





Overview: Proposed Impacts

SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

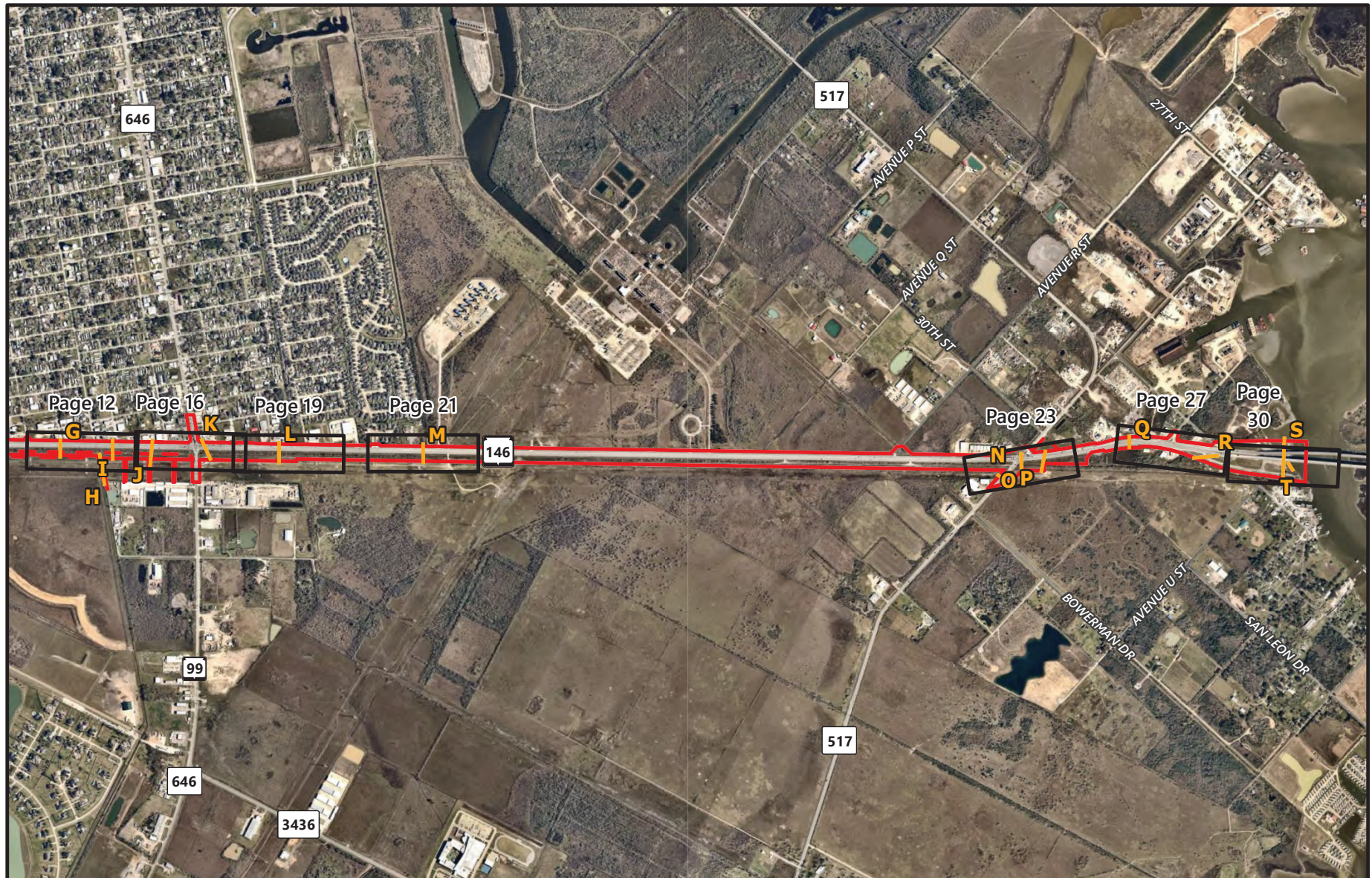
CSJ: 0389-06-088

- Cross Section Location
- Project Area
- Page Extent

0 875 1,750
Feet



Page 1 of 2



Overview: Proposed Impacts

SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

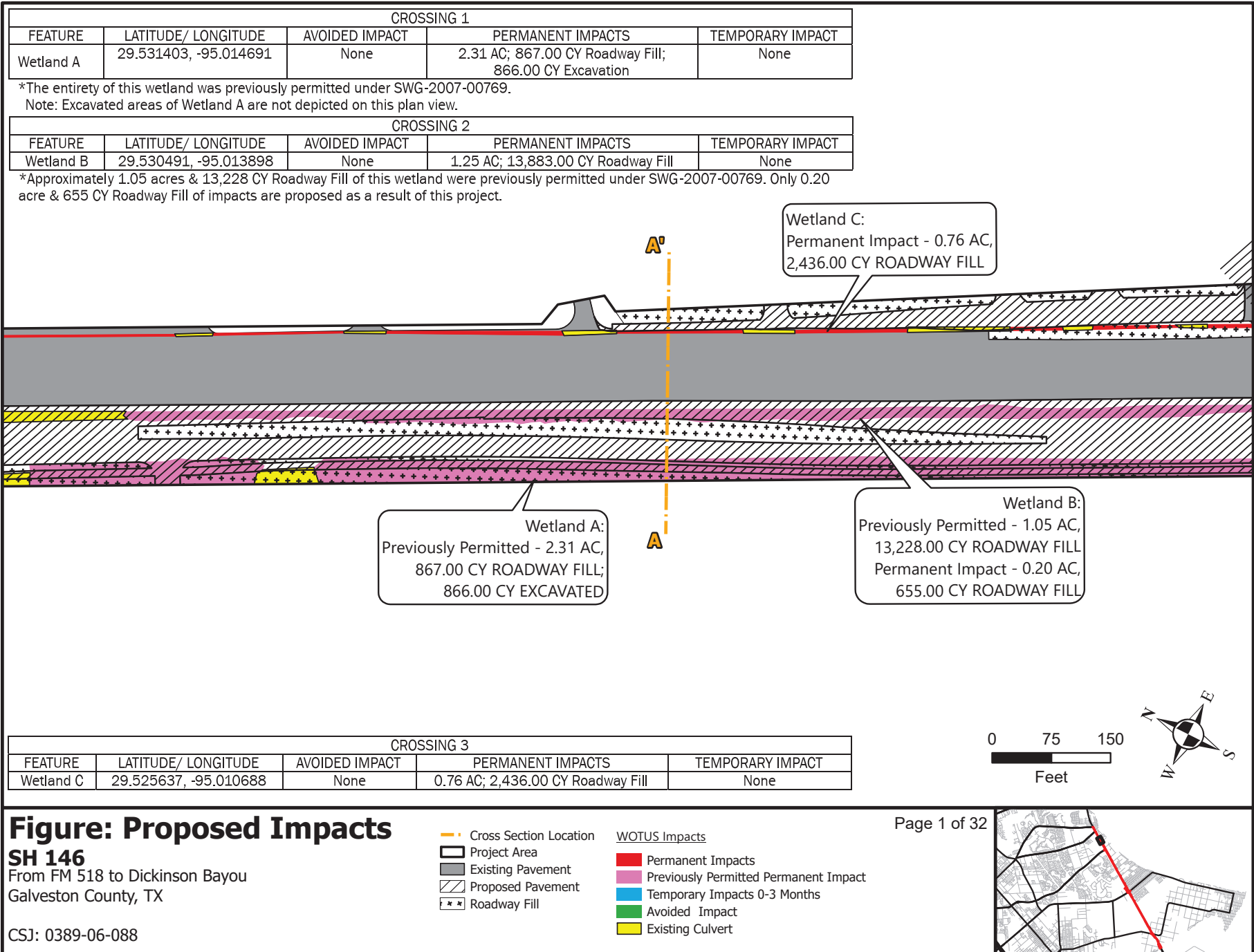
CSJ: 0389-06-088

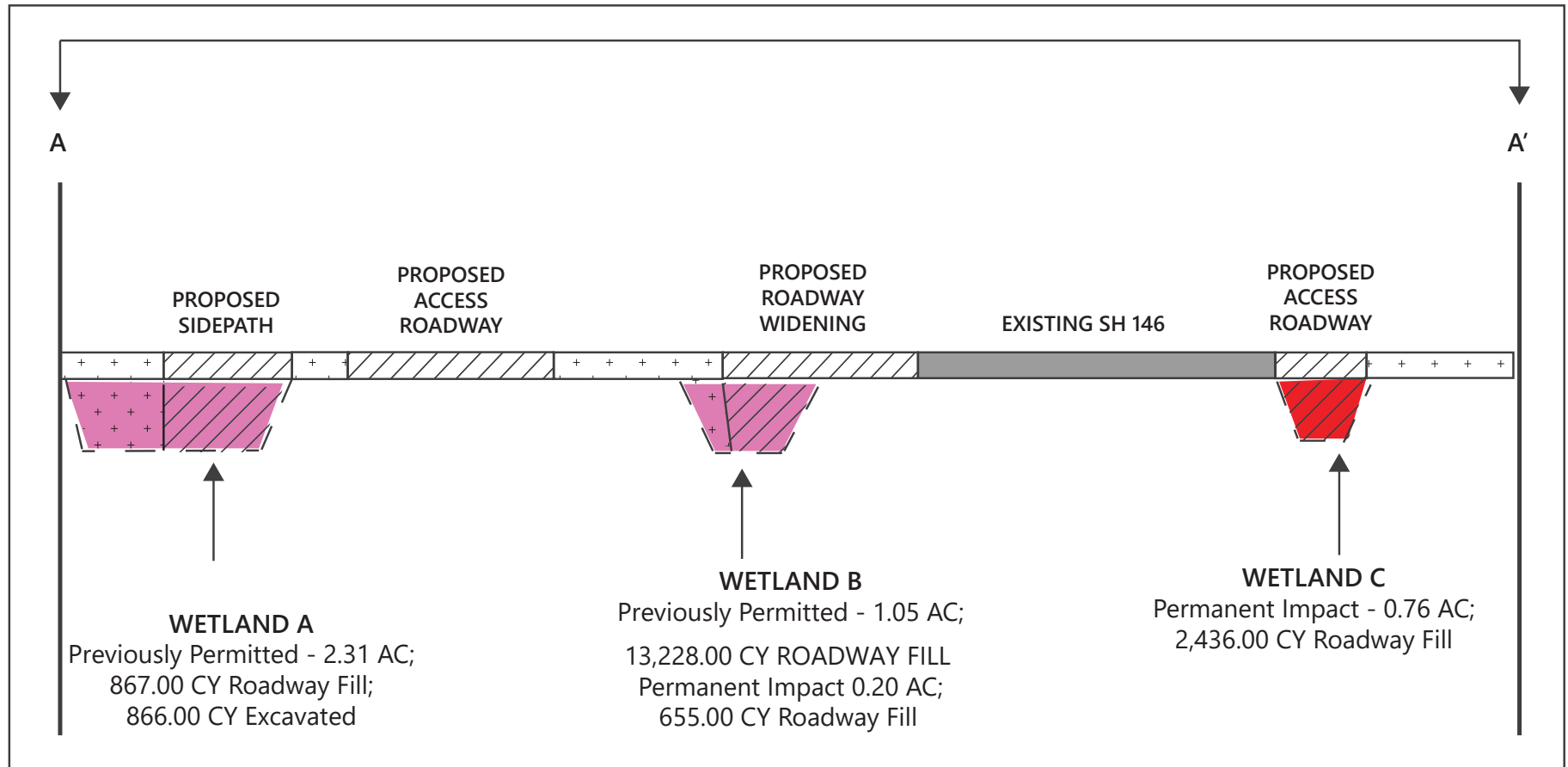
- Cross Section Location
- Project Area
- Page Extent

0 875 1,750
Feet



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CROSSING 1				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland A	29.531403, -95.014691	None	2.31 AC; 867.00 CY Roadway Fill; 866.00 CY Excavation	None

*The entirety of this wetland was previously permitted under SWG-2007-00769.

CROSSING 2				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland B	29.530491, -95.013898	None	1.25 AC; 13,883.00 CY Roadway Fill	None

*Approximately 1.05 acres & 13,228 CY Roadway Fill of this wetland were previously permitted under SWG-2007-00769. Only 0.20 acre and 655 CY Roadway Fill of impacts are proposed as a result of this project.

CROSSING 3				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland C	29.525637, -95.010688	None	0.76 AC; 2,436.00 CY Roadway Fill	None

Note: Excavated areas of Wetland A are not depicted on this cross section.

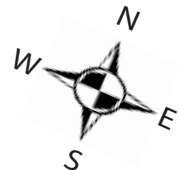


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

CSJ: 0389-06-088

- Project Boundary
- Existing Pavement
- Proposed Pavement
- Roadway Fill
- Excavation

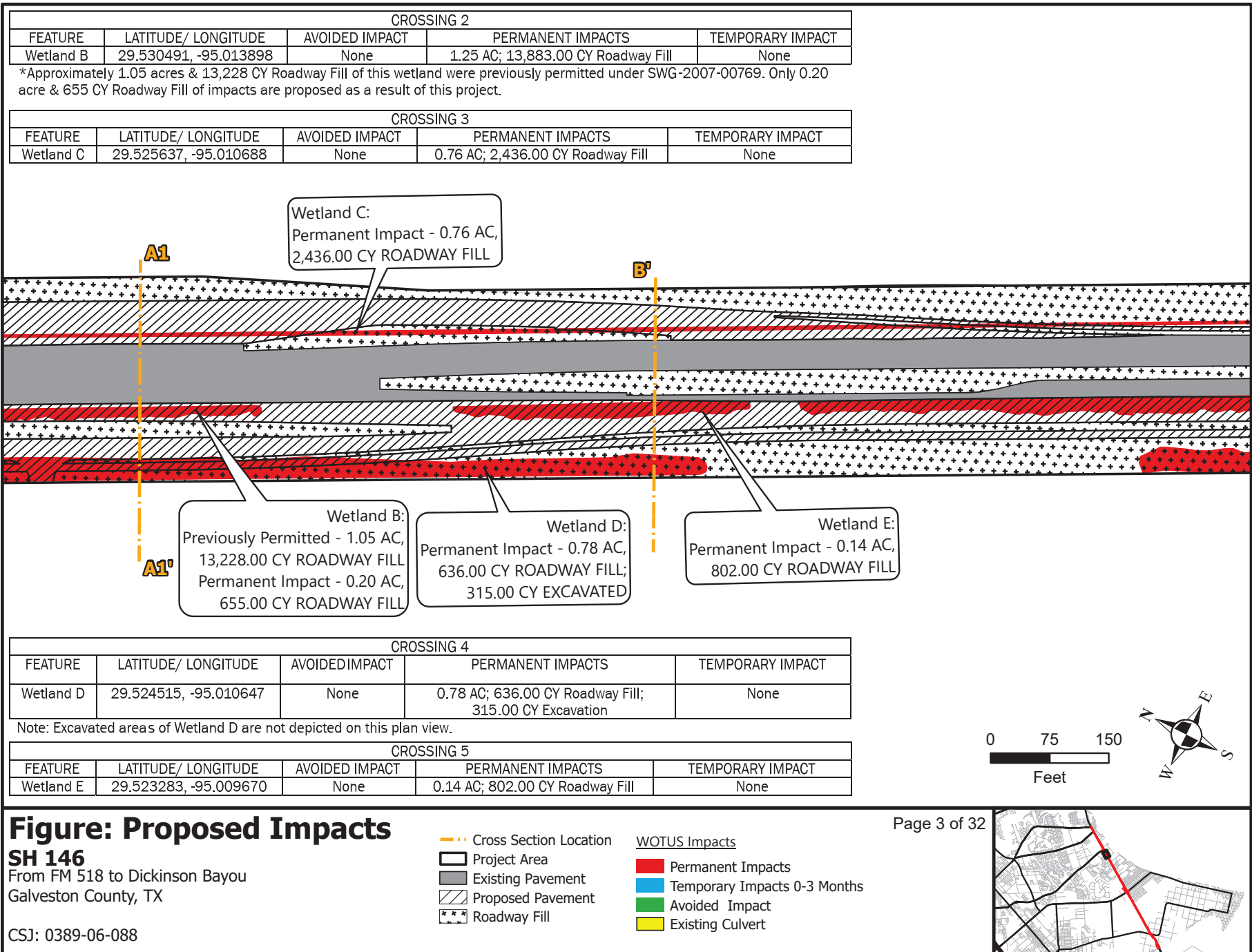
WOTUS Impacts

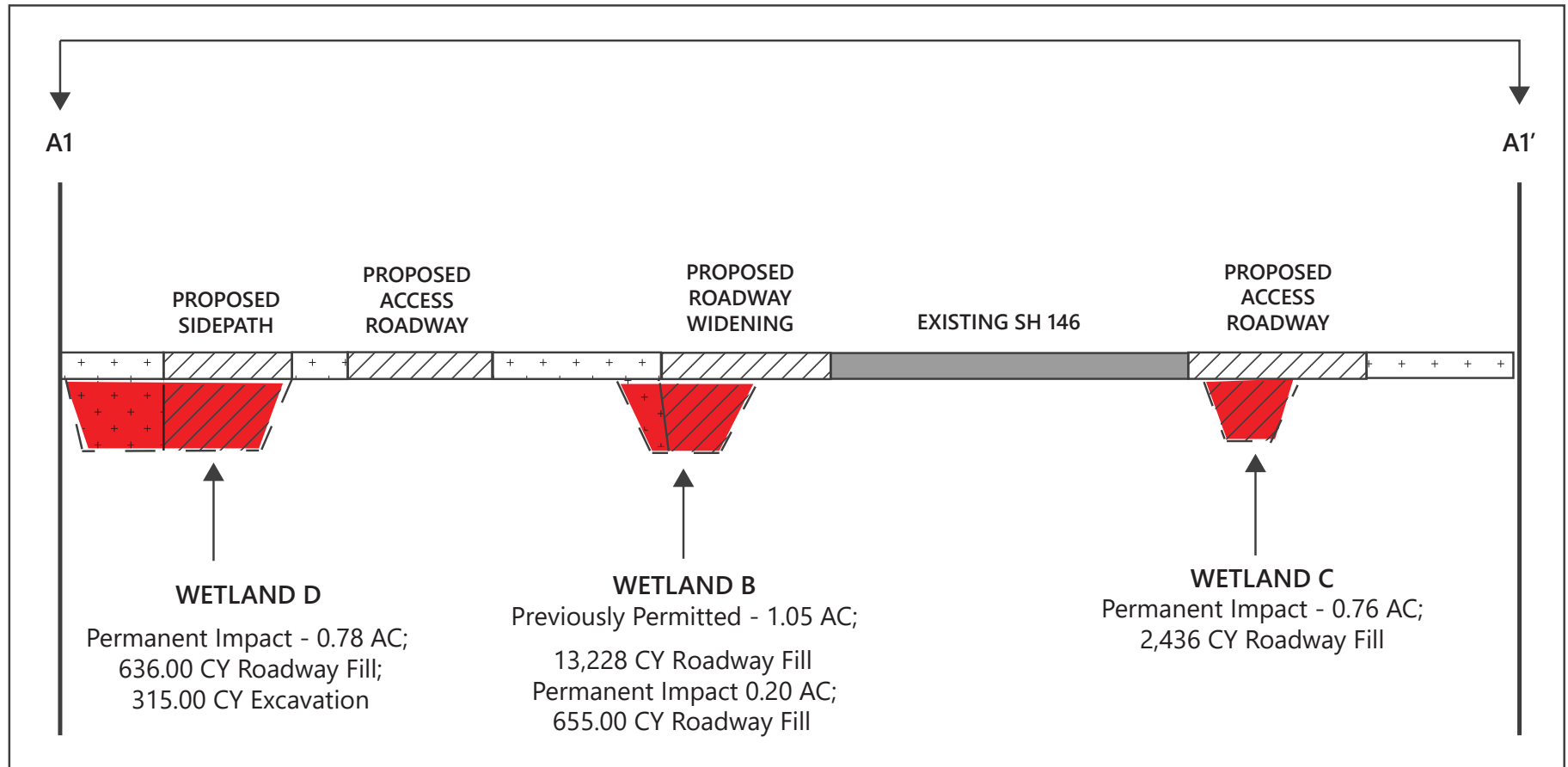
- Previously Permitted Impact
- Permanent Impact
- Temporary Impact
- Avoided Impact
- Existing Culvert

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CROSS SECTION VIEW

A - A'





CROSSING 2				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland B	29.530491, -95.013898	None	1.25 AC; 13,883.00 CY Roadway Fill	None

*Approximately 1.05 acres & 13,228 CY Roadway Fill of this wetland were previously permitted under SWG-2007-00769. Only 0.20 acre and 655 CY Roadway Fill of impacts are proposed as a result of this project.

CROSSING 3				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland C	29.525637, -95.010688	None	0.76 AC; 2,436.00 CY Roadway Fill	None

CROSSING 4				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland D	29.524515, -95.010647	None	0.78 AC; 636.00 CY Roadway Fill; 315.00 CY Excavation	None

Note: Excavated areas of Wetland D are not depicted on this cross section.



ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

CSJ: 0389-06-088

- Project Boundary
- Existing Pavement
- Proposed Pavement
- Roadway Fill
- Excavation

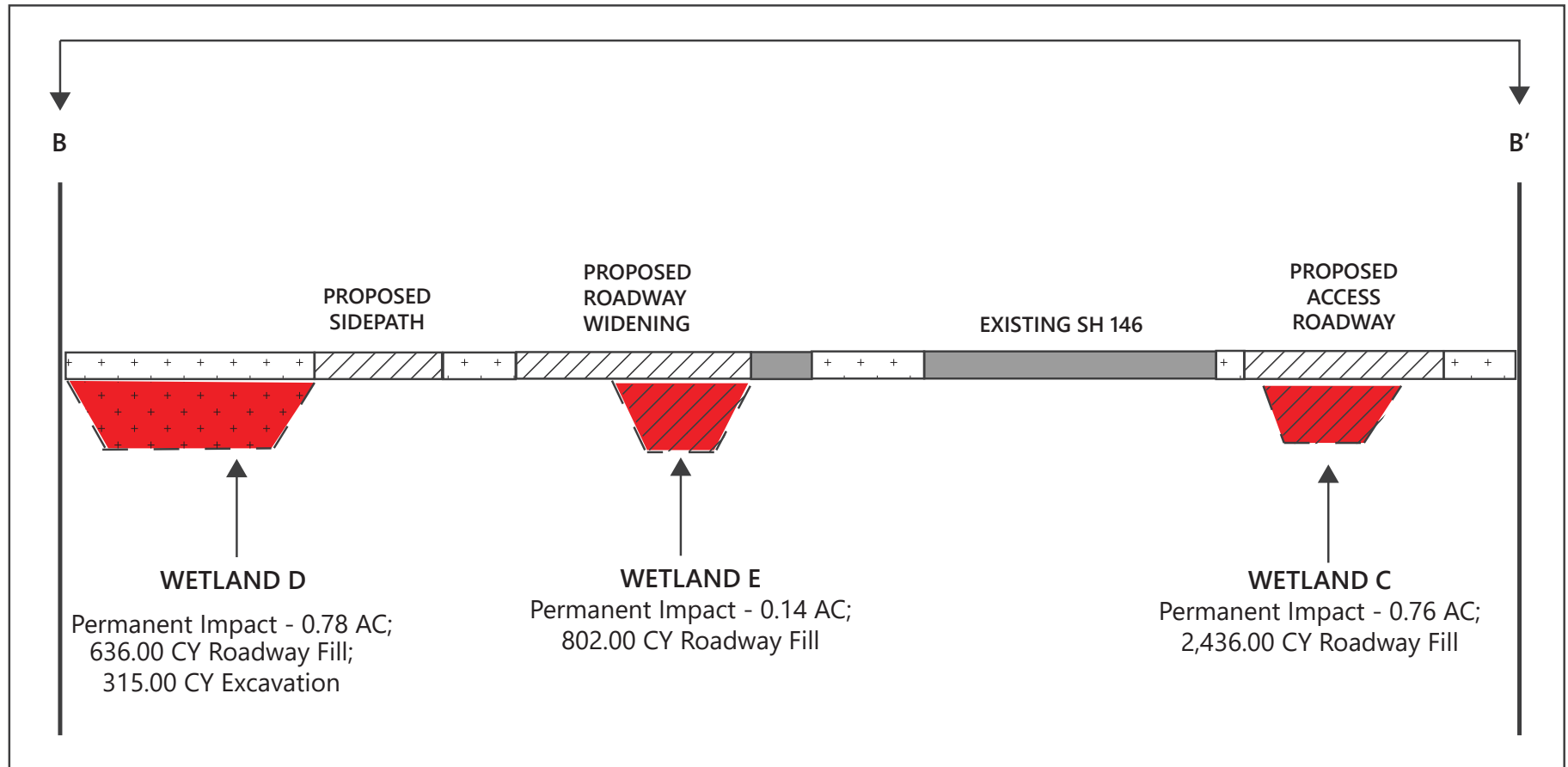
WOTUS Impacts

- Permanent Impact
- Temporary Impact
- Avoided Impact
- Existing Culvert

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CROSS SECTION VIEW

A1 - A1'



CROSSING 3				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland C	29.525637, -95.010688	None	0.76 AC; 2,436.00 CY Roadway Fill	None

Note: Excavated areas of Wetland D are not depicted on this cross section.

CROSSING 4				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland D	29.524515, -95.010647	None	0.78 AC; 636.00 CY Roadway Fill; 315.00 CY Excavation	None

CROSSING 5				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland E	29.523283, -95.009670	None	0.14 AC; 802.00 CY Roadway Fill	None



ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

CSJ: 0389-06-088

- Project Boundary
- Existing Pavement
- Proposed Pavement
- Roadway Fill
- Excavation

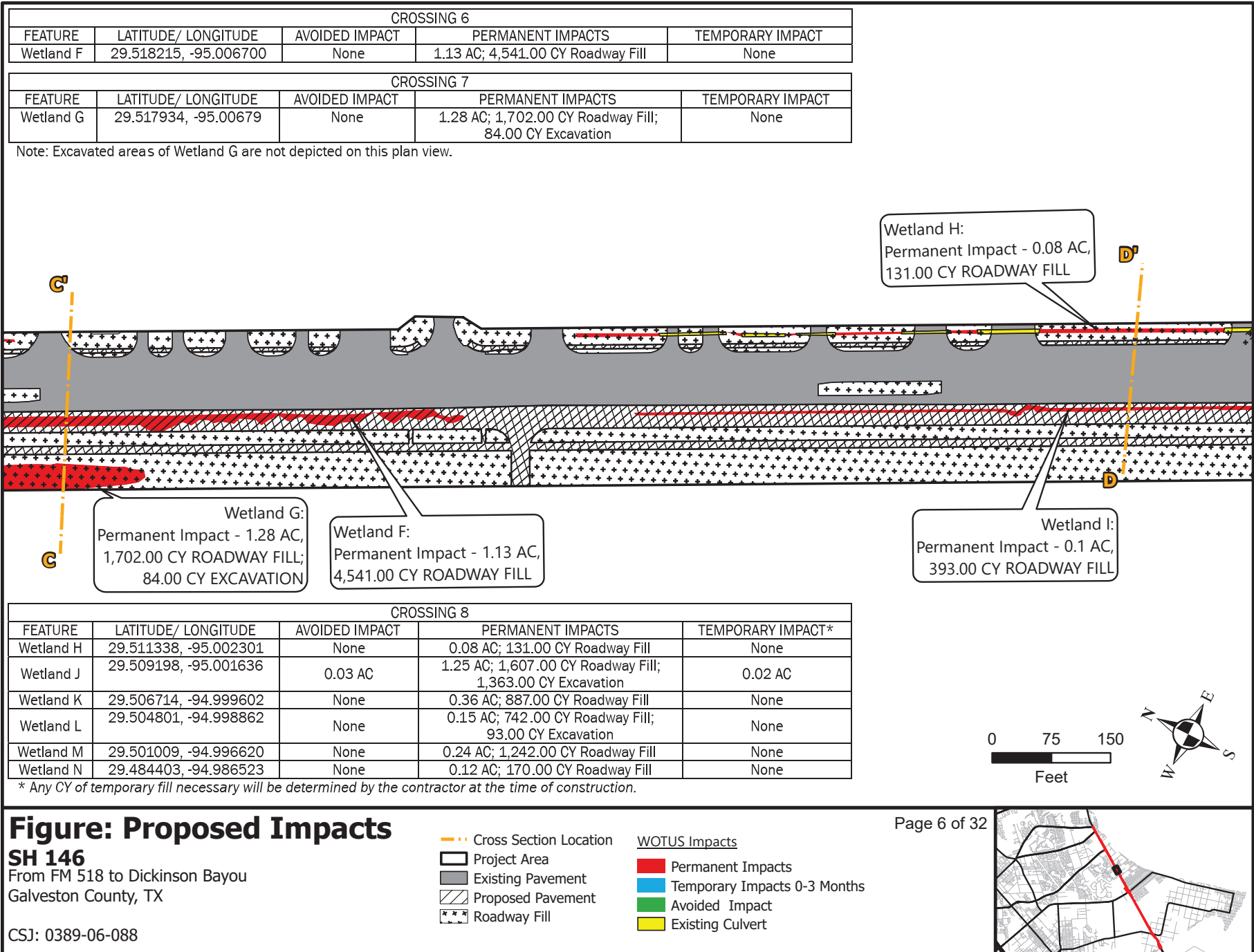
WOTUS Impacts

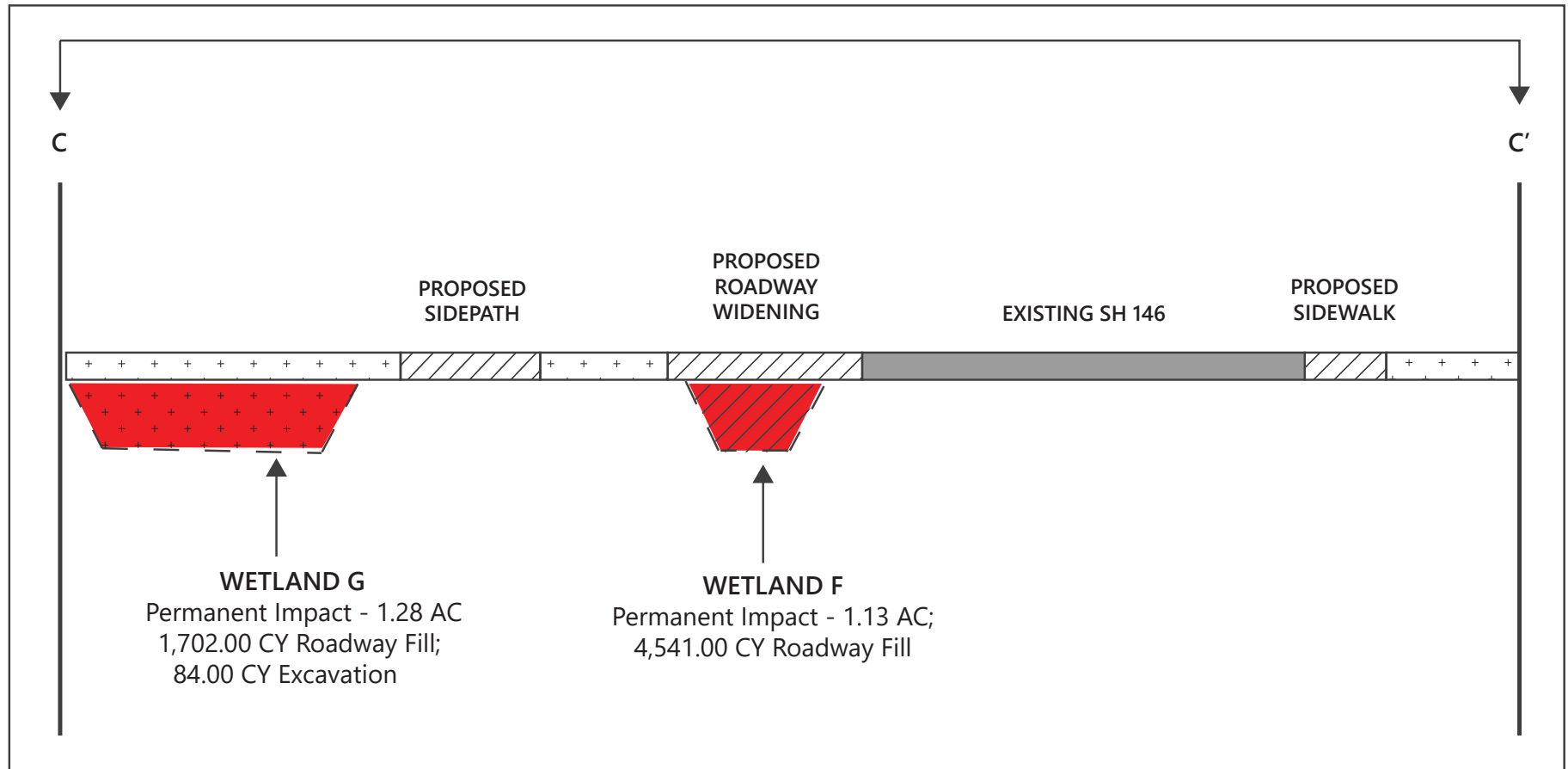
- Permanent Impact
- Temporary Impact
- Avoided Impact
- Existing Culvert

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CROSS SECTION VIEW

B - B'





CROSSING 6				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland F	29.518215, -95.006700	None	1.13 AC; 4,541.00 CY Roadway Fill	None

CROSSING 7				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland G	29.517934, -95.00679	None	1.28 AC; 1,702.00 CY Roadway Fill; 84.00 CY Excavation	None

Note: Excavated areas of Wetland G are not depicted on this cross section.

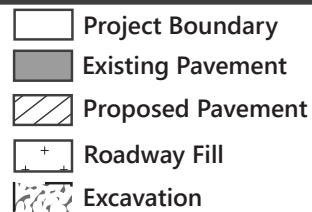


ILLUSTRATION NOT TO SCALE

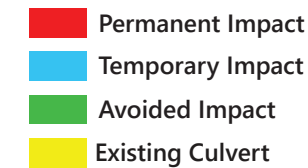
Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
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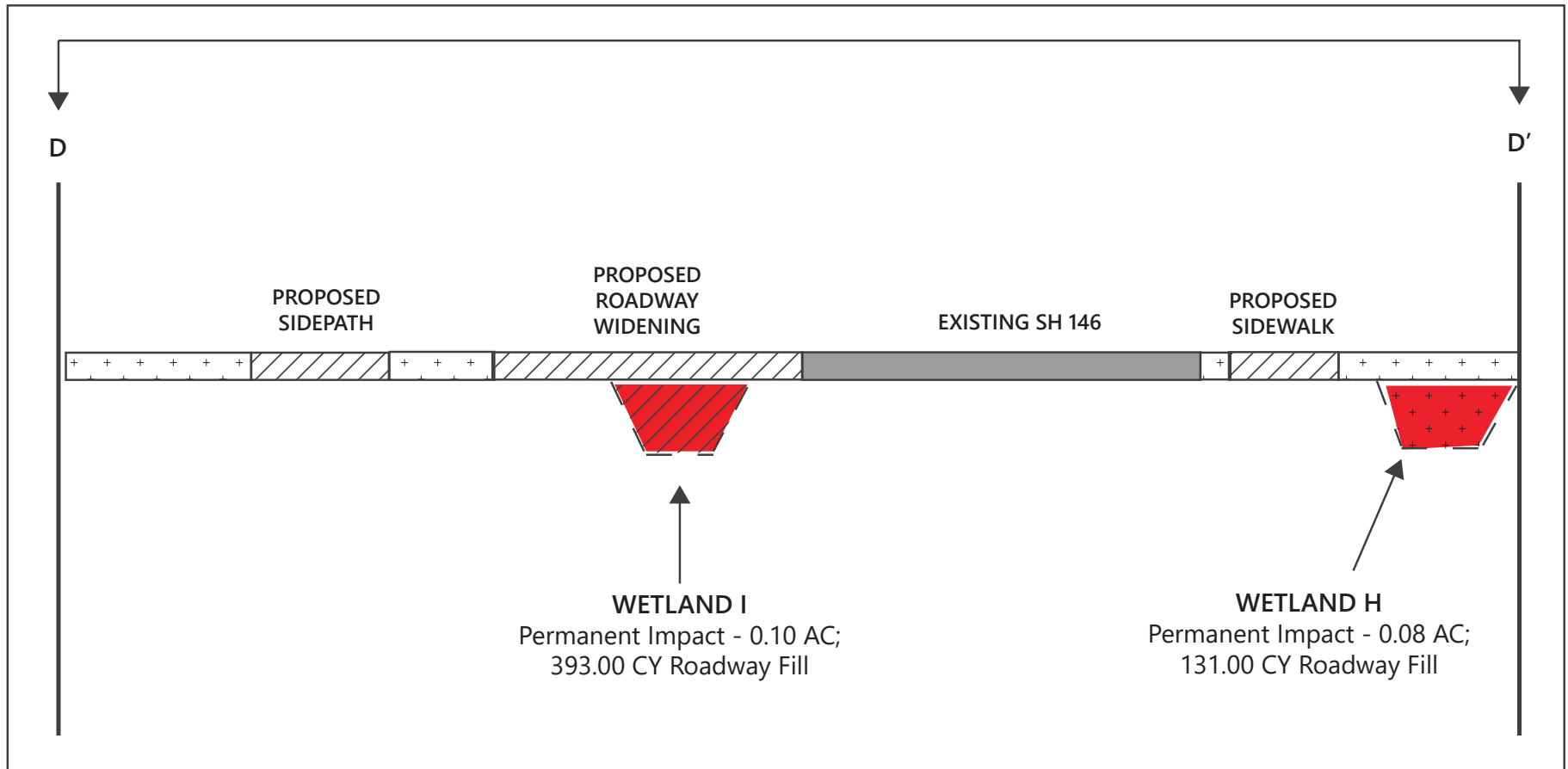
WOTUS Impacts



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CROSS SECTION VIEW

C - C'



CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 1,607.00 CY Roadway Fill; 1,363.00 CY Excavation	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 742.00 CY Roadway Fill; 93.00 CY Excavation	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 9				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland I	29.511587, -95.002801	None	0.10 AC; 393.00 CY Roadway Fill	None

Note: Only Wetland H from Crossing 8 is depicted

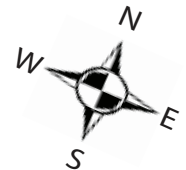
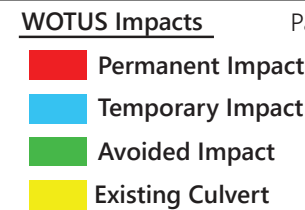
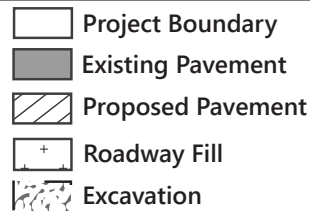


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

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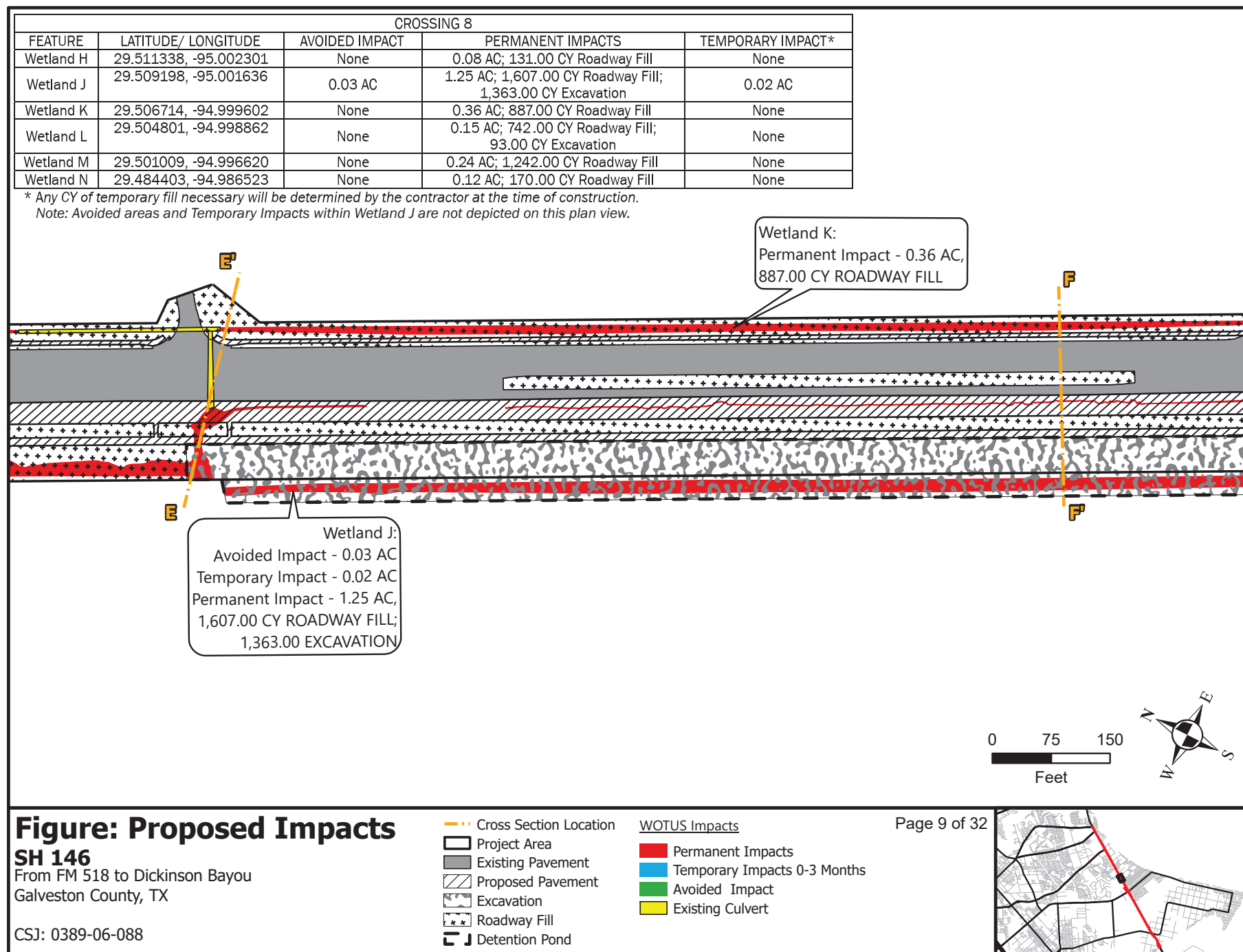
CSJ: 0389-06-088

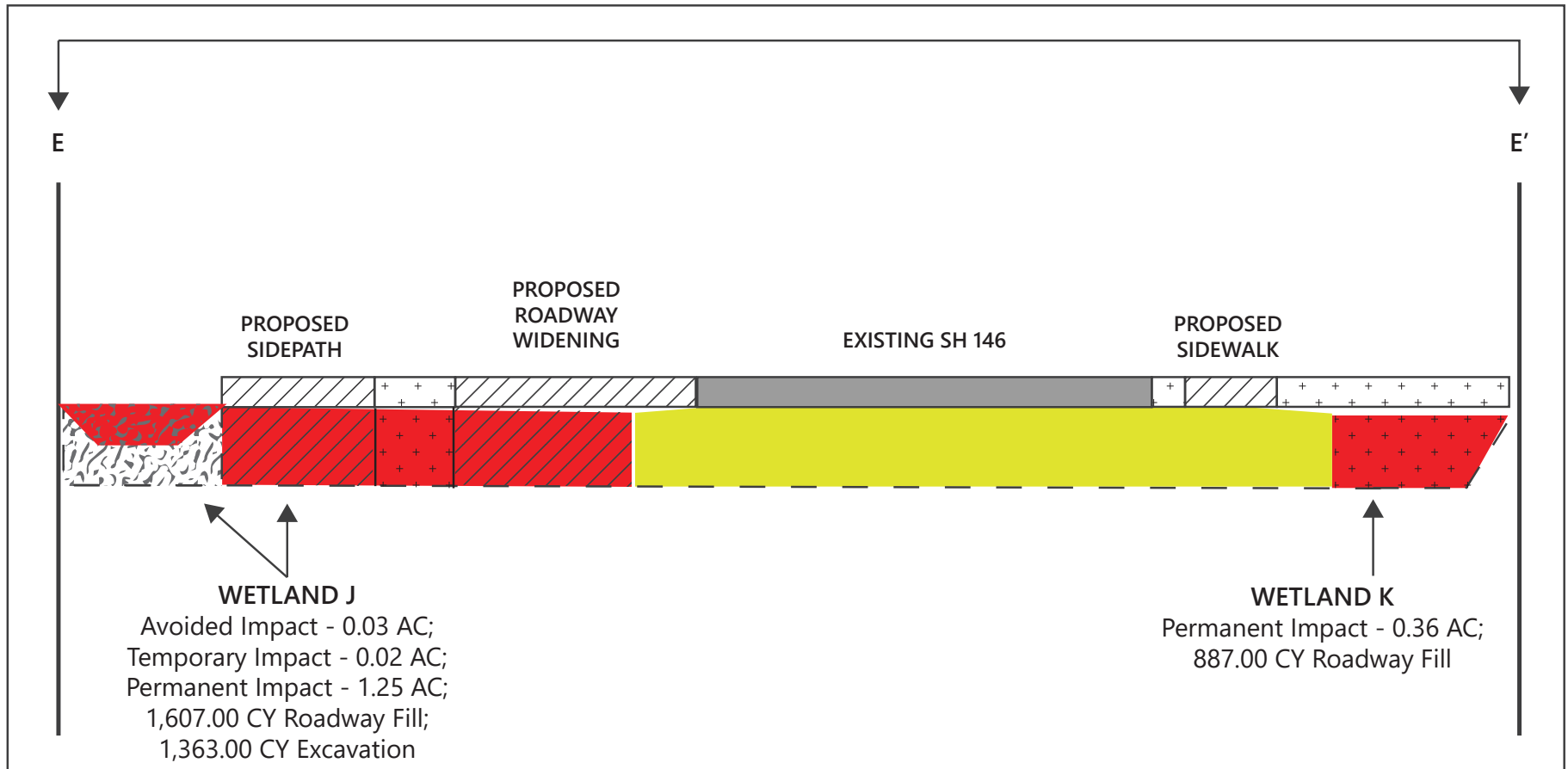


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CROSS SECTION VIEW

D - D'





CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 1,607.00 CY Roadway Fill; 1,363.00 CY Excavation	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 742.00 CY Roadway Fill; 93.00 CY Excavation	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetlands J and K from Crossing 8 is depicted;
 Avoided areas and Temporary Impacts within Wetland J are not depicted in
 this cross section.

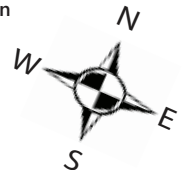
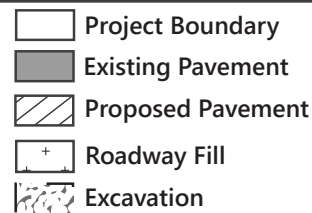


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Figure 1: Proposed Impacts SH 146

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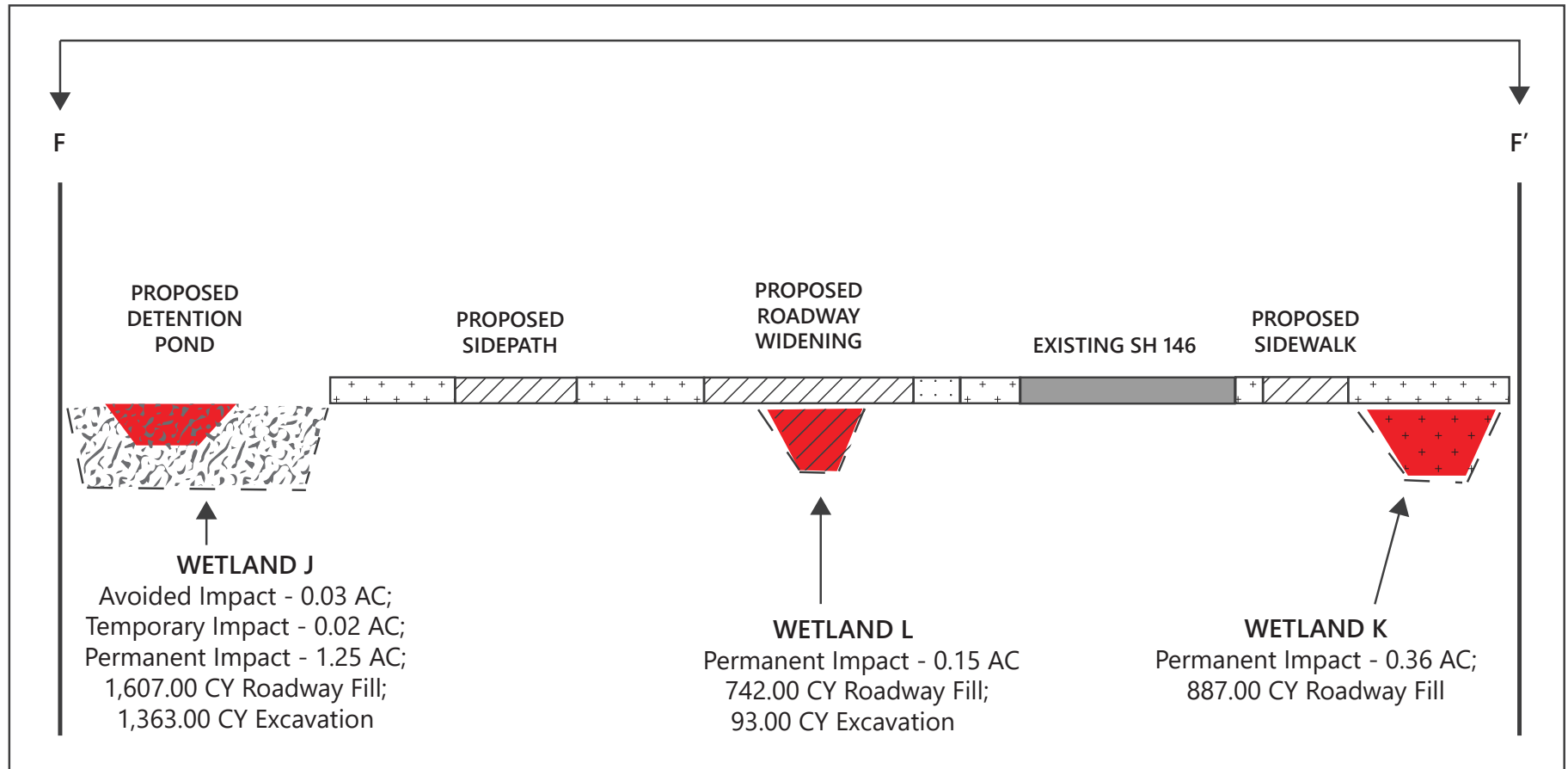
WOTUS Impacts

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CROSS SECTION VIEW

E - E'



CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 1,607.00 CY Roadway Fill; 1,363.00 CY Excavation	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 742.00 CY Roadway Fill; 93.00 CY Excavation	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetlands K and L from Crossing 8 are depicted; 0.03 AC of Wetland J were avoided and 0.02 AC temporary impacts, but not depicted at the location of this cross section.

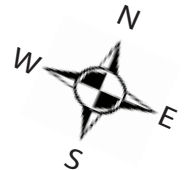
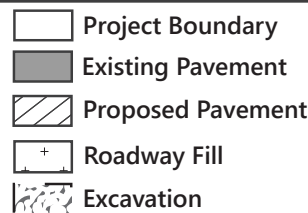


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

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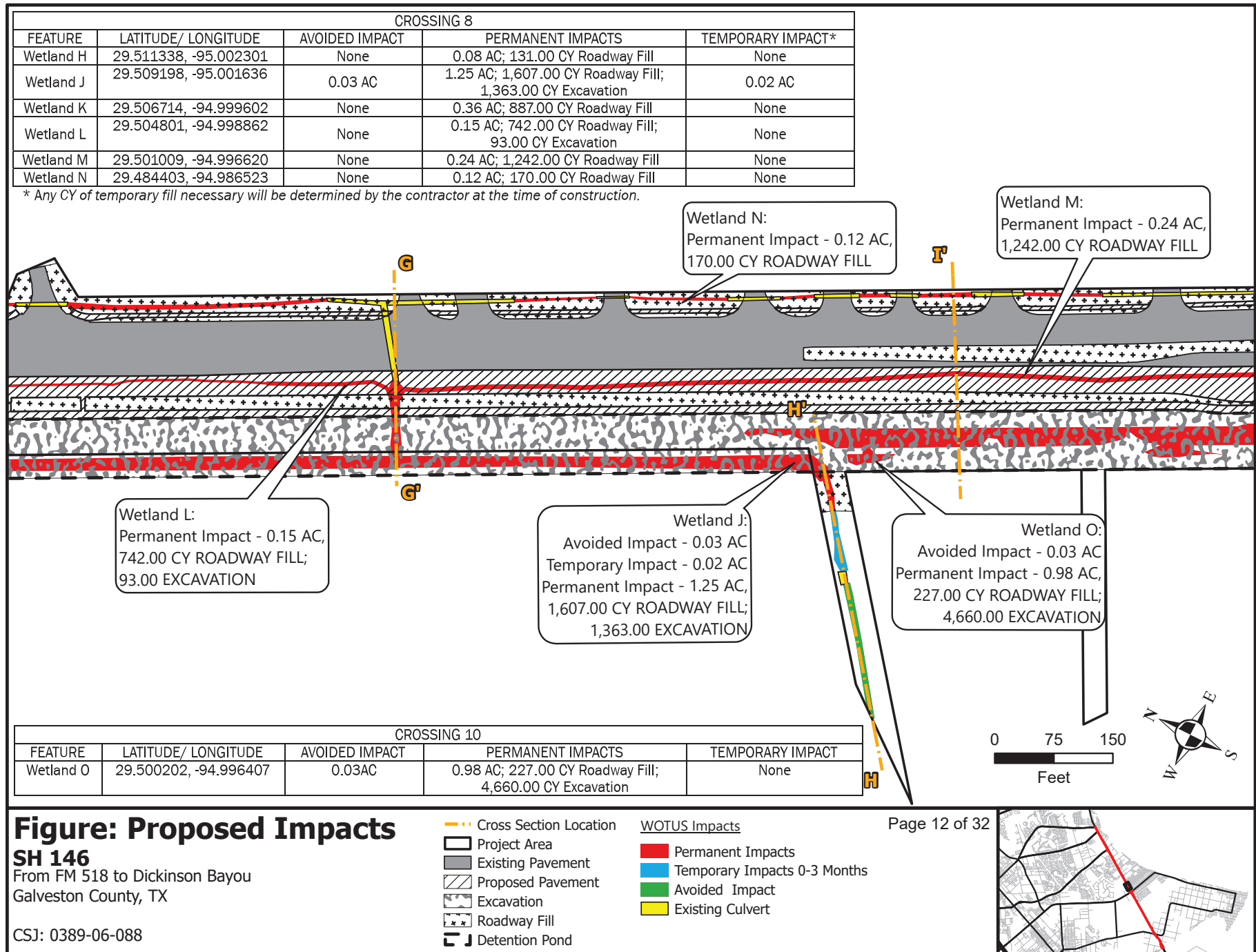
WOTUS Impacts

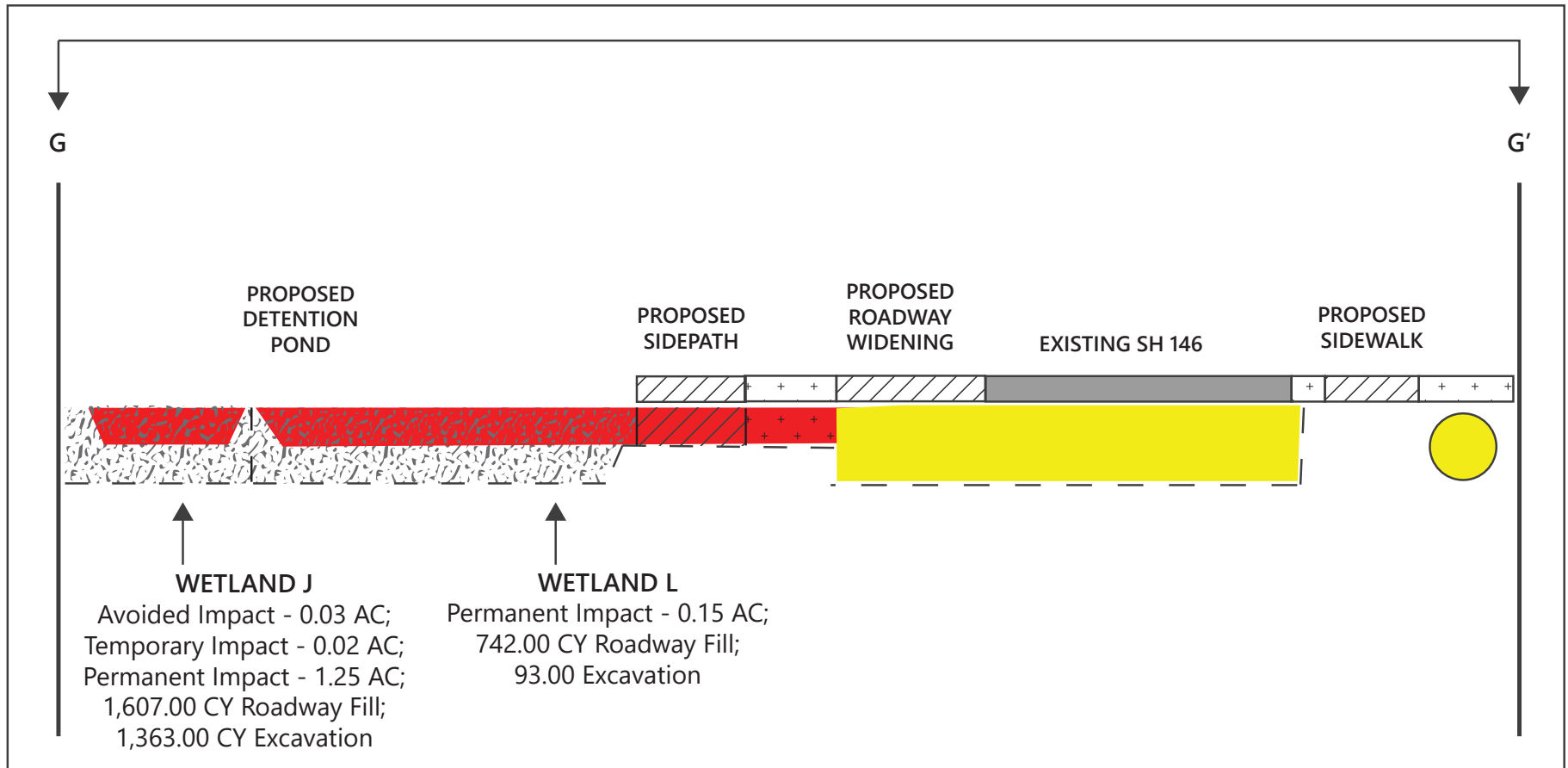
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CROSS SECTION VIEW

F - F'





CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 1,607.00 CY Roadway Fill; 1,363.00 CY Excavation	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 742.00 CY Roadway Fill; 93.00 CY Excavation	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetland L from Crossing 8 is depicted; 0.03 AC of Wetland L were avoided and 0.02 AC temporary impacts, but not depicted at the location of this cross section.

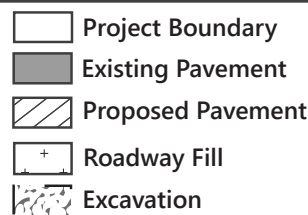


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Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

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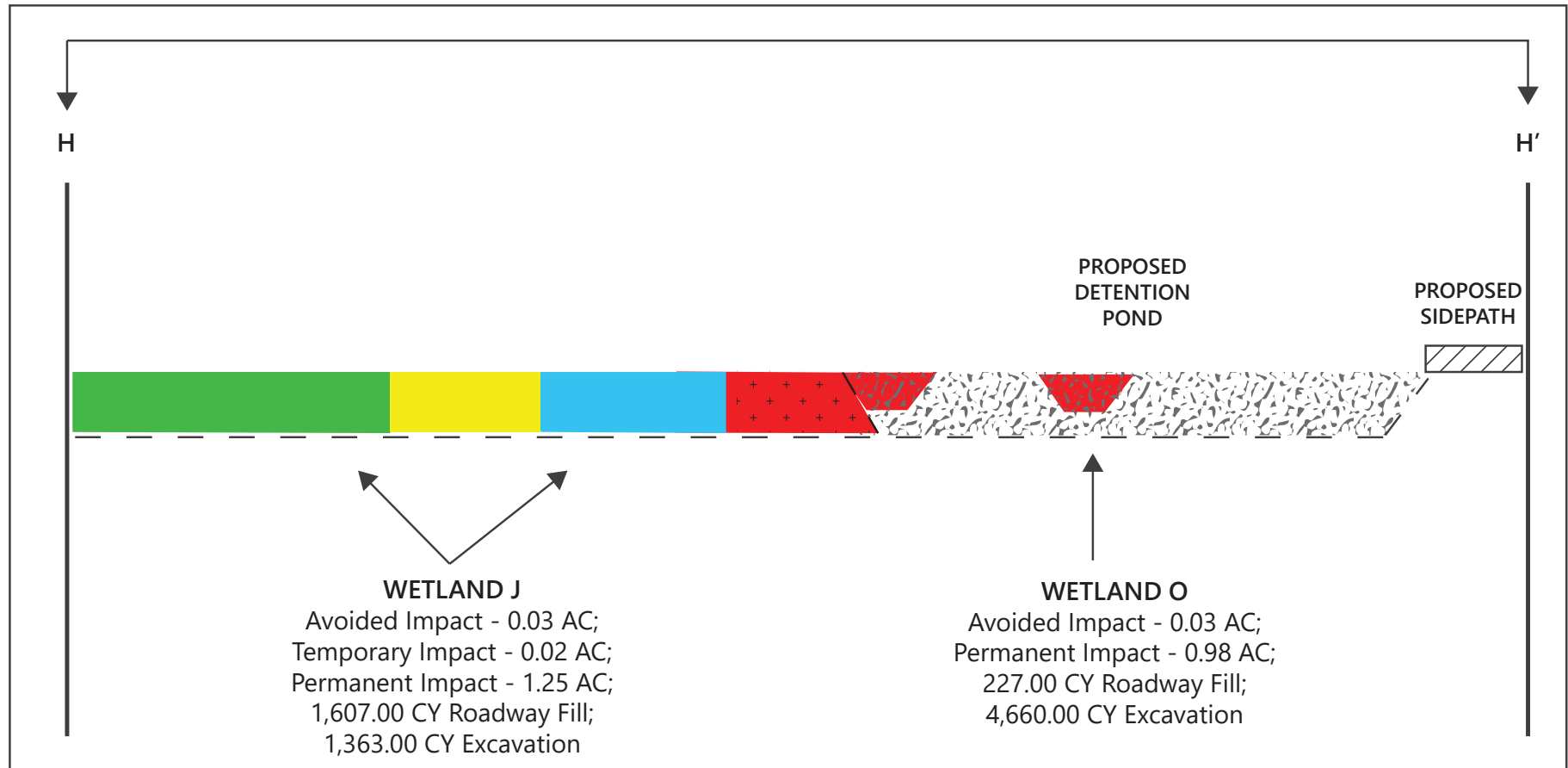
WOTUS Impacts

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CROSS SECTION VIEW

G - G'



CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 1,607.00 CY Roadway Fill; 1,363.00 CY Excavation	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 742.00 CY Roadway Fill; 93.00 CY Excavation	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 10				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland O	29.500202, -94.996407	0.03 AC	0.98 AC; 227.00 CY Roadway Fill; 4,660.00 CY Excavation	None

Note: Only Wetland J from Crossing 8 is depicted;
 Roadway Fill areas of Wetland O are not depicted on this cross section.

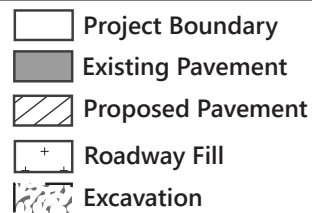


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

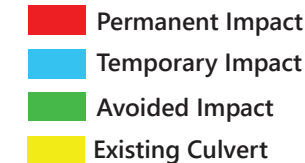
From FM 518 to Dickinson Bayou
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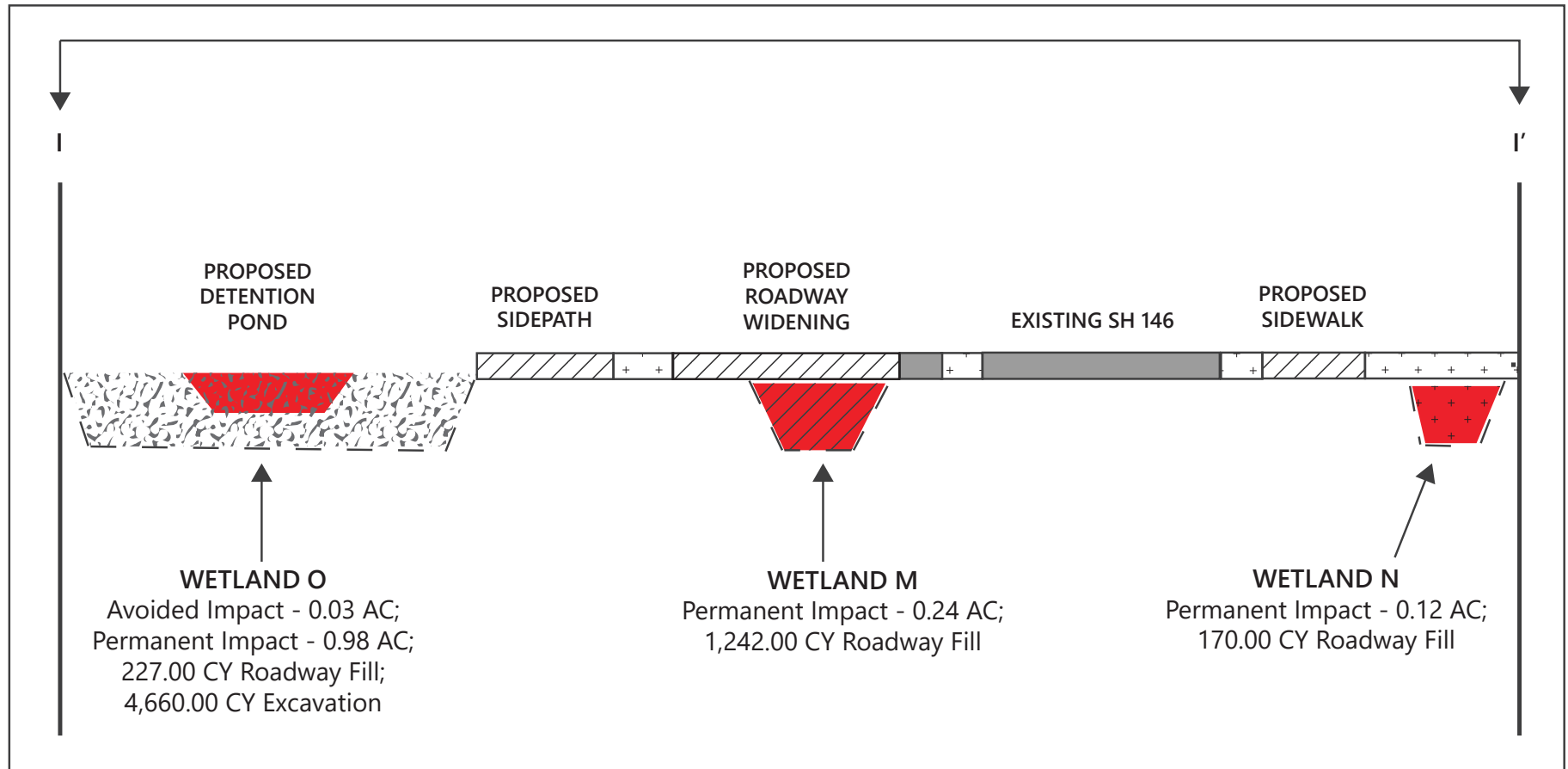
WOTUS Impacts

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CROSS SECTION VIEW

H - H'



CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 2,970.00 CY Roadway Fill	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 835.00 CY Roadway Fill	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 10				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland O	29.500202, -94.996407	0.03AC	0.98 AC; 4,887.00 CY Roadway Fill	None

Note: Only Wetlands M and N from Crossing 8 are depicted;
 Roadway Fill areas of Wetland O are not depicted on this cross section.

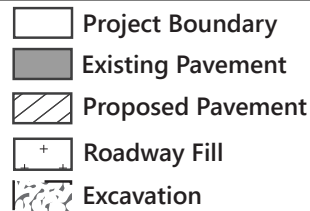


ILLUSTRATION NOT TO SCALE

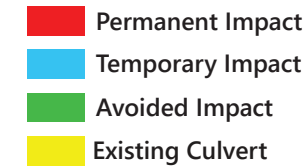
Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
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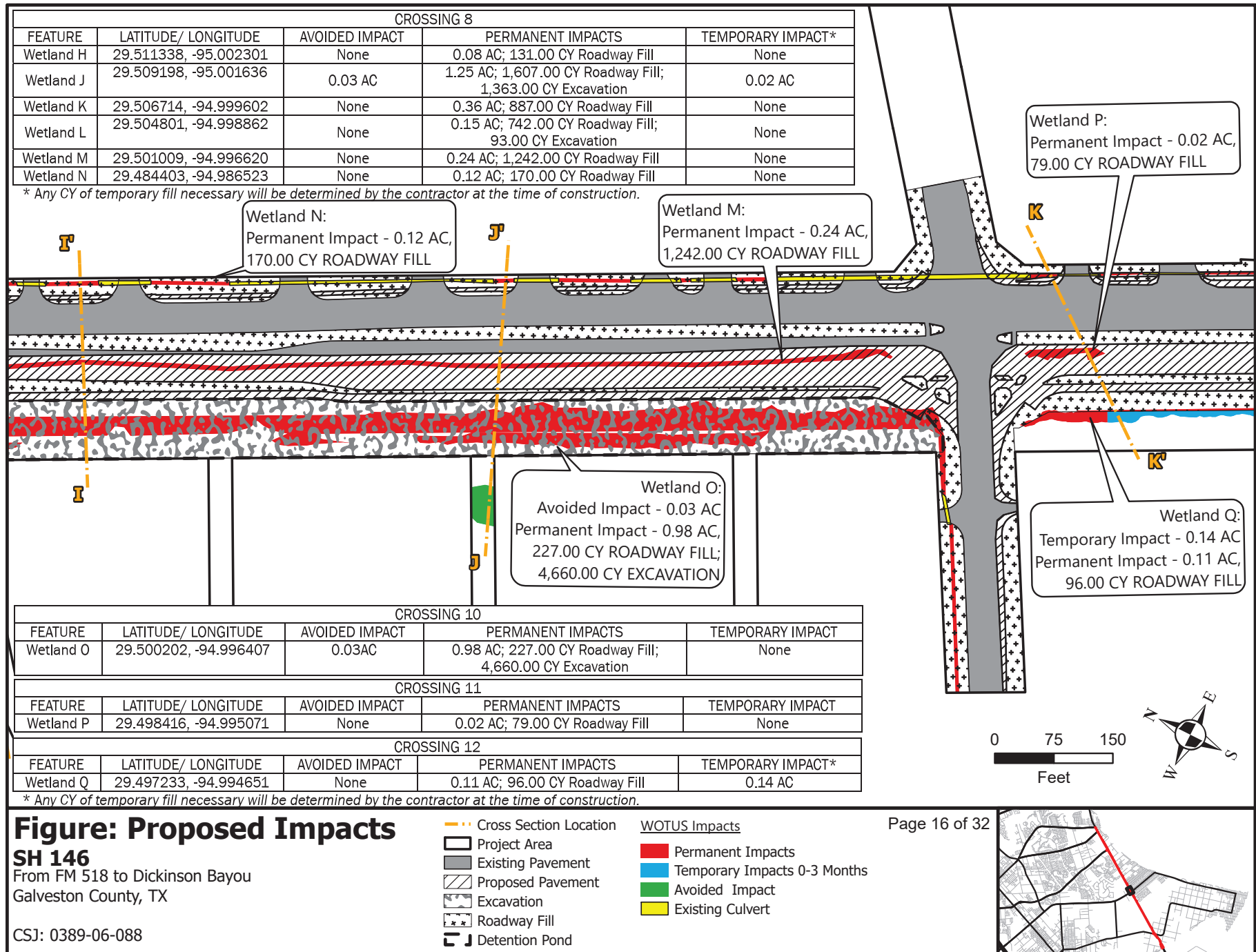
WOTUS Impacts

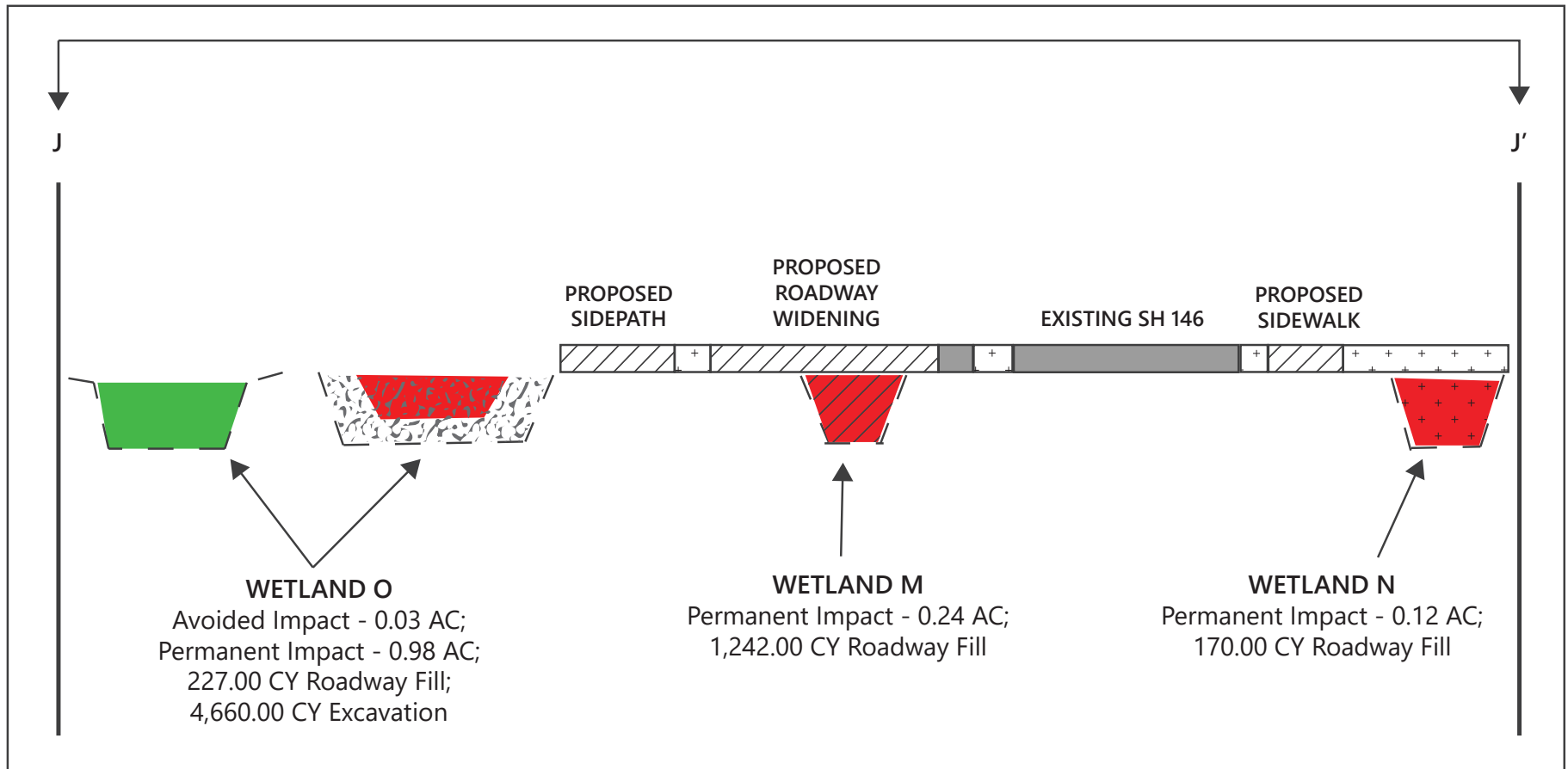


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CROSS SECTION VIEW

I - I'





CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 2,970.00 CY Roadway Fill	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 835.00 CY Roadway Fill	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 10				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland O	29.500202, -94.996407	0.03AC	0.98 AC; 4,887.00 CY Roadway Fill	None

Note: Only Wetlands L and N from Crossing 8 are depicted;
 Roadway Fill areas of Wetland O are not depicted on this cross section.

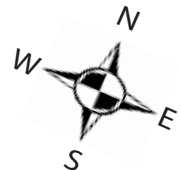
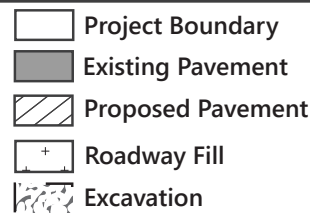


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

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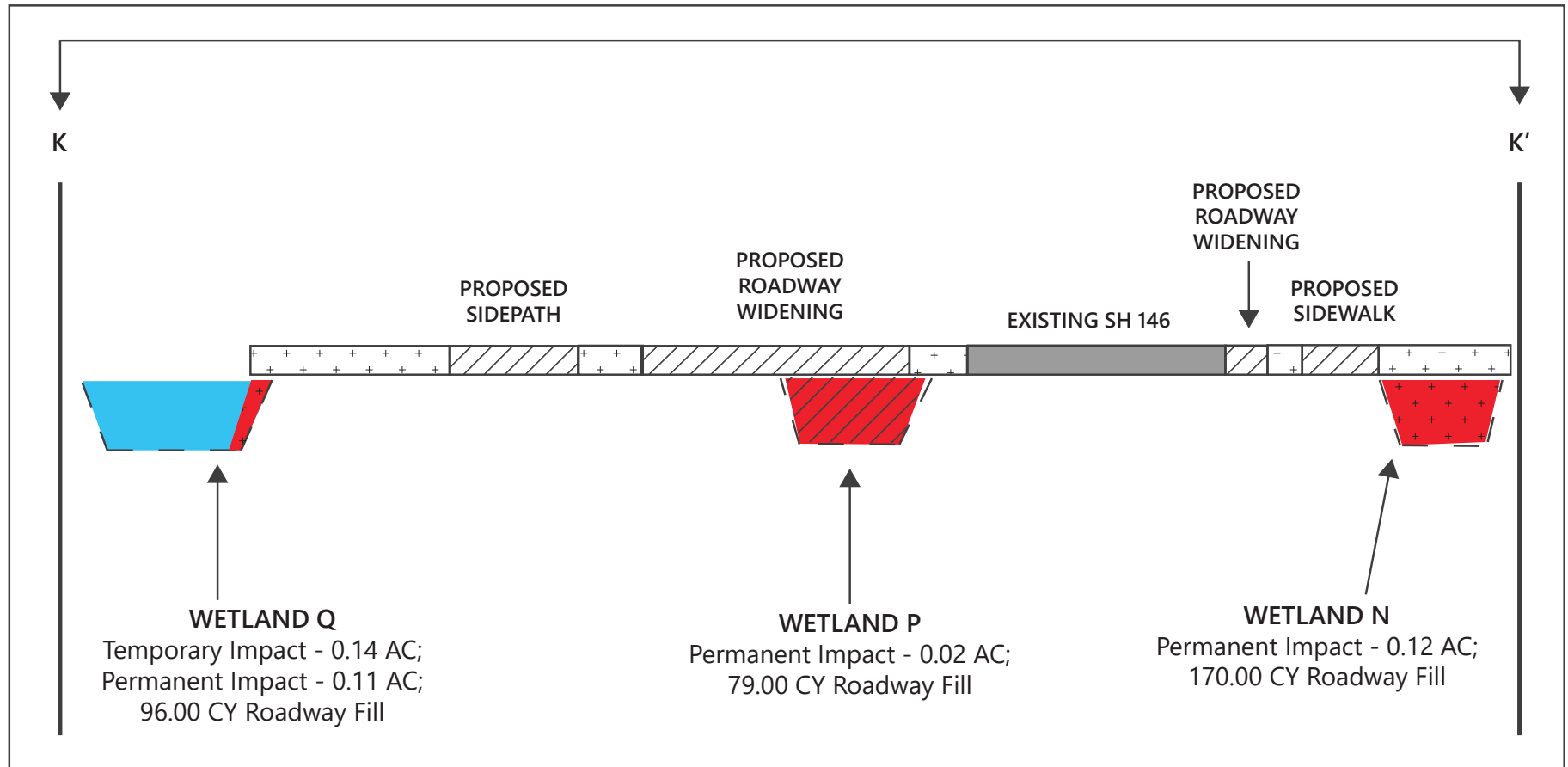
CSJ: 0389-06-088



WOTUS Impacts		Page 17 of 32
	Permanent Impact	
	Temporary Impact	
	Avoided Impact	
	Existing Culvert	

CROSS SECTION VIEW

J - J'



CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 2,970.00 CY Roadway Fill	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 835.00 CY Roadway Fill	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 11				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland P	29.498416, -94.995071	None	0.02 AC; 79.00 CY Roadway Fill	None

CROSSING 12				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland Q	29.497233, -94.994651	None	0.11 AC; 96.00 CY Roadway Fill	0.14 AC

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetland N from Crossing 8 is depicted

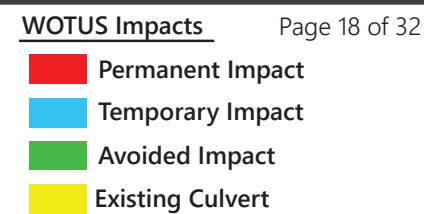
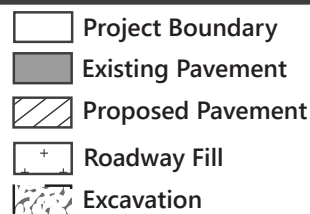


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

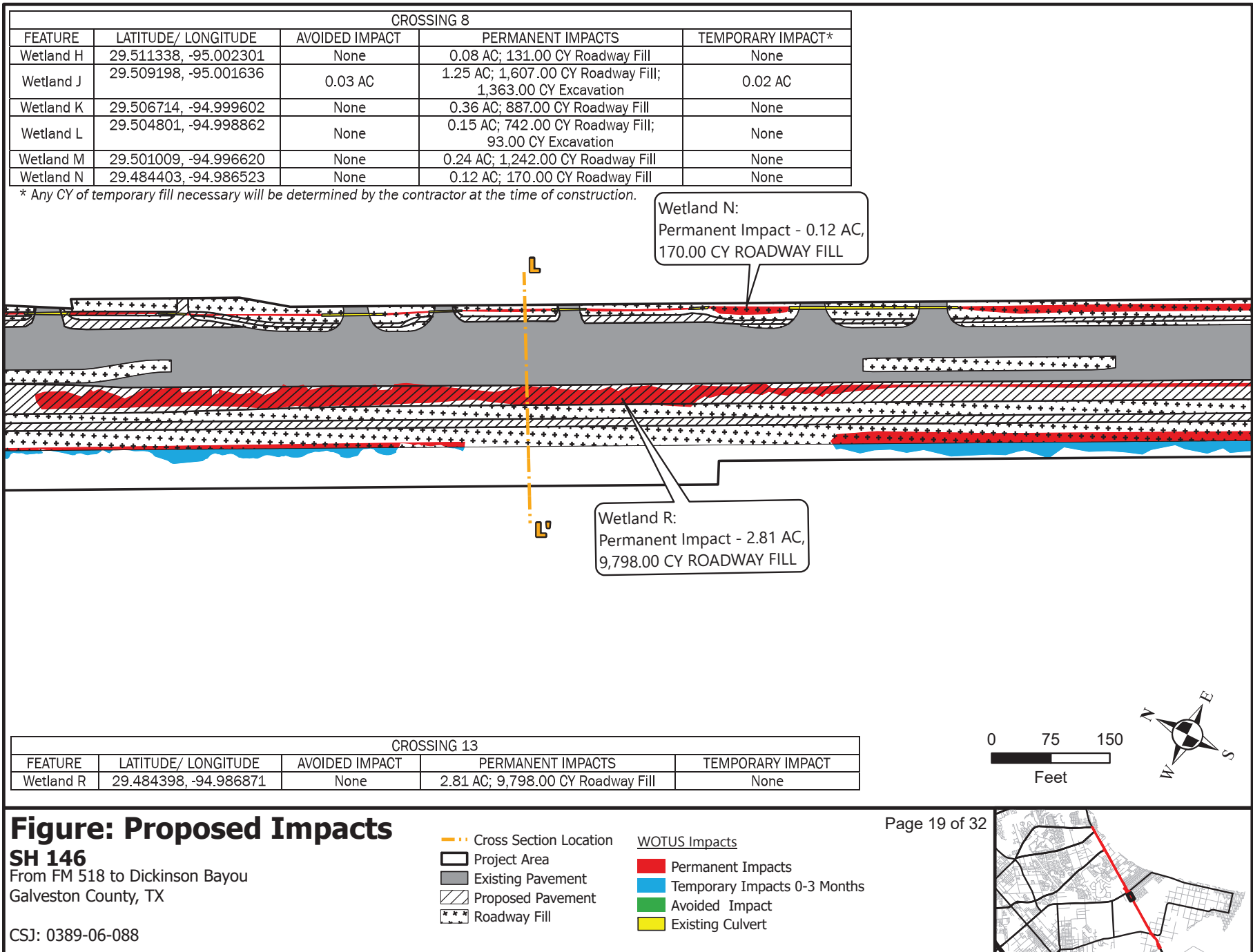
CSJ: 0389-06-088

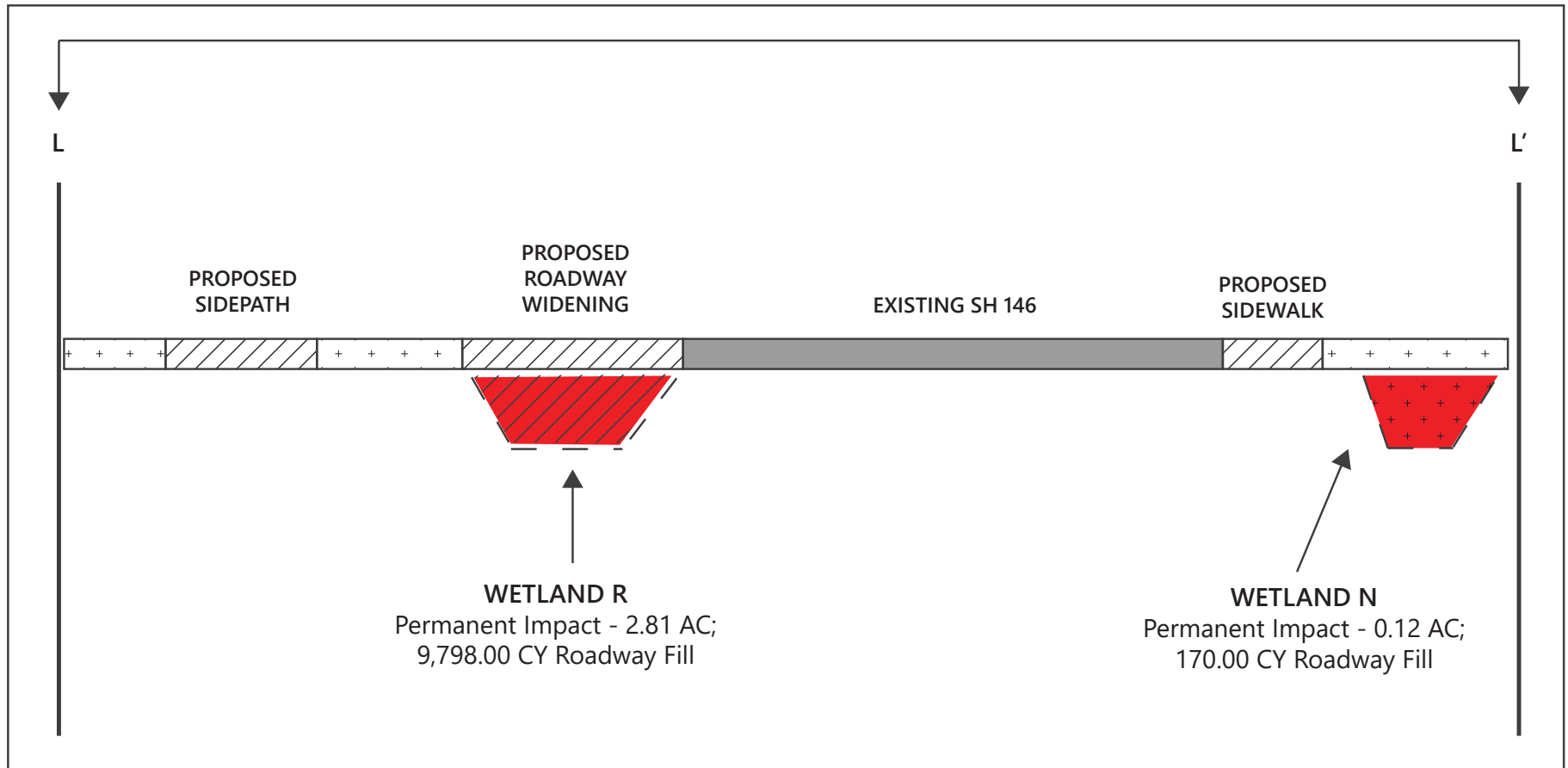


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CROSS SECTION VIEW

K - K'





CROSSING 8				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland H	29.511338, -95.002301	None	0.08 AC; 131.00 CY Roadway Fill	None
Wetland J	29.509198, -95.001636	0.03 AC	1.25 AC; 2,970.00 CY Roadway Fill	0.02 AC
Wetland K	29.506714, -94.999602	None	0.36 AC; 887.00 CY Roadway Fill	None
Wetland L	29.504801, -94.998862	None	0.15 AC; 835.00 CY Roadway Fill	None
Wetland M	29.501009, -94.996620	None	0.24 AC; 1,242.00 CY Roadway Fill	None
Wetland N	29.484403, -94.986523	None	0.12 AC; 170.00 CY Roadway Fill	None

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 13				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland R	29.484398, -94.986871	None	2.81 AC; 9,798.00 CY Roadway Fill	None

Note: Only Wetland N from Crossing 8 is depicted

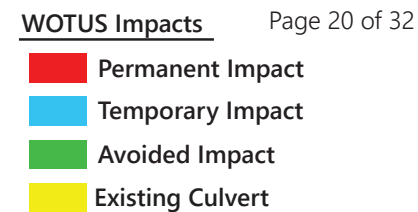
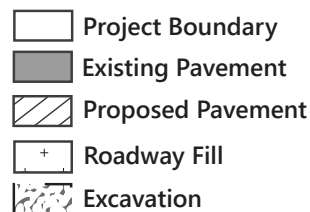


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

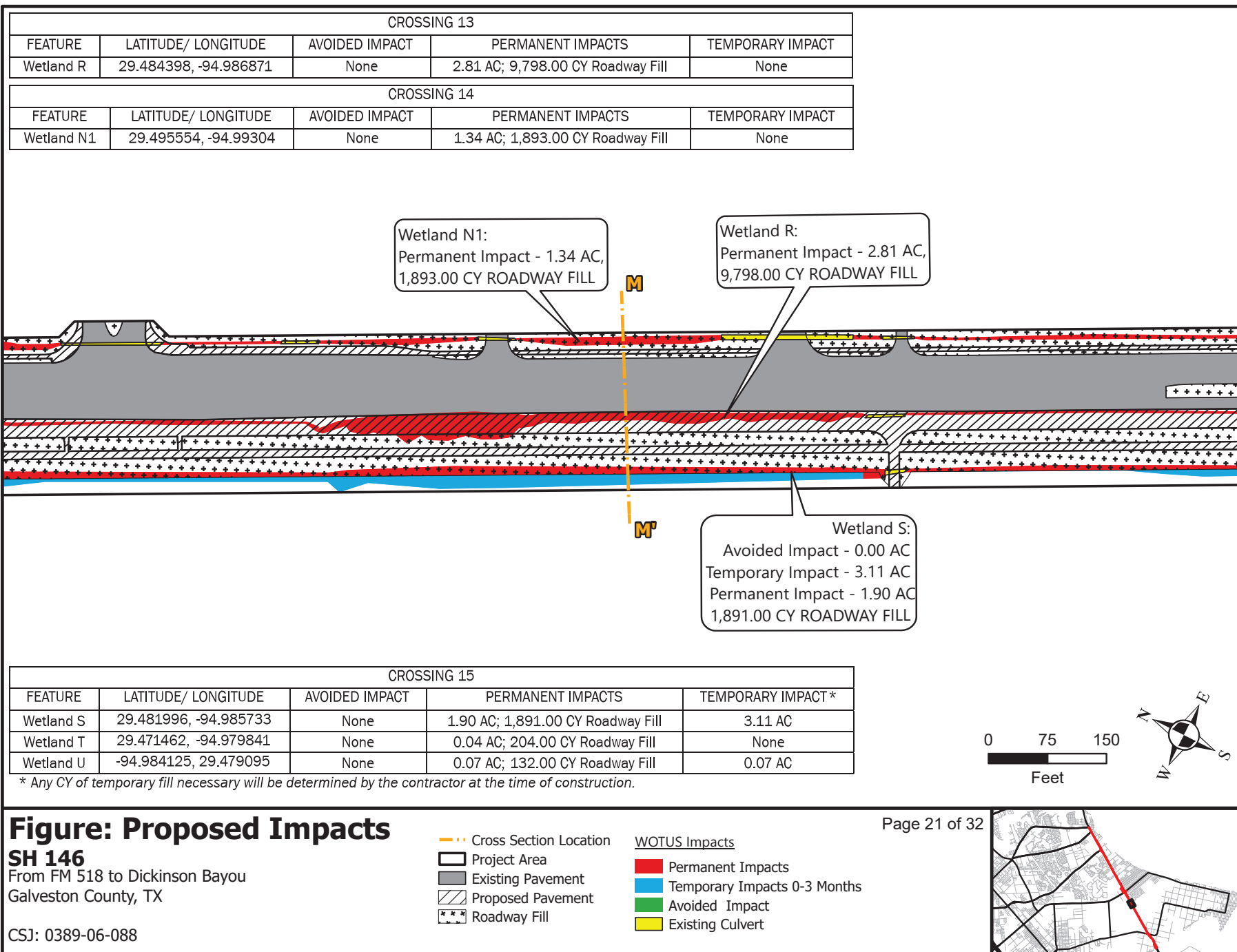
From FM 518 to Dickinson Bayou
Galveston County, TX

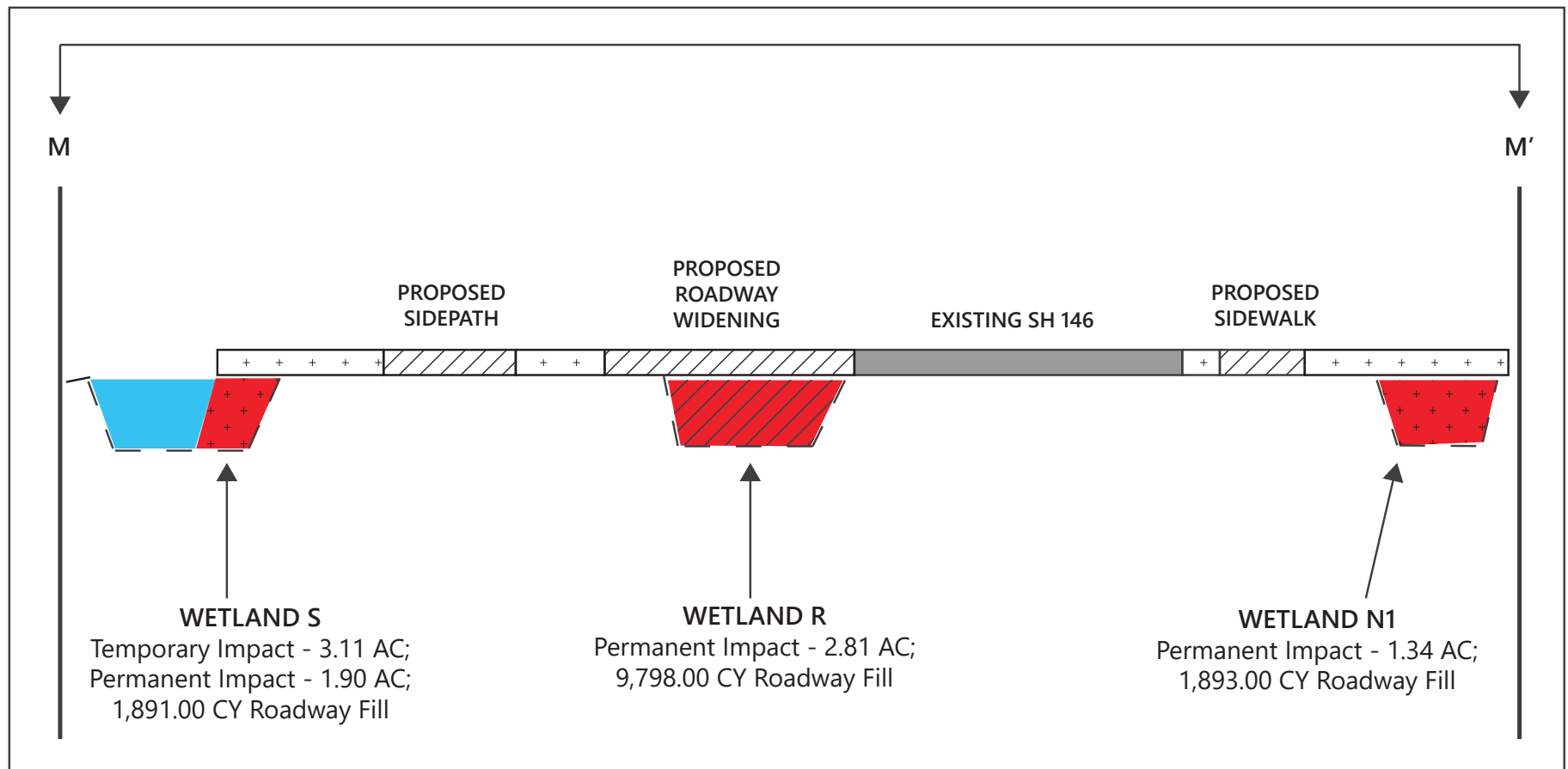
CSJ: 0389-06-088



CROSS SECTION VIEW

L - L'





CROSSING 13				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland R	29.484398, -94.986871	None	2.81 AC; 9,798.00 CY Roadway Fill	None

Note: Only Wetland S from Crossing 15 is depicted

CROSSING 14				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland N1	29.495554, -94.99304	None	1.34 AC; 1,893.00 CY Roadway Fill	None

CROSSING 15				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland S	29.481996, -94.985733	None	1.90 AC; 1,891.00 CY Roadway Fill	3.11 AC
Wetland T	29.471462, -94.979841	None	0.04 AC; 204.00 CY Roadway Fill	None
Wetland U	-94.984125, 29.479095	None	0.07 AC; 132.00 CY Roadway Fill	0.07 AC

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

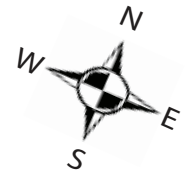
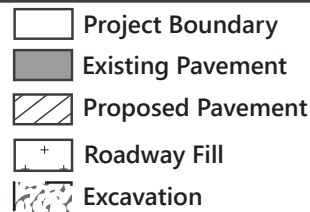


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

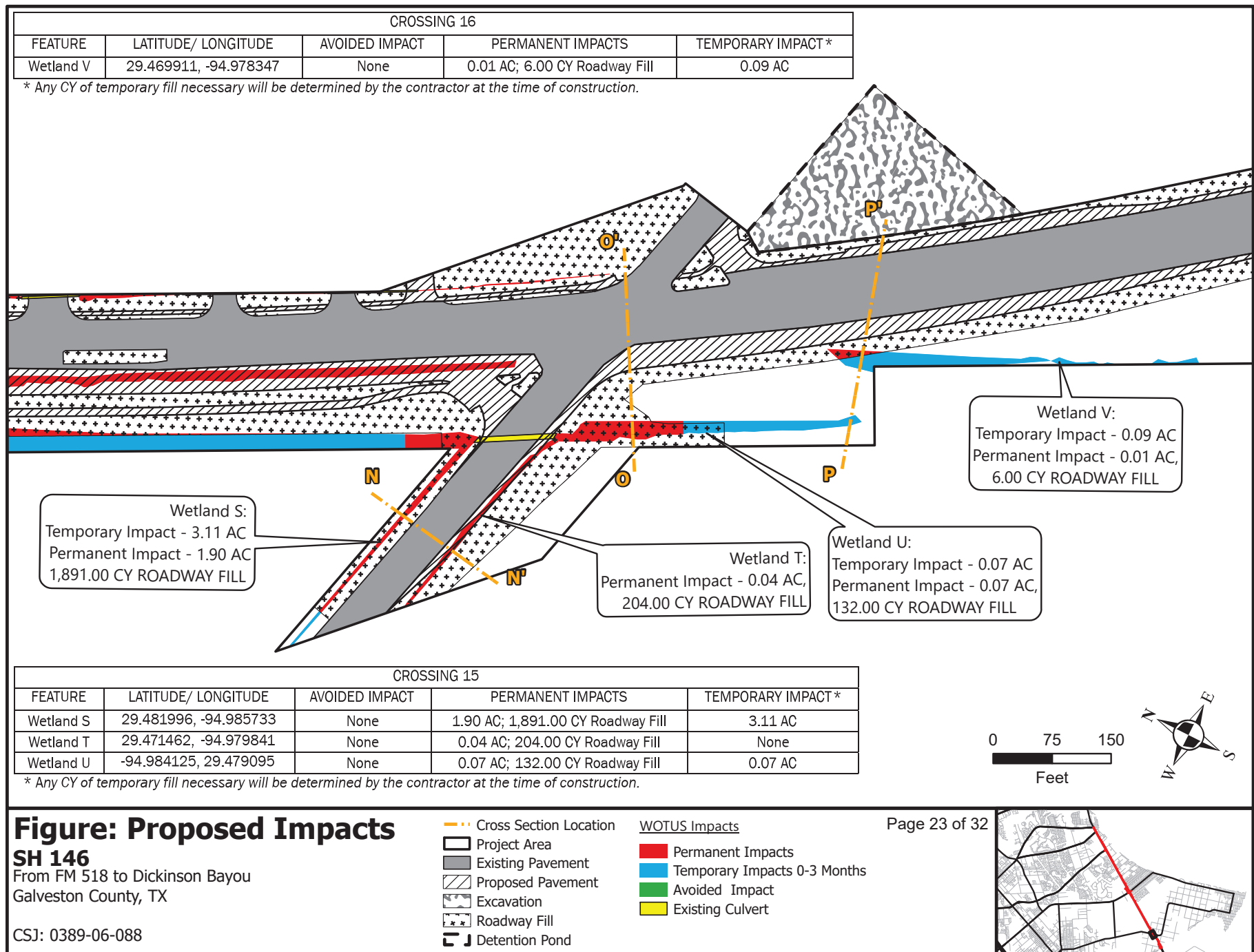
CSJ: 0389-06-088

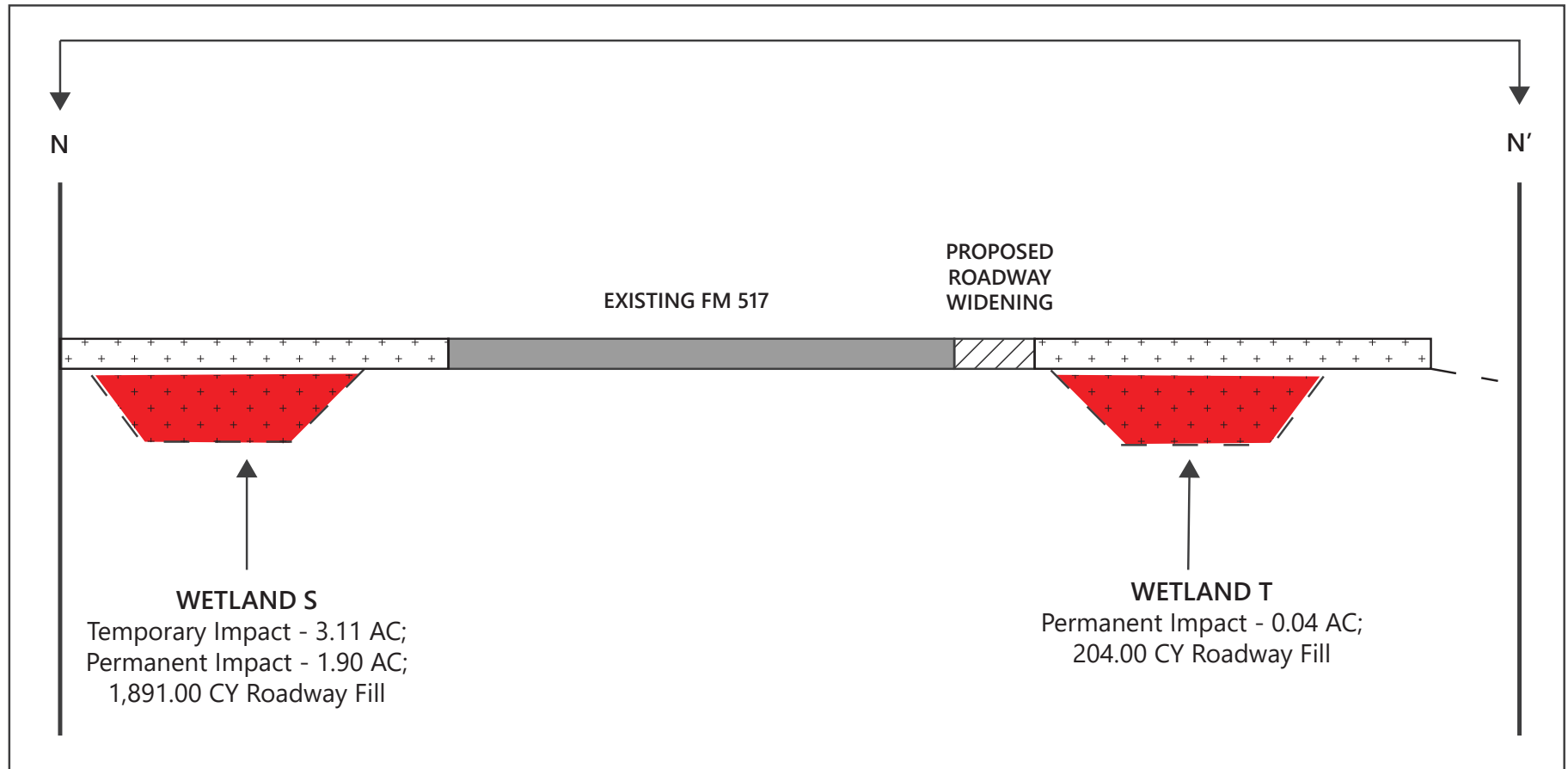


WOTUS Impacts		Page 22 of 32
	Permanent Impact	
	Temporary Impact	
	Avoided Impact	
	Existing Culvert	

CROSS SECTION VIEW

M - M'





WETLAND S
 Temporary Impact - 3.11 AC;
 Permanent Impact - 1.90 AC;
 1,891.00 CY Roadway Fill

WETLAND T
 Permanent Impact - 0.04 AC;
 204.00 CY Roadway Fill

CROSSING 15				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland S	29.481996, -94.985733	None	1.90 AC; 1,891.00 CY Roadway Fill	3.11 AC
Wetland T	29.471462, -94.979841	None	0.04 AC; 204.00 CY Roadway Fill	None
Wetland U	-94.984125, 29.479095	None	0.07 AC; 132.00 CY Roadway Fill	0.07 AC

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetlands S and T from Crossing 15 are depicted; 3.11 AC of impacts to Wetland S was avoided but are not depicted at the location of this cross section.



ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
 Galveston County, TX

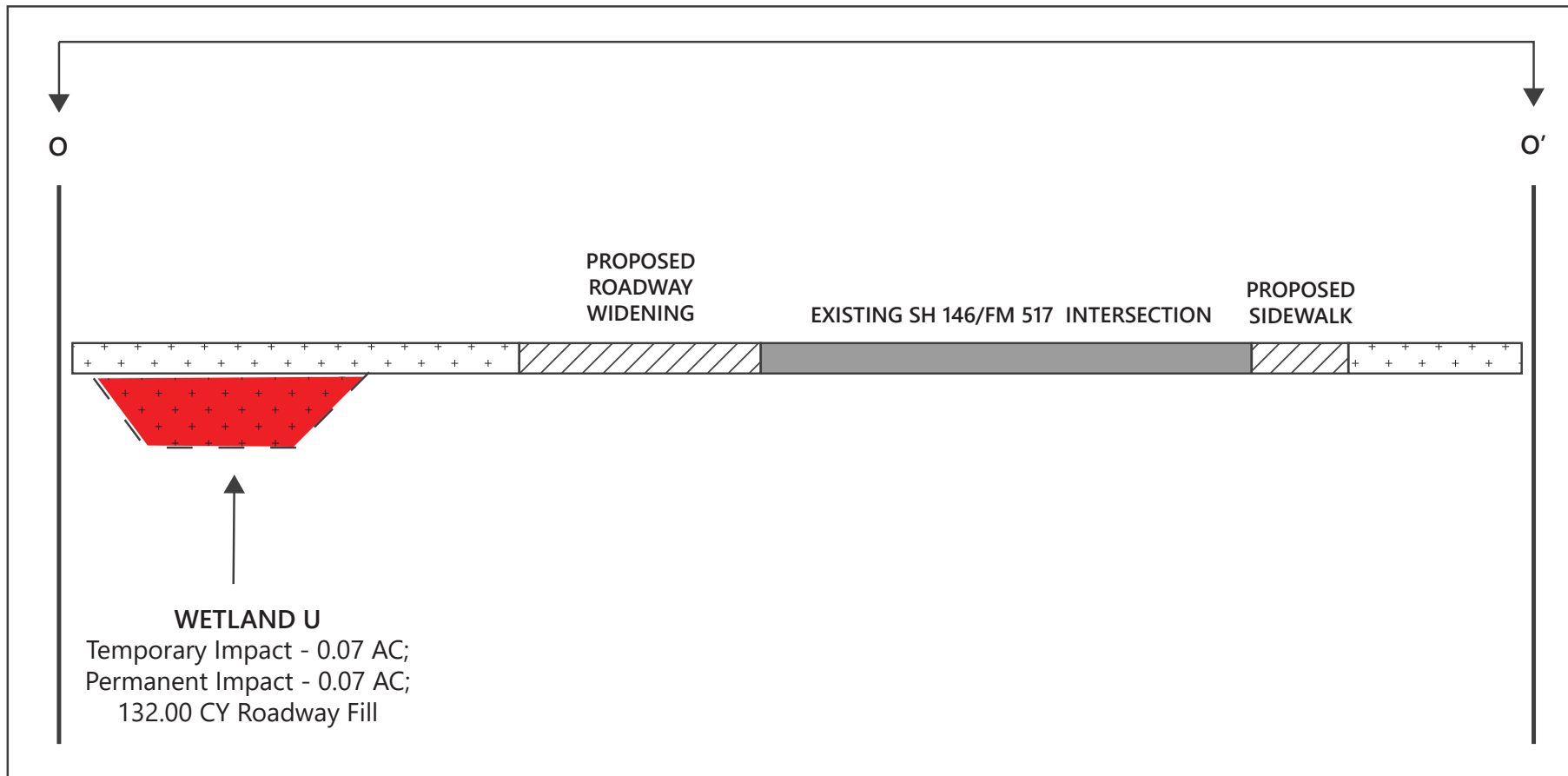
CSJ: 0389-06-088

- Project Boundary
- Existing Pavement
- Proposed Pavement
- Roadway Fill
- Excavation

- WOTUS Impacts Page 24 of 32
- Permanent Impact
 - Temporary Impact
 - Avoided Impact
 - Existing Culvert

CROSS SECTION VIEW

N - N'



CROSSING 15				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland S	29.481996, -94.985733	None	1.90 AC; 1,891.00 CY Roadway Fill	3.11 AC
Wetland T	29.471462, -94.979841	None	0.04 AC; 204.00 CY Roadway Fill	None
Wetland U	-94.984125, 29.479095	None	0.07 AC; 132.00 CY Roadway Fill	0.07 AC

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetland U from Crossing 15 is depicted; 0.07 AC is a temporary impact to Wetland U but is not depicted at the location of this cross section.



ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

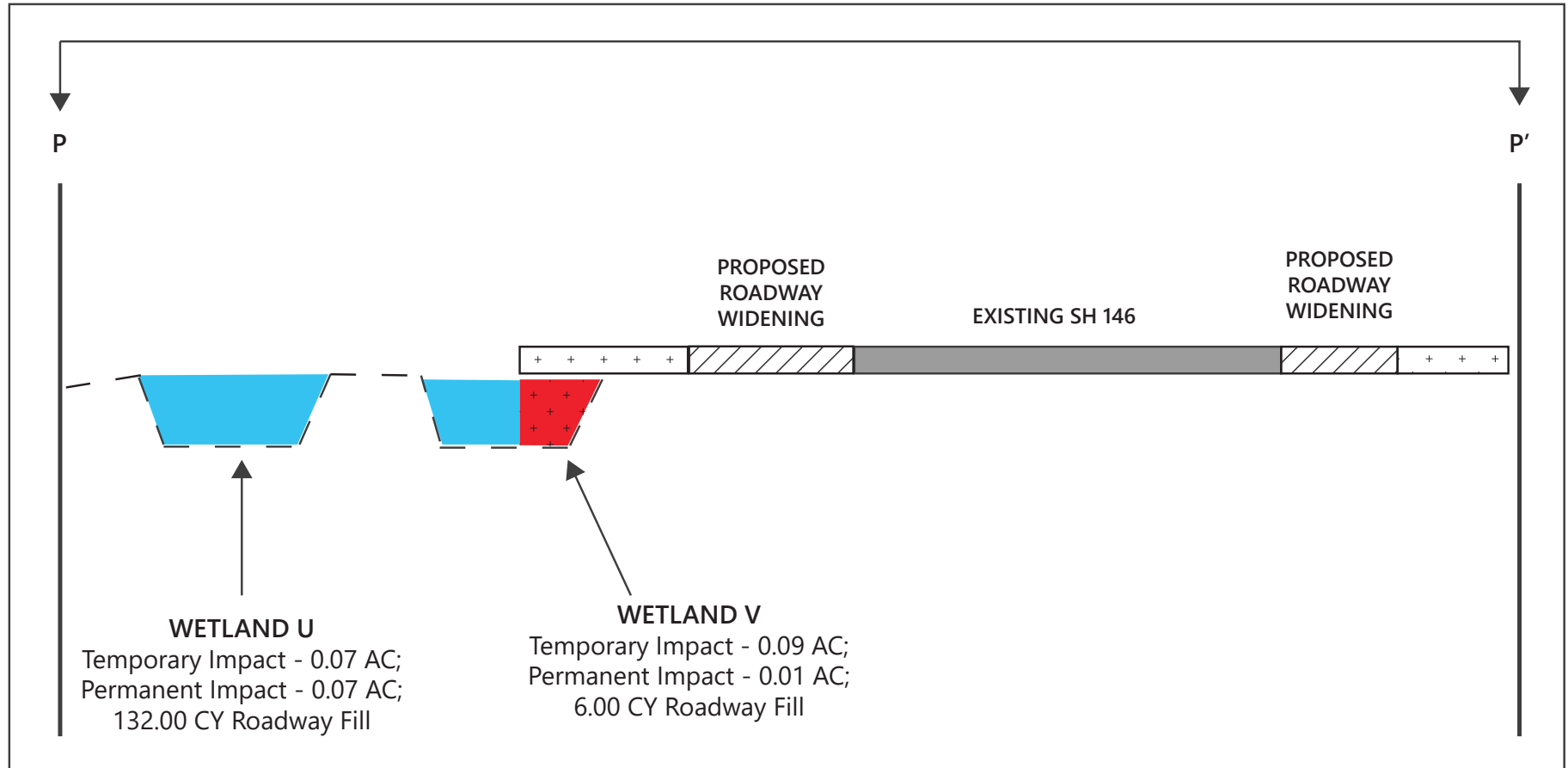
CSJ: 0389-06-088

	Project Boundary
	Existing Pavement
	Proposed Pavement
	Roadway Fill
	Excavation

WOTUS Impacts		Page 25 of 32
	Permanent Impact	
	Temporary Impact	
	Avoided Impact	
	Existing Culvert	

CROSS SECTION VIEW

O - O'



CROSSING 15				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland S	29.481996, -94.985733	None	1.90 AC; 1,891.00 CY Roadway Fill	3.11 AC
Wetland T	29.471462, -94.979841	None	0.04 AC; 204.00 CY Roadway Fill	None
Wetland U	-94.984125, 29.479095	None	0.07 AC; 132.00 CY Roadway Fill	0.07 AC

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 16				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland V	29.469911, -94.978347	None	0.01 AC; 6.00 CY Roadway Fill	0.09 AC

* Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetland U from Crossing 15 is depicted

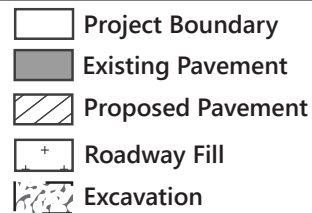


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

CSJ: 0389-06-088



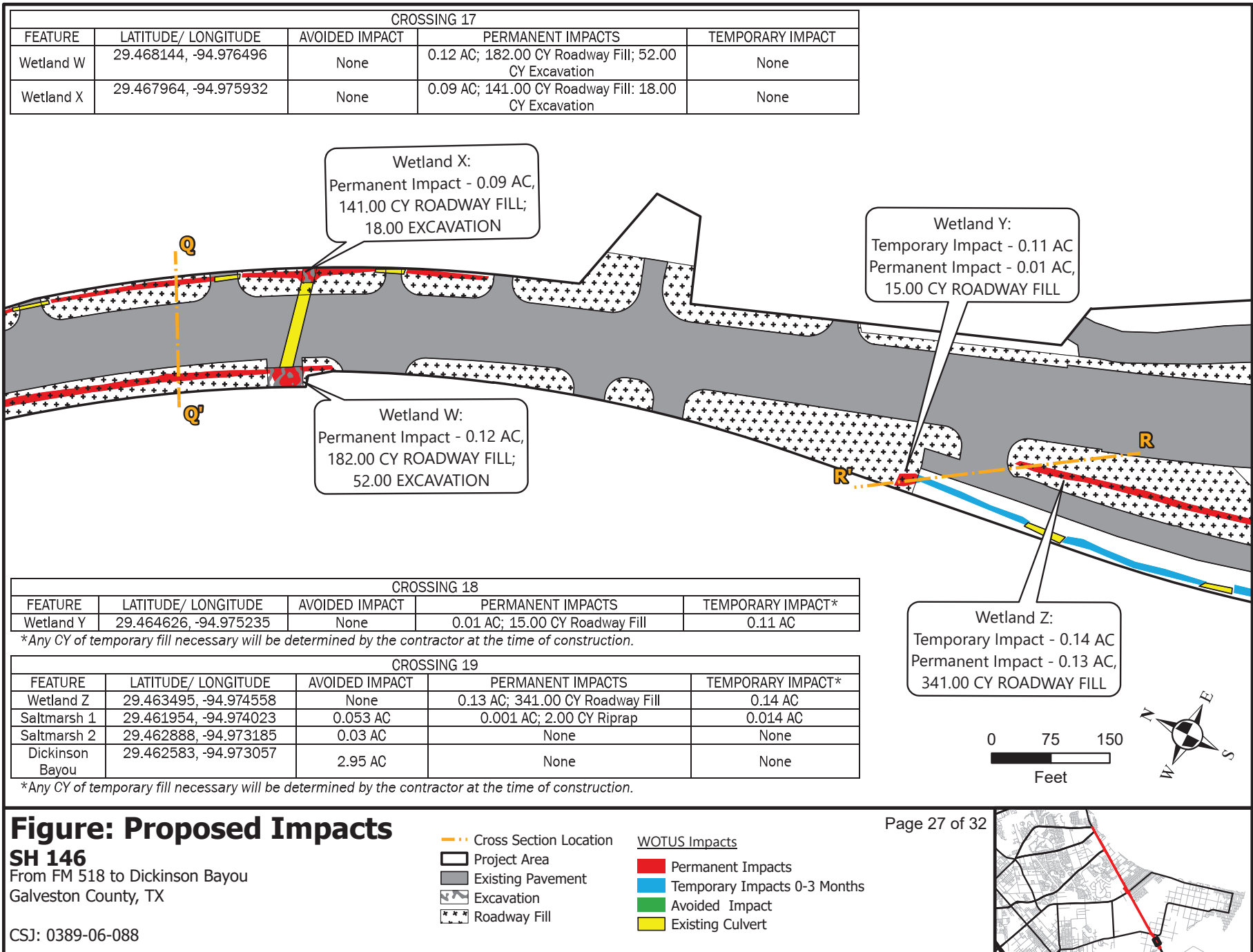
WOTUS Impacts

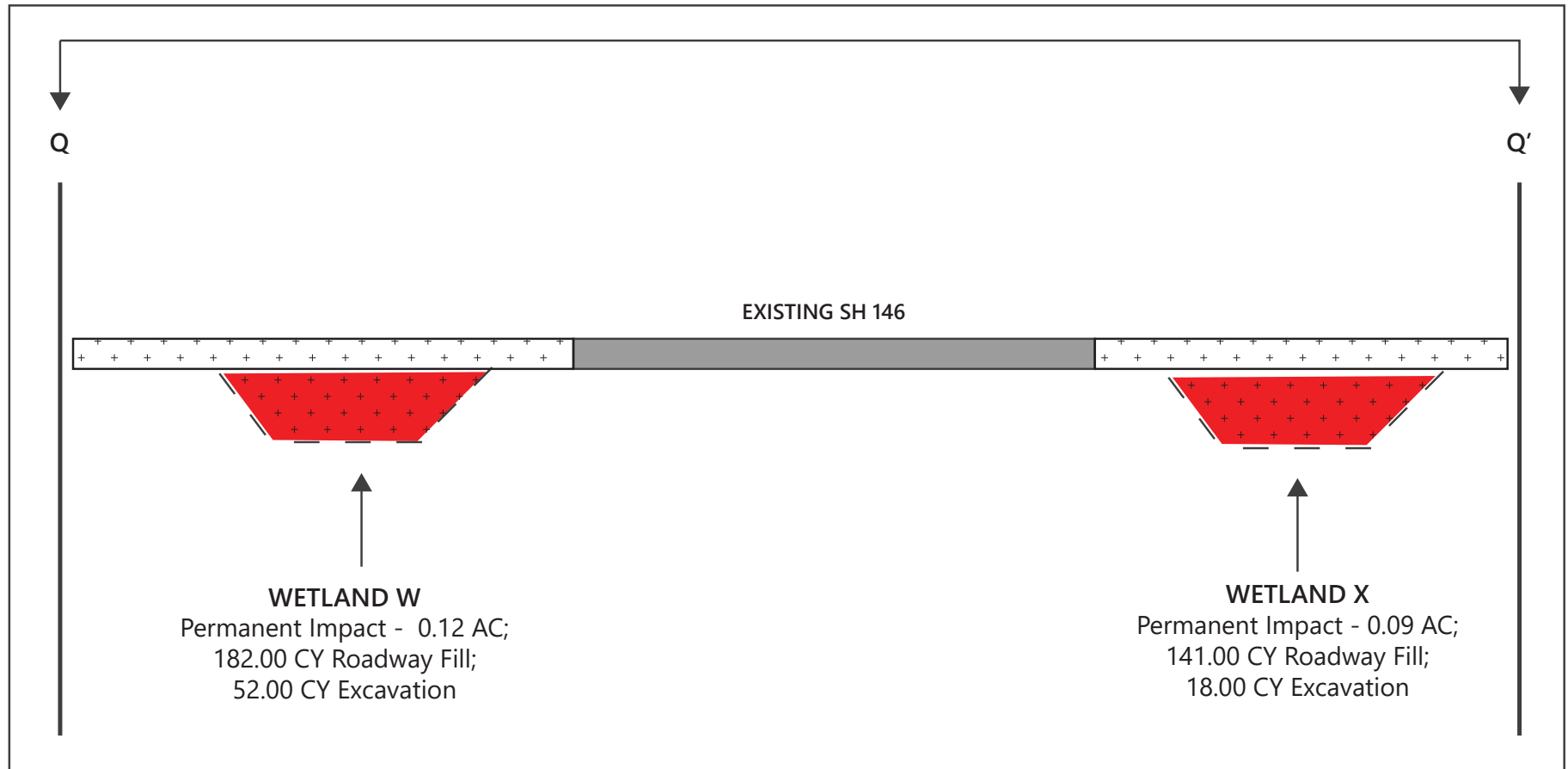
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CROSS SECTION VIEW

P - P'





CROSSING 17				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT
Wetland W	29.468144, -94.976496	None	0.12 AC; 182.00 CY Roadway Fill; 52.00 CY Excavation	None
Wetland X	29.467964, -94.975932	None	0.09 AC; 141.00 CY Roadway Fill; 18.00 CY Excavation	None

Note: Excavated areas in Wetland W and Wetland X are not depicted in this cross section.

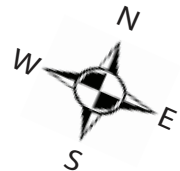
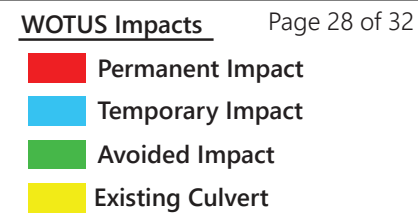
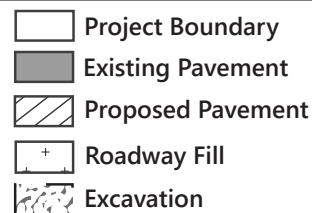


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

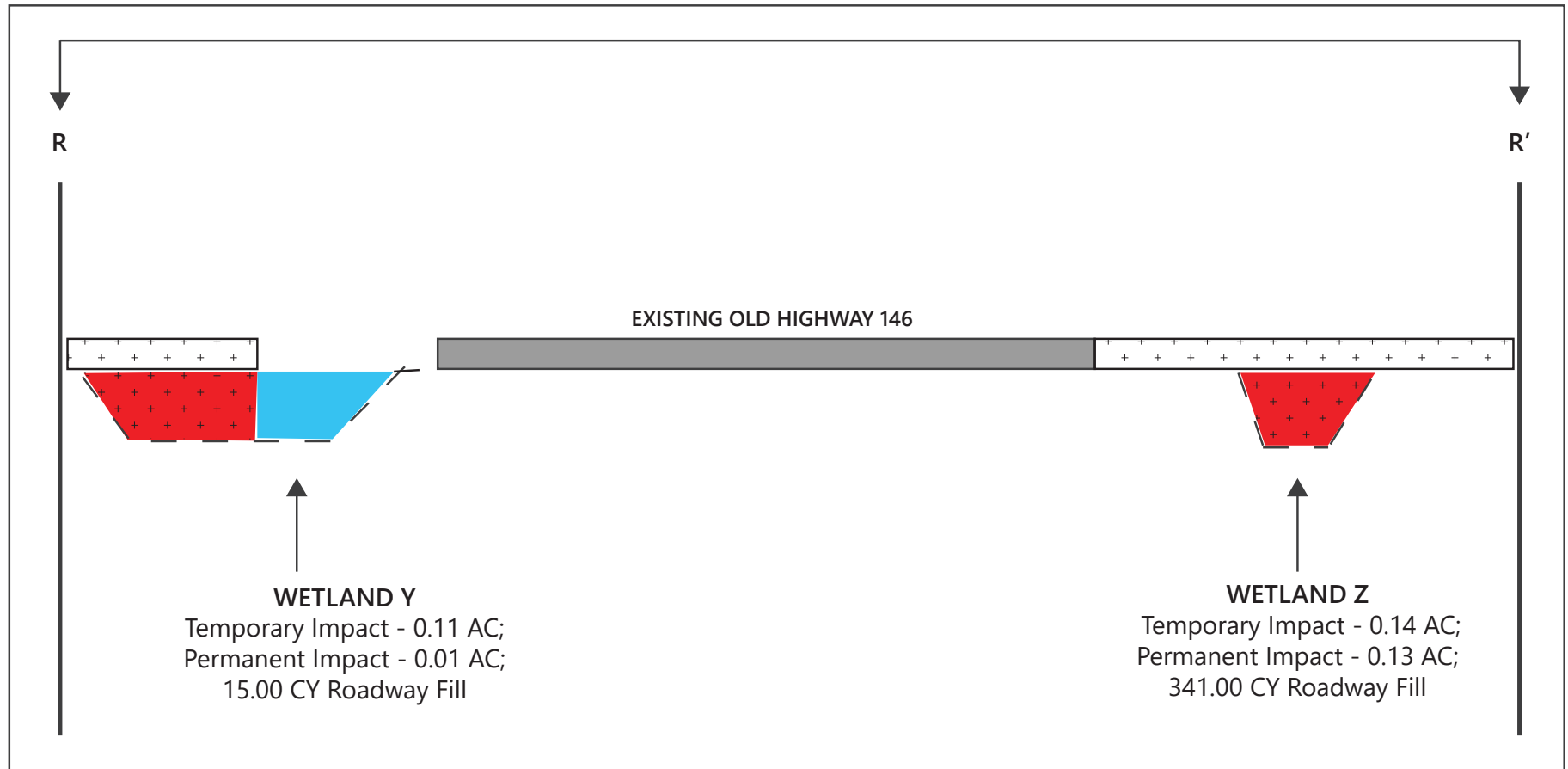
From FM 518 to Dickinson Bayou
Galveston County, TX

CSJ: 0389-06-088



CROSS SECTION VIEW

Q - Q'



CROSSING 18				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland Y	29.464626, -94.975235	None	0.01 AC; 15.00 CY Roadway Fill	0.11 AC

*Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

CROSSING 19				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland Z	29.463495, -94.974558	None	0.13 AC; 341.00 CY Roadway Fill	0.14 AC
Saltmarsh 1	29.461954, -94.974023	0.053 AC	0.001 AC; 2.00 CY Riprap	0.014 AC
Saltmarsh 2	29.462888, -94.973185	0.03 AC	None	None
Dickinson Bayou	29.462583, -94.973057	2.95 AC	None	None

*Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Wetland Z from Crossing 19 is depicted; 0.14 AC of Wetland Z is a temporary impact but is not depicted at the location of this cross section.

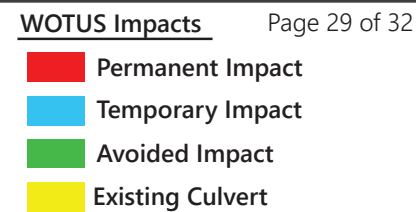
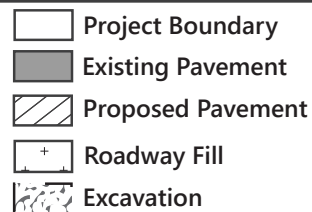


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

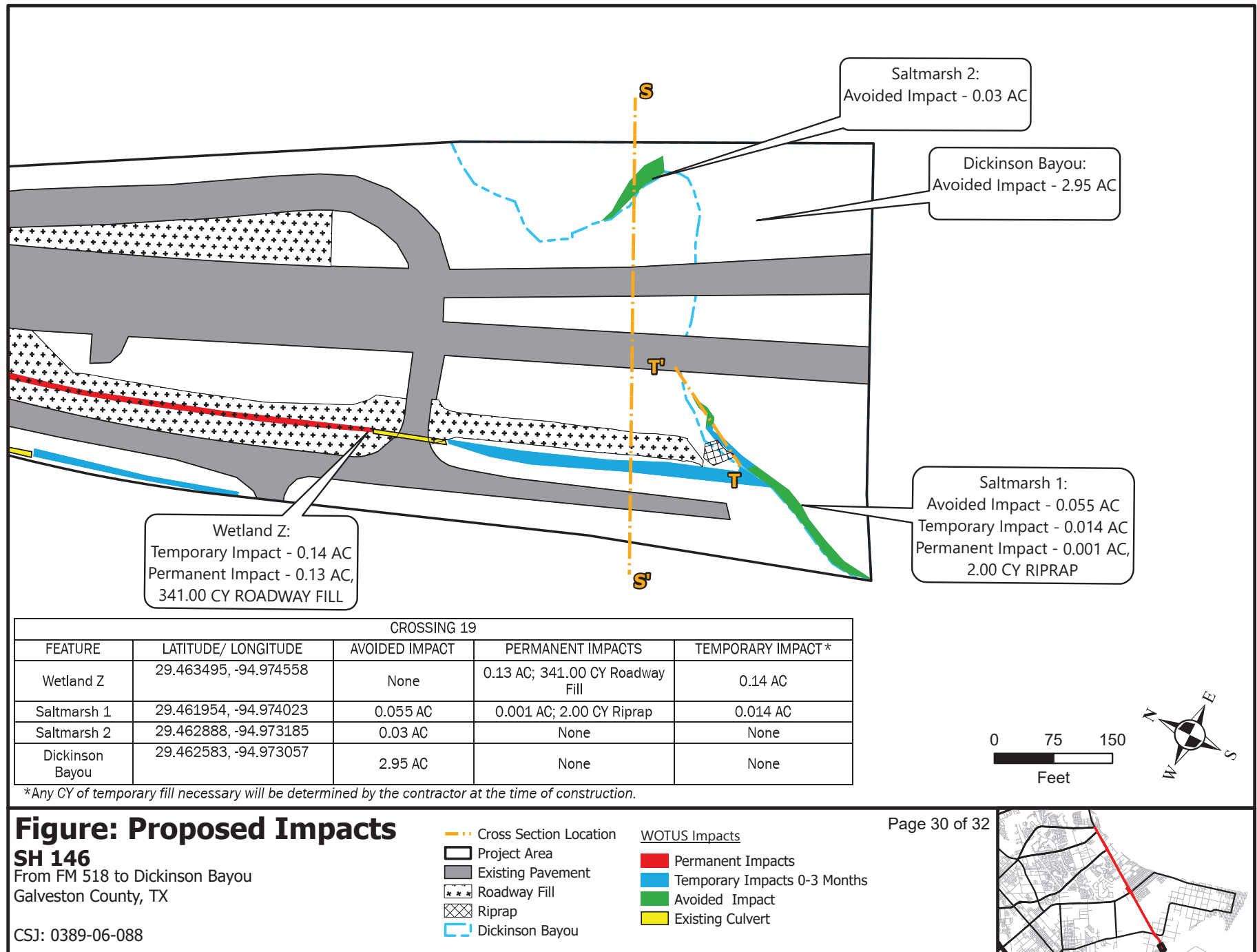
CSJ: 0389-06-088

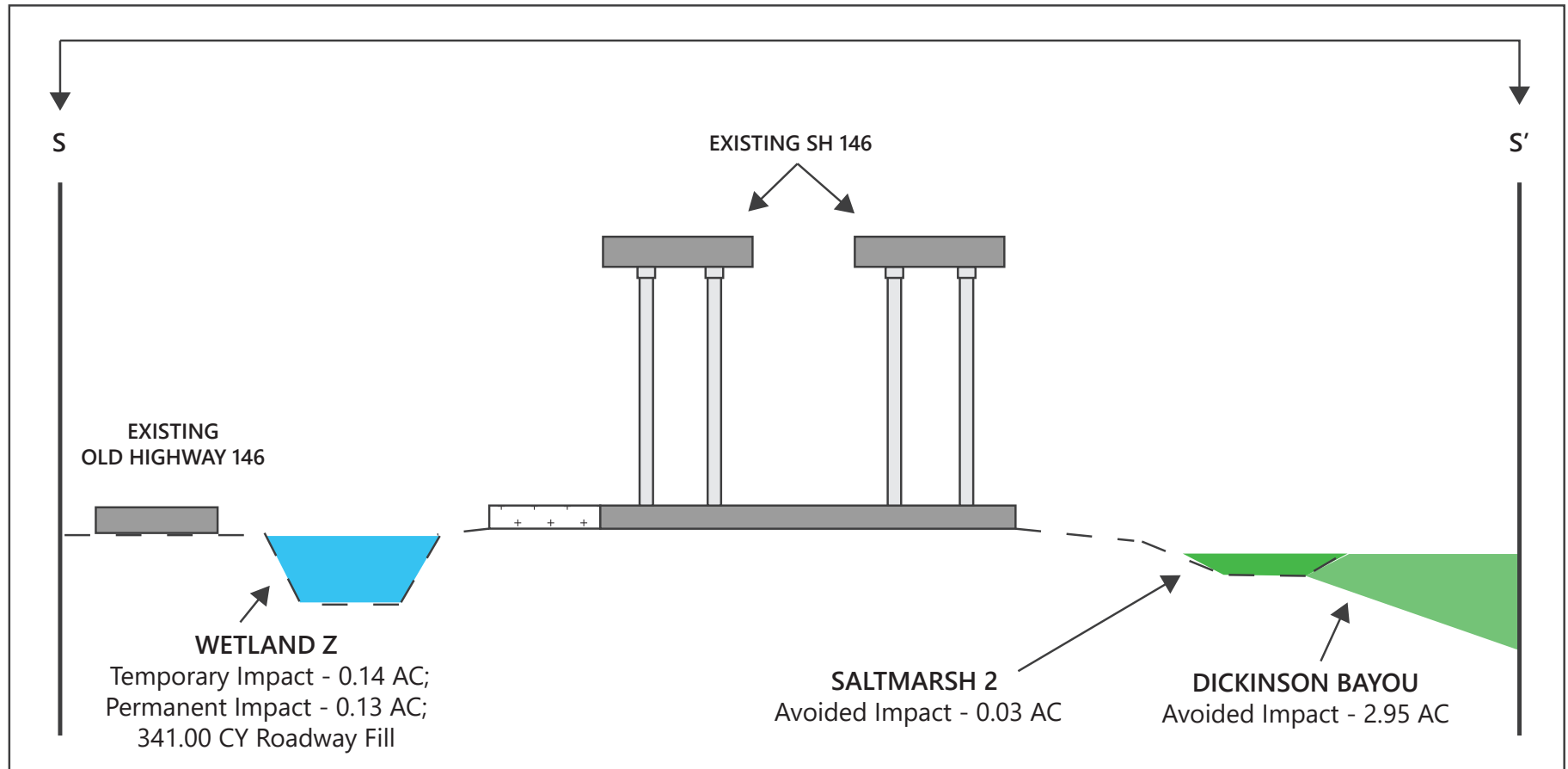


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CROSS SECTION VIEW

R - R'





CROSSING 19				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland Z	29.463495, -94.974558	None	0.13 AC; 341.00 CY Roadway Fill	0.14 AC
Saltmarsh 1	29.461954, -94.974023	0.055 AC	0.001 AC; 2.00 CY Riprap	0.014 AC
Saltmarsh 2	29.462888, -94.973185	0.03 AC	None	None
Dickinson Bayou	29.462583, -94.973057	2.95 AC	None	None

*Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Saltmarsh 1 from Crossing 19 is not depicted in this cross-section; 0.13 AC and 341.00 CY are permanent impacts of Wetland Z but are not depicted in this cross section.

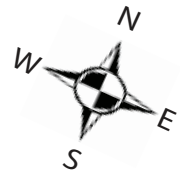
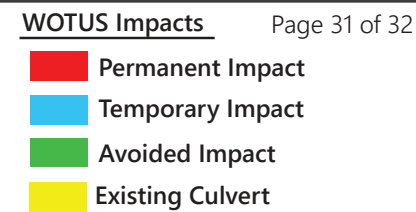
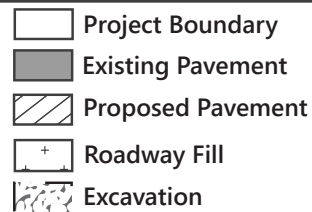


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

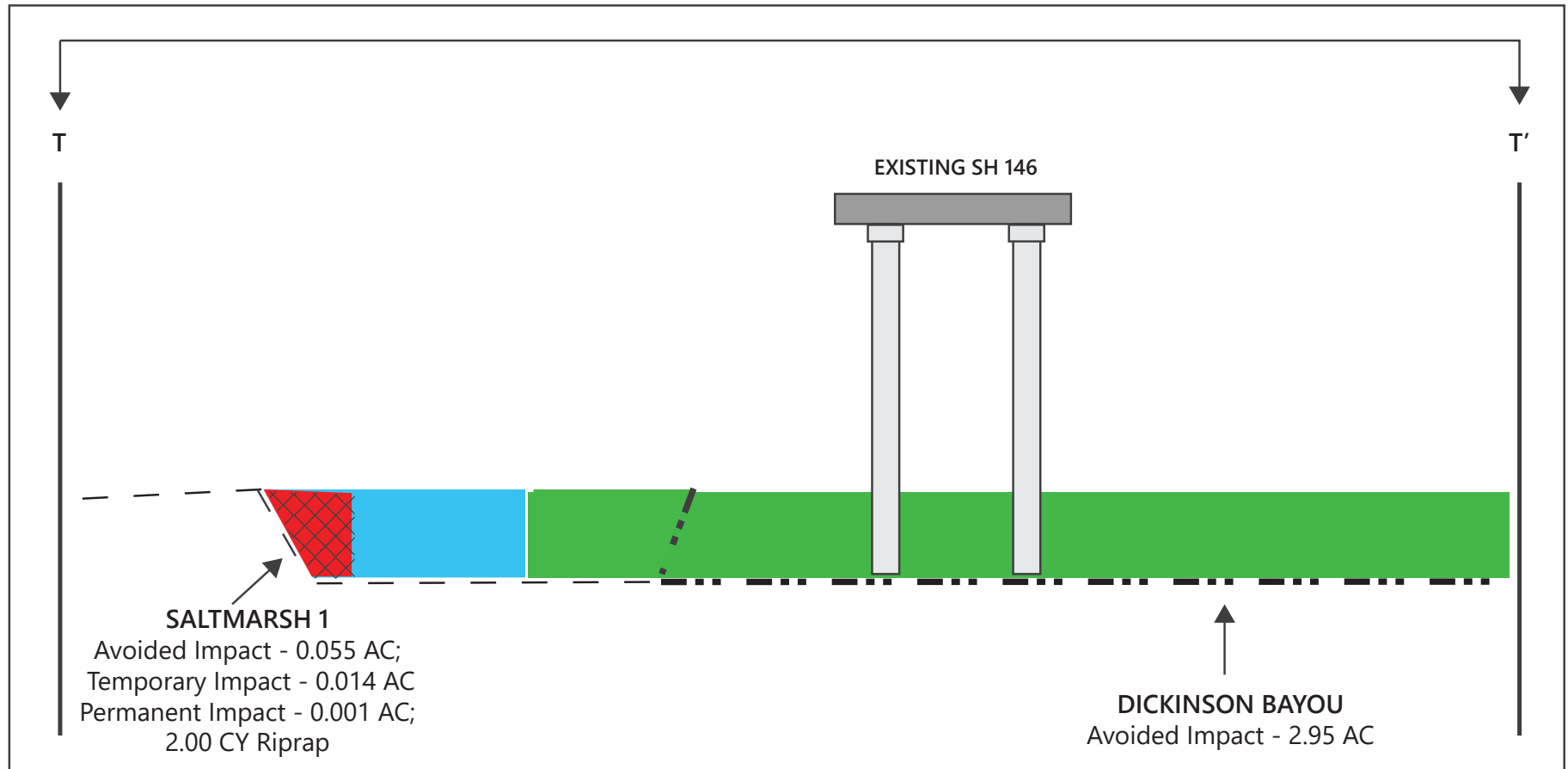
CSJ: 0389-06-088



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CROSS SECTION VIEW

S - S'



CROSSING 19				
FEATURE	LATITUDE/ LONGITUDE	AVOIDED IMPACT	PERMANENT IMPACTS	TEMPORARY IMPACT*
Wetland Z	29.463495, -94.974558	None	0.13 AC; 341.00 CY Roadway Fill	0.14 AC
Saltmarsh 1	29.461954, -94.974023	0.055 AC	0.001 AC; 2.00 CY Riprap	0.014 AC
Saltmarsh 2	29.462888, -94.973185	0.03 AC	None	None
Dickinson Bayou	29.462583, -94.973057	2.95 AC	None	None

*Any CY of temporary fill necessary will be determined by the contractor at the time of construction.

Note: Only Saltmarsh 1 and Dickinson Bayou from Crossing 19 are depicted in this cross-section; Permanent impacts to Saltmarsh 1 would result from placement of riprap for the outfall. This area was designed to minimize impacts as much as possible.

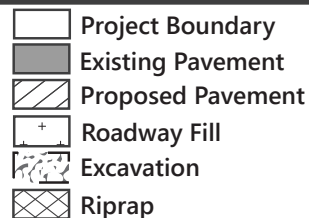


ILLUSTRATION NOT TO SCALE

Figure 1: Proposed Impacts SH 146

From FM 518 to Dickinson Bayou
Galveston County, TX

CSJ: 0389-06-088



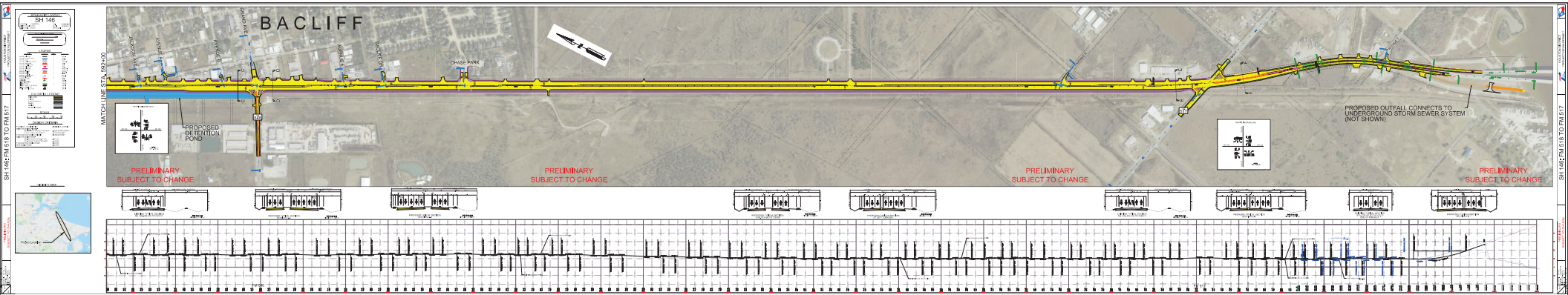
WOTUS Impacts

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CROSS SECTION VIEW

T - T'



Section 404/10 Impacts Table

Version 3, July 2021

SH 146 from FM 518 to Dickinson Bayou

CSJ: 0389-06-088

SWG-2021-00212

6/1/2022

Waterbody or wetland characteristics						Total Section 404 impacts for WATERBODY OR WETLAND						Total section 404 impacts for CROSSING						Authorization			
Crossing number	Waterbody or wetland number	Name	Type	Latitude, Longitude	Acres within project area (all waterbodies and wetlands)	Temporary			Permanent			Temporary waterbody or wetland impacts (acres)	Temporary stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be temporarily discharged	Permanent waterbody or wetland impacts (acres)	Permanent stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be permanently discharged	Authorization Type	Number (NWP and RGP only)	Reason (PCN only)	Mitigation Required?
						Temporary waterbody or wetland impacts (acres)	Temporary stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be temporarily discharged	Permanent waterbody or wetland impacts (acres)	Permanent stream impacts (linear feet/acres)	Cubic yards (CY) of fill material to be permanently discharged										
1	Wetland A		PEM	29.53140300	-95.01469100	0	N/A	N/A	2.31	0	867	0	N/A	N/A	2.31	0	867	N/A			
2	Wetland B		PEM	29.53049100	-95.01389800	0	N/A	N/A	1.25	0	13,883	0	N/A	N/A	1.25	0	13,883	SP (404 only, 404/10)			Yes
3	Wetland C		PEM	29.52563700	-95.01068800	0	N/A	N/A	0.76	0	2,436	0	N/A	N/A	0.76	0	2,436	SP (404 only, 404/10)			Yes
4	Wetland D		PEM	29.52451500	-95.01064700	0	N/A	N/A	0.78	0	636	0	N/A	N/A	0.78	0	636	SP (404 only, 404/10)			Yes
5	Wetland E		PEM	29.52328300	-95.00967000	0	N/A	N/A	0.14	0	802	0	N/A	N/A	0.14	0	802	SP (404 only, 404/10)			Yes
6	Wetland F		PEM	29.51821500	-95.00670000	0	N/A	N/A	1.13	0	4,541	0	N/A	N/A	1.13	0	4,541	SP (404 only, 404/10)			Yes
7	Wetland G		PEM	29.51793400	-95.00679000	0	N/A	N/A	1.28	0	1,702	0	N/A	N/A	1.28	0	1,702	SP (404 only, 404/10)			Yes
8	Wetland H		PEM	29.51133800	-95.00230100	0	N/A	N/A	0.08	0	131	0.02	N/A	N/A	2.20	0	4,779	SP (404 only, 404/10)			Yes
8	Wetland J		PEM	29.50919800	-95.00163600	0.02	N/A	N/A	1.25	0	1,607										
8	Wetland K		PEM	29.50671400	-94.99960200	0	N/A	N/A	0.36	0	887										
8	Wetland L		PEM	29.50480100	-94.99886200	0	N/A	N/A	0.15	0	742										
8	Wetland M		PEM	29.50100900	-94.99662000	0	N/A	N/A	0.24	0	1,242										
8	Wetland N		PEM	29.48440300	-94.98652300	0	N/A	N/A	0.12	0	170										
9	Wetland I		PEM	29.51158700	-95.00280100	0	N/A	N/A	0.10	0	393	0.00	N/A	N/A	0.10	0	393	SP (404 only, 404/10)			Yes
10	Wetland O		PEM	29.50020200	-94.99640700	0	N/A	N/A	0.98	0	227	0.00	N/A	N/A	0.98	0	227	SP (404 only, 404/10)			Yes
11	Wetland P		PEM	29.49841600	-94.99507100	0	N/A	N/A	0.02	0	79	0.00	N/A	N/A	0.02	0	79	SP (404 only, 404/10)			No
12	Wetland Q		PEM	29.49723300	-94.99465100	0.14	N/A	N/A	0.11	0	96	0.14	N/A	N/A	0.11	0	96	SP (404 only, 404/10)			Yes
13	Wetland R		PEM	29.48439800	-94.98687100	0	N/A	N/A	2.81	0	9,798	0.00	N/A	N/A	2.81	0	9,798	SP (404 only, 404/10)			Yes
14	Wetland N1		PEM	29.49555400	-94.99304000	0	N/A	N/A	1.34	0	1,893	0.00	N/A	N/A	1.34	0	1,893	SP (404 only, 404/10)			Yes
15	Wetland S		PEM	29.48199600	-94.98573300	3.11	N/A	N/A	1.90	0	1,891		N/A	N/A		0	2227	SP (404 only, 404/10)			Yes
15	Wetland T		PEM	29.47146200	-94.97984100	0	N/A	N/A	0.04	0	204										
15	Wetland U		PEM	29.47909500	-94.98412500	0.07	N/A	N/A	0.07	0	132										
16	Wetland V		PEM	29.46991100	-94.97834700	0.09	N/A	N/A	0.01	0	6	0.09	N/A	N/A	0.01	0		SP (404 only, 404/10)			No
17	Wetland W		PEM	29.46814400	-94.97649600	0	N/A	N/A	0.12	0	182	0.00	N/A	N/A	0.21		323	SP (404 only, 404/10)			Yes
17	Wetland X		PEM	29.46796400	-94.97593200	0	N/A	N/A	0.09	0	141										
18	Wetland Y		PEM	29.46462600	-94.97523500	0.11	N/A	N/A	0.01	0	15	0.11	N/A	N/A	0.01	0	15	SP (404 only, 404/10)			No
19	Wetland Z		PEM	29.46349500	-94.97455800	0.14	N/A	N/A	0.13	0	341	0.15	0.00	N/A	0.13	0.00	341	SP (404 only, 404/10)			Yes
19	Saltmarsh 1		E2EM	29.46195400	-94.97402300	0.01	N/A	N/A	0.001	0	2						2	SP (404 only, 404/10)			Yes
19	Saltmarsh 2		E2EM	29.46288800	-94.97318500	0	N/A	N/A	0	0	0										
19	Dickinson Bayou	Dickinson Bayou	E2RS	29.46258300	-94.97305700	0	0	N/A	0	0	0										