APPENDIX F
WETLAND ANALYSIS

SEPTEMBER 2015

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

STATE PROJECT NO. H.004825.2
FEDERAL AID PROJECT NO. H004825

WIDENING LA 28 EAST

WETLAND ANALYSIS REPORT

Prepared By:

Providence Engineering and Environmental Group LLC
1201 Main Street
Baton Rouge, Louisiana 70802
(225) 766-7400
www.providenceeng.com

Project Number 040-013

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A Copies of Site Photographs
B Wetland Determination Data Forms- Atlantic and Gulf Coastal Plain Region

1.0 PROJECT OVERVIEW

The purpose of this report is to present field data, habitat descriptions, and other pertinent information on the three diagnostic characteristics of wetlands. This report was prepared in accordance with the Corps of Engineers Wetlands Delineation Manual (U.S. Army Corps of Engineers, Waterways Experiment Station 1987) and subsequent guidance provided in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (U.S. Army Corps of Engineers, Wetland Regulatory Assistance Program 2010). On September 2, 2015, Providence biologists visited the Site and collected field data on the three diagnostic wetland parameters – soils, vegetation, and hydrology.

Prior to conducting the wetland delineation, Providence reviewed the Natural Resources Conservation Service (NRCS) Web Soil Survey 2015, the Soil Survey of Rapides Parish, Louisiana (United States Department of Agriculture, Soil Conservation Service 1918, 1980), United States Geological Survey (USGS) 7.5-minute topographic maps, U.S. Fish and Wildlife Service, National Wetland Inventory Maps, and 1992, 1994, 1995, 1997, 1998, 2004, 2005, 2006, 2007, 2009, 2010, 2011, 2013, and 2014 aerial photography. Included for your review are: **Figure 1** – Vicinity Map, **Figures 2a-2b** – Site Location Maps, **Figures 3a-3v** – Site Plans, **Figures 4a-4v** – Aerial Photographs, **Figures 5a-5l** – Soils Maps, **Exhibit A** – Copies of Site Photographs, and **Exhibit B** – Routine Wetland Determination Data Forms – Atlantic and Gulf Coastal Plain Region.

This report summarizes the results of a wetland delineation performed for the proposed widening of the portion of LA 28 East starting from its western junction with LA 3128 (Libuse) to its eastern junction with LA 1207 (Holloway) in Rapides Parish.

2.0 PROJECT LOCATION AND DESCRIPTION

The 200.58-acre Site is centered at approximate Latitude 31.370413°; Longitude -92.281915°. Approximately 5.81 miles northeast of Pineville, Louisiana, the Site spans Sections 1 and 2, Township 4 North, Range 1 East; Section 45, Township 5 North, Range 1 East; and Sections 41, 42, 43, 34, 40, 32, 31, and 39, Township 5 North, Range 2 East of Rapides Parish. The Site begins at approximate Latitude 31.351711°; Longitude -92.341946° along LA 28 in Libuse, Louisiana and extends eastward terminating at Latitude 31.393106°; Longitude -92.226203° in Halloway, Louisiana. Access to the Site is via LA 28. The Site is characterized by residential and commercial developments, mowed and maintained grassland, upland forested habitat, multiple managed pine stands, agricultural fields, pasture, and palustrine emergent (PEM), palustrine shrub-scrub (PSS), and palustrine forested (PFO) wetland habitats.

3.0 SOILS

The NRCS Web Soil Survey was used to determine mapped soil series. The revised official series descriptions were used to confirm profile matrix, redox features, and texture of soils underlying the Site. The Web Soil Survey shows that the Site may be underlain by 14 soil map units: Acadia silt loam, 0 to 1 percent slopes (AcA); Acadia silt loam, 1 to 3 percent slopes (AcB); Borrow and sand pits (Bo); Crowley silt loam (Cr); Gore very fine sandy loam, 1 to 5 percent slopes (GrC); Gore very fine sandy loam, 5 to 12 percent slopes (GrD); Guyton complex, frequently flooded (Gy); Kolin silt loam, 1 to 5 percent slopes (KnB); Libuse silt loam, 1 to 5 percent slopes (LsB); Malbis fine sandy loam, 1 to 5 percent slopes (MaC); Vick silt loam (Pa); Ruston fine sandy loam, 1 to 3 percent slopes (RsB); Ruston fine sandy loam, 3 to 8 percent slopes (RsC); and Wrightsville silt loam (Wr). The table below depicts the soil map unit's individual soil components, component percentage, and hydric status within Rapides Parish (NRCS Survey Area Data: Version 10, September 26, 2014).

Map Unit Name	Soil Series/ Component	Component Percentage	Hydric Status
Acadia silt loam, 0 to 1 percent slopes			
	Acadia	97	No
	Wrightsville	3	Yes
Acadia silt loam, 1 to 3 percent slopes			
	Acadia	90	No
	Unnamed	10	No
Borrow and sand pits			
	Pits	75	Yes
	Swales	25	Yes
Crowley silt loam			
	Crowley	90	No
	Unnamed	10	No
Gore very fine sandy loam, 1 to 5 percent slopes			
	Gore	90	No
	Unnamed	10	No
Gore very fine sandy loam, 5 to 12 percent slopes			
	Gore	90	No
	Unnamed	10	No
Guyton complex, frequently flooded			
	Guyton	90	Yes
	Unnamed	10	No
Kolin silt loam, 1 to 5 percent slopes			
	Kolin	90	No
	Unnamed	10	No
Libuse silt loam, 1 to 5 percent slopes			
	Libuse	90	No
	Unnamed	10	No

Map Unit Name	Soil Series/ Component	Component Percentage	Hydric Status
Malbis fine sandy loam, 1 to 5 percent slopes			
	Malbis	90	No
	Unnamed	10	No
Vick silt loam			
	Vick	90	No
	Kolin	5	No
	Wrightsville	5	Yes
Ruston fine sandy loam, 1 to 3 percent slopes			
	Ruston	85	No
	Smithdale	9	No
	Malibis	5	No
	Unnamed-Hydric	2	Yes
Ruston fine sandy loam, 3 to 8 percent slopes			
	Ruston	90	No
	Unnamed	10	No
Wrightsville silt loam			
	Wrightsville	90	Yes
	Unnamed	10	No

Providence collected soil samples between the surface and approximately 16 inches. The depth of each sample was sufficient to determine changes in upper horizons and to observe field indicators of hydric soils. Therefore, based on field observations, the wetland criterion for hydric soils was met at 14 of the 27 sample locations established by Providence to characterize the Site.

4.0 VEGETATION

Indicator statuses for dominant vegetation on the Sites consist of facultative upland (FACU), facultative (FAC), facultative wetland (FACW), and obligate wetland (OBL) plant species. Dominant species identified on the Site include: loblolly pine (*Pinus taeda*, FAC), sweet-gum (*Liquidambar styraciflua*, FAC), American elm (*Ulmus americana*, FAC), water oak (*Quercus nigra*, FAC), willow oak (*Quercus phellos*, FACW), overcup oak (*Quercus lyrata*, OBL), cherry-bark oak (*Quercus pagoda*, FACW), black cherry (*Prunus serotina*, FACU), Chinese tallow tree (*Triadica sebifera*, FAC), Chinese privet (*Ligustrum sinense*, FAC), eastern red cedar (*Juniperus virginiana*, FACU), tree sparkle-berry (*Vaccinium arboreum*, FACU), American beauty-berry (*Callicarpa americana*, FACU), saw-tooth blackberry (*Rubus argutus*, FAC), Bermuda grass (*Cynodon dactylon*, FACU), Bahia grass (*Paspalum notatum*, FACU), long-leaf wood-oats (*Chasmanthium sessiliflorum*, FAC), dotted smartweed (*Persicaria punctata*, OBL), large-flower primrose-willow (*Ludwigia grandiflora*, OBL), narrow-leaf cat-tail (*Typha angustifolia*, OBL), short-bristle horned beak sedge (*Rhynchospora corniculata*, OBL), variable rosette grass (*Dichanthelium commutatum*, FAC), coco-yam (*Colocasia esculenta*, FACW), yankeeweed (*Eupatorium compositifolium*, FAC), ovate false fiddleleaf (*Hydrolea ovata*, OBL), Vasey's grass (*Paspalum urvillei*,

FAC), golden crown grass (*Paspalum dilatatum*, FAC), white-root rush (*Juncus brachycarpus*, FACW), rusty flat sedge (*Cyperus odoratus*, FACW), St. Augustine grass (*Stenotaphrum secundatum*, FAC), Japanese climbing fern (*Lygodium japonicum*, FAC), marsh flat sedge (*Cyperus pseudovegetus*, FACW), broom-sedge (*Andropogon virginicus*, FAC), eastern poison ivy (*Toxicodendron radicans*, FAC), Japanese honeysuckle (*Lonicera japonica*, FACU), Virginia-creeper (*Parthenocissus quinquefolia*, FACU), horsebrier (*Smilax rotundifolia*, FAC), sawbrier (*Smilax glauca*, FAC), trumpet-creeper (*Campsis radicans*, FAC), peppervine (*Ampelopsis arborea*, FAC), American buckwheatvine (*Brunnichia ovata*, FACW), and muscadine (*Vitis rotundifolia*, FAC). The wetland criterion for a prevalence of hydrophytic vegetation was met at 26 of the 27 sample locations established by Providence to characterize the Site.

5.0 HYDROLOGY

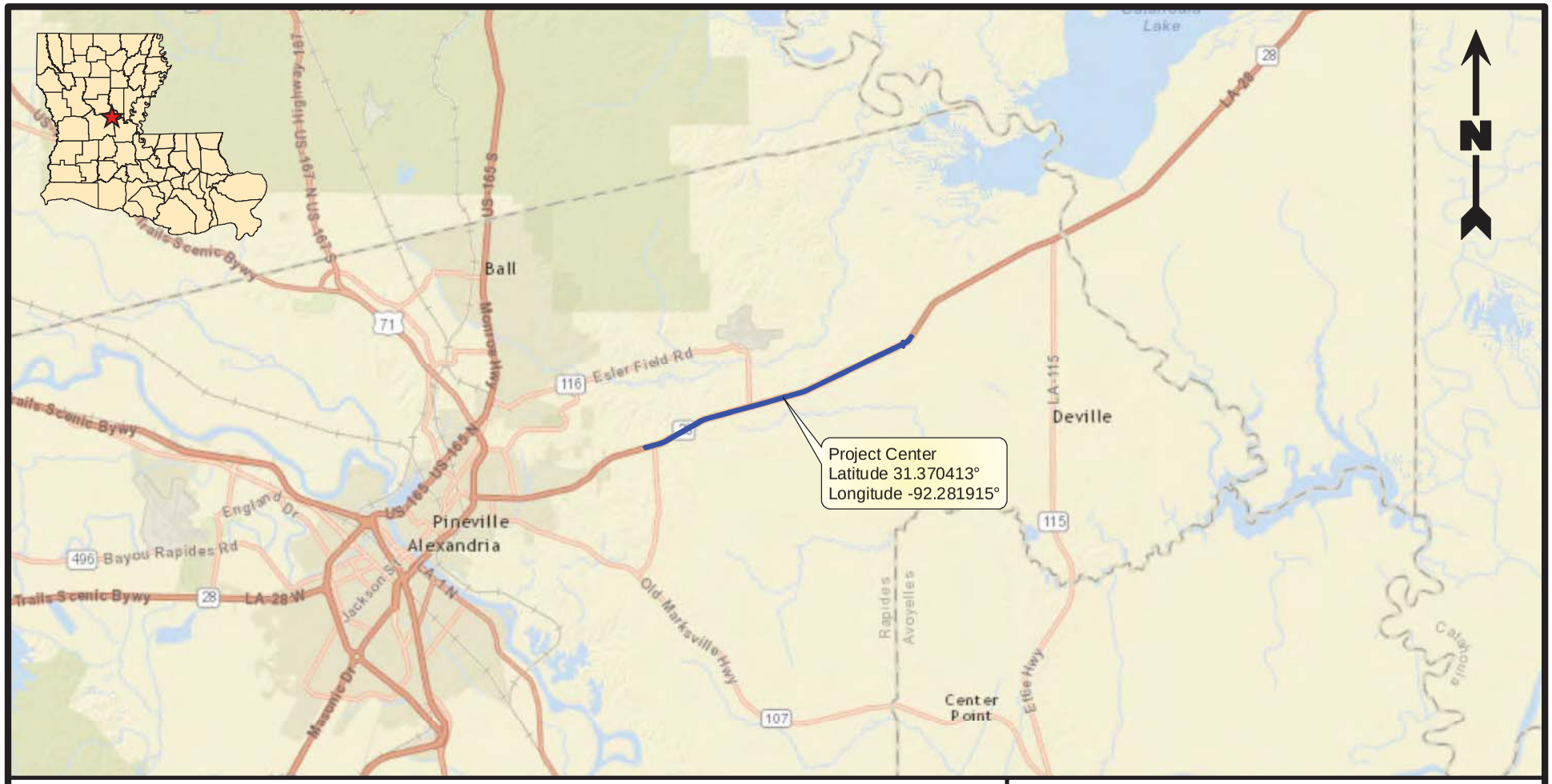
The Site is in the Lower Red Watershed; within United States Geological Survey (USGS) Hydrologic Cataloguing Unit 08040301. Hydrology on Site is primarily restricted to rainfall and sheet flow. The roadside ditches appear to convey storm water runoff to the various creeks traversing LA 28. Primary and secondary indicators of wetland hydrology observed on the Site include: soil saturation and oxidized root channels within the upper twelve inches of soil profiles, water stained leaves, cracked surface soil, crawfish burrows, geomorphic positions, and positive FAC-Neutral tests. The wetland criterion for hydrology was met at 14 of the 27 sample locations established by Providence to characterize the Site.

6.0 CONCLUSIONS

Positive evidence of all three diagnostic characteristics for jurisdictional wetlands was found at 14 of the 27 sample locations established by Providence. Evidence of poor drainage found in association with hydric soils, and predominantly hydrophytic vegetation was considered sufficient to confirm the presence of potential jurisdictional wetlands. It appears that approximately 1.52 acres (0.37 acre of PEM, 0.03 acre of PSS, and 1.12 acres of PFO) of potential jurisdictional wetlands and 0.46 acre (4,601.53 linear feet) of other waters of the U.S. are present at the Site and potentially under the jurisdiction of the USACE, Vicksburg District.

FIGURE 1

VICINITY MAP



Legend

Limits of Delineation (200.58 acres)

Reference

Base map comprised of ESRI StreetMap USA data.

4 2 0 4 Miles

Vicinity Map

Widening LA 28 East
State Project No. H.004825.2
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Rapides Parish, Louisiana

Louisiana Department of Transportation and Development

PROVIDENCE

Drawn By	CT	9/16/2015
Checked By	JCR	9/16/2015
Approved By	RPC	9/16/2015

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Drawing Number 040-013-A046

1 Figure

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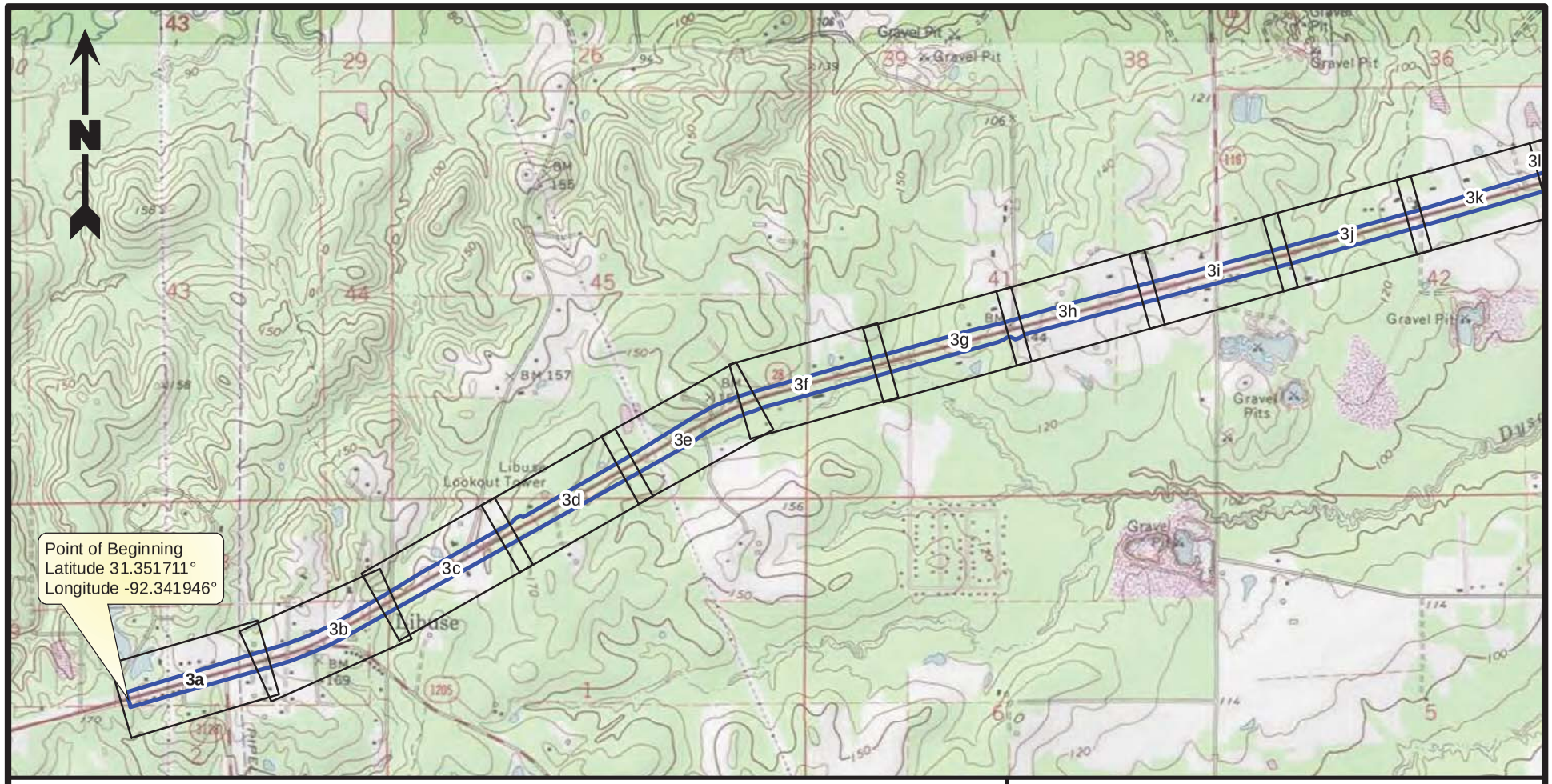
FIGURES 2a – 2b

SITE LOCATION MAPS



Legend

- Limits of Delineation (200.58 acres)
- Site Plan Index

Reference

Base map comprised of U.S.G.S. 7.5 minute topographic map, "Green Gables, LA" and "Libuse, LA" dated 1972, photorevised 1993; and "Buckeye, LA" and "Holloway, LA" dated 1994.

2,000 1,000 0 2,000 Feet

Site Location Map

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2a
Figure

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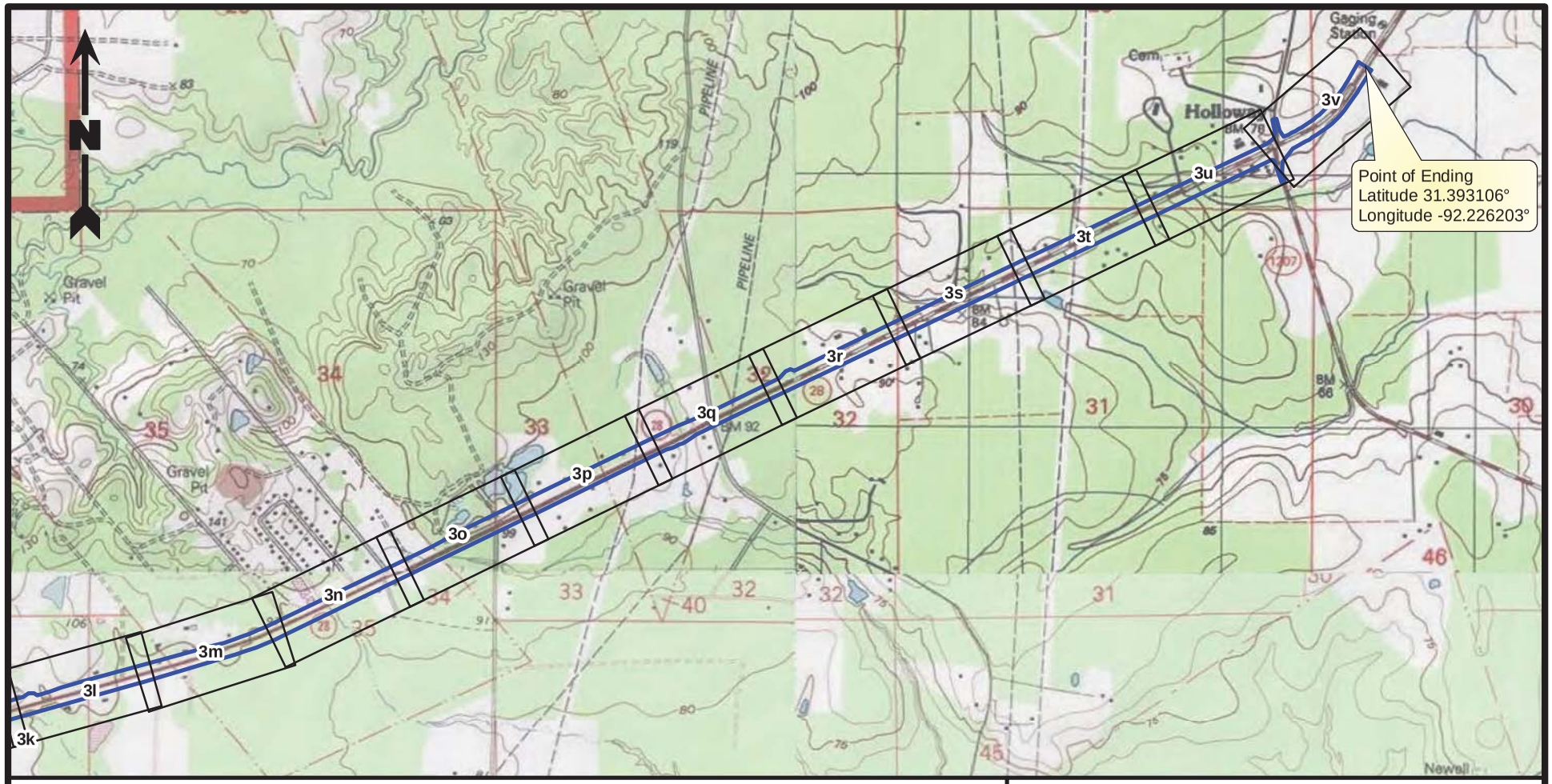

Legend

Limits of Delineation (200.58 acres)

Site Plan Index

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2,000 1,000 0 2,000 Feet

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2b
Figure

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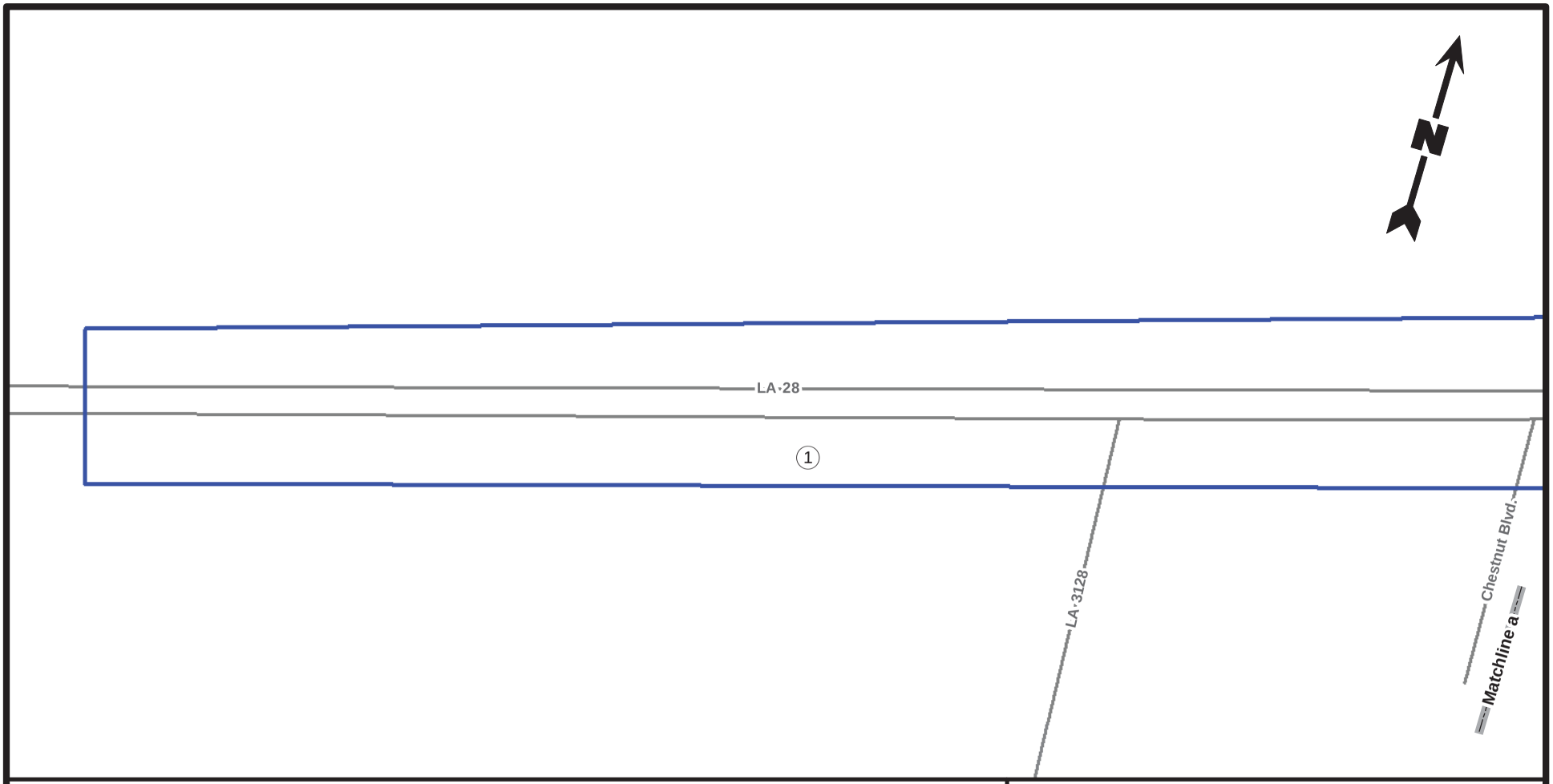
FIGURES 3a-3v

SITE PLANS



Legend

- Limits of Delineation (200.58 acres)

Potential Jurisdictional Wetlands (1.52 acres)

- PFO (1.12 acres)
- PSS (0.03 acre)
- PEM (0.37 acre)

- Potential Jurisdictional Other Waters of the U.S. (0.46 acre; 4,601.53 linear feet)
- Existing Culverted Crossing
- Sample Locations

200 100 0 200 Feet

Site Plan

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3a
Figure

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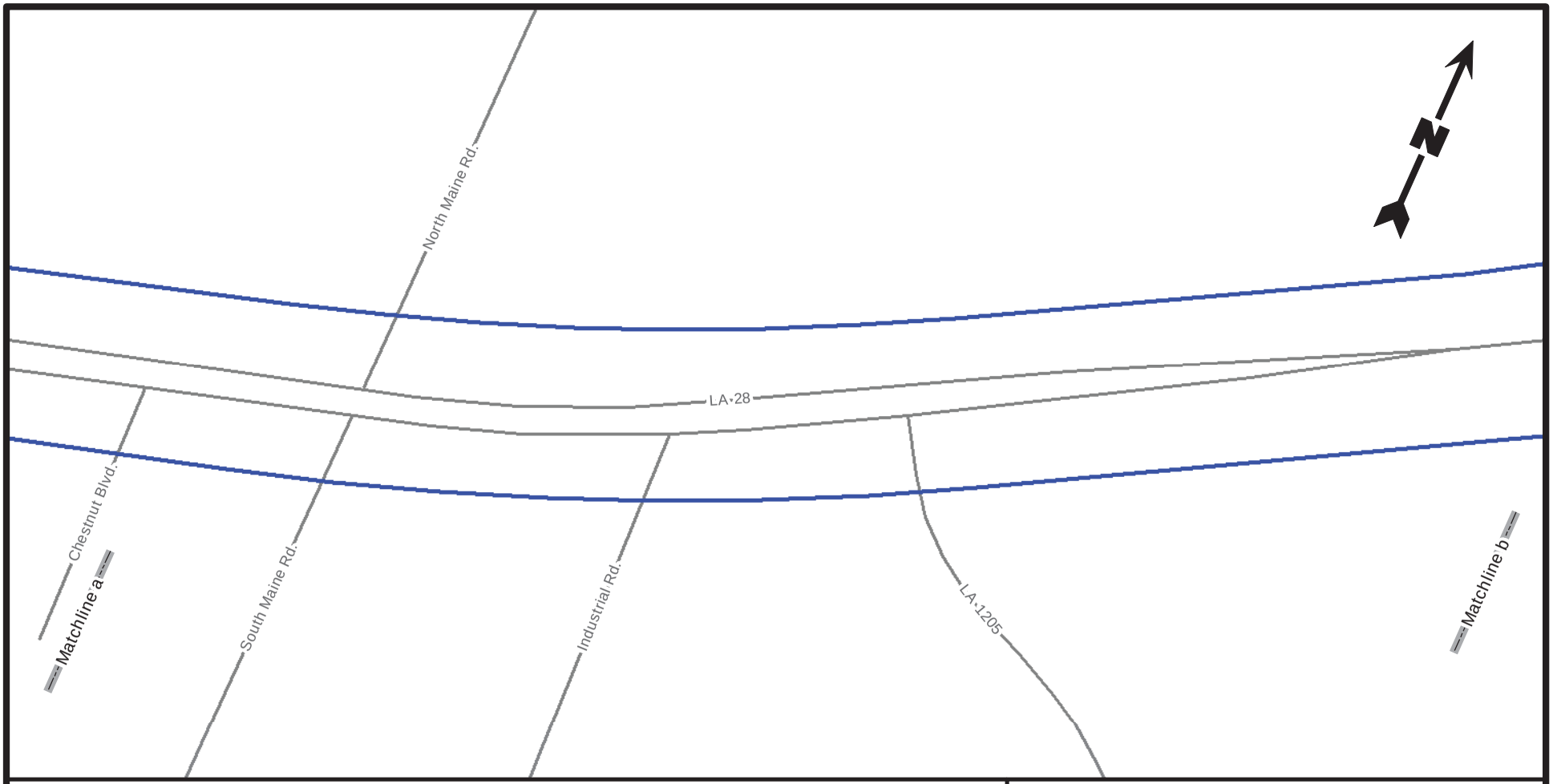

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3b
Figure

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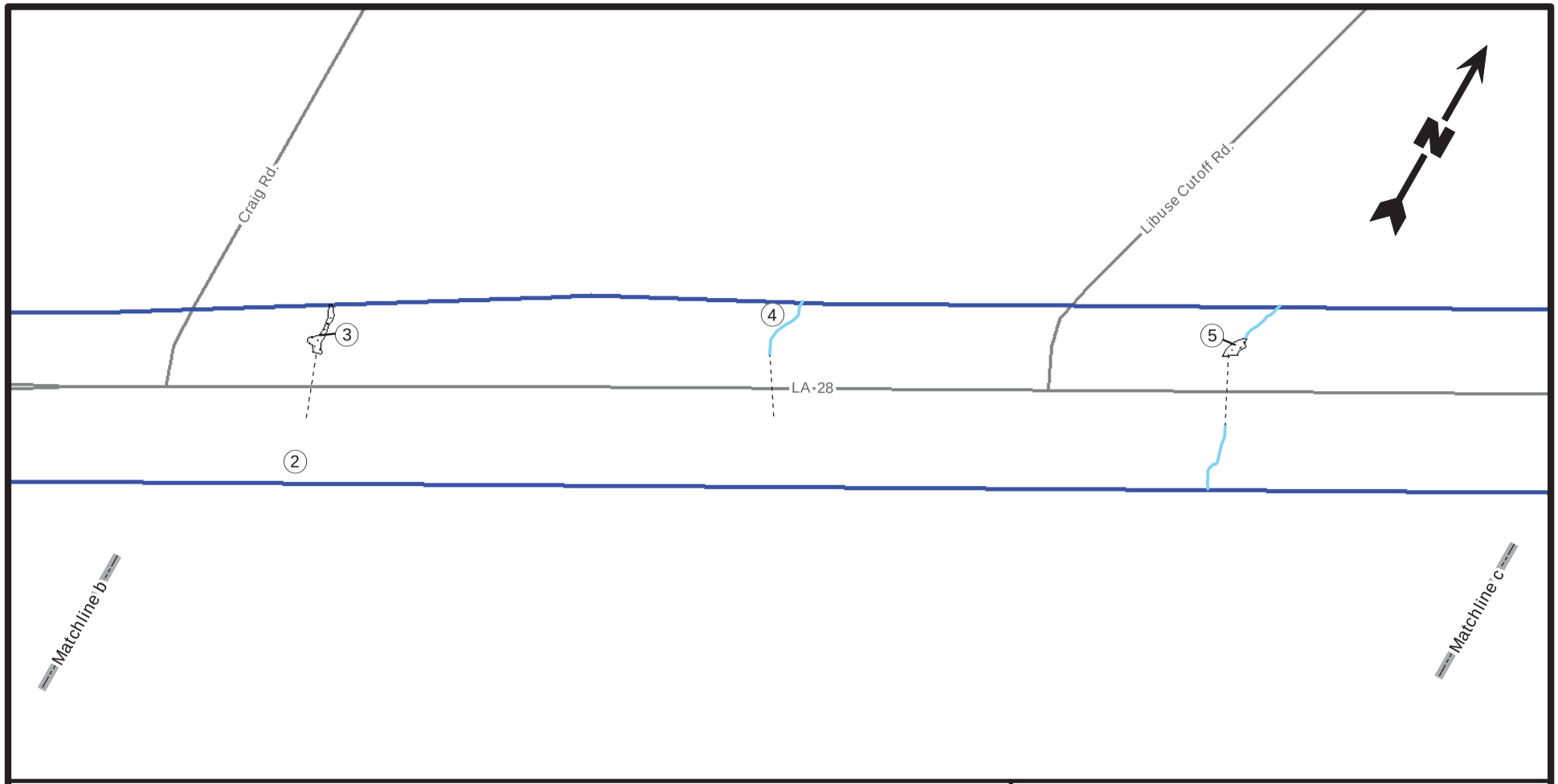

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3c
Figure

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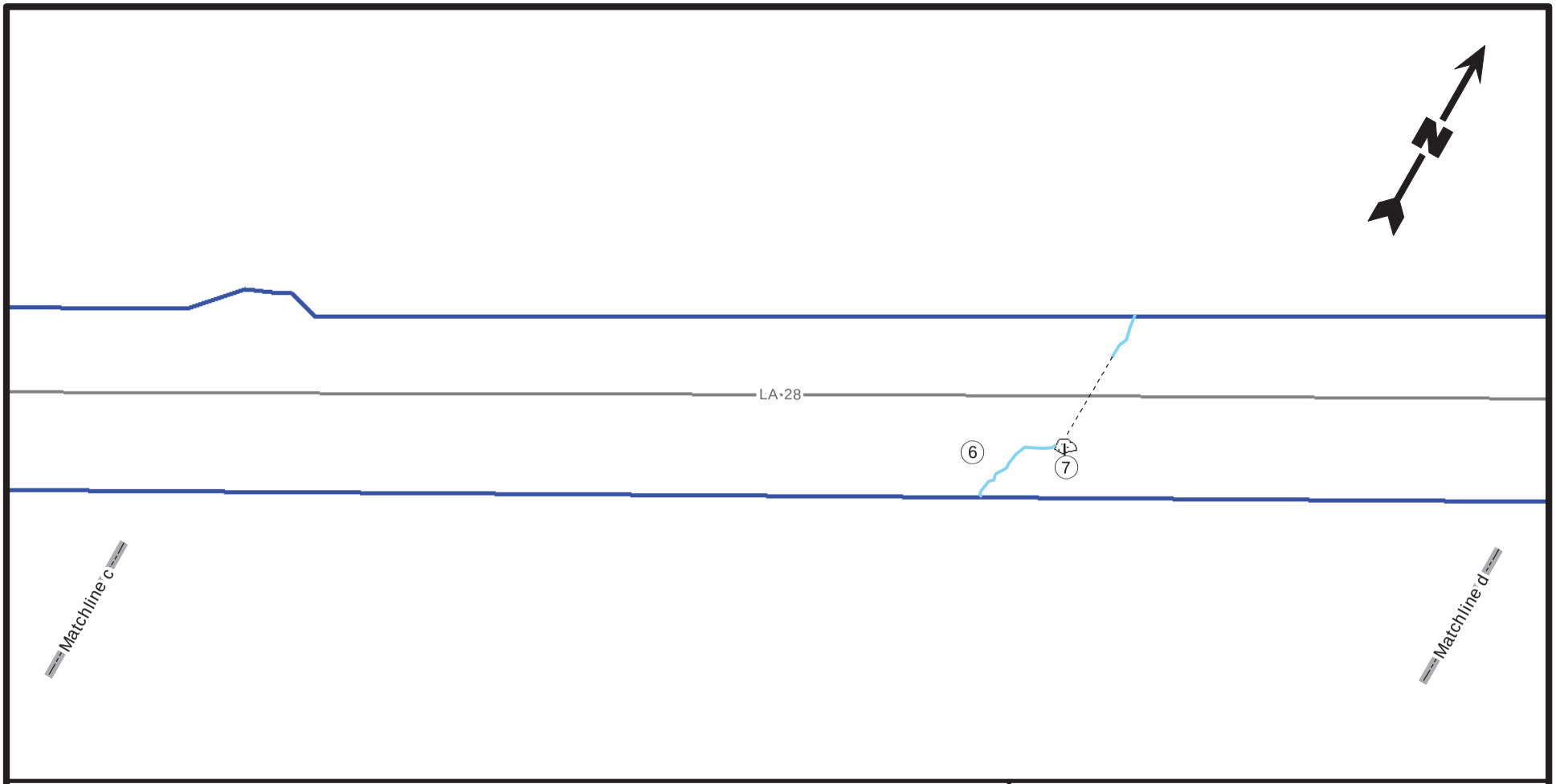

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3d
Figure

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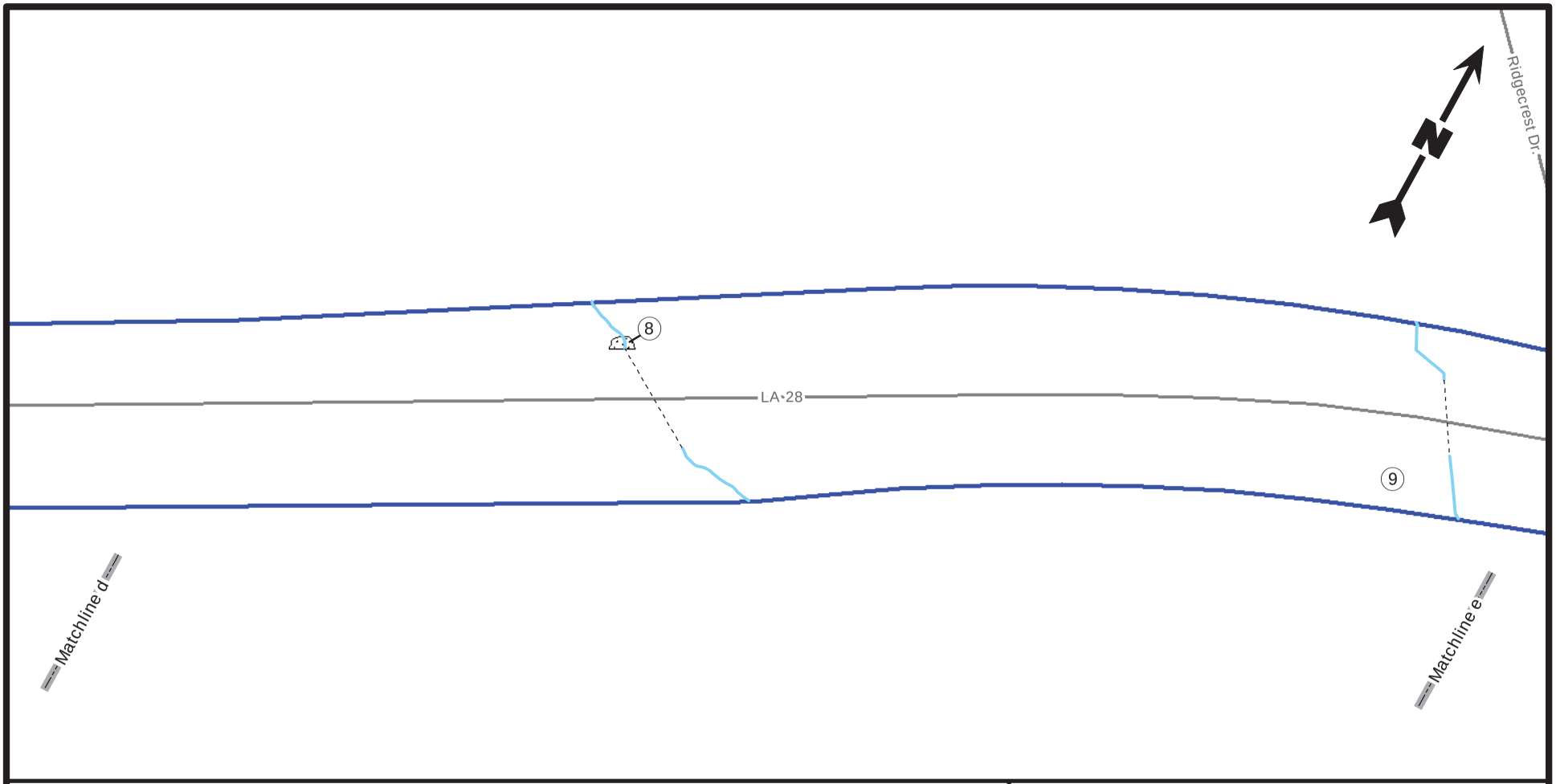

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3e
Figure

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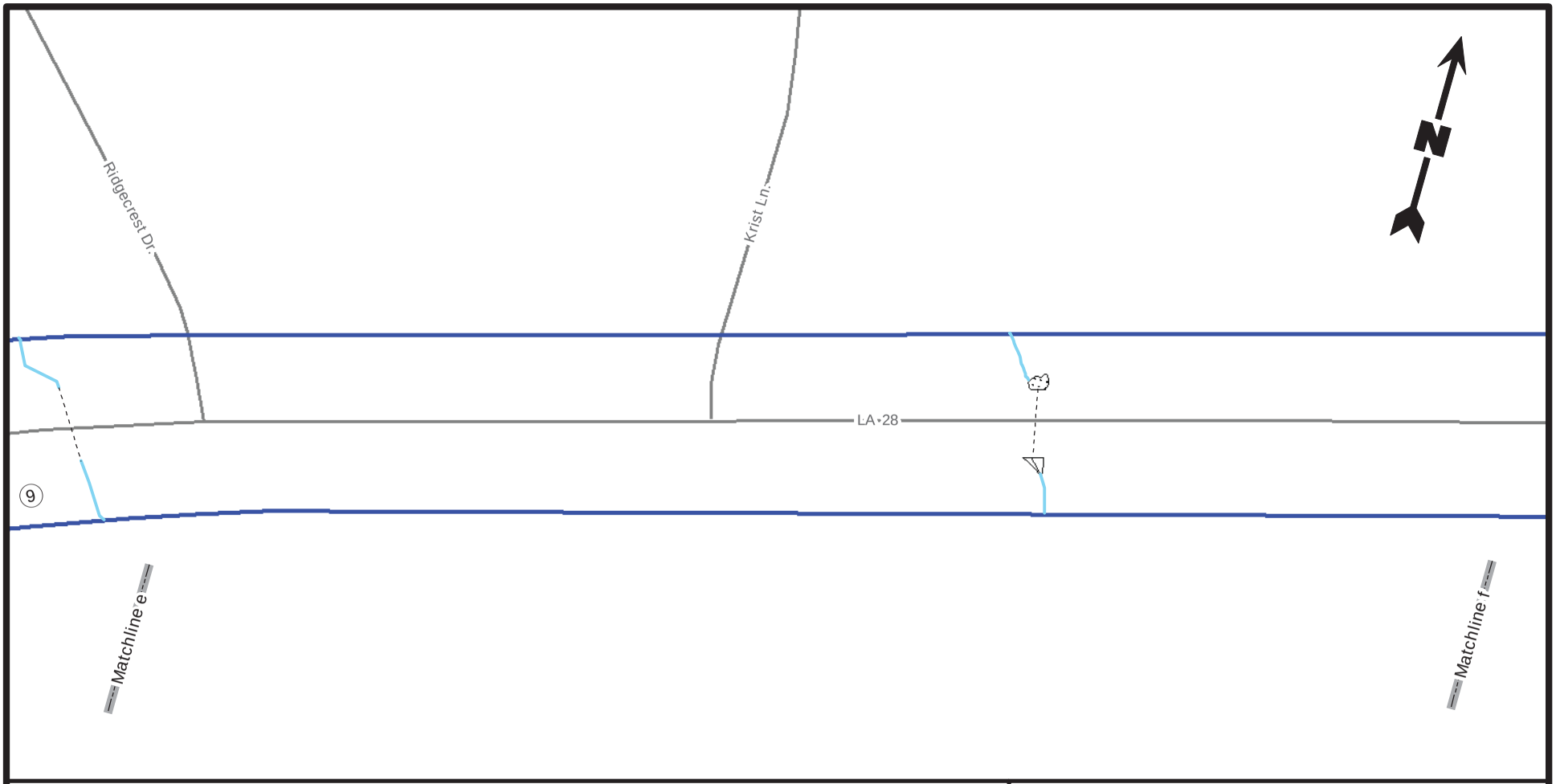

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3f
Figure

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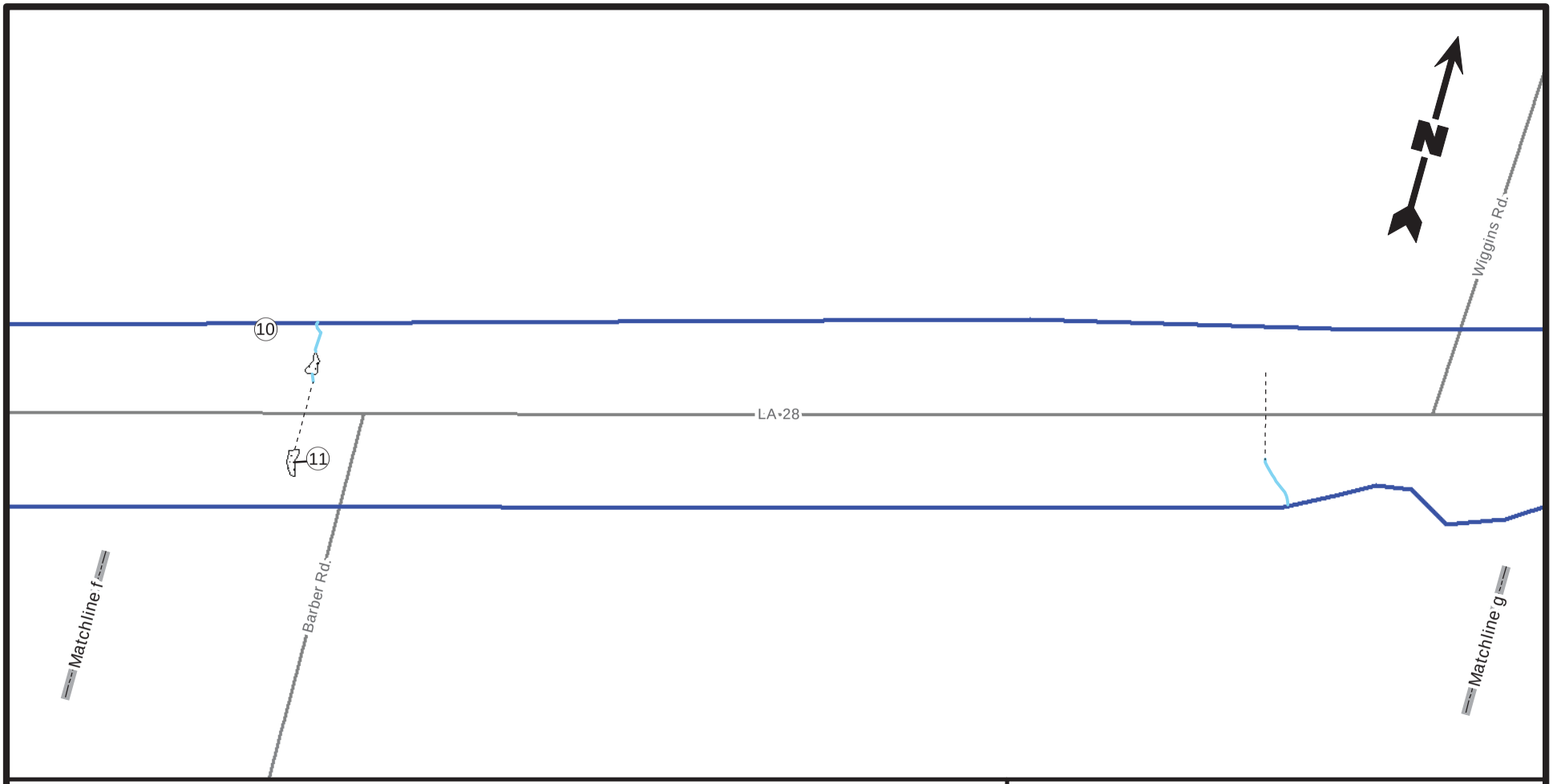

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Figure

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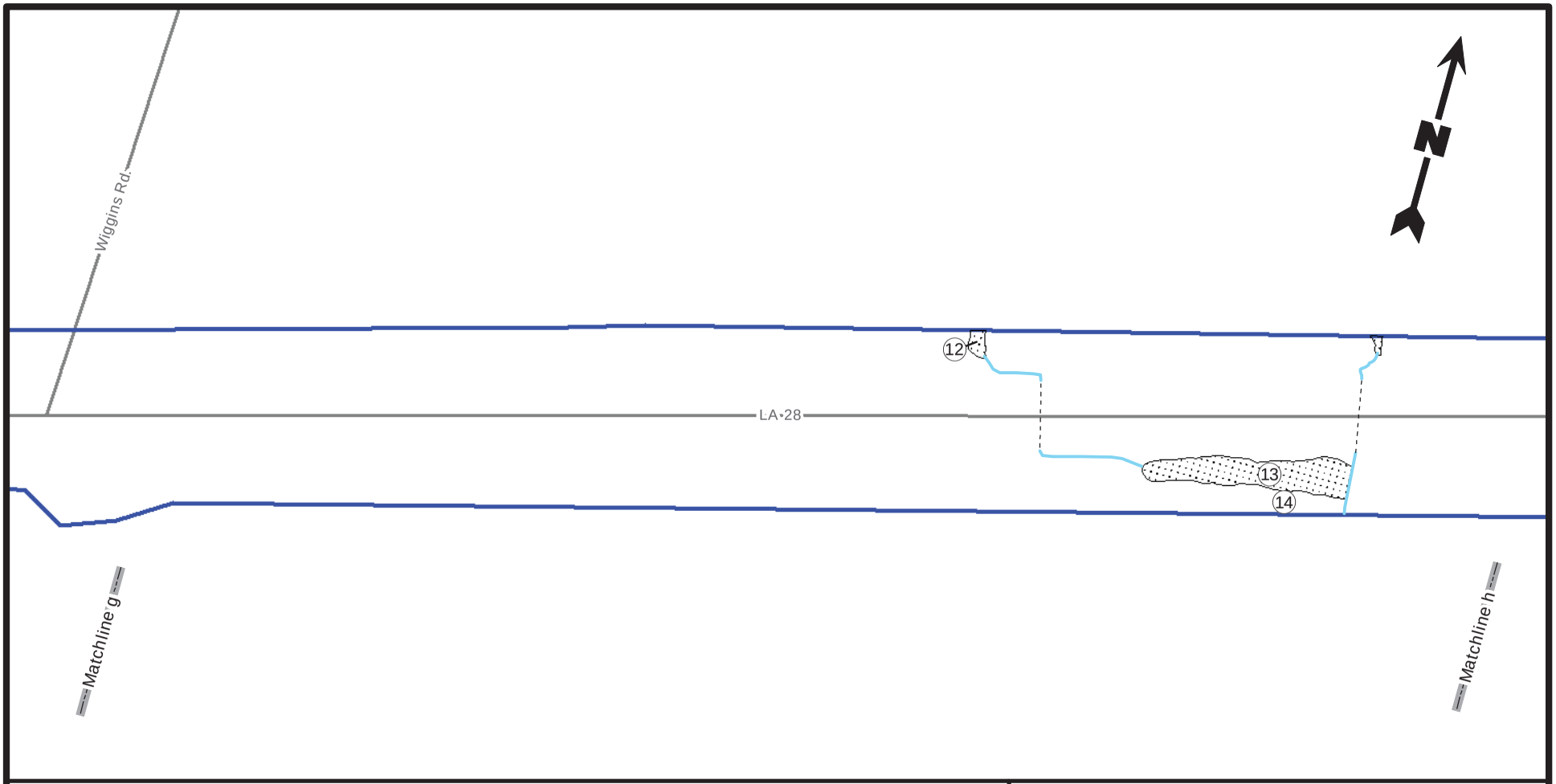

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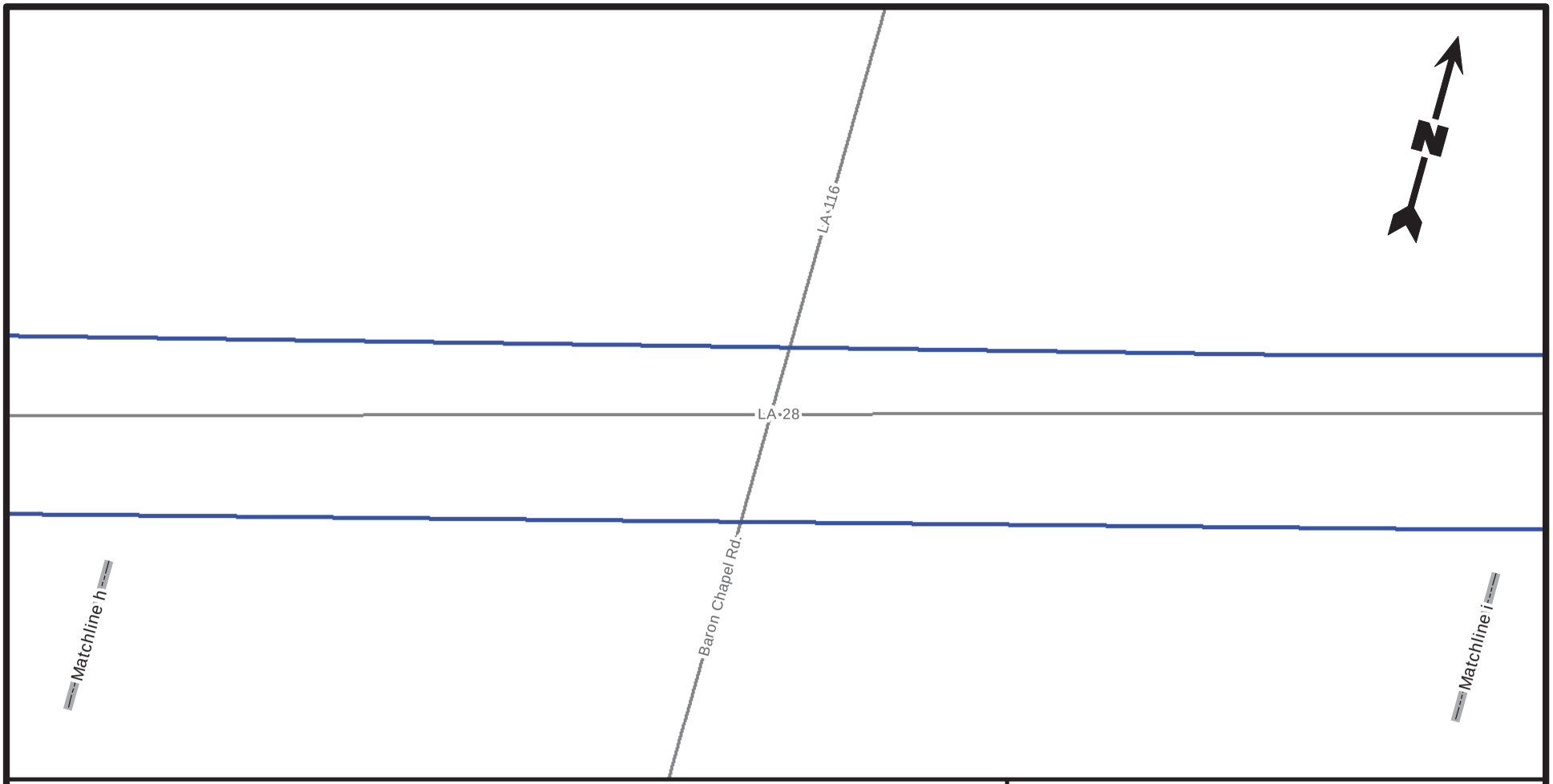

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3i
Figure

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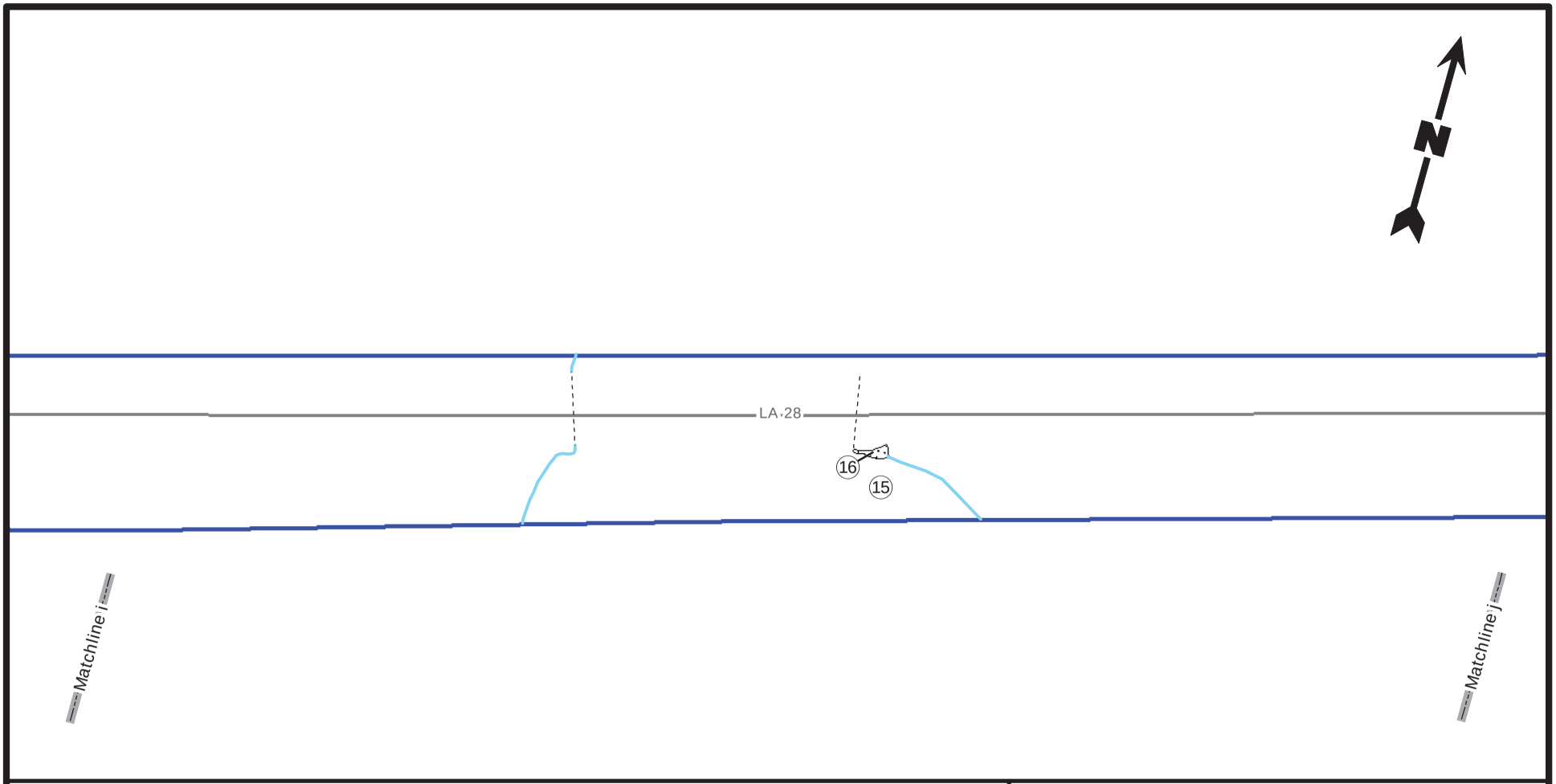

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3j
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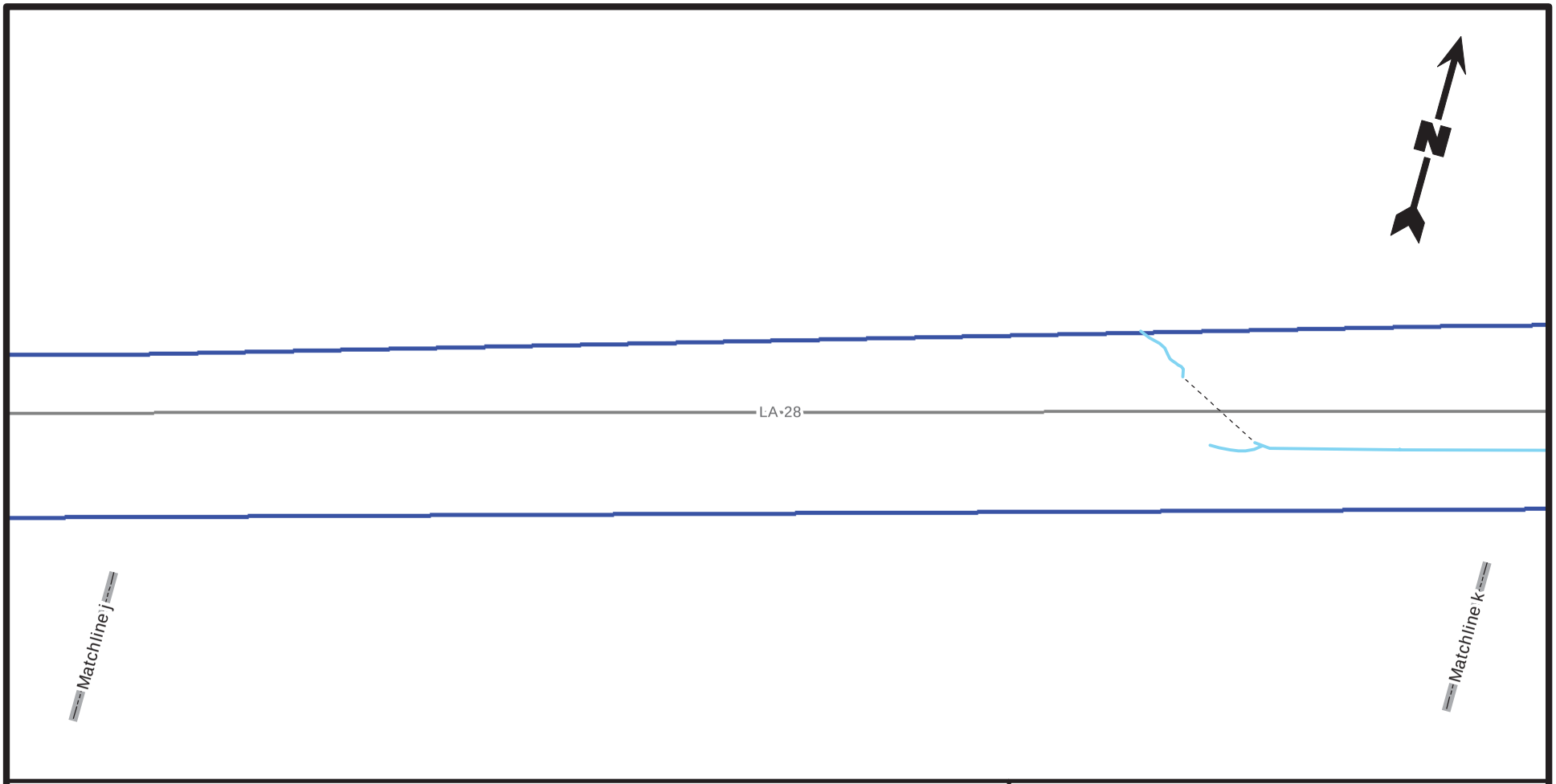

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Approved By	RPC	9/15/2015

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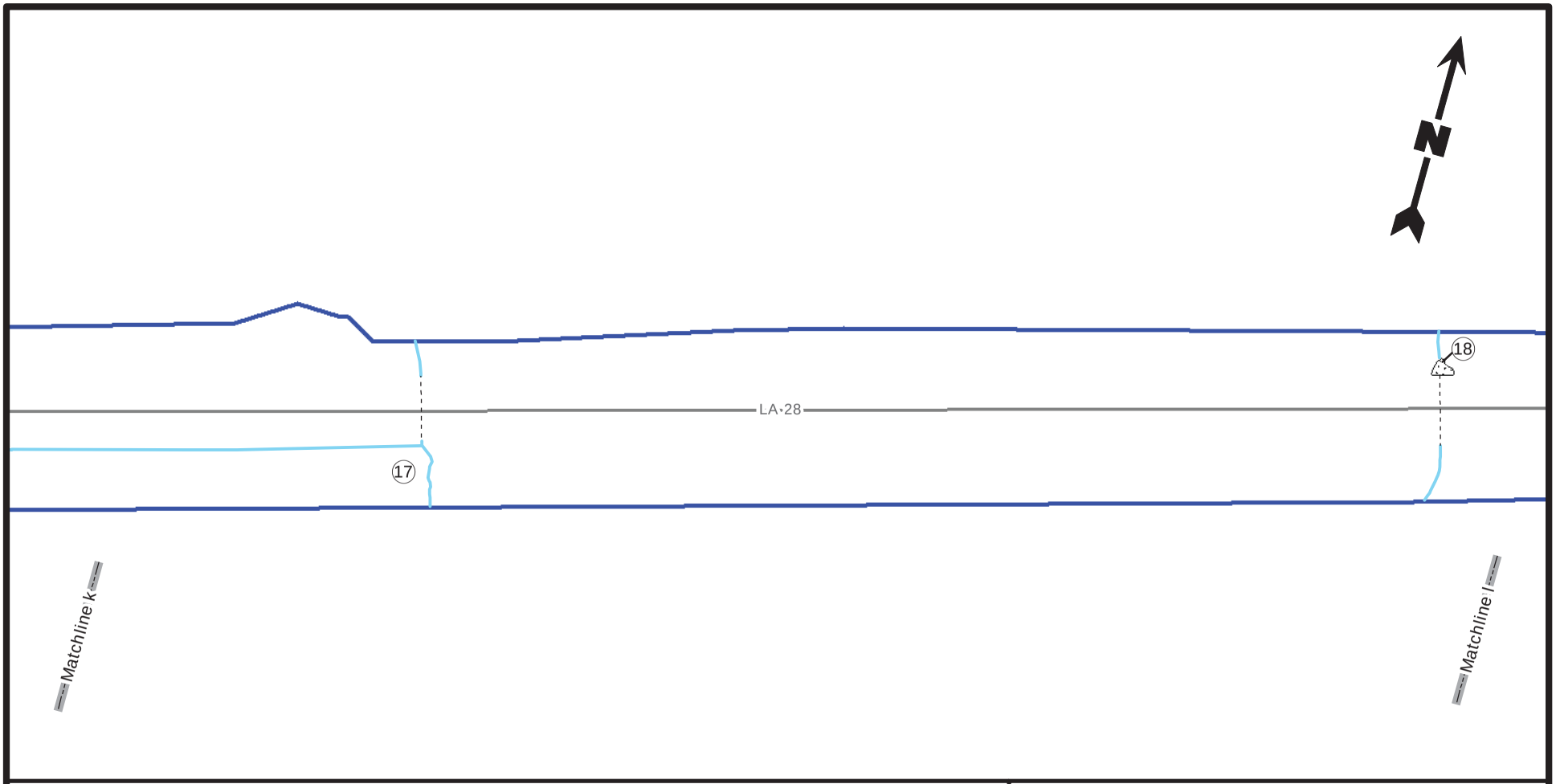
3k
Figure

Providence Engineering and Environmental Group LLC



Legend

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200 100 0 200 Feet

Site Plan

Widening LA 28 East
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3I
Figure

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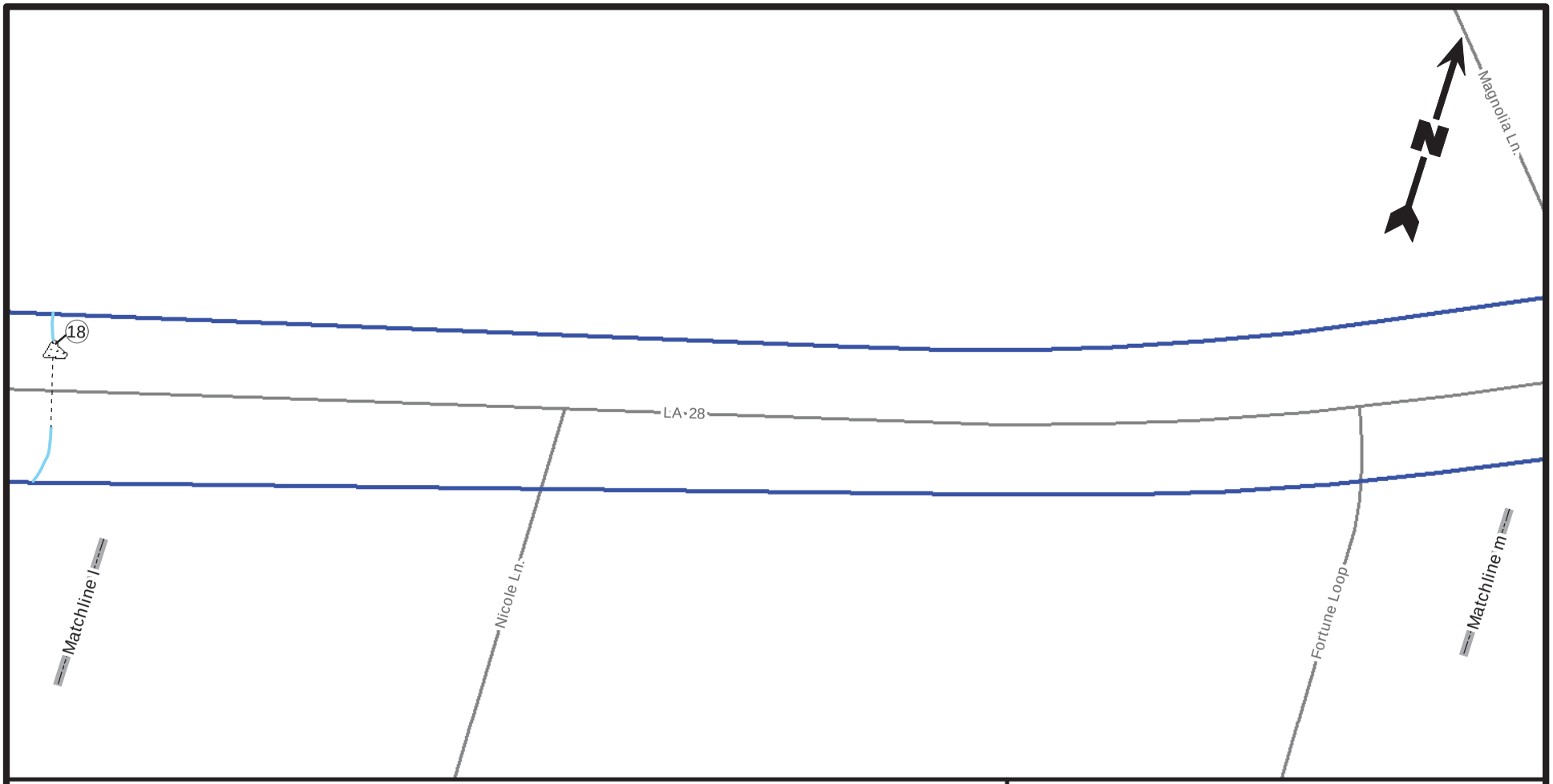

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3m
Figure

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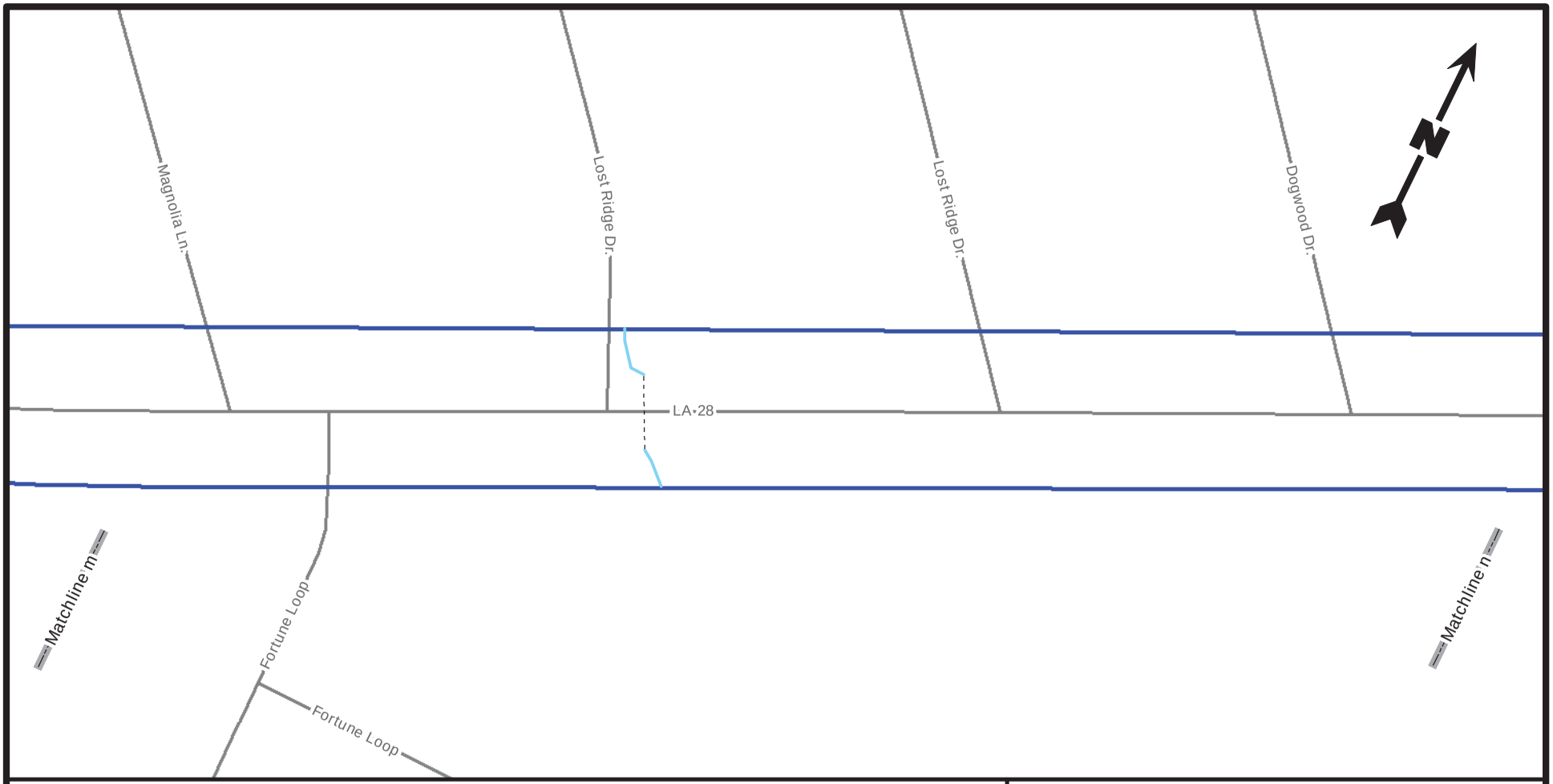

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Figure

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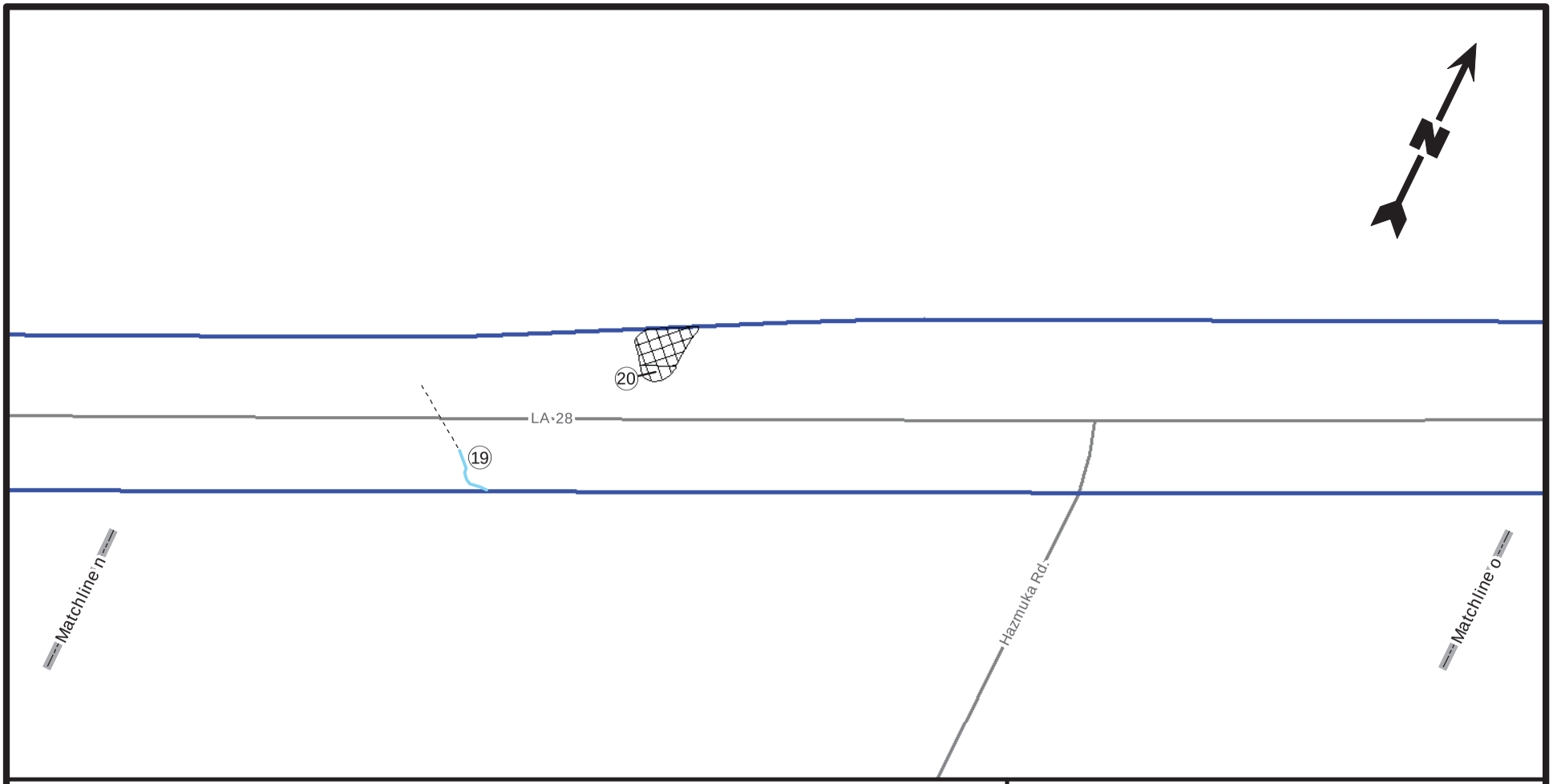

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3o
Figure

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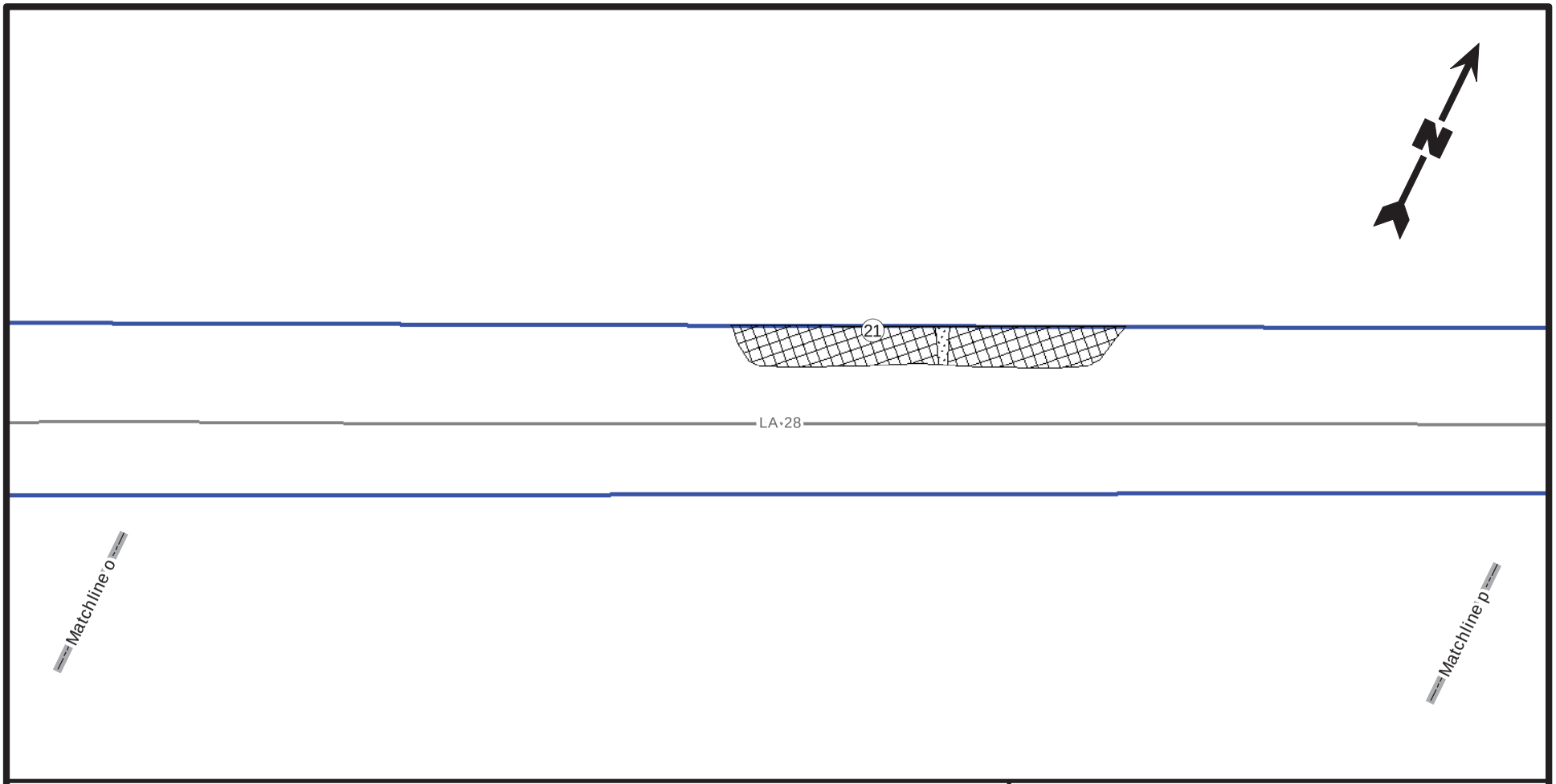

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3p
Figure

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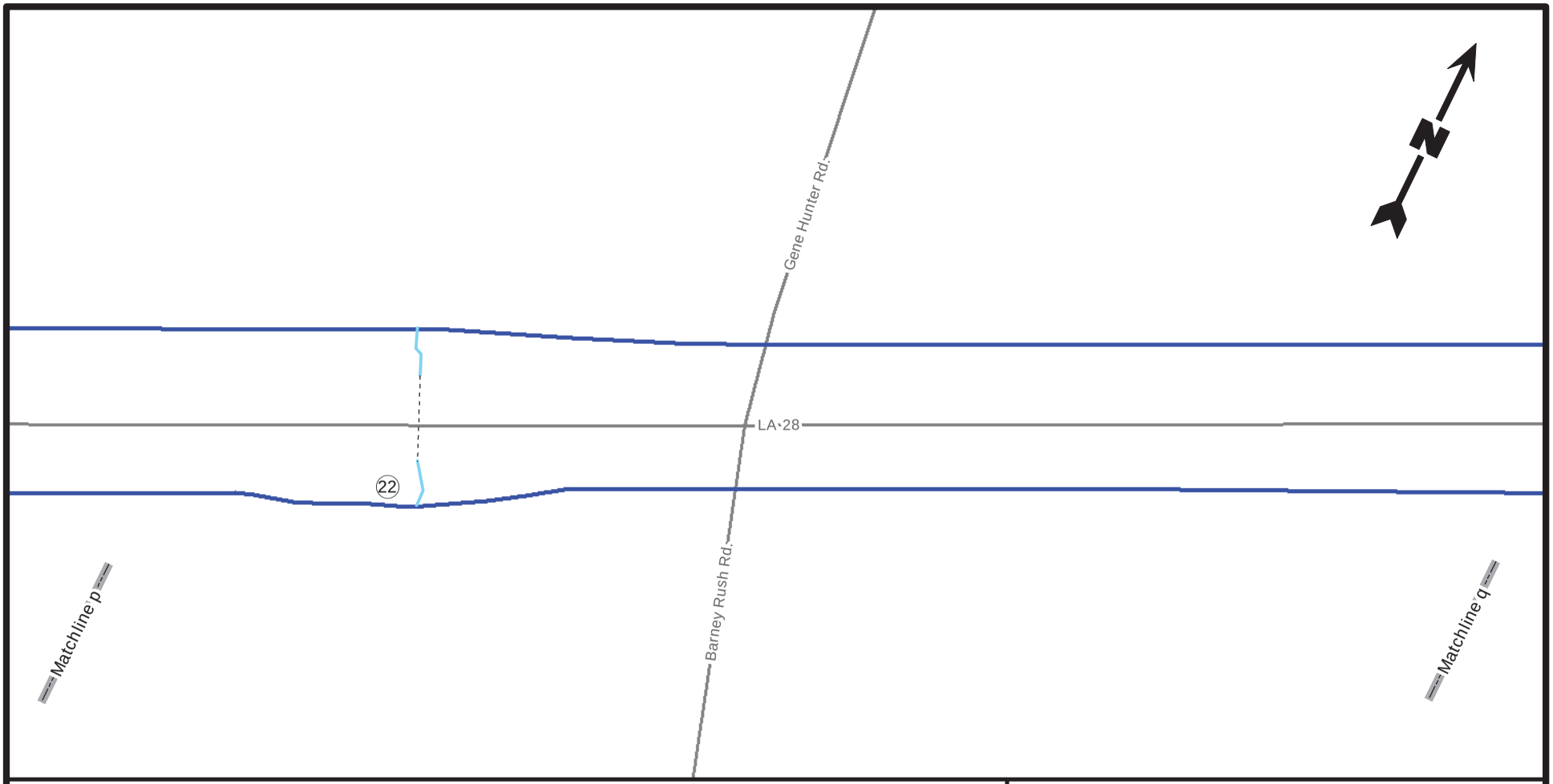

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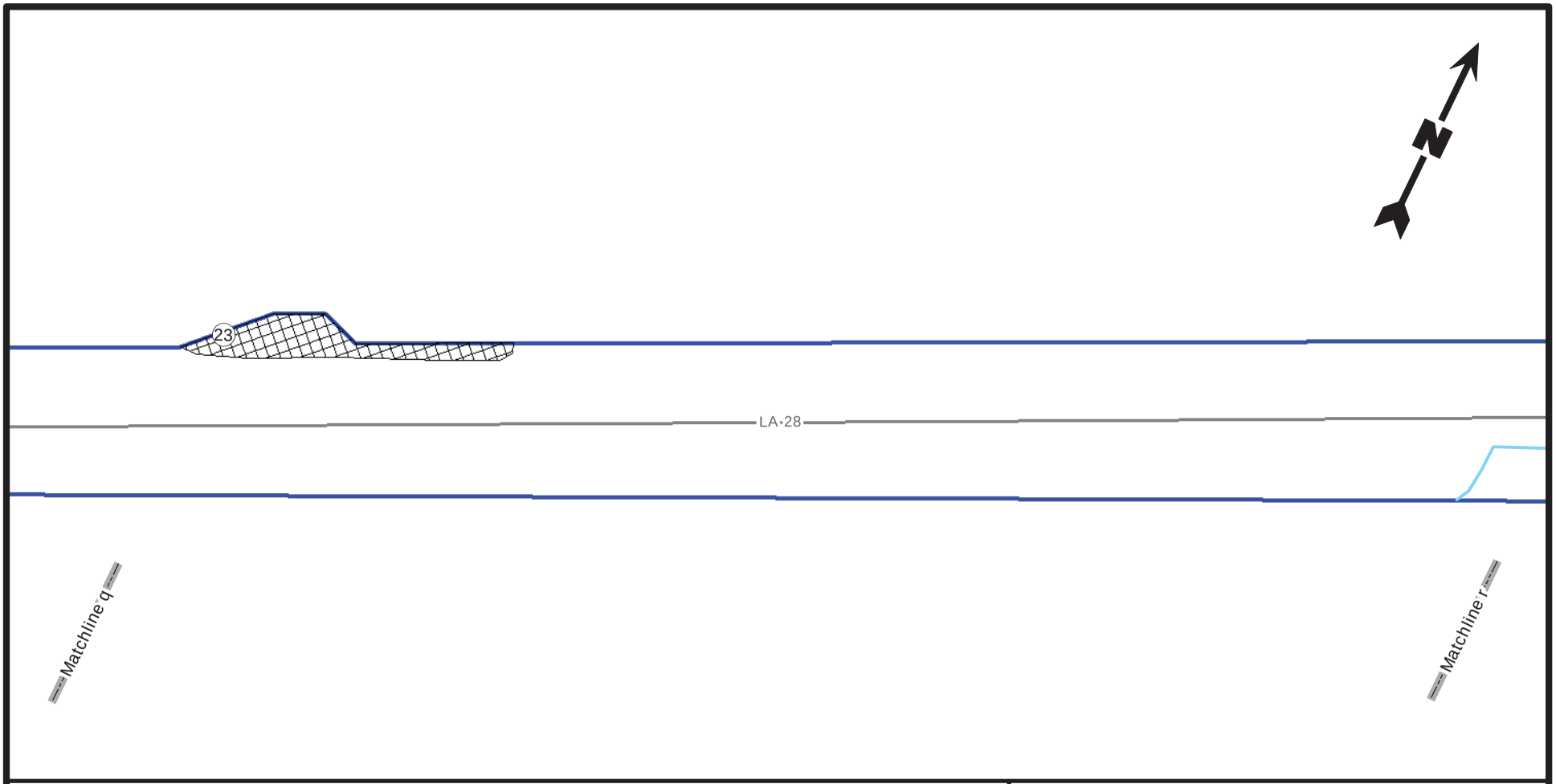
3q
Figure

Providence Engineering and Environmental Group LLC



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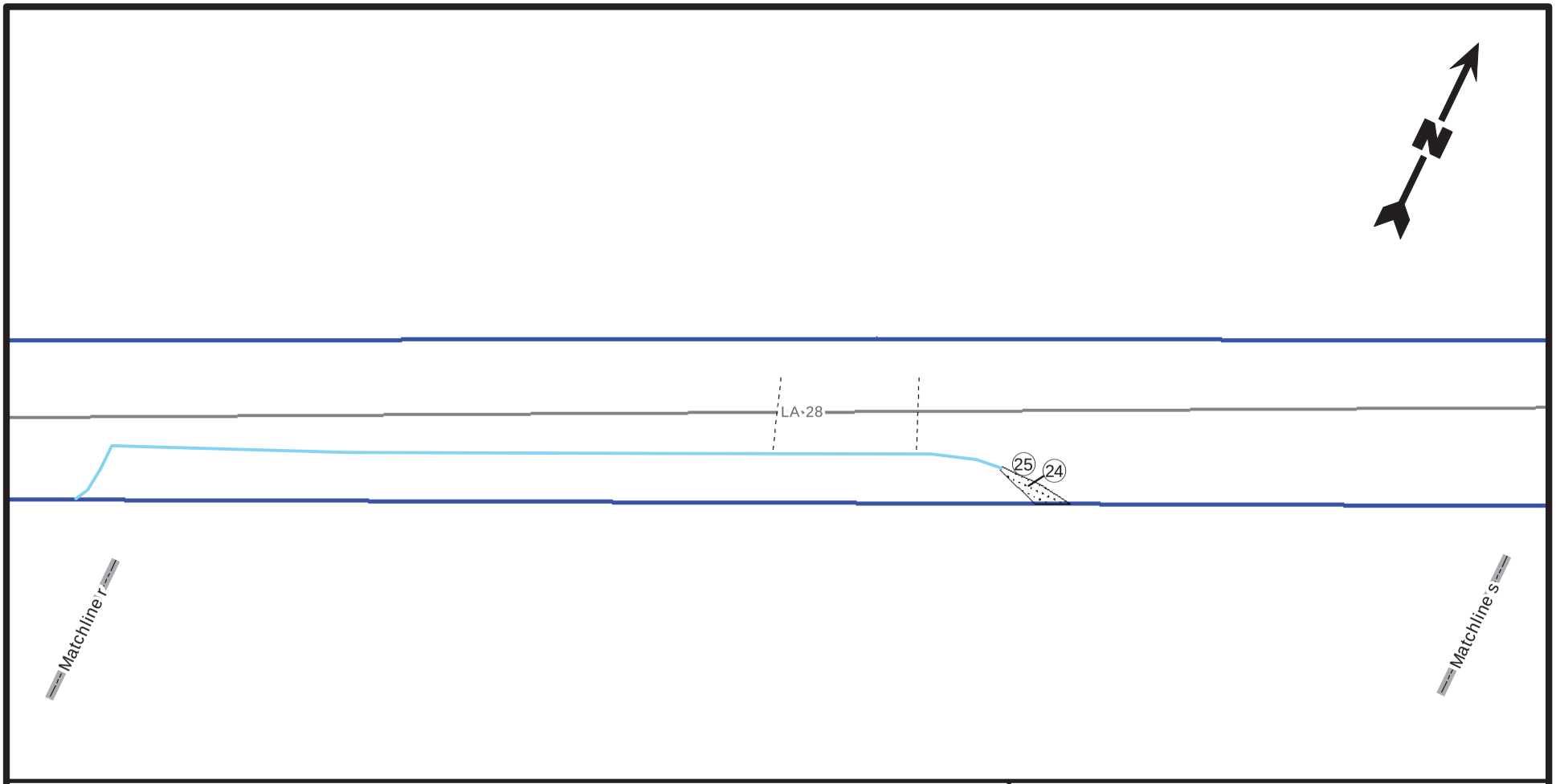
3r
Figure

Providence Engineering and Environmental Group LLC



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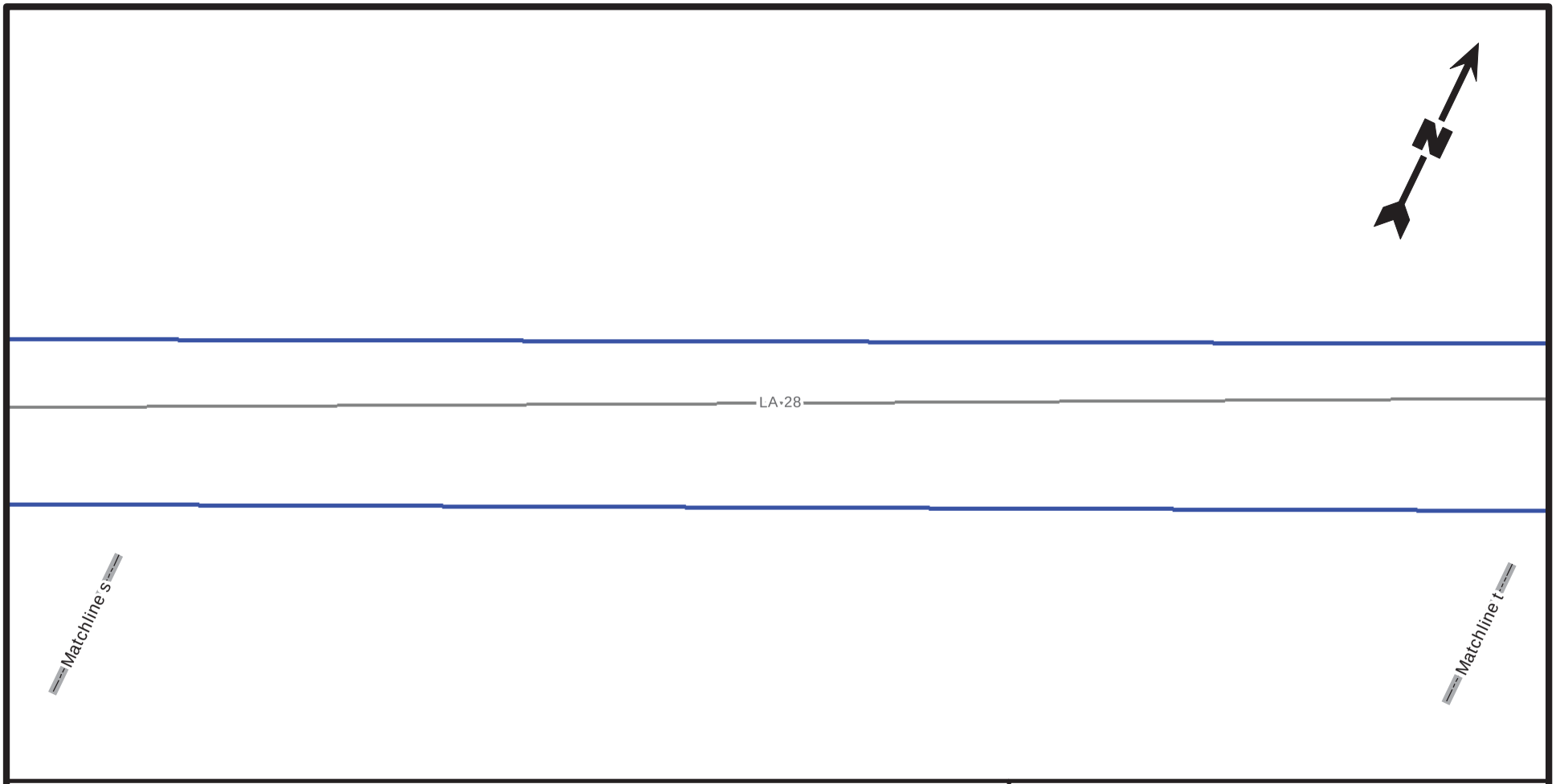
3s
Figure

Providence Engineering and Environmental Group LLC



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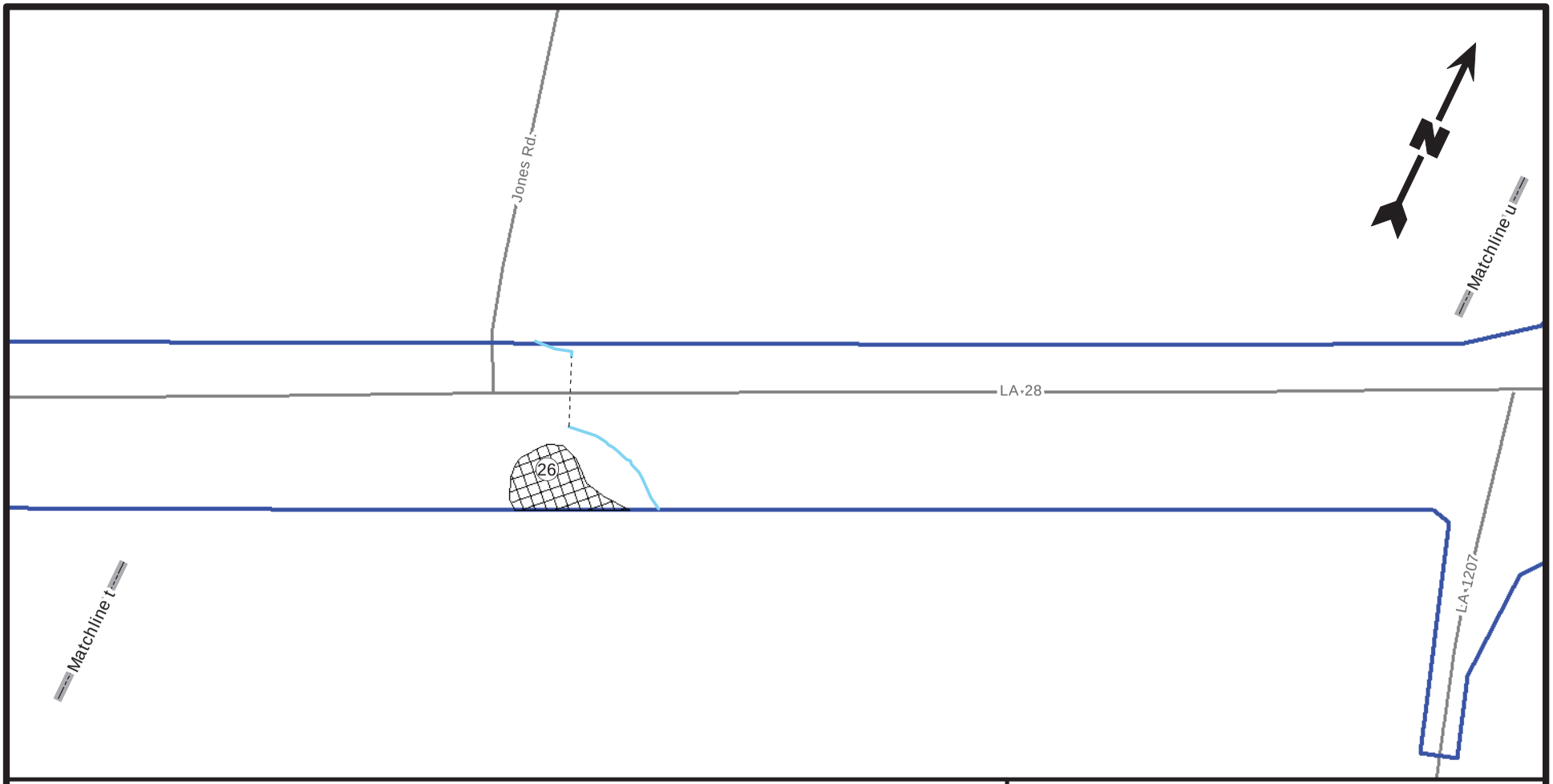
3t
Figure

Providence Engineering and Environmental Group LLC



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3u
Figure

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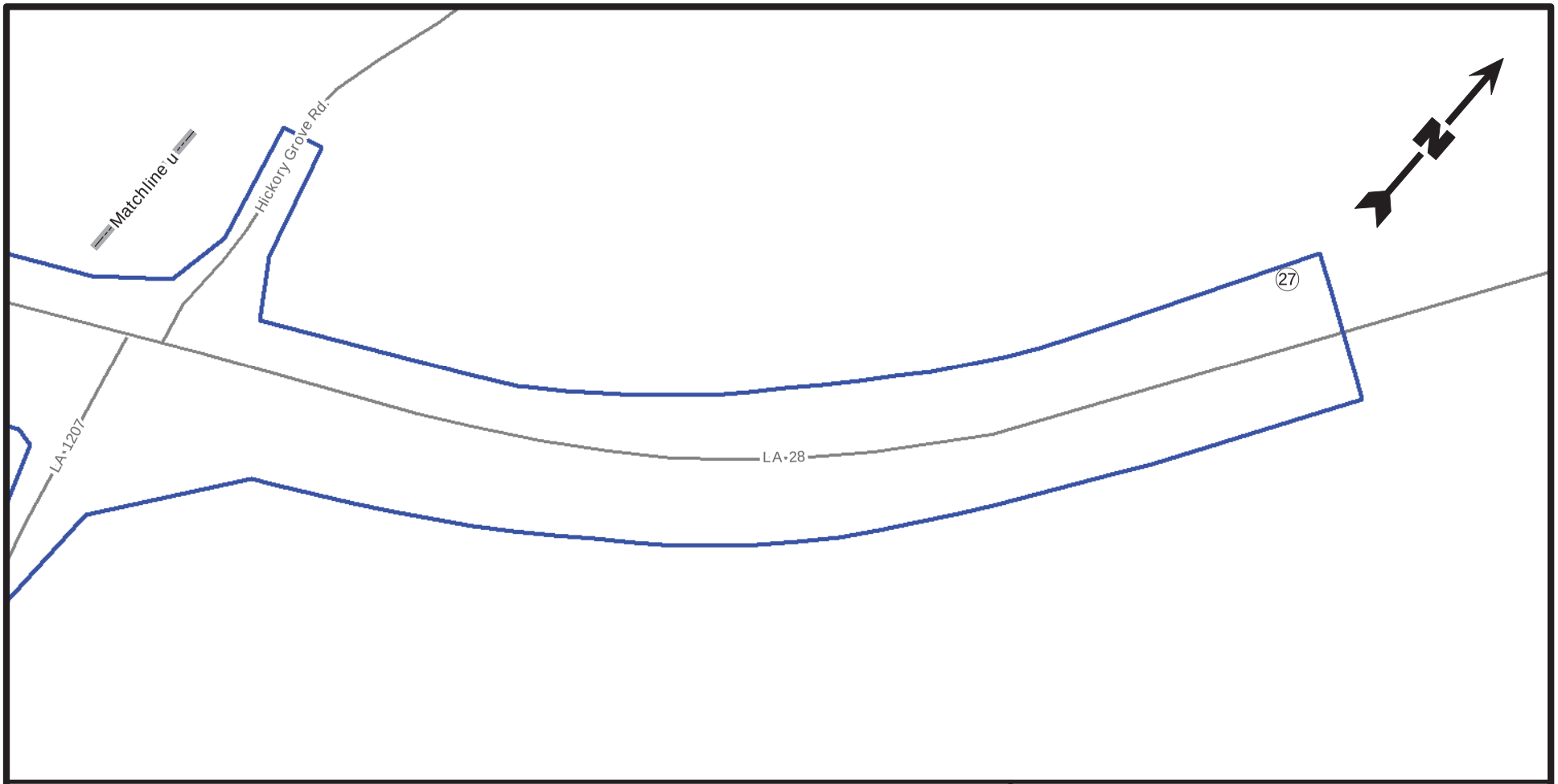

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3v
Figure

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FIGURES 4a-4v

AERIAL PHOTOGRAPHS

Legend

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Reference

Base map comprised of ESRI World Imagery.

200 100 0 200 Feet

Aerial Photograph

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4a
Figure

Providence Engineering and Environmental Group LLC

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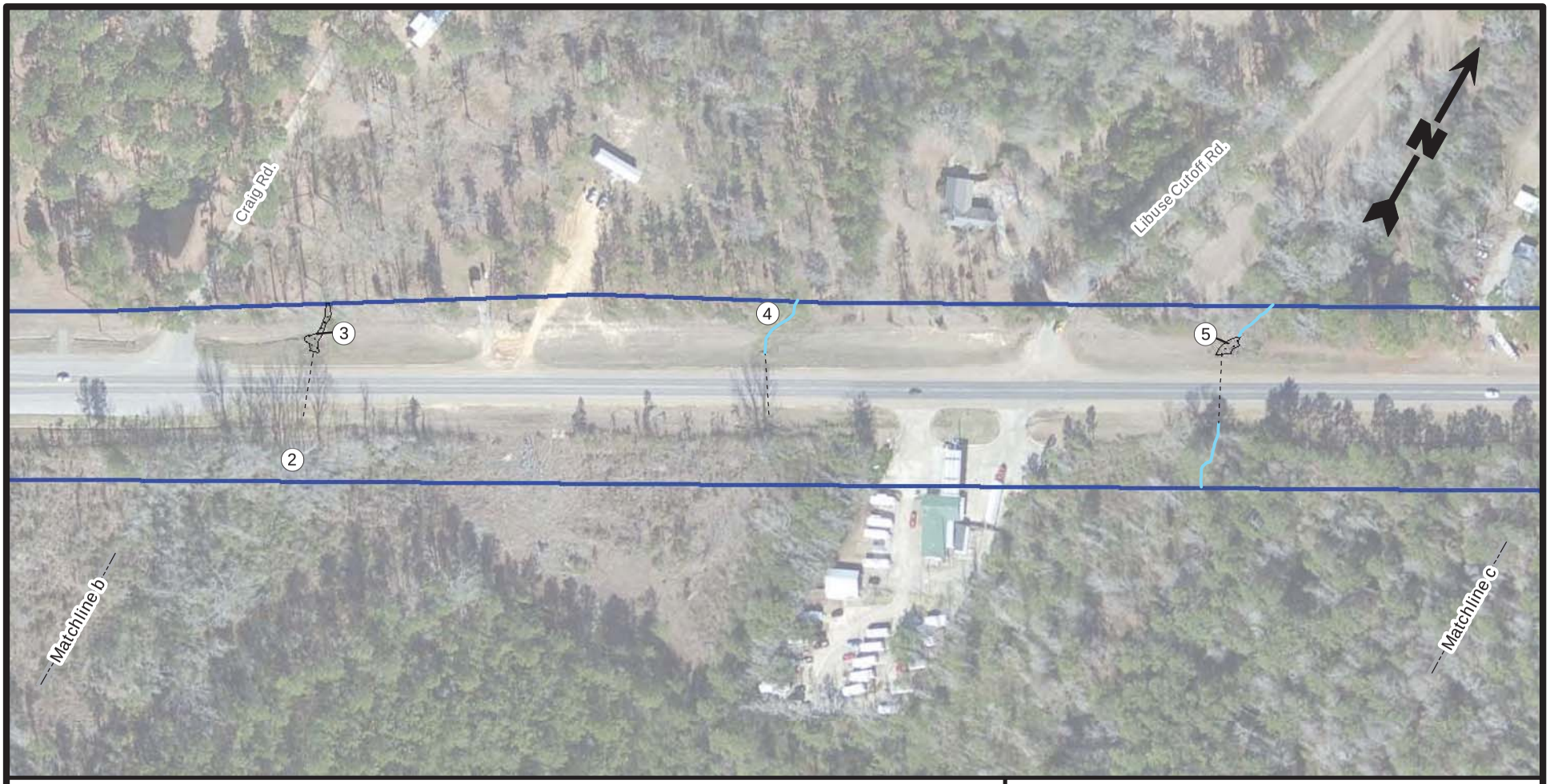
4b
Figure

Providence Engineering and Environmental Group LLC



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4c
Figure

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4d
Figure

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4e
Figure

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4f
Figure

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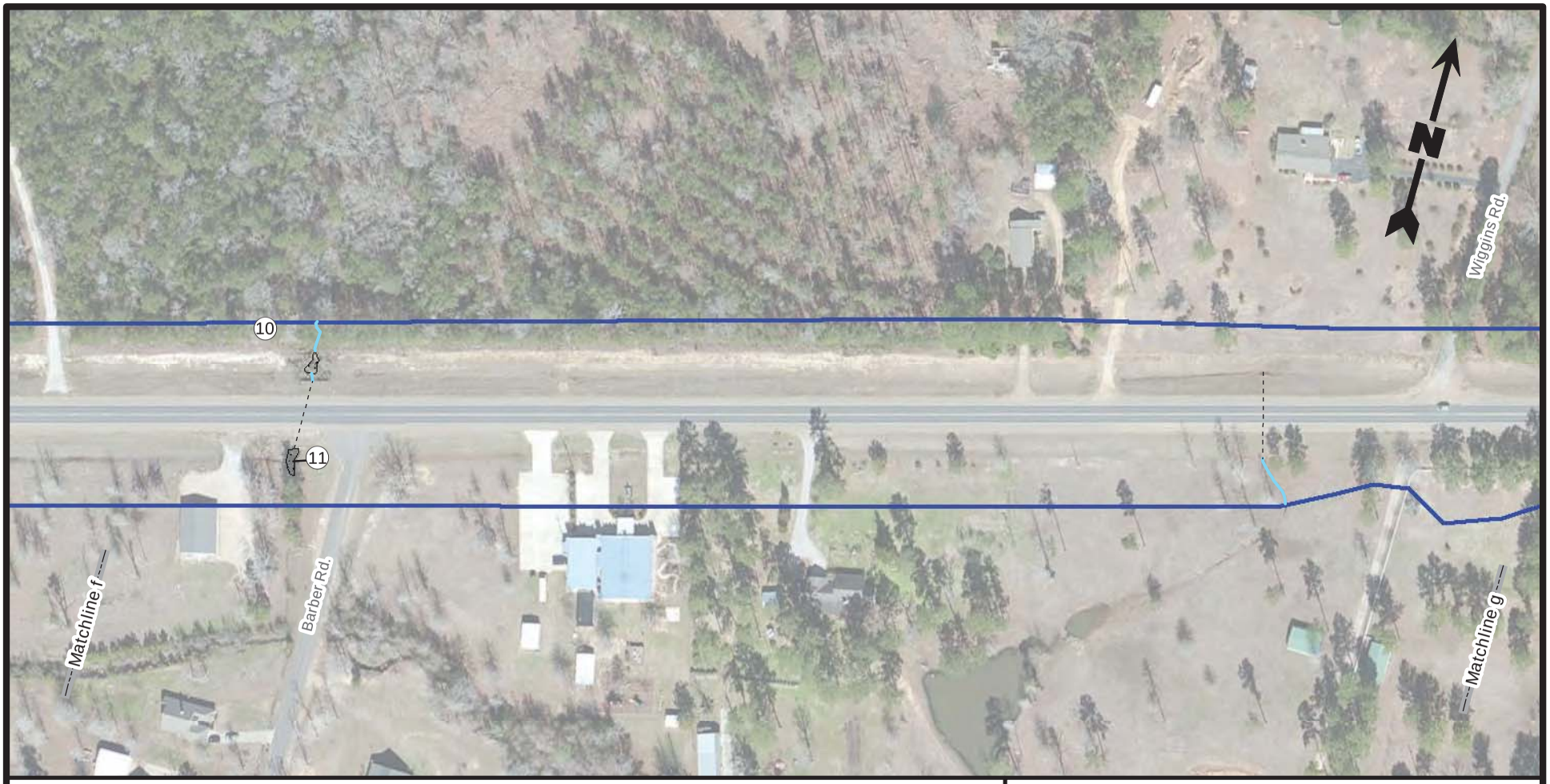

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4g
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4h
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4i
Figure

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4j
Figure

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4k
Figure

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Legend

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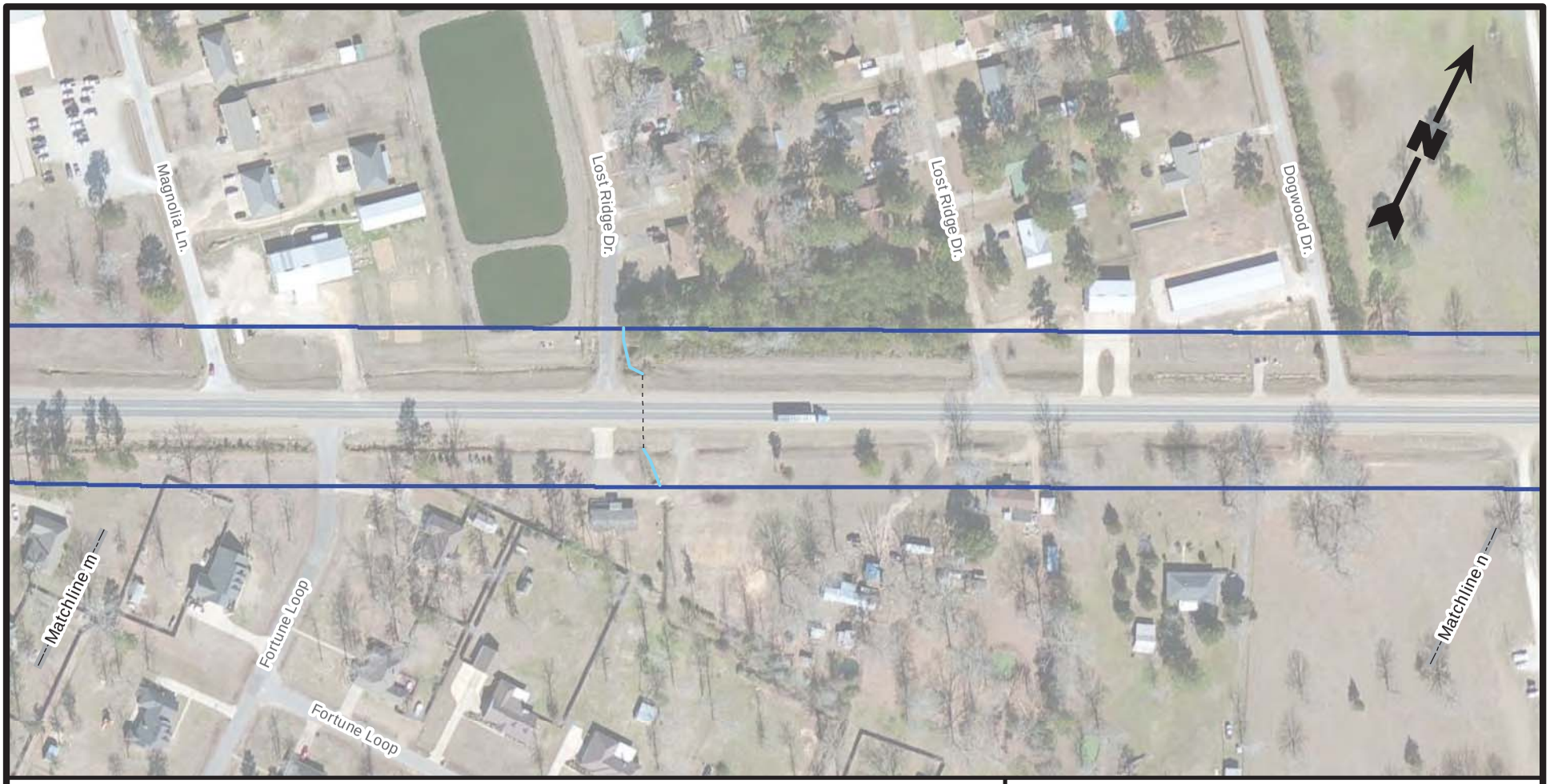
4m
Figure

Providence Engineering and Environmental Group LLC



Legend

- Limits of Delineation (200.58 acres)
- Potential Jurisdictional Wetlands (1.52 acres)
  - PFO (1.12 acres)
  - PSS (0.03 acre)
  - PEM (0.37 acre)
- Potential Jurisdictional Other Waters of the U.S. (0.46 acre; 4,601.53 linear feet)
- Existing Culverted Crossing
- Sample Locations

Reference

Base map comprised of ESRI World Imagery.

200 100 0 200 Feet

Aerial Photograph

Widening LA 28 East
State Project No. H.004825.2
Wetland Analysis Report
Rapides Parish, Louisiana

Louisiana Department
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PROVIDENCE

Drawn By	CT	9/15/2015
Checked By	JCR	9/15/2015
Approved By	RPC	9/15/2015

Project Number
040-013

Drawing Number
040-013-A049

4n
Figure

Providence Engineering and Environmental Group LLC

Legend

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4o
Figure

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Legend

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4p
Figure

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Legend

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4q
Figure

Providence Engineering and Environmental Group LLC

Legend

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Aerial Photograph

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4r
Figure

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Legend

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4s
Figure

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Legend

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4t
Figure

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4u
Figure

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4v
Figure

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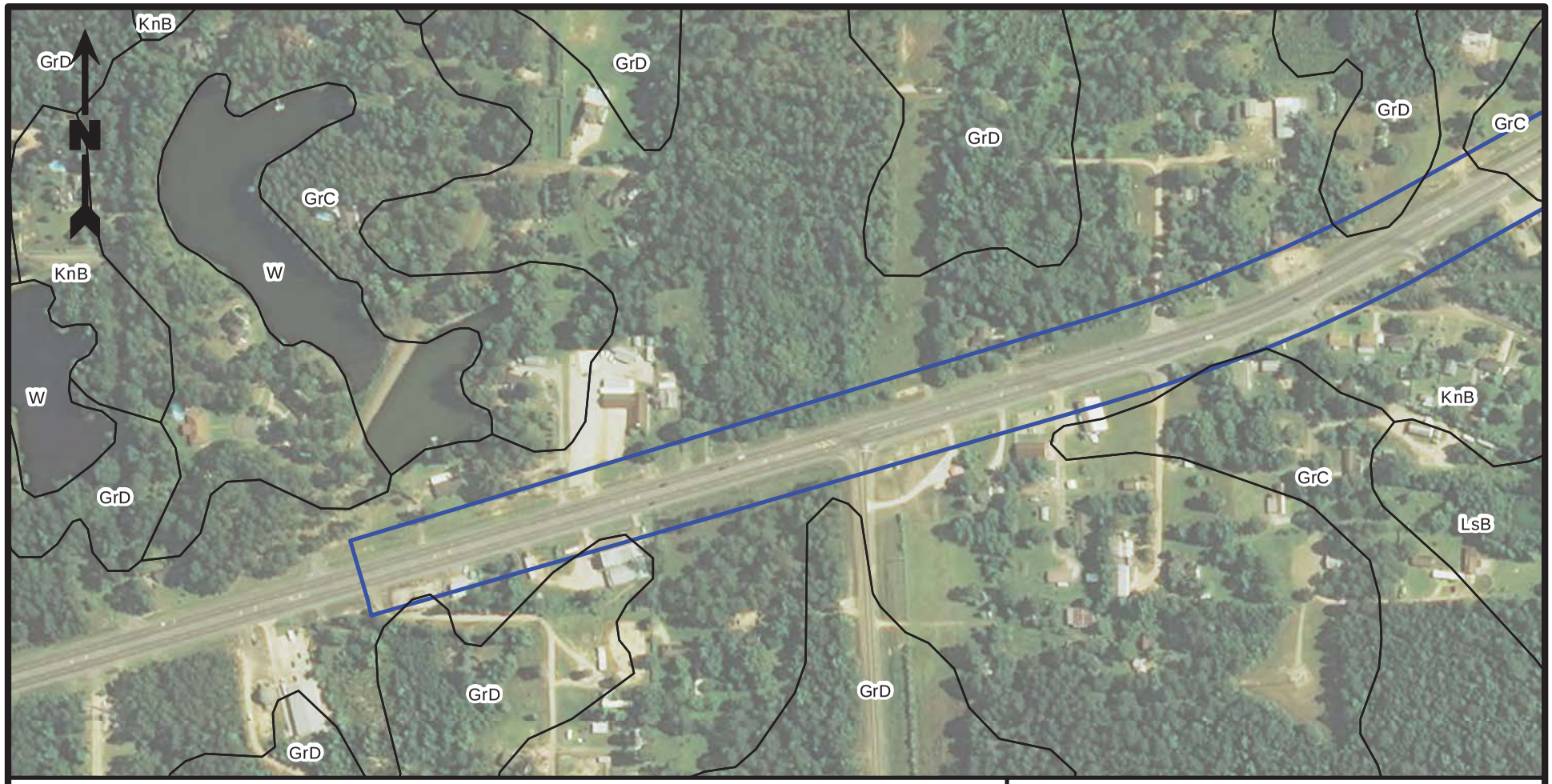
FIGURE 5a – 5l

SOILS MAPS



Legend

Limits of Delineation (200.58 acres)

Soils

- AcA - Acadia silt loam, 0 to 1 percent slopes
- AcB - Acadia silt loam, 1 to 3 percent slopes
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- MaC - Malbis fine sandy loam, 1 to 5 percent slopes
- Pa - Vick silt loam
- RsB - Ruston fine sandy loam, 1 to 3 percent slopes
- RsC - Ruston fine sandy loam, 3 to 8 percent slopes
- Wr - Wrightsville silt loam

Reference

Base map comprised of ESRI World Imagery. Soils data obtained from Natural Resources Conservation Service (NRCS) data-server.

400 200 0 400 Feet

Soils Map

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Drawing Number
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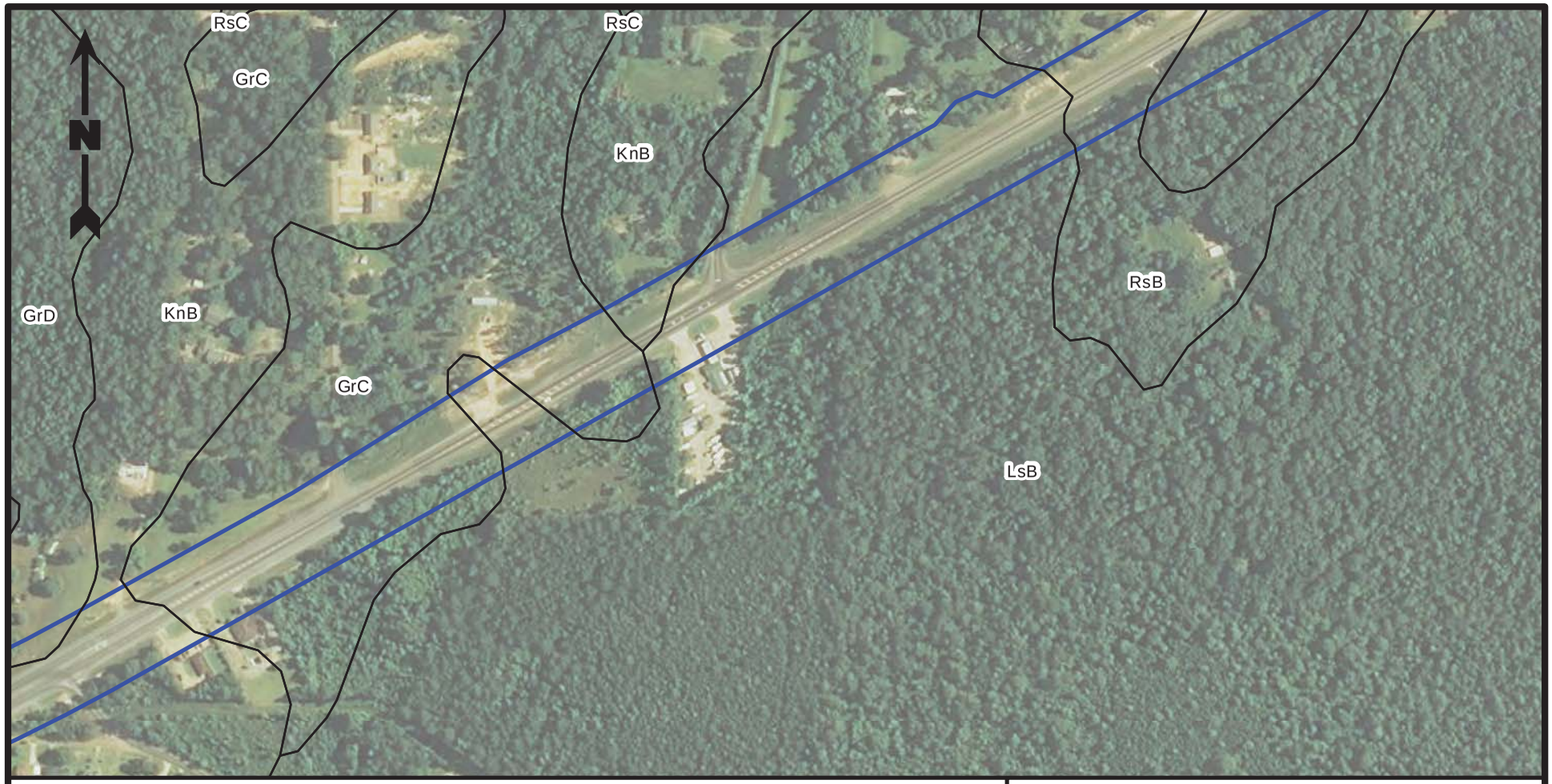
5a
Figure

Providence Engineering and Environmental Group LLC



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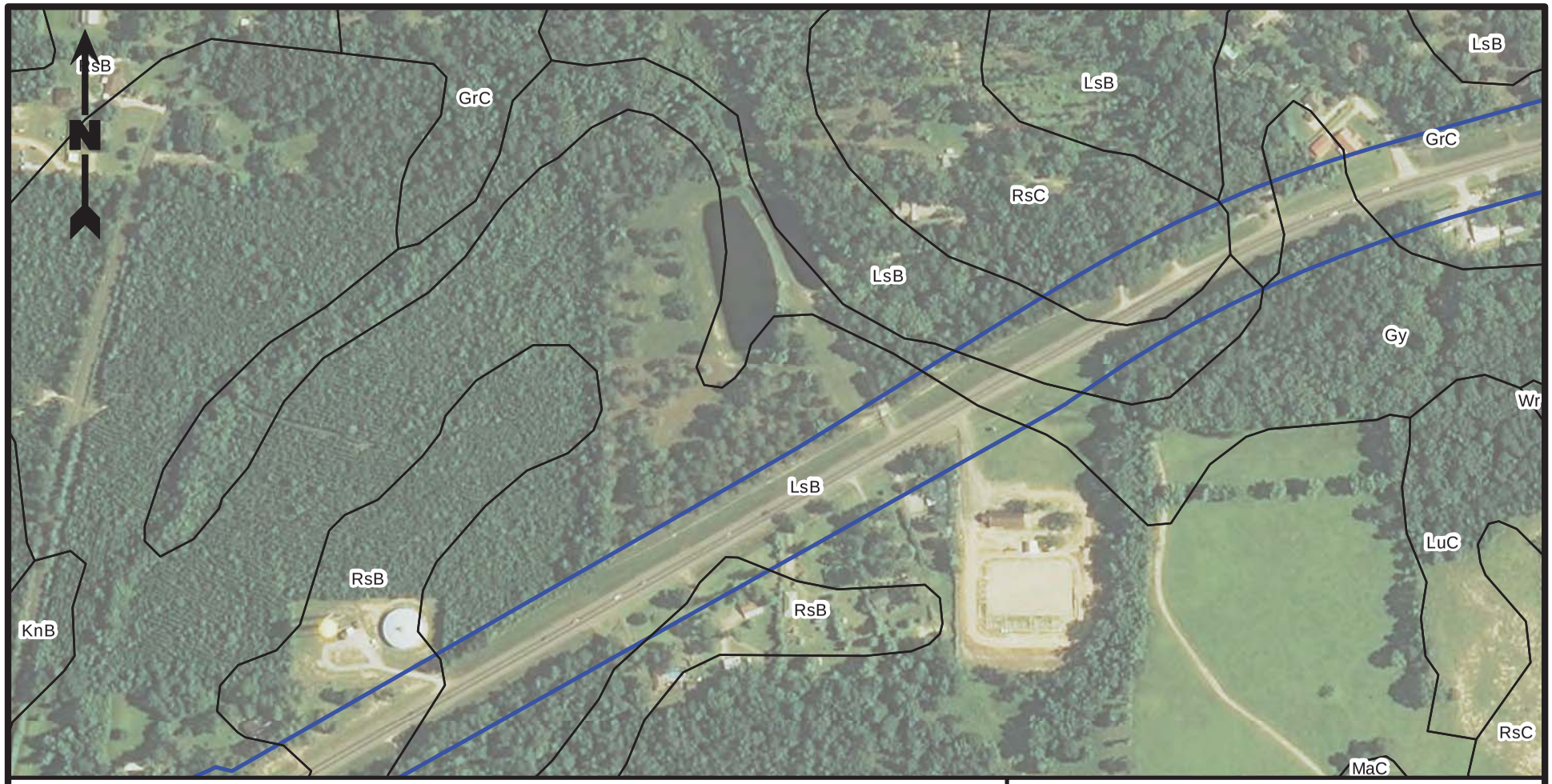
5b
Figure

Providence Engineering and Environmental Group LLC



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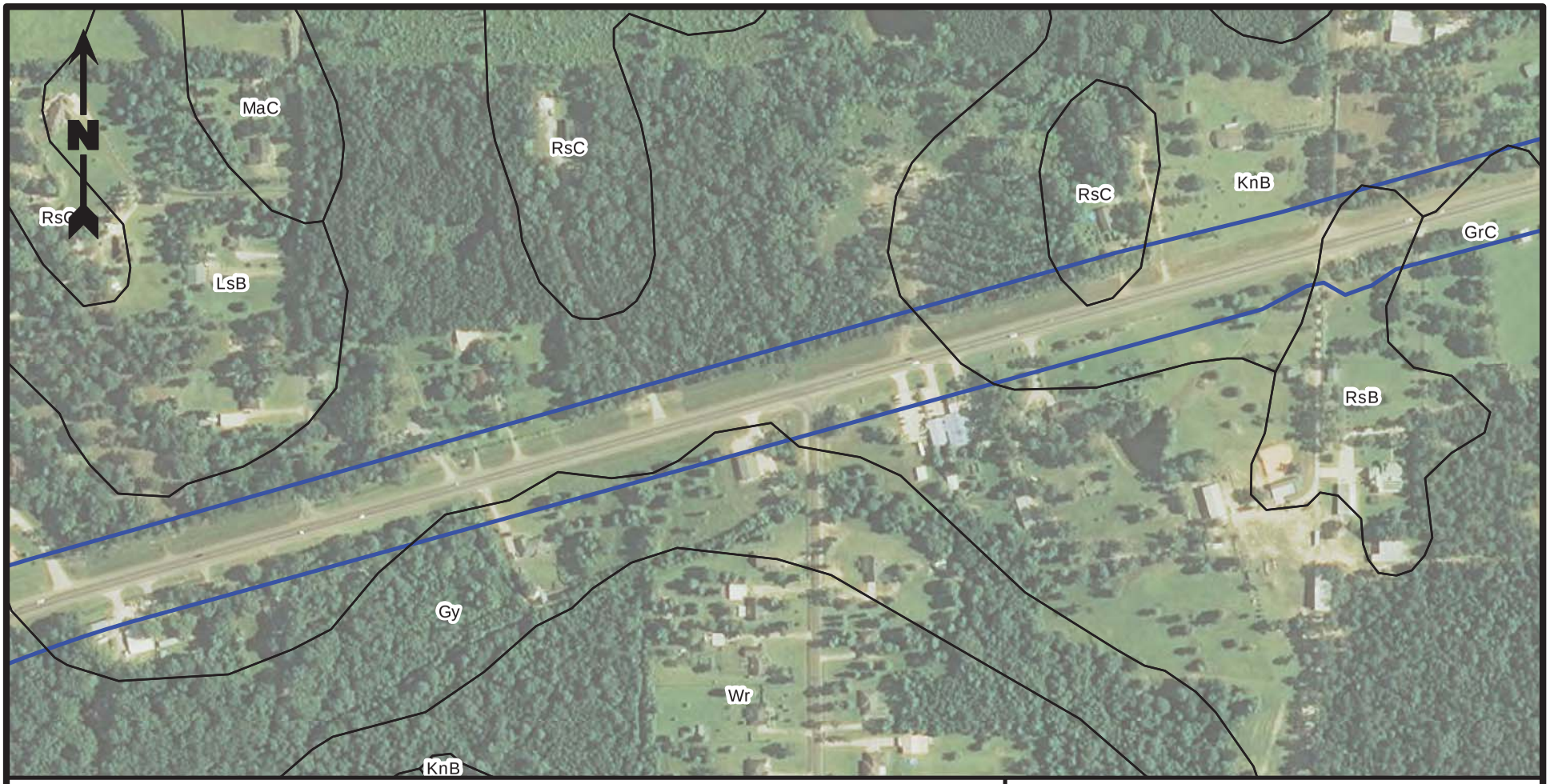
5c
Figure

Providence Engineering and Environmental Group LLC



Legend

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Project Number
040-013

Drawing Number
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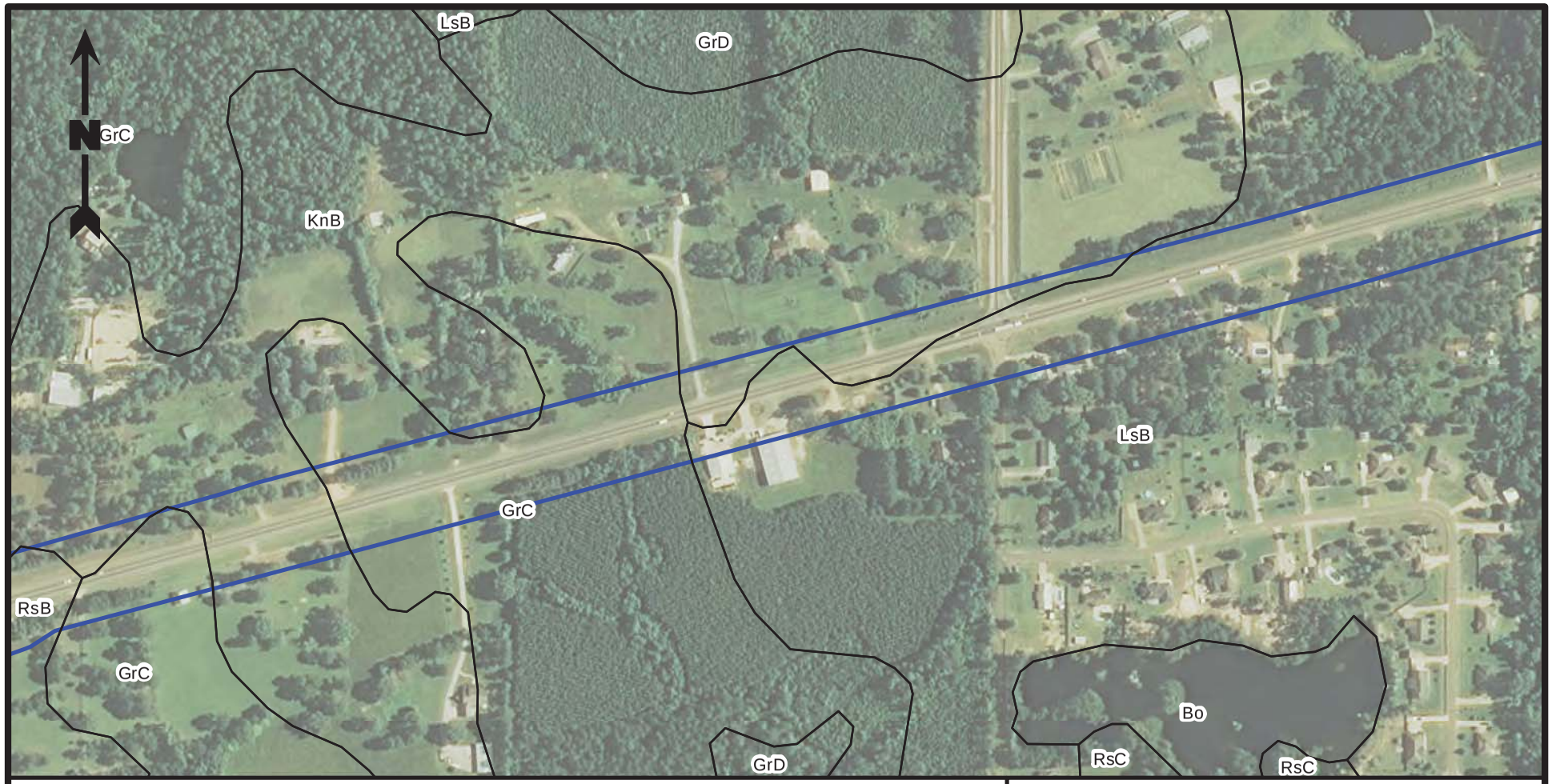
5d
Figure

Providence Engineering and Environmental Group LLC



Legend

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Drawing Number 040-013-A050

5e
Figure

Providence Engineering and Environmental Group LLC

Legend

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5f
Figure

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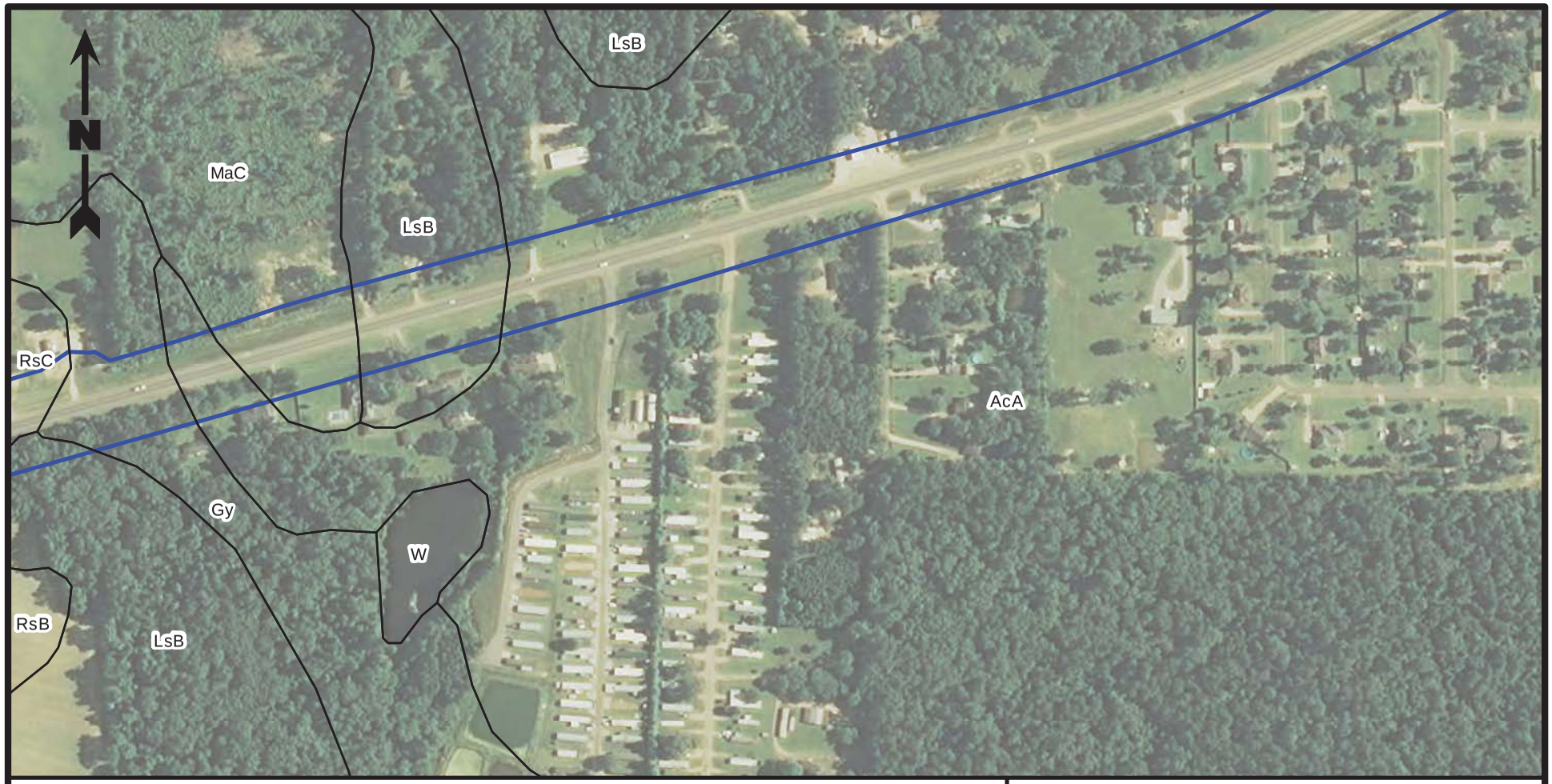

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5g
Figure

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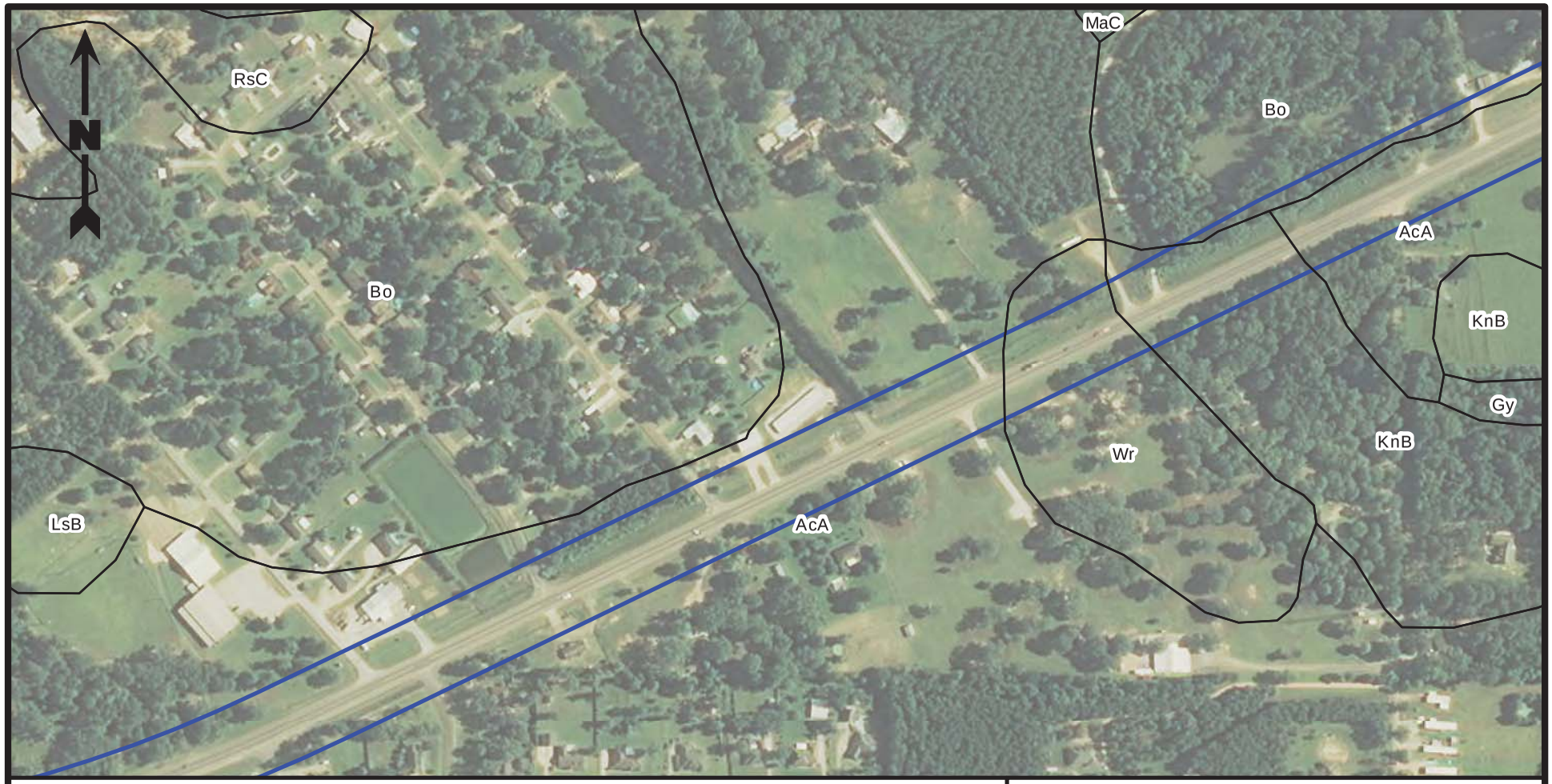

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5h
Figure

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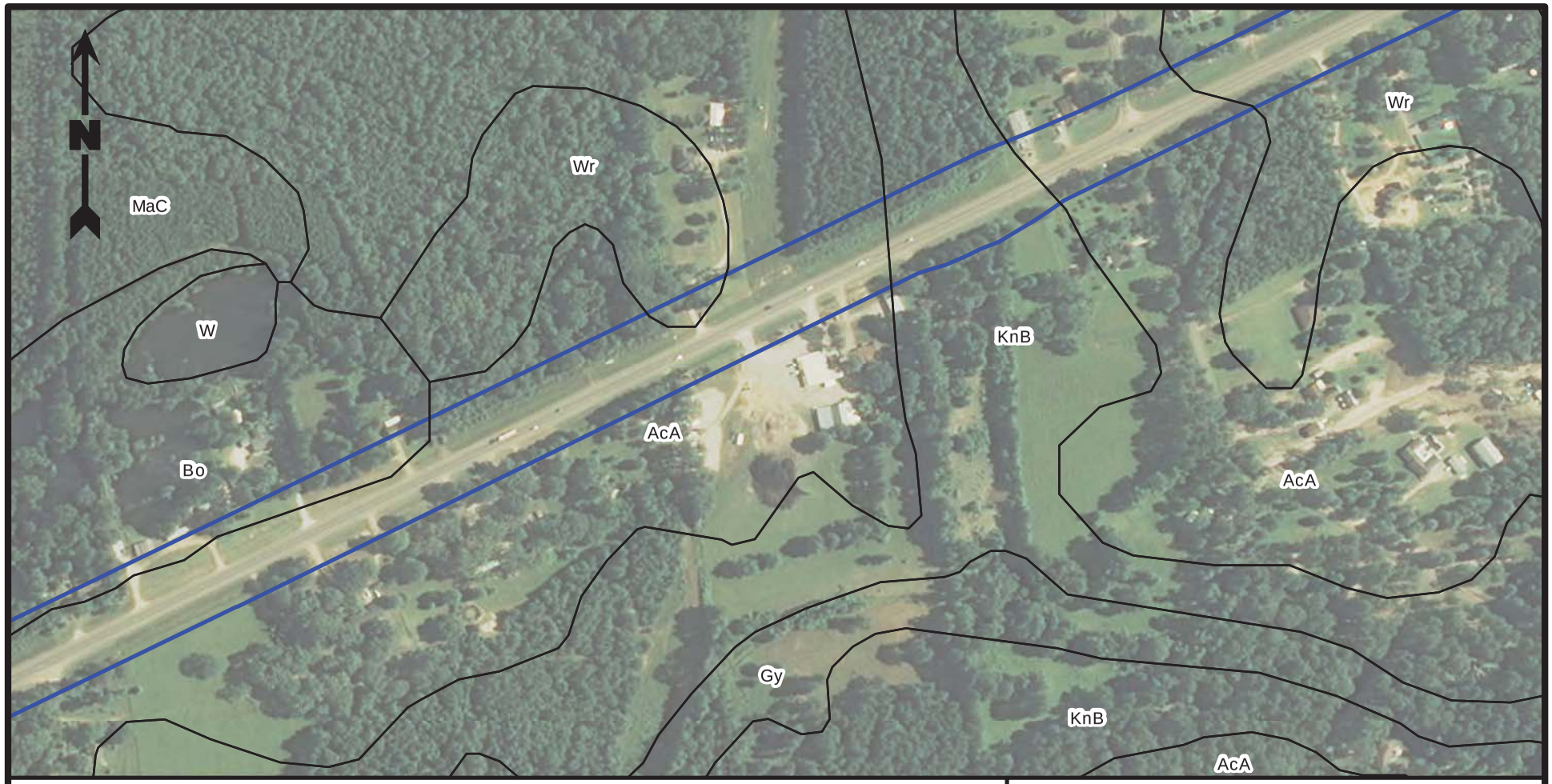

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5i
Figure

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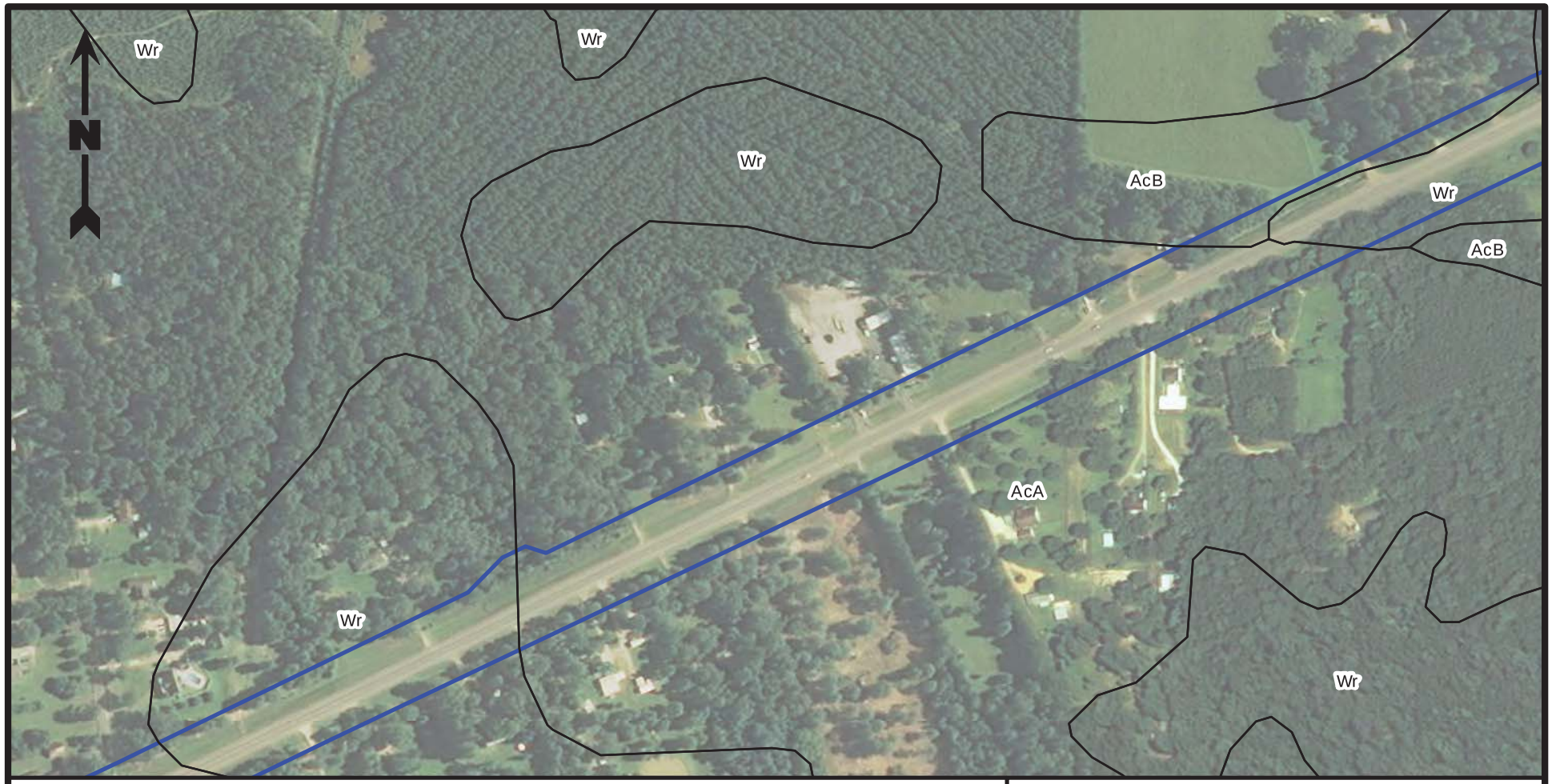

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5j
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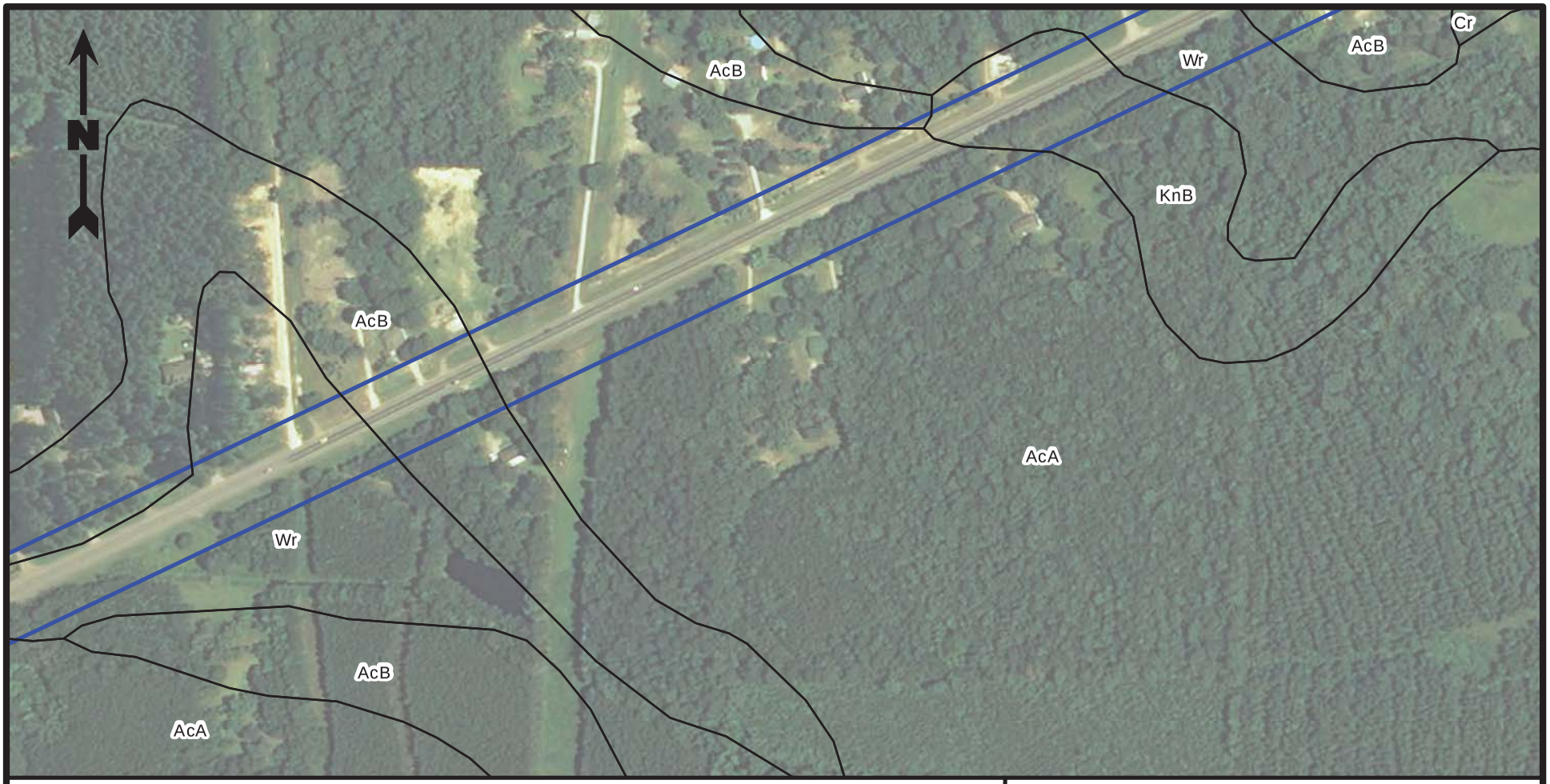

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- Gy - Guyton complex, frequently flooded
- KnB - Kolin silt loam, 1 to 5 percent slopes
- LsB - Libuse silt loam, 1 to 5 percent slopes
- MaC - Malbis fine sandy loam, 1 to 5 percent slopes
- Pa - Vick silt loam
- RsB - Ruston fine sandy loam, 1 to 3 percent slopes
- RsC - Ruston fine sandy loam, 3 to 8 percent slopes
- Wr - Wrightsville silt loam

Reference

Base map comprised of ESRI World Imagery. Soils data obtained from Natural Resources Conservation Service (NRCS) data-server.

400 200 0 400 Feet

Soils Map

Widening LA 28 East
State Project No. H.004825.2
Wetland Analysis Report
Rapides Parish, Louisiana

Louisiana Department
of Transportation and Development

PROVIDENCE

Drawn By	CT	9/15/2015
Checked By	JCR	9/15/2015
Approved By	RPC	9/15/2015

Project Number
040-013

Drawing Number
040-013-A050

5k
Figure

Providence Engineering and Environmental Group LLC

EXHIBIT A

COPIES OF SITE PHOTOGRAPHS

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #1A	
Direction: N/A	
Comments: Typical soil profile at Sample Location 1.	

Photograph #1B	
Direction: East	
Comments: View of habitat and typical landscape features at Sample Location 1.	

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #2A	
Direction: N/A	
Comments: Typical soil profile at Sample Location 2.	

Photograph #2B	
Direction: Northwest	
Comments: View of habitat and typical landscape features at Sample Location 2.	

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #3A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 3.

Photograph #3B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 3.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #4A	
Direction: N/A	
Comments: Typical soil profile at Sample Location 4.	

Photograph #4B	
Direction: Northeast	
Comments: View of habitat and typical landscape features at Sample Location 4.	

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #5A	
Direction: N/A	
Comments: Typical soil profile at Sample Location 5.	

Photograph #5B	
Direction: North	
Comments: View of habitat and typical landscape features at Sample Location 5.	

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #6A	
Direction: N/A	
Comments: Typical soil profile at Sample Location 6.	

Photograph #6B	
Direction: West	
Comments: View of habitat and typical landscape features at Sample Location 6.	

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #7A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 7.

Photograph #7B

Direction:

North

Comments:

View of habitat and typical landscape features at Sample Location 7.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #8A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 8.

Photograph #8B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 8.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #9A	
Direction: N/A	
Comments: Typical soil profile at Sample Location 9.	

Photograph #9B	
Direction: North	
Comments: View of habitat and typical landscape features at Sample Location 9.	

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #10A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 10.

Photograph #10B

Direction:

East

Comments:

View of habitat and typical landscape features at Sample Location 10.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #11A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 11.

Photograph #11B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 11.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #12A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 12.

Photograph #12B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 12.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #13A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 13.

Photograph #13B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 13.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #14A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 14.

Photograph #14B

Direction:

East

Comments:

View of habitat and typical landscape features at Sample Location 14.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #15A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 15.

Photograph #15B

Direction:

North

Comments:

View of habitat and typical landscape features at Sample Location 15.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #16A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 16.

Photograph #16B

Direction:

Southeast

Comments:

View of habitat and typical landscape features at Sample Location 16.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #17A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 17.

Photograph #17B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 17.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #18A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 18.

Photograph #18B

Direction:

Northwest

Comments:

View of habitat and typical landscape features at Sample Location 18.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #19A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 19.

Photograph #19B

Direction:

Northeast

Comments:

View of habitat and typical landscape features at Sample Location 19.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #20A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 20.

Photograph #20B

Direction:

Southwest

Comments:

View of habitat and typical landscape features at Sample Location 20.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #21A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 21.

Photograph #21B

Direction:

South

Comments:

View of habitat and typical landscape features at Sample Location 21.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #22A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 22.

Photograph #22B

Direction:

Northeast

Comments:

View of habitat and typical landscape features at Sample Location 22.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #23A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 23.

Photograph #23B

Direction:

North

Comments:

View of habitat and typical landscape features at Sample Location 23.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #24A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 24.

Photograph #24B

Direction:

West

Comments:

View of habitat and typical landscape features at Sample Location 24.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #25A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 25.

Photograph #25B

Direction:

East

Comments:

View of habitat and typical landscape features at Sample Location 25.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #26A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 26.

Photograph #26B

Direction:

Southeast

Comments:

View of habitat and typical landscape features at Sample Location 26.

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT	
Site Name:	Widening LA 28 East
Site Location:	Rapides Parish, Louisiana
Date:	September 2, 2015

Photograph #27A

Direction:

N/A

Comments:

Typical soil profile at Sample Location 27.

Photograph #27B

Direction:

Southwest

Comments:

View of habitat and typical landscape features at Sample Location 27.

EXHIBIT B

WETLAND DETERMINATION DATA FORMS - ATLANTIC AND GULF COASTAL PLAIN REGION

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	1
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 48, Township 4 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.352240°	Long: -92.338994°		Datum: NAD 83
Soil Map Unit Name:	Kolin silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	No	
Hydric Soil Present?	No	**Is the Sampled Area within a Wetland?** **No**
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **No**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-3	10YR 4/3	100					silt loam
3-16	10YR 5/4	100					silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	No	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

VEGETATION **SAMPLING POINT** 1

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		15	Yes	FAC

15 = Total Cover

50/20 Threshold
50% of Total Cover = 7.5
20% of Total Cover = 3

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Cynodon dactylon		60	Yes	FACU
Paspalum notatum		25	Yes	FACU
Croton capitatus		10	No	NL (UPL)

95 = Total Cover

50/20 Threshold
50% of Total Cover = 47.5
20% of Total Cover = 19

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 1

Total Number of Dominant Species Across All Strata 3

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 33.33%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	No
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
No

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	2
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 1, Township 4 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.355286°	Long: -92.330261°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-6	10YR 5/8	80	10YR 2/1	10	C	M	silty clay loam
			10YR 6/3	10	D	M	
6-16	10YR 2/2	95	10YR 3/6	5	C	M	silty clay loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Soil map type not confirmed.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		20	Yes	FAC
Ulmus americana		15	Yes	FAC
Platanus occidentalis		5	No	FACW
Quercus nigra		5	No	FAC

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		40	Yes	FAC
Juniperus virginiana		10	Yes	FACU

50 = Total Cover

50/20 Threshold
50% of Total Cover = 25
20% of Total Cover = 10

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Chasmanthium sessiliflorum		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Toxicodendron radicans		10	Yes	FAC

10 = Total Cover

50/20 Threshold
50% of Total Cover = 5
20% of Total Cover = 2

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC	(A): 5
Total Number of Dominant Species Across All Strata	6
Percent of Dominant Species That Are OBL, FACW, or FAC	(A/B): 83.33%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	3
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 1, Township 4 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.355716°	Long: -92.330425°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)
No	High Water Table (A2)	No	Aquatic Fauna (B13)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)

Secondary Indicators (Need 2):

No	Surface Soil Cracked (B6)
No	Sparsely Veg. Concave Surface (B8)
No	Drainage Patterns (B10)
No	Moss Trim Lines (B16)
No	Dry-Season Water Table (C2)
No	Crayfish Burrows (C8)
No	Saturation on Aerial Imagery (C9)
Yes	Geomorphic Position (D2)
No	Shallow Aquitard (D3)
Yes	FAC-Neutral Test (D5)
No	Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-2	10YR 4/2	100					silt loam
2-16	10YR 5/1	70	10YR 5/8	15	C	M	silty clay loam
			10YR 5/8	5	C	PL	
			10YR 6/6	10	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soils appear to be functioning as hydric.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Persicaria punctata		40	Yes	OBL
Ludwigia grandiflora		20	Yes	OBL
Eleocharis obtusa		10	No	OBL
Paspalum urvillei		10	No	FAC

80 = Total Cover

50/20 Threshold
50% of Total Cover = 40
20% of Total Cover = 16

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 2

Total Number of Dominant Species Across All Strata 2

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	4
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 1, Township 4 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.356575°	Long: -92.328808°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-2	10YR 5/3	100					silt loam
2-16	10YR 7/3	75	10YR 5/8	15	C	M	silt loam
			10YR 7/1	10	D	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Rubus argutus		15	Yes	FAC
Ligustrum sinense		5	Yes	FAC
Liquidambar styraciflua		5	Yes	FAC

25 = Total Cover

50/20 Threshold
50% of Total Cover = 12.5
20% of Total Cover = 5

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Paspalum urvillei		25	Yes	FAC
Sorghum halepense		15	No	FAC
Eupatorium compositifolium		10	No	FAC
Eupatorium serotinum		10	No	FAC
Ambrosia artemisiifolia		10	No	FACU
Erigeron canadensis		5	No	FACU
Croton capitatus		5	No	NL (UPL)
Verbena bonariensis		2	No	FAC

82 = Total Cover

50/20 Threshold
50% of Total Cover = 41
20% of Total Cover = 16.4

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Lonicera japonica		5	Yes	FACU

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 4

Total Number of Dominant Species Across All Strata 5

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 80.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	5
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 1, Township 4 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.357297°	Long: -92.327113°		Datum: NAD 83
Soil Map Unit Name:	Libuse silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)
No	High Water Table (A2)	No	Aquatic Fauna (B13)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)

Secondary Indicators (Need 2):

No	Surface Soil Cracked (B6)
No	Sparsely Veg. Concave Surface (B8)
No	Drainage Patterns (B10)
No	Moss Trim Lines (B16)
No	Dry-Season Water Table (C2)
No	Crayfish Burrows (C8)
No	Saturation on Aerial Imagery (C9)
Yes	Geomorphic Position (D2)
No	Shallow Aquitard (D3)
Yes	FAC-Neutral Test (D5)
No	Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-6	10YR 4/2	85	10YR 5/8	10	C	PL	silt loam
			10YR 5/8	5	C	M	
6-16	10YR 5/1	60	10YR 6/6	20	C	PL	silt loam
			10YR 6/6	10	C	M	
			10YR 6/2	10	D	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Guyton silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Typha angustifolia		30	Yes	OBL
Persicaria punctata		20	Yes	OBL
Rhynchospora corniculata		15	Yes	OBL
Ludwigia grandiflora		10	No	OBL

75 = Total Cover

50/20 Threshold
50% of Total Cover = 37.5
20% of Total Cover = 15

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC	(A): 3
Total Number of Dominant Species Across All Strata	3
Percent of Dominant Species That Are OBL, FACW, or FAC	(A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	6
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 45, Township 5 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.358953°	Long: -92.322810°		Datum: NAD 83
Soil Map Unit Name:	Libuse silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	No	**Is the Sampled Area within a Wetland?** **No**
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **No**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-16	10YR 4/3	95	5YR 5/8	5	C	M	silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	No	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		20	Yes	FAC
Liquidambar styraciflua		10	Yes	FAC

30 = Total Cover

50/20 Threshold
50% of Total Cover = 15
20% of Total Cover = 6

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		20	Yes	FAC
Liquidambar styraciflua		10	Yes	FAC

30 = Total Cover

50/20 Threshold
50% of Total Cover = 15
20% of Total Cover = 6

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Paspalum notatum		50	Yes	FACU
Dichanthelium commutatum		20	Yes	FAC
Andropogon virginicus		15	No	FAC

85 = Total Cover

50/20 Threshold
50% of Total Cover = 42.5
20% of Total Cover = 17

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Lonicera japonica		10	Yes	FACU

10 = Total Cover

50/20 Threshold
50% of Total Cover = 5
20% of Total Cover = 2

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 5

Total Number of Dominant Species Across All Strata 7

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 71.43%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	7
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 45, Township 5 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.359120°	Long: -92.322506°		Datum: NAD 83
Soil Map Unit Name:	Libuse silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**Yes**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox %	Type	Location	Texture
0-2	10YR 6/3	100					silt loam
2-16	10YR 5/1	75	10YR 4/6	15	C	PL	silt loam
			10YR 6/8	5	C	PL	
			10YR 4/6	5	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Guyton silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		10	Yes	FAC
Liquidambar styraciflua		5	Yes	FAC
Pinus taeda		5	Yes	FAC

20 = Total Cover

50/20 Threshold
50% of Total Cover = 10
20% of Total Cover = 4

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Colocasia esculenta		60	Yes	FACW
Eupatorium compositifolium		15	Yes	FAC

75 = Total Cover

50/20 Threshold
50% of Total Cover = 37.5
20% of Total Cover = 15

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 5

Total Number of Dominant Species Across All Strata 5

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	8
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 45, Township 5 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.361117°	Long: -92.319285°		Datum: NAD 83
Soil Map Unit Name:	Guyton complex, frequently flooded			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)
No	High Water Table (A2)	No	Aquatic Fauna (B13)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)

Secondary Indicators (Need 2):

No	Surface Soil Cracked (B6)
No	Sparsely Veg. Concave Surface (B8)
No	Drainage Patterns (B10)
No	Moss Trim Lines (B16)
No	Dry-Season Water Table (C2)
No	Crayfish Burrows (C8)
No	Saturation on Aerial Imagery (C9)
Yes	Geomorphic Position (D2)
No	Shallow Aquitard (D3)
Yes	FAC-Neutral Test (D5)
No	Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-2	10YR 6/2	95	10YR 6/6	5	C	M	silty sand
2-16	10YR 5/1	70	7.5YR 5/6	20	C	PL	silty sand
			10YR 5/6	10	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Persicaria punctata		30	Yes	OBL
Hydrolea ovata		20	Yes	OBL
Rhynchospora corniculata		15	No	OBL
Cyperus odoratus		10	No	FACW
Juncus effusus		5	No	OBL
Paspalum urvillei		5	No	FAC

85 = Total Cover

50/20 Threshold
50% of Total Cover = 42.5
20% of Total Cover = 17

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 2

Total Number of Dominant Species Across All Strata 2

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	9
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 45, Township 5 North, Range 1 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.361998°	Long: -92.316220°		Datum: NAD 83
Soil Map Unit Name:	Guyton complex, frequently flooded			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-2	10YR 3/2	100					silt loam
2-16	10YR 5/3	88	10YR 5/6	5	C	M	silt loam
			7.5YR 5/8	5	C	M	
			10YR 6/2	2	D	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Gore silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		30	Yes	FAC
Liquidambar styraciflua		10	Yes	FAC
Quercus nigra		5	No	FAC

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		20	Yes	FAC
Vaccinium arboreum		10	Yes	FACU

30 = Total Cover

50/20 Threshold
50% of Total Cover = 15
20% of Total Cover = 6

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Dichanthelium commutatum		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Parthenocissus quinquefolia		10	Yes	FACU
Toxicodendron radicans		5	Yes	FAC
Lonicera japonica		5	Yes	FACU
Smilax rotundifolia		5	Yes	FAC

25 = Total Cover

50/20 Threshold
50% of Total Cover = 12.5
20% of Total Cover = 5

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 6

Total Number of Dominant Species Across All Strata 9

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 66.67%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	10
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 41, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.364090°	Long: -92.309910°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-1	10YR 5/3	100					silt loam
1-16	10YR 5/4	90	10YR 5/6	10	C	M	silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

VEGETATION **SAMPLING POINT** 10

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		20	Yes	FAC
Liquidambar styraciflua		10	Yes	FAC
Quercus nigra		10	Yes	FAC
Ulmus americana		5	No	FAC

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Quercus nigra		15	Yes	FAC
Liquidambar styraciflua		10	Yes	FAC
Ulmus americana		5	No	FAC
Vaccinium arboreum		5	No	FACU

35 = Total Cover

50/20 Threshold
50% of Total Cover = 17.5
20% of Total Cover = 7

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Chasmanthium sessiliflorum		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Smilax glauca		5	Yes	FAC
Smilax rotundifolia		2	Yes	FAC

7 = Total Cover

50/20 Threshold
50% of Total Cover = 3.5
20% of Total Cover = 1.4

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 8

Total Number of Dominant Species Across All Strata 8

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	11
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 41, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.363667°	Long: -92.309652°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)
No	High Water Table (A2)	No	Aquatic Fauna (B13)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)

Secondary Indicators (Need 2):

No	Surface Soil Cracked (B6)
No	Sparsely Veg. Concave Surface (B8)
No	Drainage Patterns (B10)
No	Moss Trim Lines (B16)
No	Dry-Season Water Table (C2)
No	Crayfish Burrows (C8)
No	Saturation on Aerial Imagery (C9)
Yes	Geomorphic Position (D2)
No	Shallow Aquitard (D3)
Yes	FAC-Neutral Test (D5)
No	Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-2	10YR 5/3	100					silt loam
2-16	10YR 5/1	75	10YR 4/6	15	C	PL	silt loam
			10YR 6/8	5	C	PL	
			10YR 4/6	5	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Guyton silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Rhynchospora corniculata		25	Yes	OBL
Paspalum urvillei		20	Yes	FAC
Cyperus odoratus		15	No	FACW
Verbena bonariensis		10	No	FAC
Ludwigia grandiflora		5	No	OBL
Diodia virginiana		5	No	FAC
Hydrolea ovata		2	No	OBL
Ambrosia trifida		2	No	FAC

84 = Total Cover

50/20 Threshold
50% of Total Cover = 42
20% of Total Cover = 16.8

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Campsis radicans		5	Yes	FAC
Ampelopsis arborea		5	Yes	FAC

10 = Total Cover

50/20 Threshold
50% of Total Cover = 5
20% of Total Cover = 2

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 4

Total Number of Dominant Species Across All Strata 4

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	12
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 41, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.366034°	Long: -92.301478°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-2	10YR 3/3	100					silt loam
2-16	10YR 4/2	78	7.5YR 3/6	10	C	M	silt loam
			7.5YR 3/6	5	C	PL	
			10YR 5/8	5	C	M	
			10YR 5/8	2	C	PL	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soils appear to be functioning as hydric.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Paspalum dilatatum		30	Yes	FAC
Paspalum notatum		15	No	FACU
Panicum repens		15	No	FACW
Juncus marginatus		10	No	FACW
Diodia virginiana		5	No	FAC
Eupatorium compositifolium		5	No	FAC

80 = Total Cover

50/20 Threshold
50% of Total Cover = 40
20% of Total Cover = 16

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 1

Total Number of Dominant Species Across All Strata 1

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals	**B**

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	13
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 41, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.365838°	Long: -92.300148°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)
No	High Water Table (A2)	No	Aquatic Fauna (B13)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)

Secondary Indicators (Need 2):

No	Surface Soil Cracked (B6)
No	Sparsely Veg. Concave Surface (B8)
No	Drainage Patterns (B10)
No	Moss Trim Lines (B16)
No	Dry-Season Water Table (C2)
No	Crayfish Burrows (C8)
No	Saturation on Aerial Imagery (C9)
Yes	Geomorphic Position (D2)
No	Shallow Aquitard (D3)
Yes	FAC-Neutral Test (D5)
No	Sphagnum Moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-16	10YR 4/2	90	10YR 5/8	5	C	M	silt loam
			10YR 5/8	5	C	PL	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soils appear to be funtioning as hydric.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Juncus brachycarpus		30	Yes	FACW
Cyperus odoratus		20	Yes	FACW
Eupatorium serotinum		15	No	FAC
Dichanthelium commutatum		10	No	FAC
Eupatorium compositifolium		10	No	FAC
Verbena bonariensis		5	No	FAC
Ludwigia grandiflora		5	No	OBL
Croton capitatus		2	No	NL (UPL)

97 = Total Cover

50/20 Threshold
50% of Total Cover = 48.5
20% of Total Cover = 19.4

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 2

Total Number of Dominant Species Across All Strata 2

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	14
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 41, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.365760°	Long: -92.300080°		Datum: NAD 83
Soil Map Unit Name:	Gore very fine sandy loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-3	10YR 4/3	100					silt loam
3-16	10YR 4/4	98	10YR 5/8	2	C	M	silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		60	Yes	FAC

60 = Total Cover

50/20 Threshold
50% of Total Cover = 30
20% of Total Cover = 12

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		15	Yes	FAC
Ligustrum sinense		5	No	FAC
Quercus macrocarpa		5	No	FACU
Triadica sebifera		2	No	FAC

27 = Total Cover

50/20 Threshold
50% of Total Cover = 13.5
20% of Total Cover = 5.4

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Campsis radicans		10	Yes	FAC
Ampelopsis arborea		5	Yes	FAC

15 = Total Cover

50/20 Threshold
50% of Total Cover = 7.5
20% of Total Cover = 3

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC	(A): 4
Total Number of Dominant Species Across All Strata	4
Percent of Dominant Species That Are OBL, FACW, or FAC	(A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	15
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 42, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.368069°	Long: -92.290592°		Datum: NAD 83
Soil Map Unit Name:	Libuse silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-3	10YR 4/3	100					silt loam
3-16	10YR 5/3	75	10YR 6/3	10	D	M	silt loam
			10YR 6/3	10	C	M	
			10YR 4/6	5	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		30	Yes	FAC
Liquidambar styraciflua		15	Yes	FAC
Quercus pagoda		10	No	FACW

55 = Total Cover

50/20 Threshold
50% of Total Cover = 27.5
20% of Total Cover = 11

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		20	Yes	FAC
Liquidambar styraciflua		15	Yes	FAC
Quercus pagoda		5	No	FACW
Vaccinium arboreum		5	No	FACU

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Smilax rotundifolia		10	Yes	FAC
Lonicera japonica		5	Yes	FACU
Toxicodendron radicans		5	Yes	FAC

20 = Total Cover

50/20 Threshold
50% of Total Cover = 10
20% of Total Cover = 4

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 7

Total Number of Dominant Species Across All Strata 8

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 87.50%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	16
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 42, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.368170°	Long: -92.290669°		Datum: NAD 83
Soil Map Unit Name:	Libuse silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	Yes	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-3	10YR 4/2	100					silt loam
3-16	10YR 5/2	68	10YR 6/2	10	D	M	silt loam
			10YR 5/6	10	C	M	
			10YR 5/6	5	C	PL	
			10YR 4/6	5	C	PL	
			10YR 4/6	2	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soils appear to be functioning as hydric.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Paspalum dilatatum		30	Yes	FAC
Dichanthelium commutatum		15	No	FAC
Solidago gigantea		10	No	FACW
Carex cherokeensis		10	No	FACW
Eupatorium serotinum		5	No	FAC
Juncus effusus		5	No	OBL
Verbena bonariensis		2	No	FAC
Colocasia esculenta		2	No	FACW

79 = Total Cover

50/20 Threshold
50% of Total Cover = 39.5
20% of Total Cover = 15.8

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Campsis radicans		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 2

Total Number of Dominant Species Across All Strata 2

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	17
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 42, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.370296°	Long: -92.281401°		Datum: NAD 83
Soil Map Unit Name:	Guyton complex, frequently flooded			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **No**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-2	10YR 5/2	100					silt loam
2-16	10YR 6/6	90	10YR 5/8	10	C	M	silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	No	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Acadia silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		20	Yes	FAC
Pinus taeda		15	Yes	FAC
Ulmus americana		10	Yes	FAC

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		30	Yes	FAC
Callicarpa americana		10	Yes	FACU

40 = Total Cover

50/20 Threshold
50% of Total Cover = 20
20% of Total Cover = 8

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Toxicodendron radicans		10	Yes	FAC
Smilax rotundifolia		10	Yes	FAC
Campsis radicans		5	No	FAC
Lonicera japonica		2	No	FACU

27 = Total Cover

50/20 Threshold
50% of Total Cover = 13.5
20% of Total Cover = 5.4

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 6

Total Number of Dominant Species Across All Strata 7

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 85.71%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	18
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 43, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.371664°	Long: -92.277361°		Datum: NAD 83
Soil Map Unit Name:	Acadia silt loam, 1 to 3 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
Yes	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**Yes**
Saturation Present?	Yes	Depth (inches):	6-16	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox %	Redox Type	Redox Location	Texture
0-6	10YR 3/2	100					silt loam
6-16	10YR 4/1	70	10YR 5/8	20	C	PL	silt loam
			10YR 6/8	10	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soils appear to be functioning as hydric.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Rhynchospora corniculata		30	Yes	OBL
Dichanthelium commutatum		20	Yes	FAC
Arundinaria tecta		15	No	FACW
Panicum repens		10	No	FACW
Persicaria punctata		5	No	OBL
Ludwigia grandiflora		5	No	OBL
Eupatorium serotinum		2	No	FAC
Cyperus odoratus		2	No	FACW

89 = Total Cover

50/20 Threshold
50% of Total Cover = 44.5
20% of Total Cover = 17.8

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 2

Total Number of Dominant Species Across All Strata 2

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	19
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 34, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.375627°	Long: -92.264915°		Datum: NAD 83
Soil Map Unit Name:	Wrightsville silt loam			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-1	10YR 4/3	100					silt loam
1-16	10YR 5/3	93	5YR 5/8	5	C	M	silt loam
			10YR 6/2	2	D	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Acadia silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Stenotaphrum secundatum		60	Yes	FAC
Cynodon dactylon		15	No	FACU
Paspalum notatum		10	No	FACU
Mimosa strigillosa		5	No	FAC
Trifolium repens		5	No	FACU

95 = Total Cover

50/20 Threshold
50% of Total Cover = 47.5
20% of Total Cover = 19

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 1

Total Number of Dominant Species Across All Strata 1

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	20
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 34, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat	Local Relief (concave, convex, none): Concave			Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.376190°	Long: -92.264431°		Datum: NAD 83
Soil Map Unit Name:	Kolin silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	Yes	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	Yes	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox %	Type	Location	Texture
0-2	10YR 5/2	85	10YR 6/6	10	C	M	silt loam
			10YR 6/6	5	C	PL	
2-16	10YR 6/2	70	7.5YR 6/6	15	C	M	silty clay loam
			7.5YR 6/6	10	C	PL	
			10YR 7/8	5	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Wrightsville silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Quercus phellos		20	Yes	FACW
Rubus argutus		15	Yes	FAC
Triadica sebifera		5	No	FAC

40 = Total Cover

50/20 Threshold
50% of Total Cover = 20
20% of Total Cover = 8

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Persicaria punctata		25	Yes	OBL
Rhynchospora corniculata		15	Yes	OBL
Ludwigia grandiflora		10	No	OBL
Paspalum urvillei		10	No	FAC
Juncus effusus		5	No	OBL

65 = Total Cover

50/20 Threshold
50% of Total Cover = 32.5
20% of Total Cover = 13

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Brunnichia ovata		20	Yes	FACW
Ampelopsis arborea		10	Yes	FAC
Smilax rotundifolia		5	No	FAC

35 = Total Cover

50/20 Threshold
50% of Total Cover = 17.5
20% of Total Cover = 7

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 6

Total Number of Dominant Species Across All Strata 6

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	21
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 33, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat	Local Relief (concave, convex, none): Concave			Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.378810°	Long: -92.258495°		Datum: NAD 83
Soil Map Unit Name:	Acadia silt loam, 1 to 3 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	Yes	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-16	10YR 5/2	83	10YR 5/8	15	C	M	silt loam
			10YR 5/8	2	C	PL	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Wrightsville silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		20	Yes	FAC
Quercus lyrata		15	Yes	OBL
Quercus phellos		10	No	FACW
Ulmus americana		5	No	FAC
Quercus nigra		5	No	FAC

55 = Total Cover

50/20 Threshold
50% of Total Cover = 27.5
20% of Total Cover = 11

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		25	Yes	FAC
Quercus phellos		20	Yes	FACW
Quercus lyrata		5	No	OBL

50 = Total Cover

50/20 Threshold
50% of Total Cover = 25
20% of Total Cover = 10

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Vitis rotundifolia		5	Yes	FAC
Toxicodendron radicans		5	Yes	FAC

10 = Total Cover

50/20 Threshold
50% of Total Cover = 5
20% of Total Cover = 2

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 6

Total Number of Dominant Species Across All Strata 6

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	22
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 40, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.379714°	Long: -92.254834°		Datum: NAD 83
Soil Map Unit Name:	Kolin silt loam, 1 to 5 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-1	10YR 3/3	100					silt loam
1-16	10YR 5/4	85	10YR 7/2	10	D	M	silt loam
			10YR 3/6	5	C	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		30	Yes	FAC
Liquidambar styraciflua		10	Yes	FAC

40 = Total Cover

50/20 Threshold
50% of Total Cover = 20
20% of Total Cover = 8

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		40	Yes	FAC
Callicarpa americana		5	No	FACU

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Lygodium japonicum		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Toxicodendron radicans		10	Yes	FAC
Smilax rotundifolia		5	Yes	FAC

15 = Total Cover

50/20 Threshold
50% of Total Cover = 7.5
20% of Total Cover = 3

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 6

Total Number of Dominant Species Across All Strata 6

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	23
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 32, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.382099°	Long: -92.250562°		Datum: NAD 83
Soil Map Unit Name:	Wrightsville silt loam			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	Yes	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth	Matrix		Redox Features				Texture
Inches	Color	%	Color	%	Type	Location	
0-4	10YR 5/2	95	10YR 5/8	5	C	M	silt loam
4-16	10YR 6/2	85	10YR 5/8	10	C	M	silt loam
			10YR 5/8	5	C	PL	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		15	Yes	FAC
Quercus pagoda		15	Yes	FACW
Prunus serotina		10	Yes	FACU
Quercus falcata		5	No	FACU

45 = Total Cover

50/20 Threshold
50% of Total Cover = 22.5
20% of Total Cover = 9

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		20	Yes	FAC
Ulmus americana		15	Yes	FAC

35 = Total Cover

50/20 Threshold
50% of Total Cover = 17.5
20% of Total Cover = 7

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Smilax rotundifolia		10	Yes	FAC
Lonicera japonica		5	Yes	FACU

15 = Total Cover

50/20 Threshold
50% of Total Cover = 7.5
20% of Total Cover = 3

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 5

Total Number of Dominant Species Across All Strata 7

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 71.43%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	24
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 31, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): Concave		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.384968°	Long: -92.242100°		Datum: NAD 83
Soil Map Unit Name:	Wrightsville silt loam			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	Yes	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **Yes**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-16	10YR 5/2	100					silt loam
0-16	10YR 5/1	60	5YR 4/6	10	C	PL	silt loam
			10YR 5/8	10	C	M	
			10YR 5/8	5	C	PL	
			10YR 6/1	15	D	M	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Rhynchospora corniculata		40	Yes	OBL
Persicaria punctata		20	Yes	OBL
Cyperus pseudovegetus		15	Yes	FACW

75 = Total Cover

50/20 Threshold
50% of Total Cover = 37.5
20% of Total Cover = 15

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Brunnichia ovata		5	Yes	FACW

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 4

Total Number of Dominant Species Across All Strata 4

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	25
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 31, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.385034°	Long: -92.242153°		Datum: NAD 83
Soil Map Unit Name:	Wrightsville silt loam			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	**Is the Sampled Area within a Wetland?** **No**
Hydric Soil Present?	No	
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**No**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-6	10YR 4/3	100					silt loam
6-16	10YR 5/4	100					silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**	No	1cm Muck (A9) **(LRR O)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**	No	2cm Muck (A10) **(LRR S)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**	No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)	No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Stratified Layers (A5)	No	Depleted Matrix (F3)	No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)	No	Red Parent Material (TF2)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)	No	Very Shallow Dark Surface (TF12)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)	No	Other (Explain)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**		
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**		
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**		
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**		
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**		
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**		
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**		
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**		
No	Dark Surface (S7) **(LRR P, S, T, U)**				

Indicators for Problematic Soils:

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Soil map type not confirmed. Soil profile appears to be consistent with Acadia silt loam.

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Pinus taeda		25	Yes	FAC
Rubus argutus		10	Yes	FAC

35 = Total Cover

50/20 Threshold
50% of Total Cover = 17.5
20% of Total Cover = 7

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Paspalum urvillei		30	Yes	FAC
Andropogon virginicus		20	Yes	FAC
Paspalum notatum		15	No	FACU
Eupatorium serotinum		10	No	FAC
Verbena bonariensis		5	No	FAC
Erigeron canadensis		5	No	FACU

85 = Total Cover

50/20 Threshold
50% of Total Cover = 42.5
20% of Total Cover = 17

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Smilax rotundifolia		5	Yes	FAC

5 = Total Cover

50/20 Threshold
50% of Total Cover = 2.5
20% of Total Cover = 1

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 5

Total Number of Dominant Species Across All Strata 5

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	26
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 28, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.388545°	Long: -92.233514°		Datum: NAD 83
Soil Map Unit Name:	Wrightsville silt loam			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	Yes	**Is the Sampled Area within a Wetland?** **Yes**
Wetland Hydrology Present?	Yes	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	Yes	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	Yes	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				Yes	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A	**Wetland Hydrology Present?**
Water table Present?	No	Depth (inches):	N/A	**Yes**
Saturation Present?	No	Depth (inches):	N/A	

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-3	10YR 4/2	100					silt loam
3-16	10YR 5/2	78	10YR 5/6	10	C	M	silt loam
			10YR 5/8	10	C	M	
			10YR 5/8	2	C	PL	

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	Yes	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **Yes**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Liquidambar styraciflua		20	Yes	FAC
Ulmus americana		15	Yes	FAC
Triadica sebifera		10	No	FAC
Pinus taeda		10	No	FAC
Quercus lyrata		5	No	OBL

60 = Total Cover

50/20 Threshold
50% of Total Cover = 30
20% of Total Cover = 12

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		40	Yes	FAC

40 = Total Cover

50/20 Threshold
50% of Total Cover = 20
20% of Total Cover = 8

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Vitis rotundifolia		10	Yes	FAC
Toxicodendron radicans		10	Yes	FAC
Smilax rotundifolia		5	Yes	FAC

25 = Total Cover

50/20 Threshold
50% of Total Cover = 12.5
20% of Total Cover = 5

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 6

Total Number of Dominant Species Across All Strata 6

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 100.00%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes

WETLAND DETERMINATION DATA FORM - ATLANTIC AND GULF COASTAL PLAIN REGION

Project/Site:	Widening LA 28 East	Parish: Rapides		Sampling Date:	9/2/2015
Applicant/Owner:	Louisiana Department of Transportation and Development	State: Louisiana		Sampling Point:	27
Investigator(s):	Chad Turner and Angela Singletary	Section, Township, Range:		Section 29, Township 5 North, Range 2 East	
Landform (hillslope, terrace, etc.):	Flat		Local Relief (concave, convex, none): None		Slope: 1-2%
Subregion (LRR or MLRA):	LRR P	Lat: 31.393127°	Long: -92.226512°		Datum: NAD 83
Soil Map Unit Name:	Acadia silt loam, 1 to 3 percent slopes			NWI Classification: None	

Are climatic / hydrologic conditions on the site typical for this time of year? Yes (If no explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology_____ significantly disturbed? No Are "Normal Circumstances" present? Yes
Are Vegetation_____, Soil_____, or Hydrology_____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	Yes	
Hydric Soil Present?	No	**Is the Sampled Area within a Wetland?** **No**
Wetland Hydrology Present?	No	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators

Primary Indicators (Need 1):

No	Surface Water (A1)	No	Water Stained Leaves (B9)	No	Surface Soil Cracked (B6)
No	High Water Table (A2)	No	Aquatic Fauna (B13)	No	Sparsely Veg. Concave Surface (B8)
No	Saturation (A3)	No	Marl Deposits (B15) **(LRR U)**	No	Drainage Patterns (B10)
No	Water Marks (B1)	No	Hydrogen Sulfide Odor (C1)	No	Moss Trim Lines (B16)
No	Sediment Deposits (B2)	No	Oxidized Root Channels (C3)	No	Dry-Season Water Table (C2)
No	Drift Deposits (B3)	No	Presence of Reduced Iron (C4)	No	Crayfish Burrows (C8)
No	Algal Mat or Crust (B4)	No	Recent Reduct. in Tilled Soils (C6)	No	Saturation on Aerial Imagery (C9)
No	Iron Deposits (B5)	No	Thin Muck Surface (C7)	No	Geomorphic Position (D2)
No	Inundation on Aerial Imagery (B7)	No	Other (Explain in Remarks)	No	Shallow Aquitard (D3)
				No	FAC-Neutral Test (D5)
				No	Sphagnum Moss (D8) **(LRR T, U)**

Secondary Indicators (Need 2):

Field Observations:

Surface Water Present?	No	Depth (inches):	N/A
Water table Present?	No	Depth (inches):	N/A
Saturation Present?	No	Depth (inches):	N/A

Wetland Hydrology Present? **No**

Remarks:

SOIL

Depth Inches	Matrix Color	Matrix %	Redox Features Color	Redox Features %	Redox Features Type	Redox Features Location	Texture
0-4	10YR 4/4	100					silt loam
4-16	10YR 5/3	98	10YR 5/8	2	C	M	silt loam

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

No	Histol (A1)	No	Polyvalue Below Surface (S8) **(LRR S,T,U)**
No	Histic Epipedon (A2)	No	Thin Dark Surface (S9) **(LRR S,T,U)**
No	Black Histic (A3)	No	Loamy Mucky Mineral (F1) **(LRR (O)**
No	Hydrogen Sulfide (A4)	No	Loamy Gleyed Matrix (F2)
No	Stratified Layers (A5)	No	Depleted Matrix (F3)
No	Organic Bodies (A6) **(LRR P,T,U)**	No	Redox Dark Surface (F6)
No	5cm Mucky Mineral (A7) **(LRR P,T,U)**	No	Depleted Dark Surface (F7)
No	Muck Presence (A8) **(LRR U)**	No	Redox Depressions (F8)
No	1cm Muck (A9) **(LRR P,T)**	No	Marl (F10) **(LRR U)**
No	Depleted Below Dark Surface (A11)	No	Depleted Ochric (F11) **(MLRA 151)**
No	Thick Dark Surface (A12)	No	Iron-Manganese Masses (F12) **(LRR O,P,T)**
No	Coast Prairie Redox (A16) **(MLRA 150A)**	No	Umbric Surface (F13) **(LRR P, T, U)**
No	Sandy Mucky Mineral (S1) **(LRR O,S)**	No	Delta Ochric (F17) **(MLRA 151)**
No	Sandy Gleyed Matrix (S4)	No	Reduced Vertic (F18) **(MLRA 150A, 150B)**
No	Sandy Redox (S5)	No	Piedmont Floodplain Soils (F19) **(MLRA 149A)**
No	Stripped Matrix S6)	No	Anomalous Bright Loamy Soils (F20) **(MRLA 149A, 153C, 153D)**
No	Dark Surface (S7) **(LRR P, S, T, U)**		

Indicators for Problematic Soils:

No	1cm Muck (A9) **(LRR O)**
No	2cm Muck (A10) **(LRR S)**
No	Reduced Vertic (F18) **(outside MLRA 150A,B)**
No	Piedmont Floodplain Soils (F19) **(LRR P,S,T)**
No	Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
No	Red Parent Material (TF2)
No	Very Shallow Dark Surface (TF12)
No	Other (Explain)

Restrictive Layer (if observed):

Type: None
Depth inches: None

Hydric Soil Present? **No**

Remarks:

Tree Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Triadica sebifera		10	Yes	FAC
Pinus taeda		10	Yes	FAC
Liquidambar styraciflua		5	Yes	FAC

25 = Total Cover

50/20 Threshold
50% of Total Cover = 12.5
20% of Total Cover = 5

Sapling Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
None				

0 = Total Cover

50/20 Threshold
50% of Total Cover = 0
20% of Total Cover = 0

Shrub Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Ligustrum sinense		15	Yes	FAC
Triadica sebifera		10	Yes	FAC
Pinus taeda		5	No	FAC
Liquidambar styraciflua		5	No	FAC

35 = Total Cover

50/20 Threshold
50% of Total Cover = 17.5
20% of Total Cover = 7

Herb Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Paspalum urvillei		30	Yes	FAC
Paspalum notatum		20	Yes	FACU
Andropogon virginicus		15	No	FAC
Dichanthelium commutatum		10	No	FAC
Cynodon dactylon		5	No	FACU
Cirsium horridulum		5	No	FAC
Lygodium japonicum		5	No	FAC

90 = Total Cover

50/20 Threshold
50% of Total Cover = 45
20% of Total Cover = 18

Woody Vine Stratum	Plot Size: 30'	Absolute % Cover	Dominant Species	Indicator Status
Campsis radicans		10	Yes	FAC
Lonicera japonica		5	Yes	FACU

15 = Total Cover

50/20 Threshold
50% of Total Cover = 7.5
20% of Total Cover = 3

Dominance Test Worksheet:

Number of Dominant Species That are OBL, FACW, or FAC (A): 7

Total Number of Dominant Species Across All Strata 9

Percent of Dominant Species That Are OBL, FACW, or FAC (A/B): 77.78%

Prevalence Index Worksheet:

Total % Cover of:		Multiply
	OBL x1=	
	FACW x2=	
	FAC x3=	
	FACU x4=	
	UPL x5=	
	A Totals B	

Prevalence Index (B/A)=

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Veg:	No
Dominance Test > 50%:	Yes
Prevalence Index is ≤3.0:	N/A
Problematic Hydrophytic Veg:	No

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20' or more in height and 3" or larger in DBH.

Sapling - Woody plants, excluding woody vines, approximately 20' or more in height and less than 3" in DBH.

Shrub - Woody plants, excluding woody vines, approximately 3-20' in height.

Herb - All herbaceous plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3' in height.

Woody vine - All woody vines, regardless of height.

Remarks:

Hydrophytic Vegetation Present?
Yes