November 2008

State Route 607
Environmental Assessment / Environmental Review Record

State Route 607
Environmental Assessment
Improve State Route 607 to Four Lanes
from Interstate 59 to Saturn Drive
Hancock and Pearl River Counties, MS

Project No. KTM026
CONTRACT NO. NNS08AA10B
TASK ORDER NO. NNS08AA35T

Developed by:
URS Corporation
In association with:
Dungan Engineering
Earth Search, Inc.
Southern Earth Sciences, Inc.

NOTICE OF FINDING OF NO SIGNIFICANT IMPACT

AND

NOTICE OF INTENT TO REQUEST RELEASE OF FUNDS

November 22, 2008 (for publication in the legal section of *The Sea Coast Echo)*

November 23, 2008 (for publication in the legal section of *The Picayune Item)*

Hancock County, Mississippi

3068 Longfellow Drive, Building 3

Bay St. Louis, MS. 39520

(228) 467-0172

These notices shall satisfy two separate but related procedural requirements for activities to be undertaken by the Hancock County Board of Supervisors, MS.

REQUEST FOR RELEASE OF FUNDS

On or about December 9, 2008 the Hancock County Board of Supervisors will submit a request to the HUD/Mississippi Development Authority for the release of Community Development Block Grant (CDBG) Program funds under Title I of the Housing and Community Development Act of 1974, as amended, to undertake a project known as Improve State Route 607 (SR 607) to Four Lanes, for the purpose of constructing an improved access road between Interstate 59 and Saturn Drive, in Pearl River County and Hancock County, MS. The Western Alternative for the project was evaluated in the Environmental Assessment (EA) and has been identified as the Preferred Alternative. The estimated construction cost of the project is approximately $30 Million, however implementation of the project is subject to available funding.

FINDING OF NO SIGNIFICANT IMPACT

The Hancock County Board of Supervisors has determined that the project will have no significant impact on the human environment. Therefore, an Environmental Impact Statement under the National Environmental Policy Act of 1969 (NEPA) is not required. Additional project information is contained in the State Route 607 Environmental Assessment / Environmental Review Record on file at the Hancock County Board of Supervisors Office, 3068 Longfellow Drive, Building 3 Bay St. Louis, MS. 39520 where the record is available for review and may be examined or copied weekdays; 8:00 A.M. to 5:00 P.M.

PUBLIC COMMENTS

Any individual, group, or agency disagreeing with this determination or wishing to comment on the project may submit written comments to the Hancock County Board of Supervisors. All comments received by December 8, 2008 will be considered by the Hancock County Board of

Supervisors prior to authorizing submission of a request for release of funds. Comments should specify which Notice they are addressing.

RELEASE OF FUNDS

Mr. Rodrick Pullman, certifies to HUD/Mississippi Development Authority (MDA) in his capacity as President of the Hancock County Board of Supervisors, consents to accept the jurisdiction of the Federal Courts if an action is brought to enforce responsibilities in relation to the environmental review process and that these responsibilities have been satisfied. HUD's/MDA's approval of the certification satisfies its responsibilities under NEPA and related laws and authorities, and allows Hancock County to use CDBG Program funds.

OBJECTIONS TO RELEASE OF FUNDS

HUD/MDA will accept objections to its release of funds and the Hancock County Board of Supervisors certification for a period of fifteen days following the anticipated submission date or its actual receipt of the request (whichever is later) only if they are on one of the following bases: (a) the certification was not executed by the Certifying Officer of the Hancock County; (b) the Hancock County has omitted a step or failed to make a decision or finding required by HUD regulations at 24 CFR Part 58; (c) the grant recipient has committed funds or incurred costs not authorized by 24 CFR Part 58 before approval of a release of funds by HUD/MDA; or (d) another Federal agency acting pursuant to 40 CFR Part 1504 has submitted a written finding that the project is unsatisfactory from the standpoint of environmental quality. Objections must be prepared and submitted in accordance with the required procedures (24 CFR Part 58) and shall be addressed to the MDA grant administration office, attention: Mr. Jimmy Ware, Mississippi Development Authority, P.O. Box 849, Jackson, MS. 39205-0849. Potential objectors should contact MDA to verify the actual last day of the objection period.

Mr. Roderick Pullman, President

Hancock County Board of Supervisors

Hancock County, Mississippi

Environmental Assessment

for HUD-funded Proposals

Recommended format per 24 CFR 58.36, revised March 2005
[Previously recommended EA formats are obsolete].

Project Identification: State Route 607 Widening; Interstate 59 to Saturn Drive

Preparer: URS Corporation for Hancock County

Responsible Entity: Hancock County, Mississippi

Month/Year: November 2008

Environmental Assessment

Responsible Entity: Hancock County Board of Supervisors; Hancock County, MS.
[24 CFR 58.2(a)(7)]

Certifying Officer: Mr. Rodrick Pullman, President Hancock County Board of Supervisors
[24 CFR 58.2(a)(2)]

Project Name: Improve State Route 607 to Four Lanes from Interstate 59 to Saturn Drive

Project Location: Hancock and Pearl River Counties, Mississippi

Estimated Total Project Cost: $28 Million (Eastern Alt.); $30 Million (Western Alt.)

Grant Recipient: Hancock County, Mississippi
[24 CFR 58.2(a)(5)]

Recipient Address: Hancock County Board of Supervisors, 3068 Longfellow Drive, Building #3, Bay St. Louis, MS 39520

Project Representative: Mr. Rodrick Pullman, Hancock County Board of Supervisors

Telephone Number: (228) 467-0172

Conditions for Approval: (List all mitigation measures adopted by the responsible entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts and other relevant documents as requirements). [24 CFR 58.40(d), 40 CFR 1505.2(c)]

See Pages ES-10 through ES-12

FINDING: [58.40(g)]

__✓__ **Finding of No Significant Impact**
(The project will not result in a significant impact on the quality of the human environment)

____ **Finding of Significant Impact**
(The project may significantly affect the quality of the human environment)

Preparer Signature: _____ **Date:** _____

Name/Title/Agency: Kent Dussom, P.E. / Senior Project Manager / URS Corporation

RE Approving Official Signature: _____ **Date:** _____

Name/Title/Agency: Mr. Rodrick Pullman, President Hancock County Board of Supervisors, Hancock County, MS.

Statement of Purpose and Need for the Proposal: [40 CFR 1508.9(b)]

The Purpose and Need for the proposed widening of SR 607 includes:

- Economic Development;
- Improve Hurricane / Emergency Evacuation Operations; and
- Improve Safety.

Description of the Proposal: Include all contemplated actions which logically are either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 58.32, 40 CFR 1508.25]

The proposed project consists of widening State Route 607 (SR 607) to provide a multi-lane divided rural collector within Pearl River County and Hancock County, Mississippi. The project limits extend from Saturn Drive within Stennis Space Center (SSC), north to the Interstate 59/SR 607 Interchange; a distance of approximately 7.8 miles.

Improvements to SR 607 are proposed to be implemented in three separate phases as follows:

- Phase 1: 4-lane widening (with 30-foot median) from Saturn Drive to Texas Flat Road;
- Phase 2: 4-lane widening (with 101-foot median) and 5-lane widening from Texas Flat Road to the I-59 / SR 607 Interchange; and
- Phase 3: Potential future I-59 / SR 607 Interchange modifications (by others).

Existing Conditions and Trends: Describe the existing conditions of the project area and its surroundings, and trends likely to continue in the absence of the project. [24 CFR 58.40(a)]

The study area for the proposed SR 607 widening project is located in southwest Mississippi. The southern portion of the study area is located within the National Aeronautics and Space Administration (NASA) John C. Stennis Space Center (SSC) in Hancock County, Mississippi.

Stennis Space Center is a federal and commercial city that houses more than 30 federal, state, academic, and private organizations. Within the gates of SSC, the federal government holds "fee simple" title to 21 square miles of land. This area is referred to as the "Fee Area" and contains administrative, research, and propulsion testing facilities.

The nature of propulsion testing facilities within SSC necessitated the development of a "Buffer Zone," where development of habitable structures is prohibited. The Buffer Zone extends five miles around the perimeter of the Fee Area and includes portions of Hancock and Pearl River Counties in Mississippi and St. Tammany Parish, Louisiana. The study area extends to the northwest to Interstate 59 (I-59) near the town of Nicholson in Pearl River County, Mississippi.

The northern most portion of the study area consists of a small rural residential community in Pearl River County. Primarily open space and industrial uses exist in Hancock County.

Rapid population growth in Pearl River County is anticipated to occur and other proposed roadway improvement projects are being considered to address roadway capacity needs.

Projected increases in employment at SSC are anticipated and would therefore likely result in potential traffic volume growth along SR 607.

Statutory Checklist

[24CFR §58.5]

Record the determinations made regarding each listed statute, executive order or regulation. Provide appropriate source documentation. Note reviews or consultations completed as well as any applicable permits or approvals obtained or required. Note dates of contact or page references. Provide compliance or consistency documentation. Attach additional material as appropriate. Note conditions, attenuation or mitigation measures required.

Factors	Determination and Compliance Documentation
Historic Preservation [36 CFR 800]	In September 2008, a Phase I Cultural Resources Survey for the SR 607 project was completed and submitted to the Mississippi Department of Archives and History (MDAH) for review. In a letter dated October 27, 2008, the MDAH concurred with the findings and recommendations contained in the Phase I Cultural Resources Survey. Within the referenced letter, MDAH indicated that they have no reservations with the proposed undertaking. A copy of the letter is contained in Appendix E of the accompanying Environmental Assessment (EA). Also, please see Section 4.6.4 of the EA. The Western Alternative has been identified as the preferred alternative to avoid potential sites considered eligible for nomination to NRHP. However, according to MDAH, there remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, MDAH requests that their office is immediately contacted (by the National Aeronautics and Space Administration or the Mississippi Department of Transportation) in order to offer appropriate comments under 36 CFR 800.13.
Floodplain Management [24 CFR 55, Executive Order 11988]	The Western Alternative is estimated to impact approximately 7.41 acres of the 100-year floodplain. As part of *USDA Environmental Compliance Floodplain Management Executive Order 11988,* the project sponsor, Hancock County, has completed the 100-Year Floodplain Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to floodplains. All documentation regarding the Eight-Step Decision Making Process is contained in Appendix F of the Environmental Assessment. Please see Section 4.6.4 of the EA.
Wetlands Protection [Executive Order 11990]	The Western Alternative is estimated to impact approximately 4.9 acres of wetlands. As part of *USDA Environmental Compliance Protection of Wetlands Executive Order 11990,* the project sponsor, Hancock County, has completed the Wetland Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to wetlands. All documentation regarding the Eight-Step Decision Making Process is contained in Appendix F of the EA. As indicated in the US Army Corps of Engineers Vicksburg District response to the Solicitation of Views (Appendix E), a Section 404 permit will be required prior to construction. Please see Section 4.5.3 of the EA.
Coastal Zone Management Act [Sections 307(c), (d)]	The project area is located within the Mississippi Coastal Zone. There are no coastal barriers within the study area. Any impacts to coastal wetlands, as discussed in Section 4.5.3 and 4.6.8, will be documented and a Joint Application and Notification form would be submitted to the Mississippi Department of Marine Resources (DMR) as indicated in the DMR response to the Solicitation of Views.

Sole Source Aquifers [40 CFR 149]	There are no sole source aquifers in the study area; therefore the project is not anticipated to impact sole source aquifers. Please see Section 4.6.6. Because there are no sole source aquifers in the study area, an exhibit is not available.
Endangered Species Act [50 CFR 402]	Based on the proposed alignment of the Western Alternative, no impacts to rare, threatened or endangered species are anticipated as a result of the project. Field investigations were conducted to determine if Mississippi's rare, threatened or endangered flora and fauna species would be impacted. Within the study area these include the Eastern Indigo Snake, the Gopher Tortoise, the Louisiana Black Bear, and the Louisiana Quillwort. No species were observed. As indicated in the US Department of the Interior, Fish and Wildlife Service response to the Solicitation of Views (Appendix E), a habitat survey conducted by a qualified biologist is recommended prior to construction. The habitat survey should include two federally protected species, the Gopher Tortoise and the Louisiana Quillwort. As part of the Mississippi Department of Wildlife, Fisheries and Parks, Natural Heritage Program, a Gopher Tortoise survey is strongly recommended prior to construction as indicated in the Solicitation of Views response (Appendix E). Please see Section 4.5.4 of the EA.
Wild and Scenic Rivers Act [Sections 7(b), (c)]	There are no rivers in the project area listed on the National River Inventory, and there are no potential candidates for inclusion in the National Wild and Scenic Rivers System. Please see Section 4.6.7 of the EA.
Air Quality [Clean Air Act, Sections 176(c) and (d), and 40 CFR 6, 51, 93]	No impacts to air quality are anticipated. Please see Section 4.3 of the EA.
Farmland Protection Policy Act [7 CFR 658]	No impacts to prime farmland are anticipated. Please see Section 4.1.4 of the EA.
Environmental Justice [Executive Order 12898]	No disproportionate adverse impacts to Environmental Justice communities are anticipated. Please see Section 3.9 of the EA.

HUD Environmental Standards Determination and Compliance Documentation

Noise Abatement and Control [24 CFR 51 B]	Due to normal traffic growth, minor noise impacts are estimated to occur at three occupied residences in the future (2030) as part of the No-Build Alternative. At these locations, highway traffic noise levels approaching or exceeding the 23 CFR 772 Noise Abatement Criteria Level are predicted. Two additional occupied residences are projected to have minor noise impacts associated with the Western Alternative in 2030. These noise impacts are not considered substantial (greater than or equal to a 15 dBA increase from existing noise levels) and in fact, future build noise levels are estimated to be less than 5 dBA from existing noise levels. According to MDOT policy, future build condition noise levels must be at least 5 dBA greater than existing for abatement to be considered reasonable. Please see Section 4.4 of the EA.
Toxic/Hazardous/Radioactive Materials, Contamination, Chemicals or Gases [24 CFR 58.5(i)(2)]	No impacts are anticipated. Please see Section 4.2 of the EA.
Siting of HUD-Assisted Projects near Hazardous Operations [24 CFR 51 C]	No impacts are anticipated. Please see Section 5.6 of the EA.
Airport Clear Zones and Accident Potential Zones [24 CFR 51 D]	No impacts are anticipated. Please see Section 5.5 of the EA.

Environmental Assessment Checklist

[Environmental Review Guide HUD CPD 782, 24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]

Evaluate the significance of the effects of the proposal on the character, features and resources of the project area. Enter relevant base data and verifiable source documentation to support the finding. Then enter the appropriate impact code from the following list to make a determination of impact. **Impact Codes**: (**1**) - No impact anticipated; (**2**) - Potentially beneficial; (**3**) - Potentially adverse; (**4**) - Requires mitigation; (**5**) - Requires project modification. Note names, dates of contact, telephone numbers and page references. Attach additional material as appropriate. Note conditions or mitigation measures required.

Land Development	Code	Source or Documentation
Conformance with Comprehensive Plans and Zoning	1	Please see Section 3.2 of the EA. No impact anticipated.
Compatibility and Urban Impact	1	Please see Section 3.3 of the EA. No impact anticipated.
Slope	1	Please see Section 4.1.3 of the EA. No impact anticipated.
Erosion	1	Please see Section 4.1.4 of the EA. No impact anticipated.
Soil Suitability	1	Please see Section 4.1.1 of the EA. No impact anticipated.
Hazards and Nuisances including Site Safety	1	Please see Sections 3.8 and 4.2 of the EA. No impact anticipated.
Energy Consumption	2	Please see Section 4.7 of the EA. Benefits relating to energy consumption may be realized with the proposed roadway widening. By improving operating speeds and reducing delays, the project will improve energy efficiency and reduce energy consumption.
Noise - Contribution to Community Noise Levels	3	Due to normal traffic growth, minor noise impacts are estimated to occur at three occupied residences in the future (2030) as part of the No-Build Alternative. At these locations, highway traffic noise levels approaching or exceeding the 23 CFR 772 Noise Abatement Criteria Level are predicted. Two additional occupied residences are projected to have minor noise impacts associated with the Western Alternative in 2030. These noise impacts are not considered substantial (greater than or equal to a 15 dBA increase from existing noise levels) and in fact, future build noise levels are estimated to be less than 5 dBA from existing noise levels. According to MDOT policy, future build condition noise levels must be at least 5 dBA greater than existing for abatement to be considered reasonable. Please see Section 4.4 of the EA.
Air Quality Effects of Ambient Air Quality on Project and Contribution to Community Pollution Levels	1	Please see Section 4.3 of the EA. No impact anticipated.
Environmental Design Visual Quality - Coherence, Diversity, Compatible Use and Scale	1	Please see Section 3.6 of the EA. No impact anticipated.

Socioeconomic	Code	Source or Documentation
Demographic Character Changes	2	Please see Section 3.1 of the EA. Employment growth at Stennis Space Center is projected to increase in the future. Improved access to new jobs would benefit low-income and minority communities in the project vicinity.
Displacement	1	Please see Section 3.5 of the EA. No impact anticipated.
Employment and Income Patterns	2	Please see Section 3.1.4 of the EA. Employment growth at Stennis Space Center is projected to increase in the future contributing to economic development growth. Access to new jobs would benefit low-income individuals and families.

Community Facilities and Services	Code	Source or Documentation
Educational Facilities	1	Please see Section 3.4.1 of the EA. No impact anticipated.
Commercial Facilities	1	Please see Section 3.4.2 of the EA. No impact anticipated.
Health Care	1	Please see Section 3.4.3 of the EA. No impact anticipated.
Social Services	1	Please see Section 3.4.4 of the EA. No impact anticipated.
Solid Waste	1	Please see Section 3.4.5 of the EA. No impact anticipated.
Waste Water	1	Please see Section 3.4.6 of the EA. No impact anticipated.
Storm Water	1	Please see Section 3.4.7 of the EA. No impact anticipated.
Water Supply	1	Please see Section 5.2 of the EA. No impact anticipated.
Public Safety - Police	2	Please see Section 3.4.8 the EA. Public safety, with regard to police protection, would be improved with the proposed roadway widening.
- Fire	2	Please see Section 3.4.8 of the EA. Public safety, with regard to fire protection, would be improved with the proposed roadway widening.
- Emergency Medical	2	Please see Section 3.4.9 the EA. Public safety, with regard to emergency medical operations and hurricane evacuation, would be improved with the proposed roadway widening.
Open Space and Recreation - Open Space	1	Please see Section 3.4.10 of the EA. Right-of-way acquisition is required to construct the proposed roadway widening, however no adverse impact is anticipated.
- Recreation	1	Please see Section 3.4.10 of the EA. No impact anticipated.
- Cultural Facilities	1	Please see Section 3.4.10 of the EA. No impact anticipated.
Transportation	2	Please see Section 5.1 of the EA. Transportation efficiency and safety would be improved with the proposed roadway widening through additional capacity and designated left turn lanes. Commercial vehicle operations would be enhanced and travel costs and delays would decrease. Hurricane evacuation would be improved with the proposed roadway widening.

Natural Features		Source or Documentation
Wetlands	1	The Western Alternative is estimated to impact approximately 4.9 acres of wetlands. As part of *USDA Environmental Compliance Protection of Wetlands Executive Order 11990,* the project sponsor, Hancock County, has completed the Wetland Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to wetlands. All documentation regarding the Eight-Step Decision Making Process is contained in Appendix F of the EA. As indicated in the US Army Corps of Engineers Vicksburg District response to the Solicitation of Views (Appendix E), a Section 404 permit will be required prior to construction. Please see Section 4.5.3 of the EA.
Water Resources	1	Please see Section 4.6 of the EA. No impact anticipated
Surface Water	1	Please see Section 4.6.3 the EA. No impact anticipated
Floodplains and Floodways	1	The Western Alternative is estimated to impact approximately 7.41 acres of the 100-year floodplain. As part of *USDA Environmental Compliance Floodplain Management Executive Order 11988,* the project sponsor, Hancock County, has completed the 100-Year Floodplain Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to floodplains. All documentation regarding the Eight-Step Decision Making Process is contained in Appendix F of the EA. Please see Section 4.6.4 of the EA.
Unique Natural Features and Agricultural Lands	1	Please see Section 4.1.4 the EA. No impact anticipated.
Vegetation and Wildlife	1	Please see Section 4.5 of the EA. No impact anticipated. Species surveys are recommended to be conducted prior to construction.

Other Factors		Source or Documentation
Flood Disaster Protection Act [Flood Insurance] [§58.6(a)]	1	Please see Section 4.6.4 of the EA. No impact anticipated.
Coastal Barrier Resources Act/ Coastal Barrier Improvement Act [§58.6(c)]	1	Please see Section 4.6.8 of the EA. No impact anticipated
Airport Runway Clear Zone or Clear Zone Disclosure [§58.6(d)]	1	Please see Section 5.5 of the EA. No impact anticipated.
Other Factors	3	Please see Section 5.2 of this document for information regarding potential impacts to utilities. The Western Alternative is estimated to impact fewer utilities than the Eastern Alternative; approximately 11, 400 linear feet less of fiber optic communication cable.
Other Factors	3	Please see Section 5.3 of this document for information regarding potential impacts due to construction. Minor impacts during construction are anticipated however, these impacts will be mitigated through best management practices.
Other Factors	2	Please see Section 5.4 for a discussion of potential secondary and cumulative effects. As part of area-wide roadway improvements, the SR 607 widening would improve access to employment at Stennis Space Center. In turn, substantial economic and transportation-related beneficial cumulative impacts are anticipated.

Summary of Findings and Conclusions

ALTERNATIVES TO THE PROPOSED ACTION

Alternatives and Project Modifications Considered [24 CFR 58.40(e), Ref. 40 CFR 1508.9]
(Identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it.)

Please see Chapter 2.0 of this document, Alternatives Considered.

No Action Alternative [24 CFR 58.40(e)]
(Discuss the benefits and adverse impacts to the human environment of not implementing the preferred alternative).

Please see Chapter 2.3.2 of this document, Development of No-Build and TSM Alternatives.
Also see Chapter 3, 4 and 5 for discussion of the No-Build Alternative.

Mitigation Measures Recommended [24 CFR 58.40(d), 40 CFR 1508.20]
(Recommend feasible ways in which the proposal or its external factors should be modified in order to minimize adverse environmental impacts and restore or enhance environmental quality.)

Property Acquisition: Approximately 32.7 acres of private property will need to be acquired for the Western Alternative. Loss of private property would be mitigated by payment of fair market compensation and relocation assistance provided for in the federal *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (Public Law 91-646).

Cultural Resources: A Phase I Cultural Resources Survey has been completed for SR 607 (as referenced in the **Additional Studies Performed** section on Page ES-13) and no sites considered NRHP eligible were identified as part of the Western Alternative. The Mississippi Department of Archives and History (MDAH) concurred with the findings and recommendations contained in the Phase I Cultural Resources Survey and further indicated that they have no reservations with the

proposed undertaking. However, MDAH realizes that there remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, MDAH requests that their office be contacted immediately in order to offer appropriate comments under 36 CFR 800.13.

Rare, Threatened and Endangered (RTE) Flora and Fauna Species: State and federally-protected species could potentially occur within the project area including the Eastern Indigo Snake, the Gopher Tortoise, the Louisiana Black Bear, and the Louisiana Quillwort. As part of the EA, field surveys were conducted for the presence of these species, however none were found. Additional surveys are recommended prior to construction. If such species are found, the US Fish and Wildlife Service and the Mississippi Department of Wildlife, Fisheries and Parks should be consulted regarding measures to avoid harm to this species.

Surface Water Crossings: There are several existing water crossings traversed by the Western Alternative. Impacts to surface waters associated with the construction activities will be minimized through the implementation of a comprehensive stormwater management plan and the use of best management practices (BMPs) to reduce erosion and sedimentation. Application of BMP measures such as stabilized construction entrances, vegetative buffers, silt fences, protected inlet structures, retention/detention basins, check dams, stabilized discharge outlets would reduce the amount of erosion and sedimentation during construction. Care will also be taken to reduce the amount of exposed soil within the construction area, and areas of soil exposed for long periods of time will be seeded to stabilize the area. Permanent filling of surface waters for road crossings will be minimized where possible. Care will be taken to minimize surface water crossings and locating the crossings at narrow crossing points. When possible, bridge construction will be used in lieu of culverts or fill to reduce impacts to surface water.

Impacts to all aquatic resources (streams) will require mitigation, as defined within the April 10, 2008 "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" (33 CFR 325 and 332).

100-Year Floodplains: The study area includes several streams and smaller tributaries that have adjacent lands that are within the 100-year floodplain. All of the potential crossings of the 100-year floodplains would be designed to maintain pre-construction hydrologic conditions and would not result in any substantive effect to base flood elevations upstream or downstream of the crossing. Bridges, pipes, and box culverts will be designed in accordance with FHWA floodplain impact requirements.

Floodplain crossings will be as close to ninety degrees (90°) as practical to minimize floodplain encroachments. Drainage structures and the roadway grades will be designed to limit increases to the flood hazards. In addition, methods to minimize harm will include minimizing fill and grading requirements, preserving the free natural drainage wherever possible, maintaining vegetation buffers, controlling urban runoff, and minimizing erosion and sedimentation during construction. Specific design measures that will be accomplished during the detailed design to mitigate floodplain impacts include:

- Avoidance of longitudinal encroachments;
- Sufficient bridging to minimize adverse effects from a rise in backwater;
- Sufficient bridging to minimize increases in water velocity;
- Minimization of channel alterations;
- Adequate and timely erosion control measures to minimize erosion and sedimentation;

- Utilization of standard specifications to control work in and around streams so that adverse water quality impacts are minimized; and
- Adequate preliminary hydraulic sizing of roadway storm culverts, box culverts and bridges should neither impact nor create a greater flood risk for adjacent properties than existed before project construction.

Wetlands/Waters of the US: A Draft Wetlands Delineation Report from Saturn Drive to Texas Flat Road has been completed for SR 607 (as referenced in the **Additional Studies Performed** section on Page ES-13) Approximately 4.9 acres of wetlands would be impacted by the Western Alternative. The majority of the existing wetlands found along SR 607 are associated with the streams and creeks that traverse the area and are restricted to the channel and small riparian zones. In accordance with Section 404 guidelines of the Clean Water Act, all practicable measures will be implemented to avoid or minimize impacts to wetlands. Temporary impacts to wetland resources may occur as a result of construction access. Temporary impacts include changes in hydrology from temporary diversions of overland flow, silt fencing, and stockpiling material. Impacts from clearing, grubbing, and permanent filling are also anticipated. Care will be taken to minimize impacts associated with permanent filling of wetlands. Roadway right-of-way will be held to minimum widths necessary without compromising roadway safety and design standards. If feasible, bridges will be used to span wetlands when possible. Impacts to wetlands will be avoided to the greatest extent possible by using BMPs for road and bridge construction.

Soils: Disturbance of soil resulting from construction activities could accelerate erosion during rainfall events. Failure to prevent soil erosion could increase the turbidity of nearby waterways as well as increase sedimentation of stream and creek bottoms. Impacts associated with erosion and sedimentation will be minimized through the implementation of a comprehensive stormwater management plan. The stormwater management plan, which includes the preparation of a stormwater pollution prevention plan (SWPPP), will incorporate best management practices (BMPs) to reduce the erosion and sedimentation during construction. The SWPPP will include BMPs that require planning to limit the scope and duration of major grading and filling operations to avoid exposing large areas of soil for extended periods of time. The SWPPP will also include BMPs to reduce erosion and sedimentation to areas outside the project limits. Stabilized construction entrances will be installed at appropriate locations to reduce vehicle tracking and sedimentation.

Utilities: Both of the proposed build alternatives will require the relocation and extension of waterlines, power lines, and fiber optic communication lines that fall within the proposed right-of-way. During design, coordination with affected utility companies will be undertaken to identify potential mitigation measures. Prior to construction, the contractor would be required to verify the location of existing utilities shown on the construction plans by calling Mississippi One Call. Hand excavation would be required to verify the vertical depth of underground utilities.

Permits: The project will require the following permits:

- Either a Categorical Exclusion 23 (Nationwide Permit) or Section 404 Permit (Wetlands Permit) will be required from the US Army Corps of Engineers (USACE), Vicksburg District.
- Upon receipt of the wetland permit application, the USACE will automatically forward a copy of the permit application to the Mississippi Department of Marine Resources (DMR) and the Mississippi Department of Environmental Quality (MDEQ) for their review and concurrence. Upon DMR and MDEQ approval, the USACE will issue a wetland permit.
- A State Water Quality Certification will be required from MDEQ.

- As per regulations codified in 40 CFR 122, a National Pollutant Discharge Elimination System (NPDES) stormwater permit will be required from MDEQ.

Additional Studies Performed
(Attach studies or summaries)

- *Phase I Cultural Resources Survey, Proposed Improvements to Mississippi State route 607 (SR 607), Saturn Drive to Interstate 59 (I-59), Hancock and Pearl River Counties, Mississippi*; Earth Search Inc.; September 2008; Disposition of Document – on record with Stennis Space Center and the Mississippi Department of Archives and History.
- *Draft Wetlands Delineation Report, Saturn Drive to Texas Flat Road*; URS Corporation; September 2008; Disposition of Document – on record with Stennis Space Center.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]

Please see Section 7.0, Public and Agency Involvement, and Appendices E and F.

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CHAPTER 1.0

1.0 PURPOSE AND NEED

*Graphics for **Chapter 1.0** are included together at the end of the chapter.*

1.1 Introduction and NEPA Requirements

An Environmental Assessment (EA) is being prepared for the widening of State Route 607 (SR 607) as a requirement of the National Environmental Policy Act (NEPA). NEPA was enacted in 1969 in the United States to encourage sustainable development and informed decision-making in a manner acceptable to the United States' citizens and government agencies. NEPA requires that every federal action or federally funded project be evaluated on its merits by the sponsor agency. Effects to the human, physical, and natural environment, as well as the relative benefits of the project alternatives must be evaluated and presented to the public, tribal interests, decision-makers, and resource agencies having jurisdictional interests in the project.

1.2 Project Location and Description

The study area for the proposed SR 607 widening project is located in the East Coastal Plain region of southwest Mississippi. The southern portion of the study area is located within the National Aeronautics and Space Administration (NASA) John C. Stennis Space Center (SSC) in Hancock County, Mississippi. Stennis Space Center is a federal and commercial city that houses more than 30 federal, state, academic, and private organizations. Within the gates of SSC, the federal government holds "fee simple" title to 21 square miles of land. This area is referred to as the "Fee Area" and contains administrative, research, and propulsion testing facilities. The nature of the propulsion testing facilities necessitated the development of a "Buffer Zone," where development of habitable structures is prohibited. The Buffer Zone extends five miles around the perimeter of the Fee Area and includes portions of Hancock and Pearl River Counties in Mississippi as well as St. Tammany Parish, Louisiana. The study area extends to the northwest to Interstate 59 (I-59) near the town of Nicholson in Pearl River County, Mississippi.

The logical termini, or project limits, for the SR 607 project are illustrated in **Figure 1.2-1**. Logical termini must encompass a project segment of sufficient length to evaluate project effects, provide a boundary of a project segment that has independent utility, and not restrict any future connector improvements to the project. The existing four-lane section of SR 607 at Saturn Drive is the southern logical terminus of the project. The northern logical terminus is the I-59 / SR 607 interchange. The proposed SR 607 project would widen the roadway from two lanes to four lanes within these limits, approximately 7.8 miles in length.

Improvements to SR 607 are proposed to be implemented in three separate phases due to different funding sources, different NEPA document requirements, and prioritization. The proposed project implementation phases are as follows:

- Phase 1: 4-lane widening from Saturn Drive to Texas Flat Road;
- Phase 2: 4-lane widening from Texas Flat Road to the I-59 / SR 607 interchange; and
- Phase 3: Potential future I-59 / SR 607 interchange modifications (by others).

Modification of the I-59 / SR 607 interchange is considered a long-term improvement, but is not included in the SR 607 EA. A separate Federal Highway Administration (FHWA) sponsored environmental document is required for any improvements to the interchange.

The purpose of this project is to maintain and create low- and moderate-income employment opportunities at SSC by improving and widening SR 607. State Route 607 provides a north-south transportation connection between Interstate 10 (I-10) and I-59. An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes, and SSC. Additionally, the improved SR 607 Corridor would function as a multi-lane highway providing a by-pass of I-10 / I-59 junction in the event of an emergency evacuation.

The need for the proposed SR 607 project includes:

- Economic Development;
- Improve Hurricane / Emergency Evacuation Operations; and
- Improve Safety.

1.3 Economic Development

Over 30 federal, state, academic and private organizations are located at SSC, and over 4,500 individuals are currently employed at SSC. Stennis Space Center has been chosen as a rocket test site in support of NASA's new Constellation Program. The Constellation Program involves the development of new spacecraft, launch vehicles, and related technologies needed to travel and explore the Solar System. The implementation of the Constellation Program may result in the development of new jobs at SSC.

Access to new jobs and existing vacancies at SSC would be facilitated by the proposed improvements to SR 607. These improvements would benefit low-income and minority communities in the project vicinity. Data from the 2000 Census indicate that the three block groups adjacent to the northern terminus of the proposed project had a lower median household income in 1999 than the median household income for Pearl River County. These three block groups also had a minority population greater than the county-wide percentage. The proposed project would improve access to SSC from these low-income and minority communities.

According to a study by Mississippi State University, 27% of employees that worked at SSC in 2007 lived in Pearl River County (Campbell, 2008). It is anticipated that a similar percentage of new employees would reside in Pearl River County.

The highway improvements would increase efficiency in the movement of goods, services, and people; which would promote economic development in the area served by the highway. The proposed SR 607 improvements would enhance commercial vehicle operations and decrease travel costs and delays.

The construction activities associated with the roadway improvements would also stimulate temporary economic benefits.

1.4 Improve Hurricane / Emergency Evacuation Operations

Recent hurricanes have raised awareness of the vulnerability of the Mississippi Gulf Coast area. Reducing peak period evacuation time is essential. Although I-10 and I-59 are designated hurricane evacuation routes, the improved SR 607 Corridor would provide more efficient flow and additional capacity. Vehicles traveling on SR 607 during an evacuation would be directed either to I-59 northbound or US Highway 11 northbound. According to the *Roadway Configuration Assessment Hurricane Evacuation Scenario Traffic Study*, June 2007, the estimated 2006 peak hour evacuation traffic volume in the northbound direction of SR 607, from Saturn Drive to I-59, is estimated at over 2,200 vehicles per hour (VPH). In 2020, the forecast peak hour evacuation traffic volume in the northbound direction of SR 607, from Saturn Drive to I-59, is estimated at over 2,700 VPH.

The design year for a roadway improvement project is typically defined as 20 years beyond construction. It is assumed that the entire 7.8 mile corridor would be upgraded to four lanes by 2010. Therefore, the design year for the project is 2030. Design year traffic forecasts were developed for the project independent from the June 2007 Traffic Study. Using a Mississippi Department of Transportation (MDOT) recommended traffic growth rate of 2.4% per year results in a forecast peak hour evacuation traffic volume in the northbound direction of approximately 3,400 vehicles per hour or 1,700 vehicles per hour per lane. The *Highway Capacity Manual 2000* (HCM) identifies the capacity of each lane of a two-lane highway as 1,700 VPH, while the capacity of each lane of a multi-lane highway is 1,400 VPH. Based on this criteria, the 2030 projected volume would exceed the capacity of a four-lane highway. The addition of a travel lane in each direction would increase the capacity of the roadway, allowing for a more efficient and effective hurricane evacuation.

1.5 Improve Safety

The existing SR 607 Corridor currently experiences very minor motorist safety problems; however, a primary concern is to improve safety during hurricane evacuation events. Widening SR 607 from a two-lane facility to a four-lane facility would improve roadway geometry, provide adequate passing opportunities, and reduce vehicle conflicts at intersections and access points.

Another safety benefit associated with the four-laning of SR 607 consists of accommodating emergency vehicle operations during a hurricane evacuation event. The dual northbound travel lanes would be used exclusively by hurricane evacuees, while the southbound travel lanes could be used for two-way traffic flow for emergency vehicles.

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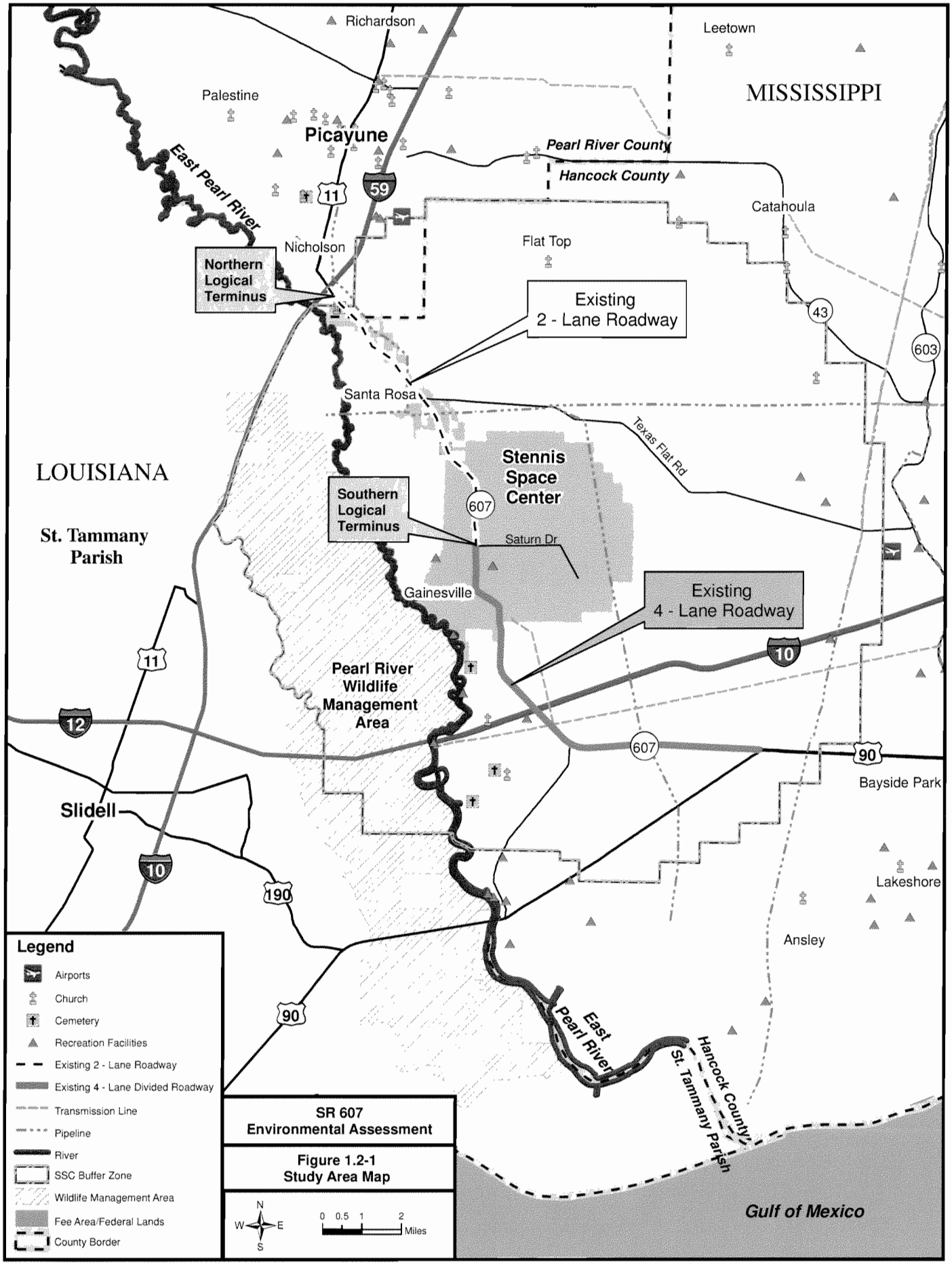

Richardson
Leetown
Palestine
MISSISSIPPI
Picayune
Pearl River County
Hancock County
East Pearl River
11
59
Catahoula
Nicholson
Flat Top
Northern Logical Terminus
Existing 2 - Lane Roadway
43
603
Santa Rosa
Texas Flat Rd
LOUISIANA
Stennis Space Center
Southern Logical Terminus
607
Saturn Dr
St. Tammany Parish
Gainesville
Existing 4 - Lane Roadway
10
11
Pearl River Wildlife Management Area
12
607
90
Bayside Park
Slidell
10
190
Lakeshore
Ansley
90
East Pearl River
Hancock County
St. Tammany Parish
Gulf of Mexico
Legend
Airports
Church
Cemetery
Recreation Facilities
Existing 2 - Lane Roadway
Existing 4 - Lane Divided Roadway
Transmission Line
Pipeline
River
SSC Buffer Zone
Wildlife Management Area
Fee Area/Federal Lands
County Border
SR 607
Environmental Assessment
Figure 1.2-1
Study Area Map
N
W
E
S
0 0.5 1 2
Miles

CHAPTER 2.0

2.0 ALTERNATIVES CONSIDERED

The proposed project consists of widening State Route 607 (SR 607) to provide a multi-lane divided collector. The widening generally consists of a proposed two-lane roadway to be constructed adjacent to the existing two-lane roadway. This chapter describes the alternatives development process and presents alternative courses of action and no action (No-Build Alternative) for consideration.

*Graphics for **Chapter 2.0** are included together at the end of the chapter.*

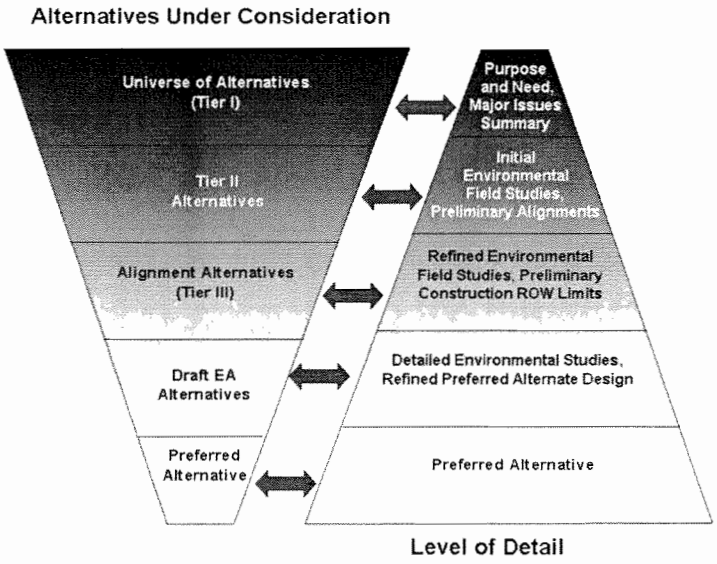
2.1 Project Planning

Hancock County, in cooperation with the United States Department of Housing and Urban Development (HUD) and the Mississippi Department of Transportation (MDOT), are proposing to widen SR 607 from a two-lane roadway to a four-lane roadway. The project limits extend from south of the Interstate 59 / SR 607 interchange to the existing four-lane portion of SR 607 at Saturn Drive within Stennis Space Center (SSC). The project is being sponsored by HUD, who has designated Hancock County as the acting lead agency for the Environmental Assessment.

2.1.1 Alternatives Development Process

A phased or tiered approach was utilized for the development of alternatives to meet the purpose and need for SR 607. This methodology is intended to narrow the range of alternatives through consecutively more detailed evaluations regarding conceptual roadway alignments and environmental screening analyses. **Figure 2.1-1** graphically displays the typical methodology used for the alternatives development process, which begins with the Universe of Alternatives.

Figure 2.1-1
Typical Alternatives Development Process



The alternatives development process diagram shown in **Figure 2.1-1** is typically utilized for environmental studies where the Universe of Alternatives could consist of a number of proposed roadway improvement alternatives ranging from upgrading an existing roadway to evaluating proposed corridors on a new alignment. Due to the potential for significant environmental impacts associated with constructing a new four-lane divided roadway on new alignment, this alternative was not considered for SR 607. Instead, upgrading the existing roadway along its current alignment was the focus of the alternatives development process. As a result, the tiered alternatives analysis process was slightly condensed as described in **Section 2.2** and **Section 2.3**.

The Preferred Alternative is selected from the findings of the Draft EA. If a determination is made that the Preferred Alternative would not result in any significant impacts, the Department of Housing and Urban Development (HUD) will issue a combined Finding of No Significant Impact (FONSI) and a Notice of Intent to Request Release of Funds (NOI-RROF).

2.1.2 Scoping Process

Project scoping has been accomplished through early coordination with the appropriate agencies and elected officials during stakeholder meetings. A Project Kick-Off Meeting was held in February 2008 to introduce the project and seek coordination with federal, state, and local agencies. A follow-up meeting was held in March 2008 to further discuss issues and areas of concern. Potential impacts of the project on the natural and human environments as well as physical environmental constraints were identified and discussed. Preliminary corridor concepts were discussed at the meeting.

As part of the scoping process, a Solicitation of Views (SOV) packet was distributed to federal and state agencies, Indian tribes and elected officials. Key concerns that were identified by the SOV respondents included: impacts of the project on the natural environment and water resources, community impacts, and right-of-way (ROW) impacts. Specific issues that were identified as part of the SOV responses included:

- Compliance with the Gulf Regional Planning Commissions' *Draft Hancock County Comprehensive Plan*;
- Compatibility with existing plans;
- Federally protected species - gopher tortoise and an endangered plant - Louisiana Quillwort;
- Economic impacts; and
- Wetland and floodplain impacts and construction operations within jurisdictional waters of the United States.

2.2 Universe of Alternatives

Initial conceptual alignments were developed based upon input obtained from SOV responses, discussions during agency and elected official scoping meetings, preliminary field investigations, and records research of community facilities and environmental features. These initial alignments are referred to as the Universe of Alternatives or Tier I Alternatives. **Figure 2.2-1** through **Figure 2.2-6** depict the Tier I Alternatives. Five main alternatives were considered and are listed below:

- Alternative 1
- Alternative 1A
- Alternative 2
- Alternative 3
- Alternative 4

2.2.1 Description of the Tier I Alternatives

The proposed Tier I Alternatives for SR 607 were divided into north and south limits that are described from south to north, beginning at Saturn Drive and extending to I-59. For purposes of describing the alternatives, they were also divided into segments that generally coincided with variations to the proposed roadway geometry, specifically regarding the typical roadway sections, including median width.

Tier I Alternatives (South Common Alignment)

In the southern portion of the corridor, from Saturn Drive to Texas Flat Road, all Tier I Alternatives have a common alignment. This common alignment is described in two segments, Segment 1 and Segment 2, and is referred to as the south common alignment as illustrated in **Figure 2.2-1**. The south common alignment associated with Alternatives 1, 1A, 2, 3, and 4 is briefly described below by segment.

Segment 1: Saturn Drive to North Security Gate.
Proposed four-lane divided roadway with a 30-foot median, with widening to the west side of the existing roadway. Between Shuttle Parkway and the North Security Gate, the roadway will transition from the proposed four-lane divided roadway with a 30-foot median to the existing four-lane roadway section at the North Guard House. In this segment, numerous utilities are located on the east side of SR 607. Widening to the west is proposed in order to minimize utility relocations.

Segment 2: North Security Gate to Texas Flat Road.
Transition from the existing four-lane roadway section at the North Guard House to the proposed four-lane divided roadway with 30-foot median, with widening to the east side of the existing roadway. The Corinth Cemetery is located on the west side of SR 607 at Turtleskin Road, therefore widening to the east side of the existing road is proposed to avoid impacts to the cemetery.

Tier I Alternatives (North)

In the northern portion of the corridor, from Texas Flat Road to mid-way between the I-59 / SR 607 interchange and Asa McQueen Road, the Tier I Alternatives differ in alignment location, median width, and transition location where the four-lane divided corridor ties into the existing two-lane roadway. Alternative 1 through Alternative 3 generally consist of widening SR 607 to the east, while Alternative 4 consists of widening SR 607 to the west. The conceptual alignment for all of these alternatives included a 101-foot median. Alternative 1A was developed with the 64-foot median for comparison to Alternative 1, the four-lane divided collector with a 101-foot median.

The five alternatives within the northern portion of the study corridor are described below, starting in the vicinity of Texas Flat Road.

Alternative 1 - Alternative 1 is divided into five segments. Within the northern portion of the corridor, the segments associated with Alternative 1 are described below and illustrated in **Figure 2.2-2**. Segment 1 and Segment 2 were described above as part of the south common alignment.

Segment 3: Texas Flat Road Vicinity.
Proposed four-lane divided roadway with transition from 30-foot median to 101-foot median, with widening to the east side of the existing roadway.

Segment 4: North of Texas Flat Road to Alligator Branch.
Widen the existing roadway on the east side with a 101-foot median, maintaining the wide median past Asa McQueen Road and Alligator Branch, and constructing a new two-lane, northbound bridge crossing Alligator Branch.

Segment 5: North of Alligator Branch to south of the I-59 / SR 607 Interchange.
Transition the alignment of the four-lane divided roadway with 101-foot median to the existing two-lane roadway section north of Alligator Branch, then retain the existing two-lane roadway to the I-59 / SR 607 interchange right-of-way (ROW).

Alternative 1A - Alternative 1A follows the same alignment as Alternative 1, except the median width is reduced to 64-feet. Segment 1 and Segment 2 were described above as part of the south common alignment. Within the northern portion of the corridor, the remaining segments associated with Alternative 1A are described below and illustrated in **Figure 2.2-3**.

Segment 3: Texas Flat Road Vicinity.
Proposed four-lane divided roadway with transition from 30-foot median to 64-foot median, with widening to the east side of the existing roadway.

Segment 4: North of Texas Flat Road to Alligator Branch.
Widen the existing roadway on the east side with a 64-foot median, maintaining the wide median past Asa McQueen Road and Alligator Branch, and constructing a new two-lane, northbound bridge crossing Alligator Branch.

Segment 5: North of Alligator Branch to south of the I-59 / SR 607 Interchange.
Transition the alignment of the four-lane divided roadway with a 64-foot median to the existing two-lane roadway section north of Alligator Branch, then retain the existing two-lane roadway to the I-59 / SR 607 interchange ROW.

Alternative 2 - Alternative 2 is similar to Alternative 1, except the four-lane divided roadway with a 101-foot median transitions to a proposed three-lane roadway north of Alligator Branch. Segment 1 and Segment 2 were described above as part of the south common alignment. Within the northern portion of the corridor, the remaining segments associated with Alternative 2 are described below and illustrated in **Figure 2.2-4**.

Segment 3: Texas Flat Road Vicinity.
Proposed four-lane divided roadway with transition from 30-foot median to 101-foot median, with widening to the east side of the existing roadway.

Segment 4: North of Texas Flat Road to Alligator Branch.
Widen the existing roadway on the east side with a 101-foot median, maintaining the wide median past Asa McQueen Road and Alligator Branch, and constructing a new two-lane, northbound bridge crossing Alligator Branch.

Segment 5: North of Alligator Branch to south of the I-59 / SR 607 Interchange.
Transition the alignment of the four-lane divided roadway with 101-foot median to a proposed three-lane roadway and continue the three-lane roadway to the I-59 / SR 607 interchange ROW. The existing two-lane roadway would be widened to three lanes. The new three-lane roadway would function as a two-lane roadway with a continuous left turn lane during normal traffic conditions. However, during hurricane / emergency evacuation operations, the three-lane roadway could be converted to two lanes northbound and one lane southbound.

Alternative 3 - Alternative 3 follows the same alignment as Alternative 1, but the widening of the corridor ends south of Asa McQueen Road to avoid the construction of a new bridge crossing over Alligator Branch. Alternative 3 is divided into six segments. Segment 1 and Segment 2 were described above as part of the south common alignment. Within the northern portion of the corridor, the remaining segments associated with Alternative 3 are described below and illustrated in **Figure 2.2-5**.

Segment 3: Texas Flat Road Vicinity.
Proposed four-lane divided roadway with transition from 30-foot median to 101-foot median, with widening to the east side of the existing roadway.

Segment 4: North of Texas Flat Road to Pearl River / Hancock County Line.
Widen the existing roadway on the east side with a 101-foot median, maintaining the wide median to the Pearl River / Hancock County Line.

Segment 5: County Line to Asa McQueen Road.
Transition the alignment of the four-lane divided roadway with 101-foot median to the existing two-lane roadway section south of Asa McQueen Road.

Segment 6: Asa McQueen Road to south of the I-59/SR 607 Interchange.
The existing two-lane roadway within these limits would not be altered.

Alternative 4 - Alternative 4 widens the roadway to the west and ends south of Asa McQueen Road to avoid the construction of a new bridge crossing over Alligator Branch. Alternative 4 is divided into six segments. Segment 1 and Segment 2 were described above as part of the south common alignment. Within the northern portion of the corridor, the remaining segments associated with Alternative 4 are described below and illustrated in **Figure 2.2-6**.

Segment 3: Texas Flat Road Vicinity.
Transition the widening of SR 607 from the east side of the roadway with a 30-foot median to the west side of the roadway with a 101-foot median.

Segment 4: North of Texas Flat Road to Pearl River / Hancock County Line.
Widen the existing roadway on the west side with a 101-foot median, maintaining the wide median to the Pearl River / Hancock County Line.

Segment 5: Pearl River / Hancock County Line to Asa McQueen Road.
Transition the alignment of the four-lane divided roadway with 101-foot median to the existing two-lane roadway section south of Asa McQueen Road.

Segment 6: Asa McQueen Road to south of the I-59/SR 607 Interchange.
The existing two-lane roadway within these limits would not be altered.

2.2.2 Preliminary Evaluation of the Tier I Alternatives

Preliminary evaluation criteria were developed for use in the quantitative evaluation of the Tier I Alternatives. To the extent feasible, criteria related to the principal issues identified from agency responses to the SOV were used. The Tier I Alternatives were evaluated in consideration of impacts to floodplains, wetlands, utilities, required right-of-way, and other alignment constraints.

A Geographic Information System (GIS) was used to electronically catalog known environmental considerations in the study area. These considerations are categorized as human, natural and physical environmental considerations. Initial considerations for the alternatives development for the SR 607 Tier I Alternatives included the following:

Natural Environment Considerations:

- Wetlands Directly Impacted
- 100-Year Floodplain Area Traversed

Human Environment Considerations:

- Displaced Residential Structures
- Displaced Mobile Homes
- Displaced Commercial Structures

Physical Environment Considerations:

- Utility Impacts

As previously described in **Section 2.2.1**, each of the Tier I Alternatives are identical south of Texas Flat Road to Saturn Drive, therefore preliminary environmental impacts were not quantified within the southern portion of the study corridor as these impacts would be similar for all alternatives. The preliminary impacts associated with the Tier I Alternatives within the northern portion of the study corridor were defined for comparison purposes. **Table 2.2-1**

presents the GIS screening results for the northern portion of the study corridor only, from Texas Flat Road to just south of the I-59 / SR 607 interchange.

Each of the five alternatives was screened to quantify potential impacts. Four of the alternatives included a 101-foot wide median, resulting in a greater amount of required right-of-way compared to Alternative 1A. The impacts associated with Alternative 1A were based on a 64-foot wide median.

Table 2.2-1
Tier I Alternatives - GIS Screening Results
(Texas Flat Road to I-59 / SR 607 Interchange Only)

Evaluation Criteria	Unit	Alternative 1	Alternative 1A	Alternative 2	Alternative 3	Alternative 4
Overall Alignment Length: Texas Flat Road to I-59 / SR 607 Interchange Only						
Total Length	miles	3.64	3.65	3.65	3.65	3.64
Length of Widening	miles	3.43	3.41	3.45	3.08	3.10
Length Along Existing SR 607 Corridor; 2-lane roadway or new 3-lane	miles	0.21	0.24	0.20	0.57	0.54
Right-of Way Considerations						
Total Required ROW	acres	58	43	58	51	51
Required ROW - Federal Land	acres	30	23	30	29	25
Required ROW - Private Land	acres	28	20	28	22	26
Natural Environment Considerations						
Total Wetlands Impacted	acres	0.3049	0.061	0.3049	0.064	3.82
Wetlands Impacted - Federal Land	acres	0.3039	0.061	0.3039	0.064	0.57
Wetlands Impacted - Private Land	acres	0.0009	0	0.0009	0	3.25
Total 100-Year Floodplain Impacted	acres	4.81	3.47	4.84	2.86	8.69
100-Year Floodplain Impacted - Federal Land	acres	0.83	0.63	0.83	0.82	2.58
100-Year Floodplain Impacted - Private Land	acres	3.98	2.84	4.01	2.04	6.11
Human Environment Considerations						
Displaced Residential Structures	count	3	3	3	0	0
Displaced Mobile Homes	count	0	0	0	0	0
Displaced Commercial Structures	count	0	0	0	0	0

Table 2.2-1
Tier I Alternatives - GIS Screening Results
(Texas Flat Road to I-59 / SR 607 Interchange Only)

Evaluation Criteria	Unit	Alternative 1	Alternative 1A	Alternative 2	Alternative 3	Alternative 4
Physical Environment Considerations						
Bellsouth / AT&T FO Cable Impacts	feet	18,132	17,983	18,200	16,260	0

Notes: All screening results are preliminary in nature. They do not depict the actual right-of-way of the proposed project. The queries were performed using a 101-foot wide median width except for Alternative 1A, which included a 64-foot median width.

The results of the preliminary screening evaluation for the northern portion of the Tier I Alternatives are varied; each of the alternatives has positive and negative impacts. All alternatives except Alternative 3 and 4 impact residential structures. Alternatives 1, 1A and 2 have minor potential wetland impacts, but would involve extensive impacts to an existing fiber optic communications cable that is located on the east side of SR 607. Alternative 3 has fewer anticipated impacts to wetlands and the 100-year floodplain, but involves substantial impacts to the fiber optic communications cable. Alternative 4 has the greatest potential impact on the 100-year floodplain and wetlands, but has no impact on the fiber optic communication cables. The primary difference between the results of the preliminary screening evaluation is attributed to the fact that Alternatives 1, 1A, 2, and 3 would be widened to the east of the existing roadway, while Alternative 4 widens to the west of the existing roadway.

2.3 Alternatives for Detailed Study in the EA

2.3.1 No-Build and TSM Alternatives

The No-Build Alternative would retain the existing roadway network. The No-Build Alternative would avoid the potential impacts associated with roadway construction. However, the No-Build Alternative would not meet the purpose and need of the project, as it would not address economic development needs in the study area. The No-Build Alternative would not improve safety, hurricane and emergency evacuation operations, or further opportunities for economic development.

Transportation System Management (TSM) alternatives involve increasing the available capacity of an existing facility generally within its existing right-of-way and with minimum capital expenditures. TSM-related activities in an urban area may include improving signals and signal progression, installing a computerized signal system, adding high occupancy vehicle (HOV) lanes, or implementing minor intersection upgrades such as adding turn lanes. TSM-related activities in a rural area are generally limited to intersection improvements. Intersection improvements, such as adding turn lanes, appear to be the only feasible TSM measures applicable to the SR 607 corridor. Intersection improvements could improve roadway safety; however, such measures would not improve hurricane and emergency evacuation operations or further opportunities for economic development.

2.3.2 Build Alternatives

The Tier I Alternatives were refined as a result of elected officials and agency comments. The goal of the refinement process was to define discrete corridors that extended the full length of the project area that would minimize impacts to the human, natural and physical environments, while continuing to meet the purpose and need for the project. The refined alignments are referred to as the proposed Draft EA build alternatives or Tier II Alternatives.

A strategy for defining the Tier II Alternatives was developed in cooperation with MDOT Roadway Design staff. The proposed Tier II Alternatives for SR 607 were again divided into north and south limits beginning at Saturn Drive and extending to Interstate 59. In general, this consisted of defining two primary alternatives, herein referred to as the Eastern Alternative and Western Alternative and is generally described as follows:

- Southern limits from Saturn Drive to Texas Flat Road – retain the south common alignment as developed in Tier I.
- Northern limits from Texas Flat Road to Asa McQueen Road – retain a western widening option and an eastern widening option.
- Northern limits from Asa McQueen to south of the I-59/SR 607 interchange – MDOT requested that a five-lane typical section should be included as part of the SR 607 widening to replace the existing two-lane roadway within these limits.

The build alternatives were further refined following additional coordination with elected officials, MDOT and FHWA. Comments pertaining to the alignments as presented in the Preliminary Draft EA were also incorporated as part of the alignment refinement process. This documentation is included in **Appendix E**. Final modifications to the Eastern and Western Alternative alignments are listed as follows:

- Extend the five-lane improvements to connect with the existing interchange entrance and exit ramps located on the south side of the I-59 / SR 607 interchange.
- Provide additional median openings. Two additional median openings were added between I-59 and Texas Flat Road, and one additional median opening was added between Texas Flat Road and Saturn Drive. South of Texas Flat Road, the location of median openings were defined by NASA and if additional median openings are deemed necessary, coordination with NASA would be required.

The conceptual alignments for Western Alternative and Eastern Alternative are graphically depicted in **Figure 2.3-1,** which includes a series of five map sheets. In the southern portion of the study corridor within the Stennis Fee Area, the Western and Eastern Alternatives include a south common alignment. As shown in **Figure 2.3-1A,** the south common alignment consists of widening the roadway to the west side from Saturn Drive to near Shuttle Parkway. The new two-lane construction on the west side of the existing roadway will become the southbound travel lanes, while the existing lanes will become the northbound lanes. North of Shuttle Parkway, the roadway transitions to the existing pavement section at the North Security Gate.

As shown in **Figure 2.3-1A and Figure 2.3-1B,** just north of the North Security Gate, the widening shifts to the east side of the road. At Turtleskin Creek, a new two-lane bridge is

proposed. New northbound lanes would result from the widening to the east, while the existing roadway would serve as the southbound lanes. As depicted in **Figure 2.3-1B,** widening to the east in this segment would avoid impacts to the Corinth Cemetery. Widening to the east is proposed to continue past Texas Flat Road. The intersection of Texas Flat Road and SR 607 would have to be reconstructed as part of both build alternatives.

Just north of Texas Flat Road, the median would transition from 30 feet to 101 feet. As shown in **Figure 2.3-1C**, the top portion of the graphic depicts the proposed four-lane divided roadway section with widening generally to the east for the Eastern Alternative. The bottom portion of graphic depicts the Western Alternative that consists of widening to the west. Median crossovers are proposed throughout the corridor.

A new two-lane bridge is proposed at Indian Camp Branch as part of the Eastern and Western Alternatives as shown in **Figure 2.3-1D.** A portion of this existing stream may have to be realigned as part of either alternative. Wetlands impacted are also shown in **Figure 2.3-1**.

As depicted in **Figure 2.3-1E,** the four-lane widening will continue to the Pearl River / Hancock County Line. A new two-lane bridge would be required at Second Alligator Branch as part of both build alternatives. The two alternatives would transition from a four-lane divided roadway to a five-lane roadway near Asa McQueen Road. The existing two-lane bridge at Alligator Branch would have to be widened to five-lanes. The five-lane section will continue to the I-59 / SR 607 Interchange right-of-way.

2.4 Preferred Alternative

The final phase of the alternatives development process is the selection of a Preferred Alternative. A Preferred Alternative has been identified based on the results of the Preliminary Draft EA.

The results of the screening evaluation and preliminary cost estimates indicate that the Eastern Alternative could potentially result in less impacts to floodplains and wetlands and may cost slightly less than the Western Alternative. However, the Eastern Alternative would require relocating an additional 2.2 miles of fiber optic communication line that would not be necessary for the Western Alternative. The cost to relocate the communication line is not included in the estimated construction costs for the SR 607 project alternatives, as this is a cost that is typically borne by the respective utility owner. The Mississippi Department of Transportation has recommended avoiding this additional utility relocation and has noted a preference for the Western Alternative, accordingly. Cultural resource field investigations indicate that the Western Alternative would avoid impacting sites considered eligible for nomination to the National Register of Historic Places (NHRP), while the Eastern Alternative has the potential to impact one site.

For the reasons cited above, the Western Alternative has been identified as the Preferred Alternative. HUD recognizes that the decision on the Preferred Alternative should be made following the opportunity for public comment.

2.5 Conceptual Design Summary

2.5.1 Design Criteria

Roadway design criteria associated with the proposed build alternatives are presented in **Table 2.5-1**. Design criteria are presented for a four-lane rural collector. Geometric design criteria within MDOT maintenance limits are based on the MDOT 2001 Edition of the *Roadway Design Manual.* Within the Stennis Fee Area and limits of maintenance, MDOT design criteria will remain with the exception of a 30-foot median.

Table 2.5-1
Geometric Design Criteria

Item	Units	SR 607 Saturn Drive to Texas Flat Road	SR 607 Texas Flat Road to Asa McQueen Road
Design Speed	mph	65	65
Level of Service		B	B
Number of Continuous Travel Lanes		2 in each direction	2 in each direction
Width of Travel Lane	ft	12	12
Width of Shoulders			
Outside	ft	10	10
Inside	ft	8	8
Material of Shoulders		(1)	(1)
Width of Median	ft	30	101
Type of Median		Depressed	Depressed
Foreslope Ratio		6:1	6:1
Backslope Ratio		3:1	3:1
Pavement Cross Slope		2.0%	2.0%
Shoulder Cross Slope		4.0%	4.0%
Ditch Depth	ft	4	4
Stopping Sight Distance (Based on Design Speed)	ft	550	550
Rate of Vertical Curvature	K		
Crest Curve		228	228
Sag Curve		131	131
Maximum Superelevation		10%	10%
Minimum Horizontal Radius	ft	1,348.14 (D=4°15')	1,348.14 (D=4°15')
Maximum Grade			
Downgrade		5.5%	5.5%
Upgrade		4.5%	4.5%
Min. Vertical Clearance			
Roadways	ft	16.5	16.5
Railroad	ft	23	23
Roadside Clear Zone	ft	30	30
Width of Right-of-Way From Centerline	ft	120	120
New Bridge Structural Capacity		HS-20	HS-20
New Bridge Minimum Width	ft	TW+16	TW+16

Note: **Shoulder Surface Type** (two-lane and Shoulder on Multilane). Generally, these shoulders will not be surfaced except as approved in special conditions.

2.5.2 Typical Sections

The four-lane divided typical sections for the proposed alternatives include a 30-foot median within Stennis Space Center. This is similar to the existing four-lane divided section of SR 607 just north of I-10. MDOT design standards require a 101-foot median section for a rural collector to provide adequate storage area for vehicles, particularity large trucks, crossing the road.

The proposed build alternative typical sections are shown in **Figure 2.5-1** through **Figure 2.5-3** and are summarized as follows:

- Typical section for a four-lane divided collector with a 30-foot median for SR 607 between Saturn Drive and Texas Flat Road; see **Figure 2.5-1**. This typical section is proposed within the Stennis Fee Area.
- Typical section for a four-lane divided collector with a 101-foot median for SR 607 from Texas Flat Road north to near Asa McQueen Road. As shown in **Figure 2.5-2**, the typical section on the top of the page shows the widening to the west of the existing roadway and typical section on the bottom of the page shows the widening to the east of the existing roadway.
- Typical section for a five-lane roadway for SR 607 between Asa McQueen Road to south of I-59; see **Figure 2.5-3**. The five-lane section is proposed in the vicinity of existing commercial and residential development and would be constructed within existing right-of-way.

2.6 Preliminary Cost Estimates

2.6.1 Construction Cost Estimates

A construction cost estimate was developed for the Eastern and Western Alternatives for the proposed widening of SR 607. Costs were estimated for surfacing, bridges, drainage, ROW and earthwork. Utility relocation costs are not included.

The surfacing cost was estimated on a per linear foot basis for each of the build alternatives. These alternatives included a south common alignment consisting of a four-lane divided roadway with a 30-foot grass median from Saturn Drive to Texas Flat Road. Within this segment, a significant portion of the existing two-lane roadway would be utilized and overlaid 1-1/2 inches and a new two-lane roadway would be constructed parallel to the existing on the opposite side of the median. North of Texas Flat Road, the build alternatives include widening to the east and widening to the west. Each of these alternatives utilizes the existing two-lane roadway, which would be overlaid 1-1/2 inches and requires the construction of a parallel two-lane roadway with a 101-foot median.

New bridges would be constructed over several existing perennial streams. A new two-lane bridge is required at Turtleskin Creek as part of the south common alignment associated with the Eastern and Western Alternatives. Within the full 101-foot divided median segments of the corridor, two-lane bridges are required at Indian Camp Branch and Second Alligator Branch.

Near Asa McQueen Road, SR 607 would become a five-lane section and continue northward to the I-59 right-of-way. The common alignment in this segment involves reconstruction of the two-lane bridge crossing Alligator Branch. Bridge lengths were estimated for each hydraulic crossing and bridge widths were based on the appropriate typical section. The estimated cost of new bridges were derived on a square foot basis.

The existing drainage culverts crossing SR 607 were assumed to be adequate and would only require the existing culverts to be lengthened to meet the criteria of the new typical section. Median drainage structures and new end treatments for the existing culverts would also be included.

The unit prices for the various alternatives were developed from unit costs provided by Intradepartmental Memorandum for Revised 2008 Construction Prices provided by the MDOT State Planning Engineer. **Table 2.6-1** presents the estimated construction cost of the build alternatives. The estimated 2008 construction costs do not include utility relocations or surveying, engineering and construction inspection fees.

Table 2.6-1
Estimated Construction Cost of Build Alternatives

Alternative	I-59 to Texas Flat Road ($2008)	Texas Flat Road to Saturn Drive ($2008)	Total Construction Cost ($2008)
Western Alternative	$14.2 Million	$13.6 Million	$27.8 Million
Eastern Alternative	$16.2 Million	$13.6 Million	$29.8 Million

Existing ground elevations were obtained from Light Detection and Ranging (LIDAR) data for the study area. From this data, it was determined that the adjacent land located on the west side of the existing roadway is much lower in many areas than the adjacent land located on the east side of the roadway. Since the west side is significantly lower, the Western Alternative would require more fill, which in turn increases the cost of the construction as shown in **Table 2.6-1**.

2.6.2 Right-of-way Cost Estimates

Right-of-way acreage has been estimated to determine required ROW costs. The estimated ROW required for each alternative is presented in **Table 2.6-2.** It is assumed that federal land would be donated and that MDOT would purchase ROW from private land owners.

Table 2.6-2
Estimated Right-of-Way Required for Build Alternatives

Alternative	Estimated Total Required ROW (Acres)	Estimated Required Federal Land ROW (Acres)	Estimated Required Private Land ROW (Acres)	Estimated Cost to Purchase Private Land ROW ($2008)
Eastern Alternative	67.38	39.78	27.60	$55,200
Western Alternative	69.64	36.97	32.67	$65,340

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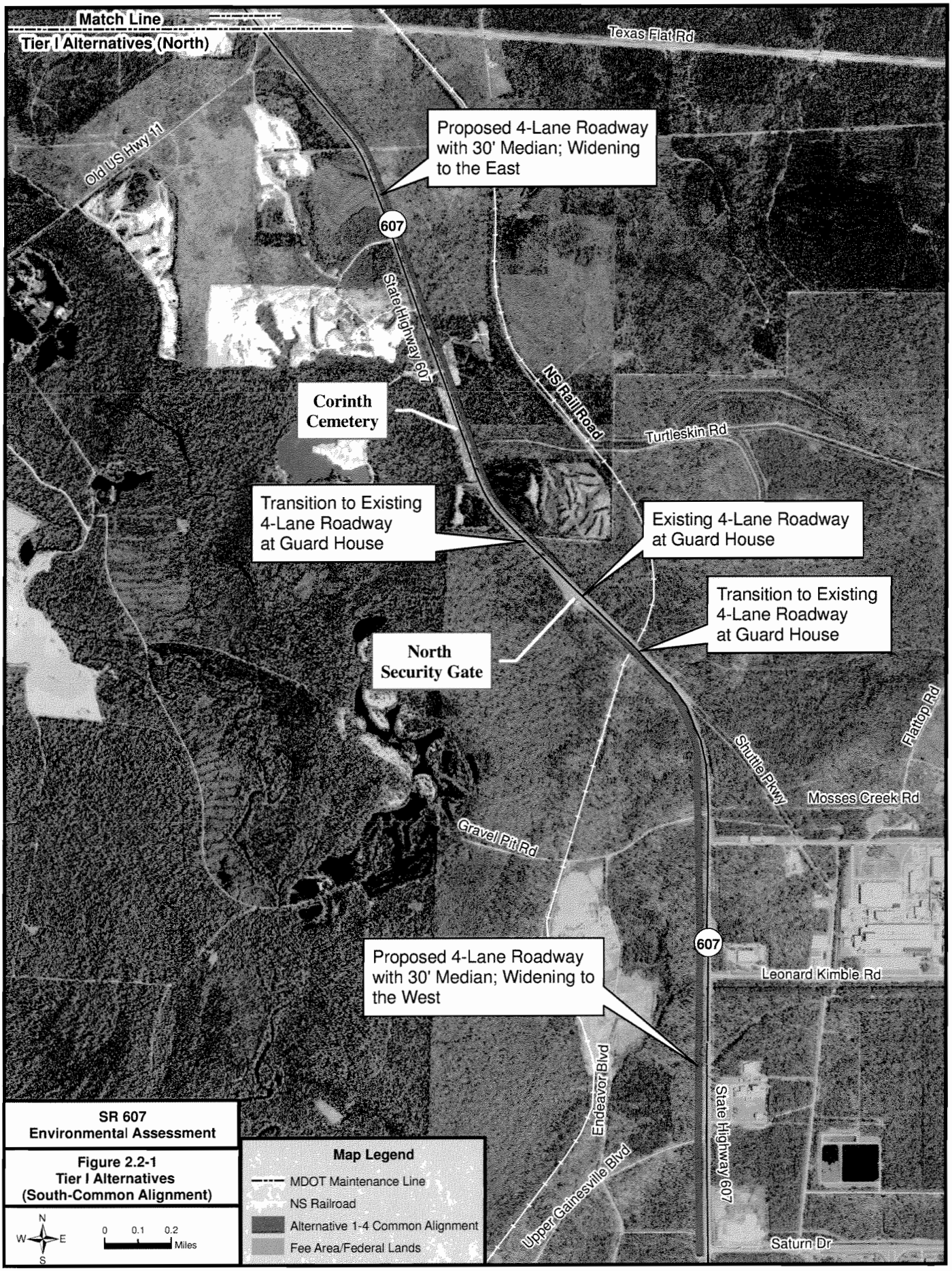
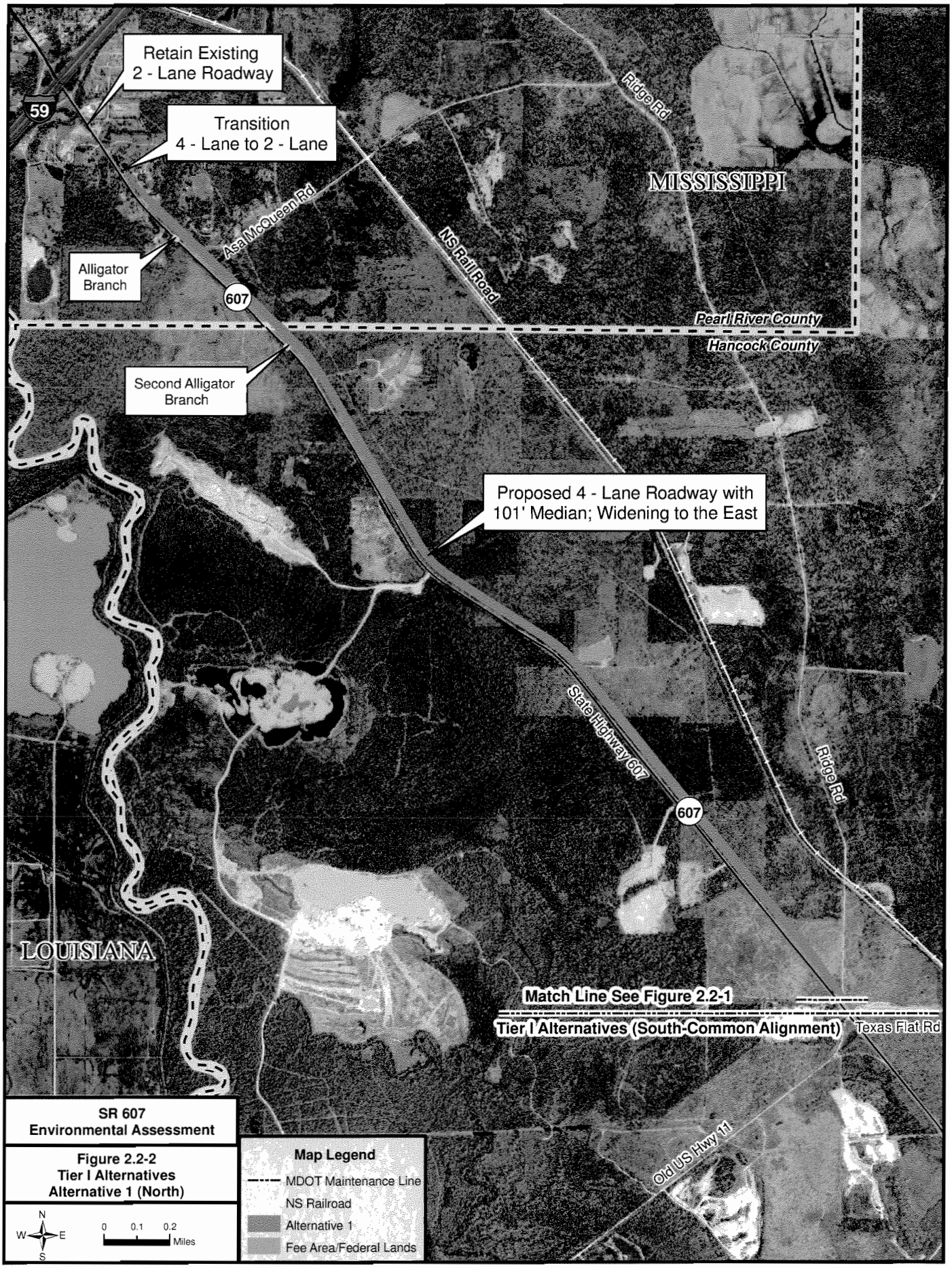
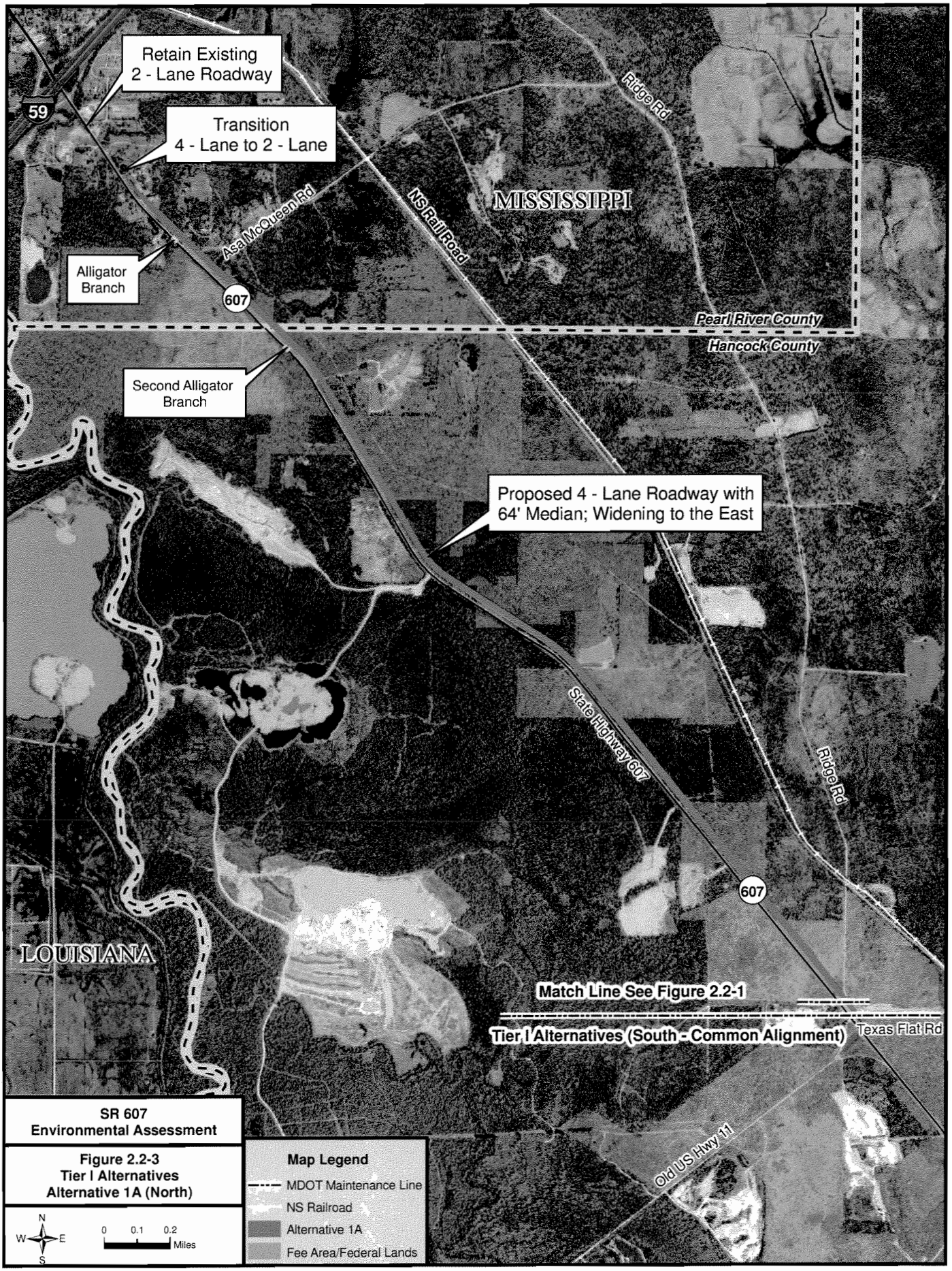
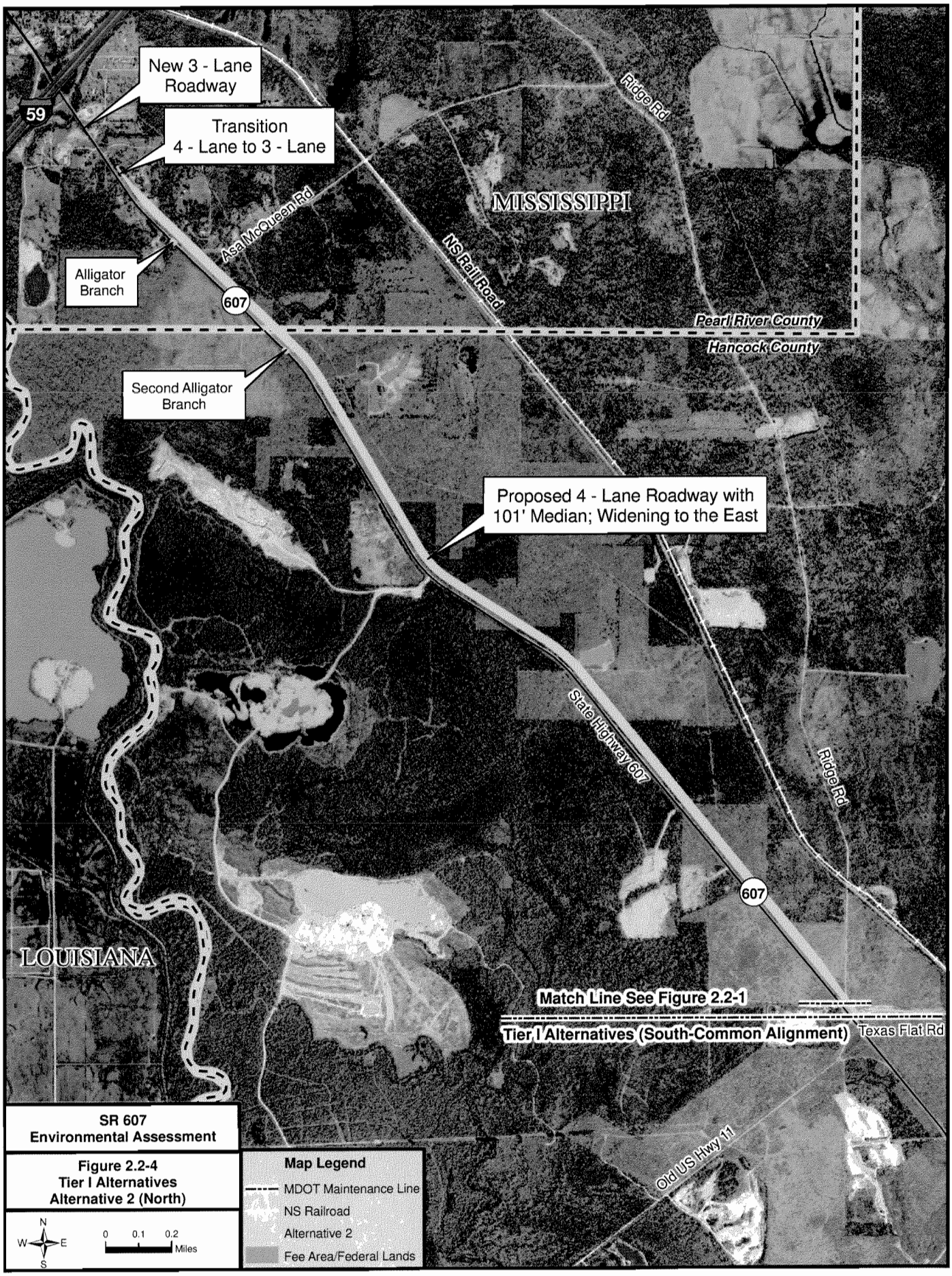
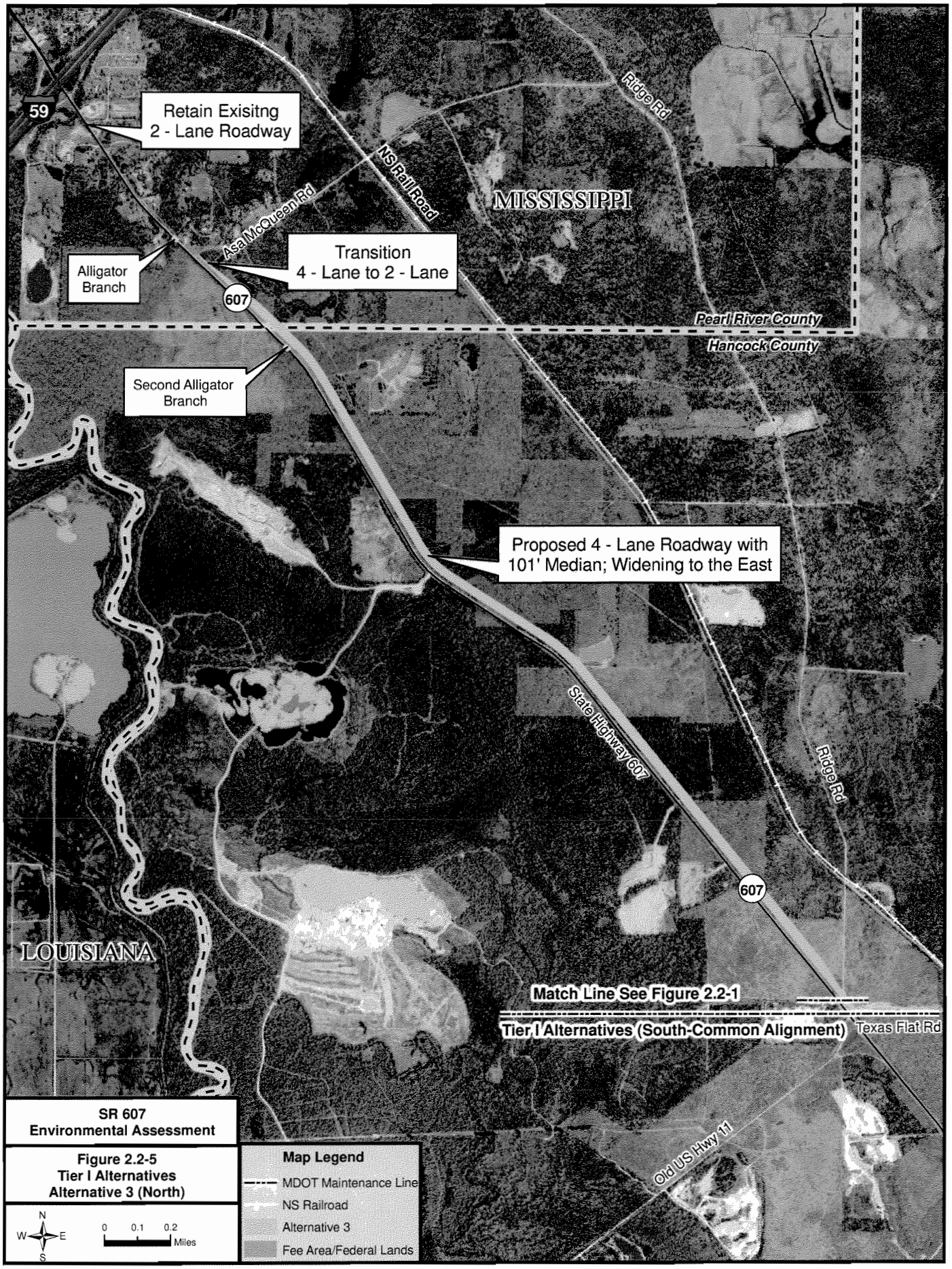
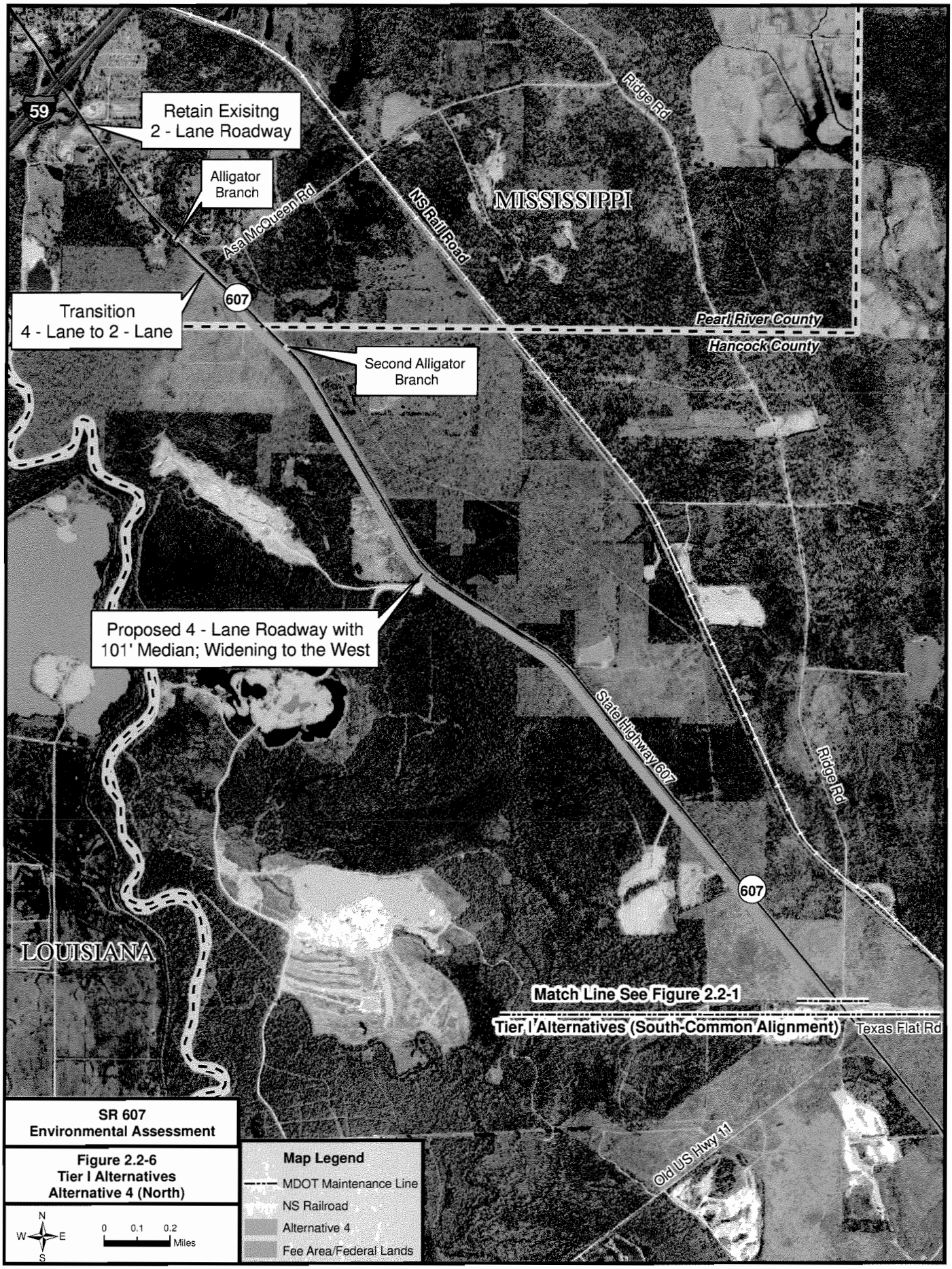

Match Line
Tier I Alternatives (North)
Texas Flat Rd
Old US Hwy 11
Proposed 4-Lane Roadway with 30' Median; Widening to the East
607
State Highway 607
NS Rail Road
Corinth Cemetery
Turtleskin Rd
Transition to Existing 4-Lane Roadway at Guard House
Existing 4-Lane Roadway at Guard House
Transition to Existing 4-Lane Roadway at Guard House
North Security Gate
Shuttle Pkwy
Flattop Rd
Mosses Creek Rd
Gravel Pit Rd
607
Proposed 4-Lane Roadway with 30' Median; Widening to the West
Leonard Kimble Rd
Endeavor Blvd
State Highway 607
Upper Gainesville Blvd
Saturn Dr
SR 607
Environmental Assessment
Figure 2.2-1
Tier I Alternatives
(South-Common Alignment)
N
W
E
S
0 0.1 0.2
Miles
Map Legend
MDOT Maintenance Line
NS Railroad
Alternative 1-4 Common Alignment
Fee Area/Federal Lands


Retain Existing
2 - Lane Roadway
59
Transition
4 - Lane to 2 - Lane
Asa McQueen Rd
Ridge Rd
MISSISSIPPI
NS Rail Road
Alligator
Branch
607
Pearl River County
Hancock County
Second Alligator
Branch
Proposed 4 - Lane Roadway with
101' Median; Widening to the East
State Highway 607
Ridge Rd
607
LOUISIANA
Match Line See Figure 2.2-1
Tier I Alternatives (South-Common Alignment)
Texas Flat Rd
Old US Hwy 11
SR 607
Environmental Assessment
Figure 2.2-2
Tier I Alternatives
Alternative 1 (North)
N
W
E
S
0
0.1
0.2
Miles
Map Legend
MDOT Maintenance Line
NS Railroad
Alternative 1
Fee Area/Federal Lands

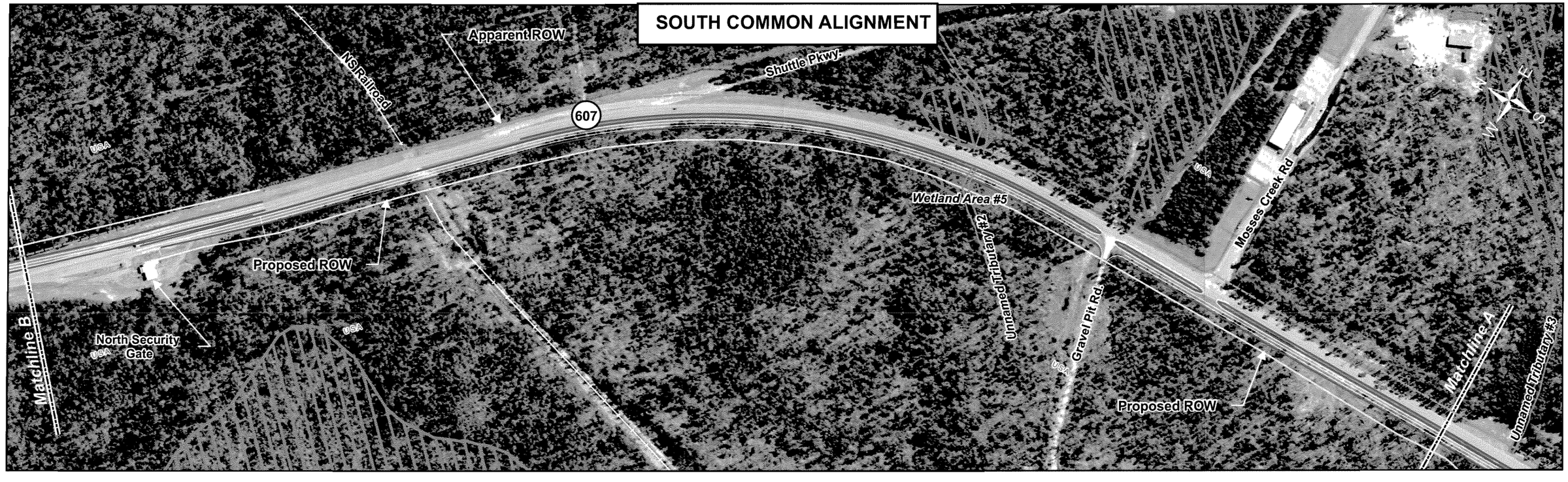

Retain Existing
2 - Lane Roadway
59
Transition
4 - Lane to 2 - Lane
Ridge Rd
MISSISSIPPI
Asa McQueen Rd
NS Rail Road
Alligator
Branch
607
Pearl River County
Hancock County
Second Alligator
Branch
Proposed 4 - Lane Roadway with
64' Median; Widening to the East
State Highway 607
Ridge Rd
607
LOUISIANA
Match Line See Figure 2.2-1
Tier I Alternatives (South - Common Alignment)
Texas Flat Rd
Old US Hwy 11
SR 607
Environmental Assessment
Figure 2.2-3
Tier I Alternatives
Alternative 1A (North)
N
W
E
S
0
0.1
0.2
Miles
Map Legend
MDOT Maintenance Line
NS Railroad
Alternative 1A
Fee Area/Federal Lands


New 3 - Lane Roadway
Transition 4 - Lane to 3 - Lane
Alligator Branch
Second Alligator Branch
Proposed 4 - Lane Roadway with 101' Median; Widening to the East
59
607
Asa McQueen Rd
NS Rail Road
Ridge Rd
MISSISSIPPI
Pearl River County
Hancock County
State Highway 607
LOUISIANA
Match Line See Figure 2.2-1
Tier I Alternatives (South-Common Alignment)
Texas Flat Rd
Old US Hwy 11
SR 607
Environmental Assessment
Figure 2.2-4
Tier I Alternatives
Alternative 2 (North)
N
W
E
S
0 0.1 0.2
Miles
Map Legend
MDOT Maintenance Line
NS Railroad
Alternative 2
Fee Area/Federal Lands

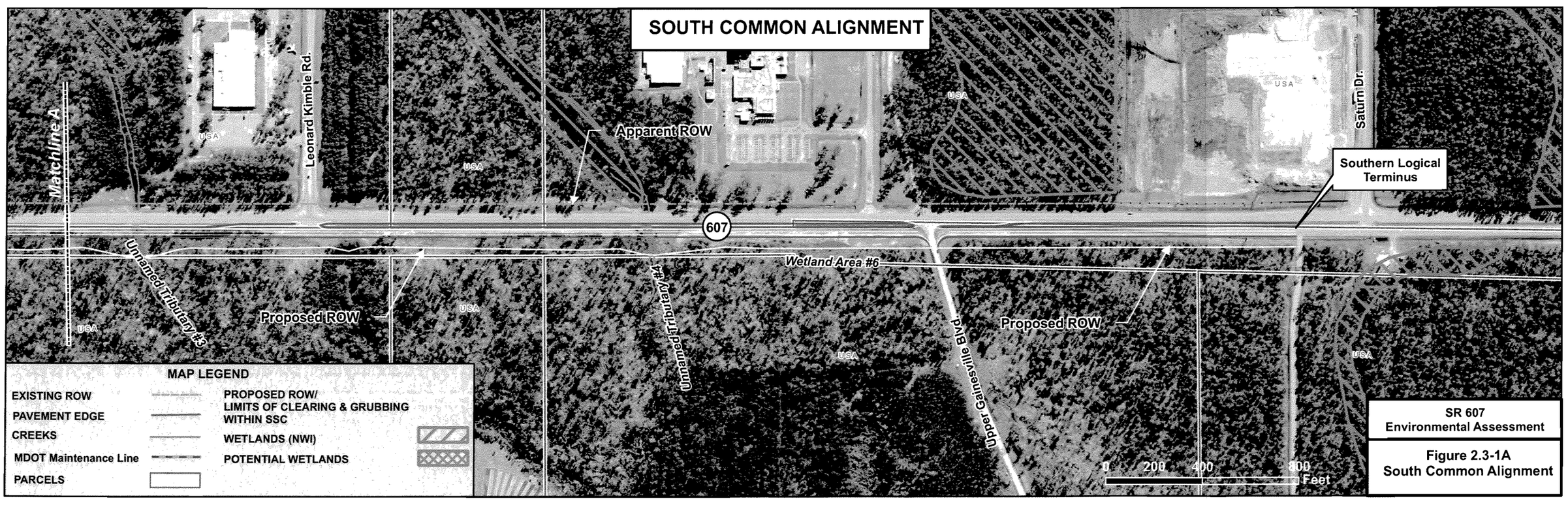

59
Retain Exisitng
2 - Lane Roadway
NS Rail Road
Ridge Rd
MISSISSIPPI
Asa McQueen Rd
Transition
4 - Lane to 2 - Lane
Alligator
Branch
607
Pearl River County
Hancock County
Second Alligator
Branch
Proposed 4 - Lane Roadway with
101' Median; Widening to the East
State Highway 607
Ridge Rd
607
LOUISIANA
Match Line See Figure 2.2-1
Tier I Alternatives (South-Common Alignment)
Texas Flat Rd
Old US Hwy 11
SR 607
Environmental Assessment
Figure 2.2-5
Tier I Alternatives
Alternative 3 (North)
N
W
E
S
0
0.1
0.2
Miles
Map Legend
MDOT Maintenance Line
NS Railroad
Alternative 3
Fee Area/Federal Lands


59
Retain Exisitng
2 - Lane Roadway
Alligator
Branch
Asa McQueen Rd
NS Rail Road
Ridge Rd
MISSISSIPPI
607
Transition
4 - Lane to 2 - Lane
Pearl River County
Hancock County
Second Alligator
Branch
Proposed 4 - Lane Roadway with
101' Median; Widening to the West
State Highway 607
Ridge Rd
607
LOUISIANA
Match Line See Figure 2.2-1
Tier I Alternatives (South-Common Alignment)
Texas Flat Rd
Old US Hwy 11
SR 607
Environmental Assessment
Figure 2.2-6
Tier I Alternatives
Alternative 4 (North)
N
W
E
S
0
0.1
0.2
Miles
Map Legend
MDOT Maintenance Line
NS Railroad
Alternative 4
Fee Area/Federal Lands

SOUTH COMMON ALIGNMENT



SOUTH COMMON ALIGNMENT

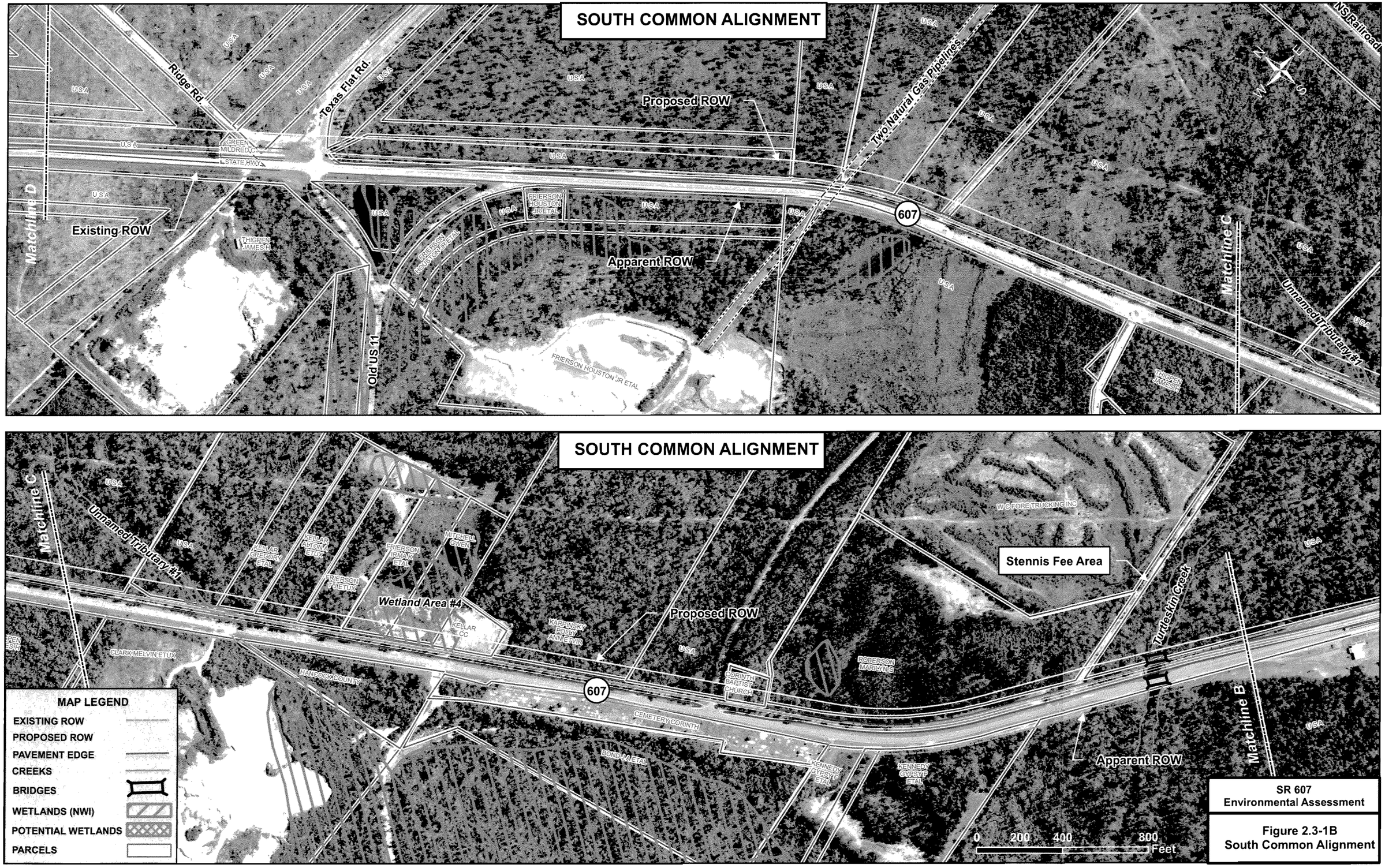


MAP LEGEND

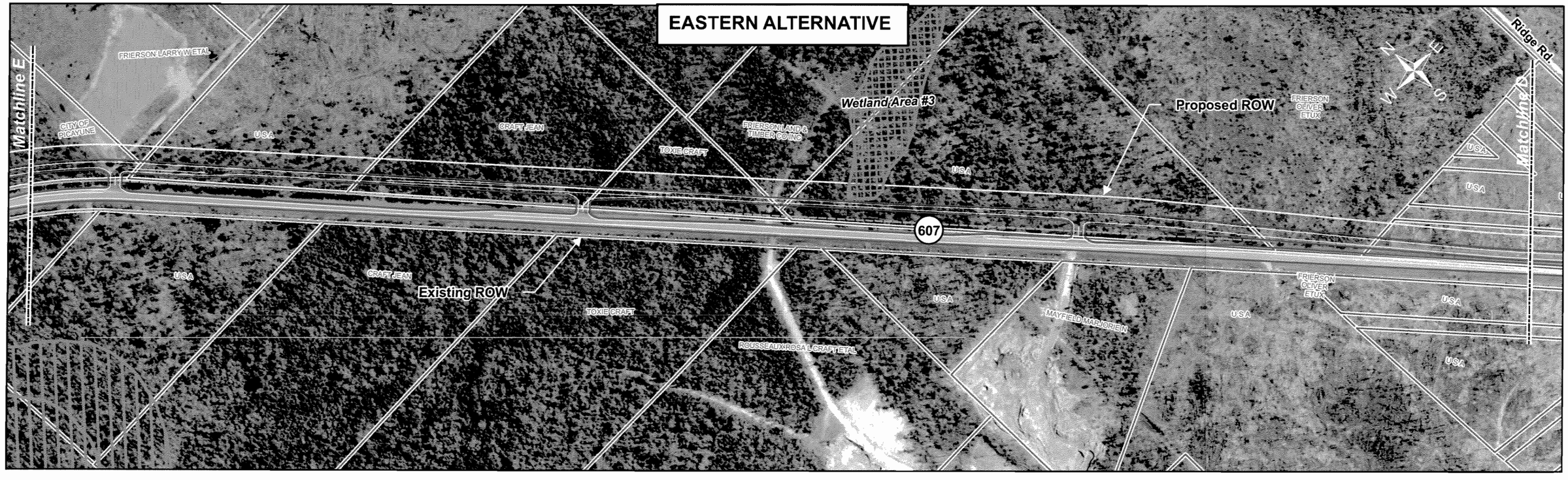
EXISTING ROW	PROPOSED ROW/ LIMITS OF CLEARING & GRUBBING WITHIN SSC
PAVEMENT EDGE	WETLANDS (NWI)
CREEKS	POTENTIAL WETLANDS
MDOT Maintenance Line	
PARCELS	

SR 607
Environmental Assessment

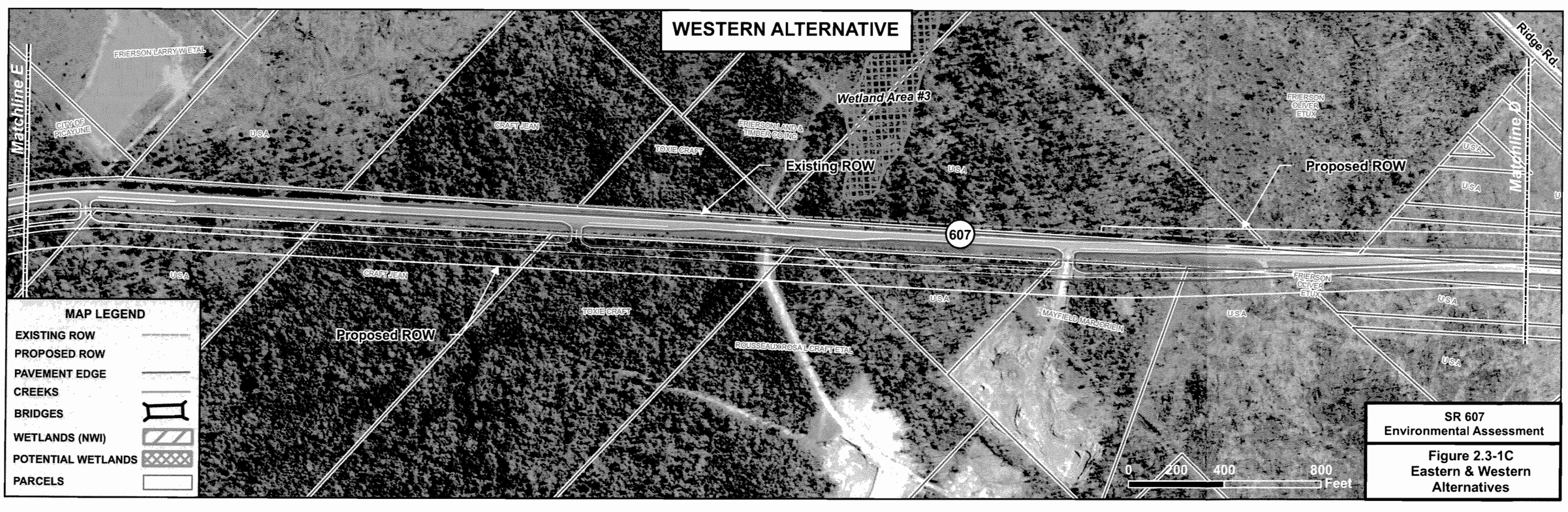
Figure 2.3-1A
South Common Alignment


SOUTH COMMON ALIGNMENT
Ridge Rd.
Texas Flat Rd.
Proposed ROW
Two Natural Gas Pipelines
NS Railroad
Matchline D
Existing ROW
Apparent ROW
607
Old US 11
Matchline C
Unnamed Tributary #1
SOUTH COMMON ALIGNMENT
Matchline C
Unnamed Tributary #1
Wetland Area #4
Proposed ROW
Stennis Fee Area
Turtleskin Creek
Matchline B
Apparent ROW
607
HANCOCK COUNTY
CEMETERY CORINTH
MAP LEGEND
EXISTING ROW
PROPOSED ROW
PAVEMENT EDGE
CREEKS
BRIDGES
WETLANDS (NWI)
POTENTIAL WETLANDS
PARCELS
0 200 400 800
Feet
SR 607
Environmental Assessment
Figure 2.3-1B
South Common Alignment

EASTERN ALTERNATIVE



WESTERN ALTERNATIVE



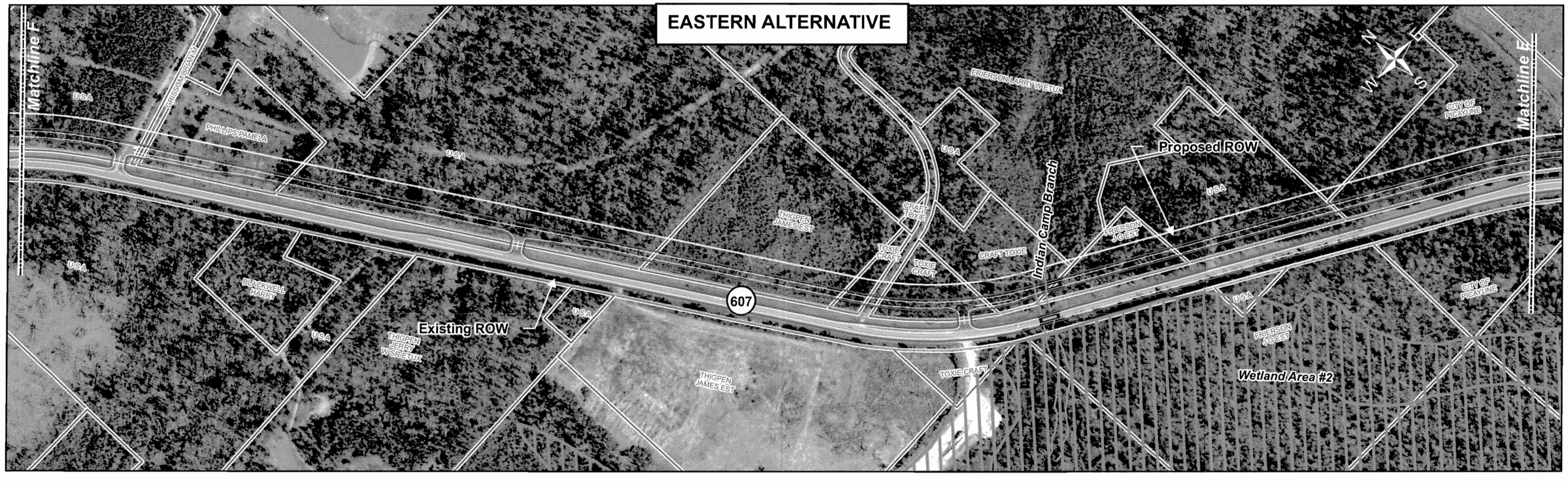
MAP LEGEND

- EXISTING ROW
- PROPOSED ROW
- PAVEMENT EDGE
- CREEKS
- BRIDGES
- WETLANDS (NWI)
- POTENTIAL WETLANDS
- PARCELS

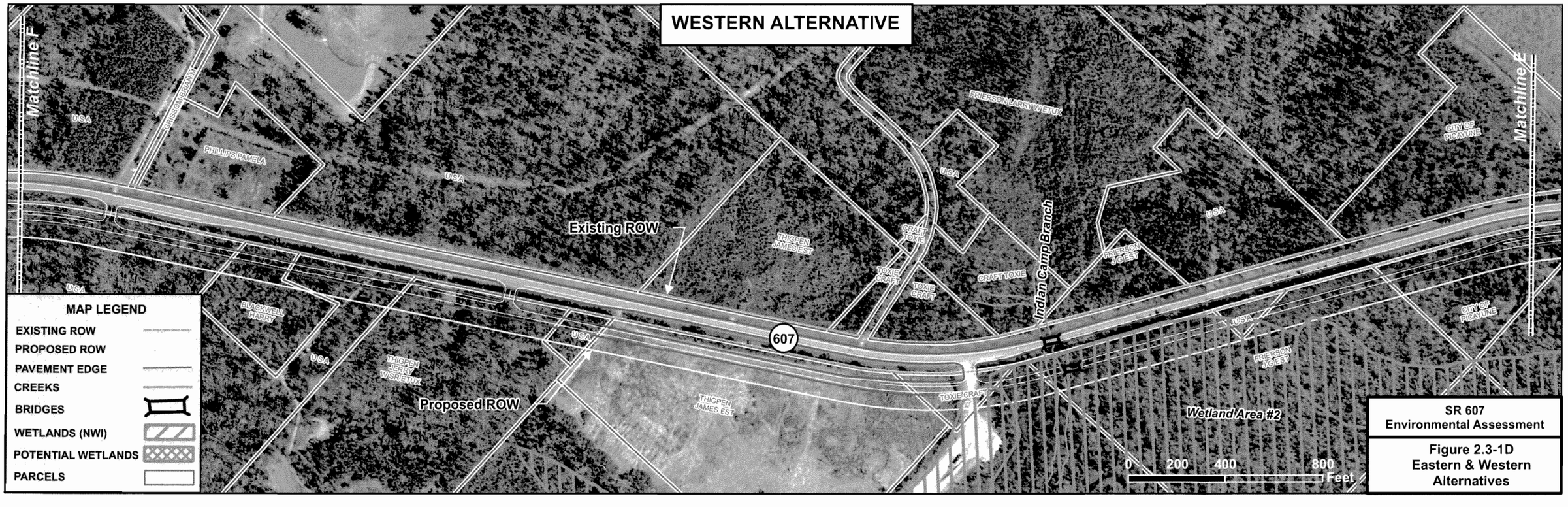
SR 607
Environmental Assessment

Figure 2.3-1C
Eastern & Western Alternatives

EASTERN ALTERNATIVE



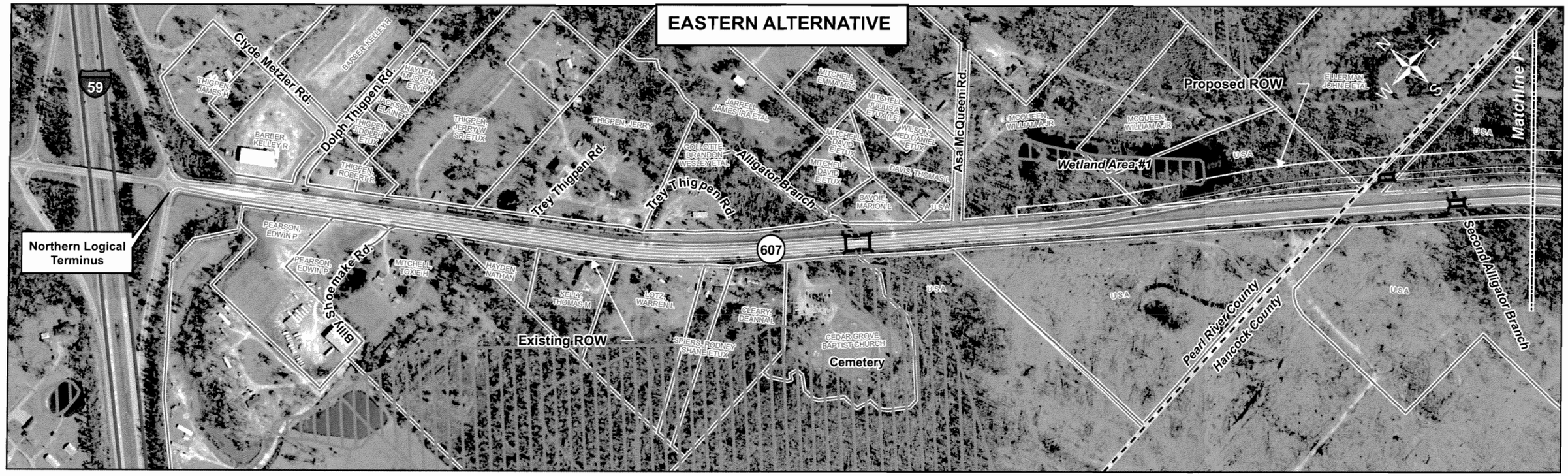
WESTERN ALTERNATIVE



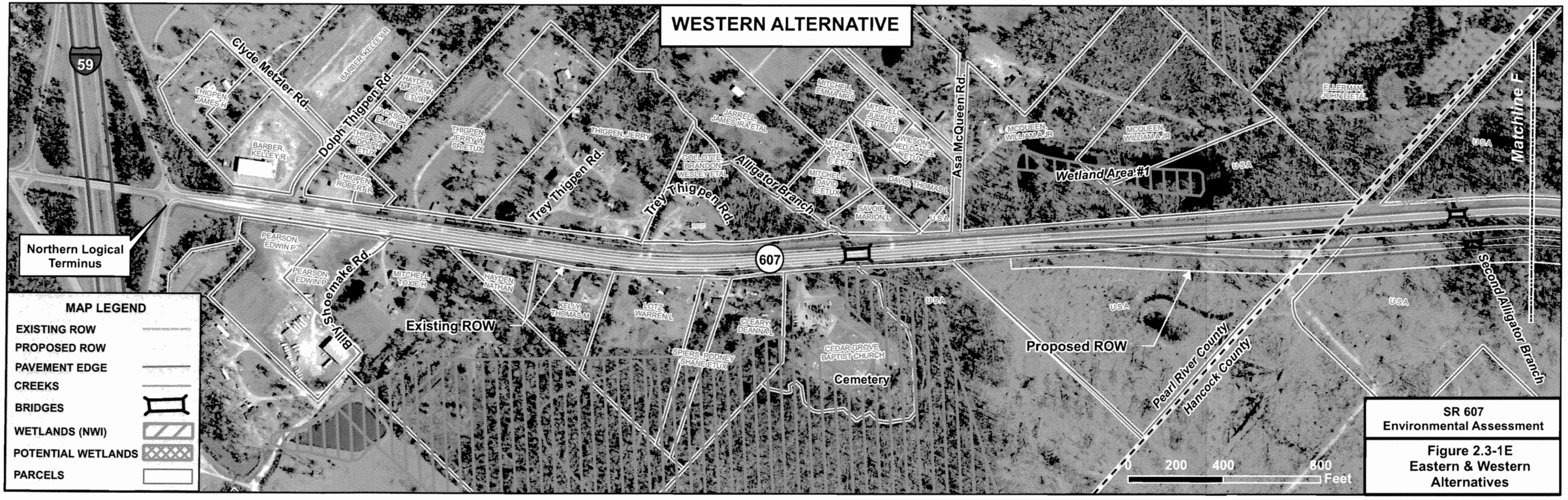
SR 607
Environmental Assessment

Figure 2.3-1D
Eastern & Western
Alternatives

EASTERN ALTERNATIVE



WESTERN ALTERNATIVE



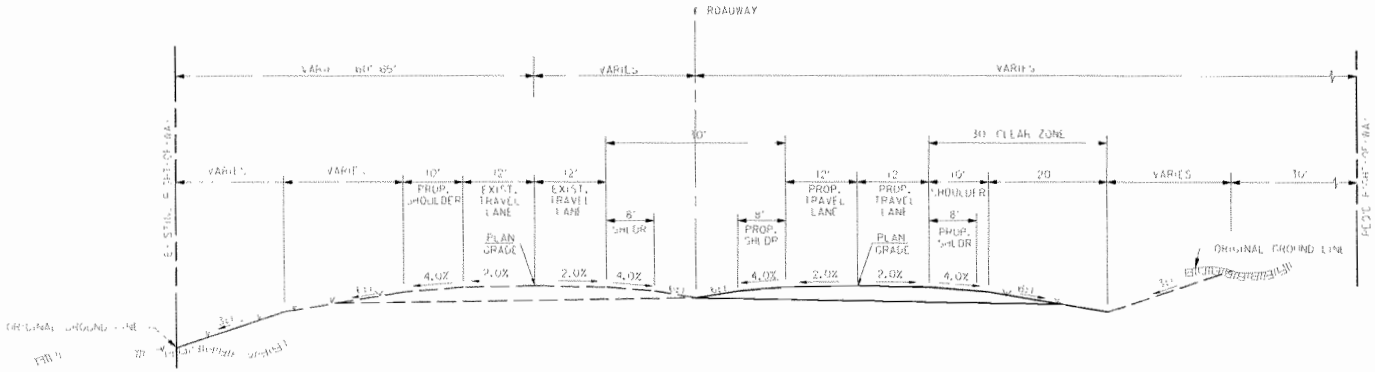
MAP LEGEND

- EXISTING ROW
- PROPOSED ROW
- PAVEMENT EDGE
- CREEKS
- BRIDGES
- WETLANDS (NWI)
- POTENTIAL WETLANDS
- PARCELS

SR 607
Environmental Assessment

Figure 2.3-1E
Eastern & Western Alternatives

COLLECTOR ROADS:
DESIGN SPEED 65 MPH

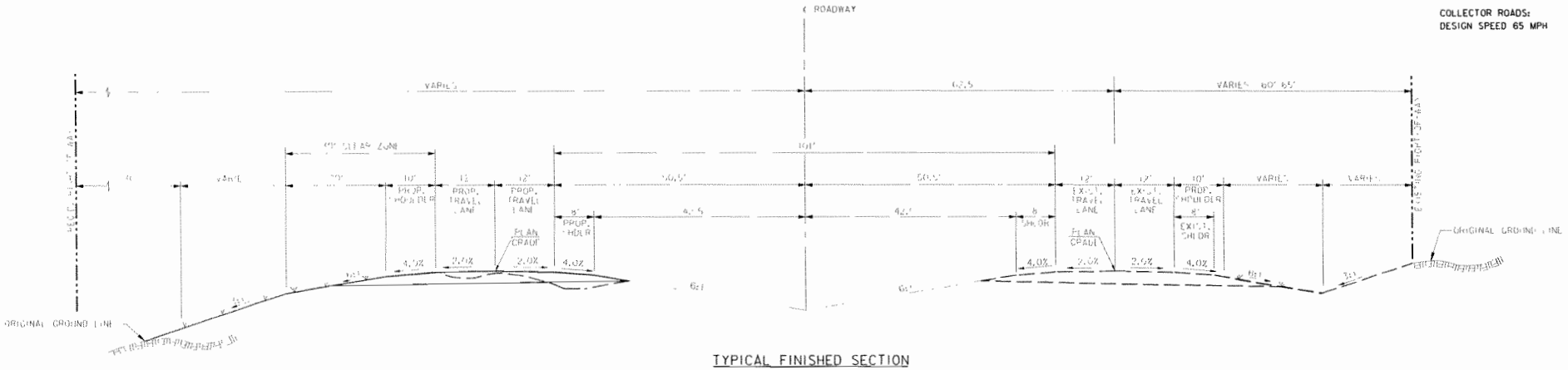


TYPICAL FINISHED SECTION
WIDENING TO THE EAST
N.T.S.

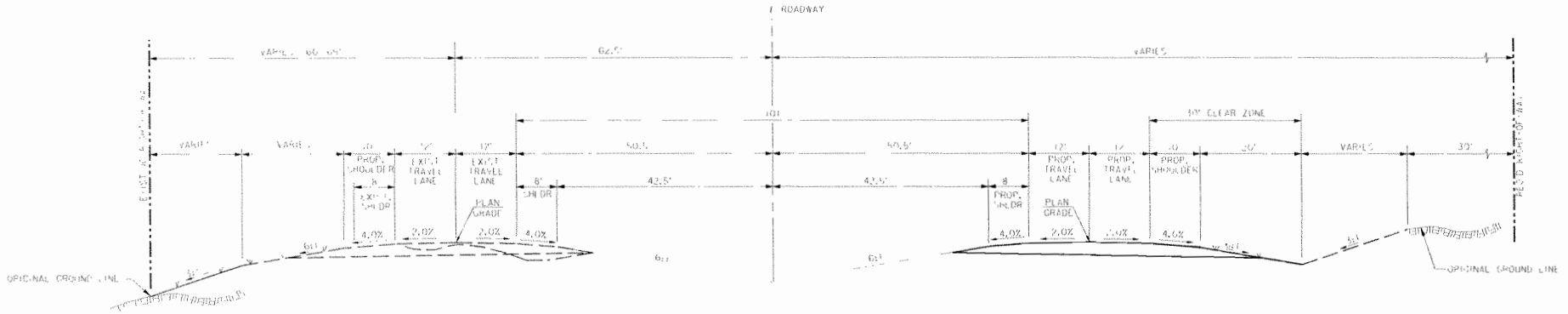
SR 607
Environmental Assessment

FIGURE 2.5-1
TYPICAL SECTION
4-LANE DIVIDED WITH
30-FOOT MEDIAN

COLLECTOR ROADS:
DESIGN SPEED 65 MPH



TYPICAL FINISHED SECTION
WIDENING TO THE WEST
N.T.S.

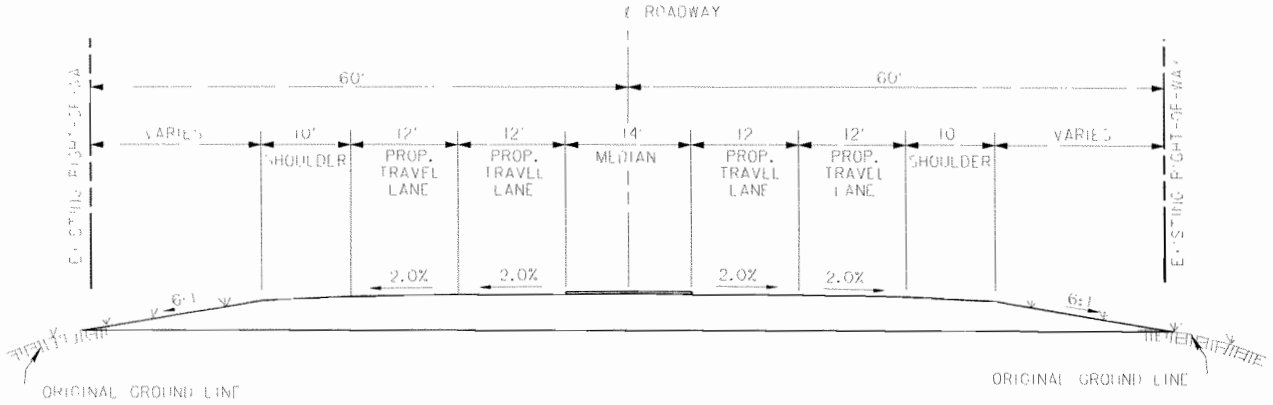


TYPICAL FINISHED SECTION
WIDENING TO THE EAST
N.T.S.

SR 607
Environmental Assessment

FIGURE 2.5-2
TYPICAL SECTION
4-LANE DIVIDED WITH
101-FOOT MEDIAN

COLLECTOR ROADS:
DESIGN SPEED 65 MPH



5-LANE TYPICAL SECTION

N.T.S.

SR 607
Environmental Assessment

FIGURE 2.5-3
TYPICAL SECTION
5-LANE

CHAPTER 3.0

3.0 SOCIAL AND LAND USE IMPACT ANALYSIS

3.1 Demographic Overview

This section provides a demographic overview for the SR 607 study area. In this report, the "SR 607 project area" refers to the area adjacent to existing SR 607 between Saturn Drive and I-59. The term "study area" refers to the two-county region in which the proposed project is located.

3.1.1 Existing and Projected Population

Existing Population

Southern Mississippi has experienced changes in population following Hurricane Katrina in 2005. The U.S. Census Bureau has developed special population estimates to provide indications of the impacts of Hurricane Katrina on the population size of the impacted counties. The special population estimates were derived from the Census Bureau's extrapolated household population estimates for January 1, 2006 (based on previous sample data and not considering the impact of the hurricane) combined with cumulative net migration estimates as of January 1, 2006, derived from a special Hurricane Katrina Change of Address File from the U.S. Postal Service (USPS). Due to the unique methodology employed to extrapolate these data, they are not as statistically reliable as decennial census data. However, these estimates do provide an indication of population shifts in the project area. **Table 3.1-1** provides estimates for the population of Pearl River and Hancock Counties, prior and subsequent to Hurricane Katrina.

Table 3.1-1
Population Estimates

Place	Population		Percent Change July-January
	July 2005	January 2006	
Pearl River County	51,913	55,719	+7.3%
Hancock County	46,240	35,129	-24.0%

Source: U.S. Census Bureau, "Special Population Estimates for Impacted Counties in the Gulf Coast Area."

The population of Mississippi and the counties in the study area increased between 1990 and 2000, as shown in **Table 3.1-2**.

Table 3.1-2
Population: 1990-2000

Place	Population		Percent Change 1990-2000
	1990	2000	
Mississippi	2,573,216	2,844,658	+10.6%
Pearl River County	38,714	48,621	+25.6%
Hancock County	31,760	42,967	+35.3%

Source: U.S. Census Bureau, Summary Tape File 1 (STF 1) 1990 and 2000, Table P0001

Note that the estimated populations for Pearl River County in July 2005 and January 2006 show a significant increase from the 2000 decennial census data. In July 2005, it is estimated that the population of Pearl River County had increased by 3,292 persons, or 6.7% compared to 2000 census data. Following Hurricane Katrina, in January 2006, it is estimated that the population of Pearl River County had increased by another 3,806 persons. The estimated population growth in Pearl River County between 2000 and 2006 is 7,098 persons, representing a 14.6% change.

The population growth in Pearl River County can be explained by a number of factors. Prior to Hurricane Katrina, the county experienced rapid development due to inexpensive land and proximity to major employment centers. Following Hurricane Katrina, many residents of coastal Mississippi and the New Orleans area relocated to Pearl River County, due to its location further inland.

Conversely, these factors explain the population decline in Hancock County between 2000 and 2006. The cost of real estate in Hancock County prior to Hurricane Katrina was high compared to Pearl River County, particularly in areas adjacent to the coast. Hurricane Katrina made direct landfall in Hancock County, causing unprecedented destruction to homes and infrastructure, particularly along the coast.

Minority population trends between 1990 and 2000 for the state and Pearl River and Hancock Counties are shown in **Table 3.1-3**.

Table 3.1-3
Minority[1] Population: 1990-2000

Area	Total Population		Minority Population		Percent Minority	
	1990	2000	1990	2000[2]	1990	2000
Mississippi	2,573,216	2,844,658	939,755	1,116,750	36.5%	39.3%
Pearl River County	38,714	48,621	6,088	7,523	15.7%	15.5%
Hancock County	31,760	42,967	3,764	4,597	11.9%	10.7%

Notes:
1 Includes non-white persons and persons of Hispanic origin (white or non-white)
2 Minority population from the 2000 Census include persons of two or more races.
Source: U.S. Census Bureau SF1 100 Percent Data, 1990 and 2000.

In 1990, the percentage of minority persons in Pearl River and Hancock Counties was considerably less than the statewide percentage. In 2000, the minority population in Pearl River and Hancock Counties increased in number, but slightly decreased in terms of percentage.

Projected Population

Population projections for the state of Mississippi were developed in April 2005 by the U.S. Census Bureau using the cohort-component projection method. This method considers fertility, mortality, and net migration for each cohort group (persons born in the same time period). The projected population for the state of Mississippi in 2030 is 3,092,410 persons, representing an 8.7% increase between 2000 and 2030.

The Draft *Preserving a Sense of Place: Pearl River County Smart Growth Plan Land Use Plan* was developed in 2007 to respond to the significant population growth in Pearl River County. In the Draft *Preserving a Sense of Place: Pearl River County Smart Growth Plan Land Use Plan*

(CDM, 2007), population estimates were developed separately for the individual census tracts in Pearl River County, and it is projected that the greatest growth will occur in the southern portion of the county. Continued rapid growth is projected for Pearl River County as shown in **Table 3.1.4**.

Table 3.1-4
Population Estimates and Projections: 2005-2025

	2005	2010	2015	2020	2025
Estimated / Projected Population	51,809	67,624	76,511	83,649	91,454

Source: Draft Preserving a Sense of Place: Pearl River County Smart Growth Plan Land Use Plan, CDM, 2007

The Hancock County Planning Commission, in cooperation with the Gulf Regional Planning Commission (GRPC), is currently developing the *Committee Draft Hancock County Mississippi Comprehensive Plan*. The Hancock County Planning Commission presented a demographic overview of Hancock County in January 2007. In this presentation, the projected 2030 population of Hancock County was 78,269 persons. This estimate assumes growth similar to that expected in Pearl River County, and is significantly greater than the projected statewide growth rate of 8.7%. A more conservative estimate for the Hancock County population using the statewide average projected growth between 2000 and 2030 would project a population of 50,262 persons in 2030.

3.1.2 Income and Households

The percent of the population below the poverty level in Mississippi and Pearl River and Hancock Counties are shown in **Table 3.1-5** for 1990 and 2000.

Table 3.1-5
Poverty Status: 1990-2000

Area	Total Population[1]		Below the Poverty Level[2]		Percent of Population Below the Poverty Level	
	1990	2000	1990	2000	1990	2000
Mississippi	2,502,902	2,750,677	631,029	548,079	25.2%	19.9%
Pearl River County	38,714	48,621	8,155	8,800	21.1%	18.1%
Hancock County	31,760	42,967	7,061	6,137	22.2%	14.3%

Notes:
1 Total population of persons for whom poverty status was determined.
2 Poverty level thresholds vary between family size and composition. Poverty level data was based on 1989 data for the 1990 Census and 1999 data for the 2000 Census.

Source: U.S. Census Bureau SF3 Sample Data, 1990 and 2000.

Approximately twenty percent (19.9%) of the population of Mississippi in 2000 were below the poverty level. In 2000, the percentage of the population below the poverty level was 14.3% in Hancock County and 18.1% in Pearl River County. Both of these figures are less than the statewide percentage. From 1990 to 2000, the percent of persons below the poverty level decreased statewide and in Pearl River and Hancock Counties.

Median household income is also an indicator of economic conditions. Median household incomes throughout the state and in the study area are shown in **Table 3.1-6**.

Table 3.1-6
Median Household Income: 1990-2000

Area	1990	2000
Mississippi	$20,136	$31,330
Pearl River County	$20,133	$30,912
Hancock County	$20,720	$35,202

Source: U.S. Census Bureau SF3 Sample Data, 1990 and 2000, based on income data for 1989 and 1999.

In the 1990 Census, median household income in Pearl River and Hancock Counties were very similar to the statewide median household income. In 2000, the median household income of Hancock County was greater than the statewide figure, and median household income in Pearl River County was slightly less than the statewide median.

Unemployment rates in Pearl River and Hancock Counties were 5.9% and 4.8%, respectively in February 2008 (Mississippi Department of Employment Security 2008). **Table 3.1-7** provides labor statistics for the study area. The labor force includes the civilian non-institutional population that is employed or unemployed and actively seeking employment.

Table 3.1-7
Labor Statistics February 2008

County	Labor Force	Employed	Unemployment	
			Number	Rate
Pearl River County	21,500	20,230	1,270	5.9
Hancock County	19,010	18,100	910	4.8

Source: Mississippi Department of Employment Security

Table 3.1-8 provides labor statistics for 2005 by the North American Industry Classification System (NAICS) sector for the study area and the United States. As shown in **Table 3.1-8**, Pearl River County had a higher percentage of persons employed in farming, construction, retail trade, other services, and government and government enterprises than the United States as a whole. Hancock County had a higher percentage of persons employed in construction, professional and technical services, accommodation and food services, other services and government and government enterprises than the United States as a whole. The location of SSC in the project area is likely to contribute to the higher percentage (20.10%) of persons employed in government and government enterprises.

Table 3.1-8
Employment by NAICS Sector 2005
United States, Pearl River County and Hancock County

Industry	United States	Percent of Total	Pearl River County	Percent of Total	Hancock County	Percent of Total
Total employment	174,249,600	100.00%	17,156	100.00%	22,091	100.00%
Farm employment	2,914,000	1.67%	844	**4.92%**	324	1.47%
Forestry, fishing, related activities, and other	1,012,200	0.58%	(1)	(1)	293	1.33%
Mining	820,000	0.47%	(1)	(1)	77	0.35%
Utilities	594,100	0.34%	73	0.43%	116	0.53%
Construction	10,845,700	6.22%	2,025	11.80%	1,969	8.91%
Manufacturing	14,860,900	8.53%	815	4.75%	1,102	4.99%
Wholesale trade	6,401,300	3.67%	275	1.60%	219	0.99%
Retail trade	18,941,100	10.87%	2,657	15.49%	2,005	9.08%
Transportation and warehousing	5,510,100	3.16%	484	2.82%	465	2.10%
Information	3,557,100	2.04%	214	1.25%	143	0.65%
Finance and insurance	8,186,600	4.70%	546	3.18%	547	2.48%
Real estate and rental and leasing	6,934,300	3.98%	607	3.54%	1,226	5.55%
Professional and technical services	11,488,700	6.59%	629	3.67%	1,934	8.75%
Management of companies and enterprises	1,857,000	1.07%	(1)	(1)	(1)	(1)
Administrative and waste services	10,645,100	6.11%	649	3.78%	(1)	(1)
Educational services	3,552,900	2.04%	(1)	(1)	229	1.04%
Health care and social assistance	17,267,000	9.91%	(1)	(1)	997	4.51%
Arts, entertainment, and recreation	3,552,900	2.04%	174	1.01%	750	3.40%
Accommodation and food services	11,728,300	6.73%	1,115	6.50%	2,026	9.17%
Other services, except public administration	9,758,900	5.60%	1,425	8.31%	1,353	6.12%
Government and government enterprises	23,837,000	13.68%	3,207	18.69%	4,440	20.10%

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System
Notes:
1 The number of persons employed in these fields is either zero or too few to disclose due to privacy concerns.

Industries where the percentage of employment is considerably greater in Hancock and Pearl River Counties than the percentage of employment for the nation as a whole are highlighted. One of the major differences between the employment composition of Hancock and Pearl River Counties and the nation is the percentage of persons employed in government and government

enterprises, 20.10% and 18.69% respectively, compared to 13.68%. This is likely due in part to the location of SSC in the project area.

Table 3.1-8 also can be used to determine which industries are merely meeting local demand, and which industries are producing goods and services for export markets. Whether an industry is basic (goods and services produced for export) or non-basic (just meeting or not meeting local demand) is determined through the calculation of location quotients. Location quotients are calculated by comparing the proportion of persons employed by an industry in the local economy with the national economy.

Pearl River County has few basic industries: farm employment, utilities, construction, retail trade, other services excluding public administration, and government enterprises. Hancock County has more basic industries than Pearl River County, including: forestry, fishing, and related activities; utilities; construction, real estate and rental leasing; professional and technical services; arts, entertainment, and recreation; accommodation and food services; other services excluding public administration; and government and government enterprises.

3.1.3 Demographic Impacts

No-Build Alternative

The No-Build Alternative would not impact the demographic structure of the study area. Rapid population growth in Pearl River County is anticipated to occur and would be unaffected by the No-Build Alternative.

Build Alternatives

The proposed build alternatives are not anticipated to have any impacts to the demographic composition of the study area. The proposed widening of SR 607 would accommodate additional traffic between SSC and southern Pearl River County, which is projected to experience rapid population growth. Although the proposed build alternatives are not anticipated to affect demographic changes in the project area, the implementation of the proposed action would accommodate demographic changes project to occur independently of the project.

3.1.4 Employment and Income Pattern Impacts

No-Build Alternative

The No-Build Alternative would have a negative impact to the employment and income patterns in the study area. Projected increases in employment at SSC may result in delays on SR 607 due to increased traffic volumes. The No-Build Alternative would not provide improved access to employment opportunities at SSC.

Build Alternatives

The proposed build alternatives would have positive impacts to the employment and income patterns of the study area. The proposed widening of SR 607 would accommodate additional traffic between SSC and southern Pearl River County, which is projected to experience rapid growth.

3.2 Consistency with Land Use, Comprehensive Plans and Zoning

3.2.1 Existing Zoning Regulations and Land Use

Existing land use in the Hancock County portion of the project area consists of primarily open space. There are a few SSC-related institutional/government uses directly abutting SR 607 between Saturn Drive and the North Security Gate. The Corinth Cemetery is located just north of the North Security Gate. North of Texas Flat Road, few commercial and industrial uses exist along SR 607 and include gravel pit / mining operations.

In the Pearl River County portion of the project area, existing land use is primarily rural residential. A church and cemetery are located on the west side of SR 607 just north of Asa McQueen Road. In the vicinity of the I-59 / SR 607 Interchange there are commercial and light industrial uses.

Within the SSC Buffer Zone, there is a perpetual restrictive agreement prohibiting the construction of buildings suitable for human habitation. Land use within the Buffer Zone in both Hancock and Pearl River Counties consists of sand and gravel mining, forestry, animal husbandry, hunting, and fishing.

Hancock County is currently developing a new Comprehensive Plan. The most recent adopted comprehensive plan for Hancock County was developed in 1991. Hancock County adopted a zoning ordinance and map in accordance with this plan in 1997. A draft comprehensive plan for Hancock County has been published for comment, and public meetings regarding the document have been conducted.

The *Committee Draft Hancock County Mississippi Comprehensive Plan* includes goals and objectives including:

- To preserve the small town character and identity of the cities and communities in Hancock County.
- To maintain or improve the quality of Hancock County's natural resources.
- To protect sensitive floodplains, wetlands and wildlife habitat from inappropriate development.
- To protect people, property and water quality by limiting inappropriate development in floodplains and wetlands.
- To promote a healthy, sustainable, balanced economy that capitalizes on the community's natural, recreational, cultural and human resources.
- To maintain a wide variety of tourism attractions, including high-tech attractions, gaming, unspoiled beaches, natural resources-based tourism, and social, cultural and historic tourism.
- To retain existing businesses as vibrant part of the economy.
- To keep communities in Hancock County viable.
- To develop a coordinated growth management strategy in conjunction with Bay St. Louis and Waveland.

- To maintain and enhance the diverse, small town charm of the County's communities as they recover (from Hurricane Katrina), while preserving the character of rural areas and integrity of natural resources.
- To have affordable housing choices that serve residents of all ages, from young working families through senior citizens.
- To rebuild and grow in a manner consistent with the diverse historic forms (e.g., single family homes, garden homes, townhomes, apartments, etc.) of Hancock County.
- To maintain a transportation system that safely and efficiently meets the needs of residents, businesses and visitors.
- To coordinate growth decisions with the provision of infrastructure.
- To provide safe drinking water for every citizen in Hancock County.
- To maintain reliable, secure emergency services.
- To ensure the public's safety.
- To provide high quality educational opportunities for residents of all ages.
- To establish and maintain a coordinated county-wide parks and recreation system that serves all residents and attracts tourists.
- To maintain a high quality library system that serves all ages.
- To secure adequate and reliable funding for public facilities and services.

The Draft *Preserving a Sense of Place: Pearl River County Smart Growth Plan Land Use Plan* was developed in 2007 to respond to the significant population growth in Pearl River County. This plan describes community goals for future growth and implementation techniques. Goals and objectives described in this plan include:

- New development along transportation corridors best suited to sustain growth (Highway 11, Highway 43, and Interstate 59).
- Expansion and creation of new east-west transportation routes.
- Locally appropriate architecture and design.
- Conservation of natural resources.
- Visually attractive communities maintaining rural character and old downtowns.

3.2.2 Consistency with Local Plans and Impacts Related to Land Use

The proposed widening of SR 607 is consistent with the economic, transportation, and public safety goals expressed in the *Committee Draft Hancock County Mississippi Comprehensive Plan.*

The Draft *Preserving a Sense of Place: Pearl River County Smart Growth Plan Land Use Plan* states that a central goal of the Pearl River County planners is the expansion and creation of new east-west transportation routes. The improved access provided by the proposed widening of SR 607 is consistent with this goal.

3.3 Compatibility and Urban Impact

3.3.1 Study Area Characteristics

The study area consists of a small rural residential community in Pearl River County and primarily open space and industrial uses in Hancock County. The residential community in the Nicholson area of Pearl River County consists primarily of single family homes and mobile homes on lots one acre in size or less. Some homes in the area are located on lots larger than one acre.

3.3.2 Impacts of the Project Alternatives

The No-Build Alternative would not be incompatible with the study area or impact the rural residential community in the project area.

The build alternatives would be compatible with the existing community. No impacts to the rural character of the community are anticipated as a result of the implementation of either of the build alternatives.

3.4 Community Facilities and Services

3.4.1 Educational Facilities

Educational facilities in the immediate project area include NASA's StennisSphere. StennisSphere provides over 14,000 square feet of educational exhibits. These exhibits cover a wide range of topics and include: NASA's mission, the history of spacecraft, aeronautics, meteorology, oceanography, coastal ecology, remote sensing, NASA developed technology, and other areas of scientific, cultural, and historical interest.

Nicholson Elementary School is located on Highway 11, north of the project area.

3.4.2 Commercial Facilities

Commercial facilities in the immediate project area include Loan Max, which provides check cashing services and KBR Enterprises, which sells gasoline.

3.4.3 Healthcare Facilities

There are no healthcare facilities in the immediate project area. Health care facilities are located in Picayune to the north of the project area.

3.4.4 Social Services

There are no social service facilities in the immediate project area. Social service facilities are located in Picayune to the north of the project area.

3.4.5 Solid Waste

Solid waste collection in the project area is provided by private contractors. The proposed project is not anticipated to impact the disposal of solid waste in the project area.

3.4.6 Waste Water

The Pearl River County Utility Authority regulates some aspects of site design and water, stormwater, and wastewater systems in Pearl River County.

3.4.7 Storm Water

The Mississippi Department of Environmental Quality (MDEQ) regulates the impact that development can have on hydrological systems. The Mississippi Storm Water Pollution Prevention Plan requires review and approval for construction that may affect water quality.

A National Pollutant Discharge Elimination System (NPDES) Stormwater Permit will be required for the proposed project. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared as part of the requirements for the NPDES Storm Water permit. Best Management Practices to be implemented during construction of the proposed project will be addressed in the SWPPP.

3.4.8 Public Safety

Police

The Pearl River County Sheriff Department provides police services in the Pearl River County portion of the project area. The Hancock County Sheriff Department provides police services in the Hancock County portion of the project area.

Fire

The portion of the project area in Pearl River County is serviced by the Nicholson District of the Pearl River County Volunteer Fire Department. The Nicholson District Volunteer Fire House is located north of the project area in Nicholson.

The Hancock County portion of the project area is serviced by the West Hancock Volunteer Fire Department. The West Hancock Volunteer Fire House is located in Pearlington, south of the project area.

3.4.9 Emergency Medical Services

Emergency Medical Services (EMS) are provided by American Medical Response (AMR) and South MS in Pearl River County. In Hancock County, Mobile Medic provides EMS. Hancock Medical Center, located in Bay St. Louis is a full emergency facility.

3.4.10 Open Space and Recreation

The project area is composed primarily of open space in the Hancock County portion of the project. The community located in the Pearl River County portion of the project area also

includes large amounts of open space, which contributes to its rural character. There are no public recreation facilities located within the project area.

3.5 Displacements, Relocations, and Property Acquisitions

3.5.1 Legal Requirements

Under 49 CFR Part 24, *The Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970* (Public Law 91-646), residents and businesses whose properties are acquired and need to be relocated are eligible not only for compensation of the fair market value of their property, but also costs associated with relocation into a comparable situation.

3.5.2 Business Impacts, Property Acquisition and Displacement Impacts

Right-of-way (ROW) requirements for the proposed build alternatives were analyzed to determine the amount, location and type of property that would need to be acquired to accommodate the proposed build alternatives. For this analysis, it was assumed that all construction would be accomplished within the boundaries of the acquired property and easements or existing public ROW. Properties (structures and land) were identified based on conceptual plans of the proposed alternatives overlain on aerial photographs, field investigations, and GIS databases.

Eastern Alternative

No commercial or residential displacements are required for the implementation of the Eastern Alternative. One auxiliary structure would be impacted by the Eastern Alternative. This structure is a barn that appears to be abandoned. Approximately 27.6 acres of private property will need to be acquired adjacent to the existing SR 607 ROW. An additional 39.78 acres of federal land is required for the Eastern Alternative. The required federal land ROW would be converted to transportation use.

Western Alternative

No commercial or residential displacements are required for the implementation of the Western Alternative. Approximately 32.67 acres of private property will need to be acquired adjacent to the existing SR 607 ROW. An additional 36.97 acres of federal land is required for the Western Alternative. The required federal land ROW would be converted to transportation use.

3.5.3 Mitigation Measures

Loss of private property would be mitigated by payment of fair market compensation and relocation assistance provided for in the federal *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* (Public Law 91-646).

3.6 Visual and Aesthetic Conditions

3.6.1 Visual Environment

The visual environment in the Hancock County portion of the project area consists of wooded areas, a cemetery, gravel pit operations, and logging operations.

In Pearl River County, the visual environment is rural residential, containing homes and wooded areas.

3.6.2 Visual and Aesthetic Impacts

No-Build Alternative

The No-Build Alternative would not impact the visual environment of the study area.

Build Alternatives

The proposed build alternatives would result in slight changes to the visual environment of the study area due to the increased width of the roadway.

3.7 Cultural Resources

A Phase I Cultural Resources Survey was conducted for the proposed widening of SR 607 between I-59 and Saturn Drive in Pearl River and Hancock Counties, Mississippi. The project survey area is a total of 7.8 miles in length. The proposed right-of-way (ROW) width is variable. To facilitate survey, the project area was divided into three survey segments: Northern, Central, and Southern. The proposed ROW in the Northern segment extends 200 feet to either side of SR 607. The proposed ROW in the Central segment extends 100 feet to the east of SR 607. In the Southern segment, the proposed ROW extends 100 feet to the west of SR 607. The purpose of the Phase I survey is to identify archaeological resources, if any, within the project area, make preliminary recommendations regarding any site's eligibility for nomination to the National Register of Historic Places (NRHP), and determine the effects, if any, of the proposed action on those resources. The Phase I survey was conducted in accordance with the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* and the Mississippi Department of Archives and History (MDAH) *Guidelines for Archaeological Investigations and Reports in Mississippi*.

3.7.1 Legal and Regulatory Requirements and Methodology

The Phase I Cultural Resources Survey is required as part of the National Environmental Policy Act (NEPA) documentation process for the proposed undertaking. Under NEPA's requirements (40 CFR 1502.16 [g]) impacts to historic resources must be considered. Also, federal undertakings require Section 106 review pursuant to 36 CFR 800 of the National Historic Preservation Act of 1966, as amended (NHPA).

The cultural resources investigations include comprehensive background research and fieldwork. Background research was undertaken at the MDAH, Jackson, Mississippi, at the Louisiana Divisions of Archaeology and Historic Preservation (LADOA and LADHP), and at the

Louisiana State Library. The cultural resources reports and site files at the MDAH and LADOA were reviewed. Research at LADOA revealed that there has been one previous survey undertaken in Louisiana within one mile of the project area. No sites, standing structures greater than 50 years of age, and no NRHP properties have been recorded in Louisiana within one mile of the project area. Research at MDAH revealed seven previous surveys have been undertaken in Mississippi within one mile of the project area. Also, there have been seven archaeological sites previously recorded surveys in Mississippi within one mile of the project area. All of these sites are considered ineligible for nomination to the NRHP. There are no NRHP properties in Mississippi within one mile of the project area.

In addition, geomorphological data and maps were examined and reviewed. Historical research included a review of available secondary documentation such as local and regional historic archives and records. Background research provides a framework for developing a probability model for site locations in the project area and a context for the evaluation of cultural resources encountered during field investigations.

Based on the landforms, such as ridges, present in the project area, the area is considered high probability for encountering archaeological sites. The survey strategy was developed to insure that all prehistoric and historic cultural resources in the project area would be identified. Survey consists of two parallel transects spaced no more than 30 meters (m) (98.4 ft) apart along each side of the existing SR 607 ROW. Shovel tests were excavated at 30 m (98.4 ft) intervals along each transect. Shovel tests measured approximately 30 centimeters (cm) (11.7 in) in diameter and were excavated to sterile subsoil or a maximum depth of 50 cm below surface (cmbs) (19.7 inbs). Based on the geomorphology of the area, there is no suggestion of deeply buried deposits within the project area, therefore the maximum depth of 50 cmbs (19.7 inbs) is an appropriate survey method. All excavated soils were screened through 0.25 in (0.64 cm) mesh. Soil characteristics and stratigraphic associations were described using standard nomenclature. All shovel tests were backfilled upon completion. No shovel tests were excavated in inundated areas.

Positive shovel tests and any surface scatters of material noted during survey were flagged and treated as potential sites. Site definition consisted of the excavation of additional shovel tests to determine the vertical and horizontal site extent. A positive transect shovel test or the center of the artifact scatter was utilized as datum. Additional tests at 10 m intervals were excavated along two perpendicular lines from datum.

Systematic surface collections within gridded units were made at all sites exhibiting surface scatters. If surface scatters were extensive, all diagnostic artifacts were collected; additionally, a 100 percent collection was made from a 2 m x 2 m square area at each site to address artifact density and distribution between sites. Black and white print, color slide, and digital photographs are taken. Compass and tape site maps were drafted for each site. Site maps include the locations of all shovel tests, the extent of surface scatter, site limits, and any topographic features or landmarks visible. Mississippi State site cards were completed for each site, and the locations of the sites were be marked on the appropriate USGS 7.5' quadrangle. Sites were evaluated as eligible, potentially eligible, or ineligible for nomination to the NRHP.

3.7.2 Inventory of Historic and Archaeological Resources

Based on the results of the background research, **Tables 3.7-1** and **3.7-2** were created to summarize the prehistoric and historic cultural histories of the region. A total of seven archaeological sites, one isolated find, one historic/modern scatter, and one modern dump were recorded and evaluated (**Table 3.7-3**). Six of the archaeological sites, the isolated find, and the modern dump were recorded during the survey of the Northern Segment.

Sites 22HA671, 22HA674, and 22HA675 are prehistoric sites located within the proposed ROW in the Northern segment. Lithic artifacts and a few prehistoric ceramic sherds were recovered from these sites. There is no evidence of intact deposits at sites 22HA674 and 22HA675. These two sites possess no research potential. These two sites are ineligible for nomination to the NRHP and no additional investigations are recommended. Site 22HA671, although previously disturbed by gravel quarrying, does exhibit intact cultural deposits. The site yielded artifacts dating to the Coles Creek-Late Coles Creek period(s). Site 22HA671 is potentially eligible for nomination to the NRHP pending additional investigations at the site. It is recommended that the site be avoided during roadway construction. If the site cannot be avoided, additional investigations (see section 3.7.3) are recommended to explore the site's research potential.

Sites 22HA671-22HA673 and 22HA676 date to the historic period (mid-nineteenth to mid-twentieth centuries). Most of these sites appear to be associated with standing structures mapped on the 1959 USGS *Nicholson* 7.5' quadrangle. None of the structures are extant. There is no evidence of intact deposits within the proposed ROW at any of these historic period sites. These sites do not possess further research potential, and they are considered ineligible for nomination to the NRHP. No additional investigations are recommended. Site 22HA672 does extend an unknown distance outside of the proposed ROW. It is possible that unrecorded, intact deposits associated with the site lie outside of the surveyed ROW. To avoid impacts to unrecorded resources at 22HA672, it is recommended that all phases of highway construction, including heavy equipment storage and utility installation, be confined to the surveyed ROW.

The remaining cultural resources identified during the survey are three historic/modern loci. There is no evidence of intact archaeological deposits at these loci. The loci, by definition, do not possess the qualities required to be sites, therefore, they are not eligible for nomination to the NRHP. No further investigations are recommended at Loci 4, 5, or 11.

Table 3.7-1
Prehistoric Periods in Southwestern Mississippi

Period	Date Range	Culture/Traits
Paleo-Indian and Early Archaic	10,000 B.C.-6000 B.C.	Hunters and gatherers focusing on large mammals (megafauna) in the earlier period and a more diverse resource based, reflected in changing projectile points, in the later period; sites situated on either floodplains or terraces near sizable streams
Middle Archaic	6000 B.C.-3000 B.C.	Hunters and gatherers becoming slightly more sedentary; sites situated on either floodplains or terraces near sizable streams
Late Archaic	3000 B.C.-1200 B.C.	Hunters and gatherers becoming slightly more sedentary; expanding into estuaries and shoreline locations; shell and earth middens more common suggesting increased sedentism or seasonal revisits; expanded tool kit

Table 3.7-1
Prehistoric Periods in Southwestern Mississippi

Period	Date Range	Culture/Traits
		including atlatl weights, stone vessels, and plummets
Middle Gulf Formational	1200 B.C.-500 B.C.	Contemporaneous with the Poverty Point period; florescence of long-distance trade; increased sedentism and construction of oval or horse-shoe shaped mound sites; distinctive baked clay objects; steatite and sandstone vessels; some fiber and sand tempered pottery; hunting and gathering supplemented by local domesticates
Late Gulf Formational	500 B.C.-100 B.C.	Declining Poverty Point influences; wider array of ceramic types; continued hunting and gathering supplemented by local domesticates
Middle Woodland	100 B.C-A.D. 500	Equated with the Marksville culture; continued sedentism, hunting and gathering supplemented by local crops; conical burial mounds with exotic grave goods; distinctive pottery types; part of the Hopewellian Interaction Sphere with culture groups in the Ohio and Illinois River Valleys; Issaquena culture during the late Marksville period
Late Woodland	A.D. 500-A.D. 1200	Equated with the Troyville period/culture (A.D. 500-A.D. 700); large regional mound centers; possible increase in social status differentiation, although no evidence of hierarchy among sites; population growth; distinctive pottery types; hunting and gathering supplemented by local plants
	A.D. 700-A.D. 1200	Equated with the Cole Creek period/culture (A.D. 700-A.D. 1200); small ceremonial centers surrounded by variously sized villages and hamlets; no evidence of hierarch among sites; mounds flat-topped and pyramidal rather than conical, and mounds supported religious or civic buildings; distinctive pottery types; continued hunting and gathering supplemented with local plants, some evidence for the use of squash and maize
Mississippi	A.D. 1200-A.D. 1700	Definite evidence of ranked, chiefdom-level political organization; hierarchy among mound sites; palisaded sites; reliance on domesticated food crops such as maize, beans, and squash, supplemented by hunting and fishing; distinctive shell-tempered pottery; Plaquemine culture defined prior to contact with Europeans

Table 3.7-2
Summary of Hancock County History

Period	Date Range	Comment
Colonial	1699-1810	April 1699, d'Iberville established Fort Maurepas on Biloxi Bay (at modern Ocean Springs), the capital of Louisiana and the first permanent European settlement on the coast of what is now Mississippi; a smaller settlement followed in December 1699 at Bay St. Louis
	1717-1721	Large land grants were made by John Law's Western or Mississippi Company along what later became the Mississippi Gulf Coast; Law's company, sometimes called "the Mississippi Bubble," imploded from its marginal financing and the rampant speculation it fueled in France; French settlement restricted to the coast and larger rivers
	1763	Under terms of the Treaty of Paris the area between the Perdido River and the Mississippi River (formerly part of Louisiana and including what is now southern Mississippi) became British West Florida
	1783	Spain gains control of West Florida and encourages settlement to restrict the influx of Anglo-Americans into the region
	1800	Spain retrocedes Louisiana to France; France assumes this includes West Florida, Spain disagrees

Table 3.7-2
Summary of Hancock County History

Period	Date Range	Comment
	1803	Louisiana Purchase; United States purchases all of Louisiana from France; France includes West Florida in the purchase; Spain disputes U.S. claims to West Florida
U.S. Territory	1810-1817	Spain maintains weak governmental control of West Florida; Anglo-Americans continue to settle in the region; communities of Pearlington and Gainesville are established on earlier colonial tracts; Bay St. Louis becomes a resort area for New Orleans' citizens
	1810	West Florida insurrectionists rebel against Spain, declare West Florida a free country, and petition for incorporation into the United States
	1811	Louisiana territorial governor creates two parishes in West Florida: Biloxi Parish and Pascagoula Parish
	1812	United States congressional act incorporates the area east of the Pearl River, west of the Perdido River, and south of the 31st degree of latitude into the Mississippi Territory; panhandle was divided into two counties: Hancock County, with its seat at Center, and Jackson County, with its seat at Scranton (later incorporated into Pascagoula); the first Hancock County included all of Pearl River, Harrison, and Stone counties and substantial parts of Forrest, Lamar, and Perry counties
	1812	U.S. declares war on Great Britain initiating the War of 1812; U.S. military anticipates attacks on New Orleans and/or Mobile and moves troops and a small naval fleet to the Mississippi Gulf Coast
	1815	British defeated at Chalmette, technically after the war was over with the signing of the Trenty of Ghent; U.S. control of the northern Gulf Coast accomplished
	1817	Mississippi becomes a state
Antebellum	1817-1860	Mississippi experiences dramatic growth and development; unlike the cotton belt, Hancock County and its neighboring coastline districts developed a varied commercial base composed of a summer resort-service industry, logging and sawmills, and a variety of maritime-related businesses such as naval supplies, shipbuilding and repairs and transportation
	1818	Town of Bay St. Louis incorporated as Shieldsboro and that name is used formally until 1875, although the French colonials continue to use Bay St. Louis; Shieldsboro/Bay St. Louis continues to grow as a resort community
	1837	Gainesville made the new county seat over Center (modern Caesar)
	1840s	Logging and timber industry established as major economic endeavors with at least 10 saw mills in Hancock County alone; slave labor used in timber industry as well as in agriculture
	1841	Harrison county created from parts of Hancock and Jackson counties
Civil War and Reconstruction	1860-1879	Hancock County citizens were not rabid secessionists and many citizens did not join the armed forces although the county dutifully raised several companies of volunteers for the Confederacy, including the Shieldsboro Rifles, the Hancock Rebels, and the Gainesville Volunteers
	1861	Federal troops massed in the Mississippi Sound in preparation to take New Orleans; established rigid blockade on all Southern ports
	1862	New Orleans falls to U.S. troops, and U.S. gains control of the lower Mississippi River and most of the Gulf Coast shipping lanes; blockades remain in effect and coastal towns suffer from loss of trade and food shortages; blockade running rampant but mostly small scale

Table 3.7-2
Summary of Hancock County History

Period	Date Range	Comment
Civil War and Reconstruction	1865	Civil War ends; Hancock County intact but without money, resources, or many of its prewar workers
	1865-1879	lumber/timber industry and resort status resurge with aid of railroads
	1867	Shieldsboro made the new county seat
	1872	Pearl River County created from the northern half of Hancock County
	1875	City Council changes Shieldsboro back to Bay St. Louis
	1877	Pearl River County rejoins Hancock County
Late Nineteenth Century	1879-1900	railroad construction continues; timber industry continues; resort communities boom
	1890	Pearl River County is recreated from the northern half of Hancock County
Twentieth Century	1901-2000	Hancock County lumber was the area's economic mainstay; Bay St. Louis's reputation as a summer resort and year-round community of gentility and cultivation continues, enhanced by developments such as the establishment of an opera house (1904), a theater building (1906)
	1926	bridge across the bay was opened to automobile traffic
	1930s	the Great Depression brings an end to the timber boom
	1940s	World War II brought increased prosperity to the area with its large number of nearby military bases, servicemen, and the need for supplies
	1947	unnamed hurricane swamped the Mississippi Gulf coast, washing away bridges, wharves, boats, and houses
	1960s	National Aeronautics and Space Administration's (NASA) rocket-testing facility is built in Hancock County; massive installation turns a large chunk of western Hancock County into a limited-access federal zone; the old communities of Gainesville, Logtown, Napoleon, Flat Top, Santa Rosa, and Bayou LaCroix were taken over by NASA, with residents bought out and their houses, barns, and stores moved or razed
	1969	Hurricane Camille devastates the Mississippi Gulf Coast; 300 people died in the August 17, 1969, Category 5 storm

Table 3.7-3
Cultural Resources Recorded During Survey

Site Number	Cultural Affiliation	Survey Segment	NRHP Eligibility
22HA670 (Locus 1)	Coles Creek-Late Coles Creek	Northern	Potentially eligible
22HA671 (Locus 2)	Mid-19th to Early-20th century	Northern	Ineligible
22HA672 (Locus 3)	Late-19th to Early-20th century	Northern	Ineligible
22HA673 (Locus 6)	Early-mid 20th century	Northern	Ineligible
22HA674 (Locus 7)	prehistoric	Northern	Ineligible
22HA675 (Locus 9)	prehistoric	Northern	Ineligible
22HA676 (Locus 10)	Early-mid 20th century	Central	Ineligible
Locus 4	historic/modern isolate	Northern	Ineligible
Locus 5	modern trash dump	Northern	Ineligible
Locus 11	historic/modern scatter	Central	Ineligible

3.7.3 Mitigation Measures Related to Historic and Archeological Resources

Only one of the seven archaeological sites recorded, site 22HA670, is potentially eligible for nomination to the NRHP. The remaining sites and loci are considered ineligible for nomination to the NRHP. It is recommended that the site be avoided during highway construction. If the

site cannot be avoided, it is recommended additional excavations to explore the site's research potential. These excavations should be carried out after consultation with MDOT, FHWA, State Historic Preservation Officer (SHPO), and appropriate Tribal Historic Preservation Officers (THPOs). However, the Western Alternative has been identified as the Preferred Alternative that would avoid Site 22HA670 entirely.

3.8 Safety and Security

3.8.1 Existing Conditions

Private contractors provide security services within SSC property. The Pearl River County and Hancock County Sheriff's Offices provide police services within the study area. The existing street network allows comprehensive localized access by police, fire and ambulance vehicles. The existing SR 607 Corridor currently experiences very minor motorist safety problems.

3.8.2 Personal Safety and Property

In the event of a vehicle breakdown, the lack of sufficient shoulder widths and roadway lighting on existing SR 607 constitute minimal personal safety and property concerns.

3.8.3 Pedestrian and Bicyclist Safety

Currently, SR 607 in the project area is not safe for pedestrian and bicycle traffic. Shoulders are narrow and inadequate for pedestrian and bicycle use and no sidewalks are provided. The high percentage of heavy truck traffic and vehicle operating speeds also contribute to the poor pedestrian and bicycle environment along SR 607 in the project area north of Texas Flat Road to I-59.

3.8.4 Hurricane Evacuation

South of the project area, SR 607 is one of two primary evacuation routes for the communities of Lakeshore, Clermont Harbor, Waveland, and Bay St. Louis. Currently, evacuating residents cannot continue on SR 607 north of I-10.

According to the *Contraflow Plan for Interstate Hurricane Evacuation Traffic Control* (MDOT 2006), MDOT will implement contraflow (lane reversal) on I-59 and I-55 in the event of a Category 3, 4, or 5 hurricane tracking towards New Orleans to assist with the evacuation of the population of southeast Louisiana. Contraflow operations on I-59 will terminate south of Poplarville, north of the northern project terminus.

3.8.5 Comparison of Safety and Security Impacts for Alternatives

Both of the build alternatives would improve safety conditions on SR 607 through improvements to roadway geometry. The increased shoulder widths, additional travel lanes, and safer turning movements associated with the build alternatives would increase operational safety on SR 607.

A memorandum of agreement between SSC and MDOT states that NASA will open SR 607 north of I-10 to provide an alternative route to I-59 in the event of an emergency evacuation

following the closure of SSC to normal business operations. Providing SR 607 as an additional evacuation route would improve roadway operations in the event of an emergency evacuation.

3.9 Environmental Justice

Environmental justice concerns have been addressed in the evaluation of alternatives for SR 607. This section identifies how areas protected under the Environmental Justice Executive Order 12898 were defined and the extent to which areas of minority and low-income populations would be affected by the alternatives under evaluation.

3.9.1 Legal and Regulatory Requirements

Presidential Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994) requires that federal agencies consider and address disproportionate adverse environmental effects of proposed federal projects on minority and low-income communities. The Order states:

- "To the greatest extent practicable and permitted by law...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations..."(subsection 1-101).
- "Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin" (subsection 2-2).

The intent of the U.S. Department of Transportation (USDOT) Final Order on Environmental Justice [DOT Order 5610.2, "Environmental Justice" (April 15, 1997)] is to integrate the goals of Executive Order 12898 into USDOT operations.

- "...National Environmental Policy Act of 1969 (NEPA), Title VI of the Civil Rights Act of 1964 (Title VI), ..., the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and other DOT statutes, regulations and guidance that address or affect infrastructure planning and decision making; social, economic, or environmental matters; public health; and public involvement."

To meet the requirements of Executive Order 12898, this section addresses the characteristics of the affected communities, potential effects on minority and low-income communities and potential mitigation measures. Additionally, this analysis evaluates compliance with the *John C. Stennis Space Center Environmental Justice Implementation Plan* (September 1996).

3.9.2 Community Characteristics

To determine if disproportionately high effects would be borne by historically disadvantaged communities, Census 2000 block group data were used to define areas of minority populations and areas of low-income populations. Racial and ethnic composition and income characteristics within the study area have been identified in accordance with definitions established by the USDOT and the U.S. Environmental Protection Agency (USEPA) guidance on environmental justice. The impact assessment area likely to be affected by the alternatives under evaluation was defined as any census block group within one-half mile of the centerline of the proposed SR 607 improvements. Block groups partially within the one-half mile radius were used in their entirety. Because SSC is surrounded by a buffer zone that prohibits habitable structures, only areas in Pearl River County were evaluated.

To determine areas of minority or low-income populations, race/ethnic and income characteristics were identified and compared to statistics for Pearl River County. The percentage was developed by dividing the total number of minority and low-income persons by the total population for the County. The same was done for each block group. The difference in the percentage was used to develop potential environmental justice issue areas, which were identified as those census block groups whose minority or low-income population percentage was higher than the percentage for Pearl River County. **Table 3.9-1** shows percent minority and low-income for the corridor that was used as the average from which each block group was compared.

Table 3.9-1
Percent Minority and Low-Income

	Pearl River County		Project Area	
	Total	**Percent**	**Total**	**Percent**
Total Population	42,967	--	4,480	--
Minority	7,440	15.30%	983	24.94%
Low-Income [1]	8,800	18.44% [2]	808	18.51% [2]

Notes:
1 Total population of persons for whom poverty status was determined. Poverty level thresholds vary by household size.
2 Poverty status is based on sample populations; therefore, percentages are based on the sample population.

Minority Populations

Based on the USDOT Order 5610.2 (April 15, 1997), the definitions of minority and minority population are as follows:

- Minority means a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).
- Minority Population means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient

persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed USDOT program, policy or activity.

Based on comparisons with Pearl River County as a whole, the project area contains minority populations.

Low-Income Populations

Based on USDOT Order 5610.2 (April 15, 1997), the definition of low-income populations is as follows:

- Low-Income means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.
- Low-Income Population means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed USDOT program, policy or activity. For this evaluation, the term "low-income" is equivalent to and used interchangeably with "persons/populations below the poverty level."

Because the poverty statistics for the project area are slightly higher than Pearl River County, the project area is considered to contain low-income populations.

3.9.3 Impacts Related to Environmental Justice

This environmental justice analysis examines the effect of the alternatives on minority and low-income populations. The environmental justice impact assessment for each factor is analyzed to determine the number and magnitude of effect on minority and low-income populations and areas as compared to non-minority and non-low-income populations. Positive and adverse impacts are discussed for each alternative. The intensity and duration of both adverse and beneficial project effects were considered in determining if these populations were adversely affected without corresponding benefits.

No-Build Alternative

The No-Build Alternative would not alter existing conditions. No changes to the existing visual environment or roadway configuration are anticipated under the No-Build Alternative. However, the positive impacts offered by the Eastern and Western Alternatives, such as improved access to employment, safety improvements, and emergency evacuation benefits, would also not be provided with the No-Build Alternative.

Build Alternatives

The Eastern and Western Alternatives would not have a disproportionately adverse effect on minority and/or low-income populations. The implementation of the Eastern and Western Alternatives is anticipated to improve access to employment, improve safety, and increase roadway capacity. Temporary adverse affects associated with construction would be balanced by the long-term benefits the proposed build alternatives are anticipated to produce. The Eastern and Western Alternatives are consistent with the goals expressed in the *John C. Stennis Space Center Environmental Justice Implementation Plan* (September 1996).

3.9.4 Mitigation Measures Related to Environmental Justice

The findings of the environmental justice analysis indicate that no minority or low-income populations are disproportionately adversely impacted by the proposed build alternatives. Therefore, no mitigation measures are warranted.

CHAPTER 4.0

4.0 ENVIRONMENTAL IMPACT ANALYSIS

*Graphics for **Chapter 4.0** are included together at the end of the chapter.*

4.1 Soils, Geology and Topography

The project area is located in the southern pine region of the Gulf Coastal Plain. The land surface is low-lying, nearly flat, heavily wooded and swampy. South of the project area and extending westward along the Gulf of Mexico to New Orleans is marshland.

4.1.1 Soils

Most soils in the study area are derived from unconsolidated coastal plain sediments or more recent fluvial deposits from local streams or the Pearl River (Smith et. al., 1981). The depth of these soils extends to approximately 60 inches until un-weathered material is encountered. Such soils are usually extremely acidic and require liming for most agricultural purposes. Moisture, high levels of organic material, and moderately weathered clay are important characteristics of the local soils. There are two primary soil types prevalent in the study area. Beauregard silt loam dominates most of the area with some areas of Smithton fine sandy loam. Both soil types are moderately to highly acidic.

The Farmland Protection Policy Act (7 USC 4201, *et seq*) and its regulations (7 CFR Part 658) establish criteria for identifying and considering the effects of Federal programs on the conversion of farmland to non-agricultural uses. Prime farmland soils are located throughout the study area on the fairly level, non-wetland areas. Soil data and prime farmland information for the area was obtained from soil surveys published by the Natural Resource Conservation Service (NRCS).

4.1.2 Surficial Geology

The study area is located within the East Gulf Coastal Plain region of the United States. The area lies on a combination of Prairie Formation from the late Pleistocene and Holocene marshlands and swamp. The Prairie Formation developed during an episode of high water and merged laterally to form a continuous shoreline. A dry period toward the end of the Wisconsin glacial (18-25 thousand years Before Present [B.P.]) created the loess blanket in southeastern Louisiana and Mississippi floodplain (Otvos, 1982).

The Pleistocene, or glacial epoch (approximately 1 million – 11 thousand years B.P.) that formed the modern terrain was an age of great change. The Prairie Formation consisted of "muddy and clayey fine sands, moderately silty sands, and very fine sands" (Otvos, 1982). These sediments are yellowish-gray, greenish-gray, and gray, oxidation changed these colors to very pale orange, pale yellowish-orange, and medium yellowish-orange near the surface. The Prairie Formation is 10 - 30 feet thick and 26 - 30 feet above sea level; this formation follows a southward-sloping plain (commonly 5 - 6 miles wide) which extends about 30 miles inland along the Pearl River (Otvos, 1982).

During the Holocene, or recent epoch (11,000 years ago - present), the terrain that currently dominates the project area was formed. The most significant change in sediments from the late Pleistocene to the Holocene occurred due to a slight rise in sea level, during which some river valleys were converted into estuaries. The sea level rise is generally believed to have greatly slowed down by about 4,500 - 4,000 years B.P. as sea levels reached less than 3 feet below their present location. Barrier ridges were formed, reflecting local variation in erosion, and a brackish environment prevailed. Little significant sedimentation occurred in the sea during the Holocene. The present marshlands and prairie formations have not changed very much since the earliest human occupation of the area.

4.1.3 Topography

The study area is located in the southwestern part of Pearl River County and the northwestern part of Hancock County. The existing roadway is bounded on the east and west by the Pearl River and Jourdan River watersheds. The East Pearl River flows along the southwest boundary of the area and the Jourdan River flows in a southeasterly direction through the eastern portion of the area. There are two main waterbodies that surface water drains through in the project area: Alligator Branch and Turtleskin Creek. The East Pearl River empties into Lake Borgne, while the Jourdan River drains into the Bay of St. Louis. Both Lake Borgne and the Bay of St. Louis discharge into the Mississippi Sound.

4.1.4 Impacts to Soils, Geography and Topography

Due to the nature of the project, which consists of the widening and improvement of an existing roadway, the impacts to the overall soils, geography, and topography of the area will be minimal. Direct effects to prime farmland are measured in terms of acreage of soils classified as prime farmland that would be converted to highway right-of-way (ROW). As stated in **Section 4.1.1**, prime farmland soils are located throughout the study area. The acreage of prime farmland that would be converted to transportation ROW is summarized in **Table 4.1-1**.

Table 4.1-1
Approximate Acres of Prime Farmland Impacted

Alternative	Approximate Acres	Point Value
Eastern Alternative	42[1]	121[2]
Western Alternative	43[1]	121[2]

Notes:
1 Includes 17.3 acres in SSC Fee Area.
2 The point value shown in the table is an average combining the results for both Pearl River and Hancock Counties.

Farmland Conversion Impact Rating forms are completed in collaboration with the NRCS. Forms document the evaluation of land within each corridor using criteria based on the Farmland Protection Policy Act. Criteria are designed to assess important agricultural and other factors used to determine the associated level of protection needed for the land. The higher the score given to a proposed corridor, the more protection that land should receive. **Appendix D** contains completed forms for the project alternatives. According to the Farmland Protection Policy Act, any site receiving a total score of less than 160 need not be given further consideration for protection and no additional evaluation is necessary. Both alternatives received scores below 160.

4.1.5 Soils Mitigation Measures

Disturbance of soil resulting from construction activities could accelerate erosion during rainfall events. Failure to prevent soil erosion could increase the turbidity of nearby waterways as well as increase sedimentation of stream and creek bottoms. Impacts associated with erosion and sedimentation will be minimized through the implementation of a comprehensive stormwater management plan. The stormwater management plan, which includes the preparation of a stormwater pollution prevention plan (SWPPP), will incorporate best management practices (BMPs) to reduce the erosion and sedimentation during construction. The SWPPP will include BMPs that require planning to limit the scope and duration of major grading and filling operations to avoid exposing large areas of soil for extended periods of time. The SWPPP will also include BMPs to reduce erosion and sedimentation to areas outside the project limits. Stabilized construction entrances will be installed at appropriate locations to reduce vehicle tracking and sedimentation.

4.2 Hazardous Materials Contamination

Site reconnaissance has been conducted to assess the potential presence of hazardous and petroleum substances, toxic and radioactive materials, solid and hazardous waste, derelict tanks and containers, migrating substances, and indicators of environmental impairment within the project area. The processes were performed to obtain and review readily available information regarding past and present land use practices as well as current operations and conditions that could potentially impact the widening of SR 607. Specific tasks performed are described below.

Digital data for property ownership boundaries; parcel coordinates; primary and secondary road locations; and ortho-photographic quadrangle maps were reviewed.

Federal, state, and local environmental regulatory agency data were reviewed through on-line web site access or other readily available public sources of: (a) known or potential hazardous waste sites or landfills; (b) sites currently under investigation for environmental violations; (c) sites which manufacture, generate, use, store, and (or) dispose of hazardous substances or hazardous wastes; and (d) sites with recorded violations of regulations concerning underground storage tanks and hazardous substances and/or hazardous wastes. The following is a list of databases reviewed for hazardous materials contamination.

- National Priority Sites: listing from the Mississippi Department of Environmental Quality (MDEQ) website, Louisiana Superfund;
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Environmental Protection Agency (EPA) Envirofacts website;
- Mississippi Superfund Sites: MDEQ listing from confirmed sites by parish (inventory of inactive and abandoned oil and (or) gas well sites);
- EPA Resource Conservation and Recovery Act (RCRA) sites: Listing from EPA Envirofacts websites: RCRA sites search;
- Underground Storage Tank (UST) sites: MDEQ website;
- Solid Waste Landfill sites: MDEQ website listing of permitted Type I & II landfill; and
- MDEQ recorded oil and (or) gas well permits located within the counties.

Digital / aerial photography maps were generated that combined data collected from regulatory agency information. The maps were then used to identify potential "Recognized Environmental Conditions" (RECs).

Limited reconnaissance of existing conditions and activities of properties adjoining the roadway was performed. These observations were limited to areas visible from SR 607 and secondary roads. Site reconnaissance focused on the following:

- Identifying sites listed in the regulatory agency databases and evaluating the potential for environmental impacts; and
- Locating sites identified during review of aerial photography as having visible structures, clearings, and unusual areas.

4.2.1 Site Identification

Site reconnaissance confirmed that most of the property adjoining SR 607 consists of wooded areas. Some of these areas have been clear cut subject to the use of timber production. Sand and gravel mining operations are also present in the project area. Additionally, there are adjacent properties in the northern portion of the project area that contain residential, community, commercial, and industrial structures.

Table 4.2-1 identifies the existing commercial, industrial, and community properties adjacent to SR 607 along with construction type, operation and property ownership. None of these structures would be impacted by the proposed build alternatives. **Figure 4.2-1**, which is a series of four maps, depicts existing commercial and industrial sites adjacent to SR 607, beginning at Texas Flat Road and continuing north to I-59.

Table 4.2-1
Existing Commercial / Industrial / Community Property

Map I.D. No.	Structure	Additional	Operation	Property Name / Owner
C1	Metal Building / Steel Frame / Concrete Foundation	ASTs, lube oils, used oil tanks, etc.	Fueling & Truck Maintenance	Kelley Barber Fueling & Service Center
C2	Concrete Slab / Wood Frame / Brick	USTs exist on property, taken out of service	Loan Company	Loanmax Title Loans
C3	Metal Building / Steel Frame / Concrete Foundation	Storage yard of miscellaneous trailers and equipment	Appears Not Active	Edwin Pearson
C4	Concrete Slab / Wood Frame / Brick	Church & Cemetery	Active	Cedar Grove Church

Table 4.2-2 identifies sand and gravel mining operations adjacent to SR 607, along with property ownership, operation status and permit status. No mining operations would be impacted by the construction of either of the proposed build alternatives. **Figure 4.2-1** depicts the existing gravel operations along SR 607.

Table 4.2-2
Existing Gravel Pits

Map I.D. No.	Owner	Status	State Permit Listed
G1	D.K. Aggregates	Active	Permit Pending
G2	Larry W. Frierson	Abandon	No Permit
G3	Nick's Dozer & Tractor Service	Active	Not Found
G4	No Name	Active	Not Found

4.2.2 Potential Environmental Hazards

Two commercial properties were identified with potential for hazardous substances. Site C1, Kelley Barber Fueling and Service Center, is a truck fueling and maintenance station with above ground storage tanks (ASTs), lube oils, and used oil tanks. However, the structures and storage facilities would not be impacted. Site C2, Loanmax Title Loans, appeared to be previously used as a fueling station. Underground storage tanks (USTs) exist on the property; however, they have been taken out of service and are no longer active. Also the location of the USTs are not within the boundaries of the existing ROW and would not be impacted with the widening of the roadway. In this area, the proposed five-lane widening would be constructed within the existing ROW.

During the field investigation, four properties were identified with active or abandoned sand and gravel mining operations. However, the only impact to these properties would be at the entrance access roads to these facilities.

The review of agency databases and information collected during the site reconnaissance did not reveal the existence of any potential environmental hazards that would impact the widening of the roadway.

4.2.3 Potential Impacts Summary

The agency databases and information collected during the site reconnaissance contain sufficient data to suggest that no properties within the proposed alignments would have potential hazardous substances and/or hazardous wastes, migrating substances, and indicators of environmental impairment that would impact subsurface conditions associated with the widening of SR 607.

4.2.4 Hazardous Materials Mitigation Measures

No hazardous materials sites were identified, and therefore no mitigation measures are needed. However, if hazardous materials sites are discovered during construction activities, the site would be remediated and all work would be conducted in conformance with Mississippi Department of Environmental Quality (MDEQ), Environmental Protection Agency (EPA), and Occupational Safety and Health Administration (OSHA) regulations and policy.

4.3 Air Quality

There are six major types of air pollutants, termed criteria pollutants, for which National Ambient Air Quality Standards (NAAQS) and Mississippi State standards have been established.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is generated primarily from the incomplete combustion of fossil fuels in motor vehicles. Nationwide, seventy-seven percent (77%) of CO emissions derive from transportation sources; in urban areas, vehicles may account for 80 percent (80%) or more of the total CO in the ambient air. High CO concentrations can occur in localized areas due to traffic congestion, depending on meteorological conditions and the presence of physical obstructions such as buildings that can limit dispersion. For these reasons, changes in CO levels are of principal concern at a local, or microscale, level. Carbon monoxide impairs delivery of oxygen to body tissues and, although effects are transitory, high or extended exposures can pose a threat to individuals with cardiovascular problems.

Nitrogen Oxides

Nitrogen oxides (NO_x) include nitrogen dioxide, a highly reactive gas that forms from reactions in the atmosphere involving the primary pollutant nitric oxide. Nitrogen oxides are formed when fossil fuels are burned at high temperature. Both transportation sources (motor vehicles, especially heavy trucks and buses) and stationary sources (utility and industrial boilers) are major emitters. Nitrogen oxides react with volatile organic compounds in sunlight to generate another pollutant, ozone, which is discussed ahead. The reactions occur on a regional, rather than local basis. As a result, NO_x emissions are generally studied on a regional, or mesoscale level. Due to its reactivity, NO_x poses direct health problems as a lung irritant as well as its indirect role in contributing to the formation of ozone.

Ozone

Ozone (O_3) is a product of the photochemical reaction of NO_x and volatile organic compounds in the atmosphere. Ozone is a major contributor to smog in urban areas and to regional haze in areas far removed from emission sources. In addition to sunlight, the reactions that produce O_3 are accelerated by warm temperatures of summer months. Because these reactions occur over time after emission of precursor pollutants that disperse downwind from the source, O_3 is generally evaluated on a regional level. Ozone has been shown to pose risks to healthy individuals as well as to those with lung problems, such as asthmatics, by reducing lung function, increasing lung inflammation, and sensitizing lung tissue to other irritants.

Sulfur Dioxide

Sulfur dioxide (SO_2) emissions are derived primarily from fuel combustion at stationary sources (industrial facilities and utilities). Transportation sources are not a major contributor to SO_2 levels. Sulfur dioxide in the atmosphere has been shown to be a major cause of acid rain as well as regional haze. It can aggravate respiratory problems in individuals suffering from asthma, bronchitis, and emphysema, and its effects can be particularly severe in children and the elderly.

Particulate Matter

Particulate matter (PM_{10} and $PM_{2.5}$) includes a wide range of pollutants including dust, dirt, pollen and mold spores, smoke, and combinations of solid and liquid matter in aerosol form. Sources include emissions from power plants, factories, motor vehicles, construction activity, fires, plants, and natural windblown dust. Vehicles can emit particulates from fuel combustion, particularly diesel fuels, tire wear, and re-entrainment of road dust. Particulate matter has been shown to damage lung tissue, aggravate respiratory ailments, and alter the body's defense

mechanisms against foreign materials. Prior to 1987, air quality standards were in effect for total suspended particulates in the ambient air. A revised standard was subsequently promulgated for particulates with a nominal diameter of 10 microns or less (PM_{10}), which biomedical evidence (at that time) suggested were of greater concern due to the ability of particles of this size to penetrate deep into lung tissue. However, subsequent research failed to provide evidence linking health problems to long-term exposure to course particulate matter. As a result, the annual PM_{10} standard was revoked effective December 17, 2006. New annual and 24-hour standards have been promulgated for particulates of 2.5 microns or less in diameter ($PM_{2.5}$), which have been shown to have more serious health consequences than exposure to coarser particulate pollution.

Lead

Lead (Pb) emissions have been significantly reduced over the last twenty years due to the phasing out of leaded gasoline. While motor vehicles once accounted for the major source of atmospheric lead, industrial and municipal waste combustion now contribute the greatest amount of lead emissions. Unlike other pollutants described above (with the possible exception of particulates), lead is concentrated in body tissues. Health effects include mental impairment, behavioral disorders, and blood and bone diseases.

Standards

NAAQS and Mississippi State standards have been issued for criteria pollutants as shown in **Table 4.3-1**. Primary standards have been established to protect the general public health, while secondary standards are intended to protect public welfare including effects on materials and buildings, vegetation, soil, and other considerations.

In addition to the criteria air pollutants for which there are National Ambient Air Quality Standards (NAAQS), USEPA also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries).

The USEPA issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17229, March 29, 2001). In its rule, USEPA examined the impacts of mobile source control programs, and concluded that no further motor vehicle emissions standards or fuel standards were necessary to further control MSATs.

Table 4.3-1
National and Mississippi Ambient Air Quality Standards

	Primary Standards		Secondary Standards	
Pollutant	**Level**	**Averaging Time**	**Level**	**Averaging Time**
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour[1]	None	
	35 ppm (40 mg/m^3)	1-hour[1]		
Lead	1.5 µg/m^3	Quarterly Average	Same as Primary	
Nitrogen Dioxide	0.053 ppm (100 µg/m^3)	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM_{10})	150 µg/m^3	24-hour[2]	Same as Primary	
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual[3] (Arithmetic Mean)	Same as Primary	
	35 µg/m^3	24-hour[4]	Same as Primary	
Ozone	0.075 ppm (2008 std)	8-hour[5]	Same as Primary	
	0.08 ppm (1997 std)	8-hour[6]	Same as Primary	
	0.12 ppm	1-hour[7] (Applies only in limited areas)	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m^3)	3-hour[1]

Source: Environmental Protection Agency (EPA), Mississippi Department of Environmental Quality (MDEQ)

Notes:

1 Not to be exceeded more than once per year.
2 Not to be exceeded more than once per year on average over 3 years.
3 To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.
4 To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).
5 To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (Effective May 27, 2008)
6(a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.
(b) The 1997 standard, and the implementation rules for that standard, will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.
7(a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is < 1.
(b) As of June 15, 2005, EPA revoked the 1-hour ozone standard in all areas except the 8-hour ozone nonattainment Early Action Compact (EAC) Areas.

4.3.1 Existing Conditions

The State of Mississippi is designated as attainment for all state and federal air quality standards for criteria pollutants. Consequently, the State Implementation Plan (SIP) to achieve and maintain air quality standards does not contain any transportation control measures, and the conformity procedures of 23 CFR 770 do not apply. None of the proposed alternatives for SR 607 would cause any violations of air quality standards. Based on MDOT air quality analysis guidelines, no microscale analysis is required.

4.3.2 Impacts to Air Quality

Impacts to air quality would be limited to short-term increased fugitive dust and mobile source emissions during construction as discussed in **Section 5.3.1**.

4.4 Noise

Sound is the vibration of air molecules in waves. When these vibrations reach a person's ears, sounds are heard. "Noise" is defined as unwanted sound. Sounds are described as noise if they interfere with an activity or disturb the person hearing them. Sound is measured in a logarithmic unit called a decibel (dB). The human ear is more sensitive to middle and high frequency sounds than it is to low frequency sounds, so sound levels are weighted to more closely reflect human perceptions. These "A-weighted" sounds are measured using the decibel unit dBA. Because the dBA is based on a logarithmic scale, a 10 dBA increase in sound level is generally perceived as twice as loud, while a 3 dBA increase is just barely perceptible to the human ear.

Sound levels fluctuate with time depending on the sources of the sound audible at a specific location. In addition, the degree of annoyance associated with certain sounds varies by time of day, depending on other ambient sounds affecting the listener and the activities of the listener. The time-varying fluctuations in sound levels at a fixed location can be quite complex, so they are typically reported using statistical or mathematical descriptors that are a function of sound intensity and time. A commonly used descriptor of the equivalent sound level is Leq, which represents the equivalent of a steady, unvarying level over a defined period of time containing the same level of sound energy as the time varying noise environment. Leq(h) is a sound level averaged over one hour. For highway projects, the Leq(h) is commonly used to describe traffic-generated sound levels at locations of outdoor human use and activity (such as residences).

4.4.1 Noise Evaluation Criteria

The highway noise analysis criteria are documented in the Mississippi Department of Transportation (MDOT) *Highway Traffic Noise Policy* (June 1996).

Title 23 of the Code of Federal Regulations Part 772 (23 CFR 772) defines traffic noise impacts as "impacts which occur when the predicted traffic noise levels approach or exceed the Noise Abatement Criteria (NAC), or when the predicted traffic noise levels substantially exceed the existing noise levels." A memorandum dated December 1, 1993, from the Director, Office of Environment and Planning, Federal Highway Administration says that, "effective from the date of this memorandum, all State Highway Administrators (SHA) must establish a definition of 'approach' that is at least 1 dBA less than the NAC for use in identifying traffic noise impacts in traffic noise analysis." Therefore, the MDOT has defined "approach" to be 1 dBA less than the NAC. MDOT also has defined a substantial increase in traffic noise levels to be 15 dBA or more.

The FHWA established noise abatement criteria based on land use or activity category. These noise abatement criteria are listed in **Table 4.4-1** and are considered to be the absolute levels where abatement must be considered. The Category A criterion applies to tracts of land for which the preservation of serenity and quiet are of paramount importance. The Category B criterion is an exterior condition applied to schools, churches, residences, parks, and in some

cases to institutional land uses. The Category C criterion also is an exterior condition applied to commercial and industrial activities. The Category E criterion is an interior condition that applies to noise sensitive activities such as schools, churches, and hospitals.

Table 4.4-1
FHWA Noise Abatement Criteria[1]

Activity Category	Leq(h)[2]	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	-------	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Notes:
1 Source: 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise.
2 Hourly A-weighted sound level in decibels (dBA).

4.4.2 Noise Modeling Methodology

The methodology employed for this analysis is intended for the proposed widening of SR 607 and satisfies the intent of the MDOT highway noise policy.

Step 1: Measure Existing Condition Sound Levels

Existing condition sound levels were measured in March 2008 at one site within the project area. The site was selected as generally representative of noise-sensitive, ground-level, outdoor human use or activity areas in proximity to the build alternatives and is shown in **Figure 4.4-1**. An ANSI Type 2 sound level meter set to A-weighting and "slow" response was utilized. The calibration of the meter was checked before and after the measurement. The measurement was conducted for 20 minutes on a weekday (Monday – Friday) during peak traffic periods (between 7:00 A.M. and 9:00 A.M). The sound level measured at the site is summarized in **Table 4.4-2**.

Table 4.4-2
Existing Ambient Noise Levels

Measurement Site	General Location	Existing Condition Leq(h) (dBA)
10	Residence on the west side of SR 607 just north of Alligator Branch Stream	67.0

Source: URS 2008

The FHWA Traffic Noise Model Version 2.5 (TNM 2.5) was used to determine existing noise levels at all sensitive receivers in the project area based on existing traffic conditions and data from the noise measurement.

Step 2: Predict Design Year 2030 No-Build and Build Condition Sound Levels

TNM 2.5 was utilized to predict Design Year 2030 No-Build and Build Condition sound levels. Roadway and barrier centerline data (XYZ coordinates) representing the SR 607 corridor were be used for the analysis.

The primary TNM roadway input assumptions are:

1. Each roadway centerline represents up to two travel lanes in one direction.
2. Pavement widths are approximated based on planned roadway cross-sections and include paved shoulders, if any.
3. Every horizontal and vertical roadway curve is converted to chords.
4. For noise analysis purposes, at-grade roadway elevations obtained from the Mississippi Automated Resource Information System (MARIS) were used for the receiver ground (Z) elevations.
5. Elevated (i.e., structure) roadway elevations for bridges will be generally consistent with the roadway design profiles.
6. Roadway elevations do not account for cross slopes and superelevations.
7. Hourly traffic volumes, expressed in vehicles per hour, were derived from the 24-hour volumes provided by MDOT, and assumed that hourly traffic volume is 10% of 24-hour volume and that 88% are autos and 12% are heavy trucks. The hourly traffic volume is assumed to represent the peak noise hour with volumes at, or near, peak hour traffic levels, and with vehicles still moving at the posted speed limit.
8. Cruise speeds of 55 miles per hour (MPH) for were utilized.

The primary TNM receiver input assumptions are:

1. Topographic information obtained from LIDAR data were used for the receiver ground (Z) elevations.
2. Receiver heights will be five feet.
3. Adjustment factors were not utilized.
4. Only external ground-level receivers, representing locations of outdoor human use or activity, were considered. One receiver per dwelling unit was considered for determining benefits (i.e., either the front or back yard of the same residence will be counted).
5. Receiver locations were approximated based primarily on review of available geographic information systems (GIS) data (building structure outlines), and aerial photography.
6. TNM default values of 50% relative humidity, temperature of 68° Fahrenheit, and "lawn" ground type will be utilized, as is consistent with normal practice.

Step 3: Identify Noise Impacts

Consistent with MDOT policy, highway traffic noise impacts occur when:

1. The Design Year 2030 Build Condition sound levels predicted by TNM approach (within 1 dBA) or exceed the FHWA Noise Abatement Criteria (presented in **Table 4.4-1**) at any receiver, or
2. The Design Year 2030 Build Condition sound levels exceed the measured Existing Condition sound levels by 15 dBA or more (i.e., a "substantial" increase).

4.4.3 Existing Noise Conditions

Occupied facilities include facilities that currently have regular human use and planned facilities that will have regular human use in the design year 2030. The locations of occupied facilities in the vicinity of the proposed project are shown on **Figure 4.4-1**. Some of these facilities have existing noise levels that approach or exceed 23 CFR 772 Noise Abatement Criteria Levels.

In total, there are approximately 38 occupied facilities adjacent to the project area between I-59 and Asa McQueen Road. This includes 35 residences, 2 businesses, and 1 church. The noise measurement taken in this area was 67.0 dBA. Modeled existing noise measurements ranged from 44.2 dBA to 67.5 dBA. The measurement taken at a residence on the west side of SR 607 had an existing noise level that exceeds the 23 CFR 772 Noise Abatement Criteria Levels.

4.4.4 Design Year 2030 Noise Impacts

No-Build Alternative

Noise levels at occupied facilities located along the Eastern and Western Alternatives are anticipated to increase in 2030 if the project is not constructed. Due to projected traffic increases along SR 607, noise levels are anticipated to be on average 2 dBA higher than the existing noise levels in the year 2030. Highway traffic noise levels approaching or exceeding 23 CFR 772 Noise Abatement Criteria Levels are predicted to occur at three (3) residences if the project is not constructed. No substantial impacts (15 dBA or greater increase from existing levels) are anticipated to occur under the No-Build Alternative.

Build Alternatives

Table 4.4-3 summarizes the Existing Condition, No-Build Condition, and Design Year 2030 Build Condition sound levels at occupied facilities. Note that although the Eastern and Western Alternatives vary from Asa McQueen Road to the southern project terminus, the alternatives are identical through the populated portion of the project area. The slight variation of the alternatives did not result in any differences in projected noise levels.

Table 4.4-3
Exterior Noise Levels

Site	Existing		2030 No-Build		2030 Build Eastern and Western Alternatives			
	Distance from SR 607*	Leq dBA	Estimated Leq dBA	Noise Impact?	Distance from SR 607[1]	Estimated Leq dBA	Impact due to Substantial (≥ 15 dBA) Increase?	Impact due to Meeting Applicable Abatement Criteria?
2	100 ft.	60.1	62.3	No	80 ft.	65.8	No	No
1	110 ft.	58.2	60.5	No	90 ft.	64.1	No	No
19	70 ft.	67.5	69.8	Yes	50 ft.	70.8	No	Yes
14	240 ft.	53.4	55.6	No	220 ft.	57.7	No	No
15	370 ft.	50.8	53.1	No	350 ft.	54.7	No	No
16	500 ft.	48.2	50.4	No	480 ft.	51.7	No	No
20	240 ft.	55.6	57.9	No	210 ft.	60.3	No	No
21	380 ft.	52.2	54.4	No	350 ft.	56.2	No	No
22	530 ft.	48.5	50.8	No	500 ft.	52.0	No	No
23	650 ft.	47.0	49.2	No	620 ft.	50.3	No	No
26	130 ft.	59.7	61.9	No	100 ft.	64.5	No	No
25	250 ft.	55.0	57.3	No	220 ft.	59.6	No	No
24	200 ft.	56.4	58.7	No	170 ft.	61.4	No	No
27	570 ft.	48.5	50.8	No	540 ft.	51.9	No	No
28	670 ft.	46.9	49.1	No	640 ft.	50.1	No	No
29	270 ft.	53.9	56.2	No	250 ft.	58.5	No	No
33	110 ft.	61.2	63.4	No	80 ft.	66.4	No	Yes
34	110 ft.	58.1	60.3	No	80 ft.	63.9	No	No
38	120 ft.	57.4	59.7	No	90 ft.	63.3	No	No
32	400 ft.	47.5	49.7	No	380 ft.	51.1	No	No
31	400 ft.	46.7	49.0	No	380 ft.	50.1	No	No
30	500 ft.	44.2	46.5	No	480 ft.	47.7	No	No
35	500 ft.	48.0	50.3	No	480 ft.	51.8	No	No
11	280 ft.	54.3	56.6	No	260 ft.	58.8	No	No
10	120 ft.	67.0	66.3	Yes	100 ft.	68.2	No	Yes
9	110 ft.	60.1	62.4	No	90 ft.	65.5	No	No
8	70 ft.	63.2	65.5	No	50 ft.	67.5	No	Yes
7	60 ft.	63.8	66.0	Yes	40 ft.	68.0	No	Yes
4	150 ft.	58.1	60.4	No	130 ft.	62.6	No	No

Notes:
1 Distance from the edge-of-pavement.

In the year 2030, highway traffic noise impacts are predicted to occur at five (5) occupied facilities if the Eastern or Western Alternative is constructed. This includes four (4) houses and one (1) mobile home. Three of these facilities are predicted to have traffic noise impacts if the project is not constructed, i.e. for the 2030 No-Build Alternative.

4.4.5 Potential Noise Mitigation Measures

Since noise impacts are predicted within the corridor, the feasibility and reasonableness of noise barriers as a possible abatement measure was analyzed. Other abatement measures, specifically: 1) traffic management measures, 2) alteration of horizontal and vertical alignments, and

3) acquisition of property rights were also initially considered, but were ultimately judged to be not reasonable and/or not feasible for application within the context of this analysis.

Traffic management measures, such as the prohibition/restriction of certain vehicle types and speed limit reductions could adversely affect the functionality of the highway corridor. The conceptual alignments associated with the proposed roadway improvements have been designed to maximize functionality, while minimizing negative environmental impacts. Substantial shifts in the proposed alignments could potentially increase the number of property acquisitions and relocations required for project construction. The acquisition of property rights, in addition to those already proposed, to allow for the construction of noise barriers or as a noise buffer zone, is constrained by existing abutting development and generally contrary to the project goal of minimizing environmental impacts.

Although traffic noise impacts would occur at occupied facilities within the proposed project area, noise barriers were not considered reasonable and feasible in these locations for the following reasons:

1. The occupied facilities in areas that are predicted to be impacted by traffic noise are sparsely populated, and it is not economically reasonable to construct noise barriers for the benefit of a few scattered occupied facilities.
2. Several impacted facilities, that are predicted to experience noise levels above the 23 CFR 772 Noise Abatement Criteria, do not have future Build Condition noise levels that are 5 dBA greater than existing levels. According to MDOT policy, future Build Condition noise levels must be at least 5 dBA greater than existing levels for abatement to be considered reasonable.

4.5 Ecology and Habitat

This section discusses the existing ecological resources in the project area, including vegetation and wildlife, aquatic habitat, wetlands, and reported occurrences of rare, threatened and endangered (RTE) species or critical habitats. Regulations are disclosed, followed by a discussion of the existing conditions and details regarding the potential impacts associated with the improvements and widening of SR 607.

4.5.1 Vegetation and Wildlife

The majority of the study area along SR 607 includes wet pine savanna and pine flatwoods habitat. Along with these two dominant community types are forested wetlands associated with drainage ways and scattered pockets of upland forest. All of these drainage ways lead to the fairly substantial Pearl River floodplain to the southwest of the project. There are several tracts of land within the study area that have been converted from natural pine savanna or pine flatwoods to pine plantation for the purpose of timber production. The majority of the small creeks and drainage ways that cross SR 607 are buffered by forested wetland habitat. Wet pine savanna and pine flatwoods are the dominant community type found within the study area. These two communities are dominated by an overstory of loblolly pine (*Pinus taeda*) and slash pine (*Pinus elliottii*) with a minimal midstory and a very diverse herbaceous stratum. The herbaceous stratum consists of several species of grasses, sedges, and wildflowers as well as

several carnivorous plant species. Other commonly present species include sweetbay (*Magnolia virginiana*), red maple (*Acer rubrum*), gallberry (*Ilex glabra*), wax myrtle (*Myrica cerifera*), and greenbrier (*Smilax* sp.).

The scattered upland forest communities include water oak (*Quercus nigra*), slash pine, loblolly pine, southern magnolia (*Magnolia grandiflora*), sweetgum (*Liquidambar styraciflua*), red maple, yaupon (*Ilex vomitoria*), greenbrier, muscadine (*Vitus rotundifolia*), poison ivy (*Toxicodendron radicans*), and various grasses and other herbaceous plants. The forested wetland communities associated with drainage ways and creeks include tupelo gum (*Nyssa biflora*), sweetbay, red maple, bald cypress (*Taxodium distichum*), slash pine, white titi (*Cyrilla racemiflora*), wax myrtle, greenbrier, and several other herbaceous plant species.

A diverse array of wildlife species is present within the various plant communities described above and located in the project area. Potential big game species include white tailed deer (*Odocoileus virginianus*), eastern wild turkey (*Meleagris gallopavo*), and black bear (*Ursus americanus*). Important small game and fur bearers include the gray squirrel (*Sciurus carolinensis*), coyote (*Canis latrans*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). Forest dwelling small mammals such as mice, moles, and shrews provide a valuable food resource for larger predators such as the coyote, red fox (*Vulpes vulpes*), gray fox (*Urocyon cinerioargenteus*), and bobcat (*Felis rufus*). Birds within the study area include a variety of warblers, wrens, thrushes, vireos, flycatchers, and woodpeckers. Raptors include the great horned owl (*Bubo virginianus*), eastern screech owl (*Megascops asio*), barred owl (*Stryx varia*), Cooper's hawk (*Accipiter cooperii*), and red-shouldered hawk (*Buteo lineatus*). Amphibians and reptiles are also important members of the natural communities of the project area and play a role in nutrient recycling, predator-prey relationships, and energy flow. Common species in the project area include several turtle species and several species of woodland salamander. There are also numerous toad (*Bufo* sp.) and tree frog (*Hyla* sp.) species.

4.5.2 Aquatic Habitat

The only strictly aquatic (i.e., open water or deepwater) habitats within the study area are a few man-made ponds. There are several lotic (flowing-water) habitats associated with the numerous creeks and tributaries that traverse the project area. The streams within the project area include Alligator Branch, Second Alligator Branch, Indian Camp Branch, Turtleskin Creek, and several unnamed tributaries. While there are many ravines throughout the study area, streams within them are intermittent and lack associated aquatic communities. For the purpose of this assessment, a drainage conveyance is considered a stream if it has a clearly defined channel (i.e., incised relative to local land surface). In general, streams with perennial flow are considered more ecologically valuable or sensitive than those that are intermittent, and the latter are considered more sensitive than those that are ephemeral. By definition, perennial streams have flowing water year-round. Intermittent streams have no flow during at least one part of the year, and ephemeral streams flow only during storm events.

Aquatic communities among streams vary with size, habitat quality, and other factors. Several of the creeks in the project area have the potential to support aquatic species. Typical species expected to be found within the creeks include darters, minnows, and sunfishes as well as various reptile and amphibian species.

4.5.3 Wetlands

Mississippi's coastal wetlands are managed primarily through the Mississippi Department of Marine Resources (DMR) and are regulated by the U.S. Army Corps of Engineers (USACE) under the Clean Water Act Section 404 permitting process.

The U.S. Department of the Interior Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps were used to determine if jurisdictional wetlands have the potential to exist within the perimeter of the SR 607 widening corridor. NWI maps identify wetland boundaries through stereoscopic analysis of high altitude aerial photography based on vegetation, visible hydrology, and geography, which typically reflect conditions during the year and season in which the photographs were taken. Natural Resource Conservation Service (NRCS) soils maps were also used to determine areas of hydric soils, over which wetland areas are more likely to occur.

Based on a review of the electronic NWI maps, hydric soils layers, and field reconnaissance, there are several locations where the widening of SR 607 would border and/or potentially impact existing wetlands boundaries. Wetland impacts associated with the proposed ROW requirements for the Eastern and Western Alternatives are described below in **Table 4.5-1**.

Table 4.5-1
Estimated Acres of Potential Wetland Impacts

	Eastern Alternative	Western Alternative
Alligator Branch[1]	0.1 acres	0.1 acres
Wetland Area #1	0.5 acres	0.0 acres
Second Alligator Branch[1]	0.2 acres	0.1 acres
Indian Camp Branch[1]	0.1 acres	0.1 acres
Wetland Area #2	0.0 acres	3.9 acres
Wetland Area #3	0.2 acres	0.0 acres
Unnamed Tributary #1[1]	0.4 acres	0.4 acres
Wetland Area #4	0.0 acres	0.0 acres
Turtleskin Creek[1]	0.0 acres	0.0 acres
Wetland Area #5 / Unnamed Tributary 2[1]	0.3 acres	0.3 acres
Unnamed Tributary #3[1]	0.0 acres	0.0 acres
Unnamed Tributary #4[1]	0.0 acres	0.0 acres
Wetland Area #6	0.05 acres	0.05 acres
Total Wetland Impacts	**1.8 acres**	**4.9 acres**

Note:
1 The streams listed in the table are further described in detail in **Section 4.6.3**

The majority of the wetlands found along SR 607 are associated with the streams and creeks that traverse the area and are restricted to the channel and small riparian zones. Detailed descriptions of the stream crossings and associated wetlands are in **Section 4.6.3**. Along with the wetland areas associated with the streams, there were a few isolated wetland areas located in the project area associated with depressions or intermittent tributaries of larger streams. These pocket wetlands are described below and depicted on **Figure 2.3-1A-E** within **Chapter 2.**

Wetland Area #1: This area consists of a small pond and a small amount of marginal wetland habitat around the immediate edge. The area within the proposed ROW is open water with a few

hydrophytic plants, including alligator weed (*Alternanthera philoxeroides*), cattail (*Typha* sp.), and some rushes (*Juncus* sp.). Approximately 0.5 acres of this feature would be impacted by the Eastern Alternative, as shown on **Figure 2.3-1E**.

Wetland Area #2: This area is immediately adjacent to Indian Camp Branch and includes a broad bottom area with marginal wetland habitat. Species in the area include loblolly pine, sourwood (*Oxydendrum arboretum*), yaupon, sweetgum and greenbrier, which transitions into white titi (*Cyrilla racemiflora*), sweetbay magnolia, and water oak closer to the stream bottom. Approximately 3.9 acres of this wetland area is within the proposed ROW of the Western Alternative, as shown on **Figure 2.3-1D**.

Wetland Area #3: This area of hydric soils is a marginal wetland area; however, the entire area has been clear-cut. The value of the wetland in its current state is very low to non-existent. Species present include several species of sedges (*Carex* sp.), longleaf pine (*Pinus palustris*) seedlings, small sweetbay magnolia (*Magnolia virginiana*), and some thistle (*Cirsium* sp.). Approximately 0.2 acres of this wetland area is within the proposed ROW of the Eastern Alternative, as shown on **Figure 2.3-1C**.

Wetland Area #4: This area, as shown on **Figure 2.3-1B**, identified by NWI maps as a potential wetland area was investigated by the field team and appears to be an abandoned sand borrow pit. There was no hydrophitic vegetation present or other signs of possible wetlands, and therefore no impacts were noted for either build alternative.

Wetland Area #5: The area is pine flatwood habitat with species including loblolly pine, yaupon, sweetgum and greenbrier, which transitions into white titi, sweetbay magnolia, and water oak closer to the stream bottom. Wetland Area #5 is marginal wetlands on the north and south side of the main channel of Unnamed Tributary #2. Approximately 0.3 acres of this feature would be impacted by the Eastern and Western Alternatives, as shown on **Figure 2.3-1A**.

Wetland Area #6: The area is fairly open composed of grasses and sedges with a few small trees and shrubs. Wetland Area #6 is marginal wetlands located on the western side SR 607 between Upper Gainesville Boulevard and Leonard Kimble Road. Approximately 0.05 acres of this feature would be impacted by the Eastern and Western Alternatives, as shown on **Figure 2.3-1A**.

The Western Alternative, which has been identified as the Preferred Alternative, is estimated to impact approximately 4.9 acres of wetlands. As part of *USDA Environmental Compliance Protection of Wetlands Executive Order 11990*, Hancock County has completed the Wetland Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to wetlands. All documentation regarding the Eight-Step Decision Making process is contained in **Appendix F**.

4.5.4 Rare, Threatened and Endangered (RTE) Flora and Fauna Species

Mississippi's Rare, Threatened and Endangered (RTE) Flora and Fauna Species are protected by the U.S. Fish and Wildlife Service in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.)

The U.S. Fish and Wildlife Service was contacted regarding the roadway improvements for SR 607 in Hancock and Pearl River Counties, Mississippi. The USFWS maintains lists of rare plants and wildlife known to be potentially present in each county of the United States. This list is based on historical site records and existing preferred habitat. Federally-protected species could potentially occur within the project area include the Eastern Indigo Snake (*Drymarchon corais couperi*), the Gopher Tortoise (*Gopherus polyphemus*), the Louisiana Black Bear (*Ursus americanus luteolus*), and the Louisiana Quillwort (*Isoetes louisianensis*). These species are described in further detail below.

Eastern Indigo Snake (*Drymarchon corais couperi*): The eastern indigo snake is a large, heavy bodied non-poisonous snake attaining a length of up to nine feet. The color is uniformly lustrous black except for a red, orange, or cream-colored area under the chin and throat. This snake may show seasonal shifts in habitat occupancy, wintering on sand ridges but moving to adjacent, more mesic habitats during the summer. Eastern indigo snakes utilize gopher tortoise burrows for shelter and possibly breeding. They remain in the greatest numbers in areas where extensive tracts of wild land still exists. Georgia and Florida are believed to currently support the remaining, endemic populations of this snake.

No eastern indigo snakes were sighted during the survey of the area. The general nature of the project area greatly reduces the possibility that this species would utilize or be found within it. Habitat types that occur within the project area, fairly wet, are generally unsuitable for gopher tortoise and the area has a high water table in winter and spring making it an undesirable habitat for the eastern indigo snake. The fairly dense understory in most of the project area as well as timber production further reduces the potential for the area to support the eastern indigo snake.

Gopher Tortoise (*Gopherus polyphemus*): The gopher tortoise is a large, dark brown to grayish black terrestrial turtle with elephantine hind feet and shovel-like forefeet. Although the distribution of the western population (that segment of the population lying west of the Mobile and Tombigbee rivers) of the gopher tortoise falls within the long-leaf pine belt, it occurs in a great variety of habitat types, with the common factor in all occupied habitats being the presence of sandy soils. These sandy soils need to be about three feet in depth to best accommodate burrowing. The traditional habitat of the western population of the gopher tortoise is natural xeric communities, mostly long-leaf / scrub oak type located on sand ridges. The natural plant associations are fire dependent.

The project area was surveyed for suitable habitat as well as the presence of gopher tortoise burrows. The project area consists of densely vegetated forests with a heavy shrub layer, wet and non-wet pine savanna, other forested and non-forested wetlands, road shoulders, and roadside ditches. The great majority of the project area is wetter that habitats where gopher tortoises are typically found. It appears that any suitable or marginally suitable tortoise habitat within the project area has been developed or otherwise disturbed with pine cultivation for timber production. No burrows were found in the project area during field investigations.

Louisiana Black Bear (*Ursus americanus luteolus*): The Louisiana black bear is one of 16 subspecies of the American black bear. The key habitat requirements of black bears are food, water, cover, and den sites that are spatially arranged across sufficiently large, relatively remote

blocks of land. Louisiana black bears typically inhabit bottomland hardwood communities but other habitat types may be utilized.

While the project area is in the vicinity of the Pearl River Wildlife Management Area, the habitat types along SR 607 are not ideal for the Louisiana black bear. During field investigations, no bears or bear sign (tracks or scat) were observed.

Louisiana Quillwort (*Isoetes louisianensis*): The Louisiana quillwort is a small, grass-like, amphibious plant that generally lives in water or wet habitats. They are seedless vascular plants that reproduce by spores and are closely related to ferns. The slender quill-like leaves arise from a short fleshy stem that is shallowly rooted in the substrate. In Mississippi, the Louisiana quillwort typically occurs in intermittent stream channels in bare sand or sandy mud. They can also be found in sloughs or swamps with a sand or gravel substrate.

All of the stream crossings along SR 607 were investigated, and none appeared to provide suitable habitat for the Louisiana quillwort. No Louisiana quillwort were noted in the project area.

4.5.5 Ecology and Habitat Mitigation Measures

Approximately 4.9 acres of wetlands would be impacted by the Western Alternative. The majority of the existing wetlands found along SR 607 are associated with the streams and creeks that traverse the area and are restricted to the channel and small riparian zones. In accordance with Section 404 guidelines of the Clean Water Act, all practicable measures will be implemented to avoid or minimize impacts to wetlands. Temporary impacts to wetland resources may occur as a result of construction access. Temporary impacts include changes in hydrology from temporary diversions of overland flow, silt fencing, and stockpiling material. Impacts from clearing, grubbing, and permanent filling are also anticipated. Care will be taken to minimize impacts associated with permanent filling of wetlands. Roadway right-of-way will be held to minimum widths necessary without compromising roadway safety and design standards. If feasible, bridges will be used to span wetlands when possible. Impacts to wetlands will be avoided to the greatest extent possible by using BMPs for road and bridge construction.

State and federally-protected species could potentially occur within the project area including the Eastern Indigo Snake, the Gopher Tortoise, the Louisiana Black Bear, and the Louisiana Quillwort. As part of the EA, field surveys were conducted for the presence of these species, however none were found. Additional surveys are recommended prior to construction. If such species are found, the US Fish and Wildlife Service and the Mississippi Department of Wildlife, Fisheries and Parks should be consulted regarding measures to avoid harm to this species.

Impacts to all aquatic resources (streams) will require mitigation, as defined within the April 10, 2008 "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" (33 CFR 325 and 332).

4.6 Water Quality and Floodplains

4.6.1 General Description of the Pearl River Basin

The Pearl River Basin covers an area of about 7,800 square miles. The headwaters of the Pearl River consist of several tributaries in east-central Mississippi. From there, the Pearl River flows southwesterly, forming the boundary between Louisiana and Mississippi in the southern part of the basin, and discharging into the Gulf of Mexico. The Pearl River is about 490 miles long and divides into the East Pearl River and the West Pearl River about 50 miles above the mouth. Significant tributaries include the Yockanookany and Strong Rivers. Elevations in the Pearl River Basin range from sea level to almost 700 feet above sea level. Much of the upper two-thirds of the Pearl River Basin consist of gently rolling to hilly terrain. In the southern part of the basin, the land is much flatter. About 65 percent of the basin is forested, and about 30 percent is agricultural land.

The Pearl River Basin is home to a large diversity of wildlife including at least seven federally listed species that are protected under the Endangered Species Act. The Pearl River supports between 120-140 species of fishes and approximately 40 species of fresh water mussels making it one of the most species-rich river systems in North America. With its slow meandering rivers and creeks, expansive bottomland hardwood forests, healthy marsh complex, slope forests and dense cypress-tupelo swamps, the Pearl River watershed supports great biological diversity. At least twelve natural communities of conservation importance are known to occur within the Pearl River Basin. These habitats are especially important stopover and nesting habitat for many Neotropical migratory birds.

4.6.2 Navigable Waterways

Navigable waters of the U.S. have historically been regulated by the USACE under the Rivers and Harbors Act of 1899 (RHA). Section 9 and Section 10 of the RHA establish the Corps' basic authority to regulate construction, filling, dumping, channelization and other activities in the waters, laying seaward of mean high tide elevation and subject or potentially subject to commercial navigation.

The project area does not contain, nor does SR 607 cross, any navigable waterway. The only navigable waterway in close proximity is the East Pearl River, which is located to the west and south of the project area along the state line. Therefore, no impacts to navigable waterways are anticipated with this project.

4.6.3 Surface Water Quality in Study Area

The project area is located in the Pearl River Basin as described above in **Section 4.6.1**. The project area is drained by several small creeks and streams, all of which eventually empty into the Pearl River. While the project area is fairly rural, silviculture and gravel and sand mining operations have degraded the streams in the area, mainly with increased sediment loads and turbidity. Below is a brief description of the surface waters that cross SR 607 including stream condition, water quality, and the associated wetland communities contained within them.

Alligator Branch: This perennial stream is fairly well incised with murky, tannin stained water and little to no flow. Terrain moves up in elevation quickly from the stream creating a small riparian zone and restricting the wetland habitat to the stream channel itself. The banks are lined with a mixed upland vegetative community including loblolly pine (*Pinus taeda*), water oak (*Quercus nigra*), sweetgum (*Liquidambar styraciflua*), and yaupon (*Ilex vomitoria*). The riparian zone and channel which spans approximately 25 feet includes sweetbay magnolia (*Magnolia virginiana*) and black gum (*Nyssa sylvatica*) growing along the bank at the waters edge. Construction at this location would be within the existing ROW and includes widening of the existing two-lane bridge, as shown in **Figure 2.3-1E**. Approximately 0.1 acres of the stream would be impacted by both alternatives; however, the majority of the area impacted is open water and it all falls within the existing ROW.

Second Alligator Branch: The terrain moves up in elevation quickly from this perennial stream and is clear-cut on both sides. Vegetation on the banks includes switchcane (*Arundinaria gigantea*), Chinese tallowtree (*Triadica sebifera*), yaupon, loblolly pine, greenbrier (*Smilax* sp.), and water oak. Potential wetlands are confined to the fairly well-incised channel and immediate riparian edges, which span approximately 20 feet. The water is murky and heavily tannin stained with no flow. There were several black gum and sweetbay magnolia growing in the channel. Approximately 0.2 acres of the stream would be impacted by the Eastern Alternative and 0.1 acres would be impacted by the Western Alternative. The majority of the area impacted is open water. It should be noted that with either alternative, the stream crossing would be a new two-lane bridge, as shown in **Figure 2.3-1E**, and potential impacts to the channel would be minimal.

Indian Camp Branch: This perennial stream is less incised with the elevation dropping as it moves south of SR 607. The stream opens into a broad bottom area with marginal wetland habitat. Species in the area include loblolly pine, sourwood (*Oxydendrum arboretum*), yaupon, sweetgum and greenbrier, which transitions into white titi (*Cyrilla racemiflora*), sweetbay magnolia, and water oak as move closer to the stream bottom. Similar to the other streams in the area, the water is murky with little to no flow and a soft muddy bottom. With a 20 foot channel and associated riparian zone, less than 0.1 acres of the stream would be impacted by the Eastern and Western Alternatives. The majority of the area impacted is open water. It should be noted that the stream crossing would be a new two-lane bridge with either alternative, as shown in **Figure 2.3-1D**, and impacts to the channel would be minimal.

Unnamed Tributary #1: A small intermittent stream with murky water and no flow, the surrounding terrain is fairly steep to the south of SR 607 but broader with a larger riparian zone to the north of the highway. The entire area surrounding the stream has been clear-cut including the channel itself. The few remaining species in the riparian zone and channel include sweetbay magnolia, black gum, water oak, iris (*Iris* sp.), St. Andrew's-cross (*Hypericum hypericoides*), rushes (*Juncus* sp.), and red maple (*Acer rubrum*). With a 20 foot channel and associated riparian zone, approximately 0.4 acres of the channel would be impacted by the south common alignment associated with the Eastern and Western Alternatives. The majority of the area impacted is very marginal due to timber activity, and impacts to the channel would be minimal. Unnamed Tributary #1 is shown on **Figure 2.3-1B**; an existing culvert is proposed to be extended at this location.

Turtleskin Creek: Approximately 30 feet in width, this perennial stream is heavily tannin-stained with very little flow and a fairly open channel. The stream is fairly well incised with all of the potential wetlands contained with the channel and its immediate edge. Species include loblolly pine, water oak, sweetgum, and yaupon with sweetbay magnolia and black gum growing along the bank at the waters edge. Less than 0.1 acres of the channel would be impacted by the common alternative, and the majority of the area impacted is open water and no wetlands were observed on either side of the creek. It should be noted that with either alternative, the stream crossing would be a new two-lane bridge, as shown in **Figure 2.3-1B**, and impacts to the channel would be minimal.

Unnamed Tributary #2. The stream appears ephemeral and fairly well-incised. Unnamed Tributary #2 would be Section 404 waters because it is a first order water body of the Pearl River. Unnamed Tributary #2 is shown on **Figure 2.3-1A**; an existing culvert is proposed to be extended at this location.

Unnamed Tributary #3. The 15-foot wide intermittent stream is fairly well incised with no flow and a fairly muddy bottom. The habitat around the stream includes maintained ROW associated with SR 607; therefore, all of the potential wetlands are restricted to the channel itself. Unnamed Tributary #3 would be Section 404 waters because it is a first order water body of the Pearl River. Species within the channel include alligator weed (*Alternanthera philoxeroides)*, cattail (*Typha* sp.), rushes (*Juncus* sp.), and willow (*Salix* sp.). Less than 0.1 acres of the channel would be impacted by the south common alignment associated with the Eastern and Western Alternatives. Unnamed Tributary #3 is shown on **Figure 2.3-1A**; an existing culvert is proposed to be extended at this location.

Unnamed Tributary #4. The land adjacent to the ditch channel is sloped and did not provide indications that the area was saturated or inundated for prolonged periods outside of the mean ordinary high water level that maintains a consistent flow. The bank to bank distance of the ditch was estimated to be 20 feet. Unnamed Tributary #4 would be Section 404 waters because it is a first order water body of the Pearl River. Unnamed Tributary #4 is shown on **Figure 2.3-1A**; an existing culvert is proposed to be extended at this location.

4.6.4 Floodplains and Floodways

Protection of floodplains and floodways is required by Executive Order 11988, Floodplain Management; 23 CFR Part 650, *Location and Hydraulic Design of Encroachments on Floodplains*; and USDOT 5650.2, Floodplain Management and Protection. These regulations were designed to minimize highway encroachments within the 100-year floodplain and to avoid land use development inconsistent with floodplain values. During periods of high water, floodplains serve to moderate flood flow, provide water quality maintenance, and serve as temporary habitat for a number of plant and animal species.

The Flood Insurance Rate Maps (FIRM) for the study area were reviewed to determine if any regulated floodplains or floodways are located within the project area (FEMA FIRM maps 28109C0580E for Pearl River County and 28045C0185D, 28045C0303D, 28045C0195D, 28045C0301D, and 28045C0215D for Hancock County). There are several 100-year regulated floodplains in the project area that cross SR 607. These include the crossings of Alligator

Branch, Second Alligator Branch, Indian Camp Branch, Unnamed Tributaries, and Turtleskin Creek. **Table 4.6-1** shows the amount of 100-year floodplain that could be potentially impacted by alternative.

Table 4.6-1
Acreage of 100-Year Floodplains Within Proposed Right-of-Way

Eastern Alternative	Western Alternative
4.70 acres	7.41 acres

The Western Alternative, which has been identified as the Preferred Alternative, is estimated to impact approximately 7.41 acres of the 100-year floodplain. As part of *USDA Environmental Compliance Floodplain Management Executive Order 11988,* Hancock County has completed the 100-Year Floodplain Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to floodplains. All documentation regarding the Eight-Step Decision Making Process is contained in **Appendix F**.

4.6.5 Groundwater Resources

Several groundwater resources can be traced through Hancock County. The area is underlain by fresh waterbearing, southward-tipping sands of the Miocene and Pliocene ages. Within these fresh waterbearing sands, one unconfined aquifer is found near the surface with ten or more confined aquifers at depth. The fresh water-bearing zone is 2,000 to 3,000 feet thick in the area. Individual aquifers range from 100 to 450 feet in thickness, with most measurements closer to 100 feet. The sequence of alternating sands and discontinuous clay layers, creating the confining nature of the deeper aquifers, is part of the Coastal Lowlands Aquifer System or the Southeastern Coastal Plain System. Groundwater in the project area is soft, containing sodium bicarbonate and exhibiting a high pH (above 8). Concentrations of chlorides range from 13 to 16 parts per million (ppm) and iron content is less than 0.3 ppm. Solids content does not exceed 315 ppm. The aquifers have plentiful, almost untapped supplies of fresh water.

A survey of groundwater wells and associated wellhead protection areas in the project area was conducted by accessing U.S. Geological Survey (USGS) records and reviewing data from the MDEQ. There are only two private water wells that have the potential to be impacted. One is located within the northern portion of the corridor within the proposed Western Alternative ROW and the other is located in the south common alignment ROW associated with the Eastern and Western Alternatives. No public water wells or wellhead protection areas would be impacted by the project.

4.6.6 Sole Source Aquifers

A sole source aquifer is an underground water supply designated by the Environmental Protection Agency (EPA) as the "sole or principal" source of drinking water for an area. The program was established under Section 1424(e) of the Safe Drinking Water Act of 1974. According to the Safe Drinking Water Act, projects that are to receive "federal financial assistance" and which have the potential to contaminate the aquifer "so as to create a significant hazard to public health" are subject to EPA review and approval. There are no sole source

aquifers located within the project area or elsewhere in Hancock and Pearl River Counties. Therefore, no impacts to a sole source aquifer are anticipated with this project.

4.6.7 Wild and Scenic Rivers

There are no rivers in the study area that are listed on the National River Inventory. There are no rivers that are potential candidates for inclusion in the National Wild and Scenic Rivers System. Based on information obtained from the National Park Service, none of the proposed alternatives would impact a Wild and Scenic River.

4.6.8 Coastal Zone and Coastal Barriers

The Coastal Zone Management Act of 1972 (16 USC 1451-1456), as amended, provided for the effective management, beneficial use, protection, and development of a coastal zone. This led the state of Mississippi to establish the Department of Marine Resources (DMR) to evaluate, monitor and permit activities in the Mississippi Coastal Zone. Under a Memorandum of Agreement with the Mobile and Vicksburg districts of the USACE, applications for wetland activities in the Mississippi Coastal Zone are to be submitted to the DMR on the Joint Application and Notification form. The DMR will then evaluate the permit application for completeness and forward copies to the appropriate agencies.

A portion of the project area is located in Hancock County, one of the three counties located within the Mississippi Coastal Zone. While there are no coastal barriers within the study area, there are several wetland areas. Any impacts to these wetlands, as discussed in **Section 4.5.3**, will be documented and a Joint Application and Notification form would be submitted to the DMR.

4.6.9 Water Quality and Floodplain Mitigation Measures

There are several existing water crossings traversed by the Western Alternative. Impacts to surface waters associated with the construction activities will be minimized through the implementation of a comprehensive stormwater management plan and the use of best management practices (BMPs) to reduce erosion and sedimentation. Application of BMP measures such as stabilized construction entrances, vegetative buffers, silt fences, protected inlet structures, retention/detention basins, check dams, stabilized discharge outlets would reduce the amount of erosion and sedimentation during construction. Care will also be taken to reduce the amount of exposed soil within the construction area, and areas of soil exposed for long periods of time will be seeded to stabilize the area. Permanent filling of surface waters for road crossings will be minimized where possible. Care will be taken to minimize surface water crossings and locating the crossings at narrow crossing points. When possible, bridge construction will be used in lieu of culverts or fill to reduce impacts to surface water.

The study area includes several streams and smaller tributaries that have adjacent lands that are within the 100-year floodplain. All of the potential crossings of the 100-year floodplains would be designed to maintain pre-construction hydrologic conditions and would not result in any substantive effect to base flood elevations upstream or downstream of the crossing. Bridges, pipes, and box culverts will be designed in accordance with FHWA floodplain impact requirements.

Floodplain crossings will be as close to ninety degrees (90°) as practical to minimize floodplain encroachments. Drainage structures and the roadway grades will be designed to limit increases to the flood hazards. In addition, methods to minimize harm will include minimizing fill and grading requirements, preserving the free natural drainage wherever possible, maintaining vegetation buffers, controlling urban runoff, and minimizing erosion and sedimentation during construction. Specific design measures that will be accomplished during the detailed design to mitigate floodplain impacts include:

- Avoidance of longitudinal encroachments;
- Sufficient bridging to minimize adverse effects from a rise in backwater;
- Sufficient bridging to minimize increases in water velocity;
- Minimization of channel alterations;
- Adequate and timely erosion control measures to minimize erosion and sedimentation;
- Utilization of standard specifications to control work in and around streams so that adverse water quality impacts are minimized; and
- Adequate preliminary hydraulic sizing of roadway storm culverts, box culverts and bridges should neither impact nor create a greater flood risk for adjacent properties than existed before project construction.

4.7 Energy Consumption

In terms of the short-term impacts on energy consumption resulting from project construction, the energy requirements of the project build alternatives would be substantially greater than for the No-Build Alternative. However, in the long-term, it can be expected that energy consumption due to operation of the upgraded highway would be reduced over the No-Build Alternative. By improving operating speeds and reducing delays, the project will improve energy efficiency and reduce energy consumption on a yearly basis over conditions that would exist under the No-Build Alternative.

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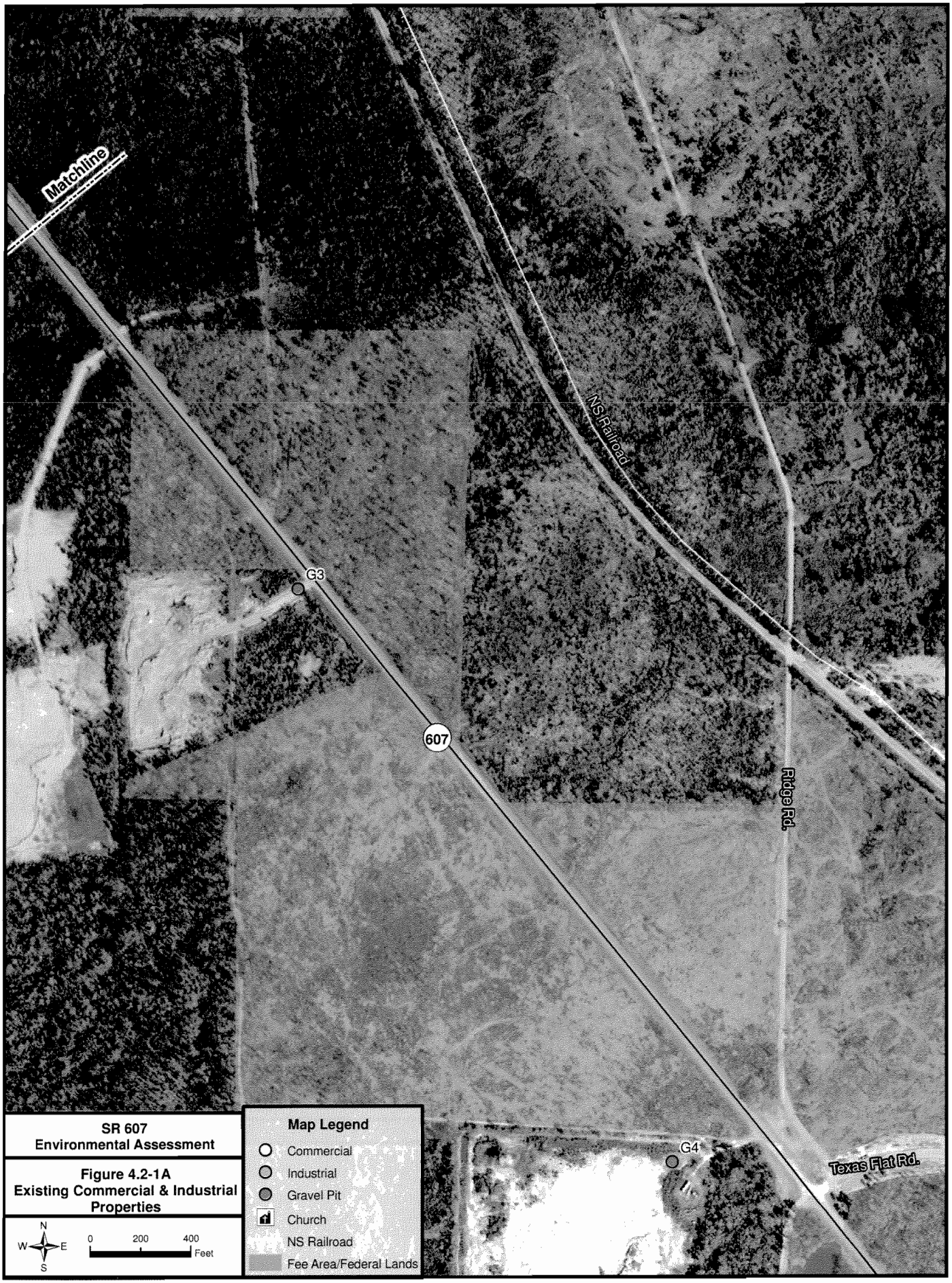
Matchline
NS Railroad
G3
607
Ridge Rd.
G4
Texas Flat Rd.
SR 607
Environmental Assessment
Figure 4.2-1A
Existing Commercial & Industrial
Properties
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Map Legend
Commercial
Industrial
Gravel Pit
Church
NS Railroad
Fee Area/Federal Lands


NS Railroad
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G2
607
Matchline
SR 607
Environmental Assessment
Figure 4.2-1B
Existing Commercial & Industrial Properties
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Commercial
Industrial
Gravel Pit
Church
NS Railroad
Fee Area/Federal Lands


Matchline
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Matchline
SR 607
Environmental Assessment
Figure 4.2-1C
Existing Commercial & Industrial
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Gravel Pit
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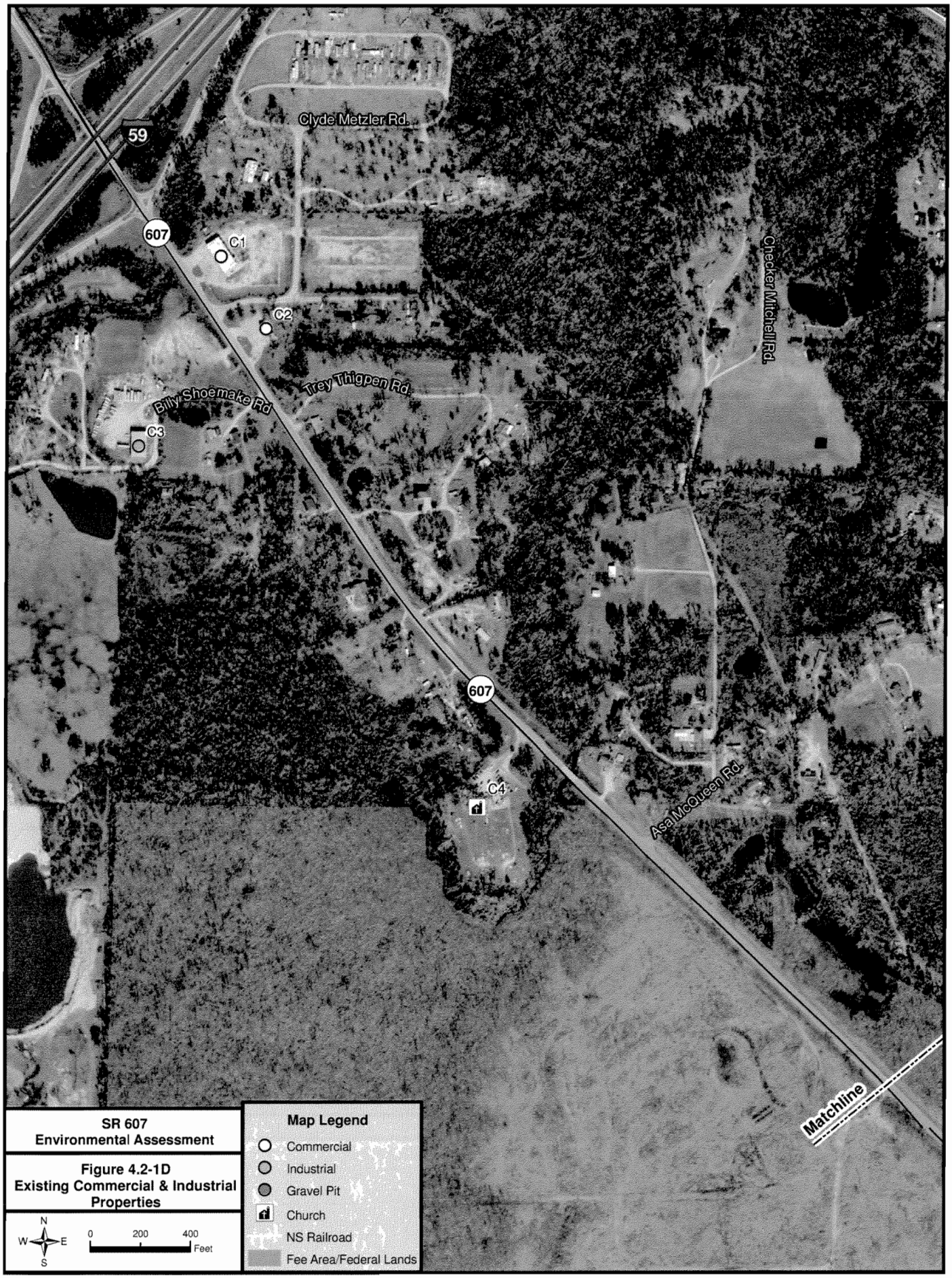
NS Railroad
Fee Area/Federal Lands


Clyde Metzler Rd.
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607
C1
C2
Checker Mitchell Rd.
Trey Thigpen Rd.
Billy Shoemake Rd
C3
607
C4
Asa McQueen Rd.
Matchline
SR 607
Environmental Assessment
Figure 4.2-1D
Existing Commercial & Industrial Properties
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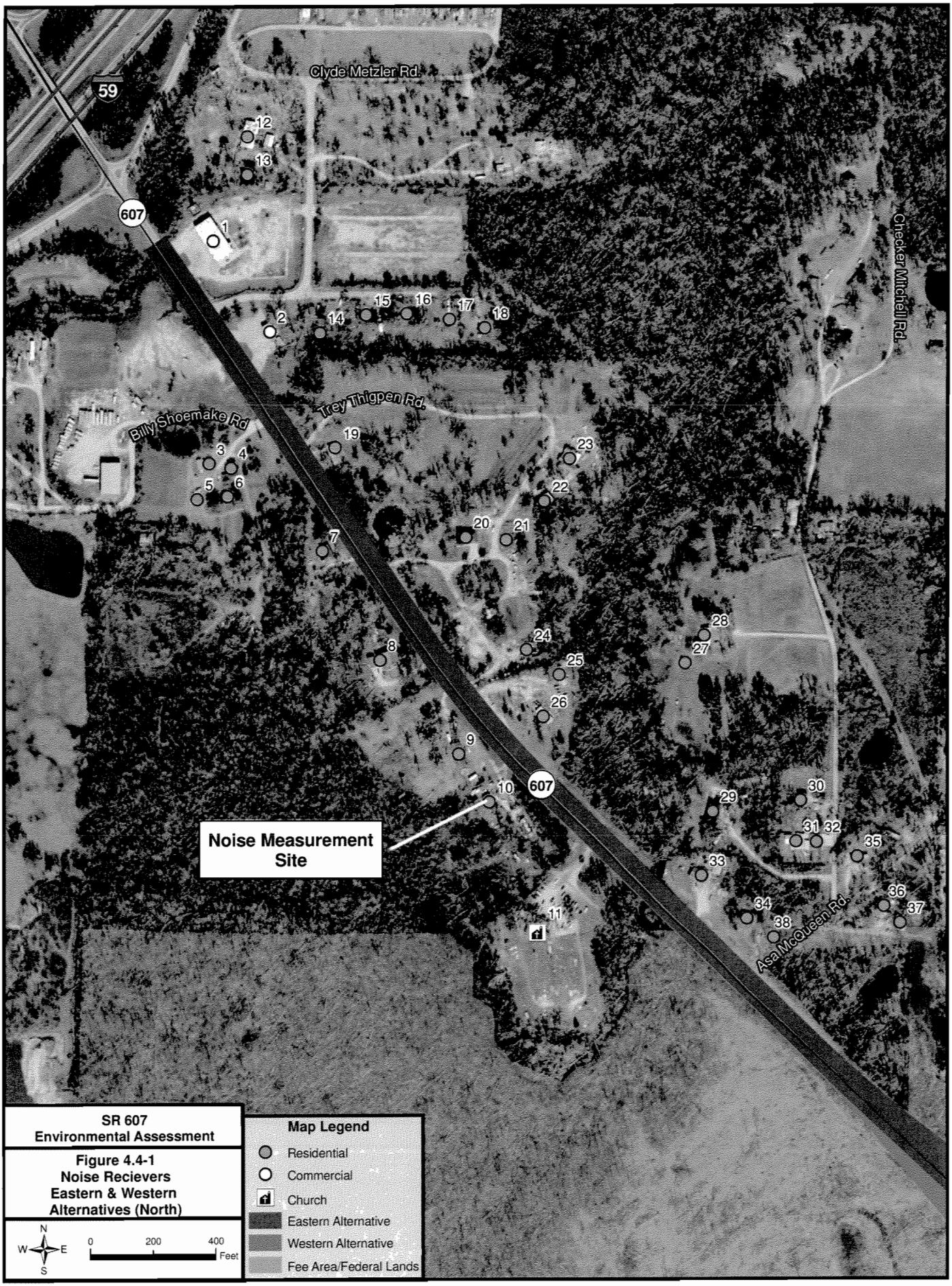
Gravel Pit
Church
NS Railroad
Fee Area/Federal Lands


Clyde Metzler Rd.
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607
Checker Mitchell Rd.
Billy Shoemake Rd
Trey Thigpen Rd.
Noise Measurement Site
Asa McQueen Rd.
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SR 607
Environmental Assessment
Figure 4.4-1
Noise Recievers
Eastern & Western
Alternatives (North)
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Feet
Map Legend
Residential
Commercial
Church
Eastern Alternative
Western Alternative
Fee Area/Federal Lands

CHAPTER 5.0

5.0 OTHER CONSIDERATIONS

5.1 Transportation Impacts

This section provides an overview of the existing roadway network and operations, planned transportation projects, and operational impacts. Rail and air transportation facilities are also addressed. *Graphics for **Chapter 5.0** are included together at the end of the chapter.*

5.1.1 Roadway Network and Other Transportation Facilities

Roadway Network

The roadway network in the study area consists of interstate, state highway, county and local roads, see **Figure 5.1-1**. SR 607 provides a north-south transportation connection between I-10 and I-59, traversing through Hancock County and Pearl River County, Mississippi. SR 607 is the only state highway located within the SSC Buffer Zone, and is a two-lane facility within the project limits. SR 607 is classified as a rural collector.

SR 607 has limited access points due to the rural, undeveloped nature of the study area. There are no signalized intersections along SR 607 and there is a limited network of county roads serving adjacent communities. The posted speed limit within SSC is 50 miles per hour (MPH). Beyond the SSC Northern Security Gate, the speed limit is 55 MPH. According to 2006 traffic data, the annual average daily traffic (AADT) on SR 607 south of Texas Flat Road is 3,900 vehicles per day (VPD). North of Texas Flat Road to the Hancock County Line, the 2006 AADT increases to 4,700 VPD. From the Pearl River County Line to I-59, the 2006 AADT decreases to 3,300 VPD. Truck traffic on SR 607 compromises up to 12% of the AADT. **Table 5.1-1** presents historical AADT volumes for the three sections of SR 607 discussed above.

Table 5.1-1
Historic AADT Volumes on SR 607

Year	South of Texas Flat Road	North of Texas Flat Road	South of I-59
1996	•	3,100	3,200
1997	5,100	3,000	3,400
1998	5,200	3,100	3,500
1999	5,300	3,200	3,600
2000	3,900	3,900	3,900
2001	3,900	3,900	3,900
2002	3,900	3,900	3,900
2003	3,200	3,400	3,200
2004	3,000	3,400	3,200
2005	3,000	3,400	3,200
2006	3,900	4,700	3,300
2007	3,700	•	•

Source: MDOT
Note: • Data not available

According to the *Roadway Configuration Assessment Hurricane Evacuation Scenario Traffic Study*, June 2007, SR 607 currently operates at level of service (LOS) B during the peak periods. The *Highway Capacity Manual 2000* (HCM) identifies the capacity of each lane of a two-lane highway as 1,700 vehicles per hour (VPH), providing an existing capacity for 2,400 VPH for both directions. The HCM identifies the capacity of each lane of a multi-lane highway as 1,400 VPH, providing capacity for 5,600 VPH in both directions.

Using the MDOT rural growth rate of 2.4%, the average AADT on SR 607 is projected to be approximately 8,500 vehicles per day by 2030. Widening SR 607 to a four-lane highway will provide adequate capacity for both future peak hour and daily traffic growth.

Planned Transportation Projects

Planned transportation projects within the study area are illustrated in **Figure 5.1-1**.

Texas Flat Road Improvements: The *Environmental Assessment for Improvements to Texas Flat Road* was completed in 2002; currently the project is under construction. The project is located in Hancock County and begins at SR 607 and terminates at SR 603 east of the SSC Buffer Zone. The project is approximately 13.5 miles in length, with only 1.5 miles of existing pavement along the current alignment; the remaining 12 miles are dirt and gravel. The improvements include widening and paving two 12-foot lanes with shoulders, realigning some portions of the road, and resurfacing. Improvements also include a railroad crossing for the NS Railroad. Construction is anticipated to be completed by mid-2009.

Ridge Road Realignment: An EA was initiated in January 2008 for the realignment of Ridge Road in Pearl River and Hancock Counties. The project entails realigning existing Ridge Road by constructing approximately 5.5 miles of two-lane rural roadway beginning at a new intersection with SR 607 in Hancock County, and extending north to its intersection with SR 43 in Pearl River County. The environmental assessment and engineering work for the Ridge Road Realignment is anticipated to be completed in early 2010.

Rail Network

The Norfolk Southern (NS) Railroad parallels SR 607 from I-59 to the northern portion of the SSC Fee Area. The NS Railroad is currently being used for car storage south of I-10, although the tracks have yet to be cleared from Hurricane Katrina north of I-10 to Texas Flat Road. The tracks have been removed at the crossing of SR 607, but the tracks are still in place throughout the SSC Fee Area.

Air Network

There are two airports within the study area; the Stennis International Airport in Hancock County and the Picayune Municipal Airport in Pearl River County. The Stennis International Airport is located north of I-10 and west of SR 603. The Stennis International Airport is owned and operated by the Hancock County Port and Harbor Commission. Stennis International Airport services the aviation needs of Hancock County, including commercial cargo, recreational, energy, business, government and general aviation interests in the area, and the Stennis Space Center. The Airport does not currently receive scheduled air service.

The Picayune Municipal Airport is located in the southern most portion of Pearl River County. The Airport is mainly used by private fixed wing and rotary aircrafts. The Airport is accessible through Ridge Road to Runway Road.

5.2 Utilities

5.2.1 Existing Utilities

The project area contains water lines, natural gas lines, electrical distribution lines, and communication lines adjacent to the existing roadway. By widening the existing roadway, there is a potential need for utility relocations. Existing utilities that are located within the existing right-of-way will be relocated outside of the proposed right-of-way limits. Residences and commercial facilities in the study area have private water wells and septic tanks.

5.2.2 Utility Impacts

Both the Eastern and Western Alternatives would impact local utilities including telephone, water, gas, fiber optic and electrical lines throughout the project limits, as most utilities parallel the existing roadway. Quantities shown for utility relocations are estimates only. Utility relocations would be fully evaluated and quantified during the design phase of the project, where the design team can work in conjunction with surveyors and utility owners to finalize relocation plans.

South of the SSC North Security Gate, the improvements to SR 607 will require the relocation of the following utilities:

- 12" water line (NASA) located on the west side of SR 607 generally between Saturn Drive and Upper Gainesville Road; approximately 1,100 linear feet.
- Overhead power line (NASA) located on the west side of SR 607 beginning at Upper Gainesville Road and extending approximately 1,100 feet north to a point where it crosses over to the east side of SR 607.
- Fiber optic communication line (Bell South / AT&T) located on the west side of SR 607 beginning north of Upper Gainesville Road and extending approximately 7,600 feet north to a point where it crosses over to the east side of SR 607 just south of the North Security Gate.

NASA is in the process of installing a communication ductbank along SR 607 from just south of Leonard Kimble Road to the North Security Gate. Indications are that NASA will reserve a spare conduit within the ductbank that will provide for the installation of the Bell South / AT&T fiber optic communication line that was noted as being a relocation.

Just north of the SSC North Security Gate extending approximately 10,100 linear feet to the south side of Texas Flat Road, a Bell South / AT&T fiber optic communication line that is located on the east side of the existing roadway will require relocation as part of the south common alignment associated with the Eastern and Western Alternatives.

From Texas Flat Road extending north to Asa McQueen Road, the proposed Eastern Alternative ROW will require the relocation of approximately 14,500 linear feet of a Bell South / AT&T fiber optic communication line.

From Texas Flat Road northward, approximately 3,100 linear feet of the Bell South / AT&T fiber optic communication line would be impacted as part of the Western Alternative. As indicated, the Eastern Alternative impacts approximately 11,400 feet more of the fiber optic communication line than the Western Alternative. The Western Alternative has been identified as the Preferred Alternative, because it has less impact on the fiber optic communication line.

Coordination with affected utilities would be required during design as part of the development of roadway construction plans. Prior to construction, the contractor would be required to verify the location of existing utilities shown on the plans by calling Mississippi One Call. Hand excavation would be required to verify the vertical depth of underground utilities.

5.3 Effects Due To Construction

Expansion of the existing roadway or new roadway construction activities associated with either of the two build alternatives would result in a variety of temporary effects associated with storage of materials and equipment, construction equipment operations, and other similar activities. Construction effects do not include permanent effects resulting from land conversion to roadway ROW, nor do they refer to indirect effects caused by the presence of the roadway facility. Construction effects relate only to those temporary features (e.g., staging areas) and operations strictly associated with construction activities alone. A variety of best management practices can be effectively employed to reduce various construction-related impacts.

Construction activities will comply with all applicable federal, state, and local laws related to safety and health. Construction procedures will incorporate all appropriate safety devices, protective equipment, and all other reasonable actions necessary to protect the life, health, and safety of the public, the contractor's employees, and all real property adjacent to construction operations.

5.3.1 Construction Period Noise and Air Quality

The major roadway construction components are expected to be earth moving, hauling, grading, and paving using heavy equipment such as bulldozers, graders, and haul trucks. It is common that these general construction noise sources will cause temporary speech interference for passerby and those individuals living or working adjacent to the construction. Due to the short term duration of the construction noise and also that it is primarily restricted to daytime hours, impacts should be minimal.

Construction-related effects of the project to air quality would be limited to short-term increased fugitive dust and mobile source emissions during construction. Feasible and appropriate measures should be incorporated into project planning during the design stage to minimize air quality impacts of project construction activities. Construction-related fugitive dust would be generated by haul trucks, concrete trucks, delivery trucks, and other earth-moving vehicles operating around the construction sites. Best Management Practices (BMPs) would be employed

during construction in order to minimize the amount of dust generated by construction activities. Disruption of traffic during construction, such as the temporary reduction of roadway capacity and travel speeds and increased queuing, could result in short-term elevated concentrations of pollutants from tailpipe emissions. In order to minimize the amount of emissions generated, efforts should be made during the construction phase to limit disruption of traffic flow, especially during peak travel periods. Emissions from construction equipment will be minimized through proper engine maintenance in combination with close management supervision to reduce the frequency and duration of unnecessary construction activities.

5.3.2 Construction Period Vibration

Activities associated with roadway construction can result in varying degrees of ground vibration, depending on the type of equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings located in the vicinity of the construction activities respond to these vibrations with varying results ranging from no perceptible effects at the lowest levels, low rumbling sounds and perceptible vibrations at moderate levels, and slight damage at the highest levels. Ground vibrations from roadway construction activities do not often reach the levels that can damage structures, but they can achieve the audible and feelable ranges in buildings very close to the site.

A mitigation plan will be developed and implemented during the final design and construction phases of the project. The objective of the plan is to minimize construction vibration damage using all reasonable and feasible means available. The plan should provide a procedure for establishing threshold and limiting vibration values for potentially affected structures based on an assessment of each structure's ability to withstand the loads and displacements due to construction vibration. The plan should also include the development of a vibration monitoring plan and the implementation of a compliance monitoring program during construction.

5.3.3 Access and Distribution of Traffic

Traffic disruption is anticipated; however, approved traffic control plans will be utilized in areas where traffic would interface with construction work zones. Advanced warning signs and temporary access features will be implemented in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and MDOT standards.

While only temporary in nature, the construction of the project could potentially require detours. Maintenance of traffic, construction sequencing, and detouring would be planned and scheduled to minimize impacts to local residences, businesses, and the traveling public. Access to residences and businesses impacted by construction would be maintained by temporary driveways or connections, where necessary. Detours may be required at various locations throughout the construction process. Temporary roadway construction traffic control methods such as signs and barricades would be implemented. Local police, fire departments, and other emergency service providers would be notified in advance of any construction-related activities to allow for proper planning and alternate route identification. Therefore, disruption to emergency responders should be minimal.

5.3.4 Excavations, Fill Material, Debris and Spoil

Excavated materials unable to be used as fill for the project will not be stockpiled adjacent to, or in areas where storm water runoff could cause erosion of that material into surface waters. If material storage adjacent to surface water is unavoidable, the contractor must take additional measures that will prevent runoff from the stockpiled material site into an adjacent water body.

Fill material extracted from an excavation or borrow pit area will be used as embankment material in the construction project. MDOT has recently worked with the U.S. Fish and Wildlife Service (USFWS), State Historic Preservation Officer (SHPO), and various Tribal Historic Preservation Officers (THPOs) to develop better procedures for evaluating and selecting borrow pits for fill. All required permits (i.e., utility protection, erosion control, etc) must be acquired prior to obtaining the fill material.

Debris and excess spoil materials generated during construction would normally be disposed of off-site. Disposal of unsuitable or excess material, trash, debris, and spoil would be governed by local and/or state regulation. None would be disposed of in wetland areas.

5.3.5 Construction Staging Areas

Construction staging areas would be identified by the contractor after the project is let for construction. It is recognized that staging areas would be necessary for storage of equipment, material stockpiles, and office facilities. These areas would be located within or closely adjacent to the alternative, and would be approved by MDOT, Pearl River and Hancock Counties, and NASA prior to the start of construction.

5.4 Secondary and Cumulative Effects

5.4.1 Secondary Effects

In general, indirect or secondary impacts are reasonably foreseeable effects caused by a project that are expected to occur either later in time or further in distance from the project or both. An evaluation of indirect impacts attempts to determine whether a project might generate substantial impacts that may not be immediately apparent beyond the direct and more easily recognizable effects that are expected to occur upon or after project implementation. Analysis of indirect impacts often focuses on land use changes and secondary development spurred or supported by a transportation improvement. However, roadway upgrades may indirectly impact other environmental considerations or resources in ways that are difficult to anticipate and evaluate. As a result, regulatory requirements specify that the analysis effort should focus on indirect impacts that are reasonably foreseeable.

The SR 607 project is not likely to result in long-term land use changes in and near the project corridor, as the majority of the project is located in the SSC Buffer Zone where the development of structures is prohibited. The SR 607 project would nonetheless generate some level of secondary effects including increased stormwater runoff due to increases in impervious surface area and increases in ambient noise levels.

5.4.2 Cumulative Effects

In general, cumulative impacts result from the incremental impacts of a proposed project added to other past, present, and reasonably foreseeable future actions, regardless of the type of action and who undertakes such action. An evaluation of secondary impacts attempts to determine whether the effects of the proposed project, when combined with the effects of other actions, could result in substantial impacts on environmental resources or conditions. The major projects examined as part of this evaluation included the Texas Flat Road improvements and the Ridge Road Realignment, as discussed in **Section 5.1.1**. The cumulative effect of these projects would be to improve transportation operations within and around SSC.

5.4.3 Summary

In terms of cumulative impacts, vehicular noise levels and impervious surface cover will increase as a result of the SR 607 project. These effects are not expected to produce a substantial adverse impact. As part of the larger plan to improve access to employment at SSC, the proposed project would have substantial economic and transportation-related beneficial cumulative impacts.

5.5 Airport Clear Zones and Accident Potential Zones

HUD 24 CFR 51 sets standards for locating HUD assisted projects in relationship to civil airports and military airfields. Proposed projects should not be within 3,000 feet from the end of a runway at a civil airport and within 2.5 miles from the end of a runway at a military airfield. Stennis International Airport is located north of I-10 and west of SR 603, over ten miles east of the project area. The Picayune Municipal Airport is located approximately three miles from the northern terminus of the project area. Although there are no airport clear zones within the project area, the development of habitable structures is prohibited within the SSC Buffer Zone, which extends five miles around the perimeter of the Fee Area and includes portions of Hancock and Pearl River Counties in Mississippi and St. Tammany Parish, Louisiana.

The proposed SR 607 project would require construction activities in the Buffer Zone. These activities would not result in the development of habitable structures in the Buffer Zone.

5.6 Explosive and Flammable Operations

According to HUD 24 CFR 51, HUD assisted projects must be located far enough from hazardous facilities that they do not pose a danger to structures or occupants of a project. The study area is located within and adjacent to SSC, which includes explosive and flammable operations, such as the rocket engine testing facility and the Mississippi Army Ammunition Plant.

The proposed project would not be located directly adjacent to any explosive or flammable operations, and no impacts related to these operations are anticipated.

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CHAPTER 6.0

6.0 EVALUATION OF ALTERNATIVES

6.1 Geographic Information System Evaluation

Table 6.1-1 summarizes the quantitative impacts associated with the Eastern and Western Alternatives.

Table 6.1-1
Summary of Impacts

Evaluation Criteria	Unit	Eastern Alternative	Western Alternative
Overall Alignment Length			
Total Length	miles	7.8	7.8
Human Environment Considerations			
Structures Impacted (Deteriorated Barn)	count	1	0
Residential / Mobile Home Relocations	count	0	0
Commercial Relocations	count	0	0
Required Right-of-Way (ROW)			
Estimated Required Federal Land ROW	acres	39.78	36.97
Estimated Required Private Land ROW (1)	acres	27.60	32.67
Estimated Required Right-of-Way	**acres**	**67.38**	**69.64**
(1) Includes Private Land ROW in Hancock County	acres	26.76	32.67
(1) Includes Private Land ROW in Pearl River County	acres	0.84	0
Physical Environment Considerations			
Utility Relocations (South of Texas Flat Road):			
12" Waterline	linear feet	1,100	1,100
Overhead Powerline	linear feet	1,100	1,100
Fiber Optic Communication Line – west side	linear feet	7,600	7,600
Fiber Optic Communication Line – east side	linear feet	10,100	10,100
Utility Relocations (North of Texas Flat Road):			
Fiber Optic Communication Line – east side	linear feet	14,500	3,100
Petroleum/Natural Gas Pipeline Crossings	count	2	2
Water Wells Potentially Impacted	count	1	2
Hazardous Site Parcels Directly Impacted	count	0	0
NRHP Eligible Archaeological Sites	count	1	0
Natural Environment Considerations			
Wetlands Directly Impacted	Acres	1.80	4.90
100-Year Floodplain Area Impacted	acres	4.70	7.41
Prime and Unique Farmland Soils Impacted	acres	63.00	65.70
Perennial Streams Traversed	count	4	4
Intermittent Streams Traversed	count	2	2
Estimated Cost Considerations			
Estimated Construction Cost	2008 dollars	$28 Million	$30 Million
Estimated ROW Cost (Private Land Only)	2008 dollars	$55,200	$65,340

Although both alternatives are approximately 7.8 miles in length, the Western Alternative would require approximately 2.26 acres of additional right-of-way than the Eastern Alternative. The Eastern Alternative would require the removal of one auxiliary structure which is an abandoned, deteriorated barn, and the Western Alternative would not require the relocation of any structures.

The Western Alternative may require approximately 5.07 more acres of privately held land than the Eastern Alternative. The Western Alternative does not impact private property in Pearl River County. The majority of right-of-way impacts associated with the Eastern Alternative are located in Hancock County, although 0.84 acres of private property in Pearl River County is impacted.

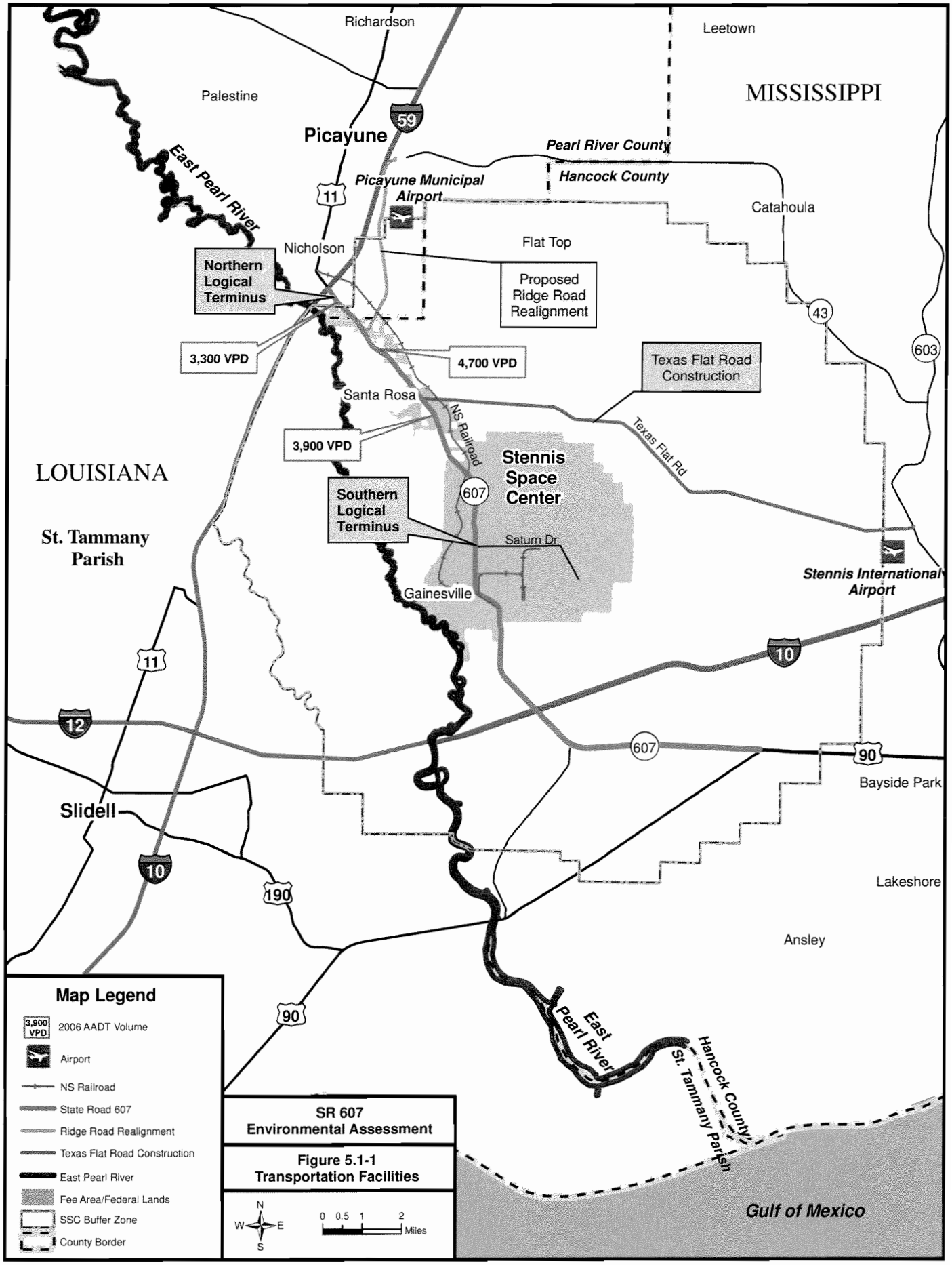
Utility impacts / potential relocations are similar for the Eastern and Western Alternatives in areas where they share a common alignment, however the Eastern Alternative would impact an additional 11,400 linear feet of fiber optic communication line compared to the Western Alternative, as this utility is located on the east side of the road.

The Eastern Alternative impacts 1.8 acres of wetlands, while the Western Alternative impacts 4.9 acres of wetlands.

The Eastern Alternative has fewer anticipated impacts to the 100-year floodplain than the Western Alternative. The Eastern Alternative impacts approximately 4.70 acres of the 100-year floodplain, while the Western Alternative impacts approximately 7.41 acres of the 100-year floodplain.

The Western Alternative potentially impacts 2.7 more acres of prime farmland than the Eastern Alternative. The Eastern Alternative potentially impacts 63 acres of prime farmland, while the Western Alternative potentially impacts 65.7 acres of prime farmland.

For many of the evaluation criteria, the Eastern and Western Alternatives have similar potential impacts. However, the Eastern Alternative appears to have fewer anticipated environmental impacts in terms of required right-of-way, wetlands, floodplains, and prime farmland. With regard to the physical environment, the Eastern Alternative has a greater impact on utilities compared to the Western Alternative. The additional impact consists of approximately 11,400 feet (2.2 miles) of fiber optic line that would need to be relocated.


Richardson
Leetown
Palestine
MISSISSIPPI
Picayune
59
Pearl River County
Hancock County
East Pearl River
Picayune Municipal Airport
11
Catahoula
Nicholson
Flat Top
Northern Logical Terminus
Proposed Ridge Road Realignment
43
603
3,300 VPD
4,700 VPD
Texas Flat Road Construction
Santa Rosa
NS Railroad
Texas Flat Rd
3,900 VPD
LOUISIANA
Stennis Space Center
607
Southern Logical Terminus
Saturn Dr
St. Tammany Parish
Stennis International Airport
Gainesville
10
11
12
607
90
Bayside Park
Slidell
10
190
Lakeshore
Ansley
90
East Pearl River
Hancock County
St. Tammany Parish
Gulf of Mexico
Map Legend
3,900 VPD
2006 AADT Volume
Airport
NS Railroad
State Road 607
Ridge Road Realignment
Texas Flat Road Construction
East Pearl River
Fee Area/Federal Lands
SSC Buffer Zone
County Border
SR 607
Environmental Assessment
Figure 5.1-1
Transportation Facilities
N
W
E
S
0 0.5 1 2
Miles

CHAPTER 7.0

7.0 PUBLIC AND AGENCY INVOLVEMENT

Involving local stakeholders early in the Environmental Assessment process builds sufficient understanding of the alternatives evaluation process and develops consensus among local leaders and state officials in regard to the purpose and need for a project. This section of the Environmental Assessment contains a summary of the agency coordination effort and the public involvement process.

7.1 Solicitation of Views (SOV)

A Solicitation of Views (SOV) packet was prepared that included: a project study area graphic showing the potential logical termini established for the project; a brief project description; and a letter requesting written response to the packet's inquiry for agency views on the project. Under HUD's guidance, Hancock County made initial contact with Indian tribes within the Study Area prior to their receipt of the SOV packet. The packets were then distributed to federal and state agencies, Indian tribes, and elected officials, and selected local community organizations with the primary purposes of the packet being to:

- Provide information concerning the project:
- Provide an opportunity to gain agency comments and input;
- Begin a dialogue with participating and resource agencies;
- Provide access to available data; and
- Identify concerns and resources that should be evaluated.

7.2 SOV Comments and Coordination with Public Officials

The SR 607 SOV contact list served as means to document: the distribution of the SOV packet; receipt of SOV response letters; and to provide a summary of agency comments. A copy of the SOV packet that was sent out is included in **Appendix E**.

The SOV packet was distributed to 41 contacts. Of the 41 recipients, there were 10 that responded. Copies of the response letters are also included in **Appendix E. Table E-1** within **Appendix E** provides a summary of the SOV distribution list including agency contacts, and a summary of comments received. Issues of concern are also summarized.

In June 2008, a meeting with Pearl River County and Hancock County elected officials was held to provide an update on the project and to obtain consensus on the alternatives being considered. The purpose and need for the project was discussed. The proposed alignment concepts and typical roadway sections for the Tier I Alternatives and Tier II Alternatives were presented. Consensus was reached on the alternatives that would be evaluated in the Draft EA. Pearl River County and Hancock County representatives stressed the need to extend the 5-lane section proposed within the northern portion of the corridor to the I-59 interchange right-of-way including connection to the existing entrance and exit ramps on the south side of the interchange. See June 2008 Project Meeting Memorandum within **Appendix E**. Following the June 2008 meeting, MDOT and FHWA agreed to include this minor extension within the project.

In September 2008, a Phase I Cultural Resources Survey for the SR 607 project was completed and submitted to the Mississippi Department of Archives and History (MDAH) for review. In a letter dated October 27, 2008, the MDAH concurred with the findings and recommendations contained in the Phase I Cultural Resources Survey. Within the referenced letter, MDAH indicated that they have no reservations with the proposed undertaking. A copy of the letter is contained in **Appendix E**.

7.3 Public Comment Opportunities

As part of *USDA Environmental Compliance Floodplain Management Executive Order 11988,* Hancock County has completed the 100-Year Floodplain Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to floodplains. All documentation regarding the 100-Year Floodplain Eight-Step Decision Making Process is contained in **Appendix F**.

As part of *USDA Environmental Compliance Protection of Wetlands Executive Order 11990,* Hancock County has completed the Wetland Eight-Step Decision Making Process that included two separate public notifications to inform the public of potential impacts to wetlands. All documentation regarding the Wetland Eight-Step Decision Making Process is contained in **Appendix F**. In addition to the opportunities provided to comment on wetland and floodplain impacts, the public will have the opportunity to review and comment on this EA as noted in **Section 7.4**.

7.4 Finding of No Significant Impact (FONSI) and Notice of Intent and Request for Release of Funds (NOI/RROF)

Public notification and public comment period requirements for HUD Environmental Assessments are outlined within 24 CFR Part 58 *Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities.* These requirements include notification of the availability of a Finding of No Significant Impact (FONSI) and the Notice of Intent/Request for Release of Funds (NOI/RROF).

When Hancock County and HUD prepare a FONSI for the SR 607 project, a FONSI notice will be published in local newspapers. The FONSI notice will include locations where the document is available for public review. A 15-day comment period will follow the FONSI notice. Comments received during this period will be considered and modifications will be made as appropriate prior to the expenditure of funds.

The FONSI notice will be published concurrently with the NOI/RROF. Because the FONSI notice and NOI/RROF will be published concurrently, a 15-day comment period applies for the receipt of public comments on both documents. Concurrent FONSI NOI/RROF requires that it is clearly indicated that the notice is intended to meet two separate requirements, and advises the public to specify which notice their comments reference. All comments must be considered and modifications, if appropriate, must be made prior to the completion of environmental certification and the RROF submittal.

APPENDIX A

APPENDIX A LIST OF PREPARERS

Name	Education		Responsibility	Years Experience
	Degree	Major		
URS Corporation				
Kent B. Dussom, P.E.	B.S.	Civil Engineering	Quality Assurance / Quality Control and Agency Coordination	21
Doree S. Magiera	B.S.	Civil Engineering	Transportation Planning and Engineering	24
Caroline Lanford	B.A., M.U.R.P.	English / Classical Studies, Land Use and Environmental Planning	Transportation and Environmental Planning	7
Jyothi Swargam	B.S., M.S.	Civil Engineering, Transportation Engineering	GIS	8
Jonathan Martinez	B.S.	Forestry / Ecosystem Management	Environmental Planning and GIS	6
David Burns	R.E.A.	Environmental Assessor	Hazardous Materials Survey & Phase I ESA	28
Marylyn "Missy" Reynolds, E.I.T.	B.S.	Civil Engineering	Engineering and Design	13
Jennifer Duhe, P.E.	B.S.	Civil Engineering	Engineering and Design	9
Stephanie Piranio	B.S.	Industrial Engineering	Transportation / Emergency Planner	5
Christi Wilson	B.S.	Education / Science	Agency Coordination and Public Involvement	9
Earth Search, Inc.				
Jill-Karen Yakubik	B.A., Ph.D.	Anthropology / Archaeology	Principal Investigator, Technical Writing	27
Marie Pokrant	B.A., M.A.	Anthropology / Archaeology	Field Director of Survey Crew; Report Writing	11
Rhonda L. Smith	B.A., M.A.	Anthropology / Archaeology	Project Manager Cultural Resources	18

APPENDIX B

APPENDIX B ACRONYM LIST

AADT	Annual Average Daily Traffic
AMR	American Medical Response
BMP	Best Management Practices
B.P.	Before Present
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System.
cmbs	Centimeters below surface
CO	Carbon Monoxide
dB	Decibel
dBA	A-weighted decibel
DMR	Department of Marine Resources
Draft EA	Draft Environmental Assessment
EA	Environmental Assessment
EMS	Emergency Medical Services
EPA / USEPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
GRPC	Gulf Regional Planning Commission
HCM	Highway Capacity Manual
HOV	High Occupancy Vehicle
inbs	Inches below surface
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
LADHP	Louisiana Division of Historic Preservation
LADOA	Louisiana Division of Archaeology
LDEQ	Louisiana Department of Environmental Quality
Leq(h)	One-hour Equivalent Sound Level
LOS	Level of Service

MARIS	Mississippi Automated Resource Information System
MDEQ	Mississippi Department of Environmental Quality
MDMR	Mississippi Department of Marine Resources
MDOT	Mississippi Department of Transportation
MPH	Miles per hour
MUTCD	Manual Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAICS	North American Industry Classification System
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act (1969)
NHPA	National Historic Preservation Act of 1966
NOI/RROF	Notice of Intent to Request Release of Funds
NO_x	Nitrogen Oxides
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
NRCS	National Resources Conservation Service
NS Railroad	Norfolk Southern Railroad
NWI	National Wetlands Inventory
O_3	Ozone
OSHA	Occupational Safety and Health Administration
PA	Preferred Alternative
Pb	Lead
$PM_{2.5}$	Particulates of 2.5 microns or less in diameter
PM_{10}	Particulates of 10 microns or less in diameter
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RHA	Rivers and Harbors Act of 1899
ROW	Right-of-way
RTE	Rare, threatened and endangered
SHA	State Highway Administrators

SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SOV	Solicitation of Views
SR	State Route
SSC	John C. Stennis Space Center
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
TNM	Traffic Noise Model
TSM	Transportation System Management
HUD	U.S. Department of Housing and Urban Development
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USPS	U.S. Postal Service
UST	Underground Storage Tank
V/C	Volume to Capacity Ratio
VPD	Vehicles per day
VPH	Vehicles per hour

APPENDIX C

APPENDIX C DATA SOURCES

Title	Author or Agency	Date Published
Department of Commerce, 2000 Census of Population and Housing, SF 1 and 3 Data for Mississippi Counties and Block Groups	Bureau of the Census	2001
Regional Economic Information System	Bureau of Economic Analysis	2007
Bureau of Labor Statistics - Inflation Rate	Bureau of Labor Statistics	2008
Draft Preserving a Sense of Place: Pearl River County Smart Growth Plan Land Use Plan	CDM	June 29, 2007
Committee Draft Hancock County Mississippi Comprehensive Plan	Gulf Regional Planning Commission	June 26, 2007
Hancock County Comprehensive Plan	Hancock County Planning Commission	2008
49 CFR part 24, Uniform Relocation Assistance and Real Property Acquisition Act of 1970	USDOT	1970
Contraflow Plan for Interstate Hurricane Evacuation Traffic Control	MDOT	2006
Hurricane Evacuation Guide	MDOT	2007
Guidance Material on the Preparation of Visual Impact Assessments	FHWA Office of Environmental Policy	1986
Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations	Presidential Executive Order 12898	February 11, 1994
John C. Stennis Space Center Environmental Justice Implementation Plan	SSC	1996
National Ambient Air Quality Standards	EPA	2008
Mississippi Ambient Air Quality Standards	MDEQ	2008
Highway Traffic Noise Policy	MDOT	1996
23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise	FHWA	1997
Volume & Truck Percentage Datafile	MDOT	2008
Study Roadway Configuration Assessment Trent Lott Parkway/Mississippi Highway 607 – Hurricane Evacuation Scenario Stennis Space Center, Mississippi	Shaw E & I, Inc., Mississippi Space Services	June 28, 2007
Transportation Improvement Program	Mississippi Gulf Coast Metropolitan Planning Organization	FY 2008-2011
SR 607 Tier I Alternatives Analysis Technical Memorandum	URS Corporation	June 2008
Highway Capacity Manual	Transportation Research Board	2000
Environmental Assessment Improvements to Texas Flat Road – Project Number STP 1126(1)B Hancock County	Hancock County Board of Supervisors	2002
Mississippi State site files, cultural resources reports, standing structure files, and NRHP records	Mississippi Department of Archives and History	various
Louisiana State site files and cultural resources reports	Louisiana Division of Archaeology	various
Louisiana NRHP records	Louisiana Division of Historic Preservation	various
Louisiana standing structure files	Louisiana State Library	various

APPENDIX D

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **7/2/08**	4. Sheet 1 of **2**
1. Name of Project **SR 607 - Saturn Dr. to I-59**	5. Federal Agency Involved **HUD / MDOT / NASA**	
2. Type of Project **HUD Highway Project**	6. County and State **Hancock County, Mississippi**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **7/15/08**	2. Person Completing Form **Ralph Thornton**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated **0** / Average Farm Size **204**
5. Major Crop(s) **Soybeans and beef cattle**	6. Farmable Land in Government Jurisdiction **Acres: 225,172** % 72	7. Amount of Farmland As Defined in FPPA **Acres: 169,530** % 55
8. Name Of Land Evaluation System Used **LESA**	9. Name of Local Site Assessment System **None**	10. Date Land Evaluation Returned by NRCS **8/4/08**

PART III *(To be completed by Federal Agency)*	Maximum Points	Alternative Eastern	Alternative Western		
A. Total Acres To Be Converted Directly		64	67		
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		64	67	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland		39	40		
B. Total Acres Statewide And Local Important Farmland		3	4		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0	0		
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		40	40		
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*		67	67		
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*					
1. Area in Nonurban Use	15	12	12		
2. Perimeter in Nonurban Use	10	10	10		
3. Percent Of Corridor Being Farmed	20	15	15		
4. Protection Provided By State And Local Government	20	0	0		
5. Size of Present Farm Unit Compared To Average	10	5	5		
6. Creation Of Nonfarmable Farmland	25	10	10		
7. Availablility Of Farm Support Services	5	1	1		
8. On-Farm Investments	20	5	5		
9. Effects Of Conversion On Farm Support Services	25	0	0		
10. Compatibility With Existing Agricultural Use	10	5	5		
TOTAL CORRIDOR ASSESSMENT POINTS	160	63	63	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	67	67		
Total Corridor Assessment (From Part VI above or a local site assessment)	160	63	63	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	130	130		

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

(Completed by NRCS and transmitted electronically)

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

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

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

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

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **7/2/08**	4. Sheet 1 of **2**
1. Name of Project **SR 607 - Saturn Dr. to I-59**	5. Federal Agency Involved **HUD / MDOT / NASA**	
2. Type of Project **HUD Highway Project**	6. County and State **Pearl River County, Mississippi**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **7/15/08**	2. Person Completing Form **Ralph Thornton**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐	4. Acres Irrigated **0**	Average Farm Size **204**
5. Major Crop(s) **Soybeans**	6. Farmable Land in Government Jurisdiction Acres: **324,464** % 61.3	7. Amount of Farmland As Defined in FPPA Acres: **204,418** % 38.7
8. Name Of Land Evaluation System Used **LESA**	9. Name of Local Site Assessment System **None**	10. Date Land Evaluation Returned by NRCS **8/4/08**

PART III *(To be completed by Federal Agency)*	Maximum Points	Alternative Eastern	Alternative Western		
A. Total Acres To Be Converted Directly		3	3		
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		3	3	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland		3	3		
B. Total Acres Statewide And Local Important Farmland		0	0		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0	0		
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		27	27		
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*		58	58		
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*					
1. Area in Nonurban Use	15	10	10		
2. Perimeter in Nonurban Use	10	8	8		
3. Percent Of Corridor Being Farmed	20	10	10		
4. Protection Provided By State And Local Government	20	0	0		
5. Size of Present Farm Unit Compared To Average	10	5	5		
6. Creation Of Nonfarmable Farmland	25	10	10		
7. Availablility Of Farm Support Services	5	1	1		
8. On-Farm Investments	20	5	5		
9. Effects Of Conversion On Farm Support Services	25	0	0		
10. Compatibility With Existing Agricultural Use	10	5	5		
TOTAL CORRIDOR ASSESSMENT POINTS	160	54	54	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	58	58		
Total Corridor Assessment (From Part VI above or a local site assessment)	160	54	54	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	112	112		

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

(Completed by NRCS and transmitted electronically)

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

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

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

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

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
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Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

APPENDIX E

BOARD OF SUPERVISORS

HANCOCK COUNTY

3068 Longfellow Drive, Unit #3
Bay St, Louis, MS 39520
Telephone (228) 467-0172
Fax (228) 466-5994

District 1
David Yarborough
813 View Street
Waveland, MS 39576

District 2
President
Rodrick "Rocky" Pullman
P. O. Box 16
Pearlington, MS 39572

District 3
Vice President
Lisa Cowand
1005 Dunbar Avenue
Bay St. Louis, MS 39520

District 4
Steve Seymour
9215 Highway 603
Kiln, MS 39556

District 5
Jay Cuevas
P. O. Box 428
Kiln, MS 39556

Ronald J. Artigues, Jr.
Board Attorney
133 Highway 90
Suite 1
Bay St. Louis, MS 39520

March 24, 2008

Mr. Ntale Kajumba
U. S. Environmental Protection Agency
NEPA Program 13th Floor, 61 Forsyth Street
Atlanta, GA 30303-8960

Re: Solicitation of Views
HUD Sponsored Environmental Assessment
State Route 607
Roadway Improvements from Interstate 59 (I-59) to Saturn Drive
Hancock and Pearl River Counties, MS

Dear Sir or Madam:

Hancock County, in cooperation with the United States Department of Housing and Urban Development (HUD) and the Mississippi Department of Transportation (MDOT), is preparing an Environmental Assessment (EA) to widen State Route 607 (SR 607) from a two-lane roadway to a four-lane roadway. The project limits extend from south of the I-59 / SR 607 interchange south to the existing four-lane portion of SR 607 at Saturn Drive. The project is being sponsored by HUD. Hancock County has been designated by HUD as the local HUD representative and acting lead agency for the EA.

This study is in the early planning stages and views from federal, state, and local agencies, organizations, and individuals are solicited. Hancock County recognizes that the special expertise of such groups can assist with early identification of possible economic, social, or environmental effects or concerns. This Solicitation of Views (SOV) letter represents the official scoping process. All comments related to scoping should be submitted at this time. Your assistance in this regard will be appreciated.

To facilitate your participation in the process we have attached a map showing the general location of the study area. To assist in refining the scope of the analysis to those issues having the greatest potential for effects from your perspective, enclosed is a summary of issues that are typically taken into consideration in preparing an Environmental Assessment in the form of a survey. Additional written comments on any anticipated issues or concerns will be welcomed to this endeavor.

The project team including the prime consultant, URS Corporation, is currently preparing a project geographic information system (GIS) and project database and any statistical data your agency can provide will be handled with discretion and fully considered during project development including alternatives analysis and environmental impact documentation for the project.

Please provide your views, completed survey questionnaire, and concerns in a written response to the attention of URS Corporation as noted below. Written responses will be accepted through **April 18, 2008**.

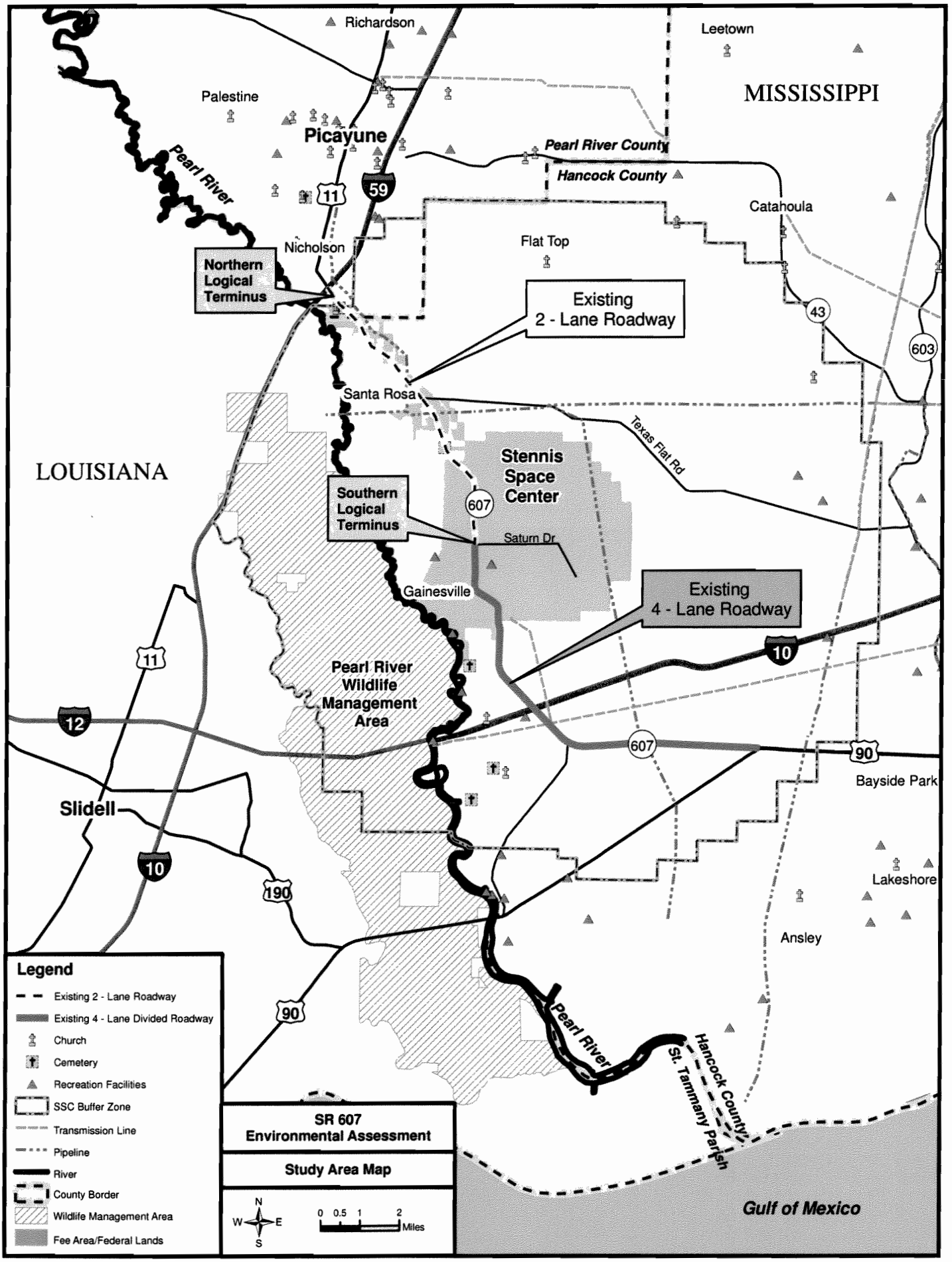
URS Corporation
3500 North Causeway Boulevard, Suite 900
Metairie, LA 70002-3527
Attention: Ms. Doree Magiera; doree_magiera@urscorp.com
(504) 837-6326; Fax (504) 831-8860

I thank you for your cooperation.

Respectfully,

Rodrick "Rocky" Pullman, President
Hancock County Board of Supervisors
District 2

cc: Chris Gouras, Gouras and Associates
Geoffrey Clemens, Compton Engineering


Richardson
Leetown
Palestine
MISSISSIPPI
Picayune
Pearl River County
Hancock County
Pearl River
11
59
Catahoula
Nicholson
Flat Top
Northern Logical Terminus
Existing 2 - Lane Roadway
43
603
Santa Rosa
Texas Flat Rd
LOUISIANA
Stennis Space Center
Southern Logical Terminus
607
Saturn Dr
Gainesville
Existing 4 - Lane Roadway
10
11
Pearl River Wildlife Management Area
12
607
90
Bayside Park
Slidell
10
190
Lakeshore
Ansley
90
Pearl River
Hancock County
St. Tammany Parish
Gulf of Mexico
Legend
Existing 2 - Lane Roadway
Existing 4 - Lane Divided Roadway
Church
Cemetery
Recreation Facilities
SSC Buffer Zone
Transmission Line
Pipeline
River
County Border
Wildlife Management Area
Fee Area/Federal Lands
SR 607
Environmental Assessment
Study Area Map
N
W
E
S
0 0.5 1 2
Miles

Potential Issues List

Note: *Below is a list of potential issues in twenty (20) categories that are typically considered for evaluation in NEPA documents. Please review this list and rank (where 1 is most important) each category in order of the anticipated potential importance for evaluation in this study. Thank you. As part of project scoping and the solicitation of views, please return this completed survey to Doree Magiera c/o URS Corporation; 3500 North Causeway Blvd., Suite 900; Metairie, LA. 70002-3527*

Agency: _____

Contact Information: _____

_____

☐ **DEMOGRAPHICS**
- Population Changes in Number/Composition
- Low-Income Populations
- Racial or Ethnic Minority Populations
- Transit-Dependent Persons
- Disabled and Dependent-Care Persons

☐ **RIGHT-OF-WAY ISSUES**
- Residential and Business Displacements
- Planned, Approved or Under Construction Developments
- Large Tract Land Owners
- Control of Roadway Access Issues

☐ **COMMUNITY IMPACTS**
- Neighborhood/Community Cohesion
- Residential/Business Isolation
- Quality of Life Changes
- Changes in Population (Number/Composition)
- Aesthetic/Visual Effects
- Local/Community Travel Pattern Changes/Disruption
- Pedestrians/Bicyclists Travel Patterns and/or Safety
- Public Transportation
- Roadway Safety
- Land Use Compatibility

☐ **COMMUNITY SERVICES/FACILITIES**
- Churches/Schools/Libraries/Hospitals, etc.
- Schools and School Districts
- Local Public and Private Gathering Places
- Parks and Recreational Facilities
- Emergency Services, Response and Evacuation
- Cemeteries, Government Buildings, etc.

☐ **COMPATIBILITY WITH EXISTING PLANS**
- Compatibility with Local and State Comprehensive Plans/Goals/Projects
- Compatibility with Federal Agencies' Plans/Goals/Projects

☐ **ECONOMIC EFFECTS**
- Temporary Direct/Indirect Construction Effects to Local/Regional Economy
- On-going Direct/Indirect Effects from Operations and Maintenance
- Changes in Land Use/Induced Land Development/Economic Development
- Minority-Owned Businesses
- Property Values and Land Speculation
- Property and Sales Tax Revenues

☐ **CUMULATIVE EFFECTS**

☐ **ENERGY CONSUMPTION**

☐ **HAZARDOUS, TOXIC, AND RADIOACTIVE SITES**

☐ **TEMPORARY CONSTRUCTION EFFECTS**
- Air Quality/Nuisance Dust
- Noise and Vibration
- Travel Pattern Disruption
- Temporary Easements/Staging Areas

☐ **CULTURAL RESOURCES**
- Historic Architectural Resources – Recorded and Potential
- Archeological Sites - Recorded and Area Potential
- National Register Properties
- Tribal Reservation, Aboriginal, and/or Treaty Lands

☐ **RECREATIONAL RESOURCES**
- Tourism Volume
- Federal/State/Local Parklands/Sites
- Wildlife Management Areas/Wildlife Refuges
- National/State Forests
- Boat Launches (official and unofficial)
- Historic Sites Open to Public
- Private Hunting Club Lands
- Unofficial Recreational Areas/Lands
- Land and Water Conservation Trust Funded Sites

☐ **AIR QUALITY**
- Regional Air Quality and Attainment Status for Criteria Pollutants
- Local Air Quality and Sensitive Outdoor Public Areas

☐ **UTILITIES SERVICE/FACILITIES**
- Power, gas, H_20, phone/fiber-optics, CATV, sewer svc. disruption
- Facility Relocation, Logistics, and Phasing

☐ **GEOLOGY AND SOILS**
- Coastal Zone and Coastal Barrier Resources
- Prime and Unique Farmlands
- Sensitive and Hydric Soils, and Soil Limitations
- Subsurface Geology
- Topography and Erosion
- Terrestrial and Subterranean Minerals Resources

☐ **WATER RESOURCES**
- Navigable/Non-Navigable Waterway Crossings
- National/State Wild and Scenic Rivers/Streams/Waterbodies
- Drainage Basins
- Floodplains and Floodways
- Groundwater Quality
- Surface Water Quality and Impaired Waters

☐ **NATURAL RESOURCES**
- Wildlife Corridors
- Natural Vegetation
- Federal/State Threatened and Endangered Flora/Fauna
- Recreational and Commercial Fisheries, Fur, and Hide Resources
- Sensitive/Rare Habitats
- Terrestrial/Aquatic/Marine Habitats
- USACE-Jurisdictional Wetlands / Cumulative Wetland Impacts
- Mitigation Banks/Wetland Preserves
- Terrestrial and Subterranean Minerals Resources

☐ **SECONDARY/INDIRECT EFFECTS**

☐ **NOISE AND VIBRATION**

☐ **CONSTRUCTION METHODS AND PHASING**

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Ronald J. Artigues, Jr.
Board Attorney
833 Highway 90
Suite 1
Bay St. Louis, MS 39520

May 5, 2008

Mississippi Band of Choctaw Indians
Mr. Kenneth H. Carleton
Tribal Historic Preservation Officer / Archaeologist
P.O. Box 6257
Choctow, MS 39350

Re: Solicitation of Views
HUD Sponsored Environmental Assessment
State Route 607
Roadway Improvements from Interstate 59 (I-59) to Saturn Drive
Hancock and Pearl River Counties, MS

Dear Sir:

Hancock County, in cooperation with the United States Department of Housing and Urban Development (HUD) and the Mississippi Department of Transportation (MDOT), is preparing an Environmental Assessment (EA) to widen State Route 607 (SR 607) from a two-lane roadway to a four-lane roadway. The project limits extend from south of the I-59 / SR 607 interchange south to the existing four-lane portion of SR 607 at Saturn Drive. The project is being sponsored by HUD. Hancock County has been designated by HUD as the local HUD representative and acting lead agency for the EA. Hancock County proposes to utilize Community Development Block Grant Funds to construct a portion of the widening from I-59 to Texas Flat Road.

This study is in the early planning stages and views from the Mississippi Band of Choctaw Indians are appreciated. This Solicitation of Views (SOV) letter represents the official scoping process and initiates Tribal Consultation for the project.

To facilitate your participation, we have attached a map showing the general location of the study area. Also enclosed is a Project Information Sheet requesting your input with regard to the statutory / regulatory compliance requirements for the project regarding historic preservation.

Please provide your views and completed Project Information Sheet in a written response to the attention of URS Corporation as noted below. We would appreciate your written response within 30 days or by June 2, 2008.

URS Corporation
3500 North Causeway Boulevard, Suite 900
Metairie, LA 70002-3527
Attention: Ms. Doree Magiera; doree_magiera@urscorp.com
(504) 837-6326; Fax (504) 831-8860

I thank you for your cooperation.

Respectfully,

Rodrick "Rocky" Pullman, President
Hancock County Board of Supervisors
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cc: Chris Gouras, Gouras and Associates
Geoffrey Clemens, Compton Engineering

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Kiln, MS 39556

Ronald J. Artigues, Jr.
Board Attorney
833 Highway 90
Suite 1
Bay St. Louis, MS 39520

May 5, 2008

Choctaw Nation of Oklahoma
Mr. Terry Cole
Tribal Historic Preservation Officer
16th & Durant
Durant, OK 74701

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HUD Sponsored Environmental Assessment
State Route 607
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Attention: Ms. Doree Magiera; doree_magiera@urscorp.com
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Respectfully,

Rodrick "Rocky" Pullman, President
Hancock County Board of Supervisors
District 2

cc: Chris Gouras, Gouras and Associates
Geoffrey Clemens, Compton Engineering

Table E-1
SR 607 Environmental Assessment
SOV Contact List, Distribution and Response Summary

Response ID	Lead/Co-op Agency	Resource Agency	US Elected Official	State Elected Official	Local Elected Official	Organizations	Indian Tribe	Sir Name	First Name	Last Name/Title	Organization	Address	City	State	Zip Code	SOV Recipient	Responded	No Response	Comment Summary
					√			Mr.	David	Allison	Pearl River Sheriff	200 Julia Street	Poplarville	MS	39470	X		X	
				√				Honorable	Sidney	Albritton	MS State Senate District 40	P.O. Box 1389	Picayune	MS	39466	X		X	
7				√				Honorable	David	Baria	MS State Senate District 46	544 Main Street	Bay St. Louis	MS	39520	X	X		Ranking of Potential Issues: 1-Compatibility with Existing Plans, 2-Energy Consumption, 3-Economic Effects, 4-Natural Resources, 5-Secondary Effects, 6-Temporary Construction Effects
	√							Mr.	Jerry	Beaugez	Hancock County Floodplain Administration	3068 Longfellow Drive	Bay St. Louis	MS	39520	X		X	
1						√		Ms.	Gina	Burgess	Picayune Chamber of Commerce	P. O. Box 448	Picayune	MS	39466	X	X		Ranking of Potential Issues: 1-Right of Way, 2-Economic Effects, 3-Temporary Construction Effects
				√				Honorable	J. P.	Compretta	MS House of Representatives District 122	P.O. Box 2091	Bay St. Louis	MS	39520	X		X	
				√				Honorable	Dirk	Dedeaux	MS House of Representatives District 93	2157 Highway 53	Perkinston	MS	39573	X		X	
4		√						Mr.	David	Felder, Biologist	U. S. Fish and Wildlife Service	6578 Dogwood View Parkway, Suite A	Jackson	MS	39213	X	X		The Service sites 2 federally protected species that could be potentially affected: Gopher Tortoise and Louisiana Quillwort. The Service recommends a visual survey by qualified Biologist before construction.
		√						Mr.	Jarrod	Fogarty	MS State University Department of Wildlife and Fisheries	P.O. Box 9690	Mississippi State	MS	39762-9690	X		X	
				√				Honorable	Mark	Formby	MS House of Representatives District 108	911 Highway 43 North	Picayune	MS	39466	X		X	
				√				Ms.	Myrtis	Franke	US Senator Thad Cochran's Office	2012 15th Street, Suite 451	Gulfport	MS	39501	X		X	
				√				Honorable	Herb	Frierson	MS House of Representatives District 106	12 Trailwood Lane	Poplarville	MS	39470	X		X	
					√			Mr.	Steve	Garber	Hancock County Sheriff	P.O. Box 262	Bay St. Louis	MS	39520	X		X	
				√				Mr.	Beau	Gex	US Congressman Gene Taylor's Office	2424 14th Street	Gulfport	MS	39501	X		X	
						√		Mr.	Rick	Guffy	The Nature Conservancy, MS Field Office	964 N. Jefferson Street	Jackson	MS	39202	X		X	
6					√			Mr.	Anthony	Hales, President	Pearl River County Board of Supervisors	P. O. Box 569	Poplarville	MS	39470	X	X		Provided full ranking of 20 potential issues (high to low): economic effects, community impacts, ROW issues, demographics, commity services, cumulative effects, utilities, temporary const., compliance with existing plans, recreational resources, natural resources, water resources, secondary/indirect effects, cultural resources, construction methods, geology, air quality, noise, energy conservation, hazardous toxic sites.
				√				Honorable	Billy	Hudson	MS State Senate District 45	300 Churchwell Road	Purvis	MS	39475	X		X	
						√		Mr.	William	Johnson, Coordinator	MS Natural Heritage Program	2148 Riverside Drive	Jackson	MS	39202	X		X	
5						√		Ms.	Sherry	Surrette	MS Natural Heritage Program	2148 Riverside Drive	Jackson	MS	39202		X		Recommend surveys prior to construction to avoid encounters with gopher tortoise, if burrows are found contact USFWS David Felder (601-321-1139) and MSDWF Tom Mann (601-354-6367). Recommend wetland loss be prevented or minimized and mitigation measures implemented. Recommend implentation of BMP and monitoring for compliance to prevent potentially damaging stormwater runoff. Natural resources selected as highest ranked potential issue.
	√							Mr.	Ntale	Kajumba	U. S. Environmental Protection Agency	NEPA Program 13th Floor, 61 Forsyth Street	Atlanta	GA	30303-8960	X		X	
	√							Ms.	Rebecca	Ladnier	U. S. Forest Service	P.O. Box 248	Wiggins	MS	39577	X		X	
10	√							Mr.	Ron	Smith	U. S. Forest Service	P.O. Box 248	Wiggins	MS	39577		X		Project is outside of the DeSoto National Forest boundary and should cause no impacts to any National Forest resources or scenic streams.
			√					Honorable	Ezell	Lee	MS State Senate District 47	407 Country Club Drive	Picayune	MS	39466	X		X	
	√							Mr.	Mike	Lilly	USDA - Natural Resource Conservation Service	100 W. Capitol Street, Suite 1321 Federal Building	Jackson	MS	39269	X		X	
	√							Mr.	Tom	Mann	MS Department of Wildlife and Fisheries	2148 Riverside Drive	Jackson	MS	39202-1353	X		X	
						√		Ms.	Kimberly	Nastasi	Mississippi Gulf Coast Chamber of Commerce	11975E Seaway Road	Bay St. Louis	MS	39520	X		X	
	√							Mr.	Ed	Pinero	Pearl River Cty. Planning & Dev./Floodplain Administration	167 Savannah Millard Road	Poplarville	MS	39470	X		X	
	√							Mr.	Andy	Prosser	MS Dept. of Agriculture and Commerce	P.O. Box 1609	Jackson	MS	39215-1609	X		X	
				√				Ms.	Jennifer	Schmidt	US Senator Roger Wicker's Office	452 Courthouse Road	Gulfport	MS	39507	X		X	
	√							Mr.	Robert	Seyfarth	MS Department of Environmental Quality	P.O. Box 10385	Jackson	MS	39289-0385	X		X	
	√							Mr.	Jason	Steele	U. S. Army Corps of Engineers Regulatory Division	109 Saint Joseph Street	Mobile	AL	36602	X			Comments deferred to Anthony Lobred (response #8).
8	√							Mr.	Anthony	Lobred	U. S. Army Corps of Engineers Regulatory Division	4155 Clay Street	Vicksburg	MS	39183-3435		X		There may be jurisdictional waters, including wetlands within project area requiring a Section 404 Permit. Application enclosed and in file.
	√							Mr.	Craig	Litteken	U. S. Army Corps of Engineers	109 Saint Joseph Street	Mobile	AL	36602	X			Comments deferred to Anthony Lobred (response #8).
	√							Mr.	Carl	Olsen	U. S. Army Corps of Engineers Coastal Mississippi Field Office	1141 Bay View Avenue, Suite 101	Biloxi	MS	39530	X		X	
	√							Mr.	Don	Underwood, Executive Director	MS Soil and Water Conservation Commission	P.O. Box 23005	Jackson	MS	39201	X		X	
			√					Honorable	Jessica	Upshaw	MS House of Representatives District 95	747 Kome Drive	Diamondhead	MS	39525	X		X	
	√							Dr.	William	Walker	MS Department of Marine Resources	1141 Bay View Avenue, Suite 101	Biloxi	MS	39530	X		X	
3	√							Ms.	Willa	Henriksen, Bureau Director, Wetlands Permitting	MS Department of Marine Resources	1141 Bay View Avenue, Suite 101	Biloxi	MS	39530		X		No objection to the project provided there are no direct/indirect coastal wetland impacts and provided there are no objections by coastal program agencies. If impacts are anticipated, an application would need to be submitted to the Department for review. Request that impacts to wetlands be avoided and minimized to the maximum extent practicable. Additional information can be aquired from Rebekah Turner (228-523-4104).
	√							Mr.	Jim	Weston	MS Deptartment of Health	570 E. Woodrow Wilson Drive	Jackson	MS	39216	X		X	
						√		Ms.	Tish	Wiggins	Hancock County Chamber of Commerce	P.O. Box 10385	Bay St. Louis	MS	39520	X		X	
2						√		Ms.	Elaine	Wilkinson	Gulf Regional Planning Commission	1232 Pass Road	Gulfport	MS	39501-6233	X	X		Comments on 2 issues: 1- FHWA does not accept an environmental document developed under HUD guidelines as support for additional funds possibly needed from FHWA. 2- Encourage team to review the Comprehensive Plan for Hancock County for consistency with goals, objectives and land use. Provided full ranking of issues on Potential Issues List.
	√							Mr.	Jim	Woodrick	MS Department of Archives and History SHPO	P.O. Box 571	Jackson	MS	39205	X		X	
						√		Mr.	Jack	Zink, Exec. Director	Hancock County Port & Harbor Commission	P.O. Box 2267	Bay St. Louis	MS	39521	X		X	
9							√	Mr.	Terry	Cole, Tribal Historic Preservation Officer	Choctaw Nation of Oklahoma	16th & Durant	Durant	OK	74701	X	X		Comments deferred to Ken Carlton, MS Choctaw THPO.
							√	Mr.	Kenneth H.	Carleton, Tribal Historic Preservervation Officer/Archaeologist	Mississippi Band of Choctaw Indians	P. O. Box 6257	Choctow	MS	39350	X		X	
															TOTALS:	41	10	33	

Potential Issues List

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Agency: Picayune Chamber of Commerce P.O Box 448 Picayune MS 39466

Contact Information: Gina Burgess

☐ **DEMOGRAPHICS**
- Population Changes in Number/Composition
- Low-Income Populations
- Racial or Ethnic Minority Populations
- Transit-Dependent Persons
- Disabled and Dependent-Care Persons

1 **RIGHT-OF-WAY ISSUES**
- Residential and Business Displacements
- Planned, Approved or Under Construction Developments
- Large Tract Land Owners
- Control of Roadway Access Issues

☐ **COMMUNITY IMPACTS**
- Neighborhood/Community Cohesion
- Residential/Business Isolation
- Quality of Life Changes
- Changes in Population (Number/Composition)
- Aesthetic/Visual Effects
- Local/Community Travel Pattern Changes/Disruption
- Pedestrians/Bicyclists Travel Patterns and/or Safety
- Public Transportation
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- Land Use Compatibility

☐ **COMMUNITY SERVICES/FACILITIES**
- Churches/Schools/Libraries/Hospitals, etc.
- Schools and School Districts
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- Emergency Services, Response and Evacuation
- Cemeteries, Government Buildings, etc.

☐ **COMPATIBILITY WITH EXISTING PLANS**
- Compatibility with Local and State Comprehensive Plans/Goals/Projects
- Compatibility with Federal Agencies' Plans/Goals/Projects

2 **ECONOMIC EFFECTS**
- Temporary Direct/Indirect Construction Effects to Local/Regional Economy
- On-going Direct/Indirect Effects from Operations and Maintenance
- Changes in Land Use/Induced Land Development/Economic Development
- Minority-Owned Businesses
- Property Values and Land Speculation
- Property and Sales Tax Revenues

☐ **CUMULATIVE EFFECTS**

☐ **ENERGY CONSUMPTION**

☐ **HAZARDOUS, TOXIC, AND RADIOACTIVE SITES**

3 **TEMPORARY CONSTRUCTION EFFECTS**
- Air Quality/Nuisance Dust
- Noise and Vibration
- Travel Pattern Disruption
- Temporary Easements/Staging Areas

☐ **CULTURAL RESOURCES**
- Historic Architectural Resources – Recorded and Potential
- Archeological Sites - Recorded and Area Potential
- National Register Properties
- Tribal Reservation, Aboriginal, and/or Treaty Lands

☐ **RECREATIONAL RESOURCES**
- Tourism Volume
- Federal/State/Local Parklands/Sites
- Wildlife Management Areas/Wildlife Refuges
- National/State Forests
- Boat Launches (official and unofficial)
- Historic Sites Open to Public
- Private Hunting Club Lands
- Unofficial Recreational Areas/Lands
- Land and Water Conservation Trust Funded Sites

☐ **AIR QUALITY**
- Regional Air Quality and Attainment Status for Criteria Pollutants
- Local Air Quality and Sensitive Outdoor Public Areas

☐ **UTILITIES SERVICE/FACILITIES**
- Power, gas, H_20, phone/fiber-optics, CATV, sewer svc. disruption
- Facility Relocation, Logistics, and Phasing

☐ **GEOLOGY AND SOILS**
- Coastal Zone and Coastal Barrier Resources
- Prime and Unique Farmlands
- Sensitive and Hydric Soils, and Soil Limitations
- Subsurface Geology
- Topography and Erosion
- Terrestrial and Subterranean Minerals Resources

☐ **WATER RESOURCES**
- Navigable/Non-Navigable Waterway Crossings
- National/State Wild and Scenic Rivers/Streams/Waterbodies
- Drainage Basins
- Floodplains and Floodways
- Groundwater Quality
- Surface Water Quality and Impaired Waters

☐ **NATURAL RESOURCES**
- Wildlife Corridors
- Natural Vegetation
- Federal/State Threatened and Endangered Flora/Fauna
- Recreational and Commercial Fisheries, Fur, and Hide Resources
- Sensitive/Rare Habitats
- Terrestrial/Aquatic/Marine Habitats
- USACE-Jurisdictional Wetlands / Cumulative Wetland Impacts
- Mitigation Banks/Wetland Preserves
- Terrestrial and Subterranean Minerals Resources

☐ **SECONDARY/INDIRECT EFFECTS**

☐ **NOISE AND VIBRATION**

☐ **CONSTRUCTION METHODS AND PHASING**

Gulf Regional Planning Commission

Serving the Governments of the Mississippi Gulf Coast

April 1, 2008

URS Corporation
3500 N Causeway Blvd, Suite 900
Metairie, LA 70002

Dear Ms. Mageira,

Gulf Regional Planning Commission has received the solicitation assessment for State Route 607. There are two issues I would like to address. The first is the environmental assessment process that is planned for the study. Our organization has been advised by FHWA that an environmental document developed under HUD guidelines is not accepted (as a legal NEPA document) by FHWA and, in the event the county may seek additional funding for the project through FHWA this could pose a problem.

The second issue relates to the compatibility within existing plans. The project team should be aware that the county has under development a Comprehensive Plan and our agency has been heavily involved in the planning process. We have conducted a land use survey and presented a future land use map for public review, along with goals and objectives for the long term development of the county.

This plan will be available for public review and input at two public meetings, April 29 and May 3rd, and brought to the Hancock Board of Supervisors for interim adoption in May 2008. We would encourage the county and consultants on the 607 Study to review the Comprehensive Plan as it pertains to the northern part of the county for consistency with goals, objectives and land use.

One final note, this project warrants public participation as the only true method of assessing the needs and desires of the citizens of Hancock County, whose mobility and access this project is intended to support.

Thank you for the opportunity to have input on this very worthwhile project for Hancock County.

Sincerely,

GULF REGIONAL PLANNING COMMISSION

Elaine G. Wilkinson
Executive Director

EGW/cj

1232 Pass Road ◆ Gulfport, MS 39501 ◆ (228) 864-1167 ◆ Fax (228) 864-1149 ◆ Toll-Free (866) 445-4772 ◆ www.grpc.net

Potential Issues List

Note: Below is a list of potential issues in twenty (20) categories that are typically considered for evaluation in NEPA documents. Please review this list and rank (where 1 is most important) each category in order of the anticipated potential importance for evaluation in this study. Thank you. As part of project scoping and the solicitation of views, please return this completed survey to Doree Magiera c/o URS Corporation; 3500 North Causeway Blvd., Suite 900; Metairie, LA. 70002-3527

Agency: Gulf Regional Planning Commission

Contact Information: Elaine Wilkinson
228-864-1167

#4 **DEMOGRAPHICS**
- Population Changes in Number/Composition
- Low-Income Populations
- Racial or Ethnic Minority Populations
- Transit-Dependent Persons
- Disabled and Dependent-Care Persons

#12 **RIGHT-OF-WAY ISSUES**
- Residential and Business Displacements
- Planned, Approved or Under Construction Developments
- Large Tract Land Owners
- Control of Roadway Access Issues

#2 **COMMUNITY IMPACTS**
- Neighborhood/Community Cohesion
- Residential/Business Isolation
- Quality of Life Changes
- Changes in Population (Number/Composition)
- Aesthetic/Visual Effects
- Local/Community Travel Pattern Changes/Disruption
- Pedestrians/Bicyclists Travel Patterns and/or Safety
- Public Transportation
- Roadway Safety
- Land Use Compatibility

#3 **COMMUNITY SERVICES/FACILITIES**
- Churches/Schools/Libraries/Hospitals, etc.
- Schools and School Districts
- Local Public and Private Gathering Places
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- Emergency Services, Response and Evacuation
- Cemeteries, Government Buildings, etc.

#1 **COMPATIBILITY WITH EXISTING PLANS**
- Compatibility with Local and State Comprehensive Plans/Goals/Projects
- Compatibility with Federal Agencies' Plans/Goals/Projects

#11 **ECONOMIC EFFECTS**
- Temporary Direct/Indirect Construction Effects to Local/Regional Economy
- On-going Direct/Indirect Effects from Operations and Maintenance
- Changes in Land Use/Induced Land Development/Economic Development
- Minority-Owned Businesses
- Property Values and Land Speculation
- Property and Sales Tax Revenues

14 **CUMULATIVE EFFECTS**

ENERGY CONSUMPTION

17 **HAZARDOUS, TOXIC, AND RADIOACTIVE SITES**

TEMPORARY CONSTRUCTION EFFECTS
- Air Quality/Nuisance Dust
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#7 **CULTURAL RESOURCES**
- Historic Architectural Resources – Recorded and Potential
- Archeological Sites - Recorded and Area Potential
- National Register Properties
- Tribal Reservation, Aboriginal, and/or Treaty Lands

#9 **RECREATIONAL RESOURCES**
- Tourism Volume
- Federal/State/Local Parklands/Sites
- Wildlife Management Areas/Wildlife Refuges
- National/State Forests
- Boat Launches (official and unofficial)
- Historic Sites Open to Public
- Private Hunting Club Lands
- Unofficial Recreational Areas/Lands
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#5 **AIR QUALITY**
- Regional Air Quality and Attainment Status for Criteria Pollutants
- Local Air Quality and Sensitive Outdoor Public Areas

#13 **UTILITIES SERVICE/FACILITIES**
- Power, gas, H_20, phone/fiber-optics, CATV, sewer svc. disruption
- Facility Relocation, Logistics, and Phasing

#10 **GEOLOGY AND SOILS**
- Coastal Zone and Coastal Barrier Resources
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- Subsurface Geology
- Topography and Erosion
- Terrestrial and Subterranean Minerals Resources

WATER RESOURCES

#8
- Navigable/Non-Navigable Waterway Crossings
- National/State Wild and Scenic Rivers/Streams/Waterbodies
- Drainage Basins
- Floodplains and Floodways
- Groundwater Quality
- Surface Water Quality and Impaired Waters

NATURAL RESOURCES

#6
- Wildlife Corridors
- Natural Vegetation
- Federal/State Threatened and Endangered Flora/Fauna
- Recreational and Commercial Fisheries, Fur, and Hide Resources
- Sensitive/Rare Habitats
- Terrestrial/Aquatic/Marine Habitats
- USACE-Jurisdictional Wetlands / Cumulative Wetland Impacts
- Mitigation Banks/Wetland Preserves
- Terrestrial and Subterranean Minerals Resources

18 **SECONDARY/INDIRECT EFFECTS**

NOISE AND VIBRATION

20 **CONSTRUCTION METHODS AND PHASING**

MISSISSIPPI
DEPARTMENT OF MARINE RESOURCES

April 2, 2008

Ms. Doree Mageria
URS Corporation
3500 North Causeway Boulevard, Suite 900
Metairie, LA 70002-3527

RE: DMR-080634; HUD Sponsored Environmental Assessment

Dear Ms. Magiera:

The Department of Marine Resources in cooperation with other state agencies is responsible under the Mississippi Coastal Program (MCP) for managing the coastal resources of Mississippi. Proposed activities in the coastal area are reviewed to insure that the activities are in compliance with the MCP.

The Department has received a request to review a proposal for the Hancock County Board of Supervisors to widen State Route 607 from a two-lane roadway to a four-lane roadway in Hancock and Pearl River Counties, Mississippi. The Department has no objections provided there are no direct or indirect impacts to coastal wetlands and no coastal program agency objects to the proposal. If wetland impacts are anticipated, an application should be submitted to this office for review. The Department asks that impacts to wetlands be avoided and minimized to the maximum extent practicable. Thank you for the opportunity to comment on your project.

For more information or questions concerning this correspondence, contact Rebekah Turner with the Bureau of Wetlands Permitting at (228) 523-4104.

Sincerely,

Willa Henriksen
Bureau Director, Wetlands Permitting

WH/rrt

1141 Bayview Avenue • Biloxi, MS 39530-1613 • Tel: (228) 374-5000 • www.dmr.state.ms.us
An Equal Opportunity Employer

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

April 3, 2008

Ms. Doree Magiera
URS Corporation
3500 North Causeway Boulevard, Suite 900
Metarie, LA 70002-3527

Dear Ms. Magiera:

The U.S. Fish and Wildlife Service (Service) has received your letter dated March 24, 2008, regarding the roadway improvements for State Route 607 in Hancock and Pearl River Counties, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Two federally protected species could be potentially affected by the proposed project. The threatened gopher tortoise (*Gopherus polyphemus*) occupies a wide range of upland habitat types. The general physical and biotic features thought to characterize suitable adult tortoise habitat are a presence of well-drained, sandy soils, which allow easy burrowing; an abundance of herbaceous ground cover; and generally open canopy and sparse shrub cover, which allows sunlight to reach the ground floor.

The endangered plant Louisiana quillwort (*Isoetes louisianensis*) is a nonflowering grasslike plant that lives in water or in very wet habitats. Quillwort habitat includes intermittent streams and scour channels in sand or mud. Mature plants are six to ten inches long, mostly evergreen, with spore-bearing structures below ground.

Therefore, before the use or transportation of any heavy construction equipment, or the removal of any vegetation within potential habitats, the Service recommends a qualified biologist conduct a visual survey for these species.

If you have any questions, please contact our office, telephone: (601) 321-1139.

Sincerely,

David Felder
Fish and Wildlife Biologist

April 7, 2008

ATTN: Ms. Doree Magiera
URS Corporation
3500 North Causeway Blvd.
Suite 900
Metairie, LA 70002

Re: Solicitation of Views
HUD Sponsored Environmental Assessment **R# 6551**
State Route 607
Roadway Improvements from I-59 to Saturn Drive
Hancock and Pear River Counties, Mississippi

To Doree Magiera:

In response to your request for information dated March 24, 2008, we have searched our database for occurrences of state or federally listed species and species of special concern that occur within 2 miles of the site of the proposed project. Please find our concerns and recommendations below.

Based on the information provided, we conclude that the federally threatened, state endangered **gopher tortoise (*Gopherus polyphemus*)** may be encountered during project construction efforts. We strongly recommend that surveys are conducted prior to road construction to determine if gopher tortoises or their burrows are present within the proposed highway right-of-way (particularly portions of the highway that are underlain by well-drained soils). Should tortoises or their burrows be found within or adjoining the footprint of the proposed highway, the U.S. Fish and Wildlife Service (contact David Felder at 601-321-1139) and the Mississippi Department of Wildlife, Fisheries, and Parks (Tom Mann at 601-354-6367 ext 116) should be consulted regarding measures necessary to avoid harm to this species.

We recommend that wetland loss is prevented, or minimized, with construction of this highway and that, when appropriate, compensatory wetland mitigation measures are implemented and ensured for compliance.

In addition, we recommend that best management practices are implemented and monitored for compliance, specifically measures that will prevent ANY suspended silt and contaminants from leaving the site in stormwater run-off as this may negatively affect water quality and habitat conditions within nearby streams and waterbodies.

Please feel free to contact us if we can provide any additional information, resources, or assistance that will help minimize negative impacts to the species and/or ecological communities identified in this review. We are happy to work with you to ensure that our state's precious natural heritage is conserved and preserved for future Mississippians.

Preserving Natural Mississippi

2148 RIVERSIDE DRIVE ▪ JACKSON, MS 39202-1353 ▪ **PHONE** 601 354-7303 **FAX** 601 354-7227 ▪ www.mdwfp.state.ms.us/museum

DEPARTMENT OF WILDLIFE, FISHERIES, AND PARKS

Sincerely,

Sherry B. Surrette

Sherry B. Surrette, Coordinator
Mississippi Natural Heritage Program
(601) 354-6367, ext. 118

The Mississippi Natural Heritage Program (MNHP) has compiled a database that is the most complete source of information about Mississippi's rare, threatened, and endangered plants, animals, and ecological communities. The quantity and quality of data collected by MNHP are dependent on the research and observations of many individuals and organizations. In many cases, this information is not the result of comprehensive or site-specific field surveys; most natural areas in Mississippi have not been thoroughly surveyed and new occurrences of plant and animal species are often discovered. Heritage reports summarize the existing information known to the MNHP at the time of the request and cannot always be considered a definitive statement on the presence, absence or condition of biological elements on a particular site.

Potential Issues List

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Agency: Mississippi Department of Wildlife, Fisheries & Parks, Natural Heritage Program

Contact Information: 2148 Riverside Drive, Jackson, MS 39202
(601)-354-6367 ext. 118 sherry.surrette@mmns.state.ms.us

☐ **DEMOGRAPHICS**
- Population Changes in Number/Composition
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☐ **ENERGY CONSUMPTION**

☐ **HAZARDOUS, TOXIC, AND RADIOACTIVE SITES**

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Agency: Pearl River County Board of Supervisors

Contact Information: Anthony Hales, President
P.O. Box 569 Poplarville, MS 39470

[4] **DEMOGRAPHICS**
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[19] **ENERGY CONSUMPTION**

[20] **HAZARDOUS, TOXIC, AND RADIOACTIVE SITES**

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- Mitigation Banks/Wetland Preserves
- Terrestrial and Subterranean Minerals Resources

[13] **SECONDARY/INDIRECT EFFECTS**

[18] **NOISE AND VIBRATION**

[15] **CONSTRUCTION METHODS AND PHASING**

Potential Issues List

Note: Below is a list of potential issues in twenty (20) categories that are typically considered for evaluation in NEPA documents. Please review this list and rank (where 1 is most important) each category in order of the anticipated potential importance for evaluation in this study. Thank you. As part of project scoping and the solicitation of views, please return this completed survey to Doree Magiera c/o URS Corporation; 3500 North Causeway Blvd, Suite 900; Metairie, LA. 70002-3527

Agency: STATE SENATE

Contact Information: DAVID BARIA, 544 MAIN ST., BAY ST. LOUIS, MS 39520, 228.270.0001

☐ **DEMOGRAPHICS**
- Population Changes in Number/Composition
- Low-Income Populations
- Racial or Ethnic Minority Populations
- Transit-Dependent Persons
- Disabled and Dependent-Care Persons

☐ **RIGHT-OF-WAY ISSUES**
- Residential and Business Displacements
- Planned, Approved or Under Construction Developments
- Large Tract Land Owners
- Control of Roadway Access Issues

☐ **COMMUNITY IMPACTS**
- Neighborhood/Community Cohesion
- Residential/Business Isolation
- Quality of Life Changes
- Changes in Population (Number/Composition)
- Aesthetic/Visual Effects
- Local/Community Travel Pattern Changes/Disruption
- Pedestrians/Bicyclists Travel Patterns and/or Safety
- Public Transportation
- Roadway Safety
- Land Use Compatibility

☐ **COMMUNITY SERVICES/FACILITIES**
- Churches/Schools/Libraries/Hospitals, etc.
- Schools and School Districts
- Local Public and Private Gathering Places
- Parks and Recreational Facilities
- Emergency Services, Response and Evacuation
- Cemeteries, Government Buildings, etc.

[1] **COMPATIBILITY WITH EXISTING PLANS**
- Compatibility with Local and State Comprehensive Plans/Goals/Projects
- Compatibility with Federal Agencies' Plans/Goals/Projects

[3] **ECONOMIC EFFECTS**
- Temporary Direct/Indirect Construction Effects to Local/Regional Economy
- On-going Direct/Indirect Effects from Operations and Maintenance
- Changes in Land Use/Induced Land Development/Economic Development
- Minority-Owned Businesses
- Property Values and Land Speculation
- Property and Sales Tax Revenues

☐ **CUMULATIVE EFFECTS**

[2] **ENERGY CONSUMPTION**

☐ **HAZARDOUS, TOXIC, AND RADIOACTIVE SITES**

[6] **TEMPORARY CONSTRUCTION EFFECTS**
- Air Quality/Nuisance Dust
- Noise and Vibration
- Travel Pattern Disruption
- Temporary Easements/Staging Areas

☐ **CULTURAL RESOURCES**
- Historic Architectural Resources – Recorded and Potential
- Archeological Sites - Recorded and Area Potential
- National Register Properties
- Tribal Reservation, Aboriginal, and/or Treaty Lands

☐ **RECREATIONAL RESOURCES**
- Tourism Volume
- Federal/State/Local Parklands/Sites
- Wildlife Management Areas/Wildlife Refuges
- National/State Forests
- Boat Launches (official and unofficial)
- Historic Sites Open to Public
- Private Hunting Club Lands
- Unofficial Recreational Areas/Lands
- Land and Water Conservation Trust Funded Sites

☐ **AIR QUALITY**
- Regional Air Quality and Attainment Status for Criteria Pollutants
- Local Air Quality and Sensitive Outdoor Public Areas

☐ **UTILITIES SERVICE/FACILITIES**
- Power, gas, H_20, phone/fiber-optics, CATV, sewer svc. disruption
- Facility Relocation, Logistics, and Phasing

☐ **GEOLOGY AND SOILS**
- Coastal Zone and Coastal Barrier Resources
- Prime and Unique Farmlands
- Sensitive and Hydric Soils, and Soil Limitations
- Subsurface Geology
- Topography and Erosion
- Terrestrial and Subterranean Minerals Resources

☐ **WATER RESOURCES**
- Navigable/Non-Navigable Waterway Crossings
- National/State Wild and Scenic Rivers/Streams/Waterbodies
- Drainage Basins
- Floodplains and Floodways
- Groundwater Quality
- Surface Water Quality and Impaired Waters

[4] **NATURAL RESOURCES**
- Wildlife Corridors
- Natural Vegetation
- Federal/State Threatened and Endangered Flora/Fauna
- Recreational and Commercial Fisheries, Fur, and Hide Resources
- Sensitive/Rare Habitats
- Terrestrial/Aquatic/Marine Habitats
- USACE-Jurisdictional Wetlands / Cumulative Wetland Impacts
- Mitigation Banks/Wetland Preserves
- Terrestrial and Subterranean Minerals Resources

[5] **SECONDARY/INDIRECT EFFECTS**

☐ **NOISE AND VIBRATION**

☐ **CONSTRUCTION METHODS AND PHASING**

DEPARTMENT OF THE ARMY
VICKSBURG DISTRICT, CORPS OF ENGINEERS
4155 CLAY STREET
VICKSBURG, MISSISSIPPI 39183-3435

REPLY TO
ATTENTION OF:

May 7, 2008

Operations Division

Subject: Solicitation of Views – Hancock County, State Route 607, Roadway Improvements from Interstate 59 (I-59) to Saturn Drive, Hancock and Pearl River Counties, Mississippi

Mr. Rodrick Pullman, President
Hancock County Board of Supervisors
Post Office Box 16
Pearlington, Mississippi 39572

Dear Mr. Pullman:

I refer to the correspondence you submitted dated March 24, 2008, for the proposed project, located in Hancock and Pearl River Counties, Mississippi.

Based upon the information provided, we believe there may be jurisdictional waters of the United States, including wetlands located within the project area subject to regulation pursuant to Section 404 of the Clean Water Act (enclosure 1). Any work involving the discharge of dredged or fill material (land clearing, ditching, filling, leveeing, etc.) within the limits of the jurisdictional areas identified will require a Department of the Army Section 404 permit prior to beginning work.

For your convenience, I am enclosing a Department of the Army permit application package with instructions (enclosure 2). Your application for any proposed work in wetlands or other waters of the United States should be submitted at least 120 days in advance of the proposed starting date. To expedite the evaluation process, please reference the number MVK-2008-411 when submitting the application.

Thank you for advising us of your plans. If you have any questions on this matter, please contact Anthony R. Lobred, telephone 601-631-5470, fax 601-631-5459, or e-mail address: Anthony.R.Lobred@usace.army.mil.

For your convenience, I am forwarding a copy of this letter to Ms. Doree Magiera, URS Corporation, 3500 North Causeway Boulevard, Suite 900, Metairie, Louisiana 70002-3527.

Sincerely,

Anthony R. Lobred
Acting Chief, Permit Section
Regulatory Branch

Enclosures

PROJECT INFORMATION SHEET
SR 607 ENVIRONEMTNAL ASSESSEMENT

ATTENTION: Terry Cole
Choctaw Nation of Oklahoma
Tribal Historic Preservation Officer
16th & Durant
Durant, OK 74701

RETURN TO: Doree Magiera
URS Corporation
3500 N. Causeway Boulevard
Suite 900
Metairie, LA 70002-3527

Project Information

Name: Environmental Assessment: State Route 607 Roadway Improvements

Location: State Route 607 from Interstate 59 (I-59) to Saturn Drive, Hancock and Pearl River Counties, MS.

Description: Hancock County is preparing an Environmental Assessment (EA) to widen State Route 607 (SR-607) from a two-lane roadway to a four-lane roadway.

Time Frame: If no response is received by our office within 30 days from the date of this letter, we will acknowledge that the below mentioned area of statutory-regulatory compliance is not applicable to this project.

REQUEST FOR ENVIRONMENTAL ASSESSMENT STATUTORY-REGULATORY COMPLIANCE

AREA OF STATUTORY-REGULATORY COMPLIANCE: Historic Preservation

_____ NOT APPLICABLE TO THIS PROJECT(PROJECT WILL HAVE NO EFFECT ON REGULATIONS)
_____ CONSULATION REQUIRED
_____ REVIEW REQUIRED
_____ DETERMINATION OF CONSISTENCY APPROVALS, PERMITS OBTAINED
_____ CONDITIONS AND/OR MITIGATION ACTIONS REQUIRED

COMMENTS: Defer to Ken Carlton, Mississippi Choctaw THPO.

DOCUMENTATION OF SOURCE(S) FOR FINDINGS: _____

Attachments:
- Location Map

Terry Cole
Signature of Individual Providing Environmental Assessment

THPO
Title

Choctaw Nation of Oklahoma
Name of Agency

5-28-08
Date

USDA United States Department of Agriculture | Forest Service | National Forests In Mississippi | 654 W. Frontage Rd., P.O. Box 248 Wiggins, MS 39577 601/528-6160/TTY601/928-2810

File Code: 2350-4
Date: June 16, 2008

Ms. Doree Magiera
URS Corporation
3500 North Causeway Blvd, Suite 900
Metarie, LA 70002-3527

RE: Solicitation of Views on an Environmental Assessment for State Route 607 Roadway Improvements

Dear Ms. Magiera,

We have reviewed the Hancock County Board of Superviors' request for comments on the above mentioned project. It is outside the boundary of the De Soto National Forest so therefore should not cause any impacts to any National Forest resources of concern, including the Black Creek Wild and Scenic River. Black Creek is the only federally designated Wild and Scenic River in the state of Mississippi, with the congressionally designated portion flowing through Forrest and Perry counties.

If you have any questions or need additional information in the future, please contact Rebecca Ladnier at the above address or by calling 601-528-6169.

Sincerely,

RON SMITH
District Ranger

June 17, 2008

PROJECT MEETING MEMORANDUM

SUBJECT: **State Route 607 Environmental Assessment**
Project No. KTM026
Tier II Alternatives Meeting with Hancock County and Pearl River County

DATE: **June 10, 2008, 1:00 PM**

PLACE: **Hancock County Board of Supervisors**

ATTENDEES: **See Attached Sign-in Sheet / Distribution List below**

1.0 INTRODUCTION

Brief introductions were made and Ms. Doree Magiera began the meeting with an overview of the project. Ms. Magiera indicated that URS is preparing the Environmental Assessment (EA) for the widening of State Route 607 (SR 607) from Saturn Drive within Stennis Space Center (SSC), northward to Interstate 59 (I-59). Concurrently, construction plans are being developed for the 4-lane widening of the corridor from Saturn Drive to Texas Flat Road; 60% design plans have been completed. The purpose of the meeting is to provide elected officials with an update on the project and to obtain consensus on the alternatives being considered. The purpose and need for the project includes economic development and improvements to hurricane/emergency evacuation operations.

2.0 OVERVIEW OF TIER I ALTERNATIVES AND IMPACTS

URS has initiated a tiered alternatives analysis process for the project as a requirement of the National Environmental Protection Act (NEPA). The SR 607 environmental document is being prepared in accordance with HUD NEPA guidelines for funding reasons, rather than FHWA NEPA guidelines.

Description of Tier I Alternatives: Ms. Magiera provided a brief overview of alignment concepts that were initially considered for the project. These alternatives are identified as the Tier I Alternatives. Maps representing the five Tier I Alternatives were provided to meeting attendees. All of the Tier I Alternatives have a common alignment in the southern portion of the corridor from Saturn Drive to Texas Flat Road. The common alignment through Stennis consists of widening the roadway to the west side from Saturn Drive to just south of the North Security Gate to minimize the relocation of existing utility lines on the east side of the roadway. South of the North Security Gate, the alignment would transition to maintain the existing four-lane roadway section at the security gate. Then the alignment shifts to the east to avoid impacts to the Corinth Cemetery. In the northern portion of the corridor from Texas Flat Road to I-59, the five alternatives vary with regard to where the widening would occur (widening to the east or west of the existing roadway); the proposed median width (64 foot versus 101 foot); and the transition location from the proposed 4-lane divided roadway to the existing 2-lane roadway section. Copies of the 4-lane divided typical roadway sections that were used to develop the conceptual layouts for the Tier I Alternatives north of Texas Flat Road were provided to meeting attendees. These typical sections included a 101 foot median and a narrower 64 foot median.

Impacts Associated with the Tier I Alternatives: A table, entitled Tier I Alternatives – GIS Query Results, representing the impacts and differences between the five Tier I Alternatives was provided to meeting attendees. This table represents the preliminary results of the proposed right-of-way impacts on key environmental resources (wetlands, floodplains, utilities) between Texas Flat Road and I-59 only.

URS evaluated a 4-lane divided roadway with a narrow median (64 foot) north of Texas Flat Road as part of Alternative 1A to compare the right-of-way impacts to the 101 foot median (Alternative 1). With the narrow median, less right-of-way would be required; about 15 acres total. Alternative 4, which involves widening to the west of the existing roadway has a greater impact on wetlands and floodplains but avoids impacts to an AT&T fiber optic line that is located on the east side of the roadway.

URS inquired about the cost of land within the project limits. It was indicated that the cost of land within the buffer zone was going for $750 per acre plus business impacts/damages (timber, etc). These costs were derived from the Texas Flat Road right-of-way (ROW) acquisition and are approximately 2 years old. For planning purposes, URS will use $2,000 per acre for right-of-way costs on private property.

Note: The *SR 607 Tier I Alternatives Analysis Technical Memorandum* will be finalized to include planning level right-of-way cost information and is available from URS upon request. This technical memorandum provides a detailed description of the Tier I Alternatives and their preliminary environmental impacts.

3.0 TYPICAL SECTIONS: 5-LANE AND 4-LANE DIVIDED WITH 101' MEDIAN

Mr. Lowell Pitre explained that the Tier I Alternatives were previously presented to MDOT and at that time URS inquired about using the 64 foot narrow median for the divided roadway to minimize right-of-way impacts. The narrow median would be considered a design variance to the required 101 foot median for a rural collector. MDOT requires the 101 foot median to provide adequate storage area for vehicles, particularly large trucks, crossing the road and would not consider a design variance.

On the north end of the project, MDOT requested that a 5-lane roadway section be utilized for the corridor where existing development is located. A copy of the 5-lane typical roadway section was provided to meeting attendees. These typical sections were used to layout the conceptual alignments for the Tier II Alternatives.

4.0 OVERVIEW OF TIER II ALTERNATIVES

Based on the results of the Tier I analysis and discussion with MDOT, two Tier II Alternative were developed. Both of the Tier II Alternatives include the common alignment between Saturn Drive and Texas Flat Road. The two Tier II Alternatives vary with regard to widening to the east and widening to the west from Texas Flat Road and to just south of Asa McQueen Road. Each of the 4-lane divided sections then transitions to the 5-lane section near Asa McQueen Road. The 5-lane section continues to the I-59 right-of-way. The conceptual alignments for the Tier II Alternatives were presented on 1"=100' scale aerial photography for discussion.

5-Lane Widening at I-59: This issue of the northern project terminus was discussed. The 5-lane improvement as currently shown ends just south of the I-59 right-of-way as requested by MDOT. A pdf is attached to this meeting record that depicts the proposed SR 607 improvements at I-59. Mr. Pitre explained that MDOT requested that the 5-lane widening within I-59 right-of-way should be shown in dashed lines as it would not be a part of the current SR 607 environmental document.

Based on prior discussions with FHWA, URS staff noted that the project cannot involve the I-59 right-of-way and that a FHWA sponsored environmental document would be required as part of any modifications to the I-59 / SR 607 interchange.

Hancock and Pearl River County representatives stressed the importance of the corridor as a hurricane evacuation route and noted that the 5-lane improvements are imperative and should be extended to the existing entrance and exit ramps located on the south side of the interchange. Not constructing the 5-lane section to the entrance and exit ramps would be problematic; creating a bottleneck. County representatives further indicated that they would support the project if the 5-lane widening was extended approximately 200 feet to the existing ramps in the interim. Long-term improvements to the interchange are also deemed essential. Existing interchange deficiencies were discussed including: delays at SR 607 on the exit ramps; traffic backing up on the exit ramps onto the I-59 main lanes; sight distance problems; and delays on the 2-lane bridge over I-59. Some attendees inquired if the minor extension (approximately 200 feet) could be constructed as part of MDOT's roadway maintenance program. URS indicated that they would discuss the extension with MDOT staff. County representatives indicated that they would discuss this matter with elected officials at MDOT to ensure that both the interim and long-term improvements are included in the overall project.

URS noted that the 5-lane widening between the I-59 would be constructed within existing SR 607 right-of-way and would not impact any residential or commercial structures. Further analyses needs to be conducted to identify utility impacts in this portion of the corridor.

4-Lane Widening between Asa McQueen Road and Texas Flat Road: URS asked meeting attendees if they had a preference to the eastern or western widening within the limits noted. It was reiterated that the western alternative impacts more wetlands and floodplains, while the eastern alternative impacts an existing AT&T fiber optic line. County officials preferred the alternative that minimizes ROW taking to private land.

4-Lane Widening south of Texas Flat Road: County representatives indicated that the widening should not impact the Turtleskin Creek Cemetery. (Note: according to deed books and current tax maps, the cemetery is referred to as Corinth Cemetery). URS assured meeting attendees that the widening at this location is proposed on the east side of the existing roadway to completely avoid the cemetery.

SR 607 Construction Phasing: Ms. Magiera mentioned that existing operational deficiencies and potential improvements to the I-59 / SR 607 interchange would have to be defined as part of an interchange justification study and would be mentioned in the SR 607 environmental document as a long-term transportation improvement. The discussion turned to phasing where the segment within Stennis could be considered the first phase; the second phase could extend from Texas Flat Road to I-59; and the third phase may include the interstate.

5.0 KEY ENVIRONMENTAL RESOURCES / KNOWN IMPACTS

The approximate horizontal location of utilities that exist along SR 607 north of Texas Flat Road have been identified based on preliminary field work conducted by URS. The relocation of utilities can be costly and the location and type of utilities present will be considered in the evaluation of the Tier II Alternatives. Similar to the Tier I screening process, impacts to wetlands and floodplains will be considered in the alternatives development process for the Tier II Alternatives. Impacts to private property / ROW acquisition will be identified for the entire corridor, and will be further defined for county jurisdictional limits.

6.0 SELECTION OF TIER II ALTERNATIVE(S) TO EVALUATE IN ENVIRONMENTAL ASSESSMENT (EA)

Upon review of the conceptual graphics depicting the alignments for the Tier II Alternatives, Hancock County and Pearl River County representatives did not express a preference for either the eastern or western widening options, but generally favored the alternative that would have the least impact on private property within their respective jurisdictions.

7.0 REALIGNMENT OF RIDGE ROAD

Realignment of Ridge Road at Texas Flat Road: At MDOT's request, URS had developed three alternatives to realign Ridge Road to tie into the proposed widening of SR 607 approximately 1,700 feet north of the existing SR 607 / Texas Flat Road intersection. These alternatives were presented for discussion. County representatives indicated that this portion of Ridge Road has not been maintained, that is generally should be treated as a driveway, and that it has already been addressed at part of the Texas Flat Road construction plans. They further noted that there is no need to realign this portion of Ridge Road as part of the SR 607 project, especially if ROW acquisition was required.

Realignment of Ridge Road from Highway 43 to Highway 607: Les Dungan mentioned that an environmental assessment was being prepared for the realignment of Ridge Road between the limits noted above. Pearl River County is the sponsor for this project. Mr. Dungan penciled in the approximate location of one of the realignment options for the corridor and its approximate tie-in location to SR 607 within Hancock County, south of the Pearl River County line. Mr. Dungan suggested that URS contact Jason Ulmer for additional information on Ridge Road.

ACTION ITEMS:

1. URS will contact Jason Ulmer with Dungan Engineering to obtain the construction plans for Texas Flat Road. The plans depict how Ridge Road is being realigned to tie into Texas Flat Road.
2. URS will contact Jason Ulmer with Dungan Engineering to obtain the conceptual alignments being developed as part of the Ridge Road environmental document to determine the approximate location of the Ridge Road tie-in location to SR 607. The proposed Ridge Road tie-in location needs to be considered for both the SR 607 western and eastern widening alternatives.
3. URS will meet with MDOT to discuss the Tier II Alternatives including the 5-lane extension to the I-59 entrance and exit ramps on the south side of the interchange.

This meeting record was prepared by Ms. Magiera. Please contact Ms. Magiera by e-mail to provide corrections or additions to this meeting record (doree_magiera@urscorp.com).

DISTRIBUTION:

* Denotes attendance at meeting.

Dale Woolridge, NASA
Rocky Pullman, Hancock County Board of Supervisors *
Chris Gouras, Hancock County POC *
Sandy Smith, Pearl River County *
Patrick Lee, Pearl River County *
David Earl Johnson, Pearl River County *
Adrain Lumpkin, Jr., Pearl River County *
Les Dungan, Dungan Engineering *
Doree Magiera, URS *
Lowell Pitre, URS *
Kent Dussom, URS


59
CLYDE METZLER ROAD

Contract No. NNS08AA10B
Task Order No. NNS08AA35T
Project No. KTM026
Environmental Assessment for the Widening of State Route 607
Stennis Space Center (SSC) to Interstate 59 (I-59)
Hancock and Pearl River Counties

URS

SR 607 Environmental Assessment
Tier II Alternatives Meeting
Sign-in Sheet

June 10, 2008; 1:00 PM

Name/Title	Representing/Address	Telephone Number/Email Address
DOREE MAGIERA	URS CORP.	Telephone: 504 8376326 Fax: Email: DOREE_MAGIERA@URSCORP.COM
Sandy K Smith	Pearl River County	Telephone: 601-916-2317 Fax: Email: airtech1999@yahoo.com
PATRICK LEE	Pearl River	Telephone: 601 916 2319 Fax: Email: JPLSUPER@HOTMAIL.COM
David Earl Johnson	Chancery Clerk Pearl River	Telephone: Fax: 601-916-6767 Email: dejohnson@pearlrivercounty.net
Adrain Lumpkin, Jr Co Admin	Pearl River Co	Telephone: 601-403-2300 Fax: 601-403-2309 Email: alumpkin@pearlrivercounty.net
Les Dungan Co. Engr	Dungan Engineering	Telephone: 601 731 2600 Fax: Email: les@dunganeng.com
CHRIS GOURAS	GOURAS & ASSOC	Telephone: 601 605 8120 Fax: Email:

Contract No. NNS08AA10B
Task Order No. NNS08AA35T
Project No. KTM026
Environmental Assessment for the Widening of State Route 607
Stennis Space Center (SSC) to Interstate 59 (I-59)
Hancock and Pearl River Counties

URS

Name/Title	Representing/Address	Telephone Number/Email Address
Lowell Pitre	URS Corp	Telephone: 504 837-6326 Fax: Email: Lowell.Pitre@URSCorp.Com
R. [illegible]	Hancock Co	Telephone: 228-297-8868 Fax: Email:
		Telephone: Fax: Email:
		Telephone: Fax: Email:
		Telephone: Fax: Email:
		Telephone: Fax: Email:
		Telephone: Fax: Email:
		Telephone: Fax: Email:

"Adrian Lumpkin"
<alumpkin@pearlrivercounty.net>
07/30/2008 02:38 PM

To <Doree_Magiera@URSCorp.com>
cc "Les Dungan" <les@dunganeng.com>
bcc
Subject RE: Comments on SR 607 EA

Mrs. Magiera,

The County does not have a preference on the Eastern or Western alternative. Our only concern is that full width construction of HWY 607 adjoins interstate right-of-way. This will help up with the overpass and intersections at the exit ramps.

Thanks,

Adrain

From: Doree_Magiera@URSCorp.com [mailto:Doree_Magiera@URSCorp.com]
Sent: Wednesday, July 30, 2008 1:30 PM
To: Adrian Lumpkin
Cc: Kent_Dussom@urscorp.com; Dale.A.Woolridge@nasa.gov
Subject: Fw: Comments on SR 607 EA

Mr. Lumpkin

Does the county have a preference for the Eastern or Western Alternative north of Texas Flat Rd?

Doree Magiera
Senior Transportation Planner
URS Corporation
3500 Causeway Boulevard, Suite 900
Metairie, LA. 70002-3527
Tel: 504.218.0855 Direct Line
Tel: 504.837.6326 Main Line
Fax: 504.831.8860
Cell: 504.494.7672
doree_magiera@urscorp.com

----- Forwarded by Doree Magiera/Metairie/URSCorp on 07/30/2008 01:28 PM -----

Doree
Magiera/Metairie/UR

SCorp

07/30/2008 01:16 PM

To"Adrian Lumpkin" <alumpkin@pearlrivercounty.net>

ccKent_Dussom@urscorp.com, Dale.A.Woolridge@nasa.gov

SubjectRe: Comments on SR 607 EA

Mr. Lumpkin

Thank you for your comments on behalf of Pearl River County. We will include them in the Final EA.

The first comment needs to be addressed as a commitment / MOA between all parties as discussed at our meeting on June 10, 2008.

With regard to additional crossovers, we will evaluate the distances between each crossover based on MDOT design criteria. Is there a particular location where an additional crossover is necessary. If you could identify a location, that would help us when we re-evaluate the crossover spacing.

Doree Magiera
Senior Transportation Planner
URS Corporation
3500 Causeway Boulevard, Suite 900
Metairie, LA. 70002-3527
Tel: 504.218.0855 Direct Line
Tel: 504.837.6326 Main Line
Fax: 504.831.8860
Cell: 504.494.7672
doree_magiera@urscorp.com

"Adrian Lumpkin" <alumpkin@pearlrivercounty.net>

"Adrian Lumpkin" <alumpkin@pearlrivercounty.net>

07/30/2008 10:30 AM

To<doree_magiera@urscorp.com>

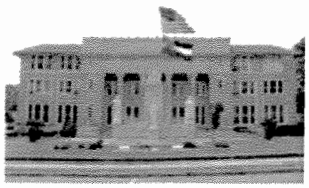
cc

SubjectComments on SR 607 EA

Please find attached comment letter.

Adrain Lumpkin, Jr.
County Administrator
Pearl River County
P.O. Box 569
Poplarville, MS 39470
601-403-2300 ext. 302
601-403-2309 fax
alumpkin@pearlrivercounty.net

(See attached file: EA Review Comments (2).doc)



BOARD OF SUPERVISORS
PEARL RIVER COUNTY
P.O. BOX 569
POPLARVILLE, MS 39470
(601) 403-2300
(601) 403-2309 Fax
ADRAIN LUMPKIN, JR.
County Administrator

July 30, 2008

Doree Magiera
Sr. Transportation Planner
URS Corporation
3500 N. Causeway Blvd., Suite 900
Metairie, LA 70002

Re: NASA Stennis Space Center
SR 607 EA
Preliminary Draft EA Submittal
URS Project No. 10001524

Dear Mrs. Magiera:

We have reviewed the Preliminary Draft EA Submittal for the above referenced project. We have the following comments in regards to the Draft EA:

1. As per Sheet 1-2, the modification of the I-59 / SR 607 interchange is considered a long-term improvement by others and is not included in the EA. We would like to include this modification in the EA and design as shown on Figure 2.3-1E or assurance from MDOT that these improvements will be provided concurrent with this proposed project.

2. On the South Common Alignment between the areas of Texas Flat and the Stennis Space Center's Fee Boundary, we want to consider adding additional cross-overs for the heavy truck traffic associated with the gravel pits.

Please call if you have any questions or need additional information.

Sincerely,

Adrain Lumpkin, Jr.
County Administrator

Cc: Dale Woolridge

MISSISSIPPI DEPARTMENT *of* ARCHIVES AND HISTORY

MDA&H

HISTORIC PRESERVATION
Ken P'Pool, director • Jim Woodrick, acting director
PO Box 571, Jackson, MS 39205-0571
601-576-6940 • Fax 601-576-6955
mdah.state.ms.us

October 27, 2008

URS Corporation
3500 North Causeway Blvd., Suite 900
Metairie, Louisiana 70002-3527

RE: Phase I Cultural Resources Survey of Proposed Improvements to Mississippi State Route 607 (SR 607) Saturn Drive to Interstate 59 (I-59), MDAH Project Log #09-157-08, Hancock and Pearl River Counties

Dear Sirs:

We have reviewed the September 2008 survey report by Dr. Jill-Karen Yakubik, Principal Investigator, Earth Search, Inc., received on September 29, 2008, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After reviewing the information provided, we concur that site 22Ha670 is potentially eligible for listing in the National Register of Historic Places, and concur with the planned avoidance of the site. We also concur that sites 22Ha671, 22Ha672, 22Ha673, 22Ha674, 22Ha675, and 22Ha676 are ineligible for listing in the NRHP, but also concur with the recommendation for avoidance of any construction activity outside the ROW in the vicinity of 22Ha672, as intact deposits may exist outside the surveyed ROW. With these recommendations, therefore, we have no reservations with the proposed undertaking.

There remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13.

Please provide a copy of this letter to Dr. Yakubik. If you need further information, please let us know.

Sincerely,

Jim Woodrick
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

c: Clearinghouse for Federal Programs

APPENDIX F

WETLAND EIGHT-STEP DECISION MAKING PROCESS

PEARL RIVER AND HANCOCK COUNTIES, MISSISSIPPI
IMPROVEMENTS TO STATE ROUTE 607
FROM INTERSTATE 59 TO SATURN DRIVE

Step 1 Determine if proposed project is in or affects wetlands.

It was determined that the widening of State Route 607 (SR 607) from Interstate 59 to Saturn Drive will have the potential to impact some small wetland areas as determined through the following methods: field verification, including wetland delineation on a portion of the project within Stennis Space Center property; review of soils; and the use of United States Fish and Wildlife Service National Wetland Inventory (NWI) maps that are included in a geographic information system (GIS) database.

A map depicting the study area wetlands is included in the SR 607 Project Information Packet that was prepared for the public involvement activities undertaken in Step 2 and Step 7. (See SR 607 Project Information Packet, October 2008.)

Step 2 Involve the public in the decision making.

By the way of the publication of the "Notice for Early Public Review of a Proposal to Support Activity in the 100-Year Floodplain and Wetland," the public was invited to obtain a SR 607 Project Information Packet at the Hancock County Board of Supervisors Office and to provide written comments on the proposed action. The Early Public Review Notice was published in *The Sea Coast Echo* on September 27, 2008 and *The Picayune Item* on September 28, 2008. No comments were received.

Step 3 Determine if there are any practical alternatives.

As a result of the Tier I screening evaluation, two alternatives were retained for further analysis in the Environmental Assessment (EA). These alternatives are identified as the Eastern Alternative and the Western Alternative. The two build alternatives include improvements and widening the existing roadway to a four-lane divided section. The widening was proposed on the east and the west side of the existing roadway. The Western Alternative has been identified as the Preferred Alternative. The No-Build Alternative is also evaluated in the environmental document. However, the No-Build Alternative would not meet the purpose and need of the project, as it would not improve safety, hurricane and emergency evacuation operations, or further opportunities for economic development.

Step 4 Identify the projects' impacts.

Wetland impacts by the proposed roadway widening are minimal and are primarily associated with the streams and creeks that traverse the SR 607 study area and are restricted to the channel and small riparian zones. The Western Alternative is estimated to impact 4.9 acres of wetlands. (See SR 607 Project Information Packet, October 2008.)

Step 5 Identify how the adverse affects will be minimized.

In terms of wetland impacts, the total acres of impact will be mitigated in kind at an approved wetland mitigation bank. In accordance with Section 404 guidelines of the Clean Water Act, all practicable measures will be implemented to avoid or minimize impacts to wetlands.

Step 6 Reevaluate alternatives identified.

No practical alternatives were identified. The project will promote economic development and improve hurricane and emergency evacuation operations and will provide a cost effective use of limited resources by utilizing the existing roadway as part of the project. It is recommended that the project continue.

Step 7 Announce and explain the decisions of the review to the public.

A "Public Explanation of the Proposed Activity in the 100-Year Floodplain and Wetland Notice" was published in *The Sea Coast Echo* on October 18, 2008 and *The Picayune Item* on October 19, 2008. The public was invited to obtain a SR 607 Project Information Packet at the Hancock County Board of Supervisors Office and to provide written comments on the proposed action. No comments were received.

Step 8 Implement the project with the appropriate mitigation.

A decision was made to proceed with the project on ____. All necessary precautions will be taken to insure elevations and other design criteria for projects within the wetland areas are followed. All local, state, and federal guidelines for projects located in the wetland areas will be abided by.

100-YEAR FLOODPLAIN EIGHT-STEP DECISION MAKING PROCESS

PEARL RIVER AND HANCOCK COUNTIES, MISSISSIPPI
IMPROVEMENTS TO STATE ROUTE 607
FROM INTERSTATE 59 TO SATURN DRIVE

Step 1 Determine if proposed project is in or affects the 100-year floodplain.

It was determined that the widening of State Route 607 (SR 607) from Interstate 59 to Saturn Drive will impact the 100-year floodplain according to Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA). The Flood Insurance Rate Maps for the study area included 28109C0580E for Pearl River County and 28045C0185D, 28045C0303D, 28045C0195D, 28045C0301D, and 28045C0215D for Hancock County. There are several 100-year floodplain areas that occur within the SR 607 study area at existing surface water crossings of Alligator Branch, Second Alligator Branch, Indian Camp Branch, Unnamed Tributaries, and Turtleskin Creek. The additional right-of-way that is required for the widening of SR 607 would traverse several small areas of the 100-year floodplain at these existing crossings.

A map depicting the 100-year floodplain is included in the SR 607 Project Information Packet that was prepared for the public involvement activities undertaken in Step 2 and Step 7. (See SR 607 Project Information Packet, October 2008.)

Step 2 Involve the public in the decision making.

By the way of the publication of the "Notice for Early Public Review of a Proposal to Support Activity in the 100-Year Floodplain and Wetland," the public was invited to obtain a SR 607 Project Information Packet at the Hancock County Board of Supervisors Office and to provide written comments on the proposed action. The Early Public Review Notice was published in *The Sea Coast Echo* on September 27, 2008 and *The Picayune Item* on September 28, 2008. No comments were received.

Step 3 Determine if there are any practical alternatives.

As a result of the Tier I screening evaluation, two alternatives were retained for further analysis in the Environmental Assessment (EA). These alternatives are identified as the Eastern Alternative and the Western Alternative. The two build alternatives include improvements and widening the existing roadway to a four-lane divided section. The widening was proposed on the east side and the west side of the existing roadway. The Western Alternative has been identified as the Preferred

Alternative. The No-Build Alternative was also evaluated in the environmental document. However, the No-Build Alternative would not meet the purpose and need of the project, as it would not improve safety, hurricane and emergency evacuation operations, or further opportunities for economic development.

Step 4 Identify the projects' impacts.

The study area includes several streams and smaller tributaries that have adjacent lands that are within the 100-year floodplain; however, all of the potential crossings of the 100-year floodplains by the Western Alternative would be designed to maintain pre-construction hydrologic conditions and would not result in any substantive effect to base flood elevations upstream or downstream of the crossing. The Western Alternative is estimated to impact 7.4 acres of the 100-year floodplain. (See SR 607 Project Information Packet, October 2008.)

Step 5 Identify how the adverse affects will be minimized.

Mitigation measures will be undertaken during the design and construction of the project to minimize impacts to the 100-year floodplain. Specific design measures that will be accomplished during the detailed design to mitigate floodplain impacts include:

- Avoidance of longitudinal encroachments;
- Sufficient bridging to minimize adverse effects from a rise in backwater;
- Sufficient bridging to minimize increases in water velocity;
- Minimization of channel alterations;
- Adequate and timely erosion control measures to minimize erosion and sedimentation;
- Utilization of standard specifications to control work in and around streams so that adverse water quality impacts are minimized; and
- Adequate preliminary hydraulic sizing of roadway storm culverts, box culverts and bridges should neither impact nor create a greater flood risk for adjacent properties than existed before project construction.

All efforts will be taken to insure that all local, state, and federal guidelines are followed in regards to prevention of flooding.

Step 6 Reevaluate alternatives identified.

No practical alternatives were identified. The project will promote economic development and improve hurricane and emergency evacuation operations and will provide a cost effective use of limited resources by

utilizing the existing roadway as part of the project. It is recommended that the project continue.

Step 7 Announce and explain the decisions of the review to the public.

A "Public Explanation of the Proposed Activity in the 100-Year Floodplain and Wetland Notice" was published in *The Sea Coast Echo* on October 18, 2008 and *The Picayune Item* on October 19, 2008. The public was invited to obtain a SR 607 Project Information Packet at the Hancock County Board of Supervisors Office and to provide written comments on the proposed action. No comments were received.

Step 8 Implement the project with the appropriate mitigation.

A decision was made to proceed with the project on _____. All necessary precautions will be taken to insure elevations and other design criteria for projects within the 100-year Floodplain are followed. All local, state, and federal guidelines for projects located in the 100-year Floodplain will be abided by.

Project Information Packet

State Route 607 (SR 607) Widening
Hancock and Pearl River Counties, MS

Supplemental Data
for
Public Explanation
Of A Proposed Activity In The
100-year Floodplain and Wetlands

Project Information Packet Includes:
SR 607 Project Description
Figure 1 100-Year Floodplain Map
Figure 2 Wetland Map
Legal Notice

For Additional Project Information Contact:
URS Corporation
3500 North Causeway Boulevard
Suite 900
Metairie, LA 70002-3527
Main Number (504) 837-6326
Doree Magiera (504) 218-0855 (direct)
Christi Wilson (504) 218-0880 (direct)

October 2008

1.0 PROJECT DESCRIPTION

1.1 Introduction and NEPA Requirements

An Environmental Assessment (EA) is being prepared for the widening of State Route 607 (SR 607) as a requirement of the National Environmental Policy Act (NEPA). NEPA was enacted in 1969 in the United States to encourage sustainable development and informed decision-making in a manner acceptable to the United States' citizens and government agencies. NEPA requires that every federal action or federally funded project be evaluated on its merits by the sponsor agency. The project is being sponsored by the United States Department of Housing and Urban Development (HUD), who has designated Hancock County as the acting lead agency for the EA. Effects to the human and natural environment, as well as the relative benefits of the project alternatives must be evaluated and presented to the public, tribal interests, local decision-makers, and resource agencies having jurisdictional interests in the project.

1.2 Project Location and Description

Hancock County, in cooperation with HUD and the Mississippi Department of Transportation (MDOT), are proposing to widen SR 607 from a two-lane roadway to a four-lane roadway. The project limits extend from south of the Interstate 59 (I-59) / SR 607 interchange to the existing four-lane portion of SR 607 at Saturn Drive within Stennis Space Center (SSC), a distance of approximately 7.8 miles.

Improvements to SR 607 are proposed to be implemented in three separate phases due to different funding sources, different NEPA document requirements, and prioritization. The proposed project implementation phases are as follows:

- Phase 1: Four-lane widening from Saturn Drive to Texas Flat Road;
- Phase 2: Four-lane widening from Texas Flat Road to the I-59 / SR 607 Interchange; and
- Phase 3: Potential future I-59 / SR 607 Interchange modifications (by others).

1.3 Purpose and Need

The purpose of this project is to maintain and create low and moderate income employment opportunities at SSC by improving and widening SR 607. SR 607 provides a north-south transportation connection between Interstate 10 (I-10) and I-59. An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes, and SSC. Additionally, the improved SR 607 Corridor would function as a multi-lane highway providing a by-pass of I-10 / I-59 junction in the event of an emergency evacuation. In summary, the purpose and need for the proposed SR 607 project includes:

- Economic Development;
- Improve Hurricane / Emergency Evacuation Operations; and
- Improve Safety.

1.4 Alternatives Development Process

A phased or tiered approach was utilized for the development of alternatives to meet the purpose and need for the project. This methodology is intended to narrow the range of alternatives through consecutively more detailed screening evaluations regarding conceptual roadway alignments and required right-of-way (ROW). Initial conceptual alternatives were developed based upon input obtained from resource agencies, discussions with elected officials, preliminary field investigations, and records research of community facilities and environmental features. Five conceptual alternatives were identified and evaluated as part of the Tier I alternatives development process.

As part of the corridor screening evaluation, screening criteria were developed from state and federal requirements for permits and reviews. These screening criteria are related to the environmental resources within the study area that have been compiled into a geographic information system (GIS) database. Existing GIS data was supplemented with data obtained during field reviews and from resource agency records. A GIS-based inventory was conducted for the five conceptual corridors to quantify the preliminary impacts of each alternative. Following this initial screening evaluation, the number of alternatives was reduced from five to two.

1.5 Alternatives Evaluated in the Environmental Document

Potential effects due to the human, physical and natural environment due to the implementation of the project alternatives are evaluated in greater detail in the EA. As a result of the Tier I screening evaluation, two alternatives were retained for further analysis in the EA. These alternatives are identified as the Eastern Alternative and the Western Alternative. The Western Alternative has been identified as the Preferred Alternative (PA). The No-Build Alternative is also evaluated in an environmental document. However, the No-Build Alternative would not meet the purpose and need of the project, as it would not improve safety, hurricane and emergency evacuation operations, or further opportunities for economic development.

1.6 Summary of Floodplain Impacts

Protection of floodplains and floodways is required by Executive Order 11988, Floodplain Management; 23 CFR Part 650, Location and Hydraulic Design of Encroachments on Floodplains; and USDOT 5650.2, Floodplain Management and Protection. These regulations were designed to minimize highway encroachments within the 100-year floodplain and to avoid land use development inconsistent with floodplain values. During periods of high water, floodplains serve to moderate flood flow, provide water quality maintenance, and serve as temporary habitat for a number of plant and animal species.

The most recent Flood Insurance Rate Maps (FIRM) for Hancock County and Pearl River County were reviewed to determine if any regulated floodplains or floodways are located within the study area. As shown in **Figure 1**, there are several 100-year regulated floodplains that cross SR 607. These include the crossings of Alligator Branch, Second Alligator Branch, Indian Camp Branch, Unnamed Tributaries, and Turtleskin Creek. **Table 1** shows the estimated amount of 100-year floodplain that could be potentially impacted by the PA that is designated as the

Western Alternative. All of the potential crossings of the 100-year floodplains by the PA would be designed to maintain pre-construction hydrologic conditions and would not result in any substantive effect to base flood elevations upstream or downstream of the crossing.

Table 1
Western Alternative Estimated Impacts to 100-Year Floodplain

Project Limits	Estimated Acres of Potential Floodplain Impacts
I-59 to Texas Flat Road	5.50 acres
Texas Flat Road to Saturn Drive	1.91 acres
Total	**7.41 acres**

1.7 Summary of Wetland Impacts

Mississippi's coastal wetlands are managed primarily through the Mississippi Department of Marine Resources (DMR) and are regulated by the U.S. Army Corps of Engineers (USACE) under the Clean Water Act Section 404 permitting process.

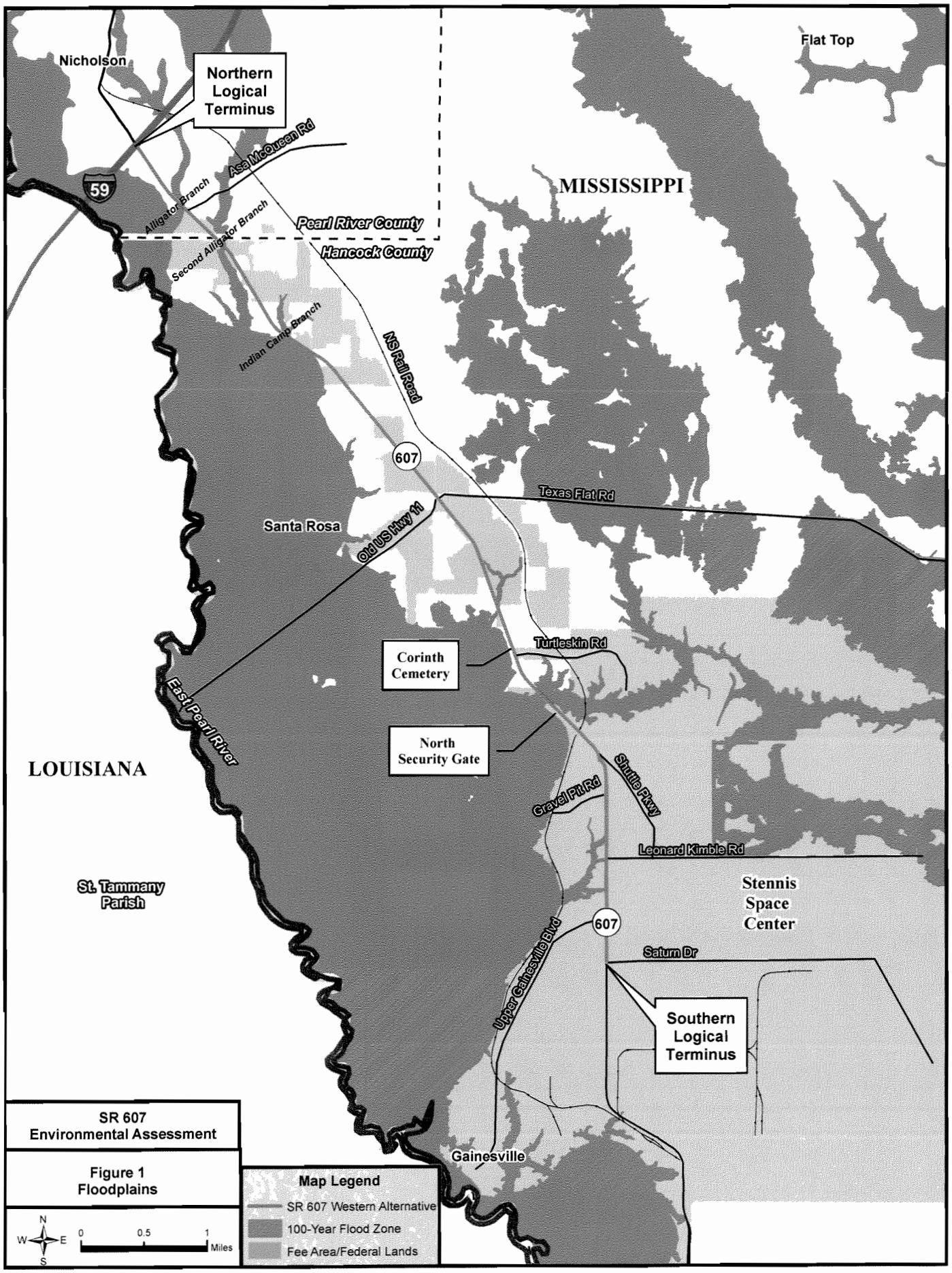
The U.S. Department of the Interior Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps were used to determine if jurisdictional wetlands have the potential to exist within the perimeter of the SR 607 widening corridor. Natural Resource Conservation Service (NRCS) soils maps were also used to determine areas of hydric soils, over which wetland areas are more likely to occur.

Based on a review of the electronic NWI maps, hydric soils layers, and field reconnaissance there are several locations where the widening of SR 607 would border and/or impact the existing wetlands boundaries. Wetland impacts associated with the proposed ROW for the Western Alternative are described below in **Table 2** and shown in **Figure 2**.

Table 2
Western Alternative Estimated Impacts to Wetlands

Project Limits	Estimated Acres of Potential Wetland Impacts
I-59 to Texas Flat Road	4.20 acres
Texas Flat Road to Saturn Drive	0.70 acres
Total	**4.90 acres**

The majority of the wetlands found along SR 607 are associated with the streams and creeks that traverse the area and are restricted to the channel and small riparian zones.


Nicholson
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Flat Top
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Asa McQueen Rd
Alligator Branch
Second Alligator Branch
Pearl River County
Hancock County
Indian Camp Branch
NS Rail Road
607
Texas Flat Rd
Santa Rosa
Old US Hwy 11
Corinth Cemetery
Turtleskin Rd
East Pearl River
North Security Gate
LOUISIANA
Shuttle Pkwy
Gravel Pit Rd
Leonard Kimble Rd
St. Tammany Parish
Stennis Space Center
607
Upper Gainesville Blvd
Saturn Dr
Southern Logical Terminus
Gainesville
SR 607 Environmental Assessment
Figure 1 Floodplains
Map Legend
SR 607 Western Alternative
100-Year Flood Zone
Fee Area/Federal Lands
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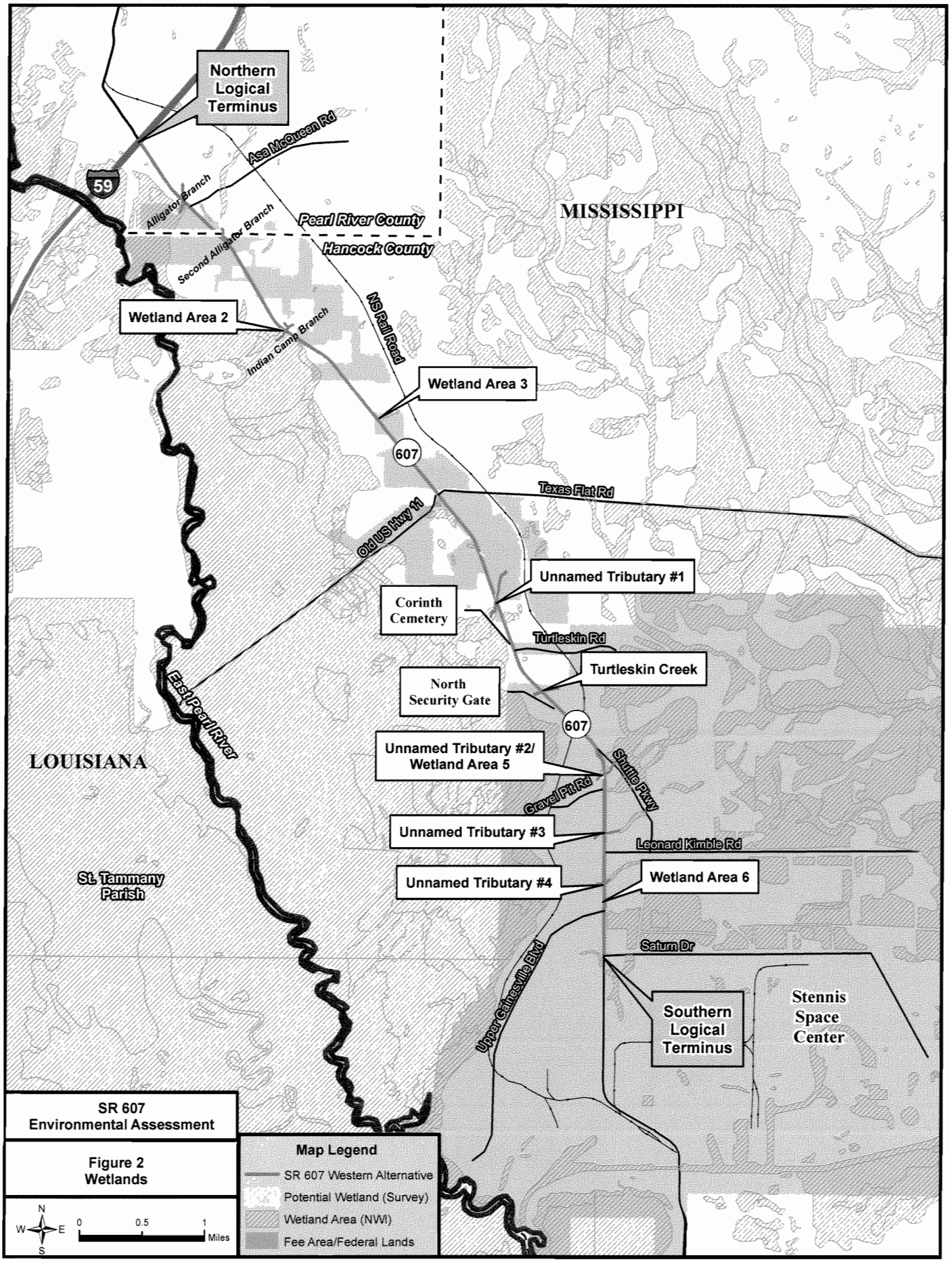
Northern Logical Terminus
Asa McQueen Rd
59
Alligator Branch
Second Alligator Branch
Pearl River County
Hancock County
MISSISSIPPI
Wetland Area 2
Indian Camp Branch
NS Rail Road
Wetland Area 3
607
Texas Flat Rd
Old US Hwy 11
Unnamed Tributary #1
Corinth Cemetery
Turtleskin Rd
Turtleskin Creek
North Security Gate
607
East Pearl River
LOUISIANA
Unnamed Tributary #2/ Wetland Area 5
Shuttle Pkwy
Gravel Pit Rd
Unnamed Tributary #3
Leonard Kimble Rd
St. Tammany Parish
Unnamed Tributary #4
Wetland Area 6
Saturn Dr
Upper Gainesville Blvd
Southern Logical Terminus
Stennis Space Center
SR 607 Environmental Assessment
Figure 2 Wetlands
Map Legend
SR 607 Western Alternative
Potential Wetland (Survey)
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PUBLIC EXPLANATION OF A PROPOSED ACTIVITY IN THE 100-YEAR FLOODPLAIN AND WETLANDS

To: All Interested Agencies, Groups, and Individuals

This is to give notice that Hancock County has conducted an evaluation as required by Executive Orders 11988 and 11990 in accordance with United States Department of Housing and Urban Development (HUD) regulations at 24 CFR 55.20 to determine the potential affect that its activity in the floodplain and wetland will have on the environment. The proposed project consists of the following:

> **Improvements to SR 607** – Hancock County in cooperation with the Mississippi Department of Transportation (MDOT), Pearl River County, and the National Aeronautics and Space Administration (NASA) are proposing to widen State Route 607 (SR 607) from a two-lane facility to a four-lane facility from Saturn Drive, within Stennis Space Center, northward to Interstate 59 (I-59); a distance of approximately 7.8 miles. SR 607 provides a north-south transportation connection between Interstate 10 (I-10) and Interstate 59.
>
> The purpose of this project is to promote economic development and improve hurricane and emergency evacuations. An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes, and Stennis Space Center. Additionally, the SR 607 Corridor would function as a multi-lane highway providing a by-pass of I-10 / I-59 junction in the event of an emergency evacuation. The Western Alternative has been identified as the preferred alternative.

Alternatives to the proposed project include: The No-Build Alternative and the Eastern Alternative.

Hancock County has determined that no practicable alternative to the above referenced project would address the needs for economic development and improvements to hurricane and emergency evacuations. The activity would have minor impacts on the environment for the following reasons:

> 1. The wetland areas and 100-year floodplain areas impacted by the proposed roadway widening are primarily associated with streams and tributaries that traverse SR 607 within the study area limits in Hancock County and Pearl River County. Between Saturn Drive and I-59, the preferred alternative has the potential to impact approximately 7.41 acres of 100-year floodplain and 4.90 acres of wetlands. Widening existing SR 607 along its current alignment has the potential to minimize impacts to these resources compared to an alternative on new alignment.
>
> 2. The project will provide a cost effective use of limited resources by utilizing the existing roadway as part of the project.

Every action will be taken to minimize impacts to the 100-year floodplain and wetlands. Compliance with local, state, and federal standards will be made.

Additional information, including a more detailed project description and maps, are on file at the Board of Supervisor's office at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 and are available for public inspection during regular business hours: Monday through Friday; 8:00 A.M. to 5:00 P.M.

Interested persons are invited to submit comments concerning the project to the Hancock County Board of Supervisors at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 no later than 5:00 P.M., Tuesday, October 28, 2008.

The Sea Coast Echo
Since 1892

POST OFFICE BOX 2009
BAY SAINT LOUIS, MS 39521-2009

PROOF OF PUBLICATION

STATE OF MISSISSIPPI
HANCOCK COUNTY

PERSONALLY appeared before me the undersigned authority in and for said County and State, JAMES R. PONDER, publisher of THE SEA COAST ECHO, a newspaper printed and published in the City of Bay Saint Louis, said County, who being duly sworn, deposes and says the publication of this notice hereunto annexed has been made in the said publication 1 weeks to-wit:

On the 27 day of September 2008

On the _____ day of _____ 2008

On the _____ day of _____ 2008

On the _____ day of _____ 2008

James R. Ponder
Publisher

Sworn to and subscribed before me A NOTARY PUBLIC

Judith M. Tadlock

this September 29 2008

Notary Public State of Mississippi At Large
My Commission Expires: November 01, 2009

NOTICE FOR EARLY PUBLIC REVIEW OF A PROPOSAL TO SUPPORT ACTIVITY IN THE 100-YEAR FLOODPLAIN AND WETLAND

To: All Interested Agencies, Groups, and Individuals

This is to give notice that Hancock County, Mississippi proposes to undertake the following in Pearl River and Hancock Counties, Mississippi:

Improvements to State Route 607 – Hancock County in cooperation with the Mississippi Department of Transportation (MDOT), Pearl River County, and the National Aeronautics and Space Administration (NASA), are proposing to widen State Route 607 (SR 607) from a two-lane facility to a four-lane facility from Saturn Drive, within Stennis Space Center, northward to Interstate 59, a distance of approximately 7.8 miles. SR 607 provides a north-south transportation connection between Interstate 10 (I-10) and Interstate 59 (I-59).

The purpose of the project is to promote economic development and improve hurricane and emergency evacuation operations.

An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes, and Stennis Space Center. Additionally, the SR 607 Corridor would function as a multi-lane highway providing a by-pass of I-10 / I-59 junction in the event of an emergency evacuation.

A portion of the project is located within the 100-year floodplain and it also impacts several small wetland areas. Within the project limits between Saturn Drive and I-59, the preferred alternative has the potential to impact approximately 7.41 acres of 100-year floodplain and 4.9 of wetlands. This notice is required by Section 2(a)(4) of Executive Order 11988 for Floodplain Management, and by Section 2(b) of Executive Order 11990 for Protection of Wetlands, and is implemented by the United States Department of Housing and Urban Development (HUD) Regulations found at 24 CFR 55.20(b) for the HUD action that is within and/or affects a floodplain or wetland.

Additional information, including a more detailed project description and maps, are on file at the Board of Supervisor's office at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 and are available for public inspection during regular business hours Monday through Friday 8:00 A.M. to 5:00 P.M.

Interested persons are invited to submit comments concerning the project to the Hancock County Board of Supervisors at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 no later than 5:00 P.M., Tuesday, October 14, 2008.

09/27/08

The Picayune Item

STATE OF MISSISSIPPI
COUNTY OF PEARL RIVER

PERSONALLY CAME before me, the undersigned, a notary public in and for PEARL RIVER County, Mississippi, TOM ANDREWS, Publisher, of THE PICAYUNE ITEM, a newspaper published in the town of Picayune, Pearl River County, in said state, who being duly sworn, deposes and says that The Picayune Item is a newspaper as defined and prescribed in Senate Bill No. 203 enacted at the regular session of the Mississippi Legislature of 1948, amending Section 1858, of the Mississippi Code of 1942, and that the publication of a notice, of which the annexed is a copy, in the matter of

Notice For Early Public Review

has been made in said paper 1 consecutively
to wit:

On The	28th	day of September	2008
On The		day of	2008
On The		day of	2008
On The		day of	2008
On The		day of	2008
On The		day of	2008

The Picayune Item

SWORN TO and subscribed before me, this 29th day of September 2008

Marilyn R. Handley
Notary Public

NOTARY PUBLIC
MARILYN R. HANDLEY
PEARL RIVER COUNTY, MS
My Commission Expires
May 15, 2010

TO THE PICAYUNE ITEM

TO PUBLISHING URS Corporation
case of Notice For Early Public Review
386 words space
1 times and making proof $37.32

NOTICE FOR EARLY PUBLIC REVIEW OF A PROPOSAL TO SUPPORT ACTIVITY IN THE 100-YEAR FLOODPLAIN AND WETLAND

To All Interested Agencies, Groups and Individuals

This is to give notice that Hancock County, Mississippi proposes to undertake the following in Pearl River and Hancock Counties, Mississippi:

Improvements to State Route 607 in Hancock County in cooperation with the Mississippi Department of Transportation (MDOT), Pearl River County, and the National Aeronautics and Space Administration (NASA) are proposing to widen State Route 607 (SR 607) from a two-lane facility to a four-lane facility from Saturn Drive within Stennis Space Center, northward to Interstate 59, a distance of approximately 7.8 miles. SR 607 provides a north-south transportation connection between Interstate 10 (I-10) and Interstate 59 (I-59).

The purpose of the project is to promote economic development and improve hurricane and emergency evacuation operations. An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes, and Stennis Space Center. Additionally, the SR 607 Corridor would function as a multi-lane highway providing a by-pass for the I-10 / I-59 junction in the event of an emergency evacuation.

As proposed, the project is located within the 100-year floodplain and also impacts several small wetland areas. Within the project limits between Saturn Drive and I-59, the preferred alternative has the potential to impact approximately 7.41 acres of 100-year floodplain and 4.9 of wetlands. This notice is required by Section 2(a)(4) of Executive Order 11988 for Floodplain Management and by Section 2(b) of Executive Order 11990 for Protection of Wetlands, and is implemented by the United States Department of Housing and Urban Development (HUD) Regulations found at 24 CFR 55.20(b) for the HUD action that is within and/or affects a floodplain or wetland.

Additional information including more detailed project description and maps, are on file at the Board of Supervisor's office at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 and are available for public inspection during regular business hours (Monday through Friday, 8:00 A.M. to 5:00 P.M.).

Interested persons are invited to submit comments concerning the project to the Hancock County Board of Supervisors at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520, no later than 5:00 P.M., Tuesday, October 14, 2008.

Publish: September 28, 2008

The Sea Coast Echo
Since 1892

POST OFFICE BOX 2009
BAY SAINT LOUIS, MS 39521-2009

PROOF OF PUBLICATION

STATE OF MISSISSIPPI
HANCOCK COUNTY

PERSONALLY appeared before me the undersigned authority in and for said County and State, JAMES R. PONDER, publisher of THE SEA COAST ECHO, a newspaper printed and published in the City of Bay Saint Louis, said County, who being duly sworn, deposes and says the publication of this notice hereunto annexed has been made in the said publication 1 weeks to-wit:

On the 18 day of October 2008

On the _____ day of _____ 2008

On the _____ day of _____ 2008

On the _____ day of _____ 2008

James R. Ponder
Publisher

Sworn to and subscribed before me A NOTARY PUBLIC

Judith M Sadler

this October 20 2008

Notary Public State of Mississippi At Large
My Commission Expires: November 01, 2009

PUBLIC EXPLANATION OF A PROPOSED ACTIVITY IN THE 100-YEAR FLOODPLAIN AND WETLAND

To: All Interested Agencies, Groups, and Individuals

This is to give notice that Hancock County has conducted an evaluation as required by Executive Orders 11988 and 11990 in accordance with United States Department of Housing and Urban Development (HUD) regulations at 24 CFR 55.20 to determine the potential affect that its activity in the floodplain and wetland will have on the environment. The proposed project consists of the following:

Improvements to SR 607 – Hancock County, in cooperation with the Mississippi Department of Transportation (MDOT), Pearl River County, and the National Aeronautics and Space Administration (NASA) are proposing to widen State Route 607 (SR 607) from a two-lane facility to a four-lane facility from Saturn Drive, within Stennis Space Center, northward to Interstate 59 (I-59), a distance of approximately 7.6 miles. SR 607 provides a north-south transportation connection between Interstate 10 (I-10) and Interstate 59.

The purpose of this project is to promote economic development and improve hurricane and emergency evacuations. An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes and Stennis Space Center. Additionally, the SR 607 Corridor would function as a multi-lane highway providing a by-pass of I-10 / I-59 junction in the event of an emergency evacuation. The Western Alternative has been identified as the preferred alternative.

Alternatives to the proposed project include The No-Build Alternative and the Eastern Alternative.

Hancock County has determined that no practicable alternative to the above referenced project would address the needs for economic development and improvements to hurricane and emergency evacuations. The activity would have minor impacts on the environment for the following reasons:

1. The wetland areas and 100-year floodplain areas impacted by the proposed roadway widening are primarily associated with streams and tributaries that traverse SR 607 within the study area limits in Hancock County and Pearl River County. Between Saturn Drive and I-59, the preferred alternative has the potential to impact approximately 7.41 acres of 100-year floodplain and 4.90 acres of wetlands. Widening existing SR 607 along its current alignment has the potential to minimize impacts to these resources when compared to an alternative on new alignment.

2. The project will provide a cost-effective use of limited resources by utilizing the existing roadway as part of the project.

Every action will be taken to minimize impacts to the 100-year floodplain and wetlands. Compliance with local, state, and federal standards will be made.

Additional information, including a more detailed project description and maps, are on file at the Board of Supervisor's office at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 and are available for public inspection during regular business hours, Monday through Friday, 8:00 A.M. to 5:00 P.M.

Interested persons are invited to submit comments concerning the project to the Hancock County Board of Supervisors, at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 no later than 5:00 P.M., Tuesday, October 28, 2008.

10/18/2008

The Picayune Item

STATE OF MISSISSIPPI
COUNTY OF PEARL RIVER

PERSONALLY CAME before me, the undersigned, a notary public in and for PEARL RIVER County, Mississippi, TOM ANDREWS, Publisher, of THE PICAYUNE ITEM, a newspaper published in the town of Picayune, Pearl River County, In said state, who being duly sworn, deposes and says that The Picayune Item is a newspaper as defined and prescribed in Senate Bill No. 203 enacted at the regular session of the Mississippi Legislature of 1948, amending Section 1858, of the Mississippi Code of 1942, and that the publication of a notice, of which the annexed is a copy, In the matter of

Public Explanation

has been made in said paper 1 consecutively
to wit:

On The 19th	day of October		2008
On The	day of		2008
On The	day of		2008
On The	day of		2008
On The	day of		2008
On The	day of		2008

The Picayune Item

SWORN TO and subscribed before me, this 22nd day of October 2008

Marilyn R. Handley
Notary Public

MARILYN R. HANDLEY, PEARL RIVER COUNTY, MS
NOTARY PUBLIC
My Commission Expires May 18, 2010

TO THE PICAYUNE ITEM

TO PUBLISHING URS Corporation
case of Public Explanation
5/1 words space
1 times and making proof $64.32

PUBLIC EXPLANATION
A PROPOSED ACTIVITY IN THE 100 YEAR FLOODPLAIN AND WETLAND

To: All Interested Agencies, Groups and Individuals

This is to give notice that Hancock County has conducted an evaluation as required by Executive Orders 11988 and 11990 in accordance with United States Department of Housing and Urban Development (HUD) regulations at 24 CFR 55.20 to determine the potential effect that its activity in the floodplain and wetland will have on the environment. The proposed project consists of the following improvements to SR 607 in Hancock County in cooperation with the Mississippi Department of Transportation (MDOT), Pearl River County, and the National Aeronautics and Space Administration (NASA) are proposing to widen State Route 607 (SR 607) from a two-lane facility to a four-lane facility from Saturn Drive, within Stennis Space Center, northward to Interstate 59 (I-59), a distance of approximately 7.8 miles. SR 607 provides a north-south transportation connection between Interstate 10 (I-10) and Interstate 59.

The purpose of this project is to promote economic development and improve hurricane and emergency evacuations. An improved SR 607 Corridor would facilitate travel between low to moderate income communities in Pearl River County, Hancock County, neighboring Louisiana Parishes, and Stennis Space Center. Additionally, the SR 607 Corridor would function as a multi-lane highway providing a by-pass of I-10 / I-59 junction in the event of an emergency evacuation. The Western Alternative has been identified as the preferred alternative.

Alternatives to the proposed project include: The No-Build Alternative and the Eastern Alternative.

Hancock County has determined that no practicable alternative to the above referenced project would address the needs for economic development and improvements to hurricane and emergency evacuations. The activity would have minor impacts on the environment for the following reasons:

1. The wetland areas and 100-year floodplain areas impacted by the proposed roadway widening are primarily associated with streams and tributaries that traverse SR 607 within the study area limits in Hancock County and Pearl River County. Between Saturn Drive and I-59, the preferred alternative has the potential to impact approximately 74 acres of 100-year floodplain and 4.9 acres of wetlands. Widening existing SR 607 along its current alignment has the potential to minimize impacts to these resources compared to an alternative on new alignment.

2. The project will provide a cost effective use of limited resources by utilizing the existing roadway as part of the project.

Every action will be taken to minimize impacts to the 100-year floodplain and wetlands. Compliance with local, state, and federal standards will be made.

Additional information including a more detailed project description and maps, are on file at the Board of Supervisors office, at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520 and are available for public inspection during regular business hours, Monday through Friday, 8:00 A.M. to 5:00 P.M. Interested persons are invited to submit comments concerning the project to the Hancock County Board of Supervisors at 3068 Longfellow Drive, Building 3, Bay St. Louis, Mississippi 39520, no later than 5:00 P.M., Tuesday, October 28, 2008.

Publish: October 19, 2008