

## **APPENDIX J: Farmland Protection**



# ADDENDUM

24-MARCH-2022

## APPENDIX J – FARMLAND – Proposed ROW Change

**SPUR 399 EXTENSION EIS - US 75 to US 380, Collin County  
CSJs 0364-04-051, 0047-05-058, and 0047-10-002; Dallas District**

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### PURPOSE OF ADDENDUM:

Changes were made to the proposed right-of-way (ROW) limits for the Spur 399 Extension in the 60% Geometric Schematic Design submittal made on 3-JAN-2022. A copy of that submittal is included in Appendix B of this DEIS. This addendum describes where the changes occurred and summarizes how those changes affected the impacts and findings disclosed in the previously approved technical reports that make up this appendix. The revised impacts based on the proposed ROW changes are disclosed in the DEIS.

### UPDATED SPUR 399 EXTENSION PROJECT DESCRIPTION:

With submittal of the 60% Geometric Schematic Design on 3-JAN-2022, the description of the proposed Spur 399 Extension has been updated as follows:

*The proposed Spur 399 Extension is comprised of improvements within the existing section of SH 5 between US 75 and Stewart Road, and new location improvements from Stewart Road to US 380 east of McKinney. Within the section of SH 5 between US 75 and Stewart Road, one new travel lane in each direction would be striped and ramping improvements would be constructed within the existing ROW and roadway pavement section to be established by the recently cleared SH 5 project (CSJs 0135-03-046 and 0135-04-033).*

*From Stewart Road to US 380, the Spur 399 Extension would be constructed on new location as an 8-lane, access-controlled freeway with 2-lane, one-way frontage roads on each side, starting east of Couch Drive, within an anticipated average ROW width of 400 feet, but with areas of ROW ranging from 165 feet to 696 feet wide depending on location. Frontage roads may be eliminated, and the primary travel lanes may be elevated on structure to minimize impacts on sensitive resources. The freeway facility would also include ramps, frontage roads, and arterial roadways to support connectivity to the existing roadway network along with safety lighting/signage/ITS. Grade-separated interchanges would be constructed at major crossroads.*

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## DESCRIPTION OF THE PROPOSED ROW CHANGE

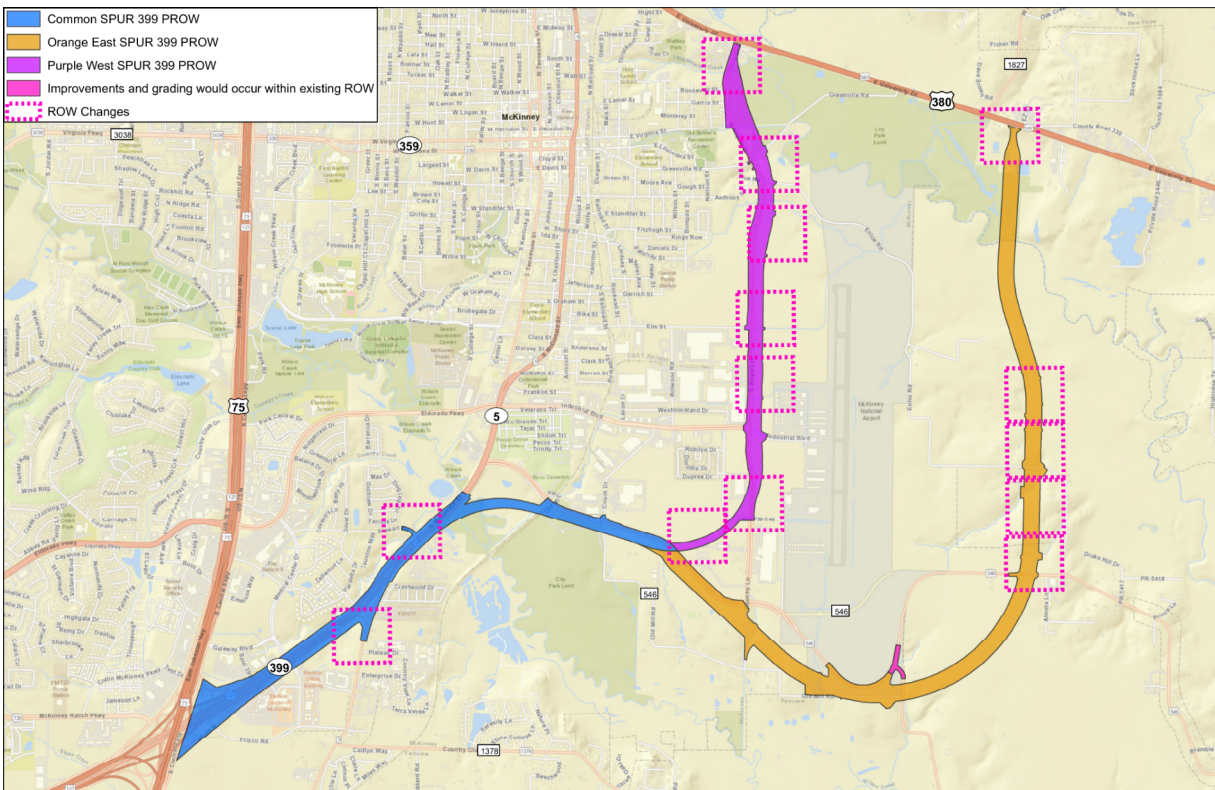
To streamline and accelerate the NEPA process for this project, technical studies were initiated at an early stage in schematic development. Initial technical report submittals were based on the proposed ROW established in JUL-2021. Consideration of a 'Purple 2 Option' was also dismissed. In OCT-2021, to strengthen the independent utility of the Spur 399 Extension, excess proposed ROW adjacent to US 380 was removed along with other modifications along both alignments, further reducing the total amount of ROW required. The JAN-2022 Geometric Schematic Design submittal reflects the continued refinement of the alternatives and consideration of input received during the 21-OCT-2021, public meeting and ongoing coordination with stakeholders including the City of McKinney, Collin County, and the North Texas Municipal Water District.

The JAN-2022 submittal made minor adjustment to the proposed ROW limits throughout the length of the new location sections of both build alternatives to account for drainage, access, and geometric improvements. The following table summarizes the proposed ROW changes.

*Proposed ROW Change – July 2021 to January 2022*

Build Alternative	July 2021 Proposed ROW	October 2021 Proposed ROW	January 2022 Proposed ROW
<b>PURPLE ALTERNATIVE</b>	303.9 acres 340 acres (Purple Option 2)	259.7 acres	263.4 acres
<b>ORANGE ALTERNATIVE</b>	396.0 acres	366.4 acres	366.1 acres

*Illustration of the January 2022 Proposed ROW Changes*



## EFFECTS OF THE JANUARY ROW CHANGE ON FARMLAND IMPACTS AND FINDINGS

The proposed ROW change decreased the total amount of ROW used to calculate the impacts on the CPA-106 Form submitted to coordinate with the NRCS in August 2021. The acreage of total farmland and prime farmland increased slightly for the Purple Alternative due to where the changes occurred along Airport Drive adjacent to areas currently under cultivation. The percentage of farmland within urbanized areas did not change as the alignments stayed the same. Overall, the minor proposed ROW changes resulted in no substantial change in farmland impacts and would not warrant additional coordination with the NRCS.

### *Comparison of Farmland Impacts of the Purple and Orange Alternatives*

Prime and Statewide Important Farmland	Purple Alternative		Orange Alternative	
	Acres (JAN-2022)	Acres (OCT-2021)	Acres (JAN-2022)	Acres (OCT-2021)
Total Area within the Proposed ROW	263.4	303.9	366.1	389.7
Total Area of Mapped Prime and Statewide Important Farmland W/in Proposed ROW	166.9	155.6	165.7	169.0
Area of Mapped Prime Farmland	142.4	131.3	148.9	152.5
Area of Mapped Farmland of Statewide Importance	24.5	24.3	16.8	16.5
Total Acreage of Proposed ROW in Urbanized Areas (UA)	158.0	182.1	173.4	184.0
McKinney UA	147.5	170.9	162.3	172.9
Dallas-Fort Worth-Arlington UA	10.5	11.2	11.1	11.2



**FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS**

<b>PART I (To be completed by Federal Agency)</b>		3. Date of Land Evaluation Request <b>6/8/21</b>	4. Sheet 1 of <b>1</b>
1. Name of Project <b>Spur 399 Extension</b>		5. Federal Agency Involved <b>Texas Department of Transportation</b>	
2. Type of Project <b>Transportation Improvement</b>		6. County and State <b>Collin County, Texas</b>	
<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated   Average Farm Size	
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %	
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS	

<b>PART III (To be completed by Federal Agency)</b>	<b>Alternative Corridor For Segment</b>			
	<b>Purple</b>	<b>Orange</b>	<b>Corridor C</b>	<b>Corridor D</b>
A. Total Acres To Be Converted Directly	<b>155.64</b>	<b>169.02</b>		
B. Total Acres To Be Converted Indirectly, Or To Receive Services	<b>0</b>	<b>0</b>		
C. Total Acres In Corridor	<b>303.89</b>	<b>389.77</b>		

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				

<b>PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)</b>				
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<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>	<b>Maximum Points</b>				
1. Area in Nonurban Use	15	0	10		
2. Perimeter in Nonurban Use	10	0	8		
3. Percent Of Corridor Being Farmed	20	15	0		
4. Protection Provided By State And Local Government	20	0	0		
5. Size of Present Farm Unit Compared To Average	10	10	10		
6. Creation Of Nonfarmable Farmland	25	10	20		
7. Availability Of Farm Support Services	5	5	5		
8. On-Farm Investments	20	15	15		
9. Effects Of Conversion On Farm Support Services	25	10	5		
10. Compatibility With Existing Agricultural Use	10	10	10		
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	<b>160</b>	<b>75</b>	<b>83</b>	<b>0</b>	<b>0</b>

<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	75	83	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>75</b>	<b>83</b>	<b>0</b>	<b>0</b>

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
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5. Reason For Selection:

Signature of Person Completing this Part:	7/16/2021 DATE
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**NOTE: Complete a form for each segment with more than one Alternate Corridor**

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## CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

- (1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent - 15 points  
90 to 20 percent - 14 to 1 point(s)  
Less than 20 percent - 0 points

- (2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points  
90 to 20 percent - 9 to 1 point(s)  
Less than 20 percent - 0 points

- (3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points  
90 to 20 percent - 19 to 1 point(s)  
Less than 20 percent - 0 points

- (4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected - 20 points  
Site is not protected - 0 points

- (5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?

(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)  
As large or larger - 10 points  
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

- (6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points  
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)  
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

- (7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points  
Some required services are available - 4 to 1 point(s)  
No required services are available - 0 points

- (8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment - 20 points  
Moderate amount of on-farm investment - 19 to 1 point(s)  
No on-farm investment - 0 points

- (9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted - 25 points  
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)  
No significant reduction in demand for support services if the site is converted - 0 points

- (10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points  
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)  
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

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## 0364-04-051 etc. Spur 399 Extension - Farmland Conversion (30% Schematic ROW)

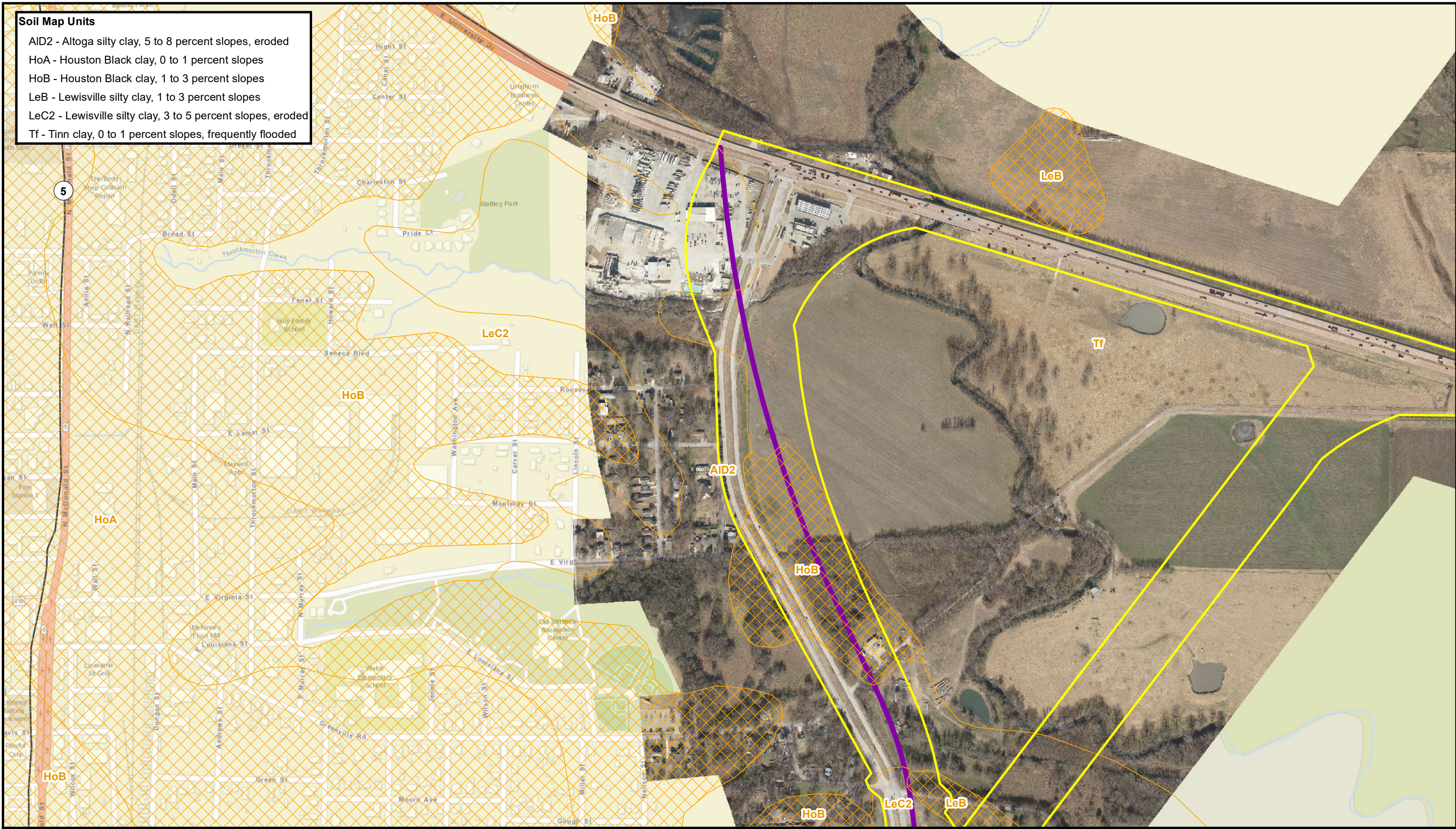
			PURPLE ALT	ORANGE ALT
Soil Map Unit Symbol	Soil Map Unit Name	Farmland Class	Acres	Acres
AID2	Altoga silty clay, 5 to 8 percent slopes, eroded	Not prime farmland	31.43	41.16
AuB	Austin silty clay, 1 to 3 percent slopes	Farmland of statewide importance	24.32	16.52
AuC2	Austin silty clay, 2 to 5 percent slopes, eroded	Not prime farmland	28.11	37.40
AuD2	Austin silty clay, 5 to 8 percent slopes, moderately eroded	Not prime farmland	10.49	19.58
BcA	Burleson clay, 0 to 1 percent slopes	All areas are prime farmland	0.00	22.92
BcB	Burleson clay, 1 to 3 percent slopes	All areas are prime farmland	0.00	18.93
EdD2	Eddy gravelly clay loam, 3 to 8 percent slopes, eroded	Not prime farmland	1.55	10.65
HoA	Houston Black clay, 0 to 1 percent slopes	All areas are prime farmland	43.22	7.81
HoB	Houston Black clay, 1 to 3 percent slopes	All areas are prime farmland	87.17	86.74
HoB2	Houston Black clay, 2 to 4 percent slopes, eroded	Not prime farmland	1.18	13.35
LeB	Lewisville silty clay, 1 to 3 percent slopes	All areas are prime farmland	0.93	16.10
LeC2	Lewisville silty clay, 3 to 5 percent slopes, eroded	Not prime farmland	9.21	32.64
Tf	Tinn clay, 0 to 1 percent slopes, frequently flooded	Not prime farmland	60.20	38.21
To	Trinity clay, 0 to 1 percent slopes, occasionally flooded	Not prime farmland	6.07	27.75
		Total Acres in Corridor	303.89	389.77
		Total Acres within DAL-FW-ARL Urbanized Area	11.15	11.15
		Total Acres within McKinney Urbanized Area	170.94	172.89
		Total Acres of Prime farmland	131.32	152.50
		Total Acres of Statewide Important Farmland	24.32	16.52

17-Jun-2021

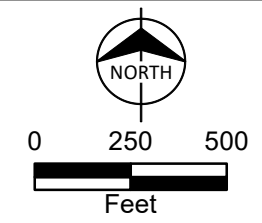
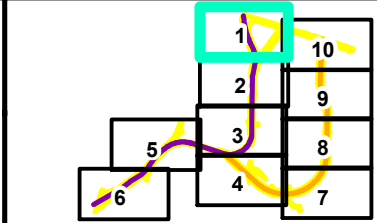


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**Soil Map Units**  
AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded  
HoA - Houston Black clay, 0 to 1 percent slopes  
HoB - Houston Black clay, 1 to 3 percent slopes  
LeB - Lewisville silty clay, 1 to 3 percent slopes  
LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded  
Tf - Tinn clay, 0 to 1 percent slopes, frequently flooded



- |                       |                                  |
|-----------------------|----------------------------------|
| Spur 399 Proposed ROW | Prime Farmland                   |
| Purple Alternative    | Farmland of Statewide Importance |
| Orange Alternative    | Soil Map Unit                    |



Soils  
Spur 399 Extension EIS  
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Soil Map Units

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

HoA - Houston Black clay, 0 to 1 percent slopes

HoB - Houston Black clay, 1 to 3 percent slopes

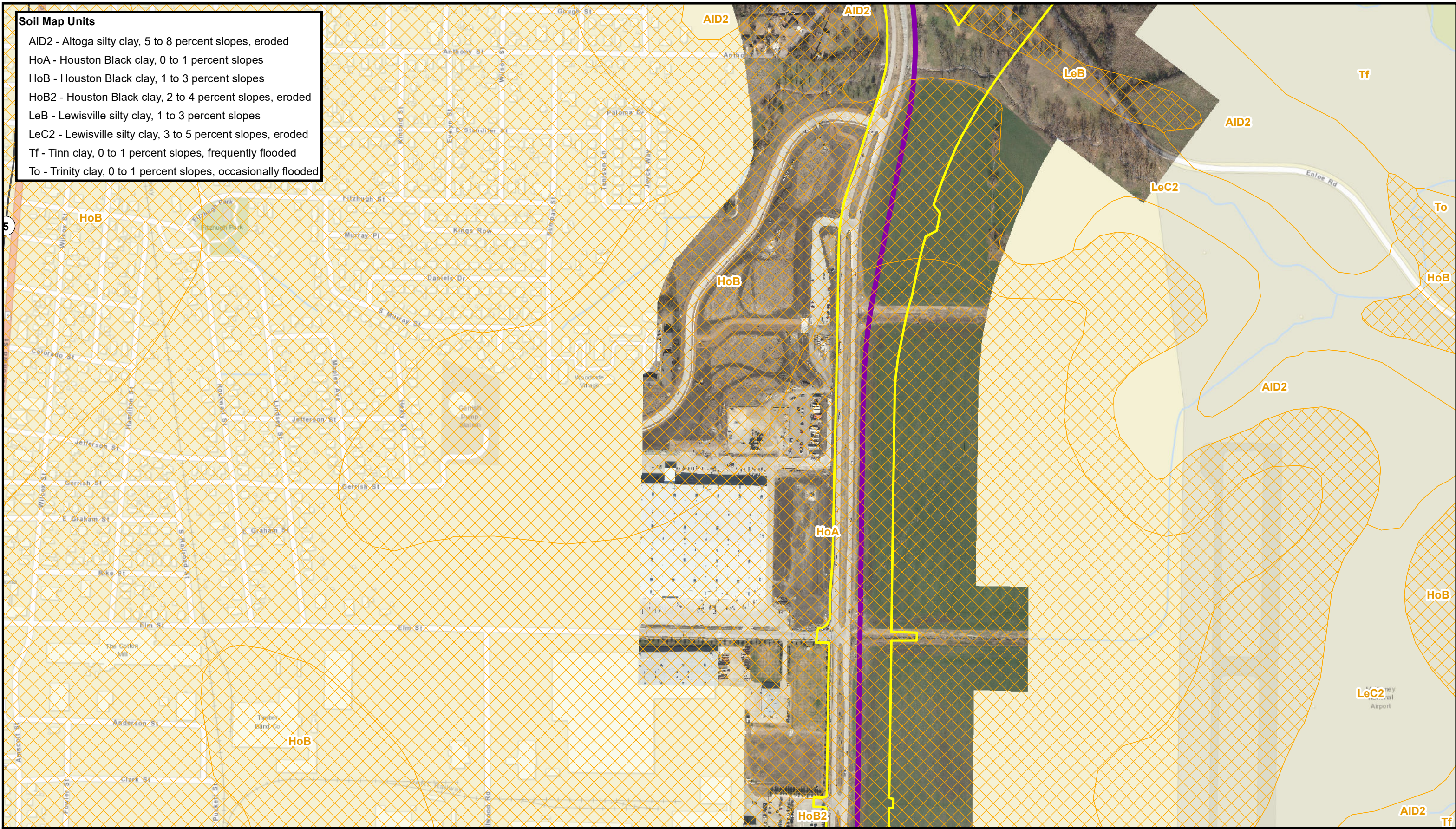
HoB2 - Houston Black clay, 2 to 4 percent slopes, eroded

LeB - Lewisville silty clay, 1 to 3 percent slopes

LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded

Tf - Tinn clay, 0 to 1 percent slopes, frequently flooded

To - Trinity clay, 0 to 1 percent slopes, occasionally flooded



Spur 399 Proposed ROW

Purple Alternative

Orange Alternative

Prime Farmland

Farmland of Statewide Importance

Soil Map Unit

Soils

Spur 399 Extension EIS

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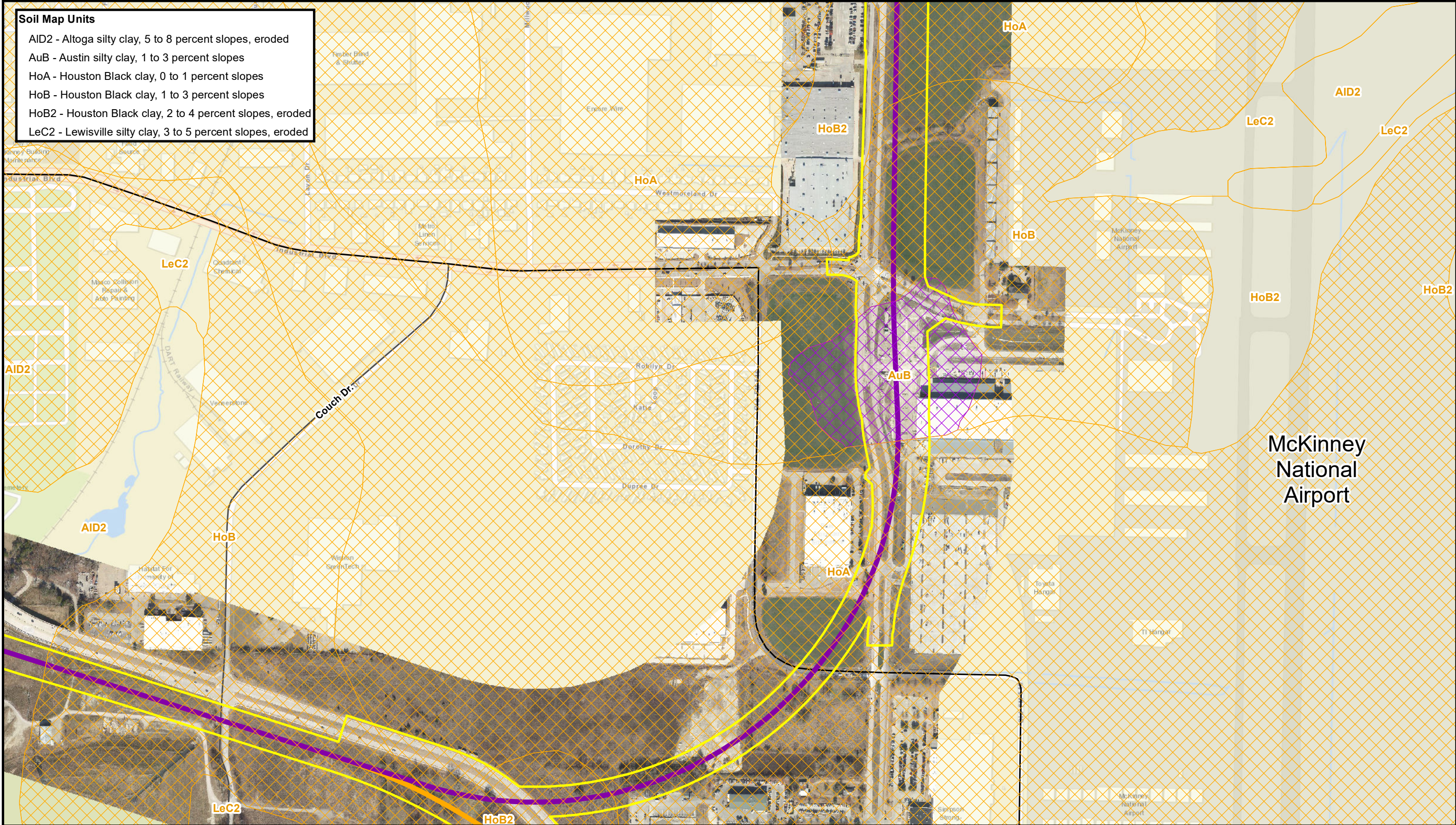
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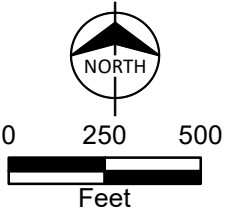
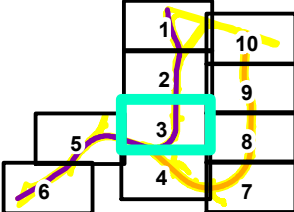


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- Soil Map Units**
- AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded
  - AuB - Austin silty clay, 1 to 3 percent slopes
  - HoA - Houston Black clay, 0 to 1 percent slopes
  - HoB - Houston Black clay, 1 to 3 percent slopes
  - HoB2 - Houston Black clay, 2 to 4 percent slopes, eroded
  - LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded

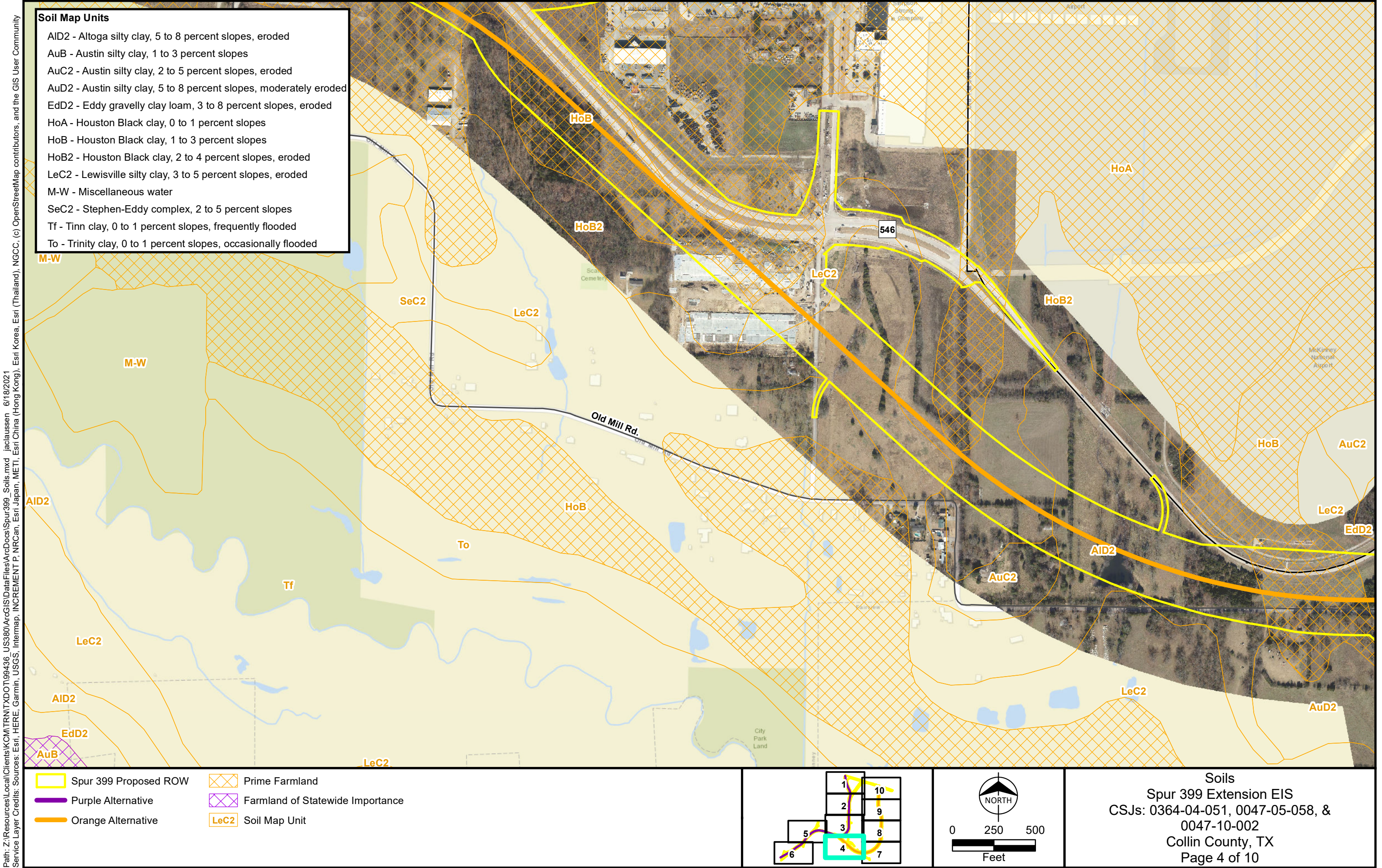


- Spur 399 Proposed ROW
- Purple Alternative
- Orange Alternative
- Prime Farmland
- Farmland of Statewide Importance
- LeC2 Soil Map Unit



Soils  
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Soil Map Units

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

AIE3 - Altoga silty clay, 8 to 12 percent slopes, severely ero ded

AuB - Austin silty clay, 1 to 3 percent slopes

AuC2 - Austin silty clay, 2 to 5 percent slopes, eroded

AuD2 - Austin silty clay, 5 to 8 percent slopes, moderately eroded

HoB - Houston Black clay, 1 to 3 percent slopes

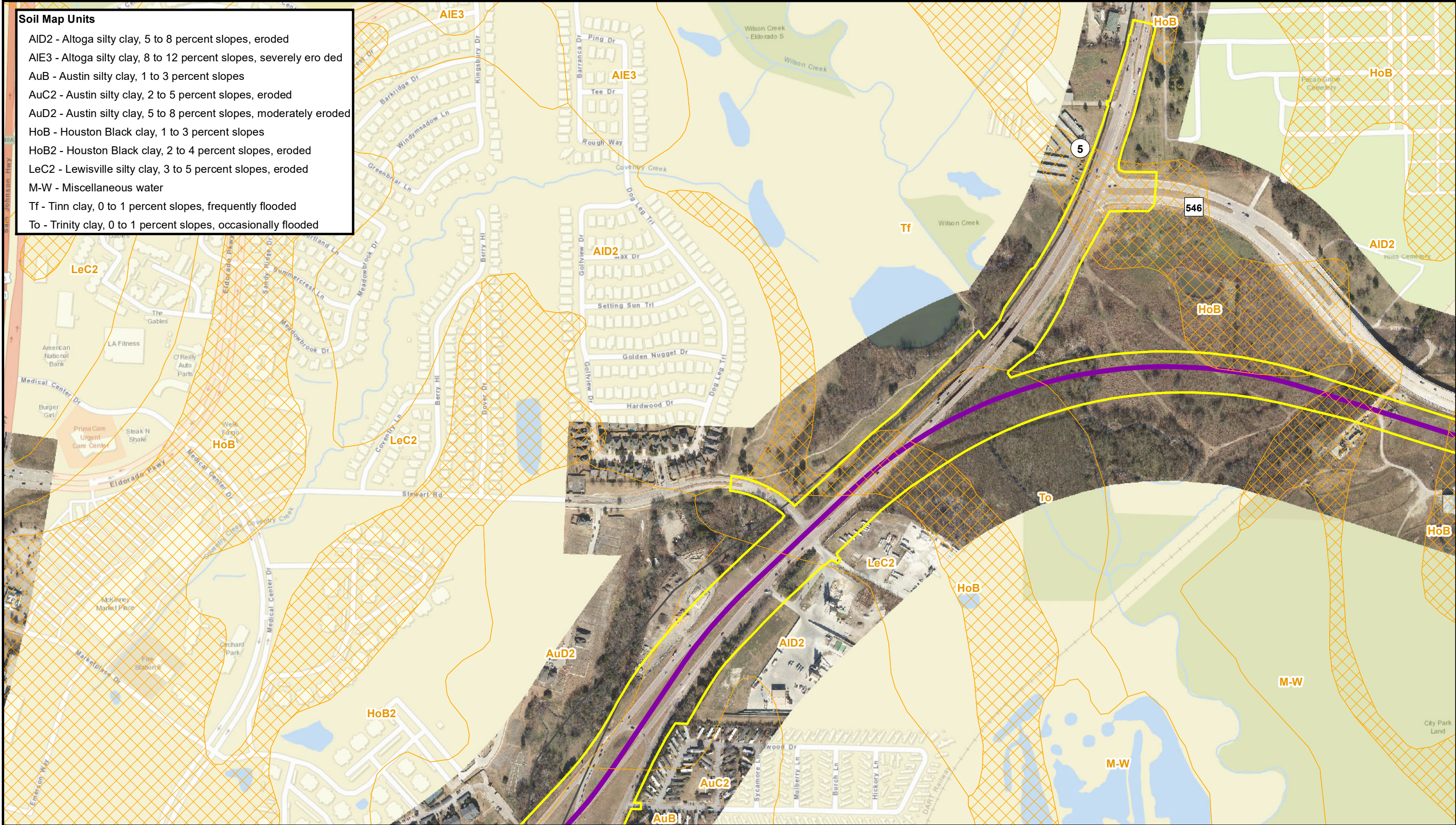
HoB2 - Houston Black clay, 2 to 4 percent slopes, eroded

LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded

M-W - Miscellaneous water

Tf - Tinn clay, 0 to 1 percent slopes, frequently flooded

To - Trinity clay, 0 to 1 percent slopes, occasionally flooded



Yellow line

Spur 399 Proposed ROW

Purple line

Purple Alternative

Orange line

Orange Alternative

Orange cross-hatch

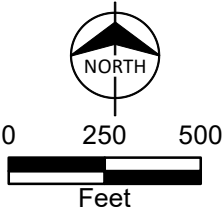
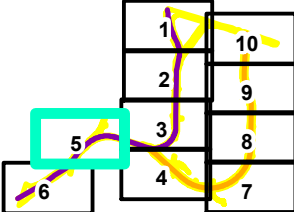
Prime Farmland

Purple cross-hatch

Farmland of Statewide Importance

Orange box with LeC2

Soil Map Unit



Soils

Spur 399 Extension EIS

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**Soil Map Units**

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

AIE3 - Altoga silty clay, 8 to 12 percent slopes, severely ero ded

AuB - Austin silty clay, 1 to 3 percent slopes

AuC2 - Austin silty clay, 2 to 5 percent slopes, eroded

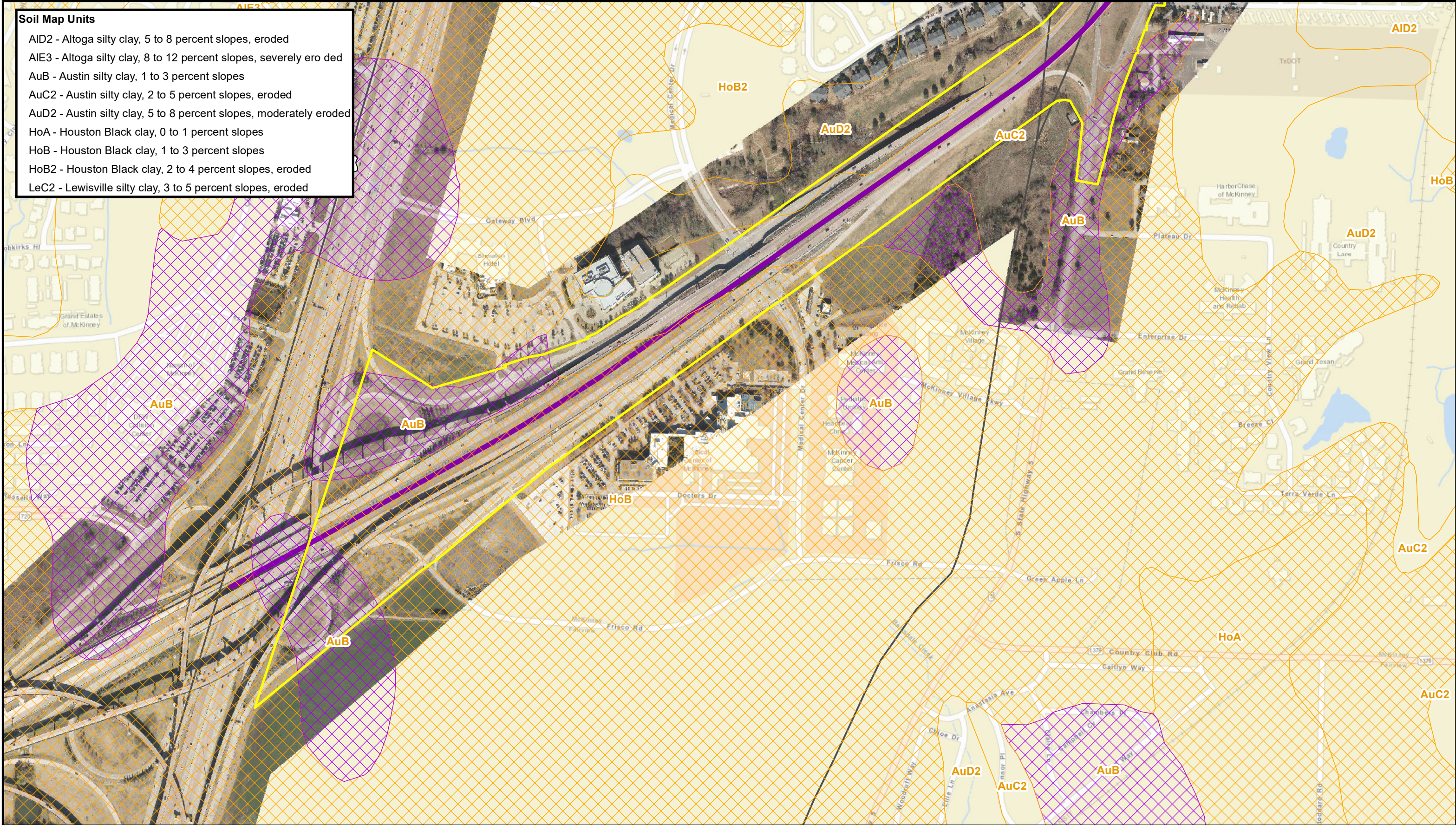
AuD2 - Austin silty clay, 5 to 8 percent slopes, moderately eroded

HoA - Houston Black clay, 0 to 1 percent slopes

HoB - Houston Black clay, 1 to 3 percent slopes

HoB2 - Houston Black clay, 2 to 4 percent slopes, eroded

LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded



Spur 399 Proposed ROW

Purple Alternative

Orange Alternative

Prime Farmland

Farmland of Statewide Importance

Soil Map Unit

1

2

3

4

5

6

10

9

8

7

NORTH

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Feet

Soils

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Soil Map Units

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

AuC2 - Austin silty clay, 2 to 5 percent slopes, eroded

AuD2 - Austin silty clay, 5 to 8 percent slopes, moderately eroded

BcA - Burleson clay, 0 to 1 percent slopes

BcB - Burleson clay, 1 to 3 percent slopes

BcB2 - Leson clay, 2 to 4 percent slopes, eroded

EdD2 - Eddy gravelly clay loam, 3 to 8 percent slopes, eroded

GP - Gravel pits and quarries

HoA - Houston Black clay, 0 to 1 percent slopes

HoB - Houston Black clay, 1 to 3 percent slopes

LeB - Lewisville silty clay, 1 to 3 percent slopes

LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded

ScB - Stephen silty clay, 1 to 4 percent slopes

Tf - Tinn clay, 0 to 1 percent slopes, frequently flooded

To - Trinity clay, 0 to 1 percent slopes, occasionally flooded

Spur 399 Proposed ROW

Prime Farmland

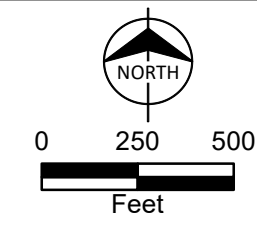
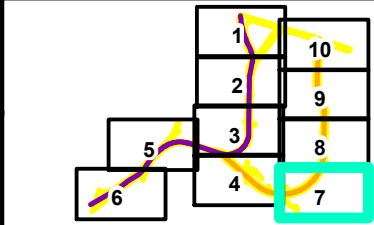
Purple Alternative

Farmland of Statewide Importance

Orange Alternative

LeC2

 Soil Map Unit



Soils

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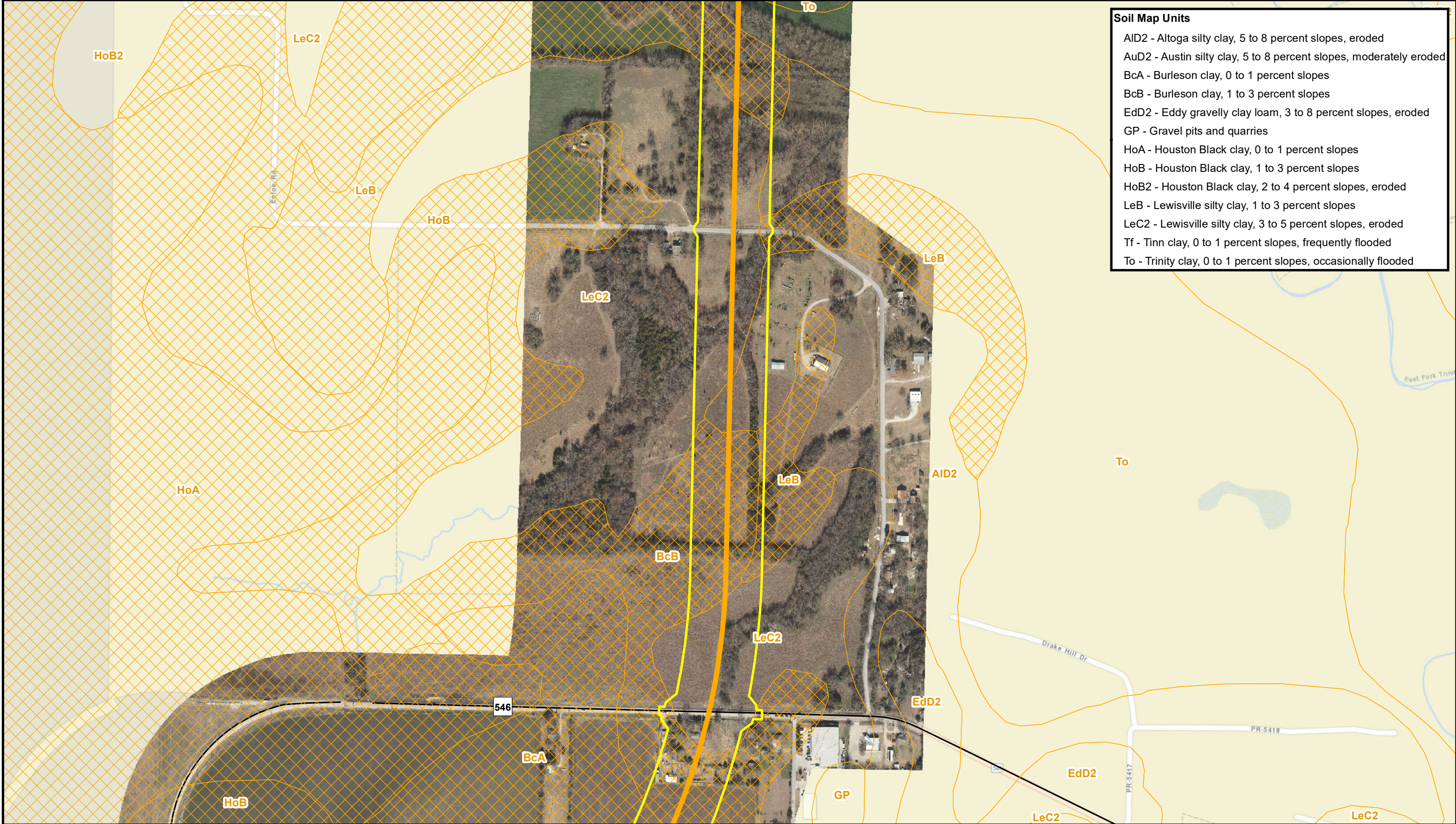
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Soil Map Units

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

AuD2 - Austin silty clay, 5 to 8 percent slopes, moderately eroded

BcA - Burleson clay, 0 to 1 percent slopes

BcB - Burleson clay, 1 to 3 percent slopes

EdD2 - Eddy gravelly clay loam, 3 to 8 percent slopes, eroded

GP - Gravel pits and quarries

HoA - Houston Black clay, 0 to 1 percent slopes

HoB - Houston Black clay, 1 to 3 percent slopes

HoB2 - Houston Black clay, 2 to 4 percent slopes, eroded

LeB - Lewisville silty clay, 1 to 3 percent slopes

LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded

Tf - Tinn clay, 0 to 1 percent slopes, frequently flooded

To - Trinity clay, 0 to 1 percent slopes, occasionally flooded

Spur 399 Proposed ROW

Purple Alternative

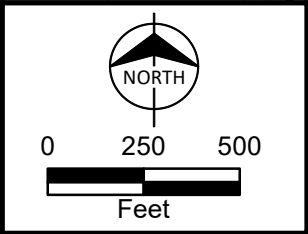
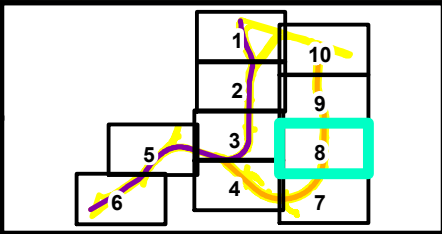
Orange Alternative

Prime Farmland

Farmland of Statewide Importance

LeC2

Soil Map Unit



Soils

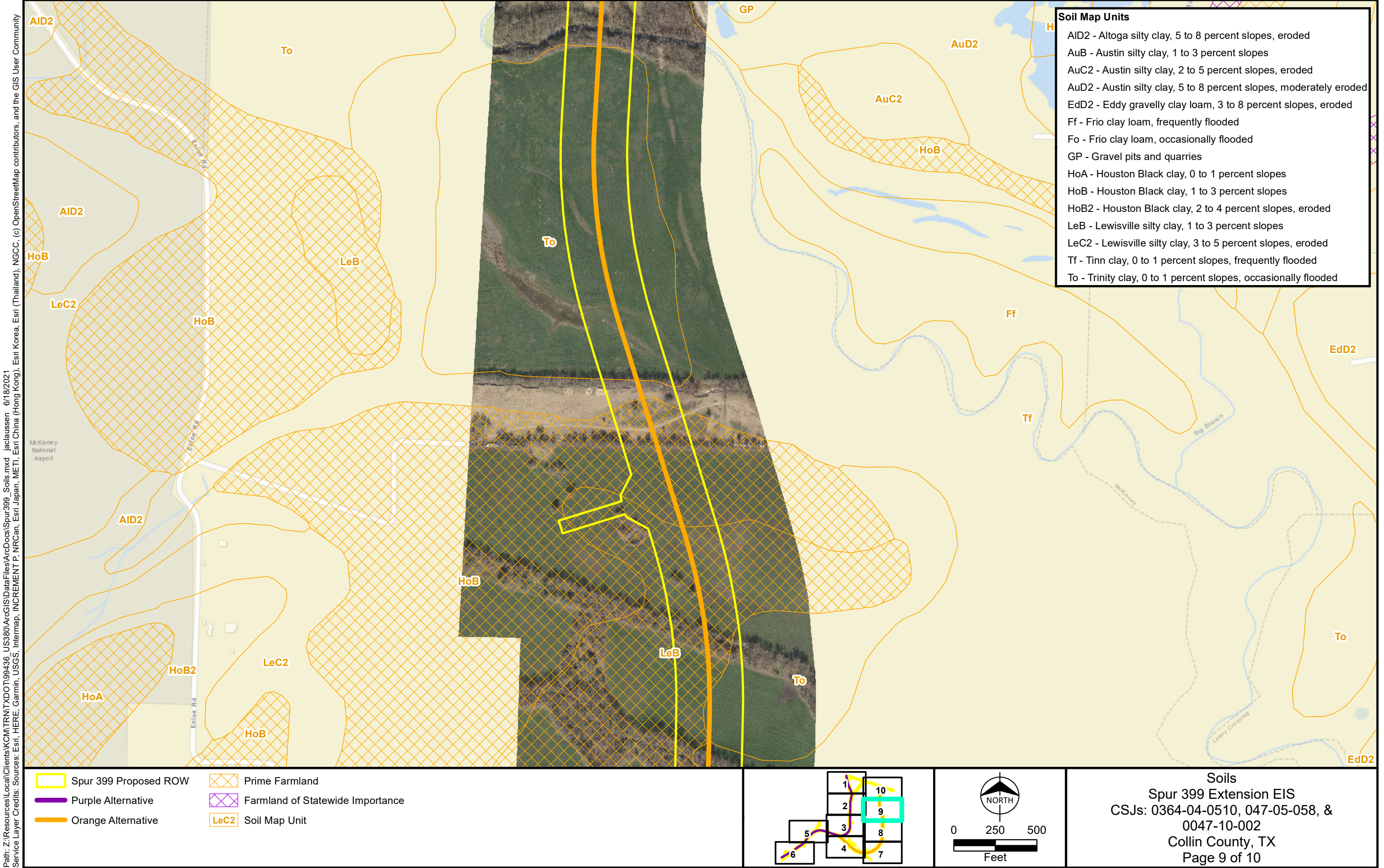
Spur 399 Extension EIS

CSJs: 0364-04-051, 0047-05-058, & 0047-10-002

Collin County, TX

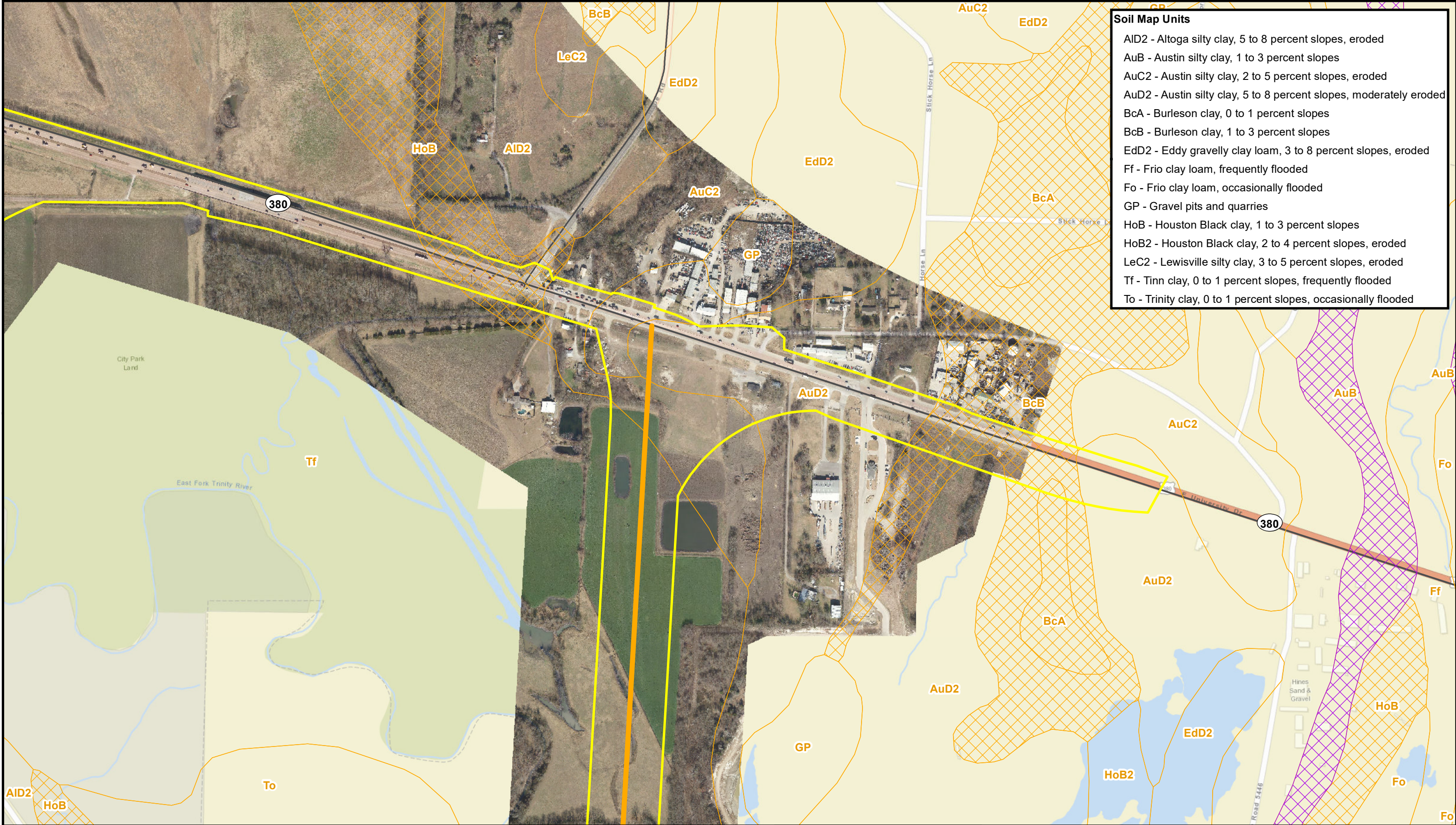
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Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



Soil Map Units

AID2 - Altoga silty clay, 5 to 8 percent slopes, eroded

AuB - Austin silty clay, 1 to 3 percent slopes

AuC2 - Austin silty clay, 2 to 5 percent slopes, eroded

AuD2 - Austin silty clay, 5 to 8 percent slopes, moderately eroded

BcA - Burleson clay, 0 to 1 percent slopes

BcB - Burleson clay, 1 to 3 percent slopes

EdD2 - Eddy gravelly clay loam, 3 to 8 percent slopes, eroded

Ff - Frio clay loam, frequently flooded

Fo - Frio clay loam, occasionally flooded

GP - Gravel pits and quarries

HoB - Houston Black clay, 1 to 3 percent slopes

HoB2 - Houston Black clay, 2 to 4 percent slopes, eroded

LeC2 - Lewisville silty clay, 3 to 5 percent slopes, eroded

Tf - Tinn clay, 0 to 1 percent slopes, frequently flooded

To - Trinity clay, 0 to 1 percent slopes, occasionally flooded

Spur 399 Proposed ROW

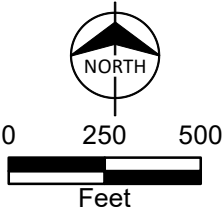
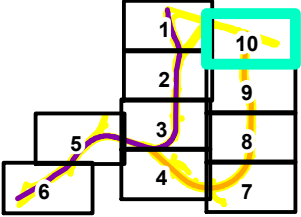
Purple Alternative

Orange Alternative

Prime Farmland

Farmland of Statewide Importance

Soil Map Unit



Soils

Spur 399 Extension EIS

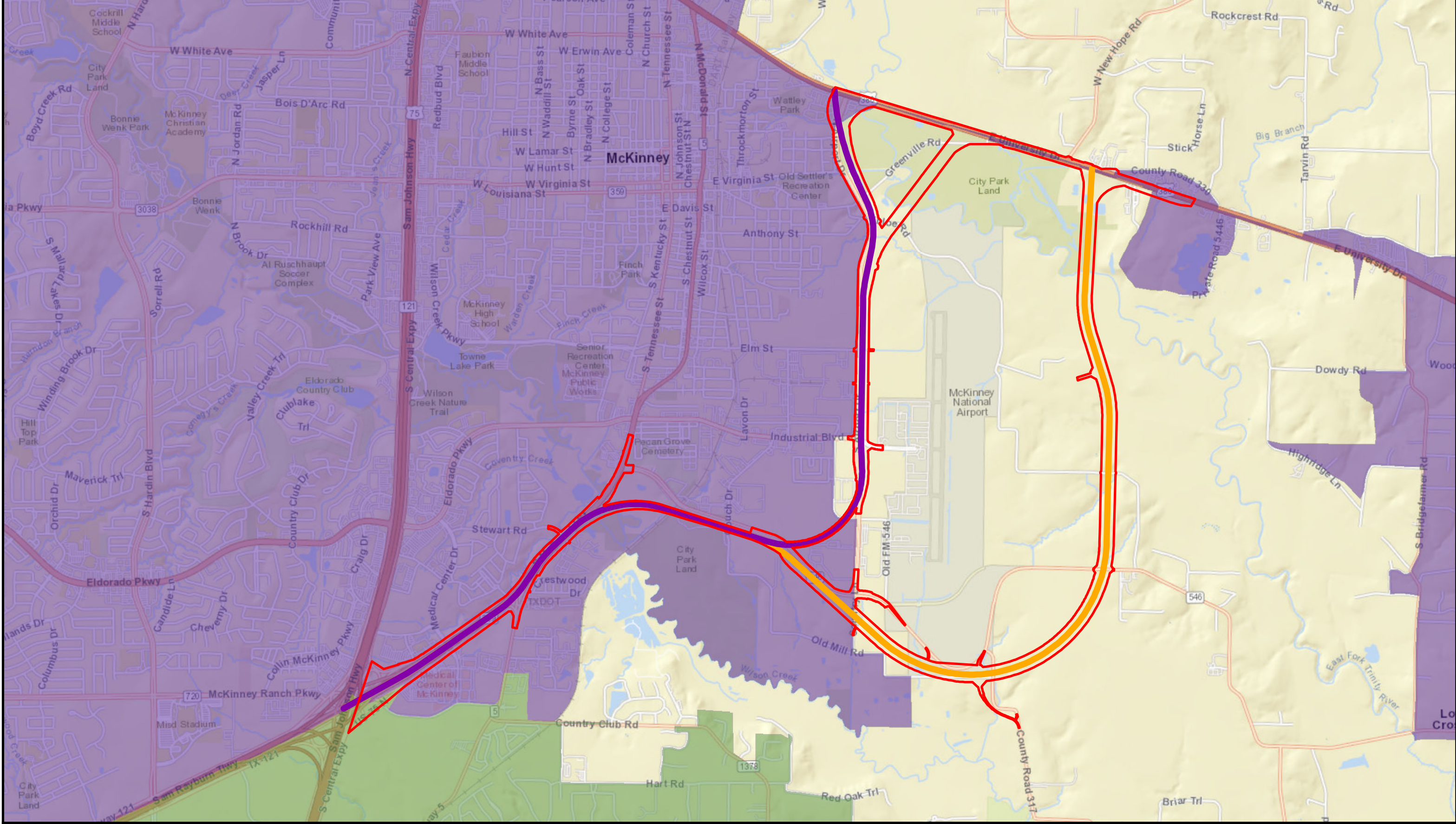
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0047-10-002






Collin County, TX

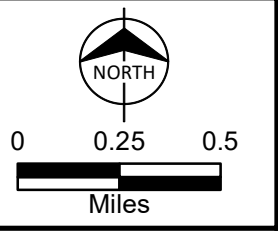
Page 10 of 10



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- |   |   |
|---|---|
|  Purple Alternative    | <b>2010 Census Bureau Urbanized Areas</b>   |
|  Orange Alternative    |  Dallas--Fort Worth--Arlington, TX |
|  Spur 399 Proposed ROW |  McKinney, TX                      |



Census Bureau Urbanized Areas Spur  
399 Extension EIS  
CSJs: 0364-04-051, 0047-05-058, &  
0047-10-002  
Collin County, TX