of all Adjustment work to be performed by the parties pursuant to this Agreement shall be deemed to have been abandoned and waived.

9. **Betterment and Salvage.**

(a) For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being adjusted that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the adjusted Utility over that provided by the existing Utility or an expansion of the existing Utility; *provided, however*, that the following are not considered Betterments:

(1) Any upgrading which is required for accommodation of the Project;

(2) Replacement devices or materials that are of equivalent standards although not identical;

(3) Replacement of devices or materials no longer regularly manufactured with the next highest grade or size;

(4) Any upgrading required by applicable Laws, regulations or ordinances;

(5) Replacement devices or materials which are used for reasons of economy (e.g., non-stocked items that may be uneconomical to purchase); or

(6) Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4) and deemed to be of direct benefit to the Project.

[*Include the following for fiber optic Owner Utilities only:*] Extension of an adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

(b) It is understood and agreed that the DB Contractor shall not pay for any Betterments and that the Owner shall be solely responsible therefor. No Betterment may be performed hereunder which is incompatible with the Project or the Ultimate Configuration or which

cannot be performed within the other constraints of applicable Law, any applicable governmental approvals, including without limitation the scheduling requirements thereunder.

Accordingly, the parties agree as follows [*check the one (1) box that applies, and complete if appropriate*]:

☐ The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.

☐ The Adjustment of the Owner Utilities pursuant to the Plans includes a Betterment to the Owner Utilities by reason of *[Insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____.

The DB Contractor has provided to the Owner comparative estimates for (i) all work to be performed by the DB Contractor pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of the DB Contractor's work hereunder which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of the DB Contractor's work hereunder which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i), which remainder is *divided* by (i).

(c) If Paragraph 9(b) identifies Betterment, the Owner shall advance to the DB Contractor, at least **14 Business Days** prior to the date scheduled for commencement of construction for Adjustment of the Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 9(b). Should the Owner fail to advance payment to the DB Contractor **14 Business Days** prior to commencement of the Adjustment construction, the DB Contractor shall have the option of commencing and completing (without delay) the Adjustment work without installation of the applicable Betterment. *[If Paragraph 9(b) identifies Betterment, check the one (1) appropriate provision]*:

☐ The estimated cost stated in Paragraph 9(b) is the agreed and final amount due for Betterment hereunder, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.

☐ The Owner is responsible for the DB Contractor's actual cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement, (i) the Owner shall pay to the DB Contractor the amount, if any, by which the actual cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable. Any additional payment by the Owner shall be due within **60 calendar days** after the Owner's receipt of the DB Contractor's invoice therefor, together with supporting documentation; any refund shall be due within **60 calendar days** after completion of the Adjustment work hereunder. The actual cost of Betterment incurred by the DB Contractor shall be calculated by *multiplying* (i) the

Betterment percentage stated in Paragraph 9(b), by (ii) the actual cost of all work performed by the DB Contractor pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the DB Contractor to the Owner.

(d) If Paragraph 9(b) identifies Betterment, the amount allocable to Betterment in the Owner's indirect costs shall be determined by applying the percentage of the Betterment calculated in Paragraph 9(b) to the Owner's indirect costs. The Owner's invoice to the DB Contractor for the DB Contractor's share of the Owner's indirect costs, shall credit the DB Contractor with any Betterment amount determined pursuant to this Paragraph 9(d).

(e) For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the Owner's invoice to the DB Contractor for its costs shall credit the DB Contractor with the salvage value for such materials and/or parts.

(f) The determinations and calculations of Betterment described in this Paragraph 9 shall exclude right of way acquisition costs. Betterment in connection with right of way acquisition is addressed in Paragraph 15.

10. **Management of the Adjustment Work.** The DB Contractor will provide project management during the Adjustment of the Owner Utilities.

11. **Utility Investigations.** At the DB Contractor's request, the Owner shall assist the DB Contractor in locating any Utilities (including appurtenances) which are owned and/or operated by the Owner and may be impacted by the Project. Without limiting the generality of the foregoing, in order to help assure that neither the adjusted Owner Utilities nor existing, unadjusted Utilities owned or operated by the Utility Owner are damaged during construction of the Project, the Owner shall mark in the field the location of all such Utilities horizontally on the ground in advance of Project construction in the immediate area of such Utilities.

12. **Inspection and Acceptance by the Owner.**

(a) Throughout the Adjustment construction hereunder, the Owner shall provide adequate inspectors for such construction. The work shall be inspected by the Owner's inspector(s) at least once each working day, and more often if such inspections are deemed necessary by Owner. Further, upon request by the DB Contractor or its Subcontractors, the Owner shall furnish an inspector at any reasonable time in which construction is underway pursuant to this Agreement, including occasions when construction is underway in excess of the usual 40 hour work week and at such other times as reasonably required. The Owner agrees to promptly notify the DB Contractor of any concerns resulting from any such inspection.

(b) The Owner shall perform a final inspection of the adjusted Owner Utilities, including conducting any tests as are necessary or appropriate, within **five (5) Business Days** after completion of construction hereunder. The Owner shall accept such construction if it is consistent with the performance standards described in Paragraph 3, by giving written notice of such acceptance to the DB Contractor within said **five (5) day** period. If the Owner does not accept the construction, then the Owner shall, not later than the

expiration of said **five (5) day** period, notify the DB Contractor in writing of its grounds for non-acceptance and suggestions for correcting the problem, and if the suggested corrections are justified, the DB Contractor will comply. The Owner shall re-inspect any revised construction (and retest if appropriate) and give notice of acceptance, no later than **five (5) Business Days** after completion of corrective work. The Owner's failure to inspect and to give any required notice of acceptance or non-acceptance within the specified time period shall be deemed accepted.

(c) From and after the Owner's acceptance (or deemed acceptance) of an adjusted Owner Utility, the Owner agrees to accept ownership of, and full operation and maintenance responsibility for, such Owner Utility.

13. **Design Changes.** The DB Contractor will be responsible for additional Adjustment design and construction costs necessitated by design changes to the Project, upon the terms specified herein.

14. **Field Modifications.** The DB Contractor shall provide the Owner with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes described in Paragraph 16(b), occurring in the Adjustment of the Owner Utilities.

15. **Real Property Interests.**

(a) The Owner has provided, or upon execution of this Agreement shall promptly provide to the DB Contractor, documentation acceptable to TxDOT indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to TxDOT's approval as part of its review of the DB Contractor Utility Assembly as described in Paragraph 2. Claims approved by TxDOT as to rights or interests are referred to herein as "**Existing Utility Property Interests**".

(b) If acquisition of any new easement or other interest in real property ("**Replacement Utility Property Interest**") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the DB Contractor's Project schedules. The DB Contractor shall be responsible for its share (as specified in Paragraph 4) of the actual and reasonable acquisition costs of any such Replacement Utility Property Interest (including without limitation the Owner's reasonable overhead charges and reasonable legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 15(c), and subject to the provisions of Paragraph 15(e); *provided, however*, that all acquisition costs shall be subject to the DB Contractor's prior written approval. Eligible acquisition costs shall be segregated from other costs on the Owner's estimates and invoices. Any such Replacement Utility Property Interest shall have a written valuation and shall be acquired in accordance with applicable Law.

(c) The DB Contractor shall pay its share only for a replacement in kind of an Existing Utility Property Interest (e.g., in width and type), unless a Replacement Utility Property Interest exceeding such standard:

(1) Is required in order to accommodate the Project or by compliance with applicable Law; or

(2) Is called for by the DB Contractor in the interest of overall Project economy.

Any Replacement Utility Property Interest which is not the DB Contractor's responsibility pursuant to the preceding sentence shall be considered Betterment to the extent that it upgrades the Existing Utility Property Interest which it replaces, or in its entirety if the related Owner Utility was not installed pursuant to an Existing Utility Property Interest. Betterment costs shall be solely the Owner's responsibility.

(d) For each Existing Utility Property Interest located within the Project right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Utility Property Interest to TxDOT, unless the affected Owner Utility is remaining in its original location or is being reinstalled in a new location within the area subject to such Existing Utility Property Interest. If the Owner's facilities are remaining within the existing property interest, a Utility Joint Use Acknowledgement will be required. All quitclaim deeds or other relinquishment documents shall be subject to TxDOT's approval as part of its review of the Utility Assembly as described in Paragraph 2. For each such Existing Utility Property Interest relinquished by the Owner, the DB Contractor shall do one (1) of the following to compensate the Owner for such Existing Utility Property Interest, as appropriate:

(1) If the Owner acquires a Replacement Utility Property Interest for the affected Owner Utility, the DB Contractor shall reimburse the Owner for the DB Contractor's share of the Owner's actual and reasonable acquisition costs in accordance with Paragraph 15(b), subject to Paragraph 15(c); or

(2) If the Owner does not acquire a Replacement Utility Property Interest for the affected Owner Utility, the DB Contractor shall compensate the Owner for the DB Contractor's share of the market value of such relinquished Existing Utility Property Interest, as mutually agreed between the Owner and the DB Contractor and supported by a written valuation.

The compensation, if any, provided to the Owner pursuant to either subparagraph (i) or (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Utility Property Interest and any Replacement Utility Property Interest, and not further compensation shall be due to the Owner from the DB Contractor or TxDOT on account of such Existing Utility Property Interest or Replacement Utility Property Interest.

(e) All Utility Joint Use Acknowledgments (UJUA) or Utility Installation Requests, Form 1082 shall be subject to TxDOT approval as part of its review of the Utility Assembly as described in Paragraph 2. A Utility Joint Use Acknowledgment is required where an Existing Utility Property Interest exists and the existing or proposed Utility will remain or be adjusted within the boundaries of the Existing Utility Property Interest. All other accommodations not located on Existing Utility Property Interests will require a Utility Installation Request, Form 1082.

16. **Amendments and Modifications.** This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 16(a) or Paragraph 16(b) below:

    (a) Except as otherwise provided in Paragraph 16(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment ("**UAAA**") in the form of Exhibit B hereto (DB-ROW-U-UAAA-DM). The UAAA form can be used for a new scope of work with concurrence of the DB Contractor and TxDOT as long as the design and construction responsibilities have not changed. Each UAAA is subject to the review and approval of TxDOT, prior to its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs for each UAAA separately from other work being performed.

    (b) For purposes of this Paragraph 16(b), "**Utility Adjustment Field Modification**" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by TxDOT, due either to design of the Project or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 inch water line to miss a modified or new roadway drainage structure). A Utility Adjustment Field Modification agreed upon by the DB Contractor and the Owner does not require a UAAA, provided that the modified Plans have been submitted to TxDOT for its review and comment. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 14.

    (c) This Agreement does not alter and shall not be construed in any way to alter the obligations, responsibilities, benefits, rights, remedies, and claims between the DB Contractor and TxDOT to design and construct the Project, including the Adjustment.

17. **Entire Agreement.** This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

18. **Assignment; Binding Effect; TxDOT as Third-Party Beneficiary.** Neither the Owner nor the DB Contractor may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party and of TxDOT, which consent may not be unreasonably withheld or delayed; *provided, however*, that the DB Contractor may assign any of its rights and/or delegate any of its duties to TxDOT or to any other entity engaged by TxDOT to fulfill the DB Contractor's obligations, at any time without the prior consent of the Owner.

    This Agreement shall bind the Owner, the DB Contractor and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by any party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; *provided, however*, that the Owner and the DB Contractor agree that although TxDOT is not a party to this Agreement, TxDOT is intended to be a third-party beneficiary to this Agreement.

19. **Breach by the Parties.**

(a) If the Owner claims that the DB Contractor has breached any of its obligations under this Agreement, the Owner will notify the DB Contractor and TxDOT in writing of such breach, and the DB Contractor shall have **30 days** following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; *provided, however*, that both during and after such period TxDOT shall have the right, but not the obligation, to cure any breach by the DB Contractor. Without limiting the generality of the foregoing:

(1) TxDOT shall have no liability to the Owner for any act or omission committed by the DB Contractor in connection with this Agreement, including without limitation any claimed defect in any design or construction work supplied by the DB Contractor or by its Subcontractors; and

(2) In no event shall TxDOT be responsible for any repairs or maintenance to the Owner Utilities adjusted pursuant to this Agreement.

(b) If the DB Contractor claims that the Owner has breached any of its obligations under this Agreement, the DB Contractor will notify the Owner and TxDOT in writing of such breach, and the Owner shall have **30 days** following receipt of such notice in which to cure such breach, before the DB Contractor may invoke any remedies which may be available to it as a result of such breach.

20. **Traffic Control.** The DB Contractor shall provide traffic control or shall reimburse the Owner for the DB Contractor's share (if any, as specified in Paragraph 4) of the costs for traffic control made necessary by the Adjustment work performed by either the DB Contractor or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas *Manual on Uniform Traffic Control Devices*. Betterment percentages calculated in Paragraph 9 shall also apply to traffic control costs.

21. **Notices.** Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following:

Owner:	Address Line #1 Address Line #2 City, State Zip Phone: ( ) - Fax: ( ) -
DB Contractor:	Address Line #1 Address Line #2 City, State Zip Phone: ( ) - Fax: ( ) -

A party sending notice of default of this Agreement to another party shall also send a copy of such notice to TxDOT at the following address:

Texas Department of Transportation
Attention: Project Finance, Debt & Strategic Contracts Division
125 E 11th Street
Austin, TX 78701-2483

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt, and any notice served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Any party may designate any other address for this purpose by written notice to all other parties; TxDOT may designate another address by written notice to all parties.

22. **Approvals.** Any acceptance, approval, or any other like action (collectively "**Approval**") required or permitted to be given by the DB Contractor, the Owner or TxDOT pursuant to this Agreement:

(a) Must be in writing to be effective (except if deemed granted pursuant hereto);

(b) Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval; and

(c) Except for approvals by TxDOT, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then **14 calendar days**), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 21.

23. **Time.**

(a) Time is of the essence in the performance of this Agreement.

(b) All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.

(c) No party shall be liable to another party for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("**Force Majeure**"), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts.

24. **Continuing Performance.** In the event of a dispute, the Owner and the DB Contractor agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

25. **Equitable Relief.** The DB Contractor and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties' remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Project. Consequently, the parties hereto (and TxDOT as well, as a third-party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Project; *provided, however*, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

26. **Authority.** The Owner and the DB Contractor each represent and warrant to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.

27. **Cooperation.** The parties acknowledge that the timely completion of the Project will be influenced by the ability of the Owner (and its contractors) and the DB Contractor to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the DB Contractor agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with the DB Contractor's current and future construction schedules for the Project.

28. **Termination.** If the Project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the DB Contractor shall notify the Owner in writing and the DB Contractor reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.

29. **Nondiscrimination.** Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.

30. **Applicable Law, Jurisdiction and Venue.** This Agreement shall be governed by the Laws of the State of Texas, without regard to the Conflict of Laws principles thereof. Venue for any action brought to enforce this Agreement or relating to the relationship between any of the parties shall be the District Court of _____ County, Texas [or the United States District Court for the Western District of Texas (Austin)].

31. **Relationship of the Parties.** This Agreement does not in any way, and shall not be construed to, create a principal/agent or joint venture relationship between the parties hereto and under no circumstances shall the Owner or the DB Contractor be considered as or represent itself to be an agent of the other.

32. **Waiver of Consequential Damages.** No party hereto shall be liable to any other party to this Agreement, whether in contract, tort, equity, or otherwise (including negligence, warranty, indemnity, strict liability, or otherwise) for any punitive, exemplary, special, indirect, incidental, or consequential damages, including, without limitation, loss of profits or revenues, loss of use, claims of customers, or loss of business opportunity.

33. **Captions.** The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the content of their respective paragraphs.

34. **Counterparts.** This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

35. **Effective Date.** This Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or DB Contractor) signing this Agreement, and (b) the date of TxDOT's approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
[Printed Name]

By: _____
Authorized Signature

District Engineer (or designee)

Date: _____

OWNER

By: _____
[Print Owner Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

DB CONTRACTOR

By: _____
[Print Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES AND ALLOCATION

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT B

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(DB-ROW-U-UAAA-DM)

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(DB Contractor-Managed)

(**Amendment No. _____ to Agreement No.: _____** -U-_____)

THIS AMENDMENT TO PROJECT UTILITY ADJUSTMENT AGREEMENT (this "Amendment"), by and between, [DB Contractor] hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "**TxDOT**", proposes to construct the project identified above (the "Project", as more particularly described in the "Original Agreement", defined below); and

WHEREAS, pursuant to that certain Design-Build Contract ("DBC") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, and potentially maintain the Project, including causing the removal, relocation, or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"); and

WHEREAS, the Owner and DB Contractor are parties to that certain executed Project Utility Adjustment Agreement (PUAA) designated by the "Agreement No." indicated above, as amended by previous amendments, if any (the "Original Agreement"), which provides for the Adjustment of certain Utilities owned and/or operated by the Owner (the "Owner Utilities"); and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the Adjustment of Owner Utilities facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner Utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1. **Amendment**. The Original Agreement is hereby amended as follows:

1.1 **Plans**.

(a) The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities in the Original Agreement is hereby amended to add the following Utility facility(ies) ("**Additional Owner Utilities**") and proposed Adjustment(s) to the Owner Utilities described in the Original Agreement *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*: _____.

(b) The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the Plans, specifications and cost estimates attached hereto as Exhibit A; and

(c) The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to TxDOT in accordance with Paragraph 2 of the Original Agreement, and Paragraph 2 shall apply to this Amendment and the Plans attached hereto in the same manner as if this Amendment were the Original Agreement. If the Owner claims an Existing Utility Property Interest for any of the Additional Owner Utilities, documentation with respect to such claim shall be submitted to TxDOT as part of this Amendment and the attached Plans, in accordance with Paragraph 15(a) of the Original Agreement.

1.2 **Reimbursement of Owner's Indirect Costs.** For purposes of Paragraph 6 of the Original Agreement, the following terms apply to the Additional Owner Utilities and proposed Adjustment:

(a) DB Contractor agrees to reimburse the Owner its share of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in Exhibit A. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 90% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

(b) The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only one (1) box]*:

☐ (1) Actual related indirect costs accumulated in accordance with:

(i) A work order accounting procedure prescribed by the applicable Federal or State regulatory body; or

(ii) Established accounting procedure developed by the Owner and which the Owner uses in its regular operations;

(either (i) or (ii) referred to as "**Actual Cost**"*)*, or

☐ (2) The agreed sum of $_____ ("**Agreed Sum**") as supported by the analysis of the Owner's estimated costs attached hereto as part of Exhibit A.

1.3 **Advancement of Funds by Owner for Construction Costs.**

(a) Advancement of Owner's share, if any, of estimated costs. Exhibit A shall identify all estimated engineering and construction-related costs, including labor, material, equipment and other miscellaneous construction items. Exhibit A shall also identify the Owner's and DB Contractor's respective shares of the estimated costs.

The Owner shall advance to the DB Contractor its allocated share, if any, of the estimated costs for construction and engineering work to be performed by DB Contractor, in accordance with the following terms:

☐ The Adjustment of the Owner's Utilities does not require advancement of funds.

☐ The Adjustment of the Owner's Utilities does require advancement of funds and the terms agreed to between the DB Contractor and Owner are listed below.

[Insert terms of advance funding to be agreed between DB Contractor and Owner.]

_____

(b) Adjustment Based on Actual Costs or Agreed Sum.

[Check the one (1) appropriate provision, if advancement of funds is required]:

☐ The Owner is responsible for its share of the DB Contractor Actual Cost for the Adjustment, including the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment:

(i) The Owner shall pay to the DB Contractor the amount, if any, by which the Actual Cost of the Betterment (as determined in Paragraph 9(b)) *plus* the Actual Cost of Owner's share of the Adjustment (based on the allocation set forth in Exhibit A) exceeds the estimated cost advanced by the Owner; or

(ii) The DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such Actual Cost, as applicable.

☐ The Agreed Sum is the agreed and final amount due for the Adjustment, including any Betterment, under this Amendment. Accordingly, no adjustment (either up or down) of such amount shall be made based on Actual Costs.

1.4 **Responsibility for Costs of Adjustment Work.** For purposes of Paragraph 4 of the Original Agreement, responsibility for the Agreed Sum or Actual Cost, as applicable, of all Adjustment work to be performed pursuant to this Amendment shall be allocated between the DB Contractor and the Owner as identified in Exhibit A hereto and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A; *provided however*, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 9 of the Original Agreement.

1.5 **Betterment**.

(a) Paragraph 9(b) (Betterment and Salvage) of the Original Agreement is hereby amended to add the following *[Check the one (1) box that applies, and complete if appropriate]*:

☐ The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, does not include any Betterment.

☐ The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the Additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____.

The DB Contractor has provided to the Owner comparative estimates for (i) all work to be performed by the DB Contractor pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of the DB Contractor work under this Amendment which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of the DB Contractor work under this Amendment which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i), which remainder is *divided* by (i).

(b) If the above Paragraph 1.5(a) identifies Betterment, the Owner shall advance to the DB Contractor, at least **14 days** prior to the date scheduled for commencement of construction for Adjustment of the Additional Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 1.5(a) of this Amendment. If the Owner fails to advance payment to the DB Contractor on

or before the foregoing deadline, the DB Contractor shall have the option of commencing and completing (without delay) the Adjustment work without installation of the applicable Betterment. *[Check the one (1) appropriate provision]*:

☐ The estimated cost stated in Paragraph 1.5(a) of this Amendment is the agreed and final amount due for Betterment under this Amendment, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.

☐ The Owner is responsible for the DB Contractor Actual Cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment, (i) the Owner shall pay to the DB Contractor the amount, if any, by which the Actual Cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the DB Contractor shall refund to the Owner the amount, if any, by which such advance exceeds such Actual Cost, as applicable. Any additional payment by the Owner shall be due within **60 days** after the Owner's receipt of the DB Contractors invoice therefor, together with supporting documentation; any refund shall be due within **60 days** after completion of the Adjustment work under this Amendment. The Actual Cost of Betterment incurred by the DB Contractor shall be calculated by *multiplying* (i) the Betterment percentage stated in Paragraph 1.5(a) of this Amendment, by (ii) the Actual Cost of all work performed by the DB Contractor pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the DB Contractor to the Owner.

(c) The determinations and calculations of Betterment described in this Amendment shall exclude right of way acquisition costs. Betterment in connection with right of way acquisition is addressed in Paragraph 15 of the Original Agreement.

1.6 **Miscellaneous**.

(a) The Owner and the DB Contractor agree to refer to this Amendment, designated by the "Amendment No." and "Agreement Number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

(b) *[Include any other proposed amendments allowed by applicable Law.]*

_____

2. **General.**

(a) All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.

(b) This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

(c) Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the DB Contractor, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.

(d) This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the DB Contractor) signing this Amendment, and (b) the completion of TxDOT's review and approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
[Printed Name]

By: _____
Authorized Signature

District Engineer (or designee)

Date: _____

OWNER

By: _____
[Print Name]

By: _____
Duly Authorized Representative Signature

[Title]
[Company]

Date: _____

DB CONTRACTOR

By: _____
[Print Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

PROJECT UTILITY ADJUSTMENT AGREEMENT
(Owner-Managed)

Agreement No.: _____-U-_____

THIS AGREEMENT, by and between [DB Contractor], hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT", is authorized to design, construct, operate, maintain, and improve projects as part of the state highway system throughout the State of Texas, all in conformance with the applicable provisions of Chapters 201, 203, 222, 223, 224 and 228 of the Texas Transportation Code, as amended; and

WHEREAS, TxDOT proposes to construct a project identified as the [Project Name] (the "Project") and classified as either Interstate, Toll or Traditional (meaning eligibility based on existing compensable interest in the land occupied by the facility to be relocated within the proposed highway right of way limits) as indicated below (*check one (1) box*). Reimbursement will be authorized by the type of project selected below in conformance with Transportation Code 203.092,

☐ Interstate

☐ Toll

☐ Traditional

;and

WHEREAS, pursuant to that certain Design-Build Contract ("DBC") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, finance, operate and maintain the Project and adhere to all requirements in the DBC; and

WHEREAS, the DB Contractor's duties pursuant to the DBC include causing the relocation, removal, or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"), subject to the provisions herein; and

WHEREAS, the Project may receive Federal funding, financing and/or credit assistance; and

WHEREAS, the DB Contractor has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Project (and/or the Ultimate Configuration of the

Project), and the Owner has decided to undertake the Adjustment of the Owner Utilities and agrees that the "Project" will be constructed in accordance with §203.092 of the Texas Transportation Code, as amended, and 23 CFR 645 Subpart A (Utility Relocations, Adjustments and Reimbursement); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00")]:*

_____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the DB Contractor and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the DB Contractor and the Owner agree as follows:

1. **Preparation of Plans.** [*Check one (1) box that applies:*]

☐ The DB Contractor has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The DB Contractor represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), set forth in 43 Texas Administrative Code, Part 1, Chapter 21, Subchapter C, *et seq*. (the "UAR"). By its execution of this Agreement or by the signing of the Plans, the Owner hereby approves and confirms that the Plans are in compliance with the "standards" described in Paragraph 3(a)(4).

☐ The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the "Plans"), for the proposed Adjustment of the Owner Utilities. The Owner represents and warrants that the Plans conform to the Utility Accommodation Rules issued by the Texas Department of Transportation ("TxDOT"), as set forth in 43 Texas Administrative Code Part 1, Chapter 21, Subchapter C, *et seq*. (the "UAR"). By its execution of this Agreement, the DB Contractor and the Owner hereby approve the Plans. The Owner also has provided to the DB Contractor a Utility plan view map illustrating the location of existing and proposed Utility facilities on the DB Contractor's right of way map of the Project. With regard to its preparation of the Plans, the Owner represents as follows *[check one (1) box that applies]*:

☐ The Owner's employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner's typical costs for such work.

☐ The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Project for comparable work for the Owner.

2. **Review by TxDOT**. The parties hereto acknowledge and agree as follows:

(a) Upon execution of this Agreement by the DB Contractor and the Owner, the DB Contractor will submit this Agreement, together with the attached Plans, to TxDOT for its review and approval as part of a package referred to as a "Utility Assembly". The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to all parties, to respond to any comments made by TxDOT thereon. Without limiting the generality of the foregoing:

(1) The Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the DB Contractor in response to TxDOT comments within **14 business days** after receipt of such modifications; and

(2) If the Owner originally prepared the Plans, the Owner agrees to modify the Plans in response to TxDOT comments and to submit such modified Plans to the DB Contractor for its comment and/or approval (and resubmit to TxDOT for its comment and/or approval) within **14 business days** after receipt of TxDOT's comments.

The Owner's failure to timely respond to any modified Plans submitted by the DB Contractor pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the DB Contractor shall have the right to modify the Plans for the Owner's approval as if the DB Contractor had originally prepared the Plans. The DB Contractor shall be responsible for providing Plans to and obtaining comments on and approval of the Plans from the DB Contractor. The process set forth in this paragraph will be repeated until the Owner, the DB Contractor and TxDOT have all approved this Agreement and the Plans.

(b) The parties hereto acknowledge and agree that TxDOT's review, comments, and/or approval of a Utility Assembly or any component thereof shall constitute TxDOT's approval of the location and manner in which a Utility Assembly will be installed, adjusted, or relocated within the State Highway right of way (the "ROW"), subject to the DB Contractor and Owner's satisfactory performance of the Adjustment work in accordance with the approved Plans. TxDOT has no duty to review Owner facilities or components for their quality or adequacy to provide the intended Utility service.

3. **Design and Construction Standards**.

(a) All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:

(1) All applicable local and State Laws, regulations, decrees, ordinances and policies, including the UAR, the Utility Manual issued by TxDOT (to the extent its requirements are mandatory for the Utility Adjustment necessitated by the Project, communicated to the Owner by the DB Contractor or TxDOT), the requirements of the DBC, and the policies of TxDOT;

(2) All Federal Laws, regulations, decrees, ordinances and policies applicable to projects receiving Federal funding, financing and/or credit assistance, including without limitation 23 CFR 645 Subparts A and B and the Buy America provisions of 23 U.S.C § 313 and 23 CFR 635.410. The Utility Owner shall supply, upon request by the DB Contractor or TxDOT, proof of compliance with the aforementioned Laws, rules and regulations prior to the commencement of construction;

(3) The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work;

(4) The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the DB Contractor in writing; and

(5) Owner agrees that all service meters must be placed outside of the State ROW.

(b) Such design and construction also shall be consistent and compatible with:

(1) The DB Contractor's current design and construction of the Project;

(2) The Ultimate Configuration for the Project; and

(3) Any other utilities being installed in the same vicinity.

The Owner acknowledges receipt from the DB Contractor of Project plans and Ultimate Configuration documents as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

(c) The plans, specifications, and cost estimates contained in Exhibit A shall identify and detail all Utility facilities that the Owner intends to abandon in place rather than remove, including material type, quantity, size, age, and condition. No facilities containing hazardous or contaminated materials may be abandoned, but shall be specifically identified and removed in accordance with the requirements of subparagraph (a). It is understood and agreed that the DB Contractor shall not pay for the assessment and

remediation or other corrective action relating to soil and ground water contamination caused by the utility facility prior to the removal.

4. **Construction by the Owner; Scheduling**.

(a) The Owner hereby agrees to perform the construction necessary to adjust the Owner Utilities. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 17). The Owner agrees that during the Adjustment of the Owner Utilities, the Owner and its contractors will coordinate their work with the DB Contractor so as not to interfere with the performance of work on the Project by the DB Contractor or by any other party. "Interfere" means any action or inaction that interrupts, interferes, delays or damages Project work.

(b) The Owner may utilize its own employees or may retain such contractor or contractors as are necessary to adjust the Owner Utilities, through the procedures set forth in Form "Statement Covering Contract Work" attached hereto as Exhibit C. If the Owner utilizes its own employees for the Construction work portion of the Adjustment of Owner Utilities, this form is not required.

(c) The Owner shall obtain all permits necessary for the construction to be performed by the Owner hereunder, and the DB Contractor shall cooperate in that process as needed. The Owner shall submit a traffic control plan to the DB Contractor as required for Adjustment work to be performed on existing road rights of way.

(d) The Owner shall commence its construction for Adjustment of each Owner Utility hereunder promptly after (i) receiving written notice to proceed therewith from the DB Contractor, and (ii) any Project right of way necessary for such Adjustment has been acquired either by DB Contractor (for adjusted facilities to be located within the Project right of way) or by the Owner (for adjusted facilities to be located outside of the Project right of way), or a right-of-entry permitting Owner's construction has been obtained from the landowner by the DB Contractor or by the Owner with the DB Contractor's prior approval. The Owner shall notify the DB Contractor at least 72 hours prior to commencing construction for the Adjustment of each Owner Utility hereunder.

(e) The Owner shall expeditiously stake the survey of the proposed locations of the Owner Utilities being adjusted, on the basis of the final approved Plans. The DB Contractor shall verify that the Owner's Utilities, whether moving to a new location or remaining in place, clear the planned construction of the Project as staked in the field as well as the Ultimate Configuration.

(f) The Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof *[check one (1) box that applies]*:

☐ On or before **[Month] [Day]**, **20[XX]**.

☐ A duration not to exceed _____ calendar days upon notice to proceed by the DB Contractor.

(g) The amount of reimbursement due to the Owner pursuant to this Agreement for the affected Adjustment(s) shall be reduced by 10% for each 30-day period (and by a pro rata amount of said 10% for any portion of a 30-day period) by which the final completion and acceptance date for the affected Adjustment(s) exceeds the applicable deadline. The provisions of this Paragraph 4(g) shall not limit any other remedy available to the DB Contractor at Law or in equity as a result of the Owner's failure to meet any deadline hereunder.

The above reduction applies except to the extent due to:

(1) Force Majeure as described in Paragraph 24(c);

(2) Any act or omission of the DB Contractor, if the Owner fails to meet any deadline established pursuant to Paragraph 4(f); or

(3) If the DB Contractor and/or TxDOT determine, in their sole discretion, that a delay in the relocation work is the result of circumstances beyond the control of the Owner or Owner's contractor and the DB Contractor will not reduce the reimbursement.

5. **Costs of the Work**.

(a) The Owner's costs for Adjustment of each Owner Utility shall be derived from:

(1) The accumulated total of costs incurred by the Owner for design and construction of such Adjustment, *plus*

(2) The Owner's other related costs to the extent permitted pursuant to Paragraph 5(b) (including without limitation the eligible engineering costs incurred by the Owner for design prior to execution of this Agreement), *plus*

(3) The Owner's right of way acquisition costs, if any, which are reimbursable pursuant to Paragraph 16.

(b) The Owner's costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only one (1) box]*:

☐ (1) Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body ("**Actual Cost**");

☐ (2) Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations ("**Actual Cost**"); or

☐ (3) The agreed sum of $_____ ("**Agreed Sum**"), as supported by the analysis of estimated costs attached hereto as part of Exhibit A.

6. **Responsibility for Costs of Adjustment Work**. The Agreed Sum or Actual Cost, as applicable, of all work to be performed pursuant to this Agreement shall be allocated between the DB Contractor and the Owner as identified in Exhibit A and in accordance with § 203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A; *provided, however*, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 10. All costs charged to the DB Contractor by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to similar work performed by or for the Owner at the Owner's expense. Payment of the costs allocated to the DB Contractor pursuant to this Agreement (if any) shall be full compensation to the Owner for all costs incurred by the Owner in Adjusting the Owner Utilities (including without limitation costs of relinquishing and/or acquiring right of way).

7. **Billing, Payment, Records and Audits: Actual Cost Method**. The following provisions apply if the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b):

   (a) After (i) completion of all Adjustment work to be performed pursuant to this Agreement, (ii) the DB Contractor's final inspection of the Adjustment work by Owner hereunder (and resolution of any deficiencies found), and (iii) receipt of an invoice complying with the applicable requirements of Paragraph 9, the DB Contractor shall pay to the Owner an amount equal to 90% of the DB Contractor's share of the Owner's costs as shown in such final invoice (less amounts previously paid, and applicable credits). After completion of the DB Contractor's audit referenced in Paragraph 7(c) and the parties' mutual determination of any necessary adjustment to the final invoice resulting therefrom, the DB Contractor shall make any final payment due so that total payments will equal the total amount of the DB Contractor's share reflected on such final invoice (as adjusted, if applicable).

   (b) When requested by the Owner and properly invoiced in accordance with Paragraph 9, the DB Contractor shall make intermediate payments to the Owner based upon the progress of the work completed at not more than monthly intervals, and such payments shall not exceed 90% of the DB Contractor's share of the Owner's eligible costs as shown in each such invoice (less applicable credits). Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

   (c) The Owner shall maintain complete and accurate cost records for all work performed pursuant to this Agreement. The Owner shall maintain such records for four (4) years after receipt of final payment hereunder. The DB Contractor and their respective representatives shall be allowed to audit such records during the Owner's regular business hours. Unsupported charges will not be considered eligible for reimbursement. The parties shall mutually agree upon (and shall promptly implement by payment or refund, as applicable) any financial adjustment found necessary by the DB Contractor's audit. TxDOT, the Federal Highway Administration (FHWA), and their respective representatives also shall be allowed to audit such records upon reasonable notice to the Owner, during the Owner's regular business hours.

8. **Billing and Payment: Agreed Sum Method**. If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the DB Contractor shall pay its share of the Agreed Sum to the Owner after completion of:

   (a) All Adjustment work to be performed pursuant to this Agreement;

   (b) The DB Contractor's final inspection of the Adjustment work by Owner hereunder (and resolution of any deficiencies found); and

   (c) The receipt of an invoice complying with the applicable requirements of Paragraph 9.

9. **Invoices**. If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), then Owner shall list each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice shall be submitted to the DB Contractor at the address for notices stated in Paragraph 22, unless otherwise directed by the DB Contractor pursuant to Paragraph 23, together with:

   (a) Such supporting information to substantiate all invoices as reasonably requested by the DB Contractor; and

   (b) Such waivers or releases of liens as the DB Contractor may reasonably require.

   The Owner shall make commercially reasonable efforts to submit final invoices not later than 120 days after completion of work. Final invoices shall include any necessary quitclaim deeds pursuant to Paragraph 16, and all applicable record drawings accurately representing the Adjustment as installed. The Owner hereby acknowledges and agrees that any right it may have for reimbursement of any of its costs not submitted to the DB Contractor within 12 months following completion of all Adjustment work to be performed by both parties pursuant to this Agreement shall be deemed to have been abandoned and waived. Invoices shall clearly delineate total costs and those costs that are reimbursable pursuant to the terms of this Agreement.

10. **Betterment**.

   (a) For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being adjusted that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the adjusted Utility over that provided by the existing Utility facility or an expansion of the existing Utility facility; provided, however, that the following are not considered Betterments:

      (1) Any upgrading which is required for accommodation of the Project;

      (2) Replacement devices or materials that are of equivalent standards although not identical;

      (3) Replacement of devices or materials no longer regularly manufactured with the next highest grade or size;

      (4) Any upgrading required by applicable Laws, regulations or ordinances;

(5) Replacement devices or materials which are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); or

(6) Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4) and deemed to be of direct benefit to the Project.

[Include the following for fiber optic Owner Utilities only:] Extension of an Adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

(b) It is understood and agreed that the DB Contractor will not pay for any Betterments and that the Owner shall not be entitled to payment therefor. No Betterment may be performed in connection with the Adjustment of the Owner Utilities which is incompatible with the Project or the Ultimate Configuration or which cannot be performed within the other constraints of applicable Law and any applicable governmental approvals, including without limitation the scheduling requirements thereunder. Accordingly, the parties agree as follows *[check the one (1) box that applies and complete if appropriate]*:

☐ The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.

☐ The Adjustment of the Owner Utilities pursuant to the Plans includes Betterment to the Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____. The Owner has provided to the DB Contractor comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the DB Contractor. The estimated amount of the Owner's costs for work hereunder which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i), which remainder shall be *divided* by (i).

(c) If Paragraph 10(b) identifies Betterment, then the following shall apply:

(1) If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Agreed Sum stated in that Paragraph includes any credits due to the DB Contractor on account of the identified Betterment, and no further adjustment shall be made on account of same.

(2) If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), the parties agree as follows *[If Paragraph 10(b) identifies Betterment and the Owner's costs are developed under procedure (1) or (2), check the one (1) appropriate provision]*:

☐ The estimated cost stated in Paragraph 10(b) is the agreed and final amount due for Betterment hereunder. Accordingly, each intermediate invoice submitted pursuant to Paragraph 7(b) shall include a credit for an

appropriate percentage of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted pursuant to Paragraph 7(a) shall reflect the full amount of the agreed Betterment credit. For each invoice described in this paragraph, the credit for Betterment shall be applied before calculating the DB Contractor's share (pursuant to Paragraph 6) of the cost of the Adjustment work. No other adjustment (either up or down) shall be made based on actual Betterment costs.

☐ The Owner is responsible for the actual cost of the identified Betterment, determined by *multiplying* (a) the Betterment percentage stated in Paragraph 10(b), by (b) the actual cost of all work performed by the Owner pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the Owner to the DB Contractor. Accordingly, each invoice submitted pursuant to either Paragraph 7(a) or Paragraph 7(b) shall credit the DB Contractor with an amount calculated by *multiplying* (x) the Betterment percentage stated in Paragraph 10(b), by (y) the amount billed on such invoice.

(d) The determinations and calculations of Betterment described in this Paragraph 10 shall exclude right of way acquisition costs. Betterment in connection with right of way acquisition is addressed in Paragraph 16.

11. **Salvage**. For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the DB Contractor is entitled to a credit for the salvage value of such materials and/or parts. If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), then the final invoice submitted pursuant to Paragraph 7(a) shall credit the DB Contractor with the full salvage value. If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Agreed Sum includes any credit due to the DB Contractor on account of salvage.

12. **Utility Investigations**. At the DB Contractor's request, the Owner shall assist the DB Contractor in locating any Utilities (including appurtenances) which are owned and/or operated by Owner and may be impacted by the Project. Without limiting the generality of the foregoing, in order to help assure that neither the adjusted Owner Utilities nor existing, unadjusted Utilities owned or operated by the Owner are damaged during construction of the Project, the Owner shall mark in the field the location of all such Utilities horizontally on the ground in advance of Project construction in the immediate area of such Utilities.

13. **Inspection and Ownership of Owner Utilities**.

(a) The DB Contractor shall have the right, at its own expense, to inspect the Adjustment work performed by the Owner or its contractors, during and upon completion of construction. All inspections of work shall be completed and any comment provided within **five (5) business days** after request for inspection is received.

(b) The Owner shall accept full responsibility for all future repairs and maintenance of said Owner Utilities. In no event shall the DB Contractor or TxDOT become responsible for making any repairs or maintenance, or for discharging the cost of same. The provisions of this Paragraph 13(b) shall not limit any rights which the Owner may have against the DB

Contractor if either party respectively damages any Owner Utility as a result of its respective Project activities.

14. **Design Changes**. The DB Contractor will be responsible for additional Adjustment design and responsible for additional construction costs necessitated by design changes to the Project made after approval of the Plans, upon the terms specified herein.

15. **Field Modifications**. The Owner shall provide the DB Contractor with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes as described in Paragraph 17(b), occurring in the Adjustment of the Owner Utilities.

16. **Real Property Interests**.

(a) The Owner has provided, or upon execution of this Agreement shall promptly provide to the DB Contractor, documentation acceptable to TxDOT indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to TxDOT's approval as part of its review of the DB Contractor's Utility Assembly as described in Paragraph 2. Claims approved by TxDOT as to rights or interests are referred to herein as "**Existing Utility Property Interests**".

(b) If acquisition of any new easement or other interest in real property ("**Replacement Utility Property Interest**") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the DB Contractor's Project schedules. The DB Contractor shall be responsible for its share (if any, as specified in Paragraph 6) of the actual and reasonable acquisition costs of any such Replacement Utility Property Interest (including without limitation the Owner's reasonable overhead charges and reasonable legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 16(c), and subject to the provisions of Paragraph 16(e); *provided, however*, that all acquisition costs shall be subject to the DB Contractor's prior written approval. Eligible acquisition costs shall be segregated from other costs on the Owner's estimates and invoices. Any such Replacement Utility Property Interest shall have a written valuation and shall be acquired in accordance with applicable Law.

(c) The DB Contractor shall pay its share only for a replacement in kind of an Existing Utility Property Interest (e.g., in width and type), unless a Replacement Utility Property Interest exceeding such standard:

(1) Is required in order to accommodate the Project or by compliance with applicable Law; or

(2) Is called for by the DB Contractor in the interest of overall Project economy.

Any Replacement Utility Property Interest which is not the DB Contractor's cost responsibility pursuant to the preceding sentence shall be considered a Betterment to the extent that it upgrades the Existing Utility Property Interest which it replaces, or in its

entirety if the related Owner Utility was not installed pursuant to an Existing Utility Property Interest. Betterment costs shall be solely the Owner's responsibility.

(d) For each Existing Utility Property Interest located within the Project right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Utility Property Interest to TxDOT, unless the affected Owner Utility is remaining in its original location or is being reinstalled in a new location within the area subject to such Existing Utility Property Interest. All quitclaim deeds or other relinquishment documents shall be subject to TxDOT's approval as part of its review of the Utility Assembly as described in Paragraph 2. For each Existing Utility Property Interest relinquished by the Owner, the DB Contractor shall do one (1) of the following to compensate the Owner for such Existing Utility Property Interest, as appropriate:

(1) If the Owner acquires a Replacement Utility Property Interest for the affected Owner Utility, the DB Contractor shall reimburse the Owner for the DB Contractor's share of the Owner's actual and reasonable acquisition costs in accordance with Paragraph 16(b) and subject to Paragraph 16(c); or

(2) If the Owner does not acquire a Replacement Utility Property Interest for the affected Owner Utility, the DB Contractor shall compensate the Owner for the DB Contractor's share of the market value of such relinquished Existing Utility Property Interest, as mutually agreed between the Owner and the DB Contractor and supported by a written valuation.

The compensation, if any, provided to the Owner pursuant to either subparagraph (i) or subparagraph (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Utility Property Interest and any Replacement Utility Property Interest, and no further compensation shall be due to the Owner from the DB Contractor or TxDOT on account of such Existing Utility Property Interest or Replacement Utility Property Interest.

(e) All Utility Joint Use Acknowledgments (UJUA) or Utility Installation Requests (UIR), Form 1082 shall be subject to TxDOT approval as part of its review of the Utility Assembly as described in Paragraph 2. A Utility Joint Use Acknowledgment is required where an Existing Utility Property Interest exists and the existing or proposed Utility will remain or be adjusted within the boundaries of the Existing Utility Property Interest. All other accommodations not located on Existing Utility Property Interests will require a Utility Installation Request, Form 1082.

17. **Amendments and Modifications**. This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 17(a) or Paragraph 17(b) below:

(a) Except as otherwise provided in Paragraph 17(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment ("**UAAA**") in the form of Exhibit B hereto (DB-ROW-U-UAAA-OM). The UAAA form can be used for a new scope of work with concurrence of the DB Contractor and TxDOT as long as the Design and Construction responsibilities have not changed. Each UAAA is subject to the review and approval of TxDOT, prior to

its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs for each UAAA separately from other work being performed.

(b) For purposes of this Paragraph 17(b), "**Utility Adjustment Field Modification**" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by TxDOT, due either to design of the Project or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 inch water line to miss a modified or new roadway drainage structure). A Utility Adjustment Field Modification agreed upon by the DB Contractor and the Owner does not require a UAAA, provided that the modified Plans have been submitted to TxDOT for its review and comment. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 15.

18. **Entire Agreement**. This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

19. **Assignment; Binding Effect; TxDOT as Third Party Beneficiary**. The Owner and the DB Contractor may not assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other parties and of TxDOT, which consent may not be unreasonably withheld or delayed; *provided, however*, that the DB Contractor may assign any of its rights and/or delegate any of its duties to TxDOT or to any other entity with which TxDOT contracts to fulfill the DB Contractor's obligations at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, the DB Contractor and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by any party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; *provided, however*, that the Owner and the DB Contractor agree that although TxDOT is not a party to this Agreement, TxDOT is intended to be a third-party beneficiary to this Agreement.

20. **Breach by the Parties**.

(a) If the Owner claims that the DB Contractor has breached any of its obligations under this Agreement, the Owner will notify the DB Contractor and TxDOT in writing of such breach, and the DB Contractor shall have **30 days** following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; *provided, however*, that both during and after such period TxDOT shall have the right, but not the obligation, to cure any breach by the DB Contractor. Without limiting the generality of the foregoing:

(1) TxDOT shall have no liability to the Owner for any act or omission committed by the DB Contractor in connection with this Agreement; and

(2) In no event shall TxDOT be responsible for any repairs or maintenance to the Owner Utilities adjusted pursuant to this Agreement.

(b) If the DB Contractor claims that the Owner has breached any of its obligations under this Agreement, the DB Contractor will notify the Owner and TxDOT in writing of such breach, and the Owner shall have **30 days** following receipt of such notice in which to cure such breach, before the DB Contractor or the DB Contractor may invoke any remedies which may be available to it as a result of such breach.

21. **Traffic Control**. The DB Contractor shall provide traffic control or shall reimburse the Owner for the DB Contractor's share (if any, as specified in Paragraph 6) of the costs for traffic control made necessary by the Adjustment work performed by either the DB Contractor or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas Manual on *Uniform Traffic Control Devices*. Betterment percentages calculated in Paragraph 10 shall also apply to the traffic control costs.

22. **Notices**. Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following:

Owner:
Address Line #1
Address Line #2
City, State Zip
Phone: ( ) -
Fax: ( ) -

DB Contractor:
Address Line #1
Address Line #2
City, State Zip
Phone: ( ) -
Fax: ( ) -

A party sending a notice of default of this Agreement to another party shall also send a copy of such notice to TxDOT at the following address:

Texas Department of Transportation
Attention: Project Finance, Debt & Strategic Contracts Division
125 E. 11th Street
Austin, Texas 78701-2483

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt and served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Any party may designate any other address for this purpose by written notice to all other parties; TxDOT may designate another address by written notice to all parties.

23. **Approvals**. Any acceptance, approval, or any other like action (collectively "**Approval**") required or permitted to be given by either the DB Contractor or the Owner pursuant to this Agreement:

    (a) Must be in writing to be effective (except if deemed granted pursuant hereto);

    (b) Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval; and

    (c) Except for approvals by TxDOT, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then **14 calendar days**), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 22.

24. **Time; Force Majeure**.

    (a) Time is of the essence in the performance of this Agreement.

    (b) All references to “days” herein shall be construed to refer to calendar days, unless otherwise stated.

    (c) No party shall be liable to another party for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence (“**Force Majeure**”), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts. If any such event of Force Majeure occurs, the Owner agrees, if requested by the DB Contractor, to accelerate its efforts hereunder if reasonably feasible in order to regain lost time, so long as the DB Contractor agrees to reimburse the Owner for the reasonable and actual costs of such efforts.

25. **Continuing Performance**. In the event of a dispute, the Owner and the DB Contractor agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

26. **Equitable Relief**. The DB Contractor and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties’ remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Project. Consequently, the parties hereto (and TxDOT as well, as a third party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Project; *provided, however*, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

27. **Authority**. The Owner and the DB Contractor each represent and warrant to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.

28. **Cooperation**. The parties acknowledge that the timely completion of the Project will be influenced by the ability of the Owner (and its contractors) and the DB Contractor to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the DB Contractor agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with the DB Contractor's current and future construction schedules for the Project. The Owner further agrees to require its contractors to coordinate their respective work hereunder with the DB Contractor.

29. **Termination**. If the Project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the DB Contractor shall notify the Owner in writing and the DB Contractor reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.

30. **Nondiscrimination**. Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.

31. **Applicable Law, Jurisdiction and Venue**. This Agreement shall be governed by the Laws of the State of Texas, without regard to the conflict of laws principles thereof. Venue for any action brought to enforce this Agreement or relating to the relationship between any of the parties shall be the District Court of _____ County, Texas [or the United States District Court for the Western District of Texas (Austin)].

32. **Relationship of the Parties.** This Agreement does not in any way, and shall not be construed to, create a principal/agent or joint venture relationship between the parties hereto and under no circumstances shall the Owner or the DB Contractor be considered as or represent itself to be an agent of the other.

33. **Waiver of Consequential Damages**. No party hereto shall be liable to any other party to this Agreement, whether in contract, tort, equity, or otherwise (including negligence, warranty, indemnity, strict liability, or otherwise), for any punitive, exemplary, special, indirect, incidental, or consequential damages, including, without limitation, loss of profits or revenues, loss of use, claims of customers, or loss of business opportunity.

34. **Captions**. The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the content of their respective paragraphs.

35. **Counterparts**. This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

36. **Effective Date**. This Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the DB Contractor) signing this Agreement, and (b) the date of TxDOT's approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
[Printed Name]

By: _____
Authorized Signature

District Engineer (or designee)

Date: _____

OWNER

By: _____
[Print Owner Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

DB CONTRACTOR

By: _____
[Print Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES AND ALLOCATION

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT B

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(DB-ROW-U-UAAA-OM)

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(Owner-Managed)

(**Amendment No. _____ to Agreement No.**: _____- U -_____)

THIS AMENDMENT TO PROJECT UTILITY ADJUSTMENT AGREEMENT (this "Amendment"), by and between, [DB Contractor] hereinafter identified as the "**DB Contractor**" and [Utility Owner], hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "**TxDOT**", proposes to construct the project identified above (the "Project", as more particularly described in the "Original Agreement", defined below); and

WHEREAS, pursuant to that certain Design-Build Contract ("DBC") by and between TxDOT and the DB Contractor with respect to the Project, the DB Contractor has undertaken the obligation to design, construct, and potentially maintain the Project, including causing the removal, relocation, or other necessary adjustment of existing Utilities impacted by the Project (collectively, "Adjustment"); and

WHEREAS, the Owner and DB Contractor are parties to that certain executed Project Utility Adjustment Agreement (PUAA) designated by the "Agreement No." indicated above, as amended by previous amendments, if any (the "Original Agreement"), which provides for the Adjustment of certain Utilities owned and/or operated by the Owner (the "Owner Utilities"); and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the Adjustment of Owner Utilities facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner Utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1. **Amendment**. The Original Agreement is hereby amended as follows:

Plans.

(a) The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities in the Original Agreement is hereby amended to add the following Utility facility(ies) ("**Additional Owner Utilities**") and proposed Adjustment(s) *[insert below a*

description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00")]: _____.

(b) The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the Plans, specifications and cost estimates attached hereto as Exhibit A.

(c) The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to TxDOT in accordance with Paragraph 2 of the Original Agreement, and Paragraph 2 shall apply to this Amendment and the Plans attached hereto in the same manner as if this Amendment were the Original Agreement. If the Owner claims an Existing Utility Property Interest for any of the Additional Owner Utilities, documentation with respect to such claim shall be submitted to TxDOT as part of this Amendment and the attached Plans, in accordance with Paragraph 16(a) of the Original Agreement.

(d) Paragraph 4(f) of the Original Agreement is hereby amended to add the following deadline for the Adjustment of the Additional Owner Utilities *[check one (1) box that applies]*:

☐ Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof, on or before **[Month] [Day], 20[XX]**.

☐ Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof, within _____ **calendar days** after delivery to Owner of a notice to proceed by DB Contractor;

(e) For purposes of Paragraph 5(b) of the Original Agreement, the Owner's costs associated with Adjustment of the Additional Owner Utilities shall be developed pursuant to the method checked and described below *[check only one (1) box]*:

☐ (1) Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body ("**Actual Cost**");

☐ (2) Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations ("**Actual Cost**"); or

☐ (3) The agreed sum of $_____("**Agreed Sum**"), as supported by the analysis of estimated costs attached hereto as part of Exhibit A.

(f) For purposes of Paragraph 6 of the Original Agreement, responsibility for the Agreed Sum or Actual Cost, as applicable, of all Adjustment work to be performed pursuant to this Amendment shall be allocated between the DB Contractor and the Owner as identified in Exhibit A and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio,

if appropriate, as detailed in Exhibit A; *provided, however,* that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 10 of the Original Agreement.

(g) Paragraph 10(b) of the Original Agreement is hereby amended to add the following *[Check the one (1) box that applies]*:

☐ The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, does not include any Betterment.

☐ The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the Additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____.

The Owner has provided to the DB Contractor comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without Betterment, which estimates are hereby approved by the DB Contractor. The estimated amount of the Owner's costs for work under this Agreement which is attributable to Betterment is $_____, calculated by *subtracting* (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____%, calculated by *subtracting* (ii) from (i) which remainder shall be *divided* by (i).

(h) The following shall apply to any Betterment described in Paragraph 1(g) of this Amendment:

(i) If the Owner's costs are developed under procedure (3) described in Paragraph 1(e) of this Amendment, then the Agreed Sum stated in that Paragraph includes any credits due to the DB Contractor on account of the identified Betterment, and no further adjustment shall be made on account of same.

(ii) If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 1(e) of this Amendment, the parties agree as follows *[check the one (1) appropriate provision]*:

☐ The estimated cost stated in Paragraph 1(g) of this Amendment is the agreed and final amount due for Betterment under this Amendment. Accordingly, each intermediate invoice submitted for Adjustment(s) of the Additional Owner Utilities pursuant to Paragraph 7(b) of the Original Agreement shall credit the DB Contractor with an appropriate amount of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted for Adjustment(s) of the Additional Owner Utilities pursuant to Paragraph 7(a) of the Original Agreement shall reflect the full amount of the agreed Betterment credit. For each invoice described in this paragraph, the credit for Betterment shall be applied before calculating the DB Contractor's share (pursuant to Paragraph 1(e) of this Amendment) of the cost of the Adjustment work. No other adjustment (either up or down) shall be made based on actual Betterment costs.

☐ The Owner is responsible for the Actual Cost of the identified Betterment, determined by *multiplying* (a) the Betterment percentage stated in Paragraph 1(g) of this Amendment, by (b) the actual cost of all work performed by the Owner pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the Owner to the DB Contractor. Accordingly, each invoice submitted for Adjustment of the Additional Owner Utilities pursuant to either Paragraph 7(a) or Paragraph 7(b) of the Original Agreement shall credit the DB Contractor with an amount calculated by *multiplying* (x) the Betterment percentage stated in Paragraph 1(g) of this Amendment, by (y) the amount billed on such invoice.

(i) The determinations and calculations of Betterment described in this Amendment shall exclude right of way acquisition costs. Betterment in connection with ROW acquisition is addressed in Paragraph 16 of the Original Agreement.

(j) Owner and the DB Contractor agree to refer to this Amendment, designated by the "Amendment No." and "Agreement number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

(k) *[Include any other proposed amendments in compliance with the applicable Law.]*

_____

2. **General**.

(a) All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.

(b) This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one (1) and the same instrument.

(c) Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the DB Contractor, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.

(d) This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the DB Contractor) signing this Amendment, and (b) the completion of TxDOT's review and approval as indicated by the signature of TxDOT's representative below.

APPROVED BY:

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
[Printed Name]

By: _____
Authorized Signature

District Engineer (or designee)

Date: _____

OWNER

By: _____
[Print Owner Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

DB CONTRACTOR

By: _____
[Print Name]

By: _____
Duly Authorized Representative

[Title]
[Company]

Date: _____

County: _____
ROW CSJ No.: _____
Const. CSJ No.: _____
Highway: _____
Fed. Proj. No.: _____
Limits: _____ to _____

EXHIBIT C

STATEMENT COVERING CONTRACT WORK

STATEMENT COVERING UTILITY CONSTRUCTION CONTRACT WORK

(AS APPEARING IN ESTIMATE)

U-No. _____

District: _____

County: _____ ROW CSJ No.: _____

Federal Project No.: _____ Highway No.: _____

I, _____, a duly authorized and qualified representative of _____, hereinafter referred to as **Owner**, am fully cognizant of the facts and make the following statements in respect to work which will or may be done on a contract basis as appears in the estimate to which this statement is attached.

It is more economical and/or expedient for **Owner** to contract this adjustment, or **Owner** is not adequately staffed or equipped to perform the necessary work on this project with its own forces to the extent as indicated on the estimate.

Procedure to be Used in Contracting Work

☐ A. Solicitation for bids is to be accomplished through open advertising and contract is to be awarded to the lowest qualified bidder who submits a proposal in conformity with the requirements and specifications for the work to be performed.

☐ B. Solicitation for bids is to be accomplished by circulating to a list of pre-qualified contractors or known qualified contractors and such contract is to be awarded to the lowest qualified bidder who submits a proposal in conformity with the requirements and specifications for the work to be performed. Such presently known contractors are listed below:

1. _____
2. _____
3. _____
4. _____
5. _____

☐ C. The work is to be performed under an existing continuing contract under which certain work is regularly performed for **Owner** and under which the lowest available costs are developed. (If only part of the contract work is to be done under an existing contract, give detailed information by attachment hereto.)

☐ D. The utility proposes to contract outside the foregoing requirements and therefore evidence in

support of its proposal is attached to the estimate in order to obtain the concurrence of the State, and the Federal Highway Administration Division Engineer where applicable, prior to taking action thereon (approval of the agreement shall be considered as approval of such proposal).

☐ E. The utility plans and specifications, with the consent of the State, will be included in the construction contract awarded by the State.

_____ _____
[Signature of Officer/Representative] Date

_____
[Title of Officer/Representative]

DB Contractor's Utility Design Coordinator

Utility No Conflict Sign-Off Form

Utility Design Coordinator: _____

Date plans received: _____

Utility Company: _____

Assembly "U" number: _____

Type of Utilities: _____

Date on Utility's plans: _____ No. of sheets in Utility's plans: _____

I, _____, the Utility Design Coordinator (UDC) on behalf of the DB Contractor (_____) certify that a review of the above referenced Utility Plans concerning the proposed highway improvements on the _____ has been completed and have not identified any conflicts between the Utility's proposed relocation and any design features.

Design features include but are not limited to pavement structures, drainage facilities, bridges, retaining walls, traffic signals, illumination, signs, foundations, duct/conduit, ground boxes, erosion control facilities, water quality facilities and other DB Contractor-Managed Utilities.

Any design changes to the _____ after the signing of this form will be coordinated through the DB Contractor's Utility Manager and the affected Utility Owner.

☐ Check box if any areas of concern and insert comments below:

Utility Design Coordinator: (UDC)

_____ (Signature)

_____ Date

_____ (Print Name)

Utility Coordination Firm:

_____ (Print Name)

This form must be completed/signed and included in each Utility Assembly submitted to the Texas Department of Transportation.

DB Contractor's Utility Manager

Utility No Conflict Sign-Off Form

Utility Manager: _____

Date plans received: _____

Utility Company: _____

Assembly "U" number: _____

Type of Utilities: _____

Date on Utility's plans: _____ No. of sheets in Utility's plans: _____

I, _____, the Utility Manager (UM) working on behalf of the DB Contractor (_____) certify that a review of the above referenced Utility Plans concerning the proposed highway improvements on the _____ has been completed and have not identified any conflicts between the Utility's proposed relocation and any existing and/or proposed Utilities.

The proposed Utility Plans conform to Title 43 of the Texas Administrative Code, Section 21.31 – 21.56 of the Utility Accommodation Rules.

☐ Check box if any areas of concern and insert comments below:

Utility Manager: (UM)

_____ (Signature) _____ Date

_____ (Print Name)

Utility Design Coordinator: (UDC)

_____ (Signature) _____ Date

_____ (Print Name)

Utility Coordination Firm:

_____ (Print Name)

This form must be completed/signed and included in each Utility Assembly submitted to the Texas Department of Transportation.

Utility Installation Request

PERMIT NUMBER		
GLOBAL POSITIONING SYSTEM COORDINATES (GPS) NORTH AMERICAN DATUM 1983, (1993 ADJUSTMENT) IN DECIMAL DEGREES(DD)		
	LATITUDE (DD)	LONGITUDE (DD)
BEGIN		
END		

To the Texas Transportation Commission

c/o District Engineer, Texas Department of Transportation Date: _____

_____, Texas

Formal notice is hereby given that _____

proposes to place a _____

line within the right of way of _____, RM _____, Displ. _____, to RM _____, Displ. _____, in

_____ County Texas, MNT Sec. No. _____ as follows: (give location, length, general design, etc. Use additional sheet as needed)

_____

_____

_____

We will construct and maintain the line on the highway right of way as shown on the attached drawing and in accordance with the rules, regulations and policies of the Texas Department of Transportation (TxDOT), and all governing laws, including, but not limited to, the "Texas Engineering Practice Act," "Federal Clean Water Act," the "National Endangered Species Act," "Americans with Disabilities Act," and the "Federal Historic Preservation Act." Upon request by TxDOT at any time, we will submit to TxDOT proof of compliance with all governing laws, rules and regulations before commencement of construction. Plans shall include the design, proposed location, vertical elevations, and horizontal alignments of the facility based on the department's survey datum, the relationship to existing highway facilities and the right of way line, traffic safety and access procedures, and location of existing utilities that may be affected by the proposed utility facility. The location and description of the proposed line and appurtenances is more fully shown by a complete set of drawings attached to this Utility Installation Request (Request). We will give plans to TxDOT for each future proposed modification or expansion to our facility and TxDOT will have 30 days to review and approve the plans prior to commencement of the work. A new Request may be required as a condition of approval. Our organization will use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation, and we will revegetate the project area as indicated under "Revegetation Special Provisions." We will also ensure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained for the duration of this installation.

When installing, modifying or maintaining our utility on controlled access facilities, we shall conform to the Texas Transportation Code, Title 6 Roadways, Chapter 203, Subchapter C, Control of Access, §203.031 (http://www.statutes. legis.state.tx.us/). We shall limit access for servicing this installation to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right of way lines, connecting only to an intersecting road; from any one or all of which entry may be made to the outer portion of the highway right of way for normal service and maintenance operations. Our rights of access to the through traffic roadways and ramps shall be subject to the same rules and regulations that apply to the general public.

It is expressly understood that TxDOT does not purport hereby to grant any right, claim, title or easement in or upon highway right of way. TxDOT may require us to relocate this line, subject to the provisions of governing laws, by giving us at least 30 days written notice. We understand a new Request will be required for the relocation. We will notify TxDOT prior to commencement of any operation which requires pruning of trees so that TxDOT may provide specifications to govern performance of work, including trimming, topping, tree balance, type of cuts, painting cuts and

clean up. We understand that these specifications are intended to preserve TxDOT's considerable investment in highway beautification plantings and by reducing damage due to trimming and to protect known endangered species.

Our installation shall not damage any part of the roadway structure or associated appurtenances. We will make adequate provisions to cause minimum inconveniences to the traveling public and adjacent property owners. We will not open-cut driveways or intersecting roadways without specific written permission from the owner.

Following approval, we will begin construction on or after _____
Month / Day / Year

We understand TxDOT may place additional provisions and requirements as listed below, based upon, but not limited to, the type of utility being installed, local site conditions, soil types and traffic.

Additional Provisions and Requirements (for TxDOT input only)
• **General Special Provisions:**
☒ Are attached.
☐ Are not attached.
• **As-built Plans/Certifications of Construction:**
☐ Are required and shall be certified as accurate by an authorized representative of the company.
☐ Are required and shall be signed and sealed by a State of Texas Licensed Professional Engineer.
☐ Are not required
☐ Certification that utility was installed as approved
• **Re-vegetation Special Provisions:** In order to minimize erosion and sedimentation resulting from the proposed installation, the project area will be re-vegetated:
☐ In accordance with TxDOT's Standard Specification Item 164 which specifies the appropriate grass seed mix to be used; **or**
☐ As indicated on the attachment.
TxDOT Representative to be notified 48 hours prior to beginning construction:

If approved, we understand we will assume all risks associated with this installation within the TxDOT right of way. These risks include injuries to our workers, damage to contiguous utility lines that may be in the area and injuries or damage resulting from our failure to properly install and maintain the line.

If the character, use or function of our installation is materially changed from that approved under this Request, we will notify TxDOT within 30 days after the change. In the event of a voluntary or involuntary loss of public utility status, or other legal authority for longitudinal placement of the utility facility in the highway, or there is an abandonment of the facility without the approval of TxDOT, we wiIl, at our expense, remove the unauthorized portion of the facility from the right of way.

If installation of the line is not begun prior to the 91st calendar day from date of issuance, we acknowledge that, unless otherwise extended, TxDOT's approval of this Request will automatically **expire**, and we will be required to resubmit our Request. All Request submissions, whether due to expiration of approval under this paragraph or new Requests for modifications and relocations shall be in accordance with the governing laws, rules, regulations and policies existing at the time of submission. In the event we fail to comply with any or all of the requirements as set forth in this Request, the State may take such action as it deems appropriate to compel our compliance.

By signing as/for the requestor below, I certify that I am authorized to represent the requestor, that I agree to the provisions and requirements included in this Utility Installation Request, and our commencement of construction will further attest to our review and acceptance of said additional provisions and requirements.

REQUESTOR	APPROVED BY TXDOT
Date:	Date:
By:	By:
Signature:	Signature:
Title:	Title: **District Engineer (or designee)**
Address:	Address:
City State Zip Code	City State Zip Code
( )	
Area Code Telephone Number	Area Code Telephone Number

GENERAL SPECIAL PROVISION

1. Requestor agrees to perform all project coordination, scheduling, notifications, permit requirements and submittals through TxDOT's designated design-build contractor or Developer listed below:

[Insert contractors contact information]

UTILITY JOINT USE ACKNOWLEDGMENT
REIMBURSABLE UTILITY ADJUSTMENT

Agreement No.: _____

ROW CSJ:	_____	County:	_____
District:	_____	Highway:	_____
Fed. Proj. No.:	_____	Limits:	
Projected Letting Date:	_____	From _____ to _____	

WHEREAS, the State of Texas, ("**State**"), acting by and through the Texas Department of Transportation ("**TxDOT**"), proposes to make certain highway improvements on that section of the above-indicated highway; and

WHEREAS, the _____, ("**Utility**"), proposes to adjust or relocate certain of its facilities, if applicable, and retain title to any property rights it may have on, along or across, and within or over such limits of the highway right of way as indicated by the location map attached hereto.

NOW, THEREFORE, in consideration of the covenants and acknowledgments herein contained, the parties mutually agree as follows:

It is agreed that joint usage for both highway and utility purposes will be made of the area within the highway right of way limits as such area is defined and to the extent indicated on the aforementioned plans or sketches. Nothing in this Acknowledgment shall serve to modify or extinguish any compensable property interest vested in the **Utility** within the above described area. If the facilities shown in the aforementioned plans need to be altered or modified or new facilities constructed to either accommodate the proposed highway improvements or as part of **Utility's** future proposed changes to its own facilities, **Utility** agrees to notify **TxDOT** at least 30 days prior thereto, and to furnish necessary plans showing location and type of construction, unless an emergency situation occurs and immediate action is required. If an emergency situation occurs and immediate action is required, **Utility** agrees to notify **TxDOT** promptly. If such alteration, modification or new construction is in using said highway, **TxDOT** shall have the right, after receipt of such notice, to prescribe such regulations as necessary for the protection of the highway facility and the traveling public using said highway. Such regulations shall not extend, however, to requiring the placement of intended overhead lines underground or the routing of any lines outside of the area of joint usage above described.

If **Utility's** facilities are located along a controlled access highway, **Utility** agrees that ingress and egress for servicing its facilities will be limited to frontage roads where provided, nearby or adjacent public roads and streets, or trails along or near the highway right of way lines which only connect to an intersecting road. Entry may be made to the outer portion of the highway right of way from any one or all access points. Where supports, manholes or other appurtenances of the **Utility's** facilities are located in medians or interchange areas, access from the through-traffic roadways or ramps will be allowed by permit issued by the **State** to the **Utility** setting forth the conditions for policing and other controls to protect highway users. In an emergency situation, if the means of access or service operations as herein provided will not permit emergency repairs as required for the safety and welfare of the public, the **Utility** shall have a temporary right of access to and from the through-traffic roadways and ramps as necessary to accomplish the required repairs, provided **TxDOT** is notified immediately highway traffic. Except as expressly provided herein, the **Utility's** rights of access to the through-traffic roadways and/or ramps shall be subject to the same rules and regulations that apply to the general public.

If **Utility's** facilities are located along a non-controlled access highway, the **Utility's** rights of ingress and egress to the through-traffic roadways and/or ramps are subject to the same rules and regulations that apply to the general public.

Participation in actual costs incurred by the Utility for any future adjustment, removal or relocation of utility facilities required by highway construction shall be in accordance with applicable laws of the State of Texas.

Utility will, by written notice, advise **TxDOT** of the beginning and completion dates of the adjustment, removal or relocation, and thereafter, agrees to perform such work diligently, and to conclude said adjustment, removal or relocation by the stated completion date. The completion date shall be extended for delays caused by events outside **Utility's** control, including an event of Force Majeure, which shall include a strike, war or act of war (whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, accident, fire, flood or other act of God, sabotage, or any other event in which **Utility** has exercised all due care in the prevention thereof so that the causes or other events are beyond the control and without the fault or negligence of **Utility**.

It is expressly understood that **Utility** conducts the new installation, adjustment, removal and/or relocation at its own risk and that **TxDOT** makes no warranties or representations regarding the existence or location of utilities currently within its right of way.

The **Utility** and the **State**, by execution of this Acknowledgment, do not waive or relinquish any right that they may have under the law.

The signatories to this Acknowledgment warrant that each has the authority to enter into this Acknowledgment on behalf of the party represented.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures.

UTILITY

Utility: _____
Name of Utility

By: _____
Authorized Signature

_____
Print or Type Name

Title: _____

Date: _____

EXECUTION RECOMMENDED:

_____
District Engineer (or designee)

THE STATE OF TEXAS

Executed and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By: _____
District Engineer (or designee)

Date: _____

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 15-1

PUA for Transportation Purposes with Additional Payment of Independent Consideration

POSSESSION AND USE AGREEMENT FOR TRANSPORTATION PURPOSES WITH ADDITIONAL PAYMENT OF INDEPENDENT CONSIDERATION

STATE OF TEXAS	§	ROW CSJ:
	§	Parcel No.:
COUNTY OF	§	Project No.:

This Possession and Use Agreement For Transportation Purposes (the "Agreement") between the State of Texas, acting by and through the Texas Department of Transportation (the "State") , and (the "Grantor" whether one or more), grants to the State, its contractors, agents and all others deemed necessary by the State, an irrevocable right to possession and use of the Grantor's property for the purpose of constructing a portion of Highway No. (the "Highway Construction Project"). The property subject to this Agreement is described more fully in field notes and plat map (attached as "Exhibit A") and made a part of this Agreement by reference (the "Property").

1. For the consideration paid by the State which is set forth in Paragraphs 2 and 3 below, the receipt and sufficiency of which is acknowledged, the Grantor grants, bargains, sells and conveys to the State of Texas the right of entry and exclusive possession and use of the Property for the purpose of constructing a highway and appurtenances thereto and the right to remove any improvements. Authorized activities include surveying, inspection, environmental studies, archeological studies, clearing, demolition, construction of permanent improvements, relocating, replacing, and improving existing utility facilities, locating new utility facilities, and other work required to be performed in connection with the Highway Construction Project. This Possession and Use Agreement will extend to the State, its contractors and assigns, owners of any existing utilities on the Property and those which may be lawfully permitted on the Property by the State in the future, and all others deemed necessary by the State for the purpose of the Highway Construction Project. This grant will allow the construction, relocation, replacement, repair, improvement, operation and maintenance of utilities on the Property.

2. In full consideration for this irrevocable grant of possession and use and other Grantor covenants, warranties, and obligations under this Agreement, the State will tender to the Grantor the sum of Dollars ($). The Grantor agrees that this sum represents adequate and full compensation for the possession and use of the Property. The State will be entitled to take possession and use of the Property upon tender of payment. The parties agree that the sum tendered represents percent of the State's approved value, which assumes no adverse environmental conditions affecting the value of the Property. The approved value is the State's determination of the just compensation owed to the Grantor for the real property interest to be acquired by the State in the Property, encumbered with the improvements thereon, if any, and damages to the remainder, if any, save and except all oil, gas and sulphur. The parties agree that the sum tendered to Grantor will be deducted from any final settlement amount, Special Commissioners' award or court judgment. In the event the amount of the final settlement or judgment for acquisition of the Property is less than the amount the State has paid for the possession and use of the Property, then the Grantor agrees that the original amount tendered represents an overpayment for the difference and, upon written notice from the State, the Grantor will promptly refund the overpayment to the State.

3. As additional consideration, the State will tender to the Grantor the sum of Dollars ($), the receipt and sufficiency of which is acknowledged. The parties agree that the sum tendered under this Paragraph 3:

   (i) is independent consideration for the possession and use of Grantor's Property and represents no part of the State's compensation to be paid for the anticipated purchase of the Property; and
   (ii) will not be refunded to the State upon any acquisition of the Property by the State.

4. The effective date of this Agreement will be the date on which payment pursuant to Paragraphs 2 and 3 above was tendered to the Grantor by the State, or disbursed to the Grantor by a title company acting as escrow agent for the transaction, (the "Effective Date").

5. The Grantor warrants and represents that the title to the Property is free and clear of all liens and encumbrances or that proper releases will be executed for the Property prior to funds being disbursed under this Agreement. The Grantor further warrants that no other person or entity owns an interest in the fee title to the Property and further agrees to indemnify the State from all unreleased or undisclosed liens, claims or encumbrances affecting the Property.

6. The parties agree that the valuation date for determining the amount of just compensation for the real property interest proposed to be acquired by the State in the Property, for negotiation or eminent domain proceeding purposes, will be the Effective Date of this Agreement.

7. This Agreement is made with the understanding that the State will continue to proceed with acquisition of a real property interest in the Property. The Grantor reserves all rights of compensation for the title and interest in and to the Property which the Grantor holds as of the time immediately prior to the Effective Date of this Agreement. This Agreement shall in no way prejudice the Grantor's rights to receive full and just compensation as allowed by law for all of the Grantor's interests in and to the Property to be acquired by the State, encumbered with the improvements thereon, if any, and damages, if any, to the remainder of the Grantor's interest in any larger tract of which the Property is a part (the "Remainder"), if any; all as the Property exists on the Effective Date of this Agreement. The State's removal or construction of improvements on the Property shall in no way affect the fair market value of the Property in determining compensation due to the Grantor in the eminent domain proceedings. There will be no project impact upon the appraised value of the Property. This grant will not prejudice the Grantor's rights to any relocation benefits for which Grantor may be eligible.

8. In the event the State institutes or has instituted eminent domain proceedings, the State will not be liable to the Grantor for interest upon any award or judgment as a result of such proceedings for any period of time prior to the date of the award. Payment of any interest may be deferred by the State until entry of judgment.

9. The purpose of this Agreement is to allow the State to proceed with its Highway Construction Project without delay and to allow the Grantor to have the use at this time of a percentage of the estimated compensation for the State's acquisition of a real property interest in the Property. The Grantor expressly acknowledges that the proposed Highway Construction Project is for a valid public use and voluntarily waives any right the Grantor has or may have, known or unknown, to contest the jurisdiction of the court in any condemnation proceeding for acquisition of the Property related to the Highway Construction Project, based upon claims that the condemning authority has no authority to

acquire the Property through eminent domain, has no valid public use for the Property, or that acquisition of the Property is not necessary for the public use.

10. The Grantor reserves all of the oil, gas and sulphur in and under the land herein conveyed but waives all right of ingress and egress to the surface for the purpose of exploring, developing, mining or drilling. The extraction of oil, gas and minerals may not affect the geological stability of the surface. Nothing in this reservation will affect the title and rights of the State to take and use all other minerals and materials thereon, and thereunder.

11. The undersigned Grantor agrees to pay as they become due, all ad valorem property taxes and special assessments assessed against Property, including prorated taxes for the year in which the State takes title to the Property.

12. Notwithstanding the acquisition of right of possession to the Property by the State in a condemnation proceeding by depositing the Special Commissioners' award into the registry of the court, less any amounts tendered to the Grantor pursuant to Paragraph 2 above, this Agreement shall continue to remain in effect until the State acquires title to the Property either by negotiation, settlement, or final court judgment.

13. This Agreement will also extend to and bind the heirs, devisees, executors, administrators, legal representatives, successors in interest and assigns of the parties.

14. It is agreed the State will record this document.

15. Other conditions: .

To have and to hold the Agreement herein described and conveyed, together with all the rights and appurtenances belonging to the State of Texas and its assigns forever, for the purposes and subject to the limitations set forth above.

GRANTOR:

By: _____

Printed Name: _____

Title: _____
(if GRANTOR is an entity other than an individual person)

Date: _____

By: _____

Printed Name: _____

Title: _____
(if GRANTOR is an entity other than an individual person)

Date: _____

Acknowledgement

State of Texas
County of

This instrument was acknowledged before me on _____

by_____.

_____
Notary Public's Signature

Corporate Acknowledgment

State of Texas
County of

This instrument was acknowledged before me on _____by

_____, _____

of _____, a _____

corporation, on behalf of said corporation.

_____
Notary Public's Signature

THE STATE OF TEXAS

Executed by and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By: _____
Right of Way Manager

Date:_____

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 15-2
Possession and Use Agreement for Transportation Purposes

POSSESSION AND USE AGREEMENT FOR TRANSPORTATION PURPOSES

STATE OF TEXAS	§	ROW CSJ:
	§	Parcel No.:
COUNTY OF	§	Project No.:

This Possession and Use Agreement For Transportation Purposes (the "Agreement") between the State of Texas, acting by and through the Texas Department of Transportation (the "State") , and (the "Grantor" whether one or more), grants to the State, its contractors, agents and all others deemed necessary by the State, an irrevocable right to possession and use of the Grantor's property for the purpose of constructing a portion of Highway No. (the "Highway Construction Project"). The property subject to this Agreement is described more fully in field notes and plat map (attached as "Exhibit A") and made a part of this Agreement by reference (the "Property").

1. For the consideration paid by the State which is set forth in Paragraph 2 below, the receipt and sufficiency of which is acknowledged, the Grantor grants, bargains, sells and conveys to the State of Texas the right of entry and exclusive possession and use of the Property for the purpose of constructing a highway and appurtenances thereto and the right to remove any improvements. Authorized activities include surveying, inspection, environmental studies, archeological studies, clearing, demolition, construction of permanent improvements, relocating, replacing, and improving existing utility facilities, locating new utility facilities, and other work required to be performed in connection with the Highway Construction Project. This Possession and Use Agreement will extend to the State, its contractors and assigns, owners of any existing utilities on the Property and those which may be lawfully permitted on the Property by the State in the future, and all others deemed necessary by the State for the purpose of the Highway Construction Project. This grant will allow the construction, relocation, replacement, repair, improvement, operation and maintenance of utilities on the Property.

2. In full consideration for this irrevocable grant of possession and use and other Grantor covenants, warranties, and obligations under this Agreement, the State will tender to the Grantor the sum of Dollars ($). The Grantor agrees that this sum represents adequate and full compensation for the possession and use of the Property. The State will be entitled to take possession and use of the Property upon tender of payment. The parties agree that the sum tendered represents percent of the State's approved value, which assumes no adverse environmental conditions affecting the value of the Property. The approved value is the State's determination of the just compensation owed to the Grantor for the real property interest to be acquired by the State in the Property, encumbered with the improvements thereon, if any, and damages to the remainder, if any, save and except all oil, gas and sulphur. The parties agree that the sum tendered to Grantor will be deducted from any final settlement amount, Special Commissioners' award or court judgment. In the event the amount of the final settlement or judgment for acquisition of the Property is less than the amount the State has paid for the possession and use of the Property, then the Grantor agrees that the original amount tendered represents an overpayment for the difference and, upon written notice from the State, the Grantor will promptly refund the overpayment to the State.

3. The effective date of this Agreement will be the date on which payment pursuant to Paragraph 2 above

was tendered to the Grantor by the State, or disbursed to the Grantor by a title company acting as escrow agent for the transaction, (the "Effective Date").

4. The Grantor warrants and represents that the title to the Property is free and clear of all liens and encumbrances or that proper releases will be executed for the Property prior to funds being disbursed under this Agreement. The Grantor further warrants that no other person or entity owns an interest in the fee title to the Property and further agrees to indemnify the State from all unreleased or undisclosed liens, claims or encumbrances affecting the Property.

5. The parties agree that the valuation date for determining the amount of just compensation for the real property interest proposed to be acquired by the State in the Property, for negotiation or eminent domain proceeding purposes, will be the Effective Date of this Agreement.

6. This Agreement is made with the understanding that the State will continue to proceed with acquisition of a real property interest in the Property. The Grantor reserves all rights of compensation for the title and interest in and to the Property which the Grantor holds as of the time immediately prior to the Effective Date of this Agreement. This Agreement shall in no way prejudice the Grantor's rights to receive full and just compensation as allowed by law for all of the Grantor's interests in and to the Property to be acquired by the State, encumbered with the improvements thereon, if any, and damages, if any, to the remainder of the Grantor's interest in any larger tract of which the Property is a part (the "Remainder"), if any; all as the Property exists on the Effective Date of this Agreement. The State's removal or construction of improvements on the Property shall in no way affect the fair market value of the Property in determining compensation due to the Grantor in the eminent domain proceedings. There will be no project impact upon the appraised value of the Property. This grant will not prejudice the Grantor's rights to any relocation benefits for which Grantor may be eligible.

7. In the event the State institutes or has instituted eminent domain proceedings, the State will not be liable to the Grantor for interest upon any award or judgment as a result of such proceedings for any period of time prior to the date of the award. Payment of any interest may be deferred by the State until entry of judgment.

8. The purpose of this Agreement is to allow the State to proceed with its Highway Construction Project without delay and to allow the Grantor to have the use at this time of a percentage of the estimated compensation for the State's acquisition of a real property interest in the Property. The Grantor expressly acknowledges that the proposed Highway Construction Project is for a valid public use and voluntarily waives any right the Grantor has or may have, known or unknown, to contest the jurisdiction of the court in any condemnation proceeding for acquisition of the Property related to the Highway Construction Project, based upon claims that the condemning authority has no authority to acquire the Property through eminent domain, has no valid public use for the Property, or that acquisition of the Property is not necessary for the public use.

9. The Grantor reserves all of the oil, gas and sulphur in and under the land herein conveyed but waives all right of ingress and egress to the surface for the purpose of exploring, developing, mining or drilling. The extraction of oil, gas and minerals may not affect the geological stability of the surface. Nothing in this reservation will affect the title and rights of the State to take and use all other minerals and materials thereon, and thereunder.

10. The undersigned Grantor agrees to pay as they become due, all ad valorem property taxes and special assessments assessed against Property, including prorated taxes for the year in which the State takes title to the Property.

11. Notwithstanding the acquisition of right of possession to the Property by the State in a condemnation proceeding by depositing the Special Commissioners' award into the registry of the court, less any amounts tendered to the Grantor pursuant to Paragraph 2 above, this Agreement shall continue to remain in effect until the State acquires title to the Property either by negotiation, settlement, or final court judgment.

12. This Agreement will also extend to and bind the heirs, devisees, executors, administrators, legal representatives, successors in interest and assigns of the parties.

13. It is agreed the State will record this document.

14. Other conditions: .

To have and to hold the Agreement herein described and conveyed, together with all the rights and appurtenances belonging to the State of Texas and its assigns forever, for the purposes and subject to the limitations set forth above.

GRANTOR:

By: _____

Printed Name: _____

Title: _____
(if GRANTOR is an entity other than an individual person)

Date: _____

By: _____

Printed Name: _____

Title: _____
(if GRANTOR is an entity other than an individual person)

Date: _____

THE STATE OF TEXAS

Executed by and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By: _____
Right of Way Manager

Date:_____

Acknowledgement

State of Texas
County of

This instrument was acknowledged before me on _____

by_____.

_____
Notary Public's Signature

Corporate Acknowledgment

State of Texas
County of

This instrument was acknowledged before me on _____by

_____, _____

of _____, a _____

corporation, on behalf of said corporation.

_____
Notary Public's Signature

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 21-1
San Antonio Karst Protocol for Structural Elements

San Antonio Karst Protocol for Structural Elements

1. DB Contractor shall perform a geologic assessment within the project area. The location of known Karst Features shall be shown within the ROW limits and listed on the boring location layout sheets. Drilled shaft design and placement shall avoid known Karst Features.

2. Foundation design assumptions shall be verified during construction at each drilled shaft location by performing a core hole per TxDOT Standard Specification Item 416, Section 3.2. The minimum diameter of the core hole is 2 inches and shall extend from the top of rock to either 7 feet or one shaft diameter, whichever is greater, below the bottom of planned tip elevation. Should a Karst Feature or low strength strata be encountered within this depth, the core hole shall be extended to a depth recommended by the geotechnical engineer. Rock core hole photos and drill logs shall be provided to the geotechnical engineer for review. Final tip elevations for the drilled shafts will be provided by the geotechnical engineer and approved by TxDOT. When investigation is complete, core holes shall be grouted.

3. For Karst Features found to be in conflict with drilled shafts during construction, concrete used to fill the Karst Feature will be required to meet the project specifications or as directed by TxDOT. If grout is used, the length of the drilled shaft in contact with the grout will not be used for foundation design calculations that incorporate both skin friction and end bearing. The quantity of concrete will be based on the visual and video inspection provided by the DB Contractor. If unable to determine the size of the Karst Feature by these means, the quantity may be measured as the additional concrete placed beyond the amount needed for a clean drilled shaft plus 10 percent overrun.

4. If a large Karst Feature (a Karst Feature larger than 4 feet in any direction) is encountered during drilled shaft construction which is not capable of being filled with concrete, karst protocols established on the project will be followed. Permanent steel casing shall be installed from the top of the shaft to the bottom of the Karst Feature. The casing shall be new, smooth, free of dirt and accumulations, and have a minimum thickness of 1/4 inch. The geotechnical engineer shall provide a new recommended drilled shaft length.

5. If a large Karst Feature (a Karst Feature larger than 4 feet in any direction) is encountered during drilled shaft construction, a permanent casing in accordance with TxDOT Standard Specification Item 416 will be required. The outside diameter of this casing shall have a minimum dimension matching the plan diameter of the drilled shaft.

6. The contractor shall supply a digital picture / video documentation of all Karst Features. For Karst Features that cannot be safely explored, a drone or other device shall be provided to document the Karst Feature.

Karst Feature protocols apply, but are not limited to, the following:

1. Karst Features which blow air;
2. Karst Features which receive water during a rain event; and
3. Karst Features which have water flowing through or out of the Karst Feature.

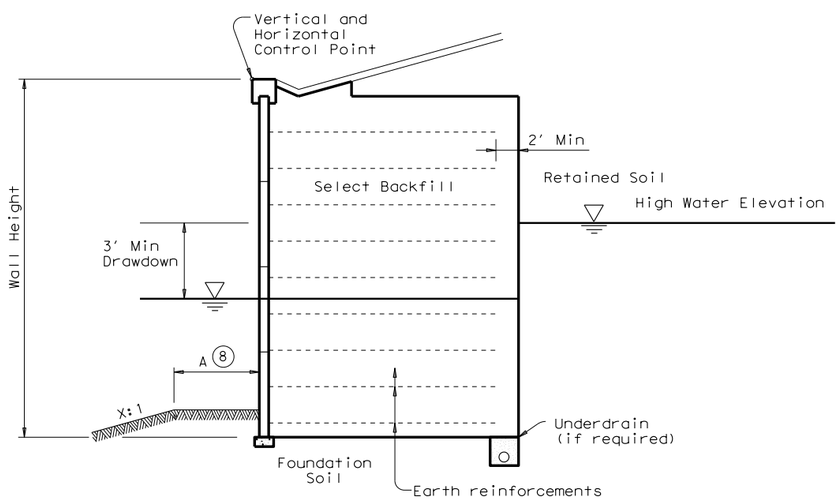
Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 21-2
Mechanically Stabilized Earth Retaining Wall Design Data

WALL SUMMARY

MSE Retaining Wall	Begin Station (1)	End Station (1)	Retained Soil Friction Angle (2)	Foundation Soil Friction Angle (2)	Ground Improvement (3)	Min Earth Reinforcement Length (4)	Min Wall Embedment (7)	Underdrain Required (5)	Drawdown Analysis (6)	Bench Width (8)



TYPICAL SECTION

(RAPID DRAWDOWN CONDITION)

(1) Indicate limits for which the stated soil design requirements/assumptions are applicable.

(2) Retained and Foundation friction angle listed should be based on local experience or measured/correlated long term strength values.

(3) Indicate if ground improvement is required or not required. If shown as required, refer to Ground Improvement Detail(s) for additional information.

(4) Indicate on table minimum length and length ratio required. The minimum default length of earth reinforcements shall be either 8'-0" or 70% of the wall height, whichever is greater. Wall height and design wall height may differ depending on project geometry and loading conditions. Note: Wall height at bridge abutments is equal to the distance between the top of leveling pad and finished grade at the bridge abutment backwall.

(5) Indicate if underdrain is required or not required.

(6) Indicate if rapid drawdown analysis is required.

(7) Guidance to wall designer of record for determination of minimum wall embedment: Unless noted elsewhere in the plans, the minimum embedment provided from the top of leveling pad to finish grade shall be 1' for level ground where there is no potential for erosion or future excavation or 2' for sloping ground (4.0H:1.0V or steeper) or where there is potential for removal of soil in front of the wall.

(8) Horizontal Bench width at base of wall varies. Use the following criteria to establish base width.
A = 2.0' Min for X $\geq$ 4. or
A = 4.0' Min for X $\leq$ 4.
Applicable to both drawdown and dry condition.

SPECIAL NOTES:
This sheet is to be filled out by the wall designer of record at time of plan preparation to provide soil strength parameters for the design of the specified walls.
The completed sheet shall be signed, sealed, and dated by a licensed Professional Engineer.

Texas Department of Transportation

Bridge Division Standard

MECHANICALLY STABILIZED EARTH RETAINING WALL DESIGN DATA

RW(MSE)DD

FILE: rwstde16.dgn	DN: TxDOT	CK: MJG	DW: JTR	CK: MJG
©TxDOT January 2013	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST		COUNTY	SHEET NO.

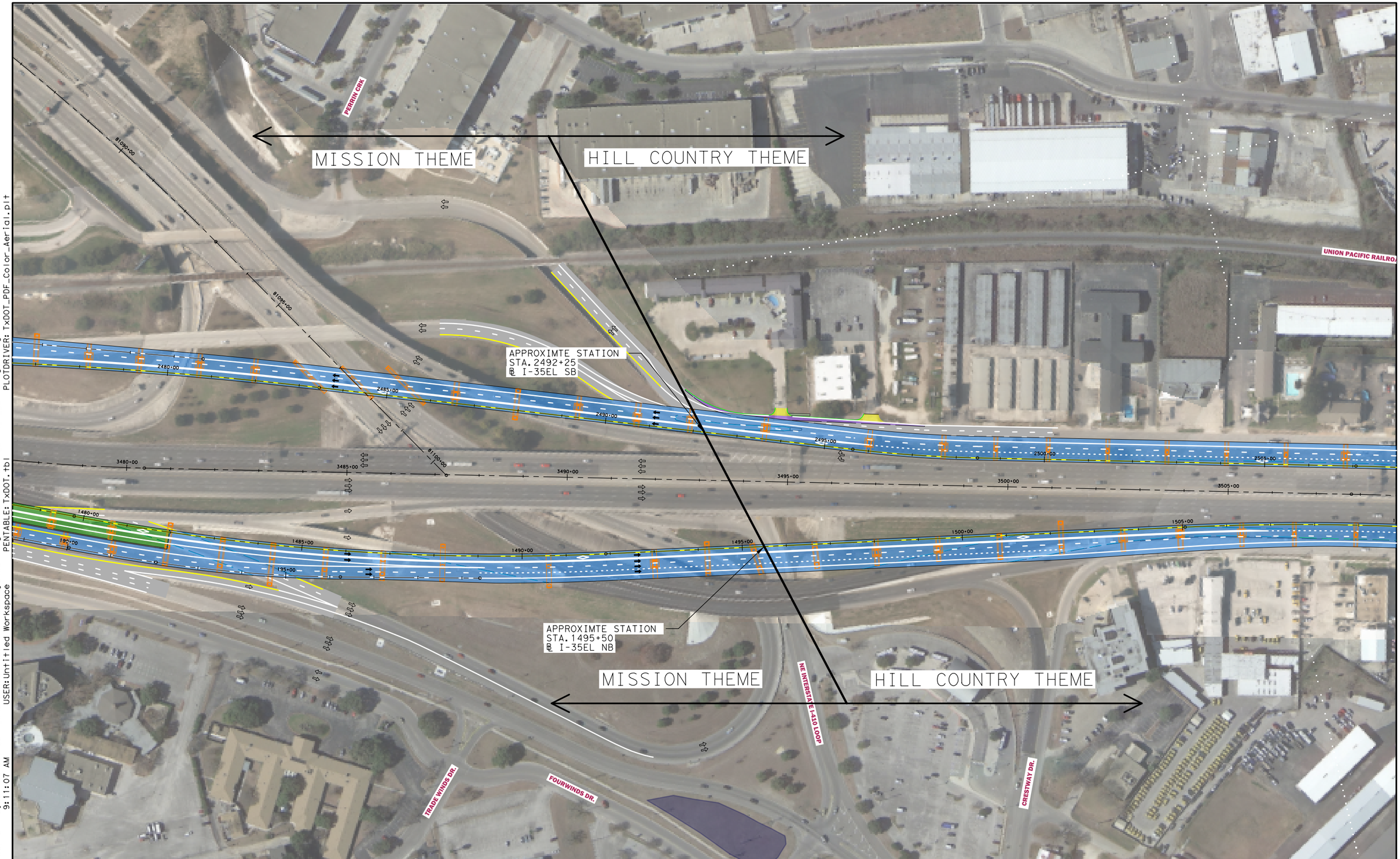
DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 23-1
I-35 NEX Urban Design Theme Transition



FILE:\\172.16.56.10\Project-data\I-35 NEX\07. Technical\11 Roadways\Working Folder\Exhibit 23-1\EX_23-1_Page-1.dgn
DATE:8/3/2020 9:11:07 AM USER:Untitled Workspace PENTABLE:TxDOT.tbl PLOTDRIVER:TxDOT_PDF_Color_Aerial.plt

HORZ 0' 50' 100' 200'

I-35 NEX CENTRAL PROJECT

Texas Department of Transportation
© 2020

ATTACHMENT 23-1: I-35 NEX URBAN DESIGN
THEME TRANSITION
AUGUST 14, 2020

SHEET 1 OF 1

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 25-1
ITS Equipment Specifications

Attachment 25-1

ITS Equipment Specifications

1. CCTV and Support Equipment

DB Contractor shall furnish, install, and test CCTV devices and supporting equipment in conformance with the requirements within TxDOT Statewide Special Specification 6010, Closed Circuit Television (CCTV) Field Equipment. CCTV device shall include a motorized wiper.

CCTV shall be supported by a camera interface panel that includes a surge suppressor and an RS422 to RS232 converter.

The surge suppressor shall provide 120 VAC, 60 Ampere service. It shall be solid-state in design and designed for outdoor cabinets; the unit shall be epoxy coated and flame retardant. The response time shall not exceed five nanoseconds and provide automatic recovery to the system in the event of a power surge and prevent follow currents by use of a primary stage gas discharge tube (GDT) and secondary stage Silicon Avalanche Diode (SAD).

2. Vehicle Detection

a. Microwave Radar Vehicle Detection

DB Contractor shall furnish, install, and test microwave radar detection devices and supporting equipment in conformance with the requirements within TxDOT Statewide Special Specification 6304, Intelligent Transportation System (ITS) Radar Vehicle Sensing Device.

b. Bluetooth Vehicle Detection

The Detection System will consist of a UV-protected, IP65 housed sensor, 2 external antennas, a CAT5e cable for Power over Ethernet, and a non-corrosive fixing bracket.

DB Contractor shall provide documentation on the auto-configuration and auto-calibration processes.

DB Contractor shall provide a detection system that does not cause interference or alter the performance of any known equipment.

DB Contractor shall furnish all new equipment and component parts in an operable condition at the time of delivery and installation.

DB Contractor shall provide design to prevent reversed assembly or improper installation of connectors, fasteners, etc. DB Contractor shall design each item of equipment to protect personnel from exposure to high voltage during equipment operation, adjustments, and maintenance.

DB Contractor shall include licenses for all equipment, where required, for any software or hardware in the Detection System.

DB Contractor shall provide all Detection Systems from the same manufacturer.

DB Contractor shall provide Detection System firmware that is upgradeable by external local or remote download.

DB Contractor shall ensure the Detection System maintains accurate performance in all weather conditions, including rain, freezing rain, snow, wind, dust, fog and changes in temperature and light.

DB Contractor shall provide a Detection System that does not require cleaning or adjustment to maintain performance. DB Contractor shall ensure it does not rely on battery backup to store configuration information. DB Contractor shall ensure the Detection System, once calibrated, does not need recalibration to maintain performance over entire operational temperature range unless the roadway configuration changes. DB Contractor shall provide remote connectivity to the Detection System to allow operators to change the unit's configuration, update the unit's firmware programming and recalibrate the unit

automatically from a centralized facility. The sensor can be accessed remotely through both TCP/IP and GPRS (both dynamic and static).

The sensor must be configurable through a web browser and at TransGuide through the centralized traffic management software system (Lonestar).

DB Contractor shall supply the detection system with a connector cable of the appropriate length for each installation site. DB Contractor shall ensure that the detection system provides communication options that include RS-232, RS-485 or TCP/IP. The antennas must be connected with the sensor through standard SMA-connectors.

The detection system sensor must operate with two directional antennas for optimized detection of traffic in multiple lanes. The antennas must be optimized for detection across multiple lanes; they have a narrow vertical angle of 30º, and a wide horizontal (azimuth) angle of 110º, and have a 90º difference in the polarization to avoid interference. Each of the receiving channels must have the ability to capture signals as weak as -102dBm or more. The antennas are attached to the body of the sensor with stainless steel brackets.

The sensor must have an internal GPS for automatic clock synchronization and positioning. If a GPS signal is not available the sensor will capture its clock synchronization signal via NTP (Network Time Protocol). Once the clock signal has been captured it must start detecting devices automatically. It must be possible to view real time scans to verify operations. The sensor must have diagnostics data recording reboots, GPS reception, data transfers and error messages related with GPRS and TCP/IP. The GPRS antenna must be inside the sensor housing.

For security purposes the sensor must have a configurable firewall; and thereby only admit connections from computers that have pre-selected IP-addresses or a subnet of pre-selected IP-addresses. The operator must be able to upload new firmware into non-volatile memory of the detection system over any supported communication channel including TCP/IP networks. DB Contractor shall provide any and all programming and software required to support the detection system. Install the programming and software in the appropriate equipment prior to testing. DB Contractor shall complete and pass testing using a stable release of the programming and software provided. DB Contractor shall provide software update(s) free of charge during the warranty period.

DB Contractor shall furnish the detection system with bracket or band designed to mount directly to a CCTV pole or overhead mast-arm or signal/ITS cabinet. DB Contractor shall ensure the mounting assembly has all stainless steel, or aluminum construction, and supports the load of the detection system. DB Contractor shall incorporate for the mounting assembly a mechanism that can be tilted in three axes, and then locked into place, to provide the optimum area of coverage. DB Contractor shall ensure the mounting bracket is designed and installed to prevent sensor re-positioning during 80 mph wind conditions.

Proper placement, mounting height and orientation of the detection systems must conform to the manufacturer's published requirements for the system provided. Install the detection system units as shown on the plans. DB Contractor shall analyze each proposed pole location to assure that the detection system installation will comply with the manufacturer’s published installation instructions. DB Contractor shall advise TxDOT, before any trenching or pole installation has taken place, of any need to move the pole from the location indicated in the plans in order to achieve the specified detector performance. DB Contractor shall confirm equipment placement with the manufacturer before installing any equipment.

DB Contractor shall ensure alignment, configuration and any calibration of the detection system takes less than 15 min. per lane once mounting hardware and other installation hardware are in place. DB Contractor shall install detection system units such that each unit operates independently and that detectors do not interfere with other detection system units or other equipment in the vicinity.

i. Manufacturing Requirements

DB Contractor shall provide a detection system capable of continuous operation over a temperature range of –22°F to +165°F and a humidity range of 5% to 95% (non-condensing).

DB Contractor shall ensure the assembly of the units adheres to industrial electronic assembly practices for handling and placement of components.

The detection system must undergo a rigorous sequence of operational testing to ensure product functionality and reliability. Include the following tests:

- functionality testing of all internal subassemblies,
- unit level burn-in testing of 24 hour duration or greater, and
- final unit functionality testing prior to shipment.

DB Contractor shall provide test results and all associated data for the above testing, for each purchased detection system by serial number. Additionally, DB Contractor shall maintain and make available manufacturing data for each purchased Bluetooth detection system by serial number.

Externally, the detection system must be modular in design to facilitate easy replacement in the field. DB Contractor shall ensure the total weight of the detection system does not exceed 5 lbs.

DB Contractor shall ensure all external parts are protected against corrosion, fungus growth and moisture deterioration.

ii. Power and Wiring Requirements

DB Contractor shall provide the detection system that operates at 12 to 24 VDC from a separate power supply and ensure it does not draw more than 2W of power each.

DB Contractor shall provide the separate power supply or transformer that operates from 115 VAC ±10%, 60 Hz ±3 Hz.

DB Contractor shall provide equipment operations that are not affected by the transient voltages, surges and sags normally experienced on commercial power lines. DB Contractor shall check the local power service to determine if any special design is needed for the equipment.

DB Contractor shall provide wiring that meets the requirements of the National Electric Code. DB Contractor shall provide wires that are cut to proper length before assembly. DB Contractor shall provide cable slacks to facilitate removal and replacement of assemblies, panels, and modules. DB Contractor shall not double-back wire to take up slack. DB Contractor shall lace wires neatly into cable with nylon lacing or plastic straps, secure cables with clamps, and provide service loops at connections.

DB Contractor shall provide DC relays, solenoids and holding coils that have diodes or other protective devices across the coils for transient suppression.

DB Contractor shall provide equipment that contains readily accessible, manually re-settable or replaceable circuit protection devices (such as circuit breakers or fuses) for equipment and power source protection.

DB Contractor shall provide and size circuit breakers or fuses such that no wire, component, connector, PC board or assembly must be subjected to sustained current in excess of their respective design limits upon the failure of any single circuit element or wiring.

DB Contractor shall enclose the detection system in a rugged, water-tight NEMA 4X & IP 67 polycarbonate enclosure.

DB Contractor shall not use silicone gels or any other material for enclosure sealing that will deteriorate under prolonged exposure to UV rays. DB Contractor shall ensure the overall dimensions of the box, including fittings, do not exceed 8 in. x 8 in. x 6 in. DB Contractor shall ensure the overall weight of the box, including fittings, does not exceed 6.5 lbs.

DB Contractor shall coat all printed circuit boards with a clear-coat moisture and fungus resistant material (conformal coating).

DB Contractor shall ensure external connection for telecommunications and power be made by means of a single military style multi-pin connector, keyed to preclude improper connection.

DB Contractor shall provide external connections made by means of connectors. DB Contractor shall provide connectors that are keyed to preclude improper hookups. DB Contractor shall color code and appropriately mark wires to and from the connectors.

DB Contractor shall provide connecting harnesses of appropriate length and terminated with matching connectors for interconnection with the communications system equipment.

DB Contractor shall provide pins and mating connectors that are plated to improve conductivity and resist corrosion. DB Contractor shall cover connectors utilizing solder type connections by a piece of heat shrink tubing securely shrunk to insure that it protects the connection.

3. DMS

a. Front Access DMS

DB Contractor shall ensure the selected front access DMS meets the following requirements:

- DMS shall be full color with a full matrix display and include a matrix size of 27x125, with an 18" nominal character height. DMS matrix shall have a 1' offset minimum from the left and right edges of the panel.
- DMS shall consist of a full protective masked face panel.
- DMS shall consist of all aluminum construction.
- DMS housing must be designed, fabricated, welded and inspected in accordance with the latest revision of ANSI/AWS D1.2 Structural Welding Code-Aluminum.
- DMS shall support and include two 12" amber beacons, to be located at the top of the sign 2'-6" from each edge of the panel.
- Display panels shall have hinges to allow for access, and include door stops such that face panels will remain open at a 90-degree angle.
- DMS shall allow for two 1 ½" conduit hubs in the rear panel; one shall be dedicated for communications and the other shall be dedicated to power.
- DMS shall include a positive pressure ventilation system with multiple filtered air intake units and an equal number of air exhaust units.
- DMS shall provide monitoring information, including front panel and rear panel light sensors, ambient temperature and light sensors.
- DMS shall include controller to be installed in the TxDOT ITS Cabinet and all necessary communications cables to operate DMS equipment. DMS shall also include an uninterrupted power supply (UPS) capable of maintaining sign operations for a minimum of two hours.
- DMS Manufacturer shall have in-house Quality Management System in place and be ISO 9001 certified.

b. Walk-in DMS

DB Contractor shall ensure the selected DMS meets the following requirements:

- DMS shall include a matrix size of 96x432, with an 18" nominal character height across three lines with 27 characters per line. DMS shall also allow for a 12" character height across four lines at 36 characters per line and 8" height across six lines at 54 characters per line.
- DMS dimensions shall be 30'-7" x 8'-6".
- DMS weight shall not exceed 4400 lbs.
- DMS housing skin shall be constructed of aluminum alloy 5052-H32 which shall not be less than 0.125 inches thick. Framing structural members shall be made of aluminum alloys 6061-T6 and 6063-T5.
- All welding shall be by an inert gas process in accordance with the American Welding Society (AWS) Standards, AWS D1.2/D1.2M:2014 Structural Welding Code for Aluminum. The sign housing shall have a continuous, 24" wide walkway extending the full length of the sign. The walkway shall be made of 1/8" diamond tread 3003-H22 aluminum. All edges of the walkway grating must be finished to eliminate sharp edges or protrusions

- The sign housing shall be a minimum of three feet deep to allow adequate room inside the sign housing for maintenance personnel. There shall be 21" of clear area between all equipment along the length of the sign housing from the walkway up to a minimum of 70" above the walkway.
- DMS ventilation system shall be a positive-pressure, filtered, forced-air system which cools both the display modules and the sign housing interior. Signs with negative pressure systems that use exhaust fans are not acceptable
- The ventilation system shall provide a minimum of two (2) sign housing volume air changes per minute at the pressure drop developed throughout the entire ventilation system.
- DMS shall provide monitoring information, including internal and ambient temperature sensors, humidity sensor, and air flow sensor.
- DMS Controller and Battery Backup shall be housed within the sign. BBU shall be capable of maintaining sign operations for a minimum of eight hours.

4. Infrared Thermal Detection for WWD Systems

As a part of the WWD System, DB Contractor shall provide a forward-looking infrared integrated camera and detector meeting the following requirements:

- Camera type shall be a Focal Plane Array (FPA), uncooled VOx microbolometer with long wave Infrared (7 – 14 µm).
- Resolution shall be Video Graphics Array (VGA), 640x480
- Shall allow for a frame rate of 30 fps
- Capable of Advanced Video Encoding/Compression: H.264, MPEG-4, MJPEG
- Functions on Real-Time Streaming Protocol (RTSP)
- Meets NEMA TS2 Specifications for shock and vibration
- Is weatherproof, UV resistant, waterproof to IP 67, and capable of operating within a temperature range of -34 degrees C to 74 degrees C

5. Access Control System

DB Contractor shall provide an ACS consisting of horizontal swing gates, operated by an electrical linear actuator, that are FHWA approved and MASH (Manual for Assessing Safety Hardware) tested. The length of the gate(s) must be sufficient to span the turnaround locations and provide full control of access to the turnaround locations. The gates must withstand a wind speed of 80 mph. The ACS shall include all components of the gate system such that is operable from TransGuide, including:

- all required support frames
- swing arms
- Electrical linear actuator equipped with end of travel limit switches, mechanical overload protection, and hand crank manual override
- All electrical components and associated equipment that will allow for functioning on AC power such as a power control circuit for actuator operation and full gate light power management and flashing logic
- Battery back up
- Remote push-button control including arm assemblies, mechanical assemblies, gate control box with electrical components, and an antenna assembly

The design of the entire gate assembly and driving mechanism must be in accordance with ASTM F900-11. Each gate must have a travel range of 90 degrees. Travel of the entire 90 degree range shall be accomplished in less than 30 seconds. Each gate shall not deploy outside of the designated range and limit switches at which end of travel the gate is positioned. Mechanical and electrical burn-out protections shall be provided to protect the actuator when the gate meets an obstruction or power is not shut off at the end of travel.

The electrical linear actuator driving each gate is connected to the gate arm via eyes and clevis. At each gate the electrical linear actuator is a removable single unit which shall be capable of being interchangeable with all other units. The electrical linear actuator shall be self-locking to provide an integrated brake and shall have a hand crank manual override to operate the gate. The gate system shall not require lubrication at any point more often than once every 12 months and all gears, actuator pinions, and similar mechanical parts shall be enclosed and running in grease.

Operations Mode select switches shall be provided for field personnel to override the satellite control function and to operate the gate with pushbuttons. Manual/local operation of the gates shall be made possible at any time. The ACS shall allow the operator that performs a manual override to do so without changing the mechanical or electrical configuration of the modules.

Gate modules shall be able to be activated by remote control. The remote control shall be capable of activating the system from 1000 feet minimum to the nearest gate module. The remote control shall also be capable of monitoring the modules' parameters from a distance.

Panels shall be protected by a NEMA 3R enclosure or better and include locking mechanisms that limit access to personnel.

a. ACS Electrical Requirements

The ACS shall be hard-wired (AC power) and include a battery backup unit.

The linear actuator shall be weatherproof, include end of stroke limit switches, and be mechanically protected against overload.

A local (gate mounted) electrical compartment shall be provided to contain the following electrical components: power control electronic circuit for actuator operation; battery; battery charger; gate light power management and flashing logic electronics; RF control system for communication with the remote control.

For each turnaround location, DB Contractor shall provide a gate control panel which is used to control specific gates.

The gate control panel interconnects wirelessly and shall not be microprocessor based.

The gate control panel shall provide the gates with three possible modes of operation, only one of which can be active at any given time while the other two modes are locked out. The three possible modes of operation are: 1) offsite TMC operations; 2) remote control unit or signal preemption technology actuation; 3) local mode by use of switches on the gate control panel.

The gate control panel shall include LED gate position indicators that clearly identify the gates' positions with respect to signal commands and confirmation of the open/closed/local control status.

A true "local control confirm" LED indication indicates that the operations mode select switch is in the local position. A true "open confirm" indicates that the gate is fully open. A true "closed confirm" indicates that the gate is fully closed. Both "open confirm" and "closed confirm" are false when the gate is not fully open or fully closed.

A true "open command" LED indication (0 VDC) from the local control unit to the local control panel for greater than 0.5 to 5 seconds adjustable in 0.5 second intervals simultaneous with a false "close command" causes the local control panel to send an "open" signal to the gate.

A true "close command" LED indication (0 VDC) from the local control unit to the local control panel for greater than 0.5 to 5 seconds adjustable in 0.5 second intervals simultaneous with a false "open command" causes the local control panel to send a "close" signal to the gate.

The following invalid conditions shall not be acted upon by the local control panel, including:

- Valid command of less than 0.5 seconds in duration.
- Simultaneous true "open command" and "close command."
- Simultaneous false "open command" and "close command."

The gate while in motion, shall respond to a valid command requesting a change of direction, without harm to the gate or its drive mechanism.

b. Swing Gate Physical Requirements

The swing gates are fabricated from high-density polyethylene. All bolts, nuts, washers, braces, rivets, and brackets are stainless steel or aluminum. Nails are not permitted. The length of the swing gate is as shown on the plans. The manufacturer must present an approval letter from the Federal Highway Administration (FHWA) stating that the gates have successfully completed the crash tests according to the to MASH r requirements.

Gate arms are covered on both sides with 22 inch alternating red and white engineering grade reflectorized sheeting.

To prevent projectile on impact of the gate, a rope must travel the lower and upper gate tubes and knotted to the frame.

A reflective chevron panel must be installed on the gate extremity. Chevron panel must be fabricated from polycarbonate sheeting. A red flashing Gate LED arrow must be fitted on the chevron panel for additional road user's visibility and safety. Gate, chevron and Gate LED assembly must be easily replaceable in case of permanent damage. Gate and chevron must be able to withstand multiple nuisance impacts and only suffer visual damage.

Every part of the gate support frame and swing arm are fabricated from carbon steel and are hot dipped galvanized after fabrication. The housing base provides four 9/16 in. holes for mounting to the foundation. Anchor bolts and template are supplied by the gate manufacturer. Standard anchor bolt size is 1/2-13 x 4 1/2 in. hot dip galvanized. All external fasteners are of stainless steel.

The support frame and swing arm must be designed to withstand gate impacted force.

A safety latch must be part of the frame / arm assembly. This latch must lock the gate arm in the retracted position when activated. The latch must not interfere with arm movement in any operating condition.

c. ACS Environmental Design Requirements

The barricade gate and its associated equipment must meet all of its specified requirements during and after subjecting to any combination of the following conditions:

- Ambient temperature range of 0°F to 140°F.
- Temperature shock not to exceed 30°F per hour, during which the relative humidity must not exceed 95%.
- Relative humidity range not to exceed 95% over the temperature range of 40°F to 110°F.
- Moisture condensation on all surfaces caused by temperature changes.

d. ACS Construction Requirements

The ACS design and construction shall use good industry practice to minimize the number of parts, subassemblies, circuits, cards, and modules to maximize standardization and commonality. The equipment shall also be designed for

ease of maintenance and inspection for all component parts, providing test points for checking essential voltages and waveforms.

All external screws, nuts, and locking washers shall be stainless steel; no self-tapping screws shall be permitted. All other parts shall be made of corrosion resistant material, such as plastic, stainless steel, anodized aluminum or brass. All materials shall be protected from fungus growth and moisture deterioration.

6. **Managed Field Ethernet Switch (MFES)**
   DB Contractor shall provide a Layer 2 MFES with ten ports, eight of which shall be local fast ethernet ports, and two shall be uplink ports.
7. **Small-form Pluggable (SFP) Transceiver Modules**
   DB Contractor shall provide SFP modules for the project with two LC (dual fiber) connections, supporting single mode transmission at a wavelength of 1310 nanometers with a reach up to 40 km. Connectors shall be capable of operating at a temperature range of -40 degrees C to 85 degrees C.
8. **Power Supplies**
   DB Contractor shall provide power supplies within ITS Cabinets. Power supplies shall be 12VDC and provide 115VAC, and include power cords of 12V/2.1A and capable of operating at a maximum temperature of 74 degrees C.
9. **Video Encoder**
   DB Contractor shall provide an MPEG-4 video encoder to support CCTV equipment. The encoder shall have one CVBS input unit and four encoding profiles and five output streams per profile. Input impedance shall not exceed 75 ohms. Latency shall not exceed 150 ms when encoding/decoding.
10. **Port Server**
    DB Contractor shall provide a field terminal port server with four RS-232/422/485 RJ-45 (switch-selectable) ports. The port server shall operate on the following protocols: UDP/TCP, DHCP/RARP/ARP-Ping for IP Address assignment, Extended Telnet RFC 2217, Telnet, Reverse Telnet, Modbus to Modbus/TCP
    protocol conversion support. The port server shall have SSHv2, SSL/TLS security. The port server's operating temperature range shall be between -35 degrees C and 74 degrees C.

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 27-1
Performance and Measurement Baseline Table During Construction

Note 1. DB Contractor shall record a separate Defect upon failure to achieve any of the requirements set forth in a Measurement Record. DB Contractor shall repair each Defect within the specified Defect Repair Period.

Note 2. DB Contractor shall conduct hazard mitigation with respect to a Category 1 Defect to mitigate the hazard to Users or imminent risk of damage or deterioration to property or the environment such that the Category 1 Defect no longer exists. For all physical Elements, DB Contractor shall monitor hazard mitigation and shall take action to prevent recurrence of the hazard prior to permanent repair.

Note 3. DB Contractor shall conduct permanent repair of all Defects to restore the condition of an Element to a condition such that no Defect exists.

Note 4. Unless stated otherwise, measurements shall be conducted using procedures, techniques, and measuring equipment consistent with TxDOT's Pavement Management Information System Rater's Manual, TxDOT Designation TEX-1001-S "Test Procedure for Operating Inertial Profilers and Evaluating Pavement Profiles" and TxDOT Specification No. TxDOT 968-62-65 "Pavement Condition Data Collection Services."

Note 5. Unless stated otherwise, pavement performance measurement records relate to 0.1-mile Performance Sections.

Note 6. Pavement distress data includes distresses identified directly by automated methods and distresses revealed by post-processing of visual images obtained during data collection by TxDOT certified visual distress raters for flexible and rigid pavements.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
HAZARD MITIGATION AND PERMANENT REPAIR OF CATEGORY 1 DEFECTS							
A: CATEGORY 1 DEFECTS OF PHYSICAL ELEMENTS (GENERAL)							
1) PAVEMENT	A1	All physical Elements	Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in a pavement Element.	24 hours Hazard Mitigation 28 days Permanent Repair	The inspection and measurement method for the identification of Category 1 Defects may include any of the methods in this Table.	A1.1	No Category 1 Defects, including but not limited to: any failure as defined in TxDOT PMIS System Rater's Manual.
2) DRAINAGE	A2		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in a drainage system Element.			A2.1	No Category 1 Defects, including but not limited to: any failure of a drainage system that permits water to accumulate on the travel way to the extent that such water would represent a hazard because of its position or depth.
3) STRUCTURES	A3		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in a structures Element.			A3.1	No Category 1 Defects, including but not limited to: any structural condition, loading event, deflection, crack or settlement that exceeds the design expectation for the Element.
4) EARTHWORK	A4		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in an earthwork Element.			A4.1	No Category 1 Defects, including but not limited to: any settlement, earthwork instability or erosion event threatening user safety.
5) GENERAL	A5		Provide Hazard Mitigation and Permanent Repair to any Category 1 Defect in any other Element.			A5.1	No other Defects that meet the definition of a Category 1 Defect as defined in Section 27.3.2.3. [*The following criteria for a Category 1 Defect are included in Section 27.3.2.3:* *• Represents an immediate or imminent health or safety hazard to Users or road workers;* *• There is a risk of immediate or imminent structural failure or deterioration;* *• There is an immediate or imminent risk of damage to a third party's property; or* *• There is an immediate or imminent risk of damage to the environment.*]

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
B: CATEGORY 1 DEFECTS OF PHYSICAL ELEMENTS (REQUIRE MORE RAPID DEFECT REPAIR)							
1) TRAFFIC SIGNS	B1	Warning and regulatory signs ("Stop", "Yield", "Do Not Enter", "One Way", and "Wrong Way" signs)	Signs are clean, correctly located, clearly visible, legible, reflective, at the correct height and free from structural and electrical defects.	2 hours Hazard Mitigation 28 days Permanent Repair	Visual inspection	B1.1	No traffic sign Defects that represent an immediate or imminent health or safety hazard to Users or road workers.
2) TRAFFIC SIGNALS	B2	Traffic Signals	(i) Traffic signals and their associated equipment shall be: • clean and visible • correctly aligned and operational • free from damage caused by accident or vandalism • bulbs are not burned out (ii) Signal timing and operation is correct. (iii) 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 Hazard Mitigation 28 days Permanent Repair	Visual inspection	B2.1	No traffic signal Defects that represent an immediate or imminent health or safety hazard to Users or road workers.
C. CATEGORY 1 DEFECTS OF OPERATIONAL ITEMS (HAZARD MITIGATION ONLY)							
1) AMENITY	C1	Graffiti	Graffiti is removed in a manner and using materials that restore the surface to a like appearance similar to adjoining surfaces (i) Category 1 Defect – Obscene, apparent gang-related, or highly visible graffiti	24 hours Hazard Mitigation	Visual inspection	C1.1	Graffiti that is obscene, apparent gang-related, or highly visible is not present.
		Animals	All dead or injured animals are cleared from travel lanes and shoulders.	1 hour Hazard Mitigation	Visual inspection	C1.2	Dead or injured animals do not represent an immediate or imminent health or safety hazard to Users or road workers.
		Stalled or abandoned vehicles and equipment	Stalled or abandoned vehicles and equipment are cleared from travel lanes and shoulders.	1 hour Hazard Mitigation	Visual inspection	C1.3	Stalled or abandoned vehicles or equipment do not represent an immediate or imminent health or safety hazard to Users or road workers.
2) SNOW AND ICE CONTROL	C2	Travel lanes	Pretreat travel way with brine solution prior to potential snow and ice event.	12 hours (min.) 24 hours (max.) Hazard Mitigation	Visual inspection	C2.1	Pretreat travel way with brine solution a minimum 12 hours but no more than 24 hours prior to potential snow and ice event.
			Maintain travel way free from snow and ice.		Records of all snow and ice controls		Response times are met for all snow and ice controls:
				1 hour Hazard Mitigation		C2.2	(i) Maximum 1 hr response time to complete staffing and loading of spreading vehicles.
				2 hours Hazard Mitigation		C2.3	(ii) Maximum 2 hrs from departure from loading point to complete treatment and return to loading point
				1 hour Hazard Mitigation		C2.4	(iii) Maximum 1 hr response time for snow and ice clearance vehicles to depart from base.
3) INCIDENT RESPONSE	C3	General	(i) Monitor the Project and respond to Incidents in accordance with the Maintenance Management Plan (MMP). (ii) Monitor the Project and respond to Incidents involving Hazardous Materials in accordance with the Maintenance Management Plan. (iii) Evaluate structural damage to structures and liaise with emergency services to ensure safe working environment while clearing the Incident.	1 hour Hazard Mitigation	Records of all incident and emergency responses	C3.1	Response times are met for 98% of Incidents measured on a 1 year rolling basis and no unresolved complaints from Emergency Services.
4) SWEEPING AND CLEANING	C4	Obstructions and debris	Travel lanes and shoulders free from obstructions and debris including at a minimum objects, luminaire poles, and tires.	1 hour Hazard Mitigation	Visual inspection	C4.1	No obstructions and/or debris on travel lanes and shoulders that represent an immediate or imminent health or safety hazard to Users or road workers.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
PERMANENT REPAIR OF ALL OTHER DEFECTS NOT CLASSIFIED AS CATEGORY 1 DEFECTS							
1) PAVEMENT GENERAL							
	1.1	Ride quality	All roadways have a smooth surface course (including bridge decks, covers, gratings, frames and boxes).	28 days	10-ft straightedge used to measure discontinuities	1.1.1	No individual discontinuities greater than the reference condition (on a location-specific basis) in the BECR.
	1.2	Edge drop-offs	All roadways are free from edge drop-offs exceeding measurement record thresholds.	28 days	Physical measurement	1.2.1	No edge drop-off greater than the reference condition (on a location-specific basis) in the BECR.
1a) PAVEMENT (ASPHALT)							
	1a.1	Ruts	All roadways are free from surface depressions exceeding measurement record thresholds.	28 days	Physical measurement	1a.1.1	No depth of rut at any location greater than the reference condition (on a location-specific basis) in the BECR.
	1a.2	Cracking	All roadways are free from cracking exceeding measurement record thresholds.	28 days	Physical measurement	1a.2.1	No unsealed longitudinal cracking and/or transverse cracking in any Performance Section with a width greater than the reference condition (on a location-specific basis) in the BECR.
1b) PAVEMENT (CRCP)							
	1b.1	Spalled cracks	All roadways (including shoulders and ramps) are free from spalled cracks exceeding measurement thresholds.	28 days	Physical measurement	1b.1.1	No individual spalling of any crack greater than the reference condition (on a location-specific basis) in the BECR.
	1b.2	Popouts and punchouts	All roadways (including shoulders and ramps) are free from popouts and punchouts exceeding measurement thresholds.	28 days	Physical measurement	1b.2.1	No individual punchouts greater than the reference condition (on a location-specific basis) in the BECR.
	1b.3	Longitudinal cracking	All roadways (including shoulders and ramps) are free from longitudinal cracks exceeding measurement record thresholds.	28 days	Physical measurement	1b.3.1	No longitudinal cracks greater than the reference condition (on a location-specific basis) in the BECR.
1c) PAVEMENT (JCP)							
	1c.1	Damaged joints and cracks	All roadways (including shoulders and ramps) are free from damaged joints and cracks.	28 days	Physical measurement	1c.1.1	No individual spalling of joints or cracks greater than the reference condition (on a location-specific basis) in the BECR.
	1c.2	Slabs with cracks in multiple directions	All roadways (including shoulders and ramps) are free from potential shattered slabs.	28 days	Visual inspection	1c.2.1	No slabs separated into three or more pieces greater than the reference condition (on a location-specific basis) in the BECR.
	1c.3	Slabs with longitudinal cracks	All roadways (including shoulders and ramps) are free from slabs with longitudinal cracks.	28 days	Physical measurement	1c.3.1	No longitudinal cracks in any slab greater than the reference condition (on a location-specific basis) in the BECR.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
2) DRAINAGE							
	2.1	Non-bridge class culverts, pipes, ditches, channels, catch basins, inlets, manholes and outfalls	Each element of the drainage system functions properly from the point at which water drains from the travel way to the outfall or drainage way and is free of: • defects in sealant at movement joints • scour damage • corrosion of rebar	28 days	Visual inspection	2.1.1	Performance objective met.
	2.2	Drainage treatment devices	Drainage treatment and balancing systems, flow and spillage control devices function correctly, are free of silt and debris and their location and means of operation is recorded adequately to permit their correct operation in Emergency.	28 days	Visual inspection	2.2.1	Performance objective met.
	2.3	Discharge systems	Surface water discharge systems perform their proper function and discharge to groundwater and waterways complies with the relevant legislation and permits.	3 months	Visual inspection	2.3.1	Performance objective met.
	2.4	Erosion	Address erosion greater than 12” deep along ditches, swales, ponds, and channels.	28 days	Visual inspection	2.4.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	2.5	Channels and ditches – Permanent Erosion Control Measures	Where permanent erosion control measures such as rock or concrete riprap are utilized: free of undermined or damaged erosion control measures.	28 days	Visual inspection	2.5.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
3) STRUCTURES							
	3.1	Structure components (Structures having an opening measured along the center of the roadway of more than 20 feet between faces of abutments or spring lines of arches or extreme ends of the openings for multiple box culverts or multiple pipes that are 60 inches or more in diameter and that have a clear distance between openings of less than half of the smallest pipe diameter)	(i) Substructures and superstructures are free of: • undesirable vegetation • debris and bird droppings • blocked drains, weep pipes, manholes and chambers • blocked drainage holes in structural components • defects in joint sealants • defects in pedestrian protection measure • scour damage • corrosion of rebar • paint system failures • impact damage (ii) Expansion joints free of: • dirt, debris and vegetation • defects in drainage system • loose nuts and bolts • defects in gaskets and/or seals (iii) The deck drainage system is free of all debris and operates as intended. (iv) Parapets free of: • loose nuts and bolts • blockages of hollow section drain holes • undesirable vegetation • impact damage • concrete spalling	6 months	(a) The National Bridge Inspection Standards (NBIS) of the Code of Federal Regulations, 23 Highways – Part 650 (b) The TxDOT Bridge Inspection Manual (c) The Federal Highway Administration’s Bridge Inspector’s Reference Manual (d) Visual Inspection	3.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR and records maintained as required in the TxDOT Bridge Inspection Manual.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
			(v) Bearings and bearing seats are: • properly aligned horizontally and vertically • clean and in full contact with each other (vi) Sliding and roller surfaces are clean and greased to ensure satisfactory performance. Additional advice contained in bearing manufacturers' instructions in the structure maintenance manual is followed. (vii) Special finishes are clean and perform to the appropriate standards. (viii) All non-structural items such as hoists and electrical fixings, operate correctly, are clean and lubricated as appropriate, in accordance with the manufacturer's recommendations and certification of lifting devices is maintained.			3.1.2	The condition rating is at least equal to the reference condition rating (on a location-specific basis) in the BECR.
	3.2	Load ratings	All structures maintain the design load capacity and no load restrictions for Texas legal loads (including legally permitted vehicles).	Not used	Not used	3.3.1	Not used
	3.3	Gantries and high-masts	Sign signal gantries, high-masts are structurally sound and free of: • loose nuts and bolts • defects in surface protection systems	6 months	Visual inspection	3.4.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	3.4	Access points	All hatches and points of access have fully operational and lockable entryways.	6 months	Visual inspection	3.5.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	3.5	Retaining walls	Retaining walls are free of: • undesirable vegetation • defects in sealed joints • defects in pedestrian protection • scour damage • corrosion of rebar • paint system failure • concrete spalling • impact damage • blocked weep holes Parapets are free of: • loose nuts and bolts • blockage of drain holes • undesirable vegetation • impact damage • concrete spalling	28 days	Visual inspection	3.6.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
4) PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS							
	4.1	Pavement markings	Pavement markings are: • clean and visible during the day and at night • whole and complete and of the correct color, type, width and length • placed to meet the TMUTCD and TxDOT's Pavement Marking Standard Sheets	28 days	**a) Markings - General**		
					Visual inspection (to include a record of visibility of markings under low beam headlights)	4.1.1	Marking visibility condition meets or exceeds the reference condition (on a location-specific basis) in the BECR.
					Physical measurement	4.1.2	Length of pavement marking where the loss of pavement marking material is at least equal to the reference condition (on a location-specific basis) in the BECR.
					b) Profile Markings		
					Visual inspection	4.1.3	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
	4.2	Raised reflective markers	Raised reflective pavement markers are: • clean and clearly visible • of the correct color and type • reflective or retroreflective in accordance with TxDOT standards are: • correctly located, aligned and at the correct level • firmly fixed • in a condition that will ensure that they remain at the correct level	6 months	Visual inspection	4.2.1	Raised reflective markers is at least equal to the reference condition for ineffectiveness in any 10 consecutive markers (on a location-specific basis) in the BECR. (Ineffective includes missing, damaged, settled or sunk).
	4.3	Delineators & markers	Object markers, mail box markers and delineators are: • clean and visible • of the correct color and type • legible and reflective • straight and vertical	28 days	Visual inspection	4.3.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
5) CURBS, GUARDRAILS, SAFETY BARRIERS AND IMPACT ATTENUATORS							
	5.1	Curbs	Curbs are free of cracks, chips and separation and are in proper grade and alignment.	28 days	Visual inspection	5.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	5.2	Guardrails and safety barriers	All guardrails, safety barriers, and concrete barriers are maintained free of defects. They are appropriately placed and correctly installed at the correct height and distance from roadway or obstacles.	28 days	Visual inspection	5.2.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	5.3	Impact attenuators	All impact attenuators are appropriately placed, correctly installed, and free of damage.	28 days	Visual inspection	5.3.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
6) TRAFFIC SIGNS							
	6.1	General – All signs	(i) Signs are clean, correctly located, clearly visible, legible, reflective, at the correct height and free from structural and electrical defects. (ii) Identification markers are provided, correctly located, visible, clean and legible. (iii) Sign mounting posts are vertical, structurally sound and rust free. (iv) All break-away sign mounts are clear of silt or other debris that could impede break-away features and shall have correct stub heights. (v) Obsolete and redundant signs are removed or replaced as appropriate. (vi) Visibility distances meet the stated requirements. (vii) Sign information is of the correct size, location, type and wording to meet its intended purpose and any statutory requirements. (viii) All structures and elements of the signing system are kept clean and free from debris and have clear access provided. (ix) All replacement and repair materials and equipment are in accordance with the requirements of the TMUTCD.	28 days	Visual inspection	6.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
7) TRAFFIC SIGNALS							
	7.1	General	(i) Traffic signals and their associated equipment shall be: • clean and visible • correctly aligned and operational • free from damage caused by accident or vandalism • bulbs are not burned out (ii) Signal timing and operation is correct. (iii) Comply with National Electric Code regulations. (iv) Traffic signals are structurally sound. (v) Signals have identification markers and the telephone number for reporting faults are correctly located, clearly visible, clean and legible.	28 days	Visual inspection	7.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	7.2	Pedestrian elements and vehicle detectors	All pedestrian elements and vehicle detectors are correctly positioned and fully functional.	28 days	Visual inspection	7.2.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
8) LIGHTING							
	8.1	Roadway lighting – General	(i) All lighting is free from defects and provides acceptable uniform lighting quality. (ii) Lanterns are clean, clearly visible and correctly positioned. (iii) Lighting units are free from accidental damage or vandalism. (iv) Columns are upright, correctly founded, visually acceptable and structurally sound.	28 days	Night time inspection or automated logs	8.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	8.2	Sign lighting	Sign lighting is fully operational.	28 days	Night time inspection or automated logs	8.2.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	8.3	Aesthetic lighting	Aesthetic lighting is fully operational.	28 days	Night time inspection or automated logs	8.3.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	8.4	Electrical supply	Electricity supply, feeder pillars, cabinets, switches and fittings are electrically, mechanically and structurally sound and functioning.	28 days	Testing to meet National Electric Code regulations, visual inspection	8.4.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	8.5	Access panels	All access panels in place and secure at all times.	28 days	Visual inspection	8.5.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	8.6	High-mast lighting	(i) All high-mast luminaries functioning on each pole. (ii) All obstruction lights are present and working (if required). (iii) Compartment door is secure with all bolts in place. (iv) All winch and safety equipment are correctly functioning and maintained without rusting or corrosion. (for structural requirements refer to Element Category 3)	28 days	Night time inspections or automated logs	8.6.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
9) FENCES, WALLS AND SOUND ABATEMENT							
	9.1	General	Integrity and structural condition of fences, walls and/or sound abatement elements are maintained and are free of: • blocked weep holes • undesirable vegetation • defects in joint sealants • defects in pedestrian protection • scour damage • corrosion of rebar • paint system failure • concrete spalling • impact damage	6 months	Visual inspection and structural assessment if visual inspection warrants	9.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
10) ROADSIDE MANAGEMENT (comply with specified minimum condition)							
	10.1	Vegetated areas – Except landscaped areas – General	Vegetation is maintained so that: (i) Height of grass and weeds is kept within the limits described for rural or urban areas. Mowing begins before vegetation reaches the maximum height. (ii) Spot mowing at intersections, ramps or other areas maintains visibility of appurtenances and sight distance. (iii) Grass or vegetation does not encroach into or on paved shoulders, mainlanes, sidewalks, islands, riprap, traffic barrier or curbs. (iv) A herbicide program is undertaken in accordance with the TxDOT Roadside Vegetation Manual and the TxDOT Herbicide Operations Manual to control noxious weeds and to eliminate grass in pavement or concrete. (v) A full width mowing cycle is completed after the first frost. (vi) Wildflowers are preserved utilizing the guidelines in the mowing specifications and TxDOT Roadside Vegetation Management Manual.	28 days	Physical measurement	10.1.1	Urban Areas - Individual measurement areas have 95% of height of grass and weeds between 5” and 18”. Rural areas - Individual measurement areas have 95% of height of grass and weeds between 5” and 30”.
					Visual inspection	10.1.2	Other performance objectives met.
	10.2	Landscaped areas	(i) All landscaped areas are maintained to their originally constructed condition. Landscaped areas are as designated in the Plans. (ii) 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 Maintenance Management Plan. (iii) The height of grass and weeds is kept between 2“ and 8”. Mowing begins before vegetation reaches 8”. (iv) Damaged or dead vegetation is replaced.	28 days	Visual inspection	10.2.1	Performance objective met.
	10.3	Fire hazards	Fire hazards are controlled.	28 days	Visual inspection	10.3.1	Performance objective met.
	10.4	Trees, brush and ornamentals	(i) Trees, brush and ornamentals on the right of way, except in established no mow areas, are trimmed in accordance with TxDOT standards. (ii) Trees, brush and ornamentals are trimmed to insure they do not interfere with vehicles or sight distance, or inhibit the visibility of signs. (iii) Dead trees, brush, ornamentals and branches are removed. Potentially dangerous trees or limbs are removed. (iv) All undesirable trees and vegetation are removed. Diseased trees or limbs are treated or removed by licensed contractors.	28 days	Visual inspection	10.4.1	Performance objective met.
	10.5	Wetlands	Wetlands are managed in accordance with the permit requirements.	28 days	Visual inspection and records of compliance	10.5.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
`	10.6	Sidewalks and pedestrian curb ramps	Compliance with TxDOT Design Standards and Americans with Disabilities Act (ADA) requirements and maintain at a standard to be free of defects as follows: (i) unsealed cracks or joints (ii) broken sections (iii) vertical displacement or misalignment	28 days	Visual inspection	10.6.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
11) REST AREAS AND PICNIC AREAS (NOT USED)							
12) EARTHWORKS, EMBANKMENTS AND CUTTINGS							
	12.1	Slope failure	No structural or natural failures of the embankment and cut slopes of the Project.	6 months	Visual inspection	12.1.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	12.2	Slopes - General	Slopes are in conformance to the original, as-designed, graded cross-sections (or any modifications to such cross sections needed to address erosion or instability).	6 months	Visual inspection	12.2.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	12.3	Slopes – Erosion	Slopes function properly with no erosion of a nature that may result in further deterioration. All necessary erosion prevention measures are in place, including landscaping materials, seeding, turf or other vegetation. The roadway, shoulders and ditches are free from all eroded materials.	3 months	Visual inspection	12.3.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
	12.4	Slopes - Permanent Erosion Control Measures	Where permanent erosion control measures such as rock or concrete riprap are utilized, erosion control measures are not damaged or undermined, function properly and concrete slope protection joints are sealed and free from vegetation affecting or having the potential to affect structural integrity.	3 months	Visual inspection	12.4.1	The general condition is at least equal to the reference condition (on a location-specific basis) in the BECR.
13) ITS EQUIPMENT							
	13.1	ITS Equipment - Maintenance	All ITS equipment is fully functional and housing is functioning and free of defects. (i) All equipment and cabinet identification numbers are visible, sites are well drained and access is clear. (ii) Steps, handrails and accesses are kept in a good condition. (iii) Access to all communication hubs, ground boxes, cabinets and sites is clear. (iv) All drainage is operational and all external fixtures and fittings are in a satisfactory condition. (v) All communications cable markers, cable joint markers and duct markers are visible and missing markers are replaced. (vi) Backup power supply system is available at all times.	28 days	Visual inspection and records of existing malfunctions	13.1.1	ITS equipment is fully functional and the general condition is at least equal to the reference condition in the BECR.
	13.2	Dynamic Message Sign Equipment	Dynamic Message Signs are free from faults such as: (i) Any signal displaying a message which is deemed to be a safety hazard. (ii) Failure of system to clear sign settings when appropriate. (iii) 2 or more contiguous sign failures that prevent control office setting strategic diversions. (iv) Signs displaying an incorrect message.	14 days	Visual inspection and records of existing malfunctions	13.2.1	Dynamic message sign is fully functional and the general condition is at least equal to the reference condition in the BECR.
	13.3	CCTV Equipment	CCTV Systems are free from serious faults that significantly limit the availability of the operators to monitor the area network, such as: (i) Failure of CCTV Systems to provide control offices with access and control of CCTV images. (ii) Failure of a CCTV camera or its video transmission system. (iii) Failure of a Pan / Tilt unit or its control system. (iv) Moisture ingress onto CCTV camera lens. (v) Faults that result in significant degradation of CCTV images.	14 days	Visual inspection and records of existing malfunctions	13.3.1	CCTV system is fully functional and the general condition is at least equal to the reference condition in the BECR.
	13.4	Vehicle Detection Equipment	All equipment free of defects and operational problems such as: (i) Inoperable loops (ii) Malfunctioning camera controllers	28 days	Visual inspection and records of existing malfunctions	13.4.1	Vehicle detection equipment is fully functional and the general condition is at least equal to the reference condition in the BECR.

ELEMENT CATEGORY	REF	ELEMENT	PERFORMANCE OBJECTIVE	DEFECT REPAIR PERIOD (NOTE 2, 3)	INSPECTION AND MEASUREMENT METHOD (NOTE 4, 6)	REF	MEASUREMENT RECORD (NOTE 1,5)
14) TOLLING FACITLITIES AND BUILDINGS (NOT USED)							
15) AMENITY							
	15.1	Graffiti	Graffiti is removed in a manner and using materials that restore the surface to a like appearance similar to adjoining surfaces (i) Category 2 Defect – Graffiti other than Category 1 Defect	28 days	Visual inspection	15.1.1	Graffiti is not present.
	15.2	Animals	All dead or injured animals are removed.	3 days	Visual inspection	15.2.1	Dead or injured animals are not present.
	15.3	Abandoned vehicles and equipment	All abandoned vehicles and equipment are removed.	3 days	Visual inspection	15.3.1	Abandoned vehicles or equipment are not present.
16) SNOW AND ICE CONTROL (NOT USED - SEE CATEGORY 1 DEFECTS)							
17) INCIDENT RESPONSE							
	17.1	Temporary and permanent repair	(i) Propose and implement temporary measures or permanent repairs to Defects arising from the Incident. (ii) Ensure the structural safety of any structures affected by the Incident.	28 days	Review and inspection of the Incident site	17.1.1	Performance objective met.
18) CUSTOMER RESPONSE							
	18.1	Response to inquiries	Timely and effective response to customer inquiries and complaints: (i) Contact the customer within 48 hours following initial customer inquiry. (ii) All work resulting from customer requests is scheduled within 48 hours of customer contact.	See Performance Objective	Records of all customer inquires and responses	18.1.1	Performance objective met.
			(iii) All customer concerns/requests are resolved to TxDOT's satisfaction within 2 weeks of the initial inquiry.	14 days			
	18.2	Customer contact line	Telephone line staffed during business hours and 24 hour availability of messaging system. Faults to telephone line or message system rectified.	48 hours	Availability of the customer contact line	18.2.1	No instances of line out of action or unstaffed.
19) SWEEPING AND CLEANING							
	19.1	Sweeping	(i) Keep all channels, hard shoulders, gore areas, ramps, intersections, islands and frontage roads swept clean. (ii) Clear and remove debris from traffic lanes, hard shoulders, medians, other paved areas, footways and cycle ways. (iii) Remove all sweepings without stockpiling in the right of way and dispose of at approved tip.	3 days	Visual inspection	19.1.1	No buildup of dirt, ice, rock, debris, etc. on roadways and bridges to accumulate greater than 18" wide or 1/2" deep.
	19.2	Litter	(i) Keep the right of way in a neat condition, remove litter regularly. (ii) Pick up large litter items before mowing operations. (iii) Dispose of all litter and debris collected at an approved solid waste site.	3 days	Visual inspection	19.2.1	No more than 30 pieces of litter (rural) and 50 pieces of litter (urban) per roadside mile shall be visible when traveling at highway speed.

Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 27-2
Baseline Inspection Requirement

ATTACHMENT 27-2: BASELINE INSPECTION REQUIREMENTS

Provide photographic records and physical measurements referenced by location to establish an agreed reference condition for each Performance Section as follows:				
ELEMENT CATEGORY	**ELEMENT**	**INSPECTION/MEASUREMENT METHOD**	**MEASURE-MENT REF***	**MEASUREMENT RECORD**
1) PAVEMENT				
1.1	**Ride quality**	Physical measurement	1.1.1	Location and depth of any individual discontinuity (e.g. bumps and depressions) that is greater than 3/4"
1.2	**Edge drop-offs**	Physical measurement	1.2.1	Location and depth of any individual edge drop-offs that is greater than 2" for more than 10 feet in length
1a) PAVEMENT (ASPHALT)				
1a.1	**Ruts**	Physical measurement	1a.1.1	Location and depth of any individual rut that is greater than 1/2"
1a.2	**Cracking**	Physical measurement	1a.2.1	Location and length of any unsealed cracking with a width greater than 1/4" and a length exceeding 5 feet.
1b) PAVEMENT (CRCP)				
1b.1	**Spalled Cracks**	Physical measurement	1b.1.1	Location and length of any individual spalling of any crack greater than 12" length
1b.2	**Popouts and Punchouts**	Physical measurement	1b.2.1	Location and number of any popouts greater than 4" wide or long exceeding a depth of 1"; Locaiton and number of any punchout with a maximum dimension of 24" or more exceeding 1/4" vertical fault dimention compared to adjacent intact slab
1b.3	**Longitudinal Cracking**	Physical measurement	1b.3.1	Location and length of any longitudinal cracks with width exceeding 1/8"
1c) PAVEMENT (JCP)				
1c.1	**Damaged Joints and Cracks**	Physical measurement	1c.1.1	Location and length of any individual spalling of joints or cracks more than 3" in width and greater than 12" length
1c.2	**Slabs with cracks in multiple directions**	Visual Inspection	1c.2.1	Location and number of any slabs separated into three or more pieces by a combination of transverse cracks and longitudinal cracks of any width extending from edge to edge of the slab
1c.3	**Slabs with Longitudinal Cracks**	Physical measurement	1c.3.1	Location and length of any longitudinal cracks in any slab with width exceeding 1/8"
2) DRAINAGE				
2.1	**Non-bridge class culverts, pipes, ditches, channels, catch basins, inlets, manholes and outfalls**	Visual Inspection	2.1.1	General condition
2.2	**Drainage treatment devices**	Visual Inspection	2.2.1	General condition
2.4	**Erosion**	Visual inspection	2.4.1	Location and general condition of any erosion greater than 12” deep along ditches, swales, ponds, and channels
2.5	**Channels and ditches - Permanent erosion control measures**	Visual inspection	2.5.1	Location and general condition of any undermined or damaged erosion control measures
3) STRUCTURES				
3.1	**Structures components**	Visual inspection	3.1.1	General condition
		Physical measurement and records of previous inspection	3.1.2	Location of any individual deck, superstructure or substructure with condition rating less than seven (7)
3.3	**Gantries and high-masts**	Visual inspection	3.3.1	General condition
3.4	**Access points**	Visual inspection	3.4.1	General condition
3.5	**Retaining walls**	Visual inspection	3.5.1	General condition

ATTACHMENT 27-2: BASELINE INSPECTION REQUIREMENTS

ELEMENT CATEGORY	ELEMENT	INSPECTION/MEASUREMENT METHOD	MEASURE-MENT REF*	MEASUREMENT RECORD
4) PAVEMENT MARKINGS, OBJECT MARKERS, BARRIER MARKERS AND DELINEATORS				
4.1	**Pavement markings**	**a) Markings - General** Visual inspection (to include a record of visibility of markings under low beam headlights.)	4.1.1	Marking visibility under low-beam headlight
		Physical measurement	4.1.2	Location and length of pavement marking where there is loss of material
		b) Profile markings - visual inspection	4.1.3	General condition
4.2	**Raised reflective markers**	Visual inspection	4.2.1	Location and number of raised reflective markers that are ineffective in any 10 consecutive markers. (Ineffective includes missing, damaged, settled or sunk).
4.3	**Delineators & Markers**	Visual inspection	4.3.1	General condition
5) CURBS, GUARDRAILS, SAFETY BARRIERS AND IMPACT ATTENUATORS				
5.1	**Curbs**	Visual inspection	5.1.1	General condition
5.2	**Guardrails and safety barriers**	Visual inspection	5.2.1	General condition
5.3	**Impact attenuators**	Visual inspection	5.3.1	General condition
6) TRAFFIC SIGNS				
6.1	**General – All signs**	Visual inspection	6.1.1	General condition
6.2	**Warning and regulatory signs**	Visual inspection	6.2.1	General condition
7) TRAFFIC SIGNALS				
7.1	**General**	Visual inspection	7.1.1	General condition
7.2	**Pedestrian elements and vehicle detectors**	Visual inspection	7.2.1	General condition
8) LIGHTING				
8.1	**Roadway lighting - general**	Visual inspection	8.1.1	General condition
8.2	**Sign lighting**	Visual inspection	8.2.1	General condition
8.3	**Aesthetic lighting**	Visual inspection	8.3.1	General condition
8.4	**Electrical supply**	Visual inspection	8.4.1	General condition
8.5	**Access panels**	Visual inspection	8.5.1	General condition
8.6	**High-mast lighting**	Visual inspection	8.6.1	General condition
9) FENCES, WALLS AND SOUND ABATEMENT				
9.1	**General**	Visual inspection	9.1.1	General condition
10) ROADSIDE MANAGEMENT				
10.6	**Sidewalks and pedestrian curb ramps**	Visual inspection	10.6.1	General condition
11) REST AREAS AND PICNIC AREAS (NOT USED)				
12) EARTHWORKS, EMBANKMENTS AND CUTTINGS				
12.1	**Slope failure**	Visual inspection	12.1.1	Location and severity of any slope failure
12.2	**Slopes – General**	Visual inspection	12.2.1	General condition
12.3	**Slopes – Erosion**	Visual inspection	12.3.1	Location and depth of any erosion greater than 6" deep
12.4	**Slopes – Permanent Erosion Control Measures**	Visual inspection	12.4.1	Location and general condition of any undermined or damaged erosion control measures
13) ITS EQUIPMENT				
13.1	**ITS Equipment-Maintenance**	Visual inspection and records of malfunction	13.1.1	General condition
13.2	**Dynamic Message Sign Equipment**	Visual inspection and records of malfunction	13.2.1	General condition
13.3	**CCTV Equipment**	Visual inspection and records of malfunction	13.3.1	General condition
13.4	**Vehicle Detection Equipment**	Visual inspection and records of malfunction	13.4.1	General condition

Notes

* Measurement ref to be cross-referenced with Attachment 27-1.

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DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 27-3
Maintenance Limits During Construction

HORZ 0' 50' 100' 200'

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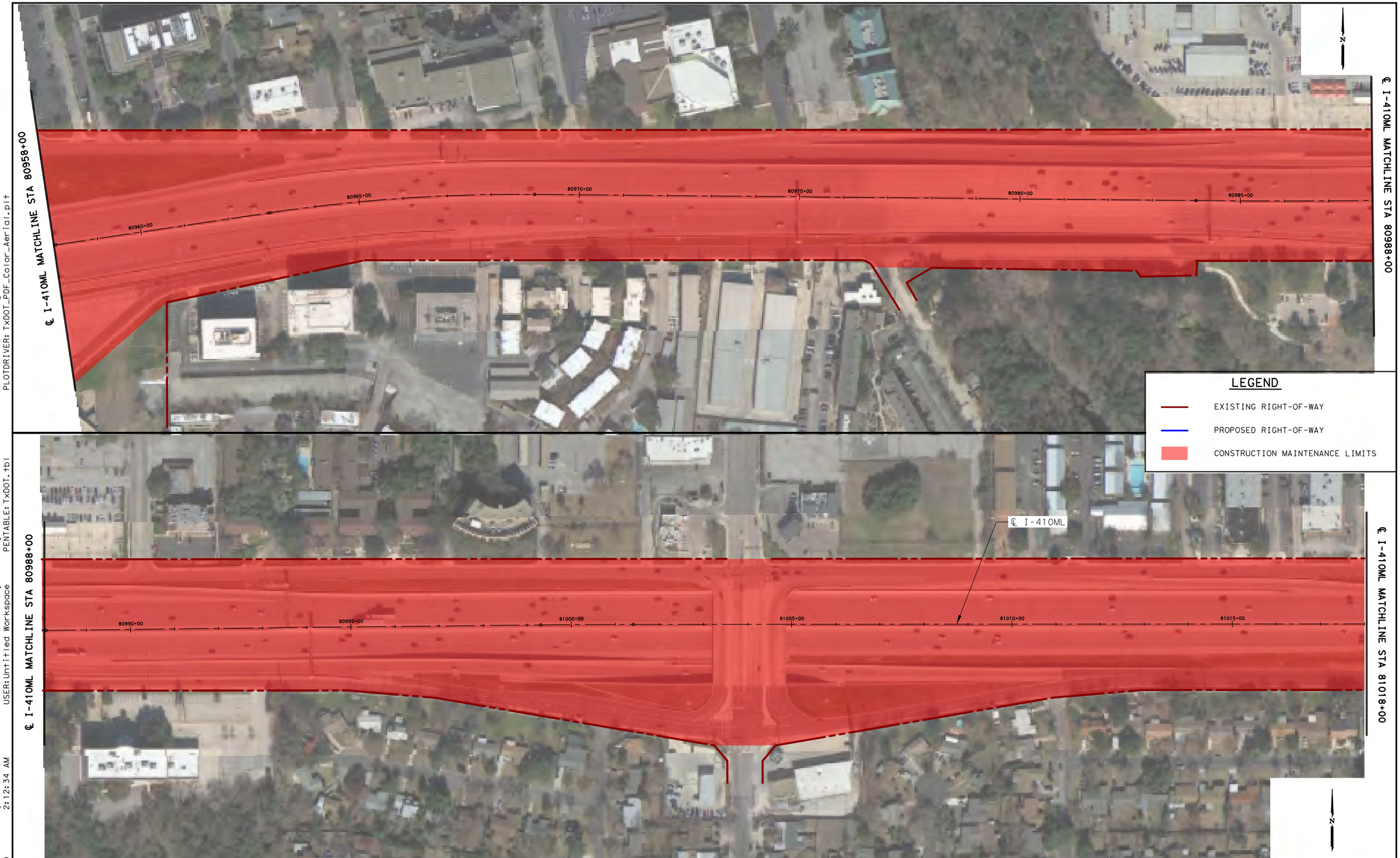

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- EXISTING RIGHT-OF-WAY
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- CONSTRUCTION MAINTENANCE LIMITS

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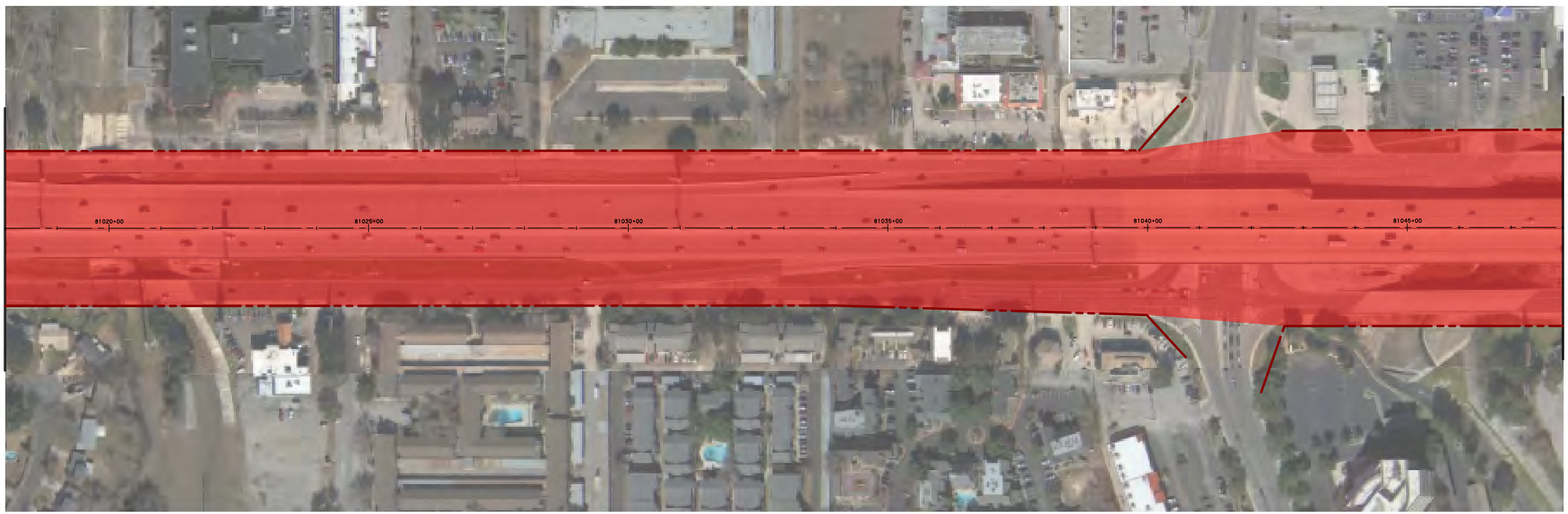

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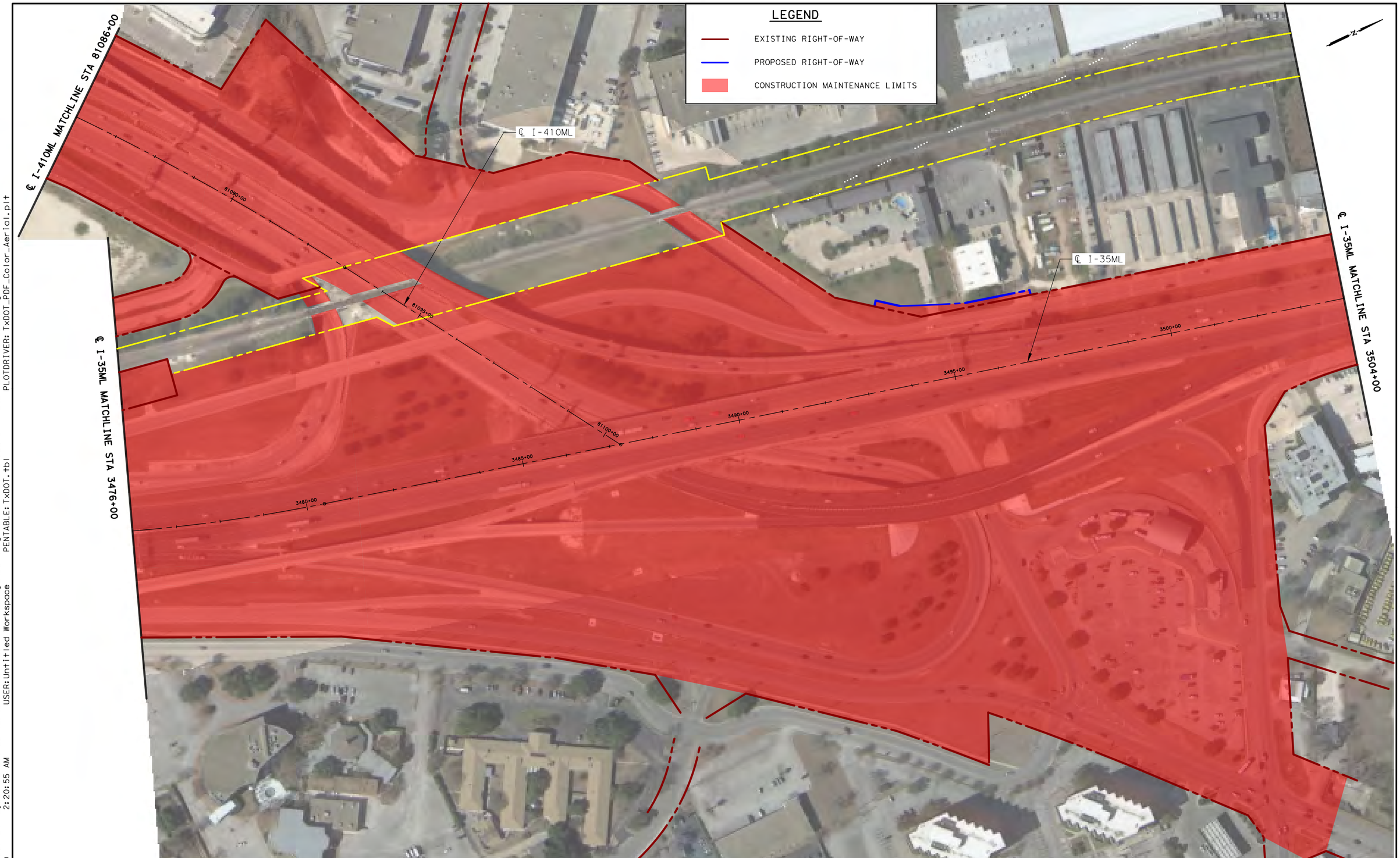

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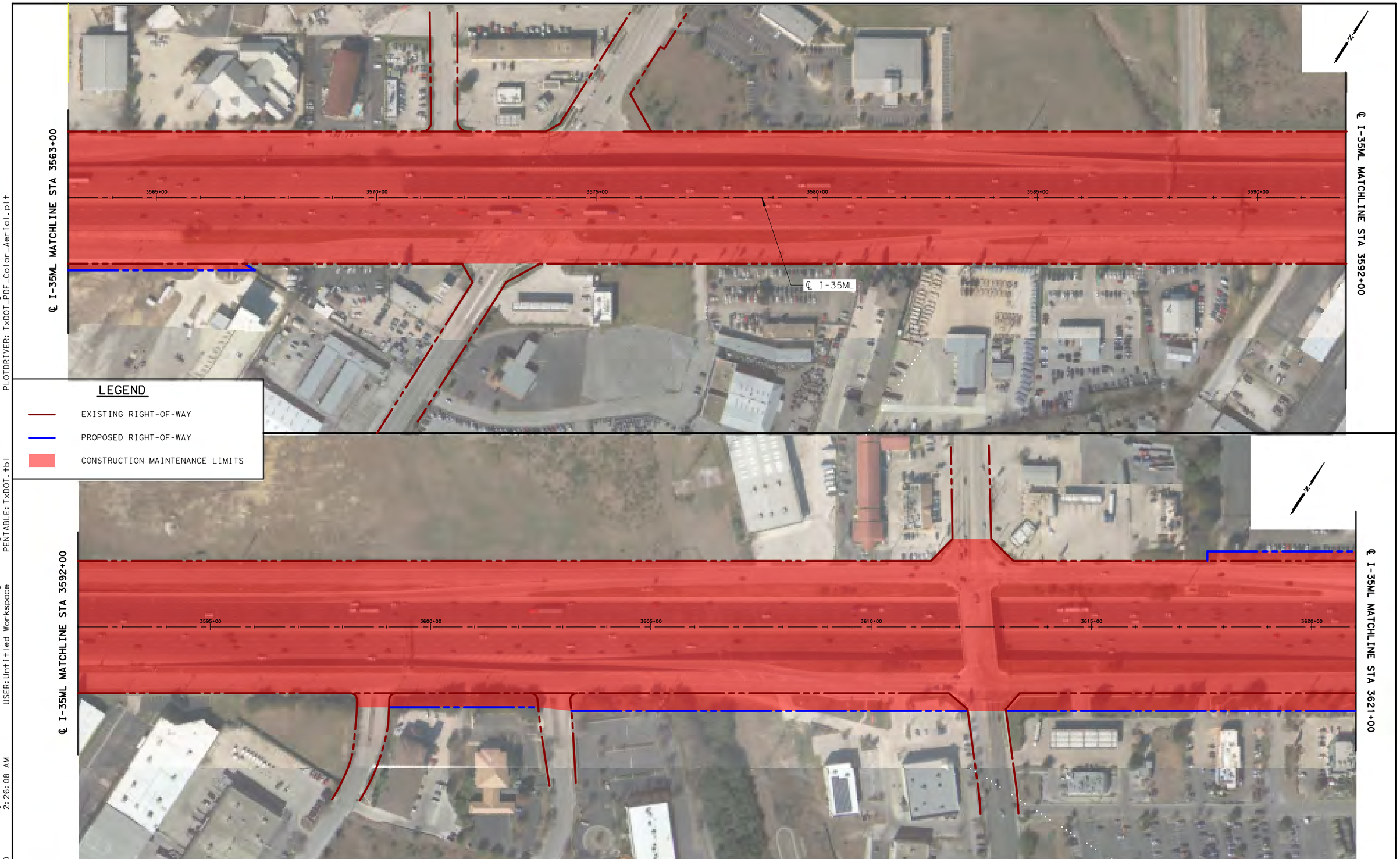

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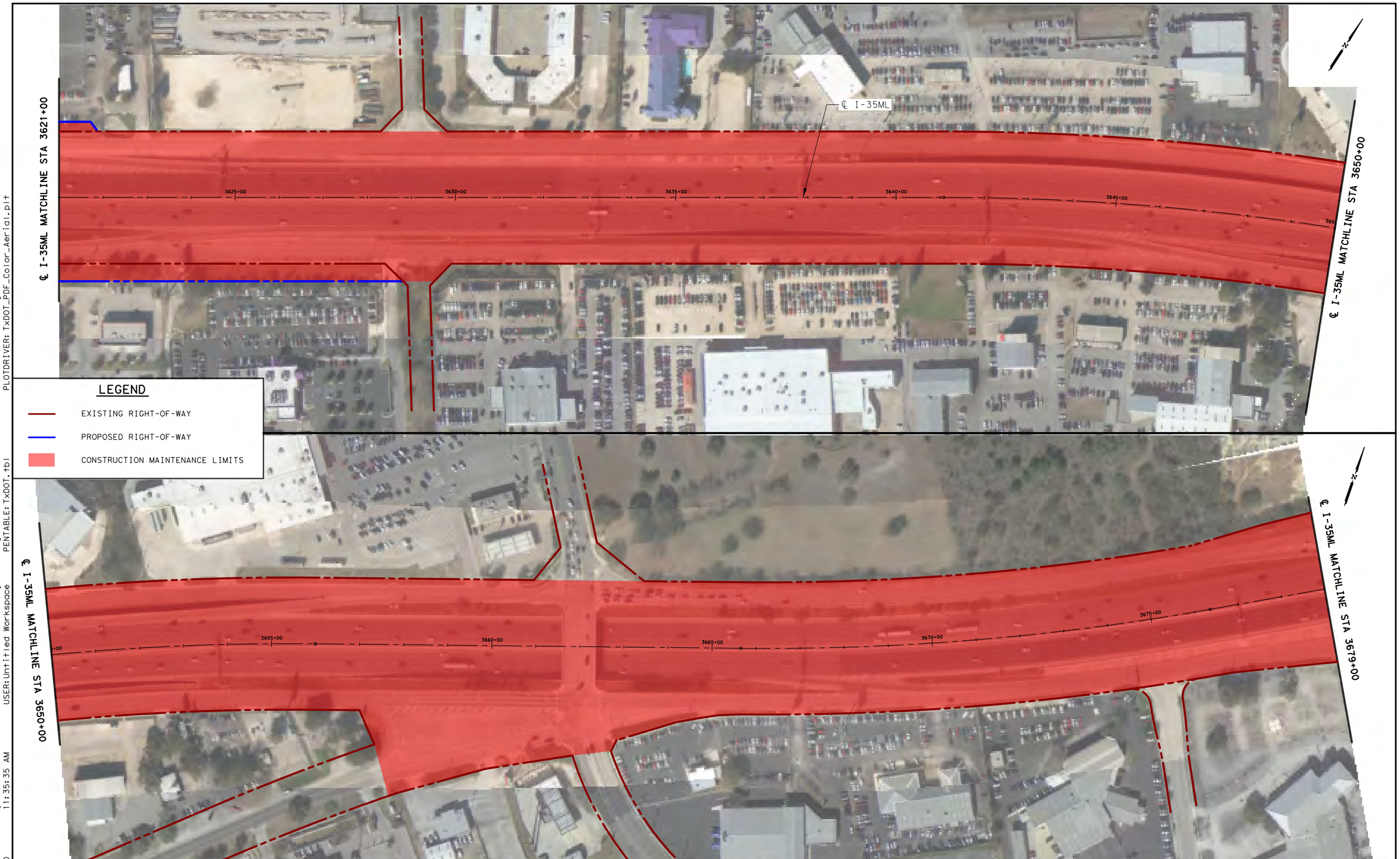

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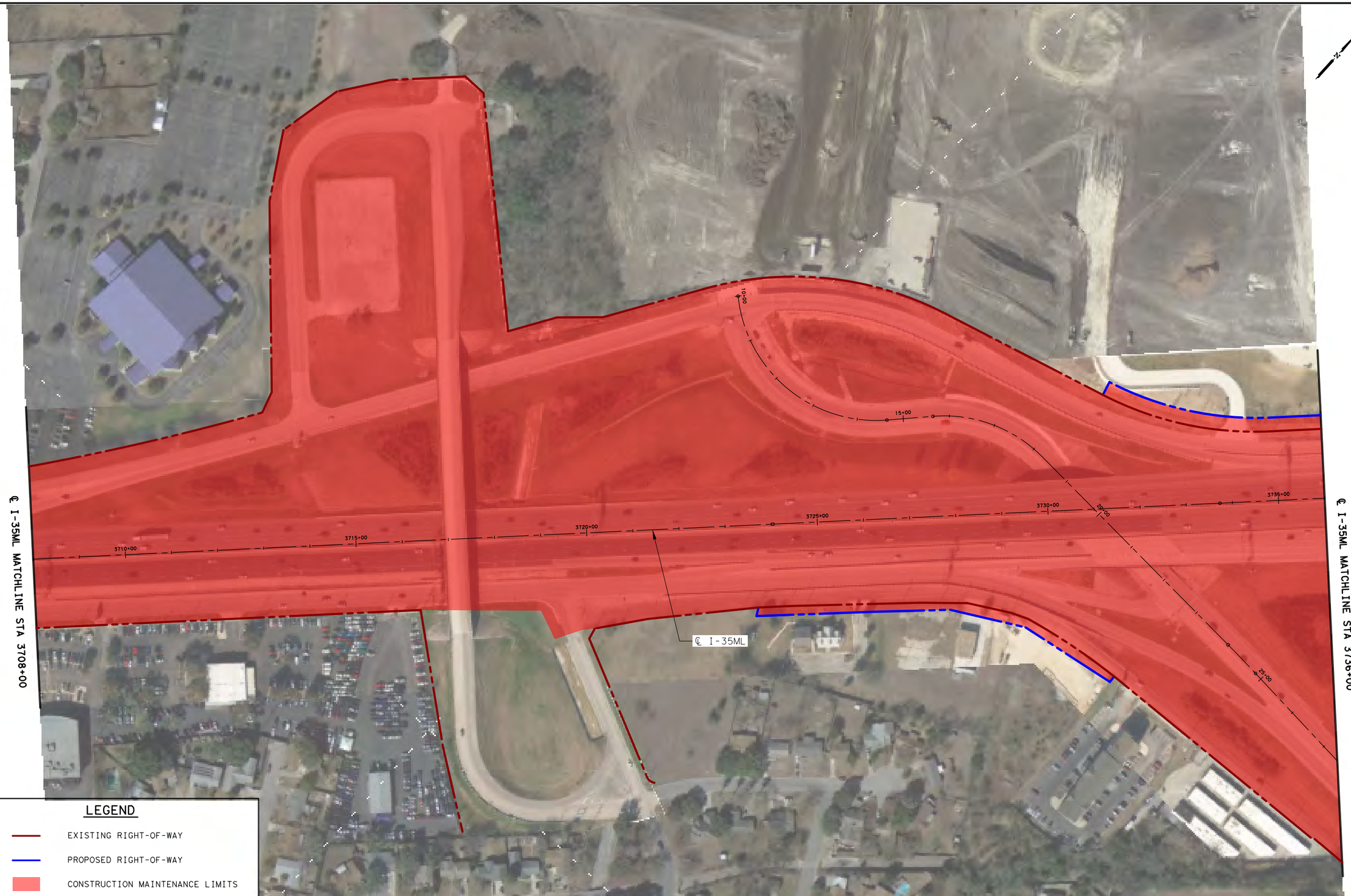

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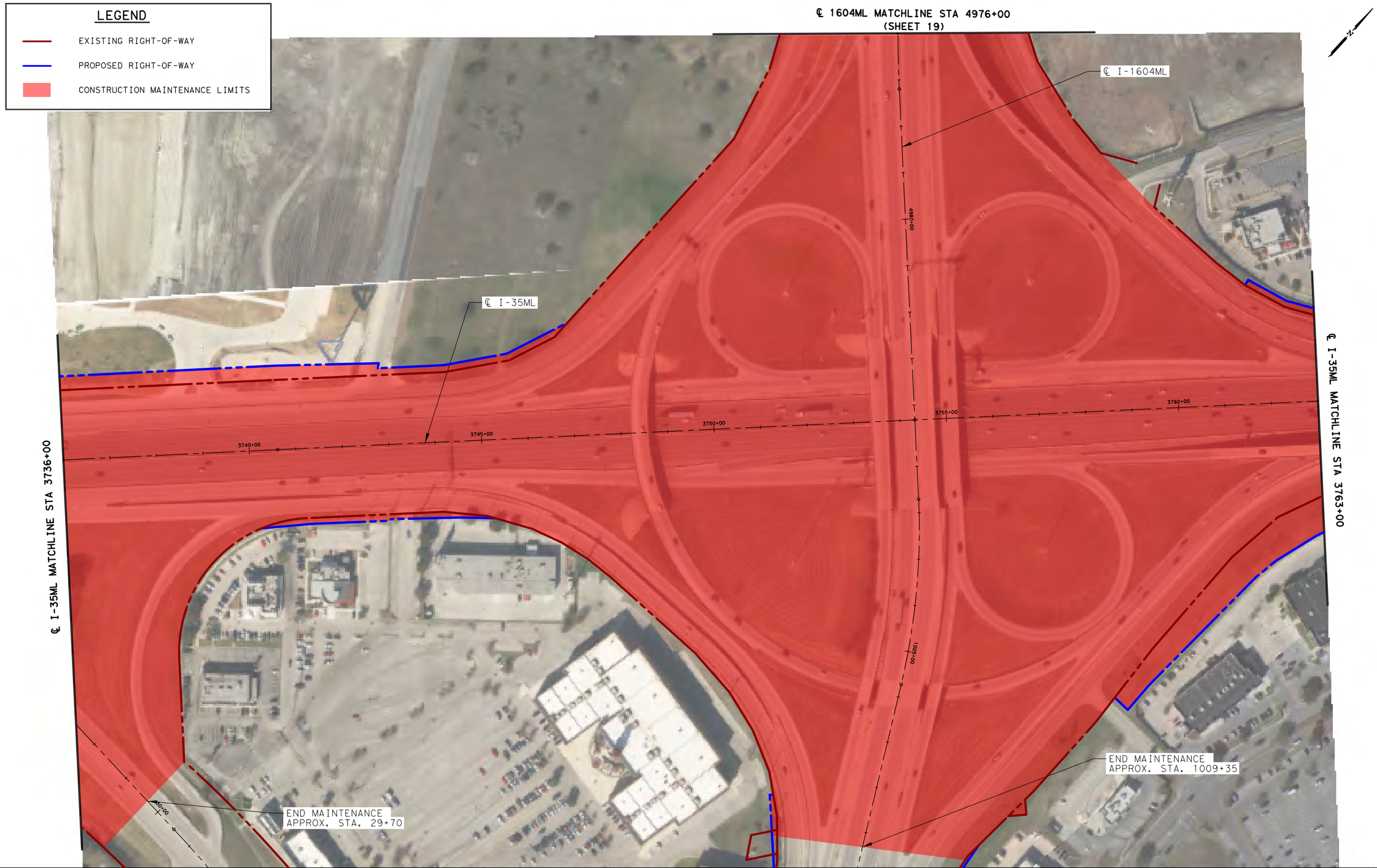

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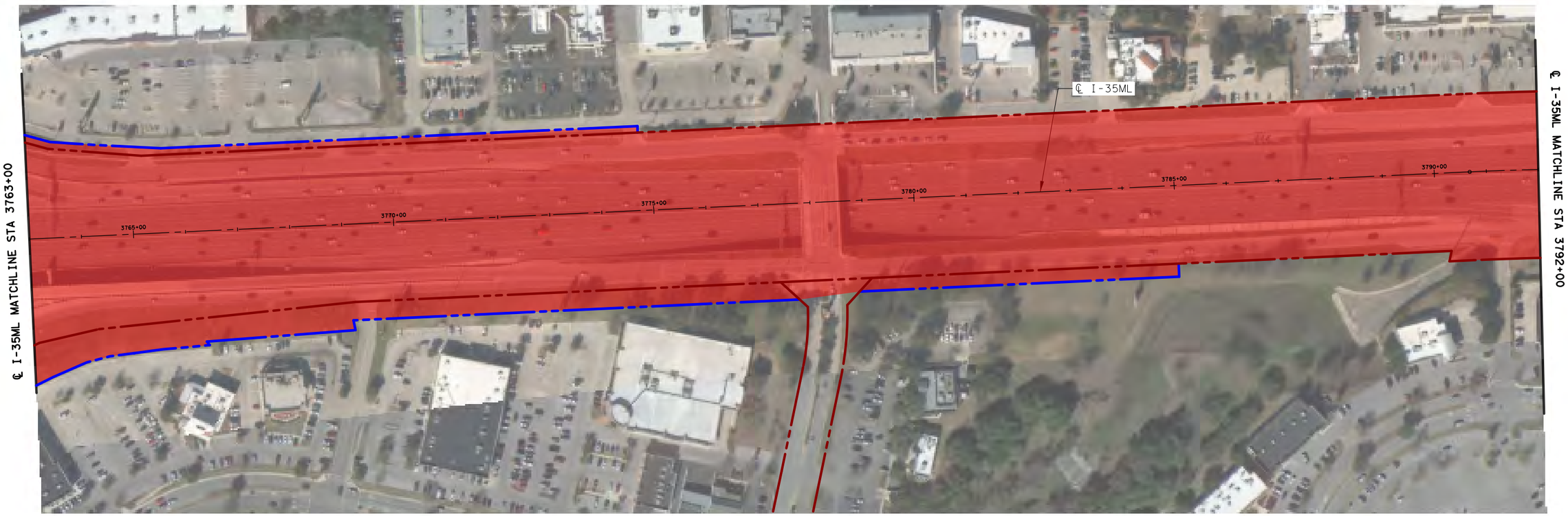

LEGEND

- EXISTING RIGHT-OF-WAY
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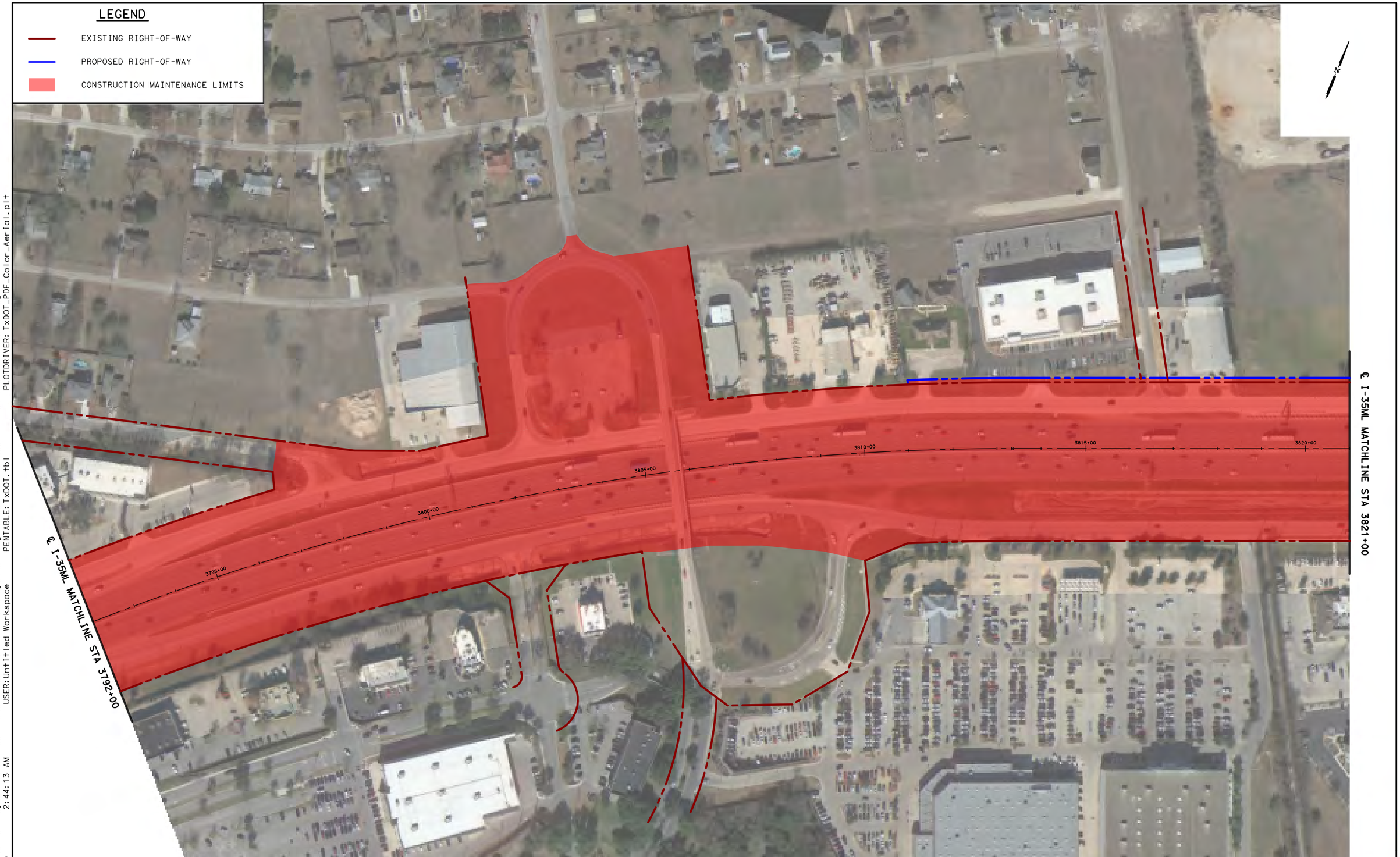

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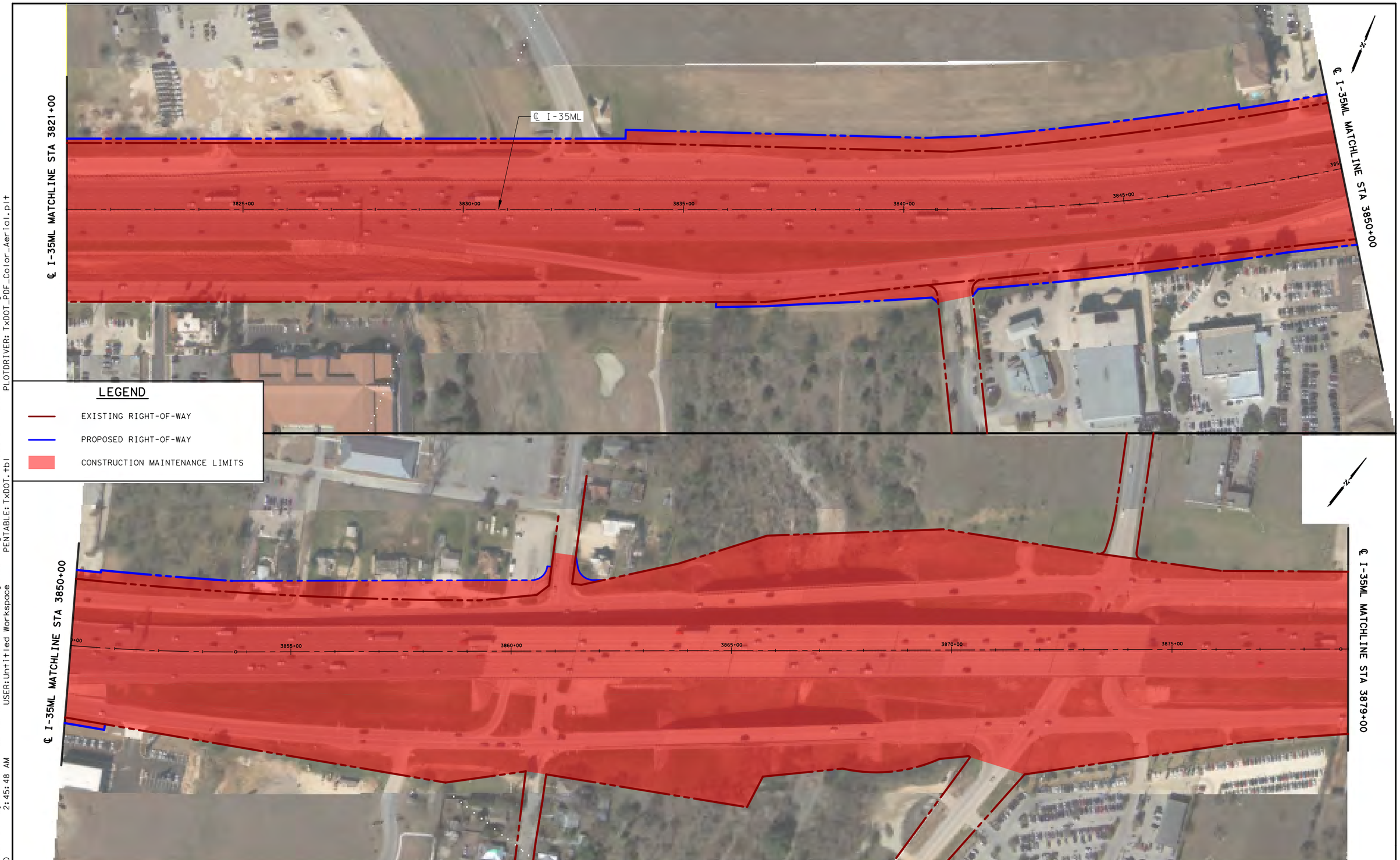

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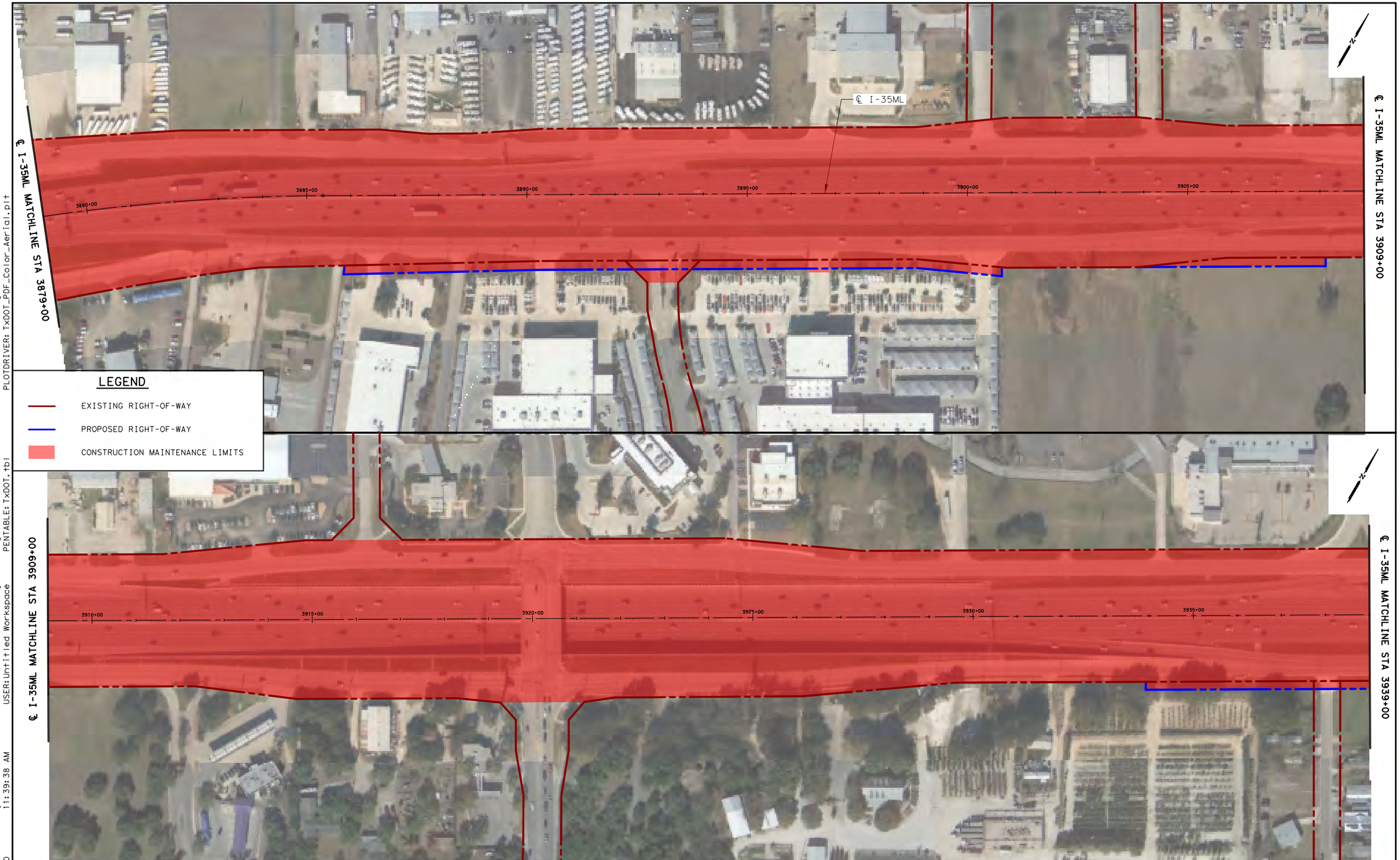

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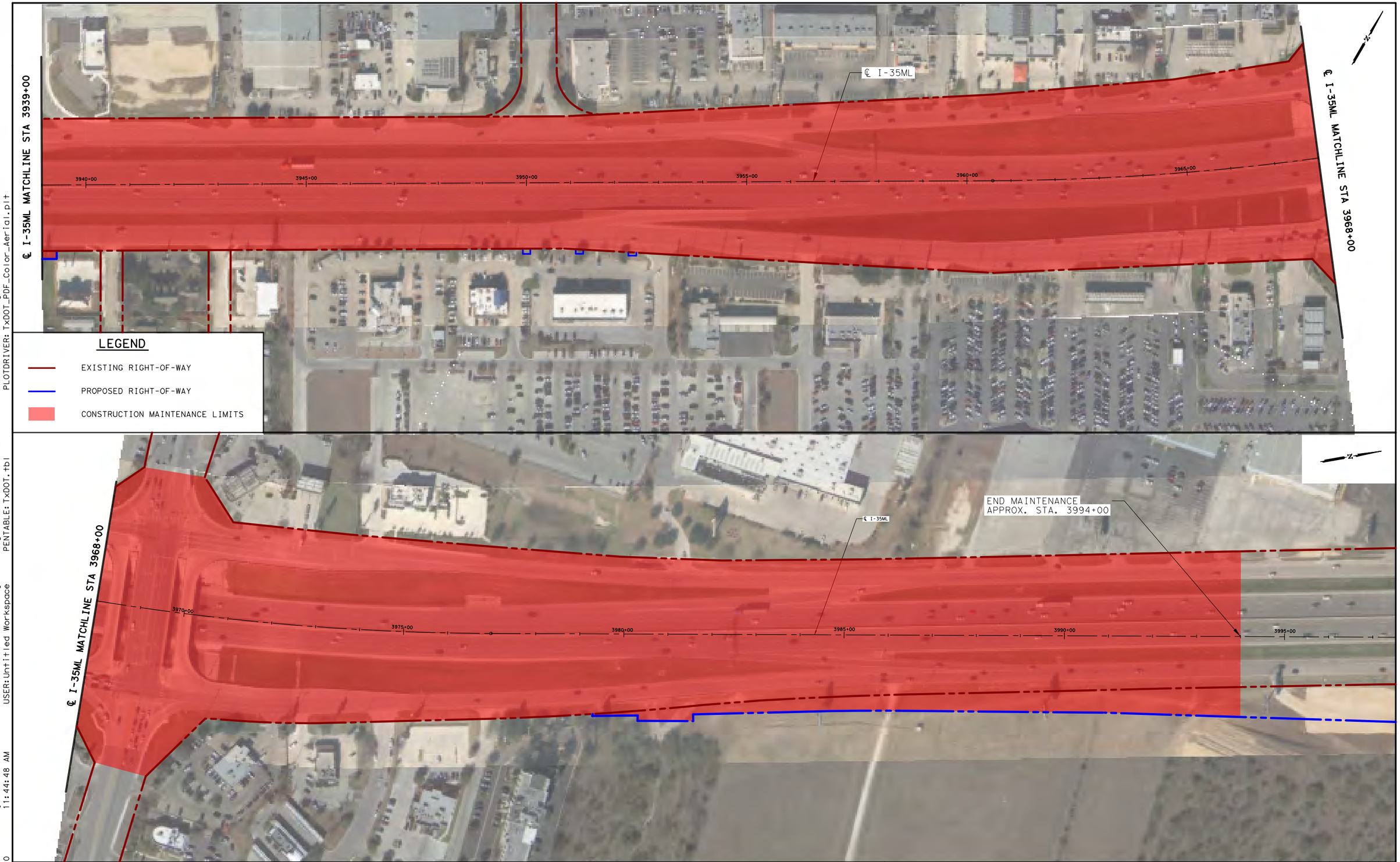

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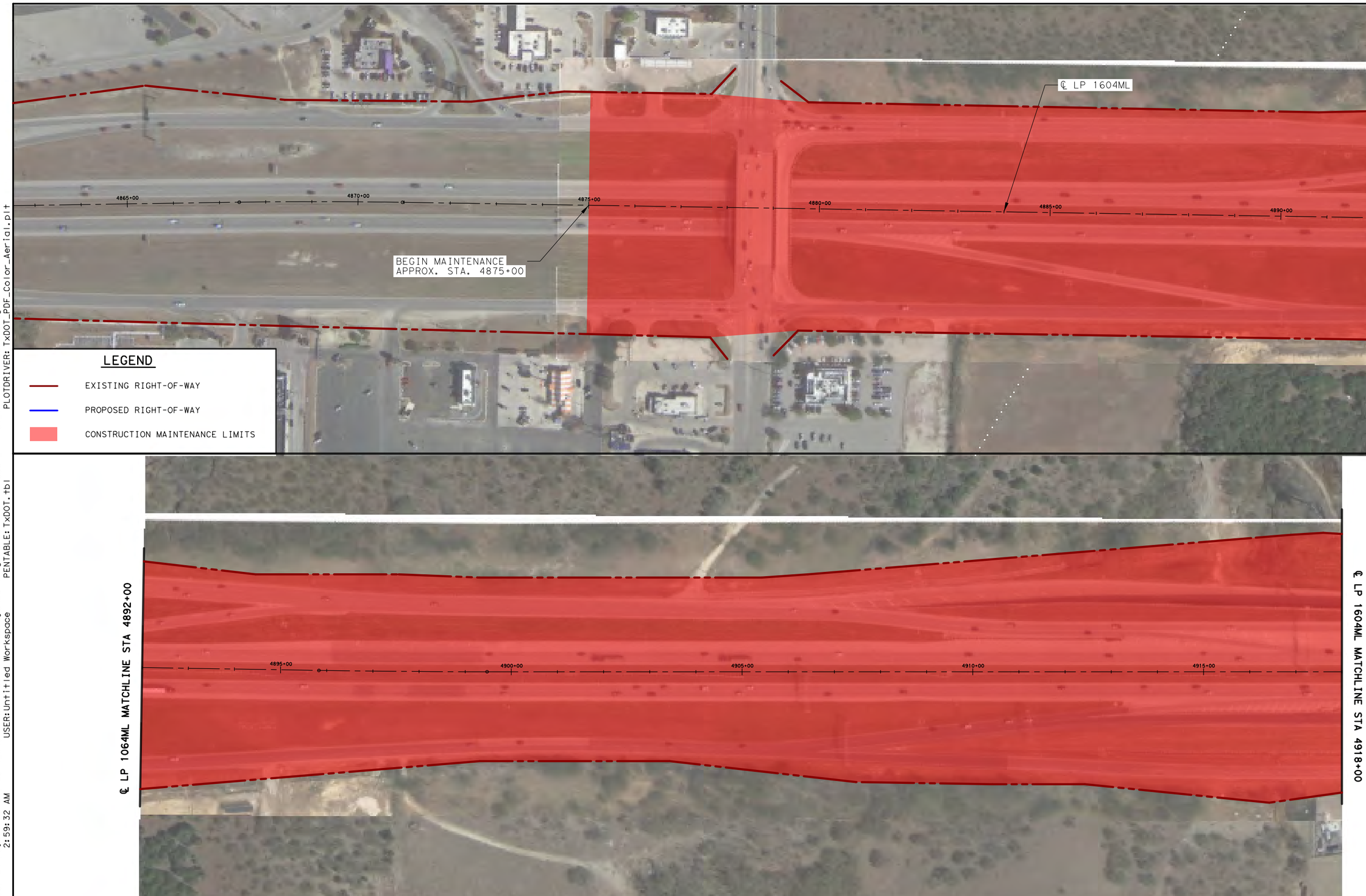

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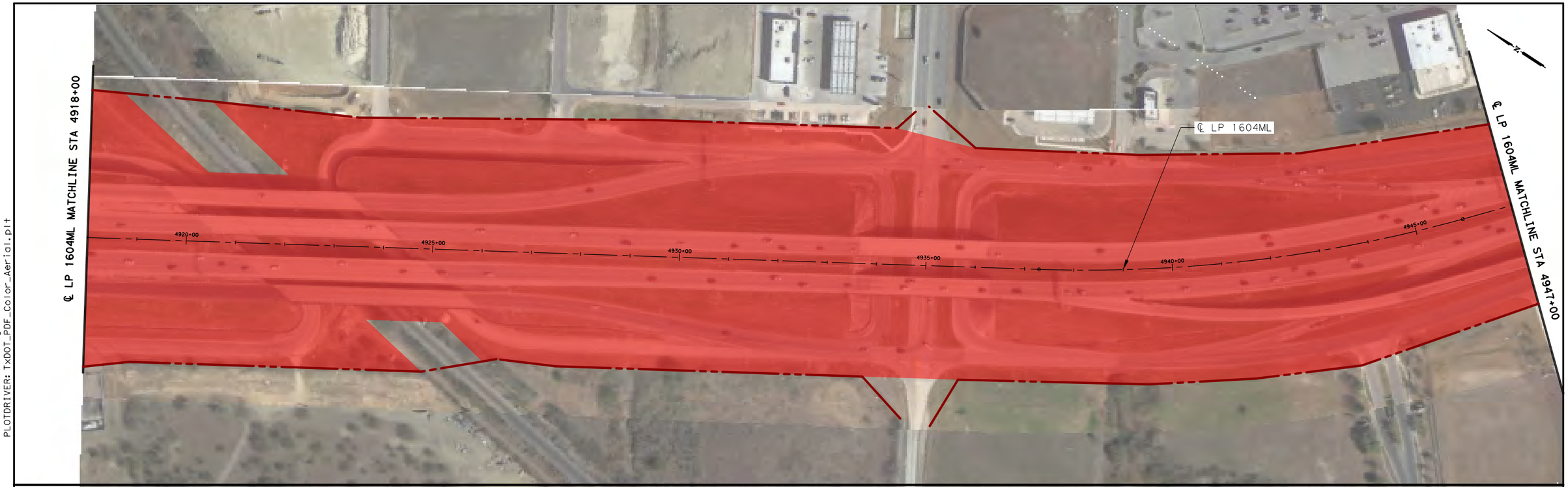

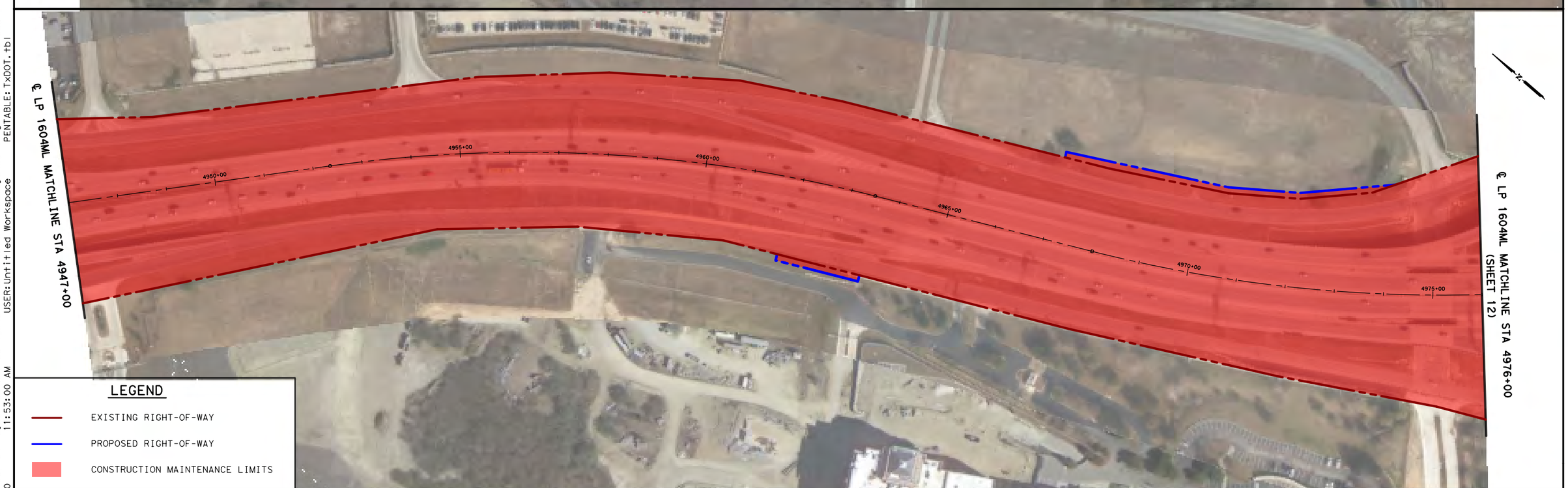

LEGEND

- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- CONSTRUCTION MAINTENANCE LIMITS

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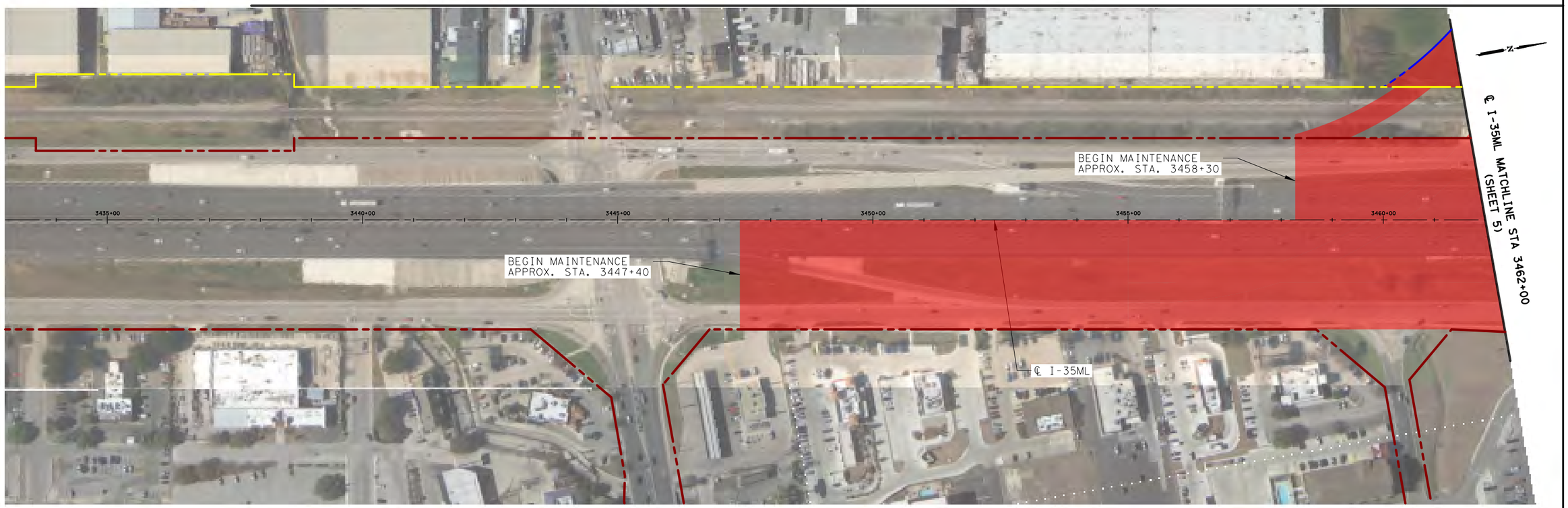
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- CONSTRUCTION MAINTENANCE LIMITS



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Texas Department of Transportation

DESIGN-BUILD SPECIFICATIONS
Items 10-28

Attachment 27-4
Maintenance Management Plan

Maintenance Management Plan

NAME OF PROJECT
Contract #XXXXX

Day Month Year

Prepared By: DB Contractor's Name
Street Address
Suite XXX
City Name, Texas XXXX

Note: this MMP Template applies to Maintenance Work performed under the DBC prior to Final Acceptance.

MAINTENANCE MANAGEMENT PLAN

For The

NAME OF PROJECT

Approved By:

_____ _____

FirstName LastName
Maintenance Manager (MM) **Date**

_____ _____

FirstName LastName
Maintenance Quality Manager (MQCM) **Date**

_____ _____

FirstName LastName
TxDOT's Authorized Representative **Date**

Record of Revisions

Rev.	Date Issued	Pages Affected	Comments
0	XX/XX/XXXX	All	Initial Issue
1	XX/XX/XXXX	XX-XX	Add brief comment regarding revision

Instructions to DB Contractor:

(These instructions to be removed from completed MMP)

1. This Maintenance Management Plan (MMP) template defines the structure and required contents of the MMP. Use this template for each version and revision of the MMP submitted to TxDOT for approval.
2. Include the DB Contractor's processes to achieve compliance with the obligations in the Contract Documents including the Performance Requirements. Describe who is responsible for each activity.
3. Processes should be clear, auditable, measurable, and achievable. Include control points at which the DB Contractor causes its own personnel or independent parties to verify that the work is in compliance with the DBC. Identify points in the processes at which TxDOT is given the opportunity to witness or approve the Work.
4. Identify the procedures (i.e. detailed steps) that will be utilized (see Appendix 5 for a listing of procedures that are needed at a minimum).
5. The MMP shall apply to Maintenance Work before Final Acceptance and an updated version of this plan shall apply to the Capital Maintenance Contract (CMC).
6. Describe the MMP updating process so that TxDOT knows who will be performing what actions when.
7. The MMP is part of the Project Management Plan (PMP). Section 4.2 of the General Conditions sets forth TxDOT's approval rights and the conditions attached to its approval of the PMP.
8. Do not duplicate DB Specification Item 27 or the CMA General Conditions within the MMP. Where necessary, cross reference relevant parts of Design-Build Specification Item 27 or the CMA General Conditions.
9. Include within the MMP all Proposal Commitments related to the Maintenance Work and how TxDOT will be able to verify the Proposal Commitments have been fulfilled.
10. Instructions to the DB Contractor are shown in this template in parentheses and italics and shall be removed prior to submittal of the MMP to TxDOT.

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1. GENERAL MANAGEMENT AND ADMINISTRATION

[Provide an overview of the approach to delivering Maintenance Work for the Project prior to Final Acceptance, identify the Project's maintenance objectives and reference applicable quality policies in Appendix 8. Identify Proposal Commitments applicable to the Maintenance Work. Show timeline for MMP versions and updates and MMP submittal milestones.]

1.1 Organization and Personnel

1.1.1 DB Contractor Maintenance Organization Chart

Figure 1.1 below shows the organization chart for Maintenance Work before Final Acceptance.

[Describe the organizational structure and how it will enable the DB Contractor's obligations for Maintenance Work to be met. Describe the reporting lines to TxDOT and internally. Describe the roles and responsibilities assigned to each position. Identify Major Subcontractors and describe the Maintenance Work to be performed by them.]

Figure 1.1: Organization Chart for Maintenance Work before Final Acceptance

[Insert organization chart showing reporting lines to include at a minimum:

- *TxDOT Project Manager*
- *DB Contractor corporate management team*
- *DB Contractor Project Manager**
- *Maintenance Manager**
- *Maintenance Quality Manager**
- *Maintenance Safety Manager**
- *Individual responsible for customer service**
- *Individual responsible for training program**
- *Individual responsible for ensuring maintenance and life cycle issues are captured in the design with link to design and construction teams**

For each individual (*) identify the employing organization. Show positions and activities to be undertaken by Major Subcontractors.]

1.1.2 Qualifications, Experience necessary and training requirements for DB Contractor staff positions

Appendix 1 shows the individual(s) assigned to staff positions with their positions, contact information (email and mobile phone number), education/qualifications, role, and summary of previous experience.

[Include at a minimum the individuals required to be identified on the organization chart and marked with (*) above, including individuals employed by subcontractors]

1.1.3 Personnel Training and Certification

Table 1.1 defines responsibility for development and implementation of training programs, who will be conducting the training and certification process for each staff position, including maintenance personnel, subcontractors and maintenance crew members on the topics below.

Table 1.1: Training Program Matrix

Training Program	Person responsible to develop and deliver	Staff positions requiring training	Frequency of training	Link to training program
Maintenance Management Plan training				
Inspections, Defect identification and categorization of Defects				
Maintenance Safety Plan, equipment use, all safety-related activities and enforcement of safety operations				
CPR and first aid				
Work zone traffic control and flaggers in work zones				
[Other training programs as appropriate (details to be added by DB Contractor)]				

[Include at a minimum training requirements for the individuals required to be identified on the organization chart, including individuals employed by subcontractors]

1.2 Communication Protocols

[Insert the required information below and refer to appropriate chapter and section from the PMP for all sub-sections of 1.2 (1.2.1 – 1.2.4).

1.2.1 Communications with TxDOT, Governmental Entities and Third Parties

Refer to the following procedures in Appendix 6:

- MMP-001 –Submittals and Coordination with TxDOT, Governmental Entities and Third Parties

For processes on meetings, reporting, written updates and immediate notifications on priority issues refer to *[Chapter X, Section X]* of the PMP.

Contact details for TxDOT, Governmental Entities, third parties, other stakeholders and their consultant offices with whom the DB Contractor will communicate are listed in Appendix 2.

[Within MMP-001 identify all adjacent highway agencies and address all interfaces with adjacent and connecting roadways.]

1.2.2 Coordination during ITS integration and ITS operations

For ITS integration before Final Acceptance refer to *[Chapter X, Section X]* of the PMP.

The following are maintenance interfaces with ITS:

[List the points of interfaces and include reference to diagrams or drawings showing interface lines and demarcations of responsibility for each item of ITS equipment. Include updates consistent with progress of design].

The contact details for other entities responsible for ITS are as follows:

[List the contact details here]

1.2.3 Oversize / Overweight Permits

The process for requests for permitting, issuance of permits and enforcement of permits through TxDOT is included in the following procedure in Appendix 6:

- MMP-002 –Agency Coordination for Oversize Loads

[State how TxDMV will be notified of closures associated with permits and how updates for roadway clearances during construction will be provided.]

1.2.4 Coordination with Utilities, Stakeholders and other 3rd Parties

Refer to the following procedures in Appendix 6:

- MMP-001 –Submittals and Coordination with TxDOT, Other Agencies and Third Parties

Table 1.2 below shows:

- Utilities, stakeholders and other third parties;
- In-house staff and specialized resources from the maintenance team responsible for coordination (including development and compliance with processes and the production of documentation) for each utility, stakeholder and other 3rd Party; and
- Reference to procedures contained in Appendix 6 specific to each named entity.

Table 1.2: Coordination with Governmental Entities, Stakeholders, Utilities, and Third Parties

Entity, Utility, stakeholder or third party	DB Contractor Personnel responsible for coordination	Reference to Procedure (specific to the named entity)

[Insert Governmental Entity, utility and stakeholder or third party coordination responsibilities and processes for Maintenance Work before Final Acceptance. Include reference to individual procedures applicable to each entity, covering the following:

- *Notification to entity of upcoming Maintenance Services that may affect the entity's operations, e.g. Maintenance Services affecting adjacent business of utility interest*
- *Application by entity for access to inspect, repair, renew or replace its equipment within the Maintenance Limits.]*

1.3 Project Meetings

[Refer to appropriate chapter and section from the PMP for meetings in connection with Maintenance Work.]

The meeting types, topics, required participants and frequencies of meetings in connection with Maintenance Work shall be in accordance with Table 1.3.

Table 1.3 Meetings in Connection with Maintenance Work

Meeting Type	Frequency	Attendees
Maintenance Work review meeting	Quarterly or more frequently depending upon the Maintenance Work being performed	TxDOT, Maintenance Manager, other senior personnel

[Insert details of all other meetings in connection with the Maintenance Work including mandatory meetings required by TxDOT.]

1.4 Document Control and Information Management

[Refer to appropriate chapter and section from the PMP for document control and information management in connection with Maintenance Work.
Document Control and information management for Maintenance Work shall be as identified in Table 1.4.

Table 1.4: Document Control and Information Management

Person responsible for compliance with TxDOT Maintenance and Inspection of Records requirements	*[Insert name of individual or staff position]*
Procedures applicable	*[Insert references to applicable procedures]*
Document management EDMS software system	*[Insert details of software and reference to manuals]*
Person responsible for the storage and retention of Maintenance Records	*[Insert name of individual or staff position]*
[Insert other requirements applicable to document control and information management]	

1.5 Procurement and Subcontractors

Maintenance Work activities that will be subcontracted are shown in Table 1.5 below.

Table 1.5: Details of Subcontractors Performing Maintenance Work

Name of Subcontractor and start date	Key contact details	Work responsibility

[Add details of each subcontractor in accordance with the requirements of the DBC.]

1.6 Offices and Equipment

Refer to the following procedure in Appendix 6:

- MMP-003 – Maintenance of Facilities, Vehicles and Equipment Plan

[Provide location and map In Appendix 5 (if different than the Roadway Maintenance office) of the maintenance facility for equipment maintenance and storage and for the de-icing material storage, if applicable.]

[Provide spare parts, special tools and equipment list including an auditable parts and spares inventory adequate to address the maintenance obligations and compatible with the Maintenance Management System and a list of vendors for equipment and maintenance services. This information shall be included in Appendix 5]

[Provide current versions and procedures, functionality, software maintenance requirements and access protocols for all specialist software employed by DB Contractor in connection with the Maintenance Services.]

The physical address is *[insert address]*

The 24-hour contact number is *[insert number].*

2. EMERGENCY RESPONSE

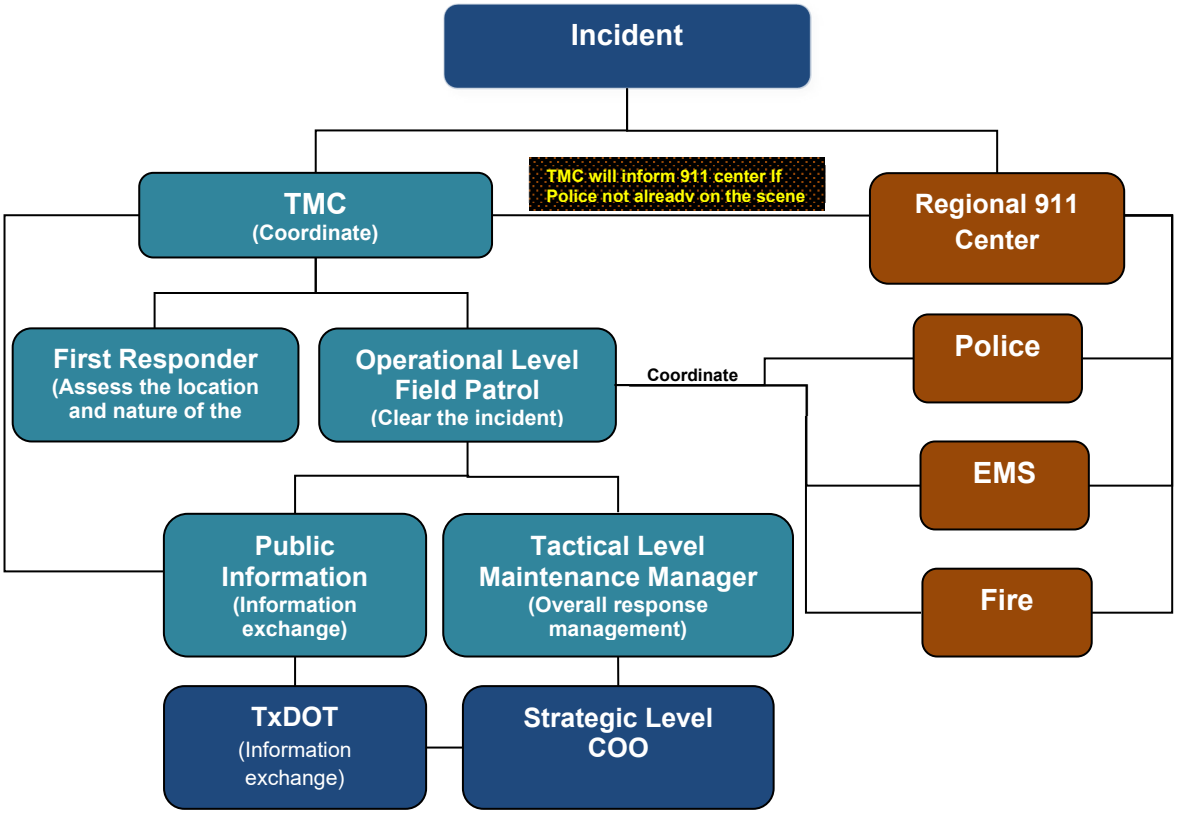
2.1 Incident Management Plan

The Incident Management Plan (IMP) contains the approach to Incident management consistent with *Section 27.6.1 of the DB Specifications*, training requirements and staffing requirements for response to Incidents and Emergencies, and includes protocols, processes, and guidelines to mitigate the impacts, respond to and recover from all such events. The IMP has been prepared in coordination with and including input from the following organizations:

[Insert Project-specific list of consultees, dates of consultation and evidence of actively seeking input and feedback, to include TxDOT, Emergency Services, owners of Related Transportation Facilities and applicable Governmental Entities.]

The command structure for Incident Management is shown in Figure 2.1.

Figure 2.1: Command Structure for Incident Management



[Replace example Command Structure by Project-specific chart of equivalent detail that includes Project-specific details of Emergency Services and TxDOT contacts]

The following procedures in Appendix 6 are part of the IMP:

- MMP-004 –Emergency and Incident Management.
- MMP-005 – Incident Damage Reports, Third Party Claims and Repairs
- MMP-006 – Complaint Review and Response
- MMP-007 – Customer Satisfaction Data Collection System

[Include within the IMP, processes and responsibilities for:

(i) Identification of Incidents of differing categories (minor, major, critical) and notification of Emergency Services providers

(ii) Rapid and reliable establishment of traffic control for Incident management

(iii) Removal by towing and recovery of stalled, broken down, wrecked or otherwise incapacitated vehicles from the travel lane, including coordination with Emergency Services/law enforcement

(iv) Clearance of Incident and return affected lanes to normal use within the specified period of arriving at the Incident site

(v) Cleanup of debris, oil, broken glass and other such objects foreign to the roadway surface

(v) Notification of the public of traffic issues related to Incidents

(vi) Seeking feedback from TxDOT, emergency services and law enforcement and improving processes to improve response times.

(vii) *contact methods, personnel available, and response times for any Emergency condition requiring attention during off-hours*

(viii) identification and containment of all Hazardous Material spills and appropriate disposal of such materials.]

2.2 Snow and Ice Control Plan

The Snow and Ice Control Plan (SICP) contains operational processes for performing snow and ice control work. The SICP complies with all applicable Law, codes, and regulations governing the operation of equipment on public highways. The SICP will be updated at least annually to incorporate any changes in strategy and equipment levels designed to rectify any noncompliances in snow and ice removal operations during the preceding winter season.

The following procedure contained in Appendix 6 is part of the Snow and Ice Control Plan (SICP).

- MMP-008 – Snow and Ice Control / Clean-up Plan.

[Include within the SICP processes and responsibilities for:

(i) Receiving weather forecasts and making decisions for snow and ice control and pretreatment based upon analysis of data received

(ii) Advance preparation and call-out

(iii) Training in connection with snow and ice control

(iv) Record keeping/ reporting including maintaining records of compliance with the Performance Requirements

(v) Environmental management and processes for using preventative measures, involving use of anti-icing and de-icing chemicals such as salt and alternative substances, including storage and application

(vi) A list of the equipment and materials available for snow and ice control including its current location and methods to guarantee its availability for use.]

2.3 Severe Weather Evacuation Plan

The Severe Weather Evacuation Plan (SWEP) contains operational processes for evacuation. The SWEP complies with all applicable Law, codes, and regulations governing the operation of equipment on public highways. The SWEP will be updated at least annually to incorporate any changes in strategy and evacuation routes during the previous year.

The following procedure in Appendix 6 is part of the SWEP:

- MMP-009 – Severe Weather Evacuation Plan.

[Include within the SWEP a process and the individual responsible for each of the following:

(i) Receiving weather forecasts and making decisions for evacuation based upon analysis of data received

(ii) Advance preparation and call-out

(iii) Training in connection with evacuation processes

(iv) Record keeping / reporting including maintaining records of compliance with the Performance Requirements

(v) Develop evacuations zones and evacuation guides with routes.]

3. ENVIRONMENTAL COMPLIANCE

3.1 Hazardous Material Management Plan

The Hazardous Materials Management Plan (HMMP) governs the safe handling, storage, treatment and/or disposal of Hazardous Materials, whether encountered at or brought onto the Project by the DB Contractor, encountered or brought onto the Project by a third party, or otherwise, spill prevention and countermeasures and pollution prevention measures.

The HMPP is at *[Chapter X, Section X]* of the PMP.

3.2 SW3P Implementation

Maintenance Work will be undertaken in compliance with the TCEQ Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit in accordance with the TxDOT Storm Water Management and Guidelines for Construction Activities Manual.

The SW3P is at *[Chapter X, Section X]* of the PMP.

3.3 Truck Routes, Hazardous Material Routes and related Approvals

Truck Routes, Haz-Mat Routes and associated approvals are at *[Chapter X, Section X]* of the PMP.

3.4 Environmental Compliance and Mitigation Plan

The Environmental Compliance and Mitigation Plan (ECMP) includes compliance strategies and processes to be employed in accordance with the requirements of applicable Environmental Laws and Environmental Approvals. Maintenance Work will be undertaken in compliance with the ECMP and the Environmental Commitments.

Refer to Section 1.1.3 for education and training requirements for all project personnel.
The ECMP is at *[Chapter X, Section X]* of the PMP.

4. MAINTENANCE LIMITS AND PERFORMANCE REQUIREMENTS AND MAINTENANCE SERVICES PROCEDURES

4.1 Maintenance Limits, Layout and Limits of Performance Sections

Schematic Drawings showing the Maintenance Limits and the extents of the Performance Sections are included in Appendix 3, consistent with the requirements of *Section 27.1.3 of the DB Specifications*.

[Include processes and responsibilities for:

(i) Periodically validating that the Maintenance Limits are correctly and clearly identified in the field

(ii) Liaison with TxDOT and Governmental Entities at least annually to review the Maintenance Limits, identify any jurisdictional gaps or inefficiencies and recommend solutions]

4.2 Performance and Measurement Tables

Appendix 4 to the MMP contains the most recent approved versions of the Performance and Measurement Tables.

4.3 Maintenance Management System (MMS)

Refer to the following procedure in Appendix 5:

- MMP-011 – Establishing Maintenance Management System

4.4 Defects and Inspections

Refer to the following procedures in Appendix 6:

- MMP-012 – Defect Categorization and Repair
- MMP-013 – Maintenance Inspection Plan
- MMP-014 – Maintenance Repair Submittal Plan

[Include within the above processes and responsibilities for:

(i) Training of responsible personnel to identify and to categorize Defects discovered during inspection. This shall include training specific to the identification and recording of Category 1 Defects.

(ii) Tracking and reporting of Defects including fault detection logs, software output

(iii) Generation of corrective action work orders through the MMS including how backlog of corrective maintenance and repair activities will be populated and monitored in the MMS

(iv) Action by Defect category type, to include a description of how the actions are carried out stating the responsible individuals and the processes for specific Defect types with examples

(v) How Defects will be remedied, with examples provided for all common Defects, stating necessary notification and the individuals to be notified for such Defect repair.

(vi) Documentation including how Defects will be entered, updated and closed in the Maintenance Management System.

(vii) Verification of the satisfactory completion of Maintenance Services and restoration of asset condition

(viii) Discovery of maintenance trends to determine the need for adjustments in the weekly, monthly and annual maintenance plan to address changing project conditions

(ix) Inspection and testing of Project items and the identification and classification of Defects and inspection failures.

(x) Monitoring instrumentation according to applicable specification

(xi) Field inspections of completed Maintenance Services and for preparing daily reports to document all inspections performed

(xii) Identification of inspection agencies and organizations, including information on each agency's capability to provide the specific services required, certifications held, and equipment

(xiii) Preparation and submittal of the Baseline Element Condition Report (BECR)

(xiv) Hazard mitigation for any Category 1 Defect in a Maintained Element of which the DB Contractor is aware through its own inspections, from a third party or through notification by TxDOT

(xv) Proposal to TxDOT of a repair method for any Defect]

4.5 Tracking and Reporting Noncompliance Events

[Include the following where Noncompliance Events are included in the Contract]

Refer to the following procedure in Appendix 5 for Noncompliance Events:

- MMP-015 – Tracking and Reporting Noncompliance Events

[Include within the above processes and responsibilities for:

(i) Meeting self-reporting obligations

(ii) Identification of the start date of each Noncompliance Event

(iii) Accurate assessment and reporting of the date of cure

(iv) Proper use of the Noncompliance Events database and integration with the MMS.

(v) Validation of the data, times, dates and other information entered into the Noncompliance Event database including frequency of checks / audits]

5. MAINTENANCE SAFETY PLAN

The Maintenance Safety Plan describes the DB Contractor's policies, plans, training programs, and work site controls to ensure the health and safety of personnel involved in the Project and the general public affected by the Project.

The Maintenance Safety Plan is part of the Safety Plan at *[Chapter X, Section X]* of the PMP.

APPENDIX 1: STAFF NAMES CONTACT DETAILS AND QUALIFICATIONS

[Insert contact details, qualifications and training record for Maintenance Work]

Key Personnel or other personnel position	Staff name and start date	Contact details	Education, qualifications and experience	Link to training record in connection with Project
			[Insert details or link to resume]	

APPENDIX 2: CONTACT DETAILS FOR TXDOT AND THIRD PARTIES

[Insert contact details for Maintenance Work]

Organization	Contact name, e-mail and address	Business Phone
TxDOT *[List all TxDOT contacts in connection with Project]*		
Governmental Entities *[list all Governmental Entities]*		
Traffic Management Centers (TMC)		
Utilities *[list all utilities]*		
[Other third parties]		

APPENDIX 3: MAINTENANCE LIMITS AND LIMITS OF PERFORMANCE SECTIONS

[Include Schematic drawings that show the Maintenance Limits and the limits of the Performance Sections before Final Acceptance]

APPENDIX 4: PERFORMANCE AND MEASUREMENT TABLES

[Insert the latest version of the Performance and Measurement Tables]

APPENDIX 5: MAINTENANCE FACILITY LOCATION AND EQUIPMENT

[Insert a map showing the location of the Maintenance Facility and a list of equipment and tools]

APPENDIX 6: MMP PROCEDURES

MMP procedures are shown below. *[Add additional procedures as necessary and provide cross references to the applicable section of the MMP]*

MMP Procedure Number	MMP Procedure Name
MMP-001	Submittals and Coordination with TxDOT, Other Agencies and Third Parties
MMP-002	Agency Coordination for Oversize Loads
MMP-003	Maintenance of Facilities, Vehicles, and Equipment Plan
MMP-004	Emergency and Incident Management
MMP-005	Incident Damage Reports, Third Party Claims and Repairs
MMP-006	Complaint Review and Response
MMP-007	Customer Satisfaction Data Collection System
MMP-008	Snow and Ice Control Plan
MMP-009	Severe Weather Evacuation Plan
MMP-010	Mitigation Procedures for Impacts to Neighboring Facilities
MMP-011	Establishing Maintenance Management System
MMP-012	Defect Categorization and Repair
MMP-013	Maintenance Inspection Plan
MMP-014	Maintenance Repair Submittal Plan
MMP-015	Tracking and Reporting Noncompliance Events
MMP-016	Procedure for Updating MMP

APPENDIX 7: TEMPLATE FOR TYPICAL PROCEDURE

1. PURPOSE AND NEED

[List the reason for the procedure's implementation.]

1.1 Methodologies

[List the methodologies to be defined as part of the procedure.]

2. SCOPE

[Define the limits of the procedure. Define individuals or workgroups to whom the procedure applies.]

3. DEFINED TERMS

- *[List the terms defined as part of the procedure]*

4. STEPS IN PROCEDURE

[Describe the procedure, in detail. List all steps. Assign individual responsibility for implementing the procedure]

[Include tables, flowcharts and figures as applicable.]

5. DOCUMENT CONTROL

[List the methods by which the procedure will be documented and archived. Define the location at which the procedure's records will be filed.]

REFERENCES

[Reference applicable documents within the contract with specific section and page locations.]

Approved By:

_____ _____

FirstName LastName
Maintenance Manager (MM) **Date**

_____ _____

FirstName LastName
Procedure Owner **Date**

APPENDIX 8: QUALITY POLICIES

[Insert here links to or copies of the corporate quality policies andcommitments of the DB Contractor and its Affliliates applicable to the Maintenance Work]