

**APPENDIX B  
NATURAL RESOURCES**

<b>INDEX</b>	
<b>Appendix Label</b>	<b>Title</b>
Appendix B-1	Stream Data Forms
Appendix B-2	Wetland Determination Data Forms
Appendix B-3	TxDOT Woodlands Data Forms
Appendix B-4	Data for Areas with Fencerow Trees
Appendix B-5	TPWD Coordination Letter
Appendix B-6	100 Year Floodplain in the Project ROW

**Stream Data Form**Stream Data Form #: **W-1**Project Name: IH 35 E: FM 2181 to US 380  
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #1 to Graveyard Slough in Lewisville Lake

County/State: Denton, Texas

USGS Topo Quad Name: Denton East

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-1, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1589+07; observations apply to east side of IH 35E  
(i.e., no defined channel was observed on the west side of IH 35E).**Stream Type: Ephemeral**

Stream Flow Direction: Easterly

OHWM Width (ft): 6 feet

OHWM Height (in): 18 inches

Stream bottom composition: sand and clay loam; some ponding within channel, but stream  
bottom is comprised mostly of herbaceous vegetation.**Water Quality:** Channel was generally dry; water quality observations apply to pool located  
near culvert outfall on east side of IH 35E.

--Slightly Turbid—oily film on surface of ponded areas within channel

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

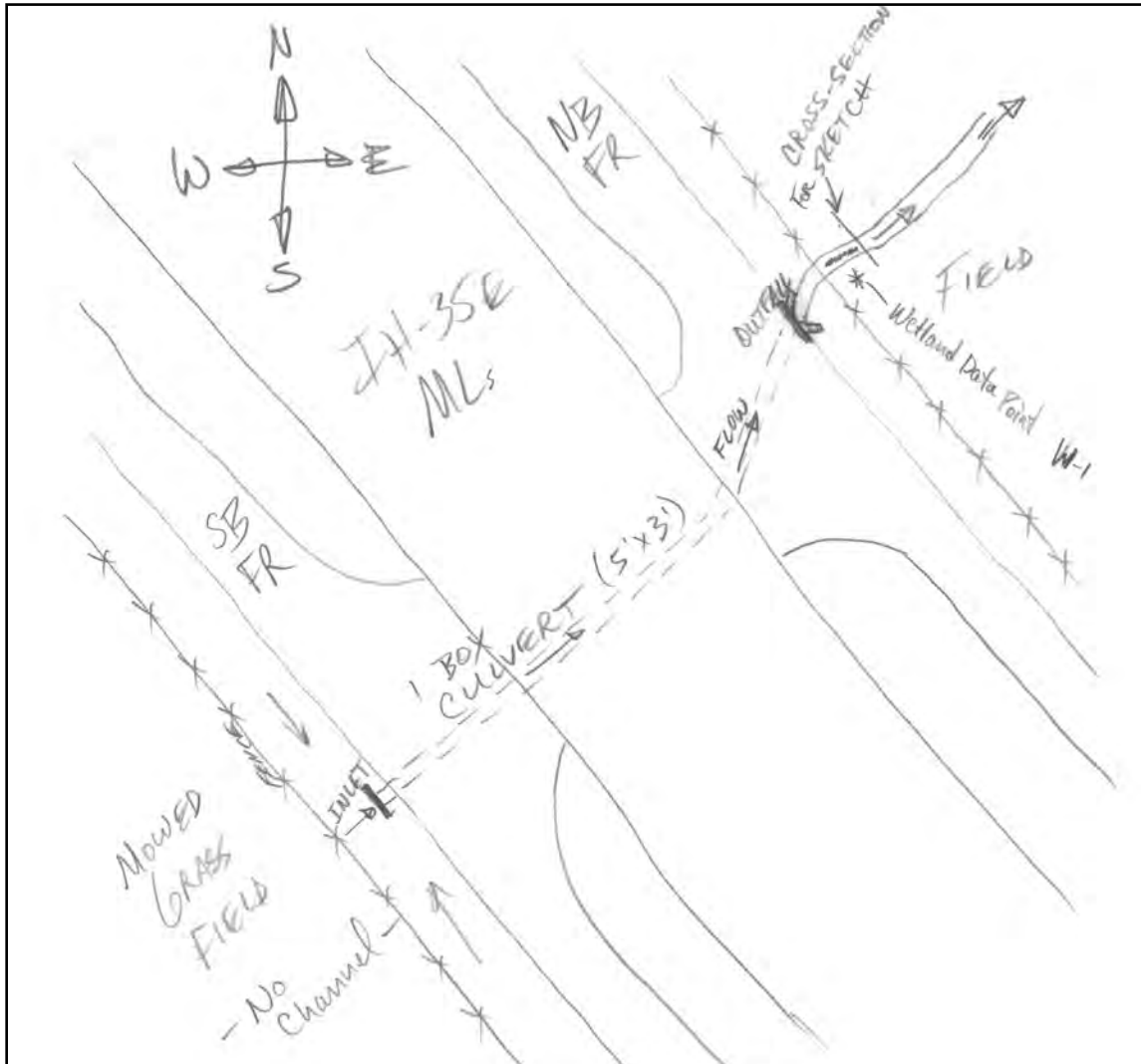
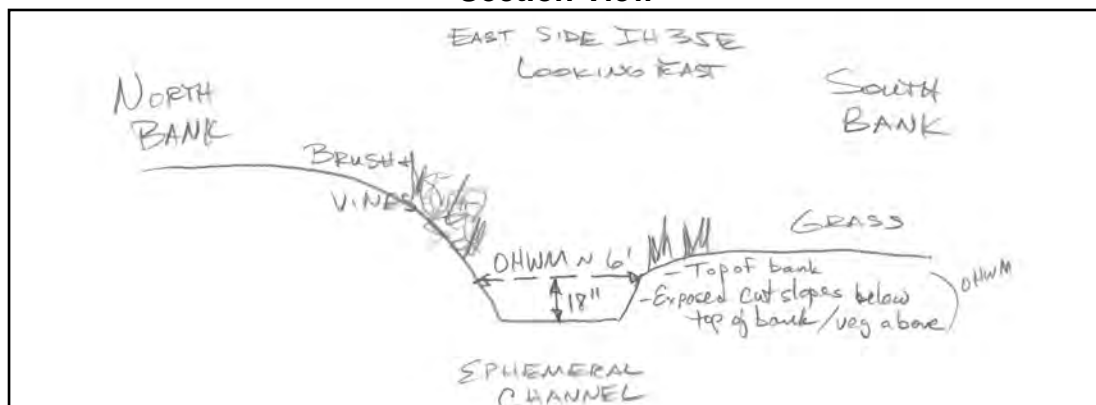
**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes,  
turtles, frogs, invertebrates, etc.: None observed.**Riparian Vegetation:** List species observed.Woody Plants: black willow (*Salix nigra*); green ash (*Fraxinus pennsylvanica*); hackberry  
(*Celtis laevigata*); pecan (*Carya illinoensis*); redbud (*Cercis canadensis*); dewberry  
(*Rubus* sp.); grape (*Vitis* sp.).Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon  
dactylon*); silver bluestem (*Bothriochloa laguroides*); goldenrod (*Solidago* sp.); giant  
ragweed (*Ambrosia trifida*); western ragweed (*Ambrosia psilostachya*); clover (*Medicago*  
sp.); aster (*Aster* sp.); dandelion (*Taraxacum officinale*).**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is  
suitable for. No T&E species observed; area does not provide sufficient cover or other  
habitat for T&E species expected to occur within Denton County.

**Stream Data Form** (continued)Stream Data Form #: **W-1**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

**Stream Data Form**Stream Data Form #: **W-2**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #2 to Graveyard Slough in Lewisville Lake

County/State: Denton, Texas

USGS Topo Quad Name: Denton East

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-2, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1623+74.

**Stream Type: Ephemeral**

Stream Flow Direction: Easterly

OHWM Width (ft): 10 feet

OHWM Height (in): 24 inches

Stream bottom composition: sandy loam.

**Water Quality:** Channel was generally dry; water quality observations apply to a pool located near culvert outfall on east side of IH 35E; smaller pools less than one foot deep were observed occasionally in channel.

--Slightly Turbid

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed; mammal tracks (likely raccoon).

**Riparian Vegetation:** List species observed.

Woody Plants: black willow (*Salix nigra*); American elm (*Ulmus americana*); bois d'arc (*Maclura pomifera*); hackberry (*Celtis laevigata*); pecan (*Carya illinoensis*); Chinese privet (*Ligustrum sinense*); dewberry (*Rubus* sp.); saw greenbrier (*Smilax bona-nox*), grape (*Vitis* sp.); Japanese honeysuckle (*Lonicera japonica*); grape (*Vitis* sp.).

Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon dactylon*); wood oats (*Chasmanthium latifolium*); flat sedge (*Cyperas* sp.); goldenrod (*Solidago* sp.); ironweed (*Vernonia* sp.).

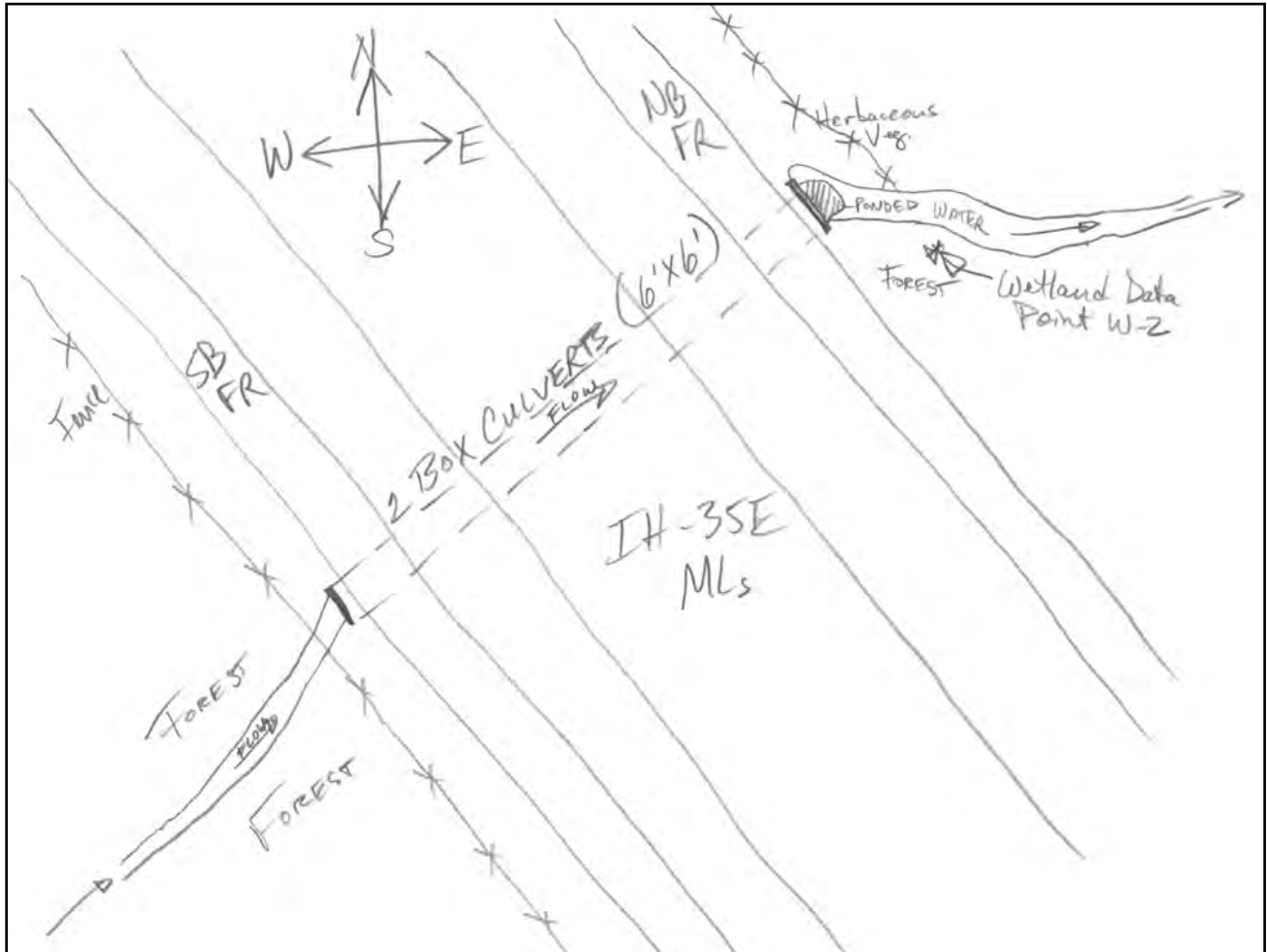
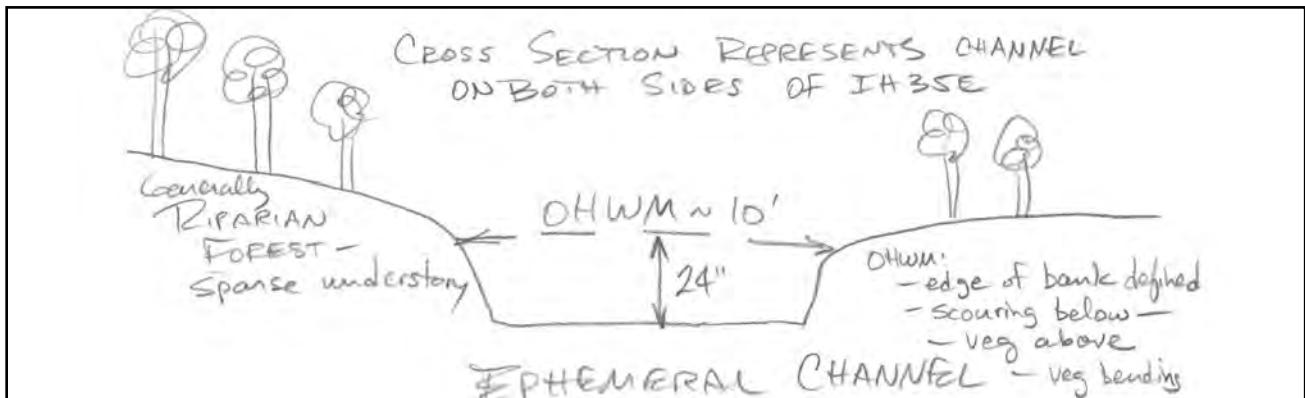
**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; riparian forest areas adjacent to channel provide potential habitat for the timber/canebrake rattlesnake (*Crotalus horridus*), although understory vegetation is sparse, and the Plains spotted skunk (*Spilogale putorius interrupta*).

**Stream Data Form** (continued)Stream Data Form #: **W-2**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

## Stream Data Form

Stream Data Form #: **W-3**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 and 26 Jan 2009

USGS Stream Name: Unnamed Tributary #1 to Pecan Creek County/State: Denton, Texas

USGS Topo Quad Name: Denton East

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-3, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1673+17.

### Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 6 feet

OHWM Height (in): 12 inches

Stream bottom composition: some silt, clay, and organic material; channel bottom is predominantly herbaceous vegetation.

**Water Quality:** Channel was generally dry; water quality observations apply to a pool located near the culvert outfall on east side of IH 35E.

--Slightly Turbid

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other: site is near a commercial business and vegetation adjacent to and within the channel is periodically cut (e.g., only stumps of woody vegetation observable).

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed; mammal tracks (likely raccoon).

**Riparian Vegetation:** List species observed.

Woody Plants: black willow (*Salix nigra*)—saplings only, cut to base; new deal weed (*Baccharis neglecta*); possumhaw (*Ilex decidua*); dewberry (*Rubus* sp.); saw greenbrier (*Smilax bona-nox*).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); giant ragweed (*Ambrosia trifida*); prickly lettuce (*Lactuca* sp.); clover (*Medicago* sp.); henbit (*Lamium amplexicaule*); dandelion (*Taraxacum officinale*).

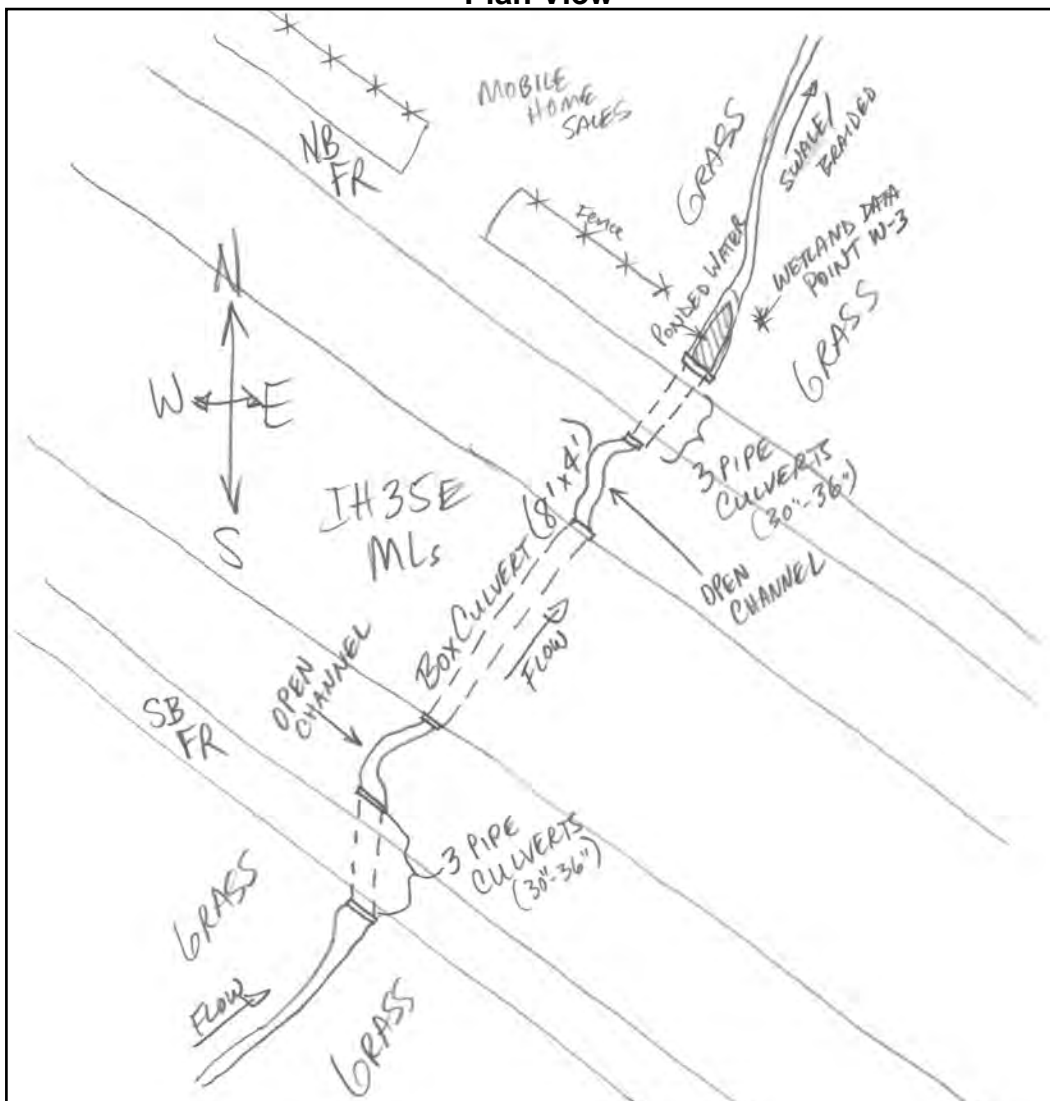
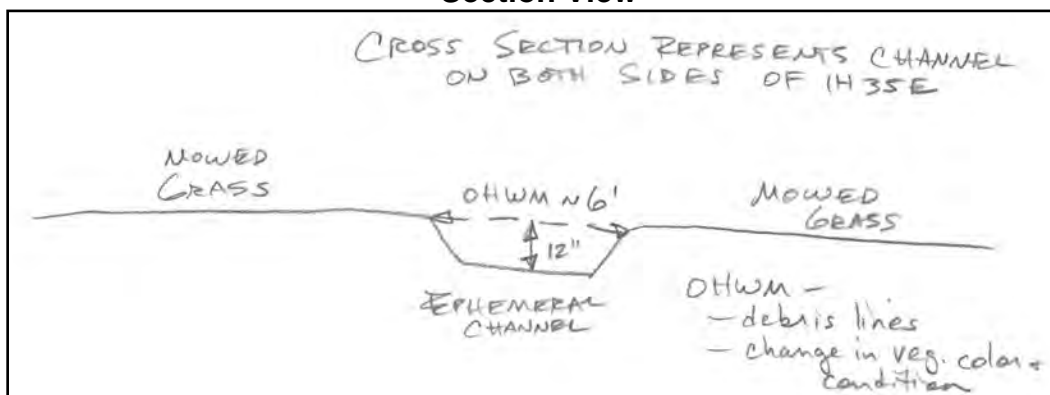
**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; vegetation within stream channel and adjacent areas is mowed or severed (woody plants).

**Stream Data Form** (continued)Stream Data Form #: **W-3**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

## Stream Data Form

Stream Data Form #: **W-4**

Project Name: IH 35 E: FM 2181 to US 380  
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #2 to Pecan Creek      County/State: Denton, Texas  
USGS Topo Quad Name: Denton East      Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-4, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1683+31; observations apply to east side of IH 35E  
(i.e., no defined channel was observed on the west side of IH 35E).

### Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 8 feet

OHWM Height (in): 18 inches

Stream bottom composition: silty loam; one small pond observed in channel; stream braids out as it moves eastward through riparian forest; stream bottom is mostly of leaf debris.

**Water Quality:** Channel was generally dry; water quality observations apply to pool located near culvert outfall on east side of IH 35E.  
--Clear

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar	Sand/Gravel beach/bar	Mud bar	Gravel riffles
<u>Overhanging trees/shrubs</u>	Deep pool/hole/channel	<u>Aquatic vegetation</u>	
Other: apparent salt crust observed on portions of surface soil.			

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

**Riparian Vegetation:** List species observed.

Woody Plants: American elm (*Ulmus americana*); black willow (*Salix nigra*); eastern red cedar (*Juniperus virginiana*); cedar elm (*Ulmus crassifolia*); hackberry (*Celtis laevigata*); dewberry (*Rubus* sp.); saw greenbrier (*Smilax bona-nox*); poison ivy (*Toxicodendron radicans*).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*) (near culvert only).

**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; riparian forest areas adjacent to channel provide potential habitat for the timber/canebrake rattlesnake (*Crotalus horridus*), although understory vegetation is sparse, and the Plains spotted skunk (*Spilogale putorius interrupta*).

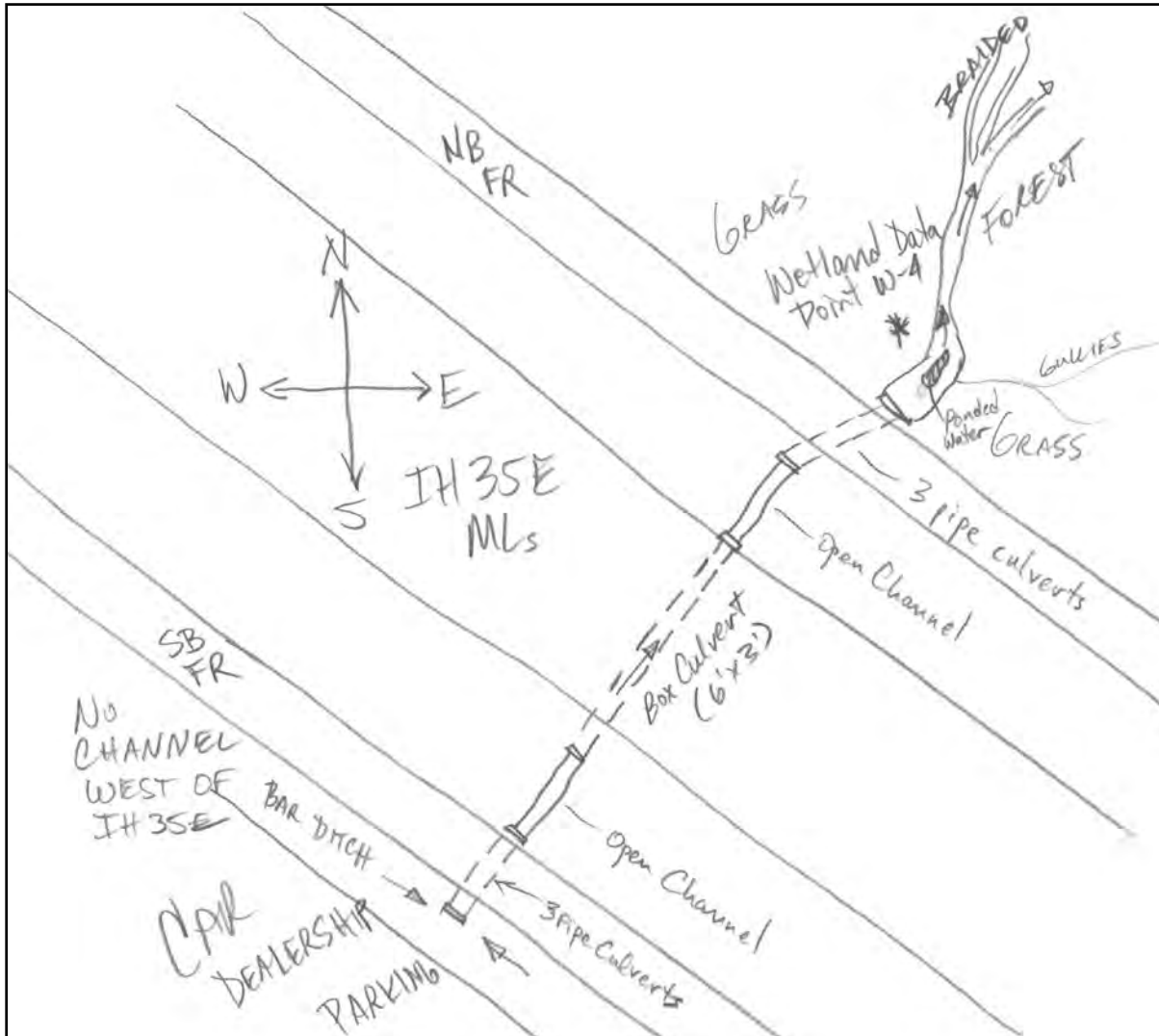
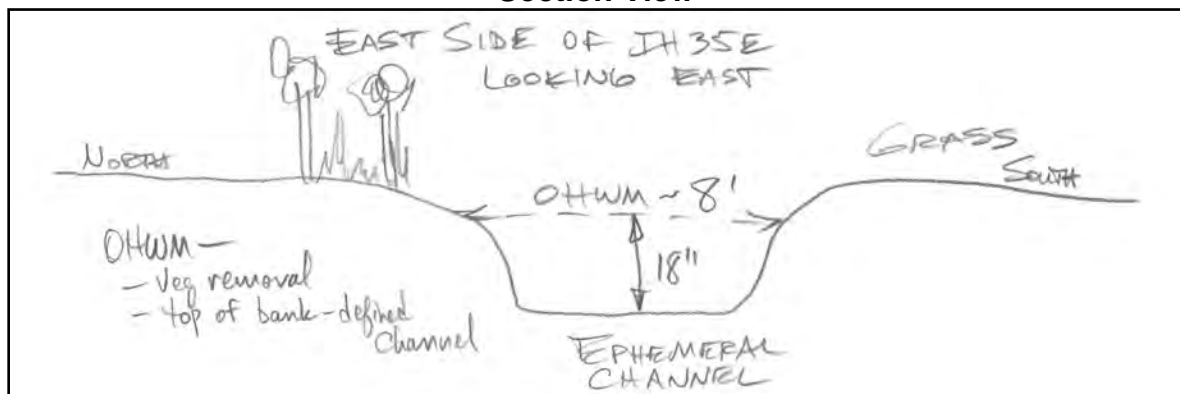


**Stream Data Form** (continued)Stream Data Form #: **W-4**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

**Stream Data Form**Stream Data Form #: **W-5**

Project Name: IH 35 E: FM 2181 to US 380  
 CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #3 to Pecan Creek County/State: Denton, Texas  
 USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-5, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1704+23.

**Stream Type: Ephemeral**

Stream Flow Direction: Easterly

OHWM Width (ft): 8 feet

OHWM Height (in): 24 inches

Stream bottom composition: loamy mixed with limestone gravel.

**Water Quality:** Channel was generally dry, but had a minor flow of water when observed.  
 --Clear

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar	Sand/Gravel beach/bar	Mud bar	Gravel riffles
<u>Overhanging trees/shrubs</u>	Deep pool/hole/channel	Aquatic vegetation	
Other:			

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

**Riparian Vegetation:** List species observed. Note: Forest near channel resembled the same mix of species as upland forest areas further upslope and was generally not distinctively riparian in composition.

Woody Plants: green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); cedar elm (*Ulmus crassifolia*); common persimmon (*Diospyros virginiana*); coralberry (*Symphoricarpos orbiculatus*); possumhaw (*Ilex decidua*); saw greenbrier (*Smilax bona-nox*); poison ivy (*Toxicodendron radicans*); grape (*Vitis* sp.).

Herbaceous Plants: wood oats (*Chasmanthium latifolium*); flat sedge (*Cyperas* sp.).

**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; upland forest areas adjacent to channel provide potential habitat for the timber/canebrake rattlesnake (*Crotalus horridus*), and the Plains spotted skunk (*Spilogale putorius interrupta*).

# Stream Data Form (continued)

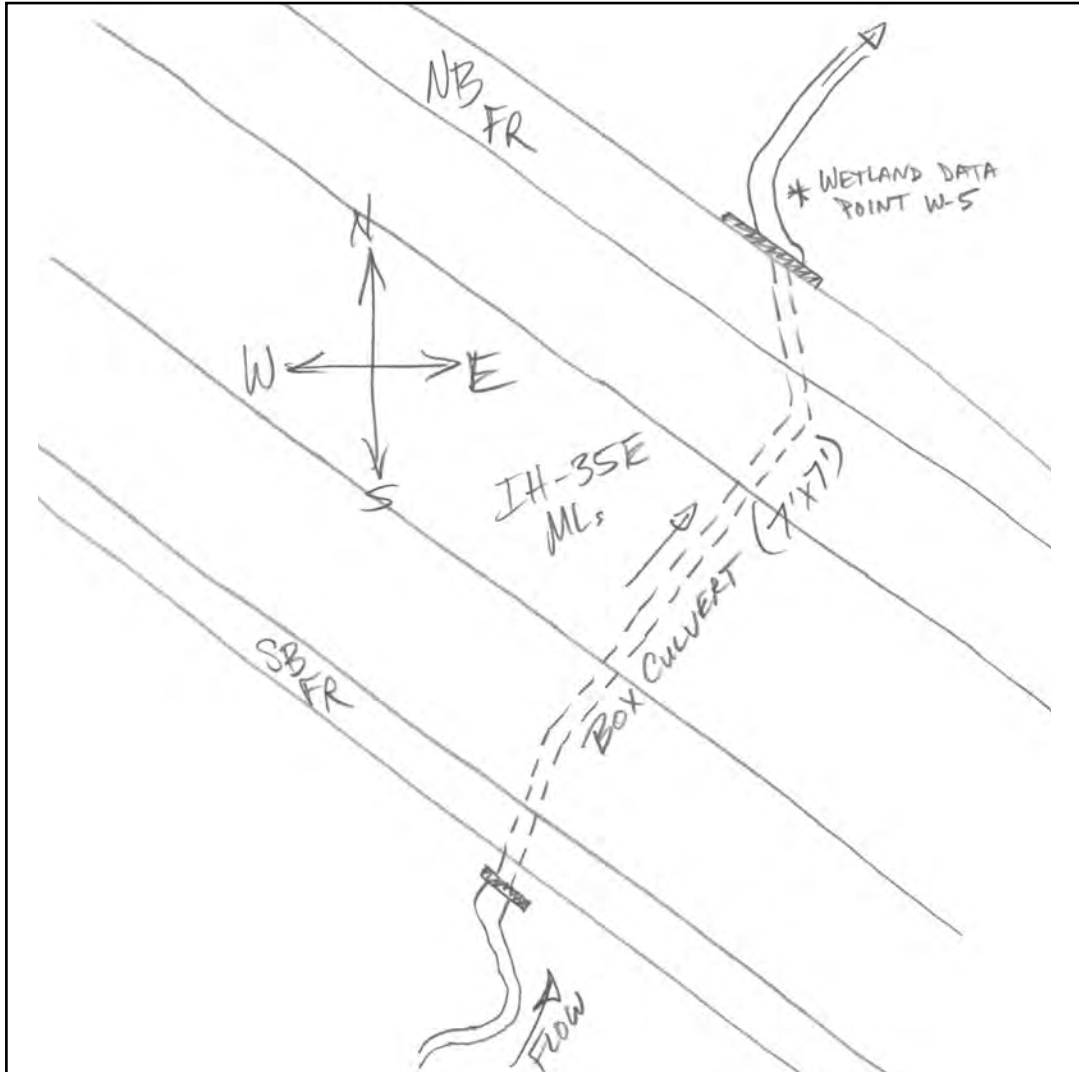
Stream Data Form #: **W-5**

Project Name: IH 35 E: FM 2181 to US 380

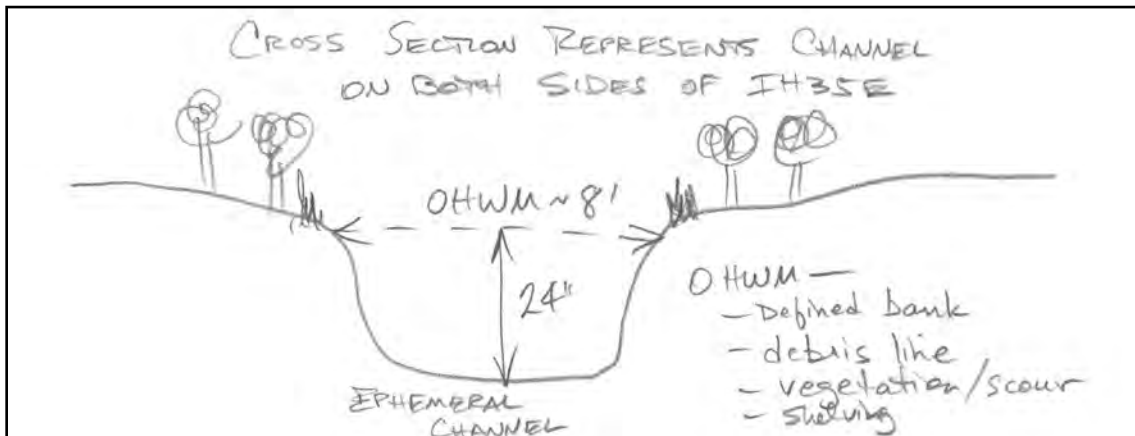
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View**



**Section View**



**Stream Data Form**Stream Data Form #: **W-6**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #4 to Pecan Creek County/State: Denton, Texas

USGS Topo Quad Name: Denton East

Stream Number (303(d) List): 0823

Associated Wetland: Yes (See Wetland Data Points W-6a and 6b—locations on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1715+24.

**Stream Type: Ephemeral**

Stream Flow Direction: Easterly

OHWM Width (ft): 11 feet

OHWM Height (in): 12 inches

Stream bottom composition: loamy soil.

**Water Quality:** Channel was generally dry, but had a minor flow of water when observed.

--Slightly Turbid

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: Ducks on pond; mammal tracks in stream bed (likely raccoon and beaver); pond outlet has been modified by ongoing beaver activity, which has raised the level of the pond by several feet.**Riparian Vegetation:** List species observed. Note: Forest near channel resembled the same mix of species as upland forest areas further upslope and was generally not distinctively riparian in composition.Woody Plants: green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); new deal weed (*Baccharis neglecta*); possumhaw (*Ilex decidua*); Chinese privet (*Ligustrum sinense*); dewberry (*Rubus* sp.).Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); switchgrass (*Panicum virgatum*); bushy bluestem (*Andropogon glomeratus*); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*).**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; upland forest areas adjacent to channel provide potential habitat for the timber/canebrake rattlesnake (*Crotalus horridus*), and the Plains spotted skunk (*Spilogale putorius interrupta*).

**Stream Data Form** (continued)

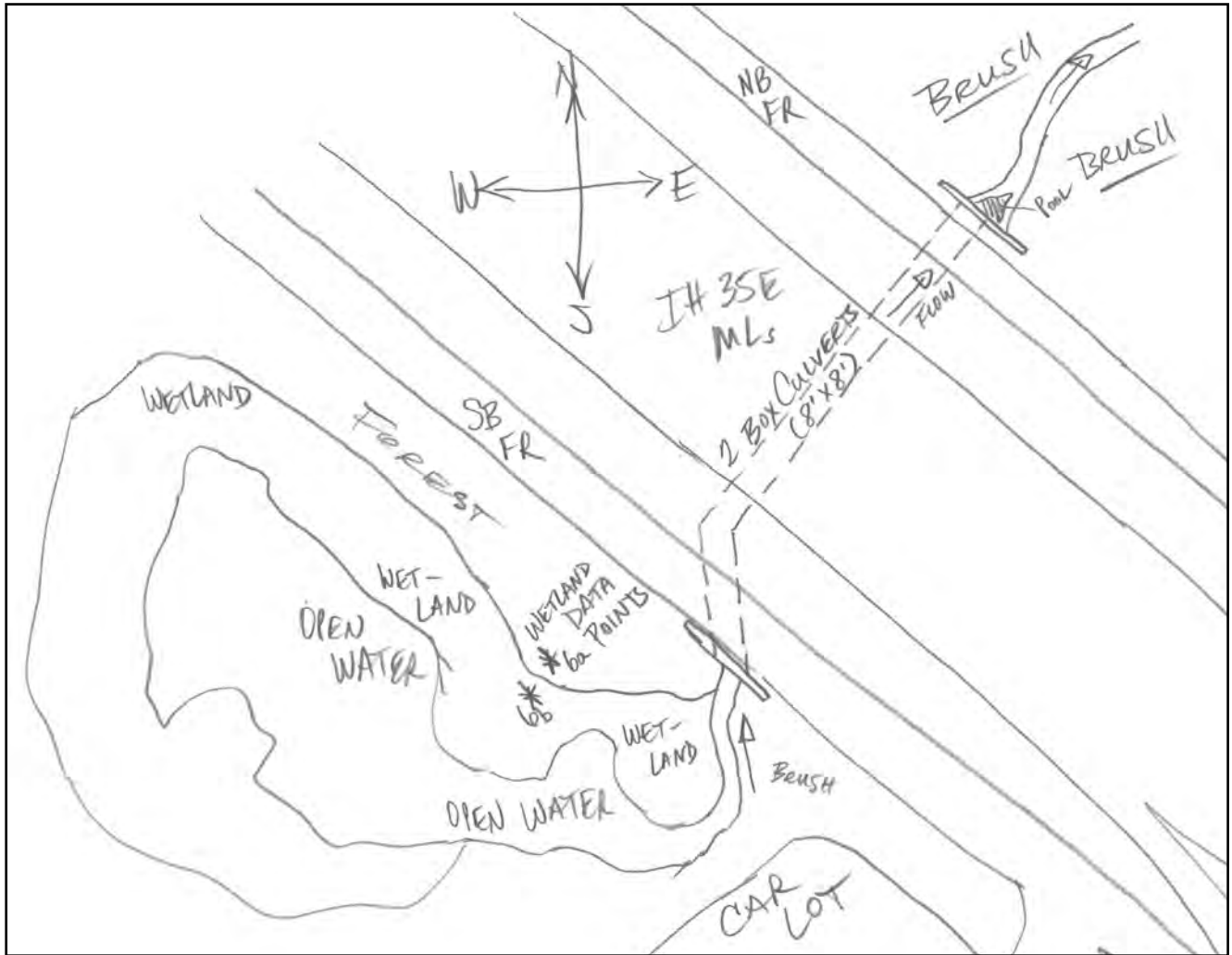
Stream Data Form #: **W-6**

Project Name: IH 35 E: FM 2181 to US 380

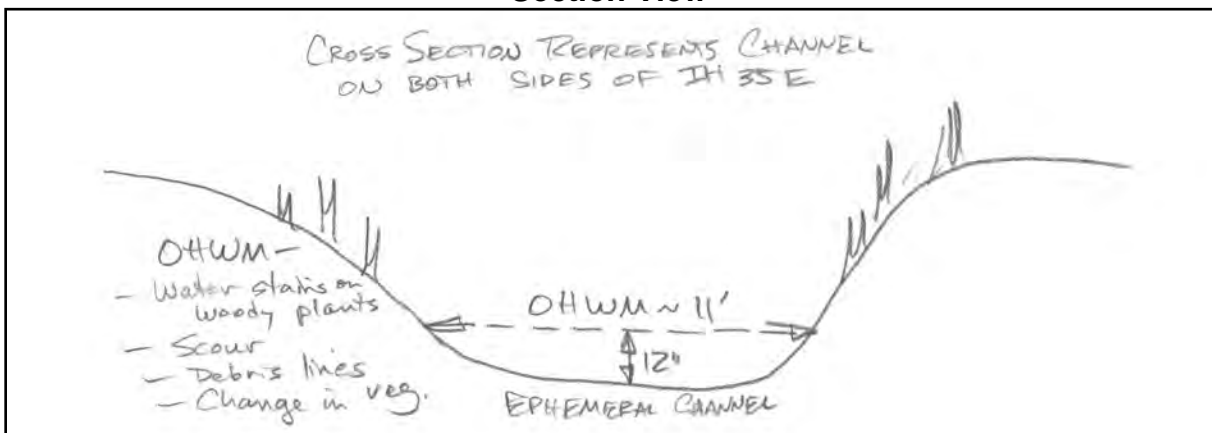
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View**



**Section View**



**Stream Data Form**Stream Data Form #: **W-7**Project Name: IH 35 E: FM 2181 to US 380  
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #5 to Pecan Creek County/State: Denton, Texas  
USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-7, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1726+20; observations apply to east side of IH 35E  
(i.e., no defined channel was observed on the west side of IH 35E).**Stream Type: Ephemeral**

Stream Flow Direction: Easterly

OHWM Width (ft): 8 feet

OHWM Height (in): 15 inches

Stream bottom composition: sand and clay loam; some ponding within channel, but stream  
bottom is comprised mostly of herbaceous vegetation.**Water Quality:** Channel was generally dry; water quality observations apply to pool located  
near culvert outfall on east side of IH 35E.

--Slightly Turbid

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

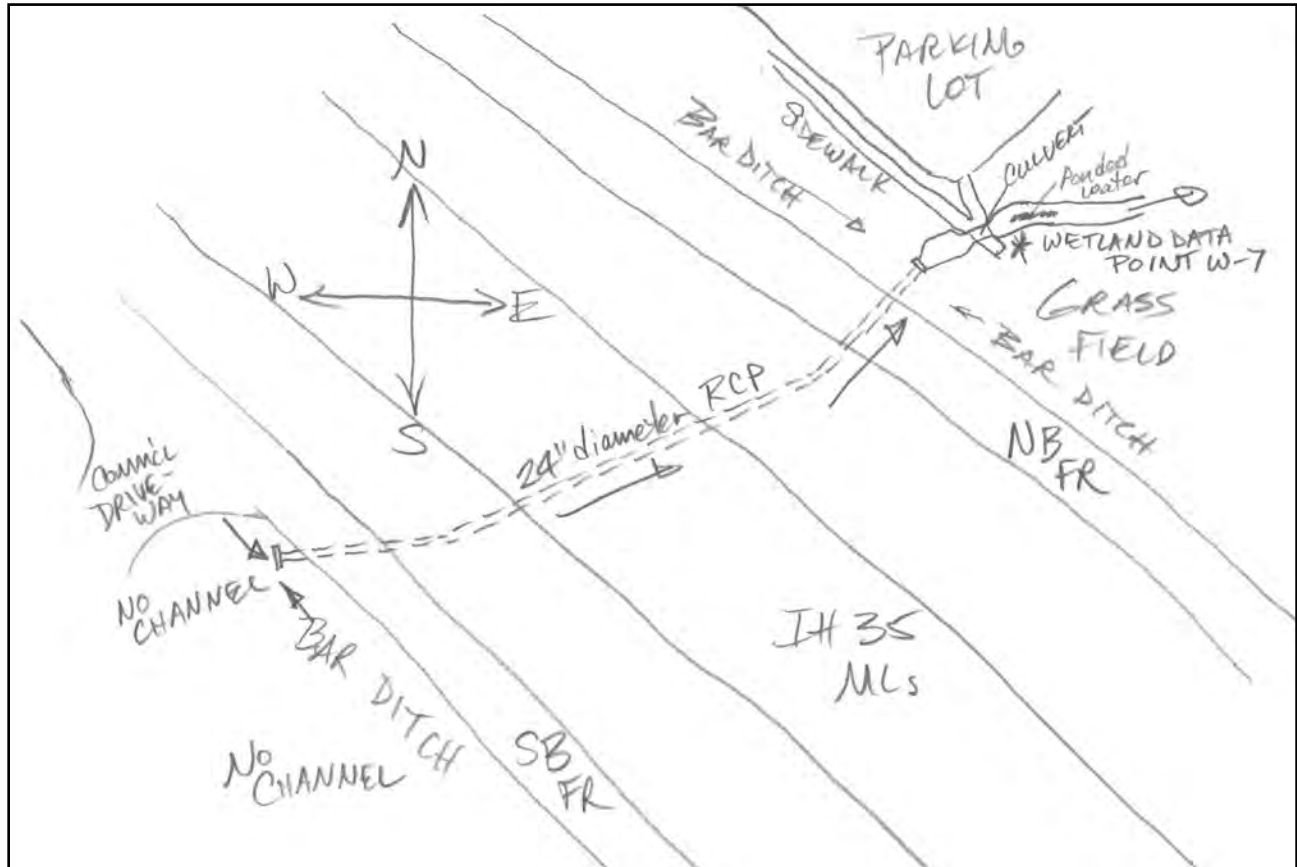
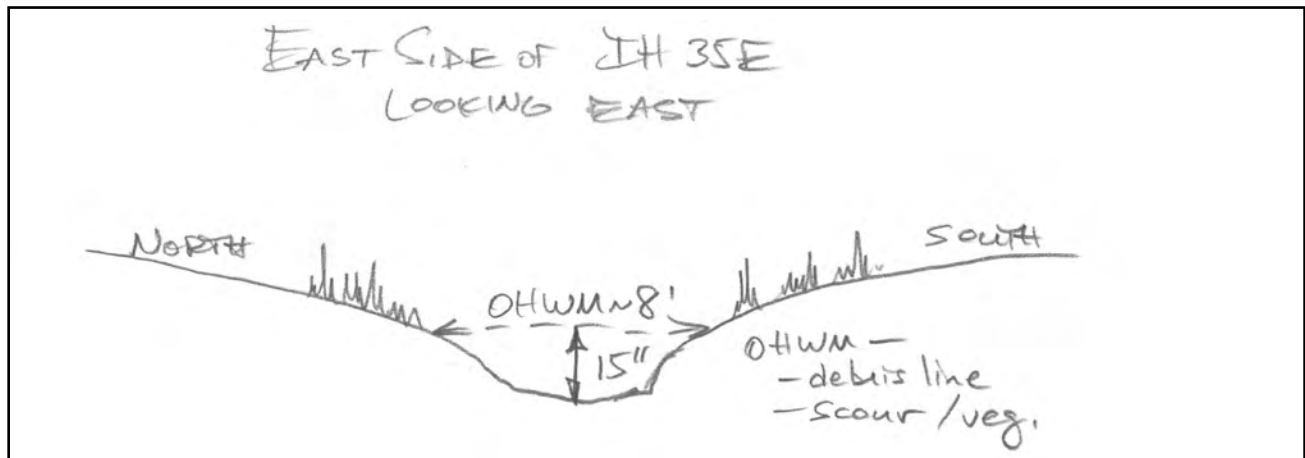
**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes,  
turtles, frogs, invertebrates, etc.: None observed.**Riparian Vegetation:** List species observed.Woody Plants: black willow (*Salix nigra*); hackberry (*Celtis laevigata*)—tree saplings cut to  
base (areas adjacent to channel closely mowed grass); dewberry (*Rubus* sp.); Japanese  
honeysuckle (*Lonicera japonica*).Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum*  
*halepense*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); cattail (*Typha*  
*latifolia*).**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is  
suitable for. No T&E species observed; area does not provide sufficient cover or other  
habitat for T&E species expected to occur within Denton County; vegetation within stream  
channel and adjacent areas is mowed or severed (woody plants).

**Stream Data Form** (continued)Stream Data Form #: **W-7**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

**Stream Data Form**Stream Data Form #: **W-8**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #6 to Pecan Creek County/State: Denton, Texas

USGS Topo Quad Name: Denton East

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-8, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1799+43; observations apply to east side of IH 35E (i.e., no defined channel was observed on the west side of IH 35E).

**Stream Type: Ephemeral**

Stream Flow Direction: Easterly

OHWM Width (ft): 5 feet

OHWM Height (in): 15 inches

Stream bottom composition: sand and clay loam; some gravel.

**Water Quality:** Channel was generally dry; no observations of water possible.**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: Turtles/ducks observed in nearby pond into which the channel drains.**Riparian Vegetation:** List species observed.Woody Plants: black willow (*Salix nigra*); green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); American elm (*Ulmus americana*); cedar elm (*Ulmus crassifolia*); saw greenbrier (*Smilax bona-nox*); blackberry (*Rubus* sp.); grape (*Vitis* sp.).Herbaceous Plants: goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*).**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; riparian forest areas adjacent to channel provide potential habitat for the timber/canebrake rattlesnake (*Crotalus horridus*), although understory vegetation is sparse, and the Plains spotted skunk (*Spilogale putorius interrupta*).

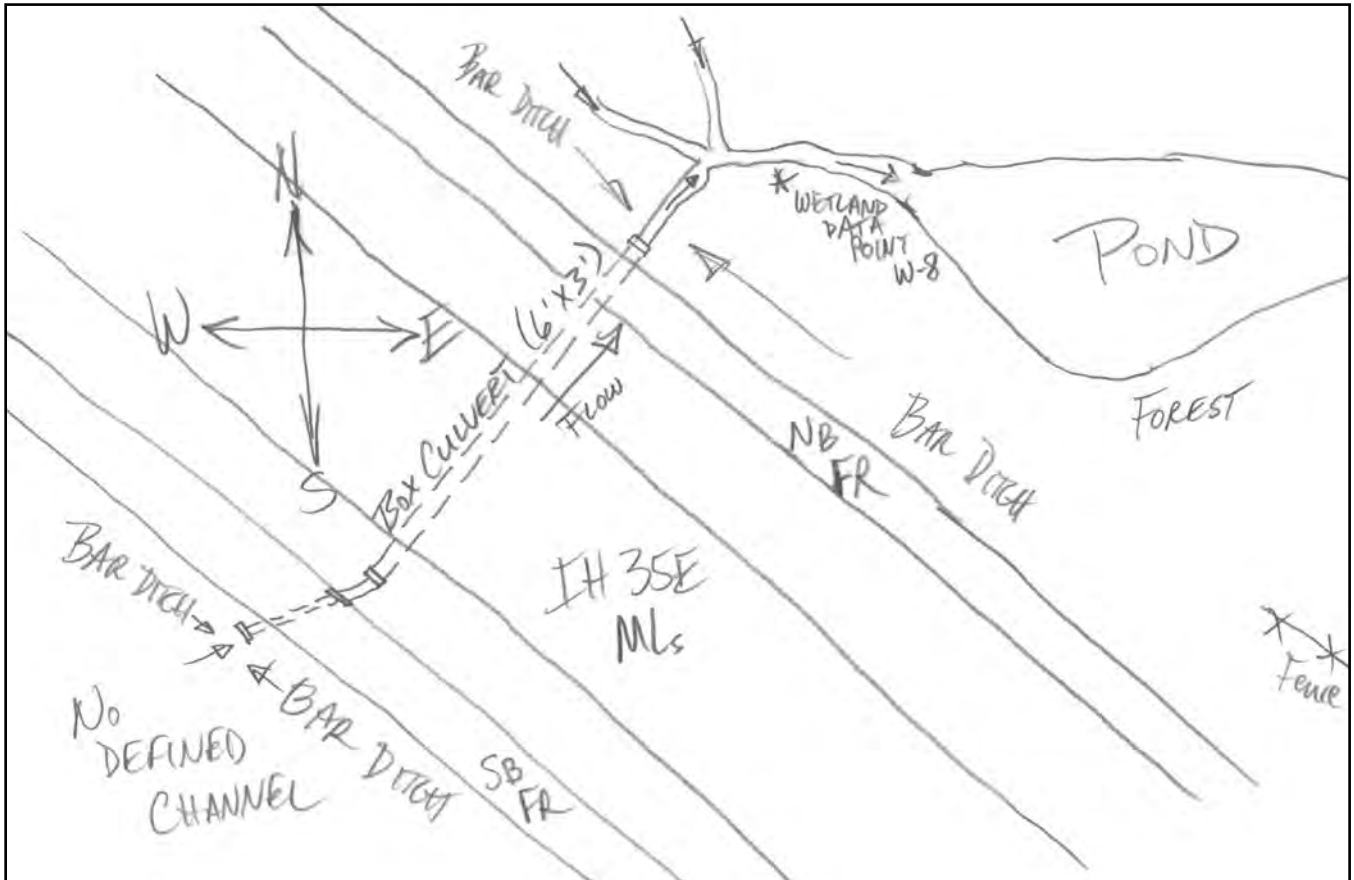
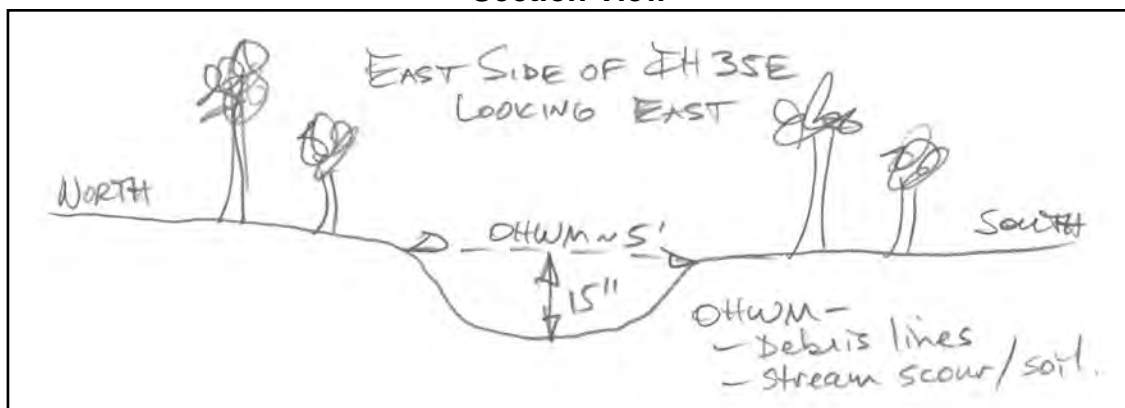


**Stream Data Form** (continued)Stream Data Form #: **W-8**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

**Stream Data Form**Stream Data Form #: **W-9**Project Name: IH 35 E: FM 2181 to US 380  
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 26 Jan 2009

USGS Stream Name: Unnamed Tributary #1 to Dry Fork Hickory Creek

County/State: Denton, Texas

USGS Topo Quad Name: Denton West

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-9, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 2016+19.

**Stream Type: Ephemeral**

Stream Flow Direction: Westerly

OHWM Width (ft): 15 feet

OHWM Height (in): 24 inches

Stream bottom composition: sand and clay loam; some gravel; ponding within channel.

**Water Quality:** Channel was generally dry; water quality observations apply to small pools.

--Slightly Turbid

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.**Riparian Vegetation:** List species observed.Woody Plants: black willow (*Salix nigra*); box elder (*Acer negundo*); American elm (*Ulmus americana*); green ash (*Fraxinus pennsylvanica*); bois d'arc *Maclura pomifera*); dewberry (*Rubus* sp.).Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*) (stream bottom only).**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; vegetation within stream channel and adjacent areas is mowed or severed (woody plants); the large trees that form a row along the north side of the stream channel have an understory of mowed grass.

**Stream Data Form** (continued)

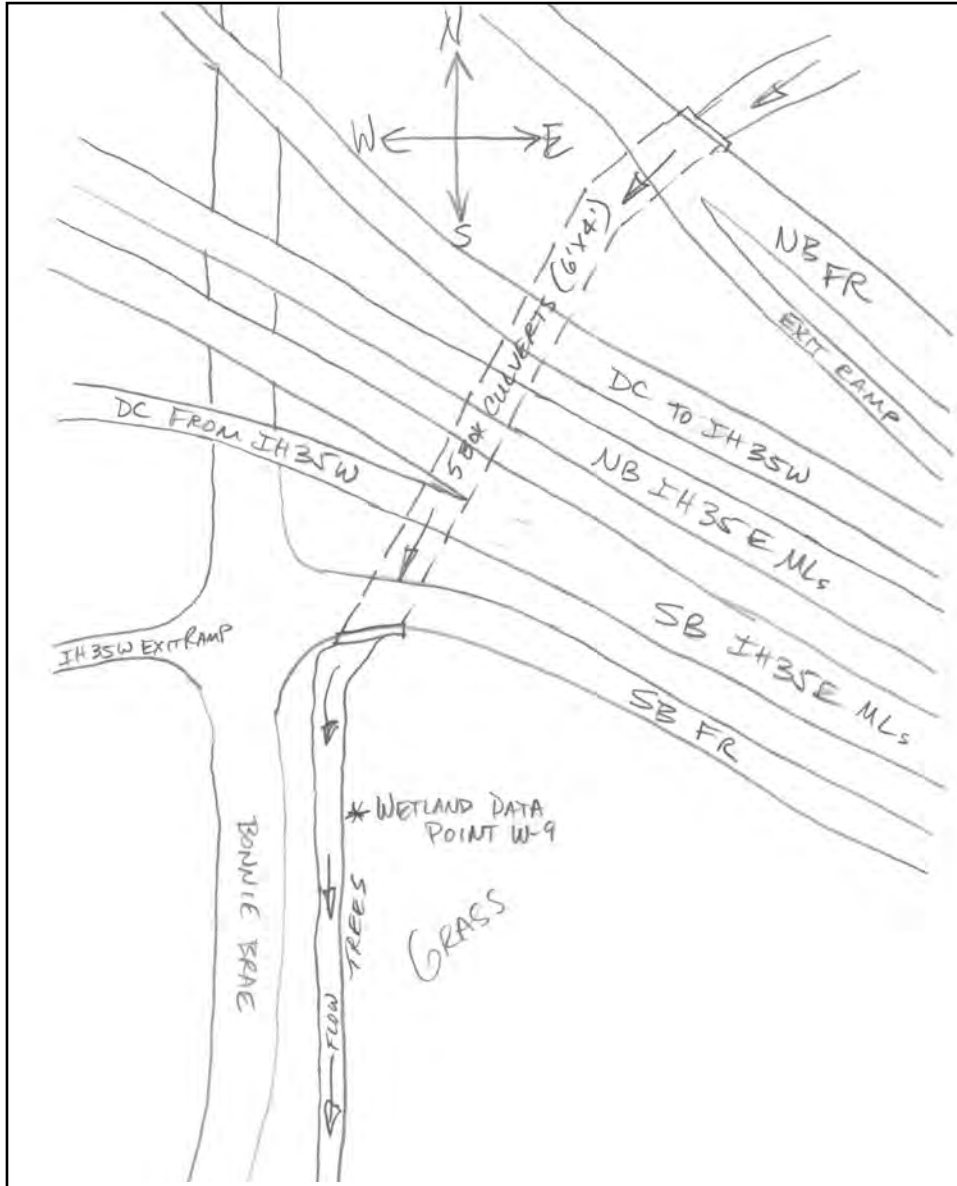
Stream Data Form #: **W-9**

Project Name: IH 35 E: FM 2181 to US 380

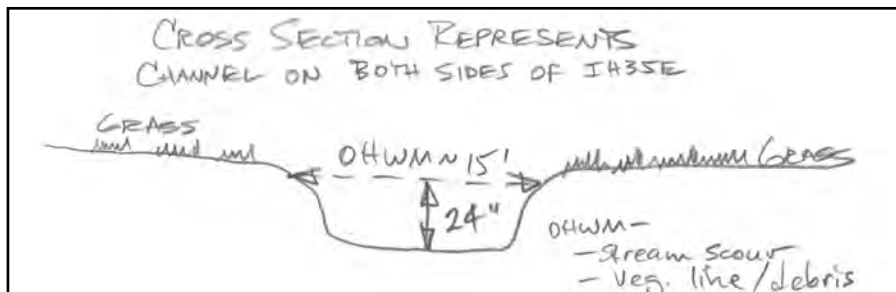
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View**



**Section View**



**Stream Data Form**Stream Data Form #: **W-10**Project Name: IH 35 E: FM 2181 to US 380  
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 26 Jan 2009

USGS Stream Name: Unnamed Tributary #2 to Dry Fork Hickory Creek

County/State: Denton, Texas

USGS Topo Quad Name: Denton West

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-10, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35 Centerline Station: 2035+35.

**Stream Type: Ephemeral**

Stream Flow Direction: Westerly

OHWM Width (ft): 19 feet

OHWM Height (in): 12 inches

Stream bottom composition: sand and clay loam; some ponding within channel, near an area of beaver activity; stream bottom is comprised mostly of herbaceous vegetation.

**Water Quality:** Channel was generally dry; water quality observations apply to pools located near culvert outfall on west side of IH 35.

--Slightly Turbid

--Color of water if other than clear: brownish

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed; beaver activity further downstream (beginning approximately 80 feet from the culvert outfall on the west side of IH 35).**Riparian Vegetation:** List species observed.Woody Plants: black willow (*Salix nigra*); hackberry (*Celtis laevigata*); box elder (*Acer negundo*); bois d'arc *Maclura pomifera*; new deal weed (*Baccharis neglecta*).Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon dactylon*); bushy bluestem (*Andropogon glomeratus*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); annual sunflower (*Helianthus annuus*); cattail (*Typha latifolia*) (stream bottom only).**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; woody vegetation within stream channel has been severed and adjacent areas is mowed; the trees noted above are near the channel but not adjacent to it.

**Stream Data Form** (continued)

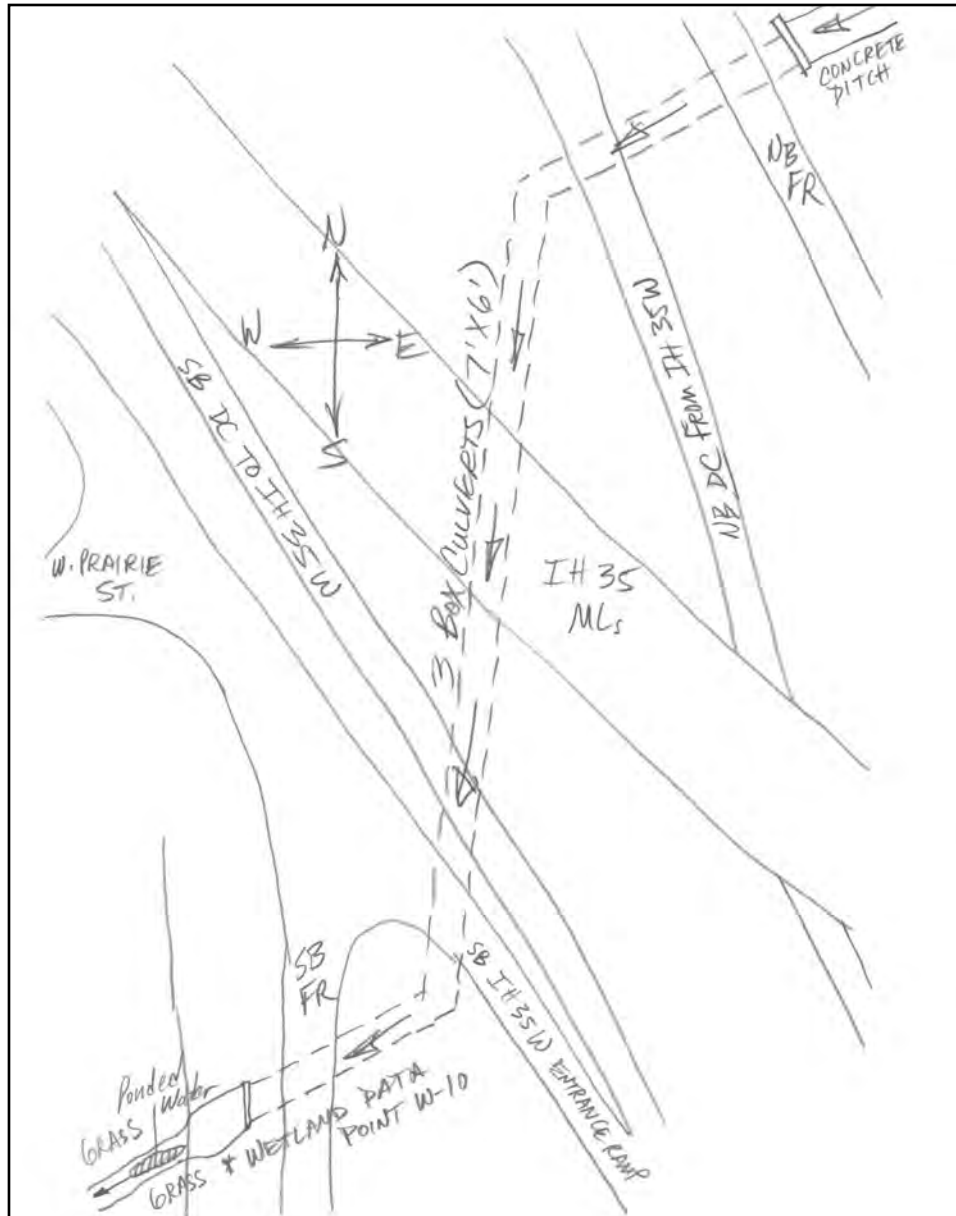
Stream Data Form #: **W-10**

Project Name: IH 35 E: FM 2181 to US 380

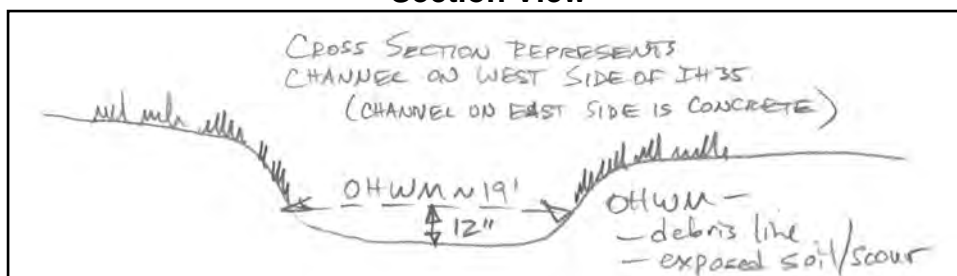
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View**



**Section View**



**Stream Data Form**Stream Data Form #: **W-11**

Project Name: IH 35 E: FM 2181 to US 380  
 CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith

Date of Field Work: 26 Jan 2009

USGS Stream Name: Unnamed Tributary #3 to Dry Fork Hickory Creek

County/State: Denton, Texas

USGS Topo Quad Name: Denton West

Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-11, location of data point on next page)

GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 2065+64.

**Stream Type: Ephemeral**

Stream Flow Direction: Westerly

OHWM Width (ft): 14 feet

OHWM Height (in): 12 inches

Stream bottom composition: sand and clay loam; some gravel; some ponding within channel,  
 but stream bottom is comprised mostly of herbaceous vegetation.

**Water Quality:** Channel was generally dry; water quality observations apply to pool located  
 near culvert outfall on west side of IH 35.  
 --Clear

**Aquatic Habitat:** Indicate all types present within ROW/project limits.

Sand bar

Sand/Gravel beach/bar

Mud bar

Gravel riffles

Overhanging trees/shrubs

Deep pool/hole/channel

Aquatic vegetation

Other:

**Aquatic Organisms:** List all species observed. This would include waterfowl, fish, snakes,  
 turtles, frogs, invertebrates, etc.: None observed.

**Riparian Vegetation:** List species observed.

Woody Plants: black willow (*Salix nigra*); eastern red cedar (*Juniperus virginiana*); grape  
 (*Vitis* sp.).

Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon  
 dactylon*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); cattail (*Typha  
 latifolia*) (stream bottom only).

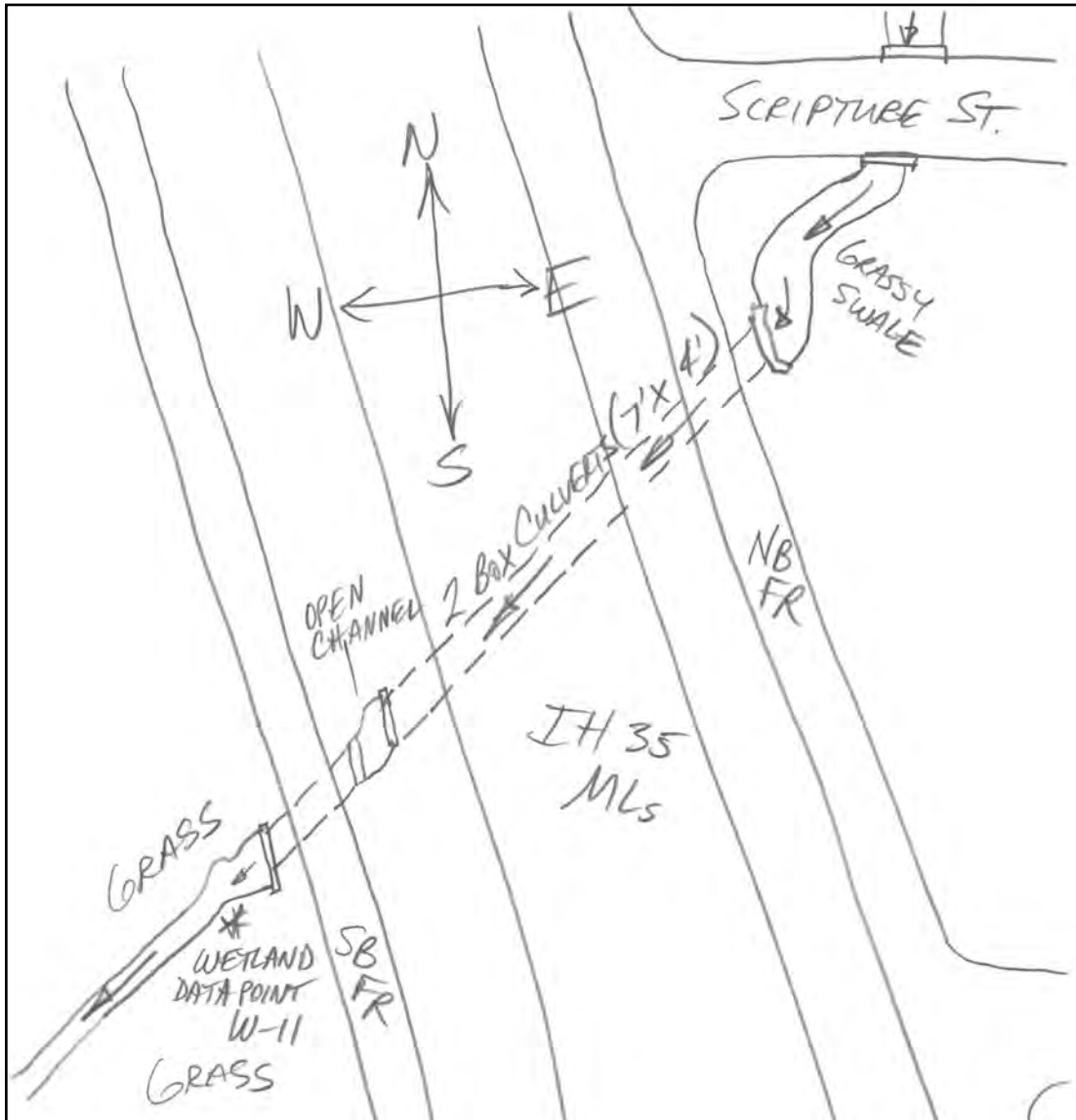
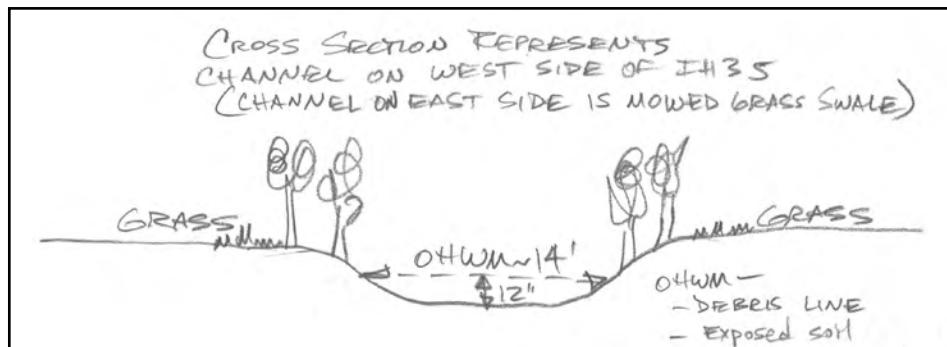
**T&E Species/Suitable Habitat:** List T&E species observed or which species the habitat is  
 suitable for. No T&E species observed; area does not provide sufficient cover or other  
 habitat for T&E species expected to occur within Denton County; areas on either side of  
 riparian corridor are mowed grass.

**Stream Data Form** (continued)Stream Data Form #: **W-11**

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

**Plan View****Section View**

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/2009  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-1 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 3%  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.982" Datum: SP 1983  
 Soil Map Unit Name: Gasil fine sandy loam, 3 to 8 percent slopes NWI classification: \_\_\_\_\_

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_

Are Vegetation No, Soil No, or Hydrology No naturally problematic?

(If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
No Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	

Remarks:

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC - ): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species <u>70</u> x 4 = <u>280</u> UPL species _____ x 5 = _____ Column Totals: <u>90</u> (A) <u>340</u> (B) Prevalence Index = B/A = <u>3.7</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			= Total Cover	
<b>Herb Stratum (Plot size: 10'x10')</b>				
1. <u>Cynodon dactylon</u>	<u>70%</u>	<u>Yes</u>	<u>FACU+</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Ambrosia psilostachya</u>	<u>20%</u>	<u>Yes</u>	<u>FAC-</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
			<u>90%</u> = Total Cover	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
			= Total Cover	
% Bare Ground in Herb Stratum <u>10%</u>				
Remarks: No indicators observed				



# SOIL

Sampling Point: W-1 (E-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-14	10YR 5/3	100				sandy clay	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:  
No indicators observed

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>
<input type="checkbox"/> Drift Deposits (B3)	<b>(where not tilled)</b>	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present? Yes \_\_\_\_\_ No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:

Remarks:  
No indicators observed

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/2009  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-2 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 3%  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592 Datum: SP 1983  
 Soil Map Unit Name: Gasil fine sandy loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes <u>X</u>	No _____			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30'x30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Ulmus americana</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Juniperus virginiana</u>	<u>10</u>	<u>No</u>	<u>FAC-</u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<u>No</u>	<u>FACW-</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
4. _____	_____	_____	_____	
	<u>50%</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>30'x30'</u> )				Prevalence Index worksheet:
1. <u>Ulmus americana</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Ligustrum sinense</u>	<u>10%</u>	<u>Yes</u>	<u>UPL</u>	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species <u>10</u> x 2 = <u>20</u>
4. _____	_____	_____	_____	FAC species <u>75</u> x 3 = <u>225</u>
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
	<u>20%</u>	= Total Cover		UPL species <u>10</u> x 5 = <u>50</u>
Herb Stratum (Plot size: <u>10'x10'</u> )				Column Totals: <u>95</u> (A) <u>295</u> (B)
1. <u>Cyperus spp.</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	Prevalence Index = B/A = <u>3.1</u>
2. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	_____ Prevalence Index is ≤3.0 <sup>1</sup>
5. _____	_____	_____	_____	_____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
10. _____	_____	_____	_____	
	<u>5</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>10'x10'</u> )				
1. <u>Rubus trivialis</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Lonicera japonica</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
	<u>20%</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>95%</u>				
Remarks: Herbaceous vegetation generally absent				

# SOIL

Sampling Point: W-2 (E-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-10	10YR 5/4	90				sandy loam	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:  
No Indicators observed

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>
<input checked="" type="checkbox"/> Drift Deposits (B3)	<b>(where not tilled)</b>	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)
<b>Field Observations:</b>		
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____	
(includes capillary fringe)		<b>Wetland Hydrology Present? Yes <u>X</u> No _____</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:		
Remarks:		

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-3 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985 Long: W 97 0' 35.592 Datum: \_\_\_\_\_  
 Soil Map Unit Name: Crockett fine sandy loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes x No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC -): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>95</u> x 4 = <u>380</u> UPL species _____ x 5 = _____ Column Totals: <u>95</u> (A) <u>380</u> (B) Prevalence Index = B/A = <u>4.0</u>
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
Herb Stratum (Plot size: 10'x10')				
1. <u>Cynodon dactylon</u>	<u>95%</u>	<u>Yes</u>	<u>FACU+</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> <b>Present?</b> Yes _____ No <u>X</u>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation</b> <b>Present?</b> Yes _____ No <u>X</u>
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
= Total Cover				<b>Hydrophytic Vegetation</b> <b>Present?</b> Yes _____ No <u>X</u>
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				<b>Hydrophytic Vegetation</b> <b>Present?</b> Yes _____ No <u>X</u>
% Bare Ground in Herb Stratum <u>5%</u>				
Remarks:				
No indicators observed				

# SOIL

Sampling Point: W-3 (E-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-10	10YR 4/4	100%				sandy loam	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:  
No indicators observed

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>
<input type="checkbox"/> Drift Deposits (B3)	<b>(where not tilled)</b>	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present? Yes \_\_\_\_\_ No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:

Remarks:  
No Indicators observed

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-4 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592" Datum: SP 1983  
 Soil Map Unit Name: Wilson clay loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed?

Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation No, Soil No, or Hydrology No naturally problematic?

(If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>		
No Wetland Hydrology Present?	Yes <u>X</u> No _____		
Remarks: Site altered due to nearby construction and local drainage is not considered native			

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30'x30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix nigra</u>	<u>30%</u>	Yes	<u>FACW+</u>	
2. <u>Ulmus americana</u>	<u>30%</u>	Yes	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>8</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>62.5</u> (A/B)
4. _____	_____	_____	_____	
	<u>60%</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>30'x30'</u> )				Prevalence Index worksheet:
1. <u>Celtis laevigata</u>	<u>20%</u>	Yes	<u>FAC</u>	
2. <u>Salix nigra</u>	<u>20%</u>	Yes	<u>FACW+</u>	OBL species _____ x 1 = _____
3. <u>Ulmus americana</u>	<u>20%</u>	Yes	<u>FAC</u>	FACW species <u>50</u> x 2 = <u>100</u>
4. _____	_____	_____	_____	FAC species <u>70</u> x 3 = <u>210</u>
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
	<u>60%</u>	= Total Cover		UPL species <u>90</u> x 5 = <u>450</u>
Herb Stratum (Plot size: <u>10'x10'</u> )				Column Totals: <u>210</u> (A) <u>760</u> (B)
1. <u>Sorghum halepense</u>	<u>40%</u>	Yes	<u>FACU</u>	Prevalence Index = B/A = <u>3.61</u>
2. <u>Cynodon dactylon</u>	<u>40%</u>	Yes	<u>FACU+</u>	Hydrophytic Vegetation Indicators:
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	_____ Prevalence Index is ≤3.0 <sup>1</sup>
5. _____	_____	_____	_____	_____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet)
6. _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
10. _____	_____	_____	_____	
	<u>80%</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>10'x10'</u> )				
1. <u>Toxicodendron radicans</u>	<u>10%</u>	Yes	<u>FACU</u>	
2. _____	_____	_____	_____	
	<u>10%</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>20%</u>				
Remarks: No indicators observed				

# SOIL

Sampling Point: W-4 (E-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-10	10YR 4/3	95				sandy clay	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>
<input checked="" type="checkbox"/> Drift Deposits (B3)	<b>(where not tilled)</b>	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present? Yes X No \_\_\_\_\_**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-5 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592" Datum: SP 1983  
 Soil Map Unit Name: Gasil fine sandy loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30'x30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus pennsylvanica</u>	<u>40</u>	<u>Yes</u>	<u>FACW-</u>		Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC -): <u>4</u> (A)
2. <u>Celtis laevigata</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. <u>Ulmus crassifolia</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____		
	<u>100</u>	= Total Cover			
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____		OBL species _____ x 1 = _____
3. _____	_____	_____	_____		FACW species <u>40</u> x 2 = <u>80</u>
4. _____	_____	_____	_____		FAC species <u>70</u> x 3 = <u>210</u>
5. _____	_____	_____	_____		FACU species _____ x 4 = _____
Herb Stratum (Plot size: <u>10'x10'</u> )				UPL species _____ x 5 = _____	
1. <u>Chasmanthium latifolium</u>	<u>&lt;5%</u>	<u>No</u>	<u>FAC</u>	Column Totals: <u>110</u> (A) <u>290</u> (B)	
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.6</u>	
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:	
4. _____	_____	_____	_____		<u>X</u> Dominance Test is >50%
5. _____	_____	_____	_____		_____ Prevalence Index is ≤3.0 <sup>1</sup>
6. _____	_____	_____	_____		_____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet)
7. _____	_____	_____	_____		_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
8. _____	_____	_____	_____		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
	<u>&lt;5%</u>	= Total Cover			
Woody Vine Stratum (Plot size: <u>10'x10'</u> )					Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. <u>Smilax bona-nox</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>		
2. _____	_____	_____	_____		
	<u>5</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>95</u>					

Remarks:  
 Herbaceous vegetation generally absent



# SOIL

Sampling Point: W-5 (E-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-14	10YR 5/8	95				clayey sand	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:  
No indicators observed

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> (where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> (where not tilled)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)
<b>Field Observations:</b>		
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>x</u>	Depth (inches): _____	
(includes capillary fringe)		<b>Wetland Hydrology Present? Yes _____ No <u>X</u></b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:		
Remarks:		

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-6a (W-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592" Datum: SP 1983  
 Soil Map Unit Name: Callisburg fine sandy loam 1 to 3 percent slopes NWI classification: \_\_\_\_\_

Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed?

Are "Normal Circumstances" present? Yes X No \_\_\_\_\_

Are Vegetation No, Soil No, or Hydrology No naturally problematic?

(If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks: sampling point adjacent to beaver pond upstream of IH-35E culvert					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC - ): <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: 20'x20')</b>				
1. <u>Salix nigra</u>	<u>30</u>	Yes _____	FACW+	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>30</u> x 2 = <u>60</u> FAC species <u>110</u> x 3 = <u>330</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species _____ x 5 = _____ Column Totals: <u>180</u> (A) <u>550</u> (B) Prevalence Index = B/A = <u>3.05</u>
2. <u>Prunus mexicana</u>	<u>20</u>	Yes _____	NI*	
3. <u>Baccarhis neglecta</u>	<u>10</u>	No _____	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum (Plot size: 10'x10')</b>				
1. <u>Chasmanthium latifolium</u>	<u>60</u>	Yes _____	FAC	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Solidago altissima</u>	<u>20</u>	Yes _____	FACU	
3. <u>Sorghum halepense</u>	<u>20</u>	Yes _____	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: 10'x10')</b>				
1. <u>Rubus trivialis</u>	<u>20</u>	Yes _____	FAC	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0%</u>				

Remarks:

\* - FAC indicator assumed for Prunus mexicana

# SOIL

Sampling Point: W-6a (W-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-14	10YR 5/8	100				sandy clay	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:  
No indicators observed

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<b>(where tilled)</b>
<input type="checkbox"/> Drift Deposits (B3)	<b>(where not tilled)</b>	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Water Table Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

Saturation Present? Yes \_\_\_\_\_ No X Depth (inches): \_\_\_\_\_

(includes capillary fringe)

**Wetland Hydrology Present? Yes \_\_\_\_\_ No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:

Remarks:  
No indicators observed

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-6b (W-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): Concave Slope (%): 0  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592 Datum: SP 1983  
 Soil Map Unit Name: Callisburg fine sandy loam, 1 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
No Wetland Hydrology Present?	Yes <u>X</u>	No _____			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	OBL species <u>60</u> x 1 = <u>60</u>
3. _____	_____	_____	_____	FACW species <u>40</u> x 2 = <u>80</u>
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
= Total Cover				UPL species _____ x 5 = _____
Herb Stratum (Plot size: <u>10'x10'</u> )				Column Totals: <u>100</u> (A) <u>140</u> (B)
1. <u>Typha latifolia</u>	<u>60</u>	<u>Yes</u>	<u>OBL</u>	Prevalence Index = B/A = <u>1.4</u>
2. <u>Andropogon glomeratus</u>	<u>40</u>	<u>Yes</u>	<u>FACW+</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>0%</u>				
<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____				
Remarks:				

# SOIL

Sampling Point: W-6b (W-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes X No \_\_\_\_\_**

Remarks:  
Soil pit not taken due to saturated soils and high water table, soil assumed hydric

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> (where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> (where not tilled)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)
<b>Field Observations:</b>		
Surface Water Present?	Yes <u>X</u> No _____	Depth (inches): <u>surface</u>
Water Table Present?	Yes _____ No <u>x</u>	Depth (inches): _____
Saturation Present?	Yes <u>x</u> No _____	Depth (inches): <u>surface</u>
(includes capillary fringe)		<b>Wetland Hydrology Present? Yes <u>X</u> No _____</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:		
Remarks:		

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-7 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 2  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592" Datum: SP 1983  
 Soil Map Unit Name: Birome-Rayex-Aubrey complex, 2 to 15 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes <u>X</u>	No _____			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC -): <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>60</u> x 4 = <u>240</u> UPL species _____ x 5 = _____ Column Totals: <u>100</u> (A) <u>350</u> (B) Prevalence Index = B/A = <u>3.5</u>
<b>Sapling/Shrub Stratum (Plot size: 20'x20')</b> 1. <u>Salix nigra</u> 10 Yes FACW+ 2. <u>Ulmus americana</u> 10 Yes FAC 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: 10'x10')</b> 1. <u>Sorghum halepense</u> 30 Yes FACU 2. <u>Cynodon dactylon</u> 30 Yes FACU+ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: 10'x10')</b> 1. <u>Rubus trivialis</u> 10 Yes FAC 2. <u>Ionicera japonica</u> 10 Yes FAC _____ = Total Cover				
% Bare Ground in Herb Stratum <u>40%</u>				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Remarks:				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____

## SOIL

Sampling Point: W-7 (E-side IH 35E)

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required: check all that apply)			
<u>Surface Water (A1)</u>	<u>Salt Crust (B11)</u>	<u>Secondary Indicators (minimum of two required)</u>	
<u>High Water Table (A2)</u>	<u>Aquatic Invertebrates (B13)</u>	<u>Surface Soil Cracks (B6)</u>	
<u>Saturation (A3)</u>	<u>Hydrogen Sulfide Odor (C1)</u>	<u>Sparsely Vegetated Concave Surface (B8)</u>	
<u>Water Marks (B1)</u>	<u>Dry-Season Water Table (C2)</u>	<u>Drainage Patterns (B10)</u>	
<u>Sediment Deposits (B2)</u>	<u>Oxidized Rhizospheres on Living Roots (C3)</u>	<u>Oxidized Rhizospheres on Living Roots (C3)</u>	
<u>X Drift Deposits (B3)</u>	<u>(where not tilled)</u>	<u>(where tilled)</u>	
<u>Algal Mat or Crust (B4)</u>	<u>Presence of Reduced Iron (C4)</u>	<u>Crayfish Burrows (C8)</u>	
<u>Iron Deposits (B5)</u>	<u>Thin Muck Surface (C7)</u>	<u>Saturation Visible on Aerial Imagery (C9)</u>	
<u>Inundation Visible on Aerial Imagery (B7)</u>	<u>Other (Explain in Remarks)</u>	<u>Geomorphic Position (D2)</u>	
<u>Water-Stained Leaves (B9)</u>		<u>FAC-Neutral Test (D5)</u>	
		<u>Frost-Heave hummocks (D7) (LRR F)</u>	
<b>Field Observations:</b>			
Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____	
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____	
(includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:			
Remarks:			
Drift deposits present, but hydrology generally not observed			

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/23/2009  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-8 (E-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592 Datum: SP 1983  
 Soil Map Unit Name: Gasil fine sandy loam, 2 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
No Wetland Hydrology Present?	Yes <u>X</u> No _____	

Remarks:

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30'x30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Yes</u>	<u>FACW-</u>	
2. <u>Salix nigra</u>	<u>20</u>	<u>Yes</u>	<u>FACW+</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. <u>Ulmus americana</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. <u>Celtis laevigata</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
	<u>70%</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: 20'x20')				Prevalence Index worksheet:
1. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Yes</u>	<u>FACW-</u>	
2. <u>Ulmus americana</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	OBL species _____ x 1 = _____
3. <u>Symphoricarps orbiculatus</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	FACW species <u>60</u> x 2 = <u>120</u>
4. _____	_____	_____	_____	FAC species <u>70</u> x 3 = <u>210</u>
5. _____	_____	_____	_____	FACU species <u>20</u> x 4 = <u>80</u>
	<u>50%</u>	= Total Cover		UPL species _____ x 5 = _____
Herb Stratum (Plot size: 10'x10')				Column Totals: <u>150</u> (A) <u>410</u> (B)
1. <u>Solidago altissimus</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	Prevalence Index = B/A = <u>2.73</u>
2. <u>Ambrosia trifida</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
	<u>20%</u>	= Total Cover		
Woody Vine Stratum (Plot size: 10'x10')				Hydrophytic Vegetation Indicators:
1. <u>Smilax bona-nox</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	<u>X</u> Prevalence Index is ≤3.0 <sup>1</sup>
	<u>10</u>	= Total Cover		_____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>80%</u>				_____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Remarks:				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No \_\_\_\_\_



# SOIL

Sampling Point: W-8 (E-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-10	10YR 4/1	95				clay	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> High Plains Depressions (F16)	
<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> (where tilled)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> (where not tilled)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)
<b>Field Observations:</b>		
Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____
(includes capillary fringe)		
		<b>Wetland Hydrology Present? Yes <u>X</u> No _____</b>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:		
Remarks:		

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/26/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-9 (W-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrave Local relief (concave, convex, none): None Slope (%): 0  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 32 3' 2.985" Long: W 97 0' 35.592 Datum: SP 1983  
 Soil Map Unit Name: Wilson-Urban land complex 0 to 2 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC -): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			= Total Cover	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>100</u> x 4 = <u>400</u> UPL species _____ x 5 = _____ Column Totals: <u>100</u> (A) <u>400</u> (B) Prevalence Index = B/A = <u>4.0</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: 10'x10')</b> 1. <u>Cynodon dactylon</u> <u>100</u> <u>Yes</u> <u>FACU+</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>0%</u>				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Remarks:				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>

## SOIL

Sampling Point: W-9 (W-side IH 35E)

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one required: check all that apply)					
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Surface Soil Cracks (B6)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)		<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)		<b>(where tilled)</b>		
<input type="checkbox"/> Drift Deposits (B3)	<b>(where not tilled)</b>		<input type="checkbox"/> Crayfish Burrows (C8)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)		<input type="checkbox"/> Geomorphic Position (D2)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Water-Stained Leaves (B9)			<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)		
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>			
Saturation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <input type="text"/>			
(includes capillary fringe)			<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:					
Remarks:					
No indicators observed					

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/26/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-10 (W-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1-3%  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.85" Long: W 97 0' 35.592 Datum: SP 1983  
 Soil Map Unit Name: Sanger clay, 3 to 5 percent slopes NWI classification: \_\_\_\_\_

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

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>		
No Wetland Hydrology Present?	Yes _____	No <u>X</u>		
Remarks:				

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30'x30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC - ): <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
1. <u>Celtis laevigata</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>60</u> x 3 = <u>180</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species _____ x 5 = _____ Column Totals: <u>140</u> (A) <u>500</u> (B) Prevalence Index = B/A = <u>3.57</u>
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>20'x20'</u>)</b>				
1. <u>Celtis laevigata</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
<b>Herb Stratum (Plot size: <u>10'x10'</u>)</b>				
1. <u>Cynodon dactylon</u>	<u>80</u>	<u>Yes</u>	<u>FACU+</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
<b>% Bare Ground in Herb Stratum</b> <u>20%</u>				
_____ = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>20%</u>				
Remarks:				

## SOIL

Sampling Point: W-10 (W-side IH 35E)

[illegible]

## HYDROLOGY

Wetland Hydrology Indicators:			Wetland Hydrology Present?    Yes _____    No <u>X</u>	
Primary Indicators (minimum of one required: check all that apply)			Secondary Indicators (minimum of two required)	
<u>Surface Water (A1)</u>	<u>Salt Crust (B11)</u>		<u>Surface Soil Cracks (B6)</u>	
<u>High Water Table (A2)</u>	<u>Aquatic Invertebrates (B13)</u>		<u>Sparsely Vegetated Concave Surface (B8)</u>	
<u>Saturation (A3)</u>	<u>Hydrogen Sulfide Odor (C1)</u>		<u>Drainage Patterns (B10)</u>	
<u>Water Marks (B1)</u>	<u>Dry-Season Water Table (C2)</u>		<u>Oxidized Rhizospheres on Living Roots (C3)</u>	
<u>Sediment Deposits (B2)</u>	<u>Oxidized Rhizospheres on Living Roots (C3)</u>		<u>(where tilled)</u>	
<u>Drift Deposits (B3)</u>	<u>(where not tilled)</u>		<u>Crayfish Burrows (C8)</u>	
<u>Algal Mat or Crust (B4)</u>	<u>Presence of Reduced Iron (C4)</u>		<u>Saturation Visible on Aerial Imagery (C9)</u>	
<u>Iron Deposits (B5)</u>	<u>Thin Muck Surface (C7)</u>		<u>Geomorphic Position (D2)</u>	
<u>Inundation Visible on Aerial Imagery (B7)</u>	<u>Other (Explain in Remarks)</u>		<u>FAC-Neutral Test (D5)</u>	
<u>Water-Stained Leaves (B9)</u>			<u>Frost-Heave hummocks (D7) (LRR F)</u>	
<b>Field Observations:</b>				
Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____		
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____		
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____		
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:				
Remarks:				
No indicators observed				

# WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E City/County: Denton County Sampling Date: 01/26/09  
 Applicant/Owner: TxDOT State: TX Sampling Point: W-11 (W-IH 35E)  
 Investigator(s): Griffith/Jaynes Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 1  
 Subregion (LRR): Southwestern Prairies (J) Lat: N 33 3' 2.985" Long: W 97 0' 35.592" Datum: SP 1983  
 Soil Map Unit Name: Sanger Clay, 1 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
No Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>30'x30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC - ): <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71%</u> (A/B)
1. <u>Salix nigra</u>	<u>30</u>	Yes	FACW+	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>30%</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>20'x20'</u>)</b>				
1. <u>Salix nigra</u>	<u>15</u>	Yes	FACW+	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species <u>45</u> x 2 = <u>90</u> FAC species <u>45</u> x 3 = <u>135</u> FACU species <u>40</u> x 4 = <u>160</u> UPL species _____ x 5 = _____ Column Totals: <u>130</u> (A) <u>385</u> (B) Prevalence Index = B/A = <u>2.96</u>
2. <u>Celtis laevigata</u>	<u>15</u>	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>30%</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>10'x10'</u>)</b>				
1. <u>Ambrosia trifida</u>	<u>20</u>	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> X Dominance Test is >50% _____ Prevalence Index is ≤3.0 <sup>1</sup> _____ Morphological Adaptations <sup>1</sup> (Provide Supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sorghum halepense</u>	<u>20</u>	Yes	FACU	
3. <u>Cynodon dactylon</u>	<u>20</u>	Yes	FACU+	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>60%</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>10'x10'</u>)</b>				
1. <u>Smilax bona-nox</u>	<u>10</u>	Yes	FAC	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____
2. _____	_____	_____	_____	
<u>10%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>40%</u>				
Remarks:				

## SOIL

Sampling Point: W-11 (W-side IH 35E)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		
0-14	10YR 4/3	100				sandy loam	

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Mucky Mineral (s1)	<input type="checkbox"/> Redox Depressions (F8)	<sup>3</sup> Indicators of hydrophytic vegetation and
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G,H)	<input type="checkbox"/> High Plains Depressions (F16)	wetland hydrology must be present,
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/> (MLRA 72 & 73 of LRR H)	unless disturbed or problematic.

**Restrictive Layer (if present):**  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No X**

Remarks:  
No indicators observed

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required: check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> (where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> (where not tilled)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Frost-Heave hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____ No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____ No <u>X</u>	Depth (inches): _____

(includes capillary fringe)

**Wetland Hydrology Present? Yes \_\_\_\_\_ No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in sections), if available:

Remarks:  
No indicators observed

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 1	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 1			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1570+00.				
Vegetation type: upland forest—mowed grass understory.				
Overstory: dominated by loblolly pine trees; trees generally not more than 50 feet tall.				
Understory: dominated by grass (closely mowed), and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: dewberry (<i>Rubus</i> sp.), saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>)</li> <li>▪ forbs: dandelion (<i>Taraxacum officinale</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?		unusual—loblolly pines not native to the area		

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
loblolly pine	<i>Pinus taeda</i>	8" – 12"
green ash	<i>Fraxinus pennsylvanica</i>	17"
blackjack oak	<i>Quercus marilandica</i>	17"
Acreage of Trees to be Removed		0.05 (number of trees >6" dbh: 9)
Density per Acre (trees > 6" dbh)		184
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within the area delineated (0.05 acre): 9 trees total (7 pine, 1 ash, 1 oak). Canopy coverage estimate: 50%.		
Tree notes: area is near commercial buildings; pines likely planted as part of site landscaping.		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; pine and ash—samara.	
Land Use in the Project Area	
Commercial and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Well maintained site with closely-mowed understory; little habitat value other than for birds.	



# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 2	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 29			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1585+00.				
Vegetation type: brushland area.				
Overstory: dominated by persimmon and live oak trees; trees generally not more than 20 feet tall.				
Understory: dense privet with mostly brome grass in open areas, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), dewberry (<i>Rubus</i> sp.)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>)</li> <li>▪ grasses and sedges: Japanese brome (<i>Bromus japonicus</i>), Bermuda grass (<i>Cynodon dactylon</i>), Johnson grass (<i>Sorghum halepense</i>)</li> <li>▪ forbs: goldenrod (<i>Solidago</i> sp.), curly dock (<i>Rumex crispus</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      unusual—indicative of past site disturbance				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
common persimmon	<i>Diospyros virginiana</i>	<1" – 3"
live oak	<i>Quercus virginiana</i>	<1" – 4"
hackberry	<i>Celtis laevigata</i>	<1" – 4"
eastern red cedar	<i>Juniperus virginiana</i>	<1"
Acreage of Trees to be Removed	0.28	
Density per Acre (trees > 6" dbh)	brush area—no trees >6" dbh	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 0 trees.		
Canopy coverage estimate: 70%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: persimmon and hackberry—berry; oak—acorn; cedar—berry-like cone.	
Land Use in the Project Area	
Undeveloped vacant land and residential	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 3	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 6			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1608+00.				
Vegetation type: upland forest—mowed grass understory.				
Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.				
Understory: sparse grass (closely mowed), and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: none</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), panic grass (<i>Panicum</i> sp.)</li> <li>▪ forbs: dandelion (<i>Taraxacum officinale</i>), henbit (<i>Lamium amplexicaule</i>), filaree (<i>Erodium cicutarium</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical of areas near residences or businesses				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	16" – 22"
Acreage of Trees to be Removed	0.51      (number of trees >6" dbh: 34)	
Density per Acre (trees > 6" dbh)	67	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 3a, 0.40 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area on the northward (Site 3b, CL Station 1616+00, 0.11 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees.		
Canopy coverage estimate: 70%.		
Tree notes: six post oak trees are within this forest area with >20" dbh (21", 22", 23", 24", 31", 34").		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn.	
Land Use in the Project Area	
Residential, agricultural (pasture), and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Yes (song birds)—mowed understory diminishes value of area for wildlife habitat, except birds.	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 4	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 9			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1622+00.				
Vegetation type: upland forest.				
Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.				
Understory: vine dominated understory is very sparse, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), dewberry (<i>Rubus</i> sp.)</li> <li>▪ shrubs: possumhaw (<i>Ilex decidua</i>)</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>)</li> <li>▪ forbs: none observed</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	11" – 18"
hackberry	<i>Celtis laevigata</i>	<1"
American elm	<i>Ulmus americana</i>	<1"
Bradford pear	<i>Pyrus calleryana</i>	<1"
Acreage of Trees to be Removed	0.70 (number of trees >6" dbh: 47)	
Density per Acre (trees > 6" dbh)	67	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
<p>Impacts: trees in the data point area (Site 4a, 0.07 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 4b, CL Station 1606+00, 0.10 acre), at the same station on the west side of IH 35E (Site 4c, CL Station 1622, 0.40 acre); and northward on the west side of IH 35E (Site 4d, CL Station 1637+00, 0.13 acre).</p> <p>Density sample: trees &gt;6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees. Canopy coverage estimate: 60%.</p> <p>Tree notes: within Site 4b there is a 26" dbh catalpa (<i>Catalpa speciosa</i>) tree; within Site 4c there is a 29" dbh post oak tree.</p>		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; hackberry—berry; elm—samara; pear—pome.	
Land Use in the Project Area	
Commercial and agricultural (pasture)	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 5	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 4			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1624+00.				
Vegetation type: riparian forest.				
Overstory: dominated by American elm trees; trees generally not more than 60 feet tall.				
Understory: sparsely vegetated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), grape (<i>Vitis</i> sp.), Japanese honeysuckle (<i>Lonicera japonica</i>)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), possumhaw (<i>Ilex decidua</i>)</li> <li>▪ grasses and sedges: wood oats (<i>Chasmanthium latifolium</i>), Virginia wildrye (<i>Elymus virginicus</i>)</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), goldenrod (<i>Solidago</i> sp.), western ragweed (<i>Ambrosia psilostachya</i>), ironweed (<i>Vernonia</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	<i>Ulmus americana</i>	<1" – 20"
bois d'arc	<i>Maclura pomifera</i>	<1"
hackberry	<i>Celtis laevigata</i>	<1"
Acreage of Trees to be Removed	0.49 (number of trees >6" dbh: 87)	
Density per Acre (trees > 6" dbh)	178	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 5a, 0.31 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to a riparian forest area on the east side of IH 35E (Site 5b, CL Station 1623+00, 0.18 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 8 trees.		
Canopy coverage estimate: 90%.		
Tree notes: one 30" dbh American elm is located ~100' north of data point area; one 35" American elm is located on the east side of IH 35E near this data point.		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: elm—samara; bois d'arc—syncarp; hackberry—berry.	
Land Use in the Project Area	
Agricultural (pasture) and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Yes (song birds); some saplings gnawed off—apparent beaver activity (not recent); no bird nests in culvert.	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 6	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 13			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1643+00.				
Vegetation type: savanna-like upland forest—mowed grass understory.				
Overstory: dominated by American elm and pecan trees; trees generally not more than 40 feet tall.				
Understory: complete grass cover (mowed), and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), Johnson grass (<i>Sorghum halepense</i>), silver bluestem (<i>Bothriochloa laguroides</i>), panic grass (<i>Panicum</i> sp.)</li> <li>▪ forbs: none</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical—of landscaped commercial areas				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	<i>Ulmus americana</i>	17"
pecan	<i>Carya illinoensis</i>	19"
hackberry	<i>Celtis laevigata</i>	<1"
Acreage of Trees to be Removed	0.42 (number of trees >6" dbh: 18)	
Density per Acre (trees > 6" dbh)	44	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 6a, 0.17 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas northward (Site 6b, CL Station 1647+00, 0.16 acre) and northward on the west side of IH 35E (Site 6c, CL Station 1656+00, 0.09 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees. Canopy coverage estimate: 50%.		
Tree notes: outside the data point area but within the area of impacts are four trees >20" dbh: one red mulberry ( <i>Morus rubra</i> ), 27"; three post oak ( <i>Quercus stellata</i> ) trees, 23", 30", 31".		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: elm—samara; pecan—nut; hackberry—berry.	
Land Use in the Project Area	
Commercial, transportation, and residential	
Evidence or Sightings of Wildlife in the Project Area?	
No---maintained understory and nearby developed land renders area of little value to wildlife, except birds.	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 7	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 28			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1643+00.				
Vegetation type: savanna-like upland forest—mowed between individual trees or small groups of trees.				
Overstory: dominated by cottonwood trees; trees generally not more than 70 feet tall.				
Understory: mowed grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), Johnson grass (<i>Sorghum halepense</i>), Virginia wildrye (<i>Elymus virginicus</i>), flat sedge (<i>Cyperas</i> sp.)</li> <li>▪ forbs: dandelion (<i>Taraxacum officinale</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical—of landscaped commercial areas				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
eastern cottonwood	<i>Populus deltoides</i>	17" – 18"
hackberry	<i>Celtis laevigata</i>	<1" – 16"
cedar elm	<i>Ulmus crassifolia</i>	<1" – 4"
Bradford pear	<i>Pyrus calleryana</i>	<1" – 2"
eastern red cedar	<i>Juniperus virginiana</i>	<1"
Acreage of Trees to be Removed	0.26 (number of trees >6" dbh: 17)	
Density per Acre (trees > 6" dbh)	67	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 7a, 0.17 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area northward (Site 7b, CL Station 1654+00, 0.09 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees.		
Canopy coverage estimate: 50%.		
Tree notes: within vicinity of the data point are three trees >20" dbh: cottonwood, 28"; hackberry, 25" and 28"; also, within Site 7b there is a 25" dbh cottonwood tree.		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: hackberry—berry; elm—samara; pear—pome; cedar—berry-like cone.	
Land Use in the Project Area	
Commercial, transportation, and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Occasionally mowed areas between large trees; poor quality habitat except for birds.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 8	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 15			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1683+00.				
Vegetation type: riparian forest.				
Overstory: dominated by American elm trees; trees generally not more than 50 feet tall.				
Understory: sparse understory (apparent water disturbance from ephemeral channel) includes—				
<ul style="list-style-type: none"> <li>▪ vines: poison ivy (<i>Toxicodendron radicans</i>)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Johnson grass (<i>Sorghum halepense</i>)</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), goldenrod (<i>Solidago</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	<i>Ulmus americana</i>	<1" – 10"
eastern red cedar	<i>Juniperus virginiana</i>	<1" – 8"
hackberry	<i>Celtis laevigata</i>	<1" – 5"
Acreage of Trees to be Removed	0.15    (number of trees >6" dbh: 53)	
Density per Acre (trees > 6" dbh)	356	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 16 trees.		
Canopy coverage estimate: 90%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral channel
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: elm—samara; cedar—berry-like cone; hackberry—berry.	
Land Use in the Project Area	
Commercial and vacant undeveloped land	
Evidence or Sightings of Wildlife in the Project Area?	
Yes (song birds)	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 9	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 22			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1702+00.				
Vegetation type: upland forest.				
Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.				
Understory: sparsely vegetated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), dewberry (<i>Rubus</i> sp.)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Johnson grass (<i>Sorghum halepense</i>)</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	1" – 11"
green ash	<i>Fraxinus pennsylvanica</i>	2" – 6"
cedar elm	<i>Ulmus crassifolia</i>	2" – 4"
Acreage of Trees to be Removed		0.83 (number of trees >6" dbh: 37)
Density per Acre (trees > 6" dbh)		44
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 9a, 0.55 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 9b, CL Station 1695+00, 0.11 acre; and, Site 9c, CL Station 1690+00, 0.17 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees.		
Canopy coverage estimate: 60%.		
Tree notes: observed a 23" dbh post oak near ephemeral stream to the north.		

## HABITAT VALUE

Is the Site Adjacent to Water?	No, but ephemeral stream nearby
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; ash and elm—samara.	
Land Use in the Project Area	
Commercial and undeveloped vacant	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Portions of understory disturbed in connection with recent construction of a two-lane road.	



# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 10	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 16			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1704+00.				
Vegetation type: upland forest.				
Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.				
Understory: sparsely vegetated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), poison ivy (<i>Toxicodendron radicans</i>)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), coralberry (<i>Symphoricarpos orbiculatus</i>)</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), panic grass (<i>Panicum</i> sp.), Virginia wildrye (<i>Elymus virginicus</i>), flat sedge (<i>Cyperas</i> sp.)</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), western ragweed (<i>Ambrosia psilostachya</i>), sunflower (<i>Helianthus annuus</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?		typical		

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	3" – 17"
green ash	<i>Fraxinus pennsylvanica</i>	<1" – 4"
winged elm	<i>Ulmus alata</i>	<1"
Acreage of Trees to be Removed		0.68 (number of trees >6" dbh: 151)
Density per Acre (trees > 6" dbh)		222
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 10a, 0.55 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area northward (Site 10b, CL Station 1712+00, 0.13 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 10 trees.		
Canopy coverage estimate: 70%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; ash and elm—samara.	
Land Use in the Project Area	
Commercial and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E		Area #: 11	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 21				
Project Scope					
From FM 2181 to US 380, Corinth and Denton, TX					
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)					
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1717+00.					
Vegetation type: riparian forest.					
Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.					
Understory: characterized by dense greenbrier vines and sparse grasses, and includes the following—					
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: prickly-pear cactus (<i>Opuntia</i> sp.); possumhaw (<i>Ilex decidua</i>); Chinese privet (<i>Ligustrum sinense</i>)</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), Johnson grass (<i>Sorghum halepense</i>), panic grass (<i>Panicum</i> sp.), little bluestem (<i>Schizachyrium scoparium</i>)</li> <li>▪ forbs: goldenrod (<i>Solidago</i> sp.)</li> </ul>					
Is Site Unusual or Typical of Others in the Area?      typical					

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	<1" – 10"
American elm	<i>Ulmus americana</i>	4" – 6"
hackberry	<i>Celtis laevigata</i>	<1" – 8"
green ash	<i>Fraxinus pennsylvanica</i>	<1" – 4"
Acreage of Trees to be Removed		0.28 (number of trees >6" dbh: 37)
Density per Acre (trees > 6" dbh)		133
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 6 trees.		
Canopy coverage estimate: 80%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—near pond to the west
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; ash and elm—samara; hackberry—berry.	
Land Use in the Project Area	
Commercial and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Ducks in nearby pond; hawk observed; several swallow nests in nearby culvert under IH 35E	
Remarks	
Site is within the 100-year floodplain for the ephemeral channel draining into and out of the nearby pond.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 12	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 19			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1747+00.				
Vegetation type: upland forest.				
Overstory: dominated by hackberry trees; trees generally not more than 40 feet tall.				
Understory: sparsely vegetated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), grape (<i>Vitis</i> sp.)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), new deal weed (<i>Baccharis neglecta</i>), coralberry (<i>Symphoricarpos orbiculatus</i>), plum (<i>Prunus</i> sp.)</li> <li>▪ grasses and sedges: none observed</li> <li>▪ forbs: goldenrod (<i>Solidago</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?		typical		

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
hackberry	<i>Celtis laevigata</i>	<1" – 16"
Acreage of Trees to be Removed	0.23 (number of trees >6" dbh: 10)	
Density per Acre (trees > 6" dbh)	44	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees.		
Canopy coverage estimate: 50%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: hackberry—berry.	
Land Use in the Project Area	
Commercial	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 13	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 32			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1794+00.				
Vegetation type: upland forest.				
Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.				
Understory: generally open with mixture of plant life forms, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), Hercules' club (<i>Zanthoxylum clava-herculis</i>)</li> <li>▪ grasses and sedges: silver bluestem (<i>Bothriochloa laguroides</i>), little bluestem (<i>Schizachyrium scoparium</i>)</li> <li>▪ forbs: goldenrod (<i>Solidago</i> sp.), western ragweed (<i>Ambrosia psilostachya</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	<1" – 12"
eastern red cedar	<i>Juniperus virginiana</i>	<1" – 2"
blackjack oak	<i>Quercus marilandica</i>	<1"
winged elm	<i>Ulmus alata</i>	<1"
hackberry	<i>Celtis laevigata</i>	<1"
Acreage of Trees to be Removed	0.85 (number of trees >6" dbh: 133)	
Density per Acre (trees > 6" dbh)	156	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 13a, 0.54 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to a upland forest areas southward (Site 13b, CL Station 1786+00, 0.12 acre) and northward (Site 13c, CL Station 1801+00, 0.19 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 7 trees.		
Canopy coverage estimate: 60%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	No, but pond is near north end
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; cedar—berry-like cone; elm—samara; hackberry—berry.	
Land Use in the Project Area	
Undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 14	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 33			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1800+00.				
Vegetation type: riparian forest.				
Overstory: dominated by persimmon trees; trees generally not more than 40 feet tall.				
Understory: sparsely vegetated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: grape (<i>Vitis</i> sp.)</li> <li>▪ shrubs: coralberry (<i>Symphoricarpos orbiculatus</i>), blackberry (<i>Rubus</i> sp.)</li> <li>▪ grasses and sedges: none observed</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), goldenrod (<i>Solidago</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
common persimmon	<i>Diospyros virginiana</i>	<1" – 4"
green ash	<i>Fraxinus pennsylvanica</i>	<1" – 4"
black willow	<i>Salix nigra</i>	13"
American elm	<i>Ulmus americana</i>	<1" – 9"
hackberry	<i>Celtis laevigata</i>	<1" – 5"
cedar elm	<i>Ulmus crassifolia</i>	<1" – 5"
winged elm	<i>Ulmus alata</i>	<1" – 2"
Bradford pear	<i>Pyrus calleryana</i>	<1" – 3"
Acreage of Trees to be Removed	0.22 (number of trees >6" dbh: 10)	
Density per Acre (trees > 6" dbh)	44	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees.		
Canopy coverage estimate: 90%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes (ephemeral channel and pond)
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: persimmon and hackberry—berry; ash and elm—samara; pear--pome.	
Land Use in the Project Area	
Commercial and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Yes (ducks on pond)	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 15	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 35			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1800+50.				
Vegetation type: riparian forest.				
Overstory: dominated by American elm trees; trees generally not more than 50 feet tall.				
Understory: predominately giant ragweed and privet, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: grape (<i>Vitis</i> sp.), poison ivy (<i>Toxicodendron radicans</i>)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), coralberry (<i>Symphoricarpos orbiculatus</i>)</li> <li>▪ grasses and sedges: none observed</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), goldenrod (<i>Solidago</i> sp.), henbit (<i>Lamium amplexicaule</i>)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	<i>Ulmus americana</i>	3" – 16"
hackberry	<i>Celtis laevigata</i>	<1" – 8"
black willow	<i>Salix nigra</i>	<1" – 3"
Acreage of Trees to be Removed	0.11    (number of trees >6" dbh: 12)	
Density per Acre (trees > 6" dbh)	111	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 5 trees.		
Canopy coverage estimate: 90%.		
Tree notes: one 64" dbh multi-branch black willow is in the data point vicinity.		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: elm—samara; hackberry—berry.	
Land Use in the Project Area	
Commercial and agricultural (pasture)	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 16	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 35			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1803+00.				
Vegetation type: upland forest.				
Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.				
Understory: grass/forb dominated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), poison ivy (<i>Toxicodendron radicans</i>)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>)</li> <li>▪ grasses and sedges: Virginia wildrye (<i>Elymus virginicus</i>), Bermuda grass (<i>Cynodon dactylon</i>), panic grass (<i>Panicum</i> sp.)</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), dandelion (<i>Taraxacum officinale</i>), aster (<i>Aster</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	12" – 18"
cedar elm	<i>Ulmus crassifolia</i>	4" – 6"
Acreage of Trees to be Removed	0.60 (number of trees >6" dbh: 53)	
Density per Acre (trees > 6" dbh)	89	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 16a, 0.38 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 16b, CL Station 1799+00, 0.11 acre; Site 16c, CL Station 1791+00, 0.06 acre; and, Site 16d, CL Station 1786+00, 0.05 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees.		
Canopy coverage estimate: 80%.		
Tree notes: one 22" dbh post oak tree is in the vicinity of the data point.		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; elm—samara.	
Land Use in the Project Area	
Commercial and agricultural (pasture)	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E		Area #: 17	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 34				
Project Scope					
From FM 2181 to US 380, Corinth and Denton, TX					
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)					
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1814+00.					
Vegetation type: riparian forest.					
Overstory: dominated by American elm trees; trees generally not more than 50 feet tall.					
Understory: dominated by greenbrier vines, and includes the following—					
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), grape (<i>Vitis</i> sp.)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), coralberry (<i>Symphoricarpos orbiculatus</i>)</li> <li>▪ grasses and sedges: Virginia wildrye (<i>Elymus virginicus</i>)</li> <li>▪ forbs: none observed</li> </ul>					
Is Site Unusual or Typical of Others in the Area?		typical			

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	<i>Ulmus americana</i>	<1" – 8"
hackberry	<i>Celtis laevigata</i>	<1" – 6"
eastern cottonwood	<i>Populus deltoides</i>	6" – 15"
black willow	<i>Salix nigra</i>	<1" – 8"
post oak	<i>Quercus stellata</i>	8" – 18"
winged elm	<i>Ulmus alata</i>	<1" – 3"
Acreage of Trees to be Removed	0.10 (number of trees >6" dbh: 18)	
Density per Acre (trees > 6" dbh)	178	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 8 trees.		
Canopy coverage estimate: 90%.		
Tree notes: data point included several dead black willow trees (not inventoried above).		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: elm—samara; hackberry—berry; oak—acorn.	
Land Use in the Project Area	
Commercial and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Dead raccoon observed in area	
Remarks	



# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 18	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 34			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1816+00.				
Vegetation type: upland forest.				
Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.				
Understory: dominated by greenbrier vines and privet, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>), coralberry (<i>Symphoricarpos orbiculatus</i>)</li> <li>▪ grasses and sedges: none observed</li> <li>▪ forbs: none observed</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	1" – 14"
winged elm	<i>Ulmus alata</i>	<1" – 2"
Acreage of Trees to be Removed		0.59 (number of trees >6" dbh: 92)
Density per Acre (trees > 6" dbh)		156
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 18a, 0.41 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area southward (Site 18b, CL Station 1813+00, 0.18 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 7 trees.		
Canopy coverage estimate: 90%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; elm—samara.	
Land Use in the Project Area	
Commercial and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Cottontail rabbit	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 19	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 47			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1870+00.				
Vegetation type: upland forest—mowed grass understory.				
Overstory: dominated by loblolly pine trees; trees generally not more than 60 feet tall.				
Understory: mowed grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: none</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>)</li> <li>▪ forbs: clover (<i>Medicago</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      unusual—loblolly pines not native to the area				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
loblolly pine	<i>Pinus taeda</i>	8" – 17"
post oak	<i>Quercus stellata</i>	4" – 5"
Acreage of Trees to be Removed      0.42    (number of trees >6" dbh: 64)		
Density per Acre (trees > 6" dbh)      152		
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
<p>Impacts: trees in the data point area (Site 19a, 0.03 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward in the IH 35E median (Site 19b, CL Station 1854+00, 0.11 acre), southward on the east side of IH 35E (Site 19c, CL Station 1866+00, 0.18 acre), and northward on the east side of IH 35E (Site 19d, CL Station 1914+00, 0.10 acre).</p> <p>Density sample: all trees &gt;6" dbh within the forest area delineated (0.033 acre) were tallied: = 5 trees. Canopy coverage estimate: 90%.</p> <p>Tree notes: included in Site 19d are three pine trees &gt;20 dbh: 21", 23", 26".</p>		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: pine—samara; oak—acorn.	
Land Use in the Project Area	
Commercial and transportation	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Data point is representative of commercial/transportation landscaping with loblolly pine trees in the vicinity; little value as habitat, except possibly for birds.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 20	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 46			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1877+00.				
Vegetation type: upland forest—mowed grass understory.				
Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.				
Understory: mowed grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: none</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: St. Augustine grass (<i>Stenotaphrum secundatum</i>)</li> <li>▪ forbs: none</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical—for landscaped commercial/transportation areas				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	5" – 13"
Acreage of Trees to be Removed		0.63 (number of trees >6" dbh: 168)
Density per Acre (trees > 6" dbh)		267
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 20a, 0.39 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 20b, CL Station 1873+00, 0.21 acre) and northward on the east side of IH 35E (Site 20c, CL Station 1895+00, 0.03 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 12 trees.		
Canopy coverage estimate: 90%.		
Tree notes: included within Site 20c are three post oak trees >20" dbh: 22", 23", 26".		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn.	
Land Use in the Project Area	
Commercial, residential, and transportation	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Data point is representative of landscaped areas in the vicinity; little value as habitat, except for birds.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 21	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 39			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1928+00 (by RR tracks).				
Vegetation type: upland forest.				
Overstory: dominated by chinaberry trees; trees generally not more than 20 feet tall.				
Understory: vine thicket understory, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: none observed</li> <li>▪ grasses and sedges: none observed</li> <li>▪ forbs: none observed</li> </ul>				
Is Site Unusual or Typical of Others in the Area?		unusual—only observed along railroad ROW		

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
chinaberry	<i>Melia azedarach</i>	<1" – 7"
bois d'arc	<i>Maclura pomifera</i>	<1" – 3"
hackberry	<i>Celtis laevigata</i>	<1"
Acreage of Trees to be Removed	0.16 (number of trees >6" dbh: 4)	
Density per Acre (trees > 6" dbh)	22	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 21a, 0.09 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area northward (Site 21b, CL Station 1929+00, 0.07 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 1 tree.		
Canopy coverage estimate: 60%.		
Tree notes:		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: chinaberry and hackberry—berry; bois d'arc--syncarp.	
Land Use in the Project Area	
Commercial and railroad right-of-way	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Area includes steep slopes of railroad ROW; likely regrowth from past ROW maintenance.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 22	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 41			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: east side of IH 35E.      Nearest IH 35E Centerline Station: 1956+00.				
Vegetation type: upland forest—generally with a mowed grass understory.				
Overstory: dominated by pecan trees; trees generally not more than 50 feet tall.				
Understory: mowed/sparse grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), grape (<i>Vitis</i> sp.)</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>)</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>)</li> <li>▪ forbs: none observed</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical—trees are likely an orchard remnant				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
pecan	<i>Carya illinoensis</i>	5" – 18"
hackberry	<i>Celtis laevigata</i>	<1" – 2"
eastern red cedar	<i>Juniperus virginiana</i>	<1" – 2"
Acreage of Trees to be Removed	1.85 (number of trees >6" dbh: 205)	
Density per Acre (trees > 6" dbh)	111	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
<p>Impacts: trees in the data point area (Site 22a, 0.23 acre) would be removed to clear existing and proposed new right-of-way for construction; this sample point is also representative of five similarly forested areas on the west side of IH 35E (Site 22b, CL Station 1951+00, 0.63 acre; Site 22c, CL Station 1957+00, 0.45 acre; Site 22d, CL Station 1964+00, 0.21 acre; Site 22e, CL Station 1966+00, 0.22 acre; and, Site 22f, CL Station 1968+00, 0.11 acre).</p> <p>Density sample: trees &gt;6" dbh within a circle with a radius of 25 feet (0.045 acre) = 5 trees. Canopy coverage estimate: 80%.</p> <p>Tree notes: several trees &gt;20" dbh within the vicinity of this data point (but on west side of IH 35E) include: one post oak (<i>Quercus stellata</i>), 24"; one cottonwood (<i>Populus deltoides</i>), 31"; one American elm (<i>Ulmus americana</i>), 28".</p>		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: pecan—nut; hackberry—berry; cedar—berry-like cone.	
Land Use in the Project Area	
Commercial, institutional (Presbyterian Children's Home), and residential	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 23	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 43			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1974+00.				
Vegetation type: upland forest—mowed grass understory.				
Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.				
Understory: mowed grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>)</li> <li>▪ forbs: plantain (<i>Plantago</i> sp.), clover (<i>Medicago</i> sp.)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical—residential yard landscaping				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
post oak	<i>Quercus stellata</i>	16" – 27"
cedar elm	<i>Ulmus crassifolia</i>	16" – 23"
Acreage of Trees to be Removed		0.18 (number of trees >6" dbh: 9)
Density per Acre (trees > 6" dbh)		50
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 23a, 0.16 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area southward (Site 23b, CL Station 1971+00, 0.02 acre).		
Density sample: all trees >6" dbh within the forest area delineated (0.16 acre) were tallied: = 8 trees. Canopy coverage estimate: 90%.		
Tree notes: Site 23a includes the following trees >20" dbh: three post oaks, 22", 26", 27"; and one cedar elm, 23"; additionally, Site 23b has one 35" eastern cottonwood ( <i>Populus deltoides</i> ).		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: oak—acorn; elm—samara.	
Land Use in the Project Area	
Residential and commercial	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Data point is representative of other residential yards and common areas in the vicinity; little value as habitat, except possibly for birds.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 24	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 42			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 1987+00.				
Vegetation type: upland forest—mowed grass understory.				
Overstory: dominated by cedar elm trees; trees generally not more than 60 feet tall.				
Understory: mowed grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: none</li> <li>▪ shrubs: Chinese privet (<i>Ligustrum sinense</i>)</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), panic grass (<i>Panicum</i> sp.)</li> <li>▪ forbs: none observed</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical—residential yard landscaping				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
cedar elm	<i>Ulmus crassifolia</i>	3" – 16"
post oak	<i>Quercus stellata</i>	<1" – 4"
green ash	<i>Fraxinus pennsylvanica</i>	<1"
Acreage of Trees to be Removed		0.97 (number of trees >6" dbh: 65)
Density per Acre (trees > 6" dbh)		67
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 24a, 0.46 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 24b, CL Station 1983+00, 0.29 acre; and, Site 24c, CL Station 1980+00, 0.22 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees.		
Canopy coverage estimate: 80%.		
Tree notes: eight trees in the vicinity (near Ave. C) are >20" dbh: one eastern red cedar ( <i>Juniperus virginiana</i> ), 21"; seven post oak trees, 21", 21", 23", 23", 24", 24", 24".		

## HABITAT VALUE

Is the Site Adjacent to Water?	No
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: ash and elm—samara; oak—acorn.	
Land Use in the Project Area	
Residential and commercial	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Data point is representative of other residential yards and common areas in the vicinity; little value as habitat, except possibly for birds.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 25	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 51			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E.      Nearest IH 35E Centerline Station: 2016+00.				
Vegetation type: riparian forest.				
Overstory: dominated by black willow trees; trees generally not more than 50 feet tall.				
Understory: mowed grass, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: none (stream channel maintained and kept clear of woody plants)</li> <li>▪ shrubs: none (stream channel maintained and kept clear of woody plants)</li> <li>▪ grasses and sedges: Bermuda grass (<i>Cynodon dactylon</i>), Johnson grass (<i>Sorghum halepense</i>)</li> <li>▪ forbs: cattail (<i>Typha</i> sp.) (in stream bed)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      unusual—due to landscaped condition of area				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
black willow	<i>Salix nigra</i>	<1" – 28"
American elm	<i>Ulmus americana</i>	<1" – 18"
box elder	<i>Acer negundo</i>	<1" – 17"
green ash	<i>Fraxinus pennsylvanica</i>	<1" – 2"
bois d'arc	<i>Maclura pomifera</i>	<1"
Acreage of Trees to be Removed		0.35 (number of trees >6" dbh: 7)
Density per Acre (trees > 6" dbh)		20
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: all trees >6" dbh within the forest area delineated (0.346 acre) were tallied: = 7 trees.		
Canopy coverage estimate: 60%.		
Tree notes: site includes one 28" dbh (multi-stem) black willow tree.		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream
Is the Site in a Developed Area?	Yes
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: ash, box elder, and elm—samara; bois d'arc—syncarp.	
Land Use in the Project Area	
Institutional (university grounds), commercial, and transportation	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Although riparian in nature, the area has a mowed lawn understory and a landscaped appearance (i.e., adjacent stream channel is kept free of brush); does not offer high quality habitat due to urban setting and intense management.	



# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 26	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 53			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35E—adjacent to IH 35W.      Nearest IH 35W Centerline Station: 111+00.				
Vegetation type: riparian forest.				
Overstory: dominated by American elm trees; trees generally not more than 40 feet tall.				
Understory: very sparsely vegetated, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: poison ivy (<i>Toxicodendron radicans</i>), blackberry (<i>Rubus</i> sp.)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: none observed</li> <li>▪ forbs: none observed</li> </ul>				
Is Site Unusual or Typical of Others in the Area?		typical (of other wooded areas near railroad tracks)		

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	<i>Ulmus americana</i>	<1" – 6"
common persimmon	<i>Diospyros virginiana</i>	<1" – 3"
hackberry	<i>Celtis laevigata</i>	<1" – 10"
black willow	<i>Salix nigra</i>	<1" – 9"
Acreage of Trees to be Removed	0.22 (number of trees >6" dbh: 20)	
Density per Acre (trees > 6" dbh)	89	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees in the data point area (Site 26a, 0.05 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to riparian forest areas southward (Site 26b, IH 35W CL Station 110+00, 0.10 acre) and westward on the opposite side of IH 35W (Site 26c, IH 35W CL Station 114+00, 0.07 acre).		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees.		
Canopy coverage estimate: 90%.		
Tree notes: north of the data point area (near the National Guard Armory, IH 35 CL Station 2036+00) is a 30" dbh eastern cottonwood ( <i>Populus deltoides</i> ).		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: elm—samara; persimmon and hackberry—berry.	
Land Use in the Project Area	
Commercial, institutional (university athletic fields), transportation, and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
No	
Remarks	
Not directly adjacent to stream, but within 100-year floodplain of ephemeral stream.	

# TxDOT WOODLANDS DATA FORM

## GENERAL

Project/Site	Improvements to IH 35E	Area #: 27	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County Denton
Filename	IH35E woodlands data forms.doc      Field notes: Site 57			
Project Scope				
From FM 2181 to US 380, Corinth and Denton, TX				
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)				
Location: west side of IH 35.      Nearest IH 35 Centerline Station: 2065+00.				
Vegetation type: riparian forest.				
Overstory: dominated by black willow trees; trees generally not more than 50 feet tall.				
Understory: dominated by giant ragweed and greenbrier, and includes the following—				
<ul style="list-style-type: none"> <li>▪ vines: saw greenbrier (<i>Smilax bona-nox</i>), grape (<i>Vitis</i> sp.)</li> <li>▪ shrubs: none</li> <li>▪ grasses and sedges: Johnson grass (<i>Sorghum halepense</i>)</li> <li>▪ forbs: giant ragweed (<i>Ambrosia trifida</i>), goldenrod (<i>Solidago</i> sp.), cattail (<i>Typha</i> sp.) (in stream bed)</li> </ul>				
Is Site Unusual or Typical of Others in the Area?      typical				

## SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
black willow	<i>Salix nigra</i>	<3" – 38"
hackberry	<i>Celtis laevigata</i>	<1" – 3"
eastern red cedar	<i>Juniperus virginiana</i>	<1" – 4"
Acreage of Trees to be Removed	0.11 (number of trees >6" dbh: 10)	
Density per Acre (trees > 6" dbh)	89	
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)		
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees.		
Canopy coverage estimate: 70%.		
Tree notes: site includes one 38" dbh black willow tree (multi-stem). Also on the west side of IH 35 two additional large trees occur northward of this site, both of which are solitary trees with mowed grass understory: cottonwood ( <i>Populus deltoides</i> ), 22" dbh, near CL Station 2079+00; and, live oak ( <i>Quercus virginiana</i> ), 24" dbh, near CL Station 2075+00.		

## HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream
Is the Site in a Developed Area?	No
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: hackberry—berry; cedar—berry-like cone.	
Land Use in the Project Area	
Commercial/industrial, and agricultural (hay meadow)	
Evidence or Sightings of Wildlife in the Project Area?	
Crayfish burrows	
Remarks	

## Data for Areas with Fencerow Trees

Average width of fencerow tree areas: 14 feet.

Fencerow Area #	Centerline Station*	Side of 35E	Length (linear feet)	Area (acres)
1	1573	west	94	0.030
2	1575	west	72	0.024
3	1587	east	291	0.069
4	1593	east	130	0.025
5	1594	west	603	0.229
6	1601	west	110	0.034
7	1624	east	103	0.048
8	1624	west	329	0.124
9	1630	west	441	0.238
10	1720	west	276	0.084
11	1724	west	174	0.079
12	1776	west	322	0.078
13	1780	east	446	0.081
14	1787	east	394	0.078
15	1789	west	108	0.044
16	2062	west	115	0.028
17	2065	west	59	0.020
18	2069	west	59	0.034
19	2085	west	219	0.072
20	2091	west	528	0.125
		TOTAL	4,873 lf	1.544 ac.
* Indicates the IH 35E centerline station nearest the southern extent of each area of fencerow trees; centerline stationing for fencerow areas 16-20 refer to IH 35.				



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January 21, 2010

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Bryan W. Phillips  
Ecological Resources Branch  
Environmental Affairs Division  
Texas Department of Transportation  
125 E. 11<sup>th</sup> Street  
Austin, TX 78701-2483

RE: Proposed Reconstruction of IH 35E North Section: From FM 2181 to US 380 (Denton County, CSJs 0195-03-050, 0195-03-071, 0196-01-056, and 0196-01-074)

Dear Mr. Phillips:

The Texas Parks and Wildlife Department (TPWD) has reviewed the Environmental Assessment (EA) for the project referenced above. The project involves reconstruction of IH 35E with additional mainlanes, frontage road lanes, ramps, cross street interchanges, and managed/HOV concurrent flow (MHOV-C) lanes. Approximately 106.8 acres of new right-of-way (ROW) would be required.

The EA Section 5.1.5 Vegetation and Wildlife Habitat indicates that the project footprint would affect 643.81 acres inclusive of the proposed ROW. Half of the footprint comprises introduced grassland areas (317.79 ac), nearly half of the footprint comprises existing paved areas (301.7 ac), and the remaining footprint comprises vegetated or water resource areas (15.32 ac) that may serve importance as wildlife habitat as follows: stream channel and pond (0.39 ac), herbaceous wetland (0.19 ac), riparian forest (2.03 ac), upland forest (9.93 ac), fencerows (1.54 ac), and brush (1.24 ac.). It is anticipated that all disturbed areas within the project area that would not ultimately be paved, would be revegetated with grass-dominated ground cover that would be mowed.

The EA indicated that impacts to the channel, pond, and wetland areas are regulated waters, thus any required mitigation would be addressed through the Section 404 permitting process.

The EA indicates that TxDOT proposes non-regulatory mitigation for 11 upland forest sites that are dominated by Post Oak trees with a reasonable contiguous forest canopy and understory and account for 3.45 acres of upland forest at sites indicated in Appendix B-3 as 4a, 4c, 4d, 9a, 10a, 13a-c, 16a-b, and 18a.

Mitigation is expected through in-lieu payment or otherwise in accordance with the TxDOT woodland mitigation standards. The EA also indicated that much of the upland woodland areas consist of very isolated patches of post oak forest, landscape trees with mowed understories, were dominated by hackberry species that readily reestablishes themselves throughout the area, or contained stands of invasive Chinaberry trees, thus have low value to wildlife.

Of the 15.32 acres of vegetated areas of potential wildlife habitat, TxDOT found that all of the riparian, fencerow, and brushland areas and 6.48 acres of the upland forest areas did not warrant non-regulatory mitigation. The riparian impacts were considered small per site (<0.5 acre at 12 locations) and TxDOT indicated that where riparian habitat would be removed, woody species would re-establish themselves because they are in drainage easements that would not be mowed. Additionally, the need for riparian mitigation was diminished because TxDOT suggested there was an abundance of riparian habitat throughout the floodplains and lake areas in the general vicinity of Lewisville Lake and municipal limitations on development within floodplains and USACE regulatory programs would protect the remaining intact riparian areas in the general area.

TPWD agrees with much of the habitat assessment though disagrees regarding the quality of habitat assigned to some of the riparian areas within the project limits and regarding a portion of the upland forest sites. Riparian areas and upland forests within urban settings provide important travel corridors and refuge areas for wildlife. Some of the riparian areas that would be impacted by the project are part of an intact riparian corridor or contiguous with other habitats, such as upland post oak forests; therefore, value should be placed on the riparian habitats that exhibit such characteristics.

Request: Woodland mitigation should include impacts to those riparian areas that are adjacent to the woodland areas being considered for mitigation or are contiguous with other habitat valuable for the area's wildlife such as upstream or downstream riparian corridors. Based on aerial image review, site photographs, and the woodland data forms in Appendix B-3, the following riparian areas should be included in the woodland mitigation calculations: sites 5 (0.49 ac), 11 (0.28 ac), 14 (0.22 ac), 15 (0.11 ac), and 17 (0.10 ac).

The woodlands data forms in Appendix B-3 identify a site by Area #, and some areas are subdivided and identified with a letter. For example, Area #4 contains 4a, 4b, 4c, and 4d. Of the upland forest sites identified in the EA for mitigation, all of the sites contain subdivided areas in which the data forms clearly indicate that the habitat within all the subdivided areas are representative of the data point, though the mitigation proposal leaves out many of the subdivided areas.

Bryan Phillips  
Page 3  
January 21, 2010

Request: Woodland mitigation should include the following upland forest impacts to the subareas that were not included in the calculations: 4b (0.10 ac), 9b (0.11 ac), 9c (0.17 ac), 10b (0.13 ac), 16c (0.06 ac), 16d (0.05 ac), and 18b (0.18 ac). The requests for additional mitigation for impacts to some of the riparian and upland forest habitats would bring the total for non-regulatory mitigation to 5.45 acres.

TPWD advises review and implementation of these requests. If you have any questions, please contact me at (512) 917-4155.

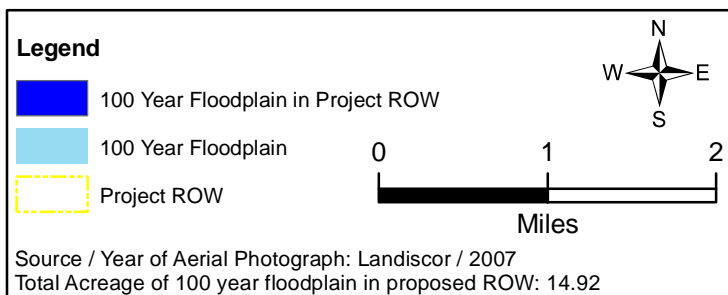
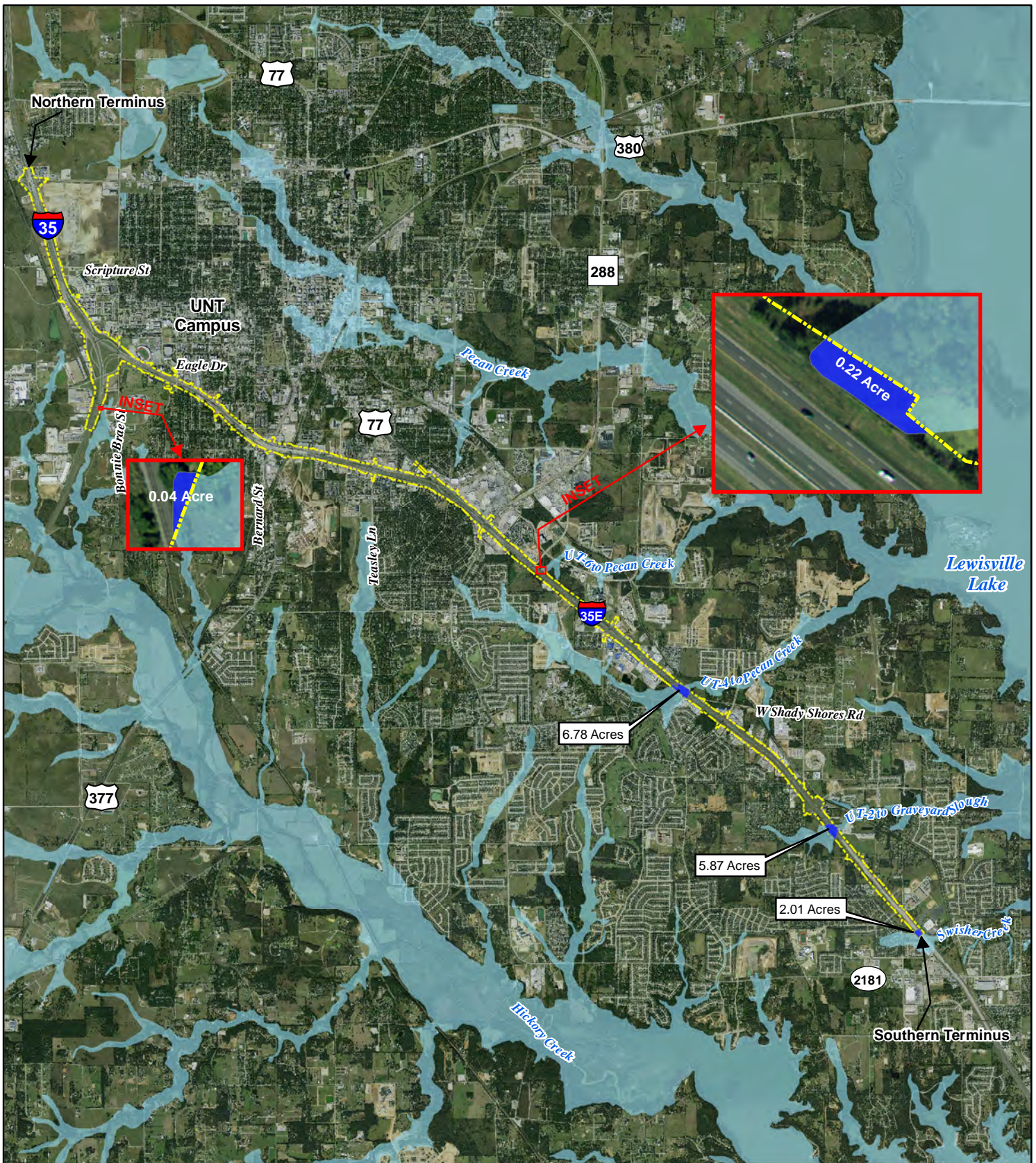
Sincerely,

A handwritten signature in blue ink, reading "Karen B. Hardin", followed by a horizontal line.

Karen B. Hardin  
Wildlife Habitat Assessment Program  
Wildlife Division

kbh/5894





**Figure B-6**  
**100 Year Floodplain in the Project ROW**  
IH 35E from FM 2181 to US 380  
Denton County, Texas